

Rollers Standard Dimensional Tolerances*

◆ General Industrial Rollers

Standard Thickness: .500" or 13.0mm
 Thickness Tolerance: +.125" to -.062" or +3.0mm to - 1.5mm

Specified Dimension	Diameter Inches	Diameter Millimeters	Tolerance Inches	Tolerance Millimeters
Thickness	All	All	+ .062" / - .031"	+1.5mm / -0.8mm
Diameter	All	All	+ .125" / - .062"	+3.0mm / -1.5mm
Precision Diameter	Under 5"	Under 125mm	± 0.008"	± 0.2mm
Precision Diameter	5" – 30"	125mm – 750mm	± 0.031"	± 0.8mm
Precision Diameter	Over 30"	Over 750mm	± 0.062"	± 1.5mm
Length	All	All	+ 0.250"	± 6.0mm

◆ Graphic Arts Industry Rollers

Type of Roller	Tolerance Diameter (Inches)	Tolerance Diameter (Millimeters)	Tolerance TIR (Inches)	Tolerance TIR (Millimeters)	Tolerance Finished Face Length	Tolerance Finished Face Length	Tolerance Taper	Tolerance Taper
Letterpress	+ .030" - .030"	+ 0.76mm - 0.76mm	0.005"	0.13mm	± 0.062"	± 1.57	0.005"	0.13mm
Offset Ink	+ .045" - .000"	+ 1.14mm - 0.00mm	0.003"	0.80mm	± 0.062"	± 1.57	0.003"	0.08mm
Offset Web Paper & Cloth	+ .025" - .000"	+ 0.64mm - 0.00mm	0.003"	0.80mm	± 0.062"	± 1.57	0.002"	0.05mm
Rotogravure Newspaper	+ .094" - .094"	+ 2.39mm - 2.39mm	0.005"	0.13mm	± 0.062"	± 1.57	0.002"	0.05mm
Aniline Flexography	+ .010" - .000"	+ 0.25mm - 0.00mm	0.003"	0.08mm	± 0.062"	± 1.57	0.003"	0.08mm

- Precision dimensions should not be specified unless essential to proper roll functioning because they add costs. Robinson Rubber Products should be consulted before ordering tolerances other than those suggested above.
- Concentricity (TIR) as applied to covered rollers is the relationship between the bearing surface of the journals and the finished surface of the covering. Any deviation, or run out, is measured with a dial indicator and is stated in total indicated run out or TIR.
- Normally the face length of the covering will be finished to the same length as the face of the metal core unless otherwise specified.

*Source: RMA or Rubber Manufacturers Association

Rollers Standard Dimensional Tolerances*

◆ Paper Industry Rollers

Type of Roller	Finished Diameter (Inches)	Finished Diameter (Millimeters)	Tolerance Diameter (Inches)	Tolerance Diameter (Millimeters)	Tolerance TIR (Inches)	Tolerance TIR (Millimeters)	Tolerance Finished Face Length	Tolerance Finished Face Length
Standard	All	All	± .062"	± 1.5mm	.002"	0.05mm	± .250"	± 6.0mm
Precision	Up to 8"	Up to 200mm	± .016"	± 0.04mm	.001"	0.03mm	± .250"	± 6.0mm
Precision	8" – 30"	200mm – 750mm	± 0.2%	± 0.2%	.001"	0.03mm	± .250"	± 6.0mm
Precision	Over 30"	Over 750mm	± .062"	± 1.5mm	.001"	0.03mm	± .250"	± 6.0mm

- The tolerance on taper (diameter) for paper industry rollers is ± 0.002" or ± 0.05mm for both standard and precision rollers.

◆ Textile Industry Rollers

Type of Roller	Tolerance Diameter (Inches)	Tolerance Diameter (Millimeters)	Tolerance TIR (Inches)	Tolerance TIR (Millimeters)	Tolerance Taper Diameter	Tolerance Taper Diameter	Tolerance Finished Face Length	Tolerance Finished Face Length
Carrying Roll Hi Speed	+ .125" - .062"	+ 3.0mm - 1.5mm	.005"	0.13mm	.005"	0.125mm	± .250"	± 6.0mm
Carrying Roll Lo Speed	+ .125" - .062"	+ 3.0mm - 1.5mm	.010"	0.25mm	.010"	0.250mm	± .250"	± 6.0mm
Pad Roll General	+ .125" - .062"	+ 3.0mm - 1.5mm	.005"	0.13mm	.005"	0.125mm	± .250"	± 6.0mm
Pad Roll Dyeing & Printing	+ .062" - .062"	+ 1.5mm - 1.5mm	.002"	0.05mm	.005"	0.125mm	± .250"	± 6.0mm
Texturizing Roll	+ .062" - .062"	+ 1.5mm - 1.5mm	.002"	0.05mm	.002"	0.050mm	± .250"	± 6.0mm

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