

Technical Specifications Formtracer SV-C 3000 CNC / SV-C 4000 CNC

Measuring instrument	SV-C 3000 S8 CNC	SV-C 3000 H8 CNC	SV-C 4000 S8 CNC	SV-C 4000 H8 CNC
X1 axis				
Measuring range	200 mm		200 mm	
Resolution	0,05 µm		0,05 µm	
Measuring system	Reflection-type linear encoder			
Drive speed in CNC mode	bis 200 mm/s			
Drive speed in manual mode (Joystick-Box)	0 bis 60 mm/s			
Measuring speed	0,02 mm/s bis 2,0 mm/s			
Measuring direction	pulling and pushing			
Traverse linearity	2 µm/200 mm			
Linear displacement accuracy	(1+4L/200) µm			
Contour measurement				
Measuring range	50 mm		50 mm	
Resolution	0,2 µm		0,05 µm	
Measuring system	Reflection-type linear encoder		Laser HoloScale	
Linear displacement accuracy	(3,0+ 2H /25) µm		(0,8+ 0,5H /25) µm	
Measuring force	30 mN			
Standard stylus	Carbide, tip radius 25µm, tip angle 30°			
Detector for surface measurement				
Measuring range	X axis	200 mm		200 mm
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
Traverse linearity	X axis	0,5µm / 200mm		0,5µm / 200mm
Measuring system surface measurement	Differential inductive			
Standard stylus	angle 60°, radius 2µm			
Measuring speed	0,02 mm/s to 2,0 mm/s (7-Stufen)			
Drive speed	up to 200 mm/s			
Measuring force	0,75 mN			
Z2 axis (column)				
Measuring range	300 mm	500 mm	300 mm	500 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			
Main unit				
Granite base (B x T)	750mm x 600mm			
Size (B x T x H)	800 x 620 x 1000	800 x 620 x 1200	800 x 620 x 1000	800 x 620 x 1200

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Mass	240 Kg	250 Kg	240 Kg	250 Kg
Controller				
Data transfer	USB			
Size (B x T x H)	250 x 427 x 467			
Mass	28 Kg			
Joystick Box				
Size (B x T x H)	300 x 143 x 71			
Mass	1,5 Kg			
Z axis	option			
Angle adjustment	+45°, -10°			
Drive speed	1 upm			
Resolution of angle adjustment	0,000225°			
Y axis	option			
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			
Traverse linearity	0,5 µm / 200 mm			
Linear displacement accuracy	± (2+2L/100)µm			
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.