



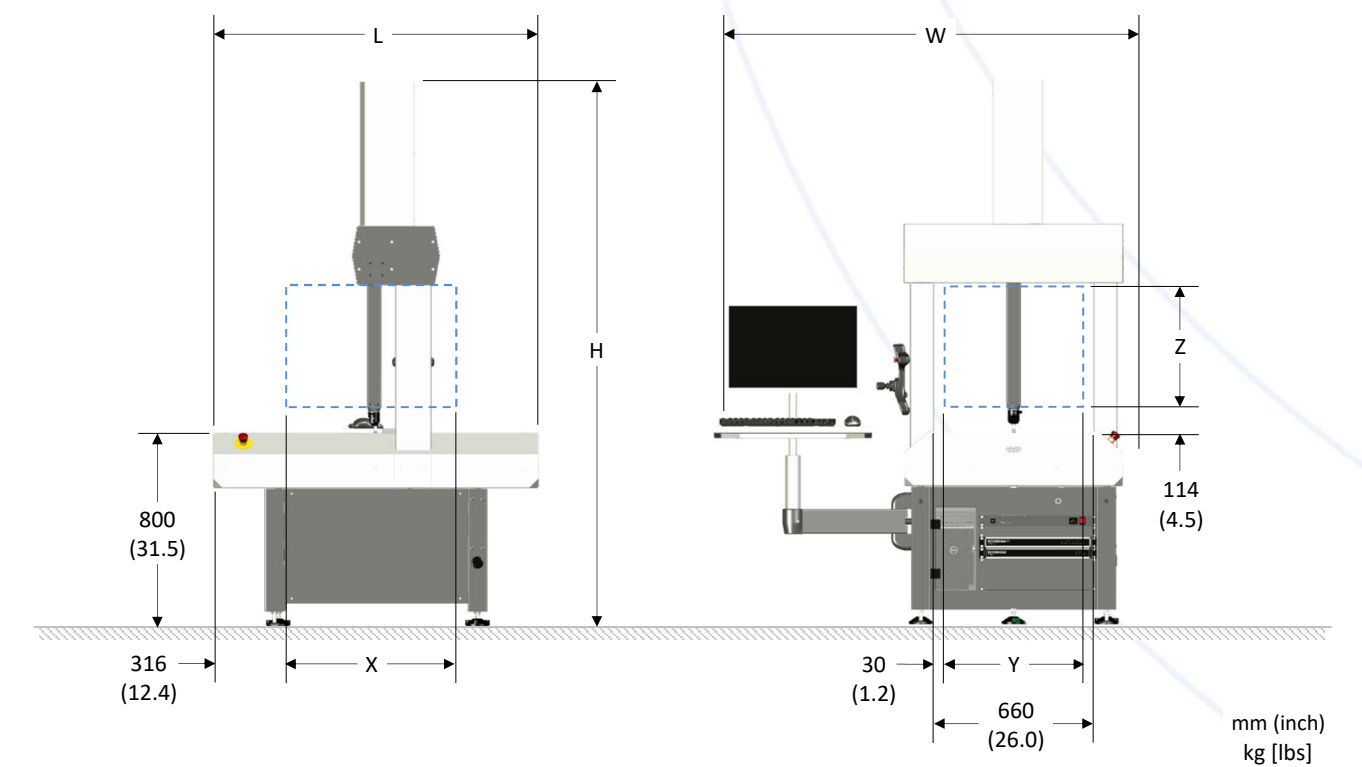
Datasheet

iSF 7.6.5

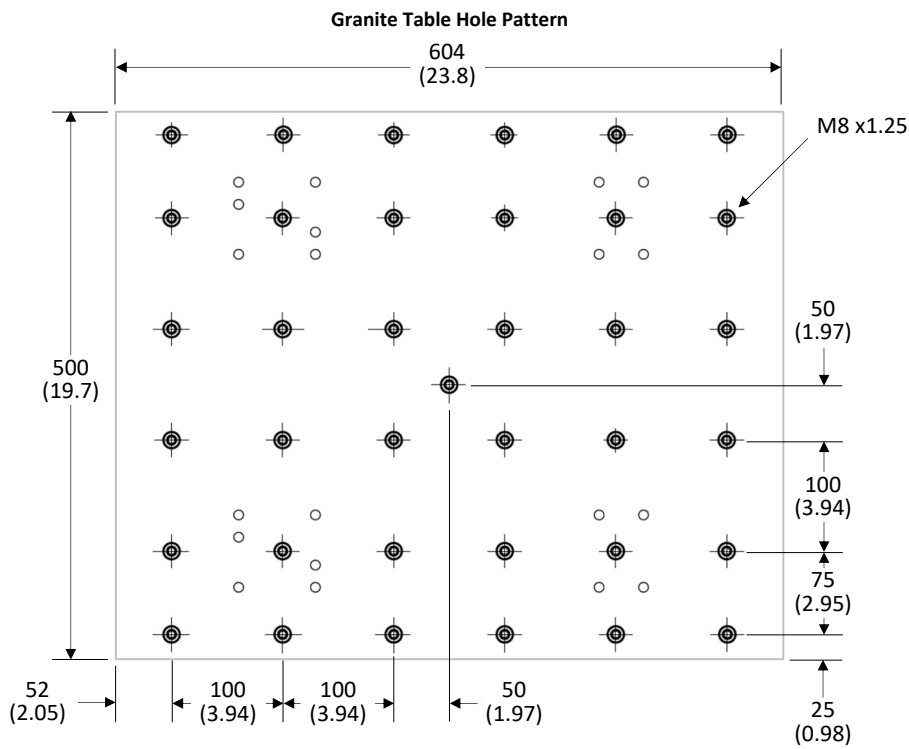
Shop Floor Coordinate Measuring Machine



iSF 7.6.5 with MH20i probe head



	Travels			Overall			Maximum	CMM
	X	Y	Z	L	W	H	Part Weight	Weight
iSF 7.6.5	700 (27.6)	600 (23.6)	500 (19.7)	1348 (53.1)	1697 (66.8)	2257 (88.9)	100 [220]	930 [2050]



TOUCH PROBE ACCURACY ¹			TP20 MH20i / MH8 / PH6 / MIH	SP25M PH6M
UNI EN ISO 10360-2:2010				
Length measurement at 18°C to 22°C	E0 MPE ² E150 MPE ³		2.8 + L/250	2.6 + L/250
Length measurement at 16°C to 26°C	E0 MPE ² E150 MPE ³		3.0 + L/200	2.8 + L/200
Length measurement at 15°C to 30°C	E0 MPE ² E150 MPE ³		3.2 + L/166	3.0 + L/166
Repeatability	R0 MPL ²		2.5	2.5
UNI EN ISO 10360-4:2005 ⁴				
Probing accuracy scanning mode at 18°C to 22°C	form MPE T _{ij} time MPT t		-	5.0 60 sec
Probing accuracy scanning mode at 16°C to 26°C	form MPE T _{ij} time MPT t		-	5.0 60 sec
Probing accuracy scanning mode at 15°C to 30°C	form MPE T _{ij} time MPT t		-	5.0 60 sec
UNI EN ISO 10360 -5:2010 ²				
Probing accuracy touch mode at 18°C to 22°C	form PFTU MPE		2.8	2.6
Probing accuracy touch mode at 16°C to 26°C	form PFTU MPE		3.0	2.8
Probing accuracy touch mode at 15°C to 30°C	form PFTU MPE		3.2	2.8

DYNAMICS

Acceleration	1800 mm/sec ²
Velocity	800 mm/sec

Conformance is proven when all errors of indication lie within or on the accuracy specification limits MPE/MPL.

Conformance is unproven when one or more errors of indication lie outside the accuracy specification limits MPE/MPL.

¹ Touch probe accuracy specifications using manufacturer specified test lengths and test sphere with empirical qualification.

E0 MPE E150 MPE

Maximum volumetric length measurement error in microns where L is the measured length in millimetres.

R0 MPL

Maximum repeatability value in microns using E0 values.

