

Technical Specifications Surftest SV 3000 CNC / SV-M 3000 CNC

Measuring instrument		SV 3000 S CNC	SV 3000 H CNC	SV M 3000 H CNC
X1 axis				
Measuring range		200 mm		200 mm
Resolution		0,05 µm		0,05 µm
Straightness	X axis	0,5µm / 200mm		0,5µm / 200mm
Measuring system		Reflection-type linear encoder		Reflection-type linear encoder
Drive speed in CNC mode		up to 200 mm/s		up to 200 mm/s
Drive speed in manual mode (Joystick-Box)		0 to 60 mm/s		0 to 60 mm/s
Measuring speed		0,02 mm/s to 2,0 mm/s		0,02 mm/s to 2,0 mm/s
Measuring direction		pulling and pushing		pulling and pushing
Traverse linearity		± (1+4L/200) µm		± (1+4L/200) µm
Tactile system for surface measurement				
Measuring range / Resolution	Z axis	800 µm / 0,01 µm 80 µm / 0,001 µm 8 µm / 0,0001 µm		800 µm / 0,01 µm 80 µm / 0,001 µm 8 µm / 0,0001 µm
Measuring system for surface measurement		Differential inductive		Differential inductive
Standard stylus		angle 60°, radius 2µm		angle 60°, radius 2µm
Measuring speed		0,02 mm/s to 2,0 mm/s (7-Stufen)		0,02 mm/s to 2,0 mm/s (7-Stufen)
Drive speed		up to 200 mm/s		up to 200 mm/s
Measuring force		0,75 mN		0,75 mN
Z2 axis (column)				
Measuring range		300 mm	500 mm	300 mm
Resolution		0,05 µm		0,05 µm
Measuring system		Reflection-type linear encoder		Reflection-type linear encoder
Drive speed in CNC mode		up to 200 mm/s		up to 200 mm/s
Drive speed in manual mode (Joystick-Box)		0 to 60 mm/s		0 to 60 mm/s
Measuring Y axis (Displacable Column)				
				This high-performance system is equipped with a measuring column in Y-measuring direction.
Measuring range				800mm
Resolution				0,05µm
Speed				bis 200mm/min
Straightness				2µm/800mm 0,5µm/50mm

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Main unit			
Granite base (B x T)	750mm x 600mm		1400mm x 580mm (Stahl, optional Granit)
Dimensions (B x T x H)	800 x 620 x 1000	800 x 620 x 1200	1700 x 1100 x 2000
Mass	240 Kg	250 Kg	1650 Kg
Controller			
Data transfer	USB		USB
Dimensions (B x T x H)	250 x 427 x 467		250 x 427 x 467
Gewicht	28 Kg		28 Kg
Joystick Box			
Dimensions (B x T x H)	300 x 143 x 71		300 x 143 x 71
Mass	1,5 Kg		1,5 Kg
á axis	option		option
Angle adjustment	+45°, -10°		
Drive speed	1 upm		
Resolution of angle adjustment	0,000225°		
Y axis	option		Measuring Y axis(Displaceable column)
Measuring range	200 mm		
Resolution	0,05 µm		
Measuring system	Reflection-type linear encoder		
Drive speed in CNC mode	up to 200 mm/s		
Drive speed in manual mode (Joystick-Box)	0 to 60 mm/s		
Max. load	20 Kg		
Straightness	0,5 µm / 200 mm		
Linear displacement accuracy	± (2+2L/100)µm		
Measuring stage size	200 mm x 200 mm		
Mass	35 Kg		

Products of this series come equipped with a safety system for the detection of potential function-impairing vibration to the measuring system. Activation of the security system leads to a time-delayed system shut-off. Uninterrupted functioning of the measuring device may be secured with a timely release of the security system by Mitutoyo service personnel.