

FREEDOM arm

Portable go-to measurement
where it benefits you most



**Advanced technology
with multi-functional capability**

The FREEDOM arm range of 6 axis and 7 axis portable arms are designed for practicality and versatility - with touch probe and laser scanner technology for quality control, on-machine verification, reverse engineering or 3D modelling.

Contact us now to book your demonstration

www.LKmetrology.com

TECHNICAL DATA | Portable Arm

Model	FREEDOM Select Scan 7 axis - touch probe and laser scanning high accuracy		FREEDOM Classic Scan 7 axis - touch probe and laser scanning standard accuracy		FREEDOM Select 6 axis - touch probe only high accuracy		FREEDOM Classic 6 axis - touch probe only standard accuracy	
	Max. Reach	Accuracy ¹ E UNI	Max. Reach	Accuracy ¹ E UNI	Max. Reach	Accuracy ¹ E UNI	Max. Reach	Accuracy ¹ E UNI
20	2.48 (97.6)	0.029 (0.0011)	2.48 (97.6)	0.043 (0.0017)	2.23 (87.8)	0.023 (0.0009)	2.23 (87.8)	0.040 (0.0016)
25	2.98 (117.3)	0.031 (0.0012)	2.98 (117.3)	0.048 (0.0019)	2.73 (107.5)	0.028 (0.0011)	2.73 (107.5)	0.046 (0.0018)
30	3.48 (137.0)	0.057 (0.0022)	3.48 (137.0)	0.078 (0.0031)	3.23 (127.2)	0.042 (0.0017)	3.23 (127.2)	0.067 (0.0026)
35	3.98 (156.7)	0.069 (0.0027)	3.98 (156.7)	0.092 (0.0036)	3.73 (146.9)	0.055 (0.0022)	3.73 (146.9)	0.085 (0.0033)
40	4.48 (176.4)	0.084 (0.0033)	4.48 (176.4)	0.114 (0.0045)	4.23 (166.5)	0.067 (0.0026)	4.23 (166.5)	0.100 (0.0039)
45	4.98 (196.1)	0.113 (0.0044)	4.98 (196.1)	0.158 (0.0062)	4.73 (186.2)	0.080 (0.0031)	4.73 (186.2)	0.120 (0.0047)

¹Touch probe accuracy specification E UNI maximum permissible longitudinal error of measurement according to ISO 10360-12:2016

mm (inch) kg [lbs]

TECHNICAL DATA | Laser Scanner

	ModelMaker H120		ModelMaker MMDx100		ModelMaker MMDx200	
						
Accuracy ²	0.007	(0.00028)	0.010	(0.00039)	0.016	(0.00063)
Line width	120	(4.7)	100	(3.9)	200	(7.9)
Measuring range	100	(4.1)	100	(4.1)	150	(6.1)
Stand-off	80	(3.1)	100	(4.1)	110	(4.1)
Resolution (min.)	0.035	(0.0014)	0.065	(0.0026)	0.115	(0.0045)
Point per sec. (max.)	450,000		75,000		90,000	
Laser power adjustment	ESP4 each point in real-time		ESP3 each point in real-time		ESP3 each point in real-time	
Warm-up	0 seconds		0 seconds		0 seconds	
Weight	0.5	[1.1]	0.4	[0.9]	0.4	[0.9]
Laser type	Class 2,450 nm		Class 2,660 nm		Class 2,660 nm	

²Laser scanner accuracy determined by scanning a plane from various directions, each time using the entire scanner field of view. The result is the maximum 1 σ deviation of the scan data to fitted plane features.

mm (inch) kg [lbs]

TECHNICAL DATA | Supports

Portable Metrology Tripod



- Ultra-stable tensioned tripod
- 780mm-1140mm (31"-45") height range
- Aircraft grade aluminium tubes
- Level gauge
- Bottom weight hook

Rolling Metrology Stand



- Heavy duty stand
- 710mm-1440mm (28"-57") height range
- Air cushioned cylinder
- Foot pedal lock
- Laptop arm option

Rolling Metrology Cart



- Granite work top
- 610x910mm (24"x36") or 710x1220mm (28" x 48") table
- Threaded inserts
- Clamping kit included
- Laptop arm

...we are metrology

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