

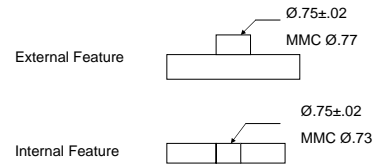


## Geometric Characteristics

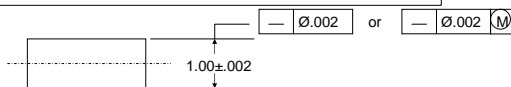
	TYPE OF TOLERANCE	CHARACTERISTIC	SYMBOL
FOR INDIVIDUAL FEATURES	FORM	STRAIGHTNESS	—
		FLATNESS	▭
		CIRCULARITY (ROUNDNESS)	○
		CYLINDRICITY	∅
FOR INDIVIDUAL OR RELATED FEATURES	PROFILE	PROFILE OF A LINE	⤵
		PROFILE OF A SURFACE	⤵
	ORIENTATION	ANGULARITY	∠
		PERPENDICULARITY	⊥
FOR RELATED FEATURES	LOCATION	PARALLELISM	//
		POSITION	⊕
	RUNOUT	CONCENTRICITY	⊗
		CIRCULAR RUNOUT	↻
		TOTAL RUNOUT	↻

## Modifiers

- Symbols that help to define characteristics
  - Example: MMC – Maximum Material Condition- condition when most material exists



## Compare MMC to RFS (Regardless of Feature Size)



Produced size	Tolerance RFS	Tolerance MMC
1.002	.002	.002
1.001	.002	.003
1.000	.002	.004
.999	.002	.005
.998	.002	.006

## Datums

- Theoretically perfect points, lines and planes used for reference.
- Again function of part very important
- Classified as primary, secondary or tertiary.

