



研磨直齿轮

Ground Spur Gears

产品型号的解读方法 Reference of Catalogue Number

SG 50 S 50 B - 80 08
SG 80 S 100 B * 08 20
SG 2 S 40 B - 20 20
SGE 3 S 80 B - 30 22

齿轮的种类 Kind of Gear	模数 Module	材料 Material	齿数 Number of Teeth	形状 Type	内径处理 Bores Processed	齿宽 Face Width	孔径 Bore Diameter
SG : 研磨直齿轮 Ground Spur Gears SGE : 研磨直齿轮 (JIS N7) GROUND SPUR GEARS (JIS class 7)	m : 0.5 0.8 1.0 1.5 2.0 表示模数大小。模数1 以下时所标数据是实 际模数乘于100。 例：模数0.5时所标数 据是50。模数0.8时所 标数据是80。 Expressed the unit of module's size. Module 0.5 and 0.8 as multiple of 100. Example m0.5 → 50 m0.8 → 80	SG产品时： 【S】：SCM435, 440 齿部高频淬火 HRC49 ~ 55 Material : Chromium Molybdenum Steel, complete with high frequency Induction Hardening. (HRC49 to 55). SGE产品时： 【S】：S45C 齿部高频淬火 HRC47 ~ 53 Material : carbon steel Complete with high frequency Induction Hardening. (HRC47 to 53)	Z : 14 ~ 120	L : 两侧有实心轴 with Solid shaft on both side. B : 单侧轮毂 with Hub on one side.	SG : [-] : 磨削加工 Ground bore. 无固定螺纹孔/无固定 螺钉 without threaded hole / without Set Screw. 标号[*]表示齿轮带 有两个螺纹孔/无固定 螺钉 with two threaded holes / without Set Screw. SGE : [-] : 车削加工 Without Threaded hole / without Set Screw	单位 : mm Dimension : millimeter	单位 : mm Dimension : millimeter

本产品是在实现半导体制造装置等机电一体化的精密机器和机床机械的运行中，为了实现其精确的，运作，而不可缺少的精密齿轮。

KG GROUND SPUR GEARS are useful to Mechatronic, Machine Tools, Semiconductor manufacturing, Precision equipment and other Instrument as these designs and engineering require steady and accurate motion.

研磨直齿轮 (SG 系列)

GROUND SPUR GEARS

模数
MODULE

0.5

压力角 20° (普通齿)

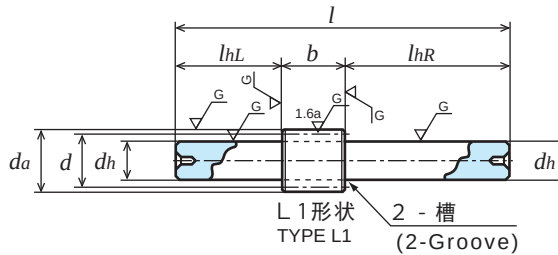
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5级
System of accuracy:JIS B1702-1(ISO) class 5



新产品带有**两个螺纹孔** (120°)
紧固能力增加 **1.6 倍**

New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)

Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	螺纹孔 Set Screw		钻孔 Tap Guide dr	重量 Weight W(g)
										M	ls		
SG50S 20L — 0806	20	φ10	φ11	L1	8	-	φ 6 (h7)	L22 R50	80	-	-	-	20.8
SG50S 22L — 0808	22	φ11	φ12	L1	8	-	φ 8 (h7)	L22 R50	80	-	-	-	34.2
SG50S 24L — 0810	24	φ12	φ13	L1	8	-	φ10 (h7)	L22 R50	80	-	-	-	51.1
SG50S 25L — 0810	25	φ12.5	φ13.5	L1	8	-	φ10 (h7)	L22 R50	80	-	-	-	51.7
SG50S 26L — 0810	26	φ13	φ14	L1	8	-	φ10 (h7)	L22 R50	80	-	-	-	52.4
SG50S 28B — 0805	28	φ14	φ15	B1	8	φ5	φ10	8	16	-	-	-	12.1
SG50S 30B — 0805	30	φ15	φ16	B1	8	φ5	φ12	8	16	-	-	-	15.6
SG50S 30B — 0806	30	φ15	φ16	B1	8	φ6	φ12	8	16	-	-	-	14.5
SG50S 30B * 0806	30	φ15	φ16	B1	8	φ6	φ12	8	16	2-M3	4	-	14.4
SG50S 32B — 0805	32	φ16	φ17	B1	8	φ5	φ12	8	16	-	-	-	17.2
SG50S 32B — 0806	32	φ16	φ17	B1	8	φ6	φ12	8	16	-	-	-	16.1

标号[*]表示齿轮带有两个螺纹孔/并无固定螺钉。 [*] : Gear with Two Thread holes / without Set Screw.

齿部高频淬火。 硬度HRC49-55。

Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
20	8	108.04	216.08	324.12	405.15	486.18	675.25	810.30
22	8	124.31	248.63	372.94	466.17	559.41	776.95	932.34
24	8	140.85	281.70	422.54	528.18	633.81	880.30	1,056.36
25	8	149.23	298.46	447.69	559.61	671.53	932.68	1,119.22
26	8	157.67	315.34	473.01	591.26	709.51	985.43	1,182.52
28	8	174.71	349.41	524.12	655.15	786.18	1,091.91	1,310.30
30	8	191.83	383.66	575.50	719.37	863.24	1,198.95	1,438.74
32	8	209.19	418.38	627.57	784.46	941.35	1,307.43	1,568.92

上述数值相当于JGMA公式,仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认别册的KG综合产品目录的P26页。 Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

容许传达动力表 齿面强度 (W)

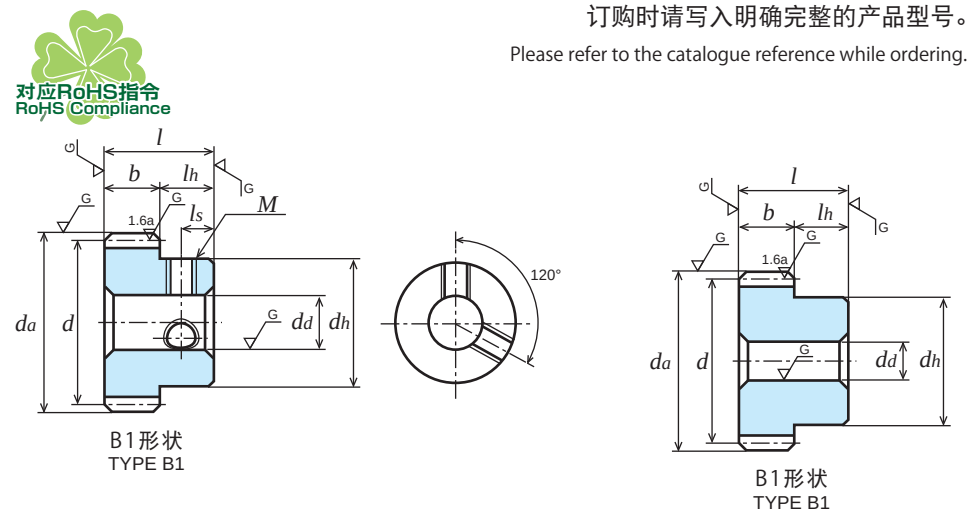
Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min							
400	800	1,200	1,500	1,800	2,500	3,000	
25.17	50.59	76.25	95.65	115.17	161.15	194.36	
30.61	61.55	92.81	116.45	140.25	196.36	236.91	
36.59	73.62	111.05	139.38	167.91	235.22	283.88	
39.79	80.07	120.81	151.65	182.72	256.03	309.05	
43.13	86.81	131.00	164.46	198.18	277.76	335.34	
50.22	101.12	152.66	191.71	231.06	324.02	391.30	
57.86	116.57	176.05	221.13	266.60	374.03	451.82	
66.06	133.15	201.17	252.76	304.79	427.81	516.93	

研磨直齿轮 (SG 系列)
GROUND SPUR GEARS

模数
MODULE 0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B 1702-1(ISO) class 5



材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter d _d (H7)	轮 毂 外 径 Hub Diameter d _h	轮 毂 长 度 Hub Projection l _h	全 长 Overall Length l	螺 纹 孔 Set Screw		钻 孔 Tap Guide d _r	重 量 Weight W(g)
										M	l _s		
SG50S 35B — 0805	35	φ17.5	φ18.5	B1	8	φ5	φ14	8	16	-	-	-	22.2
SG50S 36B — 0806	36	φ18	φ19	B1	8	φ6	φ16	8	16	-	-	-	24.9
SG50S 36B — 0808	36	φ18	φ19	B1	8	φ8	φ16	8	16	-	-	-	22.1
SG50S 40B — 0806	40	φ20	φ21	B1	8	φ6	φ16	8	16	-	-	-	28.6
SG50S 40B — 0808	40	φ20	φ21	B1	8	φ8	φ16	8	16	-	-	-	25.9
SG50S 40B * 0808	40	φ20	φ21	B1	8	φ8	φ16	8	16	2-M4	4	-	25.5
SG50S 45B — 0808	45	φ22.5	φ23.5	B1	8	φ8	φ16	8	16	-	-	-	31.1
SG50S 48B — 0808	48	φ24	φ25	B1	8	φ8	φ20	8	16	-	-	-	34.5

标号[*]表示齿轮带有两个螺纹孔/并无固定螺钉。 [*]: Gear with Two Thread holes / without Set Screw.
齿部高频淬火, 硬度 HRC49-55。
Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
35	8	235.49	470.97	706.46	883.07	1,059.69	1,471.79	1,766.14
36	8	244.32	488.63	732.95	916.18	1,099.42	1,526.97	1,832.36
40	8	279.89	559.78	839.67	1,049.58	1,259.50	1,749.30	2,091.76
42	8	297.82	595.64	893.46	1,116.83	1,340.19	1,861.38	2,217.10
44	8	315.62	631.24	946.87	1,183.58	1,420.30	1,972.64	2,340.50
45	8	324.64	649.28	973.91	1,217.39	1,460.87	2,028.99	2,402.69
48	8	351.79	703.58	1,055.38	1,319.22	1,583.07	2,190.95	2,588.62

上述数值相当于JGMA公式,仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认册别的KG综合产品目录的P26页。 Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
79.42	160.18	242.14	304.34	367.11	515.63	623.27
84.16	169.76	256.68	322.65	389.24	546.82	661.05
104.51	211.00	319.25	401.49	484.56	681.25	821.03
115.54	233.37	353.22	444.30	536.33	754.32	905.72
127.15	256.91	388.98	489.39	590.86	831.31	994.49
133.17	269.12	407.53	512.79	619.17	871.29	1,040.39
152.08	307.52	465.92	586.43	708.29	993.65	1,184.13

目次表 CONTENTS	齿轮信息 GEAR INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿条・螺旋齿条 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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研磨直齿轮 (SG 系列)

GROUND SPUR GEARS

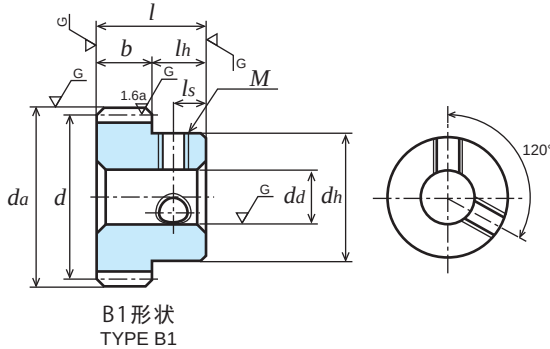
模数
MODULE

0.5

压力角 20° (普通齿)

20° PRESSURE ANGLE FULL DEPTH TOOTH

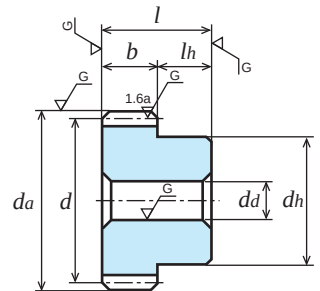
齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1 (ISO) 5级
System of accuracy: JIS B1702-1(ISO) class 5



B1 形状
TYPE B1



新产品带有**两个螺纹孔** (120°)
紧固能力增加 **1.6 倍**
New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



B1 形状
TYPE B1

材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter dd(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	螺纹孔 Set Screw		钻孔 Tap Guide dr	重量 Weight W(g)
										M	ls		
SG50S 50B — 0808	50	φ25	φ26	B1	8	φ 8	φ20	8	16	-	-	-	43.9
SG50S 50B — 0810	50	φ25	φ26	B1	8	φ10	φ20	8	16	-	-	-	40.4
SG50S 50B * 0810	50	φ25	φ26	B1	8	φ10	φ20	8	16	2-M4	4	-	40.0
SG50S 54B — 0808	54	φ27	φ28	B1	8	φ 8	φ20	8	16	-	-	-	49.0
SG50S 55B — 0808	55	φ27.5	φ28.5	B1	8	φ 8	φ20	8	16	-	-	-	50.4
SG50S 56B — 0808	56	φ28	φ29	B1	8	φ 8	φ20	8	16	-	-	-	51.7
SG50S 60B — 0808	60	φ30	φ31	B1	8	φ 8	φ22	8	16	-	-	-	61.5
SG50S 60B — 0810	60	φ30	φ31	B1	8	φ10	φ22	8	16	-	-	-	58.0
SG50S 60B * 0810	60	φ30	φ31	B1	8	φ10	φ22	8	16	2-M4	4	-	57.6
SG50S 64B — 0808	64	φ32	φ33	B1	8	φ 8	φ22	8	16	-	-	-	67.6
SG50S 70B — 0808	70	φ35	φ36	B1	8	φ 8	φ22	8	16	-	-	-	77.4

标号[*]表示齿轮带有两个螺纹孔/无固定螺钉。 [*] : Gear with Two Thread holes / without Set Screw.

齿部高频淬火 硬度 HRC49-55。

Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
50	8	369.97	739.94	1,109.91	1,387.38	1,664.86	2,296.66	2,711.92
52	8	388.21	776.41	1,164.62	1,455.78	1,746.93	2,402.07	2,834.73
54	8	406.49	812.98	1,219.47	1,524.34	1,829.21	2,507.08	2,956.93
55	8	415.65	831.31	1,246.96	1,558.70	1,870.44	2,559.46	3,017.83
56	8	424.83	849.65	1,274.47	1,593.09	1,911.71	2,611.72	3,078.57
60	8	461.62	923.25	1,384.87	1,731.08	2,077.30	2,819.79	3,320.04
64	8	498.57	997.13	1,495.70	1,869.62	2,242.66	3,023.11	3,559.67
70	8	554.23	1,108.46	1,662.69	2,078.37	2,475.56	3,332.20	3,927.74

上述数值相当于JGMA公式,仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.

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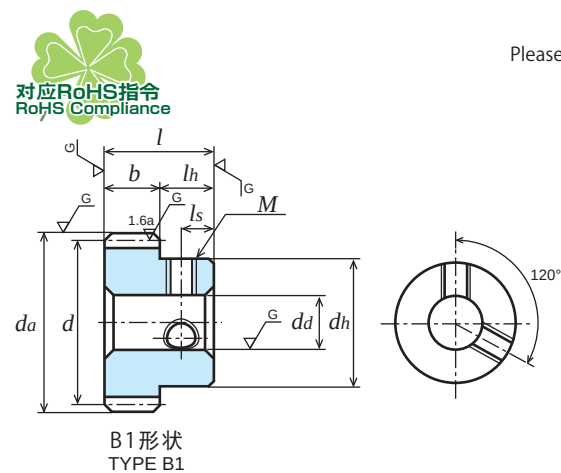
Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min							
400	800	1,200	1,500	1,800	2,500	3,000	
165.41	334.61	507.12	638.42	771.20	1,078.73	1,284.96	
179.32	362.89	550.15	692.72	836.93	1,167.23	1,389.78	
193.81	392.37	595.01	749.36	905.50	1,259.13	1,498.55	
201.28	407.56	618.14	778.55	940.85	1,306.36	1,554.41	
208.89	423.05	641.73	808.33	976.92	1,354.43	1,611.25	
240.80	488.02	740.72	933.35	1,128.33	1,555.13	1,848.36	
275.06	557.86	847.18	1,067.84	1,290.76	1,769.21	2,101.33	
330.89	671.79	1,020.99	1,287.52	1,545.96	2,115.13	2,518.03	

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MODULE 0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

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JIS B 1702-1(ISO) 5 级
System of accuracy:JIS B1702-1(ISO) class 5



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.

材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
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										M	ls		
SG50S 72B — 0808	72	φ36	φ37	B1	8	φ 8	φ25	8	16	-	-	-	87.8
SG50S 75B — 0808	75	φ37.5	φ38.5	B1	8	φ 8	φ25	8	16	-	-	-	93.2
SG50S 80B — 0808	80	φ40	φ41	B1	8	φ 8	φ25	8	16	-	-	-	102.7
SG50S 80B — 0810	80	φ40	φ41	B1	8	φ10	φ25	8	16	-	-	-	99.2
SG50S 80B — 0812	80	φ40	φ41	B1	8	φ12	φ25	8	16	-	-	-	94.9
SG50S 80B * 0812	80	φ40	φ41	B1	8	φ12	φ25	8	16	2-M5	4	-	94.1
SG50S 90B — 0810	90	φ45	φ46	B1	8	φ10	φ30	8	16	-	-	-	133.5
SG50S 96B — 0810	96	φ48	φ49	B1	8	φ10	φ30	8	16	-	-	-	147.1
SG50S 100B — 0810	100	φ50	φ51	B1	8	φ10	φ30	8	16	-	-	-	156.7
SG50S 100B — 0812	100	φ50	φ51	B1	8	φ12	φ30	8	16	-	-	-	152.4
SG50S 100B * 0812	100	φ50	φ51	B1	8	φ12	φ30	8	16	2-M5	4	-	151.5
SG50S 108B — 0810	108	φ54	φ55	B1	8	φ10	φ35	8	16	-	-	-	193.0
SG50S 112B — 0810	112	φ56	φ57	B1	8	φ10	φ35	8	16	-	-	-	203.8
SG50S 120B — 0810	120	φ60	φ61	B1	8	φ10	φ35	8	16	-	-	-	226.6

标号[※]表示齿轮带有两个螺纹孔/并无固定螺钉。 [※]: Gear with Two Thread holes / without Set Screw.
齿部高频淬火 硬度 HRC49-55.
Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min					
		400	800	1,200	1,500	1,800	2,500
72	8	572.84	1,145.69	1,178.53	2,148.17	2,552.72	3,433.30
75	8	600.84	1,201.61	1,802.41	2,253.02	2,667.98	3,584.01
80	8	647.54	1,295.08	1,942.62	2,419.70	2,858.90	3,839.99
90	8	740.43	1,480.87	2,221.30	2,740.03	3,231.68	4,345.90
96	8	796.77	1,593.54	2,389.35	2,931.46	3,453.87	4,647.97
100	8	834.38	1,668.76	2,494.32	3,058.06	3,600.58	4,847.65
108	8	909.75	1,819.50	2,702.70	3,308.89	3,893.39	5,243.00
112	8	947.51	1,895.02	2,806.16	3,433.16	4,042.91	5,438.74
120	8	1,023.12	2,046.24	3,011.40	3,679.20	4,339.67	5,826.04

上述数值相当于JGMA公式,仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认别册的KG综合产品目录的P26页。 Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
350.69	712.23	1,082.72	1,365.57	1,636.03	2,236.98	2,665.11
381.51	775.21	1,178.89	1,487.18	1,775.81	2,425.83	2,893.33
435.87	886.40	1,348.78	1,696.04	2,021.16	2,761.77	3,293.88
555.93	1,132.30	1,724.83	2,149.18	2,557.83	3,501.66	4,169.72
635.27	1,295.04	1,973.12	2,446.11	2,908.90	3,986.43	4,742.36
691.23	1,409.92	2,142.24	2,654.41	3,154.91	4,326.43	5,143.47
810.54	1,655.11	2,500.92	3,095.63	3,677.90	5,046.42	5,969.89
873.91	1,785.46	2,690.44	3,328.44	3,958.21	5,426.21	6,400.03
1,008.14	2,061.81	3,089.65	3,818.25	4,549.00	6,224.91	7,298.89

研磨直齿轮 (SG 系列)

GROUND SPUR GEARS

模数
MODULE

0.8

压力角 20° (普通齿)

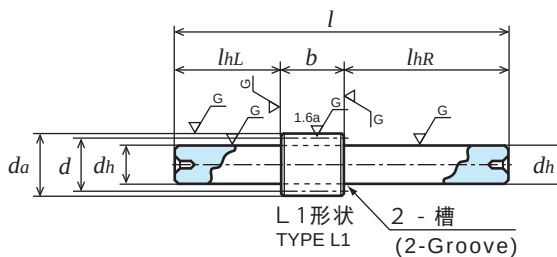
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B1702-1(ISO) class 5



新产品带有**两个螺纹孔** (120°)
紧固能力增加 **1.6 倍**

New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



材料: 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)

Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	螺纹孔 Set Screw		钻孔 Tap Guide dr	重量 Weight W(g)
										M	ls		
SG80S 15L — 0806	15	φ12	φ13.6	L1	8	-	φ 6 (h7)	L22 R60	90	-	-	-	25.1
SG80S 16L — 0806	16	φ12.8	φ14.4	L1	8	-	φ 6 (h7)	L22 R60	90	-	-	-	26.1
SG80S 18L — 0808	18	φ14.4	φ16	L1	8	-	φ 8 (h7)	L22 R60	90	-	-	-	42.3
SG80S 20L — 0810	20	φ16	φ17.6	L1	8	-	φ10 (h7)	L22 R60	90	-	-	-	62.7
SG80S 22B — 0806	22	φ17.6	φ19.2	B1	8	φ 6	φ14	10	18	-	-	-	23.2
SG80S 24L — 0810	24	φ19.2	φ20.8	L1	8	-	φ10 (h7)	L22 R60	90	-	-	-	68.3
SG80S 24B — 0806	24	φ19.2	φ20.8	B1	8	φ 6	φ16	10	18	-	-	-	29.8
SG80S 25L — 0810	25	φ20	φ21.6	L1	8	-	φ10 (h7)	L22 R60	90	-	-	-	69.8
SG80S 25B — 0806	25	φ20	φ21.6	B1	8	φ 6	φ16	10	18	-	-	-	31.3
SG80S 28B — 0808	28	φ22.4	φ24	B1	8	φ 8	φ18	10	18	-	-	-	37.4
SG80S 30B — 0810	30	φ24	φ25.6	B1	8	φ10	φ20	10	18	-	-	-	41.7
SG80S 30B * 0810	30	φ24	φ25.6	B1	8	φ10	φ20	10	18	2-M4	5	-	41.3

标号[※]表示齿轮带有两个螺纹孔/并无固定螺钉。 [*]: Gear with Two Thread holes / without Set Screw.

齿部高频淬火 硬度 HRC49-55。

Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
15	8	0.17	0.35	0.52	0.66	0.79	1.10	1.32
16	8	0.19	0.39	0.58	0.73	0.88	1.22	1.46
18	8	0.23	0.47	0.70	0.88	1.06	1.47	1.76
20	8	0.27	0.55	0.82	1.03	1.24	1.72	2.07
22	8	0.31	0.63	0.95	1.19	1.43	1.98	2.38
24	8	0.36	0.72	1.08	1.35	1.62	2.25	2.70
25	8	0.38	0.76	1.14	1.43	1.71	2.38	2.85
28	8	0.44	0.89	1.34	1.67	2.01	2.79	3.31
30	8	0.49	0.98	1.47	1.84	2.20	3.05	3.61

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
0.036	0.075	0.11	0.13	0.16	0.23	0.28
0.041	0.084	0.12	0.15	0.19	0.26	0.32
0.053	0.107	0.16	0.20	0.24	0.34	0.41
0.066	0.133	0.20	0.25	0.30	0.42	0.51
0.080	0.162	0.24	0.30	0.37	0.52	0.63
0.096	0.193	0.29	0.36	0.44	0.62	0.75
0.104	0.211	0.31	0.40	0.48	0.68	0.82
0.131	0.266	0.40	0.50	0.61	0.86	1.03
0.15	0.30	0.46	0.58	0.70	0.99	1.18

上述数值相当于JGMA公式,仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.

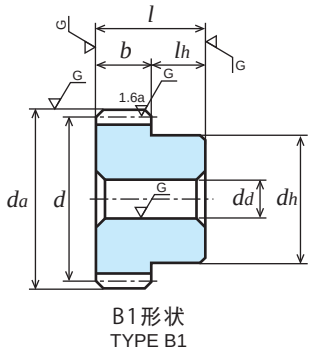
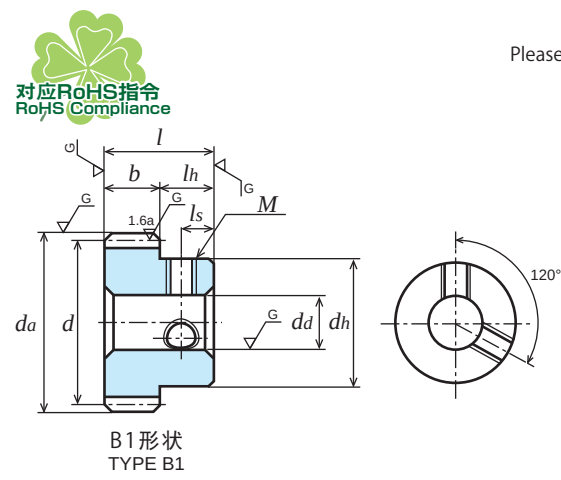
动力换算公式请确认册的KG综合产品目录的P26页。 Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

研磨直齿轮 (SG 系列)
GROUND SPUR GEARS

模数
MODULE 0.8 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B1702-1(ISO) class 5

订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4) 单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	螺 纹 孔 Set Screw		钻 孔 Tap Guide dr	重 量 Weight W(g)
										M	ls		
SG80S 32B — 0810	32	φ25.6	φ27.2	B1	8	φ10	φ20	10	18	-	-	-	45.6
SG80S 35B — 0810	35	φ28	φ29.6	B1	8	φ10	φ20	10	18	-	-	-	51.9
SG80S 36B — 0810	36	φ28.8	φ30.4	B1	8	φ10	φ20	10	18	-	-	-	54.1
SG80S 40B — 0810	40	φ32	φ33.6	B1	8	φ10	φ25	10	18	-	-	-	77.4
SG80S 40B * 0812	40	φ32	φ33.6	B1	8	φ12	φ25	10	18	2-M5	5	-	71.5
SG80S 45B — 0810	45	φ36	φ37.6	B1	8	φ10	φ25	10	18	-	-	-	90.8
SG80S 48B — 0810	48	φ38.4	φ40	B1	8	φ10	φ25	10	18	-	-	-	99.5
SG80S 50B — 0810	50	φ40	φ41.6	B1	8	φ10	φ25	10	18	-	-	-	105.6
SG80S 50B * 0812	50	φ40	φ41.6	B1	8	φ12	φ25	10	18	2-M5	5	-	100.0
SG80S 54B — 0810	54	φ43.2	φ44.8	B1	8	φ10	φ25	10	18	-	-	-	118.7
SG80S 55B — 0810	55	φ44	φ45.6	B1	8	φ10	φ25	10	18	-	-	-	122.1
SG80S 56B — 0810	56	φ44.8	φ46.4	B1	8	φ10	φ25	10	18	-	-	-	125.6
SG80S 60B — 0810	60	φ48	φ49.6	B1	8	φ10	φ25	10	18	-	-	-	140.1
SG80S 60B * 0812	60	φ48	φ49.6	B1	8	φ12	φ25	10	18	2-M5	5	-	134.8

标号[※]表示齿轮带有两个螺纹孔/并无固定螺钉。 [*]: Gear with Two Thread holes / without Set Screw.
齿部高频淬火 硬度 HRC49-55。
Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min					
		400	800	1,200	1,500	1,800	2,500
32	8	0.53	1.07	1.60	2.00	2.40	3.31
35	8	0.60	1.20	1.80	2.26	2.71	3.70
36	8	0.62	1.25	1.87	2.34	2.81	3.83
40	8	0.71	1.43	2.14	2.68	3.21	4.34
45	8	0.82	1.65	2.48	3.11	3.69	4.97
48	8	0.90	1.80	2.70	3.37	3.99	5.35
50	8	0.94	1.89	2.84	3.53	4.18	5.61
54	8	1.04	2.08	3.12	3.86	4.56	6.13
55	8	1.06	2.12	3.19	3.94	4.65	6.25
56	8	1.08	2.17	3.29	4.02	4.74	6.38
60	8	1.18	2.36	3.54	4.34	5.12	6.89

上述数值相当于JGMA公式,仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认别册的KG综合产品目录的P26页。 Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
0.17	0.35	0.53	0.67	0.81	1.13	1.34
0.20	0.42	0.64	0.80	0.97	1.35	1.61
0.22	0.44	0.68	0.85	1.03	1.43	1.70
0.27	0.55	0.84	1.06	1.29	1.76	2.10
0.35	0.71	1.08	1.36	1.63	2.23	2.66
0.40	0.81	1.23	1.56	1.86	2.54	3.03
0.43	0.88	1.34	1.69	2.02	2.76	3.29
0.51	1.04	1.58	1.98	2.35	3.22	3.84
0.53	1.08	1.64	2.05	2.44	3.34	3.98
0.55	1.12	1.70	2.13	2.53	3.47	4.13
0.63	1.29	1.97	2.44	2.90	3.98	4.74

研磨直齿轮 (SG 系列)

GROUND SPUR GEARS

模数
MODULE

0.8

压力角 20° (普通齿)

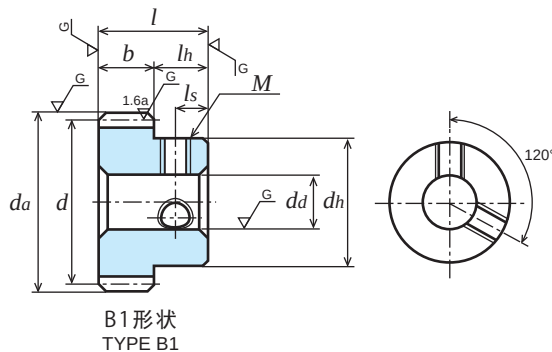
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B 1702-1(ISO) class 5

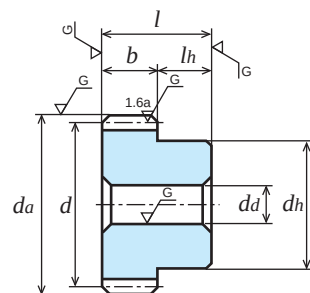


新产品带有**两个螺纹孔** (120°)
紧固能力增加 **1.6 倍**

New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



B1 形状
TYPE B1



B1 形状
TYPE B1

材料: 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)

Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	螺纹孔 Set Screw		钻孔 Tap Guide dr	重量 Weight W(g)
										M	ls		
SG80S 64B — 0812	64	φ51.2	φ52.8	B1	8	φ12	φ30	10	18	-	-	-	167.6
SG80S 70B — 0812	70	φ56	φ57.6	B1	8	φ12	φ30	10	18	-	-	-	192.9
SG80S 72B — 0812	72	φ57.6	φ59.2	B1	8	φ12	φ30	10	18	-	-	-	201.9
SG80S 75B — 0812	75	φ60	φ61.6	B1	8	φ12	φ30	10	18	-	-	-	215.7
SG80S 80B — 0812	80	φ64	φ65.6	B1	8	φ12	φ30	10	18	-	-	-	240.0
SG80S 80B * 0815	80	φ64	φ65.6	B1	8	φ15	φ30	10	18	2-M6	5	-	230.3
SG80S 90B — 0812	90	φ72	φ73.6	B1	8	φ12	φ35	10	18	-	-	-	313.2
SG80S 96B — 0812	96	φ76.8	φ78.4	B1	8	φ12	φ35	10	18	-	-	-	348.2
SG80S 100B — 0812	100	φ80	φ81.6	B1	8	φ12	φ35	10	18	-	-	-	372.8
SG80S 100B * 0820	100	φ80	φ81.6	B1	8	φ20	φ35	10	18	2-M6	5	-	344.9
SG80S 108B — 0812	108	φ86.4	φ88	B1	8	φ12	φ40	10	18	-	-	-	448.0
SG80S 112B — 0812	112	φ89.6	φ91.2	B1	8	φ12	φ40	10	18	-	-	-	475.6
SG80S 120B — 0812	120	φ96	φ97.6	B1	8	φ12	φ40	10	18	-	-	-	533.8
SG80S 120B * 0820	120	φ96	φ97.6	B1	8	φ20	φ40	10	18	2-M6	5	-	506.4

[※]标号表示齿轮带有两个螺纹孔/并无固定螺钉。 [*]: Gear with Two Thread holes / without Set Screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min					
		400	800	1,200	1,500	1,800	2,500
64	8	1.27	2.55	3.80	4.66	5.49	7.39
70	8	1.42	2.84	4.20	5.14	6.05	8.14
72	8	1.47	2.93	4.33	5.30	6.24	8.39
75	8	1.54	3.08	4.53	5.53	6.52	8.76
80	8	1.66	3.32	4.85	5.92	6.99	9.34
90	8	1.90	3.79	5.48	6.70	7.90	10.43
96	8	2.04	4.06	5.85	7.17	8.44	11.07
100	8	2.14	4.23	6.10	7.48	8.80	11.49
108	8	2.33	4.59	6.61	8.09	9.50	12.31
112	8	2.43	4.76	6.86	8.39	9.82	12.71
120	8	2.62	5.11	7.36	8.99	10.47	13.54

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

	旋转速度 (min ⁻¹) revolution/min					
	400	800	1,200	1,500	1,800	2,500
	0.72	1.48	2.24	2.78	3.30	4.53
	0.87	1.79	2.69	3.33	3.96	5.43
	0.93	1.89	2.85	3.52	4.19	5.74
	1.01	2.06	3.09	3.82	4.55	6.22
	1.15	2.36	3.52	4.34	5.18	7.06
	1.47	3.02	4.45	5.51	6.56	8.83
	1.68	3.43	5.06	6.27	7.46	9.98
	1.83	3.73	5.48	6.80	8.09	10.78
	2.15	4.35	6.40	7.94	9.42	12.45
	2.32	4.68	6.89	8.54	10.10	13.33
	2.68	5.37	7.92	9.80	11.53	15.20

上述数值相当于JGMA公式,仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

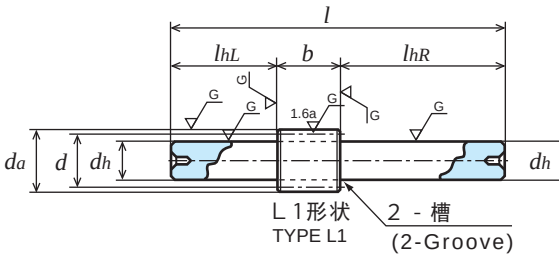
动力换算公式请确认别册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

研磨直齿轮 (SG 系列)
GROUND SPUR GEARS

模数
MODULE 1

压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频加热淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B1702-1(ISO) class 5



材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	螺 纹 孔 Set Screw		钻 孔 Tap Guide dr	重 量 Weight W(g)
										M	ls		
SG1S 14L — 1008	14	φ14	φ16	L1	10	-	φ 8 (h7)	L25 R60	95	-	-	-	45.3
SG1S 15L — 1010	15	φ15	φ17	L1	10	-	φ10 (h7)	L25 R60	95	-	-	-	65.9
SG1S 16L — 1010	16	φ16	φ18	L1	10	-	φ10 (h7)	L25 R60	95	-	-	-	67.8
SG1S 17B — 1006	17	φ17	φ19	B1	10	φ 6	φ12	10	20	-	-	-	22.1
SG1S 18L — 1010	18	φ18	φ20	L1	10	-	φ10 (h7)	L25 R60	95	-	-	-	71.9
SG1S 18B — 1008	18	φ18	φ20	B1	10	φ 8	φ15	10	20	-	-	-	25.8
SG1S 20B — 1008	20	φ20	φ22	B1	10	φ 8	φ16	10	20	-	-	-	32.3
SG1S 20B * 1008	20	φ20	φ22	B1	10	φ 8	φ16	10	20	2-M4	5	-	32.0
SG1S 20B * 1010	20	φ20	φ22	B1	10	φ10	φ16	10	20	2-M4	5	-	27.7
SG1S 21B — 1008	21	φ21	φ23	B1	10	φ 8	φ16	10	20	-	-	-	34.9
SG1S 22B — 1008	22	φ22	φ24	B1	10	φ 8	φ18	10	20	-	-	-	41.7
SG1S 23B — 1008	23	φ23	φ25	B1	10	φ 8	φ18	10	20	-	-	-	44.4

标号[※]表示齿轮带有两个螺纹孔/并无固定螺钉。 [*]: Gear with Two Thread holes / without Set Screw.

齿部高频淬火 硬度 HRC49-55。

Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
14	10	0.30	0.61	0.92	1.15	1.38	1.92	2.30
15	10	0.34	0.68	1.03	1.29	1.55	2.15	2.58
16	10	0.38	0.76	1.14	1.43	1.72	2.39	2.87
17	10	0.42	0.84	1.26	1.57	1.89	2.63	3.15
18	10	0.46	0.92	1.38	1.72	2.07	2.87	3.45
20	10	0.54	1.08	1.62	2.02	2.43	3.37	4.03
21	10	0.58	1.16	1.74	2.17	2.61	3.62	4.32
22	10	0.62	1.24	1.86	2.33	2.79	3.88	4.60
23	10	0.66	1.32	1.98	2.48	2.98	4.14	4.89

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min							
400	800	1,200	1,500	1,800	2,500	3,000	
0.062	0.12	0.19	0.23	0.28	0.40	0.48	
0.072	0.14	0.22	0.27	0.33	0.46	0.56	
0.082	0.16	0.25	0.31	0.38	0.53	0.64	
0.093	0.18	0.28	0.35	0.43	0.60	0.73	
0.105	0.21	0.32	0.40	0.48	0.68	0.82	
0.130	0.26	0.39	0.50	0.60	0.85	1.02	
0.144	0.29	0.44	0.55	0.67	0.94	1.13	
0.158	0.32	0.48	0.61	0.73	1.03	1.24	
0.174	0.35	0.53	0.67	0.81	1.14	1.35	

上述数值相当于JGMA公式,仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认别册的KG综合产品目录的P26页。 Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

研磨直齿轮 (SG 系列)

GROUND SPUR GEARS

模数
MODULE

1

压力角 20° (普通齿)

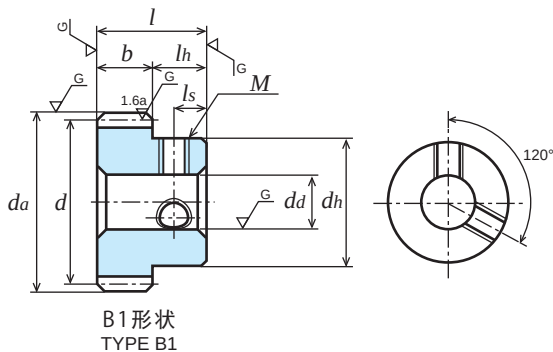
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B1702-1(ISO) class 5



新产品带有**两个螺纹孔 (120°)**
紧固能力增加 **1.6 倍**

New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter dd(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	螺纹孔 Set Screw		钻孔 Tap Guide dr	重量 Weight W(g)
										M	ls		
SG1S 24B — 1008	24	φ24	φ26	B1	10	φ 8	φ20	10	20	-	-	-	51.9
SG1S 24B * 1008	24	φ24	φ26	B1	10	φ 8	φ20	10	20	2-M4	5	-	51.4
SG1S 24B * 1010	24	φ24	φ26	B1	10	φ10	φ20	10	20	2-M4	5	-	47.1
SG1S 25B — 1008	25	φ25	φ27	B1	10	φ 8	φ20	10	20	-	-	-	55.0
SG1S 26B — 1008	26	φ26	φ28	B1	10	φ 8	φ20	10	20	-	-	-	58.1
SG1S 27B — 1008	27	φ27	φ29	B1	10	φ 8	φ20	10	20	-	-	-	61.3
SG1S 28B — 1008	28	φ28	φ30	B1	10	φ 8	φ20	10	20	-	-	-	64.7
SG1S 30B — 1010	30	φ30	φ32	B1	10	φ10	φ26	10	20	-	-	-	84.3
SG1S 30B * 1010	30	φ30	φ32	B1	10	φ10	φ26	10	20	2-M4	5	-	83.7
SG1S 30B * 1012	30	φ30	φ32	B1	10	φ12	φ26	10	20	2-M4	5	-	78.5
SG1S 32B — 1010	32	φ32	φ34	B1	10	φ10	φ26	10	20	-	-	-	91.9
SG1S 34B — 1010	34	φ34	φ36	B1	10	φ10	φ26	10	20	-	-	-	100.0

标号[※]表示齿轮带有两个螺纹孔/并无固定螺钉。 [*]: Gear with Two Thread holes / without Set Screw.

齿部高频淬火 硬度 HRC49-55。

Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
24	10	0.70	1.40	2.11	2.64	3.16	4.38	5.18
25	10	0.74	1.49	2.23	2.79	3.35	4.63	5.46
26	10	0.78	1.57	2.36	2.95	3.54	4.87	5.75
27	10	0.83	1.66	2.49	3.11	3.73	5.12	6.04
28	10	0.87	1.74	2.62	3.27	3.93	5.37	6.33
30	10	0.95	1.91	2.87	3.59	4.31	5.85	6.89
32	10	1.04	2.09	3.13	3.92	4.70	6.34	7.46
34	10	1.13	2.26	3.40	4.25	5.07	6.83	8.05

上述数值相当于JGMA公式,仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
0.190	0.38	0.58	0.73	0.88	1.24	1.48
0.20	0.41	0.63	0.79	0.96	1.34	1.60
0.22	0.45	0.68	0.86	1.04	1.45	1.73
0.24	0.49	0.74	0.93	1.13	1.57	1.87
0.26	0.52	0.80	1.01	1.22	1.69	2.01
0.30	0.61	0.92	1.16	1.41	1.94	2.31
0.34	0.69	1.05	1.33	1.61	2.21	2.62
0.38	0.79	1.20	1.51	1.82	2.49	2.96

研磨直齿轮 (SG 系列)
GROUND SPUR GEARS

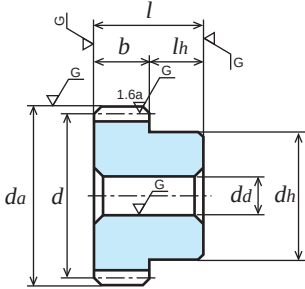
模数
MODULE 1

压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B1702-1(ISO) class 5



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1 形状
TYPE B1

材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	螺 纹 孔 Set Screw		钻 孔 Tap Guide dr	重 量 Weight W(g)
										M	ls		
SG1S 35B — 1010	35	φ35	φ37	B1	10	φ10	φ26	10	20	-	-	-	104.2
SG1S 36B — 1010	36	φ36	φ38	B1	10	φ10	φ26	10	20	-	-	-	108.6
SG1S 38B — 1010	38	φ38	φ40	B1	10	φ10	φ26	10	20	-	-	-	117.6
SG1S 40B — 1010	40	φ40	φ42	B1	10	φ10	φ26	10	20	-	-	-	127.1
SG1S 40B — 1012	40	φ40	φ42	B1	10	φ12	φ26	10	20	-	-	-	121.7
SG1S 40B — 1015	40	φ40	φ42	B1	10	φ15	φ26	10	20	-	-	-	111.8
SG1S 42B — 1010	42	φ42	φ44	B1	10	φ10	φ35	10	20	-	-	-	170.9
SG1S 44B — 1010	44	φ44	φ46	B1	10	φ10	φ35	10	20	-	-	-	181.4
SG1S 45B — 1012	45	φ45	φ47	B1	10	φ12	φ35	10	20	-	-	-	181.5
SG1S 48B — 1012	48	φ48	φ50	B1	10	φ12	φ35	10	20	-	-	-	198.5
SG1S 50B — 1012	50	φ50	φ52	B1	10	φ12	φ35	10	20	-	-	-	210.6
SG1S 50B — 1015	50	φ50	φ52	B1	10	φ15	φ35	10	20	-	-	-	200.6
SG1S 50B — 1016	50	φ50	φ52	B1	10	φ16	φ35	10	20	-	-	-	196.8

齿部高频淬火 硬度 HRC49-55。
Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
35	10	1.17	2.35	3.53	4.41	5.25	7.07	8.34
36	10	1.22	2.44	3.66	4.58	5.44	7.32	8.63
38	10	1.31	2.62	3.93	4.93	5.81	7.80	9.21
40	10	1.40	2.88	4.20	5.23	6.18	8.30	9.80
42	10	1.49	2.98	4.47	5.54	6.54	8.79	10.37
44	10	1.58	3.16	4.73	5.85	6.90	9.28	10.94
45	10	1.62	3.25	4.87	6.01	7.08	9.53	11.23
48	10	1.76	3.52	5.27	6.47	7.62	10.26	12.08
50	10	1.85	3.70	5.53	6.78	7.98	10.75	12.64

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min							
400	800	1,200	1,500	1,800	2,500	3,000	
0.41	0.83	1.27	1.60	1.93	2.64	3.14	
0.43	0.89	1.35	1.70	2.04	2.79	3.33	
0.49	0.99	1.51	1.91	2.27	3.11	3.71	
0.54	1.11	1.69	2.12	2.53	3.45	4.12	
0.60	1.23	1.87	2.34	2.79	3.81	4.54	
0.66	1.35	2.06	2.57	3.06	4.18	4.98	
0.69	1.42	2.16	2.69	3.20	4.38	5.21	
0.79	1.62	2.47	3.06	3.64	4.98	5.93	
0.86	1.76	2.68	3.32	3.94	5.41	6.43	

上述数值相当于JGMA公式,仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认别册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

目次表 CONTENTS	齿 轮 信 息 INFORMATION	齿 箱 GEAR BOXES	无 背 隙 齿 轮 ANTI BACKLASH SPUR GEARS	研 磨 直 齿 轮 GROUND SPUR GEARS	直 齿 轮 SPUR GEARS	内 齿 轮 INTERNAL GEARS	研 磨 齿 条 GROUND RACKS	齿 条 RACKS	斜 齿 轮 · 螺 旋 齿 轮 HELICAL GEARS AND SCREW GEARS	蜗 轮 · 蜗 杆 WORMS AND WORM WHEELS	锥 齿 轮 BEVEL GEARS	技 术 资 料 REFERENCE DATA
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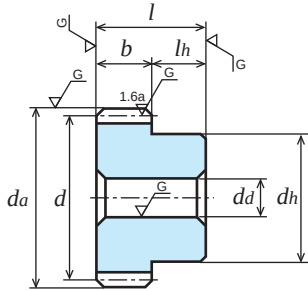
研磨直齿轮 (SG 系列)
GROUND SPUR GEARS

模数
MODULE

1

压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B1702-1(ISO) class 5



B1 形状
TYPE B1

材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	螺纹孔 Set Screw		钻孔 Tap Guide dr	重量 Weight W(g)
										M	ls		
SG1S 52B - 1012	52	φ52	φ54	B1	10	φ12	φ35	10	20	-	-	-	228.4
SG1S 54B - 1012	54	φ54	φ56	B1	10	φ12	φ35	10	20	-	-	-	236.0
SG1S 55B - 1012	55	φ55	φ57	B1	10	φ12	φ35	10	20	-	-	-	248.1
SG1S 56B - 1012	56	φ56	φ58	B1	10	φ12	φ35	10	20	-	-	-	249.5
SG1S 60B - 1012	60	φ60	φ62	B1	10	φ12	φ40	10	20	-	-	-	300.9
SG1S 60B - 1015	60	φ60	φ62	B1	10	φ15	φ40	10	20	-	-	-	291.0
SG1S 60B - 1018	60	φ60	φ62	B1	10	φ18	φ40	10	20	-	-	-	278.9
SG1S 64B - 1012	64	φ64	φ66	B1	10	φ12	φ40	10	20	-	-	-	331.3
SG1S 70B - 1012	70	φ70	φ72	B1	10	φ12	φ40	10	20	-	-	-	380.6
SG1S 72B - 1012	72	φ72	φ74	B1	10	φ12	φ45	10	20	-	-	-	424.0
SG1S 75B - 1012	75	φ75	φ77	B1	10	φ12	φ45	10	20	-	-	-	451.0

齿部高频淬火 硬度 HRC49-55。
Gear tooth surface completed with induction hhardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
52	10	1.94	3.88	5.78	7.09	8.34	11.23	13.18
54	10	2.03	4.06	6.04	7.39	8.70	11.71	13.71
55	10	2.08	4.16	6.16	7.54	8.88	11.95	13.97
56	10	2.12	4.25	6.29	7.70	9.06	12.19	14.23
60	10	2.31	4.62	6.79	8.30	9.79	13.14	15.24
64	10	2.49	4.99	7.29	8.90	10.51	14.04	16.24
70	10	2.77	5.54	8.03	9.82	11.58	15.34	17.69
72	10	2.86	5.73	8.28	10.12	11.94	15.76	18.16
75	10	3.00	5.99	8.64	10.58	12.47	16.39	18.86

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
0.94	1.91	2.90	3.59	4.26	5.85	6.94
1.01	2.07	3.13	3.87	4.60	6.31	7.46
1.05	2.15	3.24	4.01	4.77	6.54	7.73
1.09	2.23	3.36	4.16	4.95	6.78	8.00
1.26	2.58	3.86	4.77	5.69	7.78	9.12
1.44	2.95	4.39	5.43	6.47	8.82	10.31
1.73	3.56	5.26	6.50	7.75	10.47	12.20
1.84	3.77	5.56	6.88	8.20	11.04	12.86
2.00	4.09	6.03	7.47	8.90	11.93	13.88

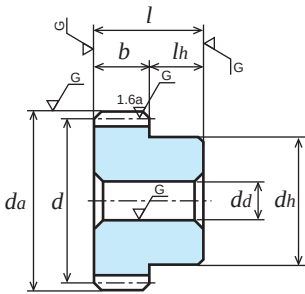
上述数值相当于JGMA公式,仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认别册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

研磨直齿轮 (SG 系列)
GROUND SPUR GEARS

模数
MODULE 1

压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B1702-1(ISO) class 5



B1 形状
TYPE B1

订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.

材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	螺 纹 孔 Set Screw		钻 孔 Tap Guide dr	重 量 Weight W(g)
										M	ls		
SG1S 80B — 1012	80	φ 80	φ 82	B1	10	φ12	φ45	10	20	-	-	-	498.5
SG1S 80B — 1015	80	φ 80	φ 82	B1	10	φ15	φ45	10	20	-	-	-	488.6
SG1S 80B — 1020	80	φ 80	φ 82	B1	10	φ20	φ45	10	20	-	-	-	467.1
SG1S 90B — 1015	90	φ 90	φ 92	B1	10	φ15	φ50	10	20	-	-	-	621.8
SG1S 96B — 1015	96	φ 96	φ 98	B1	10	φ15	φ50	10	20	-	-	-	690.2
SG1S 100B — 1012	100	φ100	φ102	B1	10	φ12	φ50	10	20	-	-	-	748.1
SG1S 100B — 1015	100	φ100	φ102	B1	10	φ15	φ50	10	20	-	-	-	738.2
SG1S 100B — 1020	100	φ100	φ102	B1	10	φ20	φ50	10	20	-	-	-	716.8
SG1S 108B — 1015	108	φ108	φ110	B1	10	φ15	φ50	10	20	-	-	-	840.1
SG1S 112B — 1015	112	φ112	φ114	B1	10	φ15	φ50	10	20	-	-	-	894.0
SG1S 120B — 1015	120	φ120	φ122	B1	10	φ15	φ50	10	20	-	-	-	1007.7

齿部高频淬火 硬度 HRC49-55。
Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
80	10	3.24	6.42	9.25	11.33	13.34	17.42	20.08
90	10	3.70	7.26	10.47	12.80	14.98	19.37	22.47
96	10	3.98	7.77	11.20	13.68	15.92	20.59	23.88
100	10	4.17	8.10	11.68	14.25	16.53	21.40	24.80
108	10	4.55	8.76	12.64	15.34	17.73	23.01	26.60
112	10	4.74	9.09	13.11	15.86	18.32	23.80	27.48
120	10	5.12	9.74	14.05	16.89	19.46	25.34	28.97

容许传达动力表 齿面强度 (kW)
Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
2.29	4.66	6.85	8.51	10.12	13.48	15.70
2.92	5.90	8.69	10.77	12.74	16.80	19.69
3.34	6.72	9.90	12.25	14.41	19.00	22.28
3.64	7.29	10.74	13.28	15.57	20.56	24.07
4.27	8.50	12.53	15.42	18.01	23.84	27.84
4.61	9.13	13.48	16.53	19.29	25.55	29.80
5.32	10.48	15.47	18.85	21.95	29.13	33.64

上述数值相当于JGMA公式,仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

目 录 表 CONTENTS	齿 轮 信 息 GEAR INFORMATION	齿 轮 箱 GEAR BOXES	无 背 隙 齿 轮 ANTI BACKLASH SPUR GEARS	研 磨 直 齿 轮 GROUND SPUR GEARS	直 齿 轮 SPUR GEARS	内 齿 轮 INTERNAL GEARS	研 磨 齿 条 GROUND RACKS	齿 条 RACKS	斜 齿 轮 · 螺 旋 齿 轮 HELICAL GEARS AND SCREW GEARS	蜗 轮 · 蜗 杆 WORMS AND WORM WHEELS	锥 齿 轮 BEVEL GEARS	技 术 资 料 REFERENCE DATA
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研磨直齿轮 (SG 系列)

GROUND SPUR GEARS

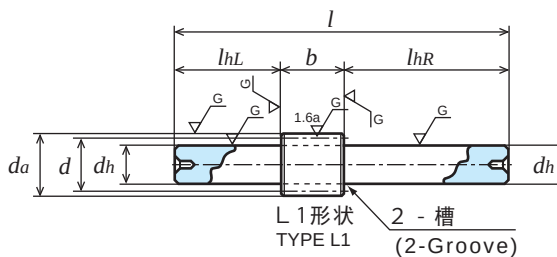
模数
MODULE

1.5

压力角 20° (普通齿)

20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5级
System of accuracy: JIS B 1702-1(ISO) class 5



材料: 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)

Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(kg)
SG1.5S 14L - 1512	14	φ21	φ24	L1	15	-	φ12(h7)	L25 R60	100	0.12
SG1.5S 15L - 1512	15	φ22.5	φ25.5	L1	15	-	φ12(h7)	L25 R60	100	0.12
SG1.5S 15B - 1510	15	φ22.5	φ25.5	B1	15	φ10	φ18	15	30	0.06
SG1.5S 16L - 1512	16	φ24	φ27	L1	15	-	φ12(h7)	L25 R60	100	0.13
SG1.5S 16B - 1510	16	φ24	φ27	B1	15	φ10	φ18	15	30	0.06
SG1.5S 18L - 1512	18	φ27	φ30	L1	15	-	φ12(h7)	L25 R60	100	0.14
SG1.5S 18B - 1512	18	φ27	φ30	B1	15	φ12	φ22	15	30	0.08
SG1.5S 20B - 1512	20	φ30	φ33	B1	15	φ12	φ22	15	30	0.10
SG1.5S 22B - 1512	22	φ33	φ36	B1	15	φ12	φ25	15	30	0.13
SG1.5S 24B - 1515	24	φ36	φ39	B1	15	φ15	φ30	15	30	0.16
SG1.5S 25B - 1515	25	φ37.5	φ40.5	B1	15	φ15	φ30	15	30	0.17

齿部高频淬火 硬度 HRC49-55。

Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
14	15	1.03	2.07	3.11	3.89	4.67	6.49	7.73
15	15	1.16	2.32	3.49	4.36	5.23	7.27	8.61
16	15	1.29	2.58	3.87	4.84	5.81	8.04	9.50
18	15	1.55	3.11	4.66	5.82	6.99	9.58	11.30
20	15	1.82	3.65	5.47	6.84	8.20	11.14	13.11
22	15	2.10	4.20	6.29	7.87	9.41	12.69	14.94
24	15	2.38	4.75	7.13	8.91	10.59	14.25	16.80
25	15	2.52	5.04	7.55	9.44	11.18	15.02	17.74

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
0.21	0.43	0.66	0.83	1.00	1.41	1.69
0.24	0.50	0.76	0.96	1.16	1.63	1.95
0.28	0.57	0.87	1.09	1.32	1.86	2.20
0.36	0.74	1.12	1.41	1.70	2.36	2.81
0.45	0.92	1.39	1.75	2.12	2.92	3.47
0.55	1.11	1.69	2.14	2.57	3.53	4.19
0.66	1.34	2.03	2.56	3.07	4.19	5.00
0.72	1.45	2.21	2.79	3.33	4.55	5.42

上述数值相当于JGMA公式,仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认别册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

研磨直齿轮 (SG 系列)
GROUND SPUR GEARS

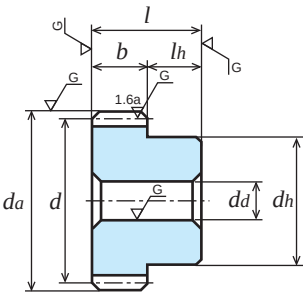
模数
MODULE 1.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B1702-1(ISO) class 5



订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.



B1 形状
TYPE B1

材料 : 铬钼钢 (ISO 34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)
单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter dd(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(kg)
SG1.5S 26B — 1515	26	φ39	φ42	B1	15	φ15	φ30	15	30	0.18
SG1.5S 28B — 1515	28	φ42	φ45	B1	15	φ15	φ30	15	30	0.20
SG1.5S 30B — 1515	30	φ45	φ48	B1	15	φ15	φ35	15	30	0.26
SG1.5S 32B — 1515	32	φ48	φ51	B1	15	φ15	φ35	15	30	0.28
SG1.5S 34B — 1515	34	φ51	φ54	B1	15	φ15	φ35	15	30	0.31
SG1.5S 35B — 1515	35	φ52.5	φ55.5	B1	15	φ15	φ35	15	30	0.36
SG1.5S 36B — 1515	36	φ54	φ57	B1	15	φ15	φ40	15	30	0.37
SG1.5S 40B — 1515	40	φ60	φ63	B1	15	φ15	φ40	15	30	0.44
SG1.5S 42B — 1515	42	φ63	φ66	B1	15	φ15	φ40	15	30	0.47
SG1.5S 45B — 1520	45	φ67.5	φ70.5	B1	15	φ20	φ50	15	30	0.57
SG1.5S 48B — 1520	48	φ72	φ75	B1	15	φ20	φ50	15	30	0.63

齿部高频淬火 硬度 HRC49-55。
Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
26	15	2.66	5.32	7.98	9.96	11.77	15.81	18.67
28	15	2.95	5.90	8.84	10.97	12.96	17.41	20.54
30	15	3.24	6.47	9.71	11.98	14.13	19.00	22.39
32	15	3.53	7.06	10.59	12.99	15.30	20.59	24.24
34	15	3.83	7.65	11.42	13.99	16.47	22.18	26.08
35	15	3.97	7.95	11.83	14.49	17.05	22.97	26.94
36	15	4.12	8.25	12.25	15.00	17.64	23.76	27.81
40	15	4.72	9.45	13.90	16.98	20.03	26.90	31.19
42	15	5.03	10.05	14.72	17.97	21.22	28.40	32.85
45	15	5.48	10.96	15.94	19.47	22.98	30.55	35.27
48	15	5.94	11.87	17.16	20.98	24.74	32.67	37.64

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min							
400	800	1,200	1,500	1,800	2,500	3,000	
0.78	1.58	2.40	3.02	3.60	4.92	5.87	
0.90	1.84	2.80	3.51	4.18	5.71	6.81	
1.04	2.12	3.23	4.03	4.80	6.57	7.82	
1.19	2.43	3.70	4.59	5.45	7.47	8.89	
1.35	2.75	4.18	5.18	6.15	8.44	10.03	
1.43	2.93	4.43	5.49	6.52	8.94	10.60	
1.52	3.10	4.69	5.80	6.90	9.46	11.19	
1.89	3.87	5.79	7.16	8.53	11.67	13.69	
2.09	4.28	6.39	7.89	9.41	12.83	15.01	
2.41	4.94	7.33	9.06	10.81	14.65	17.10	
2.76	5.66	8.34	10.32	12.30	16.56	19.29	

上述数值相当于JGMA公式,仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认别册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

目次表 CONTENTS	齿轮信息 GEAR INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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研磨直齿轮 (SG 系列)

GROUND SPUR GEARS

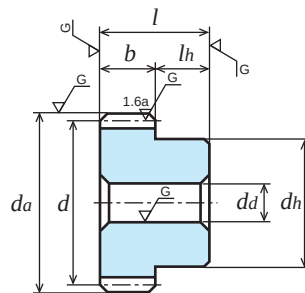
模数
MODULE

1.5

压力角 20° (普通齿)

20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B 1702-1(ISO) class 5



B1 形状
TYPE B1

材料: 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter dd(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(kg)
SG1.5S 50B - 1520	50	φ 75	φ 78	B1	15	φ20	φ50	15	30	0.67
SG1.5S 52B - 1520	52	φ 78	φ 81	B1	15	φ20	φ50	15	30	0.72
SG1.5S 55B - 1520	55	φ 82.5	φ 85.5	B1	15	φ20	φ50	15	30	0.78
SG1.5S 56B - 1520	56	φ 84	φ 87	B1	15	φ20	φ50	15	30	0.80
SG1.5S 60B - 1520	60	φ 90	φ 93	B1	15	φ20	φ60	15	30	1.00
SG1.5S 64B - 1520	64	φ 96	φ 99	B1	15	φ20	φ60	15	30	1.10
SG1.5S 70B - 1520	70	φ105	φ108	B1	15	φ20	φ60	15	30	1.27
SG1.5S 72B - 1520	72	φ108	φ111	B1	15	φ20	φ60	15	30	1.33
SG1.5S 75B - 1520	75	φ112.5	φ115.5	B1	15	φ20	φ60	15	30	1.42
SG1.5S 80B - 1520	80	φ120	φ123	B1	15	φ20	φ60	15	30	1.58
SG1.5S 90B - 1525	90	φ135	φ138	B1	15	φ25	φ70	15	30	2.01
SG1.5S 100B - 1525	100	φ150	φ153	B1	15	φ25	φ70	15	30	2.40
SG1.5S 112B - 1525	112	φ168	φ171	B1	15	φ25	φ70	15	30	2.93
SG1.5S 120B - 1525	120	φ180	φ183	B1	15	φ25	φ70	15	30	3.31

齿部高频淬火 硬度HRC49-55。
Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
50	15	6.24	12.44	17.96	21.99	25.91	34.07	39.20
52	15	6.55	13.02	18.76	22.99	27.07	35.44	40.80
55	15	7.01	13.87	19.98	24.48	28.79	37.47	43.26
56	15	7.17	14.15	20.39	24.97	29.36	38.14	44.07
60	15	7.79	15.29	22.03	26.94	31.52	40.76	47.28
64	15	8.41	16.41	23.65	28.88	33.62	43.48	50.43
70	15	9.35	18.07	26.06	31.71	36.68	47.56	55.02
72	15	9.67	18.62	26.86	32.60	37.68	48.90	56.52
75	15	10.14	19.44	28.05	33.92	39.16	50.88	58.74
80	15	10.93	20.80	30.01	36.08	41.57	54.12	61.89
90	15	12.49	23.55	33.71	40.22	46.39	60.33	67.34
100	15	14.03	26.28	37.20	44.20	51.28	65.34	72.38
112	15	15.78	29.50	41.21	49.15	56.93	70.67	-
120	15	16.94	31.61	43.79	52.40	60.57	73.96	-

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
3.00	6.14	9.04	11.21	13.34	17.90	20.82
3.26	6.64	9.78	12.13	14.43	19.27	22.43
3.66	7.44	10.94	13.57	16.14	21.42	25.00
3.80	7.71	11.35	14.07	16.72	22.15	25.88
4.39	8.86	13.04	16.15	19.11	25.19	29.54
5.02	10.08	14.85	18.37	21.61	28.51	33.41
6.05	12.05	17.77	21.91	25.62	33.87	39.60
6.41	12.75	18.80	23.12	27.02	35.75	41.76
6.98	13.82	20.40	25.00	29.18	38.65	45.08
7.99	15.72	23.20	28.27	32.93	43.70	50.47
10.21	19.93	29.21	35.32	41.18	54.56	61.49
12.68	24.63	35.71	43.00	50.42	65.43	73.16
15.93	30.91	44.24	53.46	62.57	79.05	-
18.29	35.47	50.34	61.03	71.27	88.54	-

上述数值相当于JGMA公式,仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认别册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

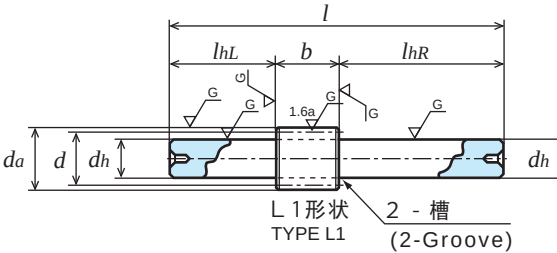
研磨直齿轮 (SG 系列)
GROUND SPUR GEARS

模数
MODULE 2 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B1702-1(ISO) class 5



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4) 单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(kg)
SG2S 14L — 2012	14	φ28	φ32	L1	20	-	φ12 (h7)	L25 R60	105	0.17
SG2S 14B — 2012	14	φ28	φ32	B1	20	φ12	φ22	20	40	0.12
SG2S 15L — 2012	15	φ30	φ34	L1	20	-	φ12 (h7)	L25 R60	105	0.19
SG2S 15B — 2012	15	φ30	φ34	B1	20	φ12	φ22	20	40	0.13
SG2S 16L — 2015	16	φ32	φ36	L1	20	-	φ15 (h7)	L25 R60	105	0.24
SG2S 16B — 2012	16	φ32	φ36	B1	20	φ12	φ25	20	40	0.17
SG2S 17B — 2012	17	φ34	φ38	B1	20	φ12	φ25	20	40	0.18
SG2S 18L — 2015	18	φ36	φ40	L1	20	-	φ15 (h7)	L25 R60	105	0.28
SG2S 18B — 2015	18	φ36	φ40	B1	20	φ15	φ30	20	40	0.21
SG2S 20B — 2015	20	φ40	φ44	B1	20	φ15	φ30	20	40	0.25
SG2S 21B — 2015	21	φ42	φ46	B1	20	φ15	φ30	20	40	0.27
SG2S 22B — 2015	22	φ44	φ48	B1	20	φ15	φ30	20	40	0.29
SG2S 23B — 2015	23	φ46	φ50	B1	20	φ15	φ30	20	40	0.31
SG2S 24B — 2015	24	φ48	φ52	B1	20	φ15	φ40	20	40	0.42

齿部高频淬火 硬度 HRC49-55。
Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
14	20	2.46	4.92	7.39	9.23	11.08	15.13	17.84
15	20	2.76	5.52	8.28	10.35	12.42	16.85	19.84
16	20	3.06	6.12	9.19	11.48	13.77	18.58	21.86
17	20	3.37	6.74	10.11	12.63	15.08	20.32	23.94
18	20	3.68	7.36	11.04	13.80	16.40	22.06	26.02
20	20	4.32	8.64	12.96	16.15	19.08	25.63	30.25
21	20	4.64	9.29	13.93	17.29	20.41	27.43	32.36
22	20	4.97	9.94	14.92	18.44	21.75	29.25	34.47
23	20	5.30	10.61	15.91	19.59	23.09	31.06	36.59
24	20	5.63	11.27	16.90	20.73	24.42	32.87	38.68

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min							
400	800	1,200	1,500	1,800	2,500	3,000	
0.52	1.06	1.60	2.02	2.44	3.39	4.03	
0.60	1.22	1.85	2.33	2.82	3.89	4.62	
0.69	1.39	2.12	2.67	3.23	4.42	5.25	
0.78	1.58	2.40	3.08	3.65	4.99	5.94	
0.88	1.78	2.71	3.41	4.09	5.59	6.66	
1.09	2.22	3.37	4.24	5.05	6.90	8.23	
1.21	2.45	3.73	4.68	5.57	7.62	9.08	
1.33	2.70	4.11	5.14	6.11	8.37	9.97	
1.45	2.96	4.51	5.62	6.68	9.15	10.89	
1.59	3.24	4.93	6.12	7.27	9.97	11.86	

上述数值相当于JGMA公式,仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认别册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

目次表 CONTENTS	齿轮信息 GEAR INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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研磨直齿轮 (SG 系列)

GROUND SPUR GEARS

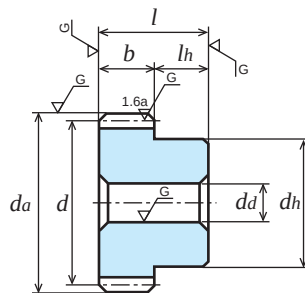
模数
MODULE

2

压力角 20° (普通齿)

20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B1702-1(ISO) class 5



B1 形状
TYPE B1

材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(kg)
SG2S 25B — 2015	25	φ50	φ54	B1	20	φ15	φ40	20	40	0.45
SG2S 26B — 2015	26	φ52	φ56	B1	20	φ15	φ40	20	40	0.47
SG2S 27B — 2015	27	φ54	φ58	B1	20	φ15	φ40	20	40	0.50
SG2S 28B — 2015	28	φ56	φ60	B1	20	φ15	φ40	20	40	0.53
SG2S 30B — 2015	30	φ60	φ64	B1	20	φ15	φ40	20	40	0.58
SG2S 32B — 2020	32	φ64	φ68	B1	20	φ20	φ50	20	40	0.71
SG2S 34B — 2020	34	φ68	φ72	B1	20	φ20	φ50	20	40	0.77
SG2S 35B — 2020	35	φ70	φ74	B1	20	φ20	φ50	20	40	0.81
SG2S 36B — 2020	36	φ72	φ76	B1	20	φ20	φ50	20	40	0.84
SG2S 38B — 2020	38	φ76	φ80	B1	20	φ20	φ60	20	40	1.05
SG2S 40B — 2020	40	φ80	φ84	B1	20	φ20	φ60	20	40	1.13
SG2S 42B — 2020	42	φ84	φ88	B1	20	φ20	φ60	20	40	1.21
SG2S 44B — 2020	44	φ88	φ92	B1	20	φ20	φ60	20	40	1.29
SG2S 45B — 2020	45	φ90	φ94	B1	20	φ20	φ60	20	40	1.34

齿部高频淬火 硬度 HRC49-55。
Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
25	20	5.97	11.94	17.84	21.88	25.76	34.68	40.79
26	20	6.31	12.61	18.79	23.03	27.09	36.49	42.84
27	20	6.65	13.29	19.75	24.17	28.44	38.30	44.83
28	20	6.99	13.98	20.70	25.32	29.82	40.11	46.80
30	20	7.67	15.35	22.59	27.59	32.55	43.69	50.68
32	20	8.37	16.76	24.48	29.87	35.28	47.14	54.51
34	20	9.07	18.14	26.36	32.21	38.01	50.49	58.27
35	20	9.42	18.84	27.30	33.38	39.37	52.14	60.13
36	20	9.77	19.54	28.24	34.54	40.73	53.78	61.97
38	20	10.48	20.87	30.11	36.87	43.43	57.03	65.60
40	20	11.20	22.20	31.97	39.19	46.12	60.23	69.43
42	20	11.91	23.52	33.89	41.49	48.80	63.37	73.24
44	20	12.62	24.82	35.77	43.76	51.30	66.42	76.96
45	20	12.99	25.48	36.72	44.90	52.55	67.94	78.82

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

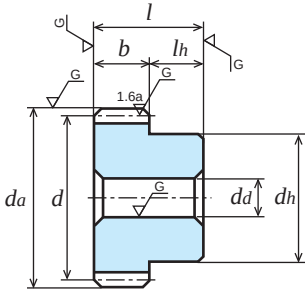
旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
1.73	3.52	5.36	6.64	7.89	10.82	12.86
1.87	3.82	5.80	7.18	8.53	11.70	13.88
2.03	4.14	6.25	7.74	9.19	12.62	14.92
2.18	4.66	6.73	8.32	9.90	13.57	16.00
2.52	5.15	7.72	9.55	11.37	15.56	18.25
2.88	5.90	8.79	10.85	12.95	17.64	20.62
3.27	6.69	9.92	12.27	14.63	19.81	23.11
3.47	7.11	10.51	13.00	15.50	20.93	24.40
3.68	7.54	11.12	13.76	16.40	22.08	25.72
4.12	8.41	12.38	15.35	18.27	24.47	28.45
4.58	9.32	13.71	17.01	20.24	26.95	31.41
5.07	10.28	15.13	18.76	22.30	29.54	34.50
5.58	11.29	16.62	20.59	24.40	32.22	37.73
5.85	11.81	17.38	21.53	25.47	33.59	39.39

上述数值相当于JGMA公式,仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认别册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

研磨直齿轮 (SG 系列)
GROUND SPUR GEARS

模数
MODULE 2 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B1702-1(ISO) class 5



B1 形状
TYPE B1

订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.

材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4) 单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter dd(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	重 量 Weight W(kg)
SG2S 48B – 2020	48	φ 96	φ100	B1	20	20	φ60	20	40	1.47
SG2S 50B – 2020	50	φ100	φ104	B1	20	20	φ60	20	40	1.57
SG2S 52B – 2020	52	φ104	φ108	B1	20	20	φ60	20	40	1.67
SG2S 54B – 2020	54	φ108	φ112	B1	20	20	φ60	20	40	1.78
SG2S 55B – 2020	55	φ110	φ114	B1	20	20	φ60	20	40	1.83
SG2S 56B – 2020	56	φ112	φ116	B1	20	20	φ60	20	40	1.88
SG2S 60B – 2025	60	φ120	φ124	B1	20	25	φ70	20	40	2.21
SG2S 64B – 2025	64	φ128	φ132	B1	20	25	φ70	20	40	2.45
SG2S 70B – 2025	70	φ140	φ144	B1	20	25	φ70	20	40	2.85
SG2S 72B – 2025	72	φ144	φ148	B1	20	25	φ80	20	40	3.17
SG2S 75B – 2025	75	φ150	φ154	B1	20	25	φ80	20	40	3.39
SG2S 80B – 2025	80	φ160	φ164	B1	20	25	φ80	20	40	3.77
SG2S 90B – 2025	90	φ180	φ184	B1	20	25	φ80	20	40	4.60
SG2S 100B – 2030	100	φ200	φ204	B1	20	30	φ80	20	40	5.46

齿部高频淬火 硬度 HRC49-55。
Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
48	20	14.07	27.44	39.56	48.31	56.23	72.72	84.34
50	20	14.80	28.74	41.44	50.56	58.64	75.93	87.96
52	20	15.53	30.04	43.31	52.74	61.03	79.10	91.54
54	20	16.26	31.33	45.17	54.83	63.38	82.24	95.07
55	20	16.63	31.97	46.10	55.87	64.54	83.80	96.81
56	20	16.99	32.61	47.03	56.90	65.70	85.35	98.55
60	20	18.46	35.16	50.71	60.97	70.25	91.46	104.57
64	20	19.94	37.77	54.34	64.96	74.72	97.43	109.96
70	20	22.17	41.66	59.39	70.76	81.78	105.82	117.59
72	20	22.90	42.94	61.04	72.65	84.09	108.14	120.01
75	20	23.95	44.86	63.49	75.44	87.52	111.53	123.54
80	20	25.68	48.04	67.49	80.31	93.15	116.96	-
90	20	29.06	54.23	75.12	89.89	103.90	126.88	-
100	20	32.41	60.17	82.79	99.19	113.41	-	-

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
6.69	13.44	19.80	24.49	28.82	38.01	44.55
7.28	14.58	21.49	26.56	31.15	41.12	48.14
7.90	15.76	23.24	28.68	33.55	44.34	51.85
8.55	16.99	25.07	30.83	36.03	47.67	55.67
8.88	17.63	26.01	31.93	37.30	49.37	57.63
9.22	18.27	26.96	33.05	38.58	51.10	59.61
10.65	20.95	30.93	37.69	43.91	58.26	67.29
12.18	23.87	35.16	42.59	49.53	65.82	75.02
14.69	28.59	41.75	50.41	58.89	77.64	87.09
15.58	30.26	44.06	53.14	62.17	81.44	91.23
16.91	32.84	47.61	57.34	67.23	87.25	97.54
19.26	37.38	53.80	64.88	76.04	97.20	-
24.39	47.29	67.12	81.37	95.03	118.05	-
30.11	58.13	81.94	99.45	114.85	-	-

上述数值相当于JGMA公式,仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认别册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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研磨直齿轮 (SG 系列)

GROUND SPUR GEARS

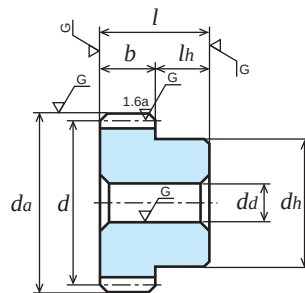
模数
MODULE

2.5

压力角 20° (普通齿)

20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B1702-1(ISO) class 5



B1 形状
TYPE B1

材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter dd(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	重 量 Weight W(kg)
SG2.5S 14B — 2515	14	φ35	φ40	B1	25	φ15	φ28	20	45	0.2
SG2.5S 15B — 2515	15	φ37.5	φ42.5	B1	25	φ15	φ28	20	45	0.3
SG2.5S 16B — 2515	16	φ40	φ45	B1	25	φ15	φ28	20	45	0.3
SG2.5S 18B — 2520	18	φ45	φ50	B1	25	φ20	φ38	20	45	0.4
SG2.5S 20B — 2520	20	φ50	φ55	B1	25	φ20	φ38	20	45	0.5
SG2.5S 24B — 2520	24	φ60	φ65	B1	25	φ20	φ50	20	45	0.8
SG2.5S 25B — 2520	25	φ62.5	φ67.5	B1	25	φ20	φ50	20	45	0.8
SG2.5S 28B — 2520	28	φ70	φ75	B1	25	φ20	φ60	20	45	1.1
SG2.5S 30B — 2520	30	φ75	φ80	B1	25	φ20	φ60	20	45	1.2
SG2.5S 32B — 2520	32	φ80	φ85	B1	25	φ20	φ60	20	45	1.3
SG2.5S 35B — 2525	35	φ87.5	φ92.5	B1	25	φ25	φ70	20	45	1.6
SG2.5S 36B — 2525	36	φ90	φ95	B1	25	φ25	φ70	20	45	1.7

齿部高频淬火 硬度 HRC49-55。
Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
14	25	4.81	9.62	14.42	18.03	21.48	28.91	34.08
15	25	5.39	10.78	16.17	20.21	23.93	32.14	37.95
16	25	5.98	11.96	17.94	22.35	26.40	35.46	41.86
18	25	7.19	14.38	21.57	26.60	31.38	42.19	49.72
20	25	8.44	16.88	25.23	30.94	36.42	49.04	57.68
24	25	11.00	22.01	32.39	39.57	46.67	62.66	72.67
25	25	11.66	23.32	34.18	41.73	49.27	65.97	76.34
28	25	13.65	27.30	39.56	48.36	57.05	75.55	87.13
30	25	14.99	29.87	43.11	52.78	62.19	81.77	94.10
32	25	16.34	32.40	46.67	57.20	67.33	87.92	101.35
35	25	18.40	36.19	52.15	63.81	74.84	96.92	112.26
36	25	19.09	37.45	53.97	66.00	77.24	99.87	115.86

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

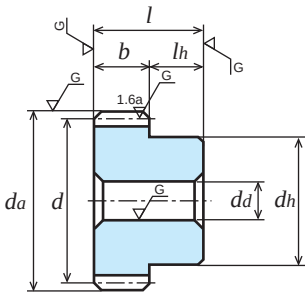
旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
1.03	2.10	3.19	4.02	4.83	6.61	7.87
1.19	2.42	3.68	4.65	5.55	7.58	9.04
1.36	2.77	4.21	5.30	6.32	8.63	10.29
1.74	3.54	5.39	6.72	7.99	10.94	13.03
2.16	4.41	6.69	8.30	9.86	13.52	16.07
3.15	6.44	9.66	11.93	14.22	19.45	22.81
3.43	7.02	10.48	12.94	15.43	21.07	24.64
4.34	8.89	13.14	16.26	19.37	26.16	30.51
5.00	10.23	15.07	18.68	22.24	29.83	34.70
5.72	11.65	17.13	21.26	25.30	33.69	39.26
6.89	13.95	20.53	25.44	30.17	39.85	46.65
7.31	14.76	21.73	26.92	31.84	41.99	49.24

上述数值相当于JGMA公式,仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认别册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

研磨直齿轮 (SG 系列)
GROUND SPUR GEARS

模数
MODULE 2.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B 1702-1(ISO) class 5



B1 形状
TYPE B1

订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.

材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4) 单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter dd(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	重 量 Weight W(kg)
SG2.5S 40B — 2525	40	φ100	φ105	B1	25	φ25	φ70	20	45	2.0
SG2.5S 45B — 2525	45	φ112.5	φ117.5	B1	25	φ25	φ70	20	45	2.4
SG2.5S 48B — 2525	48	φ120	φ125	B1	25	φ25	φ70	20	45	2.5
SG2.5S 50B — 2530	50	φ125	φ130	B1	25	φ30	φ80	20	45	2.8
SG2.5S 55B — 2530	55	φ137.5	φ142.5	B1	25	φ30	φ80	20	45	3.4
SG2.5S 56B — 2530	56	φ140	φ145	B1	25	φ30	φ80	20	45	3.5
SG2.5S 60B — 2530	60	φ150	φ155	B1	25	φ30	φ80	20	45	4.0
SG2.5S 64B — 2530	64	φ160	φ165	B1	25	φ30	φ80	20	45	4.5
SG2.5S 70B — 2530	70	φ175	φ180	B1	25	φ30	φ90	20	45	5.4
SG2.5S 72B — 2530	72	φ180	φ185	B1	25	φ30	φ90	20	45	5.7
SG2.5S 75B — 2530	75	φ187.5	φ192.5	B1	25	φ30	φ90	20	45	6.1
SG2.5S 80B — 2530	80	φ200	φ205	B1	25	φ30	φ90	20	45	6.9

齿部高频淬火 硬度HRC 49-55。
Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
40	25	21.87	42.47	61.23	74.71	86.65	112.19	129.97
45	25	25.36	48.64	70.16	84.85	97.96	127.28	146.94
48	25	27.48	52.33	75.48	90.76	104.57	136.13	155.65
50	25	28.90	54.85	79.00	94.63	108.89	141.94	160.97
55	25	32.47	61.12	87.29	104.08	120.17	156.12	173.61
56	25	33.19	62.36	88.91	105.93	122.43	158.43	176.03
60	25	35.94	67.32	95.27	113.22	131.34	167.37	185.40
64	25	38.61	72.24	101.49	120.77	140.07	175.88	-
70	25	42.59	79.53	110.56	132.11	152.83	187.90	-
72	25	43.91	81.94	113.52	135.82	157.00	191.72	-
75	25	45.87	85.53	117.88	141.33	163.16	197.29	-
80	25	49.13	91.20	125.49	150.35	171.91	-	-

容许传达动力表 齿面强度 (kW)
Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
9.10	18.22	26.86	33.20	38.93	51.40	60.18
11.63	23.04	34.00	41.67	48.64	64.42	75.14
13.31	26.19	38.67	47.12	54.88	72.83	84.11
14.49	28.44	41.94	50.91	59.22	78.68	90.11
17.69	34.47	50.42	60.92	71.11	94.11	105.66
18.36	35.74	52.18	63.02	73.62	97.04	108.86
21.14	41.06	59.51	71.67	84.04	109.06	121.93
24.07	46.72	67.25	81.09	95.05	121.50	-
28.82	55.88	79.59	96.37	112.64	140.91	-
30.49	59.11	83.90	101.71	118.78	147.57	-
33.09	64.11	90.53	109.96	128.25	157.71	-
37.64	72.66	102.43	124.31	143.57	-	-

上述数值相当于JGMA公式,仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认别册的KG综合产品目录的P26页。 Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙 backlash 齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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研磨直齿轮 (SG 系列)

GROUND SPUR GEARS

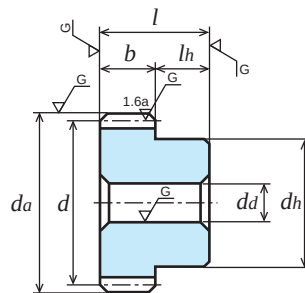
模数
MODULE

3

压力角 20° (普通齿)

20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B1702-1(ISO) class 5



B1 形状
TYPE B1

材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter dd(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	重 量 Weight W(kg)
SG3S 14B — 3015	14	φ 42	φ 48	B1	30	φ15	φ34	20	50	0.4
SG3S 15B — 3015	15	φ 45	φ 51	B1	30	φ15	φ36	20	50	0.5
SG3S 16B — 3015	16	φ 48	φ 54	B1	30	φ15	φ36	20	50	0.5
SG3S 18B — 3020	18	φ 54	φ 60	B1	30	φ20	φ45	20	50	0.7
SG3S 20B — 3020	20	φ 60	φ 66	B1	30	φ20	φ45	20	50	0.8
SG3S 24B — 3020	24	φ 72	φ 78	B1	30	φ20	φ50	20	50	1.1
SG3S 25B — 3020	25	φ 75	φ 81	B1	30	φ20	φ50	20	50	1.2
SG3S 28B — 3025	28	φ 84	φ 90	B1	30	φ25	φ60	20	50	1.6
SG3S 30B — 3025	30	φ 90	φ 96	B1	30	φ25	φ60	20	50	1.7
SG3S 32B — 3025	32	φ 96	φ102	B1	30	φ25	φ60	20	50	1.9
SG3S 35B — 3030	35	φ105	φ111	B1	30	φ30	φ70	20	50	2.3
SG3S 36B — 3030	36	φ108	φ114	B1	30	φ30	φ70	20	50	2.5

齿部高频淬火 硬度HRC 49-55。

Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
14	30	8.31	16.62	24.93	30.93	36.51	49.07	57.88
15	30	9.31	18.62	27.93	34.46	40.64	54.65	64.40
16	30	10.33	20.67	30.99	38.02	44.79	60.28	70.95
18	30	12.42	24.84	36.90	45.18	53.16	71.59	83.78
20	30	14.59	29.17	42.93	52.45	61.87	83.06	96.33
24	30	19.01	38.01	54.95	67.21	79.24	104.65	120.57
25	30	20.15	40.15	57.96	70.95	83.59	109.93	126.49
28	30	23.59	46.57	67.09	82.15	96.61	125.47	145.00
30	30	25.90	50.82	73.23	89.55	104.80	135.50	157.19
32	30	28.24	55.08	79.39	96.95	112.84	145.94	169.26
35	30	31.79	61.43	88.58	107.77	124.68	161.66	187.02
36	30	32.98	63.54	91.64	111.22	128.56	166.83	192.84

上述数值相当于JGMA公式,仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认别册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
1.81	3.68	5.60	7.02	8.36	11.43	13.62
2.08	4.25	6.47	8.06	9.59	13.13	15.64
2.38	4.86	7.40	9.17	10.91	14.95	17.78
3.04	6.21	9.38	11.61	13.79	18.92	22.39
3.78	7.73	11.59	14.32	17.06	23.34	27.37
5.52	11.31	16.68	20.65	24.60	33.13	38.59
6.01	12.28	18.09	22.41	26.69	35.79	41.64
7.60	15.42	22.69	28.14	33.45	44.30	51.76
8.77	17.71	26.08	32.30	38.21	50.39	59.08
10.03	20.15	29.69	36.74	43.23	57.01	66.83
12.09	24.10	35.54	43.81	51.24	67.75	79.19
12.82	25.49	37.60	46.25	54.04	71.51	83.51

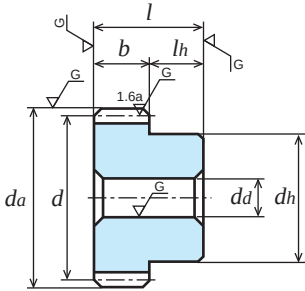
研磨直齿轮 (SG 系列)
GROUND SPUR GEARS

模数
MODULE 3 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火 硬度HRC 49-55.
JIS B 1702-1(ISO) 5 级
System of accuracy: JIS B 1702-1(ISO) class 5



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1 形状
TYPE B1

材料 : 铬钼合金钢 (SCM435, 440 ; 或 ISO34CrMo4, 42CrMo4)
Material : Chromium Molybdenum Steel (ISO 34CrMo4, 42CrMo4) 单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter dd(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	重 量 Weight W(kg)
SG3S 40B — 3030	40	φ120	φ126	B1	30	φ30	φ 70	20	50	3.0
SG3S 45B — 3030	45	φ135	φ141	B1	30	φ30	φ 80	20	50	3.9
SG3S 48B — 3030	48	φ144	φ150	B1	30	φ30	φ 80	20	50	4.3
SG3S 50B — 3030	50	φ150	φ156	B1	30	φ30	φ 80	20	50	4.6
SG3S 55B — 3035	55	φ165	φ171	B1	30	φ35	φ 90	20	50	5.6
SG3S 56B — 3035	56	φ168	φ174	B1	30	φ35	φ 90	20	50	5.8
SG3S 60B — 3035	60	φ180	φ186	B1	30	φ35	φ 90	20	50	6.6
SG3S 64B — 3040	64	φ192	φ198	B1	30	φ40	φ 90	20	50	7.3
SG3S 70B — 3040	70	φ210	φ216	B1	30	φ40	φ100	20	50	8.8
SG3S 72B — 3040	72	φ216	φ222	B1	30	φ40	φ100	20	50	9.3
SG3S 75B — 3040	75	φ225	φ231	B1	30	φ40	φ100	20	50	10.0
SG3S 80B — 3040	80	φ240	φ246	B1	30	φ40	φ100	20	50	11.3

齿部高频淬火 硬度HRC 49-55。
Gear tooth surface completed with induction hardening, Hardness HRC49 to 55.

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
40	30	37.79	71.94	103.77	124.77	143.76	187.16	214.00
45	30	43.83	82.62	118.23	141.06	162.71	211.59	236.20
48	30	47.47	89.00	126.51	150.58	174.29	224.14	248.74
50	30	49.77	93.24	131.94	156.80	181.90	231.80	256.76
55	30	55.48	103.74	145.22	173.05	200.54	250.00	-
56	30	56.62	105.82	147.83	176.30	204.19	253.49	-
60	30	61.14	114.10	158.07	189.13	218.62	266.97	-
64	30	65.63	122.26	168.12	201.71	232.50	-	-
70	30	72.29	133.62	184.00	220.08	249.18	-	-
72	30	74.50	137.34	189.20	226.08	254.51	-	-
75	30	77.78	142.85	196.93	234.96	262.28	-	-
80	30	83.22	151.85	209.58	247.54	274.71	-	-

容许传达动力表 齿面强度 (kW)
Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
15.97	31.43	46.40	56.54	65.86	87.40	100.93
20.43	39.86	58.41	70.63	82.36	109.12	122.99
23.37	45.39	66.08	79.71	93.26	122.16	136.84
25.37	49.27	71.42	86.01	100.85	130.87	146.32
30.73	59.63	85.52	103.27	120.93	153.45	-
31.86	61.82	88.47	106.92	125.14	158.10	-
36.59	70.93	100.68	122.05	142.54	177.08	-
41.63	80.62	113.58	138.05	160.74	-	-
49.78	95.73	135.04	163.59	187.06	-	-
52.66	101.01	142.56	172.51	196.11	-	-
57.11	109.17	154.16	186.25	209.93	-	-
64.93	123.36	174.37	208.50	233.57	-	-

上述数值相当于JGMA公式,仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认别册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

目次表 CONTENTS	齿 轮 信 息 INFORMATION	齿 箱 GEAR BOXES	无 背 隙 齿 轮 ANTI BACKLASH SPUR GEARS	研 磨 直 齿 轮 GROUND SPUR GEARS	直 齿 轮 SPUR GEARS	内 齿 轮 INTERNAL GEARS	研 磨 齿 条 GROUND RACKS	齿 条 RACKS	斜 齿 轮 · 螺 旋 齿 轮 HELICAL GEARS AND SCREW GEARS	蜗 轮 · 蜗 杆 WORMS AND WORM WHEELS	锥 齿 轮 BEVEL GEARS	技 术 资 料 REFERENCE DATA
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KG Gear - 信息 - 研磨直齿轮

KG Gear - Information

Ground spur gear

SG 系列研磨直齿轮的特点

Feature of SG Ground Spur Gears.

- 1) 拥有模数M0.5到M3.0之间的共7种大小规格的产品。
- 2) 材料方面使用铬钼合金钢 (SCM435, 440 ; 或ISO34CrMo4, 42CrMo4), 并进行了高频淬火, 使硬度达到HRC49-55。对齿孔和轮毂可进行追加工。
- 3) 精度等级为JIS B1702-1 (ISO)5级。
- 4) 对齿孔面, 齿顶圆, 齿轮侧面, 轮毂侧面进行了研磨。当需要进行追加工时都可成为加工基准面。
- 5) 同时也准备了双轴类型小齿轮。

- 1) Size : Module 0.5 to 3.0 with wide range are available in seven sizes.
- 2) Material : Chromium Molybdenum Steel, complete with high frequency Induction Hardened. (HRC49 to 55).
- 3) System of accuracy: JIS B 1702-1(ISO) class 5.
- 4) Bore diameter, Tip diameter and other surfaces are ground so that chucking base can be performed when additional machining is required.
- 5) We have Ground Spur Gear with Solid shaft on both ends for Pinion, size ranging from M0.5 to 2.0.

对 SG 系列研磨直齿轮进行追加工时的注意点

Precaution for additional process of SG Ground Spur Gears.

我们努力给客户提供高精度, 高品质的研磨直齿轮产品。KG研磨直齿轮尽量不要进行齿孔的追加工。如果进行追加工, 就有可能降低齿轮的精度。如果使用过程中避免不了进行追加工时, 请注意以下注意事项。

We provide high precision and high quality performance of KG Ground Spur Gears to customer. KG Ground Spur Gears do not require additional machining by our customer. This will therefore prevent deterioration of KG Ground Spur Gears, which has been vigorously checked by KG before delivery to customer.

However, due to your 'special' requirement that need additional machining to KG-Ground Spur Gear, please note the following information.

对 SG 系列研磨直齿轮的孔径进行追加工时的注意点

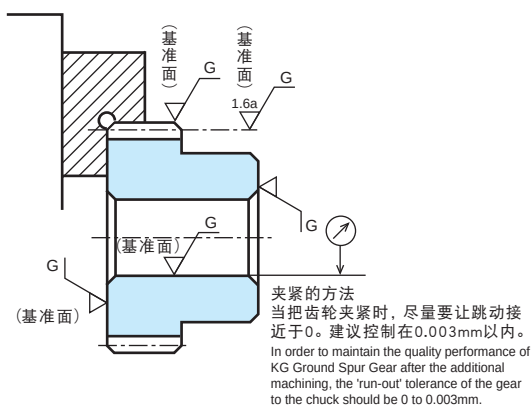
Precaution for additional machining to bore diameter of SG Ground Spur Gears.

- 1) 一定要使用软爪三爪卡盘, 进行对产品的卡紧。要从齿孔的孔面开始进行定心(因为齿轮磨削时, 是以齿孔孔面和侧面为最初的基准面。)
- 2) 因为齿顶圆与侧面是研磨面, 所以如右图的方法进行卡紧, 较容易得到定心。
- 3) 齿顶圆较小(如小齿轮)的齿轮, 齿孔内面很可能受到了热处理的影响而变硬所以切削起来可能有难度。
- 4) 对齿孔进行追加工时, 最大加工半径不要超过轮毂直径的60%-70%。

Additional machining for bore diameter is not advisable for our KG Ground Spur Gears.

Additional machining might be affected the precision class, as for the gear increased pitch deviation by additional key way process, may cause 1 or 2 class decline.

- 1) We recommend the use of three-jaw chuck (scroll chuck) that is not surface hardened for centering of the gear.
- 2) The drawing shown on the right is highly recommended to follow, in order to obtain the centering easier because the gear has been ground.
- 3) Due to induction hardening, the bore diameter of small size gears (Pinion) may not be easily machined.
- 4) Tentative maximum for bore dimension of the hub diameter should not exceed 60-70 if additional machining is required.



对 SG 系列研磨直齿轮的其它部分进行追加加工时的注意点 Precaution for additional process for other parts of SG Ground Spur Gear.

