

Measurite

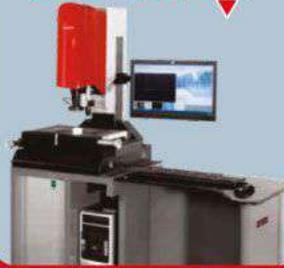
Measure It Right

MEASURING INSTRUMENTS AND MACHINERY ACCESSORIES

NEWALL



EASSON



electronica



Micronfilter



SITEL.MK3



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SEREIN
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METROLOGIA



STANDARD GAGE



ACU-RITE ANILAM FAGOR



FANUC



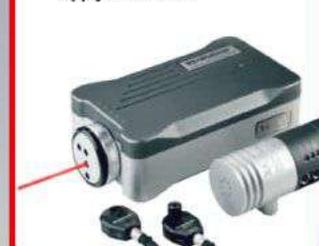
TESA TECHNOLOGY



BOCCHI



RENISHAW
apply innovation



Measure it Right!

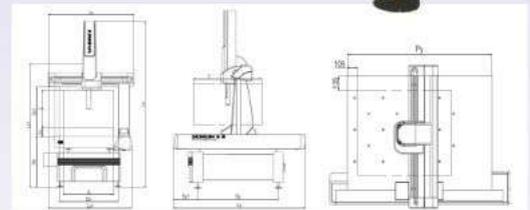
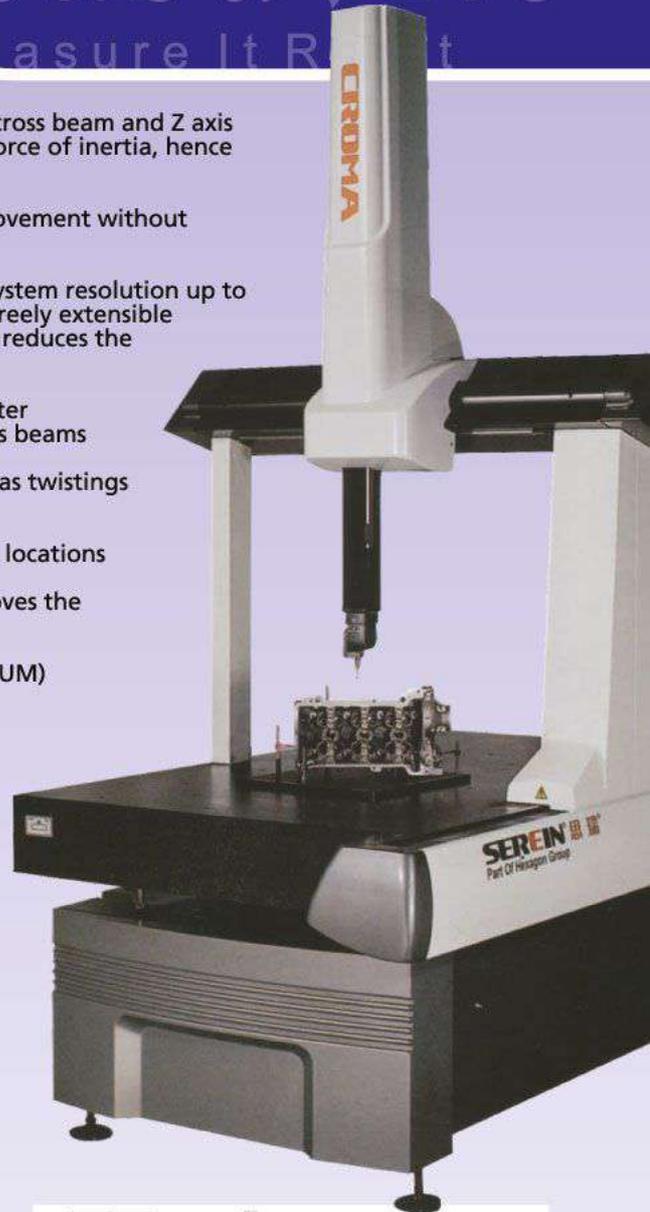
Main features

- All aluminum structure combined with hard anodized aerometal for cross beam and Z axis ensures temperature consistency, reduces mass of moving parts and force of inertia, hence ensures high accuracy during high speed movement
- High-precision self-cleaning air bearing in all three axes, smoother movement without wearing down guide ways
- Europe-imported high-precision optical scales for all the three axes, system resolution up to 0.078um; Installation method with one end fixed and the other end freely extensible ensures linear expansion and contraction at temperature change and reduces the deformation of the optical scale
- The patented precision triangular beam, featuring gravity center, better stiffness, and more reliable motion compared to rectangular and cross beams
- Integral dovetail guide way is Y axis, reduces machine weight as well as twistings during movement, ensures measuring accuracy and stability
- All axes driven by DC servo motors for stable movement and accurate locations
- The IDC-I control system specially designed by HEXA or CROMA improves the dynamic performance and measuring accuracy
- Powerful, easy-to-learn and efficient PC-DMIS BASIC (PC-DMIS PREMIUM) software

