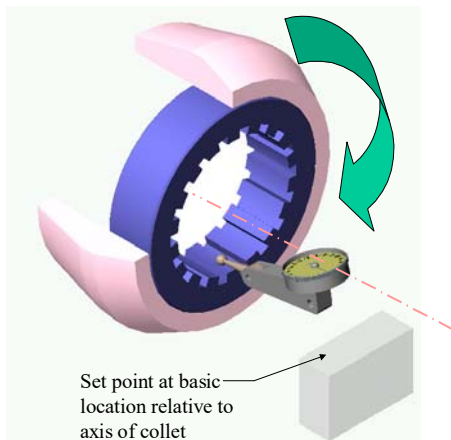
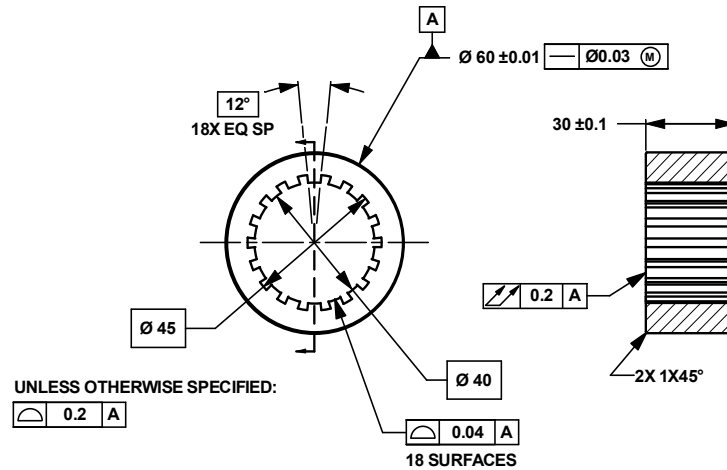


# November 2001 Tip-of-the-Month

## Report Profile so there is no Confusion.

To continue with the last two months' Tips, there is often confusion over how to report the measurement of profile of a surface. There seems to be two common methods.



Suppose that when a part was measured using the method shown above, the greatest deviation from the set point was 0.015mm. This measurement was above the set point. In other words there was 0.015 more material on one of the teeth than specified by the basic dimension. This could be reported as a +0.015 since there was more material than the basic goal.

Another method would be to report the greatest profile error as 0.03 (2 X 0.015) since that would be the width of profile of a surface tolerance that would be required in order for the part to be accepted. Using this method is similar to the method used universally to report position errors. When holes, for instance, are measured, the radial deviation is determined and then doubled so that it may be compared to the allowed position tolerance that is usually stated as a diametral tolerance.

**There isn't a standard on how to report profile variation. This Tip recommends that companies prepare a one-page document that explains the method being used to avoid any confusion.**