- 1) 使用软爪三爪卡盘卡紧的方法与齿孔加工时的方法相同。对轮毂进行卡紧时，也必须要从齿孔面进行定心。
 - 2) 有双轴的 (L)型齿轮的轴部，由于受到热处理的影响而硬化，可能不太容易切削。
 - 3) 模数小且齿数少的齿轮，与2) 的情况相同，有可能硬化到了齿孔面。
 - 4) 凡是离齿部近的部分，因为受到热处理的影响而已经变硬。请注意。
- 1) Method of chucking is the same as in the boring process. Please take note of the centering location when chucking to the gear hub.
 - 2) Due to the heat treatment, both sides of the solid shaft areas of the 'Type L' are low in machinability.
 - 3) Heat treatment on specific surface of small module size gear for Pinion will affect the hardening of the whole gear module.
 - 4) Take note that surface near to the gear tooth area may be low machinability due to the heat treatment processed.

本公司也接受特殊规格的订制研磨齿轮 Customize make Ground Gears.

齿轮种类：	齿轮和斜齿轮
模数：	从模数：0.3 0.4 0.5 0.6 0.75 0.8 1.0 1.25 1.5 1.75 2.0 2.25 2.5 2.75 3.0 4.0 5.0
DP英寸单位：	请提供您的图纸。另外，交货期和生产所需时间都可以洽谈。
齿数与齿顶圆直径等：	10齿到500齿
齿顶圆直径：	da = 8mm到350mm
齿宽：	最大200mm
螺旋角：	最大45° (左，右螺旋角)
可保证精度等级：	本公司可以制作JIS B 1702 0级，相当于，ISO标准4级的齿轮

Our gear products: Spur, Helical and other gears.
 Our sizes: Module from 0.3, 0.4, 0.5, 0.6, 0.75, 0.8, 1.0, 1.25, 1.5, 1.75, 2.0, 2.25, 2.5, 2.75, 3.0, 4.0 and 5.0.
 Our capability of D.P (inch) size: Please provide your drawing to us. Price, delivery and lead-time are negotiable. Do not hesitate to contact us for discussion.

Number of teeth and maximum tip diameter.
 No. of teeth: range from 10z to 500z
 Tip diameter: da=8.0mm up to 350.00mm
 Face width: Maximum 200.0mm
 Helix: Maximum 45 degree (Right /Left helix)
 We are able to fabricate the gears of JIS B 1702 class 0 equivalent to ISO.

Memo

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齿
RACKS

齿
HELICOL GEARS AND SCREW GEARS

齿
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齿
BEVEL GEARS

技术
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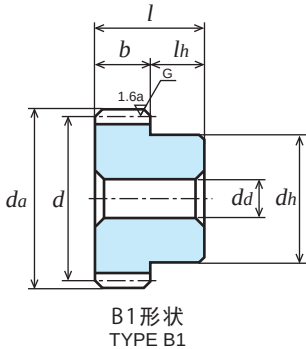
研磨直齿轮 (SGE 系列)
GROUND SPUR GEARS

模数
MODULE 0.5 压力角20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火HRC47 ~ 53
JIS B 1702-1 (ISO) 7级
System of accuracy : JIS B 1702-1 (ISO) class 7



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1 形状
TYPE B1

ISO C45 机械构造用碳素钢 (JIS G 4051)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter dd(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(g)
● SGE50S 30B - 0504	30	φ15	φ16	B1	5	φ4	φ12	8	13	12.7
● SGE50S 40B - 0504	40	φ20	φ21	B1	5	φ4	φ15	8	13	22.1
● SGE50S 50B - 0504	50	φ25	φ26	B1	5	φ4	φ18	8	13	33.9
● SGE50S 60B - 0505	60	φ30	φ31	B1	5	φ5	φ22	8	13	49.5
● SGE50S 70B - 0505	70	φ35	φ36	B1	5	φ5	φ25	8	13	66.5
● SGE50S 80B - 0506	80	φ40	φ41	B1	5	φ6	φ28	8	13	85.0
● SGE50S 90B - 0506	90	φ45	φ46	B1	5	φ6	φ32	8	13	109.9
● SGE50S 100B - 0506	100	φ50	φ51	B1	5	φ6	φ35	8	13	134.4
● SGE50S 120B - 0506	120	φ60	φ61	B1	5	φ6	φ42	8	13	194.9

标有●的产品为新产品。
Products with ● marks are new item.

Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

容许传达能力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
30	5	80.54	161.08	241.63	296.60	347.96	459.16	531.69
40	5	117.09	234.19	342.60	415.43	484.22	630.05	727.71
50	5	154.49	307.53	438.50	528.52	612.15	795.67	929.77
60	5	192.53	375.41	530.54	635.73	732.48	965.31	1,123.08
70	5	230.93	441.27	618.60	737.06	855.34	1,128.41	1,315.49
80	5	269.57	505.05	702.44	837.49	979.47	1,288.25	1,505.79
90	5	308.09	566.09	781.45	941.83	1,098.54	1,448.09	1,687.94
100	5	345.37	625.52	862.40	1,044.07	1,214.70	1,604.66	1,865.27
120	5	414.57	738.59	1,029.96	1,240.25	1,447.40	1,904.73	2,221.44

The above references are JGMA standard.

动力换算公式请确认册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
23.40	48.25	73.71	91.38	108.03	144.51	168.88
42.74	88.14	131.25	160.74	188.91	249.31	290.12
68.24	140.01	203.27	247.30	288.79	380.74	448.75
100.00	200.97	289.16	349.83	406.41	543.35	637.24
138.12	272.07	388.19	467.15	546.46	731.33	859.50
182.72	352.81	499.54	601.50	709.14	945.96	1,114.64
233.83	442.88	622.34	757.42	890.63	1,190.99	1,399.33
290.20	541.88	760.46	929.62	1,090.21	1,461.16	1,712.07
416.54	765.05	1,085.93	1,320.47	1,553.44	2,073.87	2,437.97

目次表 CONTENTS	齿轮信息 GEAR INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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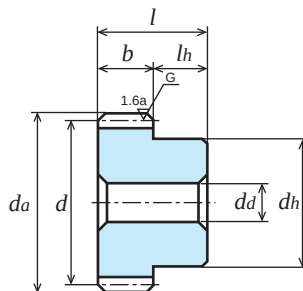
研磨直齿轮 (SGE 系列)

GROUND SPUR GEARS

模数
MODULE

0.8 压力角20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火HRC47 ~ 53
JIS B 1702-1 (ISO) 7 级
System of accuracy : JIS B 1702-1 (ISO) class 7



B1 形状
TYPE B1

ISO C45 机械构造用碳素钢 (JIS G 4051)

Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter dd(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	重 量 Weight W(g)
SGE80S 25B - 0805	25	φ20	φ21.6	B1	8	φ 5	φ16	10	18	32.5
SGE80S 30B - 0805	30	φ24	φ25.6	B1	8	φ 5	φ20	10	18	50.1
SGE80S 40B - 0806	40	φ32	φ33.6	B1	8	φ 6	φ25	10	18	84.7
SGE80S 50B - 0806	50	φ40	φ41.6	B1	8	φ 6	φ28	10	18	122.9
SGE80S 60B - 0806	60	φ48	φ49.6	B1	8	φ 6	φ34	10	18	180.5
SGE80S 70B - 0808	70	φ56	φ57.6	B1	8	φ 8	φ40	10	18	245.7
SGE80S 80B - 0808	80	φ64	φ65.6	B1	8	φ 8	φ45	10	18	319.2
SGE80S 90B - 0808	90	φ72	φ73.6	B1	8	φ 8	φ50	10	18	402.1
SGE80S 100B - 0810	100	φ80	φ81.6	B1	8	φ10	φ60	10	18	525.8
SGE80S 120B - 0810	120	φ96	φ97.6	B1	8	φ10	φ70	10	18	744.7

标有 ● 的产品为新产品。
Products with ● marks are new item.

Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

容许传达能力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min					
		400	800	1,200	1,500	1,800	2,500
25	8	257.23	514.46	752.38	912.43	1,063.43	1,383.75
30	8	329.81	659.29	941.65	1,136.20	1,317.84	1,707.70
40	8	479.71	927.82	1,307.05	1,562.49	1,797.72	2,380.47
50	8	632.84	1,185.57	1,648.92	1,966.00	2,299.31	3,024.09
60	8	788.13	1,432.30	1,970.04	2,387.61	2,780.45	3,670.23
70	8	929.75	1,667.30	2,314.57	2,792.93	3,250.73	4,290.73
80	8	1,067.88	1,890.71	2,647.87	3,183.03	3,723.73	4,896.66
90	8	1,200.89	2,101.81	2,966.46	3,579.91	4,176.82	5,493.79
100	8	1,331.42	2,334.79	3,277.69	3,969.25	4,619.06	6,077.09
120	8	1,581.73	2,784.19	3,915.35	4,716.56	5,495.21	7,256.77

The above references are JGMA standard.

动力换算公式请确认册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
68.40	141.06	210.02	257.25	302.18	398.84	464.43
100.25	206.60	300.37	365.97	427.76	562.45	663.17
183.16	365.19	523.66	632.11	733.20	984.91	1,153.54
292.33	564.56	799.31	962.34	1,134.54	1,513.68	1,783.55
428.08	801.96	1,122.84	1,374.15	1,613.15	2,160.32	2,533.88
581.53	1,074.99	1,519.00	1,851.10	2,171.74	2,907.99	3,413.28
756.77	1,381.16	1,969.08	2,390.32	2,818.63	3,760.20	4,417.24
953.11	1,719.57	2,470.54	3,010.83	3,540.97	4,725.01	5,533.69
1,169.89	2,114.84	3,022.20	3,695.86	4,335.34	5,786.57	6,821.14
1,661.95	3,015.64	4,316.82	5,251.26	6,167.25	8,262.29	9,994.37

研磨直齿轮 (SGE 系列)
GROUND SPUR GEARS

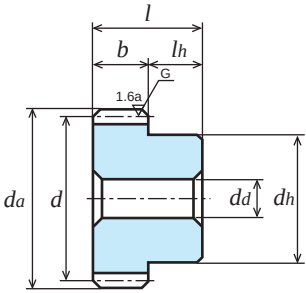
模数
MODULE

1 压力角20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火HRC47 ~ 53
JIS B 1702-1 (ISO) 7 级
System of accuracy : JIS B 1702-1 (ISO) class 7



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1 形状
TYPE B1

ISO C45 机械构造用碳素钢 (JIS G 4051)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter dd(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(g)
● SGE1S 20B - 1005	20	φ 20	φ 22	B1	10	φ 5	φ16	10	20	37.0
● SGE1S 25B - 1005	25	φ 25	φ 27	B1	10	φ 5	φ20	10	20	59.7
● SGE1S 30B - 1006	30	φ 30	φ 32	B1	10	φ 6	φ25	10	20	89.1
● SGE1S 40B - 1006	40	φ 40	φ 42	B1	10	φ 6	φ30	10	20	149.1
● SGE1S 50B - 1008	50	φ 50	φ 52	B1	10	φ 8	φ35	10	20	221.0
● SGE1S 60B - 1008	60	φ 60	φ 62	B1	10	φ 8	φ42	10	20	321.9
● SGE1S 70B - 1010	70	φ 70	φ 72	B1	10	φ10	φ55	10	20	442.9
● SGE1S 80B - 1010	80	φ 80	φ 82	B1	10	φ10	φ60	10	20	603.1
● SGE1S 90B - 1010	90	φ 90	φ 92	B1	10	φ10	φ65	10	20	746.3
● SGE1S 100B - 1010	100	φ100	φ102	B1	10	φ10	φ70	10	20	904.9
● SGE1S 120B - 1010	120	φ120	φ122	B1	10	φ10	φ90	10	20	1373.2

标有●的产品为新产品。
Products with ● marks are new item.

Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

容许传达能力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
20	10	0.37	0.73	1.07	1.30	1.51	1.96	2.27
25	10	0.50	1.00	1.43	1.72	1.99	2.59	3.02
30	10	0.64	1.26	1.78	2.13	2.45	3.23	3.76
40	10	0.94	1.76	2.44	2.91	3.40	4.48	5.23
50	10	1.23	2.23	3.07	3.72	4.33	5.72	6.64
60	10	1.50	2.68	3.73	4.49	5.24	6.90	8.05
70	10	1.77	3.10	4.36	5.26	6.14	8.08	9.39
80	10	2.02	3.54	4.97	6.02	7.01	9.22	10.78
90	10	2.26	3.98	5.59	6.75	7.85	10.31	12.32
100	10	2.50	4.41	6.20	7.46	8.70	11.57	13.88
120	10	2.95	5.23	7.37	8.89	10.32	14.17	17.01

The above references are JGMA standard.

动力换算公式请确认册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min							
400	800	1,200	1,500	1,800	2,500	3,000	
0.09	0.18	0.26	0.32	0.38	0.50	0.58	0.09
0.14	0.28	0.41	0.49	0.58	0.76	0.90	0.20
0.20	0.40	0.58	0.70	0.81	1.09	1.27	0.37
0.37	0.71	1.00	1.20	1.42	1.89	2.23	0.58
0.58	1.08	1.52	1.86	2.18	2.92	3.42	0.83
0.83	1.53	2.17	2.64	3.11	4.15	4.88	1.13
1.13	2.04	2.93	3.56	4.19	5.59	6.56	1.46
1.46	2.64	3.78	4.62	5.42	7.23	8.53	1.84
1.84	3.33	4.76	5.80	6.80	9.05	10.91	2.25
2.25	4.08	5.84	7.10	8.34	11.25	13.61	3.17
3.17	5.79	8.30	10.10	11.83	16.48	19.94	

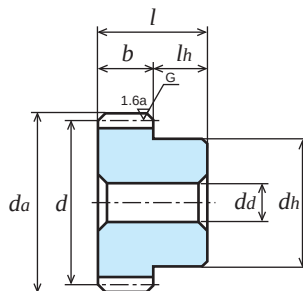
研磨直齿轮 (SGE 系列)

GROUND SPUR GEARS

模数
MODULE

1.5 压力角20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火HRC47 ~ 53
JIS B 1702-1 (ISO) 7 级
System of accuracy : JIS B 1702-1 (ISO) class 7



B1 形状
TYPE B1

ISO C45 机械构造用碳素钢 (JIS G 4051)

Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter dd(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(kg)
SGE1.5S 20B - 1506	20	φ 30	φ 33	B1	15	φ 6	φ 25	15	30	0.1
SGE1.5S 25B - 1508	25	φ 37.5	φ 40.5	B1	15	φ 8	φ 30	15	30	0.2
SGE1.5S 30B - 1508	30	φ 45	φ 48	B1	15	φ 8	φ 38	15	30	0.3
SGE1.5S 40B - 1508	40	φ 60	φ 63	B1	15	φ 8	φ 50	15	30	0.6
SGE1.5S 50B - 1510	50	φ 75	φ 78	B1	15	φ 10	φ 60	15	30	0.8
SGE1.5S 60B - 1510	60	φ 90	φ 93	B1	15	φ 10	φ 65	15	30	1.1
SGE1.5S 70B - 1510	70	φ 105	φ 108	B1	15	φ 10	φ 75	15	30	1.5
SGE1.5S 80B - 1510	80	φ 120	φ 123	B1	15	φ 10	φ 85	15	30	2.0
SGE1.5S 90B - 1512	90	φ 135	φ 138	B1	15	φ 12	φ 95	15	30	2.5
SGE1.5S 100B - 1515	100	φ 150	φ 153	B1	15	φ 15	φ 105	15	30	3.1

标有 ● 的产品为新产品。
Products with ● marks are new item.

Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

容许传达能力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min					
		400	800	1,200	1,500	1,800	2,500
20	15	1.23	2.40	3.40	4.07	4.69	6.18
25	15	1.70	3.21	4.48	5.32	6.22	8.18
30	15	2.17	3.99	5.51	6.65	7.75	10.22
40	15	3.08	5.49	7.66	9.22	10.76	14.16
50	15	3.95	6.91	9.73	11.76	13.71	18.04
60	15	4.78	8.39	11.80	14.24	16.56	21.74
70	15	5.57	9.82	13.82	16.63	19.38	25.98
80	15	6.32	11.19	15.77	19.01	22.09	30.33
90	15	7.03	12.59	17.67	21.29	24.95	34.66
100	15	7.76	13.95	19.58	23.51	28.11	39.04

The above references are JGMA standard.

动力换算公式请确认册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
0.30	0.60	0.87	1.05	1.22	1.63	1.91
0.48	0.93	1.33	1.59	1.88	2.50	2.95
0.70	1.33	1.87	2.27	2.67	3.57	4.20
1.25	2.30	3.26	3.96	4.66	6.22	7.62
1.94	3.49	5.01	6.11	7.18	9.58	11.21
2.75	4.99	7.14	8.70	10.20	13.58	16.37
3.70	6.72	9.63	11.70	13.75	18.69	22.61
4.76	8.68	12.45	15.16	17.75	24.73	29.91
5.93	10.93	15.62	19.01	22.46	31.65	38.28
7.24	13.42	19.16	23.24	28.01	39.46	47.73

研磨直齿轮 (SGE 系列)
GROUND SPUR GEARS

模数
MODULE

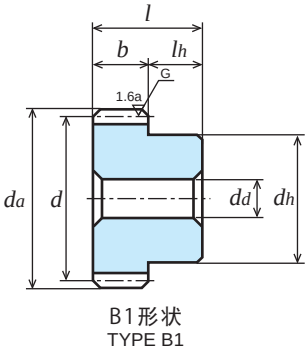
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压力角20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火HRC47 ~ 53
JIS B 1702-1 (ISO) 7 级
System of accuracy : JIS B 1702-1 (ISO) class 7



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



ISO C45 机械构造用碳素钢 (JIS G 4051)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter dd(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(kg)
● SGE2S 20B — 2008	20	φ 40	φ 44	B1	20	φ 8	φ 34	20	40	0.3
● SGE2S 25B — 2008	25	φ 50	φ 54	B1	20	φ 8	φ 40	20	40	0.5
● SGE2S 30B — 2010	30	φ 60	φ 64	B1	20	φ 10	φ 50	20	40	0.7
● SGE2S 40B — 2010	40	φ 80	φ 84	B1	20	φ 10	φ 60	20	40	1.2
● SGE2S 50B — 2012	50	φ 100	φ 104	B1	20	φ 12	φ 70	20	40	1.8
● SGE2S 60B — 2012	60	φ 120	φ 124	B1	20	φ 12	φ 85	20	40	2.6
● SGE2S 70B — 2015	70	φ 140	φ 144	B1	20	φ 15	φ 100	20	40	3.6
● SGE2S 80B — 2015	80	φ 160	φ 164	B1	20	φ 15	φ 115	20	40	4.7
● SGE2S 90B — 2015	90	φ 180	φ 184	B1	20	φ 15	φ 130	20	40	6.0
● SGE2S 100B — 2015	100	φ 200	φ 204	B1	20	φ 15	φ 140	20	40	7.3

标有 ● 的产品为新产品。
Products with ● marks are new item.

Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

容许传达能力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min					
		400	800	1,200	1,500	1,800	2,500
20	20	2.92	5.47	7.61	9.07	10.61	13.96
25	20	4.00	7.25	9.99	12.09	14.07	18.59
30	20	5.02	8.95	12.48	15.03	17.54	23.09
40	20	7.02	12.31	17.28	20.93	24.36	32.05
50	20	8.91	15.70	22.09	26.58	30.99	41.20
60	20	10.70	18.94	26.69	32.18	37.39	51.34
70	20	12.39	22.24	31.22	37.57	44.34	61.58
80	20	14.17	25.43	35.66	43.13	51.76	71.89
90	20	15.92	28.48	39.89	49.29	59.15	82.16
100	20	17.63	31.51	44.42	55.52	66.63	92.54

The above references are JGMA standard.

动力换算公式请确认册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
0.73	1.41	2.00	2.41	2.84	3.78	4.46
1.16	2.17	3.04	3.72	4.36	5.84	6.85
1.67	3.06	4.34	5.28	6.21	8.30	9.75
2.92	5.29	7.56	9.24	10.84	14.47	17.05
4.49	8.16	11.68	14.19	16.68	22.50	27.22
6.34	11.57	16.60	20.21	23.67	32.97	39.88
8.45	15.65	22.36	27.17	32.32	45.53	55.08
10.96	20.27	28.94	35.34	42.75	60.23	72.86
13.79	25.42	36.25	45.23	54.71	77.09	93.25
16.91	31.14	44.68	56.40	68.23	96.13	116.29

目次表 CONTENTS	齿轮信息 GEAR INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿 GROUND SPUR GEARS	直齿 SPUR GEARS	内齿 INTERNAL GEARS	研磨齿 GROUND RACKS	齿 RACKS	斜齿 HELIC GEARS AND SCREW GEARS	蜗轮·蜗杆 WORMS AND WORM WHEELS	锥齿 BEVEL GEARS	技术资料 REFERENCE DATA
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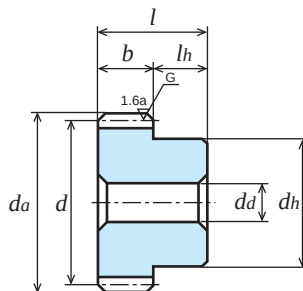
研磨直齿轮 (SGE 系列)

GROUND SPUR GEARS

模数
MODULE

2.5 压力角20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火HRC47 ~ 53
JIS B 1702-1 (ISO) 7 级
System of accuracy : JIS B 1702-1 (ISO) class 7



B1 形状
TYPE B1

ISO C45 机械构造用碳素钢 (JIS G 4051)

Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter dd(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	重 量 Weight W(kg)
SGE2.5S 20B - 2510	20	φ 50	φ 55	B1	25	φ10	φ 42	20	45	0.6
SGE2.5S 25B - 2510	25	φ 62.5	φ 67.5	B1	25	φ10	φ 52	20	45	0.9
SGE2.5S 30B - 2512	30	φ 75	φ 80	B1	25	φ12	φ 65	20	45	1.3
SGE2.5S 40B - 2512	40	φ100	φ105	B1	25	φ12	φ 70	20	45	2.1
SGE2.5S 50B - 2515	50	φ125	φ130	B1	25	φ15	φ 90	20	45	3.3
SGE2.5S 60B - 2515	60	φ150	φ155	B1	25	φ15	φ105	20	45	4.8
SGE2.5S 70B - 2520	70	φ175	φ180	B1	25	φ20	φ125	20	45	6.5
SGE2.5S 80B - 2520	80	φ200	φ205	B1	25	φ20	φ140	20	45	8.5

标有●的产品为新产品。
Products with ● marks are new item.

Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

容许传达能力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
20	25	5.68	10.28	14.18	17.16	19.97	26.38	30.67
25	25	7.61	13.51	18.89	22.72	26.56	34.93	40.73
30	25	9.52	16.68	23.49	28.39	33.09	43.52	50.51
40	25	13.20	23.25	32.71	39.35	45.89	61.00	73.20
50	25	16.62	29.53	41.53	50.10	58.15	80.47	96.56
60	25	19.94	35.84	50.29	60.38	72.19	100.27	120.32
70	25	23.40	41.90	58.71	72.16	86.59	120.27	144.32
80	25	26.76	47.82	67.40	84.25	101.10	140.41	168.49

The above references are JGMA standard.

动力换算公式请确认册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
400	800	1,200	1,500	1,800	2,500	3,000
1.45	2.71	3.80	4.65	5.45	7.31	8.56
2.26	4.13	5.88	7.14	8.41	11.22	13.19
3.23	5.82	8.35	10.19	11.97	15.97	18.69
5.61	10.20	14.60	17.74	20.86	28.13	34.02
8.56	15.67	22.43	27.33	31.97	44.89	54.30
12.07	22.36	31.94	38.73	46.68	65.77	79.56
16.31	30.11	42.94	53.30	64.47	90.84	109.88
21.13	38.93	55.85	70.50	85.28	120.17	145.36

研磨直齿轮 (SGE 系列)

GROUND SPUR GEARS

模数
MODULE

3

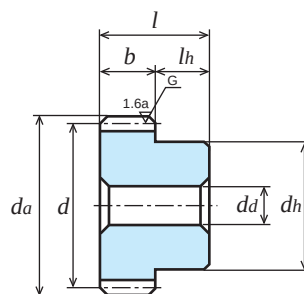
压力角20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿部高频淬火HRC47 ~ 53
JIS B 1702-1 (ISO) 7 级
System of accuracy : JIS B 1702-1 (ISO) class 7



订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.



B1 形状
TYPE B1

ISO C45 机械构造用碳素钢 (JIS G 4051)

Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter dd(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(kg)
● SGE3S 20B — 3012	20	φ 60	φ 66	B1	30	φ12	φ 52	20	50	0.9
● SGE3S 25B — 3012	25	φ 75	φ 81	B1	30	φ12	φ 60	20	50	1.4
● SGE3S 30B — 3012	30	φ 90	φ 96	B1	30	φ12	φ 75	20	50	2.1
● SGE3S 40B — 3015	40	φ120	φ126	B1	30	φ15	φ 85	20	50	3.5
● SGE3S 50B — 3015	50	φ150	φ156	B1	30	φ15	φ105	20	50	5.4
● SGE3S 60B — 3015	60	φ180	φ186	B1	30	φ15	φ130	20	50	8.0
● SGE3S 70B — 3020	70	φ210	φ216	B1	30	φ20	φ150	20	50	10.8
● SGE3S 80B — 3020	80	φ240	φ246	B1	30	φ20	φ170	20	50	14.1

标有 ● 的产品为新产品。
Products with ● marks are new item.

Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

容许传达能力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		400	800	1,200	1,500	1,800	2,500	3,000
20	30	9.61	17.12	23.88	28.75	33.56	44.16	51.50
25	30	12.83	22.47	31.65	38.25	44.59	58.65	68.07
30	30	15.98	28.09	39.47	47.64	55.43	72.74	86.96
40	30	21.97	38.89	54.81	66.08	76.77	105.40	126.48
50	30	27.65	49.70	69.74	83.74	100.12	139.05	166.86
60	30	33.58	60.06	84.13	103.96	124.75	173.26	207.92
70	30	39.28	70.25	99.75	124.69	149.63	207.82	249.39
80	30	44.76	80.24	116.46	145.58	174.69	242.63	291.15

The above references are JGMA standard.

动力换算公式请确认册的KG综合产品目录的P26页。Please refer to the conversion formulas of power on page26 in KG CATALOGUE.

齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min							
400	800	1,200	1,500	1,800	2,500	3,000	
2.50	4.59	6.52	7.92	9.32	12.44	14.63	
3.87	6.99	10.02	12.23	14.36	19.17	22.43	
5.51	9.98	14.28	17.40	20.40	27.16	32.74	
9.51	17.36	24.90	30.31	35.50	49.45	59.82	
14.48	26.84	38.33	46.48	56.01	78.92	95.47	
20.68	38.13	54.37	67.85	82.07	115.64	139.88	
27.86	51.36	74.24	93.71	113.35	159.72	193.20	
35.97	66.47	98.20	123.96	149.95	211.28	255.57	

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直齿轮

Spur Gears

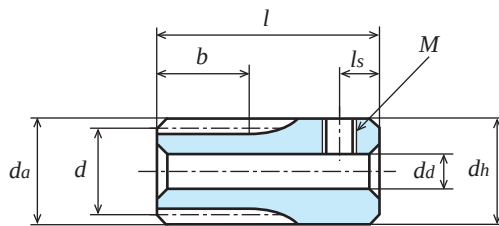
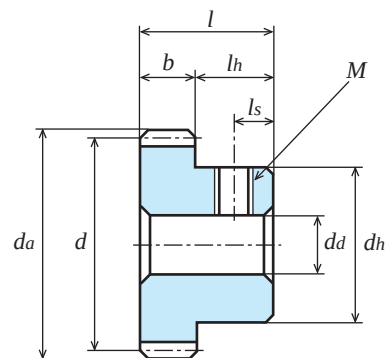
产品型号的解读方法 Reference of Catalogue Numbers

S1S25A - 0806F
= 0806
S1S25B - 0806F
+ 0806
* 0806

齿轮的种类 Kind of Gear	模数 Module	材料 Material	齿数 Number of Teeth	形状 Type	内径处理 Bores Processed	齿宽 Face Width	孔径 Bore Diameter	追加工用产品 Gear for the item of additional machining
S: 直齿轮 Spur gears	m: 0.3, 0.5 0.75, 0.8 1.0, 1.25 1.5, 2.0 2.5, 3.0 4.0, 5.0	S: S45C (C45) 碳素钢 Carbon Steel B: 黄铜 Brass D: 聚缩醛树脂 (机械加工品) Poly Acetal (Machined) SU: 不锈钢 Stainless Steel DM: 聚缩醛树脂 (射出成型品) Poly Acetal (Injection molded) DB: 聚缩醛树脂 (带有黄铜衬套) Acetal (with Brass Bushing)	齿数z: 8 ~ 120	A: 无轮毂 Hub less. B: 单侧轮毂 With Hub on one side. BF: 单侧轮毂, 追加工用产品 Gera for the item of additional machining. L: 双侧实心轴 With Solid shaft on both side. K: 圆筒状齿轮 Bar of gear.	[一]: 除K1和L1型, 齿轮无键槽/ 无螺纹孔 Gear without key way / without threaded hole, except types of K1 and L1. [+]: 齿轮带有螺 纹孔 / 带有 固定螺钉 / 无固定螺钉 Gear with threaded hole / with set screw. / without set screw. (Please refer the details) [*]: 齿轮带有两 个螺纹孔 / 带有两个固 定螺钉 Gear with two threaded holes / with two set screws. [=]: 齿轮带有键 槽 / 带有键 Gear with key way / with key. [#]: 齿轮带有键槽 / 带有键带有螺 纹孔 / 带有固 定螺钉。 Gear with key way and threaded hole / with key and screw.	单位: 毫米 Dimension: millimeter KG 标准齿轮的齿宽 有标准齿宽 (轻负 荷) 和加宽齿宽 (重 负荷)。 您可以在我们的产 品中选择符合您条 件的产品。 Types of Face Width: We have Wide-face width for Heavy load, and Standard-face width for Light load.	单位: mm Dimension: millimeter	F型齿轮。可作为 追加工用产品来 使用。 F type and N type gears are meant for additional machining. H: 齿部高频淬 火 HRC47 ~ 53 Complete with high frequency induction hardening (HRC47 ~ 53).

直齿轮

SPUR GEARS

模数
MODULE0.3 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTHJIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1 (ISO) class 9K2形状
TYPE K2B1形状
TYPE B1材料 : 黄铜 (ISO CuZn39Pb3)
Material : Brass (ISO CuZn39Pb3)单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H8)$	轮毂 外径 Hub Diameter d_h	轮毂 长度 Hub Projection l_h	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight $W(g)$
										M	l_s	
S30B 14K + 0402	14	ϕ 4.2	ϕ 4.8	K2	4	ϕ 2	ϕ 5	8	12	M1.6	2.5	1.5
S30B 15K + 0402	15	ϕ 4.5	ϕ 5.1	K2	4	ϕ 2	ϕ 5.5	8	12	M1.6	2.5	1.8
S30B 16K + 0402	16	ϕ 4.8	ϕ 5.4	K2	4	ϕ 2	ϕ 5.5	8	12	M1.6	2.5	1.9
S30B 18K + 0402	18	ϕ 5.4	ϕ 6	K2	4	ϕ 2	ϕ 6	8	12	M2	2.5	2.3
S30B 20B + 0302	20	ϕ 6	ϕ 6.6	B1	3.2	ϕ 2	ϕ 5	4.8	8	M1.6	2.5	1.3
S30B 24B + 0302	24	ϕ 7.2	ϕ 7.8	B1	3.2	ϕ 2	ϕ 6	4.8	8	M2	2.5	2.0
S30B 25B + 0302	25	ϕ 7.5	ϕ 8.1	B1	3.2	ϕ 2	ϕ 6	4.8	8	M2	2.5	2.1
S30B 28B + 0302	28	ϕ 8.4	ϕ 9	B1	3.2	ϕ 2	ϕ 7	4.8	8	M2	2.5	2.8
S30B 30B + 0302	30	ϕ 9	ϕ 9.6	B1	3.2	ϕ 2	ϕ 8	4.8	8	M2	2.5	3.5
S30B 32B + 0202	32	ϕ 9.6	ϕ 10.2	B1	2	ϕ 2	ϕ 8	6	8	M2	3	3.5
S30B 35B + 0202	35	ϕ 10.5	ϕ 11.1	B1	2	ϕ 2	ϕ 8	6	8	M2	3	3.8
S30B 36B + 0203	36	ϕ 10.8	ϕ 11.4	B1	2	ϕ 3	ϕ 9	6	8	M3	3	4.2
S30B 40B + 0203	40	ϕ 12	ϕ 12.6	B1	2	ϕ 3	ϕ 10	6	8	M3	3	5.3
S30B 45B + 0203	45	ϕ 13.5	ϕ 14.1	B1	2	ϕ 3	ϕ 10	6	8	M3	3	5.8
S30B 48B + 0203	48	ϕ 14.4	ϕ 15	B1	2	ϕ 3	ϕ 10	6	8	M3	3	6.1

标号[+]表示齿轮带有螺纹孔/无固定螺钉。

[+] : Gear with threaded hole / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S30B 14K + 0402	0.03	0.32	0.64	1.27	2.55	3.82	4.78
S30B 15K + 0402	0.04	0.36	0.71	1.43	2.86	4.29	5.36
S30B 16K + 0402	0.04	0.40	0.79	1.59	3.17	4.76	5.95
S30B 18K + 0402	0.05	0.48	0.95	1.91	3.81	5.72	7.15
S30B 20B + 0302	0.04	0.45	0.90	1.79	3.58	5.37	6.71
S30B 24B + 0302	0.06	0.58	1.17	2.33	4.67	7.00	8.75
S30B 25B + 0302	0.06	0.62	1.24	2.47	4.95	7.42	9.27
S30B 28B + 0302	0.07	0.72	1.45	2.89	5.79	8.68	10.86
S30B 30B + 0302	0.08	0.79	1.59	3.18	6.36	9.54	11.92
S30B 32B + 0202	0.05	0.54	1.08	2.17	4.33	6.50	8.12
S30B 35B + 0202	0.06	0.61	1.22	2.44	4.88	7.32	9.15
S30B 36B + 0203	0.06	0.63	1.27	2.53	5.06	7.59	9.49
S30B 40B + 0203	0.07	0.72	1.45	2.90	5.80	8.70	10.87
S30B 45B + 0203	0.08	0.84	1.68	3.36	6.72	10.09	12.49
S30B 48B + 0203	0.09	0.91	1.82	3.64	7.29	10.93	13.40

上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

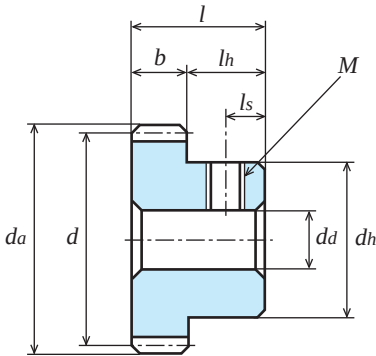
对应 RoHS 指令

从2006年11月份开始生产提供, 对应欧洲RoHS指令的产品。
We supplied the KG-products with RoHS compliance of EU to all our valued customers since November 2006

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1(ISO) class 9



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 黄铜 (ISO CuZn39Pb3)
Material : Brass (ISO CuZn39Pb3)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H8)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	螺 纹 孔 Set Screw		重 量 Weight W(g)
										M	ls	
S30B 50B + 0203	50	φ15	φ15.6	B1	2	φ3	φ10	6	8	M3	3	6.4
S30B 56B + 0203	56	φ16.8	φ17.4	B1	2	φ3	φ10	6	8	M3	3	7.1
S30B 60B + 0203	60	φ18	φ18.6	B1	2	φ3	φ10	6	8	M3	3	7.7
S30B 64B + 0203	64	φ19.2	φ19.8	B1	2	φ3	φ10	6	8	M3	3	8.3
S30B 66B + 0203	66	φ19.8	φ20.4	B1	2	φ3	φ10	6	8	M3	3	8.6
S30B 70B + 0203	70	φ21	φ21.6	B1	2	φ3	φ10	6	8	M3	3	9.3
S30B 72B + 0203	72	φ21.6	φ22.2	B1	2	φ3	φ10	6	8	M3	3	9.6
S30B 75B + 0203	75	φ22.5	φ23.1	B1	2	φ3	φ10	6	8	M3	3	10.1
S30B 80B + 0203	80	φ24	φ24.6	B1	2	φ3	φ10	6	8	M3	3	11.1
S30B 90B + 0203	90	φ27	φ27.6	B1	2	φ3	φ10	6	8	M3	3	13.1
S30B 96B + 0203	96	φ28.8	φ29.4	B1	2	φ3	φ10	6	8	M3	3	14.4
S30B 100B + 0203	100	φ30	φ30.6	B1	2	φ3	φ10	6	8	M3	3	15.4
S30B 108B + 0203	108	φ32.4	φ33	B1	2	φ3	φ10	6	8	M3	3	17.4
S30B 120B + 0203	120	φ36	φ36.6	B1	2	φ3	φ10	6	8	M3	3	20.7

标号[+]表示齿轮带有螺纹孔/无固定螺钉。
[+] : Gear with threaded hole / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产 品 型 号 Catalogue Numbers	旋 转 速 度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S30B 50B + 0203	0.10	0.96	1.92	3.83	7.66	11.49	13.99
S30B 56B + 0203	0.11	1.10	2.20	4.40	8.80	13.09	15.74
S30B 60B + 0203	0.12	1.20	2.39	4.78	9.56	14.07	16.88
S30B 64B + 0203	0.13	1.29	2.58	5.16	10.33	15.02	17.99
S30B 66B + 0203	0.13	1.34	2.68	5.36	10.71	15.50	18.54
S30B 70B + 0203	0.14	1.43	2.87	5.74	11.48	16.43	19.61
S30B 72B + 0203	0.15	1.48	2.97	5.93	11.87	16.89	20.14
S30B 75B + 0203	0.16	1.56	3.11	6.22	12.44	17.58	20.92
S30B 80B + 0203	0.17	1.68	3.35	6.71	13.40	18.69	22.20
S30B 90B + 0203	0.19	1.92	3.83	7.67	15.04	20.83	24.62
S30B 96B + 0203	0.21	2.06	4.13	8.25	16.01	22.07	26.02
S30B 100B + 0203	0.22	2.16	4.32	8.64	16.64	22.89	26.93
S30B 108B + 0203	0.24	2.36	4.71	9.42	17.88	24.46	28.68
S30B 112B + 0203	0.25	2.45	4.91	9.81	18.49	25.23	29.54
S30B 120B + 0203	0.26	2.65	5.30	10.60	19.69	26.73	31.19

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

对应 RoHS 指令

从2006年11月份开始生产提供，对应欧洲RoHS指令的产品。
We supplied the KG-products with RoHS compliance of EU to all our valued customers since November 2006

Memo

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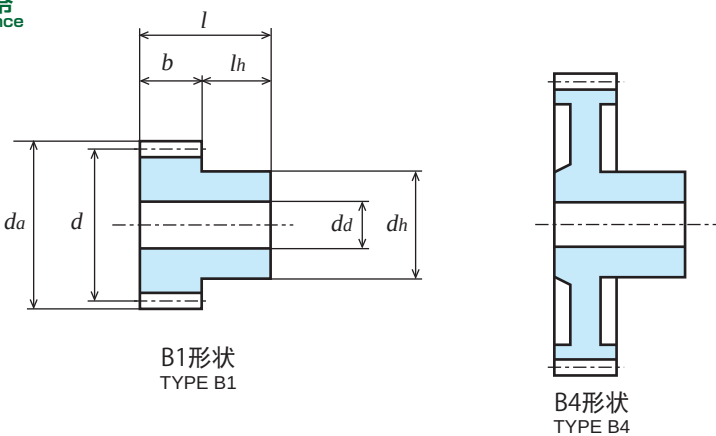
直齿轮
SPUR GEARS

模数
MODULE 0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 11级
System of accuracy : JIS B 1702-1(ISO) class 11



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料: 聚缩醛树脂 (黑色) 射出成型品 尽量不要对内孔进行追加工。孔面有可能会出...
Material: Poly Acetal (Black) Injection Molded gears Additional machining to bore (da) is not advisable because 'voids' may be occur. 单位: mm Dimensions: mm

Table with 11 columns: 产品型号, 齿数, 分度圆直径, 齿顶圆直径, 形状, 齿宽, 孔径, 轮毂外径, 轮毂长度, 全长, 重量. It lists various gear models like S50DM 20B-0403 up to S50DM 100B-0303.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

Table with 8 columns: 产品型号, 10, 100, 200, 400, 800, 1,200, 1,500. It shows bending strength values for different gear models across various speeds.

上述数值是Lewis公式, 仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

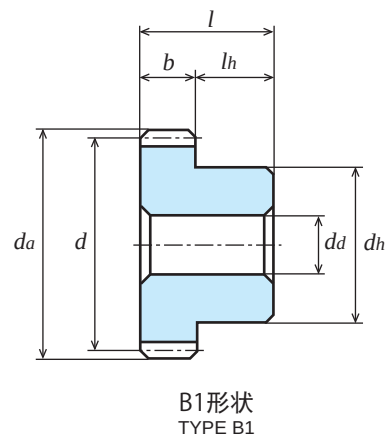
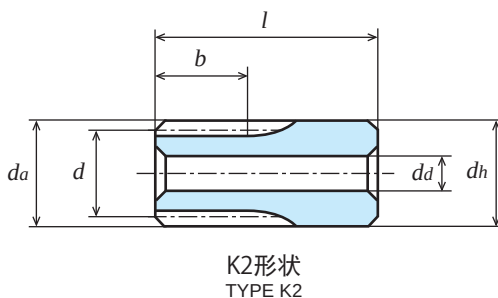
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直齿轮 SPUR GEARS

模数
MODULE

0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



材料 : 聚缩醛树脂 (白色)
Material : Poly Acetal (White)

机械加工齿轮
Machined Gears

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter d_d	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
S50D 14K - 0803	14	$\phi 7$	$\phi 8$	K2	8	$\phi 3$	$\phi 9$	10	18	1.15
S50D 15K - 0803	15	$\phi 7.5$	$\phi 8.5$	K2	8	$\phi 3$	$\phi 9$	10	18	1.22
S50D 16K - 0803	16	$\phi 8$	$\phi 9$	K2	8	$\phi 3$	$\phi 9$	10	18	1.29
S50D 18K - 0803	18	$\phi 9$	$\phi 10$	K2	8	$\phi 3$	$\phi 10$	10	18	1.65
S50D 20B - 0303	20	$\phi 10$	$\phi 11$	B1	3	$\phi 3$	$\phi 8$	5	8	0.61
S50D 24B - 0303	24	$\phi 12$	$\phi 13$	B1	3	$\phi 3$	$\phi 8$	5	8	0.75
S50D 25B - 0303	25	$\phi 12.5$	$\phi 13.5$	B1	3	$\phi 3$	$\phi 8$	5	8	0.79
S50D 28B - 0303	28	$\phi 14$	$\phi 15$	B1	3	$\phi 3$	$\phi 8$	5	8	0.93
S50D 30B - 0303	30	$\phi 15$	$\phi 16$	B1	3	$\phi 3$	$\phi 8$	5	8	0.97
S50D 32B - 0303	32	$\phi 16$	$\phi 17$	B1	3	$\phi 3$	$\phi 8$	5	8	1.13
S50D 36B - 0303	36	$\phi 18$	$\phi 19$	B1	3	$\phi 3$	$\phi 8$	5	8	1.35
S50D 40B - 0303	40	$\phi 20$	$\phi 21$	B1	3	$\phi 3$	$\phi 10$	5	8	1.81

附带波形弹簧销, 标称直径为 $\phi 1$ (材质: 不锈钢)。
Gear with Corrugated spring (SUS) as dimension of $\phi 1.0$

直齿轮
SPUR GEARS

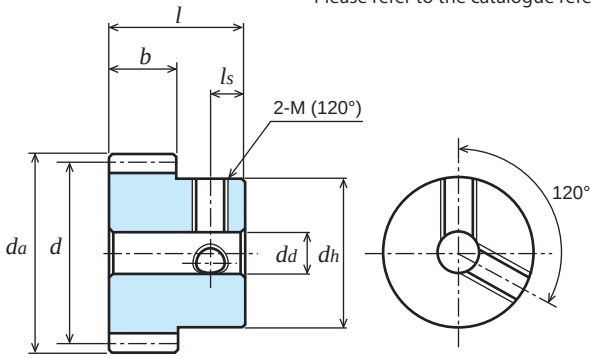
模数
MODULE

0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 聚缩醛树脂 (白色)
Material : Poly Acetal (White)

机械加工齿轮
Machined Gears

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	螺 纹 孔 Set Screw		重 量 Weight W(g)
										2-M(120°)	ls	
S50D 14K * 0803	14	φ 7	φ 8	K2	8	φ3	φ 9	10	18	2-M3	3	1.10
S50D 15K * 0803	15	φ 7.5	φ 8.5	K2	8	φ3	φ 9	10	18	2-M3	3	1.17
S50D 16K * 0803	16	φ 8	φ 9	K2	8	φ3	φ 9	10	18	2-M3	3	1.24
S50D 18K * 0803	18	φ 9	φ10	K2	8	φ3	φ10	10	18	2-M3	3	1.59
S50D 20B * 0303	20	φ10	φ11	B1	3	φ3	φ 8	5	8	2-M3	3	0.57
S50D 24B * 0303	24	φ12	φ13	B1	3	φ3	φ10	5	8	2-M3	3	0.90
S50D 25B * 0303	25	φ12.5	φ13.5	B1	3	φ3	φ10	5	8	2-M3	3	0.94
S50D 28B * 0303	28	φ14	φ15	B1	3	φ3	φ12	5	8	2-M3	3	1.30
S50D 30B * 0303	30	φ15	φ16	B1	3	φ3	φ12	5	8	2-M3	3	1.39
S50D 32B * 0303	32	φ16	φ17	B1	3	φ3	φ14	5	8	2-M3	3	1.77
S50D 36B * 0303	36	φ18	φ19	B1	3	φ3	φ15	5	8	2-M3	3	2.15
S50D 40B * 0303	40	φ20	φ21	B1	3	φ3	φ15	5	8	2-M3	3	2.40

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。
[*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产 品 型 号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S50D 14K * 0803	0.22	2.24	4.48	8.95	17.89	26.82	33.50
S50D 15K * 0803	0.24	2.40	4.80	9.59	19.17	28.73	35.88
S50D 16K * 0803	0.26	2.56	5.12	10.23	20.44	30.64	38.27
S50D 18K * 0803	0.29	2.88	5.76	11.51	22.99	34.45	43.03
S50D 20B * 0303	0.12	1.20	2.40	4.79	9.58	14.35	17.92
S50D 24B * 0303	0.17	1.74	3.48	6.96	13.90	20.82	25.99
S50D 25B * 0303	0.18	1.81	3.63	7.25	14.47	21.68	27.07
S50D 28B * 0303	0.20	2.03	4.06	8.12	16.21	24.27	30.30
S50D 30B * 0303	0.22	2.18	4.35	8.70	17.36	25.99	32.45
S50D 32B * 0303	0.23	2.32	4.64	9.27	18.51	27.71	34.59
S50D 36B * 0303	0.26	2.61	5.22	10.43	20.82	31.16	38.88
S50D 40B * 0303	0.29	2.90	5.80	11.59	23.12	34.59	43.16

上述数值是Lewis公式, 仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

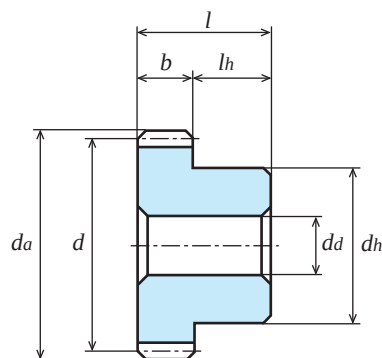
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直齿轮 SPUR GEARS

模数
MODULE

0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



B1形状
TYPE B1

材料 : 聚缩醛树脂 (白色)
Material : Poly Acetal (White)

机械加工齿轮
Machined Gears

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter d_d	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
S50D 45B - 0303	45	$\phi 22.5$	$\phi 23.5$	B1	3	$\phi 3$	$\phi 10$	5	8	2.17
S50D 50B - 0303	50	$\phi 25$	$\phi 26$	B1	3	$\phi 3$	$\phi 10$	5	8	2.56
S50D 56B - 0303	56	$\phi 28$	$\phi 29$	B1	3	$\phi 3$	$\phi 10$	5	8	3.09
S50D 60B - 0303	60	$\phi 30$	$\phi 31$	B1	3	$\phi 3$	$\phi 10$	5	8	3.40
S50D 64B - 0303	64	$\phi 32$	$\phi 33$	B1	3	$\phi 3$	$\phi 10$	5	8	3.90
S50D 70B - 0304	70	$\phi 35$	$\phi 36$	B1	3	$\phi 4$	$\phi 12$	5	8	4.70
S50D 72B - 0304	72	$\phi 36$	$\phi 37$	B1	3	$\phi 4$	$\phi 12$	5	8	4.99
S50D 80B - 0304	80	$\phi 40$	$\phi 41$	B1	3	$\phi 4$	$\phi 12$	5	8	6.01
S50D 90B - 0305	90	$\phi 45$	$\phi 46$	B1	3	$\phi 5$	$\phi 14$	5	8	7.64
S50D 100B - 0305	100	$\phi 50$	$\phi 51$	B1	3	$\phi 5$	$\phi 14$	5	8	9.22
S50D 120B - 0305	120	$\phi 60$	$\phi 61$	B1	3	$\phi 5$	$\phi 14$	5	8	12.90

附带波形弹簧销, 标称直径为 $\phi 1$ (材质: 不锈钢)。
Gear with Corrugated spring (SUS) as dimension of $\phi 1.0$

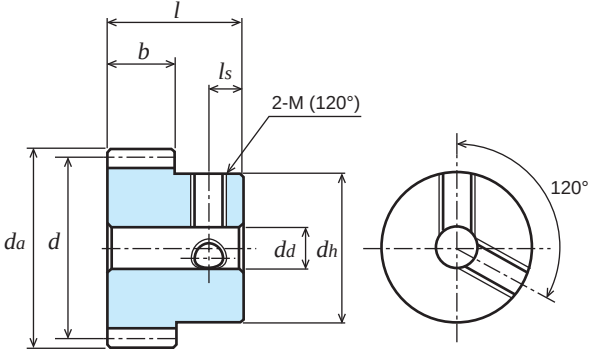
直齿轮
SPUR GEARS

模数
MODULE 0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 聚缩醛树脂 (白色)
Material : Poly Acetal (White)
机械加工齿轮
Machined Gears
单位 : mm
Dimensions : mm

Table with 13 columns: Product Model, Number of Teeth, Reference Diameter, Tip Diameter, Type, Face Width, Bore Diameter, Hub Outer Diameter, Hub Projection, Overall Length, Set Screw (2-M(120°), ls), Weight. Rows include models S50D 45B * 0303 to S50D 120B * 0305.

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。
[*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

Table with 8 columns: Product Model, and 7 columns for rotational speeds (10, 100, 200, 400, 800, 1,200, 1,500 rev/min). Rows include models S50D 45B * 0303 to S50D 120B * 0305.

上述数值是Lewis公式，仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

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技术资料
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直齿轮 SPUR GEARS

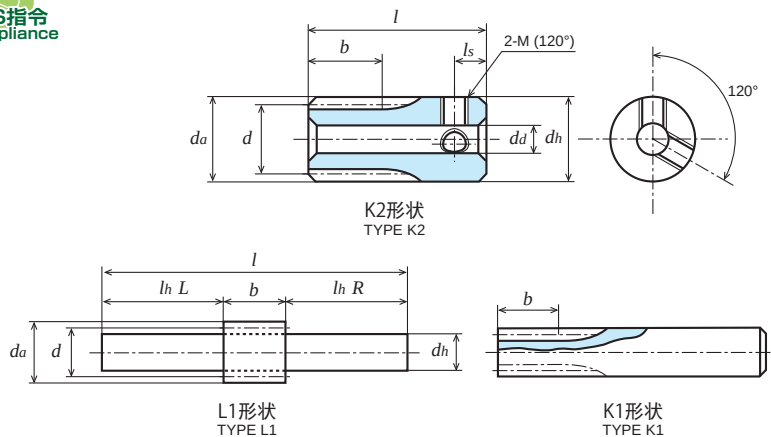
模数
MODULE

0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1(ISO) class 9



新产品带有两个螺纹孔 (120°)
New item with two threaded holes (120°)



材料 : 不锈钢 SUS304 (JIS G 4303)
Material : Stainless Steel SUS304 (JIS G 4303)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H8)$	轮毂 外 径 Hub Diameter d_h	轮毂 长 度 Hub Projection l_h	全 长 Overall Length l	螺纹孔 Set Screw		重 量 Weight $W(g)$
										2-M(120°)	l_s	
S50SU 10K — 1006	10	$\phi 5$	$\phi 6$	K1	10	-	$\phi 6$	45	55	-	-	11.7
S50SU 12K — 1007	12	$\phi 6$	$\phi 7$	K1	10	-	$\phi 7$	45	55	-	-	16.0
S50SU 14K — 1008	14	$\phi 7$	$\phi 8$	K1	10	-	$\phi 8$	45	55	-	-	21.0
S50SU 15K — 1008	15	$\phi 7.5$	$\phi 8.5$	K1	10	-	$\phi 8.5$	45	55	-	-	23.8
S50SU 16K * 0804	16	$\phi 8$	$\phi 9$	K2	8	$\phi 4$	$\phi 9$	10	18	2-M3	3	6.2
S50SU 16L — 0805	16	$\phi 8$	$\phi 9$	L1	8	-	$\phi 5(h9)$	L22 R50	80	-	-	14.4
S50SU 18K * 0804	18	$\phi 9$	$\phi 10$	K2	8	$\phi 4$	$\phi 10$	10	18	2-M3	3	8.2
S50SU 18L — 0806	18	$\phi 9$	$\phi 10$	L1	8	-	$\phi 6(h9)$	L22 R50	80	-	-	20.2
S50SU 20K * 0804	20	$\phi 10$	$\phi 11$	K2	8	$\phi 4$	$\phi 11$	10	18	2-M3	3	10.4
S50SU 20L — 0806	20	$\phi 10$	$\phi 11$	L1	8	-	$\phi 6(h9)$	L22 R50	80	-	-	21.1
S50SU 24K * 0805	24	$\phi 12$	$\phi 13$	K2	8	$\phi 5$	$\phi 13$	10	18	2-M3	3	14.5
S50SU 25K * 0805	25	$\phi 12.5$	$\phi 13.5$	K2	8	$\phi 5$	$\phi 13.5$	10	18	2-M3	3	15.9
S50SU 28K * 0805	28	$\phi 14$	$\phi 15$	K2	8	$\phi 5$	$\phi 15$	10	18	2-M3	3	20.5
S50SU 30K * 0806	30	$\phi 15$	$\phi 16$	K2	8	$\phi 6$	$\phi 16$	10	18	2-M3	3	22.7

标号[*]表示齿轮带有螺纹孔/无固定螺钉。[*]: Gear with two threaded holes / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S50SU 10K — 1006	0.30	3.03	6.06	12.12	24.24	36.37	45.46
S50SU 12K — 1007	0.42	4.24	8.49	16.98	33.96	50.93	63.67
S50SU 14K — 1008	0.55	5.53	11.07	22.13	44.26	66.39	82.99
S50SU 15K — 1008	0.62	6.20	12.40	24.80	49.60	74.41	93.01
S50SU 16K * 0804	0.55	5.50	11.01	22.02	44.04	66.06	82.57
S50SU 16L — 0805	0.55	5.50	11.01	22.02	44.04	66.06	82.57
S50SU 18K * 0804	0.66	6.62	13.24	26.47	52.94	79.41	99.26
S50SU 18L — 0806	0.66	6.62	13.24	26.47	52.94	79.41	99.26
S50SU 20K * 0804	0.78	7.77	15.54	31.08	62.16	93.24	116.55
S50SU 20L — 0806	0.78	7.77	15.54	31.08	62.16	93.24	116.55
S50SU 24K * 0805	1.01	10.13	20.26	40.52	81.04	121.55	151.94
S50SU 25K * 0805	1.07	10.73	21.46	42.93	85.86	128.79	160.96
S50SU 28K * 0805	1.26	12.56	25.13	50.26	100.52	150.77	185.69
S50SU 30K * 0806	1.38	13.80	27.59	55.18	110.37	165.55	201.56

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮
SPUR GEARS

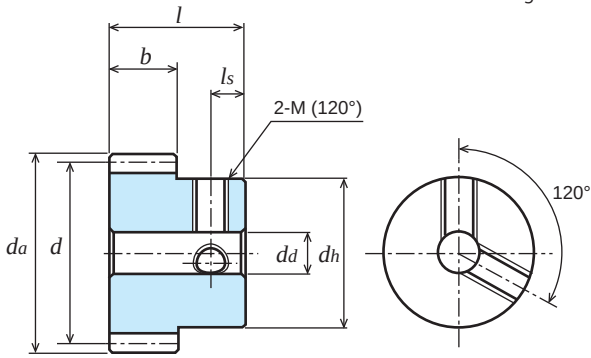
模数
MODULE

0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1(ISO) class 9



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 不锈钢 SUS304 (JIS G 4303)
Material : Stainless Steel SUS304 (JIS G 4303)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H8)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight W(g)
										2-M(120°)	ls	
S50SU 32B * 0506	32	φ16	φ17	B1	5	φ 6	φ12	8	13	2-M3	4	12.0
S50SU 36B * 0506	36	φ18	φ19	B1	5	φ 6	φ12	8	13	2-M3	4	14.1
S50SU 40B * 0506	40	φ20	φ21	B1	5	φ 6	φ15	8	13	2-M4	4	20.0
S50SU 45B * 0506	45	φ22.5	φ23.5	B1	5	φ 6	φ15	8	13	2-M4	4	23.3
S50SU 48B * 0506	48	φ24	φ25	B1	5	φ 6	φ15	8	13	2-M4	4	25.5
S50SU 50B * 0506	50	φ25	φ26	B1	5	φ 6	φ15	8	13	2-M4	4	27.0
S50SU 54B * 0506	54	φ27	φ28	B1	5	φ 6	φ15	8	13	2-M4	4	30.3
S50SU 56B * 0506	56	φ28	φ29	B1	5	φ 6	φ15	8	13	2-M4	4	32.0
S50SU 60B * 0508	60	φ30	φ31	B1	5	φ 8	φ18	8	13	2-M4	4	38.2
S50SU 64B * 0508	64	φ32	φ33	B1	5	φ 8	φ18	8	13	2-M4	4	42.0
S50SU 70B * 0508	70	φ35	φ36	B1	5	φ 8	φ18	8	13	2-M4	4	48.3
S50SU 72B * 0508	72	φ36	φ37	B1	5	φ 8	φ18	8	13	2-M4	4	50.5
S50SU 75B * 0508	75	φ37.5	φ38.5	B1	5	φ 8	φ18	8	13	2-M4	4	53.9
S50SU 80B * 0510	80	φ40	φ41	B1	5	φ10	φ22	8	13	2-M5	4	64.3
S50SU 90B * 0510	90	φ45	φ46	B1	5	φ10	φ22	8	13	2-M5	4	77.5
S50SU 100B * 0510	100	φ50	φ51	B1	5	φ10	φ25	8	13	2-M5	4	98.9
S50SU 120B * 0510	120	φ60	φ61	B1	5	φ10	φ25	8	13	2-M5	4	133.2

标号[*]表示齿轮带有螺纹孔/无固定螺钉。[*]: Gear with two threaded holes / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S50SU 32B * 0506	0.94	9.40	18.81	37.61	75.22	112.74	135.81
S50SU 36B * 0506	1.10	10.98	21.96	43.93	87.85	129.24	155.10
S50SU 40B * 0506	1.26	12.58	25.16	50.32	100.65	145.37	173.83
S50SU 45B * 0506	1.46	14.59	29.18	58.37	116.74	164.87	196.29
S50SU 48B * 0506	1.58	15.81	31.63	63.25	126.40	176.32	209.39
S50SU 50B * 0506	1.66	16.63	33.26	66.52	132.10	183.82	217.95
S50SU 54B * 0506	1.83	18.27	36.54	73.08	143.35	198.52	234.63
S50SU 56B * 0506	1.91	19.10	38.19	76.38	148.90	205.71	242.76
S50SU 60B * 0508	2.07	20.75	41.50	83.00	159.84	219.81	258.63
S50SU 64B * 0508	2.24	22.41	44.82	89.64	170.57	233.52	273.96
S50SU 70B * 0508	2.49	24.91	49.82	99.65	186.27	253.37	296.02
S50SU 72B * 0508	2.57	25.75	51.50	102.99	191.40	259.80	303.14
S50SU 75B * 0508	2.70	27.01	54.01	108.02	199.00	269.28	313.58
S50SU 80B * 0510	2.91	29.11	58.21	116.42	211.43	284.66	334.02
S50SU 90B * 0510	3.33	33.28	66.56	133.13	235.05	313.46	376.29
S50SU 100B * 0510	3.75	37.50	75.01	148.96	257.73	344.32	417.84
S50SU 120B * 0510	4.60	45.99	91.98	177.13	299.84	412.29	497.84

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

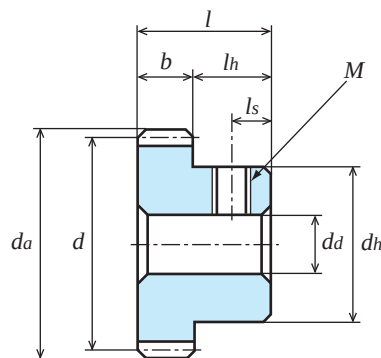
目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿 GROUND SPUR GEARS	直齿 SPUR GEARS	内齿 INTERNAL GEARS	研磨齿 GROUND RACKS	齿 RACKS	斜齿 HELIC GEARS AND SCREW GEARS	蜗轮 WORMS AND WORM WHEELS	锥齿 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



B1形状
TYPE B1

材料 : 黄铜 (ISO CuZn39Pb3)
Material : Brass (ISO CuZn39Pb3)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H8)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight $W(g)$
										M	l_s	
S50B 10K - 1006	10	φ 5	φ 6	K1	10	-	φ 6	45	55	-	-	12.5
S50B 12K - 1007	12	φ 6	φ 7	K1	10	-	φ 7	45	55	-	-	17.1
S50B 14K - 1008	14	φ 7	φ 8	K1	10	-	φ 8	45	55	-	-	22.5
S50B 15K + 0803	15	φ 7.5	φ 8.5	K2	8	φ3	φ 9	10	18	M3	3	7.2
S50B 16K + 0803	16	φ 8	φ 9	K2	8	φ3	φ 9	10	18	M3	3	7.6
S50B 18K + 0803	18	φ 9	φ10	K2	8	φ3	φ10	10	18	M3	3	9.7
S50B 20K + 0803	20	φ10	φ11	K2	8	φ3	φ11	10	18	M3	3	12.2
S50B 20B + 0303	20	φ10	φ11	B1	3	φ3	φ 8.2	5	8	M3	2.5	3.8
S50B 24B + 0303	24	φ12	φ13	B1	3	φ3	φ10	5	8	M3	2.5	5.6
S50B 25B + 0303	25	φ12.5	φ13.5	B1	3	φ3	φ10	5	8	M3	2.5	5.8
S50B 26B + 0303	26	φ13	φ14	B1	3	φ3	φ10	5	8	M3	2.5	6.1
S50B 28B + 0303	28	φ14	φ15	B1	3	φ3	φ10	5	8	M3	2.5	6.6
S50B 30B + 0303	30	φ15	φ16	B1	3	φ3	φ10	5	8	M3	2.5	7.2
S50B 32B + 0303	32	φ16	φ17	B1	3	φ3	φ10	5	8	M3	2.5	7.8
S50B 35B + 0303	35	φ17.5	φ18.5	B1	3	φ3	φ10	5	8	M3	2.5	8.8
S50B 36B + 0303	36	φ18	φ19	B1	3	φ3	φ10	5	8	M3	2.5	9.2

标号[+]表示齿轮带有螺纹孔/无固定螺钉。

[+] : Gear with threaded hole / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min					
	10	100	200	400	800	1,500
S50B 10K - 1006	0.12	1.21	2.42	4.85	9.70	14.55
S50B 12K - 1007	0.17	1.70	3.40	6.79	13.58	20.37
S50B 14K - 1008	0.22	2.21	4.43	8.85	17.71	26.56
S50B 15K + 0803	0.20	1.98	3.97	7.94	15.87	23.81
S50B 16K + 0803	0.22	2.20	4.40	8.81	17.62	26.42
S50B 18K + 0803	0.26	2.65	5.29	10.59	21.18	31.76
S50B 20K + 0803	0.31	3.11	6.22	12.43	24.86	37.30
S50B 20B + 0303	0.12	1.17	2.33	4.66	9.32	13.99
S50B 24B + 0303	0.15	1.52	3.04	6.08	12.16	18.23
S50B 25B + 0303	0.16	1.61	3.22	6.44	12.88	19.32
S50B 26B + 0303	0.17	1.70	3.40	6.80	13.61	20.41
S50B 28B + 0303	0.19	1.88	3.77	7.54	15.08	22.62
S50B 30B + 0303	0.21	2.07	4.14	8.28	16.56	24.83
S50B 32B + 0303	0.23	2.26	4.51	9.03	18.05	27.06
S50B 35B + 0303	0.25	2.54	5.08	10.16	20.32	30.04
S50B 36B + 0303	0.26	2.64	5.27	10.54	21.08	31.02

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

对应 RoHS 指令

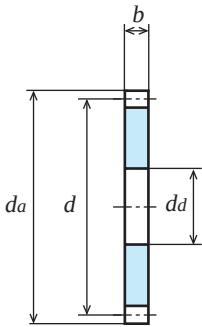
从2006年11月份开始生产提供，对应欧洲RoHS指令的产品。
We supplied the KG-products with RoHS compliance of EU to all our valued customers since November 2006

直齿轮
SPUR GEARS

模数
MODULE

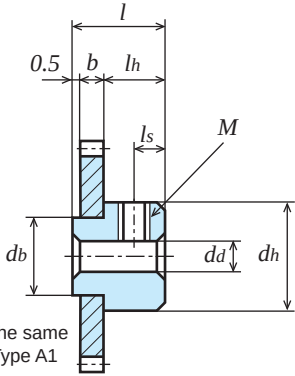
0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



A1形状
TYPE A1

订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B2形状 (铆接轮毂)
TYPE B2 with riveted hub

材料 : 黄铜 (ISO CuZn38Pb2, CuZn39Pb3)
Material : Brass (ISO CuZn38Pb2, CuZn39Pb3)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H8)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight W(g)
										M	ls	
S50B 40A - 0208	40	φ20	φ21	A1	2	φ8	-	-	2	-	-	4.5
S50B 40B + 0203	40	φ20	φ21	B2	2	φ3	φ10	5	7.5	M3	2.5	8.1
S50B 42A - 0208	42	φ21	φ22	A1	2	φ8	-	-	2	-	-	5.0
S50B 42B + 0203	42	φ21	φ22	B2	2	φ3	φ10	5	7.5	M3	2.5	8.6
S50B 45A - 0208	45	φ22.5	φ23.5	A1	2	φ8	-	-	2	-	-	5.9
S50B 45B + 0203	45	φ22.5	φ23.5	B2	2	φ3	φ10	5	7.5	M3	2.5	9.5
S50B 48A - 0208	48	φ24	φ25	A1	2	φ8	-	-	2	-	-	6.8
S50B 48B + 0203	48	φ24	φ25	B2	2	φ3	φ10	5	7.5	M3	2.5	10.4
S50B 50A - 0208	50	φ25	φ26	A1	2	φ8	-	-	2	-	-	7.5
S50B 50B + 0203	50	φ25	φ26	B2	2	φ3	φ10	5	7.5	M3	2.5	11.1
S50B 55A - 0208	55	φ27.5	φ28.5	A1	2	φ8	-	-	2	-	-	9.2
S50B 55B + 0203	55	φ27.5	φ28.5	B2	2	φ3	φ10	5	7.5	M3	2.5	12.8
S50B 56A - 0208	56	φ28	φ29	A1	2	φ8	-	-	2	-	-	9.6
S50B 56B + 0203	56	φ28	φ29	B2	2	φ3	φ10	5	7.5	M3	2.5	13.2
S50B 58A - 0208	58	φ29	φ30	A1	2	φ8	-	-	2	-	-	10.4
S50B 58B + 0203	58	φ29	φ30	B2	2	φ3	φ10	5	7.5	M3	2.5	14.0
S50B 60A - 0208	60	φ30	φ31	A1	2	φ8	-	-	2	-	-	11.2
S50B 60B + 0203	60	φ30	φ31	B2	2	φ3	φ10	5	7.5	M3	2.5	14.8

A1型的齿轮孔是用压力机冲压而成，所以不是H8公差。
Bore tolerance of H8 but does not apply to type A1 gears due to the press item.
标号[+]表示齿轮带有螺纹孔/无固定螺钉。
[+] : Gear with threaded hole / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S50B 40A - 0208	0.20	2.01	4.03	8.05	16.10	23.26	27.81
S50B 42A - 0208	0.21	2.14	4.28	8.57	17.13	24.53	29.28
S50B 45A - 0208	0.23	2.33	4.67	9.34	18.68	26.38	31.41
S50B 48A - 0208	0.25	2.53	5.06	10.12	20.22	28.21	33.50
S50B 50A - 0208	0.27	2.66	5.32	10.64	21.14	29.41	34.87
S50B 55A - 0208	0.30	2.99	5.98	11.96	23.38	32.34	38.19
S50B 56A - 0208	0.31	3.06	6.11	12.22	23.82	32.91	38.84
S50B 58A - 0208	0.32	3.19	6.37	12.75	24.70	34.05	40.12
S50B 60A - 0208	0.33	3.32	6.64	13.28	25.57	35.17	41.38

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

对应 RoHS 指令

从2006年11月份开始生产提供，对应欧洲RoHS指令的产品。
We supplied the KG-products with RoHS compliance of EU to all our valued customers since November 2006

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研磨齿条
GROUND RACKS

齿条
RACKS

斜齿轮・螺旋齿轮
HELICAL GEARS AND SCREW GEARS

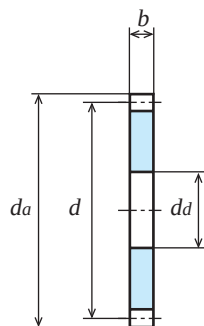
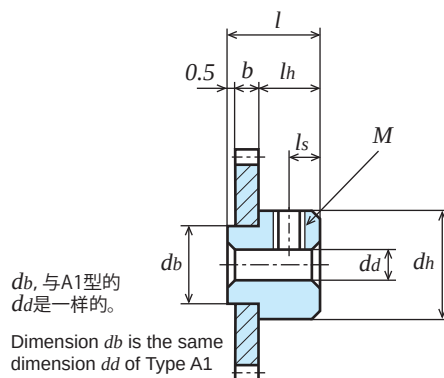
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WORMS AND WORM WHEELS

锥齿轮
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直齿轮

SPUR GEARS

模数
MODULE0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTHJIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10A1形状
TYPE A1db, 与A1型的
dd是一样的。Dimension db is the same
dimension dd of Type A1B2形状 (铆接轮毂)
TYPE B2 with riveted hub材料 : 黄铜 (ISO CuZn38Pb2, CuZn39Pb3)
Material : Brass (ISO CuZn38Pb2, CuZn39Pb3)单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H8)$	轮毂 外 径 Hub Diameter d_h	轮毂 长 度 Hub Projection l_h	全 长 Overall Length l	螺纹孔 Set Screw		重 量 Weight $W(g)$
										M	l_s	
S50B 62A - 0208	62	$\phi 31$	$\phi 32$	A1	2	$\phi 8$	-	-	2	-	-	12.0
S50B 62B + 0203	62	$\phi 31$	$\phi 32$	B2	2	$\phi 3$	$\phi 10$	5	7.5	M3	2.5	15.6
S50B 64A - 0208	64	$\phi 32$	$\phi 33$	A1	2	$\phi 8$	-	-	2	-	-	12.8
S50B 64B + 0203	64	$\phi 32$	$\phi 33$	B2	2	$\phi 3$	$\phi 10$	5	7.5	M3	2.5	16.4
S50B 65A - 0208	65	$\phi 32.5$	$\phi 33.5$	A1	2	$\phi 8$	-	-	2	-	-	12.3
S50B 65B + 0203	65	$\phi 32.5$	$\phi 33.5$	B2	2	$\phi 3$	$\phi 10$	5	7.5	M3	2.5	16.8
S50B 68A - 0208	68	$\phi 34$	$\phi 35$	A1	2	$\phi 8$	-	-	2	-	-	14.6
S50B 68B + 0203	68	$\phi 34$	$\phi 35$	B2	2	$\phi 3$	$\phi 10$	5	7.5	M3	2.5	18.2
S50B 70A - 0208	70	$\phi 35$	$\phi 36$	A1	2	$\phi 8$	-	-	2	-	-	15.5
S50B 70B + 0203	70	$\phi 35$	$\phi 36$	B2	2	$\phi 3$	$\phi 10$	5	7.5	M3	2.5	19.1
S50B 72A - 0208	72	$\phi 36$	$\phi 37$	A1	2	$\phi 8$	-	-	2	-	-	16.5
S50B 72B + 0203	72	$\phi 36$	$\phi 37$	B2	2	$\phi 3$	$\phi 10$	5	7.5	M3	2.5	20.0
S50B 75A - 0208	75	$\phi 37.5$	$\phi 38.5$	A1	2	$\phi 8$	-	-	2	-	-	17.9
S50B 75B + 0203	75	$\phi 37.5$	$\phi 38.5$	B2	2	$\phi 3$	$\phi 10$	5	7.5	M3	2.5	21.5
S50B 80A - 0208	80	$\phi 40$	$\phi 41$	A1	2	$\phi 8$	-	-	2	-	-	20.5
S50B 80B + 0203	80	$\phi 40$	$\phi 41$	B2	2	$\phi 3$	$\phi 10$	5	7.5	M3	2.5	24.1

A1型的齿轮孔是用压力冲压而成, 所以不是H8公差。Bore tolerance of H8 but does not apply to type A1 gears due to the press item.
标号[+]表示齿轮带有螺纹孔/无固定螺钉。[-]: Gear with threaded hole / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S50B 62A - 0208	0.35	3.45	6.91	13.81	26.44	36.27	42.62
S50B 64A - 0208	0.36	3.59	7.17	14.34	27.29	37.36	43.83
S50B 65A - 0208	0.37	3.65	7.30	14.61	27.72	37.90	44.43
S50B 66A - 0208	0.37	3.72	7.44	14.88	28.14	38.44	45.03
S50B 68A - 0208	0.39	3.85	7.70	15.41	28.97	39.50	46.21
S50B 70A - 0208	0.40	3.99	7.97	15.94	29.80	40.54	47.36
S50B 72A - 0208	0.41	4.12	8.24	16.48	30.62	41.57	48.50
S50B 75A - 0208	0.43	4.32	8.64	17.28	31.84	43.09	50.17
S50B 80A - 0208	0.47	4.66	9.31	18.63	33.83	45.55	53.44

上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

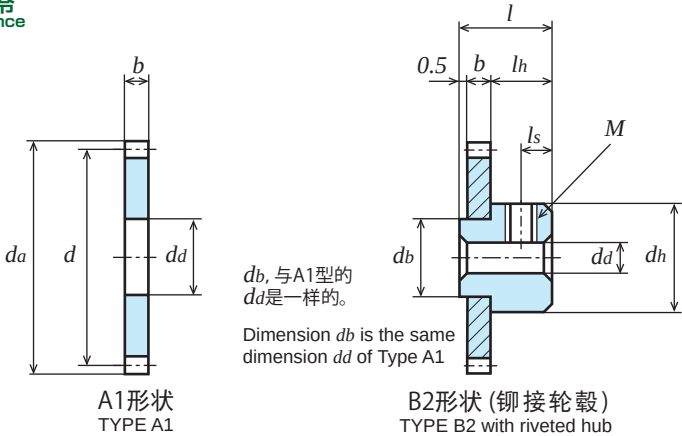
对应 RoHS 指令

从2006年11月份开始生产提供, 对应欧洲RoHS指令的产品。
We supplied the KG-products with RoHS compliance of EU to all our valued customers since November 2006

直齿轮
SPUR GEARS

模数
MODULE 0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.

材料 : 黄铜 (ISO CuZn38Pb2, CuZn39Pb3)
Material : Brass (ISO CuZn38Pb2, CuZn39Pb3)

单位 : mm
Dimensions : mm

Table with 13 columns: Product Model, Number of Teeth, Reference Diameter, Tip Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Set Screw (M, ls), Weight. Rows include models S50B 84A-0208 to S50B 110B-0203.

A1型的齿轮孔是用压力机冲压而成，所以不是H8公差。
Bore tolerance of H8 but does not apply to type A1 gears due to the press item.
标号[+]表示齿轮带有螺纹孔/无固定螺钉。
[+] : Gear with threaded hole / without set screw.

对应 RoHS 指令
从2006年11月份开始生产提供，对应欧洲RoHS指令的产品。
We supplied the KG-products with RoHS compliance of EU to all our valued customers since November 2006

容许传达动力表 弯曲强度 (W)
Allowable transfer capability table (W) Bending Strength
Table with 8 columns: Product Model, 10, 100, 200, 400, 800, 1,200, 1,500 rpm. Rows include models S50B 84A-0208 to S50B 110A-0212.

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目录表 CONTENTS
齿轮信息 INFORMATION
齿轮箱 GEAR BOXES
无隙隙齿轮 ANTI BACKLASH SPUR GEARS
研磨直齿轮 GROUND SPUR GEARS
直齿轮 SPUR GEARS
内齿轮 INTERNAL GEARS
研磨齿条 GROUND RACKS
齿条 RACKS
斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆 WORMS AND WORM WHEELS
锥齿轮 BEVEL GEARS
技术资料 REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

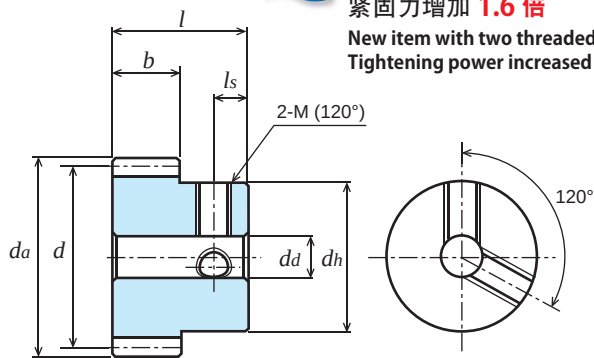
0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 8 ~ 9级
System of accuracy : JIS B 1702-1(ISO) class 8-9



新产品带有两个螺纹孔 (120°)
紧固力增加 1.6 倍

New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H8)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight W(g)
										2-M(120°)	ls	
S50S 10K — 1006	10	φ 5	φ 6	K1	10	-	φ 6	45	55	-	-	11.5
S50S 12K — 1007	12	φ 6	φ 7	K1	10	-	φ 7	45	55	-	-	15.8
S50S 14K — 1008	14	φ 7	φ 8	K1	10	-	φ 8	45	55	-	-	20.8
S50S 15K * 0803	15	φ 7.5	φ 8.5	K2	8	φ3	φ 8.5	10	18	2-M3	3	6.0
S50S 16K * 0803	16	φ 8	φ 9	K2	8	φ3	φ 9	10	18	2-M3	3	6.9
S50S 18K * 0804	18	φ 9	φ10	K2	8	φ4	φ10	10	18	2-M3	3	8.1
S50S 20K * 0804	20	φ10	φ11	K2	8	φ4	φ11	10	18	2-M3	3	10.3
S50S 21K * 0804	21	φ10.5	φ11.5	K2	8	φ4	φ11.5	10	18	2-M3	3	11.5
S50S 22K * 0804	22	φ11	φ12	K2	8	φ4	φ12	10	18	2-M3	3	12.7
S50S 24K * 0804	24	φ12	φ13	K2	8	φ4	φ13	10	18	2-M3	3	15.4
S50S 25B * 0804	25	φ12.5	φ13.5	B1	8	φ4	φ10	8	16	2-M3	4	10.8
S50S 26B * 0804	26	φ13	φ14	B1	8	φ4	φ10	8	16	2-M3	4	11.4
S50S 27B * 0804	27	φ13.5	φ14.5	B1	8	φ4	φ10	8	16	2-M3	4	12.1
S50S 28B * 0804	28	φ14	φ15	B1	8	φ4	φ10	8	16	2-M3	4	12.8
S50S 30B * 0805	30	φ15	φ16	B1	8	φ5	φ12	8	16	2-M3	4	15.4

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。

[*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S50S 10K — 1006	0.62	6.19	12.38	24.77	49.53	74.30	92.87
S50S 12K — 1007	0.85	8.49	16.98	33.96	67.91	101.87	127.33
S50S 14K — 1008	1.11	11.07	22.13	44.26	88.53	132.79	165.99
S50S 15K * 0803	0.99	9.92	19.84	39.68	79.37	119.05	148.81
S50S 16K * 0803	1.10	11.01	22.02	44.04	88.08	132.12	165.15
S50S 18K * 0804	1.32	13.24	26.47	52.94	105.88	158.82	198.53
S50S 20K * 0804	1.55	15.54	31.08	62.16	124.32	186.48	233.10
S50S 21K * 0804	1.67	16.70	33.40	66.81	133.62	200.43	250.53
S50S 22K * 0804	1.79	17.88	35.76	71.52	143.04	214.57	268.21
S50S 24K * 0804	2.03	20.26	40.52	81.04	162.07	243.11	303.88
S50S 25B * 0804	2.15	21.46	42.93	85.86	172.72	257.57	321.97
S50S 26B * 0804	2.27	22.68	45.36	90.71	181.43	272.14	339.11
S50S 27B * 0804	2.39	23.90	47.80	95.60	191.20	286.80	355.29
S50S 28B * 0804	2.51	25.13	50.26	100.52	201.03	301.55	371.39
S50S 30B * 0805	2.76	27.59	55.18	110.37	220.74	331.11	403.12

The above references are JGMA standard.

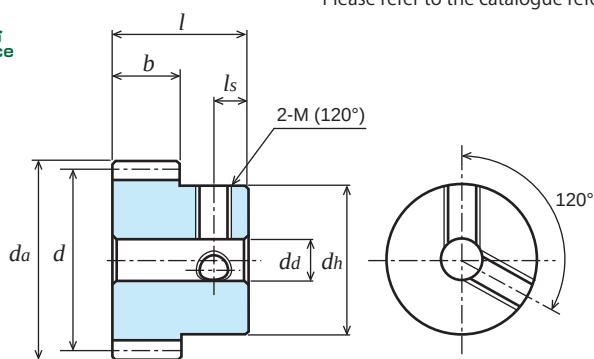
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight W(g)
										2-M(120°)	ls	
● S50S 30BF — 0504	30	φ15	φ16	B1	5	φ4(H8)	φ12	8	13	-	-	12.7
● S50S 30B — 0504H	30	φ15	φ16	B1	5	φ4(H※)	φ12	8	13	-	-	12.7
S50S 30B * 0805	30	φ15	φ16	B1	8	φ5	φ12	8	16	2-M3	4	15.4
S50S 32B * 0505	32	φ16	φ17	B1	5	φ5	φ12	8	13	2-M3	4	12.7
S50S 35B * 0505	35	φ17.5	φ18.5	B1	5	φ5	φ12	8	13	2-M3	4	14.2
S50S 36B * 0505	36	φ18	φ19	B1	5	φ5	φ12	8	13	2-M3	4	14.8
● S50S 40BF — 0504	40	φ20	φ21	B1	5	φ4(H8)	φ15	8	13	-	-	22.1
● S50S 40B — 0504H	40	φ20	φ21	B1	5	φ4(H※)	φ15	8	13	-	-	22.1
S50S 40B * 0505	40	φ20	φ21	B1	5	φ5	φ15	8	13	2-M3	4	21.0
S50S 42B * 0505	42	φ21	φ22	B1	5	φ5	φ15	8	13	2-M3	4	22.3
S50S 44B * 0505	44	φ22	φ23	B1	5	φ5	φ15	8	13	2-M3	4	23.6
S50S 45B * 0505	45	φ22.5	φ23.5	B1	5	φ5	φ15	8	13	2-M3	4	24.3

标有●的产品为新产品。

Products with ● marks are new item.

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。

[*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S50S30BF — 0504	1.73	17.28	34.56	69.11	138.22	207.34	252.89
S50S30B — 0504H	1.83	18.30	36.59	73.18	146.37	219.55	267.95
S50S 30B * 0805	2.76	27.59	55.18	110.37	220.74	331.11	403.12
S50S 32B * 0505	1.88	18.81	37.61	75.22	150.44	225.49	271.63
S50S 35B * 0505	2.12	21.17	42.34	84.68	169.36	250.30	300.66
S50S 36B * 0505	2.20	21.96	43.93	87.85	175.71	258.48	310.20
S50S40BF — 0504	2.51	25.13	50.26	100.53	201.05	290.27	347.13
S50S40B — 0504H	2.66	26.62	53.24	106.48	212.96	308.58	370.49
S50S 40B * 0505	2.52	25.16	50.32	100.65	201.29	290.74	347.65
S50S 42B * 0505	2.68	26.77	53.55	107.09	214.19	306.59	365.96
S50S 44B * 0505	2.84	28.37	56.75	113.49	226.99	322.02	383.71
S50S 45B * 0505	2.92	29.18	58.37	116.74	233.47	329.75	392.59

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

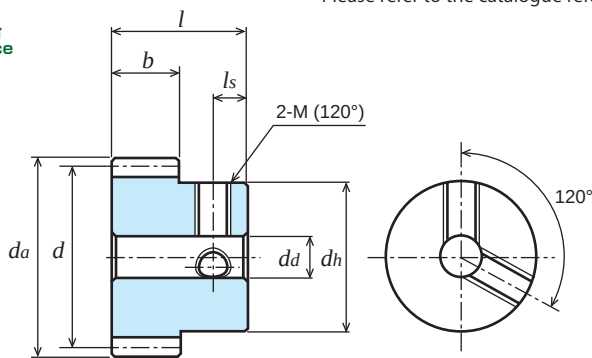
旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
0.08	0.84	1.68	3.77	7.54	11.31	12.57
0.40	4.39	9.07	18.66	38.52	58.75	72.53
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.16	1.57	3.14	6.70	13.40	18.85	23.56
0.73	8.03	16.55	34.14	70.37	103.74	125.76
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-

直齿轮 SPUR GEARS

模数
MODULE0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTHJIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)

订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.

B1形状
TYPE B1材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight W(g)
										2-M(120°)	ls	
S50S 48B * 0505	48	φ24	φ25	B1	5	φ5	φ15	8	13	2-M3	4	26.4
S50S 50BF — 0504	50	φ25	φ26	B1	5	φ4(H8)	φ18	8	13	-	-	33.9
S50S 50B — 0504H	50	φ25	φ26	B1	5	φ4(H※)	φ18	8	13	-	-	33.9
S50S 50B * 0505	50	φ25	φ26	B1	5	φ5	φ15	8	13	2-M3	4	27.9
S50S 52B * 0505	52	φ26	φ27	B1	5	φ5	φ15	8	13	2-M3	4	29.5
S50S 54B * 0505	54	φ27	φ28	B1	5	φ5	φ15	8	13	2-M3	4	31.1
S50S 55B * 0505	55	φ27.5	φ28.5	B1	5	φ5	φ15	8	13	2-M3	4	32.0
S50S 56B * 0505	56	φ28	φ29	B1	5	φ5	φ15	8	13	2-M3	4	32.8
S50S 60BF — 0505	60	φ30	φ31	B1	5	φ5	φ22	8	13	-	-	49.5
S50S 60B — 0505H	60	φ30	φ31	B1	5	φ5(H※)	φ22	8	13	-	-	49.5
S50S 60B * 0506	60	φ30	φ31	B1	5	φ6	φ18	8	13	2-M4	4	39.9
S50S 64B * 0506	64	φ32	φ33	B1	5	φ6	φ18	8	13	2-M4	4	43.7

标有●的产品为新产品。

Products with ● marks are new item.

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。

[*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S50S 48B * 0505	3.16	31.63	63.25	126.50	252.80	352.63	418.79
S50S 50BF — 0504	3.31	33.09	66.18	132.36	263.04	365.67	433.52
S50S 50B — 0504H	3.51	35.11	70.23	140.46	279.14	390.97	465.49
S50S 50B * 0505	3.33	33.26	66.52	133.04	264.20	367.63	435.89
S50S 52B * 0505	3.49	34.90	69.80	139.60	275.51	382.44	452.72
S50S 54B * 0505	3.65	36.54	73.08	146.17	286.71	397.03	469.26
S50S 55B * 0505	3.74	37.37	74.73	149.46	292.27	404.26	477.43
S50S 56B * 0505	3.82	38.19	76.38	152.76	297.80	411.43	485.53
S50S 60BF — 0505	4.13	41.26	82.52	165.03	318.33	437.29	515.20
S50S 60B — 0505H	4.37	43.75	87.50	175.00	338.17	468.53	553.85
S50S 60B * 0506	4.15	41.50	83.00	165.99	319.68	439.63	517.25
S50S 64B * 0506	4.48	44.82	89.64	179.28	341.14	467.04	547.92

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.26	2.62	5.24	10.47	20.94	30.16	36.13
1.16	12.82	26.42	54.45	111.54	159.11	191.35
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.38	3.77	7.54	15.50	30.16	41.47	50.26
1.70	18.78	38.70	79.82	158.99	224.13	267.65
-	-	-	-	-	-	-
-	-	-	-	-	-	-

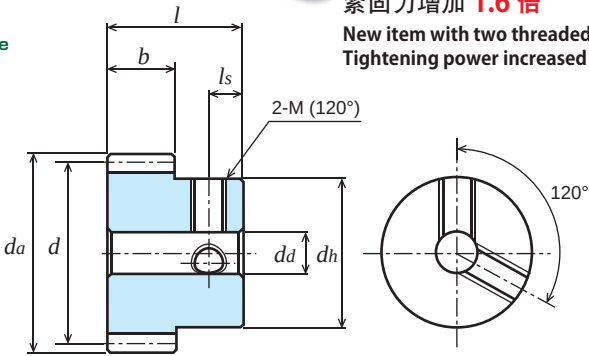
直齿轮
SPUR GEARS

模数
MODULE 0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



New 新产品带有两个螺纹孔 (120°)
紧固力增加 1.6 倍
New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight W(g)
										2-M(120°)	ls	
● S50S 70BF — 0505	70	φ35	φ36	B1	5	φ5	φ25	8	13	-	-	66.5
● S50S 70B — 0505H	70	φ35	φ36	B1	5	φ5(H※)	φ25	8	13	-	-	66.5
S50S 70B * 0506	70	φ35	φ36	B1	5	φ6	φ18	8	13	2-M4	4	49.9
S50S 72B * 0506	72	φ36	φ37	B1	5	φ6	φ18	8	13	2-M4	4	52.1
S50S 75B * 0506	75	φ37.5	φ38.5	B1	5	φ6	φ18	8	13	2-M4	4	55.5
● S50S 80BF — 0506	80	φ40	φ41	B1	5	φ6	φ28	8	13	-	-	85.0
● S50S 80B — 0506H	80	φ40	φ41	B1	5	φ6(H※)	φ28	8	13	-	-	85.0
S50S 80B * 0508	80	φ40	φ41	B1	5	φ8	φ22	8	13	2-M4	4	67.0
● S50S 90BF — 0506	90	φ45	φ46	B1	5	φ6	φ32	8	13	-	-	109.9
● S50S 90B — 0506H	90	φ45	φ46	B1	5	φ6(H※)	φ32	8	13	-	-	109.9
S50S 90B * 0508	90	φ45	φ46	B1	5	φ8	φ22	8	13	2-M4	4	80.1
S50S 96B * 0508	96	φ48	φ49	B1	5	φ8	φ22	8	13	2-M4	4	88.7

标有●的产品为新产品。
Products with ● marks are new item.

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。
[*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S50S70BF — 0505	4.94	49.53	99.06	198.12	370.27	503.89	587.45
S50S70B — 0505H	5.25	52.48	104.97	209.94	394.79	541.28	635.58
S50S 70B * 0506	4.98	49.82	99.65	199.30	372.55	506.74	592.05
S50S 72B * 0506	5.15	51.50	102.99	205.99	382.81	519.61	606.27
S50S 75B * 0506	5.40	54.01	108.02	216.04	398.01	538.57	627.16
S50S80BF — 0506	5.78	57.80	115.61	231.21	419.70	565.46	662.85
S50S80B — 0506H	6.13	61.27	122.54	245.08	448.83	609.43	718.51
S50S 80B * 0508	5.82	58.21	116.42	232.85	422.85	569.31	668.04
S50S90BF — 0506	6.61	66.08	132.15	264.30	466.61	622.01	746.10
S50S90B — 0506H	7.00	70.02	140.03	280.07	499.82	672.64	809.74
S50S 90B * 0508	6.66	66.56	133.13	266.25	470.10	626.91	752.57
S50S 96B * 0508	7.16	71.63	143.26	286.28	497.59	660.77	802.70

The above references are JGMA standard.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min							
10	100	200	400	800	1,200	1,500	
0.52	5.24	10.47	21.36	40.21	56.55	65.97	
2.34	25.93	53.46	110.22	213.68	298.20	353.60	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
0.69	7.02	14.03	28.48	52.78	71.63	86.39	
3.10	34.30	70.71	145.80	275.28	380.47	452.97	
-	-	-	-	-	-	-	
0.89	8.90	18.01	36.44	65.34	89.22	109.95	
3.97	43.90	90.51	186.62	343.32	470.22	571.65	
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无背隙直齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

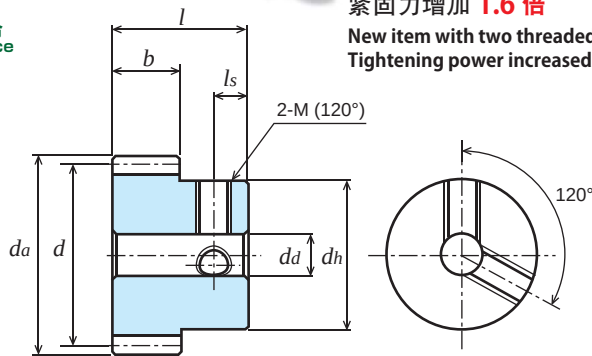
0.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



新产品带有两个螺纹孔 (120°)
紧固力增加 1.6 倍

New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight W(g)
										2-M(120°)	ls	
● S50S 100BF — 0506	100	φ50	φ51	B1	5	φ6	φ35	8	13	-	-	134.4
● S50S 100B — 0506H	100	φ50	φ51	B1	5	φ6(H※)	φ35	8	13	-	-	134.4
S50S 100B * 0508	100	φ50	φ51	B1	5	φ8	φ25	8	13	2-M4	4	101.4
S50S 110B * 0508	110	φ55	φ56	B1	5	φ8	φ25	8	13	2-M4	4	117.6
● S50S 120BF — 0506	120	φ60	φ61	B1	5	φ6	φ42	8	13	-	-	194.9
● S50S 120B — 0506H	120	φ60	φ61	B1	5	φ6(H※)	φ42	8	13	-	-	194.9
S50S 120B * 0508	120	φ60	φ61	B1	5	φ8	φ25	8	13	2-M4	4	135.4

标有●的产品为新产品。
Products with ● marks are new item.

