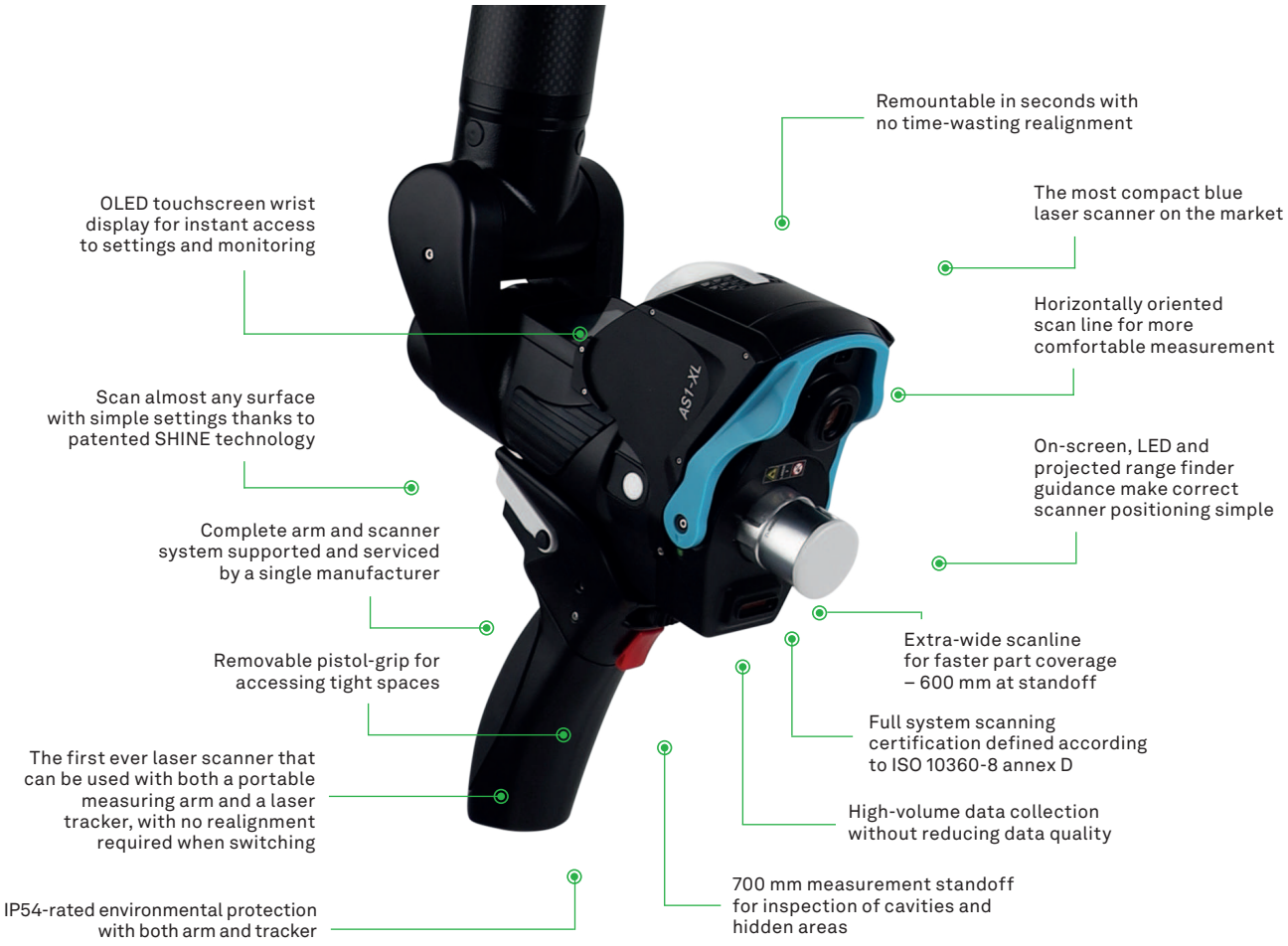
Absolute Scanner AS1-XL

Key features

An extra-wide scan line, large standoff and high measurement speed combined with advanced SHINE technology for intelligent data handling – the AS1-XL is a quantum leap forward for the non-contact measurement of large surfaces.



