HEXAGON
MANUFACTURING INTELLIGENCE

DATA SHEET

7.10.7 SF

SHOP-FLOOR MEASURING MACHINE

WEIGHTS AND DIMENSIONS

OVERALL DIMENSIONS WITH TOUCHSCREEN

X	Y	Z
2209 mm	1754 mm	2760 mm
87 in	69.1 in	108.7 in

MEASURING ENVELOPE

X	Y	Z
710 mm	1010 mm	680 mm
28 in	39.8 in	26.8 in

WORK CAPACITY

X	Y	Z
876 mm	1390 mm	793 mm
34.5 in	54.7 in	31.2 in

WEIGHT

Standard Configuration	Maximum Part
1683 kg	680 kg
3711 lbs	1499 lbs

PERFORMANCE SPECIFICATIONS

According to ISO 10360-2 (2009):
$E_{0, MPE}$: 3.5 + 0.05 * ΔT + (3.0 + 0.2 * ΔT) * L / 1000
$E_{150, MPE}$: 3.5 + 0.05 * ΔT + (3.0 + 0.2 * ΔT) * L / 1000
R_0: 3.5µm

According to ISO 10360-4 (2000):
$MPE_{THP/T}$: 6.5/85

According to ISO 10360-5 (2010):
$P_{FTU, MPE}$: 3.5µm

According to ASME B89.4.1b-2001:
R: 2.0µm
A_V[L]: 10 + 0.3 * ΔT [550]

where,

- ΔT is the departure of ambient room temperature from 20°C (68°F) in °C.
- $E_{L, MPE}$ is the maximum permissible error of length measurement (for L = 0 and 150mm ram axis stylus tip offset)
- $R_{0,MPL}$ is the maximum permissible limit of the repeatability range
- $MPE_{THP/T}$ is scanning probing error
- $P_{FTU, MPE}$ is maximum permissible single stylus error.
- R is repeatability in µm
- A_V[L] is volumetric accuracy in µm, where L is the ball bar length in mm

Accuracy performance specifications valid under the following thermal conditions:

- Ambient Temperature: 15-40°C (59-104°F);
- Maximum temporal variation: 2C°/hr (3.6F°/hr) and 10°C/d (18F°/d);
- Maximum spatial variation: 1°C/m (1.8F°/m) horizontal and vertical.

Probing configurations used for performance tests:

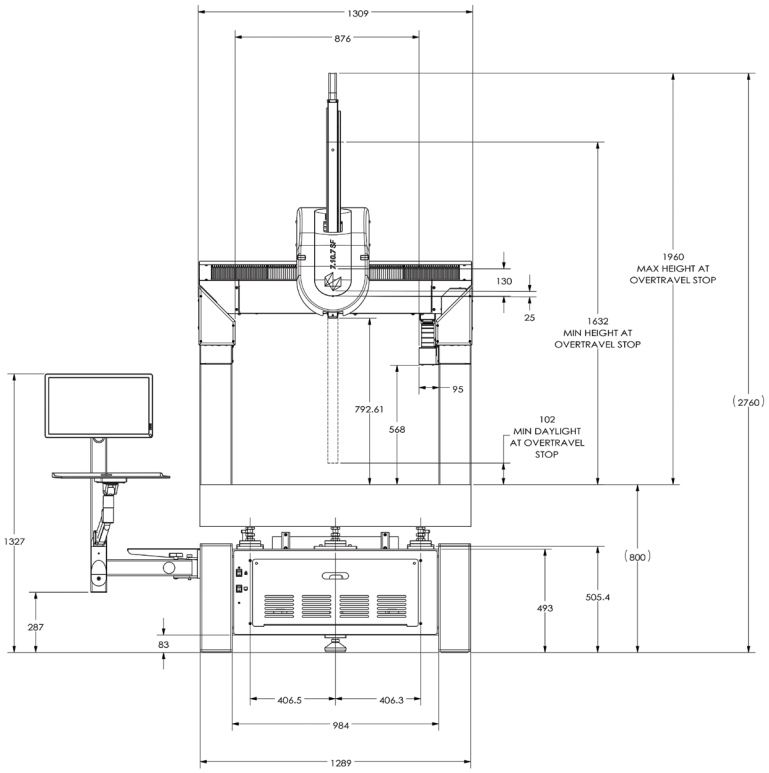
- HP-T, HH-MI: 3mm tip, 30 mm stylus length;
- HP-TM: standard force module, 3mm tip diameter, 10mm stylus length;
- LSP-X1c, LSP-X1h: 5mm tip diameter, 50mm stylus length.