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。
[*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※
齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S50S 100BF — 0506	7.43	74.35	148.70	295.30	511.01	683.58	829.35
S50S 100B — 0506H	7.89	78.86	157.73	313.44	548.96	739.84	899.76
S50S 100B * 0508	7.50	75.01	150.02	297.93	515.45	688.64	835.69
S50S 110B * 0508	8.35	83.48	166.96	326.48	558.60	757.32	916.71
S50S 120BF — 0506	9.11	91.10	182.20	351.01	593.95	816.78	986.42
S50S 120B — 0506H	9.66	96.64	193.27	373.48	640.88	886.77	1073.32
S50S 120B * 0508	9.20	91.98	183.95	354.27	599.68	824.59	995.68

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

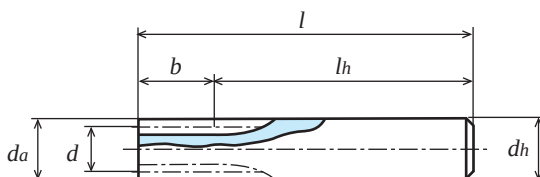
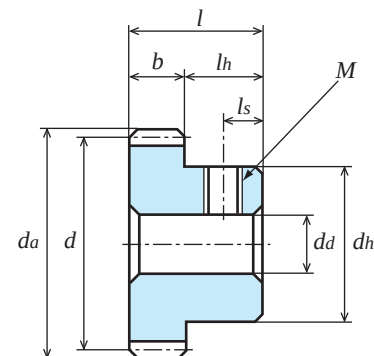
容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
1.11	11.20	22.41	45.24	79.58	110.58	136.65
4.95	54.75	112.87	231.21	417.47	572.64	703.28
-	-	-	-	-	-	-
-	-	-	-	-	-	-
1.63	16.44	33.09	64.50	112.25	159.59	197.91
7.25	80.21	165.37	329.41	582.65	820.78	1003.21
-	-	-	-	-	-	-

直齿轮

SPUR GEARS

模数
MODULE0.75 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTHJIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1(ISO) class 9对应RoHS指令
RoHS ComplianceK1形状
TYPE K1订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.B1形状
TYPE B1材料 : 不锈钢 SUS304 (JIS G 4303)
Material : Stainless Steel SUS304 (JIS G 4303)单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H8)	轮毂 外直径 Hub Diameter dh	轮毂 长度 Hub Projection lh	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight W(g)
										M	ls	
S75SU 10K - 0809	10	φ 7.5	φ 9	K1	8	-	φ 9	47	55	-	-	26.5
S75SU 14K + 0805	14	φ 10.5	φ 12	K2	8	φ5	φ12	12	20	M3	3	13.0
S75SU 15K + 0805	15	φ 11.25	φ 12.75	K2	8	φ5	φ12.75	12	20	M3	3	15.2
S75SU 16B + 0805	16	φ 12	φ 13.5	B1	8	φ5	φ10	7	15	M3	3.5	9.1
S75SU 18B + 0805	18	φ 13.5	φ 15	B1	8	φ5	φ11	7	15	M3	3.5	11.9
S75SU 20B + 0806	20	φ 15	φ 16.5	B1	8	φ6	φ12	7	15	M4	3.5	13.9
S75SU 21B + 0806	21	φ 15.75	φ 17.25	B1	8	φ6	φ12	7	15	M4	3.5	15.1
S75SU 22B + 0806	22	φ 16.5	φ 18	B1	8	φ6	φ12	7	15	M4	3.5	16.3
S75SU 24B + 0806	24	φ 18	φ 19.5	B1	8	φ6	φ14	7	15	M4	3.5	21.0
S75SU 25B + 0806	25	φ 18.75	φ 20.25	B1	8	φ6	φ14	7	15	M4	3.5	22.4
S75SU 26B + 0806	26	φ 19.5	φ 21	B1	8	φ6	φ14	7	15	M4	3.5	23.8
S75SU 28B + 0806	28	φ 21	φ 22.5	B1	8	φ6	φ14	7	15	M4	3.5	26.9
S75SU 30B + 0806	30	φ 22.5	φ 24	B1	8	φ6	φ14	7	15	M4	3.5	31.3

标号[*]表示齿轮带有螺纹孔/无固定螺钉。

[+] : Gear with threaded hole / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S75SU 10K - 0809	0.55	5.46	10.91	21.82	43.64	65.46	81.83
S75SU 12K - 0811	0.76	7.64	15.28	30.56	61.12	91.68	114.60
S75SU 14K + 0805	1.00	9.96	19.92	39.84	79.67	119.51	149.39
S75SU 15K + 0805	1.12	11.16	22.32	44.64	89.29	133.93	167.41
S75SU 16B + 0805	1.24	12.39	24.77	49.54	99.09	148.63	185.79
S75SU 18B + 0805	1.49	14.89	29.78	59.56	119.12	178.67	221.34
S75SU 20B + 0806	1.75	17.48	34.97	69.93	139.86	209.79	255.42
S75SU 21B + 0806	1.88	18.79	37.58	75.16	150.32	225.48	272.18
S75SU 22B + 0806	2.01	20.12	40.23	80.46	160.93	240.07	288.91
S75SU 24B + 0806	2.28	22.79	45.58	91.17	182.33	268.23	321.89
S75SU 25B + 0806	2.41	24.15	48.30	96.59	193.18	282.23	338.23
S75SU 26B + 0806	2.55	25.51	51.03	102.05	204.11	296.15	354.44
S75SU 28B + 0806	2.83	28.27	56.54	113.08	226.16	323.73	386.41
S75SU 30B + 0806	3.10	31.04	62.08	124.17	248.33	350.73	417.57

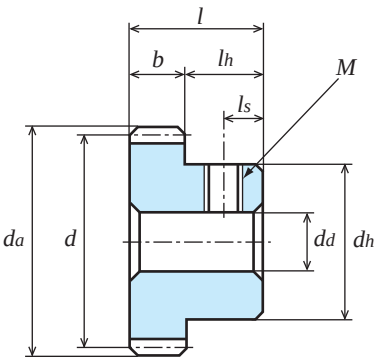
上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮
SPUR GEARS

模数
MODULE 0.75 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1(ISO) class 9



B1形状
TYPE B1

材料 : 不锈钢 SUS304 (JIS G 4303)
Material : Stainless Steel SUS304 (JIS G 4303) 单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H8)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	螺 纹 孔 Set Screw		重 量 Weight W(g)
										M	ls	
S75SU 32B + 0606	32	φ24	φ25.5	B1	6	φ6	φ15	9	15	M4	4	30.4
S75SU 36B + 0606	36	φ27	φ28.5	B1	6	φ6	φ18	9	15	M4	4	41.6
S75SU 40B + 0606	40	φ30	φ31.5	B1	6	φ6	φ20	9	15	M4	4	52.2
S75SU 44B + 0606	44	φ33	φ34.5	B1	6	φ6	φ20	9	15	M4	4	59.2
S75SU 45B + 0606	45	φ33.75	φ35.25	B1	6	φ6	φ20	9	15	M4	4	61.1
S75SU 48B + 0606	48	φ36	φ37.5	B1	6	φ6	φ20	9	15	M4	4	67.0
S75SU 56B + 0606	56	φ42	φ43.5	B1	6	φ6	φ20	9	15	M4	4	84.5
S75SU 60B + 0606	60	φ45	φ46.5	B1	6	φ6	φ22	9	15	M4	4	98.9
S75SU 72B + 0606	72	φ54	φ55.5	B1	6	φ6	φ25	9	15	M4	4	139.9
S75SU 80B + 0608	80	φ60	φ61.5	B1	6	φ8	φ25	9	15	M4	4	163.0
S75SU 100B + 0608	100	φ75	φ76.5	B1	6	φ8	φ30	9	15	M4	4	253.9
S75SU 120B + 0608	120	φ90	φ91.5	B1	6	φ8	φ30	9	15	M4	4	346.3

标号[*]表示齿轮带有螺纹孔/无固定螺钉。
[+] : Gear with threaded hole / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产 品 型 号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S75SU 32B + 0606	2.54	25.39	50.78	101.55	202.94	283.08	336.19
S75SU 36B + 0606	2.97	29.65	59.30	118.60	232.63	322.15	380.76
S75SU 38B + 0606	3.18	31.80	63.61	127.21	247.24	341.17	402.31
S75SU 40B + 0606	3.40	33.97	67.94	135.87	261.67	359.85	423.39
S75SU 44B + 0606	3.83	38.30	76.61	153.22	289.81	395.90	463.82
S75SU 45B + 0606	3.94	39.40	78.80	157.59	296.77	404.75	473.69
S75SU 48B + 0606	4.27	42.69	85.39	170.78	317.37	430.79	502.63
S75SU 56B + 0606	5.16	51.56	103.12	206.23	370.29	496.61	588.14
S75SU 60B + 0606	5.60	56.02	112.05	224.09	395.66	527.64	633.40
S75SU 72B + 0606	6.95	69.52	139.04	272.73	467.65	632.18	765.62
S75SU 80B + 0608	7.86	78.59	157.17	302.69	512.38	704.54	850.72
S75SU 100B + 0608	10.13	101.26	202.52	373.10	619.77	876.96	1,062.41
S75SU 120B + 0608	12.42	124.17	248.33	438.47	742.13	1,047.95	1,267.90

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

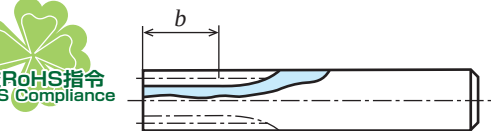
目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙 backlash 齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

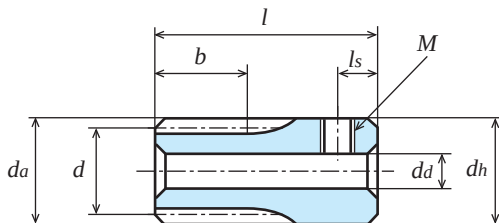
模数
MODULE

0.75 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

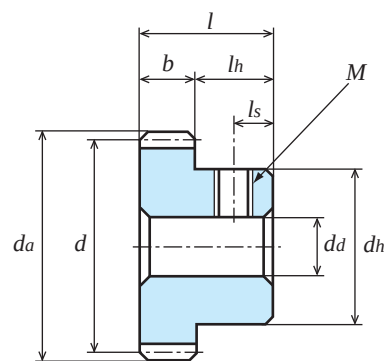
JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1(ISO) class 9



K1形状
TYPE K1



K2形状
TYPE K2



B1形状
TYPE B1

材料 : 黄铜 (ISO CuZn39Pb3)
Material : Brass (ISO CuZn39Pb3)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H8)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight $W(g)$
										M	l_s	
S75B 10K - 0809	10	$\phi 7.5$	$\phi 9$	K1	8	-	$\phi 9$	47	55	-	-	28.4
S75B 12K - 0811	12	$\phi 9$	$\phi 10.5$	K1	8	-	$\phi 11$	47	55	-	-	42.3
S75B 14K + 0805	14	$\phi 10.5$	$\phi 12$	K2	8	$\phi 5$	$\phi 12$	12	20	M3	3	13.9
S75B 15K + 0805	15	$\phi 11.25$	$\phi 12.75$	K2	8	$\phi 5$	$\phi 12.75$	12	20	M3	3	16.3
S75B 16K + 0805	16	$\phi 12$	$\phi 13.5$	K2	8	$\phi 5$	$\phi 13.5$	12	20	M3	3	18.8
S75B 16B + 0305	16	$\phi 12$	$\phi 13.5$	B1	3	$\phi 5$	$\phi 10$	7	10	M3	3.5	5.8
S75B 18K + 0805	18	$\phi 13.5$	$\phi 15$	K2	8	$\phi 5$	$\phi 15$	12	20	M3	3	24.2
S75B 18B + 0305	18	$\phi 13.5$	$\phi 15$	B1	3	$\phi 5$	$\phi 11$	7	10	M3	3.5	7.5
S75B 20K + 0805	20	$\phi 15$	$\phi 16.5$	K2	8	$\phi 5$	$\phi 16.5$	12	20	M3	3	30.2
S75B 20B + 0306	20	$\phi 15$	$\phi 16.5$	B1	3	$\phi 6$	$\phi 12$	7	10	M4	3.5	8.6
S75B 24B + 0306	24	$\phi 18$	$\phi 19.5$	B1	3	$\phi 6$	$\phi 14$	7	10	M4	3.5	11.7
S75B 25B + 0306	25	$\phi 18.75$	$\phi 20.25$	B1	3	$\phi 6$	$\phi 14$	7	10	M4	3.5	12.3
S75B 26B + 0306	26	$\phi 19.5$	$\phi 21$	B1	3	$\phi 6$	$\phi 14$	7	10	M4	3.5	12.9
S75B 28B + 0306	28	$\phi 21$	$\phi 22.5$	B1	3	$\phi 6$	$\phi 14$	7	10	M4	3.5	14.1

标号[+]表示齿轮带有螺纹孔/无固定螺钉。

[+] : Gear with threaded hole / with set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S75B 10K - 0809	0.22	2.18	4.36	8.73	17.46	26.18	32.73
S75B 12K - 0811	0.31	3.06	6.11	12.22	24.45	36.67	45.84
S75B 14K + 0805	0.40	3.98	7.97	15.93	31.87	47.80	59.75
S75B 15K + 0805	0.45	4.46	8.93	17.86	35.72	53.57	66.97
S75B 16K + 0805	0.50	4.95	9.91	19.82	39.64	59.45	74.32
S75B 16B + 0305	0.19	1.86	3.72	7.43	14.86	22.30	27.87
S75B 18K + 0805	0.60	5.96	11.91	23.82	47.65	71.47	88.54
S75B 18B + 0305	0.22	2.23	4.47	8.93	17.87	26.80	33.20
S75B 20K + 0805	0.70	6.99	13.99	27.97	55.94	83.92	102.17
S75B 20B + 0306	0.26	2.62	5.24	10.49	20.98	31.47	38.31
S75B 24B + 0306	0.34	3.42	6.84	13.67	27.35	40.23	48.28
S75B 25B + 0306	0.36	3.62	7.24	14.49	28.98	42.33	50.74
S75B 26B + 0306	0.38	3.83	7.65	15.31	30.62	44.42	53.17
S75B 28B + 0306	0.42	4.24	8.48	16.96	33.92	48.56	57.96

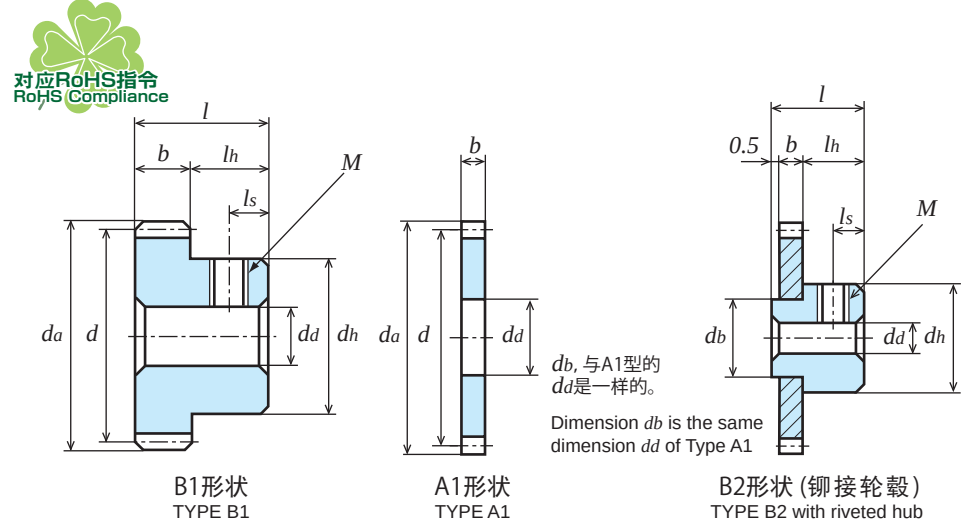
上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮
SPUR GEARS

模数
MODULE 0.75 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



材料 : 黄铜 (ISO CuZn38Pb2, CuZn39Pb3)
Material : Brass (ISO CuZn38Pb2, CuZn39Pb3)

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H8)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	螺 纹 孔 Set Screw		重 量 Weight W(g)
										M	ls	
S75B 30B + 0306	30	φ22.5	φ24	B1	3	φ 6	φ15	7	10	M4	3.5	16.7
S75B 32B + 0306	32	φ24	φ25.5	B1	3	φ 6	φ15	7	10	M4	3.5	18.1
S75B 35B + 0306	35	φ26.25	φ27.75	B1	3	φ 6	φ18	7	10	M4	3.5	24.9
S75B 36B + 0306	36	φ27	φ28.5	B1	3	φ 6	φ18	7	10	M4	3.5	25.7
S75B 40B + 0306	40	φ30	φ31.5	B1	3	φ 6	φ20	7	10	M4	3.5	33.8
S75B 42B + 0306	42	φ31.5	φ33	B1	3	φ 6	φ20	7	10	M4	3.5	35.6
S75B 45B + 0306	45	φ33.75	φ35.25	B1	3	φ 6	φ20	7	10	M4	3.5	38.6
S75B 48B + 0306	48	φ36	φ37.5	B1	3	φ 6	φ20	7	10	M4	3.5	41.7
S75B 50A - 0315	50	φ37.5	φ39	A1	3	φ15	-	-	3	-	-	23.7
S75B 50B + 0306	50	φ37.5	φ39	B2	3	φ 6	φ20	7	10.5	M4	3.5	43.8
S75B 55A - 0315	55	φ41.25	φ42.75	A1	3	φ15	-	-	3	-	-	29.6
S75B 55B + 0306	55	φ41.25	φ42.75	B2	3	φ 6	φ20	7	10.5	M4	3.5	49.7
S75B 56A - 0315	56	φ42	φ43.5	A1	3	φ15	-	-	3	-	-	30.8
S75B 56B + 0306	56	φ42	φ43.5	B2	3	φ 6	φ20	7	10.5	M4	3.5	50.9
S75B 58A - 0315	58	φ43.5	φ45	A1	3	φ15	-	-	3	-	-	33.4
S75B 58B + 0306	58	φ43.5	φ45	B2	3	φ 6	φ20	7	10.5	M4	3.5	53.5
S75B 60A - 0315	60	φ45	φ46.5	A1	3	φ15	-	-	3	-	-	36.1
S75B 60B + 0306	60	φ45	φ46.5	B2	3	φ 6	φ20	7	10.5	M4	3.5	56.2

A1型的齿轮孔是用压力机冲压而成，所以不是H8公差。
Bore tolerance of H8 but does not apply to type A1 gears due to the press item.
标号[+]表示齿轮带有螺纹孔/带有固定螺钉。
[+] : Gear with threaded hole / with set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产 品 型 号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min					
	10	100	200	400	800	1,500
S75B 30B + 0306	0.47	4.66	9.31	18.62	37.25	52.61
S75B 32B + 0306	0.51	5.08	10.16	20.31	40.59	56.62
S75B 35B + 0306	0.57	5.72	11.43	22.86	45.05	62.50
S75B 36B + 0306	0.59	5.93	11.86	23.72	46.53	64.43
S75B 40B + 0306	0.68	6.79	13.59	27.17	52.33	71.97
S75B 42B + 0306	0.72	7.23	14.46	28.92	55.19	75.64
S75B 45B + 0306	0.79	7.88	15.76	31.52	59.35	80.95
S75B 48B + 0306	0.85	8.54	17.08	34.16	63.47	86.16
S75B 50A - 0315	0.90	8.98	17.96	35.92	66.17	89.54
S75B 55A - 0315	1.01	10.09	20.18	40.36	72.77	97.73
S75B 56A - 0315	1.03	10.31	20.62	41.25	74.06	99.32
S75B 58A - 0315	1.08	10.76	21.52	43.03	76.61	102.45
S75B 60A - 0315	1.12	11.20	22.41	44.82	79.13	105.53

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

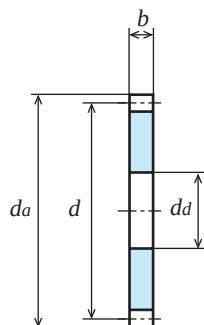
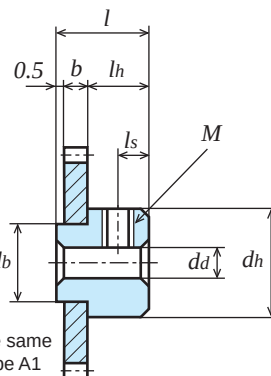
对应 RoHS 指令

从2006年11月份开始生产提供，对应欧洲RoHS指令的产品。
We supplied the KG-products with RoHS compliance of EU to all our valued customers since November 2006

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直齿轮

SPUR GEARS

模数
MODULE0.75 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTHJIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10A1形状
TYPE A1db, 与A1型的
dd是一样的。Dimension db is the same
dimension dd of Type A1订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.B2形状 (铆接轮毂)
TYPE B2 with riveted hub材料 : 黄铜 (ISO CuZn38Pb2, CuZn39Pb3)
Material : Brass (ISO CuZn38Pb2, CuZn39Pb3)单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H8)	轮毂 外 径 Hub Diameter dh	轮毂 长 度 Hub Projection lh	全 长 Overall Length l	螺纹孔 Set Screw		重 量 Weight W(g)
										M	ls	
S75B 62A - 0315	62	φ46.5	φ48	A1	3	φ15	-	-	3	-	-	38.8
S75B 62B + 0306	62	φ46.5	φ48	B2	3	φ6	φ20	7	10.5	M4	3.5	58.9
S75B 64A - 0315	64	φ48	φ49.5	A1	3	φ15	-	-	3	-	-	41.6
S75B 64B + 0306	64	φ48	φ49.5	B2	3	φ6	φ20	7	10.5	M4	3.5	61.8
S75B 65A - 0315	65	φ48.75	φ50.25	A1	3	φ15	-	-	3	-	-	43.1
S75B 65B + 0306	65	φ48.75	φ50.25	B2	3	φ6	φ20	7	10.5	M4	3.5	63.2
S75B 66A - 0315	66	φ49.5	φ51	A1	3	φ15	-	-	3	-	-	44.6
S75B 66B + 0306	66	φ49.5	φ51	B2	3	φ6	φ20	7	10.5	M4	3.5	64.7
S75B 68A - 0315	68	φ51	φ52.5	A1	3	φ15	-	-	3	-	-	47.6
S75B 68B + 0306	68	φ51	φ52.5	B2	3	φ6	φ20	7	10.5	M4	3.5	67.7
S75B 70A - 0315	70	φ52.5	φ54	A1	3	φ15	-	-	3	-	-	50.7
S75B 70B + 0306	70	φ52.5	φ54	B2	3	φ6	φ20	7	10.5	M4	3.5	70.8
S75B 72A - 0315	72	φ54	φ55.5	A1	3	φ15	-	-	3	-	-	53.9
S75B 72B + 0306	72	φ54	φ55.5	B2	3	φ6	φ20	7	10.5	M4	3.5	74.0
S75B 75A - 0315	75	φ56.25	φ57.75	A1	3	φ15	-	-	3	-	-	58.9
S75B 75B + 0306	75	φ56.25	φ57.75	B2	3	φ6	φ20	7	10.5	M4	3.5	79.0
S75B 80A - 0315	80	φ60	φ61.5	A1	3	φ15	-	-	3	-	-	67.6
S75B 80B + 0306	80	φ60	φ61.5	B2	3	φ6	φ20	7	10.5	M4	3.5	87.7

A1型的齿轮孔是用压力机冲压而成，所以不是H8公差。
Bore tolerance of H8 but does not apply to type A1 gears due to the press item.

标号[+]表示齿轮带有螺纹孔/无固定螺钉。

[+]: Gear with threaded hole / with set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S75B 62A - 0315	1.17	11.65	23.30	46.61	81.62	108.54	131.16
S75B 64A - 0315	1.21	12.10	24.20	48.37	84.07	111.64	135.62
S75B 65A - 0315	1.23	12.33	24.65	49.15	85.28	113.50	137.83
S75B 66A - 0315	1.26	12.55	25.10	49.93	86.48	115.37	140.04
S75B 68A - 0315	1.30	13.00	26.00	51.48	88.86	119.08	144.43
S75B 70A - 0315	1.35	13.45	26.90	53.02	91.21	122.77	148.79
S75B 72A - 0315	1.39	13.90	27.81	54.55	93.53	126.44	153.12
S75B 75A - 0315	1.46	14.58	29.17	56.81	96.94	131.90	159.56
S75B 80A - 0315	1.57	15.72	31.43	60.54	102.48	140.91	170.15

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

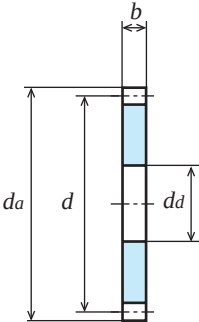
对应 RoHS 指令

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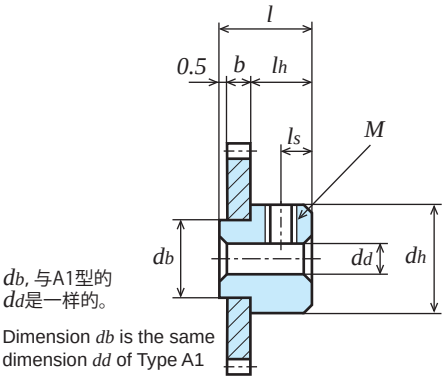
直齿轮
SPUR GEARS

模数
MODULE
0.75 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



A1形状
TYPE A1



B2形状 (铆接轮毂)
TYPE B2 with riveted hub

订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.

材料 : 黄铜 (ISO CuZn38Pb2, CuZn39Pb3)
Material : Brass (ISO CuZn38Pb2, CuZn39Pb3)

单位 : mm
Dimensions : mm

Table with 13 columns: Product Model, Number of Teeth, Reference Diameter, Tip Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Set Screw (M, ls), and Weight. It lists various gear models like S75B 85A-0315, S75B 85B+0306, etc.

A1型的齿轮孔是用压力冲压而成，所以不是H8公差。
Bore tolerance of H8 but does not apply to type A1 gears due to the press item.
标号[+]表示齿轮带有螺纹孔/带有固定螺钉。
[+] : Gear with threaded hole / with set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

Table with 8 columns: Product Model, and seven columns for rotational speeds (10, 100, 200, 400, 800, 1,200, 1,500 rpm). It lists allowable transfer capability values for various gear models.

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

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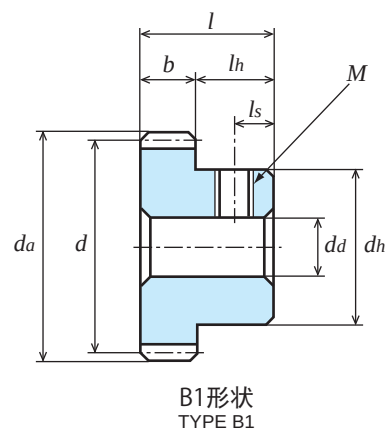
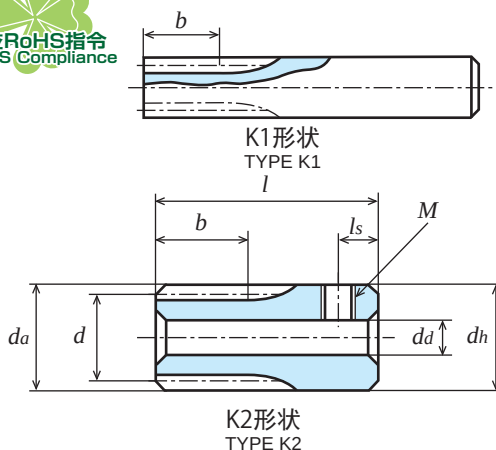
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直齿轮 SPUR GEARS

模数
MODULE

0.75 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 8 ~ 9级
System of accuracy : JIS B 1702-1(ISO) class 8-9



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight $W(g)$
										M	l_s	
S75S 10K - 0809	10	$\phi 7.5$	$\phi 9$	K1	8	-	$\phi 9$	47	55	-	-	26.3
S75S 12K - 0811	12	$\phi 9$	$\phi 10.5$	K1	8	-	$\phi 11$	47	55	-	-	39.1
S75S 14K + 0805	14	$\phi 10.5$	$\phi 12$	K2	8	$\phi 5$	$\phi 12$	12	20	M3	3	12.9
S75S 15K + 0805	15	$\phi 11.25$	$\phi 12.75$	K2	8	$\phi 5$	$\phi 12.75$	12	20	M3	3	15.0
S75S 16B + 0805	16	$\phi 12$	$\phi 13.5$	B1	8	$\phi 5$	$\phi 10$	7	15	M4	3.5	8.9
S75S 18B + 0805	18	$\phi 13.5$	$\phi 15$	B1	8	$\phi 5$	$\phi 11$	7	15	M4	3.5	11.7
S75S 20B + 0806	20	$\phi 15$	$\phi 16.5$	B1	8	$\phi 6$	$\phi 12$	7	15	M4	3.5	13.8
S75S 24B + 0806	24	$\phi 18$	$\phi 19.5$	B1	8	$\phi 6$	$\phi 14$	7	15	M4	3.5	20.8
S75S 25B + 0806	25	$\phi 18.75$	$\phi 20.25$	B1	8	$\phi 6$	$\phi 14$	7	15	M4	3.5	22.2
S75S 28B + 0806	28	$\phi 21$	$\phi 22.5$	B1	8	$\phi 6$	$\phi 14$	7	15	M4	3.5	26.6
S75S 30B + 0806	30	$\phi 22.5$	$\phi 24$	B1	8	$\phi 6$	$\phi 15$	7	15	M4	3.5	31.0
S75S 32B + 0606	32	$\phi 24$	$\phi 25.5$	B1	6	$\phi 6$	$\phi 15$	9	15	M4	4	30.1
S75S 35B + 0606	35	$\phi 26.25$	$\phi 27.75$	B1	6	$\phi 6$	$\phi 18$	9	15	M4	4	39.7
S75S 36B + 0606	36	$\phi 27$	$\phi 28.5$	B1	6	$\phi 6$	$\phi 18$	9	15	M4	4	41.2

标号[+]表示齿轮带有螺纹孔/带有固定螺钉。
[+] : Gear with threaded hole / with set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S75S 10K - 0809	1.10	11.07	22.14	44.29	88.59	132.88	166.10
S75S 12K - 0811	1.53	15.28	30.56	61.12	122.24	183.36	229.20
S75S 14K + 0805	1.99	19.92	39.84	79.67	159.35	239.02	298.77
S75S 15K + 0805	2.23	22.32	44.64	89.29	178.58	267.86	334.83
S75S 16B + 0805	2.48	24.77	49.54	99.09	198.18	297.27	371.59
S75S 18B + 0805	2.98	29.78	59.56	119.12	238.23	357.35	442.68
S75S 20B + 0806	3.50	34.97	69.93	139.86	279.72	419.58	510.83
S75S 24B + 0806	4.56	45.58	91.17	182.33	364.66	536.45	643.79
S75S 25B + 0806	4.83	48.30	96.59	193.18	386.36	564.46	676.47
S75S 28B + 0806	5.65	56.54	113.08	226.16	452.32	647.45	772.83
S75S 30B + 0806	6.21	62.08	124.17	248.66	496.66	701.46	835.14
S75S 32B + 0606	5.08	50.78	101.55	203.10	405.88	566.16	672.37
S75S 35B + 0606	5.72	57.16	114.32	228.63	450.54	625.02	739.59
S75S 36B + 0606	5.93	59.30	118.60	237.20	465.26	644.30	761.51

上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
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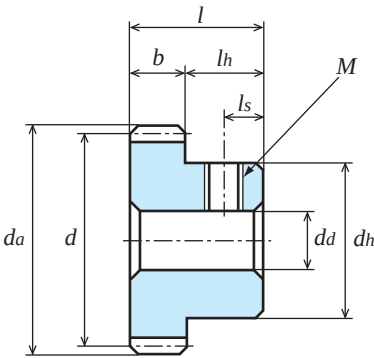
直齿轮
SPUR GEARS

模数
MODULE 0.75 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45) 单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	螺 纹 孔 Set Screw		重 量 Weight W(g)
										M	ls	
S75S 40B + 0606	40	φ30	φ31.5	B1	6	φ6	φ20	9	15	M4	4	51.7
S75S 45B + 0606	45	φ33.75	φ35.25	B1	6	φ6	φ20	9	15	M4	4	60.5
S75S 48B + 0606	48	φ36	φ37.5	B1	6	φ6	φ20	9	15	M4	4	66.3
S75S 50B + 0606	50	φ37.5	φ39	B1	6	φ6	φ20	9	15	M4	4	70.4
S75S 56B + 0606	56	φ42	φ43.5	B1	6	φ6	φ20	9	15	M4	4	83.6
S75S 60B + 0606	60	φ45	φ46.5	B1	6	φ6	φ22	9	15	M4	4	97.9
S75S 64B + 0606	64	φ48	φ49.5	B1	6	φ6	φ22	9	15	M4	4	108.2
S75S 70B + 0606	70	φ52.5	φ54	B1	6	φ6	φ22	9	15	M4	4	124.9
S75S 72B + 0606	72	φ54	φ55.5	B1	6	φ6	φ25	9	15	M4	4	138.5
S75S 80B + 0608	80	φ60	φ61.5	B1	6	φ8	φ25	9	15	M4	4	161.3
S75S 90B + 0608	90	φ67.5	φ69	B1	6	φ8	φ30	9	15	M4	4	211.8
S75S 100B + 0608	100	φ75	φ76.5	B1	6	φ8	φ30	9	15	M4	4	251.3
S75S 120B + 0608	120	φ90	φ91.5	B1	6	φ8	φ30	9	15	M4	4	342.9

标号[+]表示齿轮带有螺纹孔/带有固定螺钉。
[+] : Gear with threaded hole / with set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产 品 型 号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S75S 40B + 0606	6.79	67.94	135.87	271.74	523.34	719.70	846.78
S75S 45B + 0606	7.88	78.80	157.59	315.19	593.54	809.50	947.38
S75S 48B + 0606	8.54	85.39	170.78	341.55	634.74	861.57	1,005.26
S75S 50B + 0606	8.98	89.80	179.60	359.20	661.75	895.45	1,042.75
S75S 56B + 0606	10.31	103.12	206.23	412.46	740.57	993.21	1,176.28
S75S 60B + 0606	11.20	112.05	224.09	448.18	791.32	1,055.28	1,266.80
S75S 64B + 0606	12.10	121.01	242.03	483.67	840.68	1,116.37	1,356.16
S75S 70B + 0606	13.45	134.52	269.05	530.18	912.13	1,227.65	1,487.91
S75S 72B + 0606	13.90	139.04	278.08	545.45	935.29	1,264.36	1,531.23
S75S 80B + 0608	15.72	157.17	314.34	605.38	1,024.75	1,409.08	1,701.45
S75S 90B + 0608	17.97	179.72	359.44	676.87	1,128.44	1,583.37	1,911.84
S75S 100B + 0608	20.25	202.52	405.04	746.20	1,239.53	1,753.91	2,124.81
S75S 120B + 0608	24.83	248.33	496.67	876.93	1,484.26	2,095.89	2,535.81

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

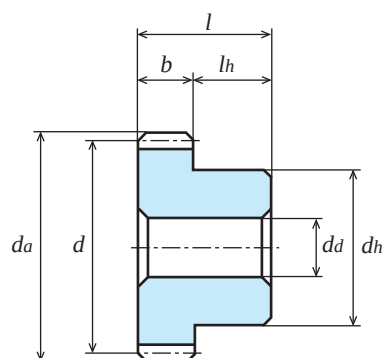
目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

0.8 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H8)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
● S80S 25BF — 0805	25	$\phi 20$	$\phi 21.6$	B1	8	$\phi 5$	$\phi 16$	10	18	32.5
● S80S 25B — 0805H	25	$\phi 20$	$\phi 21.6$	B1	8	$\phi 5(H※)$	$\phi 16$	10	18	32.5
● S80S 30BF — 0805	30	$\phi 24$	$\phi 25.6$	B1	8	$\phi 5$	$\phi 20$	10	18	50.1
● S80S 30B — 0805H	30	$\phi 24$	$\phi 25.6$	B1	8	$\phi 5(H※)$	$\phi 20$	10	18	50.1
● S80S 40BF — 0806	40	$\phi 32$	$\phi 33.6$	B1	8	$\phi 6$	$\phi 25$	10	18	84.7
● S80S 40B — 0806H	40	$\phi 32$	$\phi 33.6$	B1	8	$\phi 6(H※)$	$\phi 25$	10	18	84.7
● S80S 50BF — 0806	50	$\phi 40$	$\phi 41.6$	B1	8	$\phi 6$	$\phi 28$	10	18	122.9
● S80S 50B — 0806H	50	$\phi 40$	$\phi 41.6$	B1	8	$\phi 6(H※)$	$\phi 28$	10	18	122.9

标有 ● 的产品为新产品。
Products with ● marks are new item.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S80S 25BF — 0805	5.52	55.18	110.37	220.74	441.48	637.09	761.80
S80S 25B — 0805H	5.85	58.46	116.91	233.83	467.65	677.83	813.51
S80S 30BF — 0805	7.07	70.68	141.37	282.73	565.46	848.19	936.16
S80S 30B — 0805H	7.50	74.96	149.93	299.85	599.22	841.29	1,003.36
S80S 40BF — 0806	10.28	102.83	205.66	411.32	782.43	1,071.87	1,256.58
S80S 40B — 0806H	10.90	109.02	218.04	436.08	833.49	1,149.74	1,355.60
S80S 50BF — 0806	13.57	135.71	271.42	542.84	985.16	1,326.95	1,556.59
S80S 50B — 0806H	14.38	143.82	287.65	575.29	1,053.52	1,430.70	1,686.59

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min							
10	100	200	400	800	1,200	1,500	
0.26	2.62	5.24	10.47	20.94	31.41	37.70	
1.16	12.85	26.48	54.61	112.59	166.11	201.30	
0.38	3.77	7.54	15.50	31.00	43.98	51.83	
1.70	18.82	38.80	80.02	164.78	235.47	283.64	
0.69	7.02	14.03	28.06	54.45	75.40	89.53	
3.11	34.39	70.89	146.17	287.99	404.36	481.47	
1.12	11.20	22.41	45.24	83.77	115.61	138.22	
4.96	54.88	113.15	233.26	440.39	608.71	724.70	

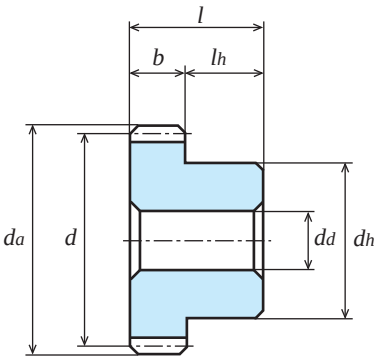
直齿轮
SPUR GEARS

模数
MODULE 0.8 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45) 单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(g)
● S80S 60BF — 0806	60	φ48	φ49.6	B1	8	φ 6(H8)	φ34	10	18	180.5
● S80S 60B — 0806H	60	φ48	φ49.6	B1	8	φ 6(H※)	φ34	10	18	180.5
● S80S 70BF — 0808	70	φ56	φ57.6	B1	8	φ 8	φ40	10	18	245.7
● S80S 70B — 0808H	70	φ56	φ57.6	B1	8	φ 8(H※)	φ40	10	18	245.7
● S80S 80BF — 0808	80	φ64	φ65.6	B1	8	φ 8	φ45	10	18	319.2
● S80S 80B — 0808H	80	φ64	φ65.6	B1	8	φ 8(H※)	φ45	10	18	319.2
● S80S 90BF — 0808	90	φ72	φ73.6	B1	8	φ 8	φ50	10	18	402.1
● S80S 90B — 0808H	90	φ72	φ73.6	B1	8	φ 8(H※)	φ50	10	18	402.1
● S80S 100BF — 0810	100	φ80	φ81.6	B1	8	φ10	φ60	10	18	525.8
● S80S 100B — 0810H	100	φ80	φ81.6	B1	8	φ10(H※)	φ60	10	18	525.8
● S80S 120BF — 0810	120	φ96	φ97.6	B1	8	φ10	φ70	10	18	744.7
● S80S 120B — 0810H	120	φ96	φ97.6	B1	8	φ10(H※)	φ70	10	18	744.7

标有●的产品为新产品。
Products with●marks are new item.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S80S60BF — 0806	16.90	169.01	338.02	675.62	1,174.49	1,559.42	1,894.30
S80S60B — 0806H	17.92	179.21	358.42	716.35	1,260.04	1,688.73	2,055.57
S80S70BF — 0808	20.27	202.73	405.46	790.39	1,349.57	1,834.61	2,219.44
S80S70B — 0808H	21.50	214.96	429.91	840.04	1,453.05	1,989.95	2,412.94
S80S80BF — 0808	23.68	236.76	473.52	900.97	1,512.09	2,102.26	2,535.16
S80S80B — 0808H	25.10	250.96	501.93	959.31	1,633.36	2,282.96	2,760.51
S80S90BF — 0808	27.05	270.48	540.96	1,005.69	1,663.72	2,358.61	2,854.02
S80S90B — 0808H	28.68	286.79	573.59	1,072.86	1,801.68	2,564.52	3,154.83
S80S100BF — 0810	30.47	304.72	609.44	1,106.63	1,850.53	2,609.92	3,168.16
S80S100B — 0810H	32.30	323.03	646.07	1,183.16	2,005.39	2,842.69	3,553.37
S80S120BF — 0810	37.33	373.31	746.20	1,296.79	2,210.75	3,123.87	3,771.32
S80S120B — 0810H	39.58	395.81	791.06	1,391.49	2,400.42	3,483.25	4,354.06

The above references are JGMA standard.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min							
10	100	200	400	800	1,200	1,500	
1.63	16.44	32.88	66.60	118.12	162.10	201.05	
7.27	80.41	165.79	341.55	619.33	844.91	1,038.64	
2.25	22.72	45.66	90.06	158.33	222.42	274.88	
10.04	111.06	228.98	461.22	822.39	1,146.49	1,403.86	
2.98	30.05	60.53	116.86	203.57	291.53	362.84	
13.28	146.92	302.91	596.81	1,047.41	1,490.29	1,819.73	
3.83	38.54	77.70	147.02	252.99	371.95	464.94	
17.00	188.04	387.67	747.52	1,294.06	1,874.86	2,329.10	
4.78	48.17	97.18	180.11	314.15	463.68	581.17	
21.20	234.49	483.43	912.62	1,594.60	2,300.94	2,904.37	
7.02	70.79	143.04	254.25	454.88	682.33	851.34	
31.06	343.56	707.81	1,283.48	2,282.36	3,371.30	4,255.45	

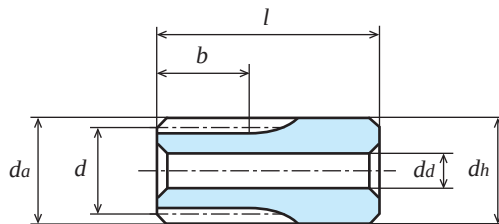
目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无背隙直齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

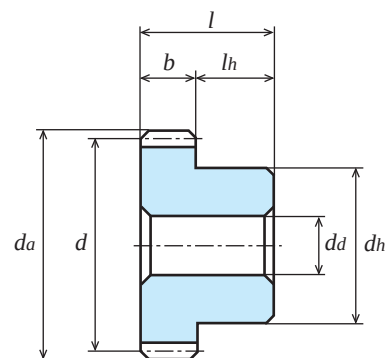
模数
MODULE

0.8 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



K2形状
TYPE K2



B1形状
TYPE B1

材料 : 聚缩醛树脂 (白色)
Material : Poly Acetal (White)

单位 : mm
Dimensions : mm

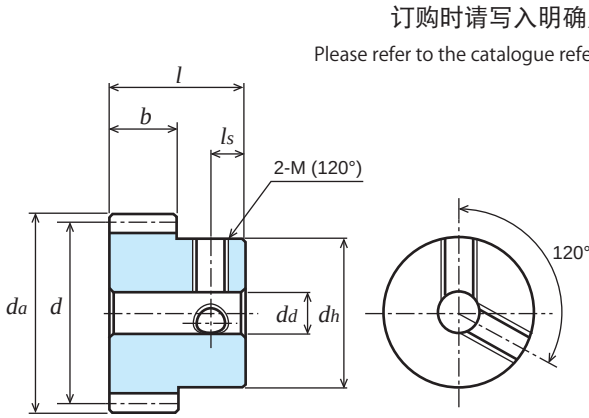
产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter d_d	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
S80D 14K — 0704	14	$\phi 11.2$	$\phi 12.8$	K2	7	$\phi 4$	$\phi 12.8$	13	20	3.0
S80D 15K — 0704	15	$\phi 12$	$\phi 13.6$	K2	7	$\phi 4$	$\phi 13.6$	13	20	3.4
S80D 16B — 0504	16	$\phi 12.8$	$\phi 14.4$	B1	5	$\phi 4$	$\phi 10$	9	14	1.7
S80D 18B — 0504	18	$\phi 14.4$	$\phi 16$	B1	5	$\phi 4$	$\phi 10$	9	14	1.9
S80D 20B — 0504	20	$\phi 16$	$\phi 17.6$	B1	5	$\phi 4$	$\phi 10$	9	14	2.2
S80D 22B — 0505	22	$\phi 17.6$	$\phi 19.2$	B1	5	$\phi 5$	$\phi 12.5$	9	14	2.9
S80D 24B — 0505	24	$\phi 19.2$	$\phi 20.8$	B1	5	$\phi 5$	$\phi 12.5$	9	14	3.2
S80D 25B — 0505	25	$\phi 20$	$\phi 21.6$	B1	5	$\phi 5$	$\phi 12.5$	9	14	3.4
S80D 28B — 0505	28	$\phi 22.4$	$\phi 24$	B1	5	$\phi 5$	$\phi 12.5$	9	14	4.0
S80D 30B — 0505	30	$\phi 24$	$\phi 25.6$	B1	5	$\phi 5$	$\phi 12.5$	9	14	4.4
S80D 32B — 0505	32	$\phi 25.6$	$\phi 27.2$	B1	5	$\phi 5$	$\phi 12.5$	9	14	4.8
S80D 36B — 0506	36	$\phi 28.8$	$\phi 30.4$	B1	5	$\phi 6$	$\phi 14$	9	14	6.0
S80D 40B — 0506	40	$\phi 32$	$\phi 33.6$	B1	5	$\phi 6$	$\phi 14$	9	14	7.1
S80D 45B — 0506	45	$\phi 36$	$\phi 37.6$	B1	5	$\phi 6$	$\phi 14$	9	14	8.6

附带波形弹簧销, 标称直径为 $\phi 1$ (材质: 不锈钢)。
Gear with Corrugated spring (SUS) as dimension of $\phi 1.0$

直齿轮
SPUR GEARS

模数
MODULE 0.8 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



B1形状
TYPE B1

订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.

材料 : 聚缩醛树脂 (白色)
Material : Poly Acetal (White)
单位 : mm
Dimensions : mm

Table with 13 columns: Product Model, Number of Teeth, Reference Diameter, Tip Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Set Screw (2-M(120°) and ls), and Weight. It lists various gear models from S80D 14K to S80D 45B with their respective specifications.

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。
[*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (W)
Allowable transfer capability table (W) Bending Strength

Table with 8 columns: Product Model, and seven columns for rotational speeds (10, 100, 200, 400, 800, 1,200, 1,500 rev/min). It provides allowable transfer capability values for various gear models.

上述数值是Lewis公式，仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

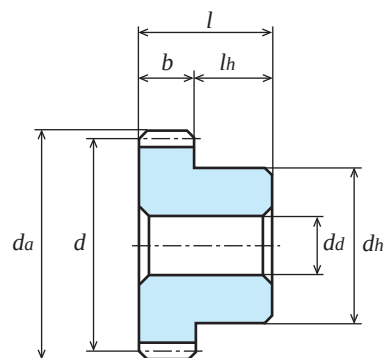
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HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆
WORMS AND WORM WHEELS
锥齿轮
BEVEL GEARS
技术资料
REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

0.8 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



B1形状
TYPE B1

材料 : 聚缩醛树脂 (白色)
Material : Poly Acetal (White)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter d_d	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
S80D 48B - 0506	48	φ38.4	φ40	B1	5	φ6	φ14	9	14	9.6
S80D 50B - 0506	50	φ40	φ41.6	B1	5	φ6	φ14	9	14	10.3
S80D 56B - 0506	56	φ44.8	φ46.4	B1	5	φ6	φ14	9	14	12.6
S80D 60B - 0506	60	φ48	φ49.6	B1	5	φ6	φ14	9	14	14.2
S80D 64B - 0506	64	φ51.2	φ52.8	B1	5	φ6	φ14	9	14	15.9
S80D 70B - 0508	70	φ56	φ57.6	B1	5	φ8	φ16	9	14	19.0
S80D 72B - 0508	72	φ57.6	φ59.2	B1	5	φ8	φ16	9	14	20.1
S80D 80B - 0508	80	φ64	φ65.6	B1	5	φ8	φ16	9	14	24.2
S80D 90B - 0508	90	φ72	φ73.6	B1	5	φ8	φ20	9	14	31.7
S80D 100B - 0508	100	φ80	φ81.6	B1	5	φ8	φ24	9	14	40.2
S80D 120B - 0508	120	φ96	φ97.6	B1	5	φ8	φ30	9	14	59.0

齿数从48B至64B的齿轮附带波形弹簧销, 标称直径为φ1 (材质: 不锈钢)。
齿数从70B至100B的齿轮附带波形弹簧销, 标称直径为φ1.4 (材质: 不锈钢)
齿数从108B至120B的齿轮无波形弹簧销。

No. of teeth from 48B to 64B gears with Corrugated spring (SUS) as dimension of φ1.0.
No. of teeth from 70B to 100B gears with Corrugated spring (SUS) as dimension of φ1.4.
No. of teeth from 108B to 120B gears without Corrugated spring (SUS).

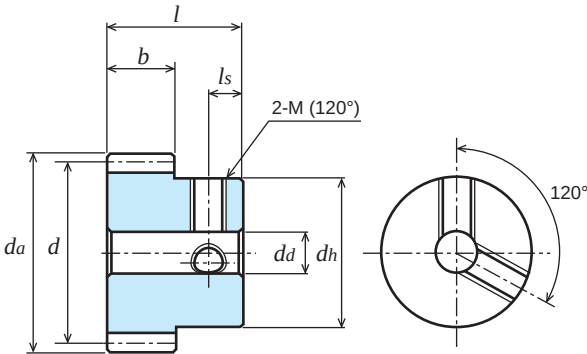
直齿轮
SPUR GEARS

模数
MODULE 0.8 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 聚缩醛树脂 (白色)
Material : Poly Acetal (White)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth <i>z</i>	分度圆 直 径 Reference Diameter <i>d</i>	齿顶圆 直 径 Tip Diameter <i>da</i>	形 状 Type	齿 宽 Face Width <i>b</i>	孔 径 Bore Diameter <i>dd</i>	轮 毂 外 径 Hub Diameter <i>dh</i>	轮 毂 长 度 Hub Projection <i>lh</i>	全 长 Overall Length <i>l</i>	螺 纹 孔 Set Screw		重 量 Weight <i>W(g)</i>
										2-M(120°)	<i>ls</i>	
S80D 48B * 0504	48	φ38.4	φ40	B1	5	φ4	φ22	7	12	2-M4	4	11.7
S80D 50B * 0504	50	φ40	φ41.6	B1	5	φ4	φ22	7	12	2-M4	4	12.4
S80D 56B * 0504	56	φ44.8	φ46.4	B1	5	φ4	φ22	7	12	2-M4	4	14.6
S80D 60B * 0504	60	φ48	φ49.6	B1	5	φ4	φ22	7	12	2-M4	4	16.3
S80D 64B * 0504	64	φ51.2	φ52.8	B1	5	φ4	φ22	7	12	2-M4	4	18.0
S80D 70B * 0505	70	φ56	φ57.6	B1	5	φ5	φ24	7	12	2-M4	4	21.5
S80D 72B * 0505	72	φ57.6	φ59.2	B1	5	φ5	φ24	7	12	2-M4	4	22.5
S80D 80B * 0505	80	φ64	φ65.6	B1	5	φ5	φ24	7	12	2-M4	4	26.8
S80D 90B * 0505	90	φ72	φ73.6	B1	5	φ5	φ24	7	12	2-M4	4	32.8
S80D 100B * 0505	100	φ80	φ81.6	B1	5	φ5	φ24	7	12	2-M4	4	39.5
S80D 120B * 0505	120	φ96	φ97.6	B1	5	φ5	φ24	7	12	2-M4	4	55.1

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。
[*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

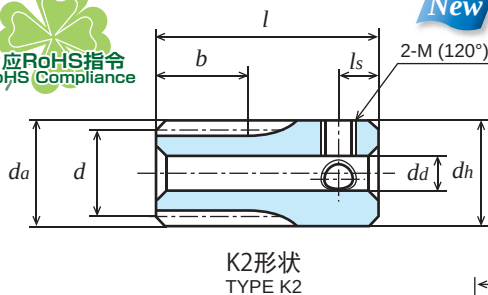
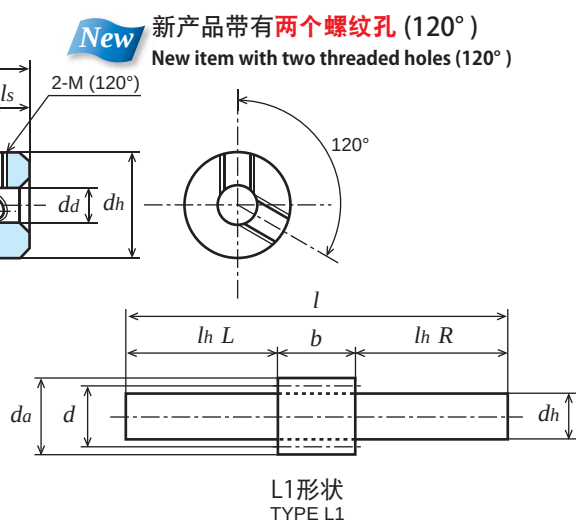
产 品 型 号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S80D 48B * 0504	1.23	12.28	24.52	48.93	97.41	145.44	180.36
S80D 50B * 0504	1.28	12.79	25.54	50.96	101.44	151.40	187.53
S80D 56B * 0504	1.43	14.32	28.60	57.05	113.48	168.83	208.87
S80D 60B * 0504	1.54	15.34	30.64	61.10	121.49	180.36	222.96
S80D 64B * 0504	1.64	16.36	32.67	65.14	129.49	191.81	236.94
S80D 70B * 0505	1.79	17.89	35.73	71.21	141.46	208.87	257.71
S80D 72B * 0505	1.84	18.40	36.74	73.23	145.44	214.52	264.58
S80D 80B * 0505	2.05	20.44	40.81	81.30	161.10	236.94	291.72
S80D 90B * 0505	2.30	22.99	45.89	91.38	180.36	264.58	323.84
S80D 100B * 0505	2.56	25.54	50.96	101.44	199.41	291.72	355.00
S80D 120B * 0505	3.07	30.64	61.10	121.49	236.94	342.65	414.26

上述数值是Lewis公式，仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮

SPUR GEARS

模数
MODULE0.8 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTHJIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1(ISO) class 9K2形状
TYPE K2L1形状
TYPE L1材料 : 不锈钢 SUS304 (JIS G 4303)
Material : Stainless Steel SUS304 (JIS G 4303)单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H8)$	轮毂 外 径 Hub Diameter d_h	轮毂 长 度 Hub Projection l_h	全 长 Overall Length l	螺纹孔 Set Screw		重 量 Weight $W(g)$
										2-M(120°)	l_s	
S80SU 10K — 1010	10	$\phi 8$	$\phi 9.6$	K1	10	-	$\phi 10$	50	60	-	-	35.1
S80SU 12K — 1012	12	$\phi 9.6$	$\phi 11.2$	K1	10	-	$\phi 12$	50	60	-	-	50.6
S80SU 14K * 0704	14	$\phi 11.2$	$\phi 12.8$	K2	7	$\phi 4$	$\phi 12.8$	13	20	2-M3	3	16.3
S80SU 14L — 0706	14	$\phi 11.2$	$\phi 12.8$	L1	7	-	$\phi 6(h9)$	L28 R60	95	-	-	25.2
S80SU 15K * 0704	15	$\phi 12$	$\phi 13.6$	K2	7	$\phi 4$	$\phi 13.6$	13	20	2-M3	3	18.8
S80SU 15L — 0706	15	$\phi 12$	$\phi 13.6$	L1	7	-	$\phi 6(h9)$	L28 R60	95	-	-	26.0
S80SU 16L — 0706	16	$\phi 12.8$	$\phi 14.4$	L1	7	-	$\phi 6(h9)$	L28 R60	95	-	-	26.9
S80SU 16B * 0504	16	$\phi 12.8$	$\phi 14.4$	B1	5	$\phi 4$	$\phi 10$	7	12	2-M3	3	8.0
S80SU 16B * 0704	16	$\phi 12.8$	$\phi 14.4$	B1	7	$\phi 4$	$\phi 10$	7	14	2-M3	3	9.8
S80SU 18L — 0708	18	$\phi 14.4$	$\phi 16$	L1	7	-	$\phi 8(h9)$	L28 R60	95	-	-	44.1
S80SU 18B * 0504	18	$\phi 14.4$	$\phi 16$	B1	5	$\phi 4$	$\phi 10$	7	12	2-M3	3	9.3
S80SU 18B * 0704	18	$\phi 14.4$	$\phi 16$	B1	7	$\phi 4$	$\phi 10$	7	14	2-M3	3	11.7
S80SU 20L — 0710	20	$\phi 16$	$\phi 17.6$	L1	7	-	$\phi 10(h9)$	L28 R60	95	-	-	66.0
S80SU 20B * 0504	20	$\phi 16$	$\phi 17.6$	B1	5	$\phi 4$	$\phi 10$	7	12	2-M3	3	10.9
S80SU 20B * 0704	20	$\phi 16$	$\phi 17.6$	B1	7	$\phi 4$	$\phi 10$	7	14	2-M3	3	13.9

标号[*]表示齿轮带有螺纹孔/无固定螺钉。[*]: Gear with two threaded holes / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S80SU 10K — 1010	0.78	7.76	15.52	31.03	62.07	93.10	116.37
S80SU 12K — 1012	1.09	10.87	21.73	43.46	86.93	130.39	162.99
S80SU 14K * 0704	0.99	9.91	19.83	39.66	79.32	118.98	148.72
S80SU 14L — 0706	0.99	9.91	19.83	39.66	79.32	118.98	148.72
S80SU 15K * 0704	1.11	11.11	22.22	44.45	88.89	133.34	166.67
S80SU 15L — 0706	1.11	11.11	22.22	44.45	88.89	133.34	166.67
S80SU 16L — 0706	1.23	12.33	24.66	49.32	98.65	147.97	184.82
S80SU 16B * 0504	0.88	8.81	17.62	35.23	70.46	105.70	132.01
S80SU 16B * 0704	1.23	12.33	24.66	49.32	98.65	147.97	184.82
S80SU 18L — 0708	1.48	14.82	29.65	59.29	118.59	177.88	218.07
S80SU 18B * 0504	1.06	10.59	21.18	42.35	84.70	127.06	155.76
S80SU 18B * 0704	1.48	14.82	29.65	59.29	118.59	177.88	218.07
S80SU 20L — 0710	1.74	17.40	34.81	69.62	139.24	208.69	251.40
S80SU 20B * 0504	1.24	12.43	24.86	49.73	99.46	149.07	179.57
S80SU 20B * 0704	1.74	17.40	34.81	69.62	139.24	208.69	251.40

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮
SPUR GEARS

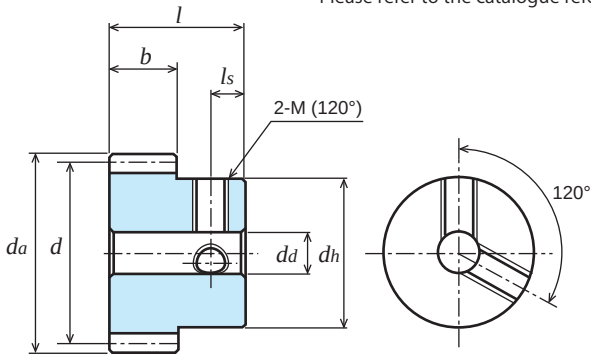
模数
MODULE 0.8 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1(ISO) class 9



订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 不锈钢 SUS304 (JIS G 4303)
Material : Stainless Steel SUS304 (JIS G 4303)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H8)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	螺 纹 孔 Set Screw		重 量 Weight W(g)
										2-M(120°)	ls	
S80SU 22B * 0504	22	φ17.6	φ19.2	B1	5	φ4	φ10	7	12	2-M3	3	12.5
S80SU 22B * 0704	22	φ17.6	φ19.2	B1	7	φ4	φ10	7	14	2-M3	3	16.2
S80SU 24B * 0505	24	φ19.2	φ20.8	B1	5	φ5	φ15	7	12	2-M4	4	18.6
S80SU 24B * 0705	24	φ19.2	φ20.8	B1	7	φ5	φ15	7	14	2-M4	4	22.9
S80SU 25B * 0505	25	φ20	φ21.6	B1	5	φ5	φ15	7	12	2-M4	4	19.6
S80SU 25B * 0705	25	φ20	φ21.6	B1	7	φ5	φ15	7	14	2-M4	4	24.2
S80SU 28B * 0505	28	φ22.4	φ24	B1	5	φ5	φ15	7	12	2-M4	4	22.7
S80SU 28B * 0705	28	φ22.4	φ24	B1	7	φ5	φ15	7	14	2-M4	4	28.7
S80SU 30B * 0505	30	φ24	φ25.6	B1	5	φ5	φ15	7	12	2-M4	4	25.0
S80SU 30B * 0705	30	φ24	φ25.6	B1	7	φ5	φ15	7	14	2-M4	4	31.9
S80SU 32B * 0505	32	φ25.6	φ27.2	B1	5	φ5	φ15	9	14	2-M4	4	30.0
S80SU 36B * 0506	36	φ28.8	φ30.4	B1	5	φ6	φ18	9	14	2-M4	4	39.9
S80SU 40B * 0506	40	φ32	φ33.6	B1	5	φ6	φ18	9	14	2-M4	4	45.9
S80SU 45B * 0506	45	φ36	φ37.6	B1	5	φ6	φ18	9	14	2-M4	4	54.4
S80SU 48B * 0506	48	φ38.4	φ40	B1	5	φ6	φ18	9	14	2-M4	4	59.9
S80SU 50B * 0506	50	φ40	φ41.6	B1	5	φ6	φ18	9	14	2-M4	4	63.9

标号[*]表示齿轮带有螺纹孔/无固定螺钉。[*] : Gear with two threaded holes / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产 品 型 号 Catalogue Numbers	旋 转 速 度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S80SU 22B * 0504	1.43	14.30	28.61	57.22	114.44	168.97	202.93
S80SU 22B * 0704	2.00	20.03	40.05	80.10	160.21	236.56	284.10
S80SU 24B * 0505	1.62	16.21	32.41	64.83	129.66	188.65	225.90
S80SU 24B * 0705	2.27	22.69	45.38	90.76	181.52	264.10	316.25
S80SU 25B * 0505	1.72	17.17	34.34	68.69	137.37	198.42	237.26
S80SU 25B * 0705	2.40	24.04	48.08	96.16	192.32	277.79	332.16
S80SU 28B * 0505	2.10	20.10	40.21	80.41	160.83	227.34	270.71
S80SU 28B * 0705	2.81	28.14	56.29	112.58	225.16	318.28	379.00
S80SU 30B * 0505	2.21	22.07	44.15	88.30	176.45	246.13	292.31
S80SU 30B * 0705	3.09	30.90	61.81	123.61	247.03	344.58	409.23
S80SU 32B * 0505	2.41	24.07	48.14	96.28	190.50	264.69	313.54
S80SU 36B * 0506	2.81	28.11	56.23	112.45	218.15	300.82	354.57
S80SU 40B * 0506	3.22	32.21	64.41	128.83	245.14	335.60	393.73
S80SU 45B * 0506	3.74	37.36	74.71	149.42	277.69	376.92	439.78
S80SU 48B * 0506	4.05	40.48	80.96	161.92	296.75	400.82	466.79
S80SU 50B * 0506	4.26	42.57	85.14	170.29	309.24	416.36	488.56

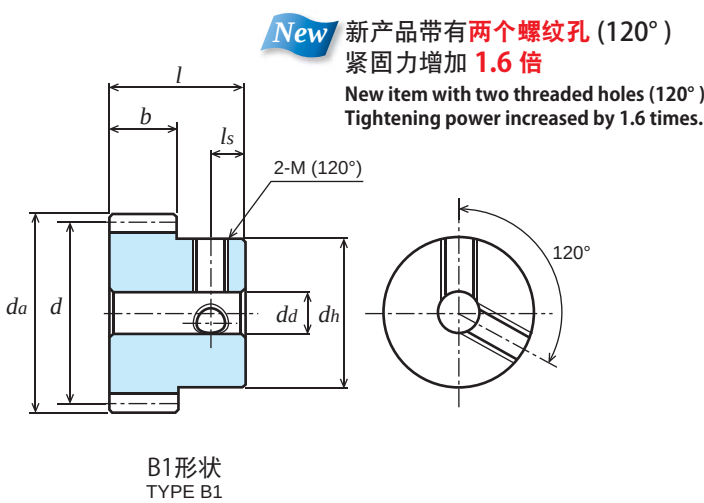
上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙背隙齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直 齿 轮
SPUR GEARS

模数
MODULE 0.8 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1(ISO) class 9



材料 : 不锈钢 SUS304 (JIS G 4303)
Material : Stainless Steel SUS304 (JIS G 4303)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H8)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	螺 纹 孔 Set Screw		重 量 Weight W(g)
										2-M(120°)	ls	
S80SU 54B * 0506	54	φ43.2	φ44.8	B1	5	φ 6	φ18	9	14	2-M4	4	72.1
S80SU 56B * 0506	56	φ44.8	φ46.4	B1	5	φ 6	φ18	9	14	2-M4	4	76.5
S80SU 60B * 0506	60	φ48	φ49.6	B1	5	φ 6	φ18	9	14	2-M4	4	85.8
S80SU 64B * 0506	64	φ51.2	φ52.8	B1	5	φ 6	φ18	9	14	2-M4	4	95.7
S80SU 70B * 0508	70	φ56	φ57.6	B1	5	φ 8	φ28	9	14	2-M4	4	134.4
S80SU 72B * 0508	72	φ57.6	φ59.2	B1	5	φ 8	φ28	9	14	2-M4	4	140.0
S80SU 80B * 0508	80	φ64	φ65.6	B1	5	φ 8	φ28	9	14	2-M4	4	164.3
S80SU 80B * 0510	80	φ64	φ65.6	B1	5	φ10	φ28	9	14	2-M4	4	161.3
S80SU 90B * 0508	90	φ72	φ73.6	B1	5	φ 8	φ28	9	14	2-M4	4	198.1
S80SU 100B * 0508	100	φ80	φ81.6	B1	5	φ 8	φ28	9	14	2-M4	4	236.0
S80SU 100B * 0510	100	φ80	φ81.6	B1	5	φ10	φ28	9	14	2-M4	4	233.0
S80SU 120B * 0508	120	φ96	φ97.6	B1	5	φ 8	φ30	9	14	2-M4	4	330.0
S80SU 120B * 0510	120	φ96	φ97.6	B1	5	φ10	φ30	9	14	2-M4	4	327.1

标号[*]表示齿轮带有螺纹孔/无固定螺钉。
[*] : Gear with two threaded holes / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产 品 型 号 Catalogue Numbers	旋 转 速 度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S80SU 54B * 0506	4.68	46.77	93.55	187.10	333.68	446.48	531.67
S80SU 56B * 0506	4.89	48.88	97.77	195.54	345.63	461.09	553.02
S80SU 60B * 0506	5.31	53.12	106.24	212.30	369.00	490.02	595.27
S80SU 64B * 0506	5.74	57.37	114.74	227.01	391.70	525.18	636.94
S80SU 70B * 0508	6.38	63.77	127.55	248.65	424.50	577.17	698.30
S80SU 72B * 0508	6.59	65.92	131.83	255.75	435.12	594.31	718.46
S80SU 80B * 0508	7.45	74.51	149.02	283.56	476.06	661.79	797.82
S80SU 80B * 0510	7.45	74.51	149.02	283.56	476.06	661.79	797.82
S80SU 90B * 0508	8.52	85.20	170.40	316.67	523.99	742.92	898.85
S80SU 100B * 0508	9.60	96.01	192.03	348.72	582.97	822.44	998.20
S80SU 100B * 0510	9.60	96.01	192.03	348.72	582.97	822.44	998.20
S80SU 120B * 0508	11.77	117.73	235.28	408.93	697.12	984.92	1,189.46
S80SU 120B * 0510	11.77	117.73	235.28	408.93	697.12	984.92	1,189.46

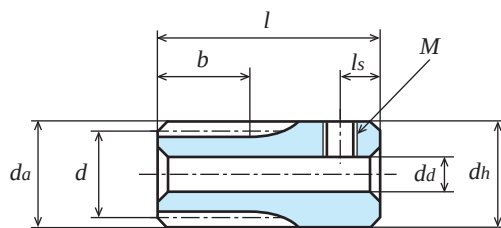
上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮 SPUR GEARS

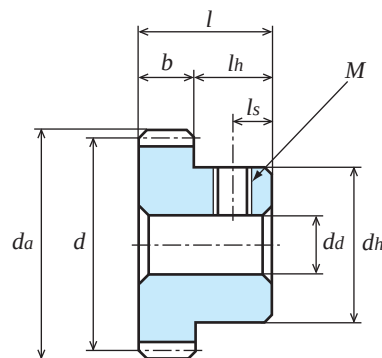
模数
MODULE

0.8 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1(ISO) class 9



K2形状
TYPE K2



B1形状
TYPE B1

材料 : 黄铜 (ISO CuZn39Pb3)
Material : Brass (ISO CuZn39Pb3)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H8)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight $W(g)$
										M	l_s	
S80B 14K + 0704	14	φ11.2	φ12.8	K2	7	φ4	φ12.8	13	20	M3	3	17.8
S80B 15K + 0704	15	φ12	φ13.6	K2	7	φ4	φ13.6	13	20	M3	3	20.4
S80B 16B + 0504	16	φ12.8	φ14.4	B1	5	φ4	φ10	9	14	M3	3	9.8
S80B 16B + 0704	16	φ12.8	φ14.4	B1	7	φ4	φ10	7	14	M3	3	10.7
S80B 18B + 0504	18	φ14.4	φ16	B1	5	φ4	φ10	9	14	M3	3	11.3
S80B 18B + 0704	18	φ14.4	φ16	B1	7	φ4	φ10	7	14	M3	3	12.7
S80B 20B + 0504	20	φ16	φ17.6	B1	5	φ4	φ10	9	14	M3	3	12.9
S80B 20B + 0704	20	φ16	φ17.6	B1	7	φ4	φ10	7	14	M3	3	15.0
S80B 24B + 0505	24	φ19.2	φ20.8	B1	5	φ5	φ12.5	9	14	M3	3	19.2
S80B 24B + 0705	24	φ19.2	φ20.8	B1	7	φ5	φ12.5	7	14	M3	3	22.0
S80B 25B + 0505	25	φ20	φ21.6	B1	5	φ5	φ12.5	9	14	M3	3	20.2
S80B 25B + 0705	25	φ20	φ21.6	B1	7	φ5	φ12.5	7	14	M3	3	23.5
S80B 28B + 0505	28	φ22.4	φ24	B1	5	φ5	φ12.5	9	14	M3	3	23.6
S80B 28B + 0705	28	φ22.4	φ24	B1	7	φ5	φ12.5	7	14	M3	3	28.2
S80B 30B + 0505	30	φ24	φ25.6	B1	5	φ5	φ12.5	9	14	M3	3	26.1
S80B 30B + 0705	30	φ24	φ25.6	B1	7	φ5	φ12.5	7	14	M3	3	31.7
S80B 32B + 0505	32	φ25.6	φ27.2	B1	5	φ5	φ12.5	9	14	M3	4	28.8

标号[+]表示齿轮带有螺纹孔/带有固定螺钉。
[+] : Gear with threaded hole / with set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min					
	10	100	200	400	800	1,200
S80B 14K + 0704	0.40	3.97	7.93	15.86	31.73	47.59
S80B 15K + 0704	0.44	4.44	8.89	17.78	35.56	53.33
S80B 16B + 0504	0.35	3.52	7.05	14.09	28.19	42.28
S80B 16B + 0704	0.49	4.93	9.86	19.73	39.46	59.19
S80B 18B + 0504	0.42	4.24	8.47	16.94	33.88	50.82
S80B 18B + 0704	0.59	5.93	11.86	23.72	47.43	71.15
S80B 20B + 0504	0.50	4.97	9.95	19.89	39.78	59.63
S80B 20B + 0704	0.70	6.96	13.92	27.85	55.70	83.48
S80B 24B + 0505	0.65	6.48	12.97	25.93	51.86	75.46
S80B 24B + 0705	0.91	9.08	18.15	36.30	72.61	105.64
S80B 25B + 0505	0.69	6.87	13.74	27.47	54.95	79.37
S80B 25B + 0705	0.96	9.62	19.23	38.46	76.93	111.12
S80B 28B + 0505	0.80	8.04	16.08	32.17	64.33	90.94
S80B 28B + 0705	1.13	11.26	22.52	45.03	90.06	127.31
S80B 30B + 0505	0.88	8.83	17.66	35.32	70.58	98.45
S80B 30B + 0705	1.24	12.36	24.72	49.45	98.81	137.88
S80B 32B + 0505	0.96	9.63	19.26	38.51	76.20	105.88

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

对应 RoHS 指令

从2006年11月份开始生产提供，对应欧洲RoHS指令的产品。
We supplied the KG-products with RoHS compliance of EU to all our valued customers since November 2006

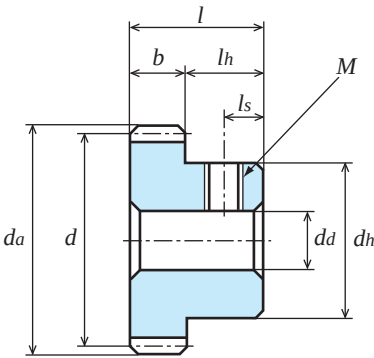
直齿轮
SPUR GEARS

模数
MODULE 0.8 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1(ISO) class 9



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 黄铜 (ISO CuZn39Pb3, ISO CuZn38Pb2)
Material : Brass (ISO CuZn39Pb3, ISO CuZn38Pb2) 单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H8)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	螺 纹 孔 Set Screw		重 量 Weight W(g)
										M	ls	
S80B 36B + 0506	36	φ28.8	φ30.4	B1	5	φ6	φ14	9	14	M4	4	35.8
S80B 40B + 0506	40	φ32	φ33.6	B1	5	φ6	φ14	9	14	M4	4	42.3
S80B 45B + 0506	45	φ36	φ37.6	B1	5	φ6	φ14	9	14	M4	4	51.4
S80B 48B + 0506	48	φ38.4	φ40	B1	5	φ6	φ14	9	14	M4	4	57.3
S80B 50B + 0506	50	φ40	φ41.6	B1	5	φ6	φ14	9	14	M4	4	61.5
S80B 56B + 0506	56	φ44.8	φ46.4	B1	5	φ6	φ14	9	14	M4	4	75.1
S80B 60B + 0506	60	φ48	φ49.6	B1	5	φ6	φ14	9	14	M4	4	85.0
S80B 64B + 0506	64	φ51.2	φ52.8	B1	5	φ6	φ16	9	14	M4	4	99.1
S80B 70B + 0508	70	φ56	φ57.6	B1	5	φ8	φ16	9	14	M4	4	113.8
S80B 72B + 0508	72	φ57.6	φ59.2	B1	5	φ8	φ16	9	14	M4	4	119.8
S80B 80B + 0508	80	φ64	φ65.6	B1	5	φ8	φ16	9	14	M4	4	145.8
S80B 90B + 0508	90	φ72	φ73.6	B1	5	φ8	φ20	9	14	M4	4	190.6
S80B 100B + 0508	100	φ80	φ81.6	B1	5	φ8	φ24	9	14	M4	4	241.6
S80B 120B + 0508	120	φ96	φ97.6	B1	5	φ8	φ30	9	14	M4	4	354.8

标号[+]表示齿轮带有螺纹孔/带有固定螺钉。[+] : Gear with threaded hole / with set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产 品 型 号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S80B 36B + 0506	1.12	11.25	22.49	44.98	87.26	120.33	141.83
S80B 40B + 0506	1.28	12.88	25.77	51.53	98.05	134.24	157.49
S80B 45B + 0506	1.49	14.94	29.88	59.77	111.08	150.77	175.91
S80B 48B + 0506	1.61	16.19	32.38	64.77	118.70	160.33	186.72
S80B 50B + 0506	1.70	17.03	34.06	68.12	123.70	166.54	195.42
S80B 56B + 0506	1.96	19.55	39.11	78.21	138.25	184.44	221.21
S80B 60B + 0506	2.12	21.25	42.49	84.92	147.60	196.01	238.11
S80B 64B + 0506	2.29	22.95	45.90	90.81	156.68	210.07	254.77
S80B 70B + 0508	2.55	25.51	51.02	99.46	169.80	230.87	297.32
S80B 72B + 0508	2.64	26.37	52.73	102.30	174.05	237.72	287.38
S80B 80B + 0508	2.98	29.80	59.61	113.43	190.42	264.72	319.13
S80B 90B + 0508	3.41	34.08	68.16	126.67	209.60	297.17	359.54
S80B 100B + 0508	3.84	38.40	76.81	139.49	233.19	328.98	399.28
S80B 120B + 0508	4.71	47.09	94.11	163.57	278.85	393.97	475.79

上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

对应 RoHS 指令

从2006年11月份开始生产提供, 对应欧洲RoHS指令的产品。
We supplied the KG-products with RoHS compliance of EU to all our valued customers since November 2006

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿 GROUND SPUR GEARS	直齿 SPUR GEARS	内齿 INTERNAL GEARS	研磨齿 GROUND RACKS	齿 RACKS	斜齿・螺旋齿 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

1

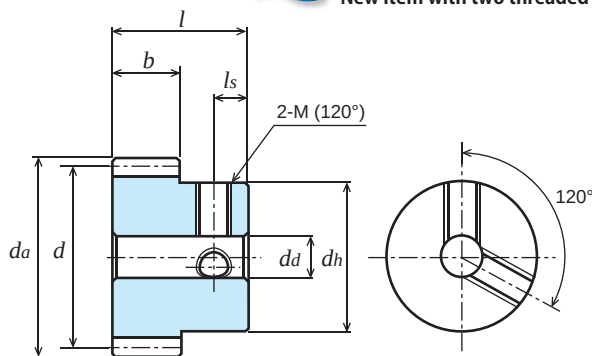
压力角 20° (普通齿)

20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



新产品带有两个螺纹孔 (120°)
New item with two threaded holes (120°)



B1形状
TYPE B1

材料 : 聚缩醛树脂 (白色)
Material : Poly Acetal (White)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter d_d	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight $W(g)$
										$2-M(120^\circ)$	l_s	
S1D 12A - 1206	12	$\phi 12$	$\phi 14$	A1	12	$\phi 6$	-	-	12			1.4
S1D 14A - 1206	14	$\phi 14$	$\phi 16$	A1	12	$\phi 6$	-	-	12			2.1
S1D 15A - 1206	15	$\phi 15$	$\phi 17$	A1	12	$\phi 6$	-	-	12			2.5
S1D 16A - 1206	16	$\phi 16$	$\phi 18$	A1	12	$\phi 6$	-	-	12			2.9
S1D 17B * 0804	17	$\phi 17$	$\phi 19$	B1	8	$\phi 4$	$\phi 14$	8	16	2-M4	4	4.0
S1D 18B * 0804	18	$\phi 18$	$\phi 20$	B1	8	$\phi 4$	$\phi 15$	8	16	2-M4	4	4.5
S1D 20B * 0805	20	$\phi 20$	$\phi 22$	B1	8	$\phi 5$	$\phi 16$	8	16	2-M4	4	5.3
S1D 22B * 0805	22	$\phi 22$	$\phi 24$	B1	8	$\phi 5$	$\phi 18$	8	16	2-M4	4	6.7
S1D 23B * 0805	23	$\phi 23$	$\phi 25$	B1	8	$\phi 5$	$\phi 20$	8	16	2-M4	4	7.7
S1D 24B * 0805	24	$\phi 24$	$\phi 26$	B1	8	$\phi 5$	$\phi 20$	8	16	2-M4	4	8.2
S1D 25B * 0805	25	$\phi 25$	$\phi 27$	B1	8	$\phi 5$	$\phi 22$	8	16	2-M4	4	9.3
S1D 26B * 0805	26	$\phi 26$	$\phi 28$	B1	8	$\phi 5$	$\phi 22$	8	16	2-M4	4	9.8
S1D 28B * 0805	28	$\phi 28$	$\phi 30$	B1	8	$\phi 5$	$\phi 24$	8	16	2-M4	4	11.6
S1D 30B * 0805	30	$\phi 30$	$\phi 32$	B1	8	$\phi 5$	$\phi 24$	8	16	2-M4	4	12.6

齿数从12A至16A的齿轮附带波形弹簧销, 标称直径为 $\phi 1$ (材质: 不锈钢)。No. of teeth from 12A to 16A gears with Corrugated spring (SUS) as dimension of $\phi 1.0$.
标号[*]表示齿轮带有两个螺纹孔/有两个固定螺钉。[*]: Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S1D 12A - 1206	0.88	8.82	17.64	35.25	70.40	105.44	131.66
S1D 14A - 1206	1.03	10.29	20.57	41.11	82.09	122.93	153.47
S1D 15A - 1206	1.10	11.03	22.04	44.05	87.93	131.66	164.35
S1D 16A - 1206	1.18	11.76	23.51	46.98	93.77	140.39	175.23
S1D 17B * 0804	0.83	8.33	16.65	33.27	66.41	99.41	124.07
S1D 18B * 0804	0.88	8.82	17.63	35.22	70.30	105.22	131.31
S1D 20B * 0805	0.98	9.80	19.59	39.13	78.07	116.82	145.76
S1D 22B * 0805	1.08	10.78	21.54	43.03	85.83	128.41	160.19
S1D 23B * 0805	1.13	11.27	22.52	44.98	89.71	134.20	167.40
S1D 24B * 0805	1.18	11.76	23.50	46.93	93.59	139.98	174.60
S1D 25B * 0805	1.23	12.25	24.48	48.88	97.47	145.76	181.79
S1D 26B * 0805	1.27	12.74	25.45	50.83	101.34	151.54	188.98
S1D 28B * 0805	1.37	13.72	27.41	54.73	109.09	163.08	203.33
S1D 30B * 0805	1.47	14.70	29.36	58.62	116.82	174.60	217.65

上述数值是Lewis公式, 仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

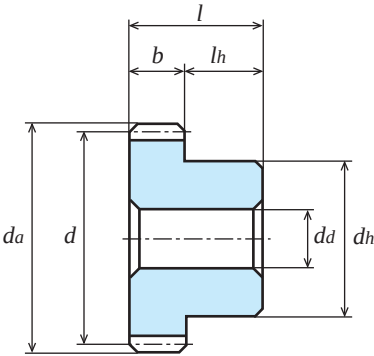
直齿轮
SPUR GEARS

模数
MODULE 1 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 聚缩醛树脂 (白色)
Material : Poly Acetal (White) 单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆直 径 Reference Diameter d	齿顶圆直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter dd	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	重 量 Weight W(g)
S1D 17B — 0806	17	φ17	φ19	B1	8	φ6	φ14	8	16	3.7
S1D 18B — 0808	18	φ18	φ20	B1	8	φ8	φ15	8	16	3.7
S1D 20B — 0808	20	φ20	φ22	B1	8	φ8	φ16	8	16	4.7
S1D 22B — 0808	22	φ22	φ24	B1	8	φ8	φ18	8	16	6.0
S1D 23B — 0808	23	φ23	φ25	B1	8	φ8	φ18	8	16	6.4
S1D 24B — 0808	24	φ24	φ26	B1	8	φ8	φ18	8	16	6.8
S1D 25B — 0808	25	φ25	φ27	B1	8	φ8	φ18	8	16	7.3
S1D 26B — 0808	26	φ26	φ28	B1	8	φ8	φ20	8	16	8.4
S1D 28B — 0808	28	φ28	φ30	B1	8	φ8	φ20	8	16	9.4
S1D 30B — 0808	30	φ30	φ32	B1	8	φ8	φ20	8	16	10.4

齿数从17B至18B的齿轮附带波形弹簧销，标称直径为φ1 (材质：不锈钢)。
齿数从20B至80B的齿轮附带波形弹簧销，标称直径为φ1.4 (材质：不锈钢)
No. of teeth from 17B to 18B gears with Corrugated spring (SUS) as dimension of φ1.0.
No. of teeth from 20B to 80B gears with Corrugated spring (SUS) as dimension of φ1.4.

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WORMS AND WORM WHEELS
锥 齿 轮
BEVEL GEARS
技 术 资 料
REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

1

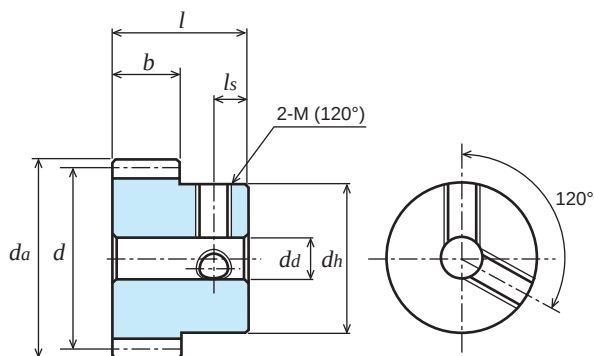
压力角 20° (普通齿)

20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



新产品带有两个螺纹孔 (120°)
New item with two threaded holes (120°)



B1形状
TYPE B1

材料 : 聚缩醛树脂 (白色)
Material : Poly Acetal (White)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter d_d	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight $W(g)$
										2-M(120°)	l_s	
S1D 32B * 0605	32	φ32	φ34	B1	6	φ5	φ24	8	14	2-M4	4	11.5
S1D 34B * 0605	34	φ34	φ36	B1	6	φ5	φ24	8	14	2-M4	4	12.4
S1D 35B * 0605	35	φ35	φ37	B1	6	φ5	φ24	8	14	2-M4	4	12.8
S1D 36B * 0605	36	φ36	φ38	B1	6	φ5	φ24	8	14	2-M4	4	13.3
S1D 38B * 0605	38	φ38	φ40	B1	6	φ5	φ24	8	14	2-M4	4	14.3
S1D 40B * 0605	40	φ40	φ42	B1	6	φ5	φ24	8	14	2-M4	4	15.3
S1D 42B * 0605	42	φ42	φ44	B1	6	φ5	φ24	8	14	2-M4	4	16.4
S1D 44B * 0605	44	φ44	φ46	B1	6	φ5	φ24	8	14	2-M4	4	17.5
S1D 45B * 0605	45	φ45	φ47	B1	6	φ5	φ24	8	14	2-M4	4	18.1
S1D 48B * 0605	48	φ48	φ50	B1	6	φ5	φ24	8	14	2-M4	4	20.0
S1D 50B * 0605	50	φ50	φ52	B1	6	φ5	φ24	8	14	2-M4	4	21.3
S1D 52B * 0605	52	φ52	φ54	B1	6	φ5	φ24	8	14	2-M4	4	22.6
S1D 55B * 0605	55	φ55	φ57	B1	6	φ5	φ24	8	14	2-M4	4	24.8

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。

[*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S1D 32B * 0605	2.10	20.97	41.90	83.65	166.65	249.01	310.33
S1D 34B * 0605	2.23	22.28	44.52	88.85	176.98	264.39	328.97
S1D 35B * 0605	2.30	22.94	45.82	91.46	182.14	272.06	338.26
S1D 36B * 0605	2.36	23.59	47.13	94.06	187.30	279.73	347.53
S1D 38B * 0605	2.49	24.90	49.74	99.26	197.61	295.06	366.00
S1D 40B * 0605	2.62	26.21	52.36	104.46	207.91	310.33	384.38
S1D 42B * 0605	2.75	27.52	54.97	109.66	218.20	325.25	402.67
S1D 44B * 0605	2.89	28.83	57.58	114.85	228.48	340.12	420.87
S1D 48B * 0605	3.15	31.44	62.80	125.23	249.01	369.68	457.01
S1D 50B * 0605	3.28	32.75	65.40	130.42	259.26	384.38	474.95
S1D 52B * 0605	3.41	34.06	68.01	135.60	269.50	399.02	492.80
S1D 55B * 0605	3.61	36.02	71.92	143.37	284.84	420.87	519.41

上述数值是Lewis公式, 仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

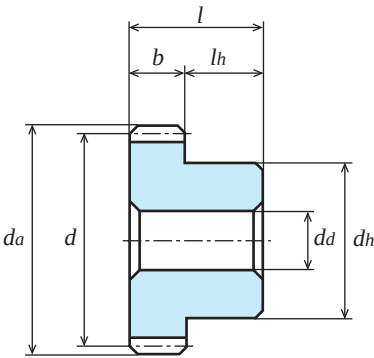
直齿轮
SPUR GEARS

模数
MODULE 1
压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 聚缩醛树脂 (白色)
Material : Poly Acetal (White)
单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter dd	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	重 量 Weight W(g)
S1D 32B— 0608	32	φ32	φ34	B1	6	φ8	φ20	8	14	9.4
S1D 34B— 0608	34	φ34	φ36	B1	6	φ8	φ20	8	14	10.2
S1D 35B— 0608	35	φ35	φ37	B1	6	φ8	φ20	8	14	10.7
S1D 36B— 0608	36	φ36	φ38	B1	6	φ8	φ20	8	14	11.2
S1D 38B— 0608	38	φ38	φ40	B1	6	φ8	φ20	8	14	12.2
S1D 40B— 0608	40	φ40	φ42	B1	6	φ8	φ20	8	14	13.2
S1D 42B— 0608	42	φ42	φ44	B1	6	φ8	φ20	8	14	14.3
S1D 44B— 0608	44	φ44	φ46	B1	6	φ8	φ20	8	14	15.4
S1D 45B— 0608	45	φ45	φ47	B1	6	φ8	φ20	8	14	16.0
S1D 48B— 0608	48	φ48	φ50	B1	6	φ8	φ20	8	14	17.9
S1D 50B— 0608	50	φ50	φ52	B1	6	φ8	φ20	8	14	19.2
S1D 52B— 0608	52	φ52	φ54	B1	6	φ8	φ20	8	14	20.5
S1D 55B— 0608	55	φ55	φ57	B1	6	φ8	φ20	8	14	22.7

齿数从20B至80B的齿轮附带波形弹簧销, 标称直径为φ1.4 (材质 : 不锈钢) No. of teeth from 20B to 80B gears with Corrugated spring (SUS) as dimension of φ1.4.

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齿 条 RACKS

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直齿轮 SPUR GEARS

模数
MODULE

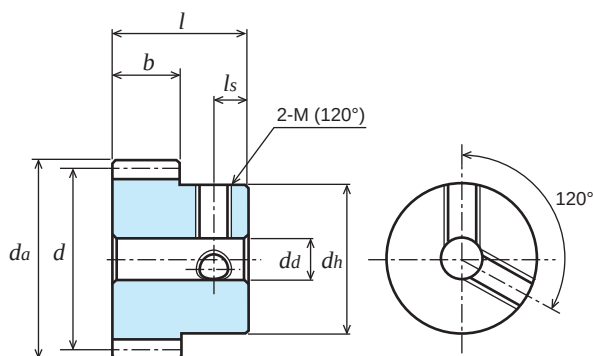
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压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



New 新产品带有两个螺纹孔 (120°)
New item with two threaded holes (120°)



B1形状
TYPE B1

材料 : 聚缩醛树脂 (白色)
Material : Poly Acetal (White)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter d_d	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight $W(g)$
										2-M(120°)	l_s	
S1D 56B * 0605	56	$\phi 56$	$\phi 58$	B1	6	$\phi 5$	$\phi 24$	8	14	2-M4	4	25.5
S1D 60B * 0605	60	$\phi 60$	$\phi 62$	B1	6	$\phi 5$	$\phi 24$	8	14	2-M4	4	28.6
S1D 64B * 0605	64	$\phi 64$	$\phi 66$	B1	6	$\phi 5$	$\phi 24$	8	14	2-M4	4	31.9
S1D 70B * 0605	70	$\phi 70$	$\phi 72$	B1	6	$\phi 5$	$\phi 24$	8	14	2-M4	4	37.2
S1D 72B * 0605	72	$\phi 72$	$\phi 74$	B1	6	$\phi 5$	$\phi 24$	8	14	2-M4	4	39.1
S1D 80B * 0605	80	$\phi 80$	$\phi 82$	B1	6	$\phi 5$	$\phi 24$	8	14	2-M4	4	47.2
S1D 90B * 0605	90	$\phi 90$	$\phi 92$	B1	6	$\phi 5$	$\phi 24$	8	14	2-M4	4	58.5
S1D 100B * 0605	100	$\phi 100$	$\phi 102$	B1	6	$\phi 5$	$\phi 24$	8	14	2-M4	4	71.1
S1D 120B * 0605	120	$\phi 120$	$\phi 122$	B1	6	$\phi 5$	$\phi 24$	8	14	2-M4	4	100.4

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。

[*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

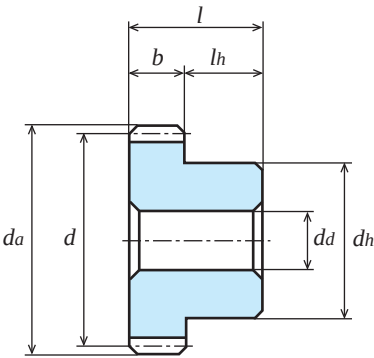
产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S1D 56B * 0605	3.67	36.68	73.23	145.96	289.95	428.13	528.23
S1D 60B * 0605	3.94	39.29	78.44	156.31	310.33	457.01	563.31
S1D 64B * 0605	4.20	41.92	83.65	166.65	330.21	485.67	597.95
S1D 70B * 0605	4.59	45.82	91.46	182.14	359.85	528.23	647.51
S1D 72B * 0605	4.72	47.13	94.06	187.30	369.68	542.31	663.79
S1D 80B * 0605	5.25	52.36	104.46	207.91	408.74	597.95	727.65
S1D 90B * 0605	5.90	58.88	117.45	233.62	457.01	663.79	804.69
S1D 100B * 0605	6.56	65.40	130.42	259.26	504.65	727.65	875.66
S1D 120B * 0605	7.87	78.44	156.31	310.33	597.95	849.11	997.80

上述数值是Lewis公式，仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 聚缩醛树脂 (白色)
Material : Poly Acetal (White)
单位 : mm
Dimensions : mm

Table with 11 columns: 产品型号 (Catalogue Number), 齿数 (Number of Teeth z), 分度圆直径 (Reference Diameter d), 齿顶圆直径 (Tip Diameter da), 形状 (Type), 齿宽 (Face Width b), 孔径 (Bore Diameter dd), 轮毂外径 (Hub Diameter dh), 轮毂长度 (Hub Projection lh), 全长 (Overall Length l), 重量 (Weight W(g)). Rows include models S1D 56B-0608 to S1D 120B-0608.

齿数从20B至80B的齿轮附带波形弹簧销, 标称直径为φ1.4 (材质: 不锈钢)
No. of teeth from 20B to 80B gears with Corrugated spring (SUS) as dimension of φ1.4.
齿数从90B至120B的齿轮不附带波形弹簧销。
No. of teeth from 90 to 120B gears without Corrugated spring.

