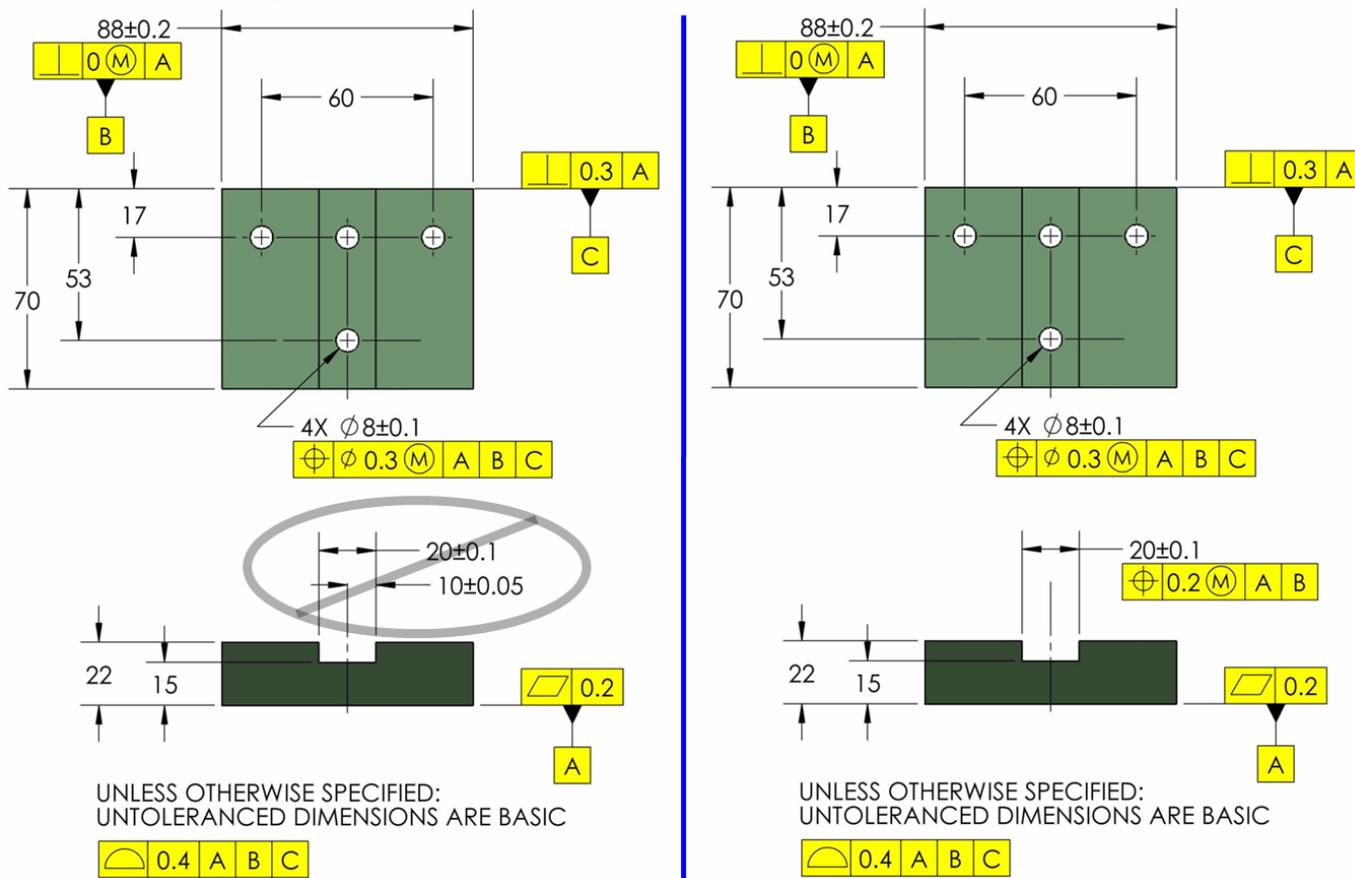


November 2010 Tip-of-the-Month No Need For Those "Half" Dimensions! (In accordance with ASME Y14.5-2009)

The last Tip brought comments of concern because the drawing does not include "half" dimensions for 20 and 60 dimensions. Since the 60 is basic, adding a 30 would not change the meaning. The pattern of holes is implied centered on the datum center plane and there is a "zero" basic implied dimension. The 20 wide slot on these drawings is directly toleranced rather than controlled indirectly with a profile of a surface tolerance. A "half" dimension could not be used to locate the slot. If a 10 ± 0.05 dimension is added to the drawing, it is not clear where the origin of the dimension is. It could be established by the two holes in the slot or the center plane of the width of the part. The slot is not related to the datum reference frame. Also, the right side of the slot has a tighter tolerance than the left side. The drawing on the right uses a position tolerance to control the location of the **center plane** of the slot relative to the datum reference frame established by datum features A and B which includes the datum B center plane.



Let's use the tools that are available in the Standard and abandon the old practices that caused problems and led to the creation of the Y14.5 standard.

<http://www.tec-ease.com/tips/Nov-10.htm> to view a video clip of Don Day explaining this Tip.

Please email us any suggestions or topics that you would like to see covered in our Tip-of-the-Month series.

www.tec-ease.com