MPE T_{ij} MPT t

Maximum single stylus form error in microns using scanning mode with time taken in seconds.

PFTU MPE

Maximum single stylus form error in microns using touch point mode.

² E0 MPE R0 MPL PFTU MPE

TP20: tip diameter Ø 4 mm, stylus length 10 mm.

SP25M: tip diameter Ø 5 mm, stylus length 21 mm.

³ E150 MPE

TP20: tip diameter Ø 4 mm, stylus length 40 mm.

SP25M: tip diameter Ø 5 mm, stylus length 21 mm.

⁴ MPE T_{ij} MPT t

SP25M: tip diameter Ø 5 mm, stylus length 21 mm, sphere diameter 25mm.

TECHNICAL FEATURES

Measuring system	Linear scales, System Resolution: 0.1 µm
Sliding system	High-precision ball bearing guides on all axes
Drive system	High-performance linear motors on all axes
Surface plate	Movable granite table M8 threaded inserts
Thermal compensation	Multi-sensor temperature compensation system for part and scale

ENVIRONMENTAL REQUIREMENTS

Metrological specification	Standard temperature range	18°C to 22°C
	Extended temperature range	16°C to 26°C
	Shop-floor temperature range	15°C to 30°C
Temperature gradient	Standard temperature range	1°C/h 2°C/24h 1°C/m
	Extended temperature range	2°C/h 5°C/24h 2°C/m
	Shop-floor temperature range	3°C/h 8°C/24h 3°C/m
Operating temperature	15°C to 35°C	
Relative humidity	40% to 80% (non-condensing)	
Acceptable vibration (acceleration between peaks)	30 mm/s ² from 1 and 10 Hz	
	15 mm/s ² from 10 and 20 Hz	
	50 mm/s ² from 20 and 100 Hz	

SUPPLY REQUIREMENTS

Power supply	230 V ±10%; 50 Hz ±2% single phase				
	110 V ±10%; 60 Hz ±2% single phase				
Power cable	Region	Overall dia.	Stranding	CSA/Gauge	Conductor Colours
	Rest of world	6.9 mm	32/02	1 mm ²	blue, brown, green/yellow
	USA (115 V)	0.26 inch	41/34	18AWG	black, white, green

WARRANTY

	12 months warranty as standard
	Terms and conditions apply see LK Metrology website for full details