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WORMS AND WORM WHEELS
锥齿轮
BEVEL GEARS
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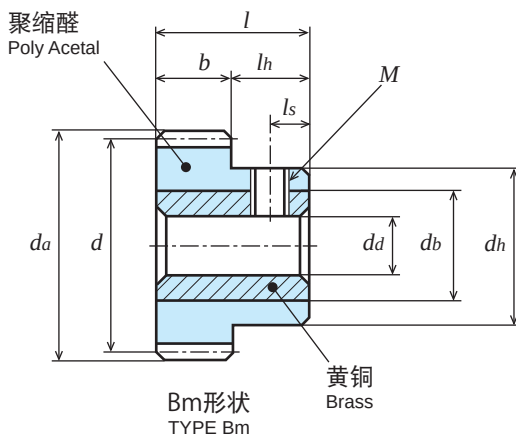
直齿轮 SPUR GEARS

模数
MODULE

1

压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



材料 : 聚缩醛树脂 (白色) 带有黄铜衬套 (C3604B)
Material : Poly Acetal (White) with Brass Bushing

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_d(H8)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	螺纹孔 Set Screw		衬套外径 d_b	重量 Weight $W(g)$
										M	l_s		
S1DB 20B + 1008	20	$\phi 20$	$\phi 22$	Bm	10	$\phi 8$	$\phi 16$	10	20	M4	4	$\phi 12$	16.8
S1DB 24B + 1008	24	$\phi 24$	$\phi 26$	Bm	10	$\phi 8$	$\phi 20$	10	20	M4	4	$\phi 12$	17.5
S1DB 25B + 1008	25	$\phi 25$	$\phi 27$	Bm	10	$\phi 8$	$\phi 20$	10	20	M4	4	$\phi 12$	18.0
S1DB 28B + 1010	28	$\phi 28$	$\phi 30$	Bm	10	$\phi 10$	$\phi 24$	10	20	M4	4	$\phi 16$	35.0
S1DB 30B + 1010	30	$\phi 30$	$\phi 32$	Bm	10	$\phi 10$	$\phi 24$	10	20	M4	4	$\phi 16$	36.4
S1DB 32B + 1010	32	$\phi 32$	$\phi 34$	Bm	10	$\phi 10$	$\phi 24$	10	20	M4	4	$\phi 16$	37.8
S1DB 36B + 1010	36	$\phi 36$	$\phi 38$	Bm	10	$\phi 10$	$\phi 30$	10	20	M4	4	$\phi 16$	38.0
S1DB 40B + 1010	40	$\phi 40$	$\phi 42$	Bm	10	$\phi 10$	$\phi 30$	10	20	M4	4	$\phi 16$	41.4
S1DB 45B + 1010	45	$\phi 45$	$\phi 47$	Bm	10	$\phi 10$	$\phi 30$	10	20	M4	4	$\phi 16$	46.1
S1DB 48B + 1010	48	$\phi 48$	$\phi 50$	Bm	10	$\phi 10$	$\phi 30$	10	20	M4	4	$\phi 16$	49.2
S1DB 50B + 1010	50	$\phi 50$	$\phi 52$	Bm	10	$\phi 10$	$\phi 30$	10	20	M4	4	$\phi 16$	51.4

标号[+]表示齿轮带有螺纹孔/无固定螺钉。
[+] : Gear with threaded hole / with set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min					
	10	100	200	400	800	1,200
S1DB 20B + 1008	1.61	16.08	32.14	64.20	128.08	191.66
S1DB 24B + 1008	1.93	19.29	38.55	77.00	153.55	229.66
S1DB 25B + 1008	2.01	20.09	40.16	80.20	159.91	239.15
S1DB 28B + 1010	2.25	22.50	44.97	89.79	178.97	267.55
S1DB 30B + 1010	2.41	24.11	48.18	96.18	191.66	286.46
S1DB 32B + 1010	2.57	25.72	51.38	102.57	204.34	305.33
S1DB 36B + 1010	2.90	28.93	57.79	115.33	229.66	343.00
S1DB 40B + 1010	3.22	32.14	64.20	128.08	254.94	380.51
S1DB 45B + 1010	3.62	36.15	72.20	144.01	286.46	426.13
S1DB 48B + 1010	3.86	38.55	77.00	153.55	305.33	453.29
S1DB 50B + 1010	4.02	40.16	80.20	159.91	317.90	471.31

上述数值是Lewis公式，仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

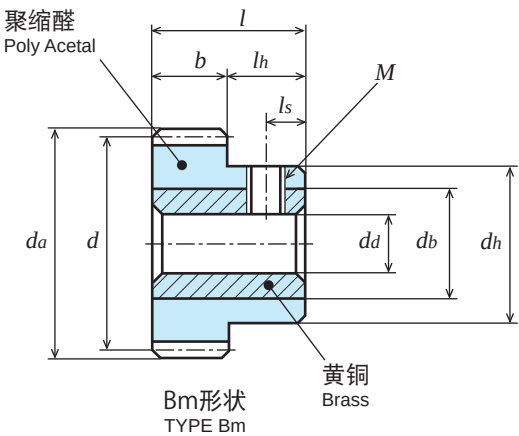
RoHS 対応

2006 年 11 月生産開始分より欧州 RoHS 指令に対応できる商品を提供しています。
We supplied the KG-products with RoHS compliance of EU to all our valued customers since November 2006

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料 : 聚缩醛树脂 (白色) 带有黄铜衬套 (C3604B)
Material : Poly Acetal (White) with Brass Bushing
单位 : mm
Dimensions : mm

Table with 14 columns: 产品型号, 齿数, 分度圆直径, 齿顶圆直径, 形状, 齿宽, 孔径, 轮毂外径, 轮毂长度, 全长, 螺纹孔, 衬套, 重量. It lists 12 models from S1DB 56B+1010 to S1DB 120B+1010.

标号[+]表示齿轮带有螺纹孔/带有固定螺钉。
[+] : Gear with threaded hole / with set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

Table with 8 columns: 产品型号, 10, 100, 200, 400, 800, 1,200, 1,500. It shows bending strength values for various gear models.

上述数值是Lewis公式，仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

RoHS 対応
2006 年 11 月生産開始分より欧州 RoHS 指令に対応できる商品
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REFERENCE DATA

直齿轮 SPUR GEARS

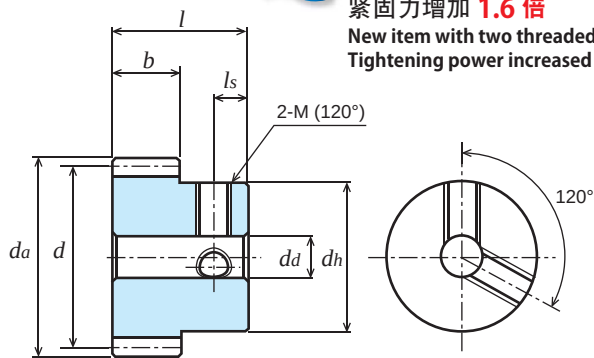
模数
MODULE

1

压力角 20° (普通齿)

20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1 (ISO) class 9



B1形状
TYPE B1

New 新产品带有两个螺纹孔 (120°)
紧固力增加 **1.6 倍**
New item with two threaded holes (120°)
Tightening power increased by 1.6 times.

材料 : 不锈钢 SUS304 (JIS G 4303)
Material : Stainless Steel SUS304 (JIS G 4303)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth <i>z</i>	分度圆直径 Reference Diameter <i>d</i>	齿顶圆直径 Tip Diameter <i>da</i>	形状 Type	齿宽 Face Width <i>b</i>	孔径 Bore Diameter <i>da</i> (H8)	轮毂外径 Hub Diameter <i>dh</i>	轮毂长度 Hub Projection <i>lh</i>	全长 Overall Length <i>l</i>	螺纹孔 Set Screw		重量 Weight <i>W</i> (g)
										2-M(120°)	<i>ls</i>	
S1SU 14K * 0806	14	φ14	φ16	K2	8	φ6	φ16	17	25	2-M4	4	30.4
S1SU 15K * 0806	15	φ15	φ17	K2	8	φ6	φ17	17	25	2-M4	4	35.3
S1SU 16K * 0806	16	φ16	φ18	K2	8	φ6	φ18	17	25	2-M4	4	40.5
S1SU 17B * 0806	17	φ17	φ19	B1	8	φ6	φ14	8	16	2-M4	4	19.9
S1SU 18B * 0806	18	φ18	φ20	B1	8	φ6	φ14	8	16	2-M4	4	21.7
S1SU 18B * 1006	18	φ18	φ20	B1	10	φ6	φ14	10	20	2-M4	4	27.2
S1SU 20B * 0806	20	φ20	φ22	B1	8	φ6	φ16	8	16	2-M4	4	28.3
S1SU 20B * 1006	20	φ20	φ22	B1	10	φ6	φ16	10	20	2-M4	4	35.5
S1SU 21B * 0806	21	φ21	φ23	B1	8	φ6	φ18	8	16	2-M4	4	33.5
S1SU 22B * 0806	22	φ22	φ24	B1	8	φ6	φ18	8	16	2-M4	4	35.7
S1SU 24B * 0806	24	φ24	φ26	B1	8	φ6	φ18	8	16	2-M4	4	40.3
S1SU 24B * 1006	24	φ24	φ26	B1	10	φ6	φ18	10	20	2-M4	4	50.6
S1SU 25B * 0806	25	φ25	φ27	B1	8	φ6	φ18	8	16	2-M4	4	42.7
S1SU 25B * 1006	25	φ25	φ27	B1	10	φ6	φ20	10	20	2-M4	4	58.2
S1SU 26B * 0806	26	φ26	φ28	B1	8	φ6	φ20	8	16	2-M4	4	48.9

标号[*]表示齿轮带有螺纹孔/无固定螺钉。[*]: Gear with two threaded holes / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S1SU 14K * 0806	1.77	17.71	35.41	70.82	141.64	212.46	261.67
S1SU 15K * 0806	1.98	19.84	39.68	79.37	158.73	238.10	289.88
S1SU 16K * 0806	2.20	22.02	44.04	88.08	176.16	264.03	318.05
S1SU 17B * 0806	2.42	24.23	48.46	96.92	193.84	287.82	346.06
S1SU 18B * 0806	2.65	26.47	52.94	105.88	211.76	311.52	373.85
S1SU 18B * 1006	3.31	33.09	66.18	132.35	264.70	389.40	467.32
S1SU 20B * 0806	3.11	31.08	62.16	124.32	248.64	359.14	429.43
S1SU 20B * 1006	3.89	38.85	77.70	155.40	310.80	448.92	536.79
S1SU 21B * 0806	3.34	33.40	66.81	133.62	267.24	382.52	456.60
S1SU 22B * 0806	3.58	35.76	71.52	143.04	286.09	405.86	483.62
S1SU 24B * 0806	4.05	40.52	81.04	162.07	323.88	451.79	536.54
S1SU 24B * 1006	5.06	50.65	101.29	202.59	404.85	564.74	670.68
S1SU 25B * 0806	4.29	42.93	85.86	171.72	341.02	474.52	562.62
S1SU 25B * 1006	5.37	53.66	107.32	214.65	426.27	593.15	703.28
S1SU 26B * 0806	4.54	45.36	90.71	181.43	358.07	497.04	588.38

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮
SPUR GEARS

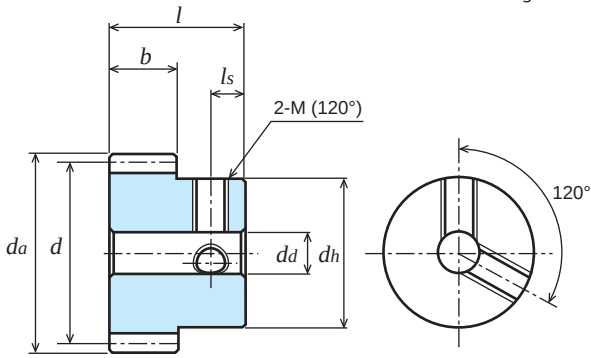
模数
MODULE

1 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1(ISO) class 9



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 不锈钢 SUS304 (JIS G 4303)
Material : Stainless Steel SUS304 (JIS G 4303)

单位 : mm
Dimensions : mm

Table with 13 columns: Product Model, Number of Teeth, Reference Diameter, Tip Diameter, Type, Face Width, Bore Diameter, Hub Outer Diameter, Hub Projection, Overall Length, Set Screw (2-M(120°), ls), Weight. Rows include models like S1SU 28B * 0806, S1SU 28B * 1006, etc.

标号[*]表示齿轮带有螺纹孔/无固定螺钉。
[*] : Gear with two threaded holes / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

Table with 8 columns: Product Model, and 7 columns for rotational speeds (10, 100, 200, 400, 800, 1,200, 1,500 rpm). Rows include models like S1SU 28B * 0806, S1SU 28B * 1006, etc.

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

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直齿轮 SPUR GEARS

模数
MODULE

1

压力角 20° (普通齿)

20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1 (ISO) class 9



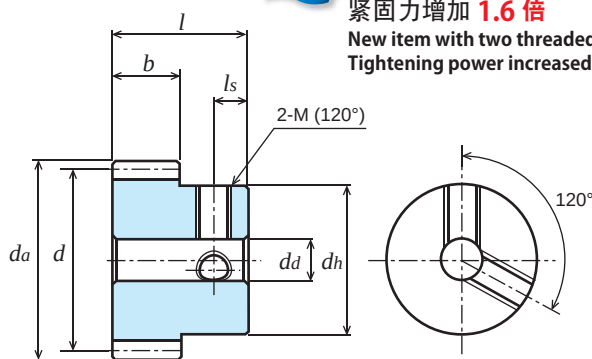
New

新产品带有两个螺纹孔 (120°)

紧固力增加 1.6 倍

New item with two threaded holes (120°)

Tightening power increased by 1.6 times.



B1形状
TYPE B1

材料 : 不锈钢 SUS304 (JIS G 4303)

Material : Stainless Steel SUS304 (JIS G 4303)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H8)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	螺纹孔 Set Screw		重量 Weight $W(g)$
										2-M(120°)	l_s	
S1SU 52B * 0608	52	$\phi 52$	$\phi 54$	B1	6	$\phi 8$	$\phi 28$	10	16	2-M5	5	140.9
S1SU 54B * 0608	54	$\phi 54$	$\phi 56$	B1	6	$\phi 8$	$\phi 28$	10	16	2-M5	5	148.8
S1SU 56B * 0610	56	$\phi 56$	$\phi 58$	B1	6	$\phi 10$	$\phi 30$	10	16	2-M5	5	160.6
S1SU 60B * 0610	60	$\phi 60$	$\phi 62$	B1	6	$\phi 10$	$\phi 30$	10	16	2-M5	5	178.0
S1SU 64B * 0610	64	$\phi 64$	$\phi 66$	B1	6	$\phi 10$	$\phi 30$	10	16	2-M5	5	196.5
S1SU 70B * 0610	70	$\phi 70$	$\phi 72$	B1	6	$\phi 10$	$\phi 30$	10	16	2-M5	5	226.6
S1SU 72B * 0610	72	$\phi 72$	$\phi 74$	B1	6	$\phi 10$	$\phi 30$	10	16	2-M5	5	237.2
S1SU 80B * 0610	80	$\phi 80$	$\phi 82$	B1	6	$\phi 10$	$\phi 30$	10	16	2-M5	5	282.6
S1SU 90B * 0610	90	$\phi 90$	$\phi 92$	B1	6	$\phi 10$	$\phi 30$	10	16	2-M5	5	346.1
S1SU 100B * 0610	100	$\phi 100$	$\phi 102$	B1	6	$\phi 10$	$\phi 30$	10	16	2-M5	5	417.1
S1SU 120B * 0610	120	$\phi 120$	$\phi 122$	B1	6	$\phi 10$	$\phi 30$	10	16	2-M5	5	581.6

标号[*]表示齿轮带有螺纹孔/无固定螺钉。

[*] : Gear with two threaded holes / without set screw.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min					
	10	100	200	400	800	1,200
S1SU 52B * 0608	8.38	83.76	167.51	330.61	569.42	765.27
S1SU 54B * 0608	8.77	87.70	175.40	344.05	589.94	797.50
S1SU 56B * 0610	9.17	91.66	183.32	357.37	610.11	829.53
S1SU 60B * 0610	9.96	99.60	199.19	383.62	649.37	892.91
S1SU 64B * 0610	10.76	107.57	215.14	409.37	687.26	955.40
S1SU 70B * 0610	11.96	119.58	239.15	447.06	741.67	1,047.46
S1SU 72B * 0610	12.36	123.59	247.19	459.37	760.11	1,077.69
S1SU 80B * 0610	13.97	139.71	279.42	507.42	848.29	1,196.75
S1SU 90B * 0610	15.98	159.75	319.50	564.12	954.81	1,348.27
S1SU 100B * 0610	18.00	180.02	357.51	618.54	1,059.38	1,497.28
S1SU 120B * 0610	22.07	220.74	425.12	719.62	1,260.58	1,784.16

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮 SPUR GEARS

模数
MODULE

1

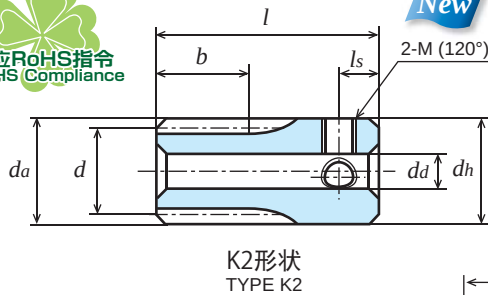
压力角 20° (普通齿) 齿数 8 ~ 14

20° PRESSURE ANGLE FULL DEPTH TOOTH Z 8 to Z 14

JIS B 1702-1 (ISO) 8 ~ 9级
System of accuracy : JIS B 1702-1 (ISO) class 8-9



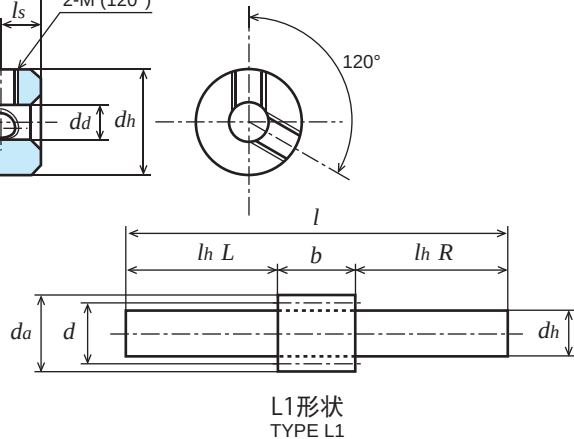
对应RoHS指令
RoHS Compliance



K2形状
TYPE K2



新产品带有两个螺纹孔 (120°)
New item with two threaded holes (120°)



L1形状
TYPE L1

材料: 碳钢 (ISO C45) 有标号 [*] 的产品为变位齿轮 (变位系数 x = 0.5)

Material: Carbon Steel (ISO C45) * mark has been profile shifted gears. (Rack shift coefficient x = 0.5)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b ₂ × t ₂	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 8L - 1206	8	*	φ10.64	L1	12	-	φ 6 (h9)	L16 R32	60	-	-	-	16.7
S1S 8L - 1210F	8	*	φ10.64	L2	12	-	φ10.64	L16 R32	60	-	-	-	39.5
S1S 10L - 1208	10	*	φ12.66	L1	12	-	φ 8 (h9)	L16 R32	60	-	-	-	27.9
S1S 10L - 1212F	10	*	φ12.66	L2	12	-	φ12.66	L16 R32	60	-	-	-	56.4
S1S 12K * 1206	12	φ12	φ14	K2	12	φ6(H8)	φ14	18	30	-	2-M4	5	25.1
S1S 13K * 1206	13	φ13	φ15	K2	12	φ6(H8)	φ15	18	30	-	2-M4	5	30.1
S1S 14A - 0805F	14	φ14	φ16	A1	8	φ5	-	-	8	-	-	-	8.4
S1S 14A - 0806	14	φ14	φ16	A1	8	φ6	-	-	8	-	-	-	7.9
S1S 14A - 1206	14	φ14	φ16	A1	12	φ6	-	-	12	-	-	-	11.8
S1S 14B - 0805	14	φ14	φ16	B1	8	φ5(H8)	φ11	8	16	-	-	-	13.0
S1S 14B - 1005	14	φ14	φ16	B1	10	φ5(H8)	φ11	10	20	-	-	-	16.47
S1S 14B - 1005H	14	φ14	φ16	B1	10	φ5(H※)	φ11	10	20	-	-	-	16.47
S1S 14K * 0806	14	φ14	φ16	K2	8	φ6(H8)	φ16	17	25	-	2-M4	4	30.1
S1S 14K * 1206	14	φ14	φ16	K2	12	φ6(H8)	φ16	18	30	-	2-M5	5	35.0

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。[*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※
齿部高频淬火后, 没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
8	12	-	3.21	32.15	64.29	128.58	257.16	385.74	482.18
10	12	-	4.43	44.29	88.59	177.17	354.34	531.52	664.40
12	12	-	4.07	40.75	81.49	162.99	325.97	488.96	611.20
13	12	-	4.68	46.85	93.69	187.38	374.77	562.15	700.48
14	8	-	3.54	35.41	70.82	141.64	283.28	424.92	523.34
14	10	-	3.98	39.79	79.58	159.17	318.34	477.50	596.88
14	10	○	4.71	47.12	94.24	188.49	376.98	565.46	706.83
14	12	-	5.31	53.12	106.23	212.46	424.92	637.38	785.01

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。

您可以在我们广泛的设计产品中选择最适合您的产品。

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.14	1.36	2.72	5.45	10.89	16.34	20.42
0.71	7.91	16.34	33.51	67.02	100.53	125.66
-	-	-	-	-	-	-

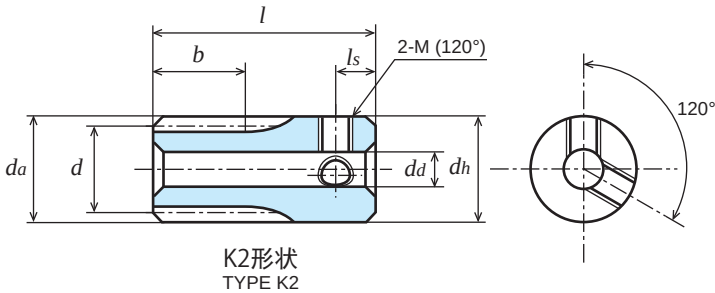
直齿轮
SPUR GEARS

模数
MODULE
1
压力角 20° (普通齿) 齿数 15 16
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 15 to Z 16

JIS B 1702-1 (ISO) 8 ~ 9级
System of accuracy : JIS B 1702-1(ISO) class 8-9



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



K2形状
TYPE K2

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)
单位 : mm
Dimensions : mm

Table with 13 columns: Product Model, Number of Teeth, Reference Diameter, Tip Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Key Way, Set Screw, Weight. It lists various gear models like S1S 15A-0805F, S1S 15B-1005, S1S 15K-0806, etc.

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。[*]: Gear with two threaded holes / with two set screws.
产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

Table with 10 columns: Number of Teeth (z), Face Width (b), Heat Treatment (H), and 8 columns for rotational speed (10, 100, 200, 400, 800, 1,200, 1,500 rpm).

上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

Table with 8 columns: 7 columns for rotational speed (10, 100, 200, 400, 800, 1,200, 1,500 rpm) and 1 column for a final value.

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HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆
WORMS AND WORM WHEELS
锥齿轮
BEVEL GEARS
技术资料
REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

1

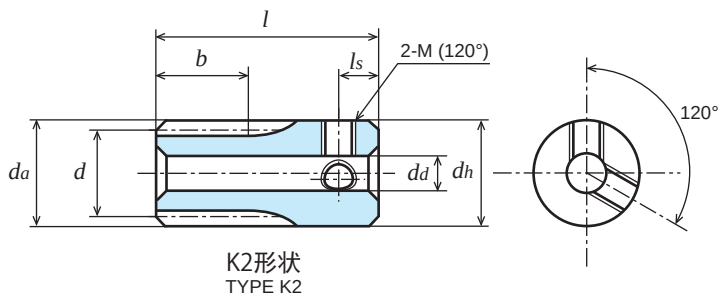
压力角 20° (普通齿) 齿数 17 18
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 17 to Z 18

JIS B 1702-1 (ISO) 8 ~ 9级
System of accuracy : JIS B 1702-1 (ISO) class 8-9



订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter dd(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b ₂ × t ₂	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 17A - 0805F	17	φ17	φ19	A1	8	φ5	-	-	8	-	-	-	13.0
S1S 17A - 1208F	17	φ17	φ19	A1	12	φ8	-	-	12	-	-	-	16.7
S1S 17B - 0805	17	φ17	φ19	B1	8	φ5(H8)	φ14	8	16	-	-	-	21.5
S1S 17B - 1005	17	φ17	φ19	B1	10	φ5(H8)	φ14	10	20	-	-	-	26.84
S1S 17B - 1005H	17	φ17	φ19	B1	10	φ5(H※)	φ14	10	20	-	-	-	26.84
S1S 17K * 0808	17	φ17	φ19	K2	8	φ8(H8)	φ19	17	25	-	2-M4	4	41.3
S1S 17K * 1208	17	φ17	φ19	K2	12	φ8(H8)	φ19	18	30	-	2-M5	5	48.2
S1S 18A - 0805F	18	φ18	φ20	A1	8	φ5	-	-	8	-	-	-	14.8
S1S 18A - 0806	18	φ18	φ20	A1	8	φ6	-	-	8	-	-	-	14.2
S1S 18A - 1208	18	φ18	φ20	A1	12	φ8	-	-	12	-	-	-	19.2
S1S 18B * 0806	18	φ18	φ20	B1	8	φ6	φ14	8	16	-	2-M4	4	21.5
S1S 18B - 1006	18	φ18	φ20	B1	10	φ6(H8)	φ15	10	20	-	-	-	29.43
S1S 18B - 1006H	18	φ18	φ20	B1	10	φ6(H※)	φ15	10	20	-	-	-	29.43
S1S 18B * 1008	18	φ18	φ20	B1	10	φ8	φ15	10	20	-	2-M5	5	25.1
S1S 18K * 0808	18	φ18	φ20	K2	8	φ8(H8)	φ20	17	25	-	2-M4	4	47.1
S1S 18K * 1208	18	φ18	φ20	K2	12	φ8(H8)	φ20	18	30	-	2-M4	4	55.6

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。[*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时，请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
17	8	-	4.85	48.46	96.92	193.84	387.68	575.64	692.11
17	10	-	5.48	54.77	109.53	219.06	438.13	657.19	821.49
17	10	○	6.42	64.19	128.38	256.76	513.52	770.29	962.86
17	12	-	7.27	72.69	145.38	290.76	581.53	863.46	1,038.17
18	8	-	5.29	52.94	105.88	211.76	423.52	635.29	777.71
18	10	-	6.62	66.18	132.35	264.7	529.41	794.11	963.63
18	10	○	6.93	69.32	138.64	277.29	554.57	831.86	1,039.82
18	12	-	7.94	79.41	158.82	317.64	635.29	952.94	1,161.56

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.20	1.99	4.19	8.38	16.75	25.13	29.84
1.05	11.52	23.04	50.26	100.53	150.79	188.49
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.26	2.62	5.24	10.47	20.94	31.41	39.27
1.20	13.09	27.23	54.45	108.90	163.36	204.20
-	-	-	-	-	-	-

直齿轮
SPUR GEARS

模数
MODULE

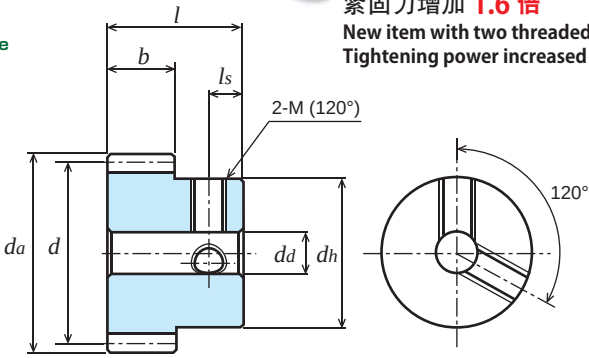
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压力角 20° (普通齿) 齿数 19 20
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 19 to Z 20

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



New 新产品带有两个螺纹孔 (120°)
紧固力增加 1.6 倍
New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 19A — 0806F	19	φ19	φ21	A1	8	φ6	-	-	8	-	-	-	16.0
S1S 19A — 1208F	19	φ19	φ21	A1	12	φ8	-	-	12	-	-	-	22.0
S1S 19B — 0806F	19	φ19	φ21	B1	8	φ6	φ16	8	16	-	-	-	26.9
S1S 19B — 1208F	19	φ19	φ21	B1	12	φ8	φ16	8	20	-	-	-	31.4
S1S 20A — 0806F	20	φ20	φ22	A1	8	φ6	-	-	8	-	-	-	18.0
S1S 20A — 0808	20	φ20	φ22	A1	8	φ8	-	-	8	-	-	-	15.0
S1S 20A — 1208F	20	φ20	φ22	A1	12	φ8	-	-	12	-	-	-	24.9
S1S 20A = 1210	20	φ20	φ22	A1	12	φ10	-	-	12	3 × 1.4	-	-	19.2
S1S 20B — 0806F	20	φ20	φ22	B1	8	φ6	φ16	8	16	-	-	-	28.8
S1S 20B * 0806	20	φ20	φ22	B1	8	φ6	φ16	8	16	-	2-M4	4	28.0
S1S 20B * 0808	20	φ20	φ22	B1	8	φ8	φ16	8	16	-	2-M4	4	25.4
● S1S 20B — 1005	20	φ20	φ22	B1	10	φ5(H8)	φ16	10	20	-	-	-	37.0
● S1S 20B — 1005H	20	φ20	φ22	B1	10	φ5(H※)	φ16	10	20	-	-	-	37.0
● S1S 20B — 1006	20	φ20	φ22	B1	10	φ6(H8)	φ16	10	20	-	-	-	36.03
S1S 20B * 1008	20	φ20	φ22	B1	10	φ8	φ16	10	20	-	2-M5	5	31.5
S1S 20B — 1206F	20	φ20	φ22	B1	12	φ6	φ16	8	20	-	-	-	37.8
S1S 20B * 1206	20	φ20	φ22	B1	12	φ6	φ16	8	20	-	2-M4	4	37.0
S1S 20B * 1208	20	φ20	φ22	B1	12	φ8	φ16	8	20	-	2-M4	4	33.7

标有 ● 的产品为新产品。Products with ● marks are new item.

标号 [=] 表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key.

标号 [*] 表示齿轮带有螺纹孔/带有两个固定螺钉。 [*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有 [H] 的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
19	8	-	6.68	66.81	133.62	267.24	534.47	765.05	913.19
19	12	-	10.02	100.21	200.43	400.86	801.71	1,147.57	1,369.79
20	8	-	6.22	62.16	124.32	248.64	497.28	718.27	858.87
20	10	-	7.82	78.22	156.44	312.89	625.78	904.74	1,080.66
20	10	○	8.30	82.97	165.95	331.90	663.80	962.04	1,154.75
20	12	-	9.32	93.24	186.48	372.96	745.92	1,077.41	1,288.30

The above references are JGMA standard.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.32	3.25	6.49	12.98	25.97	38.95	45.55
1.45	16.05	33.11	68.24	140.74	207.61	251.67
-	-	-	-	-	-	-

直齿轮

SPUR GEARS

模数
MODULE

1

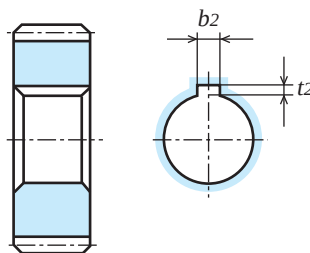
压力角 20° (普通齿) 齿数 21 ~ 23
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 21 to Z 23

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8

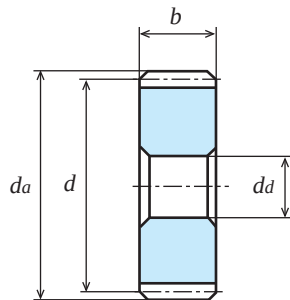


订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.



A1形状
TYPE A1



A1形状
TYPE A1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 21A - 0806F	21	φ21	φ23	A1	8	φ6	-	-	8	-	-	-	19.1
S1S 21A - 1210F	21	φ21	φ23	A1	12	φ10	-	-	12	-	-	-	22.8
S1S 21B - 0806F	21	φ21	φ23	B1	8	φ6	φ18	8	16	-	-	-	33.3
S1S 21B - 1208F	21	φ21	φ23	B1	12	φ8	φ18	8	20	-	-	-	48.6
S1S 22A - 0806F	22	φ22	φ24	A1	8	φ6	-	-	8	-	-	-	22.1
S1S 22A - 1210F	22	φ22	φ24	A1	12	φ10	-	-	12	-	-	-	28.4
S1S 22B - 0806F	22	φ22	φ24	B1	8	φ6	φ18	8	16	-	-	-	36.3
S1S 22B - 1208F	22	φ22	φ24	B1	12	φ8	φ18	8	20	-	-	-	43.9
S1S 23A - 0806F	23	φ23	φ25	A1	8	φ6	-	-	8	-	-	-	24.3
S1S 23A - 1210F	23	φ23	φ25	A1	12	φ10	-	-	12	-	-	-	31.7
S1S 23B - 0806F	23	φ23	φ25	B1	8	φ6	φ20	8	16	-	-	-	42.3
S1S 23B - 1208F	23	φ23	φ25	B1	12	φ8	φ20	8	20	-	-	-	51.0

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
21	8	-	6.68	66.81	133.62	267.24	534.47	765.05	913.19
21	12	-	10.02	100.21	200.43	400.86	801.71	1,147.57	1,369.79
22	8	-	7.15	71.52	143.04	286.09	572.18	811.72	967.23
22	12	-	10.73	107.28	214.57	429.13	858.27	1,217.58	1,450.84
23	8	-	7.63	76.28	152.56	305.11	610.23	858.05	1,020.71
23	12	-	11.44	114.42	228.84	457.67	915.34	1,287.07	1,531.06

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-

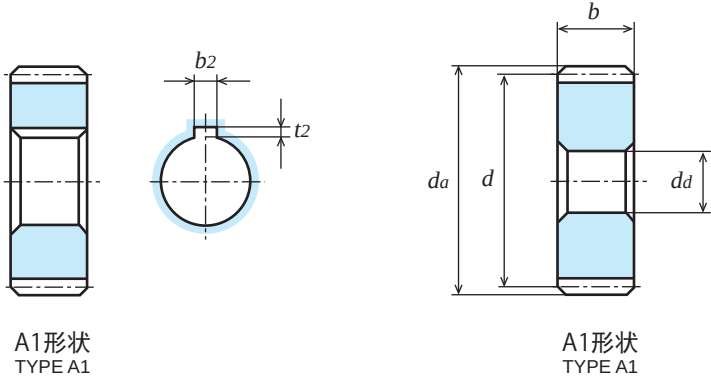
直齿轮
SPUR GEARS

模数
MODULE 1
压力角 20° (普通齿) 齿数24
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 24

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)
单位 : mm
Dimensions : mm

Table with 13 columns: Product Model, Number of Teeth, Reference Diameter, Tip Diameter, Type, Face Width, Bore Diameter, Hub Outer Diameter, Hub Length, Overall Length, Key Way, Set Screw, Weight. It lists various gear models like S1S 24A-0806F, S1S 24B-0806, etc.

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key.
标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。 [*] : Gear with two threaded holes / with two set screws.
产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※ 齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

Table with 10 columns: z, b, H, and 7 columns for rotation speed (10, 100, 200, 400, 800, 1,200, 1,500 min⁻¹).

上述数字根据JGMA公式得出, 仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

Table with 8 columns: 7 columns for rotation speed (10, 100, 200, 400, 800, 1,200, 1,500 min⁻¹) and 1 column for z.

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GEAR INFORMATION
齿箱
GEAR BOXES
无背隙齿轮
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研磨直齿轮
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斜齿轮・螺旋齿轮
HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆
WORMS AND WORM WHEELS
锥齿轮
BEVEL GEARS
技术资料
REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

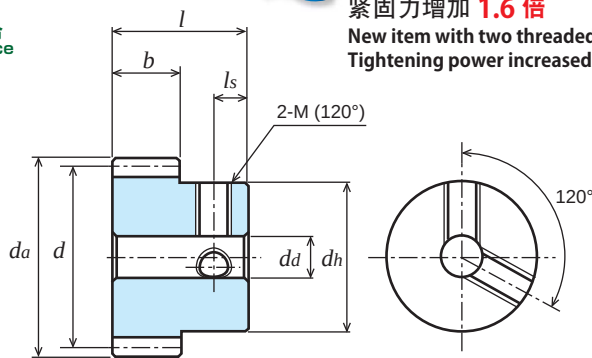
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压力角 20° (普通齿) 齿数 25 26
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 25 to Z 26

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



新产品带有两个螺纹孔 (120°)
紧固力增加 1.6 倍
New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b ₂ × t ₂	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 25A - 0806F	25	φ25	φ27	A1	8	φ6	-	-	8	-	-	-	29.1
S1S 25A - 0808	25	φ25	φ27	A1	8	φ8	-	-	8	-	-	-	27.7
S1S 25A = 0810	25	φ25	φ27	A1	8	φ10	-	-	8	3 × 1.4	-	-	25.6
S1S 25A - 1208F	25	φ25	φ27	A1	12	φ8	-	-	12	-	-	-	41.5
S1S 25A = 1210	25	φ25	φ27	A1	12	φ10	-	-	12	3 × 1.4	-	-	38.5
S1S 25B - 0806	25	φ25	φ27	B1	8	φ6	φ16	8	16	-	-	-	39.9
S1S 25B * 0806	25	φ25	φ27	B1	8	φ6	φ16	8	16	-	2-M4	4	39.1
S1S 25B * 0808	25	φ25	φ27	B1	8	φ8	φ16	8	16	-	2-M4	4	36.5
S1S 25BF - 1005	25	φ25	φ27	B1	10	φ5(H8)	φ20	10	20	-	-	-	59.7
S1S 25B - 1006	25	φ25	φ27	B1	10	φ6(H8)	φ20	10	20	-	-	-	58.79
S1S 25B - 1005H	25	φ25	φ27	B1	10	φ5(H※)	φ20	10	20	-	-	-	59.7
S1S 25B * 1008	25	φ25	φ27	B1	10	φ8	φ20	10	20	-	2-M5	5	53.8
S1S 25B - 1208F	25	φ25	φ27	B1	12	φ8	φ20	8	20	-	-	-	58.1
S1S 25B * 1208	25	φ25	φ27	B1	12	φ8	φ20	8	20	-	2-M4	4	57.1
S1S 25B * 1210	25	φ25	φ27	B1	12	φ10	φ20	8	20	-	2-M5	4	52.4
S1S 26A - 0806F	26	φ26	φ28	A1	8	φ6	-	-	8	-	-	-	31.6
S1S 26A - 1208F	26	φ26	φ28	A1	12	φ8	-	-	12	-	-	-	45.3
S1S 26B - 0806F	26	φ26	φ28	B1	8	φ6	φ22	8	16	-	-	-	53.7
S1S 26B - 1208F	26	φ26	φ28	B1	12	φ8	φ22	8	20	-	-	-	66.0

标有●的产品为新产品。Products with ● marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key.

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。 [*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
25	8	-	8.59	85.86	171.72	343.43	682.04	949.04	1,125.25
25	10	-	10.78	107.75	215.50	431.01	855.31	1,189.99	1,412.09
25	10	○	11.42	114.18	228.36	456.71	907.56	1,271.22	1,513.78
25	12	-	12.88	128.79	257.57	515.15	1,023.05	1,423.56	1,687.87
26	8	-	9.07	90.71	181.43	362.85	716.14	994.08	1,176.77
26	12	-	13.61	136.07	272.14	544.28	1,074.21	1,491.12	1,765.15

The above references are JGMA standard.

动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.51	5.13	10.47	20.94	41.89	59.06	70.68
2.32	25.62	52.84	108.93	223.17	318.11	382.55
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-

直齿轮
SPUR GEARS

模数
MODULE

1

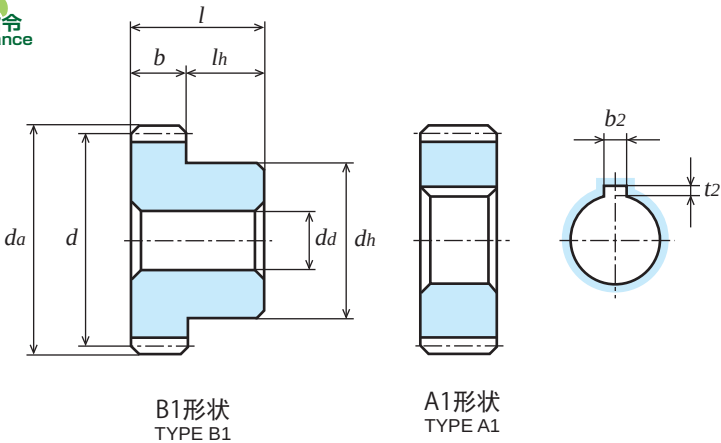
压力角 20° (普通齿) 齿数 27 28
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 27 to Z 28

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b ₂ × t ₂	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 27A — 0806F	27	φ27	φ29	A1	8	φ 6	-	-	8	-	-	-	34.2
S1S 27A — 1208F	27	φ27	φ29	A1	12	φ 8	-	-	12	-	-	-	49.2
S1S 27B — 0806F	27	φ27	φ29	B1	8	φ 6	φ24	8	16	-	-	-	60.8
S1S 27B — 1208F	27	φ27	φ29	B1	12	φ 8	φ24	8	20	-	-	-	74.5
S1S 28A — 0806F	28	φ28	φ30	A1	8	φ 6	-	-	8	-	-	-	36.9
S1S 28A — 0808	28	φ28	φ30	A1	8	φ 8	-	-	8	-	-	-	35.5
S1S 28A — 1208F	28	φ28	φ30	A1	12	φ 8	-	-	12	-	-	-	55.3
S1S 28A = 1210	28	φ28	φ30	A1	12	φ10	-	-	12	3 × 1.4	-	-	50.2
S1S 28A = 1212	28	φ28	φ30	A1	12	φ12	-	-	12	4 × 1.8	-	-	46.7
S1S 28B — 0806	28	φ28	φ30	B1	8	φ 6	φ20	8	16	-	-	-	54.9
S1S 28B * 0806	28	φ28	φ30	B1	8	φ 6	φ20	8	16	-	2-M4	4	53.7
S1S 28B * 0808	28	φ28	φ30	B1	8	φ 8	φ20	8	16	-	2-M4	4	51.1
S1S 28B * 0810	28	φ28	φ30	B1	8	φ10	φ20	8	16	-	2-M5	4	52.0
S1S 28B — 1008	28	φ28	φ30	B1	10	φ 8(H7)	φ24	10	20	-	-	-	76.01
S1S 28B — 1008H	28	φ28	φ30	B1	10	φ 8(H※)	φ24	10	20	-	-	-	76.01
S1S 28B * 1010	28	φ28	φ30	B1	10	φ10	φ24	10	20	-	2-M5	5	69.7
S1S 28B — 1210F	28	φ28	φ30	B1	12	φ10	φ24	8	20	-	-	-	74.1
S1S 28B * 1210	28	φ28	φ30	B1	12	φ10	φ24	8	20	-	2-M5	4	72.3
S1S 28B * 1212	28	φ28	φ30	B1	12	φ12	φ24	8	20	-	2-M5	4	67.1

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with Key Way / with Key.
标号 [*] 表示齿轮带有螺纹孔/带有两个固定螺钉。 [*] : Gear with two threaded holes / with two set screws.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时，请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)
Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
27	8	-	9.56	95.60	191.20	382.40	750.06	1,038.69	1,227.65
27	12	-	14.34	143.40	286.80	573.60	1,125.09	1,558.03	1,841.47
28	8	-	10.05	100.52	201.03	402.06	783.81	1,082.86	1,277.89
28	10	-	12.56	125.65	251.29	502.58	979.76	1,353.58	1,597.36
28	10	○	13.51	135.08	270.17	540.33	1,080.66	1,407.37	1,759.22
28	12	-	15.08	150.77	301.55	603.10	1,175.71	1,624.29	1,916.83

上述数字根据JGMA公式得出，仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)
Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.66	6.60	13.19	26.81	52.78	74.14	87.96
3.04	32.15	64.30	128.59	257.18	385.77	482.21
-	-	-	-	-	-	-

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直齿轮 SPUR GEARS

模数
MODULE

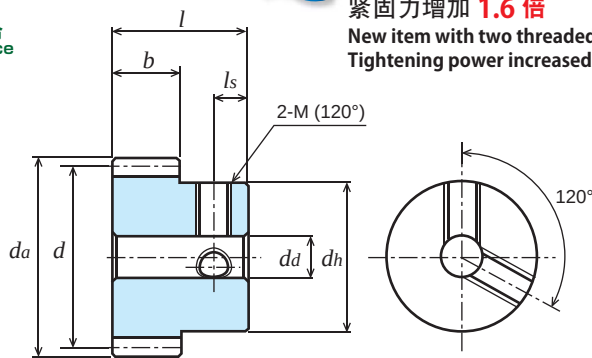
1

压力角 20° (普通齿) 齿数30
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 30

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



新产品带有两个螺纹孔 (120°)
紧固力增加 1.6 倍
New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b ₂ × t ₂	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 30A - 0808F	30	φ30	φ32	A1	8	φ8	-	-	8	-	-	-	41.2
S1S 30A = 0810	30	φ30	φ32	A1	8	φ10	-	-	8	3 × 1.4	-	-	39.2
S1S 30A = 1010	30	φ30	φ32	A1	10	φ10	-	-	10	3 × 1.4	-	-	49.0
S1S 30A - 1208F	30	φ30	φ32	A1	12	φ8	-	-	12	-	-	-	61.9
S1S 30A = 1210	30	φ30	φ32	A1	12	φ10	-	-	12	3 × 1.4	-	-	58.8
S1S 30A = 1212	30	φ30	φ32	A1	12	φ12	-	-	12	4 × 1.8	-	-	55.3
S1S 30B - 0806	30	φ30	φ32	B1	8	φ6	φ24	8	16	-	-	-	69.3
S1S 30B * 0806	30	φ30	φ32	B1	8	φ6	φ24	8	16	-	2-M4	4	67.8
S1S 30B * 0808	30	φ30	φ32	B1	8	φ8	φ24	8	16	-	2-M4	4	65.2
S1S 30B * 0810	30	φ30	φ32	B1	8	φ10	φ24	8	16	-	2-M5	4	61.1
S1S 30B * 0812	30	φ30	φ32	B1	8	φ12	φ24	8	16	-	2-M5	4	57.1
● S1S 30BF - 1006	30	φ30	φ32	B1	10	φ6(H8)	φ25	10	20	-	-	-	89.1
● S1S 30B - 1006H	30	φ30	φ32	B1	10	φ6(H※)	φ25	10	20	-	-	-	89.1
● S1S 30B - 1008	30	φ30	φ32	B1	10	φ8	φ25	10	20	-	-	-	86.19
S1S 30B * 1010	30	φ30	φ32	B1	10	φ10	φ25	10	20	-	2-M5	5	79.8
S1S 30B - 1210	30	φ30	φ32	B1	12	φ10	φ24	8	20	-	-	-	82.7
S1S 30B * 1210	30	φ30	φ32	B1	12	φ10	φ24	8	20	-	2-M5	4	80.9
S1S 30B * 1212	30	φ30	φ32	B1	12	φ12	φ24	8	20	-	2-M5	4	75.7

标有●的产品为新产品。Products with ● marks are new item.

标号[=]表示齿轮带有键槽/带有键。[=]: Gear with key way / with key.

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。[*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※
齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
30	8	-	11.04	110.37	220.74	441.48	850.22	1,169.22	1,375.68
30	10	-	13.81	138.12	276.24	552.48	1,063.91	1,462.66	1,721.52
30	10	○	14.64	146.41	292.81	585.63	1,131.61	1,567.73	1,853.36
30	12	-	16.56	165.55	331.11	662.22	1,275.33	1,753.83	2,063.52

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.75	7.64	15.29	30.58	60.32	84.19	100.53
3.39	37.55	77.41	159.60	317.91	448.27	535.15
-	-	-	-	-	-	-

直齿轮
SPUR GEARS

模数
MODULE

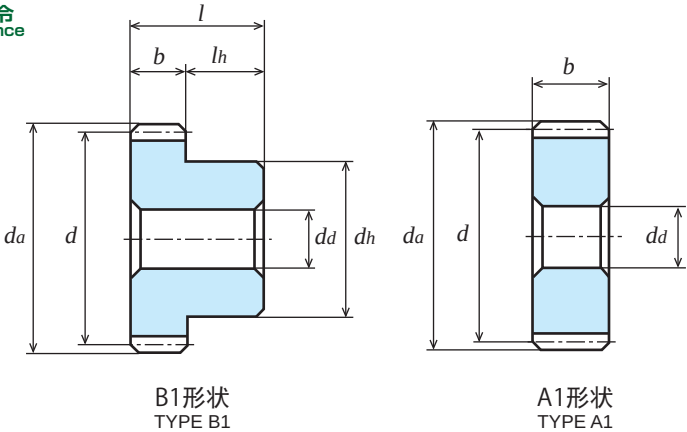
1

压力角 20° (普通齿) 齿数32 34
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 32 to Z 34

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

Table with 13 columns: Product Model, Number of Teeth, Reference Diameter, Tip Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Key Way, Set Screw, Weight. It lists various gear models like S1S 32A-0608F, S1S 32B-0606, S1S 34A-0608F, etc.

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key.
标号 [*] 表示齿轮带有螺纹孔/带有两个固定螺钉。 [*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (W)

T (N · m)

Allowable transfer capability table (W) Bending Strength

Table with 10 columns: Number of Teeth (z), Face Width (b), and two sets of rotational speeds (10, 100, 200, 400, 800, 1,200, 1,500 rev/min) with corresponding power and torque values.

上述数字根据JGMA公式得出，仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

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内齿轮 INTERNAL GEARS
研磨齿条 GROUND RACKS
齿条 RACKS
斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆 WORMS AND WORM WHEELS
锥齿轮 BEVEL GEARS
技术资料 REFERENCE DATA

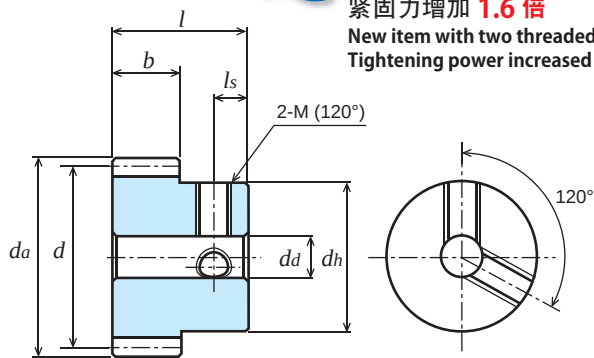
直齿轮 SPUR GEARS

模数
MODULE

1

压力角 20° (普通齿) 齿数35
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 35

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



B1形状
TYPE B1

New 新产品带有两个螺纹孔 (120°)
紧固力增加 **1.6 倍**
New item with two threaded holes (120°)
Tightening power increased by 1.6 times.

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b ₂ × t ₂	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 35A - 0608F	35	φ35	φ37	A1	6	φ 8	-	-	6	-	-	-	43.0
S1S 35A = 0610	35	φ35	φ37	A1	6	φ10	-	-	6	3 × 1.4	-	-	41.4
S1S 35A = 0612	35	φ35	φ37	A1	6	φ12	-	-	6	4 × 1.8	-	-	39.7
S1S 35A - 1008F	35	φ35	φ37	A1	10	φ 8	-	-	10	-	-	-	71.6
S1S 35A = 1010	35	φ35	φ37	A1	10	φ10	-	-	10	3 × 1.4	-	-	69.0
S1S 35A = 1012	35	φ35	φ37	A1	10	φ12	-	-	10	4 × 1.8	-	-	66.1
S1S 35A = 1015	35	φ35	φ37	A1	10	φ15	-	-	10	5 × 2.3	-	-	60.8
S1S 35B - 0606	35	φ35	φ37	B1	6	φ 6	φ24	10	16	-	-	-	77.3
S1S 35B * 0606	35	φ35	φ37	B1	6	φ 6	φ24	10	16	-	2-M4	4	75.8
S1S 35B * 0608	35	φ35	φ37	B1	6	φ 8	φ24	10	16	-	2-M4	4	73.2
S1S 35B * 0610	35	φ35	φ37	B1	6	φ10	φ24	10	16	-	2-M5	5	69.2
S1S 35B * 0612	35	φ35	φ37	B1	6	φ12	φ24	10	16	-	2-M5	5	65.1
S1S 35B - 1010F	35	φ35	φ37	B1	10	φ10	φ30	10	20	-	-	-	118.7
S1S 35B * 1010	35	φ35	φ37	B1	10	φ10	φ30	10	20	-	2-M5	5	116.1
S1S 35B * 1012	35	φ35	φ37	B1	10	φ12	φ30	10	20	-	2-M5	5	111.0
S1S 35B * 1015	35	φ35	φ37	B1	10	φ15	φ30	10	20	-	2-M5	5	101.4

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key.

标号 [*] 表示齿轮带有螺纹孔/带有两个固定螺钉。 [*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
35	6	10.16	101.61	203.23	406.46	759.80	1,033.48	1,207.46	100
35	10	16.94	169.36	338.72	677.43	1,266.33	1,722.47	2,012.43	9.70
									16.17

KG的齿轮规格有标准齿宽 (轻负荷用), 加宽齿宽 (重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load. 您可以在我们广泛的设计产品中选择最适合您的产品。You are able to multiple choices for your suitable design from our wide range. 上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only. 动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

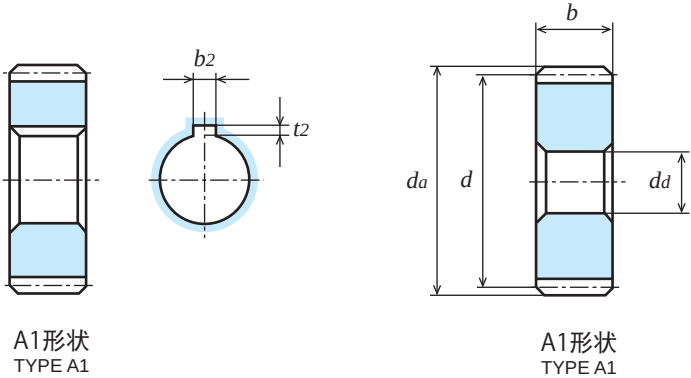
直齿轮
SPUR GEARS

模数
MODULE
1
压力角 20° (普通齿) 齿数36 38
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 36 to Z 38

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)
单位 : mm
Dimensions : mm

Table with 13 columns: Product Model, Number of Teeth, Reference Diameter, Tip Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Key Way, Set Screw, Weight. It lists various gear specifications and their corresponding weights.

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key.
标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。 [*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

Table with 2 main sections. The first section shows bending strength (W) for different tooth counts (z) and face widths (b) at various rotation speeds. The second section shows the rotation speed (min⁻¹) for different tooth counts and face widths.

上述数字根据JGMA公式得出, 仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

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蜗轮・蜗杆
WORMS AND WORM WHEELS
锥齿
BEVEL GEARS
技术资料
REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

1

压力角 20° (普通齿) 齿数40

20° PRESSURE ANGLE FULL DEPTH TOOTH Z 40

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)

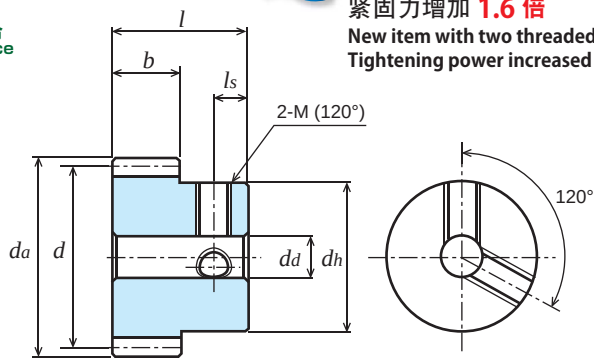


新产品带有两个螺纹孔 (120°)

紧固力增加 1.6 倍

New item with two threaded holes (120°)

Tightening power increased by 1.6 times.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)

Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter dd(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b ₂ × t ₂	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 40A - 0608F	40	φ40	φ42	A1	6	φ8	-	-	6	-	-	-	56.8
S1S 40A = 0610	40	φ40	φ42	A1	6	φ10	-	-	6	3 × 1.4	-	-	55.3
S1S 40A = 0612	40	φ40	φ42	A1	6	φ12	-	-	6	4 × 1.8	-	-	53.5
S1S 40A - 1008F	40	φ40	φ42	A1	10	φ8	-	-	10	-	-	-	94.7
S1S 40A = 1010	40	φ40	φ42	A1	10	φ10	-	-	10	3 × 1.4	-	-	92.2
S1S 40A = 1012	40	φ40	φ42	A1	10	φ12	-	-	10	4 × 1.8	-	-	89.2
S1S 40A = 1015	40	φ40	φ42	A1	10	φ15	-	-	10	5 × 2.3	-	-	83.9
S1S 40B - 0608	40	φ40	φ42	B1	6	φ8	φ24	10	16	-	-	-	88.4
S1S 40B * 0608	40	φ40	φ42	B1	6	φ8	φ24	10	16	-	2-M4	4	87.1
S1S 40B * 0610	40	φ40	φ42	B1	6	φ10	φ24	10	16	-	2-M5	5	83.1
S1S 40B * 0612	40	φ40	φ42	B1	6	φ12	φ24	10	16	-	2-M5	5	79.0
● S1S 40BF - 1006	40	φ40	φ42	B1	10	φ6(H8)	φ30	10	20	-	-	-	149.1
● S1S 40B - 1006H	40	φ40	φ42	B1	10	φ6(H※)	φ30	10	20	-	-	-	149.1
S1S 40B - 1010F	40	φ40	φ42	B1	10	φ10	φ30	10	20	-	-	-	141.8
S1S 40B * 1010	40	φ40	φ42	B1	10	φ10	φ30	10	20	-	2-M5	5	139.3
S1S 40B * 1012	40	φ40	φ42	B1	10	φ12	φ30	10	20	-	2-M5	5	134.1
S1S 40B * 1015	40	φ40	φ42	B1	10	φ15	φ30	10	20	-	2-M5	5	124.5

标有 ● 的产品为新产品。Products with ● marks are new item.

标号 [=] 表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key.

标号 [*] 表示齿轮带有螺纹孔/带有两个固定螺钉。 [*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有 [H] 的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
40	6	-	12.08	120.78	241.55	483.10	877.30	1,181.18	1,386.01
40	10	-	20.08	200.84	401.69	803.38	1,459.31	1,964.04	2,304.26
40	10	○	21.29	212.94	425.87	851.74	1,559.77	2,118.06	2,496.93

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (W)

Allowable transfer capability table (W) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
1.39	13.93	28.06	56.55	104.72	144.51	171.21
6.20	68.60	141.44	291.61	550.48	760.95	905.8

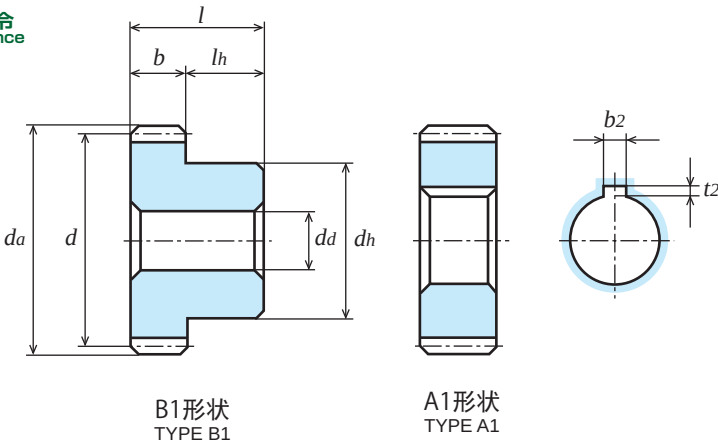
直齿轮
SPUR GEARS

模数
MODULE

1

压力角 20° (普通齿) 齿数42 ~ 45
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 42 to Z 45

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter dd(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	键 槽 Key Way b2 × t2	螺 纹 孔 Set Screw		重 量 Weight W(g)
											2-M(120°)	ls	
S1S 42A – 0608F	42	φ42	φ44	A1	6	φ 8	-	-	6	-	-	-	62.9
S1S 42A – 1008F	42	φ42	φ44	A1	10	φ 8	-	-	10	-	-	-	104.8
S1S 42B – 0608F	42	φ42	φ44	B1	6	φ 8	φ28	10	16	-	-	-	107.3
S1S 42B – 1010F	42	φ42	φ44	B1	10	φ10	φ30	10	20	-	-	-	151.9
S1S 44A – 0608F	44	φ44	φ46	A1	6	φ 8	-	-	6	-	-	-	69.3
S1S 44A – 1008F	44	φ44	φ46	A1	10	φ 8	-	-	10	-	-	-	115.4
S1S 44B – 0608F	44	φ44	φ46	B1	6	φ 8	φ28	10	16	-	-	-	113.6
S1S 44B – 1010F	44	φ44	φ46	B1	10	φ10	φ30	10	20	-	-	-	162.5
S1S 45A – 0608F	45	φ45	φ47	A1	6	φ 8	-	-	6	-	-	-	72.5
S1S 45A = 0610	45	φ45	φ47	A1	6	φ10	-	-	6	3 × 1.4	-	-	71.0
S1S 45A = 0612	45	φ45	φ47	A1	6	φ12	-	-	6	4 × 1.8	-	-	69.2
S1S 45A – 1008F	45	φ45	φ47	A1	10	φ 8	-	-	10	-	-	-	120.9
S1S 45A = 1010	45	φ45	φ47	A1	10	φ10	-	-	10	3 × 1.4	-	-	118.4
S1S 45A = 1012	45	φ45	φ47	A1	10	φ12	-	-	10	4 × 1.8	-	-	115.4
S1S 45A = 1015	45	φ45	φ47	A1	10	φ15	-	-	10	5 × 2.3	-	-	110.1
S1S 45B – 0608	45	φ45	φ47	B1	6	φ 8	φ24	10	16	-	-	-	104.2
S1S 45B * 0608	45	φ45	φ47	B1	6	φ 8	φ24	10	16	-	2-M4	4	102.9
S1S 45B * 0610	45	φ45	φ47	B1	6	φ10	φ24	10	16	-	2-M5	5	98.8
S1S 45B * 0612	45	φ45	φ47	B1	6	φ12	φ24	10	16	-	2-M5	5	94.7
S1S 45B – 1010F	45	φ45	φ47	B1	10	φ10	φ30	10	20	-	-	-	168.0
S1S 45B * 1010	45	φ45	φ47	B1	10	φ10	φ30	10	20	-	2-M5	5	165.5
S1S 45B * 1012	45	φ45	φ47	B1	10	φ12	φ30	10	20	-	2-M5	5	160.3
S1S 45B * 1015	45	φ45	φ47	B1	10	φ15	φ30	10	20	-	2-M5	5	150.7

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key.
标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。 [*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
42	6	12.85	128.51	257.02	514.05	922.98	1,237.83	1,465.99	12.27
42	10	21.42	214.19	428.37	856.75	1,538.29	2,063.06	2,443.32	20.45
44	6	13.62	136.19	272.39	544.77	967.23	1,292.26	1,544.38	13.00
44	10	22.70	226.99	453.98	907.95	1,612.04	2,153.77	2,573.97	21.67
45	6	14.01	140.08	280.17	560.34	989.34	1,319.35	1,583.81	13.37
45	10	23.35	233.47	466.95	933.89	1,648.90	2,198.92	2,639.68	22.29

上述数字根据JGMA公式得出，仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 GEAR INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿条・螺旋齿条 HELIC GEAR AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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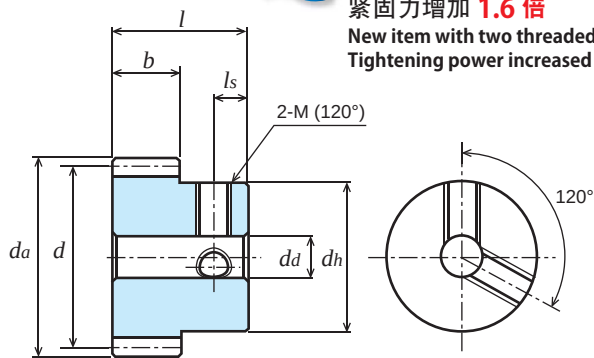
直齿轮 SPUR GEARS

模数
MODULE

1

压力角 20° (普通齿) 齿数 46 48
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 46 to Z 48

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



B1形状
TYPE B1

New 新产品带有两个螺纹孔 (120°)
紧固力增加 1.6 倍
New item with two threaded holes (120°)
Tightening power increased by 1.6 times.

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b ₂ × t ₂	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 46A — 0608F	46	φ46	φ48	A1	6	φ 8	-	-	6	-	-	-	75.9
S1S 46A — 1010F	46	φ46	φ48	A1	10	φ10	-	-	10	-	-	-	124.3
S1S 46B — 0608F	46	φ46	φ48	B1	6	φ 8	φ30	10	16	-	-	-	127.5
S1S 46B — 1010F	46	φ46	φ48	B1	10	φ10	φ30	10	20	-	-	-	173.6
S1S 48A — 0608F	48	φ48	φ50	A1	6	φ 8	-	-	6	-	-	-	82.9
S1S 48A = 0610	48	φ48	φ50	A1	6	φ10	-	-	6	3 × 1.4	-	-	81.3
S1S 48A = 0612	48	φ48	φ50	A1	6	φ12	-	-	6	4 × 1.8	-	-	79.6
S1S 48A — 1010F	48	φ48	φ50	A1	10	φ10	-	-	10	-	-	-	135.9
S1S 48A = 1012	48	φ48	φ50	A1	10	φ12	-	-	10	4 × 1.8	-	-	132.6
S1S 48A = 1015	48	φ48	φ50	A1	10	φ15	-	-	10	5 × 2.3	-	-	127.3
S1S 48B — 0608	48	φ48	φ50	B1	6	φ 8	φ24	10	16	-	-	-	114.5
S1S 48B * 0608	48	φ48	φ50	B1	6	φ 8	φ24	10	16	-	2-M4	4	113.2
S1S 48B * 0610	48	φ48	φ50	B1	6	φ10	φ24	10	16	-	2-M5	5	109.1
S1S 48B * 0612	48	φ48	φ50	B1	6	φ12	φ24	10	16	-	2-M5	5	105.0
S1S 48B — 1010	48	φ48	φ50	B1	10	φ10	φ30	10	20	-	-	-	185.3
S1S 48B * 1010	48	φ48	φ50	B1	10	φ10	φ30	10	20	-	2-M5	5	182.7
S1S 48B * 1012	48	φ48	φ50	B1	10	φ12	φ30	10	20	-	2-M5	5	177.5
S1S 48B * 1015	48	φ48	φ50	B1	10	φ15	φ30	10	20	-	2-M5	5	167.9

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key.

标号 [*] 表示齿轮带有螺纹孔/带有两个固定螺钉。 [*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
46	6	14.40	143.98	287.96	575.93	1,011.26	1,346.11	1,623.07	13.74
46	10	24.00	239.97	479.94	959.88	1,685.44	2,243.51	2,705.12	22.91
48	6	0.015(kW)	0.15(kW)	0.30(kW)	0.60(kW)	1.05(kW)	1.40(kW)	1.70(kW)	14.32
48	10	0.025(kW)	0.25(kW)	0.50(kW)	1.01(kW)	1.75(kW)	2.33(kW)	2.83(kW)	23.87

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

T (N · m)

直齿轮
SPUR GEARS

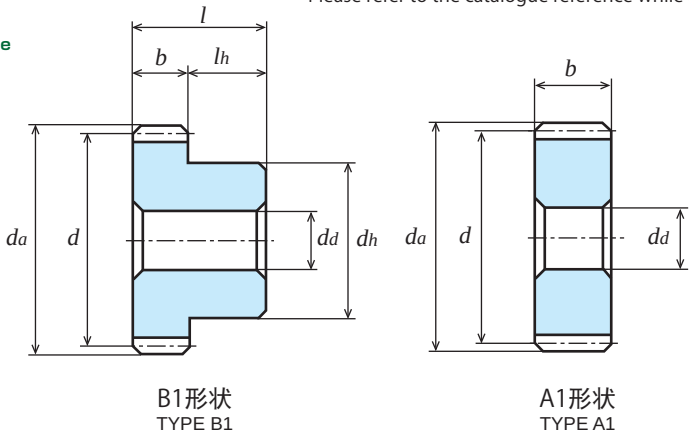
模数
MODULE

1 压力角 20° (普通齿) 齿数50
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 50

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter dd(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 50A – 0610F	50	φ50	φ52	A1	6	φ10	-	-	6	-	-	-	88.8
S1S 50A = 0612	50	φ50	φ52	A1	6	φ12	-	-	6	4 × 1.8	-	-	86.8
S1S 50A – 1008F	50	φ50	φ52	A1	10	φ8	-	-	10	-	-	-	150.2
S1S 50A = 1010	50	φ50	φ52	A1	10	φ10	-	-	10	3 × 1.4	-	-	147.6
S1S 50A = 1012	50	φ50	φ52	A1	10	φ12	-	-	10	4 × 1.8	-	-	144.7
S1S 50A = 1015	50	φ50	φ52	A1	10	φ15	-	-	10	5 × 2.3	-	-	139.4
S1S 50B – 0608	50	φ50	φ52	B1	6	φ8	φ24	10	16	-	-	-	121.8
S1S 50B * 0608	50	φ50	φ52	B1	6	φ8	φ24	10	16	-	2-M4	4	120.4
S1S 50B * 0610	50	φ50	φ52	B1	6	φ10	φ24	10	16	-	2-M5	5	116.4
S1S 50B * 0612	50	φ50	φ52	B1	6	φ12	φ24	10	16	-	2-M5	5	112.3
● S1S50BF – 1008	50	φ50	φ52	B1	10	φ8	φ35	10	20	-	-	-	221.0
● S1S50B – 1008H	50	φ50	φ52	B1	10	φ8(H※)	φ35	10	20	-	-	-	221.0
S1S 50B – 1010	50	φ50	φ52	B1	10	φ10	φ30	10	20	-	-	-	197.4
S1S 50B * 1010	50	φ50	φ52	B1	10	φ10	φ30	10	20	-	2-M5	5	194.8
S1S 50B * 1012	50	φ50	φ52	B1	10	φ12	φ30	10	20	-	2-M5	5	189.6
S1S 50B * 1015	50	φ50	φ52	B1	10	φ15	φ30	10	20	-	2-M5	5	180.0

标有●的产品为新产品。Products with● marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key.

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。 [*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
50	6	-	0.015	0.15	0.31	0.63	1.09	1.46	1.77
50	10	-	0.026	0.260	0.530	1.050	1.820	2.430	2.950
50	10	○	0.028	0.281	0.562	1.116	1.955	2.635	3.205

The above references are JGMA standard.

动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.002	0.020	0.050	0.090	0.160	0.220	0.270
0.010	0.109	0.226	0.462	0.835	1.145	1.407

目次表 CONTENTS	齿轮信息 GEAR INFORMATION	齿轮箱 GEAR BOXES	无背隙直齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS & SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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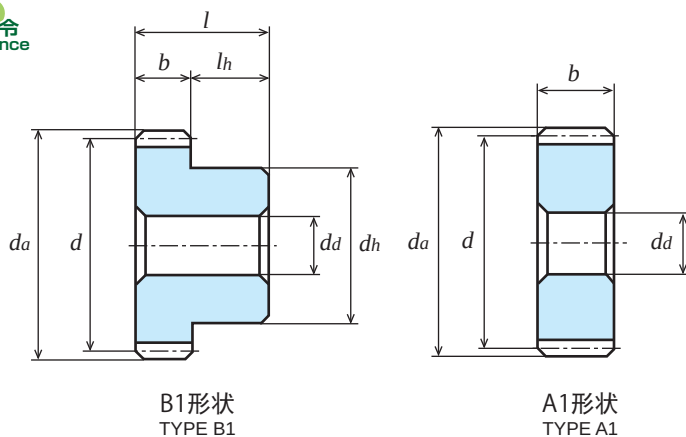
直齿轮 SPUR GEARS

模数
MODULE

1

压力角 20° (普通齿) 齿数 52 ~ 55
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 52 to Z 55

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_d(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		重量 Weight $W(g)$
											M	l_s	
S1S 52A - 0610F	52	$\phi 52$	$\phi 54$	A1	6	$\phi 10$	-	-	6	-	-	-	96.3
S1S 52A - 1010F	52	$\phi 52$	$\phi 54$	A1	10	$\phi 10$	-	-	10	-	-	-	160.5
S1S 52B - 0610F	52	$\phi 52$	$\phi 54$	B1	6	$\phi 10$	$\phi 40$	10	16	-	-	-	188.8
S1S 52B - 1010F	52	$\phi 52$	$\phi 54$	B1	10	$\phi 10$	$\phi 46$	10	20	-	-	-	284.8
S1S 54A - 0610F	54	$\phi 54$	$\phi 56$	A1	6	$\phi 10$	-	-	6	-	-	-	104.2
S1S 54A - 1010F	54	$\phi 54$	$\phi 56$	A1	10	$\phi 10$	-	-	10	-	-	-	173.6
S1S 54B - 0610F	54	$\phi 54$	$\phi 56$	B1	6	$\phi 10$	$\phi 40$	10	16	-	-	-	196.7
S1S 54B - 1010F	54	$\phi 54$	$\phi 56$	B1	10	$\phi 10$	$\phi 46$	10	20	-	-	-	297.9
S1S 55A - 0610F	55	$\phi 55$	$\phi 57$	A1	6	$\phi 10$	-	-	6	-	-	-	108.2
S1S 55A - 1010F	55	$\phi 55$	$\phi 57$	A1	10	$\phi 10$	-	-	10	-	-	-	180.3
S1S 55B - 0610F	55	$\phi 55$	$\phi 57$	B1	6	$\phi 10$	$\phi 40$	10	16	-	-	-	200.7
S1S 55B - 1010F	55	$\phi 55$	$\phi 57$	B1	10	$\phi 10$	$\phi 46$	10	20	-	-	-	304.6

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
52	6	0.016	0.16	0.33	0.66	1.13	1.53	1.85	15.27
52	10	0.027	0.27	0.55	1.10	1.89	2.55	3.09	25.78
54	6	0.017	0.17	0.35	0.68	1.17	1.59	1.93	16.23
54	10	0.029	0.29	0.58	1.14	1.96	2.65	3.21	27.69
55	6	0.017	0.17	0.35	0.70	1.20	1.62	1.96	16.23
55	10	0.029	0.29	0.59	1.16	2.00	2.71	3.28	27.69

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page 26.

直齿轮
SPUR GEARS

模数
MODULE

1

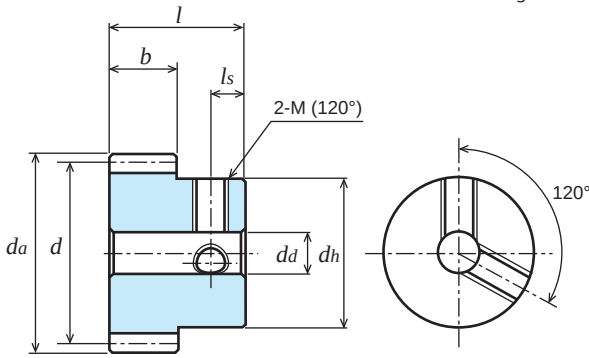
压力角 20° (普通齿) 齿数56 58
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 56 to Z 58

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	键 槽 Key Way b ₂ × t ₂	螺 纹 孔 Set Screw		重 量 Weight W(g)
											2-M(120°)	ls	
S1S 56A — 0610F	56	φ56	φ58	A1	6	φ10	-	-	6	-	-	-	112.3
S1S 56A = 0612	56	φ56	φ58	A1	6	φ12	-	-	6	4 × 1.8	-	-	110.3
S1S 56A — 1010F	56	φ56	φ58	A1	10	φ10	-	-	10	-	-	-	187.2
S1S 56A = 1012	56	φ56	φ58	A1	10	φ12	-	-	10	4 × 1.8	-	-	183.9
S1S 56A = 1015	56	φ56	φ58	A1	10	φ15	-	-	10	5 × 2.3	-	-	178.6
S1S 56B — 0610	56	φ56	φ58	B1	6	φ10	φ24	10	16	-	-	-	141.7
S1S 56B * 0610	56	φ56	φ58	B1	6	φ10	φ24	10	16	-	2-M5	5	139.9
S1S 56B * 0612	56	φ56	φ58	B1	6	φ12	φ24	10	16	-	2-M5	5	135.8
S1S 56B — 1010	56	φ56	φ58	B1	10	φ10	φ30	10	20	-	-	-	236.7
S1S 56B * 1010	56	φ56	φ58	B1	10	φ10	φ30	10	20	-	2-M5	5	234.0
S1S 56B * 1012	56	φ56	φ58	B1	10	φ12	φ30	10	20	-	2-M5	5	228.9
S1S 56B * 1015	56	φ56	φ58	B1	10	φ15	φ30	10	20	-	2-M5	5	219.3
S1S 58A — 0610F	58	φ58	φ60	A1	6	φ10	-	-	6	-	-	-	114.6
S1S 58A — 1010F	58	φ58	φ60	A1	10	φ10	-	-	10	-	-	-	195.1
S1S 58B — 0610F	58	φ58	φ60	B1	6	φ10	φ40	10	16	-	-	-	213.2
S1S 58B — 1010F	58	φ58	φ60	B1	10	φ10	φ50	10	20	-	-	-	361.5

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key.
标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。 [*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (kW)

T (N · m)

Allowable transfer capability table (kW) Bending Strength

齿 数 z	齿 宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
56	6	0.018	0.18	0.36	0.71	1.22	1.65	2.00	17.18
56	10	0.030	0.30	0.61	1.19	2.03	2.76	3.34	28.64
58	6	0.019	0.19	0.38	0.74	1.25	1.72	2.08	18.14
58	10	0.031	0.31	0.63	1.23	2.09	2.87	3.47	29.60

KG的齿轮规格有标准齿宽 (轻负荷用), 加宽齿宽 (重负荷用)。请根据用途选择。 KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.
您可以在我们广泛的设计产品中选择最合适您的产品。 You are able to multiple choices for your suitable design from our wide range.
上述数字根据JGMA公式得出, 仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

1

压力角 20° (普通齿) 齿数60
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 60

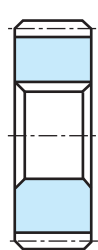
JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



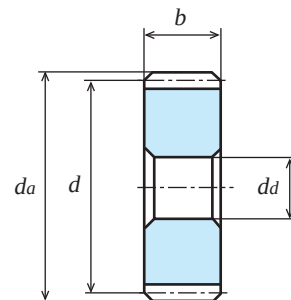
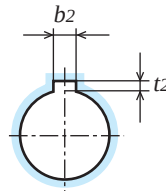
New

新产品带有两个螺纹孔 (120°)
紧固力增加 1.6 倍

New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



A1形状
TYPE A1



A1形状
TYPE A1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 60A - 0610F	60	φ60	φ62	A1	6	φ10	-	-	6	-	-	-	129.5
S1S 60A = 0612	60	φ60	φ62	A1	6	φ12	-	-	6	4 × 1.8	-	-	127.5
S1S 60A - 1010F	60	φ60	φ62	A1	10	φ10	-	-	10	-	-	-	215.8
S1S 60A = 1010	60	φ60	φ62	A1	10	φ10	-	-	10	3 × 1.4	-	-	215.5
S1S 60A = 1012	60	φ60	φ62	A1	10	φ12	-	-	10	4 × 1.8	-	-	212.5
S1S 60A = 1015	60	φ60	φ62	A1	10	φ15	-	-	10	5 × 2.3	-	-	207.2
S1S 60B - 0610	60	φ60	φ62	B1	6	φ10	φ30	10	16	-	-	-	178.9
S1S 60B * 0610	60	φ60	φ62	B1	6	φ10	φ30	10	16	-	2-M5	5	176.3
S1S 60B * 0612	60	φ60	φ62	B1	6	φ12	φ30	10	16	-	2-M5	5	172.2
S1S 60B * 0615	60	φ60	φ62	B1	6	φ15	φ30	10	16	-	2-M5	5	164.6
● S1S 60BF - 1008	60	φ60	φ62	B1	10	φ8	φ42	10	20	-	-	-	321.9
● S1S 60B - 1008H	60	φ60	φ62	B1	10	φ8(H※)	φ42	10	20	-	-	-	321.9
S1S 60B - 1010	60	φ60	φ62	B1	10	φ10	φ30	10	20	-	-	-	265.3
S1S 60B * 1010	60	φ60	φ62	B1	10	φ10	φ30	10	20	-	2-M5	5	262.7
S1S 60B * 1012	60	φ60	φ62	B1	10	φ12	φ30	10	20	-	2-M5	5	257.5
S1S 60B * 1015	60	φ60	φ62	B1	10	φ15	φ30	10	20	-	2-M5	5	247.9

标有●的产品为新产品。Products with●marks are new item.

标号[=]表示齿轮带有键槽/带有键。[=]: Gear with key way / with key.

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。[*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有[H]的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
60	6	-	0.019	0.19	0.39	0.76	1.29	1.78	2.15
60	10	-	0.033	0.330	0.660	1.270	2.150	2.960	3.570
60	10	○	0.035	0.350	0.700	1.353	2.321	3.212	3.888

上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.003	0.030	0.070	0.130	0.230	0.320	0.400
0.015	0.160	0.331	0.659	1.165	1.641	2.006

直齿轮
SPUR GEARS

模数
MODULE

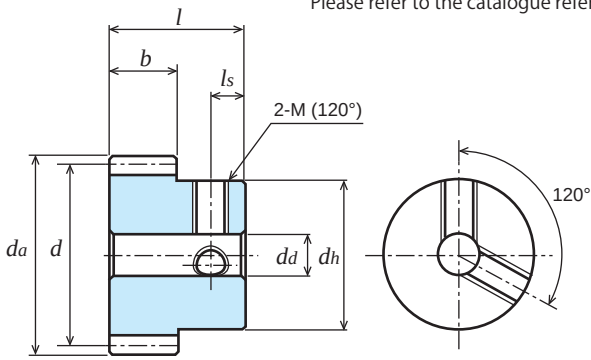
1

压力角 20° (普通齿) 齿数62 64
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 62

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	键 槽 Key Way b2 × t2	螺 纹 孔 Set Screw		重 量 Weight W(g)
											2-M(120°)	ls	
S1S 62A — 0610F	62	φ62	φ64	A1	6	φ10	-	-	6	-	-	-	138.5
S1S 62A — 1010F	62	φ62	φ64	A1	10	φ10	-	-	10	-	-	-	230.8
S1S 62B — 0610F	62	φ62	φ64	B1	6	φ10	φ40	10	16	-	-	-	231.0
S1S 62B — 1010F	62	φ62	φ64	B1	10	φ10	φ50	10	20	-	-	-	378.8
S1S 64A — 0610F	64	φ64	φ66	A1	6	φ10	-	-	6	-	-	-	147.8
S1S 64A = 0612	64	φ64	φ66	A1	6	φ12	-	-	6	4 × 1.8	-	-	145.9
S1S 64A — 1010F	64	φ64	φ66	A1	10	φ10	-	-	10	-	-	-	246.4
S1S 64A = 1012	64	φ64	φ66	A1	10	φ12	-	-	10	4 × 1.8	-	-	243.1
S1S 64A = 1015	64	φ64	φ66	A1	10	φ15	-	-	10	5 × 2.3	-	-	237.8
S1S 64B — 0610	64	φ64	φ66	B1	6	φ10	φ30	10	16	-	-	-	177.3
S1S 64B * 0610	64	φ64	φ66	B1	6	φ10	φ30	10	16	-	2-M5	5	175.5
S1S 64B * 0612	64	φ64	φ66	B1	6	φ12	φ30	10	16	-	2-M5	5	171.4
S1S 64B — 1010	64	φ64	φ66	B1	10	φ10	φ30	10	20	-	-	-	295.9
S1S 64B * 1010	64	φ64	φ66	B1	10	φ10	φ30	10	20	-	2-M5	5	293.3
S1S 64B * 1012	64	φ64	φ66	B1	10	φ12	φ30	10	20	-	2-M5	5	288.1
S1S 64B * 1015	64	φ64	φ66	B1	10	φ15	φ30	10	20	-	2-M5	5	278.5

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key.
标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。 [*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (kW)

T (N · m)

Allowable transfer capability table (kW) Bending Strength

齿 数 z	齿 宽 b	旋 转 速 度 (min ⁻¹) revolution/min							旋 转 速 度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
62	6	0.020	0.20	0.41	0.79	1.33	1.84	2.22	100
62	10	0.034	0.34	0.69	1.32	2.22	3.08	3.71	19.09
64	6	0.021	0.21	0.43	0.81	1.37	1.91	2.30	32.46
64	10	0.035	0.35	0.71	1.36	2.29	3.18	3.83	20.05
									33.42

KG的齿轮规格有标准齿宽 (轻负荷用), 加宽齿宽 (重负荷用)。请根据用途选择。 KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.
您可以在我们广泛的设计产品中选择最合适您的产品。 You are able to multiple choices for your suitable design from our wide range.
上述数字根据JGMA公式得出, 仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

目 录 表 CONTENTS	齿 轮 信 息 INFORMATION	齿 轮 箱 GEAR BOXES	无 背 隙 齿 轮 ANTI BACKLASH SPUR GEARS	研 磨 直 齿 轮 GROUND SPUR GEARS	直 齿 轮 SPUR GEARS	内 齿 轮 INTERNAL GEARS	研 磨 齿 条 GROUND RACKS	齿 条 RACKS	斜 齿 轮 · 螺 旋 齿 轮 HELICAL GEARS AND SCREW GEARS	蜗 轮 · 蜗 杆 WORMS AND WORM WHEELS	锥 齿 轮 BEVEL GEARS	技 术 资 料 REFERENCE DATA
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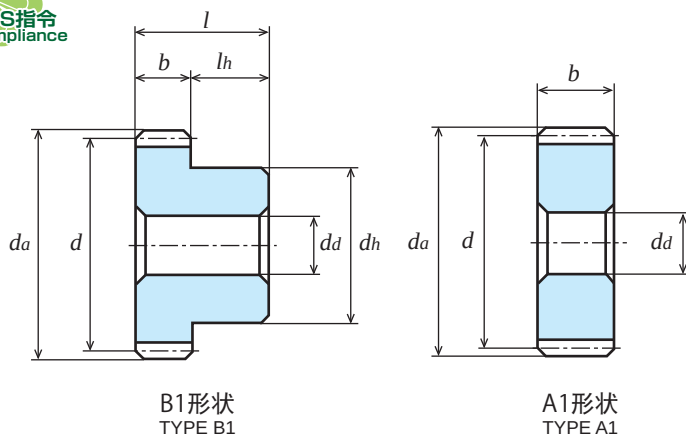
直齿轮 SPUR GEARS

模数
MODULE

1

压力角 20° (普通齿) 齿数 65 ~ 70
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 65 to Z 70

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



B1形状
TYPE B1

A1形状
TYPE A1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b ₂ × t ₂	螺纹孔 Set Screw		重量 Weight W(g)
											M	ls	
S1S 65A - 0610F	65	φ65	φ67	A1	6	φ10	-	-	6	-	-	-	152.6
S1S 65A - 1010F	65	φ65	φ67	A1	10	φ10	-	-	10	-	-	-	254.3
S1S 65B - 0610F	65	φ65	φ67	B1	6	φ10	φ40	10	16	-	-	-	245.1
S1S 65B - 1010F	65	φ65	φ67	B1	10	φ10	φ50	10	20	-	-	-	402.3
S1S 66A - 0610F	66	φ66	φ68	A1	6	φ10	-	-	6	-	-	-	157.4
S1S 66A - 1010F	66	φ66	φ68	A1	10	φ10	-	-	10	-	-	-	262.4
S1S 66B - 0610F	66	φ66	φ68	B1	6	φ10	φ40	10	16	-	-	-	249.9
S1S 66B - 1010F	66	φ66	φ68	B1	10	φ10	φ50	10	20	-	-	-	410.4
S1S 68A - 0610F	68	φ68	φ70	A1	6	φ10	-	-	6	-	-	-	167.4
S1S 68A - 1010F	68	φ68	φ70	A1	10	φ10	-	-	10	-	-	-	278.9
S1S 68B - 0610F	68	φ68	φ70	B1	6	φ10	φ40	10	16	-	-	-	259.8
S1S 68B - 1010F	68	φ68	φ70	B1	10	φ10	φ50	10	20	-	-	-	426.9
S1S 70A - 0610F	70	φ70	φ72	A1	6	φ10	-	-	6	-	-	-	177.6
S1S 70A - 1010F	70	φ70	φ72	A1	10	φ10	-	-	10	-	-	-	295.9
S1S 70B - 0610F	70	φ70	φ72	B1	6	φ10	φ40	10	16	-	-	-	270.0
S1S 70B - 1010F	70	φ70	φ72	B1	10	φ10	φ50	10	20	-	-	-	442.9
S1S 70BF - 1010	70	φ70	φ72	B1	10	φ10	φ55	10	20	-	-	-	442.9
S1S 70B - 1010H	70	φ70	φ72	B1	10	φ10(H※)	φ55	10	20	-	-	-	442.9

标有●的产品为新产品。Products with ● marks are new item.

表有■的产品是规格变更产品。选定请注意尺寸。

标号[=]表示齿轮带有键槽/带有键。[=]: Gear with key way / with key.

Products with ■ marks are the changed specification.
Beware of each dimension when choosing this product.

标号[*]表示齿轮带有两个螺纹孔/有两个固定螺钉。

产品型号末尾标有[H]的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
65	6	-	0.021	0.21	0.43	0.83	1.39	1.94	2.34
65	10	-	0.036	0.36	0.73	1.38	2.32	3.23	3.90
66	6	-	0.022	0.22	0.44	0.84	1.41	1.97	2.38
66	10	-	0.037	0.37	0.74	1.40	2.35	3.28	3.96
68	6	-	0.023	0.23	0.46	0.86	1.44	2.03	2.45
68	10	-	0.038	0.38	0.77	1.44	2.41	3.38	4.09
70	6	-	0.023	0.23	0.47	0.94	1.48	2.09	2.53
70	10	-	0.040	0.400	0.790	1.480	2.460	3.470	4.190
70	10	○	0.042	0.420	0.840	1.579	2.658	3.770	4.618

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

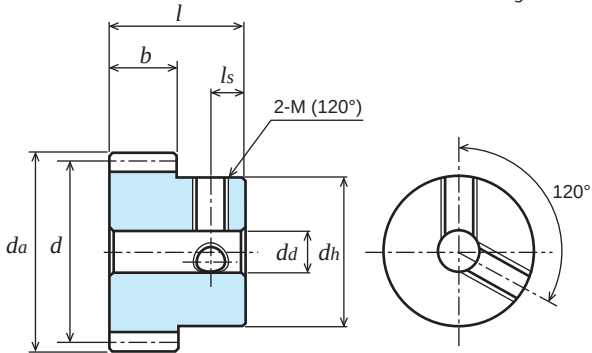
Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.005	0.050	0.090	0.170	0.300	0.440	0.550
0.020	0.222	0.457	0.886	1.537	2.219	2.745

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter dd(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	键 槽 Key Way b2 × t2	螺 纹 孔 Set Screw		重 量 Weight W(g)
											2-M(120°)	ls	
S1S 72A – 0610F	72	φ72	φ74	A1	6	φ10	-	-	6	-	-	-	188.1
S1S 72A = 0612	72	φ72	φ74	A1	6	φ12	-	-	6	4 × 1.8	-	-	186.1
S1S 72A – 1010F	72	φ72	φ74	A1	10	φ10	-	-	10	-	-	-	313.4
S1S 72A = 1012	72	φ72	φ74	A1	10	φ12	-	-	10	4 × 1.8	-	-	310.2
S1S 72A = 1015	72	φ72	φ74	A1	10	φ15	-	-	10	5 × 2.3	-	-	304.8
S1S 72B – 0610	72	φ72	φ74	B1	6	φ10	φ30	10	16	-	-	-	217.6
S1S 72B * 0610	72	φ72	φ74	B1	6	φ10	φ30	10	16	-	2-M5	5	215.7
S1S 72B * 0612	72	φ72	φ74	B1	6	φ12	φ30	10	16	-	2-M5	5	211.6
S1S 72B – 1010	72	φ72	φ74	B1	10	φ10	φ30	10	20	-	-	-	363.0
S1S 72B * 1010	72	φ72	φ74	B1	10	φ10	φ30	10	20	-	2-M5	5	360.4
S1S 72B * 1012	72	φ72	φ74	B1	10	φ12	φ30	10	20	-	2-M5	5	355.2
S1S 72B * 1015	72	φ72	φ74	B1	10	φ15	φ30	10	20	-	2-M5	5	345.6
S1S 75A – 0610F	75	φ75	φ77	A1	6	φ10	-	-	6	-	-	-	204.4
S1S 75A – 1010F	75	φ75	φ77	A1	10	φ10	-	-	10	-	-	-	340.6
S1S 75B – 0610F	75	φ75	φ77	B1	6	φ10	φ40	10	16	-	-	-	296.9
S1S 75B – 1010F	75	φ75	φ77	B1	10	φ10	φ50	10	20	-	-	-	488.6

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key.
标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。 [*] : Gear with two threaded holes / with two set screws.

容许传达动力表 弯曲强度 (kW)

T (N · m)

Allowable transfer capability table (kW) Bending Strength

齿 数 z	齿 宽 b	旋 转 速 度 (min ⁻¹) revolution/min							旋 转 速 度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
72	6	0.024	0.24	0.49	0.91	1.52	2.15	2.60	22.91
72	10	0.041	0.41	0.82	1.53	2.53	3.59	4.34	39.15
75	6	0.025	0.25	0.51	0.95	1.58	2.24	2.72	23.87
75	10	0.043	0.43	0.86	1.59	2.64	3.74	4.53	41.06

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.
您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range.
上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮 SPUR GEARS

模数
MODULE

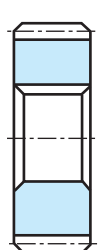
1

压力角 20° (普通齿) 齿数80
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 80

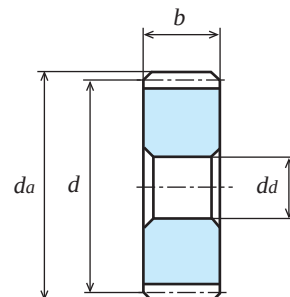
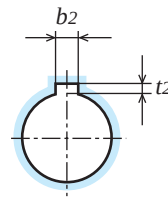
JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



新产品带有两个螺纹孔 (120°)
紧固力增加 1.6 倍
New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



A1形状
TYPE A1



A1形状
TYPE A1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 80A - 0610F	80	φ80	φ82	A1	6	φ10	-	-	6	-	-	-	233.1
S1S 80A = 0612	80	φ80	φ82	A1	6	φ12	-	-	6	4 × 1.8	-	-	231.1
S1S 80A = 0615	80	φ80	φ82	A1	6	φ15	-	-	6	5 × 2.3	-	-	227.9
S1S 80A - 1010F	80	φ80	φ82	A1	10	φ10	-	-	10	-	-	-	388.4
S1S 80A = 1010	80	φ80	φ82	A1	10	φ10	-	-	10	3 × 1.4	-	-	388.1
S1S 80A = 1012	80	φ80	φ82	A1	10	φ12	-	-	10	4 × 1.8	-	-	385.1
S1S 80A = 1015	80	φ80	φ82	A1	10	φ15	-	-	10	5 × 2.3	-	-	379.8
S1S 80A = 1016	80	φ80	φ82	A1	10	φ16	-	-	10	5 × 2.3	-	-	377.9
S1S 80B - 0610	80	φ80	φ82	B1	6	φ10	φ30	10	16	-	-	-	282.6
S1S 80B * 0610	80	φ80	φ82	B1	6	φ10	φ30	10	16	-	2-M5	5	279.9
S1S 80B * 0612	80	φ80	φ82	B1	6	φ12	φ30	10	16	-	2-M5	5	275.9
S1S 80B * 0615	80	φ80	φ82	B1	6	φ15	φ30	10	16	-	2-M5	5	268.3
S1S 80BF - 1010	80	φ80	φ82	B1	10	φ10	φ60	10	20	-	-	-	603.1
S1S 80B - 1010H	80	φ80	φ82	B1	10	φ10(H※)	φ60	10	20	-	-	-	603.1
S1S 80B - 1010	80	φ80	φ82	B1	10	φ10	φ32	10	20	-	-	-	445.7
S1S 80B * 1010	80	φ80	φ82	B1	10	φ10	φ32	10	20	-	2-M5	5	442.8
S1S 80B * 1012	80	φ80	φ82	B1	10	φ12	φ32	10	20	-	2-M5	5	437.6
S1S 80B * 1015	80	φ80	φ82	B1	10	φ15	φ32	10	20	-	2-M5	5	428.0
S1S 80B * 1016	80	φ80	φ82	B1	10	φ16	φ32	10	20	-	2-M5	5	424.3

标有●的产品为新产品。Products with ● marks are new item.

标有■的产品是规格变更产品。选定时应注意尺寸。

Products with ■ marks are the changed specification.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key.

Beware of each dimension when choosing this product.

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。 [*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
80	6	-	0.027	0.27	0.55	1.01	1.69	2.39	2.90
80	10	-	0.046	0.460	0.920	1.680	2.810	3.960	4.810
80	10	○	0.049	0.490	0.980	1.795	3.043	4.313	5.392

上述数字根据JGMA公式得出, 仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.006	0.060	0.120	0.220	0.390	0.580	0.730
0.026	0.293	0.604	1.141	1.993	2.876	3.631

直齿轮
SPUR GEARS

模数
MODULE

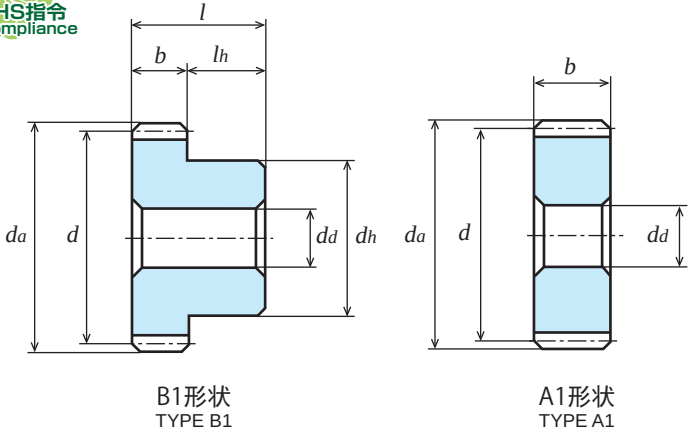
1

压力角 20° (普通齿) 齿数84 ~ 96
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 84 to Z 96

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)
单位: mm
Dimensions: mm

Table with 13 columns: Product Model, Number of Teeth, Reference Diameter, Tip Diameter, Type, Face Width, Bore Diameter, Hub Outer Diameter, Hub Length, Overall Length, Key Way, Set Screw, Weight. It lists various gear models like S1S 84A-0610F, S1S 84A-1010F, etc., with their respective specifications.