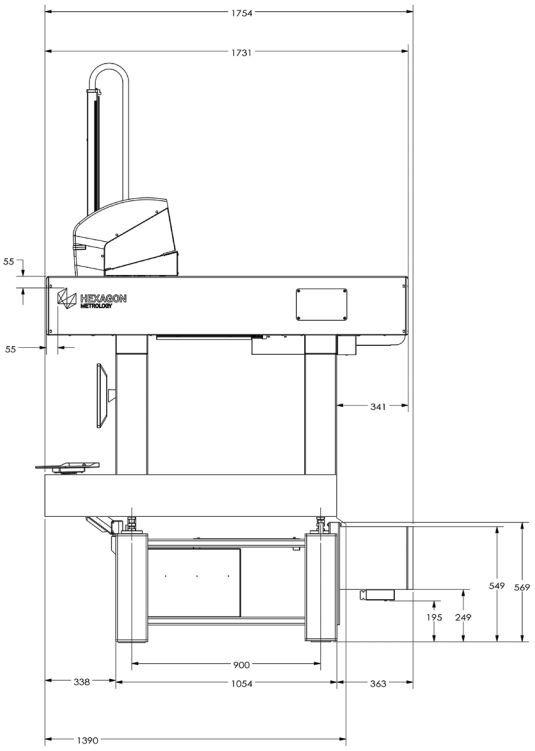
Installation site vibration must be less than 2µm maximum horizontal and vertical amplitude over 5-50Hz to ensure stated performance.

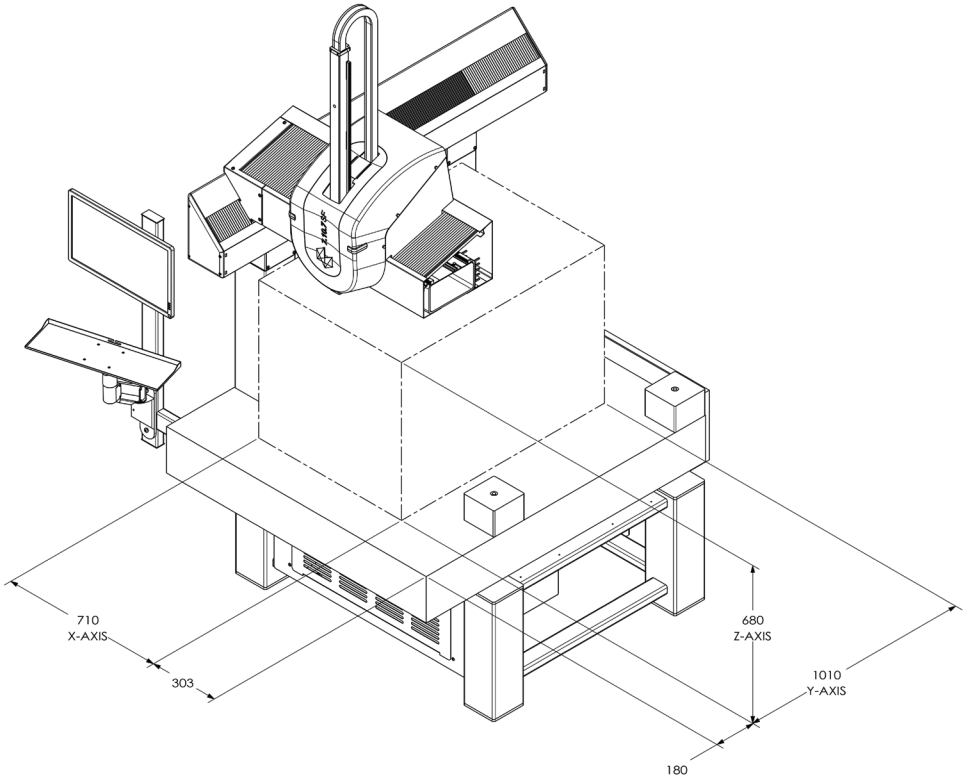
DYNAMIC SPECIFICATIONS

Maximum 3D Velocity	Maximum 3D Acceleration
520 mm/s	1732 mm/s²

DIMENSIONAL DATA







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MANUFACTURING INTELLIGENCE

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