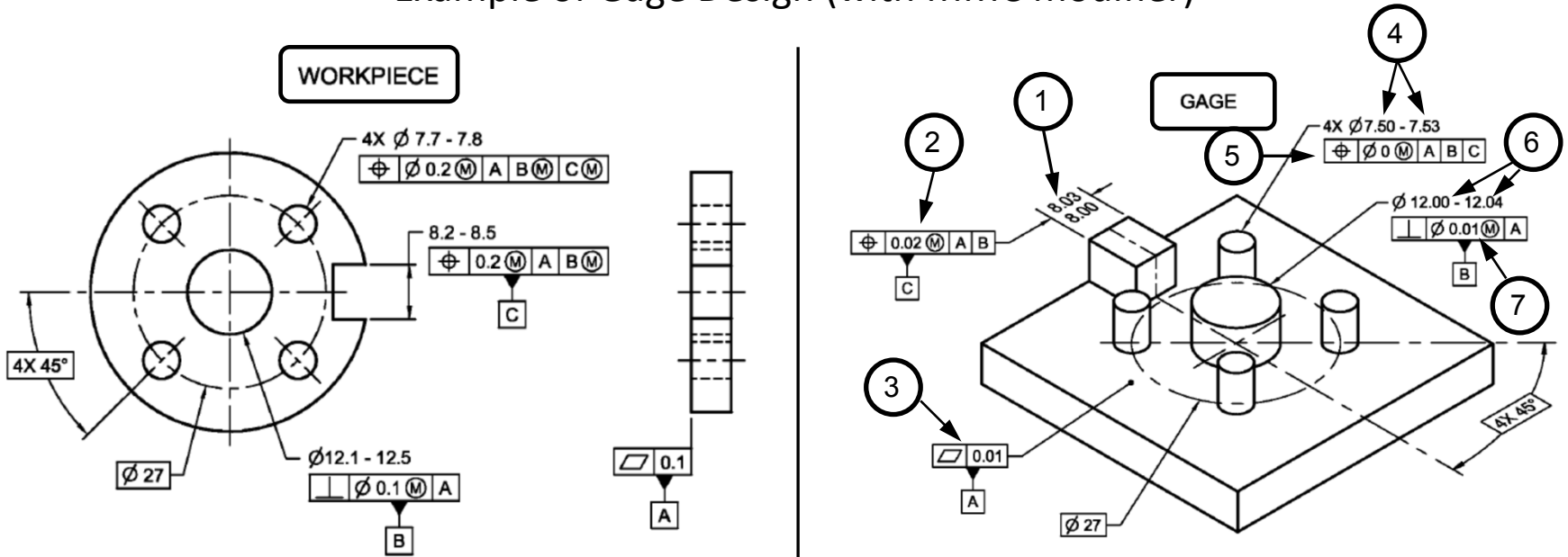



Example of Gage Design (with MMC modifier)



- 1 $8.00 = \text{VC of the slot} = \text{Lower size of the gage block} = 8.2 - 0.2$
 $10\% \text{ of slot size limit} = 10\% (8.5 - 8.2) = 10\% (0.3) = 0.03$
 Upper size of the gage block $= 8.00 + 0.03 = 8.03$
- 2 $\boxed{\text{⌀} \boxed{0.02} \text{Ⓜ} \boxed{A} \boxed{B}} = 10\% \text{ of workpiece } \boxed{\text{⌀} \boxed{0.2} \text{Ⓜ} \boxed{A} \boxed{B}}$
- 3 $\boxed{\text{⏏} \boxed{0.01}} = 10\% \text{ of workpiece Datum A } \boxed{\text{⏏} \boxed{0.1}}$
- 4 $\text{⌀}7.50 = \text{VC of hole} = \text{Lower size of the gage pin} = \text{⌀}7.7 - \text{⌀}0.2$
 $10\% \text{ of hole size limit} = 10\% (\text{⌀}7.8 - \text{⌀}7.7) = 10\% (\text{⌀}0.1) = \text{⌀}0.01$
 Upper size of the gage pin $= \text{⌀}7.50 + \text{⌀}0.01 = \text{⌀}7.51$ (finally changed to $\text{⌀}7.53$)
- 5 $\boxed{\text{⌀} \boxed{0.02} \text{Ⓜ} \boxed{A} \boxed{B} \boxed{C}} = 10\% \text{ of the 4 hole pattern size } \boxed{\text{⌀} \boxed{0.2} \text{Ⓜ} \boxed{A} \boxed{B} \boxed{C}}$
 $\text{⌀}7.50 \sim \text{⌀}7.51$  $\text{⌀}7.50 \sim \text{⌀}7.53$
 $\boxed{\text{⌀} \boxed{0.02} \text{Ⓜ} \boxed{A} \boxed{B} \boxed{C}}$ change to zero tolerance at MMC $\boxed{\text{⌀} \boxed{0} \text{Ⓜ} \boxed{A} \boxed{B} \boxed{C}}$
 The $\text{⌀}0.02$ tolerance has been removed from the FCF, and combined with the upper size of the gage pin ($\text{⌀}7.51$ changed to $\text{⌀}7.53$), make MMC equals to VC.
- 6 $\text{⌀}12.00 = \text{VC of the hole size}, \text{⌀}12.04 = \text{⌀}12.00 + [10\% \text{ of } (\text{⌀}12.5 - \text{⌀}12.1)]$
- 7 $\boxed{\text{⏏} \boxed{0.01} \text{Ⓜ} \boxed{A}} = 10\% \text{ of workpiece datum B } \boxed{\text{⏏} \boxed{0.1} \text{Ⓜ} \boxed{A}}$