

5.4 Pitch deviations

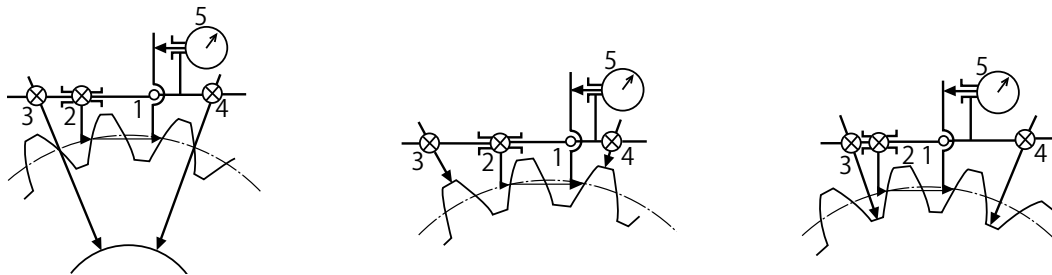
Accuracy of pitch is important for high speed rotating gear. The deviations of Single pitch, Total cumulative pitch and Normal pitch are defined in JIS B 1702-1. Therefore each Allowable pitch deviation in each system of accuracy is stipulated.

Also, in the JIS B 1752, large number of measurement methods for Pitch deviation are stipulated. For examples, method of measurement for Circle pitch, there are In-line distance method (Refer to Fig. 11) and Angle device method (Refer to Fig. 12). For measurement method of Base pitch, there are Manual system method and Revolving centre method (Refer to Fig. 13).

(a) Revolving centre method

(b) Tip cylinder method

(c) Root cylinder method



1: Measuring stylus 2: Fixed stylus⁽³⁾ 3, 4: Locating stylus 5: Dialgauge
Note (3) For fixed stylus, dialgauge is included to be used to establish zero location.

Fig. 11 Measurement for Circular pitch (In-line distance method)

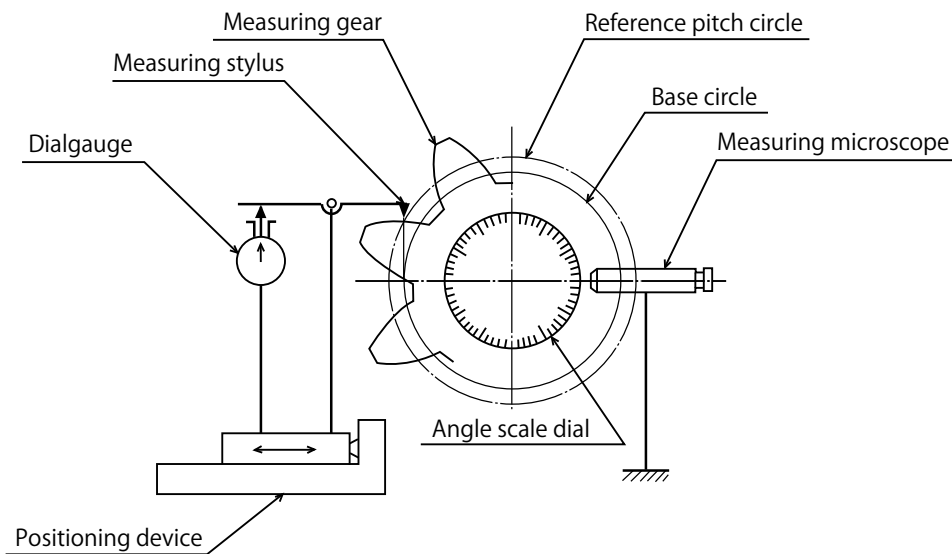
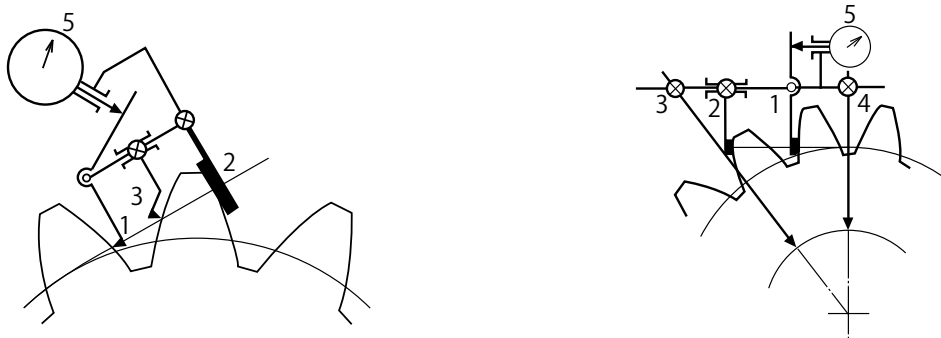


Fig. 12 Measurement methods for Circular pitch (Angle device method)

(a) Manual method

(b) Revolving centre method



1: Measuring stylus 2: Fixed stylus 3, 4: Locating stylus 5: Dialgauge

Fig. 13 Measurement methods for Base pitch