标有●的产品为新产品。Products with●marks are new item.
表有■的产品是规格变更产品。选定时请注意尺寸。
Products with■marks are the changed specification. Beware of each dimension when choosing this product.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (kW) Bending Strength
Table with 10 columns: z, b, H, and 8 columns for rotation speed (10, 100, 200, 400, 800, 1,200, 1,500 rpm).

容许传达动力表 齿面强度 (kW)
Allowable transfer capability table (kW) Surface Durability
Table with 8 columns: 7 columns for rotation speed (10, 100, 200, 400, 800, 1,200, 1,500 rpm) and 1 column for a second set of values.

The above references are JGMA standard.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS
齿轮信息 INFORMATION
齿箱 GEAR BOXES
无隙隙齿轮 ANTI BACKLASH SPUR GEARS
研磨直齿轮 GROUND SPUR GEARS
直齿轮 SPUR GEARS
内齿轮 INTERNAL GEARS
研磨齿条 GROUND RACKS
齿条 RACKS
斜齿轮・螺旋齿条 HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆 WORMS AND WORM WHEELS
锥齿轮 BEVEL GEARS
技术资料 REFERENCE DATA

直齿轮

SPUR GEARS

模数
MODULE

1

压力角 20° (普通齿) 齿数100
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 100

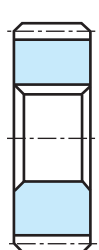
JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



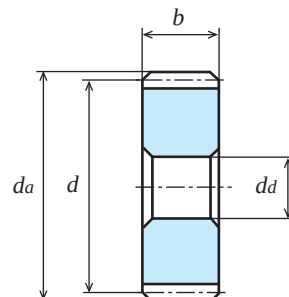
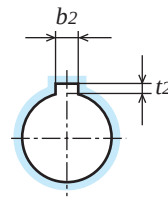
New

新产品带有两个螺纹孔 (120°)
紧固力增加 1.6 倍

New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



A1形状
TYPE A1



A1形状
TYPE A1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 100A - 0610F	100	φ100	φ102	A1	6	φ10	-	-	6	-	-	-	366.2
S1S 100A = 0612	100	φ100	φ102	A1	6	φ12	-	-	6	4 × 1.8	-	-	364.3
S1S 100A = 0615	100	φ100	φ102	A1	6	φ15	-	-	6	5 × 2.3	-	-	361.1
S1S 100A - 1010F	100	φ100	φ102	A1	10	φ10	-	-	10	-	-	-	610.4
S1S 100A = 1010	100	φ100	φ102	A1	10	φ10	-	-	10	3 × 1.4	-	-	610.0
S1S 100A = 1012	100	φ100	φ102	A1	10	φ12	-	-	10	4 × 1.8	-	-	607.1
S1S 100A = 1015	100	φ100	φ102	A1	10	φ15	-	-	10	5 × 2.3	-	-	601.8
S1S 100A = 1016	100	φ100	φ102	A1	10	φ16	-	-	10	5 × 2.3	-	-	599.9
S1S 100A = 1018	100	φ100	φ102	A1	10	φ18	-	-	10	6 × 2.8	-	-	595.2
S1S 100B - 0610	100	φ100	φ102	B1	6	φ10	φ30	10	16	-	-	-	415.8
S1S 100B * 0610	100	φ100	φ102	B1	6	φ10	φ30	10	16	-	2-M5	5	413.2
S1S 100B * 0612	100	φ100	φ102	B1	6	φ12	φ30	10	16	-	2-M5	5	409.1
S1S 100B * 0615	100	φ100	φ102	B1	6	φ15	φ30	10	16	-	2-M5	5	401.5
S1S 100BF - 1010	100	φ100	φ102	B1	10	φ10	φ70	10	20	-	-	-	904.9
S1S 100B - 1010H	100	φ100	φ102	B1	10	φ10(H※)	φ70	10	20	-	-	-	904.9
S1S 100B - 1012	100	φ100	φ102	B1	10	φ12	φ36	10	20	-	-	-	679.1
S1S 100B * 1012	100	φ100	φ102	B1	10	φ12	φ36	10	20	-	2-M5	5	676.0
S1S 100B * 1015	100	φ100	φ102	B1	10	φ15	φ36	10	20	-	2-M5	5	666.4
S1S 100B * 1016	100	φ100	φ102	B1	10	φ16	φ36	10	20	-	2-M5	5	662.7
S1S 100B * 1018	100	φ100	φ102	B1	10	φ18	φ36	10	20	-	2-M5	5	654.6

标有●的产品为新产品。Products with●marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key.

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。 [*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有 [H] 的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
100	6	-	0.036	0.36	0.71	1.23	2.11	2.99	3.61
100	10	-	0.060	0.600	1.180	2.040	3.500	4.950	5.970
100	10	○	0.063	0.631	1.254	2.196	3.804	5.552	6.940

The above references are JGMA standard.

动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

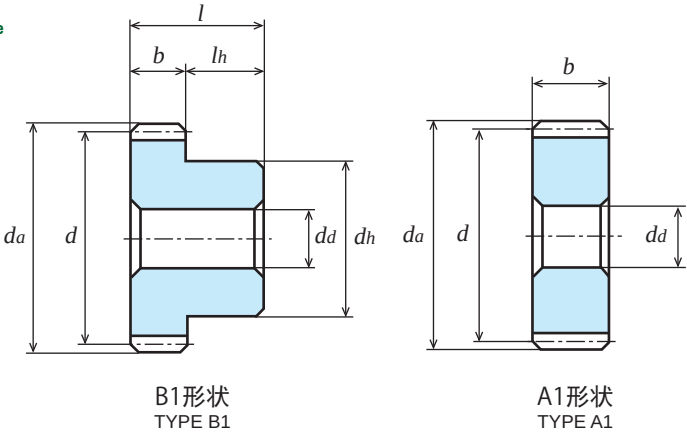
Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.010	0.100	0.190	0.340	0.620	0.930	1.160
0.042	0.468	0.958	1.730	3.090	4.590	5.794

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	键 槽 Key Way b2 × t2	螺 纹 孔 Set Screw		重 量 Weight W(g)
											M	ls	
S1S 105A — 0610F	105	φ105	φ107	A1	6	φ10	-	-	6	-	-	-	404.1
S1S 105A — 1010F	105	φ105	φ107	A1	10	φ10	-	-	10	-	-	-	673.6
S1S 105B — 0610F	105	φ105	φ107	B1	6	φ10	φ50	10	16	-	-	-	552.1
S1S 105B — 1012F	105	φ105	φ107	B1	10	φ12	φ50	10	20	-	-	-	816.1
S1S 110A — 0610F	110	φ110	φ112	A1	6	φ10	-	-	6	-	-	-	443.9
S1S 110A — 1010F	110	φ110	φ112	A1	10	φ10	-	-	10	-	-	-	739.8
S1S 110B — 0610F	110	φ110	φ112	B1	6	φ10	φ50	10	16	-	-	-	591.9
S1S 110B — 1012F	110	φ110	φ112	B1	10	φ12	φ50	10	20	-	-	-	882.4
S1S 115A — 0610F	115	φ115	φ117	A1	6	φ10	-	-	6	-	-	-	485.5
S1S 115A — 1010F	115	φ115	φ117	A1	10	φ10	-	-	10	-	-	-	809.2
S1S 115B — 0610F	115	φ115	φ117	B1	6	φ10	φ50	10	16	-	-	-	633.5
S1S 115B — 1012F	115	φ115	φ117	B1	10	φ12	φ50	10	20	-	-	-	951.7

容许传达动力表 弯曲强度 (kW) T (N · m)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
105	6	0.038	0.38	0.74	1.28	2.22	3.14	3.80	100
105	10	0.063	0.63	1.24	2.14	3.70	5.23	6.33	60.16
110	6	0.040	0.40	0.78	1.34	2.32	3.28	4.00	38.19
110	10	0.066	0.66	1.30	2.23	3.87	5.47	6.67	63.02
115	6	0.042	0.42	0.81	1.39	2.42	3.42	4.21	40.10
115	10	0.070	0.70	1.36	2.31	4.03	5.71	7.01	66.84

KG的齿轮规格有标准齿宽 (轻负荷用), 加宽齿宽 (重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load. 您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range. 上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only. 动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿 GROUND SPUR GEARS	直齿 SPUR GEARS	内齿 INTERNAL GEARS	研磨齿 GROUND RACKS	齿 RACKS	斜齿・螺旋 HELIC GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

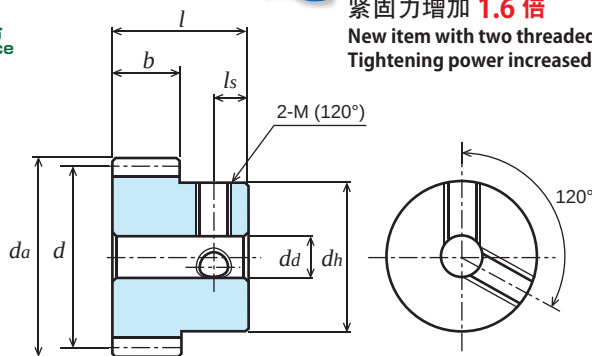
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压力角 20° (普通齿) 齿数120
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 120

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



新产品带有两个螺纹孔 (120°)
紧固力增加 1.6 倍
New item with two threaded holes (120°)
Tightening power increased by 1.6 times.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b ₂ × t ₂	螺纹孔 Set Screw		重量 Weight W(g)
											2-M(120°)	ls	
S1S 120A - 0610F	120	φ120	φ122	A1	6	φ10	-	-	6	-	-	-	529.0
S1S 120A = 0612	120	φ120	φ122	A1	6	φ12	-	-	6	4 × 1.8	-	-	527.0
S1S 120A = 0615	120	φ120	φ122	A1	6	φ15	-	-	6	5 × 2.3	-	-	523.8
S1S 120A = 0616	120	φ120	φ122	A1	6	φ16	-	-	6	5 × 2.3	-	-	522.7
S1S 120A - 1010F	120	φ120	φ122	A1	10	φ10	-	-	10	-	-	-	881.6
S1S 120A = 1010	120	φ120	φ122	A1	10	φ10	-	-	10	3 × 1.4	-	-	881.3
S1S 120A = 1012	120	φ120	φ122	A1	10	φ12	-	-	10	4 × 1.8	-	-	878.4
S1S 120A = 1015	120	φ120	φ122	A1	10	φ15	-	-	10	5 × 2.3	-	-	873.0
S1S 120A = 1016	120	φ120	φ122	A1	10	φ16	-	-	10	5 × 2.3	-	-	871.1
S1S 120A = 1018	120	φ120	φ122	A1	10	φ18	-	-	10	6 × 2.8	-	-	866.5
S1S 120B - 0610	120	φ120	φ122	B1	6	φ10	φ30	10	16	-	-	-	578.7
S1S 120B * 0610	120	φ120	φ122	B1	6	φ10	φ30	10	16	-	2-M5	5	576.1
S1S 120B * 0612	120	φ120	φ122	B1	6	φ12	φ30	10	16	-	2-M5	5	572.0
S1S 120B * 0615	120	φ120	φ122	B1	6	φ15	φ30	10	16	-	2-M5	5	564.4
S1S 120BF - 1010	120	φ120	φ122	B1	10	φ10	φ90	10	20	-	-	-	1373.2
S1S 120B - 1010H	120	φ120	φ122	B1	10	φ10(H※)	φ90	10	20	-	-	-	1373.2
S1S 120B - 1012	120	φ120	φ122	B1	10	φ12	φ36	10	20	-	-	-	950.6
S1S 120B * 1012	120	φ120	φ122	B1	10	φ12	φ36	10	20	-	2-M5	5	947.4
S1S 120B * 1015	120	φ120	φ122	B1	10	φ15	φ36	10	20	-	2-M5	5	937.8
S1S 120B * 1016	120	φ120	φ122	B1	10	φ16	φ36	10	20	-	2-M5	5	934.1
S1S 120B * 1018	120	φ120	φ122	B1	10	φ18	φ36	10	20	-	2-M5	5	926.0

标有●的产品为新产品。Products with●marks are new item.

标号[=]表示齿轮带有键槽/带有键。[=]: Gear with key way / with key.

标号[*]表示齿轮带有螺纹孔/带有两个固定螺钉。[*]: Gear with two threaded holes / with two set screws.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
120	6	-	0.044	0.44	0.85	1.43	2.52	3.56	4.41
120	10	-	0.073	0.730	1.400	2.380	4.160	5.890	7.290
120	10	○	0.077	0.773	1.494	2.563	4.535	6.803	8.504

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.014	0.140	0.280	0.480	0.910	1.360	1.740
0.062	0.685	1.365	2.415	4.405	6.726	8.490

直齿轮

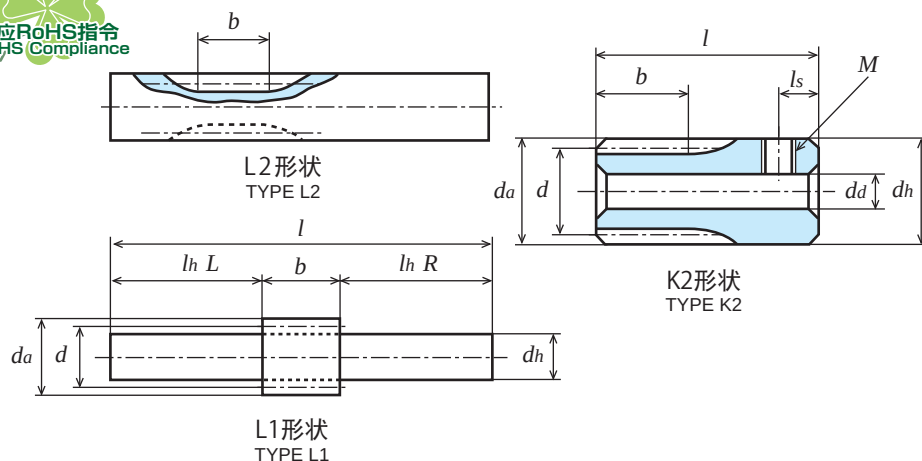
SPUR GEARS

模数
MODULE

1.25

压力角 20° (普通齿) 齿数8 ~ 17

20° PRESSURE ANGLE FULL DEPTH TOOTH Z 8 to Z 17

JIS B 1702-1 (ISO) 8 ~ 9级
System of accuracy : JIS B 1702-1 (ISO) class 8-9

材料 : 碳钢 (ISO C45) 标号 [*] 表示变位齿轮。(变位系数 x 为 0.5)

Material : Carbon Steel (ISO C45) * mark has been profile shifted gears. (Rack shift coefficient x = 0.5)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(g)
S1.25S 8L - 1507	8	*	φ13.3	L1	15	-	φ7 (h9)	L20 R40	75	29.8
S1.25S 8L - 1513F	8	*	φ13.3	L2	15	-	φ13.3	L20 R40	75	77.1
S1.25S 9L - 1514F	9	*	φ14.56	L2	15	-	φ14.56	L20 R40	75	92.9
S1.25S 10L - 1510	10	*	φ15.83	L1	15	-	φ10(h9)	L20 R40	75	54.5
S1.25S 10L - 1515F	10	*	φ15.83	L2	15	-	φ15.83	L20 R40	75	110.2
S1.25S 11L - 1517F	11	*	φ17.1	L2	15	-	φ17.1	L20 R40	75	129.0
S1.25S 12K - 1508	12	φ15	φ17.5	K2	15	φ8(H8)	φ17.5	22.5	37.5	48.5
S1.25S 13K - 1508	13	φ16.25	φ18.75	K2	15	φ8(H8)	φ18.75	22.5	37.5	58.4
S1.25S 14A - 1506	14	φ17.5	φ20	A1	15	φ6	-	-	15	25.0
S1.25S 14K - 1508	14	φ17.5	φ20	K2	15	φ8(H8)	φ20	22.5	37.5	69.0
S1.25S 15A - 1506	15	φ18.75	φ21.25	A1	15	φ6	-	-	15	29.2
S1.25S 15K - 1508	15	φ18.75	φ21.25	K2	15	φ8(H8)	φ21.25	22.5	37.5	80.4
S1.25S 16A - 1506	16	φ20	φ22.5	A1	15	φ6	-	-	15	33.7
S1.25S 16K - 1508	16	φ20	φ22.5	K2	15	φ8(H8)	φ22.5	22.5	37.5	92.4
S1.25S 17A - 1506	17	φ21.25	φ23.75	A1	15	φ6	-	-	15	38.4
S1.25S 17K - 1508	17	φ21.25	φ23.75	K2	15	φ8(H8)	φ23.75	22.5	37.5	105.2

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
8	15	6.28	62.78	125.57	251.14	502.27	753.41	941.76	5.99
9	15	7.45	74.50	149.01	298.02	596.04	894.06	1,117.57	7.11
10	15	8.66	86.57	173.14	346.28	692.56	1,038.85	1,286.84	8.26
11	15	9.89	98.90	197.79	395.59	791.18	1,186.76	1,448.70	9.44
12	15	7.96	79.58	159.17	318.33	636.66	954.99	1,162.68	7.59
13	15	9.15	91.50	182.99	365.98	731.97	1,094.50	1,317.82	8.73
14	15	10.37	103.74	207.48	414.96	829.93	1,226.57	1,473.36	9.90
15	15	11.63	116.26	232.52	465.04	930.08	1,358.82	1,628.45	11.10
16	15	12.90	129.02	258.04	516.09	1,032.18	1,490.87	1,782.70	12.32
17	15	14.20	141.97	283.95	567.90	1,135.79	1,622.13	1,935.40	13.55

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.

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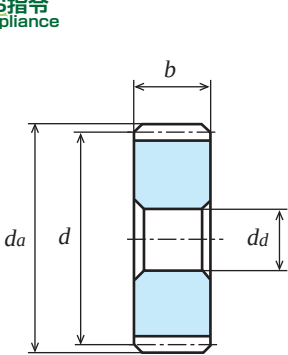
上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮
SPUR GEARS

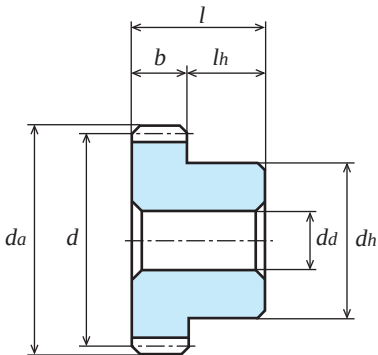
模数
MODULE 1.25 压力角 20° (普通齿) 齿数 18 ~ 22
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 18 to Z 22

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



A1形状
TYPE A1

订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45) 单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(g)
S1.25S 18A — 1006F	18	φ22.5	φ25	A1	10	φ 6	-	-	10	29.0
S1.25S 18A — 1508F	18	φ22.5	φ25	A1	15	φ 8	-	-	15	40.9
S1.25S 18B — 1006F	18	φ22.5	φ25	B1	10	φ 6(H8)	φ16	15	25	48.5
S1.25S 18B — 1508F	18	φ22.5	φ25	B1	15	φ 8(H8)	φ16	15	30	58.7
S1.25S 19A — 1006F	19	φ23.75	φ26.25	A1	10	φ 6	-	-	10	32.6
S1.25S 19A — 1508F	19	φ23.75	φ26.25	A1	15	φ 8	-	-	15	46.3
S1.25S 19B — 1006F	19	φ23.75	φ26.25	B1	10	φ 6(H8)	φ16	15	25	52.9
S1.25S 19B — 1508F	19	φ23.75	φ26.25	B1	15	φ 8(H8)	φ16	15	30	64.0
S1.25S 20A — 1008F	20	φ25	φ27.5	A1	10	φ 8	-	-	10	34.6
S1.25S 20A — 1510F	20	φ25	φ27.5	A1	15	φ10	-	-	15	48.6
S1.25S 20B — 1008F	20	φ25	φ27.5	B1	10	φ 8(H8)	φ20	15	25	65.7
S1.25S 20B — 1510F	20	φ25	φ27.5	B1	15	φ10(H8)	φ20	15	30	76.3
S1.25S 21A — 1008F	21	φ26.25	φ28.75	A1	10	φ 8	-	-	10	38.5
S1.25S 21A — 1510F	21	φ26.25	φ28.75	A1	15	φ10	-	-	15	54.5
S1.25S 21B — 1008F	21	φ26.25	φ28.75	B1	10	φ 8(H8)	φ20	15	25	69.6
S1.25S 21B — 1510F	21	φ26.25	φ28.75	B1	15	φ10(H8)	φ20	15	30	82.2
S1.25S 22A — 1008F	22	φ27.5	φ30	A1	10	φ 8	-	-	10	42.7
S1.25S 22A — 1510F	22	φ27.5	φ30	A1	15	φ10	-	-	15	60.7
S1.25S 22B — 1008F	22	φ27.5	φ30	B1	10	φ 8(H8)	φ20	15	25	73.8
S1.25S 22B — 1510F	22	φ27.5	φ30	B1	15	φ10(H8)	φ20	15	30	88.4

容许传达动力表 弯曲强度 (W) T (N · m)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
18	10	10.34	103.40	206.80	413.60	827.19	1,168.29	1,390.93	9.87
18	15	15.51	155.10	310.20	620.40	1,240.79	1,752.43	2,086.40	14.81
19	10	11.24	112.40	224.79	449.59	899.18	1,256.02	1,492.27	10.73
19	15	16.86	168.60	337.19	674.38	1,348.77	1,884.04	2,238.40	16.10
20	10	12.14	121.41	242.81	485.63	964.43	1,341.98	1,591.14	11.59
20	15	18.21	182.11	364.22	728.44	1,446.64	2,012.97	2,386.72	17.39
21	10	13.05	130.49	260.97	521.95	1,028.53	1,426.86	1,688.42	12.46
21	15	19.57	195.73	391.46	782.92	1,542.80	2,140.29	2,532.63	18.69
22	10	13.97	139.69	279.38	558.77	1,092.64	1,511.30	1,784.85	13.33
22	15	20.95	209.54	419.08	838.15	1,638.95	2,266.94	2,677.28	20.01

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

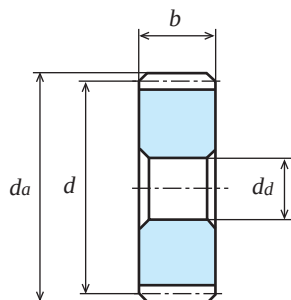
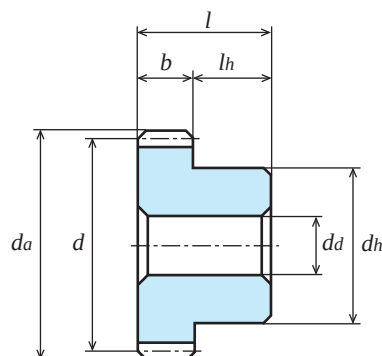
目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿 GROUND SPUR GEARS	直齿 SPUR GEARS	内齿 INTERNAL GEARS	研磨齿 GROUND RACKS	齿 RACKS	斜齿 HELIC GEARS AND SCREW GEARS	蜗轮·蜗杆 WORMS AND WORM WHEELS	锥齿 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮

SPUR GEARS

模数
MODULE

1.25

压力角 20° (普通齿) 齿数 23 ~ 27
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 23 to Z 27JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8A1形状
TYPE A1B1形状
TYPE B1材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
S1.25S 23A - 1008F	23	$\phi 28.75$	$\phi 31.25$	A1	10	$\phi 8$	-	-	10	47.0
S1.25S 23A - 1510F	23	$\phi 28.75$	$\phi 31.25$	A1	15	$\phi 10$	-	-	15	67.2
S1.25S 23B - 1008F	23	$\phi 28.75$	$\phi 31.25$	B1	10	$\phi 8(H8)$	$\phi 24$	15	25	94.4
S1.25S 23B - 1510F	23	$\phi 28.75$	$\phi 31.25$	B1	15	$\phi 10(H8)$	$\phi 24$	15	30	111.2
S1.25S 24A - 1008F	24	$\phi 30$	$\phi 32.5$	A1	10	$\phi 8$	-	-	10	51.5
S1.25S 24A - 1510F	24	$\phi 30$	$\phi 32.5$	A1	15	$\phi 10$	-	-	15	74.0
S1.25S 24B - 1008F	24	$\phi 30$	$\phi 32.5$	B1	10	$\phi 8(H8)$	$\phi 24$	15	25	98.9
S1.25S 24B - 1510F	24	$\phi 30$	$\phi 32.5$	B1	15	$\phi 10(H8)$	$\phi 24$	15	30	118.0
S1.25S 25A - 1008F	25	$\phi 31.25$	$\phi 33.75$	A1	10	$\phi 8$	-	-	10	56.3
S1.25S 25A - 1510F	25	$\phi 31.25$	$\phi 33.75$	A1	15	$\phi 10$	-	-	15	81.1
S1.25S 25B - 1008F	25	$\phi 31.25$	$\phi 33.75$	B1	10	$\phi 8(H8)$	$\phi 24$	15	25	103.6
S1.25S 25B - 1510F	25	$\phi 31.25$	$\phi 33.75$	B1	15	$\phi 10(H8)$	$\phi 24$	15	30	125.1
S1.25S 26A - 1008F	26	$\phi 32.5$	$\phi 35$	A1	10	$\phi 8$	-	-	10	61.2
S1.25S 26A - 1510F	26	$\phi 32.5$	$\phi 35$	A1	15	$\phi 10$	-	-	15	88.4
S1.25S 26B - 1008F	26	$\phi 32.5$	$\phi 35$	B1	10	$\phi 8(H8)$	$\phi 28$	15	25	127.8
S1.25S 26B - 1510F	26	$\phi 32.5$	$\phi 35$	B1	15	$\phi 10(H8)$	$\phi 28$	15	30	151.7
S1.25S 27A - 1008F	27	$\phi 33.75$	$\phi 36.25$	A1	10	$\phi 8$	-	-	10	66.3
S1.25S 27A - 1510F	27	$\phi 33.75$	$\phi 36.25$	A1	15	$\phi 10$	-	-	15	96.1
S1.25S 27B - 1008F	27	$\phi 33.75$	$\phi 36.25$	B1	10	$\phi 8(H8)$	$\phi 28$	15	25	132.9
S1.25S 27B - 1510F	27	$\phi 33.75$	$\phi 36.25$	B1	15	$\phi 10(H8)$	$\phi 28$	15	30	159.3

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
23	10	14.90	148.98	297.96	595.92	1,156.41	1,594.85	1,879.96	14.22
23	15	22.35	223.47	446.94	893.89	1,734.62	2,392.28	2,819.94	21.34
24	10	15.83	158.27	316.55	633.09	1,219.25	1,676.71	1,972.78	15.11
24	15	23.74	237.41	474.82	949.64	1,828.87	2,515.06	2,959.16	22.67
25	10	16.77	167.69	335.38	670.77	1,282.11	1,758.20	2,064.90	16.01
25	15	25.15	251.54	503.07	1,006.15	1,923.16	2,637.29	3,097.35	24.02
26	10	17.72	177.18	354.35	708.70	1,344.52	1,838.70	2,155.62	16.92
26	15	26.58	265.76	531.53	1,063.05	2,016.78	2,758.05	3,233.43	25.37
27	10	18.67	186.72	373.44	746.88	1,406.47	1,918.21	2,244.93	17.83
27	15	28.01	280.08	560.16	1,120.31	2,109.71	2,877.31	3,367.39	26.74

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.

您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range.

上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

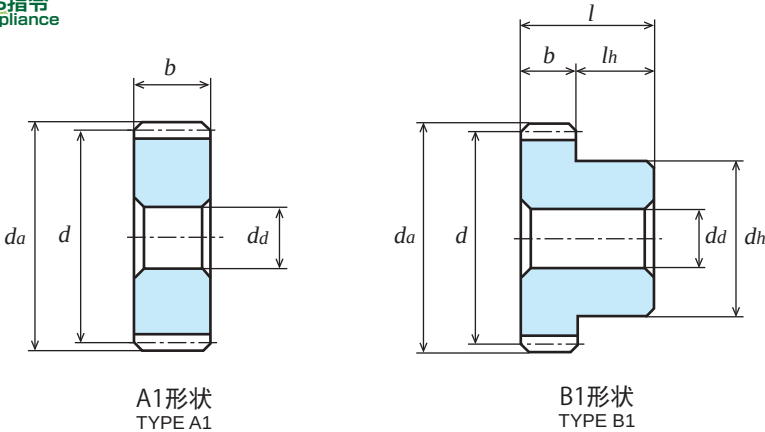
直齿轮
SPUR GEARS

模数
MODULE 1.25 压力角 20° (普通齿) 齿数28 ~ 34
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 28 to Z 34

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45) 单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	重 量 Weight W(g)
S1.25S 28A — 1008F	28	φ35	φ37.5	A1	10	φ 8	-	-	10	71.6
S1.25S 28A — 1510F	28	φ35	φ37.5	A1	15	φ10	-	-	15	104.0
S1.25S 28B — 1008F	28	φ35	φ37.5	B1	10	φ 8(H8)	φ28	15	25	138.2
S1.25S 28B — 1510F	28	φ35	φ37.5	B1	15	φ10(H8)	φ28	15	30	167.3
S1.25S 29A — 1008F	29	φ36.25	φ38.75	A1	10	φ 8	-	-	10	77.1
S1.25S 29A — 1510F	29	φ36.25	φ38.75	A1	15	φ10	-	-	15	112.3
S1.25S 29B — 1008F	29	φ36.25	φ38.75	B1	10	φ 8(H8)	φ28	15	25	143.7
S1.25S 29B — 1510F	29	φ36.25	φ38.75	B1	15	φ10(H8)	φ28	15	30	175.5
S1.25S 30A — 1008F	30	φ37.5	φ40	A1	10	φ 8	-	-	10	82.8
S1.25S 30A — 1510F	30	φ37.5	φ40	A1	15	φ10	-	-	15	120.8
S1.25S 30B — 1008F	30	φ37.5	φ40	B1	10	φ 8(H8)	φ30	15	25	160.1
S1.25S 30B — 1510F	30	φ37.5	φ40	B1	15	φ10(H8)	φ30	15	30	194.8
S1.25S 32A — 0810F	32	φ40	φ42.5	A1	8	φ10	-	-	8	74.0
S1.25S 32A — 1312F	32	φ40	φ42.5	A1	13	φ12	-	-	13	116.7
S1.25S 32B — 0810F	32	φ40	φ42.5	B1	8	φ10	φ30	10	18	123.3
S1.25S 32B — 1312F	32	φ40	φ42.5	B1	13	φ12	φ30	12	25	172.6
S1.25S 34A — 0810F	34	φ42.5	φ45	A1	8	φ10	-	-	8	84.2
S1.25S 34A — 1312F	34	φ42.5	φ45	A1	13	φ12	-	-	13	133.2
S1.25S 34B — 0810F	34	φ42.5	φ45	B1	8	φ10	φ30	10	18	133.5
S1.25S 34B — 1312F	34	φ42.5	φ45	B1	13	φ12	φ30	12	25	189.2

容许传达动力表 弯曲强度 (kW) T (N · m)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
28	10	0.019	0.19	0.39	0.78	1.46	1.99	2.33	18.14
28	15	0.029	0.29	0.58	1.17	2.20	2.99	3.49	27.69
29	10	0.020	0.20	0.41	0.82	1.52	2.07	2.41	19.09
29	15	0.030	0.30	0.61	1.23	2.29	3.11	3.62	28.64
30	10	0.021	0.21	0.43	0.86	1.58	2.14	2.50	20.05
30	15	0.032	0.32	0.64	1.29	2.38	3.22	3.75	30.55
32	8	0.018	0.18	0.37	0.75	1.36	1.83	2.15	17.18
32	13	0.030	0.30	0.61	1.22	2.21	2.98	3.50	28.64
34	8	0.020	0.20	0.40	0.81	1.45	1.95	2.32	19.09
34	13	0.033	0.33	0.66	1.32	2.37	3.17	3.77	31.51

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 GEAR INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿 GROUND SPUR GEARS	直齿 SPUR GEARS	内齿 INTERNAL GEARS	研磨齿 GROUND RACKS	齿 RACKS	斜齿・螺旋 HELIC GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿 BEVEL GEARS	技术资料 REFERENCE DATA
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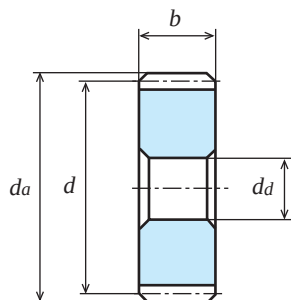
直齿轮 SPUR GEARS

模数
MODULE

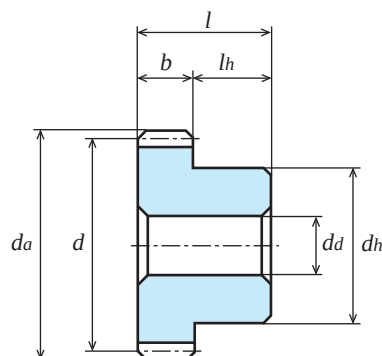
1.25

压力角 20° (普通齿) 齿数 35 ~ 42
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 35 to Z 42

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



A1形状
TYPE A1



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
S1.25S 35A - 0810F	35	$\phi 43.75$	$\phi 46.25$	A1	8	$\phi 10$	-	-	8	89.5
S1.25S 35A - 1312F	35	$\phi 43.75$	$\phi 46.25$	A1	13	$\phi 12$	-	-	13	141.9
S1.25S 35B - 0810F	35	$\phi 43.75$	$\phi 46.25$	B1	8	$\phi 10$	$\phi 36$	10	18	163.2
S1.25S 35B - 1312F	35	$\phi 43.75$	$\phi 46.25$	B1	13	$\phi 12$	$\phi 36$	12	25	227.1
S1.25S 36A - 0810F	36	$\phi 45$	$\phi 47.5$	A1	8	$\phi 10$	-	-	8	95.0
S1.25S 36A - 1312F	36	$\phi 45$	$\phi 47.5$	A1	13	$\phi 12$	-	-	13	150.8
S1.25S 36B - 0810F	36	$\phi 45$	$\phi 47.5$	B1	8	$\phi 10$	$\phi 36$	10	18	168.7
S1.25S 36B - 1312F	36	$\phi 45$	$\phi 47.5$	B1	13	$\phi 12$	$\phi 36$	12	25	236.0
S1.25S 38A - 0810F	38	$\phi 47.5$	$\phi 50$	A1	8	$\phi 10$	-	-	8	106.4
S1.25S 38A - 1312F	38	$\phi 47.5$	$\phi 50$	A1	13	$\phi 12$	-	-	13	169.3
S1.25S 38B - 0810F	38	$\phi 47.5$	$\phi 50$	B1	8	$\phi 10$	$\phi 36$	10	18	180.1
S1.25S 38B - 1312F	38	$\phi 47.5$	$\phi 50$	B1	13	$\phi 12$	$\phi 36$	12	25	254.5
S1.25S 40A - 0810F	40	$\phi 50$	$\phi 52.5$	A1	8	$\phi 10$	-	-	8	118.4
S1.25S 40A - 1312F	40	$\phi 50$	$\phi 52.5$	A1	13	$\phi 12$	-	-	13	188.8
S1.25S 40B - 0810F	40	$\phi 50$	$\phi 52.5$	B1	8	$\phi 10$	$\phi 40$	10	18	210.9
S1.25S 40B - 1312F	40	$\phi 50$	$\phi 52.5$	B1	13	$\phi 12$	$\phi 40$	12	25	296.6
S1.25S 42A - 0810F	42	$\phi 52.5$	$\phi 55$	A1	8	$\phi 10$	-	-	8	131.0
S1.25S 42A - 1312F	42	$\phi 52.5$	$\phi 55$	A1	13	$\phi 12$	-	-	13	209.4
S1.25S 42B - 0810F	42	$\phi 52.5$	$\phi 55$	B1	8	$\phi 10$	$\phi 40$	10	18	223.5
S1.25S 42B - 1312F	42	$\phi 52.5$	$\phi 55$	B1	13	$\phi 12$	$\phi 40$	12	25	317.1

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
35	8	0.021	0.21	0.42	0.84	1.50	2.01	2.40	20.05
35	13	0.034	0.34	0.68	1.37	2.44	3.27	3.90	32.46
36	8	0.021	0.21	0.43	0.87	1.55	2.06	2.48	20.05
36	13	0.035	0.35	0.71	1.42	2.52	3.36	4.03	33.42
38	8	0.023	0.23	0.47	0.94	1.64	2.17	2.64	21.96
38	13	0.038	0.38	0.76	1.53	2.66	3.53	4.29	36.28
40	8	0.025	0.25	0.50	0.99	1.72	2.31	2.80	23.87
40	13	0.040	0.40	0.81	1.62	2.80	3.75	4.55	38.19
42	8	0.026	0.26	0.53	1.05	1.81	2.44	2.96	34.82
42	13	0.043	0.43	0.87	1.71	2.94	3.97	4.81	41.06

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load. 您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range. 上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only. 动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

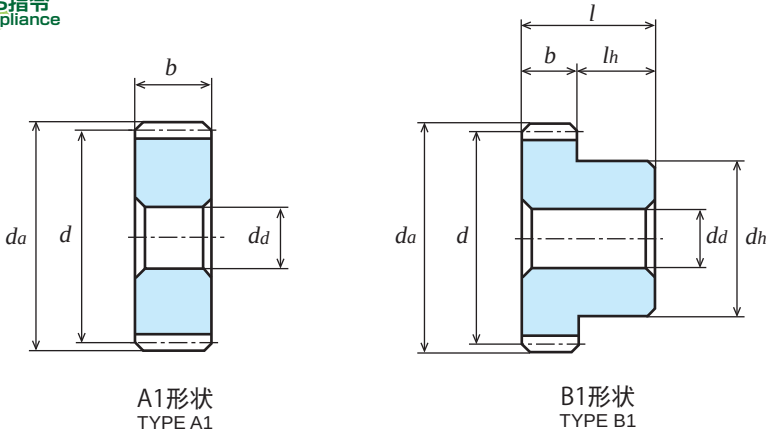
直齿轮
SPUR GEARS

模数
MODULE 1.25 压力角 20° (普通齿) 齿数44 ~ 50
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 44 to Z 50

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆直 径 Reference Diameter d	齿顶圆直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	重 量 Weight W(g)
S1.25S 44A — 0810F	44	φ55	φ57.5	A1	8	φ10	-	-	8	144.3
S1.25S 44A — 1312F	44	φ55	φ57.5	A1	13	φ12	-	-	13	230.9
S1.25S 44B — 0810F	44	φ55	φ57.5	B1	8	φ10	φ40	10	18	236.8
S1.25S 44B — 1312F	44	φ55	φ57.5	B1	13	φ12	φ40	12	25	338.6
S1.25S 45A — 0810F	45	φ56.25	φ58.75	A1	8	φ10	-	-	8	151.1
S1.25S 45A — 1312F	45	φ56.25	φ58.75	A1	13	φ12	-	-	13	242.1
S1.25S 45B — 0810F	45	φ56.25	φ58.75	B1	8	φ10	φ40	10	18	243.6
S1.25S 45B — 1312F	45	φ56.25	φ58.75	B1	13	φ12	φ40	12	25	349.8
S1.25S 46A — 0810F	46	φ57.5	φ60	A1	8	φ10	-	-	8	158.1
S1.25S 46A — 1312F	46	φ57.5	φ60	A1	13	φ12	-	-	13	253.5
S1.25S 46B — 0810F	46	φ57.5	φ60	B1	8	φ10	φ40	10	18	250.6
S1.25S 46B — 1312F	46	φ57.5	φ60	B1	13	φ12	φ40	12	25	361.2
S1.25S 48A — 0810F	48	φ60	φ62.5	A1	8	φ10	-	-	8	172.6
S1.25S 48A — 1312F	48	φ60	φ62.5	A1	13	φ12	-	-	13	277.0
S1.25S 48B — 0810F	48	φ60	φ62.5	B1	8	φ10	φ40	10	18	265.1
S1.25S 48B — 1312F	48	φ60	φ62.5	B1	13	φ12	φ40	12	25	384.7
S1.25S 50A — 0812F	50	φ62.5	φ65	A1	8	φ12	-	-	8	185.6
S1.25S 50A — 1314F	50	φ62.5	φ65	A1	13	φ14	-	-	13	297.4
S1.25S 50B — 0812F	50	φ62.5	φ65	B1	8	φ12	φ45	10	18	301.5
S1.25S 50B — 1314F	50	φ62.5	φ65	B1	13	φ14	φ45	12	25	432.7

容许传达动力表 弯曲强度 (kW)

T (N · m)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
44	8	0.028	0.28	0.56	1.10	1.89	2.57	3.11	26.73
44	13	0.046	0.46	0.92	1.80	3.08	4.18	5.06	43.92
45	8	0.029	0.29	0.58	1.13	1.94	2.63	3.19	27.69
45	13	0.047	0.47	0.94	1.84	3.15	4.28	5.18	44.88
46	8	0.030	0.29	0.59	1.16	1.98	2.70	3.27	27.69
46	13	0.048	0.48	0.97	1.89	3.21	4.39	5.31	45.83
48	8	0.031	0.31	0.63	1.21	2.06	2.83	3.42	29.60
48	13	0.051	0.51	1.02	1.97	3.35	4.60	5.56	48.70
50	8	0.033	0.33	0.66	1.27	2.14	2.96	3.57	31.51
50	13	0.054	0.54	1.08	2.06	3.47	4.81	5.80	51.56

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙啮合齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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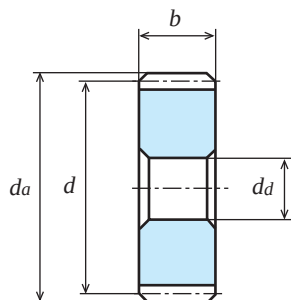
直齿轮 SPUR GEARS

模数
MODULE

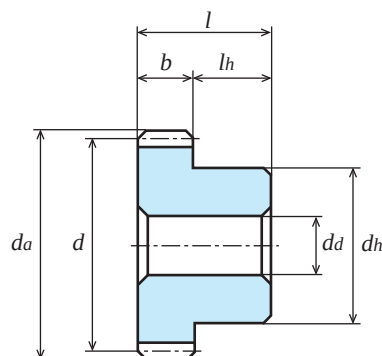
1.25

压力角 20° (普通齿) 齿数 52 ~ 58
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 52 to Z 58

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



A1形状
TYPE A1



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_d(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
S1.25S 52A-0812F	52	φ65	φ67.5	A1	8	φ12	-	-	8	201.3
S1.25S 52A-1314F	52	φ65	φ67.5	A1	13	φ14	-	-	13	322.9
S1.25S 52B-0812F	52	φ65	φ67.5	B1	8	φ12	φ45	10	18	317.3
S1.25S 52B-1314F	52	φ65	φ67.5	B1	13	φ14	φ45	12	25	458.2
S1.25S 54A-0812F	54	φ67.5	φ70	A1	8	φ12	-	-	8	217.6
S1.25S 54A-1314F	54	φ67.5	φ70	A1	13	φ14	-	-	13	349.5
S1.25S 54B-0812F	54	φ67.5	φ70	B1	8	φ12	φ45	10	18	333.6
S1.25S 54B-1314F	54	φ67.5	φ70	B1	13	φ14	φ45	12	25	484.8
S1.25S 55A-0812F	55	φ68.75	φ71.25	A1	8	φ12	-	-	8	226.0
S1.25S 55A-1314F	55	φ68.75	φ71.25	A1	13	φ14	-	-	13	363.1
S1.25S 55B-0812F	55	φ68.75	φ71.25	B1	8	φ12	φ45	10	18	342.1
S1.25S 55B-1314F	55	φ68.75	φ71.25	B1	13	φ14	φ45	12	25	498.4
S1.25S 56A-0812F	56	φ70	φ72.5	A1	8	φ12	-	-	8	234.6
S1.25S 56A-1314F	56	φ70	φ72.5	A1	13	φ14	-	-	13	377.0
S1.25S 56B-0812F	56	φ70	φ72.5	B1	8	φ12	φ45	10	18	350.6
S1.25S 56B-1314F	56	φ70	φ72.5	B1	13	φ14	φ45	12	25	512.3
S1.25S 58A-0812F	58	φ72.5	φ75	A1	8	φ12	-	-	8	252.2
S1.25S 58A-1314F	58	φ72.5	φ75	A1	13	φ14	-	-	13	405.6
S1.25S 58B-0812F	58	φ72.5	φ75	B1	8	φ12	φ45	10	18	368.1
S1.25S 58B-1314F	58	φ72.5	φ75	B1	13	φ14	φ45	12	25	540.9

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
52	8	0.034	0.34	0.69	1.32	2.21	3.09	3.72	32.46
52	13	0.056	0.56	1.13	2.15	3.60	5.02	6.06	53.47
54	8	0.036	0.36	0.73	1.37	2.29	3.21	3.88	34.37
54	13	0.059	0.59	1.18	2.23	3.72	5.23	6.31	56.34
55	8	0.037	0.37	0.74	1.40	2.33	3.28	3.96	35.33
55	13	0.060	0.60	1.21	2.27	3.78	5.33	6.44	57.29
56	8	0.038	0.38	0.76	1.42	2.36	3.34	4.04	36.28
56	13	0.062	0.62	1.24	2.32	3.84	5.43	6.57	59.20
58	8	0.039	0.39	0.79	1.47	2.44	3.47	4.19	37.24
58	13	0.064	0.64	1.29	2.40	3.97	5.63	6.82	61.11

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load. 您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range. 上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only. 动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮
SPUR GEARS

模数
MODULE

1.25

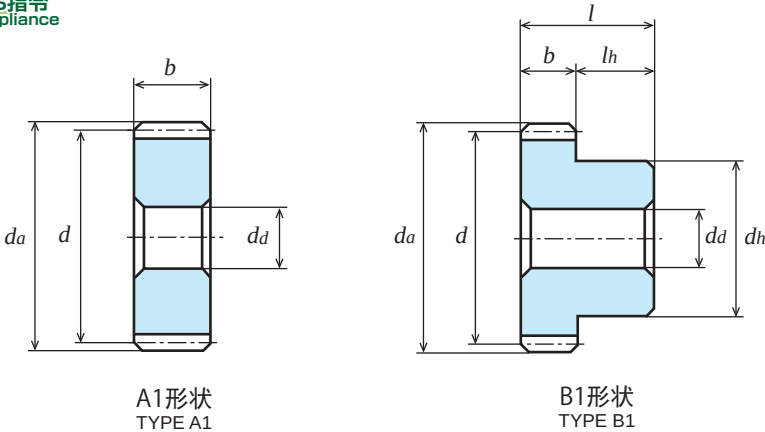
压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿数 60 ~ 66
Z 60 to Z 66

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(g)
S1.25S 60A-0812F	60	φ75	φ77.5	A1	8	φ12	-	-	8	270.3
S1.25S 60A-1314F	60	φ75	φ77.5	A1	13	φ14	-	-	13	435.1
S1.25S 60B-0812F	60	φ75	φ77.5	B1	8	φ12	φ50	10	18	415.6
S1.25S 60B-1314F	60	φ75	φ77.5	B1	13	φ14	φ50	12	25	605.6
S1.25S 62A-0812F	62	φ77.5	φ80	A1	8	φ12	-	-	8	289.1
S1.25S 62A-1314F	62	φ77.5	φ80	A1	13	φ14	-	-	13	465.7
S1.25S 62B-0812F	62	φ77.5	φ80	B1	8	φ12	φ50	10	18	434.4
S1.25S 62B-1314F	62	φ77.5	φ80	B1	13	φ14	φ50	12	25	636.2
S1.25S 64A-0812F	64	φ80	φ82.5	A1	8	φ12	-	-	8	308.6
S1.25S 64A-1314F	64	φ80	φ82.5	A1	13	φ14	-	-	13	497.2
S1.25S 64B-0812F	64	φ80	φ82.5	B1	8	φ12	φ50	10	18	453.8
S1.25S 64B-1314F	64	φ80	φ82.5	B1	13	φ14	φ50	12	25	667.7
S1.25S 65A-0812F	65	φ81.25	φ83.75	A1	8	φ12	-	-	8	318.5
S1.25S 65A-1314F	65	φ81.25	φ83.75	A1	13	φ14	-	-	13	513.4
S1.25S 65B-0812F	65	φ81.25	φ83.75	B1	8	φ12	φ50	10	18	463.8
S1.25S 65B-1314F	65	φ81.25	φ83.75	B1	13	φ14	φ50	12	25	683.9
S1.25S 66A-0812F	66	φ82.5	φ85	A1	8	φ12	-	-	8	328.6
S1.25S 66A-1314F	66	φ82.5	φ85	A1	13	φ14	-	-	13	529.8
S1.25S 66B-0812F	66	φ82.5	φ85	B1	8	φ12	φ50	10	18	473.9
S1.25S 66B-1314F	66	φ82.5	φ85	B1	13	φ14	φ50	12	25	700.3

容许传达动力表 弯曲强度 (kW) T (N · m)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
60	8	0.041	0.41	0.82	1.52	2.53	3.59	4.35	100
60	13	0.067	0.67	1.34	2.48	4.12	5.84	7.07	39.15
62	8	0.043	0.43	0.86	1.57	2.63	3.71	4.50	63.98
62	13	0.070	0.70	1.40	2.56	4.27	6.03	7.32	41.06
64	8	0.044	0.44	0.89	1.62	2.72	3.83	4.65	66.84
64	13	0.072	0.72	1.45	2.64	4.42	6.23	7.57	42.01
65	8	0.045	0.45	0.91	1.65	2.76	3.90	4.73	68.75
65	13	0.074	0.74	1.48	2.68	4.49	6.34	7.69	42.97
66	8	0.046	0.46	0.92	1.67	2.81	3.96	4.81	70.66
66	13	0.075	0.75	1.51	2.72	4.56	6.44	7.81	43.92
									71.62

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 GEAR INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿条·螺旋齿条 HELICAL GEARS AND SCREW GEARS	蜗轮·蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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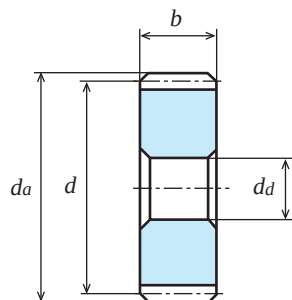
直齿轮 SPUR GEARS

模数
MODULE

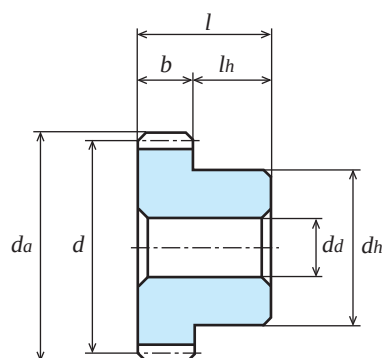
1.25

压力角 20° (普通齿) 齿数 68 ~ 80
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 68 to Z 80

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



A1形状
TYPE A1



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
S1.25S 68A-0812F	68	$\phi 85$	$\phi 87.5$	A1	8	$\phi 12$	-	-	8	349.3
S1.25S 68A-1314F	68	$\phi 85$	$\phi 87.5$	A1	13	$\phi 14$	-	-	13	563.4
S1.25S 68B-0812F	68	$\phi 85$	$\phi 87.5$	B1	8	$\phi 12$	$\phi 50$	10	18	494.5
S1.25S 68B-1314F	68	$\phi 85$	$\phi 87.5$	B1	13	$\phi 14$	$\phi 50$	12	25	733.8
S1.25S 70A-0814F	70	$\phi 87.5$	$\phi 90$	A1	8	$\phi 14$	-	-	8	368.0
S1.25S 70A-1316F	70	$\phi 87.5$	$\phi 90$	A1	13	$\phi 16$	-	-	13	593.1
S1.25S 70B-0814F	70	$\phi 87.5$	$\phi 90$	B1	8	$\phi 14$	$\phi 55$	10	18	542.4
S1.25S 70B-1316F	70	$\phi 87.5$	$\phi 90$	B1	13	$\phi 16$	$\phi 55$	12	25	798.0
S1.25S 72A-0814F	72	$\phi 90$	$\phi 92.5$	A1	8	$\phi 14$	-	-	8	389.8
S1.25S 72A-1316F	72	$\phi 90$	$\phi 92.5$	A1	13	$\phi 16$	-	-	13	628.7
S1.25S 72B-0814F	72	$\phi 90$	$\phi 92.5$	B1	8	$\phi 14$	$\phi 55$	10	18	564.3
S1.25S 72B-1316F	72	$\phi 90$	$\phi 92.5$	B1	13	$\phi 16$	$\phi 55$	12	25	833.6
S1.25S 75A-0814F	75	$\phi 93.75$	$\phi 96.25$	A1	8	$\phi 14$	-	-	8	423.8
S1.25S 75A-1316F	75	$\phi 93.75$	$\phi 96.25$	A1	13	$\phi 16$	-	-	13	683.9
S1.25S 75B-0814F	75	$\phi 93.75$	$\phi 96.25$	B1	8	$\phi 14$	$\phi 55$	10	18	598.3
S1.25S 75B-1316F	75	$\phi 93.75$	$\phi 96.25$	B1	13	$\phi 16$	$\phi 55$	12	25	888.8
S1.25S 80A-0814F	80	$\phi 100$	$\phi 102.5$	A1	8	$\phi 14$	-	-	8	483.6
S1.25S 80A-1316F	80	$\phi 100$	$\phi 102.5$	A1	13	$\phi 16$	-	-	13	781.0
S1.25S 80B-0814F	80	$\phi 100$	$\phi 102.5$	B1	8	$\phi 14$	$\phi 60$	10	18	693.4
S1.25S 80B-1316F	80	$\phi 100$	$\phi 102.5$	B1	13	$\phi 16$	$\phi 60$	12	25	1,028.0

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
68	8	0.048	0.48	0.96	1.72	2.90	4.09	4.96	45.83
68	13	0.078	0.78	1.56	2.80	4.71	6.65	8.06	74.48
70	8	0.049	0.49	0.99	1.77	2.98	4.22	5.11	46.79
70	13	0.080	0.80	1.61	2.87	4.85	6.85	8.30	76.39
72	8	0.051	0.51	1.02	1.81	3.07	4.34	5.25	48.70
72	13	0.083	0.84	1.67	2.96	5.00	7.06	8.55	80.21
75	8	0.054	0.54	1.08	1.88	3.20	4.53	5.47	51.56
75	13	0.087	0.88	1.76	3.07	5.22	7.37	8.90	84.03
80	8	0.058	0.58	1.15	2.00	3.42	4.84	5.84	55.38
80	13	0.094	0.95	1.88	3.25	5.57	7.87	9.49	90.72

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.

您可以在我们广泛的设计产品中选择最适合您的产品。You are able to multiple choices for your suitable design from our wide range.

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动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

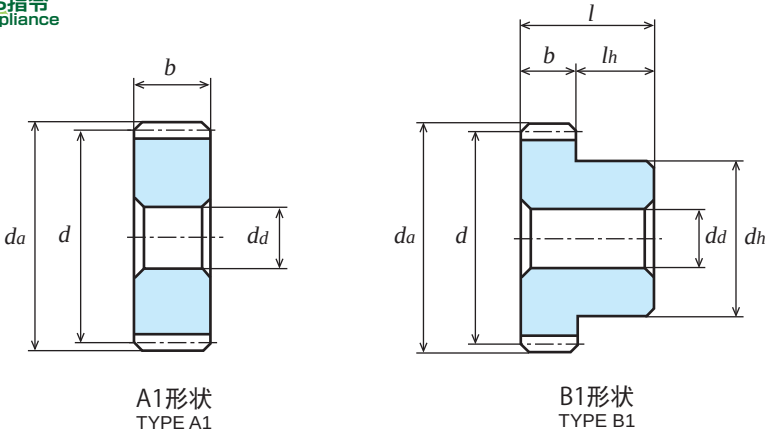
直齿轮
SPUR GEARS

模数
MODULE 1.25 压力角 20° (普通齿) 齿数84 ~ 96
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 84 to Z 96

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(kg)
S1.25S 84A - 0814F	84	φ105	φ107.5	A1	8	φ14	-	-	8	0.53
S1.25S 84A - 1316F	84	φ105	φ107.5	A1	13	φ16	-	-	13	0.86
S1.25S 84B - 0814F	84	φ105	φ107.5	B1	8	φ14	φ60	10	18	0.74
S1.25S 84B - 1316F	84	φ105	φ107.5	B1	13	φ16	φ60	12	25	1.11
S1.25S 85A - 0814F	85	φ106.25	φ108.75	A1	8	φ14	-	-	8	0.55
S1.25S 85A - 1316F	85	φ106.25	φ108.75	A1	13	φ16	-	-	13	0.88
S1.25S 85B - 0814F	85	φ106.25	φ108.75	B1	8	φ14	φ60	10	18	0.76
S1.25S 85B - 1316F	85	φ106.25	φ108.75	B1	13	φ16	φ60	12	25	1.13
S1.25S 90A - 0816F	90	φ112.5	φ115	A1	8	φ16	-	-	8	0.61
S1.25S 90A - 1318F	90	φ112.5	φ115	A1	13	φ18	-	-	13	0.99
S1.25S 90B - 0816F	90	φ112.5	φ115	B1	8	φ16	φ65	10	18	0.86
S1.25S 90B - 1318F	90	φ112.5	φ115	B1	13	φ18	φ65	12	25	1.28
S1.25S 95A - 0816F	95	φ118.75	φ121.25	A1	8	φ16	-	-	8	0.68
S1.25S 95A - 1318F	95	φ118.75	φ121.25	A1	13	φ18	-	-	13	1.10
S1.25S 95B - 0816F	95	φ118.75	φ121.25	B1	8	φ16	φ65	10	18	0.93
S1.25S 95B - 1318F	95	φ118.75	φ121.25	B1	13	φ18	φ65	12	25	1.39
S1.25S 96A - 0816F	96	φ120	φ122.5	A1	8	φ16	-	-	8	0.70
S1.25S 96A - 1318F	96	φ120	φ122.5	A1	13	φ18	-	-	13	1.13
S1.25S 96B - 0816F	96	φ120	φ122.5	B1	8	φ16	φ65	10	18	0.94
S1.25S 96B - 1318F	96	φ120	φ122.5	B1	13	φ18	φ65	12	25	1.42

容许传达动力表 弯曲强度 (kW)

T (N · m)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
84	8	0.061	0.61	1.21	2.08	3.59	5.07	6.15	58.25
84	13	0.099	1.00	1.97	3.39	5.84	8.25	10.00	95.49
85	8	0.062	0.62	1.22	2.10	3.63	5.13	6.23	59.20
85	13	0.101	1.01	1.99	3.42	5.91	8.35	10.13	96.45
90	8	0.066	0.66	1.29	2.21	3.84	5.43	6.65	63.02
90	13	0.108	1.08	2.11	3.60	6.25	8.84	10.82	103.13
95	8	0.070	0.70	1.36	2.31	4.04	5.73	7.07	66.84
95	13	0.115	1.15	2.22	3.76	6.58	9.31	11.50	109.82
96	8	0.071	0.71	1.37	2.33	4.09	5.78	7.16	67.80
96	13	0.116	1.16	2.24	3.79	6.65	9.41	11.64	110.77

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 GEAR INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿 GROUND SPUR GEARS	直齿 SPUR GEARS	内齿 INTERNAL GEARS	研磨齿 GROUND RACKS	齿 RACKS	斜齿・螺旋 HELIC GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿 BEVEL GEARS	技术资料 REFERENCE DATA
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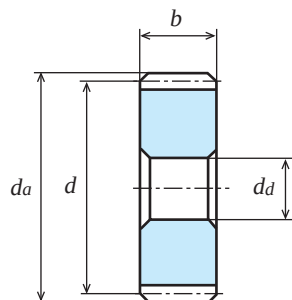
直齿轮 SPUR GEARS

模数
MODULE

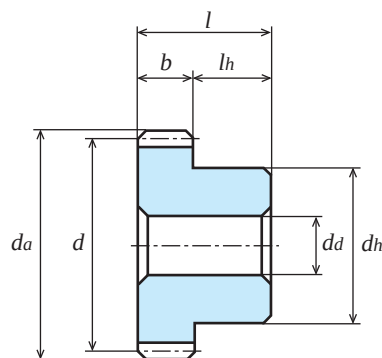
1.25

压力角 20° (普通齿) 齿数 100 ~ 120
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 100 to Z 120

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



A1形状
TYPE A1



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(kg)
S1.25S 100A - 0816F	100	φ125	φ127.5	A1	8	φ16	-	-	8	0.76
S1.25S 100A - 1318F	100	φ125	φ127.5	A1	13	φ18	-	-	13	1.23
S1.25S 100B - 0816F	100	φ125	φ127.5	B1	8	φ16	φ65	10	18	1.00
S1.25S 100B - 1318F	100	φ125	φ127.5	B1	13	φ18	φ65	12	25	1.52
S1.25S 105A - 0816F	105	φ131.25	φ133.75	A1	8	φ16	-	-	8	0.84
S1.25S 105A - 1318F	105	φ131.25	φ133.75	A1	13	φ18	-	-	13	1.35
S1.25S 105B - 0816F	105	φ131.25	φ133.75	B1	8	φ16	φ70	10	18	1.12
S1.25S 105B - 1318F	105	φ131.25	φ133.75	B1	13	φ18	φ70	12	25	1.69
S1.25S 110A - 0818F	110	φ137.5	φ140	A1	8	φ18	-	-	8	0.92
S1.25S 110A - 1320F	110	φ137.5	φ140	A1	13	φ20	-	-	13	1.48
S1.25S 110B - 0818F	110	φ137.5	φ140	B1	8	φ18	φ75	10	18	1.24
S1.25S 110B - 1320F	110	φ137.5	φ140	B1	13	φ20	φ75	12	25	1.87
S1.25S 115A - 0818F	115	φ143.75	φ146.25	A1	8	φ18	-	-	8	1.00
S1.25S 115A - 1320F	115	φ143.75	φ146.25	A1	13	φ20	-	-	13	1.62
S1.25S 115B - 0818F	115	φ143.75	φ146.25	B1	8	φ18	φ75	10	18	1.33
S1.25S 115B - 1320F	115	φ143.75	φ146.25	B1	13	φ20	φ75	12	25	2.01
S1.25S 120A - 0818F	120	φ150	φ152.5	A1	8	φ18	-	-	8	1.09
S1.25S 120A - 1320F	120	φ150	φ152.5	A1	13	φ20	-	-	13	1.77
S1.25S 120B - 0818F	120	φ150	φ152.5	B1	8	φ18	φ80	10	18	1.47
S1.25S 120B - 1320F	120	φ150	φ152.5	B1	13	φ20	φ80	12	25	2.22

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
100	8	0.075	0.75	1.43	2.41	4.26	6.02	7.50	71.62
100	13	0.122	1.22	2.33	3.92	6.93	9.78	12.19	116.50
105	8	0.079	0.79	1.50	2.51	4.47	6.33	-	75.44
105	13	0.129	1.29	2.44	4.08	7.27	10.30	-	123.19
110	8	0.083	0.83	1.57	2.60	4.69	6.68	-	79.26
110	13	0.136	1.36	2.55	4.23	7.61	10.85	-	129.87
115	8	0.087	0.88	1.63	2.70	4.89	7.02	-	84.03
115	13	0.143	1.43	2.65	4.38	7.95	11.40	-	136.56
120	8	0.091	0.92	1.69	2.81	5.10	7.36	-	87.85
120	13	0.149	1.49	2.75	4.57	8.29	11.96	-	142.29

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.

您可以在我们广泛的设计产品中选择最适合您的产品。You are able to multiple choices for your suitable design from our wide range.

上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮 SPUR GEARS

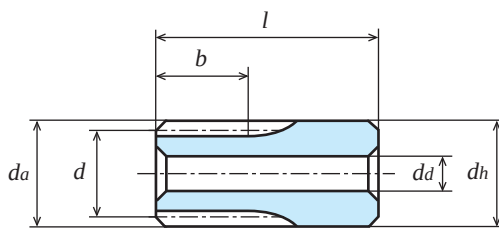
模数
MODULE

1.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

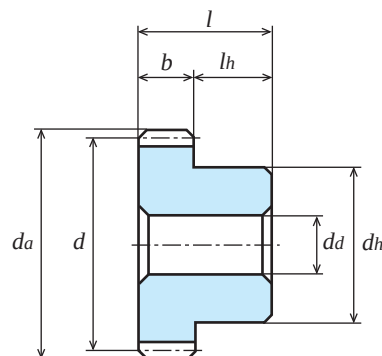
JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



New 进行了规格改进，做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



K2形状
TYPE K2



B1形状
TYPE B1

材料：聚缩醛树脂 (黑色)
Material : Poly Acetal (Black)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter d_d	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
S1.5D 14K — 1808	14	$\phi 21$	$\phi 24$	K2	18	$\phi 8$	$\phi 24$	22	40	20.0
S1.5D 15B — 1808N	15	$\phi 22.5$	$\phi 25.5$	B1	18	$\phi 8$	$\phi 18$	10	28	11.7
S1.5D 16B — 1808N	16	$\phi 24$	$\phi 27$	B1	18	$\phi 8$	$\phi 20$	10	28	13.9
S1.5D 18B — 1810N	18	$\phi 27$	$\phi 30$	B1	18	$\phi 10$	$\phi 22$	10	28	16.8
S1.5D 20B — 1810N	20	$\phi 30$	$\phi 33$	B1	18	$\phi 10$	$\phi 22$	10	28	20.2
S1.5D 24B — 1814N	24	$\phi 36$	$\phi 39$	B1	18	$\phi 14$	$\phi 32$	10	28	31.1
S1.5D 25B — 1814N	25	$\phi 37.5$	$\phi 40.5$	B1	18	$\phi 14$	$\phi 32$	10	28	33.3
S1.5D 28B — 1814N	28	$\phi 42$	$\phi 45$	B1	18	$\phi 14$	$\phi 32$	10	28	40.4
S1.5D 30B — 1814N	30	$\phi 45$	$\phi 48$	B1	18	$\phi 14$	$\phi 32$	10	28	45.6
S1.5D 32B — 1814N	32	$\phi 48$	$\phi 51$	B1	18	$\phi 14$	$\phi 32$	10	28	51.2
S1.5D 35B — 1814N	35	$\phi 52.5$	$\phi 55.5$	B1	18	$\phi 14$	$\phi 42$	10	28	68.4
S1.5D 36B — 1814N	36	$\phi 54$	$\phi 57$	B1	18	$\phi 14$	$\phi 42$	10	28	71.6

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S1.5D 14K — 1808	2.24	22.35	44.68	89.24	178.03	266.37	332.32
S1.5D 15B — 1808N	2.40	23.95	47.86	95.60	190.67	285.24	355.82
S1.5D 16B — 1808N	2.56	25.54	51.05	101.95	203.31	304.09	379.28
S1.5D 18B — 1810N	2.88	28.73	57.42	114.65	228.56	341.73	426.11
S1.5D 20B — 1810N	3.19	31.92	63.79	127.35	253.77	379.28	472.81
S1.5D 24B — 1814N	3.83	38.30	76.52	152.70	304.09	454.15	564.21
S1.5D 25B — 1814N	3.99	39.89	79.70	159.04	316.64	472.81	586.71
S1.5D 28B — 1814N	4.47	44.68	89.24	178.03	354.25	528.04	653.73
S1.5D 30B — 1814N	4.79	47.86	95.60	190.67	379.28	564.21	698.01
S1.5D 32B — 1814N	5.11	51.05	101.95	203.31	404.28	601.18	741.96
S1.5D 35B — 1814N	5.59	55.83	111.48	222.25	441.69	653.73	807.28
S1.5D 36B — 1814N	5.75	57.42	114.65	228.56	454.15	671.48	828.90

上述数值是Lewis公式，仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

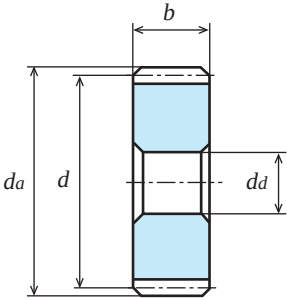
直齿轮
SPUR GEARS

模数
MODULE 1.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



A1形状
TYPE A1

材料 : 聚缩醛树脂 (黑色)
Material : Poly Acetal (Black)
单位 : mm
Dimensions : mm

Table with 11 columns: 产品型号 (Catalogue Number), 齿数 (Number of Teeth z), 分度圆直径 (Reference Diameter d), 齿顶圆直径 (Tip Diameter da), 形状 (Type), 齿宽 (Face Width b), 孔径 (Bore Diameter dd), 轮毂外径 (Hub Diameter dh), 轮毂长度 (Hub Projection lh), 全长 (Overall Length l), 重量 (Weight W(g)). Rows include models S1.5D 40A to S1.5D 100A.

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

Table with 8 columns: 产品型号 (Catalogue Numbers), 10, 100, 200, 400, 800, 1,200, 1,500. Rows include models S1.5D 40A to S1.5D 100A.

上述数值是Lewis公式，仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

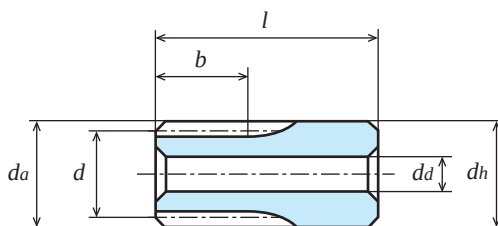
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锥齿轮
BEVEL GEARS
技术资料
REFERENCE DATA

直齿轮 SPUR GEARS

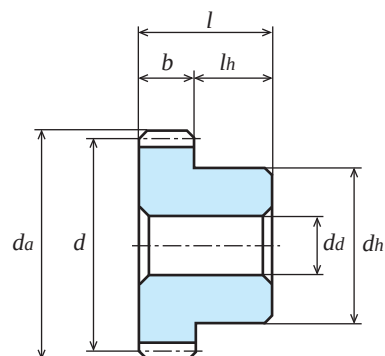
模数
MODULE

1.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1 (ISO) class 9



K2形状
TYPE K2



B1形状
TYPE B1

订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.

材料 : 不锈钢 SUS304 (JIS G 4303)
Material : Stainless Steel SUS304 (JIS G 4303)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H8)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
S1.5SU 14K — 1208	14	$\phi 21$	$\phi 24$	K2	12	$\phi 8$	$\phi 24$	24	36	104.7
S1.5SU 15B — 1208	15	$\phi 22.5$	$\phi 25.5$	B1	12	$\phi 8$	$\phi 18$	10	22	49.3
S1.5SU 15B — 1608N	15	$\phi 22.5$	$\phi 25.5$	B1	16	$\phi 8$	$\phi 18$	10	26	60.3
S1.5SU 16B — 1208	16	$\phi 24$	$\phi 27$	B1	12	$\phi 8$	$\phi 20$	10	22	59.2
S1.5SU 16B — 1608N	16	$\phi 24$	$\phi 27$	B1	16	$\phi 8$	$\phi 20$	10	26	72.0
S1.5SU 18B — 1210	18	$\phi 27$	$\phi 30$	B1	12	$\phi 10$	$\phi 22$	10	22	70.9
S1.5SU 18B — 1610N	18	$\phi 27$	$\phi 30$	B1	16	$\phi 10$	$\phi 22$	10	26	86.6
S1.5SU 20B — 1210	20	$\phi 30$	$\phi 33$	B1	12	$\phi 10$	$\phi 25$	10	22	92.5
S1.5SU 20B — 1610N	20	$\phi 30$	$\phi 33$	B1	16	$\phi 10$	$\phi 25$	10	26	112.4
S1.5SU 24B — 1210	24	$\phi 36$	$\phi 39$	B1	12	$\phi 10$	$\phi 30$	10	22	139.2
S1.5SU 25B — 1210	25	$\phi 37.5$	$\phi 40.5$	B1	12	$\phi 10$	$\phi 30$	10	22	147.5
S1.5SU 25B — 1610N	25	$\phi 37.5$	$\phi 40.5$	B1	16	$\phi 10$	$\phi 30$	10	26	180.0
S1.5SU 28B — 1210	28	$\phi 42$	$\phi 45$	B1	12	$\phi 10$	$\phi 30$	10	22	174.2
S1.5SU 30B — 1210	30	$\phi 45$	$\phi 48$	B1	12	$\phi 10$	$\phi 30$	10	22	193.7
S1.5SU 30B — 1610N	30	$\phi 45$	$\phi 48$	B1	16	$\phi 10$	$\phi 30$	10	26	241.7

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S1.5SU 14K — 1208	5.98	59.75	119.51	239.02	478.04	684.27	816.77
S1.5SU 15B — 1208	6.70	66.97	133.93	267.86	535.73	756.63	900.82
S1.5SU 15B — 1608N	8.93	89.29	178.58	357.15	714.30	1,008.84	1,201.10
S1.5SU 16B — 1208	7.43	74.32	148.63	297.27	594.06	828.66	984.12
S1.5SU 16B — 1608N	9.91	99.09	198.18	396.36	792.08	1,104.88	1,312.16
S1.5SU 18B — 1210	8.93	89.34	178.67	357.35	700.93	970.64	1,147.22
S1.5SU 18B — 1610N	11.91	119.12	238.23	476.46	934.57	1,294.19	1,529.63
S1.5SU 20B — 1210	10.49	104.90	209.79	419.58	808.06	1,111.24	1,307.46
S1.5SU 20B — 1610N	13.99	139.86	279.72	559.44	1,077.41	1,481.65	1,743.28
S1.5SU 24B — 1210	13.67	136.75	273.50	546.99	1,016.53	1,379.79	1,609.91
S1.5SU 25B — 1210	14.49	144.89	289.77	579.54	1,067.67	1,444.72	1,682.38
S1.5SU 25B — 1610N	19.32	193.18	386.36	772.72	1,423.55	1,926.29	2,243.17
S1.5SU 28B — 1210	16.96	169.62	339.24	678.48	1,218.22	1,633.80	1,934.94
S1.5SU 30B — 1210	18.62	186.25	372.50	744.99	1,315.37	1,754.13	2,105.74
S1.5SU 30B — 1610N	24.83	248.33	496.66	993.32	1,753.83	2,338.85	2,807.65

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

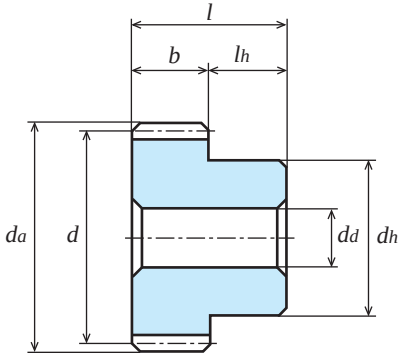
直齿轮
SPUR GEARS

模数
MODULE 1.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1(ISO) class 9



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 不锈钢 SUS304 (JIS G 4303)
Material : Stainless Steel SUS304 (JIS G 4303)
单位 : mm
Dimensions : mm

Table with 11 columns: 产品型号, 齿数, 分度圆直径, 齿顶圆直径, 形状, 齿宽, 孔径, 轮毂外径, 轮毂长度, 全长, 重量. It lists various gear models like S1.5SU 32B-1010 up to S1.5SU 100B-1016 with their respective specifications.

容许传达动力表 弯曲强度 (W)
Allowable transfer capability table (W) Bending Strength

Table with 8 columns: 产品型号, 10, 100, 200, 400, 800, 1,200, 1,500. It shows allowable transfer capability values for different gear models across various rotation speeds.

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

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锥齿
BEVEL GEARS
技术资料
REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

1.5

压力角 20° (普通齿)

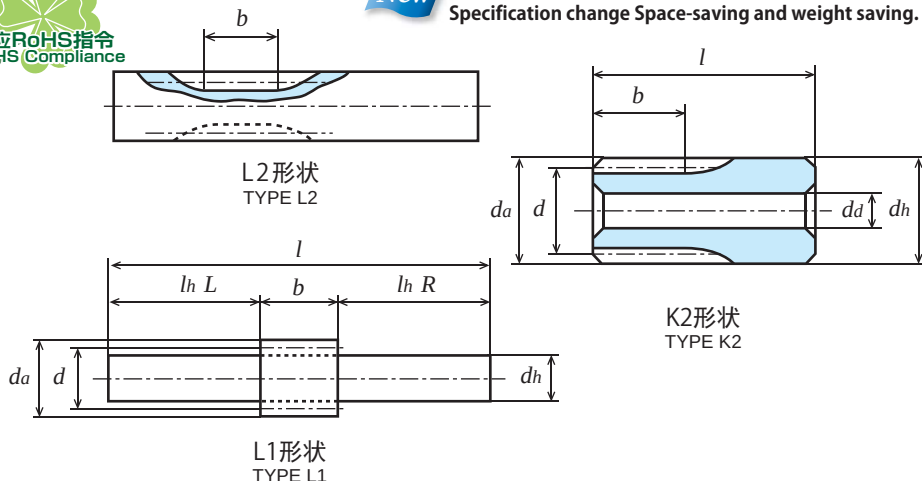
齿数 8 ~ 16

20° PRESSURE ANGLE FULL DEPTH TOOTH Z 8 to Z 16

JIS B 1702-1 (ISO) 8 ~ 9级
System of accuracy: JIS B 1702-1 (ISO) class 8 - 9



进行了规格改进, 做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



材料: 碳钢 (ISO C45) 标号 [*] 表示变位齿轮。(变位系数 x 为 0.5)

Material: Carbon Steel (ISO C45) * mark has been profile shifted gears. (Rack shift coefficient x = 0.5)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(g)
S1.5S 8L-1809	8	*	φ15.96	L1	18	-	φ 9(h9)	L24 R48	90	56.2
S1.5S 8L-1816F	8	*	φ15.96	L2	18	-	φ 15.96	L24 R48	90	133.3
S1.5S 10L-1812	10	*	φ19	L1	18	-	φ 12(h9)	L24 R48	90	94.1
S1.5S 10L-1819F	10	*	φ19	L2	18	-	φ 19	L24 R48	90	190.5
S1.5S 12K-1808	12	φ18	φ21	K2	18	φ8(H8)	φ 21	22	40	80.0
S1.5S 13K-1808	13	φ19.5	φ22.5	K2	18	φ8(H8)	φ 22.5	22	40	95.1
S1.5S 14K-1808	14	φ21	φ24	K2	18	φ8(H8)	φ 24	22	40	111.3
S1.5S 15A-1208	15	φ22.5	φ25.5	A1	12	φ8	-	-	12	32.7
S1.5S 15A-1808	15	φ22.5	φ25.5	A1	18	φ8	-	-	18	49.1
S1.5S 15B-1208	15	φ22.5	φ25.5	B1	12	φ8	φ 18	10	22	48.8
S1.5S 15B-1608N	15	φ22.5	φ25.5	B1	16	φ8(H8)	φ 17	10	26	57.5
S1.5S 15B-1808N	15	φ22.5	φ25.5	B1	18	φ8(H8)	φ 18	10	28	65.2
S1.5S 16A-1208	16	φ24	φ27	A1	12	φ8	-	-	12	37.9
S1.5S 16A-1608	16	φ24	φ27	A1	16	φ8	-	-	16	50.5
S1.5S 16A-1808	16	φ24	φ27	A1	18	φ8	-	-	18	56.8
S1.5S 16B-1208	16	φ24	φ27	B1	12	φ8	φ 20	10	22	58.6
S1.5S 16B-1608N	16	φ24	φ27	B1	16	φ8(H8)	φ 18	10	26	66.6
S1.5S 16B-1808N	16	φ24	φ27	B1	18	φ8(H8)	φ 20	10	28	77.6

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
8	18	0.010	0.108	0.216	0.433	0.867	1.301	1.619	100
10	18	0.014	0.149	0.299	0.598	1.197	1.791	2.156	14.22
12	18	0.013	0.137	0.275	0.550	1.100	1.618	1.942	13.08
13	18	0.015	0.158	0.316	0.632	1.264	1.835	2.196	15.08
14	18	0.017	0.179	0.358	0.717	1.434	2.052	2.450	17.09
15	12	0.013	0.133	0.267	0.535	1.071	1.513	1.801	12.70
15	16	0.017	0.178	0.357	0.714	1.428	2.017	2.402	16.99
15	18	0.020	0.200	0.401	0.803	1.607	2.269	2.702	19.09
16	12	0.014	0.148	0.297	0.594	1.188	1.657	1.968	14.13
16	16	0.019	0.198	0.396	0.792	1.584	2.209	2.624	18.90
16	18	0.022	0.222	0.445	0.891	1.782	2.485	2.952	21.20

上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

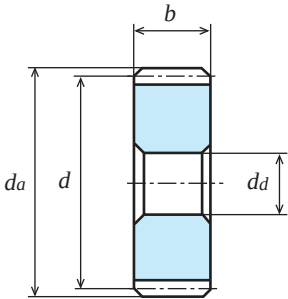
直齿轮
SPUR GEARS

模数
MODULE 1.5 压力角 20° (普通齿) 齿数17 ~ 19
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 17 to Z 19

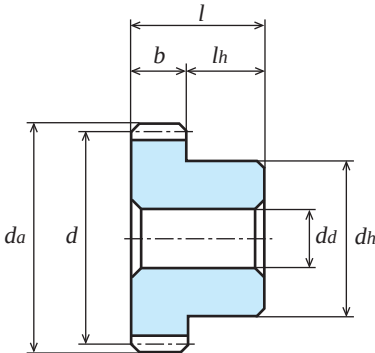
JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



A1形状
TYPE A1



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45) 单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	重量 Weight W(g)
S1.5S 17B — 1208F	17	φ25.5	φ28.5	B1	12	φ 8	φ20	10	22	-	64.1
S1.5S 17B — 1808	17	φ25.5	φ28.5	B1	18	φ 8(H8)	φ20	10	28	-	85.8
S1.5S 18A — 1210F	18	φ27	φ30	A1	12	φ10	-	-	12	-	46.5
S1.5S 18A — 1610F	18	φ27	φ30	A1	16	φ10	-	-	16	-	62.1
S1.5S 18A — 1810F	18	φ27	φ30	A1	18	φ10	-	-	18	-	69.8
S1.5S 18B — 1210F	18	φ27	φ30	B1	12	φ10	φ22	10	22	-	70.2
S1.5S 18B — 1610	18	φ27	φ30	B1	16	φ10	φ21	10	26	-	83.1
S1.5S 18B — 1810	18	φ27	φ30	B1	18	φ10	φ22	10	28	-	93.5
S1.5S 19A — 1210F	19	φ28.5	φ31.5	A1	12	φ10	-	-	12	-	52.7
S1.5S 19A — 1810F	19	φ28.5	φ31.5	A1	18	φ10	-	-	18	-	79.0
S1.5S 19B — 1210F	19	φ28.5	φ31.5	B1	12	φ10	φ24	10	22	-	82.0
S1.5S 19B — 1810	19	φ28.5	φ31.5	B1	18	φ10	φ24	10	28	-	108.5

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
17	12	0.016	0.164	0.327	0.654	1.295	1.800	2.133	100
17	18	0.024	0.245	0.490	0.981	1.942	2.700	3.198	15.66
18	12	0.017	0.178	0.357	0.714	1.401	1.941	2.294	23.39
18	16	0.023	0.238	0.476	0.952	1.869	2.588	3.059	16.99
18	18	0.026	0.268	0.536	1.072	2.102	2.911	3.441	22.72
19	12	0.019	0.194	0.388	0.776	1.509	2.083	2.456	25.59
19	18	0.029	0.291	0.582	1.165	2.264	3.125	3.685	18.52
									27.78

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load. 您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range. 上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only. 动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿 GROUND SPUR GEARS	直齿 SPUR GEARS	内齿 INTERNAL GEARS	研磨齿 GROUND RACKS	齿 RACKS	斜齿・螺旋 HELIC GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮

SPUR GEARS

模数
MODULE

1.5

压力角 20° (普通齿) 齿数 20

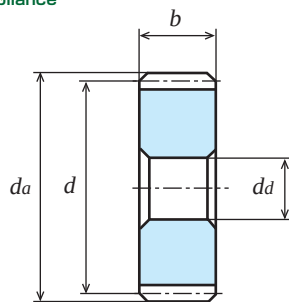
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 20

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)

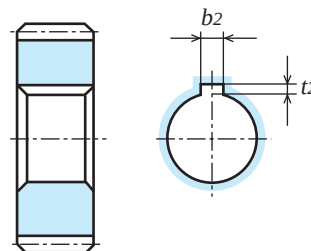


进行了规格改进, 做到节省空间并减轻重量,
不需要进行连结加工。

Specification change Space-saving and weight saving.
Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料: 碳钢 (ISO C45)

Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺孔		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(g)$
											M	l_s			
S1.5S 20A - 1010F	20	$\phi 30$	$\phi 33$	A1	10	$\phi 10$	-	-	10	-	-	-	-	-	49.3
S1.5S 20A - 1210F	20	$\phi 30$	$\phi 33$	A1	12	$\phi 10$	-	-	12	-	-	-	-	-	59.2
S1.5S 20A = 1212	20	$\phi 30$	$\phi 33$	A1	12	$\phi 12$	-	-	12	4×1.8	-	-	-	-	55.3
S1.5S 20A = 1215	20	$\phi 30$	$\phi 33$	A1	12	$\phi 15$	-	-	12	5×2.3	-	-	-	-	48.9
S1.5S 20A - 1610F	20	$\phi 30$	$\phi 33$	A1	16	$\phi 10$	-	-	16	-	-	-	-	-	78.9
S1.5S 20A - 1810F	20	$\phi 30$	$\phi 33$	A1	18	$\phi 10$	-	-	18	-	-	-	-	-	88.8
S1.5S 20A = 1812	20	$\phi 30$	$\phi 33$	A1	18	$\phi 12$	-	-	18	4×1.8	-	-	-	-	82.9
S1.5S 20A = 1815	20	$\phi 30$	$\phi 33$	A1	18	$\phi 15$	-	-	18	5×2.3	-	-	-	-	73.3
S1.5S 20B - 1010F	20	$\phi 30$	$\phi 33$	B1	10	$\phi 10$	$\phi 24$	10	20	-	-	-	-	-	78.7
S1.5S 20B - 1210F	20	$\phi 30$	$\phi 33$	B1	12	$\phi 10$	$\phi 25$	10	22	-	-	-	-	-	91.6
S1.5S 20B # 1212	20	$\phi 30$	$\phi 33$	B1	12	$\phi 12$	$\phi 25$	10	22	4×1.8	M3	5	-	-	84.2
S1.5S 20B # 1215	20	$\phi 30$	$\phi 33$	B1	12	$\phi 15$	$\phi 25$	10	22	5×2.3	M3	5	-	-	72.5
S1.5S 20BF - 1506	20	$\phi 30$	$\phi 33$	B1	15	$\phi 6(H8)$	$\phi 25$	15	30	-	-	-	-	-	113.1
S1.5S 20B - 1506H	20	$\phi 30$	$\phi 33$	B1	15	$\phi 6(H8)$	$\phi 25$	15	30	-	-	-	-	-	113.1
S1.5S 20B - 1610	20	$\phi 30$	$\phi 33$	B1	16	$\phi 10$	$\phi 24$	10	26	-	-	-	-	-	111.4
S1.5S 20B - 1810	20	$\phi 30$	$\phi 33$	B1	18	$\phi 10$	$\phi 25$	10	28	-	-	-	-	-	121.2
S1.5S 20B # 1812	20	$\phi 30$	$\phi 33$	B1	18	$\phi 12$	$\phi 25$	10	28	4×1.8	M3	5	-	-	111.8
S1.5S 20B # 1815	20	$\phi 30$	$\phi 33$	B1	18	$\phi 15$	$\phi 25$	10	28	5×2.3	M3	5	-	-	96.9

标有●的产品为新产品。Products with ● marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key

标号[#]表示齿轮带有键槽和螺孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
20	10	-	0.017	0.174	0.349	0.699	1.346	1.852	2.179
20	12	-	0.020	0.209	0.419	0.839	1.616	2.222	2.614
20	15	-	0.026	0.260	0.530	1.060	2.030	2.800	3.290
20	15	○	0.028	0.280	0.560	1.120	2.165	2.999	3.545
20	16	-	0.027	0.279	0.559	1.118	2.154	2.963	3.486
20	18	-	0.031	0.314	0.629	1.258	2.424	3.333	3.922

上述数字根据JGMA公式得出, 仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

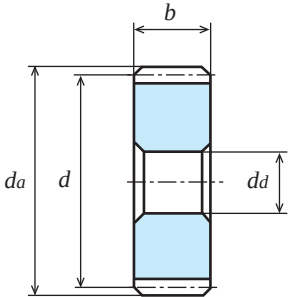
Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.001	0.010	0.020	0.050	0.090	0.130	0.150
0.056	0.116	0.239	0.477	0.673	0.803	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-

直齿轮
SPUR GEARS

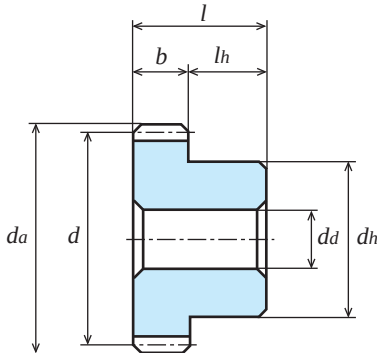
模数
MODULE 1.5 压力角 20° (普通齿) 齿数21 ~ 23
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 21 to Z 23

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



A1形状
TYPE A1

订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45) 单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	重量 Weight W(g)
S1.5S 21A – 1210F	21	φ31.5	φ34.5	A1	12	φ10	-	-	12	-	66.0
S1.5S 21A – 1810F	21	φ31.5	φ34.5	A1	18	φ10	-	-	18	-	99.0
S1.5S 21B – 1210F	21	φ31.5	φ34.5	B1	12	φ10	φ26	10	22	-	101.5
S1.5S 21B – 1810	21	φ31.5	φ34.5	B1	18	φ10	φ26	10	28	-	134.6
S1.5S 22A – 1210F	22	φ33	φ36	A1	12	φ10	-	-	12	-	73.2
S1.5S 22A – 1810F	22	φ33	φ36	A1	18	φ10	-	-	18	-	109.8
S1.5S 22B – 1210F	22	φ33	φ36	B1	12	φ10	φ26	10	22	-	108.7
S1.5S 22B – 1810	22	φ33	φ36	B1	18	φ10	φ26	10	28	-	145.4
S1.5S 23A – 1210F	23	φ34.5	φ37.5	A1	12	φ10	-	-	12	-	80.7
S1.5S 23A – 1810F	23	φ34.5	φ37.5	A1	18	φ10	-	-	18	-	121.0
S1.5S 23B – 1210F	23	φ34.5	φ37.5	B1	12	φ10	φ26	10	22	-	116.2
S1.5S 23B – 1810	23	φ34.5	φ37.5	B1	18	φ10	φ28	10	28	-	163.3

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
21	12	0.022	0.225	0.450	0.901	1.781	2.359	2.769	100
21	18	0.033	0.338	0.676	1.352	2.582	3.538	4.154	21.48
22	12	0.024	0.241	0.482	0.965	1.826	2.494	2.922	32.27
22	18	0.036	0.362	0.724	1.448	2.739	3.742	4.384	23.01
23	12	0.025	0.257	0.514	1.029	1.930	2.628	3.073	34.56
23	18	0.038	0.386	0.772	1.544	2.895	3.943	4.610	24.54
									36.86

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load. 您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range. 上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only. 动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无背隙直齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

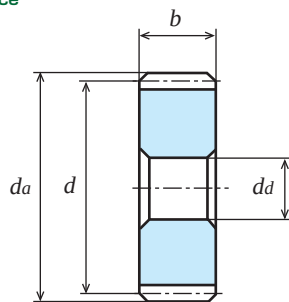
1.5 压力角 20° (普通齿) 齿数24
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 24

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8

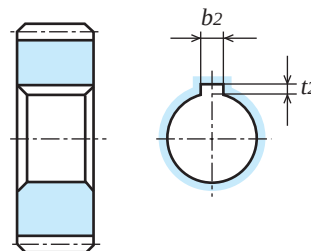


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料：碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(g)$
											M	l_s			
S1.5S 24A - 1010F	24	$\phi 36$	$\phi 39$	A1	10	$\phi 10$	-	-	10	-	-	-	-	-	73.7
S1.5S 24A - 1210F	24	$\phi 36$	$\phi 39$	A1	12	$\phi 10$	-	-	12	-	-	-	-	-	88.5
S1.5S 24A = 1212	24	$\phi 36$	$\phi 39$	A1	12	$\phi 12$	-	-	12	4 × 1.8	-	-	-	-	84.6
S1.5S 24A = 1215	24	$\phi 36$	$\phi 39$	A1	12	$\phi 15$	-	-	12	5 × 2.3	-	-	-	-	78.2
S1.5S 24A - 1610F	24	$\phi 36$	$\phi 39$	A1	16	$\phi 10$	-	-	16	-	-	-	-	-	118.0
S1.5S 24A - 1812F	24	$\phi 36$	$\phi 39$	A1	18	$\phi 12$	-	-	18	-	-	-	-	-	127.8
S1.5S 24A = 1815	24	$\phi 36$	$\phi 39$	A1	18	$\phi 15$	-	-	18	5 × 2.3	-	-	-	-	117.2
S1.5S 24A = 1816	24	$\phi 36$	$\phi 39$	A1	18	$\phi 16$	-	-	18	5 × 2.3	-	-	-	-	113.8
S1.5S 24B - 1010F	24	$\phi 36$	$\phi 39$	B1	10	$\phi 10$	$\phi 30$	10	20	-	-	-	-	-	123.1
S1.5S 24B - 1210F	24	$\phi 36$	$\phi 39$	B1	12	$\phi 10$	$\phi 30$	10	22	-	-	-	-	-	137.8
S1.5S 24B # 1212	24	$\phi 36$	$\phi 39$	B1	12	$\phi 12$	$\phi 30$	10	22	4 × 1.8	M3	5	-	-	130.4
S1.5S 24B # 1215	24	$\phi 36$	$\phi 39$	B1	12	$\phi 15$	$\phi 30$	10	22	5 × 2.3	M4	5	-	-	118.5
S1.5S 24B - 1612	24	$\phi 36$	$\phi 39$	B1	16	$\phi 12$	$\phi 30$	10	26	-	-	-	-	-	160.4
S1.5S 24B - 1812	24	$\phi 36$	$\phi 39$	B1	18	$\phi 12$	$\phi 30$	10	28	-	-	-	-	-	174.6
S1.5S 24B # 1815	24	$\phi 36$	$\phi 39$	B1	18	$\phi 15$	$\phi 30$	10	28	5 × 2.3	M4	5	-	-	157.6
S1.5S 24B # 1816	24	$\phi 36$	$\phi 39$	B1	18	$\phi 16$	$\phi 30$	10	28	5 × 2.3	M4	5	-	-	152.3

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
24	10	0.022	0.227	0.455	0.911	1.694	2.299	2.683	21.67
24	12	0.027	0.273	0.546	1.093	2.033	2.759	3.219	26.07
24	16	0.036	0.364	0.729	1.458	2.710	3.679	4.293	34.76
24	18	0.041	0.410	0.820	1.640	3.049	4.139	4.829	39.15

上述数字根据JGMA公式得出，仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

T (N · m)

直齿轮
SPUR GEARS

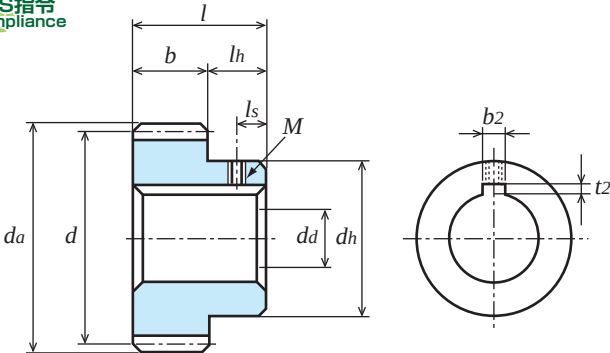
模数
MODULE 1.5 压力角 20° (普通齿) 齿数25
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 25

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45) 单位: mm
Dimensions: mm

Table with 15 columns: 产品型号, 齿数, 分度圆直径, 齿顶圆直径, 形状, 齿宽, 孔径, 轮毂外径, 轮毂长度, 全长, 键槽, 螺孔, 轮辋尺寸, 腹板厚度, 重量. It lists various gear specifications and their corresponding weights.

标有●的产品为新产品。Products with ● marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

Table with 10 columns: 齿数, 齿宽, 淬火, 10, 100, 200, 400, 800, 1,200, 1,500. It shows allowable transfer capability for different gear specifications.

