



Precision Measuring Information

IP Rating

IP rating indicates the level of protection an instrument offers against water, coolants and fluids, dust, and the elements

IP54-rated tools withstand splashes of water and are safe from particles, debris, and dust.

IP65-rated tools withstand jets of water and provide protection against metalworking fluids, coolants, and dust.

IP66-rated tools are dust-tight and withstand water projected from powerful jets

IP67-rated tools are the best choice for washdown environments or where tools are exposed to seawater, coolants, or cutting fluids.

Resolution—Refers to the smallest visible change in measurement.

Long Form Calibration Certificate—A long-form calibration certificate is issued with instruments that meet standards of accuracy and repeatability set by NIST (National Institute of Standards and Technology).

SPC Output—An instrument with SPC Output is capable of transmitting measurements via a cabled or wireless connection to a computer, mini-processor, or other compatible device.

CALIPER TIP TYPES

Carbide-Tipped and Ceramic—Carbide-tipped measuring faces are harder than standard steel. Carbide tips provide more reliable readings, but may chip easier than other materials. Ceramic-tipped jaw faces are wear-resistant, nonmagnetic, and nonconductive.

Carbon Fiber and Plastic—Carbon fiber is used in the construction of long-range calipers. It is lightweight and allows tools to be used across a broad range of measurements. Plastic is nonmagnetic, nonconductive, and typically used in lab applications.

Stainless Steel and Steel—Stainless steel is the most commonly used material in the construction of calipers. It is strong, durable, and rust- and corrosion-resistant. Hardened steel is harder and more wear-resistant than stainless steel.

Plastic Jaw
3YWH2



Stainless Steel
408P47



GENERAL

TESA
TECHNOLOGY

tesa brown & sharpe

Mitutoyo

Starrett

WESTWARD

INSIZE

Mahr

Dial Calipers

Easier to read than vernier calipers and are commonly used in light and heavy manufacturing, production and machine and wood-working shops.

Accuracy	Dial Graduation	Range per Revolution	Measurements	Dial Color	Jaw Actuation Type	Jaw Depth	Jaw Shape	Brand	Item No.
Plastic Jaw Material									
0 to 150 mm Range									
+/-0.03 mm	0.1 mm	10 mm	4-Way	White	Thumb Wheel	1.5 in	Standard Blade Nibs For Inside/Outside Measurement	General	3YWH2
0 in to 6 in Range									
+/-0.001 in	0.001 in	0.1 in	4-Way	Black	Thumb Wheel	1.1875 in	Standard Blade Nibs For Inside/Outside Measurement	General	54GX50
Stainless Steel Jaw Material									
0 in to 6 in Range									
+/-0.0008 in	0.001 in	0.1 in	4-Way	White	Slide	1.5625 in	Standard Blade Nibs For Inside/Outside Measurement	Tesa Brown & Sharpe	49U606
	0.001 in	0.1 in	4-Way	Black	Slide	1.5625 in		Tesa Brown & Sharpe	49U608
	0.001 in	0.1 in	4-Way	Purple	Thumb Wheel	40 mm		Mitutoyo	4CGJ2
	0.001 in	0.1 in	4-Way	Green	Thumb Wheel	40 mm		Mitutoyo	4CGJ3
	0.001 in	0.1 in	4-Way	Orange	Thumb Wheel	40 mm		Mitutoyo	4CGJ5
	0.001 in	0.1 in	4-Way	White	Thumb Wheel	40 mm		Mitutoyo	4LA83
	0.001 in	0.1 in	4-Way	Blue	Thumb Wheel	40 mm		Mitutoyo	12RR7
	0.001 in	0.1 in	4-Way	White	Thumb Wheel	1.5 in		Starrett	22UE3
	0.001 in	0.1 in	4-Way	Black	Thumb Wheel	1.5 in		Starrett	22UF2
	0.001 in	0.1 in	4-Way	White	Thumb Wheel	1.625 in		Westward	4KU74
0 in to 8 in Range									
+/-0.001 in	0.001 in	0.1 in	4-Way	White	Thumb Wheel	1.96875 in	Standard Blade Nibs For Inside/Outside Measurement	Westward	4KU75
+/-0.002 in	0.001 in	0.1 in	4-Way	White	Thumb Wheel	50 mm	Standard Blade Nibs For Inside/Outside Measurement	Mitutoyo	5RCG4
0 in to 12 in Range									
+/-0.001 in	0.001 in	0.1 in	Inside, Outside, Step	White	Thumb Wheel	2.5 in	Standard Blade Nibs For Inside/Outside Measurement	Starrett	3DZR2
	0.001 in	0.1 in		White	Thumb Wheel	2.4375 in		Westward	4KU73
+/-0.002 in	0.001 in	0.2 in	4-Way	White	Thumb Wheel	64 mm	Standard Blade Nibs For Inside/Outside Measurement	Mitutoyo	12RR9
0 in to 24 in Range									
+/-0.001 in	0.001 in	0.1 in	Inside, Outside	White	Thumb Wheel	3.375 in	Standard Blade Nibs For Inside/Outside Measurement	Westward	6XU79
0 in to 12 in Range, Long Form Calibration Certificate: Yes									
+/-0.002 in	0.001 in	0.1 in	4-Way	White	Thumb Wheel	64 mm	Standard Blade Nibs For Inside/Outside Measurement	Mitutoyo	4LA85
0 to 150 mm Range									
+/-0.03 mm	0.01 mm	1 mm	4-Way	White	Thumb Wheel	0.375 in	Standard Blade Nibs For Inside/Outside Measurement	Insize	408P47
	0.01 mm	1 mm	4-Way	White	Thumb Wheel	1.5625 in		Mahr	5RHK3
	0.02 mm	2 mm	4-Way	Yellow	Thumb Wheel	1.5 in		Starrett	22UE9
0 to 300 mm Range									
+/-0.04 mm	0.02 mm	2 mm	4-Way	Yellow	Thumb Wheel	64 mm	Standard Blade Nibs For Inside/Outside Measurement	Mitutoyo	16X243