Absolute Scanner AS1-XL specifications	
Accuracy (sensor)*	0.0134 mm ($P_{Form.Sph.1x25:ODS}$)
Point acquisition rate	up to 1.2 million points/s
Points per line	max. 4000
Line rate	max. 300 Hz
Line width (mid)	600 mm
Standoff	700 ± 300 mm
Minimum point spacing	0.080 mm
System scanning certification	yes
Laser class	2
Operating temperature	0-40°C
Weight	0.46 kg

*See the AS1-XL SSA column in the specifications table for the complete Scanning System Accuracy (arm + scanner)

Absolute Arm 7-Axis

Key features

Absolute Encoders
Exclusive to Absolute Arm, no referencing needed: power on and measure.

Advanced construction
High-end carbon-fibre ensures thermal stability and uneven tube lengths typical in industrial robot design make the arm lighter to use.

Sensor recognition
Change touch probes or mount sensors on the fly without realignment.

Total protection
Full IP54 rating is standard on all Absolute Arm models for measurement in challenging environments.

Asset management
Compatibility with the Metrology Asset Manager solution allows remote real-time status and performance monitoring in the field.

Handling grips
Ergonomic infinite-rotation grips minimise operator fatigue, ensure thermal stability and maximise accuracy.

Zero-G counterbalance
Effectively balances the arm while minimising torque in the arm's base, making movement effortless.

Control packs (WiFi and battery)
Boost functionality with full scanning performance over WiFi or single-cable connection (USB or Ethernet) and battery power (hot-swappable dual battery pack).

RDS SMART
Proprietary software featuring Self-Monitoring Analysis and Reporting Technology that manages the arm in the field by monitoring diagnostics including shocks and temperature changes.

RDS Quick Measure
Built-in utility program allows basic measurements without additional software.

24-month warranty
As standard on all Absolute Arm systems.

Worldwide service
Our network of Hexagon service centres around the world can provide local support and servicing for arms and all compatible sensors.

Absolute Arm 7-Axis and AS1-XL accuracy and size specification

	Model	E_{UNI} [1]	P_{SIZE} [2]	L_{DIA} [3]	P_{FORM} [4]	AS1-XL SSA [5]	Max. reach
83 series	8325-7	0.048 mm	0.023 mm	0.060 mm	0.043 mm	0.114 mm	2.98 m
	8330-7	0.078 mm	0.034 mm	0.090 mm	0.058 mm	0.142 mm	3.48 m
	8335-7	0.092 mm	0.042 mm	0.115 mm	0.067 mm	0.169 mm	3.98 m
	8340-7	0.114 mm	0.051 mm	0.140 mm	0.084 mm	0.198 mm	4.48 m
	8345-7	0.158 mm	0.078 mm	0.168 mm	0.106 mm	0.236 mm	4.98 m
85 series	8525-7	0.031 mm	0.012 mm	0.048 mm	0.025 mm	0.097 mm	2.98 m
	8530-7	0.057 mm	0.020 mm	0.083 mm	0.038 mm	0.129 mm	3.48 m
	8535-7	0.069 mm	0.024 mm	0.099 mm	0.045 mm	0.147 mm	3.98 m
	8540-7	0.084 mm	0.030 mm	0.120 mm	0.050 mm	0.159 mm	4.48 m
	8545-7	0.113 mm	0.048 mm	0.140 mm	0.065 mm	0.189 mm	4.98 m
87 series	8725-7	0.029 mm	0.011 mm	0.044 mm	0.023 mm	0.087 mm	2.98 m
	8730-7	0.053 mm	0.018 mm	0.076 mm	0.035 mm	0.103 mm	3.48 m
	8735-7	0.064 mm	0.022 mm	0.092 mm	0.041 mm	0.121 mm	3.98 m
	8740-7	0.078 mm	0.028 mm	0.110 mm	0.046 mm	0.138 mm	4.48 m
	8745-7	0.104 mm	0.044 mm	0.125 mm	0.060 mm	0.155 mm	4.98 m

[1] E_{UNI} Maximum permissible longitudinal error of measurement – according to ISO 10360-12:2016

[2] P_{SIZE} Maximum permissible probe deviation, size – according to ISO 10360-12:2016

[3] P_{FORM} Maximum permissible probe deviation, shape – according to ISO 10360-12:2016

[4] L_{DIA} Maximum permissible probe deviation, position – according to ISO 10360-12:2016

[5] SSA Scanning System Accuracy: L_{DIA} according to ISO 10360-8 annex D

Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications.

Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Manufacturing Intelligence division provides solutions that use data from design and engineering, production and metrology to make manufacturing smarter.

Learn more about Hexagon (Nasdaq Stockholm: HEXA B) at hexagon.com and follow us @HexagonAB.

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