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

Table with 8 columns: 10, 100, 200, 400, 800, 1,200, 1,500. It shows allowable transfer capability for different gear specifications.

目次表
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GEAR INFORMATION
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GEAR BOXES
无背隙直齿轮
ANTI BACKLASH SPUR GEARS
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GROUND SPUR GEARS
直齿轮
SPUR GEARS
内齿轮
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研磨齿条
GROUND RACKS
齿条
RACKS
斜齿条・螺旋齿条
HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆
WORMS AND WORM WHEELS
锥齿轮
BEVEL GEARS
技术资料
REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

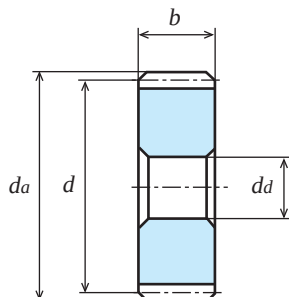
1.5

压力角 20° (普通齿) 齿数 26 27
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 26 to Z 27

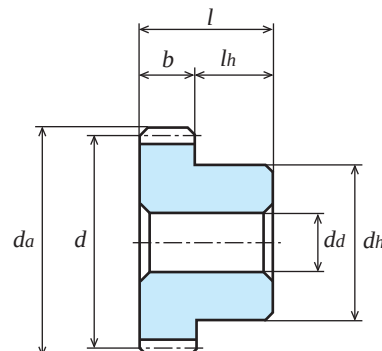
JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



New 进行了规格改进，做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



A1形状
TYPE A1



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	重量 Weight $W(g)$
S1.5S 26A — 1210F	26	$\phi 39$	$\phi 42$	A1	12	$\phi 10$	-	-	12	-	105.1
S1.5S 26A — 1812F	26	$\phi 39$	$\phi 42$	A1	18	$\phi 12$	-	-	18	-	152.8
S1.5S 26B — 1210F	26	$\phi 39$	$\phi 42$	B1	12	$\phi 10$	$\phi 32$	10	22	-	162.1
S1.5S 26B — 1812	26	$\phi 39$	$\phi 42$	B1	18	$\phi 12$	$\phi 32$	10	28	-	207.2
S1.5S 27A — 1210F	27	$\phi 40.5$	$\phi 43.5$	A1	12	$\phi 10$	-	-	12	-	114.0
S1.5S 27A — 1812F	27	$\phi 40.5$	$\phi 43.5$	A1	18	$\phi 12$	-	-	18	-	166.0
S1.5S 27B — 1210F	27	$\phi 40.5$	$\phi 43.5$	B1	12	$\phi 10$	$\phi 32$	10	22	-	170.9
S1.5S 27B — 1812	27	$\phi 40.5$	$\phi 43.5$	B1	18	$\phi 12$	$\phi 36$	10	28	-	237.2

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
26	12	0.030	0.306	0.612	1.224	2.236	3.017	3.524	29.22
26	18	0.045	0.459	0.918	1.836	3.355	4.526	5.286	43.83
27	12	0.032	0.322	0.645	1.290	2.337	3.143	3.697	30.75
27	18	0.048	0.483	0.967	1.935	3.505	4.715	5.545	46.12

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮
SPUR GEARS

模数
MODULE

1.5

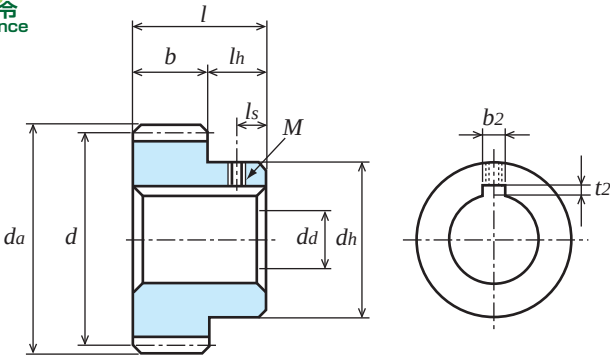
压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿数 28 29
Z 28 to Z 29

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(g)
											M	ls			
S1.5S 28A — 1012F	28	φ42	φ45	A1	10	φ12	-	-	10	-	-	-	-	-	99.9
S1.5S 28A — 1210F	28	φ42	φ45	A1	12	φ10	-	-	12	-	-	-	-	-	123.1
S1.5S 28A = 1212	28	φ42	φ45	A1	12	φ12	-	-	12	4 × 1.8	-	-	-	-	119.2
S1.5S 28A = 1215	28	φ42	φ45	A1	12	φ15	-	-	12	5 × 2.3	-	-	-	-	112.8
S1.5S 28A — 1612F	28	φ42	φ45	A1	16	φ12	-	-	16	-	-	-	-	-	159.8
S1.5S 28A — 1812F	28	φ42	φ45	A1	18	φ12	-	-	18	-	-	-	-	-	179.8
S1.5S 28A = 1815	28	φ42	φ45	A1	18	φ15	-	-	18	5 × 2.3	-	-	-	-	169.2
S1.5S 28A = 1820	28	φ42	φ45	A1	18	φ20	-	-	18	6 × 2.8	-	-	-	-	149.0
S1.5S 28B — 1010F	28	φ42	φ45	B1	10	φ10	φ36	10	20	-	-	-	-	-	176.3
S1.5S 28B — 1210	28	φ42	φ45	B1	12	φ10	φ30	10	22	-	-	-	-	-	172.5
S1.5S 28B # 1212	28	φ42	φ45	B1	12	φ12	φ30	10	22	4 × 1.8	M3	5	-	-	165.0
S1.5S 28B # 1215	28	φ42	φ45	B1	12	φ15	φ30	10	22	5 × 2.3	M3	5	-	-	154.1
S1.5S 28B — 1612	28	φ42	φ45	B1	16	φ12	φ36	10	26	-	-	-	-	-	231.0
S1.5S 28B — 1812	28	φ42	φ45	B1	18	φ12	φ36	10	28	-	-	-	-	-	251.0
S1.5S 28B # 1815	28	φ42	φ45	B1	18	φ15	φ36	10	28	5 × 2.3	M4	5	-	-	233.8
S1.5S 28B # 1818	28	φ42	φ45	B1	18	φ18	φ36	10	28	6 × 2.8	M5	5	-	-	215.4
S1.5S 28B # 1820	28	φ42	φ45	B1	18	φ20	φ36	10	28	6 × 2.8	M5	5	-	-	202.4
S1.5S 29A — 1210F	29	φ43.5	φ46.5	A1	12	φ10	-	-	12	-	-	-	-	-	132.6
S1.5S 29A — 1812F	29	φ43.5	φ46.5	A1	18	φ12	-	-	18	-	-	-	-	-	194.0
S1.5S 29B — 1210F	29	φ43.5	φ46.5	B1	12	φ10	φ38	10	22	-	-	-	-	-	215.5
S1.5S 29B — 1812	29	φ43.5	φ46.5	B1	18	φ12	φ38	10	28	-	-	-	-	-	274.3

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		10	100	200	400	800	1,200	1,500
28	10	0.028	0.282	0.565	1.130	2.030	2.722	3.224
28	12	0.033	0.339	0.678	1.356	2.436	3.267	3.869
28	16	0.045	0.452	0.904	1.809	3.248	4.356	5.159
28	18	0.050	0.508	1.017	2.035	3.654	4.901	5.804
29	12	0.035	0.355	0.711	1.423	2.534	3.389	4.042
29	18	0.053	0.533	1.067	2.135	3.802	5.084	6.063

旋转速度 (min ⁻¹) revolution/min
100
26.73
32.37
43.16
48.51
33.90
50.89

KG的齿轮规格有标准齿宽 (轻负荷用), 加宽齿宽 (重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.
您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range.
上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿 GROUND SPUR GEARS	直齿 SPUR GEARS	内齿 INTERNAL GEARS	研磨齿 GROUND RACKS	齿 RACKS	斜齿 HEILICAL GEARS AND SCREW GEARS	蜗轮·蜗杆 WORMS AND WORM WHEELS	锥齿 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮

SPUR GEARS

模数
MODULE

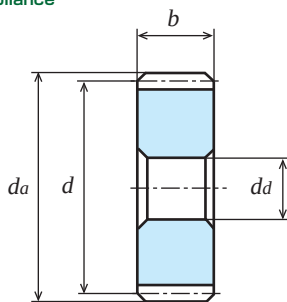
1.5 压力角 20° (普通齿) 齿数30
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 30

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)

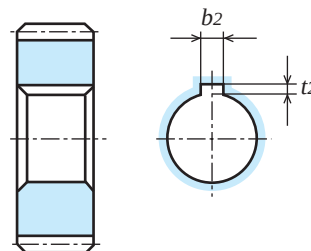


进行了规格改进, 做到节省空间并减轻重量, 不需要进行连结加工。

Specification change Space-saving and weight saving.
Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(g)$
											M	l_s			
S1.5S 30A - 1012F	30	$\phi 45$	$\phi 48$	A1	10	$\phi 12$	-	-	10	-	-	-	-	-	116.0
S1.5S 30A - 1210F	30	$\phi 45$	$\phi 48$	A1	12	$\phi 10$	-	-	12	-	-	-	-	-	142.4
S1.5S 30A = 1212	30	$\phi 45$	$\phi 48$	A1	12	$\phi 12$	-	-	12	4 × 1.8	-	-	-	-	138.5
S1.5S 30A = 1215	30	$\phi 45$	$\phi 48$	A1	12	$\phi 15$	-	-	12	5 × 2.3	-	-	-	-	132.1
S1.5S 30A - 1614F	30	$\phi 45$	$\phi 48$	A1	16	$\phi 14$	-	-	16	-	-	-	-	-	180.4
S1.5S 30A - 1814F	30	$\phi 45$	$\phi 48$	A1	18	$\phi 14$	-	-	18	-	-	-	-	-	203.0
S1.5S 30A = 1815	30	$\phi 45$	$\phi 48$	A1	18	$\phi 15$	-	-	18	5 × 2.3	-	-	-	-	198.1
S1.5S 30A = 1818	30	$\phi 45$	$\phi 48$	A1	18	$\phi 18$	-	-	18	6 × 2.8	-	-	-	-	186.4
S1.5S 30A = 1820	30	$\phi 45$	$\phi 48$	A1	18	$\phi 20$	-	-	18	6 × 2.8	-	-	-	-	178.0
S1.5S 30B - 1010F	30	$\phi 45$	$\phi 48$	B1	10	$\phi 10$	$\phi 38$	10	20	-	-	-	-	-	201.5
S1.5S 30B - 1210	30	$\phi 45$	$\phi 48$	B1	12	$\phi 10$	$\phi 30$	10	22	-	-	-	-	-	191.9
S1.5S 30B # 1212	30	$\phi 45$	$\phi 48$	B1	12	$\phi 12$	$\phi 30$	10	22	4 × 1.8	M3	5	-	-	184.3
S1.5S 30B # 1215	30	$\phi 45$	$\phi 48$	B1	12	$\phi 15$	$\phi 30$	10	22	5 × 2.3	M4	5	-	-	172.5
S1.5S 30BF - 1508	30	$\phi 45$	$\phi 48$	B1	15	$\phi 8(H8)$	$\phi 38$	15	30	-	-	-	-	-	307.3
S1.5S 30B - 1508H	30	$\phi 45$	$\phi 48$	B1	15	$\phi 8(H8)$	$\phi 38$	15	30	-	-	-	-	-	307.3
S1.5S 30B - 1612	30	$\phi 45$	$\phi 48$	B1	16	$\phi 12$	$\phi 38$	10	26	-	-	-	-	-	265.9
S1.5S 30B - 1812	30	$\phi 45$	$\phi 48$	B1	18	$\phi 12$	$\phi 40$	10	28	-	-	-	-	-	298.7
S1.5S 30B # 1815	30	$\phi 45$	$\phi 48$	B1	18	$\phi 15$	$\phi 40$	10	28	5 × 2.3	M4	5	-	-	281.4
S1.5S 30B # 1818	30	$\phi 45$	$\phi 48$	B1	18	$\phi 18$	$\phi 40$	10	28	6 × 2.8	M5	5	-	-	262.9
S1.5S 30B # 1820	30	$\phi 45$	$\phi 48$	B1	18	$\phi 20$	$\phi 40$	10	28	6 × 2.8	M5	5	-	-	249.9

标有●的产品为新产品。Products with ● marks are new item.

标号[=]表示齿轮带有键槽/带有键。[=]: Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。[#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
30	10	-	0.031	0.310	0.620	1.241	2.192	2.923	3.509
30	12	-	0.037	0.372	0.744	1.489	2.630	3.508	4.211
30	15	-	0.047	0.470	0.930	1.860	3.290	4.390	5.270
30	15	○	0.049	0.494	0.988	1.976	3.527	4.747	5.714
30	16	-	0.049	0.496	0.993	1.986	3.507	4.677	5.615
30	18	-	0.055	0.558	1.117	2.234	3.946	5.262	6.317

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.003	0.030	0.050	0.110	0.200	0.270	0.330
0.012	0.132	0.272	0.560	1.030	1.411	1.715
-	-	-	-	-	-	-

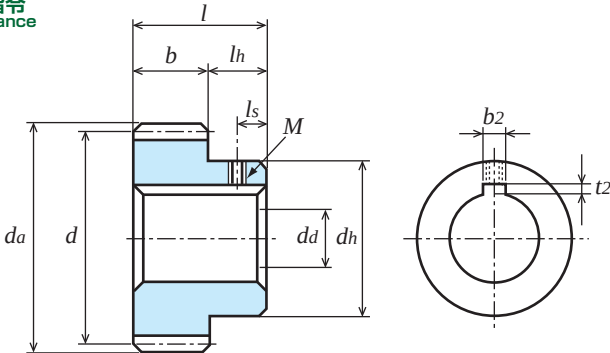
直齿轮
SPUR GEARS

模数
MODULE 1.5 压力角 20° (普通齿) 齿数32
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 32

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)
单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺孔 Set Screw		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(g)
											M	ls			
S1.5S 32A – 1010F	32	φ48	φ51	A1	10	φ10	-	-	10	-	-	-	-	-	135.9
S1.5S 32A = 1012	32	φ48	φ51	A1	10	φ12	-	-	10	4 × 1.8	-	-	-	-	132.6
S1.5S 32A = 1015	32	φ48	φ51	A1	10	φ15	-	-	10	5 × 2.3	-	-	-	-	127.3
S1.5S 32A – 1614F	32	φ48	φ51	A1	16	φ14	-	-	16	-	-	-	-	-	207.9
S1.5S 32A = 1615	32	φ48	φ51	A1	16	φ15	-	-	16	5 × 2.3	-	-	-	-	203.6
S1.5S 32A = 1618	32	φ48	φ51	A1	16	φ18	-	-	16	6 × 2.8	-	-	-	-	193.2
S1.5S 32A = 1620	32	φ48	φ51	A1	16	φ20	-	-	16	6 × 2.8	-	-	-	-	185.7
S1.5S 32B – 1010	32	φ48	φ51	B1	10	φ10	φ30	10	20	-	-	-	-	-	185.3
S1.5S 32B # 1012	32	φ48	φ51	B1	10	φ12	φ30	10	20	4 × 1.8	M3	5	-	-	178.4
S1.5S 32B # 1015	32	φ48	φ51	B1	10	φ15	φ30	10	20	5 × 2.3	M4	5	-	-	167.7
S1.5S 32B – 1612	32	φ48	φ51	B1	16	φ12	φ40	10	26	-	-	-	-	-	303.0
S1.5S 32B # 1615	32	φ48	φ51	B1	16	φ15	φ40	10	26	5 × 2.3	M4	5	-	-	286.9
S1.5S 32B # 1618	32	φ48	φ51	B1	16	φ18	φ40	10	26	6 × 2.8	M5	5	-	-	269.7
S1.5S 32B # 1620	32	φ48	φ51	B1	16	φ20	φ40	10	26	6 × 2.8	M5	5	-	-	257.6

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key
标号[#]表示齿轮带有键槽和螺孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW) T (N · m)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
32	10	0.033	0.338	0.677	1.352	2.351	3.122	3.793	100
32	16	0.054	0.541	1.083	2.164	3.762	4.996	6.069	32.27
									51.66

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。 KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.
您可以在我们广泛的设计产品中选择最合适您的产品。 You are able to multiple choices for your suitable design from our wide range.
上述数字根据JGMA公式得出, 仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无背隙直齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

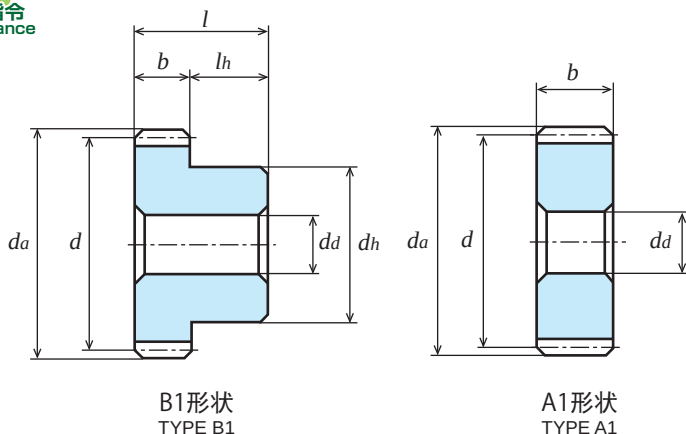
1.5

压力角 20° (普通齿) 齿数 34 35
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 34 to Z 35

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



New 进行了规格改进，做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



材料：碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	重量 Weight $W(g)$
S1.5S 34A - 1012F	34	$\phi 51$	$\phi 54$	A1	10	$\phi 12$	-	-	10	-	151.5
S1.5S 34A - 1614F	34	$\phi 51$	$\phi 54$	A1	16	$\phi 14$	-	-	16	-	237.2
S1.5S 34B - 1010F	34	$\phi 51$	$\phi 54$	B1	10	$\phi 10$	$\phi 44$	10	20	-	267.4
S1.5S 34B - 1612	34	$\phi 51$	$\phi 54$	B1	16	$\phi 12$	$\phi 44$	10	26	-	353.1
S1.5S 35A - 1012F	35	$\phi 52.5$	$\phi 55.5$	A1	10	$\phi 12$	-	-	10	-	161.1
S1.5S 35A - 1614F	35	$\phi 52.5$	$\phi 55.5$	A1	16	$\phi 14$	-	-	16	-	252.6
S1.5S 35B - 1010F	35	$\phi 52.5$	$\phi 55.5$	B1	10	$\phi 10$	$\phi 44$	10	20	-	277.0
S1.5S 35B - 1612	35	$\phi 52.5$	$\phi 55.5$	B1	16	$\phi 12$	$\phi 44$	10	26	-	368.4

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
34	10	0.036	0.366	0.733	1.452	2.507	3.359	4.074	34.95
34	16	0.058	0.586	1.173	2.323	4.011	5.375	6.519	55.96
35	10	0.038	0.381	0.762	1.501	2.583	3.477	4.214	36.38
35	16	0.060	0.609	1.219	2.402	4.133	5.563	6.743	58.15

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮 SPUR GEARS

模数
MODULE

1.5

压力角 20° (普通齿)

齿数 36 38

20° PRESSURE ANGLE FULL DEPTH TOOTH Z 36 to Z 38

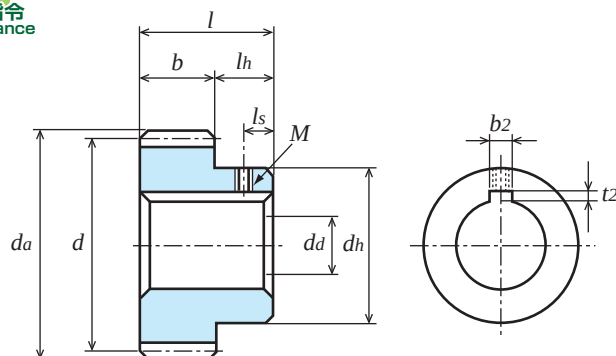
JIS B 1702-1 (ISO) 8级

System of accuracy : JIS B 1702-1 (ISO) class 8



订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)

Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(g)
											M	ls			
S1.5S 36A - 1012F	36	φ54	φ57	A1	10	φ12	-	-	10	-	-	-	-	-	170.9
S1.5S 36A = 1015	36	φ54	φ57	A1	10	φ15	-	-	10	5 × 2.3	-	-	-	-	165.0
S1.5S 36A = 1016	36	φ54	φ57	A1	10	φ16	-	-	10	5 × 2.3	-	-	-	-	163.1
S1.5S 36A - 1614F	36	φ54	φ57	A1	16	φ14	-	-	16	-	-	-	-	-	268.3
S1.5S 36A = 1615	36	φ54	φ57	A1	16	φ15	-	-	16	5 × 2.3	-	-	-	-	264.0
S1.5S 36A = 1618	36	φ54	φ57	A1	16	φ18	-	-	16	6 × 2.8	-	-	-	-	253.6
S1.5S 36A = 1620	36	φ54	φ57	A1	16	φ20	-	-	16	6 × 2.8	-	-	-	-	246.1
S1.5S 36B - 1010	36	φ54	φ57	B1	10	φ10	φ32	10	20	-	-	-	-	-	230.7
S1.5S 36B # 1012	36	φ54	φ57	B1	10	φ12	φ32	10	20	4 × 1.8	M3	5	-	-	223.8
S1.5S 36B # 1015	36	φ54	φ57	B1	10	φ15	φ32	10	20	5 × 2.3	M4	5	-	-	213.0
S1.5S 36B # 1016	36	φ54	φ57	B1	10	φ16	φ32	10	20	5 × 2.3	M4	5	-	-	209.2
S1.5S 36B - 1612	36	φ54	φ57	B1	16	φ12	φ40	10	26	-	-	-	-	-	363.5
S1.5S 36B # 1615	36	φ54	φ57	B1	16	φ15	φ40	10	26	5 × 2.3	M4	5	-	-	347.3
S1.5S 36B # 1618	36	φ54	φ57	B1	16	φ18	φ40	10	26	6 × 2.8	M5	5	-	-	330.1
S1.5S 36B # 1620	36	φ54	φ57	B1	16	φ20	φ40	10	26	6 × 2.8	M5	5	-	-	318.0
S1.5S 38A - 1012F	38	φ57	φ60	A1	10	φ12	-	-	10	-	-	-	-	-	191.4
S1.5S 38A - 1614F	38	φ57	φ60	A1	16	φ14	-	-	16	-	-	-	-	-	301.2
S1.5S 38B - 1012F	38	φ57	φ60	B1	10	φ12	φ50	10	20	-	-	-	-	-	336.7
S1.5S 38B - 1612	38	φ57	φ60	B1	16	φ12	φ50	10	26	-	-	-	-	-	451.8

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
36	10	0.039	0.395	0.790	1.550	2.659	3.594	4.353	37.72
36	16	0.063	0.632	1.265	2.481	4.254	5.751	6.966	60.35
38	10	0.042	0.424	0.848	1.648	2.807	3.828	4.629	40.49
38	16	0.067	0.678	1.356	2.637	4.492	6.125	7.407	64.74

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.

您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range.

上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

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齿轮信息
INFORMATION

齿箱
GEAR BOXES

无隙隙齿
ANTI BACKLASH SPUR GEARS

研磨直齿
GROUND SPUR GEARS

直齿
SPUR GEARS

内齿
INTERNAL GEARS

研磨齿
GROUND RACKS

齿
RACKS

斜齿
HEILICAL GEARS AND SCREW GEARS

蜗轮
WORMS AND WORM WHEELS

锥齿
BEVEL GEARS

技术资料
REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

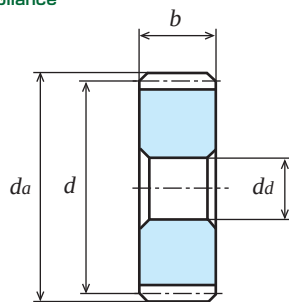
1.5 压力角 20° (普通齿) 齿数40
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 40

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)

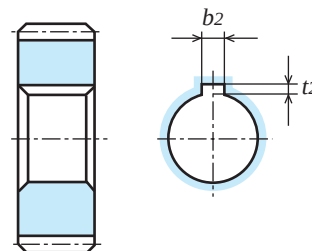


进行了规格改进, 做到节省空间并减轻重量, 不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(g)$
											M	l_s			
S1.5S 40A - 1012F	40	$\phi 60$	$\phi 63$	A1	10	$\phi 12$	-	-	10	-	-	-	-	-	213.1
S1.5S 40A = 1015	40	$\phi 60$	$\phi 63$	A1	10	$\phi 15$	-	-	10	5×2.3	-	-	-	-	207.2
S1.5S 40A = 1016	40	$\phi 60$	$\phi 63$	A1	10	$\phi 16$	-	-	10	5×2.3	-	-	-	-	205.3
S1.5S 40A = 1018	40	$\phi 60$	$\phi 63$	A1	10	$\phi 18$	-	-	10	6×2.8	-	-	-	-	200.7
S1.5S 40A - 1614F	40	$\phi 60$	$\phi 63$	A1	16	$\phi 14$	-	-	16	-	-	-	-	-	335.8
S1.5S 40A = 1615	40	$\phi 60$	$\phi 63$	A1	16	$\phi 15$	-	-	16	5×2.3	-	-	-	-	331.5
S1.5S 40A = 1618	40	$\phi 60$	$\phi 63$	A1	16	$\phi 18$	-	-	16	6×2.8	-	-	-	-	321.1
S1.5S 40A = 1620	40	$\phi 60$	$\phi 63$	A1	16	$\phi 20$	-	-	16	6×2.8	-	-	-	-	313.6
S1.5S 40B - 1012	40	$\phi 60$	$\phi 63$	B1	10	$\phi 12$	$\phi 36$	10	20	-	-	-	-	-	284.3
S1.5S 40B # 1015	40	$\phi 60$	$\phi 63$	B1	10	$\phi 15$	$\phi 36$	10	20	5×2.3	M4	5	-	-	271.8
S1.5S 40B # 1016	40	$\phi 60$	$\phi 63$	B1	10	$\phi 16$	$\phi 36$	10	20	5×2.3	M4	5	-	-	268.0
S1.5S 40B # 1018	40	$\phi 60$	$\phi 63$	B1	10	$\phi 18$	$\phi 36$	10	20	6×2.8	M5	5	-	-	258.6
● S1.5S 40BF - 1508	40	$\phi 60$	$\phi 63$	B1	15	$\phi 8(H8)$	$\phi 50$	15	30	-	-	-	-	-	550.2
● S1.5S 40B - 1508H	40	$\phi 60$	$\phi 63$	B1	15	$\phi 8(H8)$	$\phi 50$	15	30	-	-	-	-	-	550.2
S1.5S 40B - 1612	40	$\phi 60$	$\phi 63$	B1	16	$\phi 12$	$\phi 40$	10	26	-	-	-	-	-	431.0
S1.5S 40B # 1615	40	$\phi 60$	$\phi 63$	B1	16	$\phi 15$	$\phi 40$	10	26	5×2.3	M4	5	-	-	414.8
S1.5S 40B # 1618	40	$\phi 60$	$\phi 63$	B1	16	$\phi 18$	$\phi 40$	10	26	6×2.8	M5	5	-	-	397.6
S1.5S 40B # 1620	40	$\phi 60$	$\phi 63$	B1	16	$\phi 20$	$\phi 40$	10	26	6×2.8	M5	5	-	-	385.6

标有●的产品为新产品。Products with ● marks are new item.

标号[=]表示齿轮带有键槽/带有键。[=]: Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。[#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※ 齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
40	10	-	0.045	0.452	0.905	1.744	2.952	4.060	4.902
40	15	-	0.068	0.680	1.360	2.610	4.420	6.080	7.340
40	15	○	0.072	0.719	1.437	2.777	4.766	6.594	7.982
40	16	-	0.072	0.724	1.449	2.791	4.724	6.496	7.844

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.005	0.050	0.100	0.190	0.340	0.480	0.590
0.022	0.241	0.496	0.988	1.748	2.462	3.009
-	-	-	-	-	-	-

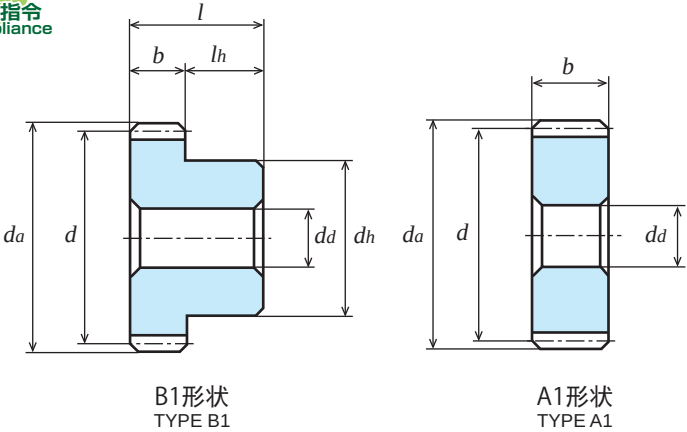
直齿轮
SPUR GEARS

模数
MODULE 1.5 压力角 20° (普通齿) 齿数42 ~ 46
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 42 to Z 46

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45) 单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	重量 Weight W(g)
S1.5S 42A — 1012F	42	φ63	φ66	A1	10	φ12	-	-	10	-	235.8
S1.5S 42A — 1612F	42	φ63	φ66	A1	16	φ12	-	-	16	-	377.3
S1.5S 42B — 1012F	42	φ63	φ66	B1	10	φ12	φ50	10	20	-	381.1
S1.5S 42B — 1612	42	φ63	φ66	B1	16	φ12	φ50	10	26	-	522.9
S1.5S 44A — 1012F	44	φ66	φ69	A1	10	φ12	-	-	10	-	259.7
S1.5S 44A — 1612F	44	φ66	φ69	A1	16	φ12	-	-	16	-	415.5
S1.5S 44B — 1012F	44	φ66	φ69	B1	10	φ12	φ50	10	20	-	404.9
S1.5S 44B — 1612	44	φ66	φ69	B1	16	φ12	φ50	10	26	-	561.1
S1.5S 45A — 1012F	45	φ67.5	φ70.5	A1	10	φ12	-	-	10	-	272.0
S1.5S 45A — 1612F	45	φ67.5	φ70.5	A1	16	φ12	-	-	16	-	435.3
S1.5S 45B — 1012F	45	φ67.5	φ70.5	B1	10	φ12	φ50	10	20	-	417.3
S1.5S 45B — 1612	45	φ67.5	φ70.5	B1	16	φ12	φ50	10	26	-	580.9
S1.5S 46A — 1012F	46	φ69	φ72	A1	10	φ12	-	-	10	-	284.7
S1.5S 46A — 1612F	46	φ69	φ72	A1	16	φ12	-	-	16	-	455.4
S1.5S 46B — 1012F	46	φ69	φ72	B1	10	φ12	φ50	10	20	-	429.9
S1.5S 46B — 1612	46	φ69	φ72	B1	16	φ12	φ50	10	26	-	601.1

容许传达动力表 弯曲强度 (kW) T (N · m)
Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
42	10	0.048	0.481	0.963	1.839	3.094	4.290	5.173	45.93
42	16	0.077	0.771	1.542	2.943	4.951	6.864	8.276	73.62
44	10	0.051	0.510	1.021	1.932	3.230	4.515	5.448	48.70
44	16	0.080	0.820	1.630	3.090	5.170	7.220	8.720	78.30
45	10	0.052	0.525	1.050	1.978	3.298	4.628	5.588	50.13
45	16	0.080	0.840	1.680	3.170	5.280	7.410	8.940	80.21
46	10	0.053	0.539	1.079	2.024	3.365	4.740	5.727	51.47
46	16	0.090	0.860	1.730	3.240	5.380	7.580	9.160	82.12

KG的齿轮规格有标准齿宽 (轻负荷用), 加宽齿宽 (重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load. 您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range. 上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only. 动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 GEAR INFORMATION	齿轮箱 GEAR BOXES	无背隙直齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

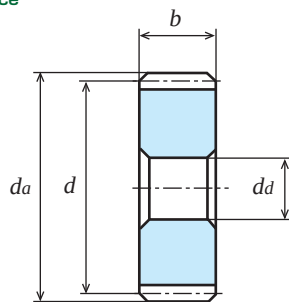
1.5 压力角 20° (普通齿) 齿数48
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 48

JIS B 1702-1 (ISO) 8级
System of accuracy: JIS B 1702-1 (ISO) class 8

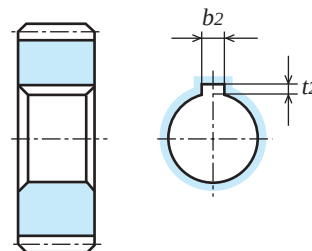


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料：碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位：mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(g)$
											M	l_s			
S1.5S 48A - 1014F	48	$\phi 72$	$\phi 75$	A1	10	$\phi 14$	-	-	10	-	-	-	-	-	307.5
S1.5S 48A = 1015	48	$\phi 72$	$\phi 75$	A1	10	$\phi 15$	-	-	10	5×2.3	-	-	-	-	304.8
S1.5S 48A = 1016	48	$\phi 72$	$\phi 75$	A1	10	$\phi 16$	-	-	10	5×2.3	-	-	-	-	302.9
S1.5S 48A = 1018	48	$\phi 72$	$\phi 75$	A1	10	$\phi 18$	-	-	10	6×2.8	-	-	-	-	298.3
S1.5S 48A - 1616F	48	$\phi 72$	$\phi 75$	A1	16	$\phi 16$	-	-	16	-	-	-	-	-	486.1
S1.5S 48A = 1620	48	$\phi 72$	$\phi 75$	A1	16	$\phi 20$	-	-	16	6×2.8	-	-	-	-	469.8
S1.5S 48B - 1012	48	$\phi 72$	$\phi 75$	B1	10	$\phi 12$	$\phi 36$	10	20	-	-	-	-	-	382.0
S1.5S 48B # 1015	48	$\phi 72$	$\phi 75$	B1	10	$\phi 15$	$\phi 36$	10	20	5×2.3	M4	5	-	-	369.5
S1.5S 48B # 1016	48	$\phi 72$	$\phi 75$	B1	10	$\phi 16$	$\phi 36$	10	20	5×2.3	M4	5	-	-	365.8
S1.5S 48B # 1018	48	$\phi 72$	$\phi 75$	B1	10	$\phi 18$	$\phi 36$	10	20	6×2.8	M5	5	-	-	356.4
S1.5S 48B - 1612	48	$\phi 72$	$\phi 75$	B1	16	$\phi 12$	$\phi 40$	10	26	-	-	-	-	-	587.3
S1.5S 48B # 1615	48	$\phi 72$	$\phi 75$	B1	16	$\phi 15$	$\phi 40$	10	26	5×2.3	M4	5	-	-	571.1
S1.5S 48B # 1620	48	$\phi 72$	$\phi 75$	B1	16	$\phi 20$	$\phi 40$	10	26	6×2.8	M5	5	-	-	541.9

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
48	10	0.05	0.56	1.13	2.11	3.50	4.96	6.00	100
48	16	0.09	0.91	1.82	3.39	5.60	7.94	9.61	53.47
									86.90

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

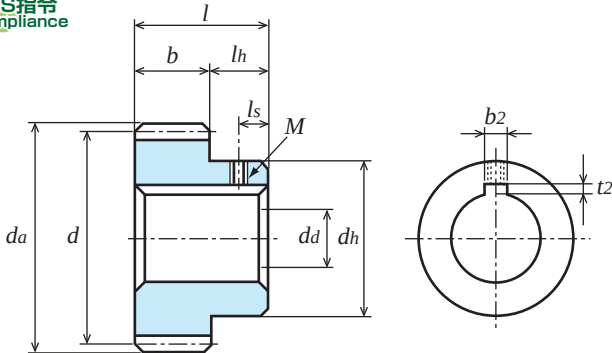
直齿轮
SPUR GEARS

模数 MODULE 1.5 压力角 20° (普通齿) 齿数 50
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 50

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)
单位: mm
Dimensions: mm

Table with 15 columns: Product Model, Number of Teeth, Reference Diameter, Outside Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Key Way, Set Screw, Dimension of Rim, Thickness of Web, Weight. It lists various gear models like S1.5S 50A-1014F, S1.5S 50B-1012, etc.

标有●的产品为新产品。Products with● marks are new item.
标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.
产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

Table with 10 columns: Number of Teeth (z), Face Width (b), Heat Treatment (H), and 8 columns for rotational speed (10, 100, 200, 400, 800, 1,200, 1,500 rpm).

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

Table with 8 columns: 7 columns for rotational speed (10, 100, 200, 400, 800, 1,200, 1,500 rpm) and 1 column for additional data.

目次表 CONTENTS
齿轮信息 INFORMATION
齿槽 GEAR BOXES
无隙齿 SPUR GEARS
研磨直齿 GROUND SPUR GEARS
直齿 SPUR GEARS
内齿 INTERNAL GEARS
研磨齿 GROUND RACKS
齿 RACKS
斜齿・螺旋齿 HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆 WORMS AND WORM WHEELS
锥齿 BEVEL GEARS
技术资料 REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

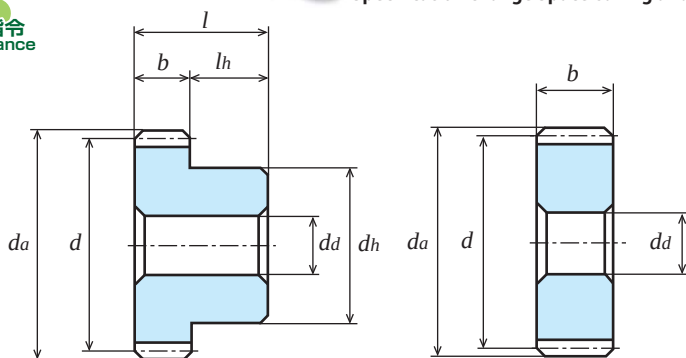
1.5

压力角 20° (普通齿) 齿数 52 ~ 55
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 52 to Z 55

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



New 进行了规格改进，做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



B1形状
TYPE B1

A1形状
TYPE A1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	重量 Weight $W(g)$
S1.5S 52A - 1014F	52	$\phi 78$	$\phi 81$	A1	10	$\phi 14$	-	-	10	-	363.0
S1.5S 52A - 1616F	52	$\phi 78$	$\phi 81$	A1	16	$\phi 16$	-	-	16	-	574.9
S1.5S 52B - 1014F	52	$\phi 78$	$\phi 81$	B1	10	$\phi 14$	$\phi 50$	10	20	-	505.1
S1.5S 52B - 1616	52	$\phi 78$	$\phi 81$	B1	16	$\phi 16$	$\phi 60$	10	26	-	781.6
S1.5S 54A - 1014F	54	$\phi 81$	$\phi 84$	A1	10	$\phi 14$	-	-	10	-	392.4
S1.5S 54A - 1616F	54	$\phi 81$	$\phi 84$	A1	16	$\phi 16$	-	-	16	-	622.0
S1.5S 54B - 1014F	54	$\phi 81$	$\phi 84$	B1	10	$\phi 14$	$\phi 50$	10	20	-	534.5
S1.5S 54B - 1616	54	$\phi 81$	$\phi 84$	B1	16	$\phi 16$	$\phi 60$	10	26	-	828.7
S1.5S 55A - 1014F	55	$\phi 82.5$	$\phi 85.5$	A1	10	$\phi 14$	-	-	10	-	407.5
S1.5S 55A - 1616F	55	$\phi 82.5$	$\phi 85.5$	A1	16	$\phi 16$	-	-	16	-	646.2
S1.5S 55B - 1014F	55	$\phi 82.5$	$\phi 85.5$	B1	10	$\phi 14$	$\phi 50$	10	20	-	549.6
S1.5S 55B - 1616	55	$\phi 82.5$	$\phi 85.5$	B1	16	$\phi 16$	$\phi 60$	10	26	-	852.9

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
52	10	0.062	0.62	1.25	2.29	3.82	5.40	6.55	59.20
52	16	0.101	1.01	2.01	3.67	6.12	8.65	10.49	96.45
54	10	0.065	0.65	1.31	2.38	3.98	5.62	6.82	62.07
54	16	0.105	1.05	2.10	3.81	6.38	9.00	10.92	100.27
55	10	0.067	0.67	1.34	2.42	4.06	5.73	6.96	63.98
55	16	0.108	1.08	2.15	3.88	6.51	9.18	11.14	103.13

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page 26.

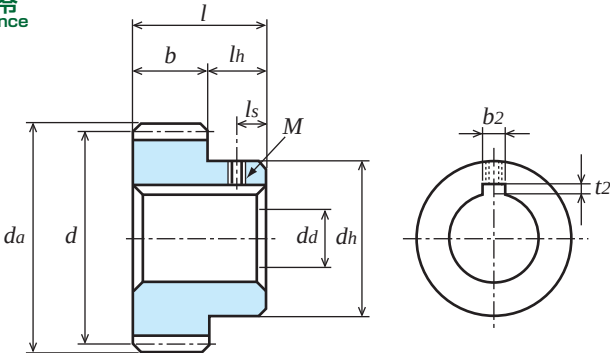
直齿轮
SPUR GEARS

模数
MODULE 1.5 压力角 20° (普通齿) 齿数 56 58
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 56 to Z 58

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)
单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(g)
											M	ls			
S1.5S 56A – 1014F	56	φ84	φ87	A1	10	φ14	-	-	10	-	-	-	-	-	422.9
S1.5S 56A = 1015	56	φ84	φ87	A1	10	φ15	-	-	10	5 × 2.3	-	-	-	-	420.3
S1.5S 56A = 1018	56	φ84	φ87	A1	10	φ18	-	-	10	6 × 2.8	-	-	-	-	413.7
S1.5S 56A – 1616F	56	φ84	φ87	A1	16	φ16	-	-	16	-	-	-	-	-	670.8
S1.5S 56A = 1620	56	φ84	φ87	A1	16	φ20	-	-	16	6 × 2.8	-	-	-	-	654.5
S1.5S 56B – 1014	56	φ84	φ87	B1	10	φ14	φ40	10	20	-	-	-	-	-	509.8
S1.5S 56B # 1015	56	φ84	φ87	B1	10	φ15	φ40	10	20	5 × 2.3	M4	5	-	-	503.6
S1.5S 56B – 1616	56	φ84	φ87	B1	16	φ16	φ50	10	26	-	-	-	-	-	809.7
S1.5S 56B # 1620	56	φ84	φ87	B1	16	φ20	φ50	10	26	6 × 2.8	M5	5	-	-	781.6
S1.5S 58A – 1014F	58	φ87	φ90	A1	10	φ14	-	-	10	-	-	-	-	-	454.6
S1.5S 58A – 1616F	58	φ87	φ90	A1	16	φ16	-	-	16	-	-	-	-	-	721.4
S1.5S 58B – 1014F	58	φ87	φ90	B1	10	φ14	φ50	10	20	-	-	-	-	-	596.6
S1.5S 58B – 1616	58	φ87	φ90	B1	16	φ16	φ60	10	26	-	-	-	-	-	928.2

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key
标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW) T (N · m)

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
56	10	0.068	0.68	1.37	2.46	4.14	5.85	7.09	64.93
56	16	0.110	1.10	2.20	3.95	6.64	9.37	11.35	105.04
58	10	0.071	0.71	1.43	2.55	4.30	6.07	7.36	67.80
58	16	0.115	1.15	2.29	4.09	6.89	9.73	11.78	109.82

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.
您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range.
上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无背隙直齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

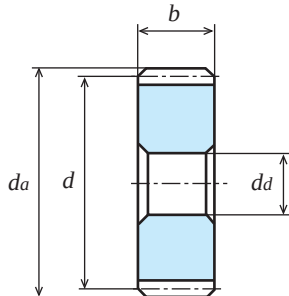
1.5 压力角 20° (普通齿) 齿数60
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 60

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)

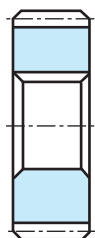


进行了规格改进, 做到节省空间并减轻重量, 不需要进行连结加工。

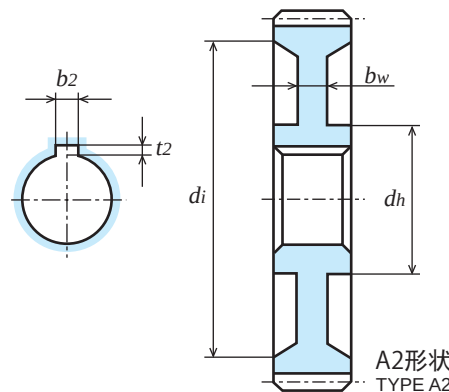
Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1



A2形状
TYPE A2

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外直径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(g)$
											M	l_s			
S1.5S 60A - 1014F	60	$\phi 90$	$\phi 93$	A1	10	$\phi 14$	-	-	10	-	-	-	-	-	487.3
S1.5S 60A = 1015	60	$\phi 90$	$\phi 93$	A1	10	$\phi 15$	-	-	10	5×2.3	-	-	-	-	484.6
S1.5S 60A = 1018	60	$\phi 90$	$\phi 93$	A1	10	$\phi 18$	-	-	10	6×2.8	-	-	-	-	478.1
S1.5S 60A = 1020	60	$\phi 90$	$\phi 93$	A1	10	$\phi 20$	-	-	10	6×2.8	-	-	-	-	473.4
S1.5S 60A - 1616F	60	$\phi 90$	$\phi 93$	A1	16	$\phi 16$	-	-	16	-	-	-	-	-	773.8
S1.5S 60A = 1620	60	$\phi 90$	$\phi 93$	A2	16	$\phi 20$	$\phi 40$	-	16	6×2.8	-	-	$\phi 76$	8	568.5
S1.5S 60A = 1625	60	$\phi 90$	$\phi 93$	A2	16	$\phi 25$	$\phi 50$	-	16	8×3.3	-	-	$\phi 76$	8	589.4
S1.5S 60B - 1014	60	$\phi 90$	$\phi 93$	B1	10	$\phi 14$	$\phi 40$	10	20	-	-	-	-	-	572.2
S1.5S 60B # 1015	60	$\phi 90$	$\phi 93$	B1	10	$\phi 15$	$\phi 40$	10	20	5×2.3	M4	5	-	-	568.0
S1.5S 60B # 1018	60	$\phi 90$	$\phi 93$	B1	10	$\phi 18$	$\phi 40$	10	20	6×2.8	M5	5	-	-	554.8
S1.5S 60B # 1020	60	$\phi 90$	$\phi 93$	B1	10	$\phi 20$	$\phi 40$	10	20	6×2.8	M5	5	-	-	545.5
● S1.5S 60BF - 1510	60	$\phi 90$	$\phi 93$	B1	15	$\phi 10(H8)$	$\phi 65$	15	30	-	-	-	-	-	1,118.4
● S1.5S 60B - 1510H	60	$\phi 90$	$\phi 93$	B1	15	$\phi 10(H8)$	$\phi 65$	15	30	-	-	-	-	-	1,118.4
S1.5S 60B - 1616	60	$\phi 90$	$\phi 93$	B1	16	$\phi 16$	$\phi 50$	10	26	-	-	-	-	-	912.7
S1.5S 60B # 1620	60	$\phi 90$	$\phi 93$	B3	16	$\phi 20$	$\phi 50$	10	26	6×2.8	M5	5	$\phi 76$	8	739.6
S1.5S 60B # 1625	60	$\phi 90$	$\phi 93$	B3	16	$\phi 25$	$\phi 50$	10	26	8×3.3	M6	5	$\phi 76$	8	701.4

标有●的产品为新产品。Products with●marks are new item.

标号[=]表示齿轮带有键槽/带有键。[=]: Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。[#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有[H]的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
60	10	-	0.074	0.74	1.49	2.63	4.46	6.30	7.62
60	15	-	0.110	1.10	2.230	3.930	6.660	9.400	11.380
60	15	○	0.118	1.181	2.363	4.217	7.227	10.396	12.995
60	16	-	0.120	1.20	2.39	4.22	7.14	10.09	12.20

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.011	0.120	0.230	0.420	0.750	1.120	1.400
0.051	0.563	1.160	2.134	3.771	5.522	6.970
-	-	-	-	-	-	-

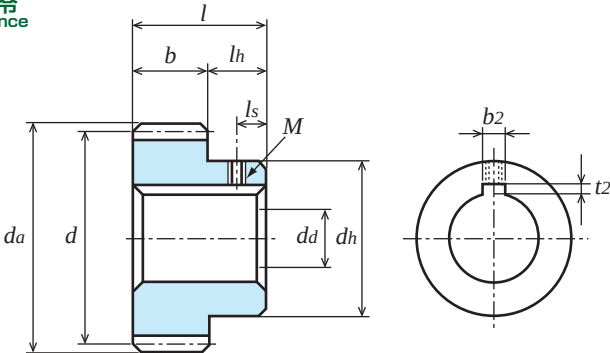
直齿轮
SPUR GEARS

模数
MODULE 1.5 压力角 20° (普通齿) 齿数64 ~ 68
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 64 to Z 68

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)
单位 : mm
Dimensions : mm

Table with 15 columns: Product Model, Number of Teeth, Reference Diameter, Outside Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Key Way, Set Screw, Dimension of Rim, Thickness of Web, Weight. Rows include models like S1.5S 64A-1014F, S1.5S 64B-1014, S1.5S 68A-1014F, etc.

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key
标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW) T (N · m)

Allowable transfer capability table (kW) Bending Strength

Table with 2 main sections. Left section: Gear teeth (z) vs Face width (b) vs Rotational speed (min⁻¹). Right section: Rotational speed (min⁻¹) vs Torque (N·m).

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.
您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range.
上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

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HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆
WORMS AND WORM WHEELS
锥齿轮
BEVEL GEARS
技术资料
REFERENCE DATA

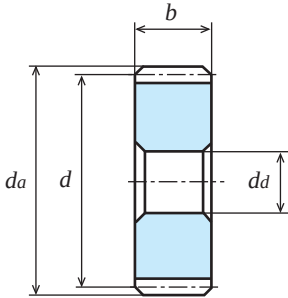
直齿轮

SPUR GEARS

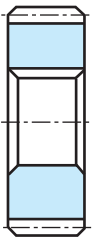
模数
MODULE

1.5 压力角 20° (普通齿) 齿数70
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 70

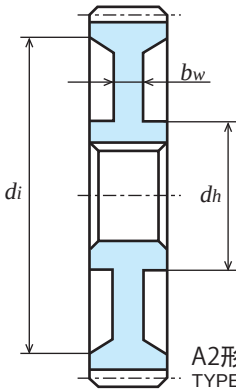
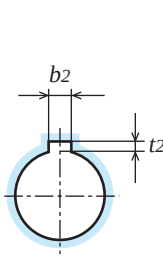
JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



A1形状
TYPE A1



A1形状
TYPE A1



A2形状
TYPE A2

New

进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.

材料：碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth <i>z</i>	分度圆直径 Reference Diameter <i>d</i>	齿顶圆直径 Outside Diameter <i>da</i>	形状 Type	齿宽 Face Width <i>b</i>	孔径 Bore Diameter <i>da</i> (H7)	轮毂外径 Hub Diameter <i>dh</i>	轮毂长度 Hub Projection <i>lh</i>	全长 Overall Length <i>l</i>	键槽 Key Way <i>b</i> 2 × <i>t</i> 2	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim <i>di</i>	腹板厚度 Thickness of Web <i>bw</i>	重量 Weight <i>W</i> (kg)
											<i>M</i>	<i>ls</i>			
S1.5S 70A — 1014F	70	φ105	φ108	A1	10	φ14	-	-	10	-	-	-	-	-	0.67
S1.5S 70A = 1015	70	φ105	φ108	A1	10	φ15	-	-	10	5 × 2.3	-	-	-	-	0.67
S1.5S 70A = 1018	70	φ105	φ108	A1	10	φ18	-	-	10	6 × 2.8	-	-	-	-	0.66
S1.5S 70A — 1616F	70	φ105	φ108	A1	16	φ16	-	-	16	-	-	-	-	-	1.06
S1.5S 70A = 1620	70	φ105	φ108	A2	16	φ20	φ40	-	16	6 × 2.8	-	-	φ91	8	0.74
S1.5S 70B — 1014	70	φ105	φ108	B1	10	φ14	φ40	10	20	-	-	-	-	-	0.75
S1.5S 70B # 1015	70	φ105	φ108	B1	10	φ15	φ40	10	20	5 × 2.3	M4	5	-	-	0.75
● S1.5S 70BF — 1510	70	φ105	φ108	B1	15	φ10(H8)	φ75	15	30	-	-	-	-	-	1.52
● S1.5S 70B — 1510H	70	φ105	φ108	B1	15	φ10(H※)	φ75	15	30	-	-	-	-	-	1.52
S1.5S 70B — 1616	70	φ105	φ108	B1	16	φ16	φ50	10	26	-	-	-	-	-	1.20
S1.5S 70B # 1620	70	φ105	φ108	B3	16	φ20	φ50	10	26	6 × 2.8	M5	5	φ91	8	0.94

标有●的产品为新产品。Products with●marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时，请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 <i>z</i>	齿宽 <i>b</i>	淬火 <i>H</i>	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
70	10	-	0.089	0.90	1.77	3.04	5.24	7.41	8.97
70	15	-	0.130	0.140	2.630	4.530	7.810	11.040	13.370
70	15	○	0.142	1.417	2.796	4.871	8.483	12.469	15.587
70	16	-	0.143	1.43	2.83	4.86	8.38	11.85	14.35

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.016	0.160	0.320	0.570	1.030	1.550	1.930
0.070	0.777	1.581	2.839	5.097	7.627	9.627
-	-	-	-	-	-	-

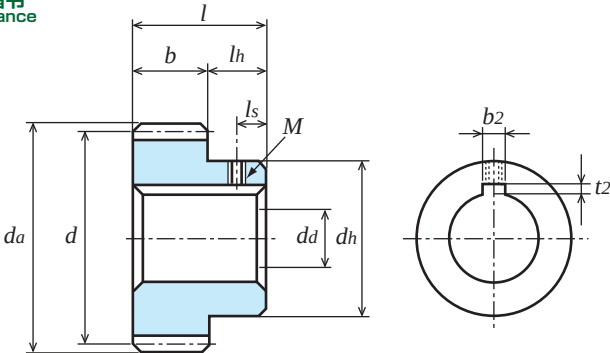
直齿轮
SPUR GEARS

模数 MODULE 1.5 压力角 20° (普通齿) 齿数 72 75
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 72 to Z 75

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)
单位 : mm
Dimensions : mm

Table with 15 columns: Product Model, Number of Teeth, Reference Diameter, Outside Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Key Way, Set Screw, Dimension of Rim, Thickness of Web, Weight. It lists various gear specifications and their corresponding weights.

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key
标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW) T (N · m)

Table with 2 main sections. Left section: Allowable transfer capability table (kW) Bending Strength. Right section: Table with 2 columns: 齿数 z, 齿宽 b, and 旋转速度 (min⁻¹) revolution/min.

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。 KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.
您可以在我们广泛的设计产品中选择最合适您的产品。 You are able to multiple choices for your suitable design from our wide range.
上述数字根据JGMA公式得出, 仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

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内齿轮 INTERNAL GEARS
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齿条 RACKS
斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆 WORMS AND WORM WHEELS
锥齿轮 BEVEL GEARS
技术资料 REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

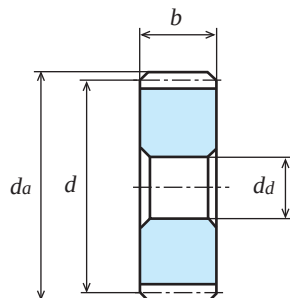
1.5 压力角 20° (普通齿) 齿数80
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 80

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8

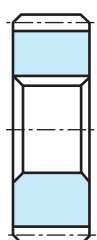


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

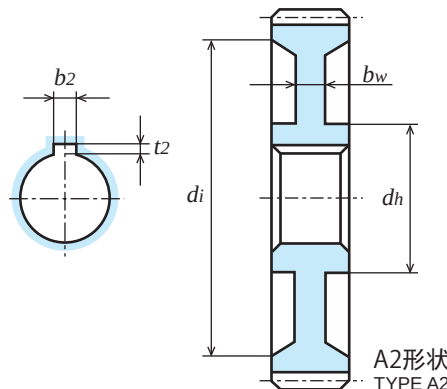
Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1



A2形状
TYPE A2

材料：碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S1.5S 80A - 1016F	80	$\phi 120$	$\phi 123$	A1	10	$\phi 16$	-	-	10	-	-	-	-	-	0.87
S1.5S 80A = 1018	80	$\phi 120$	$\phi 123$	A1	10	$\phi 18$	-	-	10	6×2.8	-	-	-	-	0.87
S1.5S 80A = 1020	80	$\phi 120$	$\phi 123$	A1	10	$\phi 20$	-	-	10	6×2.8	-	-	-	-	0.86
S1.5S 80A - 1618F	80	$\phi 120$	$\phi 123$	A1	16	$\phi 18$	-	-	16	-	-	-	-	-	1.39
S1.5S 80A = 1620	80	$\phi 120$	$\phi 123$	A2	16	$\phi 20$	$\phi 40$	-	16	6×2.8	-	-	$\phi 106$	8	0.93
S1.5S 80A = 1625	80	$\phi 120$	$\phi 123$	A2	16	$\phi 25$	$\phi 50$	-	16	8×3.3	-	-	$\phi 106$	8	0.95
S1.5S 80B - 1016	80	$\phi 120$	$\phi 123$	B1	10	$\phi 16$	$\phi 40$	10	20	-	-	-	-	-	0.96
S1.5S 80B # 1018	80	$\phi 120$	$\phi 123$	B1	10	$\phi 18$	$\phi 40$	10	20	6×2.8	M5	5	-	-	0.94
S1.5S 80B # 1020	80	$\phi 120$	$\phi 123$	B1	10	$\phi 20$	$\phi 40$	10	20	6×2.8	M5	5	-	-	0.93
S1.5S 80BF - 1510	80	$\phi 120$	$\phi 123$	B1	15	$\phi 10(H8)$	$\phi 85$	15	30	-	-	-	-	-	2.0
S1.5S 80B - 1510H	80	$\phi 120$	$\phi 123$	B1	15	$\phi 10(H8)$	$\phi 85$	15	30	-	-	-	-	-	2.0
S1.5S 80B - 1618	80	$\phi 120$	$\phi 123$	B1	16	$\phi 18$	$\phi 50$	10	26	-	-	-	-	-	1.52
S1.5S 80B # 1620	80	$\phi 120$	$\phi 123$	B3	16	$\phi 20$	$\phi 50$	10	26	6×2.8	M5	5	$\phi 106$	8	1.10
S1.5S 80B # 1625	80	$\phi 120$	$\phi 123$	B3	16	$\phi 25$	$\phi 50$	10	26	8×3.3	M6	5	$\phi 106$	8	1.06

标有●的产品为新产品。Products with ● marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

※

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
80	10	-	0.10	1.05	2.02	3.42	5.98	8.47	10.48
80	15	-	0.16	1.56	3.01	5.09	8.91	12.61	15.60
80	15	○	0.165	1.65	3.20	5.49	9.71	14.56	18.20
80	16	-	0.17	1.68	3.23	5.47	9.57	13.55	16.76

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.021	0.210	0.420	0.730	1.360	2.040	2.610
0.093	1.028	2.048	3.623	6.607	10.089	12.735
-	-	-	-	-	-	-

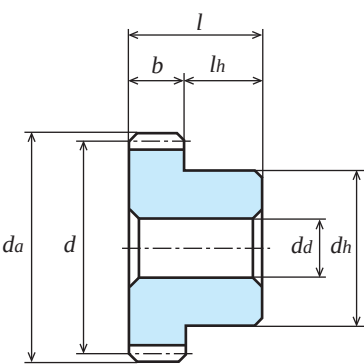
直齿轮
SPUR GEARS

模数 MODULE 1.5 压力角 20° (普通齿) 齿数 84 90
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 84 to Z 90

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)
单位: mm
Dimensions: mm

Table with 13 columns: Product Model, Number of Teeth, Reference Diameter, Tip Diameter, Type, Face Width, Bore Diameter, Hub Outer Diameter, Hub Projection, Overall Length, Key Way, Rim Dimension, Web Thickness, Weight. Rows include models like S1.5S 84A-1016F, S1.5S 84A-1622F, etc.

标有●的产品为新产品。Products with ● marks are new item.
标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key.
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.
产品型号末尾标有 [H] 的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

Table with 10 columns: z, b, H, and 7 columns for rotation speed (10, 100, 200, 400, 800, 1,200, 1,500 min⁻¹).

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

Table with 8 columns: 7 columns for rotation speed (10, 100, 200, 400, 800, 1,200, 1,500 min⁻¹) and 1 column for additional data.

目次表 CONTENTS
齿轮信息 INFORMATION
齿轮箱 GEAR BOXES
无侧隙齿轮 ANTI BACKLASH SPUR GEARS
研磨直齿轮 GROUND SPUR GEARS
直齿轮 SPUR GEARS
内齿轮 INTERNAL GEARS
研磨齿条 GROUND RACKS
齿条 RACKS
斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆 WORMS AND WORM WHEELS
锥齿轮 BEVEL GEARS
技术资料 REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

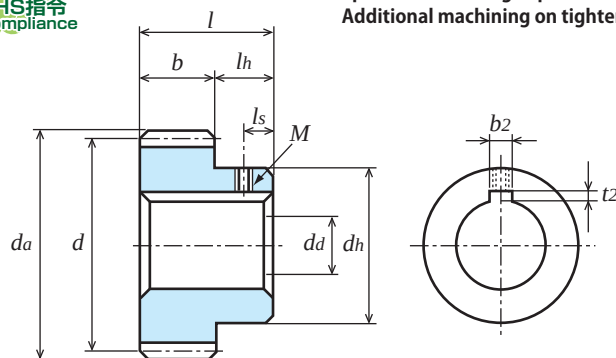
1.5 压力角 20° (普通齿) 齿数100
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 100

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



进行了规格改进, 做到节省空间并减轻重量, 不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S1.5S 100A - 1016F	100	$\phi 150$	$\phi 153$	A1	10	$\phi 16$	-	-	10	-	-	-	-	-	1.37
S1.5S 100A = 1018	100	$\phi 150$	$\phi 153$	A1	10	$\phi 18$	-	-	10	6×2.8	-	-	-	-	1.37
S1.5S 100A = 1020	100	$\phi 150$	$\phi 153$	A1	10	$\phi 20$	-	-	10	6×2.8	-	-	-	-	1.36
S1.5S 100A - 1618F	100	$\phi 150$	$\phi 153$	A1	16	$\phi 18$	-	-	16	-	-	-	-	-	2.19
S1.5S 100A = 1620	100	$\phi 150$	$\phi 153$	A2	16	$\phi 20$	$\phi 40$	-	16	6×2.8	-	-	$\phi 136$	8	1.38
S1.5S 100A = 1625	100	$\phi 150$	$\phi 153$	A2	16	$\phi 25$	$\phi 50$	-	16	8×3.3	-	-	$\phi 136$	8	1.40
S1.5S 100B - 1016	100	$\phi 150$	$\phi 153$	B1	10	$\phi 16$	$\phi 40$	10	20	-	-	-	-	-	1.46
S1.5S 100B # 1018	100	$\phi 150$	$\phi 153$	B1	10	$\phi 18$	$\phi 40$	10	20	6×2.8	M5	5	-	-	1.44
S1.5S 100B # 1020	100	$\phi 150$	$\phi 153$	B1	10	$\phi 20$	$\phi 40$	10	20	6×2.8	M5	5	-	-	1.43
S1.5S 100BF - 1515	100	$\phi 150$	$\phi 153$	B1	15	$\phi 15$	$\phi 105$	15	30	-	-	-	-	-	3.05
S1.5S 100B - 1515H	100	$\phi 150$	$\phi 153$	B1	15	$\phi 15(H\#)$	$\phi 105$	15	30	-	-	-	-	-	3.05
S1.5S 100B - 1618	100	$\phi 150$	$\phi 153$	B1	16	$\phi 18$	$\phi 50$	10	26	-	-	-	-	-	2.32
S1.5S 100B # 1620	100	$\phi 150$	$\phi 153$	B3	16	$\phi 20$	$\phi 50$	10	26	6×2.8	M5	5	$\phi 136$	8	1.55
S1.5S 100B # 1625	100	$\phi 150$	$\phi 153$	B3	16	$\phi 25$	$\phi 50$	10	26	8×3.3	M6	5	$\phi 136$	8	1.51

标有●的产品为新产品。Products with ● marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
100	10	-	0.14	1.35	2.49	4.13	7.49	10.80	-
100	15	-	0.200	2.010	3.700	6.150	11.140	16.070	-
100	15	○	0.213	2.129	3.951	6.659	12.492	18.738	-
100	16	-	0.22	2.16	3.98	6.61	11.98	17.28	-

The above references are JGMA standard.

动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.034	0.340	0.640	1.110	2.180	3.340	-
0.148	1.641	3.139	5.453	10.545	16.101	-
-	-	-	-	-	-	-

直齿轮 SPUR GEARS

模数
MODULE

2

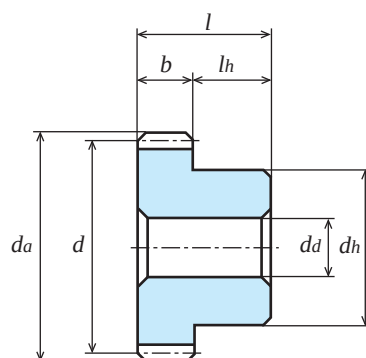
压力角 20° (普通齿)

20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



New 进行了规格改进，做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



B1形状
TYPE B1

材料：聚缩醛树脂 (黑色)
Material : Poly Acetal (Black)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter d_d	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
S2D 14B — 2010N	14	$\phi 28$	$\phi 32$	B1	20	$\phi 10$	$\phi 22$	10	30	19.4
S2D 15B — 2010N	15	$\phi 30$	$\phi 34$	B1	20	$\phi 10$	$\phi 24$	10	30	23.0
S2D 16B — 2012N	16	$\phi 32$	$\phi 36$	B1	20	$\phi 12$	$\phi 26$	10	30	25.4
S2D 18B — 2012N	18	$\phi 36$	$\phi 40$	B1	20	$\phi 12$	$\phi 30$	10	30	33.9
S2D 20B — 2012N	20	$\phi 40$	$\phi 44$	B1	20	$\phi 12$	$\phi 30$	10	30	40.6
S2D 24B — 2014N	24	$\phi 48$	$\phi 52$	B1	20	$\phi 14$	$\phi 40$	10	30	62.2
S2D 25B — 2014N	25	$\phi 50$	$\phi 54$	B1	20	$\phi 14$	$\phi 40$	10	30	66.6
S2D 28B — 2014N	28	$\phi 56$	$\phi 60$	B1	20	$\phi 14$	$\phi 45$	10	30	85.4
S2D 30B — 2018N	30	$\phi 60$	$\phi 64$	B1	20	$\phi 18$	$\phi 45$	10	30	91.4
S2D 32B — 2018N	32	$\phi 64$	$\phi 68$	B1	20	$\phi 18$	$\phi 45$	10	30	102.4
S2D 35B — 2018N	35	$\phi 70$	$\phi 74$	B1	20	$\phi 18$	$\phi 50$	10	30	125.5
S2D 36B — 2018N	36	$\phi 72$	$\phi 76$	B1	20	$\phi 18$	$\phi 50$	10	30	131.7

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

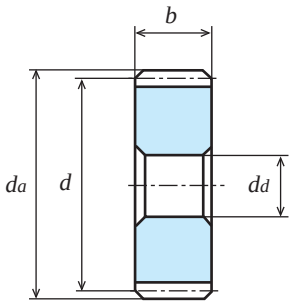
产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S2D 14B — 2010N	2.48	24.83	49.61	99.05	197.44	295.16	368.01
S2D 15B — 2010N	2.66	26.60	53.15	106.10	211.44	316.01	393.94
S2D 16B — 2012N	2.84	28.37	56.68	113.15	225.43	336.84	419.77
S2D 18B — 2012N	3.19	31.91	63.75	127.23	253.36	378.39	470.09
S2D 20B — 2012N	3.55	35.45	70.82	141.30	281.24	419.77	519.94
S2D 24B — 2014N	4.26	42.53	84.94	169.40	336.84	500.06	618.19
S2D 25B — 2014N	4.44	44.30	88.47	176.41	350.70	519.94	642.45
S2D 28B — 2014N	4.97	49.61	99.05	197.44	392.21	579.12	714.53
S2D 30B — 2018N	5.32	53.15	106.10	211.44	419.77	618.19	761.98
S2D 32B — 2018N	5.68	56.68	113.15	225.43	446.67	656.95	808.83
S2D 35B — 2018N	6.21	61.99	123.71	246.38	486.76	714.53	875.88
S2D 36B — 2018N	6.39	63.75	127.23	253.36	500.06	733.57	897.89

上述数值是Lewis公式，仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



A1形状
TYPE A1

材料 : 聚缩醛树脂 (黑色)
Material : Poly Acetal (Black)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth <i>z</i>	分度圆 直 径 Reference Diameter <i>d</i>	齿顶圆 直 径 Tip Diameter <i>da</i>	形 状 Type	齿 宽 Face Width <i>b</i>	孔 径 Bore Diameter <i>dd</i>	轮 毂 外 径 Hub Diameter <i>dh</i>	轮 毂 长 度 Hub Projection <i>lh</i>	全 长 Overall Length <i>l</i>	重 量 Weight <i>W(g)</i>
S2D 40A — 2018	40	φ 80	φ 84	A1	20	φ18	-	-	20	134.6
S2D 45A — 2018	45	φ 90	φ 94	A1	20	φ18	-	-	20	172.2
S2D 48A — 2018	48	φ 96	φ100	A1	20	φ18	-	-	20	196.9
S2D 50A — 2018	50	φ100	φ104	A1	20	φ18	-	-	20	214.3
S2D 56A — 2018	56	φ112	φ116	A1	20	φ18	-	-	20	270.7
S2D 60A — 2018	60	φ120	φ124	A1	20	φ18	-	-	20	311.8
S2D 64A — 2018	64	φ128	φ132	A1	20	φ18	-	-	20	355.7
S2D 70A — 2018	70	φ140	φ144	A1	20	φ18	-	-	20	426.9
S2D 72A — 2018	72	φ144	φ148	A1	20	φ18	-	-	20	452.1
S2D 80A — 2018	80	φ160	φ164	A1	20	φ18	-	-	20	559.8
S2D 90A — 2018	90	φ180	φ184	A1	20	φ18	-	-	20	710.4
S2D 100A — 2018	100	φ200	φ204	A1	20	φ18	-	-	20	878.8

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产 品 型 号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S2D 40A — 2018	7.10	70.82	141.30	281.24	552.90	808.83	984.27
S2D 45A — 2018	7.98	79.65	158.87	316.01	618.19	897.89	1,088.49
S2D 48A — 2018	8.52	84.94	169.40	336.84	656.95	950.04	1,148.58
S2D 50A — 2018	8.87	88.47	176.41	350.70	682.63	984.27	1,184.49
S2D 56A — 2018	9.94	99.05	197.44	392.21	758.83	1,084.40	1,286.48
S2D 60A — 2018	10.64	106.10	211.44	419.77	808.83	1,148.58	1,349.70
S2D 64A — 2018	11.35	113.15	225.43	446.67	856.66	1,205.57	-
S2D 70A — 2018	12.42	123.71	246.38	486.76	926.98	1,286.48	-
S2D 72A — 2018	12.77	127.23	253.36	500.06	950.04	1,312.23	-
S2D 80A — 2018	14.19	141.30	281.24	552.90	1,040.38	-	-
S2D 90A — 2018	15.96	158.87	316.01	618.19	1,148.58	-	-
S2D 100A — 2018	17.74	176.41	350.70	682.63	1,242.21	-	-

上述数值是Lewis公式，仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙背隙齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

2

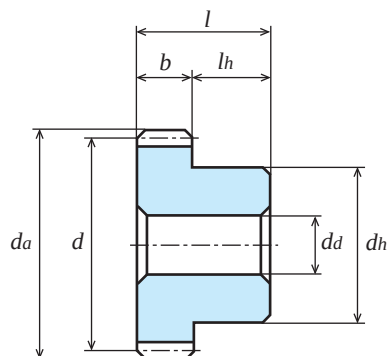
压力角 20° (普通齿)

20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1 (ISO) class 9



New 进行了规格改进，做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



B1形状
TYPE B1

材料 : 不锈钢 SUS304 (JIS G 4303)
Material : Stainless Steel SUS304 (JIS G 4303)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H8)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
S2SU 14B — 1410N	14	$\phi 28$	$\phi 32$	B1	14	$\phi 10$	$\phi 20$	10	24	78.3
S2SU 15B — 1410N	15	$\phi 30$	$\phi 34$	B1	14	$\phi 10$	$\phi 22$	10	24	93.7
S2SU 18B — 1412N	18	$\phi 36$	$\phi 40$	B1	14	$\phi 12$	$\phi 28$	10	24	14.0
S2SU 20B — 1412N	20	$\phi 40$	$\phi 44$	B1	14	$\phi 12$	$\phi 30$	10	24	174.0
S2SU 24B — 1414N	24	$\phi 48$	$\phi 52$	B1	14	$\phi 14$	$\phi 36$	10	24	252.3
S2SU 25B — 1414N	25	$\phi 50$	$\phi 54$	B1	14	$\phi 14$	$\phi 36$	10	24	269.4
S2SU 30B — 1414N	30	$\phi 60$	$\phi 64$	B1	14	$\phi 14$	$\phi 40$	10	24	384.3
S2SU 32B — 1214N	32	$\phi 64$	$\phi 68$	B1	12	$\phi 14$	$\phi 45$	10	22	405.4
S2SU 35B — 1214N	35	$\phi 70$	$\phi 74$	B1	12	$\phi 14$	$\phi 45$	10	22	465.5
S2SU 36B — 1214N	36	$\phi 72$	$\phi 76$	B1	12	$\phi 14$	$\phi 45$	10	22	486.7
S2SU 40B — 1214N	40	$\phi 80$	$\phi 84$	B1	12	$\phi 14$	$\phi 50$	10	22	607.2
S2SU 45B — 1214N	45	$\phi 90$	$\phi 94$	B1	12	$\phi 14$	$\phi 60$	10	22	802.7

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

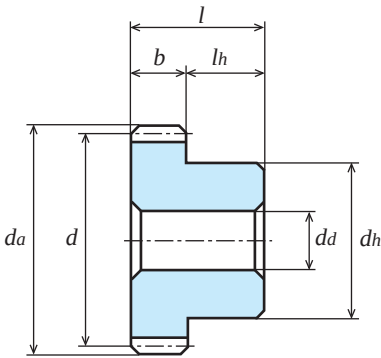
产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S2SU 14B — 1410N	0.012	0.124	0.248	0.496	0.966	1.335	1.576
S2SU 15B — 1410N	0.014	0.139	0.278	0.556	1.070	1.471	1.731
S2SU 18B — 1412N	0.019	0.185	0.371	0.741	1.377	1.870	2.181
S2SU 20B — 1412N	0.022	0.218	0.435	0.870	1.580	2.128	2.497
S2SU 24B — 1414N	0.028	0.284	0.567	1.134	1.970	2.616	3.178
S2SU 25B — 1414N	0.030	0.301	0.601	1.194	2.065	2.759	3.348
S2SU 30B — 1414N	0.039	0.386	0.773	1.488	2.519	3.463	4.182
S2SU 32B — 1214N	0.036	0.361	0.722	1.374	2.307	3.207	3.866
S2SU 35B — 1214N	0.041	0.406	0.813	1.520	2.521	3.560	4.304
S2SU 36B — 1214N	0.042	0.422	0.843	1.567	2.593	3.677	4.449
S2SU 40B — 1214N	0.048	0.483	0.966	1.754	2.933	4.138	5.023
S2SU 45B — 1214N	0.056	0.560	1.121	1.979	3.349	4.729	5.722

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

JIS B 1702-1 (ISO) 9级
System of accuracy : JIS B 1702-1(ISO) class 9



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 不锈钢 SUS304 (JIS G 4303)
Material : Stainless Steel SUS304 (JIS G 4303) 单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H8)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(kg)
S2SU 48B — 1215N	48	φ 96	φ100	B1	12	φ15	φ60	10	22	0.88
S2SU 50B — 1215N	50	φ100	φ104	B1	12	φ15	φ60	10	22	0.94
S2SU 55B — 1215N	55	φ110	φ114	B1	12	φ15	φ60	10	22	1.10
S2SU 60B — 1215N	60	φ120	φ124	B1	12	φ15	φ60	10	22	1.27
S2SU 64B — 1215N	64	φ128	φ132	B1	12	φ15	φ60	10	22	1.42
S2SU 72B — 1216N	72	φ144	φ148	B1	12	φ16	φ60	10	22	1.74
S2SU 80B — 1216N	80	φ160	φ164	B1	12	φ16	φ60	10	22	2.10
S2SU 90B — 1216N	90	φ180	φ184	B1	12	φ16	φ60	10	22	2.61
S2SU 100B — 1216N	100	φ200	φ204	B1	12	φ16	φ60	10	22	3.18

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (kW) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S2SU 48B — 1215N	0.060	0.61	1.21	2.11	3.60	5.08	6.13
S2SU 50B — 1215N	0.063	0.64	1.27	2.19	3.76	5.31	6.41
S2SU 55B — 1215N	0.071	0.72	1.40	2.40	4.16	5.88	7.17
S2SU 60B — 1215N	0.079	0.80	1.53	2.60	4.55	6.44	7.97
S2SU 64B — 1215N	0.086	0.86	1.64	2.75	4.88	6.88	-
S2SU 72B — 1216N	0.098	0.99	1.84	3.04	5.51	7.91	-
S2SU 80B — 1216N	0.112	1.12	2.03	3.39	6.14	-	-
S2SU 90B — 1216N	0.128	1.28	2.26	3.82	6.89	-	-
S2SU 100B — 1216N	0.143	1.43	2.47	4.24	7.68	-	-

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿 GROUND SPUR GEARS	直齿 SPUR GEARS	内齿 INTERNAL GEARS	研磨齿 GROUND RACKS	齿 RACKS	斜齿・螺旋 HELIC GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

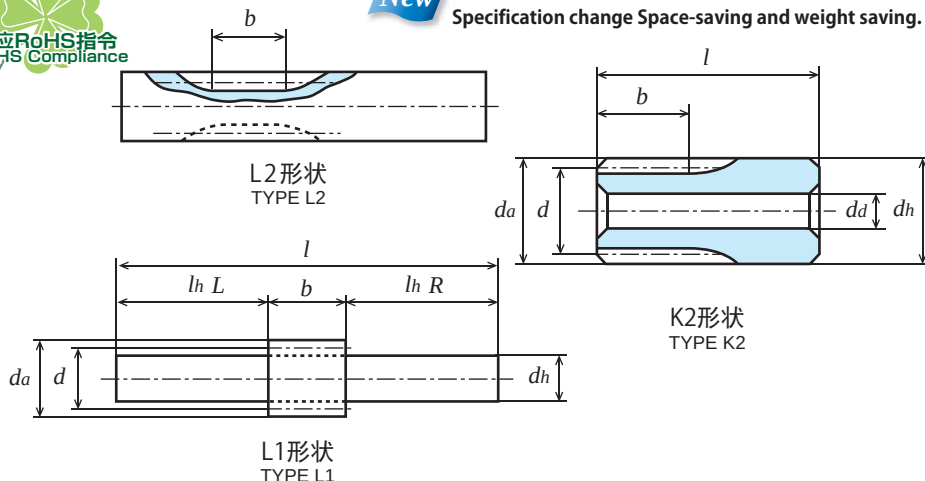
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压力角 20° (普通齿) 齿数 8 ~ 14
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 8 to Z 14

JIS B 1702-1 (ISO) 8 ~ 9级
System of accuracy: JIS B 1702-1 (ISO) class 8-9



进行了规格改进, 做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



材料: 碳钢 (ISO C45) 标号 [*] 表示变位齿轮。(变位系数 x 为 0.5)

Material: Carbon Steel (ISO C45) * mark has been profile shifted gears. (Rack shift coefficient x = 0.5)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(g)
S2S 8L - 2212	8	*	φ21.28	L1	22	-	φ12(h9)	L32 R64	118	129.2
S2S 8L - 2221F	8	*	φ21.28	L2	22	-	φ21.28	L32 R64	118	312.0
S2S 10L - 2216	10	*	φ25.33	L1	22	-	φ16(h9)	L32 R64	118	217.2
S2S 10L - 2225F	10	*	φ25.33	L2	22	-	φ25.33	L32 R64	118	445.4
S2S 12K - 2210	12	φ24	φ28	K2	22	φ10(H8)	φ28	28	50	182.6
S2S 13K - 2210F	13	φ26	φ30	K2	22	φ10(H8)	φ30	28	50	216.2
S2S 14A - 1410	14	φ28	φ32	A1	14	φ10	-	-	14	59.0
S2S 14A - 2010	14	φ28	φ32	A1	20	φ10	-	-	20	84.3
S2S 14A - 2210	14	φ28	φ32	A1	22	φ10	-	-	22	92.8
S2S 14B - 1410N	14	φ28	φ32	B1	14	φ10	φ22	10	24	82.8
S2S 14B - 2010N	14	φ28	φ32	B1	20	φ10(H8)	φ22	10	30	108.1
S2S 14B - 2210N	14	φ28	φ32	B1	22	φ10(H8)	φ22	10	32	116.5

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
8	22	0.023	0.235	0.471	0.942	1.885	2.785	3.345	22.44
10	22	0.032	0.325	0.650	1.300	2.600	3.702	4.414	31.03
12	22	0.029	0.298	0.597	1.195	2.388	3.331	3.956	28.45
13	22	0.034	0.343	0.687	1.374	2.712	3.764	4.456	32.75
14	14	0.024	0.247	0.495	0.991	1.932	2.670	3.151	23.58
14	20	0.035	0.354	0.708	1.416	2.761	3.814	4.501	33.80
14	22	0.038	0.389	0.779	1.558	3.037	4.196	4.951	37.14

上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮
SPUR GEARS

模数
MODULE

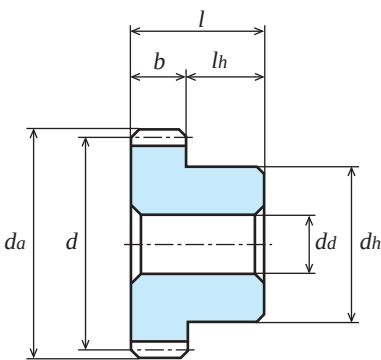
2

压力角 20° (普通齿) 齿数15 ~ 17
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 15 to Z 17

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	键 槽 Key Way b2 × t2	重 量 Weight W(g)
S2S 15A – 1410	15	φ30	φ34	A1	14	φ10	-	-	14	-	69.5
S2S 15A – 2010	15	φ30	φ34	A1	20	φ10	-	-	20	-	98.7
S2S 15A – 2210	15	φ30	φ34	A1	22	φ10	-	-	22	-	108.5
S2S 15B – 1410N	15	φ30	φ34	B1	14	φ10	φ24	10	24	-	98.5
S2S 15B – 2010N	15	φ30	φ34	B1	20	φ10(H8)	φ24	10	30	-	128.1
S2S 15B – 2210N	15	φ30	φ34	B1	22	φ10(H8)	φ24	10	32	-	138.0
S2S 16A – 1412	16	φ32	φ36	A1	14	φ12	-	-	14	-	76.0
S2S 16A – 2012	16	φ32	φ36	A1	20	φ12	-	-	20	-	108.5
S2S 16A – 2212	16	φ32	φ36	A1	22	φ12	-	-	22	-	119.4
S2S 16B – 1412N	16	φ32	φ36	B1	14	φ12	φ26	10	24	-	108.8
S2S 16B – 2012N	16	φ32	φ36	B1	20	φ12	φ26	10	30	-	141.4
S2S 16B – 2212N	16	φ32	φ36	B1	22	φ12	φ26	10	32	-	152.3
S2S 17B – 1412	17	φ34	φ38	B1	14	φ12	φ28	10	24	-	126.9
S2S 17B – 2212	17	φ34	φ38	B1	22	φ12	φ28	10	32	-	176.8

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (kW) Bending Strength

齿数
z

齿宽
b

旋转速度 (min⁻¹)
revolution/min

10

100

200

400

800

1,200

1,500

15	14	0.027	0.277	0.555	1.111	2.139	2.942	3.462
15	20	0.039	0.396	0.793	1.587	3.056	4.203	4.946
15	22	0.043	0.436	0.873	1.746	3.362	4.624	5.440
16	14	0.030	0.308	0.616	1.233	2.346	3.212	3.768
16	20	0.044	0.440	0.880	1.761	3.352	4.589	5.383
16	22	0.048	0.484	0.968	1.937	3.687	5.047	5.922
17	14	0.034	0.339	0.678	1.357	2.551	3.478	4.069
17	22	0.053	0.533	1.066	2.132	4.009	5.465	6.393

旋转速度 (min⁻¹)
revolution/min

100

26.45
37.81
41.63
29.41
42.01
46.22
32.37
50.89

KG的齿轮规格有标准齿宽 (轻负荷用), 加宽齿宽 (重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load. 您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range. 上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only. 动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

2

压力角 20° (普通齿) 齿数 18 19

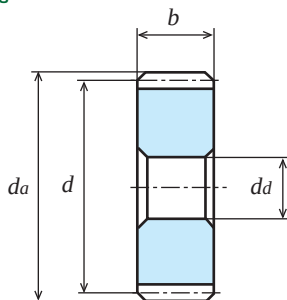
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 18 to Z 19

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8

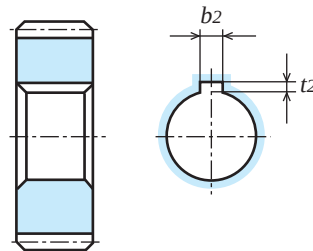


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料：碳钢 (ISO C45)

Material : Carbon Steel (ISO C45)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(g)$
											M	l_s			
S2S 18A - 1212F	18	$\phi 36$	$\phi 40$	A1	12	$\phi 12$	-	-	12	-	-	-	-	-	85.2
S2S 18A - 1412F	18	$\phi 36$	$\phi 40$	A1	14	$\phi 12$	-	-	14	-	-	-	-	-	99.4
S2S 18A = 1415	18	$\phi 36$	$\phi 40$	A1	14	$\phi 15$	-	-	14	5×2.3	-	-	-	-	93.7
S2S 18A - 2012F	18	$\phi 36$	$\phi 40$	A1	20	$\phi 12$	-	-	20	-	-	-	-	-	142.1
S2S 18A - 2212F	18	$\phi 36$	$\phi 40$	A1	22	$\phi 12$	-	-	22	-	-	-	-	-	156.3
S2S 18A = 2215	18	$\phi 36$	$\phi 40$	A1	22	$\phi 15$	-	-	22	5×2.3	-	-	-	-	143.3
S2S 18B - 1212	18	$\phi 36$	$\phi 40$	B1	12	$\phi 12$	$\phi 29$	10	22	-	-	-	-	-	128.3
S2S 18B - 1412	18	$\phi 36$	$\phi 40$	B1	14	$\phi 12$	$\phi 30$	10	24	-	-	-	-	-	146.1
S2S 18B # 1415	18	$\phi 36$	$\phi 40$	B1	14	$\phi 15$	$\phi 30$	10	24	5×2.3	M4	5	-	-	131.6
S2S 18B - 2012N	18	$\phi 36$	$\phi 40$	B1	20	$\phi 12$	$\phi 30$	10	30	-	-	-	-	-	188.8
S2S 18B - 2212	18	$\phi 36$	$\phi 40$	B1	22	$\phi 12$	$\phi 30$	10	32	-	-	-	-	-	203.0
S2S 18B # 2215	18	$\phi 36$	$\phi 40$	B1	22	$\phi 15$	$\phi 30$	10	32	5×2.3	M4	5	-	-	183.7
S2S 19B - 1412	19	$\phi 38$	$\phi 42$	B1	14	$\phi 12$	$\phi 32$	10	24	-	-	-	-	-	166.6
S2S 19B - 2212	19	$\phi 38$	$\phi 42$	B1	22	$\phi 12$	$\phi 32$	10	32	-	-	-	-	-	230.7

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
18	12	0.031	0.317	0.635	1.270	2.361	3.205	3.739	100
18	14	0.037	0.370	0.741	1.482	2.754	3.739	4.362	30.27
18	20	0.052	0.529	1.058	2.117	3.935	5.341	6.232	35.33
18	22	0.058	0.582	1.164	2.329	4.328	5.875	6.855	50.51
19	14	0.040	0.403	0.806	1.611	2.960	4.001	4.656	55.57
19	22	0.063	0.633	1.266	2.532	4.651	6.287	7.317	38.48
									60.44

上述数字根据JGMA公式得出，仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

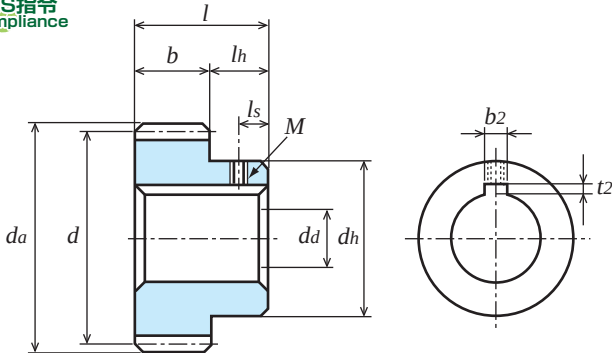
直齿轮
SPUR GEARS

模数
MODULE 2 压力角 20° (普通齿) 齿数20
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 20

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45) 单位: mm
Dimensions: mm

Table with 15 columns: Product Model, Number of Teeth, Reference Diameter, Outside Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Key Way, Set Screw, Dimension of Rim, Thickness of Web, Weight. It lists various gear models like S2S 20A-1212F, S2S 20B-1212, etc.

标有●的产品为新产品。Products with●marks are new item.
标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (kW) Bending Strength
Table with 10 columns: z, b, H, 10, 100, 200, 400, 800, 1,200, 1,500.

容许传达动力表 齿面强度 (kW)
Allowable transfer capability table (kW) Surface Durability
Table with 10 columns: 10, 100, 200, 400, 800, 1,200, 1,500, 0.003, 0.012, -, -.

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

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齿条
RACKS
斜齿轮・螺旋齿轮
HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆
WORMS AND WORM WHEELS
锥齿轮
BEVEL GEARS
技术资料
REFERENCE DATA

直齿轮
SPUR GEARS

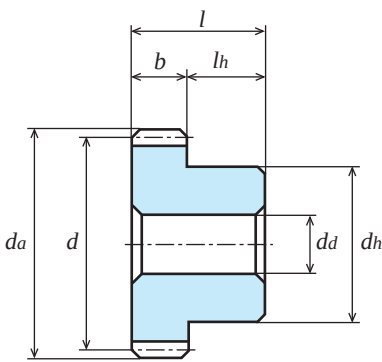
模数
MODULE

2 压力角 20° (普通齿) 齿数21 ~ 23
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 21 to Z 23

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



New 进行了规格改进，做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	重量 Weight W(g)
S2S 21B - 1412	21	φ42	φ46	B1	14	φ12	φ36	10	24	-	211.0
S2S 21B - 2212	21	φ42	φ46	B1	22	φ12	φ36	10	32	-	290.9
S2S 22B - 1412	22	φ44	φ48	B1	14	φ12	φ38	10	24	-	235.0
S2S 22B - 2212	22	φ44	φ48	B1	22	φ12	φ38	10	32	-	323.4
S2S 23B - 1412	23	φ46	φ50	B1	14	φ12	φ40	10	24	-	260.2
S2S 23B - 2212	23	φ46	φ50	B1	22	φ12	φ40	10	32	-	357.5

容许传达动力表 弯曲强度 (kW) T (N · m)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
21	14	0.046	0.47	0.94	1.87	3.36	4.50	5.33	44.88
21	22	0.073	0.73	1.47	2.94	5.28	7.08	8.38	69.71
22	14	0.050	0.50	1.00	2.00	3.56	4.75	5.68	47.74
22	22	0.078	0.79	1.57	3.15	5.59	7.47	8.92	75.44
23	14	0.053	0.53	1.07	2.13	3.75	4.99	6.02	50.61
23	22	0.083	0.84	1.68	3.36	5.89	7.84	9.46	80.21

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮
SPUR GEARS

模数
MODULE

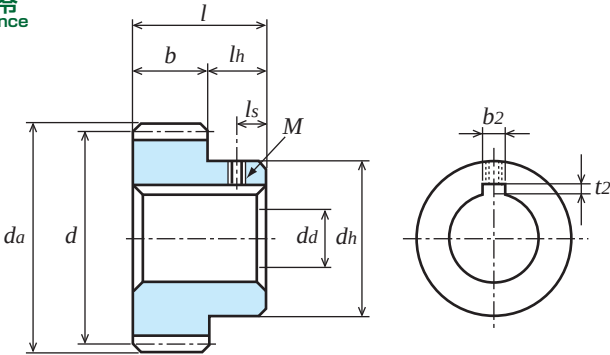
2

压力角 20° (普通齿) 齿数24
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 24

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(g)
											M	ls			
S2S 24A – 1214F	24	φ48	φ52	A1	12	φ14	-	-	12	-	-	-	-	-	156.0
S2S 24A – 1412F	24	φ48	φ52	A1	14	φ12	-	-	14	-	-	-	-	-	186.4
S2S 24A = 1415	24	φ48	φ52	A1	14	φ15	-	-	14	5 × 2.3	-	-	-	-	178.2
S2S 24A = 1416	24	φ48	φ52	A1	14	φ16	-	-	14	5 × 2.3	-	-	-	-	175.5
S2S 24A – 2014F	24	φ48	φ52	A1	20	φ14	-	-	20	-	-	-	-	-	259.9
S2S 24A – 2214F	24	φ48	φ52	A1	22	φ14	-	-	22	-	-	-	-	-	285.9
S2S 24A = 2215	24	φ48	φ52	A1	22	φ15	-	-	22	5 × 2.3	-	-	-	-	280.0
S2S 24A = 2220	24	φ48	φ52	A1	22	φ20	-	-	22	6 × 2.8	-	-	-	-	255.4
S2S 24B – 1214	24	φ48	φ52	B1	12	φ14	φ40	10	22	-	-	-	-	-	207.1
S2S 24B – 1414	24	φ48	φ52	B1	14	φ14	φ32	10	24	-	-	-	-	-	233.2
S2S 24B # 1415	24	φ48	φ52	B1	14	φ15	φ32	10	24	5 × 2.3	M4	5	-	-	226.2
S2S 24B # 1416	24	φ48	φ52	B1	14	φ16	φ32	10	24	5 × 2.3	M4	5	-	-	221.6
S2S 24B – 2014N	24	φ48	φ52	B1	20	φ14	φ42	10	30	-	-	-	-	-	356.8
S2S 24B – 2214	24	φ48	φ52	B1	22	φ14	φ40	10	32	-	-	-	-	-	372.7
S2S 24B # 2215	24	φ48	φ52	B1	22	φ15	φ40	10	32	5 × 2.3	M4	5	-	-	363.3
S2S 24B # 2220	24	φ48	φ52	B1	22	φ20	φ40	10	32	6 × 2.8	M5	5	-	-	327.3

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

T (N · m)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
24	12	0.048	0.49	0.97	1.94	3.377	4.49	5.45	46.79
24	14	0.056	0.57	1.14	2.27	3.940	5.23	6.36	54.43
24	20	0.081	0.81	1.62	3.24	5.63	7.48	9.08	77.35
24	22	0.089	0.89	1.78	3.56	6.19	8.22	9.99	84.99

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。 KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.
您可以在我们广泛的设计产品中选择最合适您的产品。 You are able to multiple choices for your suitable design from our wide range.
上述数字根据JGMA公式得出, 仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿 GROUND SPUR GEARS	直齿 SPUR GEARS	内齿 INTERNAL GEARS	研磨齿 GROUND RACKS	齿 RACKS	斜齿・螺旋齿 HELICAL GEARS & SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮

SPUR GEARS

模数
MODULE

2

压力角 20° (普通齿)

齿数 25 ~ 26

20° PRESSURE ANGLE FULL DEPTH TOOTH Z 25 to Z 26

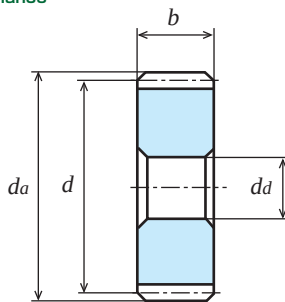
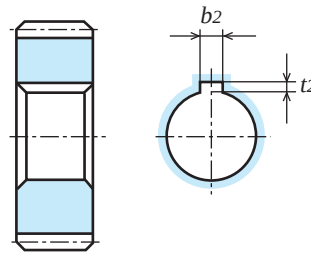
JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



New

进行了规格改进, 做到节省空间并减轻重量,
不需要进行连结加工。

Specification change Space-saving and weight saving.
Additional machining on tightening is not necessary.

