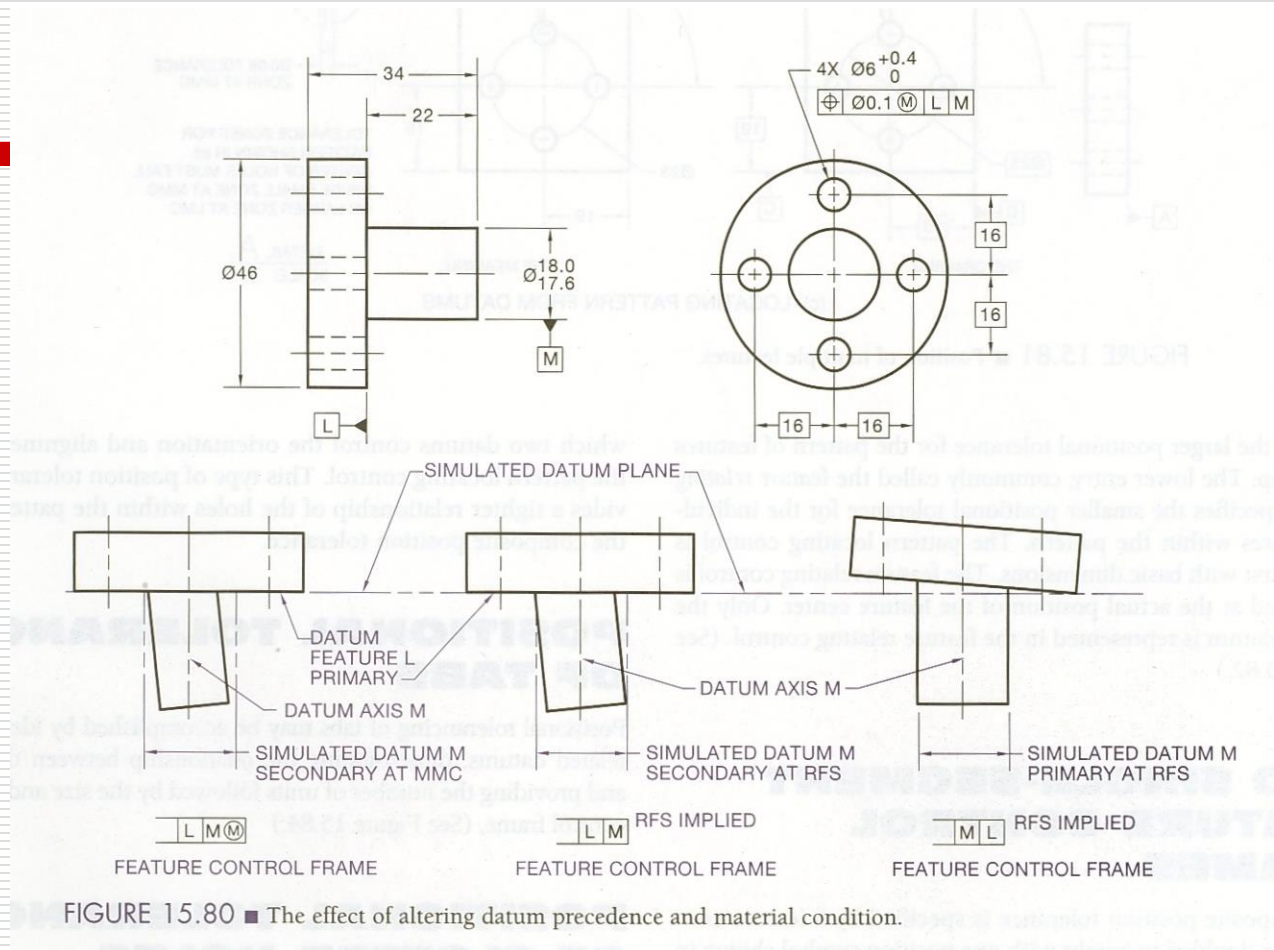


GD&T – Virtual Condition

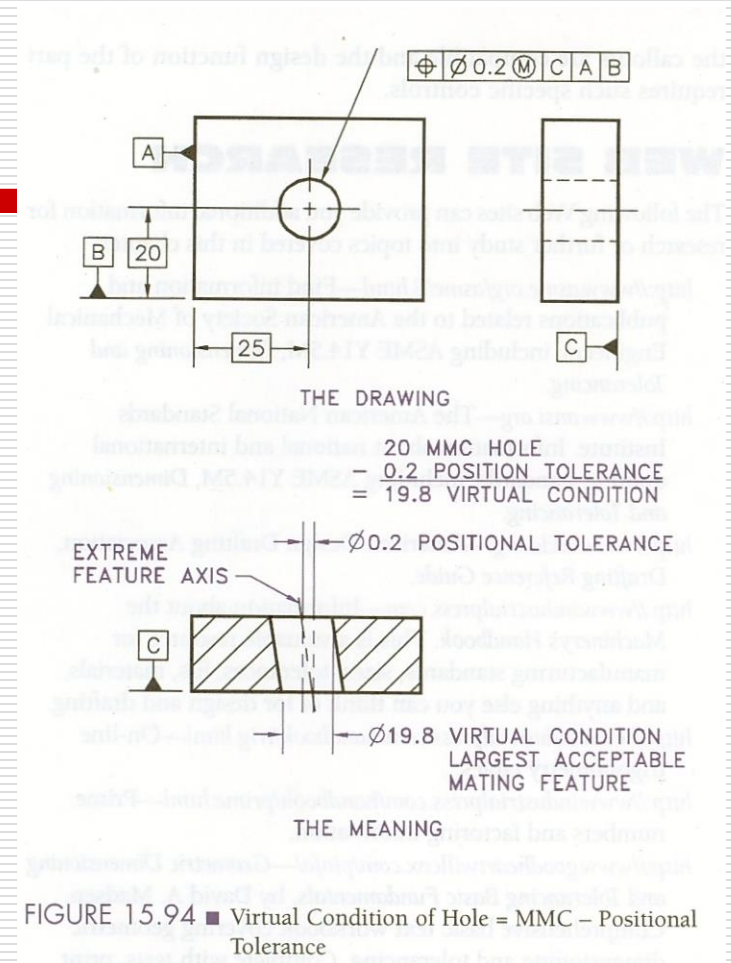
References:

- Engineering Drawing and Design by D. Madsen, etal.
- Geometric Dimensioning and Tolerancing, by D. Madsen.

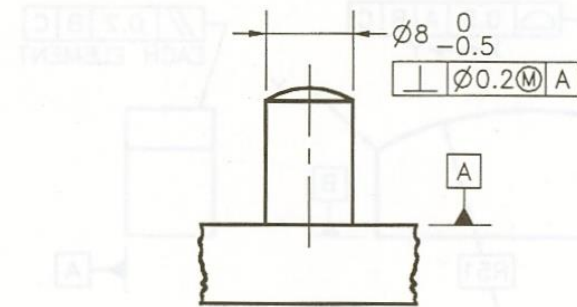
Datum precedence and material condition



Virtual Condition of a hole

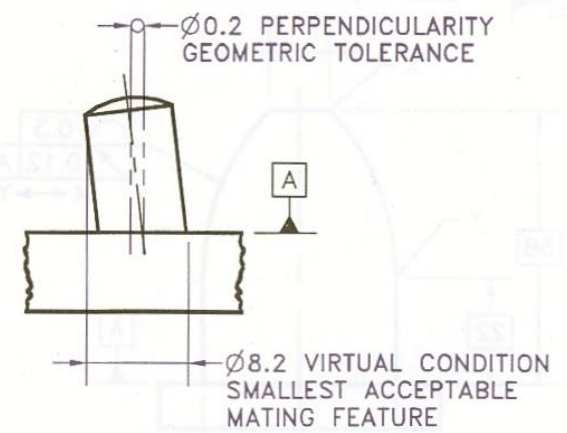


Virtual Condition Perpendicular Pin



THE DRAWING

8 MMC FEATURE + 0.2 GEOMETRIC TOLERANCE
= 8.2 VIRTUAL CONDITION



THE MEANING

FIGURE 15.95 ■ Virtual Condition Perpendicular Pin = MMC Feature + Geometric Tolerance

Assignment:

TSM 216 – Virtual Condition

All problems refer to Madsen Text

Name: _____

1. Complete the following
 - a. Virtual Condition of Hole=_____ (Equation)
 - b. Virtual condition of Perpendicular Pin=_____ (Equation)
 - c. The boundary created by the combined effects of size and geometric tolerance is known as the _____

2. Refer to Figure 14.93, complete the following

Produced / Possible Size	MMC LMC	Geometric Tolerance At Produced Size	Virtual Condition
20.0			
20.1			
20.2			
20.25			
20.3			
20.4			
20.5			
20.6			

3. Refer to Figure 14.94, complete the following

Produced / Possible Size	MMC LMC	Geometric Tolerance At Produced Size	Virtual Condition
20.0			
20.1			
20.2			
20.25			
20.3			
20.4			
20.5			
20.6			

4. Refer to Figure 14.77 complete the following

Produced / Possible Size	MMC LMC	Geometric Tolerance At Produced Size	Virtual Condition
20.0			
20.1			
20.2			
20.25			
20.3			
20.4			
20.5			
20.6			