



## Thread Functional Size Inspection

Functional gauging takes into account the cumulative effects of diameter, lead, taper, flank angle and form error. Experience the same functionality of ring and plugs with the added benefit of accurately inspecting a range of sizes.

Functional thread inspection gages, or GO/NO GO gages, measure thread diameters. These functional gages are adjustable within a size range and use interchangeable thread rolls to measure different pitch threads.

Setting dimensions for the functional pitch diameter gages are provided by the **TDWIN Thread Disk™** software.



### External Functional Size Gages ( $\frac{5}{8}$ " to 24" Diameters)

These functional inspection gages measure external GO/NO GO thread diameters. **Software (see page 10) and thread rolls (see page 13 or 117) are sold separately.** For gages with ranges greater than 12", please see page 116. Higher resolution indicators are also available.

Model	Description	Range	Resolution	Travel
RG-7000	External Thread Roll Gage	$\frac{5}{8}$ " - 4" (15.9 mm - 101.6 mm)	.0005"	$\frac{1}{2}$ "
RG-7001	External Thread Roll Gage	4" - 8" (101.6 mm - 203.2 mm)	.0005"	$\frac{1}{2}$ "
RG-7002	External Thread Roll Gage	8" - 12" (203.2 mm - 304.8 mm)	.0005"	$\frac{1}{2}$ "

### Internal Functional Size Gages ( $1\frac{1}{2}$ " to 24" Diameters)

Gagemaker also manufactures functional inspection gages that inspect internal GO/NO GO thread diameters. **Software (see page 10) and thread rolls (see page 13 or 117) are sold separately.** For gages with ranges greater than 16", please see page 116. Higher resolution indicators are also available.

Model	Description	Range	Resolution	Travel
PG-6000	Internal Thread Roll Gage, $4\frac{1}{2}$ " reach	$1\frac{1}{2}$ " - 9" (38.1 mm - 228.6 mm)	.0005"	$\frac{1}{2}$ "
PG-6001	Internal Thread Roll Gage, $4\frac{1}{2}$ " reach	9" - 16" (228.6 mm - 406.4 mm)	.0005"	$\frac{1}{2}$ "



### UN Series (60° “V”) Thread Rolls

“TRV” thread rolls inspect the functional fit of machine threaded parts with 60° “V” thread forms. These thread rolls are designed specifically for internal or external applications. Rolls are sold in matched sets (2 rolls). Specify thread pitch when ordering. Finer pitches are available upon request.

INTERNAL THREAD DIAMETERS (1½” & Larger)		EXTERNAL THREAD DIAMETERS (1½” & Larger)	
Model	Description	Model	Description
TRVI-4P	4 pitch internal 60° “V”	TRVE-4P	4 pitch external 60° “V”
TRVI-5P	5 pitch internal 60° “V”	TRVE-5P	5 pitch external 60° “V”
TRVI-6P	6 pitch internal 60° “V”	TRVE-6P	6 pitch external 60° “V”
TRVI-8P	8 pitch internal 60° “V”	TRVE-8P	8 pitch external 60° “V”
TRVI-10P	10 pitch internal 60° “V”	TRVE-10P	10 pitch external 60° “V”
TRVI-12P	12 pitch internal 60° “V”	TRVE-12P	12 pitch external 60° “V”
TRVI-14P	14 pitch internal 60° “V”	TRVE-14P	14 pitch external 60° “V”
TRVI-16P	16 pitch internal 60° “V”	TRVE-16P	16 pitch external 60° “V”
TRVI-18P	18 pitch internal 60° “V”	TRVE-18P	18 pitch external 60° “V”
TRVI-20P	20 pitch internal 60° “V”	TRVE-20P	20 pitch external 60° “V”

### Acme and Stub Acme Thread Rolls

“TRA” and “TRSA” thread rolls inspect the functional fit of parts with 29° Acme and Stub Acme thread forms. Sold in matched sets of 2 rolls. Specify the pitch of the thread when ordering. Finer pitches are also available.

Acme Thread Diameters (1½” & Larger)		Stub Acme Thread Diameters (1½” & Larger)	
Model	Description	Model	Description
TRA-2P	2 pitch 29° Acme	TRSA-2P	2 pitch 29° Stub Acme
TRA-3P	3 pitch 29° Acme	TRSA-3P	3 pitch 29° Stub Acme
TRA-4P	4 pitch 29° Acme	TRSA-4P	4 pitch 29° Stub Acme
TRA-5P	5 pitch 29° Acme	TRSA-5P	5 pitch 29° Stub Acme
TRA-6P	6 pitch 29° Acme	TRSA-6P	6 pitch 29° Stub Acme
TRA-8P	8 pitch 29° Acme	TRSA-8P	8 pitch 29° Stub Acme
TRA-10P	10 pitch 29° Acme	TRSA-10P	10 pitch 29° Stub Acme
TRA-12P	12 pitch 29° Acme	TRSA-12P	12 pitch 29° Stub Acme
TRA-14P	14 pitch 29° Acme	TRSA-14P	14 pitch 29° Stub Acme
TRA-16P	16 pitch 29° Acme	TRSA-16P	16 pitch 29° Stub Acme
TRA-18P	18 pitch 29° Acme	TRSA-18P	18 pitch 29° Stub Acme

For ISO Metric Series, National 7° X 45° Buttress Series, and Trapezoidal Thread Rolls please see pages 117. Custom thread rolls are available.