A1形状
TYPE A1A1形状
TYPE A1

材料: 碳钢 (ISO C45)

Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺孔		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(g)
											M	ls			
S2S 25A - 1214F	25	φ50	φ54	A1	12	φ14	-	-	12	-	-	-	-	-	170.5
S2S 25A - 1414F	25	φ50	φ54	A1	14	φ14	-	-	14	-	-	-	-	-	198.9
S2S 25A = 1415	25	φ50	φ54	A1	14	φ15	-	-	14	5 × 2.3	-	-	-	-	195.1
S2S 25A = 1416	25	φ50	φ54	A1	14	φ16	-	-	14	5 × 2.3	-	-	-	-	192.4
S2S 25A - 2014F	25	φ50	φ54	A1	20	φ14	-	-	20	-	-	-	-	-	284.1
S2S 25A - 2214F	25	φ50	φ54	A1	22	φ14	-	-	22	-	-	-	-	-	312.5
S2S 25A = 2215	25	φ50	φ54	A1	22	φ15	-	-	22	5 × 2.3	-	-	-	-	306.6
S2S 25A = 2220	25	φ50	φ54	A1	22	φ20	-	-	22	6 × 2.8	-	-	-	-	281.9
S2S 25B - 1214	25	φ50	φ54	B1	12	φ14	φ42	10	22	-	-	-	-	-	221.7
S2S 25B - 1414	25	φ50	φ54	B1	14	φ14	φ32	10	24	-	-	-	-	-	250.1
S2S 25B # 1415	25	φ50	φ54	B1	14	φ15	φ32	10	24	5 × 2.3	M4	5	-	-	243.1
S2S 25B # 1416	25	φ50	φ54	B1	14	φ16	φ32	10	24	5 × 2.3	M4	5	-	-	238.6
S2S 25BF - 2008	25	φ50	φ54	B1	20	φ 8(H8)	φ40	20	40	-	-	-	-	-	486.2
S2S 25B - 2008H	25	φ50	φ54	B1	20	φ 8(H※)	φ40	20	40	-	-	-	-	-	486.2
S2S 25B - 2014N	25	φ50	φ54	B1	20	φ14	φ44	10	30	-	-	-	-	-	391.6
S2S 25B - 2214	25	φ50	φ54	B1	22	φ14	φ40	10	32	-	-	-	-	-	399.3
S2S 25B # 2215	25	φ50	φ54	B1	22	φ15	φ40	10	32	5 × 2.3	M4	5	-	-	389.9
S2S 25B # 2220	25	φ50	φ54	B1	22	φ20	φ40	10	32	6 × 2.8	M5	5	-	-	353.9
S2S 26B - 1414	26	φ52	φ56	B1	14	φ14	φ46	10	24	-	-	-	-	-	335.1
S2S 26B - 2214	26	φ52	φ56	B1	22	φ14	φ46	10	32	-	-	-	-	-	458.9

标有●的产品为新产品。Products with ● marks are new item.

标号[=]表示齿轮带有键槽/带有键。[=]: Gear with key way / with key

标号[#]表示齿轮带有键槽和螺孔/带有键和固定螺钉。[#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有[H]的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
25	12		0.051	0.52	1.03	2.05	3.54	4.73	5.74
25	14		0.060	0.60	1.20	2.39	4.13	5.52	6.70
25	20	-	0.086	0.860	1.720	3.420	5.920	7.910	9.600
25	20	○	0.091	0.913	1.827	3.630	6.359	8.569	10.420
25	22		0.094	0.94	1.89	3.75	6.49	8.67	10.52
26	14		0.063	0.63	1.27	2.51	4.32	5.80	7.03
26	22		0.100	1.00	2.00	3.94	6.78	9.12	11.05

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.004	0.040	0.090	0.180	0.320	0.440	0.550
0.020	0.219	0.451	0.925	1.670	2.291	2.813
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-

直齿轮
SPUR GEARS

模数
MODULE

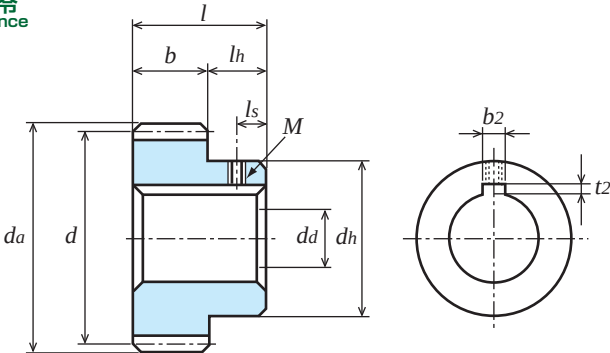
2

压力角 20° (普通齿) 齿数28 29
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 28 to Z 29

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺孔 Set Screw		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(g)
											M	ls			
S2S 28A — 1214F	28	φ56	φ60	A1	12	φ14	-	-	12	-	-	-	-	-	217.5
S2S 28A — 1414F	28	φ56	φ60	A1	14	φ14	-	-	14	-	-	-	-	-	253.8
S2S 28A = 1415	28	φ56	φ60	A1	14	φ15	-	-	14	5 × 2.3	-	-	-	-	250.0
S2S 28A = 1416	28	φ56	φ60	A1	14	φ16	-	-	14	5 × 2.3	-	-	-	-	247.3
S2S 28A = 1420	28	φ56	φ60	A1	14	φ20	-	-	14	6 × 2.8	-	-	-	-	234.3
S2S 28A — 2016F	28	φ56	φ60	A1	20	φ16	-	-	20	-	-	-	-	-	355.1
S2S 28A — 2216F	28	φ56	φ60	A1	22	φ16	-	-	22	-	-	-	-	-	390.6
S2S 28A = 2220	28	φ56	φ60	A1	22	φ20	-	-	22	6 × 2.8	-	-	-	-	368.2
S2S 28A = 2225	28	φ56	φ60	A1	22	φ25	-	-	22	8 × 3.3	-	-	-	-	336.0
S2S 28B — 1214	28	φ56	φ60	B1	12	φ14	φ48	10	22	-	-	-	-	-	304.3
S2S 28B — 1414	28	φ56	φ60	B1	14	φ14	φ40	10	24	-	-	-	-	-	340.6
S2S 28B # 1415	28	φ56	φ60	B1	14	φ15	φ40	10	24	5 × 2.3	M4	5	-	-	333.3
S2S 28B # 1416	28	φ56	φ60	B1	14	φ16	φ40	10	24	5 × 2.3	M4	5	-	-	328.7
S2S 28B # 1420	28	φ56	φ60	B1	14	φ20	φ40	10	24	6 × 2.8	M5	5	-	-	306.3
S2S 28B — 2016N	28	φ56	φ60	B1	20	φ16	φ50	10	30	-	-	-	-	-	493.8
S2S 28B — 2216	28	φ56	φ60	B1	22	φ16	φ50	10	32	-	-	-	-	-	529.3
S2S 28B # 2220	28	φ56	φ60	B1	22	φ20	φ50	10	32	6 × 2.8	M5	5	-	-	495.1
S2S 28B # 2225	28	φ56	φ60	B1	22	φ25	φ50	10	32	8 × 3.3	M6	5	-	-	448.2
S2S 29B — 1414	29	φ58	φ62	B1	14	φ14	φ52	10	24	-	-	-	-	-	428.4
S2S 29B — 2216	29	φ58	φ62	B1	22	φ16	φ52	10	32	-	-	-	-	-	572.9

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key
标号[#]表示齿轮带有键槽和螺孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min						
		10	100	200	400	800	1,200	1,500
28	12	0.060	0.60	1.21	2.35	4.01	5.46	6.60
28	14	0.070	0.70	1.41	2.74	4.68	6.37	7.70
28	20	0.101	1.01	2.01	3.92	6.69	9.10	11.01
28	22	0.111	1.11	2.21	4.31	7.36	10.01	12.11
29	14	0.073	0.74	1.48	2.86	4.86	6.65	8.04
29	22	0.116	1.16	2.32	4.50	7.64	10.45	12.63

旋转速度 (min ⁻¹) revolution/min
100
57.29
66.84
96.45
106.00
70.66
110.77

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.
您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range.
上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无背隙直齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿条·螺旋齿条 HELICAL GEARS AND SCREW GEARS	蜗轮·蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

2

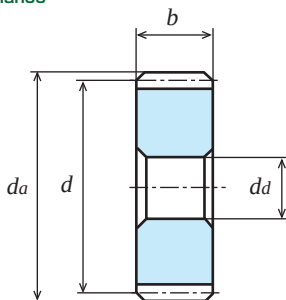
压力角 20° (普通齿) 齿数30
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 30

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)

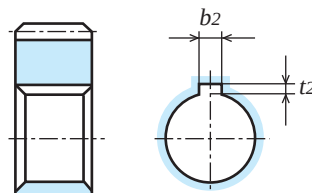


进行了规格改进, 做到节省空间并减轻重量, 不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(g)
											M	ls			
S2S 30A - 1216F	30	φ60	φ64	A1	12	φ16	-	-	12	-	-	-	-	-	247.4
S2S 30A - 1414F	30	φ60	φ64	A1	14	φ14	-	-	14	-	-	-	-	-	293.8
S2S 30A = 1415	30	φ60	φ64	A1	14	φ15	-	-	14	5 × 2.3	-	-	-	-	290.1
S2S 30A = 1418	30	φ60	φ64	A1	14	φ18	-	-	14	6 × 2.8	-	-	-	-	280.9
S2S 30A = 1420	30	φ60	φ64	A1	14	φ20	-	-	14	6 × 2.8	-	-	-	-	274.4
S2S 30A - 2016F	30	φ60	φ64	A1	20	φ16	-	-	20	-	-	-	-	-	412.3
S2S 30A = 2020	30	φ60	φ64	A1	20	φ20	-	-	20	6 × 2.8	-	-	-	-	391.9
S2S 30A - 2216F	30	φ60	φ64	A1	22	φ16	-	-	22	-	-	-	-	-	453.6
S2S 30A = 2220	30	φ60	φ64	A1	22	φ20	-	-	22	6 × 2.8	-	-	-	-	431.1
S2S 30A = 2225	30	φ60	φ64	A1	22	φ25	-	-	22	8 × 3.3	-	-	-	-	399.0
S2S 30B - 1214	30	φ60	φ64	B1	12	φ14	φ52	10	22	-	-	-	-	-	338.6
S2S 30B - 1414	30	φ60	φ64	B1	14	φ14	φ40	10	24	-	-	-	-	-	380.6
S2S 30B # 1415	30	φ60	φ64	B1	14	φ15	φ40	10	24	5 × 2.3	M4	5	-	-	373.3
S2S 30B # 1416	30	φ60	φ64	B1	14	φ16	φ40	10	24	5 × 2.3	M4	5	-	-	368.8
S2S 30B # 1418	30	φ60	φ64	B1	14	φ18	φ40	10	24	6 × 2.8	M5	5	-	-	357.5
S2S 30B # 1420	30	φ60	φ64	B1	14	φ20	φ40	10	24	6 × 2.8	M5	5	-	-	346.3
S2S 30BF - 2010	30	φ60	φ64	B1	20	φ10(H8)	φ50	20	40	-	-	-	-	-	723.5
S2S 30B - 2010H	30	φ60	φ64	B1	20	φ10(H※)	φ50	20	40	-	-	-	-	-	723.5
S2S 30B - 2018N	30	φ60	φ64	B1	20	φ18	φ54	10	30	-	-	-	-	-	564.1
S2S 30B - 2216	30	φ60	φ64	B1	22	φ16	φ50	10	32	-	-	-	-	-	592.3
S2S 30B # 2220	30	φ60	φ64	B1	22	φ20	φ50	10	32	6 × 2.8	M5	5	-	-	558.1
S2S 30B # 2225	30	φ60	φ64	B1	22	φ25	φ50	10	32	8 × 3.3	M6	5	-	-	511.1

标有●的产品为新产品。Products with●marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有 [H] 的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
30	12	-	0.066	0.66	1.32	2.55	4.32	5.94	7.17
30	14	-	0.077	0.77	1.55	2.98	5.04	6.93	8.36
30	20	-	0.110	1.100	2.210	4.260	7.200	9.900	11.960
30	20	○	0.117	1.171	2.342	4.527	7.767	10.748	13.008
30	22	-	0.121	1.21	2.43	4.68	7.92	10.88	13.14

The above references are JGMA standard.

动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.007	0.070	0.130	0.260	0.450	0.640	0.790
0.029	0.321	0.661	1.318	2.331	3.283	4.013
-	-	-	-	-	-	-

直齿轮

SPUR GEARS

模数
MODULE

2

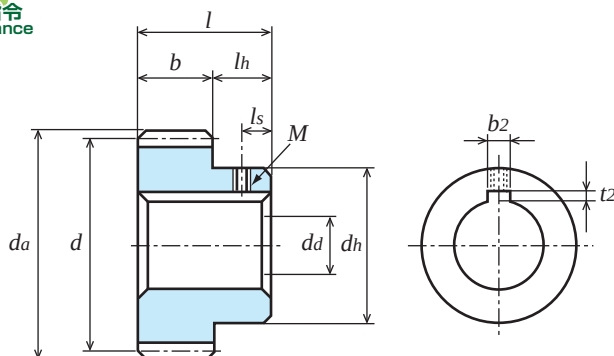
压力角 20° (普通齿) 齿数 32 ~ 35
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 32 to Z 35

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw M l_s	轮辋的 尺寸 Dimension of Rim d_i	腹板 厚度 Thickness of Web b_w	重量 Weight $W(g)$
S2S 32A - 1214F	32	$\phi 64$	$\phi 68$	A1	12	$\phi 14$	-	-	12	-	-	-	-	288.5
S2S 32A = 1215	32	$\phi 64$	$\phi 68$	A1	12	$\phi 15$	-	-	12	5×2.3	-	-	-	285.3
S2S 32A = 1218	32	$\phi 64$	$\phi 68$	A1	12	$\phi 18$	-	-	12	6×2.8	-	-	-	277.5
S2S 32A = 1220	32	$\phi 64$	$\phi 68$	A1	12	$\phi 20$	-	-	12	6×2.8	-	-	-	271.9
S2S 32A - 2016F	32	$\phi 64$	$\phi 68$	A1	20	$\phi 16$	-	-	20	-	-	-	-	473.5
S2S 32A = 2020	32	$\phi 64$	$\phi 68$	A1	20	$\phi 20$	-	-	20	6×2.8	-	-	-	453.1
S2S 32A = 2025	32	$\phi 64$	$\phi 68$	A1	20	$\phi 25$	-	-	20	8×3.3	-	-	-	423.9
S2S 32B - 1214	32	$\phi 64$	$\phi 68$	B1	12	$\phi 14$	$\phi 40$	10	22	-	-	-	-	375.3
S2S 32B # 1215	32	$\phi 64$	$\phi 68$	B1	12	$\phi 15$	$\phi 40$	10	22	5×2.3	M4	5	-	368.6
S2S 32B # 1220	32	$\phi 64$	$\phi 68$	B1	12	$\phi 20$	$\phi 40$	10	22	6×2.8	M5	5	-	343.8
S2S 32B - 2016	32	$\phi 64$	$\phi 68$	B1	20	$\phi 16$	$\phi 50$	10	30	-	-	-	-	621.2
S2S 32B # 2020	32	$\phi 64$	$\phi 68$	B1	20	$\phi 20$	$\phi 50$	10	30	6×2.8	M5	5	-	580.1
S2S 32B # 2025	32	$\phi 64$	$\phi 68$	B1	20	$\phi 25$	$\phi 50$	10	30	8×3.3	M6	5	-	536.0
S2S 34B - 1214	34	$\phi 68$	$\phi 72$	B1	12	$\phi 14$	$\phi 60$	10	22	-	-	-	-	537.8
S2S 34B - 2016	34	$\phi 68$	$\phi 72$	B1	20	$\phi 16$	$\phi 60$	10	30	-	-	-	-	745.3
S2S 35A - 1216F	35	$\phi 70$	$\phi 74$	A1	12	$\phi 16$	-	-	12	-	-	-	-	343.6
S2S 35A - 2020F	35	$\phi 70$	$\phi 74$	A1	20	$\phi 20$	-	-	20	-	-	-	-	554.9
S2S 35B - 1214	35	$\phi 70$	$\phi 74$	B1	12	$\phi 14$	$\phi 60$	10	22	-	-	-	-	558.3
S2S 35B - 2016	35	$\phi 70$	$\phi 74$	B1	20	$\phi 16$	$\phi 60$	10	30	-	-	-	-	779.3

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	100
32	12	0.072	0.72	1.44	2.75	4.61	6.41	7.73	68.75
32	20	0.120	1.20	2.41	4.58	7.69	10.69	12.89	114.59
34	12	0.078	0.78	1.57	2.94	4.90	6.89	8.32	74.48
34	20	0.130	1.30	2.61	4.90	8.17	11.48	13.86	124.14
35	12	0.081	0.81	1.63	3.04	5.04	7.12	8.61	77.35
35	20	0.135	1.35	2.71	5.07	8.40	11.87	14.35	128.92

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.

您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range.

上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

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直齿
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内齿
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斜齿
HELIC GEARS AND SCREW GEARS

蜗轮
WORMS AND WORM WHEELS

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技术资料
REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

2

压力角 20° (普通齿)

齿数 36 38

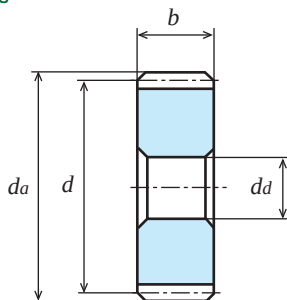
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 36 to Z 38

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8

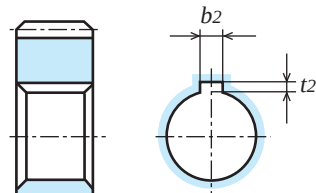


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料：碳钢 (ISO C45)

Material : Carbon Steel (ISO C45)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S2S 36A - 1216F	36	$\phi 72$	$\phi 76$	A1	12	$\phi 16$	-	-	12	-	-	-	-	-	0.36
S2S 36A = 1220	36	$\phi 72$	$\phi 76$	A1	12	$\phi 20$	-	-	12	6×2.8	-	-	-	-	0.35
S2S 36A - 2016F	36	$\phi 72$	$\phi 76$	A1	20	$\phi 16$	-	-	20	-	-	-	-	-	0.61
S2S 36A = 2020	36	$\phi 72$	$\phi 76$	A1	20	$\phi 20$	-	-	20	6×2.8	-	-	-	-	0.59
S2S 36A = 2025	36	$\phi 72$	$\phi 76$	A1	20	$\phi 25$	-	-	20	8×3.3	-	-	-	-	0.56
S2S 36B - 1214	36	$\phi 72$	$\phi 76$	B1	12	$\phi 14$	$\phi 40$	10	22	-	-	-	-	-	0.46
S2S 36B # 1215	36	$\phi 72$	$\phi 76$	B1	12	$\phi 15$	$\phi 40$	10	22	5×2.3	M4	5	-	-	0.45
S2S 36B # 1216	36	$\phi 72$	$\phi 76$	B1	12	$\phi 16$	$\phi 40$	10	22	5×2.3	M4	5	-	-	0.44
S2S 36B # 1218	36	$\phi 72$	$\phi 76$	B1	12	$\phi 18$	$\phi 40$	10	22	6×2.8	M5	5	-	-	0.43
S2S 36B # 1220	36	$\phi 72$	$\phi 76$	B1	12	$\phi 20$	$\phi 40$	10	22	6×2.8	M5	5	-	-	0.42
S2S 36B - 2016	36	$\phi 72$	$\phi 76$	B1	20	$\phi 16$	$\phi 50$	10	30	-	-	-	-	-	0.75
S2S 36B # 2020	36	$\phi 72$	$\phi 76$	B1	20	$\phi 20$	$\phi 50$	10	30	6×2.8	M5	5	-	-	0.71
S2S 36B # 2025	36	$\phi 72$	$\phi 76$	B1	20	$\phi 25$	$\phi 50$	10	30	8×3.3	M6	5	-	-	0.67
S2S 38B - 1214	38	$\phi 76$	$\phi 80$	B1	12	$\phi 14$	$\phi 60$	10	22	-	-	-	-	-	0.62
S2S 38B - 2016	38	$\phi 76$	$\phi 80$	B1	20	$\phi 16$	$\phi 60$	10	30	-	-	-	-	-	0.89

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min								旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500		100
36	12	0.084	0.84	1.69	3.13	5.19	7.35	8.90		80.21
36	20	0.141	1.41	2.81	5.22	8.64	12.26	14.83		134.65
38	12	0.090	0.90	1.81	3.32	5.53	7.82	9.47		85.94
38	20	0.151	1.51	3.02	5.54	9.21	13.03	15.79		144.20

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

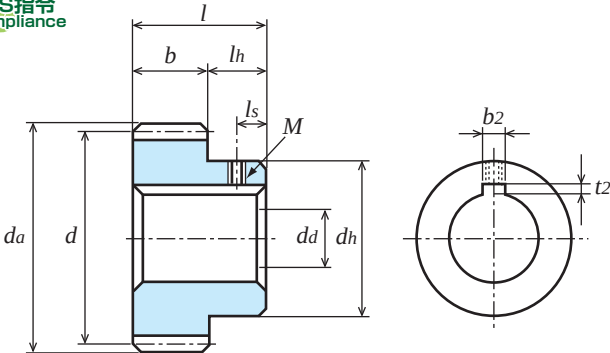
直齿轮
SPUR GEARS

模数
MODULE 2 压力角 20° (普通齿) 齿数40
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 40

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45) 单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺孔 Set Screw		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(kg)
											M	ls			
S2S 40A – 1216F	40	φ80	φ84	A1	12	φ16	-	-	12	-	-	-	-	-	0.45
S2S 40A = 1220	40	φ80	φ84	A1	12	φ20	-	-	12	6 × 2.8	-	-	-	-	0.44
S2S 40A – 2016F	40	φ80	φ84	A1	20	φ16	-	-	20	-	-	-	-	-	0.76
S2S 40A = 2020	40	φ80	φ84	A1	20	φ20	-	-	20	6 × 2.8	-	-	-	-	0.74
S2S 40A = 2025	40	φ80	φ84	A1	20	φ25	-	-	20	8 × 3.3	-	-	-	-	0.71
S2S 40B – 1214	40	φ80	φ84	B1	12	φ14	φ40	10	22	-	-	-	-	-	0.55
S2S 40B # 1215	40	φ80	φ84	B1	12	φ15	φ40	10	22	5 × 2.3	M4	5	-	-	0.54
S2S 40B # 1216	40	φ80	φ84	B1	12	φ16	φ40	10	22	5 × 2.3	M4	5	-	-	0.53
S2S 40B # 1218	40	φ80	φ84	B1	12	φ18	φ40	10	22	6 × 2.8	M5	5	-	-	0.52
S2S 40B # 1220	40	φ80	φ84	B1	12	φ20	φ40	10	22	6 × 2.8	M5	5	-	-	0.51
● S2S 40BF – 2010	40	φ80	φ84	B1	20	φ10(H8)	φ60	20	40	-	-	-	-	-	1.2
● S2S 40B – 2010H	40	φ80	φ84	B1	20	φ10(H※)	φ60	20	40	-	-	-	-	-	1.2
S2S 40B – 2016	40	φ80	φ84	B1	20	φ16	φ50	10	30	-	-	-	-	-	0.90
S2S 40B # 2020	40	φ80	φ84	B1	20	φ20	φ50	10	30	6 × 2.8	M5	5	-	-	0.86
S2S 40B # 2025	40	φ80	φ84	B1	20	φ25	φ50	10	30	8 × 3.3	M6	5	-	-	0.82

标有●的产品为新产品。Products with●marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
40	12	-	0.10	0.97	1.93	3.51	5.87	8.28	10.05
40	20	-	0.160	1.610	3.210	5.840	9.760	13.760	16.700
40	20	○	0.170	1.703	3.407	6.239	10.575	14.990	18.738

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)
Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.012	0.120	0.240	0.450	0.790	1.160	1.450
0.053	0.586	1.209	2.282	3.986	5.752	7.261

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无背隙直齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

2

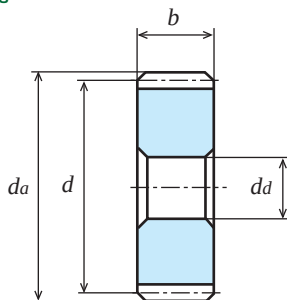
压力角 20° (普通齿) 齿数 42 ~ 48
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 42 to Z 48

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8

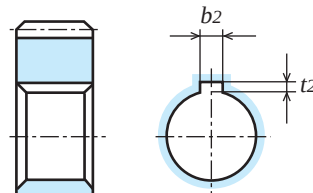


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料：碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S2S 42B - 1214	42	$\phi 84$	$\phi 88$	B1	12	$\phi 14$	$\phi 60$	10	22	-	-	-	-	-	0.72
S2S 42B - 2016	42	$\phi 84$	$\phi 88$	B1	20	$\phi 16$	$\phi 60$	10	30	-	-	-	-	-	1.05
S2S 44B - 1214	44	$\phi 88$	$\phi 92$	B1	12	$\phi 14$	$\phi 60$	10	22	-	-	-	-	-	0.77
S2S 44B - 2016	44	$\phi 88$	$\phi 92$	B1	20	$\phi 16$	$\phi 60$	10	30	-	-	-	-	-	1.13
S2S 45A - 1218F	45	$\phi 90$	$\phi 94$	A1	12	$\phi 18$	-	-	12	-	-	-	-	-	0.58
S2S 45A - 2020F	45	$\phi 90$	$\phi 94$	A1	20	$\phi 20$	-	-	20	-	-	-	-	-	0.95
S2S 45B - 1214	45	$\phi 90$	$\phi 94$	B1	12	$\phi 14$	$\phi 60$	10	22	-	-	-	-	-	0.80
S2S 45B - 2016	45	$\phi 90$	$\phi 94$	B1	20	$\phi 16$	$\phi 60$	10	30	-	-	-	-	-	1.17
S2S 46B - 1214	46	$\phi 92$	$\phi 96$	B1	12	$\phi 14$	$\phi 60$	10	22	-	-	-	-	-	0.82
S2S 46B - 2016	46	$\phi 92$	$\phi 96$	B1	20	$\phi 16$	$\phi 60$	10	30	-	-	-	-	-	1.22
S2S 48A - 1218F	48	$\phi 96$	$\phi 100$	A1	12	$\phi 18$	-	-	12	-	-	-	-	-	0.66
S2S 48A = 1220	48	$\phi 96$	$\phi 100$	A1	12	$\phi 20$	-	-	12	6×2.8	-	-	-	-	0.65
S2S 48A - 2018F	48	$\phi 96$	$\phi 100$	A1	20	$\phi 18$	-	-	20	-	-	-	-	-	1.10
S2S 48A = 2020	48	$\phi 96$	$\phi 100$	A1	20	$\phi 20$	-	-	20	6×2.8	-	-	-	-	1.08
S2S 48A = 2025	48	$\phi 96$	$\phi 100$	A1	20	$\phi 25$	-	-	20	8×3.3	-	-	-	-	1.06
S2S 48B - 1216	48	$\phi 96$	$\phi 100$	B1	12	$\phi 16$	$\phi 40$	10	22	-	-	-	-	-	0.75
S2S 48B # 1220	48	$\phi 96$	$\phi 100$	B1	12	$\phi 20$	$\phi 40$	10	22	6×2.8	M5	5	-	-	0.72
S2S 48B - 2018	48	$\phi 96$	$\phi 100$	B1	20	$\phi 18$	$\phi 50$	10	30	-	-	-	-	-	1.23
S2S 48B # 2020	48	$\phi 96$	$\phi 100$	B1	20	$\phi 20$	$\phi 50$	10	30	6×2.8	M5	5	-	-	1.21
S2S 48B # 2025	48	$\phi 96$	$\phi 100$	B1	20	$\phi 25$	$\phi 50$	10	30	8×3.3	M6	5	-	-	1.17

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
42	12	0.10	1.03	2.06	3.69	6.20	8.75	10.61	100
42	20	0.17	1.71	3.43	6.15	10.34	14.59	17.69	163.30
44	12	0.11	1.09	2.18	3.87	6.53	9.22	11.17	104.09
44	20	0.18	1.82	3.63	6.45	10.89	15.37	18.61	173.80
45	12	0.11	1.12	2.24	3.96	6.70	9.46	11.44	106.95
45	20	0.19	1.87	3.74	6.60	11.16	15.76	19.07	178.57
46	12	0.12	1.15	2.30	4.05	6.86	9.69	11.72	109.82
46	20	0.19	1.92	3.84	6.74	11.44	16.15	19.53	183.35
48	12	0.12	1.21	2.43	4.22	7.19	10.16	12.27	115.55
48	20	0.20	2.02	4.04	7.03	11.98	16.93	20.45	192.90

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

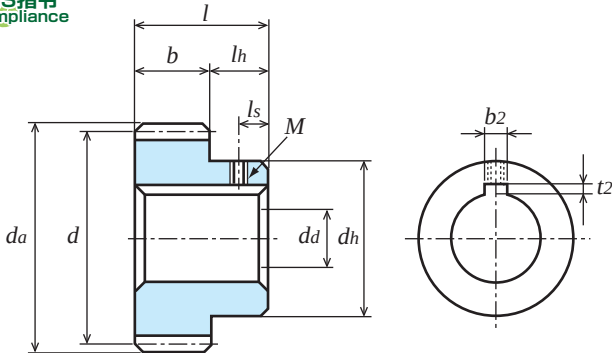
直齿轮
SPUR GEARS

模数
MODULE 2 压力角 20° (普通齿) 齿数 50 52
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 50 to Z 52

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45) 单位: mm
Dimensions: mm

Table with 15 columns: Product Model, Number of Teeth, Reference Diameter, Outside Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Key Way, Set Screw, Rim Dimension, Thickness of Web, Weight. Rows include models like S2S 50A-1218F, S2S 50B-1216, etc.

标有●的产品为新产品。Products with●marks are new item.
标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.
产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (kW) Bending Strength
Table with 10 columns: z, b, H, 10, 100, 200, 400, 800, 1,200, 1,500

容许传达动力表 齿面强度 (kW)
Allowable transfer capability table (kW) Surface Durability
Table with 10 columns: 10, 100, 200, 400, 800, 1,200, 1,500

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

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蜗轮・蜗杆
WORMS AND WORM WHEELS
锥齿轮
BEVEL GEARS
技术资料
REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

2

压力角 20° (普通齿)

齿数 55 ~ 56

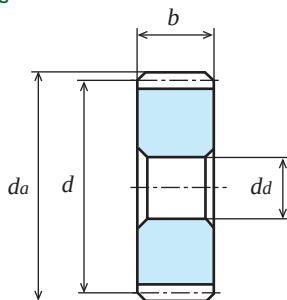
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 55 to Z 56

JIS B 1702-1 (ISO) 8级
System of accuracy: JIS B 1702-1 (ISO) class 8

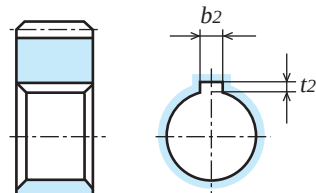


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料：碳钢 (ISO C45)

Material: Carbon Steel (ISO C45)

单位：mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S2S 55A - 1218F	55	$\phi 110$	$\phi 114$	A1	12	$\phi 18$	-	-	12	-	-	-	-	-	0.87
S2S 55A - 2020F	55	$\phi 110$	$\phi 114$	A1	20	$\phi 20$	-	-	20	-	-	-	-	-	1.44
S2S 55B - 1216	55	$\phi 110$	$\phi 114$	B1	12	$\phi 16$	$\phi 60$	10	22	-	-	-	-	-	1.08
S2S 55B - 2018	55	$\phi 110$	$\phi 114$	B1	20	$\phi 18$	$\phi 60$	10	30	-	-	-	-	-	1.66
S2S 56A - 1218F	56	$\phi 112$	$\phi 116$	A1	12	$\phi 18$	-	-	12	-	-	-	-	-	0.90
S2S 56A = 1220	56	$\phi 112$	$\phi 116$	A1	12	$\phi 20$	-	-	12	6×2.8	-	-	-	-	0.90
S2S 56A - 2020F	56	$\phi 112$	$\phi 116$	A1	20	$\phi 20$	-	-	20	-	-	-	-	-	1.50
S2S 56A = 2025	56	$\phi 112$	$\phi 116$	A1	20	$\phi 25$	-	-	20	8×3.3	-	-	-	-	1.47
S2S 56B - 1216	56	$\phi 112$	$\phi 116$	B1	12	$\phi 16$	$\phi 50$	10	22	-	-	-	-	-	1.05
S2S 56B # 1220	56	$\phi 112$	$\phi 116$	B1	12	$\phi 20$	$\phi 50$	10	22	6×2.8	M5	5	-	-	1.02
S2S 56B - 2018	56	$\phi 112$	$\phi 116$	B1	20	$\phi 18$	$\phi 60$	10	30	-	-	-	-	-	1.71
S2S 56B # 2020	56	$\phi 112$	$\phi 116$	B1	20	$\phi 20$	$\phi 60$	10	30	6×2.8	M5	5	-	-	1.69
S2S 56B # 2025	56	$\phi 112$	$\phi 116$	B1	20	$\phi 25$	$\phi 60$	10	30	8×3.3	M6	5	-	-	1.65

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
55	12	0.14	1.43	2.81	4.80	8.32	11.76	14.35	136.56
55	20	0.24	2.39	4.68	8.00	13.86	19.61	23.91	228.23
56	12	0.15	1.47	2.86	4.88	8.47	11.99	14.67	140.38
56	20	0.24	2.44	4.76	8.13	14.12	19.98	24.44	233.01

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page 26.

T (N · m)

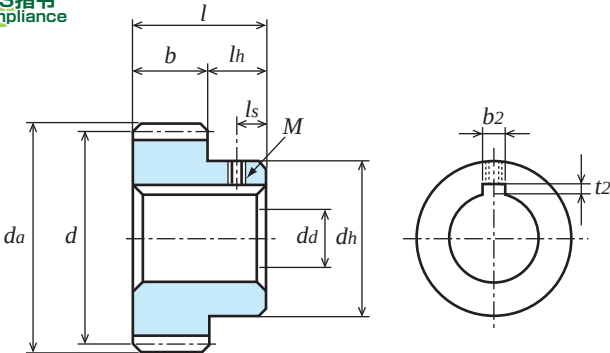
直齿轮
SPUR GEARS

模数
MODULE 2 压力角 20° (普通齿) 齿数60
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 60

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45) 单位: mm
Dimensions: mm

Table with 15 columns: Product Model, Number of Teeth, Reference Diameter, Outside Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Key Way, Set Screw, Dimension of Rim, Thickness of Web, Weight. Rows include various gear models like S2S 60A-1220F, S2S 60B-1216, etc.

标有●的产品为新产品。Products with●marks are new item.
标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.
产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (kW) Bending Strength
Table with 10 columns: 齿数 z, 齿宽 b, 淬火 H, 10, 100, 200, 400, 800, 1,200, 1,500

容许传达动力表 齿面强度 (kW)
Allowable transfer capability table (kW) Surface Durability
Table with 8 columns: 10, 100, 200, 400, 800, 1,200, 1,500

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

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锥齿轮
BEVEL GEARS
技术资料
REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

2

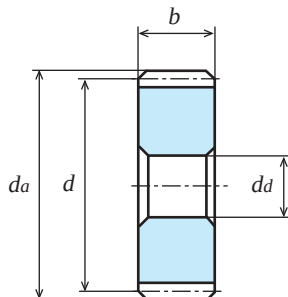
压力角 20° (普通齿) 齿数 64 ~ 65
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 64 to Z 65

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8

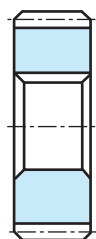


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

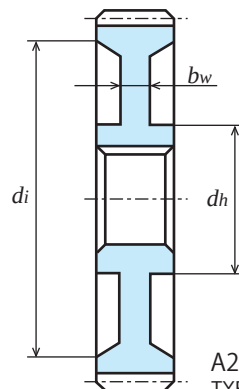
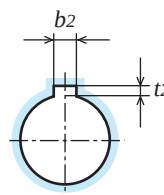
Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1



A2形状
TYPE A2

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S2S 64A - 1220F	64	$\phi 128$	$\phi 132$	A1	12	$\phi 20$	-	-	12	-	-	-	-	-	1.18
S2S 64A = 1225	64	$\phi 128$	$\phi 132$	A2	12	$\phi 25$	$\phi 50$	-	12	8×3.3	-	-	$\phi 110$	6	0.85
S2S 64A - 2018F	64	$\phi 128$	$\phi 132$	A1	20	$\phi 18$	-	-	20	-	-	-	-	-	1.98
S2S 64A = 2020	64	$\phi 128$	$\phi 132$	A2	20	$\phi 20$	$\phi 40$	-	20	6×2.8	-	-	$\phi 110$	10	1.36
S2S 64A = 2025	64	$\phi 128$	$\phi 132$	A2	20	$\phi 25$	$\phi 50$	-	20	8×3.3	-	-	$\phi 110$	10	1.39
S2S 64B - 1216	64	$\phi 128$	$\phi 132$	B1	12	$\phi 16$	$\phi 50$	10	22	-	-	-	-	-	1.33
S2S 64B # 1220	64	$\phi 128$	$\phi 132$	B3	12	$\phi 20$	$\phi 50$	10	22	6×2.8	M5	5	$\phi 110$	6	0.97
S2S 64B - 2018	64	$\phi 128$	$\phi 132$	B1	20	$\phi 18$	$\phi 60$	10	30	-	-	-	-	-	2.18
S2S 64B # 2020	64	$\phi 128$	$\phi 132$	B3	20	$\phi 20$	$\phi 60$	10	30	6×2.8	M5	5	$\phi 110$	10	1.68
S2S 64B # 2025	64	$\phi 128$	$\phi 132$	B3	20	$\phi 25$	$\phi 60$	10	30	8×3.3	M6	5	$\phi 110$	10	1.63
S2S 65A - 1218F	65	$\phi 130$	$\phi 134$	A1	12	$\phi 18$	-	-	12	-	-	-	-	-	1.23
S2S 65A - 2020F	65	$\phi 130$	$\phi 134$	A1	20	$\phi 20$	-	-	20	-	-	-	-	-	2.04
S2S 65B - 1216	65	$\phi 130$	$\phi 134$	B1	12	$\phi 16$	$\phi 60$	10	22	-	-	-	-	-	1.44
S2S 65B - 2018	65	$\phi 130$	$\phi 134$	B1	20	$\phi 18$	$\phi 70$	10	30	-	-	-	-	-	2.33

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
64	12	0.17	1.72	3.27	5.50	9.75	13.77	-	164.25
64	20	0.29	2.87	5.46	9.16	16.25	22.95	-	274.07
65	12	0.18	1.75	3.33	5.57	9.91	14.02	-	167.12
65	20	0.29	2.92	5.54	9.29	16.52	23.37	-	278.85

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

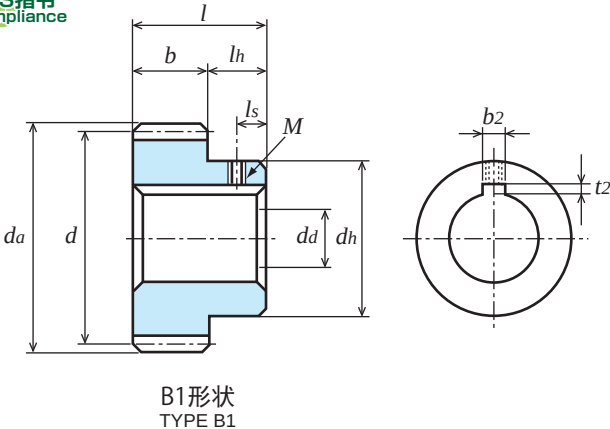
直齿轮
SPUR GEARS

模数
MODULE 2 压力角 20° (普通齿) 齿数 70 ~ 72
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 70 to Z 72

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45) 单位: mm
Dimensions: mm

Table with 15 columns: Product Model, Number of Teeth, Reference Diameter, Outside Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Key Way, Set Screw, Dimension of Rim, Thickness of Web, Weight. Rows include various gear models like S2S 70A-1220F, S2S 70B-1216, etc.

标有●的产品为新产品。Products with●marks are new item.
标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.
产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (kW) Bending Strength
Table with 10 columns: z, b, H, 10, 100, 200, 400, 800, 1,200, 1,500. Rows for z=70, 72 and b=12, 20.

容许传达动力表 齿面强度 (kW)
Allowable transfer capability table (kW) Surface Durability
Table with 10 columns: 10, 100, 200, 400, 800, 1,200, 1,500. Rows for z=70, 72 and b=12, 20.

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

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直齿轮
SPUR GEARS
内齿轮
INTERNAL GEARS
研磨齿条
GROUND RACKS
齿条
RACKS
斜齿轮・螺旋齿轮
HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆
WORMS AND WORM WHEELS
锥齿轮
BEVEL GEARS
技术资料
REFERENCE DATA

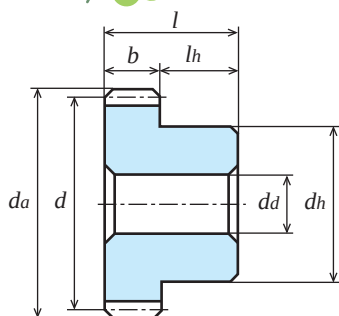
直齿轮 SPUR GEARS

模数
MODULE

2

压力角 20° (普通齿) 齿数 75 80
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 75 to 80

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)

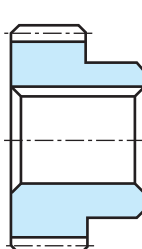


B1形状
TYPE B1

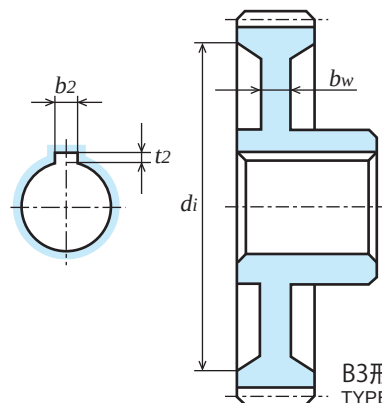


进行了规格改进, 做到节省空间并减轻重量, 不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



B1形状
TYPE B1



B3形状
TYPE B3

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮轂 外 径 Hub Diameter dh	轮轂 长 度 Hub Projection lh	全 长 Overall Length l	键 槽 Key Way b2 × t2	螺纹孔 Set Screw		轮轂的 尺 寸 Dimension of Rim di	腹 板 厚 度 Thickness of Web bw	重 量 Weight W(kg)
											M	ls			
S2S 75A — 1218F	75	φ150	φ154	A1	12	φ18	-	-	12	-	-	-	-	-	1.64
S2S 75A — 2020F	75	φ150	φ154	A1	20	φ20	-	-	20	-	-	-	-	-	2.73
S2S 75B — 1218	75	φ150	φ154	B1	12	φ18	φ 60	10	22	-	-	-	-	-	1.84
S2S 75B — 2020	75	φ150	φ154	B1	20	φ20	φ 70	10	30	-	-	-	-	-	3.00
S2S 80A — 1220F	80	φ160	φ164	A1	12	φ20	-	-	12	-	-	-	-	-	1.86
S2S 80A = 1225	80	φ160	φ164	A2	12	φ25	φ 50	-	12	8 × 3.3	-	-	φ142	6	1.21
S2S 80A — 2018F	80	φ160	φ164	A1	20	φ18	-	-	20	-	-	-	-	-	3.12
S2S 80A = 2025	80	φ160	φ164	A2	20	φ25	φ 50	-	20	8 × 3.3	-	-	φ142	10	2.03
S2S 80A = 2030	80	φ160	φ164	A2	20	φ30	φ 60	-	20	8 × 3.3	-	-	φ142	10	2.07
S2S 80B — 1218	80	φ160	φ164	B1	12	φ18	φ 50	10	22	-	-	-	-	-	2.01
S2S 80B # 1220	80	φ160	φ164	B3	12	φ20	φ 50	10	22	6 × 2.8	M5	5	φ142	6	1.35
S2S 80B # 1225	80	φ160	φ164	B3	12	φ25	φ 50	10	22	8 × 3.3	M6	5	φ142	6	1.32
● S2S 80BF — 2015	80	φ160	φ164	B1	20	φ15	φ115	20	40	-	-	-	-	-	4.72
● S2S 80B — 2015H	80	φ160	φ164	B1	20	φ15(H※)	φ115	20	40	-	-	-	-	-	4.72
S2S 80B — 2020	80	φ160	φ164	B1	20	φ20	φ 60	10	30	-	-	-	-	-	3.31
S2S 80B # 2025	80	φ160	φ164	B3	20	φ25	φ 60	10	30	8 × 3.3	M6	5	φ142	10	2.28
S2S 80B # 2030	80	φ160	φ164	B3	20	φ30	φ 60	10	30	8 × 3.3	M6	5	φ142	10	2.23

标有●的产品为新产品。Products with● marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
75	12	-	0.21	2.07	3.82	6.35	11.50	16.59	-
75	20	-	0.35	3.46	6.37	10.58	19.14	27.65	-
80	12	-	0.22	2.24	4.06	6.79	12.28	-	-
80	20	-	0.370	3.700	6.720	11.230	20.310	-	-
80	20	○	0.392	3.921	7.181	12.171	23.005	-	-

The above references are JGMA standard.

动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.051	0.520	0.970	1.690	3.330	-	-
0.226	2.505	4.728	8.261	16.096	-	-

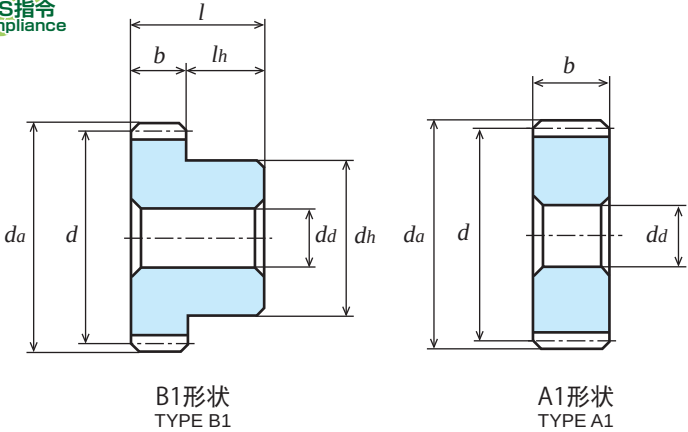
直齿轮
SPUR GEARS

模数
MODULE 2 压力角 20° (普通齿) 齿数 85 95
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 85 to Z 95

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45) 单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Outer Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 x t2	轮辋尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(kg)
S2S 85A - 1218F	85	φ170	φ174	A1	12	φ18	-	-	12	-	-	-	2.11
S2S 85A - 2020F	85	φ170	φ174	A1	20	φ20	-	-	20	-	-	-	3.51
S2S 85B - 1218	85	φ170	φ174	B1	12	φ18	φ 60	10	22	-	-	-	2.32
S2S 85B - 2020	85	φ170	φ174	B1	20	φ20	φ 70	10	30	-	-	-	3.79
S2S 90A - 1218F	90	φ180	φ184	A1	12	φ18	-	-	12	-	-	-	2.37
S2S 90A - 2020F	90	φ180	φ184	A1	20	φ20	-	-	20	-	-	-	3.95
S2S 90B - 1218	90	φ180	φ184	B1	12	φ18	φ 60	10	22	-	-	-	2.58
● S2S 90BF - 2015	90	φ180	φ184	B1	20	φ15	φ130	20	40	-	-	-	6.01
● S2S 90B - 2015H	90	φ180	φ184	B1	20	φ15(H※)	φ130	20	40	-	-	-	6.01
S2S 90B - 2020	90	φ180	φ184	B1	20	φ20	φ 80	10	30	-	-	-	4.32
S2S 95A - 1218F	95	φ190	φ194	A1	12	φ18	-	-	12	-	-	-	2.65
S2S 95A - 2020F	95	φ190	φ194	A1	20	φ20	-	-	20	-	-	-	4.40
S2S 95B - 1218	95	φ190	φ194	B1	12	φ18	φ 60	10	22	-	-	-	2.85
S2S 95B - 2020	95	φ190	φ194	B1	20	φ20	φ 80	10	30	-	-	-	4.78

标有 ● 的产品为新产品。Products with ● marks are new item.
产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
85	12	-	0.24	2.39	4.29	7.21	13.02	-	-
85	20	-	0.40	3.99	7.14	12.02	21.71	-	-
90	12	-	0.26	2.56	4.51	7.64	13.77	-	-
90	20	-	0.420	4.230	7.460	12.630	22.780	-	-
90	20	○	0.448	4.481	7.997	13.707	26.290	-	-
95	12	-	0.27	2.72	4.73	8.06	14.51	-	-
95	20	-	0.45	4.53	7.89	13.43	24.18	-	-

The above references are JGMA standard.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.066	0.670	1.210	2.150	4.260	-	-
0.189	3.206	5.897	10.419	20.601	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-

目次表 CONTENTS
齿轮信息 INFORMATION
齿形图 GEAR BOXES
无背隙直齿轮 ANTI BACKLASH SPUR GEARS
研磨直齿轮 GROUND SPUR GEARS
直齿轮 SPUR GEARS
内齿轮 INTERNAL GEARS
研磨齿条 GROUND RACKS
齿条 RACKS
斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆 WORMS AND WORM WHEELS
锥齿轮 BEVEL GEARS
技术资料 REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

2

压力角 20° (普通齿) 齿数100

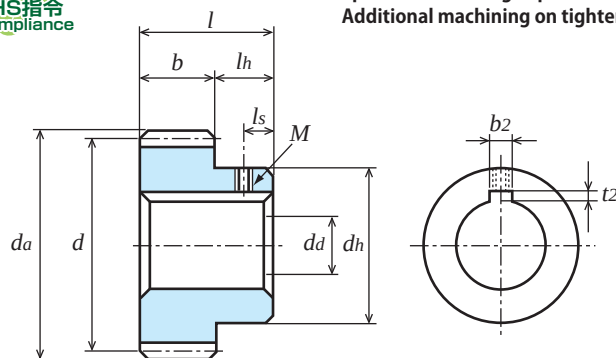
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 100

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



进行了规格改进, 做到节省空间并减轻重量, 不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S2S 100A - 1220F	100	$\phi 200$	$\phi 204$	A1	12	$\phi 20$	-	-	12	-	-	-	-	-	2.93
S2S 100A = 1225	100	$\phi 200$	$\phi 204$	A2	12	$\phi 25$	$\phi 50$	-	12	8×3.3	-	-	$\phi 182$	6	1.80
S2S 100A - 2018F	100	$\phi 200$	$\phi 204$	A1	20	$\phi 18$	-	-	20	-	-	-	-	-	4.89
S2S 100A = 2025	100	$\phi 200$	$\phi 204$	A2	20	$\phi 25$	$\phi 50$	-	20	8×3.3	-	-	$\phi 182$	10	3.03
S2S 100A = 2030	100	$\phi 200$	$\phi 204$	A2	20	$\phi 30$	$\phi 60$	-	20	8×3.3	-	-	$\phi 182$	10	3.06
S2S 100B - 1218	100	$\phi 200$	$\phi 204$	B1	12	$\phi 18$	$\phi 50$	10	22	-	-	-	-	-	3.07
S2S 100B # 1220	100	$\phi 200$	$\phi 204$	B3	12	$\phi 20$	$\phi 50$	10	22	6×2.8	M5	5	$\phi 182$	6	1.95
S2S 100B # 1225	100	$\phi 200$	$\phi 204$	B3	12	$\phi 25$	$\phi 50$	10	22	8×3.3	M6	5	$\phi 182$	6	1.91
S2S 100BF - 2015	100	$\phi 200$	$\phi 204$	B1	20	$\phi 15$	$\phi 140$	20	40	-	-	-	-	-	7.28
S2S 100B - 2015H	100	$\phi 200$	$\phi 204$	B1	20	$\phi 15(H\text{※})$	$\phi 140$	20	40	-	-	-	-	-	7.28
S2S 100B - 2020	100	$\phi 200$	$\phi 204$	B1	20	$\phi 20$	$\phi 60$	10	30	-	-	-	-	-	5.08
S2S 100B # 2025	100	$\phi 200$	$\phi 204$	B3	20	$\phi 25$	$\phi 60$	10	30	8×3.3	M6	5	$\phi 182$	10	3.28
S2S 100B # 2030	100	$\phi 200$	$\phi 204$	B3	20	$\phi 30$	$\phi 60$	10	30	8×3.3	M6	5	$\phi 182$	10	3.22

标有●的产品为新产品。Products with● marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and Threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (kW) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
100	12	-	0.29	2.86	4.95	8.48	15.36	-	-
100	20	-	0.480	4.730	8.180	14.010	25.390	-	-
100	20	○	0.505	5.015	8.784	15.217	29.611	-	-

The above references are JGMA standard.

动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.082	0.830	1.480	2.660	5.340	-	-
0.361	3.972	7.171	12.807	25.689	-	-

直齿轮 SPUR GEARS

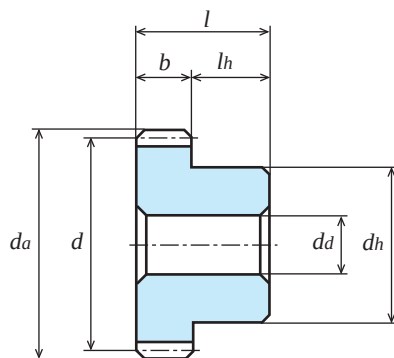
模数
MODULE

2.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



New 进行了规格改进，做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



B1形状
TYPE B1

材料：聚缩醛树脂（黑色）
Material : Poly Acetal (Black)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter d_d	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
S2.5D 14B — 2812N	14	φ35	φ40	B1	28	φ12	φ28	12	40	42.0
S2.5D 15B — 2812N	15	φ37.5	φ42.5	B1	28	φ12	φ30	12	40	49.2
S2.5D 16B — 2812N	16	φ40	φ45	B1	28	φ12	φ32	12	40	56.8
S2.5D 18B — 2812N	18	φ45	φ50	B1	28	φ12	φ36	12	40	73.6
S2.5D 20B — 2814N	20	φ50	φ55	B1	28	φ14	φ40	12	40	90.1
S2.5D 24B — 2816N	24	φ60	φ65	B1	28	φ16	φ42	12	40	123.7
S2.5D 25B — 2816N	25	φ62.5	φ67.5	B1	28	φ16	φ42	12	40	133.2
S2.5D 28B — 2816N	28	φ70	φ75	B1	28	φ16	φ46	12	40	168.7
S2.5D 30B — 2818N	30	φ75	φ80	B1	28	φ18	φ46	12	40	188.2
S2.5D 32B — 2818N	32	φ80	φ85	B1	28	φ18	φ50	12	40	217.3
S2.5D 35B — 2818N	35	φ87.5	φ92.5	B1	28	φ18	φ60	12	40	270.9
S2.5D 36B — 2818N	36	φ90	φ95	B1	28	φ18	φ60	12	40	284.7

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S2.5D 14B — 2812N	4.86	48.56	97.02	193.64	385.64	576.02	716.18
S2.5D 15B — 2812N	5.21	52.03	103.94	207.40	412.94	616.60	765.14
S2.5D 16B — 2812N	5.56	55.49	110.85	221.16	440.20	657.03	813.81
S2.5D 18B — 2812N	6.25	62.42	124.67	248.66	494.63	735.80	910.28
S2.5D 20B — 2814N	6.94	69.34	138.48	276.12	548.92	813.81	1,005.58
S2.5D 24B — 2816N	8.33	83.19	166.07	330.95	657.03	967.60	1,192.67
S2.5D 25B — 2816N	8.68	86.65	172.97	344.63	683.37	1,005.58	1,238.71
S2.5D 28B — 2816N	9.72	97.02	193.64	385.64	761.89	1,118.39	1,370.93
S2.5D 30B — 2818N	10.41	103.94	207.40	412.94	813.81	1,192.67	1,456.58
S2.5D 32B — 2818N	11.11	110.85	221.16	440.20	865.41	1,265.99	1,540.60
S2.5D 35B — 2818N	12.15	121.21	241.79	481.03	942.17	1,370.93	1,663.56
S2.5D 36B — 2818N	12.50	124.67	248.66	494.63	967.60	1,405.39	1,703.72

上述数值是Lewis公式，仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

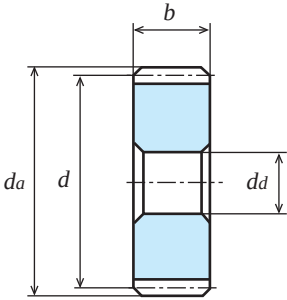
直齿轮
SPUR GEARS

模数
MODULE 2.5 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



A1形状
TYPE A1

材料 : 聚缩醛树脂 (黑色)
Material : Poly Acetal (Black)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth <i>z</i>	分度圆直 径 Reference Diameter <i>d</i>	齿顶圆直 径 Tip Diameter <i>da</i>	形 状 Type	齿 宽 Face Width <i>b</i>	孔 径 Bore Diameter <i>da</i>	轮 毂 外 径 Hub Diameter <i>dh</i>	轮 毂 长 度 Hub Projection <i>lh</i>	全 长 Overall Length <i>l</i>	重 量 Weight <i>W(g)</i>
S2.5D 40A — 2818	40	φ100	φ105	A1	28	φ18	-	-	28	300.0
S2.5D 45A — 2818	45	φ112.5	φ117.5	A1	28	φ18	-	-	28	382.4
S2.5D 48A — 2818	48	φ120	φ125	A1	28	φ18	-	-	28	436.5
S2.5D 50A — 2818	50	φ125	φ130	A1	28	φ18	-	-	28	474.4
S2.5D 56A — 2818	56	φ140	φ145	A1	28	φ18	-	-	28	597.7
S2.5D 60A — 2818	60	φ150	φ155	A1	28	φ18	-	-	28	687.6
S2.5D 64A — 2818	64	φ160	φ165	A1	28	φ18	-	-	28	783.7
S2.5D 70A — 2818	70	φ175	φ180	A1	28	φ18	-	-	28	939.6
S2.5D 72A — 2818	72	φ180	φ185	A1	28	φ18	-	-	28	994.6
S2.5D 80A — 2818	80	φ200	φ205	A1	28	φ18	-	-	28	1,230.0

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产 品 型 号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S2.5D 40A — 2818	13.89	138.48	276.12	548.92	1,068.46	1,540.60	1,853.98
S2.5D 45A — 2818	15.62	155.73	310.40	616.60	1,192.67	1,703.72	2,019.98
S2.5D 48A — 2818	16.66	166.07	330.95	657.03	1,265.99	1,797.77	2,112.57
S2.5D 50A — 2818	17.36	172.97	344.63	683.37	1,312.92	1,853.98	2,171.37
S2.5D 56A — 2818	19.44	193.64	385.64	761.89	1,450.93	2,013.62	-
S2.5D 60A — 2818	20.82	207.40	412.94	813.81	1,540.60	2,112.57	-
S2.5D 64A — 2818	22.21	221.16	440.20	865.41	1,628.41	-	-
S2.5D 70A — 2818	24.29	241.79	481.03	942.17	1,756.64	-	-
S2.5D 72A — 2818	24.99	248.66	494.63	967.60	1,797.77	-	-
S2.5D 80A — 2818	27.76	276.12	548.92	1,068.46	1,944.33	-	-

上述数值是Lewis公式，仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

2.5

压力角 20° (普通齿)

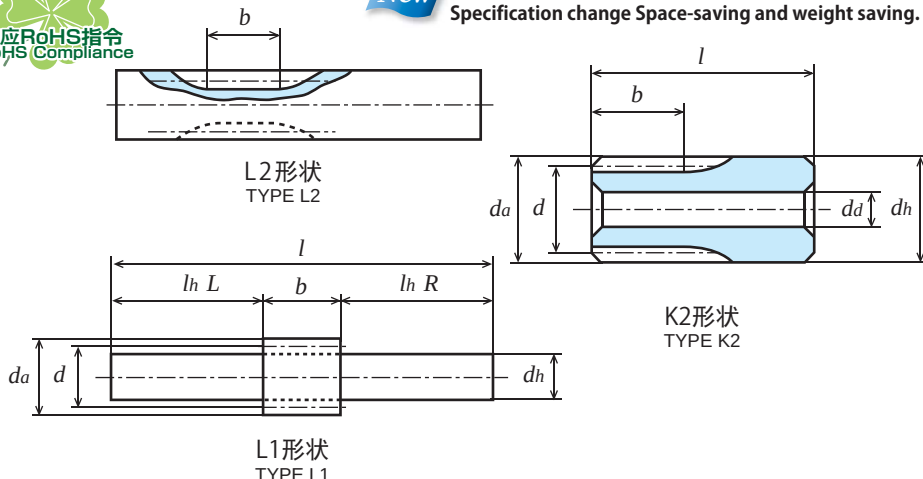
齿数 8 ~ 14

20° PRESSURE ANGLE FULL DEPTH TOOTH Z 8 to Z 14

JIS B 1702-1 (ISO) 8 ~ 9级
System of accuracy : JIS B 1702-1 (ISO) class 8-9



进行了规格改进，做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



材料：碳钢 (ISO C45) 标号 [*] 表示变位齿轮。(变位系数 x 为 0.5)

Material : Carbon Steel (ISO C45) * mark has been profile shifted gears. (Rack shift coefficient x = 0.5)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(g)
S2.5S 8L - 2815	8	*	φ26.59	L1	28	-	φ15(h9)	L40 R80	148	235.5
S2.5S 8L - 2826F	8	*	φ26.59	L2	28	-	φ26.59	L40 R80	148	592.1
S2.5S 10L - 2820	10	*	φ31.66	L1	28	-	φ20(h9)	L40 R80	148	403.8
S2.5S 10L - 2831F	10	*	φ31.66	L2	28	-	φ31.66	L40 R80	148	849.5
S2.5S 12K - 2812	12	φ30	φ35	K2	28	φ12(H8)	φ35	32	60	343.8
S2.5S 14A - 1612	14	φ35	φ40	A1	16	φ12	-	-	16	106.6
S2.5S 14A - 1812	14	φ35	φ40	A1	18	φ12	-	-	18	120.0
S2.5S 14A - 2512	14	φ35	φ40	A1	25	φ12	-	-	25	166.6
S2.5S 14A - 2812	14	φ35	φ40	A1	28	φ12	-	-	28	186.6
S2.5S 14B - 1612N	14	φ35	φ40	B1	16	φ12	φ27	12	28	150.0
S2.5S 14B - 1812N	14	φ35	φ40	B1	18	φ12	φ28	12	30	167.4
S2.5S 14B - 2512N	14	φ35	φ40	B1	25	φ12(H8)	φ27	12	37	210.0
S2.5S 14B - 2812N	14	φ35	φ40	B1	28	φ12(H8)	φ28	12	40	234.1

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
8	28	0.046	0.46	0.93	1.87	3.74	5.31	6.33	100
10	28	0.064	0.64	1.29	2.58	5.07	7.02	8.29	43.92
12	28	0.059	0.59	1.18	2.37	4.57	6.29	7.40	61.11
14	16	0.044	0.44	0.88	1.77	3.30	4.50	5.25	56.34
14	18	0.049	0.49	0.99	1.99	3.72	5.06	5.91	42.01
14	25	0.069	0.69	1.38	2.76	5.17	7.03	8.21	46.79
14	28	0.077	0.77	1.55	3.10	5.79	7.88	9.20	65.89
									73.53

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮
SPUR GEARS

模数
MODULE

2.5

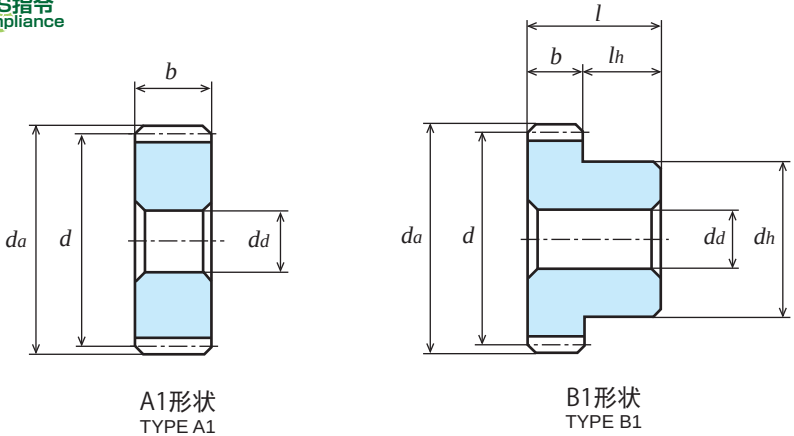
压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿数 15 16
Z 15 to Z 16

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	重量 Weight W(g)
S2.5S 15A – 1612	15	φ37.5	φ42.5	A1	16	φ12	-	-	16	124.5
S2.5S 15A – 1812	15	φ37.5	φ42.5	A1	18	φ12	-	-	18	140.1
S2.5S 15A – 2512	15	φ37.5	φ42.5	A1	25	φ12	-	-	25	194.6
S2.5S 15A – 2812	15	φ37.5	φ42.5	A1	28	φ12	-	-	28	217.9
S2.5S 15B – 1612N	15	φ37.5	φ42.5	B1	16	φ12	φ30	12	28	280.6
S2.5S 15B – 1812N	15	φ37.5	φ42.5	B1	18	φ12	φ30	12	30	196.1
S2.5S 15B – 2512N	15	φ37.5	φ42.5	B1	25	φ12(H8)	φ30	12	37	250.7
S2.5S 15B – 2812N	15	φ37.5	φ42.5	B1	28	φ12(H8)	φ30	12	40	274.0
S2.5S 16A – 1612	16	φ40	φ45	A1	16	φ12	-	-	16	143.6
S2.5S 16A – 1812	16	φ40	φ45	A1	18	φ12	-	-	18	161.6
S2.5S 16A – 2512	16	φ40	φ45	A1	25	φ12	-	-	25	224.4
S2.5S 16A – 2812	16	φ40	φ45	A1	28	φ12	-	-	28	251.4
S2.5S 16B – 1612N	16	φ40	φ45	B1	16	φ12	φ32	12	28	208.9
S2.5S 16B – 1812N	16	φ40	φ45	B1	18	φ12	φ32	12	30	226.8
S2.5S 16B – 2512N	16	φ40	φ45	B1	25	φ12(H8)	φ32	12	37	289.7
S2.5S 16B – 2812N	16	φ40	φ45	B1	28	φ12(H8)	φ32	12	40	316.7

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (W) Bending Strength

齿数
z

齿宽
b

旋转速度 (min⁻¹)
revolution/min

10

100

200

400

800

1,200

1,500

15	16	0.049	0.49	0.99	1.98	3.65	4.94	5.75
15	18	0.055	0.55	1.11	2.23	4.11	5.56	6.47
15	25	0.077	0.78	1.55	3.10	5.71	7.73	9.00
15	28	0.087	0.87	1.74	3.47	6.40	8.66	10.08
16	16	0.055	0.55	1.10	2.20	3.99	5.38	6.31
16	18	0.061	0.61	1.23	2.47	4.49	6.05	7.10
16	25	0.086	0.86	1.72	3.44	6.25	8.41	9.87
16	28	0.096	0.96	1.93	3.85	7.00	9.42	11.06

旋转速度 (min⁻¹)
revolution/min

100

46.79
52.52
74.48
83.08
52.52
58.25
82.12
91.67

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load. 您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range. 上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only. 动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 GEAR INFORMATION	齿轮箱 GEAR BOXES	无隙背隙齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

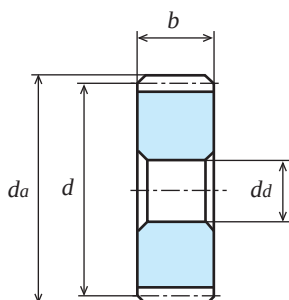
模数
MODULE

2.5 压力角 20° (普通齿) 齿数 18
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 18

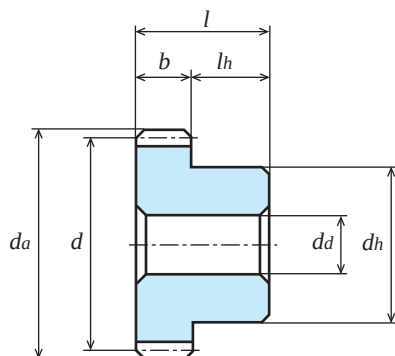
JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



New 进行了规格改进，做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



A1形状
TYPE A1



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	重量 Weight $W(g)$
S2.5S 18A — 1612	18	$\phi 45$	$\phi 50$	A1	16	$\phi 12$	-	-	16	-	185.6
S2.5S 18A — 1812	18	$\phi 45$	$\phi 50$	A1	18	$\phi 12$	-	-	18	-	208.7
S2.5S 18A — 2512	18	$\phi 45$	$\phi 50$	A1	25	$\phi 12$	-	-	25	-	289.9
S2.5S 18A — 2814	18	$\phi 45$	$\phi 50$	A1	28	$\phi 14$	-	-	28	-	315.7
S2.5S 18B — 1612N	18	$\phi 45$	$\phi 50$	B1	16	$\phi 12$	$\phi 36$	12	28	-	271.0
S2.5S 18B — 1814N	18	$\phi 45$	$\phi 50$	B1	18	$\phi 14$	$\phi 36$	12	30	-	284.5
S2.5S 18B — 2512N	18	$\phi 45$	$\phi 50$	B1	25	$\phi 12(H8)$	$\phi 36$	12	37	-	375.4
S2.5S 18B — 2814N	18	$\phi 45$	$\phi 50$	B1	28	$\phi 14$	$\phi 36$	12	40	-	397.4

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
18	16	0.066	0.66	1.32	2.64	4.67	6.23	7.48	63.02
18	18	0.074	0.74	1.48	2.97	5.25	7.01	8.41	70.66
18	25	0.103	1.03	2.07	4.14	7.30	9.74	11.69	98.36
18	28	0.116	1.16	2.32	4.63	8.18	10.91	13.09	110.77

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮
SPUR GEARS

模数
MODULE

2.5

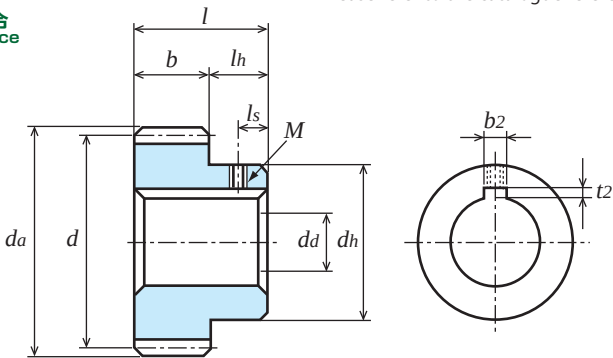
压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

齿数 20
Z 20

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 x t2	螺孔 Set Screw		轮辋尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(g)
											M	ls			
S2.5S 20A - 1612F	20	φ50	φ55	A1	16	φ12	-	-	16	-	-	-	-	-	232.4
S2.5S 20A - 1812F	20	φ50	φ55	A1	18	φ12	-	-	18	-	-	-	-	-	261.5
S2.5S 20A = 1815	20	φ50	φ55	A1	18	φ15	-	-	18	5 x 2.3	-	-	-	-	250.8
S2.5S 20A = 1820	20	φ50	φ55	A1	18	φ20	-	-	18	6 x 2.8	-	-	-	-	230.7
S2.5S 20A - 2514F	20	φ50	φ55	A1	25	φ14	-	-	25	-	-	-	-	-	355.1
S2.5S 20A - 2814F	20	φ50	φ55	A1	28	φ14	-	-	28	-	-	-	-	-	397.7
S2.5S 20A = 2820	20	φ50	φ55	A1	28	φ20	-	-	28	6 x 2.8	-	-	-	-	358.8
S2.5S 20A = 2825	20	φ50	φ55	A1	28	φ25	-	-	28	8 x 3.3	-	-	-	-	317.9
S2.5S 20B - 1612	20	φ50	φ55	B1	16	φ12	φ42	12	28	-	-	-	-	-	352.5
S2.5S 20B - 1812	20	φ50	φ55	B1	18	φ12	φ40	12	30	-	-	-	-	-	369.4
S2.5S 20B # 1815	20	φ50	φ55	B1	18	φ15	φ40	12	30	5 x 2.3	M4	6	-	-	350.9
S2.5S 20B # 1818	20	φ50	φ55	B1	18	φ18	φ40	12	30	6 x 2.8	M5	6	-	-	331.1
S2.5S 20B # 1820	20	φ50	φ55	B1	18	φ20	φ40	12	30	6 x 2.8	M5	6	-	-	317.2
● S2.5S20BF - 2510	20	φ50	φ55	B1	25	φ10(H8)	φ42	20	45	-	-	-	-	-	569.3
● S2.5S20B - 2510H	20	φ50	φ55	B1	25	φ10(H※)	φ42	20	45	-	-	-	-	-	569.3
S2.5S 20B - 2514	20	φ50	φ55	B1	25	φ14	φ42	12	37	-	-	-	-	-	471.4
S2.5S 20B - 2814	20	φ50	φ55	B1	28	φ14	φ42	12	40	-	-	-	-	-	514.1
S2.5S 20B # 2820	20	φ50	φ55	B1	28	φ20	φ42	12	40	6 x 2.8	M5	6	-	-	457.4
S2.5S 20B # 2825	20	φ50	φ55	B1	28	φ25	φ42	12	40	8 x 3.3	M5	6	-	-	399.3

标有●的产品为新产品。Products with●marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
20	16	-	0.077	0.78	1.55	3.09	5.34	7.13	8.66
20	18	-	0.087	0.87	1.75	3.47	6.01	8.03	9.74
20	25	-	0.122	1.220	2.450	4.860	8.400	11.230	13.620
20	25	○	0.130	1.297	2.593	5.153	9.025	12.163	14.791
20	28	-	0.136	1.36	2.72	5.40	9.34	12.48	15.15

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.006	0.060	0.110	0.230	0.400	0.550	0.680
0.025	0.274	0.564	1.156	2.087	2.863	3.516
-	-	-	-	-	-	-

目次表 CONTENTS	齿轮信息 GEAR INFORMATION	齿轮箱 GEAR BOXES	无背隙直齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿条・螺旋齿条 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮

SPUR GEARS

模数
MODULE

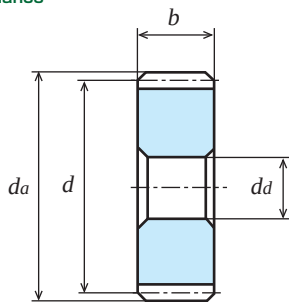
2.5 压力角 20° (普通齿) 齿数24
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 24

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8

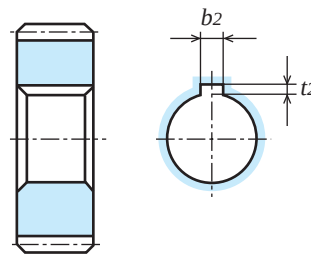


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料：碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外直径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(g)$
											M	l_s			
S2.5S 24A — 1614F	24	$\phi 60$	$\phi 65$	A1	16	$\phi 14$	-	-	16	-	-	-	-	-	335.8
S2.5S 24A — 1814F	24	$\phi 60$	$\phi 65$	A1	18	$\phi 14$	-	-	18	-	-	-	-	-	377.8
S2.5S 24A = 1815	24	$\phi 60$	$\phi 65$	A1	18	$\phi 15$	-	-	18	5×2.3	-	-	-	-	372.9
S2.5S 24A = 1820	24	$\phi 60$	$\phi 65$	A1	18	$\phi 20$	-	-	18	6×2.8	-	-	-	-	352.8
S2.5S 24A — 2514F	24	$\phi 60$	$\phi 65$	A1	25	$\phi 14$	-	-	25	-	-	-	-	-	524.7
S2.5S 24A — 2814F	24	$\phi 60$	$\phi 65$	A1	28	$\phi 14$	-	-	28	-	-	-	-	-	587.6
S2.5S 24A = 2820	24	$\phi 60$	$\phi 65$	A1	28	$\phi 20$	-	-	28	6×2.8	-	-	-	-	548.7
S2.5S 24A = 2825	24	$\phi 60$	$\phi 65$	A1	28	$\phi 25$	-	-	28	8×3.3	-	-	-	-	507.8
S2.5S 24B — 1614	24	$\phi 60$	$\phi 65$	B1	16	$\phi 14$	$\phi 50$	12	28	-	-	-	-	-	506.6
S2.5S 24B — 1814	24	$\phi 60$	$\phi 65$	B1	18	$\phi 14$	$\phi 40$	12	30	-	-	-	-	-	482.0
S2.5S 24B # 1815	24	$\phi 60$	$\phi 65$	B1	18	$\phi 15$	$\phi 40$	12	30	5×2.3	M4	6	-	-	473.0
S2.5S 24B # 1818	24	$\phi 60$	$\phi 65$	B1	18	$\phi 18$	$\phi 40$	12	30	6×2.8	M5	6	-	-	453.3
S2.5S 24B # 1820	24	$\phi 60$	$\phi 65$	B1	18	$\phi 20$	$\phi 40$	12	30	6×2.8	M5	6	-	-	439.3
S2.5S 24B — 2515	24	$\phi 60$	$\phi 65$	B1	25	$\phi 15$	$\phi 50$	12	37	-	-	-	-	-	689.0
S2.5S 24B — 2815	24	$\phi 60$	$\phi 65$	B1	28	$\phi 15$	$\phi 50$	12	40	-	-	-	-	-	751.4
S2.5S 24B # 2820	24	$\phi 60$	$\phi 65$	B1	28	$\phi 20$	$\phi 50$	12	40	6×2.8	M5	6	-	-	701.4
S2.5S 24B # 2825	24	$\phi 60$	$\phi 65$	B1	28	$\phi 25$	$\phi 50$	12	40	8×3.3	M6	6	-	-	642.7

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
24	16	0.101	1.01	2.03	3.90	6.60	9.08	10.97	96.45
24	18	0.114	1.14	2.28	4.39	7.43	10.22	12.34	108.86
24	25	0.158	1.58	3.17	6.10	10.32	14.19	17.13	150.88
24	28	0.177	1.77	3.55	6.83	11.56	15.89	19.19	169.02

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

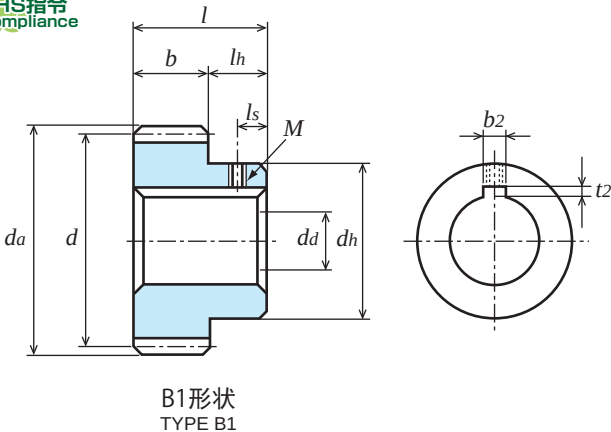
直齿轮
SPUR GEARS

模数
MODULE 2.5 压力角 20° (普通齿) 齿数25
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 25

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45) 单位: mm
Dimensions: mm

Table with 15 columns: 产品型号 (Catalogue Number), 齿数 (Number of Teeth), 分度圆直径 (Reference Diameter), 齿顶圆直径 (Outside Diameter), 形状 (Type), 齿宽 (Face Width), 孔径 (Bore Diameter), 轮毂外径 (Hub Diameter), 轮毂长度 (Hub Projection), 全长 (Overall Length), 键槽 (Key Way), 螺纹孔 (Set Screw), 轮辋的厚度 (Dimension of Rim), 腹板厚度 (Thickness of Web), 重量 (Weight). Rows include various gear models like S2.5S 25A-1614F, S2.5S 25B-1614, etc.

标有●的产品为新产品。Products with ● marks are new item.
标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.
产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※ 齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

Table with 10 columns: 齿数 (z), 齿宽 (b), 淬火 (H), and 9 columns for 旋转速度 (revolution/min) at 10, 100, 200, 400, 800, 1,200, and 1,500 rpm.

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

Table with 8 columns: 7 columns for 旋转速度 (revolution/min) at 10, 100, 200, 400, 800, 1,200, and 1,500 rpm, and 1 column for 容许传达动力 (kW).

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内齿 INTERNAL GEARS
研磨齿 GRIND RACKS
齿 RACKS
斜齿・螺旋齿 HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆 WORMS AND WORM WHEELS
锥齿 BEVEL GEARS
技术资料 REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

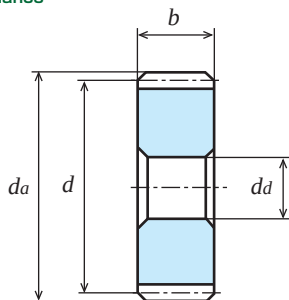
2.5 压力角 20° (普通齿) 齿数28
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 28

JIS B 1702-1 (ISO) 8级
System of accuracy: JIS B 1702-1 (ISO) class 8

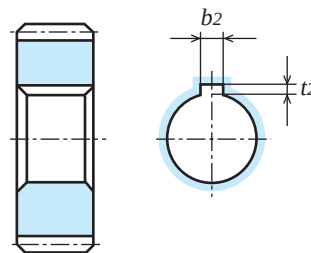


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料：碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位：mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S2.5S 28A — 1614F	28	$\phi 70$	$\phi 75$	A1	16	$\phi 14$	-	-	16	-	-	-	-	-	0.46
S2.5S 28A — 1814F	28	$\phi 70$	$\phi 75$	A1	18	$\phi 14$	-	-	18	-	-	-	-	-	0.52
S2.5S 28A = 1815	28	$\phi 70$	$\phi 75$	A1	18	$\phi 15$	-	-	18	5×2.3	-	-	-	-	0.52
S2.5S 28A = 1820	28	$\phi 70$	$\phi 75$	A1	18	$\phi 20$	-	-	18	6×2.8	-	-	-	-	0.50
S2.5S 28A — 2516F	28	$\phi 70$	$\phi 75$	A1	25	$\phi 16$	-	-	25	-	-	-	-	-	0.72
S2.5S 28A — 2816F	28	$\phi 70$	$\phi 75$	A1	28	$\phi 16$	-	-	28	-	-	-	-	-	0.80
S2.5S 28A = 2820	28	$\phi 70$	$\phi 75$	A1	28	$\phi 20$	-	-	28	6×2.8	-	-	-	-	0.77
S2.5S 28A = 2825	28	$\phi 70$	$\phi 75$	A1	28	$\phi 25$	-	-	28	8×3.3	-	-	-	-	0.73
S2.5S 28B — 1614	28	$\phi 70$	$\phi 75$	B1	16	$\phi 14$	$\phi 60$	12	28	-	-	-	-	-	0.72
S2.5S 28B — 1814	28	$\phi 70$	$\phi 75$	B1	18	$\phi 14$	$\phi 40$	12	30	-	-	-	-	-	0.63
S2.5S 28B # 1815	28	$\phi 70$	$\phi 75$	B1	18	$\phi 15$	$\phi 40$	12	30	5×2.3	M4	6	-	-	0.62
S2.5S 28B # 1818	28	$\phi 70$	$\phi 75$	B1	18	$\phi 18$	$\phi 40$	12	30	6×2.8	M5	6	-	-	0.60
S2.5S 28B # 1820	28	$\phi 70$	$\phi 75$	B1	18	$\phi 20$	$\phi 40$	12	30	6×2.8	M5	6	-	-	0.58
S2.5S 28B — 2516	28	$\phi 70$	$\phi 75$	B1	25	$\phi 16$	$\phi 50$	12	37	-	-	-	-	-	0.96
S2.5S 28B — 2816	28	$\phi 70$	$\phi 75$	B1	28	$\phi 16$	$\phi 50$	12	40	-	-	-	-	-	0.97
S2.5S 28B # 2820	28	$\phi 70$	$\phi 75$	B1	28	$\phi 20$	$\phi 50$	12	40	6×2.8	M5	6	-	-	0.93
S2.5S 28B # 2825	28	$\phi 70$	$\phi 75$	B1	28	$\phi 25$	$\phi 50$	12	40	8×3.3	M6	6	-	-	0.87

标号 [=] 表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key

标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
28	16	0.13	1.26	2.51	4.70	7.79	11.01	13.30	120.32
28	18	0.14	1.41	2.83	5.28	8.77	12.38	14.97	134.65
28	25	0.20	1.96	3.93	7.34	12.18	17.20	20.79	187.17
28	28	0.22	2.20	4.40	8.22	13.64	19.26	23.28	210.09

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

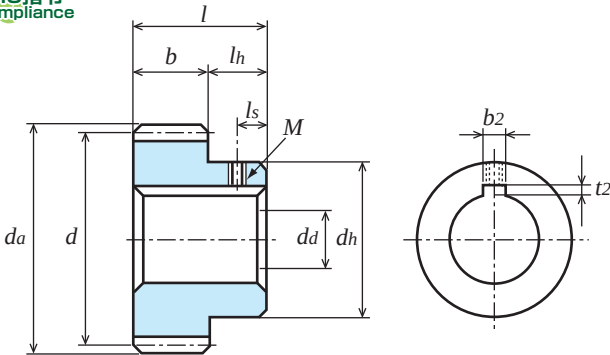
直齿轮
SPUR GEARS

模数
MODULE 2.5 压力角 20° (普通齿) 齿数30
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 30

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)
单位: mm
Dimensions: mm

Table with 15 columns: 产品型号, 齿数, 分度圆直径, 齿顶圆直径, 形状, 齿宽, 孔径, 轮轂外径, 轮轂长度, 全长, 键槽, 螺纹孔, 轮轂尺寸, 腹板厚度, 重量. It lists various gear specifications and their corresponding weights.

标有●的产品为新产品。Products with● marks are new item.
标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.
产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

Table with 10 columns: 齿数, 齿宽, 淬火, 旋转速度 (min⁻¹), 10, 100, 200, 400, 800, 1,200, 1,500. It shows allowable power transfer for different gear configurations.

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

Table with 10 columns: 旋转速度 (min⁻¹), 10, 100, 200, 400, 800, 1,200, 1,500. It shows allowable power transfer for different gear configurations.

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HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆
WORMS AND WORM WHEELS
锥齿轮
BEVEL GEARS
技术资料
REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

2.5

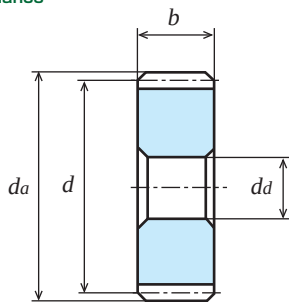
压力角 20° (普通齿) 齿数32
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 32

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8

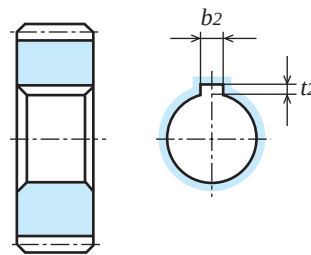


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S2.5S 32A - 1616F	32	$\phi 80$	$\phi 85$	A1	16	$\phi 16$	-	-	16	-	-	-	-	-	0.61
S2.5S 32A = 1620	32	$\phi 80$	$\phi 85$	A1	16	$\phi 20$	-	-	16	6×2.8	-	-	-	-	0.59
S2.5S 32A = 1625	32	$\phi 80$	$\phi 85$	A1	16	$\phi 25$	-	-	16	8×3.3	-	-	-	-	0.57
S2.5S 32A - 2518F	32	$\phi 80$	$\phi 85$	A1	25	$\phi 18$	-	-	25	-	-	-	-	-	0.94
S2.5S 32A = 2520	32	$\phi 80$	$\phi 85$	A1	25	$\phi 20$	-	-	25	6×2.8	-	-	-	-	0.92
S2.5S 32A = 2525	32	$\phi 80$	$\phi 85$	A1	25	$\phi 25$	-	-	25	8×3.3	-	-	-	-	0.88
S2.5S 32A = 2530	32	$\phi 80$	$\phi 85$	A1	25	$\phi 30$	-	-	25	8×3.3	-	-	-	-	0.84
S2.5S 32B - 1616	32	$\phi 80$	$\phi 85$	B1	16	$\phi 16$	$\phi 50$	12	28	-	-	-	-	-	0.77
S2.5S 32B # 1620	32	$\phi 80$	$\phi 85$	B1	16	$\phi 20$	$\phi 50$	12	28	6×2.8	M5	6	-	-	0.74
S2.5S 32B # 1625	32	$\phi 80$	$\phi 85$	B1	16	$\phi 25$	$\phi 50$	12	28	8×3.3	M6	6	-	-	0.70
S2.5S 32B - 2516	32	$\phi 80$	$\phi 85$	B1	25	$\phi 16$	$\phi 60$	12	37	-	-	-	-	-	1.20
S2.5S 32B # 2520	32	$\phi 80$	$\phi 85$	B1	25	$\phi 20$	$\phi 60$	12	37	6×2.8	M5	6	-	-	1.16
S2.5S 32B # 2525	32	$\phi 80$	$\phi 85$	B1	25	$\phi 25$	$\phi 60$	12	37	8×3.3	M6	6	-	-	1.10
S2.5S 32B # 2530	32	$\phi 80$	$\phi 85$	B1	25	$\phi 30$	$\phi 60$	12	37	8×3.3	M6	6	-	-	1.04

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
32	16	0.15	1.50	3.01	5.46	9.13	12.89	15.64	100
32	25	0.24	2.35	4.70	8.54	14.27	20.14	24.44	143.24
									224.41

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

直齿轮
SPUR GEARS

模数
MODULE

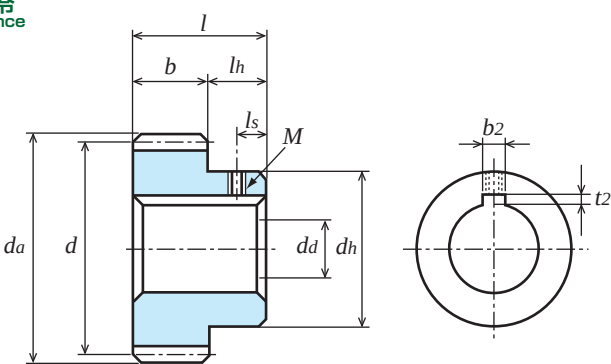
2.5

压力角 20° (普通齿) 齿数36
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 36

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外直径 Hub Diameter dh	轮毂长 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(kg)
											M	ls			
S2.5S 36A – 1616F	36	φ90	φ95	A1	16	φ16	-	-	16	-	-	-	-	-	0.77
S2.5S 36A = 1620	36	φ90	φ95	A1	16	φ20	-	-	16	6 × 2.8	-	-	-	-	0.76
S2.5S 36A = 1625	36	φ90	φ95	A1	16	φ25	-	-	16	8 × 3.3	-	-	-	-	0.73
S2.5S 36A – 2518F	36	φ90	φ95	A1	25	φ18	-	-	25	-	-	-	-	-	1.20
S2.5S 36A = 2525	36	φ90	φ95	A1	25	φ25	-	-	25	8 × 3.3	-	-	-	-	1.15
S2.5S 36A = 2530	36	φ90	φ95	A1	25	φ30	-	-	25	8 × 3.3	-	-	-	-	1.11
S2.5S 36B – 1616	36	φ90	φ95	B1	16	φ16	φ50	12	28	-	-	-	-	-	0.94
S2.5S 36B # 1620	36	φ90	φ95	B1	16	φ20	φ50	12	28	6 × 2.8	M5	6	-	-	0.91
S2.5S 36B # 1625	36	φ90	φ95	B1	16	φ25	φ50	12	28	8 × 3.3	M6	6	-	-	0.87
S2.5S 36B – 2518	36	φ90	φ95	B1	25	φ18	φ60	12	37	-	-	-	-	-	1.44
S2.5S 36B # 2525	36	φ90	φ95	B1	25	φ25	φ60	12	37	8 × 3.3	M6	6	-	-	1.36
S2.5S 36B # 2530	36	φ90	φ95	B1	25	φ30	φ60	12	37	8 × 3.3	M6	6	-	-	1.30

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW) T (N · m)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
36	16	0.18	1.76	3.51	6.20	10.50	14.83	17.94	100
36	25	0.27	2.75	5.49	9.69	16.41	23.17	28.03	168.07
									262.61

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。 KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load. 您可以在我们广泛的设计产品中选择最合适您的产品。 You are able to multiple choices for your suitable design from our wide range. 上述数字根据JGMA公式得出, 仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only. 动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮

SPUR GEARS

模数
MODULE

2.5

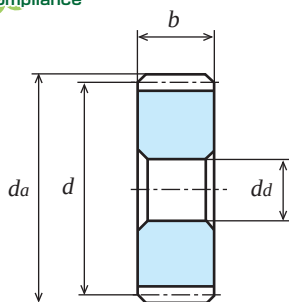
压力角 20° (普通齿) 齿数 40 45
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 40 to Z 45

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)

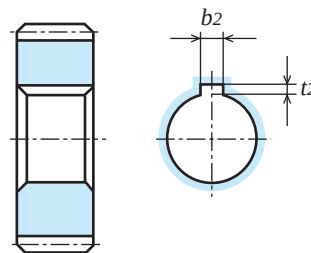


进行了规格改进, 做到节省空间并减轻重量, 不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S2.5S 40A - 1616F	40	$\phi 100$	$\phi 105$	A1	16	$\phi 16$	-	-	16	-	-	-	-	-	0.96
S2.5S 40A = 1620	40	$\phi 100$	$\phi 105$	A1	16	$\phi 20$	-	-	16	6×2.8	-	-	-	-	0.94
S2.5S 40A = 1625	40	$\phi 100$	$\phi 105$	A1	16	$\phi 25$	-	-	16	8×3.3	-	-	-	-	0.92
S2.5S 40A - 2518F	40	$\phi 100$	$\phi 105$	A1	25	$\phi 18$	-	-	25	-	-	-	-	-	1.49
S2.5S 40A = 2525	40	$\phi 100$	$\phi 105$	A1	25	$\phi 25$	-	-	25	8×3.3	-	-	-	-	1.44
S2.5S 40A = 2530	40	$\phi 100$	$\phi 105$	A1	25	$\phi 30$	-	-	25	8×3.3	-	-	-	-	1.40
S2.5S 40B - 1616	40	$\phi 100$	$\phi 105$	B1	16	$\phi 16$	$\phi 50$	12	28	-	-	-	-	-	1.13
S2.5S 40B # 1620	40	$\phi 100$	$\phi 105$	B1	16	$\phi 20$	$\phi 50$	12	28	6×2.8	M5	6	-	-	1.10
S2.5S 40B # 1625	40	$\phi 100$	$\phi 105$	B1	16	$\phi 25$	$\phi 50$	12	28	8×3.3	M6	6	-	-	1.06
● S2.5S 40BF - 2512	40	$\phi 100$	$\phi 105$	B1	25	$\phi 12(H8)$	$\phi 70$	20	45	-	-	-	-	-	2.1
● S2.5S 40B - 2512H	40	$\phi 100$	$\phi 105$	B1	25	$\phi 12(H※)$	$\phi 70$	20	45	-	-	-	-	-	2.1
S2.5S 40B - 2518	40	$\phi 100$	$\phi 105$	B1	25	$\phi 18$	$\phi 60$	12	37	-	-	-	-	-	1.73
S2.5S 40B # 2525	40	$\phi 100$	$\phi 105$	B1	25	$\phi 25$	$\phi 60$	12	37	8×3.3	M6	6	-	-	1.66
S2.5S 40B # 2530	40	$\phi 100$	$\phi 105$	B1	25	$\phi 30$	$\phi 60$	12	37	8×3.3	M6	6	-	-	1.59
S2.5S 45B - 1616	45	$\phi 112.5$	$\phi 117.5$	B1	16	$\phi 16$	$\phi 60$	12	28	-	-	-	-	-	1.47
S2.5S 45B - 2518	45	$\phi 112.5$	$\phi 117.5$	B1	25	$\phi 18$	$\phi 60$	12	37	-	-	-	-	-	2.14

标有●的产品为新产品。Products with● marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※ 齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
40	16	-	0.20	2.01	4.00	6.92	11.85	16.74	20.19
40	25	-	0.310	3.140	6.230	10.780	18.470	26.100	31.480
40	25	○	0.333	3.327	6.612	11.580	20.061	29.278	36.598
45	16	-	0.23	2.33	4.55	7.76	13.48	19.07	23.35
45	25	-	0.36	3.65	7.11	12.13	21.06	29.80	36.48

The above references are JGMA standard.

