

Technical Specifications Formtracer Extreme CS-5000 CNC / CS-H 5000 CNC

Measuring instrument	CS 5000 S CNC	CS 5000 H CNC	CS-H 5000 CNC
X1 axis			
Measuring range	200 mm		200 mm
Resolution	0,00625 µm		0,00625 µm
Measuring system	Laser-Holoscale		Laser-Holoscale
Drive speed in CNC mode	up to 40 mm/s		up to 40 mm/s
Drive speed in manual mode (Joystick-Box)	40 mm/s		40 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, standard stylus	(0,1+0,0015L) µm		(0,05+0,0003L) µm
Traverse linearity, 2X stylus	(0,2+0,0015L) µm		(0,1+0,0015L) µm
Linear displacement accuracy	(0,3+0,002L) µm		(0,16+0,001L) µm
Surface measurement / Contour measurement			
Measuring range standard stylus	12mm		12mm
Measuring range 2X stylus	24 mm		24 mm
Resolution standard stylus	0,004µm		0,004µm
Resolution 2X stylus	0,008µm		0,008µm
Measuring system	Laser-Holoscale		Laser-Holoscale
Linear displacement accuracy	(0,3+ 0,02H) µm		(0,07+ 0,02H) µm
Measuring force, standard stylus	4 mN		4 mN
Measuring force, 2X stylus	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 50 mm/s		0 to 50 mm/s
Main unit			
Granite base (B x T)	750mm x 600mm		750mm x 600mm
Size (B x T x H)	800 x 620 x 1000	800 x 620 x 1200	800 x 620 x 1000
Mass	240 Kg	250 Kg	240 Kg
Controller			
Data transfer	USB		USB
Size (B x T x H)	250 x 427 x 467		250 x 427 x 467
Mass	28 Kg		28 Kg
Joystick Box			
Size (B x T x H)	300 x 143 x 71		300 x 143 x 71

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Mass	1,5 Kg	1,5 Kg
á axis	option	-
Angle adjustment	+45°, -10°	-
Drive speed	1 upm	-
Resolution of angle adjustment	0,000225°	-
Y axis	option	standard
Measuring range	200 mm	200 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 50 mm/s	0 to 50 mm/s
Max. load	20 Kg	20 Kg
Traverse linearity	0,5 µm / 200 mm	0,5 µm / 200 mm
Linear displacement accuracy	± (2+2L/100)µm	± (2+2L/100)µm
Stage size	200 mm x 200 mm	200 mm x 200 mm
Mass	35 Kg	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.