

Micrometer

The origin of Mitutoyo's trustworthy brand of small tool instruments

V-Anvil Micrometers SERIES 314, 114 — 3 Flutes and 5 Flutes

MeasurLink® ENABLED
Data Management Software by Mitutoyo

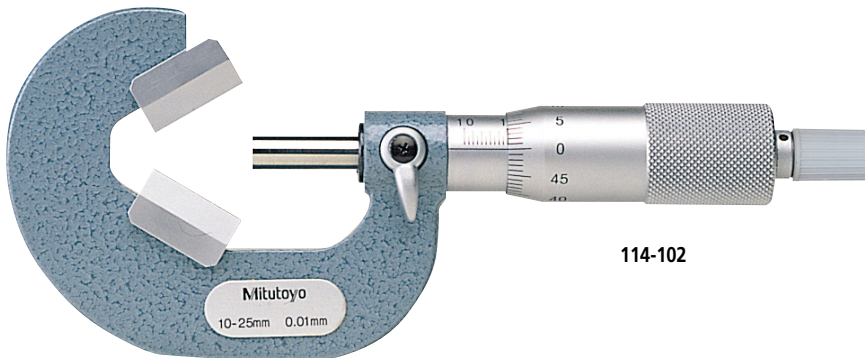
- Measures the outside diameter of cutting tools (such as taps, reamers, end mills) which have three or five flutes.
- Measures pitch diameter: refer to "Quick Guide to Precision Measuring Instruments" on page B-72.
- Measuring faces: Carbide.
- Equipped with Ratchet Stop for constant measuring force.



314-251-30



114-121



114-102



114-101

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Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).

Technical Data

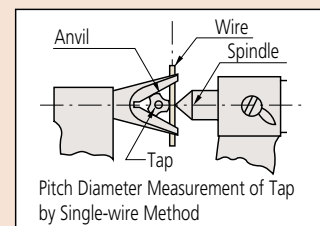
Flatness: (Series 114) 0.6 μ m / 0.000024 in (Spindle)
1.3 μ m / 0.000052 in (Anvil)
(Series 314) 0.3 μ m / 0.000012 in (Spindle)
1.0 μ m / 0.00004 in (Anvil)

Battery for Series 314

SR44 (1 pc), **938882**, for initial operational checks (standard accessory)
Battery life: Approx. 2.4 years under normal use (for series 314)
Length standard: Electromagnetic rotary sensor (for series 314)
Standard accessories:
Reference bar, 1 pc
Spanner (301336), 1 pc
(Maximum measuring range up to 55 mm/2.2 in 114-114)*¹
(Maximum measuring range up to 45 mm/1 in)*²
Spanner (200877), 1 pc
(for maximum measuring range 70 mm or over)*¹
(for maximum measuring range 65 mm or over)*²
*¹ For analog type with 3-flute cutting tools.
*² For analog type with 5-flute cutting tools.

Optional Accessories

Connecting cables for **series 314**
1 m: **05CZA662**
2 m: **05CZA663**
USB Input Tool Direct
USB-ITN-B (2 m): **06AFM380B**
Wireless data output **U-WAVE**™
U-WAVE-TM **264-622** (IP67 type)
264-623 (Buzzer type)
Connecting unit for U-WAVE-TM
02AZF310 (IP67 type)
Refer to page A-15 for details



SPECIFICATIONS

Metric For 3-flute cutting tools					
Order No.	Range	Resolution	Accuracy*	Remarks	Anvil
Digimatic (LCD)					
314-251-30	1 - 15 mm	0.001 mm	±4 μm	w/groove	60°
314-252-30	10 - 25 mm				
314-253-30	25 - 40 mm				
314-261-30	1 - 15 mm				
314-262-30	10 - 25 mm				

*Excluding quantizing error of ±1 count

Metric For 3-flute cutting tools									
Order No.	Range	Graduation	Accuracy	Remarks	Anvil				
Analog Anvil, Spindle (With carbide tip)									
114-204	2.3 - 25 mm	0.01 mm	±4 μm	w/groove	60°				
Analog Spindle (With carbide tip)									
114-101	1 - 15 mm								
114-102	10 - 25 mm								
114-103	25 - 40 mm								
114-104	40 - 55 mm								
114-105	55 - 70 mm								
114-106	70 - 85 mm								
114-161	1 - 15 mm								
114-162	10 - 25 mm								

Metric For 5-flute cutting tools									
Order No.	Range	Graduation	Accuracy	Remarks	Anvil				
Analog Anvil, Spindle (With carbide tip)									
114-137	2.3 - 25 mm	0.01 mm	±4 μm	w/groove	108°				
Analog Spindle (With carbide tip)									
114-121	5 - 25 mm								
114-122	25 - 45 mm								
114-123	45 - 65 mm								
114-124	65 - 85 mm								
114-165	5 - 25 mm								

Inch/Metric For 3-flute cutting tools					
Order No.	Range	Resolution	Accuracy*	Remarks	Anvil
Digimatic (LCD)					
314-351-30	0.05 - .6 in	0.00005 in/ 0.001 mm	±0.0002 in	w/groove	60°
314-352-30	0.4 - 1 in				
314-353-30	1 - 1.6 in				
314-361-30	0.05 - .6 in				
314-362-30	0.4 - 1 in				

*Excluding quantizing error of ±1 count

Inch For 3-flute cutting tools					
Order No.	Range	Graduation	Accuracy	Remarks	Anvil
Analog Anvil, Spindle (With carbide tip)					
114-202	0.09 - 1 in	0.0001 in	±0.0002 in	—	—
Analog Spindle (With carbide tip)					
114-163	0.05 - 0.6 in	0.0001 in	±0.0002 in	—	60°
114-113	1 - 1.6 in				
114-114	1.6 - 2.2 in				

Inch For 5-flute cutting tools					
Order No.	Range	Graduation	Accuracy	Remarks	Anvil
Analog Anvil, Spindle (With carbide tip)					
114-135	0.09 - 1 in	0.0001 in	±0.0002 in	—	108°

DIMENSIONS

Unit: mm