动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.024	0.240	0.480	0.860	1.550	2.320	2.900
0.106	1.169	2.396	4.326	7.725	11.476	14.486
-	-	-	-	-	-	-
-	-	-	-	-	-	-

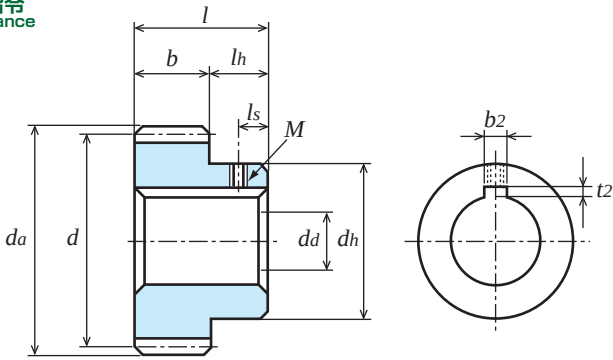
直齿轮
SPUR GEARS

模数
MODULE 2.5 压力角 20° (普通齿) 齿数48
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 48

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45) 单位 : mm
Dimensions : mm

Table with 15 columns: Product Model, Number of Teeth, Reference Diameter, Outside Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Key Way, Set Screw, Dimension of Rim, Thickness of Web, Weight. It lists various gear specifications and their corresponding weights.

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key
标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW) T (N · m)
Allowable transfer capability table (W) Bending Strength

Table with 2 main sections. Left section: Gear specifications (z, b) and bending strength at various speeds (10, 100, 200, 400, 800, 1,200, 1,500 rev/min). Right section: Bending strength at 100 and 377.21 rev/min.

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.
您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range.
上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

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锥齿轮
BEVEL GEARS
技术资料
REFERENCE DATA

直齿轮

SPUR GEARS

模数
MODULE

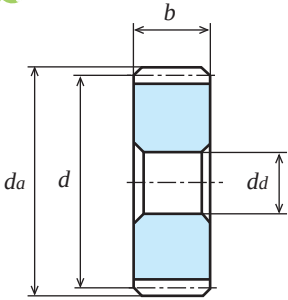
2.5 压力角 20° (普通齿) 齿数50
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 50

JIS B 1702-1 (ISO) 8级 (高频淬火产品：9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)

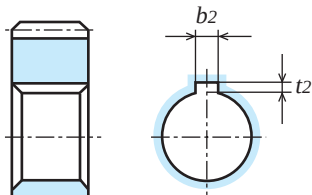


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料：碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位：mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth <i>z</i>	分度圆直径 Reference Diameter <i>d</i>	齿顶圆直径 Outside Diameter <i>da</i>	形状 Type	齿宽 Face Width <i>b</i>	孔径 Bore Diameter <i>da</i> (H7)	轮毂外径 Hub Diameter <i>dh</i>	轮毂长度 Hub Projection <i>lh</i>	全长 Overall Length <i>l</i>	键槽 Key Way <i>b</i> 2 × <i>t</i> 2	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim <i>di</i>	腹板厚度 Thickness of Web <i>b</i> w	重量 Weight <i>W</i> (kg)
											<i>M</i>	<i>ls</i>			
S2.5S 50A – 1616F	50	φ125	φ130	A1	16	φ16	-	-	16	-	-	-	-	-	1.52
S2.5S 50A = 1620	50	φ125	φ130	A1	16	φ20	-	-	16	6 × 2.8	-	-	-	-	1.50
S2.5S 50A = 1625	50	φ125	φ130	A1	16	φ25	-	-	16	8 × 3.3	-	-	-	-	1.50
S2.5S 50A – 2518F	50	φ125	φ130	A1	25	φ18	-	-	25	-	-	-	-	-	2.36
S2.5S 50A = 2525	50	φ125	φ130	A1	25	φ25	-	-	25	8 × 3.3	-	-	-	-	2.31
S2.5S 50A = 2530	50	φ125	φ130	A1	25	φ30	-	-	25	8 × 3.3	-	-	-	-	2.26
S2.5S 50B – 1616	50	φ125	φ130	B1	16	φ16	φ50	12	28	-	-	-	-	-	1.68
S2.5S 50B # 1620	50	φ125	φ130	B1	16	φ20	φ50	12	28	6 × 2.8	M5	6	-	-	1.65
S2.5S 50B # 1625	50	φ125	φ130	B1	16	φ25	φ50	12	28	8 × 3.3	M6	6	-	-	1.61
S2.5S 50BF – 2515	50	φ125	φ130	B1	25	φ15(H8)	φ90	20	45	-	-	-	-	-	3.33
S2.5S 50B – 2515H	50	φ125	φ130	B1	25	φ15(H※)	φ90	20	45	-	-	-	-	-	3.33
S2.5S 50B – 2518	50	φ125	φ130	B1	25	φ18	φ60	12	37	-	-	-	-	-	2.60
S2.5S 50B # 2525	50	φ125	φ130	B1	25	φ25	φ60	12	37	8 × 3.3	M6	6	-	-	2.52
S2.5S 50B # 2530	50	φ125	φ130	B1	25	φ30	φ60	12	37	8 × 3.3	M6	6	-	-	2.46

标有●的产品为新产品。Products with●marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时，请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 <i>z</i>	齿宽 <i>b</i>	淬火 <i>H</i>	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
50	16	-	0.27	2.66	5.09	8.56	15.12	21.36	26.61
50	25	-	0.410	4.140	7.910	13.330	23.530	33.230	41.400
50	25	○	0.439	4.389	8.423	14.383	25.750	38.625	48.281

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.038	0.390	0.750	1.310	2.470	3.710	4.770
0.169	1.867	3.693	6.500	11.995	18.316	23.120

直齿轮

SPUR GEARS

模数
MODULE

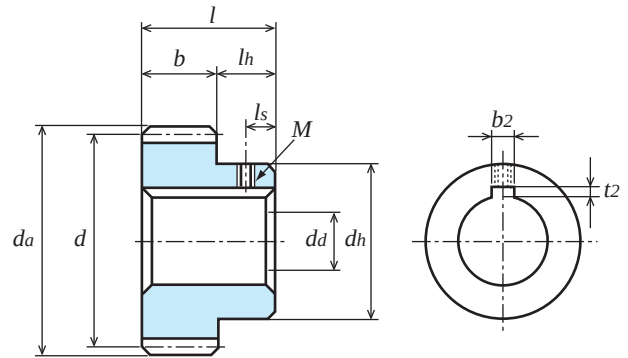
2.5 压力角 20° (普通齿) 齿数 56 60
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 56 to Z 60

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw M ls	轮辋的 尺寸 Dimension of Rim di	腹板 厚度 Thickness of Web bw	重量 Weight W(kg)
S2.5S 56A - 1616F	56	φ140	φ145	A1	16	φ16	-	-	16	-	-	-	-	1.91
S2.5S 56A - 2518F	56	φ140	φ145	A1	25	φ18	-	-	25	-	-	-	-	2.97
S2.5S 56B - 1618	56	φ140	φ145	B1	16	φ18	φ 60	12	28	-	-	-	-	2.15
S2.5S 56B - 2520	56	φ140	φ145	B1	25	φ20	φ 60	12	37	-	-	-	-	3.20
S2.5S 56B # 2525	56	φ140	φ145	B1	25	φ25	φ 60	12	37	8 × 3.3	M6	6	-	3.14
S2.5S 60A - 1616F	60	φ150	φ155	A1	16	φ16	-	-	16	-	-	-	-	2.19
S2.5S 60A = 1625	60	φ150	φ155	A2	16	φ25	φ 50	-	16	8 × 3.3	-	-	φ127	1.51
S2.5S 60A - 2518F	60	φ150	φ155	A1	25	φ18	-	-	25	-	-	-	-	3.42
S2.5S 60A = 2525	60	φ150	φ155	A2	25	φ25	φ 50	-	25	8 × 3.3	-	-	φ127	2.42
S2.5S 60A = 2530	60	φ150	φ155	A2	25	φ30	φ 60	-	25	8 × 3.3	-	-	φ127	2.46
S2.5S 60A = 2535	60	φ150	φ155	A2	25	φ35	φ 70	-	25	10 × 3.3	-	-	φ127	2.51
S2.5S 60B - 1618	60	φ150	φ155	B1	16	φ18	φ 60	12	28	-	-	-	-	2.43
S2.5S 60B # 1625	60	φ150	φ155	B3	16	φ25	φ 60	12	28	8 × 3.3	M6	6	φ127	1.78
● S2.5S 60BF - 2515	60	φ150	φ155	B1	25	φ15(H8)	φ105	20	45	-	-	-	-	4.75
● S2.5S 60B - 2515H	60	φ150	φ155	B1	25	φ15(H※)	φ105	20	45	-	-	-	-	4.75
S2.5S 60B - 2520	60	φ150	φ155	B1	25	φ20	φ 70	12	37	-	-	-	-	3.74
S2.5S 60B # 2525	60	φ150	φ155	B3	25	φ25	φ 70	12	37	8 × 3.3	M6	6	φ127	2.91
S2.5S 60B # 2530	60	φ150	φ155	B3	25	φ30	φ 70	12	37	8 × 3.3	M6	6	φ127	2.85
S2.5S 60B # 2535	60	φ150	φ155	B3	25	φ35	φ 70	12	37	10 × 3.3	M8	6	φ127	2.77

标有●的产品为新产品。Products with ● marks are new item.

标号[=]表示齿轮带有键槽/带有键。[=]: Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。[#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※

齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
56	16	-	0.31	3.06	5.71	9.47	17.11	24.44	-
56	25	-	0.48	4.77	8.92	14.80	26.73	38.19	-
60	16	-	0.33	3.32	6.12	10.16	18.41	26.56	-
60	25	-	0.52	5.19	9.56	15.87	28.76	41.50	-
60	25	-	0.520	5.160	9.500	15.790	28.600	41.270	-
60	25	○	0.547	5.469	10.148	17.102	32.086	48.129	-

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.056	0.570	1.070	1.850	3.640	5.570	-
0.247	2.735	5.231	9.088	17.575	26.836	-

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锥齿轮
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直齿轮 SPUR GEARS

模数
MODULE

2.5

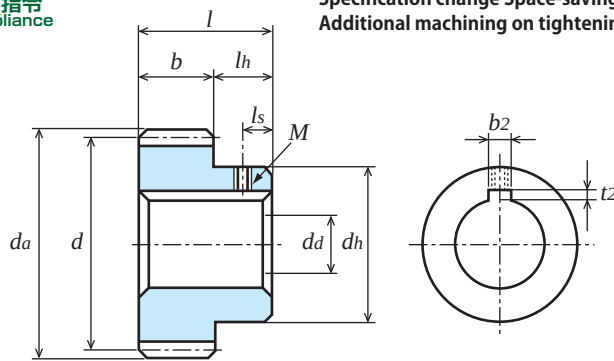
压力角 20° (普通齿) 齿数 64 ~ 72
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 64 to Z 72

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



进行了规格改进, 做到节省空间并减轻重量, 不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的厚度 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S2.5S 64A - 1616F	64	φ160	φ165	A1	16	φ16	-	-	16	-	-	-	-	-	2.50
S2.5S 64A - 2518F	64	φ160	φ165	A1	25	φ18	-	-	25	-	-	-	-	-	3.90
S2.5S 64B - 1618	64	φ160	φ165	B1	16	φ18	φ 60	12	28	-	-	-	-	-	2.74
S2.5S 64B - 2520	64	φ160	φ165	B1	25	φ20	φ 70	12	37	-	-	-	-	-	4.22
S2.5S 64B # 2525	64	φ160	φ165	B3	25	φ25	φ 70	12	37	8 × 3.3	M6	6	φ137	13	3.20
● S2.5S 70BF - 2520	70	φ175	φ180	B1	25	φ20	φ125	20	45	-	-	-	-	-	6.52
● S2.5S 70B - 2520H	70	φ175	φ180	B1	25	φ20(H※)	φ125	20	45	-	-	-	-	-	6.52
S2.5S 72A - 1616F	72	φ180	φ185	A1	16	φ16	-	-	16	-	-	-	-	-	3.17
S2.5S 72A - 2518F	72	φ180	φ185	A1	25	φ18	-	-	25	-	-	-	-	-	4.94
S2.5S 72B - 1618	72	φ180	φ185	B1	16	φ18	φ 70	12	28	-	-	-	-	-	3.50
S2.5S 72B - 2520	72	φ180	φ185	B1	25	φ20	φ 70	12	37	-	-	-	-	-	5.27
S2.5S 72B # 2525	72	φ180	φ185	B3	25	φ25	φ 70	12	37	8 × 3.3	M6	6	φ157	13	3.82

标有●的产品为新产品。Products with● marks are new item.

标号[=]表示齿轮带有键槽/带有键。[=]: Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。[#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※
齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
64	16	-	0.36	3.59	6.51	10.89	19.69	-	-
64	25	-	0.56	5.60	10.17	17.01	30.77	-	-
70	25	-	0.620	6.190	11.000	18.560	33.500	-	-
70	25	○	0.656	6.560	11.782	20.139	38.485	-	-
72	16	-	0.41	4.12	7.27	12.31	22.20	-	-
72	25	-	0.64	6.44	11.37	19.24	34.69	-	-

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.078	0.790	1.430	2.540	5.020	-	-
0.341	3.777	6.994	12.323	24.275	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-

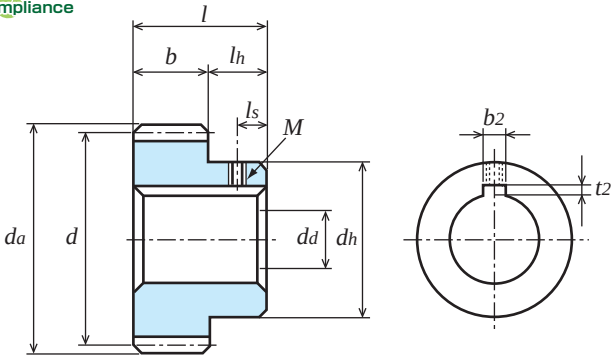
直齿轮
SPUR GEARS

模数
MODULE 2.5 压力角 20° (普通齿) 齿数80
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 80

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45) 单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(kg)
											M	ls			
S2.5S 80A – 1618F	80	φ200	φ205	A1	16	φ18	-	-	16	-	-	-	-	-	3.91
S2.5S 80A = 1625	80	φ200	φ205	A2	16	φ25	φ 50	-	16	8 × 3.3	-	-	φ177	8	2.50
S2.5S 80A – 2520F	80	φ200	φ205	A1	25	φ20	-	-	25	-	-	-	-	-	6.10
S2.5S 80A = 2525	80	φ200	φ205	A2	25	φ25	φ 50	-	25	8 × 3.3	-	-	φ177	13	4.02
S2.5S 80A = 2530	80	φ200	φ205	A2	25	φ30	φ 60	-	25	8 × 3.3	-	-	φ177	13	4.06
S2.5S 80A = 2535	80	φ200	φ205	A2	25	φ35	φ 70	-	25	10 × 3.3	-	-	φ177	13	4.10
S2.5S 80B – 1618	80	φ200	φ205	B1	16	φ18	φ 60	12	28	-	-	-	-	-	4.16
S2.5S 80B # 1625	80	φ200	φ205	B3	16	φ25	φ 60	12	28	8 × 3.3	M6	6	φ177	8	2.77
● S2.5S 80BF – 2520	80	φ200	φ205	B1	25	φ20	φ140	20	45	-	-	-	-	-	8.45
● S2.5S 80B – 2520H	80	φ200	φ205	B1	25	φ20(H※)	φ140	20	45	-	-	-	-	-	8.45
S2.5S 80B – 2522	80	φ200	φ205	B1	25	φ22	φ 70	12	37	-	-	-	-	-	6.42
S2.5S 80B # 2525	80	φ200	φ205	B3	25	φ25	φ 70	12	37	8 × 3.3	M6	6	φ177	13	4.51
S2.5S 80B # 2530	80	φ200	φ205	B3	25	φ30	φ 70	12	37	8 × 3.3	M6	6	φ177	13	4.45
S2.5S 80B # 2535	80	φ200	φ205	B3	25	φ35	φ 70	12	37	10 × 3.3	M8	6	φ177	13	4.37

标有●的产品为新产品。Products with● marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
80	16	-	0.47	4.62	8.00	13.70	24.84	-	-
80	25	-	0.720	7.170	12.410	21.260	38.530	-	-
80	25	○	0.766	7.610	13.328	23.090	44.931	-	-

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.103	1.040	1.850	3.330	6.680	-	-
0.452	4.965	8.964	16.008	32.111	-	-

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无背隙直齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

3

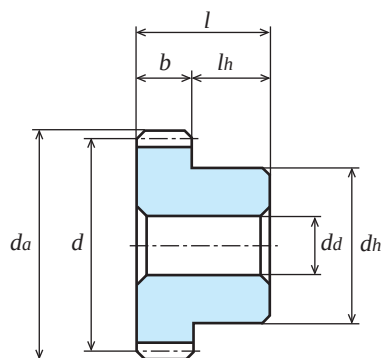
压力角 20° (普通齿)

20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



New 进行了规格改进，做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



B1形状
TYPE B1

材料：聚缩醛树脂 (黑色)
Material : Poly Acetal (Black)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter d_d	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(g)$
S3D 14B — 3016N	14	$\phi 42$	$\phi 48$	B1	30	$\phi 16$	$\phi 34$	13	43	63.1
S3D 15B — 3016N	15	$\phi 45$	$\phi 51$	B1	30	$\phi 16$	$\phi 36$	13	43	73.7
S3D 16B — 3016N	16	$\phi 48$	$\phi 54$	B1	30	$\phi 16$	$\phi 40$	13	43	87.4
S3D 18B — 3018N	18	$\phi 54$	$\phi 60$	B1	30	$\phi 18$	$\phi 46$	13	43	111.9
S3D 20B — 3018N	20	$\phi 60$	$\phi 66$	B1	30	$\phi 18$	$\phi 52$	13	43	143.1
S3D 24B — 3020N	24	$\phi 72$	$\phi 78$	B1	30	$\phi 20$	$\phi 56$	13	43	198.3
S3D 25B — 3020N	25	$\phi 75$	$\phi 81$	B1	30	$\phi 20$	$\phi 56$	13	43	213.0
S3D 28B — 3020N	28	$\phi 84$	$\phi 90$	B1	30	$\phi 20$	$\phi 60$	13	43	267.2
S3D 30B — 3020N	30	$\phi 90$	$\phi 96$	B1	30	$\phi 20$	$\phi 60$	13	43	301.9
S3D 32B — 3020N	32	$\phi 96$	$\phi 102$	B1	30	$\phi 20$	$\phi 80$	13	43	379.3
S3D 35B — 3020N	35	$\phi 105$	$\phi 111$	B1	30	$\phi 20$	$\phi 80$	13	43	439.4
S3D 36B — 3020N	36	$\phi 108$	$\phi 114$	B1	30	$\phi 20$	$\phi 80$	13	43	460.6

容许传达动力表 弯曲强度 (W)

Allowable transfer capability table (W) Bending Strength

产品型号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S3D 14B — 3016	6.85	68.38	136.59	272.49	542.23	808.24	1,000.62
S3D 15B — 3016	7.33	73.26	146.32	291.85	580.54	863.60	1,068.39
S3D 16B — 3016	7.82	78.14	156.05	311.19	618.79	918.64	1,135.66
S3D 18B — 3018	8.80	87.89	175.49	349.84	695.13	1,027.78	1,268.73
S3D 20B — 3018	9.78	97.63	194.92	388.43	771.16	1,135.66	1,399.82
S3D 24B — 3020	11.73	117.12	233.73	465.44	918.69	1,347.62	1,649.49
S3D 25B — 3020	12.22	121.99	243.43	484.66	955.16	1,399.82	1,709.58
S3D 28B — 3020	13.69	136.59	272.49	542.23	1,063.88	1,551.92	1,885.69
S3D 30B — 3020	14.67	146.32	291.85	580.54	1,135.66	1,649.49	1,999.64
S3D 32B — 3020	15.65	156.05	311.19	618.79	1,206.88	1,745.30	2,110.03
S3D 35B — 3020	17.11	170.63	340.19	676.07	1,312.65	1,885.69	2,255.99
S3D 36B — 3020	17.60	175.49	349.84	695.13	1,347.62	1,931.61	2,302.67

上述数值是Lewis公式，仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

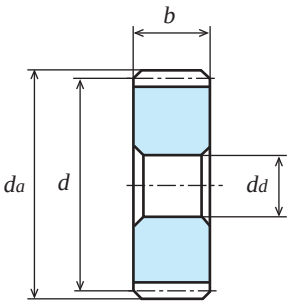
直齿轮
SPUR GEARS

模数
MODULE 3 压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 9 ~ 10级
System of accuracy : JIS B 1702-1(ISO) class 9-10



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



A1形状
TYPE A1

材料 : 聚缩醛树脂 (黑色)
Material : Poly Acetal (Black) 单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth <i>z</i>	分度圆直 径 Reference Diameter <i>d</i>	齿顶圆直 径 Tip Diameter <i>da</i>	形 状 Type	齿 宽 Face Width <i>b</i>	孔 径 Bore Diameter <i>da</i>	轮 毂 外 径 Hub Diameter <i>dh</i>	轮 毂 长 度 Hub Projection <i>lh</i>	全 长 Overall Length <i>l</i>	重 量 Weight <i>W(g)</i>
S3D 40A — 3020	40	φ120	φ126	A1	30	φ20	-	-	30	465.1
S3D 45A — 3020	45	φ135	φ141	A1	30	φ20	-	-	30	592.2
S3D 48A — 3020	48	φ144	φ150	A1	30	φ20	-	-	30	675.6
S3D 50A — 3020	50	φ150	φ156	A1	30	φ20	-	-	30	734.2
S3D 56A — 3020	56	φ168	φ174	A1	30	φ20	-	-	30	924.4
S3D 60A — 3020	60	φ180	φ186	A1	30	φ20	-	-	30	1,063.0
S3D 64A — 3020	64	φ192	φ198	A1	30	φ20	-	-	30	1,211.0

容许传达动力表 弯曲强度 (W)
Allowable transfer capability table (W) Bending Strength

产 品 型 号 Catalogue Numbers	旋转速度 (min ⁻¹) revolution/min						
	10	100	200	400	800	1,200	1,500
S3D 40A — 3020	19.56	194.92	388.43	771.16	1,485.88	2,110.03	2,479.51
S3D 45A — 3020	22.00	219.18	436.59	863.60	1,649.49	2,302.67	-
S3D 48A — 3020	23.46	233.73	465.44	918.64	1,745.30	2,410.67	-
S3D 50A — 3020	24.44	243.43	484.66	955.16	1,808.19	2,479.51	-
S3D 56A — 3020	27.37	272.49	542.23	1,063.88	1,992.13	-	-
S3D 60A — 3020	29.33	291.85	580.54	1,135.66	2,110.03	-	-
S3D 64A — 3020	31.28	311.19	618.79	1,206.88	2,214.74	-	-

上述数值是Lewis公式，仅供参考。The above numerical values are Lewis formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目 录 表 CONTENTS	齿 轮 信 息 INFORMATION	齿 轮 箱 GEAR BOXES	无 背 隙 齿 轮 ANTI BACKLASH SPUR GEARS	研 磨 直 齿 轮 GROUND SPUR GEARS	直 齿 轮 SPUR GEARS	内 齿 轮 INTERNAL GEARS	研 磨 齿 条 GROUND RACKS	齿 条 RACKS	斜 齿 轮 · 螺 旋 齿 轮 HELICAL GEARS AND SCREW GEARS	蜗 轮 · 蜗 杆 WORMS AND WORM WHEELS	锥 齿 轮 BEVEL GEARS	技 术 资 料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

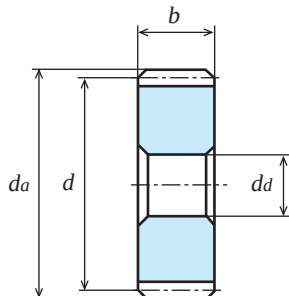
3

压力角 20° (普通齿) 齿数 14 ~ 15
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 14 to Z 15

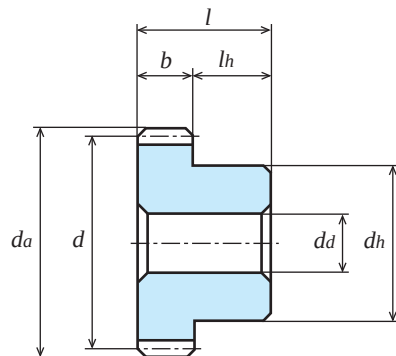
JIS B 1702-1 (ISO) 8 ~ 9级
System of accuracy : JIS B 1702-1 (ISO) class 8-9



New 进行了规格改进，做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



A1形状
TYPE A1



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Tip Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	重量 Weight $W(kg)$
S3S 14A - 2216	14	$\phi 42$	$\phi 48$	A1	22	$\phi 16$	-	-	22	0.20
S3S 14A - 3016	14	$\phi 42$	$\phi 48$	A1	30	$\phi 16$	-	-	30	0.28
S3S 14A - 3516	14	$\phi 42$	$\phi 48$	A1	35	$\phi 16$	-	-	35	0.33
S3S 14B - 2216N	14	$\phi 42$	$\phi 48$	B1	22	$\phi 16$	$\phi 34$	13	35	0.28
S3S 14B - 3016N	14	$\phi 42$	$\phi 48$	B1	30	$\phi 16$	$\phi 34$	13	43	0.35
S3S 14B - 3516N	14	$\phi 42$	$\phi 48$	B1	35	$\phi 16(H8)$	$\phi 34$	13	48	0.40
S3S 15A - 2216	15	$\phi 45$	$\phi 51$	A1	22	$\phi 16$	-	-	22	0.24
S3S 15A - 3016	15	$\phi 45$	$\phi 51$	A1	30	$\phi 16$	-	-	30	0.33
S3S 15A - 3516	15	$\phi 45$	$\phi 51$	A1	35	$\phi 16$	-	-	35	0.38
S3S 15B - 2216N	15	$\phi 45$	$\phi 51$	B1	22	$\phi 16$	$\phi 36$	13	35	0.32
S3S 15B - 3016N	15	$\phi 45$	$\phi 51$	B1	30	$\phi 16$	$\phi 36$	13	43	0.41
S3S 15B - 3516N	15	$\phi 45$	$\phi 51$	B1	35	$\phi 16(H8)$	$\phi 36$	13	48	0.47

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

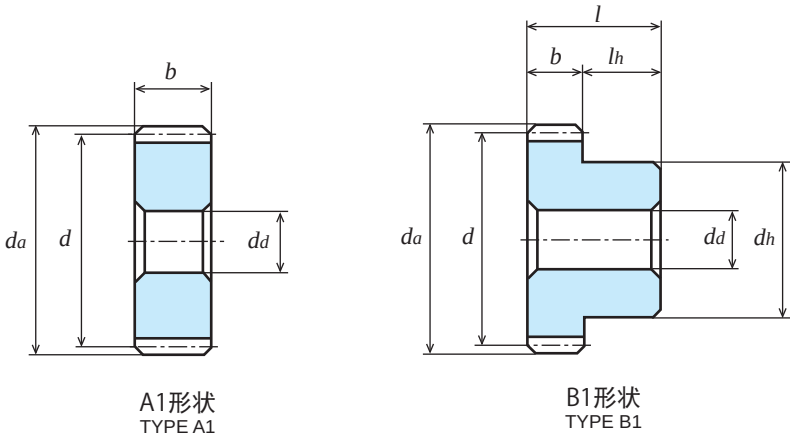
齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
14	22	0.087	0.88	1.75	3.51	6.29	8.44	10.00	84.03
14	30	0.120	1.20	2.39	4.78	8.58	11.51	13.63	114.59
14	35	0.139	1.39	2.79	5.58	10.01	13.43	15.91	132.74
15	22	0.098	0.98	1.96	3.93	6.94	9.25	11.10	93.58
15	30	0.134	1.34	2.68	5.36	9.46	12.61	15.14	127.96
15	35	0.156	1.56	3.13	6.25	11.04	14.72	17.67	148.97

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆直 径 Reference Diameter d	齿顶圆直 径 Tip Diameter da	形 状 Type	齿 宽 Face Width b	孔 径 Bore Diameter da(H7)	轮 毂 外 径 Hub Diameter dh	轮 毂 长 度 Hub Projection lh	全 长 Overall Length l	重 量 Weight W(kg)
S3S 16A – 2216	16	φ48	φ54	A1	22	φ16	-	-	22	0.28
S3S 16A – 3016	16	φ48	φ54	A1	30	φ16	-	-	30	0.38
S3S 16A – 3516	16	φ48	φ54	A1	35	φ16	-	-	35	0.44
S3S 16B – 2216N	16	φ48	φ54	B1	22	φ16	φ40	13	35	0.39
S3S 16B – 3016N	16	φ48	φ54	B1	30	φ16	φ40	13	43	0.49
S3S 16B – 3516N	16	φ48	φ54	B1	35	φ16(H8)	φ40	13	48	0.55
S3S 18A – 2216	18	φ54	φ60	A1	22	φ16	-	-	22	0.36
S3S 18A – 3016	18	φ54	φ60	A1	30	φ16	-	-	30	0.49
S3S 18A – 3518	18	φ54	φ60	A1	35	φ18	-	-	35	0.56
S3S 18B – 2218N	18	φ54	φ60	B1	22	φ18	φ46	13	35	0.50
S3S 18B – 3018N	18	φ54	φ60	B1	30	φ18	φ46	13	43	0.62
S3S 18B – 3516N	18	φ54	φ60	B1	35	φ16(H8)	φ46	13	48	0.70

容许传达动力表 弯曲强度 (kW) T (N · m)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
16	22	0.11	1.09	2.18	4.36	7.57	10.06	12.22	100
16	30	0.15	1.49	2.97	5.94	10.33	13.71	16.66	104.09
16	35	0.17	1.73	3.47	6.93	12.05	16.00	19.43	142.29
18	22	0.13	1.31	2.62	5.14	8.81	11.91	14.43	165.21
18	30	0.18	1.79	3.57	7.01	12.02	16.25	19.68	125.10
18	35	0.21	2.08	4.17	8.18	14.02	18.96	22.96	170.93
									198.63

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load. 您可以在我们广泛的设计产品中选择最合适您的产品。You are able to multiple choices for your suitable design from our wide range. 上述数字根据JGMA公式得出, 仅供参考。The above numerical values are equivalent to JGMA formulas as reference only. 动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无背隙直齿 ANTI BACKLASH SPUR GEARS	研磨直齿 GROUND SPUR GEARS	直齿 SPUR GEARS	内齿 INTERNAL GEARS	研磨齿 GROUND RACKS	齿 RACKS	斜齿・螺旋 HEICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

3

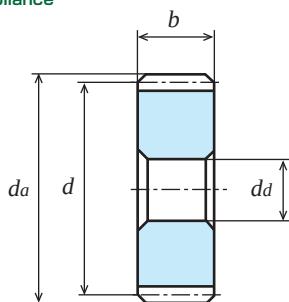
压力角 20° (普通齿) 齿数20
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 20

JIS B 1702-1 (ISO) 8级 (高频淬火产品 : 9级)
System of accuracy : JIS B 1702-1(ISO) class 8
(Induction hardened products : class 9)

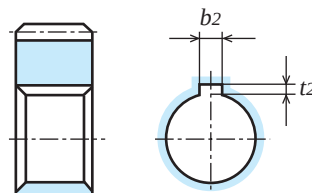


进行了规格改进, 做到节省空间并减轻重量, 不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺孔		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S3S 20A - 2216F	20	$\phi 60$	$\phi 66$	A1	22	$\phi 16$	-	-	22	-	-	-	-	-	0.45
S3S 20A = 2220	20	$\phi 60$	$\phi 66$	A1	22	$\phi 20$	-	-	22	6×2.8	-	-	-	-	0.43
S3S 20A - 3018F	20	$\phi 60$	$\phi 66$	A1	30	$\phi 18$	-	-	30	-	-	-	-	-	0.61
S3S 20A - 3518F	20	$\phi 60$	$\phi 66$	A1	35	$\phi 18$	-	-	35	-	-	-	-	-	0.71
S3S 20A = 3525	20	$\phi 60$	$\phi 66$	A1	35	$\phi 25$	-	-	35	8×3.3	-	-	-	-	0.63
S3S 20B - 2218	20	$\phi 60$	$\phi 66$	B1	22	$\phi 18$	$\phi 40$	13	35	-	-	-	-	-	0.55
S3S 20B # 2220	20	$\phi 60$	$\phi 66$	B1	22	$\phi 20$	$\phi 40$	13	35	6×2.8	M5	6.5	-	-	0.53
● S3S 20BF - 3012	20	$\phi 60$	$\phi 66$	B1	30	$\phi 12(H8)$	$\phi 52$	20	50	-	-	-	-	-	0.92
● S3S 20B - 3012H	20	$\phi 60$	$\phi 66$	B1	30	$\phi 12(H\ast)$	$\phi 52$	20	50	-	-	-	-	-	0.92
S3S 20B - 3018N	20	$\phi 60$	$\phi 66$	B1	30	$\phi 18$	$\phi 52$	13	43	-	-	-	-	-	0.80
S3S 20B - 3516	20	$\phi 60$	$\phi 66$	B1	35	$\phi 16(H8)$	$\phi 50$	13	48	-	-	-	-	-	0.90
S3S 20B # 3525	20	$\phi 60$	$\phi 66$	B1	35	$\phi 25$	$\phi 50$	13	48	8×3.3	M6	6.5	-	-	0.78

标有●的产品为新产品。Products with●marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号[#]表示齿轮带有键槽和螺孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※ 齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
20	22	-	0.15	1.54	3.08	5.93	10.03	13.79	16.65
20	30	-	0.210	2.110	4.230	8.140	13.780	18.950	22.880
20	30	○	0.224	2.240	4.481	8.659	14.857	20.558	24.882
20	35	-	0.224	2.45	4.90	9.43	15.96	21.94	26.50

The above references are JGMA standard.

动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.010	0.100	0.200	0.390	0.680	0.960	1.190
0.044	0.481	0.992	1.977	3.496	4.924	6.019
-	-	-	-	-	-	-

直齿轮
SPUR GEARS

模数
MODULE

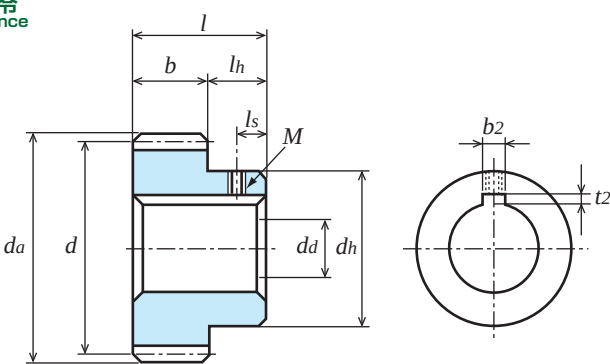
3

压力角 20° (普通齿) 齿数24
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 24

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外直径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(kg)
											M	ls			
S3S 24A — 2216F	24	φ72	φ78	A1	22	φ16	-	-	22	-	-	-	-	-	0.67
S3S 24A = 2220	24	φ72	φ78	A1	22	φ20	-	-	22	6 × 2.8	-	-	-	-	0.65
S3S 24A = 2225	24	φ72	φ78	A1	22	φ25	-	-	22	8 × 3.3	-	-	-	-	0.61
S3S 24A — 3018F	24	φ72	φ78	A1	30	φ18	-	-	30	-	-	-	-	-	0.90
S3S 24A — 3518F	24	φ72	φ78	A1	35	φ18	-	-	35	-	-	-	-	-	1.05
S3S 24A = 3525	24	φ72	φ78	A1	35	φ25	-	-	35	8 × 3.3	-	-	-	-	0.98
S3S 24A = 3530	24	φ72	φ78	A1	35	φ30	-	-	35	8 × 3.3	-	-	-	-	0.92
S3S 24B — 2218	24	φ72	φ78	B1	22	φ18	φ50	13	35	-	-	-	-	-	0.83
S3S 24B # 2220	24	φ72	φ78	B1	22	φ20	φ50	13	35	6 × 2.8	M5	6.5	-	-	0.81
S3S 24B # 2225	24	φ72	φ78	B1	22	φ25	φ50	13	35	8 × 3.3	M6	6.5	-	-	0.76
S3S 24B — 3020N	24	φ72	φ78	B1	30	φ20	φ60	13	43	-	-	-	-	-	1.14
S3S 24B — 3518	24	φ72	φ78	B1	35	φ18	φ60	13	48	-	-	-	-	-	1.31
S3S 24B # 3525	24	φ72	φ78	B1	35	φ25	φ60	13	48	8 × 3.3	M6	6.5	-	-	1.21
S3S 24B # 3530	24	φ72	φ78	B1	35	φ30	φ60	13	48	8 × 3.3	M6	6.5	-	-	1.13

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

T (N · m)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
24	22	0.20	2.01	4.01	7.45	12.33	17.49	21.16	100
24	30	0.27	2.73	5.47	10.17	16.82	23.85	28.85	191.94
24	35	0.32	3.19	6.38	11.86	19.62	27.82	33.66	260.70
									304.63

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。 KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.
您可以在我们广泛的设计产品中选择最合适您的产品。 You are able to multiple choices for your suitable design from our wide range.
上述数字根据JGMA公式得出, 仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无背隙直齿轮 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

3

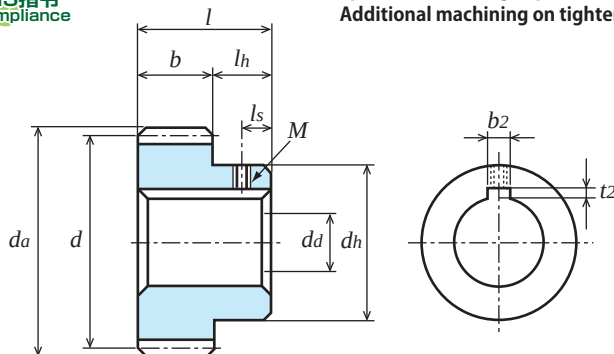
压力角 20° (普通齿) 齿数25
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 25

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



进行了规格改进, 做到节省空间并减轻重量, 不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S3S 25A - 2218F	25	$\phi 75$	$\phi 81$	A1	22	$\phi 18$	-	-	22	-	-	-	-	-	0.72
S3S 25A = 2225	25	$\phi 75$	$\phi 81$	A1	22	$\phi 25$	-	-	22	8×3.3	-	-	-	-	0.67
S3S 25A - 3018F	25	$\phi 75$	$\phi 81$	A1	30	$\phi 18$	-	-	30	-	-	-	-	-	0.98
S3S 25A - 3520F	25	$\phi 75$	$\phi 81$	A1	35	$\phi 20$	-	-	35	-	-	-	-	-	1.13
S3S 25A = 3525	25	$\phi 75$	$\phi 81$	A1	35	$\phi 25$	-	-	35	8×3.3	-	-	-	-	1.07
S3S 25A = 3530	25	$\phi 75$	$\phi 81$	A1	35	$\phi 30$	-	-	35	8×3.3	-	-	-	-	1.01
S3S 25B - 2220	25	$\phi 75$	$\phi 81$	B1	22	$\phi 20$	$\phi 50$	13	35	-	-	-	-	-	0.88
S3S 25B # 2225	25	$\phi 75$	$\phi 81$	B1	22	$\phi 25$	$\phi 50$	13	35	8×3.3	M6	6.5	-	-	0.82
S3S 25BF - 3012	25	$\phi 75$	$\phi 81$	B1	30	$\phi 12(H8)$	$\phi 60$	20	50	-	-	-	-	-	1.43
S3S 25B - 3012H	25	$\phi 75$	$\phi 81$	B1	30	$\phi 12(H※)$	$\phi 60$	20	50	-	-	-	-	-	1.43
S3S 25B - 3020N	25	$\phi 75$	$\phi 81$	B1	30	$\phi 20$	$\phi 60$	13	43	-	-	-	-	-	1.22
S3S 25B - 3518	25	$\phi 75$	$\phi 81$	B1	35	$\phi 18$	$\phi 60$	13	48	-	-	-	-	-	1.41
S3S 25B # 3525	25	$\phi 75$	$\phi 81$	B1	35	$\phi 25$	$\phi 60$	13	48	8×3.3	M6	6.5	-	-	1.31
S3S 25B # 3530	25	$\phi 75$	$\phi 81$	B1	35	$\phi 30$	$\phi 60$	13	48	8×3.3	M6	6.5	-	-	1.22

标有●的产品为新产品。Products with ● marks are new item.

标号[=]表示齿轮带有键槽/带有键。[=]: Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。[#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
25	22	-	0.21	2.12	4.25	7.83	13.01	18.40	22.29
25	30	-	0.290	2.910	5.820	10.710	17.800	25.180	30.510
25	30	○	0.308	3.083	6.166	11.441	19.280	27.391	33.911
25	35	-	0.34	3.38	6.76	12.46	20.69	29.28	35.47

The above references are JGMA standard.

动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.016	0.160	0.320	0.600	1.030	1.520	1.900
0.069	0.768	1.584	3.029	5.262	7.610	9.514
-	-	-	-	-	-	-

直齿轮
SPUR GEARS

模数
MODULE

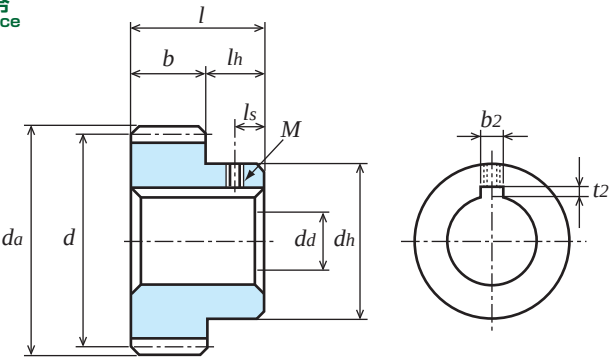
3

压力角 20° (普通齿) 齿数28
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 28

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(kg)
											M	ls			
S3S 28A — 2218F	28	φ84	φ90	A1	22	φ18	-	-	22	-	-	-	-	-	0.91
S3S 28A = 2225	28	φ84	φ90	A1	22	φ25	-	-	22	8 × 3.3	-	-	-	-	0.87
S3S 28A — 3020F	28	φ84	φ90	A1	30	φ20	-	-	30	-	-	-	-	-	1.23
S3S 28A — 3520F	28	φ84	φ90	A1	35	φ20	-	-	35	-	-	-	-	-	1.44
S3S 28A = 3525	28	φ84	φ90	A1	35	φ25	-	-	35	8 × 3.3	-	-	-	-	1.38
S3S 28A = 3530	28	φ84	φ90	A1	35	φ30	-	-	35	8 × 3.3	-	-	-	-	1.32
S3S 28B — 2220	28	φ84	φ90	B1	22	φ20	φ50	13	35	-	-	-	-	-	1.07
S3S 28B # 2225	28	φ84	φ90	B1	22	φ25	φ50	13	35	8 × 3.3	M6	6.5	-	-	1.01
S3S 28B — 3022N	28	φ84	φ90	B1	30	φ22	φ60	13	43	-	-	-	-	-	1.47
S3S 28B — 3518	28	φ84	φ90	B1	35	φ18	φ60	13	48	-	-	-	-	-	1.72
S3S 28B # 3525	28	φ84	φ90	B1	35	φ25	φ60	13	48	8 × 3.3	M6	6.5	-	-	1.61
S3S 28B # 3530	28	φ84	φ90	B1	35	φ30	φ60	13	48	8 × 3.3	M6	6.5	-	-	1.53

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

T (N · m)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	100
28	22	0.25	2.49	4.98	8.93	15.01	21.18	25.68	237.78
28	30	0.34	3.39	6.78	12.18	20.47	28.89	35.02	323.73
28	35	0.40	3.96	7.92	14.21	23.88	33.70	40.85	378.16

KG的齿轮规格有标准齿宽(轻负荷用), 加宽齿宽(重负荷用)。请根据用途选择。 KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.
您可以在我们广泛的设计产品中选择最合适您的产品。 You are able to multiple choices for your suitable design from our wide range.
上述数字根据JGMA公式得出, 仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿轮 GROUND SPUR GEARS	直齿轮 SPUR GEARS	内齿轮 INTERNAL GEARS	研磨齿条 GROUND RACKS	齿条 RACKS	斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿轮 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

3

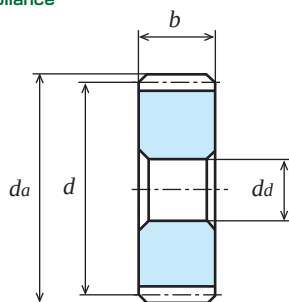
压力角 20° (普通齿) 齿数30
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 30

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)

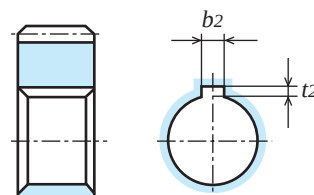


进行了规格改进, 做到节省空间并减轻重量, 不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺孔		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S3S 30A - 2220F	30	$\phi 90$	$\phi 96$	A1	22	$\phi 20$	-	-	22	-	-	-	-	-	1.04
S3S 30A = 2225	30	$\phi 90$	$\phi 96$	A1	22	$\phi 25$	-	-	22	8×3.3	-	-	-	-	1.01
S3S 30A - 3022F	30	$\phi 90$	$\phi 96$	A1	30	$\phi 22$	-	-	30	-	-	-	-	-	1.41
S3S 30A = 3030	30	$\phi 90$	$\phi 96$	A1	30	$\phi 30$	-	-	30	8×3.3	-	-	-	-	1.33
S3S 30A - 3522F	30	$\phi 90$	$\phi 96$	A1	35	$\phi 22$	-	-	35	-	-	-	-	-	1.64
S3S 30A = 3525	30	$\phi 90$	$\phi 96$	A1	35	$\phi 25$	-	-	35	8×3.3	-	-	-	-	1.61
S3S 30A = 3530	30	$\phi 90$	$\phi 96$	A1	35	$\phi 30$	-	-	35	8×3.3	-	-	-	-	1.55
S3S 30B - 2218	30	$\phi 90$	$\phi 96$	B1	22	$\phi 18$	$\phi 50$	13	35	-	-	-	-	-	1.23
S3S 30B # 2225	30	$\phi 90$	$\phi 96$	B1	22	$\phi 25$	$\phi 50$	13	35	8×3.3	M6	6.5	-	-	1.16
S3S 30BF - 3012	30	$\phi 90$	$\phi 96$	B1	30	$\phi 12(H8)$	$\phi 75$	20	50	-	-	-	-	-	2.13
S3S 30B - 3012H	30	$\phi 90$	$\phi 96$	B1	30	$\phi 12(H8)$	$\phi 75$	20	50	-	-	-	-	-	2.13
S3S 30B - 3022N	30	$\phi 90$	$\phi 96$	B1	30	$\phi 22$	$\phi 60$	13	43	-	-	-	-	-	1.66
S3S 30B - 3520	30	$\phi 90$	$\phi 96$	B1	35	$\phi 20$	$\phi 60$	13	48	-	-	-	-	-	1.92
S3S 30B # 3525	30	$\phi 90$	$\phi 96$	B1	35	$\phi 25$	$\phi 60$	13	48	8×3.3	M6	6.5	-	-	1.84
S3S 30B # 3530	30	$\phi 90$	$\phi 96$	B1	35	$\phi 30$	$\phi 60$	13	48	8×3.3	M6	6.5	-	-	1.76

标有●的产品为新产品。Products with ● marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key

标号[#]表示齿轮带有键槽和螺孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
30	22	-	0.27	2.73	5.46	9.65	16.33	23.05	27.89
30	30	-	0.370	3.730	7.460	13.170	22.290	31.470	38.070
30	30	○	0.395	3.953	7.906	14.109	24.182	34.786	43.482
30	35	-	0.43	4.35	8.69	15.35	25.97	36.68	44.38

The above references are JGMA standard.

动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
0.023	0.230	0.470	0.840	1.500	2.230	2.790
0.102	1.125	2.320	4.269	7.542	11.043	13.940
-	-	-	-	-	-	-

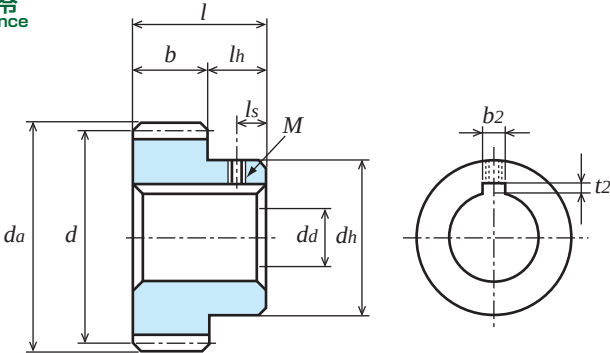
直齿轮
SPUR GEARS

模数
MODULE 3 压力角 20° (普通齿) 齿数32
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 32

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45) 单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 × t2	螺孔 Set Screw		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(kg)
											M	ls			
S3S 32A — 2020F	32	φ96	φ102	A1	20	φ20	-	-	20	-	-	-	-	-	1.09
S3S 32A = 2025	32	φ96	φ102	A1	20	φ25	-	-	20	8 × 3.3	-	-	-	-	1.06
S3S 32A — 3022F	32	φ96	φ102	A1	30	φ22	-	-	30	-	-	-	-	-	1.62
S3S 32A = 3030	32	φ96	φ102	A1	30	φ30	-	-	30	8 × 3.3	-	-	-	-	1.53
S3S 32A — 3222F	32	φ96	φ102	A1	32	φ22	-	-	32	-	-	-	-	-	1.72
S3S 32A = 3225	32	φ96	φ102	A1	32	φ25	-	-	32	8 × 3.3	-	-	-	-	1.69
S3S 32A = 3230	32	φ96	φ102	A1	32	φ30	-	-	32	8 × 3.3	-	-	-	-	1.63
S3S 32B — 2018	32	φ96	φ102	B1	20	φ18	φ50	13	33	-	-	-	-	-	1.27
S3S 32B # 2025	32	φ96	φ102	B1	20	φ25	φ50	13	33	8 × 3.3	M6	6.5	-	-	1.20
S3S 32B — 3025N	32	φ96	φ102	B1	30	φ25	φ65	13	43	-	-	-	-	-	1.88
S3S 32B # 3030	32	φ96	φ102	B1	30	φ30	φ65	13	43	8 × 3.3	M6	6.5	-	-	1.74
S3S 32B — 3220	32	φ96	φ102	B1	32	φ20	φ60	13	45	-	-	-	-	-	2.00
S3S 32B # 3225	32	φ96	φ102	B1	32	φ25	φ60	13	45	8 × 3.3	M6	6.5	-	-	1.92
S3S 32B # 3230	32	φ96	φ102	B1	32	φ30	φ60	13	45	8 × 3.3	M6	6.5	-	-	1.85

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key
标号[#]表示齿轮带有键槽和螺孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW) T (N · m)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
32	20	0.27	2.71	5.41	9.41	16.03	22.65	27.36	100
32	30	0.41	4.06	8.12	14.11	24.05	33.98	41.04	258.79
32	32	0.43	4.33	8.66	15.05	25.66	36.25	43.78	387.71
									413.50

KG的齿轮规格有标准齿宽 (轻负荷用), 加宽齿宽 (重负荷用)。请根据用途选择。 KG STOCK GEARS has Wide-face width for Heavy load, and Standard-face width for Light load.
您可以在我们广泛的设计产品中选择最合适您的产品。 You are able to multiple choices for your suitable design from our wide range.
上述数字根据JGMA公式得出, 仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

目次表 CONTENTS	齿轮信息 INFORMATION	齿轮箱 GEAR BOXES	无隙隙齿 ANTI BACKLASH SPUR GEARS	研磨直齿 GROUND SPUR GEARS	直齿 SPUR GEARS	内齿 INTERNAL GEARS	研磨齿 GROUND RACKS	齿 RACKS	斜齿・螺旋齿 HELICAL GEARS AND SCREW GEARS	蜗轮・蜗杆 WORMS AND WORM WHEELS	锥齿 BEVEL GEARS	技术资料 REFERENCE DATA
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直齿轮 SPUR GEARS

模数
MODULE

3

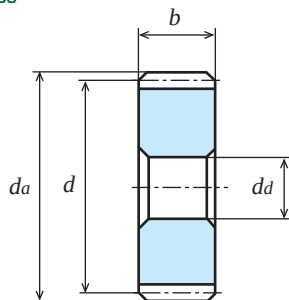
压力角 20° (普通齿) 齿数36
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 36

JIS B 1702-1 (ISO) 8级
System of accuracy: JIS B 1702-1 (ISO) class 8

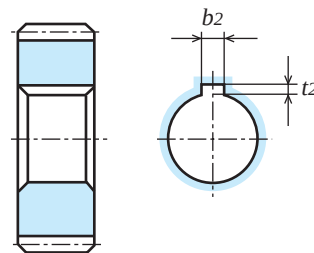


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1

材料：碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位：mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S3S 36A - 2020F	36	$\phi 108$	$\phi 114$	A1	20	$\phi 20$	-	-	20	-	-	-	-	-	1.39
S3S 36A = 2025	36	$\phi 108$	$\phi 114$	A1	20	$\phi 25$	-	-	20	8×3.3	-	-	-	-	1.36
S3S 36A = 3030	36	$\phi 108$	$\phi 114$	A1	30	$\phi 30$	-	-	30	8×3.3	-	-	-	-	1.99
S3S 36A - 3222F	36	$\phi 108$	$\phi 114$	A1	32	$\phi 22$	-	-	32	-	-	-	-	-	2.21
S3S 36A = 3225	36	$\phi 108$	$\phi 114$	A1	32	$\phi 25$	-	-	32	8×3.3	-	-	-	-	2.17
S3S 36A = 3230	36	$\phi 108$	$\phi 114$	A1	32	$\phi 30$	-	-	32	8×3.3	-	-	-	-	2.12
S3S 36B - 2020	36	$\phi 108$	$\phi 114$	B1	20	$\phi 20$	$\phi 50$	13	33	-	-	-	-	-	1.56
S3S 36B # 2025	36	$\phi 108$	$\phi 114$	B1	20	$\phi 25$	$\phi 50$	13	33	8×3.3	M6	6.5	-	-	1.50
S3S 36B - 3025N	36	$\phi 108$	$\phi 114$	B1	30	$\phi 25$	$\phi 70$	13	43	-	-	-	-	-	2.39
S3S 36B # 3035	36	$\phi 108$	$\phi 114$	B1	30	$\phi 35$	$\phi 70$	13	43	10×3.3	M8	6.5	-	-	2.21
S3S 36B - 3222	36	$\phi 108$	$\phi 114$	B1	32	$\phi 22$	$\phi 60$	13	45	-	-	-	-	-	2.46
S3S 36B # 3225	36	$\phi 108$	$\phi 114$	B1	32	$\phi 25$	$\phi 60$	13	45	8×3.3	M6	6.5	-	-	2.41
S3S 36B # 3230	36	$\phi 108$	$\phi 114$	B1	32	$\phi 30$	$\phi 60$	13	45	8×3.3	M6	6.5	-	-	2.33

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
36	20	0.32	3.16	6.20	10.64	18.39	26.00	31.63	301.77
36	30	0.47	4.74	9.31	15.96	27.58	39.00	47.44	452.65
36	32	0.51	5.06	9.93	17.02	29.42	41.60	50.60	483.21

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

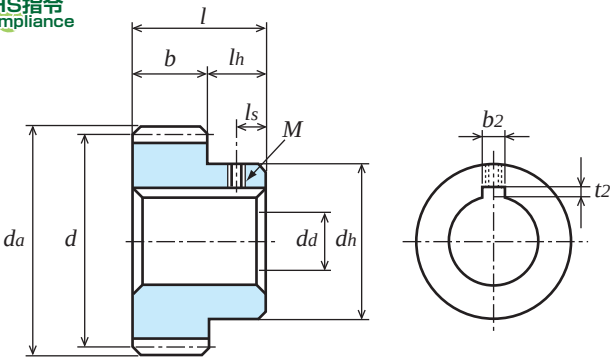
直齿轮
SPUR GEARS

模数 MODULE 3 压力角 20° (普通齿) 齿数 40 45 20° PRESSURE ANGLE FULL DEPTH TOOTH Z 40 to Z 45

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)
单位: mm
Dimensions: mm

Table with 15 columns: Product Model, Number of Teeth, Reference Diameter, Outside Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Key Way, Set Screw, Dimension of Rim, Thickness of Web, Weight. Rows include models like S3S 40A-2020F, S3S 40B-2020, S3S 40B-3015, etc.

标有●的产品为新产品。Products with● marks are new item.
标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.
产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (W) Bending Strength
Table with 10 columns: 齿数 z, 齿宽 b, 淬火 H, 10, 100, 200, 400, 800, 1,200, 1,500

容许传达动力表 齿面强度 (kW)
Allowable transfer capability table (kW) Surface Durability
Table with 10 columns: 10, 100, 200, 400, 800, 1,200, 1,500

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

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内齿轮 INTERNAL GEARS
研磨齿条 GROUND RACKS
齿条 RACKS
斜齿轮・螺旋齿条 HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆 WORMS AND WORM WHEELS
锥齿轮 BEVEL GEARS
技术资料 REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

3

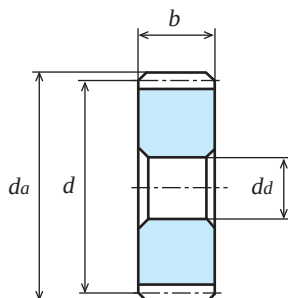
压力角 20° (普通齿) 齿数48
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 48

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8

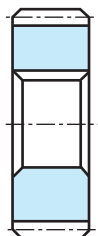


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

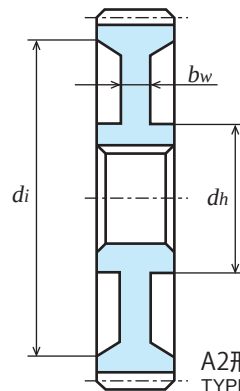
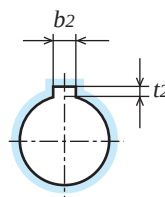
Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1



A2形状
TYPE A2

材料：碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S3S 48A - 2020F	48	$\phi 144$	$\phi 150$	A1	20	$\phi 20$	-	-	20	-	-	-	-	-	2.51
S3S 48A = 2025	48	$\phi 144$	$\phi 150$	A2	20	$\phi 25$	$\phi 50$	-	20	8×3.3	-	-	$\phi 116$	10	1.84
S3S 48A = 3030	48	$\phi 144$	$\phi 150$	A2	30	$\phi 30$	$\phi 60$	-	30	8×3.3	-	-	$\phi 116$	16	2.89
S3S 48A - 3222F	48	$\phi 144$	$\phi 150$	A1	32	$\phi 22$	-	-	32	-	-	-	-	-	4.00
S3S 48A = 3230	48	$\phi 144$	$\phi 150$	A2	32	$\phi 30$	$\phi 60$	-	32	8×3.3	-	-	$\phi 116$	16	3.04
S3S 48B - 2020	48	$\phi 144$	$\phi 150$	B1	20	$\phi 20$	$\phi 50$	13	33	-	-	-	-	-	2.68
S3S 48B # 2025	48	$\phi 144$	$\phi 150$	B3	20	$\phi 25$	$\phi 50$	13	33	8×3.3	M6	6.5	$\phi 116$	10	1.99
S3S 48B - 3025N	48	$\phi 144$	$\phi 150$	B1	30	$\phi 25$	$\phi 80$	13	43	-	-	-	-	-	4.19
S3S 48B # 3040	48	$\phi 144$	$\phi 150$	B3	30	$\phi 40$	$\phi 80$	13	43	12×3.3	M8	6.5	$\phi 116$	16	3.38
S3S 48B - 3222	48	$\phi 144$	$\phi 150$	B1	32	$\phi 22$	$\phi 60$	13	45	-	-	-	-	-	4.25
S3S 48B # 3230	48	$\phi 144$	$\phi 150$	B3	32	$\phi 30$	$\phi 60$	13	45	8×3.3	M6	6.5	$\phi 116$	16	3.25

标号 [=] 表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
48	20	0.46	4.55	8.46	14.00	25.40	36.43	-	434.51
48	30	0.68	6.83	12.69	21.01	38.10	54.65	-	652.24
48	32	0.73	7.29	13.54	22.41	40.64	58.29	-	696.17

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

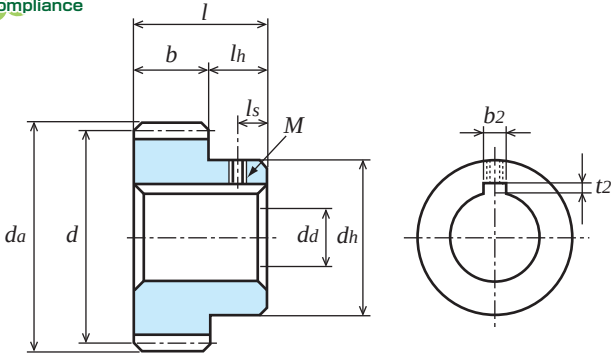
直齿轮
SPUR GEARS

模数 MODULE 3 压力角 20° (普通齿) 齿数50 20° PRESSURE ANGLE FULL DEPTH TOOTH Z 50

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)
单位: mm
Dimensions: mm

Table with 15 columns: 产品型号, 齿数, 分度圆直径, 齿顶圆直径, 形状, 齿宽, 孔径, 轮毂外径, 轮毂长度, 全长, 键槽, 螺孔, 轮辋尺寸, 腹板厚度, 重量. It lists various gear specifications and their corresponding dimensions and weights.

标有●的产品为新产品。Products with ● marks are new item.

标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

Table with 10 columns: 齿数, 齿宽, 淬火, 旋转速度 (10, 100, 200, 400, 800, 1,200, 1,500 rpm). It shows the allowable transfer capability for different gear specifications.

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

Table with 8 columns: 旋转速度 (10, 100, 200, 400, 800, 1,200, 1,500 rpm). It shows the allowable transfer capability for different gear specifications.

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齿条 RACKS
斜齿轮・螺旋齿轮 HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆 WORMS AND WORM WHEELS
锥齿轮 BEVEL GEARS
技术资料 REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

3

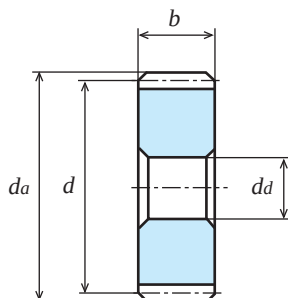
压力角 20° (普通齿) 齿数56
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 56

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1 (ISO) class 8

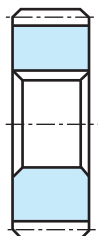


进行了规格改进，做到节省空间并减轻重量，不需要进行连结加工。

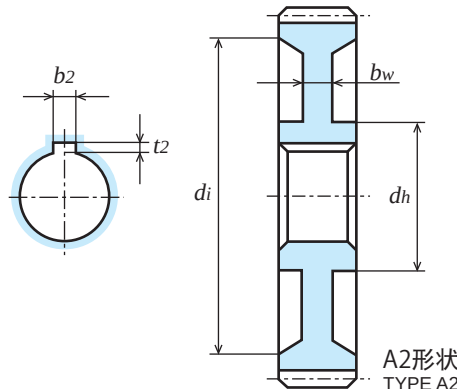
Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



A1形状
TYPE A1



A1形状
TYPE A1



A2形状
TYPE A2

材料：碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位：mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter d_a	形状 Type	齿宽 Face Width b	孔径 Bore Diameter $d_a(H7)$	轮毂外径 Hub Diameter d_h	轮毂长度 Hub Projection l_h	全长 Overall Length l	键槽 Key Way $b_2 \times t_2$	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim d_i	腹板厚度 Thickness of Web b_w	重量 Weight $W(kg)$
											M	l_s			
S3S 56A - 2020F	56	$\phi 168$	$\phi 174$	A1	20	$\phi 20$	-	-	20	-	-	-	-	-	3.43
S3S 56A = 2025	56	$\phi 168$	$\phi 174$	A2	20	$\phi 25$	$\phi 50$	-	20	8×3.3	-	-	$\phi 140$	10	2.39
S3S 56A - 3222F	56	$\phi 168$	$\phi 174$	A1	32	$\phi 22$	-	-	32	-	-	-	-	-	5.47
S3S 56A = 3230	56	$\phi 168$	$\phi 174$	A2	32	$\phi 30$	$\phi 60$	-	32	8×3.3	-	-	$\phi 140$	16	3.93
S3S 56B - 2020	56	$\phi 168$	$\phi 174$	B1	20	$\phi 20$	$\phi 60$	13	33	-	-	-	-	-	3.69
S3S 56B # 2025	56	$\phi 168$	$\phi 174$	B3	20	$\phi 25$	$\phi 60$	13	33	8×3.3	M6	6.5	$\phi 140$	10	2.70
S3S 56B - 3222	56	$\phi 168$	$\phi 174$	B1	32	$\phi 22$	$\phi 70$	13	45	-	-	-	-	-	5.83
S3S 56B # 3230	56	$\phi 168$	$\phi 174$	B3	32	$\phi 30$	$\phi 70$	13	45	8×3.3	M6	6.5	$\phi 140$	16	4.38
S3S 56B # 3235	56	$\phi 168$	$\phi 174$	B3	32	$\phi 35$	$\phi 70$	13	45	10×3.3	M8	6.5	$\phi 140$	16	4.28

标号[=]表示齿轮带有键槽/带有键。 [=] : Gear with key way / with key

标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#] : Gear with key way and threaded hole / with key and screw.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	
56	20	0.55	5.50	9.87	16.59	29.97	-	-	525.23
56	32	0.88	8.80	15.80	26.54	47.95	-	-	840.37

上述数字根据JGMA公式得出，仅供参考。 The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

T (N · m)

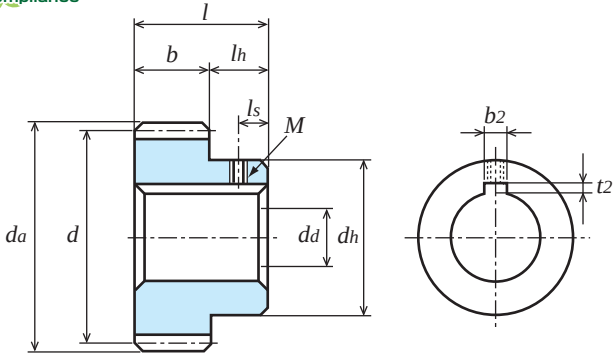
直齿轮
SPUR GEARS

模数
MODULE 3 压力角 20° (普通齿) 齿数60
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 60

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1(ISO) class 8
(Induction hardened products: class 9)



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45) 单位: mm
Dimensions: mm

Table with 15 columns: Product Model, Number of Teeth, Reference Diameter, Outside Diameter, Type, Face Width, Bore Diameter, Hub Diameter, Hub Projection, Overall Length, Key Way, Set Screw, Dimension of Rim, Thickness of Web, Weight. It lists various gear models like S3S 60A-2020F, S3S 60B-2022, etc.

标有●的产品为新产品。Products with●marks are new item.
标号[=]表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key
标号[#]表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.
产品型号末尾标有【H】的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.
※
齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.
需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)
Allowable transfer capability table (W) Bending Strength
Table with 10 columns: 齿数 z, 齿宽 b, 淬火 H, and 10 different rotation speeds (10, 100, 200, 400, 800, 1,200, 1,500 min⁻¹).

容许传达动力表 齿面强度 (kW)
Allowable transfer capability table (kW) Surface Durability
Table with 10 columns: 齿数 z, 齿宽 b, 淬火 H, and 10 different rotation speeds (10, 100, 200, 400, 800, 1,200, 1,500 min⁻¹).

The above references are JGMA standard.
动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

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HELICAL GEARS AND SCREW GEARS
蜗轮・蜗杆
WORMS AND WORM WHEELS
锥齿轮
BEVEL GEARS
技术资料
REFERENCE DATA

直齿轮 SPUR GEARS

模数
MODULE

3

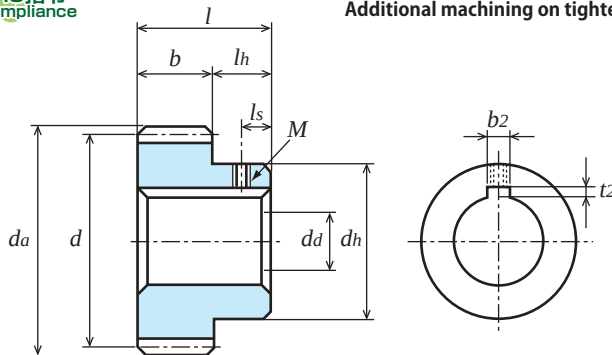
压力角 20° (普通齿) 齿数 64 ~ 80
20° PRESSURE ANGLE FULL DEPTH TOOTH Z 64 to Z 80

JIS B 1702-1 (ISO) 8级 (高频淬火产品: 9级)
System of accuracy: JIS B 1702-1 (ISO) class 8
(Induction hardened products: class 9)



进行了规格改进, 做到节省空间并减轻重量, 不需要进行连结加工。

Specification change Space-saving and weight saving. Additional machining on tightening is not necessary.



B1形状
TYPE B1

材料: 碳钢 (ISO C45)
Material: Carbon Steel (ISO C45)

单位: mm
Dimensions: mm

产品型号 Catalogue Number	齿数 Number of Teeth z	分度圆直径 Reference Diameter d	齿顶圆直径 Outside Diameter da	形状 Type	齿宽 Face Width b	孔径 Bore Diameter da(H7)	轮毂外径 Hub Diameter dh	轮毂长度 Hub Projection lh	全长 Overall Length l	键槽 Key Way b2 x t2	螺纹孔 Set Screw		轮辋的 尺寸 Dimension of Rim di	腹板厚度 Thickness of Web bw	重量 Weight W(kg)
											M	ls			
S3S 64A - 2022F	64	φ192	φ198	A1	20	φ22	-	-	20	-	-	-	-	-	4.49
S3S 64A = 2030	64	φ192	φ198	A2	20	φ30	φ 60	-	20	8 x 3.3	-	-	φ164	10	3.05
S3S 64A - 3222F	64	φ192	φ198	A1	32	φ22	-	-	32	-	-	-	-	-	7.18
S3S 64A = 3230	64	φ192	φ198	A2	32	φ30	φ 60	-	32	8 x 3.3	-	-	φ164	16	4.94
S3S 64A = 3235	64	φ192	φ198	A2	32	φ35	φ 70	-	32	10 x 3.3	-	-	φ164	16	5.00
S3S 64B - 2022	64	φ192	φ198	B1	20	φ22	φ 60	13	33	-	-	-	-	-	4.74
S3S 64B # 2030	64	φ192	φ198	B3	20	φ30	φ 60	13	33	8 x 3.3	M6	6.5	φ164	10	3.27
S3S 64B - 3225	64	φ192	φ198	B1	32	φ25	φ 70	13	45	-	-	-	-	-	7.50
S3S 64B # 3230	64	φ192	φ198	B3	32	φ30	φ 70	13	45	8 x 3.3	M6	6.5	φ164	16	5.38
S3S 64B # 3235	64	φ192	φ198	B3	32	φ35	φ 70	13	45	10 x 3.3	M8	6.5	φ164	16	5.29
● S3S 70BF - 3020	70	φ210	φ216	B1	30	φ20	φ150	20	50	-	-	-	-	-	10.78
● S3S 70B - 3020H	70	φ210	φ216	B1	30	φ20(H※)	φ150	20	50	-	-	-	-	-	10.78
● S3S 80BF - 3020	80	φ240	φ246	B1	30	φ20	φ170	20	50	-	-	-	-	-	14.06
● S3S 80B - 3020H	80	φ240	φ246	B1	30	φ20(H※)	φ170	20	50	-	-	-	-	-	14.06

标有 ● 的产品为新产品。Products with ● marks are new item.

标号 [=] 表示齿轮带有键槽/带有键。 [=]: Gear with key way / with key

标号 [#] 表示齿轮带有键槽和螺纹孔/带有键和固定螺钉。 [#]: Gear with key way and threaded hole / with key and screw.

产品型号末尾标有 [H] 的产品是齿部高频淬火产品。 Gear tooth surface completed with induction hardening, Hardness HRC47 to 53.

※

齿部高频淬火后、没有对齿孔进行修正。 Bore correcting after induction hardening is not completed.

需要对产品进行追加加工时, 请参考本产品目录中的「追加加工注意事项」。 Please refer to Precaution for additional process when additional process.

容许传达动力表 弯曲强度 (kW)

Allowable transfer capability table (W) Bending Strength

齿数 z	齿宽 b	淬火 H	旋转速度 (min ⁻¹) revolution/min						
			10	100	200	400	800	1,200	1,500
64	20	-	0.65	6.45	11.21	19.11	34.42	-	-
64	32	-	1.03	10.32	17.93	30.57	55.07	-	-
70	30	-	1.070	10.540	18.120	31.220	57.030	-	-
70	30	○	1.134	11.184	19.485	33.932	66.503	-	-
80	30	-	1.250	12.020	20.350	35.640	66.580	-	-
80	30	○	1.323	12.787	21.941	38.821	77.641	-	-

The above references are JGMA standard.

动力换算公式请确认第26页。 Please refer to the conversion formulas of power on page26.

容许传达动力表 齿面强度 (kW)

Allowable transfer capability table (kW) Surface Durability

旋转速度 (min ⁻¹) revolution/min						
10	100	200	400	800	1,200	1,500
-	-	-	-	-	-	-
-	-	-	-	-	-	-
0.137	1.380	2.430	4.420	8.950	-	-
0.600	6.552	11.768	21.126	42.681	-	-
0.181	1.790	3.120	5.840	12.180	-	-
0.794	8.488	15.014	27.385	56.459	-	-

直齿轮
SPUR GEARS

模数
MODULE

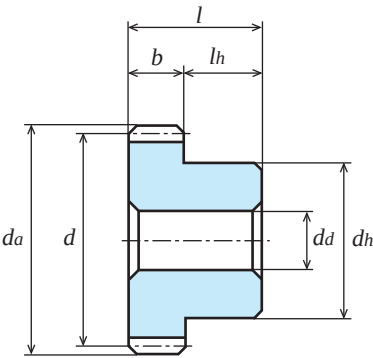
4

压力角 20° (普通齿)
20° PRESSURE ANGLE FULL DEPTH TOOTH

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



New 进行了规格改进，做到节省空间并减轻重量。
Specification change Space-saving and weight saving.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产品型号 Catalogue Number	齿数 Number of Teeth <i>z</i>	分度圆直径 Reference Diameter <i>d</i>	齿顶圆直径 Tip Diameter <i>da</i>	形状 Type	齿宽 Face Width <i>b</i>	孔径 Bore Diameter <i>da</i> (H8)	轮毂外径 Hub Diameter <i>dh</i>	轮毂长度 Hub Projection <i>lh</i>	全长 Overall Length <i>l</i>	重量 Weight <i>W</i> (kg)
S4S 14B — 4018N	14	φ56	φ64	B1	40	φ18	φ44	15	55	0.84
S4S 15B — 4020N	15	φ60	φ68	B1	40	φ20	φ48	15	55	0.97
S4S 16B — 4020N	16	φ64	φ72	B1	40	φ20	φ52	15	55	1.13
S4S 18B — 4025N	18	φ72	φ80	B1	40	φ25	φ60	15	55	1.40
S4S 20B — 4025N	20	φ80	φ88	B1	40	φ25	φ68	15	55	1.80

容许传达动力表 弯曲强度 (kW)

T (N · m)

Allowable transfer capability table (W) Bending Strength

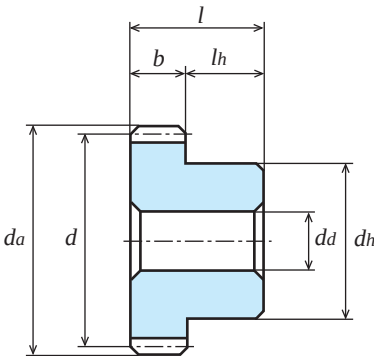
齿数 <i>z</i>	齿宽 <i>b</i>	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	100
14	40	0.28	2.83	5.67	11.04	18.86	25.64	31.02	270.25
15	40	0.32	3.17	6.35	12.23	20.70	28.46	34.37	302.72
16	40	0.35	3.52	7.05	13.41	22.51	31.29	37.72	336.14
18	40	0.42	4.24	8.47	15.74	26.05	36.93	44.68	404.90
20	40	0.50	4.97	9.95	18.06	30.19	42.60	51.70	474.62

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

JIS B 1702-1 (ISO) 8级
System of accuracy : JIS B 1702-1(ISO) class 8



订购时请写入明确完整的产品型号。
Please refer to the catalogue reference while ordering.



B1形状
TYPE B1

材料 : 碳钢 (ISO C45)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

产 品 型 号 Catalogue Number	齿 数 Number of Teeth <i>z</i>	分度圆直 径 Reference Diameter <i>d</i>	齿顶圆直 径 Tip Diameter <i>da</i>	形 状 Type	齿 宽 Face Width <i>b</i>	孔 径 Bore Diameter <i>da</i> (H8)	轮 毂 外 径 Hub Diameter <i>dh</i>	轮 毂 长 度 Hub Projection <i>lh</i>	全 长 Overall Length <i>l</i>	重 量 Weight <i>W</i> (kg)
S5S 14B — 5020N	14	φ 70	φ 80	B1	50	φ20	φ55	15	65	1.63
S5S 15B — 5025N	15	φ 75	φ 85	B1	50	φ25	φ60	15	65	1.82
S5S 16B — 5025N	16	φ 80	φ 90	B1	50	φ25	φ65	15	65	2.11
S5S 18B — 5025N	18	φ 90	φ100	B1	50	φ25	φ75	15	65	2.77
S5S 20B — 5030N	20	φ100	φ110	B1	50	φ30	φ85	15	65	3.39

容许传达动力表 弯曲强度 (kW) T (N · m)

Allowable transfer capability table (W) Bending Strength

齿数 <i>z</i>	齿宽 <i>b</i>	旋转速度 (min ⁻¹) revolution/min							旋转速度 (min ⁻¹) revolution/min
		10	100	200	400	800	1,200	1,500	100
14	50	0.55	5.48	10.96	20.48	33.97	47.98	58.00	523.32
15	50	0.61	6.14	12.28	22.62	37.57	53.16	64.40	586.35
16	50	0.68	6.81	13.62	24.74	41.36	58.36	70.83	650.33
18	50	0.82	8.19	16.38	28.92	48.95	69.12	83.62	782.12
20	50	0.96	9.62	19.10	33.04	56.58	79.97	96.47	918.68

上述数字根据JGMA公式得出，仅供参考。The above numerical values are equivalent to JGMA formulas as reference only.
动力换算公式请确认第26页。Please refer to the conversion formulas of power on page26.

Memo

目录 CONTENTS
齿信 INFORMATION
齿轮 GEAR BOXES
齿 ANTI BACKLASH SPUR GEARS
齿 GROUND SPUR GEARS
直齿 SPUR GEARS
内齿 INTERNAL GEARS
齿 GROUND RACKS
齿 RACKS
齿 HELIC GEAR AND SCREW GEARS
齿 WORMS AND WORM WHEELS
齿 BEVEL GEARS
技术 REFERENCE DATA



内齿轮

Internal Gears

产品型号的解读方法 Reference of Catalogue Number

IS 50 B 60 A - 03 50
IS 80 B 100 A - 07 05
IS 1 S 120 A - 10 50

齿轮的种类 Kind of Gear	模数 Module	材料 Material	齿数 Number of Teeth	形状 Type	—	齿宽 Face Width	外径 Outside Diameter of ring
IS: 内齿轮 internal Gears	表示模数大小。当模数1以下时， 所标数据是实际模数乘于100。 例： 模数0.5时所标数据是50。 模数0.8时所标数据是80。 Expressed the unit of module's size. Module 0.5 and 0.8 as multiple of 100. Example m0.5 → 50 m0.8 → 80	B: 黄铜 C3713P C3604B Brass S: 碳素钢 Carbon Steel	齿数从60T到120T。 拥有以12的倍数为 主的齿数。 As for the number of teeth, we have the varieties from 60z to 120 z as 12 of common multiple.	A: 无轮毂 hubless	内齿轮无键槽/ 无螺纹孔 Gear without Key Way / without Thread hole.	单位: mm Dimension: millimeter	单位: mm 例 φ100→00 φ105→05 φ150→50 Dimension: millimeter

※模数m0.8以上，外径D在100以上时的产品后两位数。例：外径150，所标数据为50。

内齿轮信息

○KG内齿轮的特点

- 1) 模数是以m0.5, m0.8, m1的3种小模数为主，并充实了各种规格。
- 2) 外围的配合公差为H8。可以在机架孔里直接配对。
- 3) 相配对的小齿轮(行星齿轮)，请在KG直齿轮中选择。

The Feature of Internal Gears

- 1) Range: Module 0.5, 0.8 and 1.0
- 2) Fit tolerance of the Outer Rim has tolerance of H8, this can be installed at hole of housing without modification.
- 3) Please refer to the KG-catalogue of Spur gear for the sun and planet gears.

○使用中的注意事项

- 1) 要进入内齿轮中运行的外齿轮齿数，是要受条件制约的。(请确认下一页的内齿轮的干涉)
- 2) 设计行星齿轮机构时，行星轮和太阳轮的齿数有制约，组装也有条件限制。请注意。

Usage of Precaution

- 1) Note that planet gear has limited number of teeth, refer to the range of number of teeth (see table 1)
- 2) Refer to the interference for planet and sun gears assembly, it has a limited number of teeth for your design.

内齿轮

INTERNAL GEARS

模数
MODULE

0.5/0.8

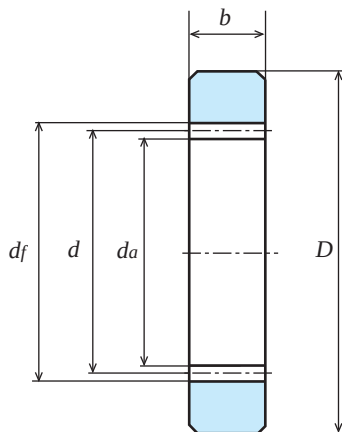
压力角 20° (普通齿)

20° PRESSURE ANGLE FULL DEPTH TOOTH

对应RoHS指令
RoHS Compliance

订购时请写入明确完整的产品型号。

Please refer to the catalogue reference while ordering.



对应 RoHS 指令

从2006年11月份开始生产提供，对应欧洲RoHS指令的产品。
We supplied the KG-products with RoHS compliance of EU to all our valued customers since November 2006

材料：黄铜 (ISO CuZn38Pb2, CuZn39Pb3)

Material : Brass (ISO CuZn38Pb2,CuZn39Pb3)

单位：mm
Dimensions : mm

模数 Module	产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter d_a	齿根圆 直 径 Root Diameter d_f	齿 宽 Face Width b	外 径 Outside Diameter of Ring D	重 量 Weight $W(g)$
0.5	IS50B 60A — 0350	60	$\phi 30.0$	$\phi 29.0$	$\phi 31.25$	3	$\phi 50$	32.0
0.5	IS50B 80A — 0360	80	$\phi 40.0$	$\phi 39.0$	$\phi 41.25$	3	$\phi 60$	40.1
0.5	IS50B 90A — 0370	90	$\phi 45.0$	$\phi 44.0$	$\phi 46.25$	3	$\phi 70$	57.6
0.5	IS50B 100A — 0375	100	$\phi 50.0$	$\phi 49.0$	$\phi 51.25$	3	$\phi 75$	62.6
0.5	IS50B 120A — 0380	120	$\phi 60.0$	$\phi 59.0$	$\phi 61.25$	3	$\phi 80$	56.1

材料：黄铜 (ISO CuZn38Pb2, CuZn39Pb3)

Material : Brass (ISO CuZn38Pb2,CuZn39Pb3)

单位：mm
Dimensions : mm

模数 Module	产 品 型 号 Catalogue Number	齿 数 Number of Teeth z	分度圆 直 径 Reference Diameter d	齿顶圆 直 径 Tip Diameter d_a	齿根圆 直 径 Root Diameter d_f	齿 宽 Face Width b	外 径 Outside Diameter of Ring D	重 量 Weight $W(g)$
0.8	IS80B 60A — 0780	60	$\phi 48.0$	$\phi 46.4$	$\phi 50.0$	7	$\phi 80$	191.4
0.8	IS80B 80A — 0790	80	$\phi 64.0$	$\phi 62.4$	$\phi 66.0$	7	$\phi 90$	187.1
0.8	IS80B 90A — 0700	90	$\phi 72.0$	$\phi 70.4$	$\phi 74.0$	7	$\phi 100$	225.1
0.8	IS80B 100A — 0705	100	$\phi 80.0$	$\phi 78.4$	$\phi 82.0$	7	$\phi 105$	216.1
0.8	IS80B 120A — 0720	120	$\phi 96.0$	$\phi 94.4$	$\phi 98.0$	7	$\phi 120$	242.3

ISO C45 机械构造用碳素钢 (JIS G 4051)
Material : Carbon Steel (ISO C45)

单位 : mm
Dimensions : mm

模数 Module	产 品 型 号 Catalogue Number	齿 数 Number of Teeth <i>z</i>	分度圆 直 径 Reference Diameter <i>d</i>	齿顶圆 直 径 Tip Diameter <i>d_a</i>	齿根圆 直 径 Root Diameter <i>d_f</i>	齿 宽 Face Width <i>b</i>	外 径 Outside Diameter of Ring <i>D</i>	重 量 Weight <i>W(g)</i>
1	IS1S 60A — 1090	60	φ 60.0	φ 58.0	φ 62.5	10	φ 90	277.4
1	IS1S 80A — 1010	80	φ 80.0	φ 78.0	φ 82.5	10	φ 110	351.4
1	IS1S 90A — 1020	90	φ 90.0	φ 88.0	φ 92.5	10	φ 120	388.4
1	IS1S 100A — 1030	100	φ 100.0	φ 98.0	φ 102.5	10	φ 130	425.4
1	IS1S 120A — 1050	120	φ 120.0	φ 118.0	φ 122.5	10	φ 150	499.4

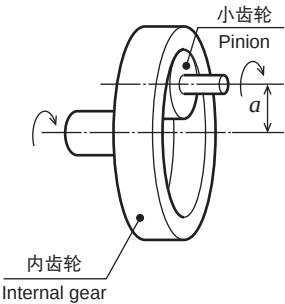
内齿轮的干涉 Interference of Internal gear

内齿轮和行星轮(小齿轮)啮合时，如果内齿轮的齿数太少或内齿轮和太阳轮之间的齿数差太少，就有可能出现不能装配的情况。这种问题叫内齿轮的干涉。以下表里列举了干涉的种类和原因。

Interference will occur when design provides insufficient Number of teeth between Internal and Planet gears (External gear) during assembly.

注：主要的使用例 For example

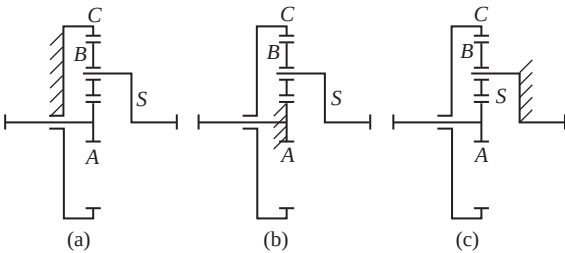
1. 内齿与小齿轮之间的啮合
Engagement between Internal and Pinion.



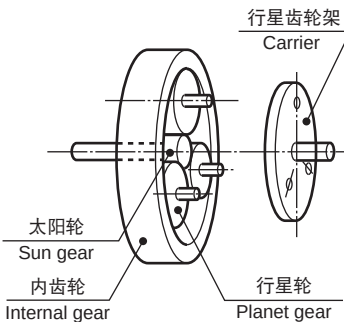
相对于外齿轮之间的啮合，中心距离a变短，并可以获得互相之间相同方向的运转。
Center distance for the Internal gear train is shorter than the external gear train, but can be obtained in the same direction.
传动比 : *u*

- a) 以小齿轮(行星齿轮)为驱动轮时
Pinion is driver gear.
- $$u = \frac{\text{小齿轮齿数}}{\text{内齿轮齿数}} \text{ (减速)}$$
- $$u = \frac{\text{No. of teeth of pinion}}{\text{No. of teeth of Internal gear}} \text{ (Speed Reducer)}$$
- b) 以内齿轮为驱动轮时
Internal gear is driver gear.
- $$u = \frac{\text{内齿轮齿数}}{\text{小齿轮齿数}} \text{ (增速)}$$
- $$u = \frac{\text{No. of teeth of Internal gear}}{\text{No. of teeth of pinion}} \text{ (Speed increaser)}$$

行星齿轮机构的基本齿轮轴(2K-H)
Basic gear axis for Planetary gear train mechanism (2K-H).



2. 行星齿轮机构
Planetary gear mechanism



大多数行星齿轮机构是由太阳轮，行星轮，内齿轮，行星齿轮架来组成。结构小巧且会得到大的减速比。
Most mechanism of Planetary gear comes with compact design and high reductive gear ratio consisting of Sun, Planet, Internal gears and Planet carrier.

机构种类 Type of mechanism	固定因素 Fixed factor	输 入 Input	输 出 Output	齿轮减速比的公式 (A) Formula of gear ratio	减速比 Ratio
(a) 行星型 Type of planetary	内齿轮 Internal gear	太阳齿轮 Sun gear	行星齿轮架 Carrier	$\frac{1}{\frac{zC}{zA} + 1}$ (<i>z</i> : Number of teeth)	1/3 ~ 1/12
(b) 太阳型 Type of solar	太阳齿轮 Sun gear	内齿轮 Internal gear	行星齿轮架 Carrier	$\frac{1}{\frac{zA}{zC} + 1}$	1/1.2 ~ 1/1.7
(c) 星型 Type of star	行星齿轮架 Carrier	太阳齿轮 Sun gear	内齿轮 Internal gear	$-\frac{1}{\frac{zC}{zA}}$ Input and output axis have opposite rotation	1/2 ~ 1/11

上表中，[Z]表示齿数，[A和C]表示太阳轮和内齿轮。
负[-]标号表示与输入旋转方向相反的输出旋转方向。
z : Number of teeth, A&C: Sun and internal Gears.
[-] : Expressed output rotated direction against input rotation.

内齿轮

INTERNAL GEARS

Please refer to the causes and types of interference as follows.

Interference of Internal Gear (Table 1)

There are restriction of the number of teeth for the planet gear and the sun gear when the planetary gear mechanism is designed.

干涉 Interference	现象 Phenomenon	原因 Cause	干涉 Interference	现象 Phenomenon	原因 Cause
渐开线干涉 Involute interference	内齿轮的齿顶切入小齿轮的齿根，无法旋转。 Unworkable conditions when a Tooth tip of Internal gear cuts into Dedendum of pinion during operations.	小齿轮的齿数不够。 Insufficient of Number of Teeth for Pinion gear.	径向退刀干涉 Trimming interference	装配时，小齿轮可从轴方向进入，但不能从半径方向进出。 During assembling, pinion can be assembled to axial direction but not to radius direction.	次摆线干涉相同 Same as Trochoid interference.
次摆线干涉 Trochoid interference	啮合后的小齿轮齿顶再次碰到内齿轮的齿顶，无法旋转。 Tip of pinion after engaging with Sun gear interferes to Tooth tip of Internal gear causing unworkable conditions.	内齿轮小齿轮之间的齿数差距太小。 Difference in No. of teeth between Internal and Planet is insufficient.	齿根干涉 Fillet interference	小齿轮的齿顶接触到内齿轮的齿根圆角，无法旋转。 Tooth tip of pinion touched Dedendum fillet of Internal gear causing unworkable condition.	小齿轮齿数不足。(小齿轮的齿高不足) Insufficient No. of teeth for pinion. (insufficient Tooth depth of pinion.)

行星齿轮的组装条件 Relationship among the gears in a planetary gear mechanism

当设计行星齿轮的时候，要满足以下的齿数构成条件。(please meet the following conditions.)

When designing Planet gear, please achieve following conditions.

- ① 内齿轮齿数 = (太阳轮齿数 + 2) × 行星轮齿数
No of teeth of Internal gear = (No. of teeth of Sun gear + 2) × No. of teeth of Planet gear.
- ②
$$\frac{\text{内齿轮齿数} + \text{太阳轮齿数}}{\text{行星轮的数目 (A)}} = \text{应为整数}$$
$$\frac{\text{No. of teeth of (Internal gear + Sun gear)}}{\text{The number of Planet gear}} = \text{Should be Integer number}$$
- ③ 要防止发生行星轮之间的齿顶干涉。(n : 行星轮数 π [rad])
Prevent the Tip interference among Planet gears.
 $m(ZB+2) < m(ZA+ZB) \sin(\pi/n)$ (n: 行星轮数 The number of Planet gear π [rad])

能和KG内齿轮相互啮合的，小齿轮的齿数范围 Range of number of teeth for pinion and KG-Internal gears

内齿轮的齿数 Number of teeth of Internal gear	小齿轮的齿数范围 Range of number of teeth for pinion	内齿轮的齿数 Number of teeth of Internal gear	小齿轮的齿数范围 Range of number of teeth for pinion
60	21 ~ 44	100	19 ~ 84
80	20 ~ 64	120	19 ~ 104
90	19 ~ 74		

KG规格齿轮的组装例 The combination of KG STOCK GEARS

内齿轮的齿数 No. of teeth of Internal gear	行星轮的齿数 The number of Planet gears.	太阳轮的齿数 No. of teeth of Sun gears	行星轮的齿数 No. of teeth of Planet gear	行星减速比 Gear ratio of planetary type	星型减速比 Gear ratio of star type	太阳型减速比 Gear ratio of solar.
60	3	12	24	1/6.00	1/5.00	1/1.20
60	4	16	22	1/4.75	1/3.75	1/1.26
80	3	16	32	1/6.00	1/5.00	1/1.20
80	3	40	20	1/3.00	1/2.00	1/1.50
80	4	20	30	1/5.00	1/4.00	1/1.25
80	4	32	24	1/3.50	1/2.50	1/1.40
80	4	40	20	1/3.00	1/2.00	1/1.50
80	5	40	20	1/3.00	1/2.00	1/1.50
90	3	18	36	1/6.00	1/5.00	1/1.20
90	3	30	30	1/4.00	1/3.00	1/1.33
90	4	18	36	1/6.00	1/5.00	1/1.20
90	4	30	30	1/4.00	1/3.00	1/1.33
90	4	50	20	1/2.80	1/1.80	1/1.55
90	5	30	30	1/4.00	1/3.00	1/1.33
90	5	50	20	1/2.80	1/1.80	1/1.55

内齿轮的齿数 No. of teeth of Internal gear	行星轮的齿数 The number of Planet gears.	太阳轮的齿数 No. of teeth of Sun gears	行星轮的齿数 No. of teeth of Planet gear	行星减速比 Gear ratio of planetary type	星型减速比 Gear ratio of star type	太阳型减速比 Gear ratio of solar.
100	3	20	40	1/ 6.00	1/ 5.00	1/1.20
100	3	50	25	1/ 3.00	1/ 2.00	1/1.50
100	4	20	40	1/ 6.00	1/ 5.00	1/1.20
100	4	40	30	1/ 3.50	1/ 2.50	1/1.40
100	5	40	30	1/ 3.50	1/ 2.50	1/1.40
100	5	50	25	1/ 3.00	1/ 2.00	1/1.50
120	3	12	54	1/11.00	1/10.00	1/1.10
120	3	24	48	1/ 6.00	1/ 5.00	1/1.20
120	3	30	45	1/ 5.00	1/ 4.00	1/1.25
120	3	48	36	1/ 3.50	1/ 2.50	1/1.40
120	3	60	30	1/ 3.00	1/ 2.00	1/1.50
120	4	24	48	1/ 6.00	1/ 5.00	1/1.20
120	4	40	40	1/ 4.00	1/ 3.00	1/1.33
120	4	80	20	1/ 2.50	1/ 1.50	1/1.66

上述各种齿轮：包括太阳轮，行星轮，内齿轮均为KG的库存规格齿轮。
The above variety of Sun, Planet and Internal gear are KG-STOCK GEARS series.

为了获得更高的减速比请使用双重连接的行星齿轮机构。
将把一个齿轮机构的太阳轮与另一个齿轮机构的行星轮相连，可以获得各种齿轮减速比。具体请参考减速比的计算式。
如果将两个行星机构组成一个组合，那么减速比为第一个减速比乘于第二个减速比。将实现高比例的减速。

High ratio can be obtained by doubly jointing the planetary gear boxes.
To obtain the variety of gear ratio when combining with another Sun and Planet gears, please refer to the calculation of gear ratio.
To obtain high gear ratio when assembling the double and triple combinations.

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