WESTWARD INSIZE
Mitutoyo Starrett

GENERAL

Vernier & Compact Slide Calipers

Vernier calipers take inside and outside measurements. Operators read the main and vernier scales and add the values to determine the reading. **Compact slide calipers** do not have a higher-precision second scale. They are small enough to fit in shop coat pockets. These calipers are commonly graduated with fractions of an inch and often used by woodworkers and for maintenance applications.

Vernier
Caliper
408P35



Compact
Slide
5UAU5



Range	Graduations	Accuracy	Jaw Depth	Brand	Item No.
Vernier Calipers					
Knife-Edge Jaw, Slide Actuation					
0 in to 6 in, 0 mm to 150 mm	0.001 in	+/-0.001 in, +/-0.03 mm	1 ¾ in	Westward	4KU77
0 in to 12 in, 0 mm to 300 mm	0.001 in		2.18 in	Westward	4KU76
Nib-Style Jaw, Fine Adjust Carriage Actuation					
0 in to 24 in, 0 mm to 600 mm	0.001 in, 0.02 mm	+/-0.002 in	3 15⁄16 in	Insize	408P39
0 in to 60 in	1/512 in	+/- 0.004 in	7 in	Mitutoyo	54GF65
Standard Jaw, Slide Actuation					
0 in to 8 in, 0 mm to 203.2 mm	0.02 mm	+/-0.001 in (0-4 in),	1 ½ in	Starrett	22UF5
0 in to 12 in, 0 mm to 300 mm	0.02 mm	+/-0.0015 in (4+ in)	1 ½ in	Starrett	22UF3
Standard Jaw, Thumb Wheel Actuation					
0 in to 5 in, 0 mm to 127 mm	0.1 mm	+/-0.001 in	2 ¾ in	General	54GX52
0 in to 6 in	0.05 mm	+/- 0.0015 in	1 3⁄16 in	Mitutoyo	4CGN6
0 in to 6 in, 0 mm to 150 mm	0.001 in, 0.02 mm	+/-0.0012 in	1 3⁄16 in	Insize	408P35
0 in to 8 in, 0 mm to 203.2 mm	0.05 mm	+/-0.03 mm	1 3⁄32 in	Mitutoyo	4CGN7
Standard Jaw, Thumb Clamp Actuation					
0 in to 6 in, 0 mm to 150 mm	0.02 mm	+/-0.03 mm	1 3⁄16 in	Mitutoyo	4CGN8
0 in to 8 in, 0 mm to 203.2 mm	0.02 mm		1 3⁄32 in	Mitutoyo	4CGN9
Compact Slide Calipers					
Nib-Style Jaw, Slide Actuation					
0 in to 4 in, 0 mm to 101.6 mm	1⁄64 in	+/-0.001 in, +/-0.03 mm	¾ in	General	3YWP8
0 in to 4 ¾ in	1⁄32 in, 1⁄64 in	+/- 0.003 in	1 ¾ in	Starrett	5UAU5