

Linear drives produce a frictionless motion improving both metrology and reliability. This reduces maintenance and makes the Horizon perfect for fast contact scanning.

# Horizon 1000

## EXTENDING THE LINEAR DRIVE HORIZON

Following the tremendous success of the Horizon 800, and incorporating the same frictionless linear drive design, the Horizon 1000 has a larger X, Y, and Z axis travel.

The entire design of the Horizon 1000 has been optimized around the larger volume: the mid-mounted Y-axis rail is in the optimum position for perfect metrology, driving the bridge near its centre of gravity, while allowing easy accessibility; air-bearing separation is increased; a custom extrusion is used on the slave leg to reduce acceleration induced torque on the bridge.



### Technical Information:

Axis Travel (mm)	X 1000 Y 1200, 2000 Z 800
Overall Size (mm)	X 1603 Y 1830, 2630 Z 3110, 3160
Volumetric Accuracy:	TP20 (1.9 + L/250) $\mu\text{m}$ * TP200 (1.8 + L/250) $\mu\text{m}$ * SP25M (1.75 + L/250) $\mu\text{m}$ *
Scale Resolution:	0.1 $\mu\text{m}$
Optimum Temp Range:	18 - 22°C **
Operational Temp Range:	5 - 45°C
Table:	Granite
Table Load Capacity:	1000kg as standard.
Max. Velocity Vector:	1020mm/sec
Max. Acceleration Vector:	1020mm/sec <sup>2</sup>
Air Consumption:	65 l/min (1.8 cfm)
Required Air Pressure:	5 bar (72 psi)

### Key Features:

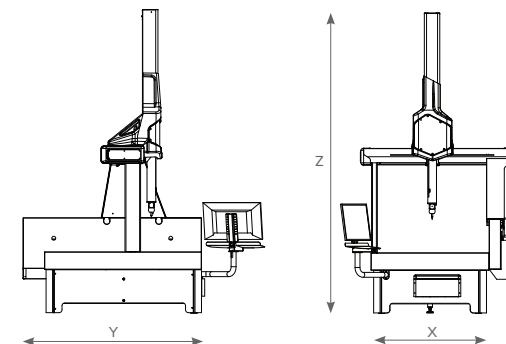
- Linear motors offer frictionless, smooth, silent motion.
- No wearing parts means greater reliability and reduced maintenance.
- Drives applied through the centre of gravity improves both speed and accuracy.
- Thermal isolation of linear motors from the metrology structure avoids thermally induced metrology errors.
- Smooth motion allows for fast and accurate contact scanning.
- The most accurate machine in the Aberlink range. First term volumetric error specification under 2  $\mu\text{m}$
- Automatic temperature compensation ensures that measurement results are reported as if they had been measured at 20°C
- **Free software upgrades** - no maintenance fees or contracts

### Common Probe Options:

- RTP20
- PH10T (w/TP20, TP200)
- PH10M (w/SP25)
- PH6M (w/SP25)

### Machine Options:

- Auto Temperature Compensation
- CCD Camera System
- Collimated Back Light Option
- Dual Monitor
- Fixture Kit



\*Maximum Permissible Error MPE<sub>v</sub> according to ISO 10360-2, 2009 within the thermal limits defined for optimum temperature range.

\*\*Installation environment thermal limits:  
Rate of change <1°C/hr and <2°C/24hr | Temperature gradient <1°C/m