Specification and Technique Data as follows

Product Model		Croma564	Croma686	Croma8106	Croma8126
Strokes (mm)	X	500	600	800	800
	Y	600	800	1000	1200
	Z	400	600	600	600
Measuring Range(mm)	Dx	634	734	934	934
	Dz1	144	144	144	144
	Ph	594	794	794	794
Platform(mm)	Ph	783	783	805	805
	Py	1155	1355	1555	1755
Propping(mm)	Sy	824	978	1178	1378
	Sy1	356	379	379	379
Overall Size(mm)	Lx	1050	1150	1350	1350
	Ly	1535	1735	1935	2135
	Lz	2247	2647	2729	2729
Capacity(kg)		300	300	500	500
Machine Weight(kg)		590	730	1074	1196
MPEe (μm)		2.8 +L/300	2.8 +L/300	3.0 +L/300	3.0 +L/300
MPEp (μm)		3.5	3.5	3.5	4
Raster Resolution(μm)		0.078	0.078	0.078	0.078
Space Speed(mm/s)		520	520	520	520
Space Acceleration(mm/s ²)		1730	1730	1730	1730
Air Pressure		120 NI/min, 0.45 Mpa			
Temperature		20±2°C	20±2°C	20±2°C	20±2°C
Humidity		45%-75%	45%-75%	45%-75%	45%-75%

As we are always devoted to continuously improving the performance of our products, SEREN will keep the rights to change technical parameters of our products without any notice. Pictures shall be taken as reference according to the real object.



HEXAGON

brown & sharpe CogniTens CIPA erdas SEEMAX Leica Leica DISTO™

Leica mch pc-dmis PREISO ROMER SEREN 棱环牌



Model	EM-564	EM-785	EM-7105	EM-7155
X,Y,Z travel (mm)	500x600x400	700x800x500	700x1200x500	700x1500x500
Useable table size (mm)	1020x690	1220x890	1620x890	2120x890
Weight (kg)	580	800	1100	1400
Worktable max load (Kg)	300	500	500	500
Scale resolution	1µm			
Probe uncertainty (MPEE) µm	3.5	3.8		
Measuring System	3.2 + L/250	3.5 + L/250		
Working temperature	15- 30°C			
Air supply	pressure 4-10 bar, 120NI/min			

Model	ENC-565	ENC-585	ENC-8106	ENC-8156	ENC-10128	ENC-10158	ENC-10208	ENC-121510	ENC-122010	ENC-122510	ENC-123010
X,Y,Z travel (mm)	500x600x500	500x800x500	800x1000x600	800x1500x600	1000x1200x800	1000x1500x800	1000x2000x800	1200x1500x1000	1200x2000x1000	1200x2500x1000	2000x3000x1000
Useable table size (mm)	1100x800	1300x800	1710x1030	2210x1030	2000x1250	2300x1250	2800x1250	2350x1500	2850x1500	3350x1500	3850x1500
Weight (kg)	1200	1400	1800	2260	2800	3500	4200	4500	5000	6000	7000
Worktable max load (kg)	500	500	1000	1000	1500	1500	1800	2000	2000	2500	2500
Scale resolution	0.5 µm (0.1µm for option)										
Probe uncertainty (MPEE) µm	TP20	2.6	2.8	3.2	3.2	3.6					
	TP200	2.2	2.4	2.8	2.8	3.2					
Space uncertainty (MPEP) µm	TP20	2.4+L/300	2.6+L/300	3.0+L/300	3.0+L/300	3.4+L/300					
	TP200	2.2+L/300	2.4+L/300	2.8+L/300	2.8+L/300	3.2+L/300					
Joystick mode Vmax	0-20mm/s (slow speed mode), 0-100mm/s (normal mode)										
CNC Mode Vmax	Single axis 300mm/s, Space 520 mm/s										
CNC Mode Amax	Single axis 900mm/s ² , Space 1500 mm/s ²										
Working temperature	15- 30°C										
Air supply	Pressure 4-10 bar, 160NI/min										



HP350

Φ 350 Digital Measuring Projector

Technical Parameters

Projection Screen

Screen diameter	: Φ 350mm
Rotation range	: 0°~360°
Resolution of the rotary angle	: 1'
Accuracy	: 4'

Worktable

Worktable area	: 400mm X 150mm
Range of X-coordinate	: 0~200 (mm) Resolution: 0.001 (mm)
Range of Y-coordinate	: 0~80 (mm) (Focusing)
Range of Z-coordinate	: 0~150 (mm) Resolution: 0.001 (mm)
Accuracy of the instrument	: (3+L/75)μm, of which, L=length of the workpiece measured (unit: mm)
Load capacity of the worktable	: 15kg

Lighting Source

Transmission lighting	: 24V 150W Halogen tungsten lamp
Indirect lighting	: 24V 150W Halogen tungsten lamp

Overall Sizes Of The Instrument (mm)

: 687 x 413 x 942

Mainframe Weight

: 150kg

Ambient Environment Of The Instrument Service

Room temperature	: 20°C±5°C
Relative humidity	: Not more than 60%

Remarks On The Power Source

Rated voltage	: 220V/110V
Frequency	: 50HZ/60HZ
Rated power	: 440W



Objective Magnification Power	Objective Visual Field	Objective Working Distance
10 x	Φ35 mm	88.374 mm
20 x	Φ17.5 mm	81.375 mm
50 x	Φ7 mm	54 mm
100 x	Φ3.5 mm	44.9 mm
Errors of magnifying power: 0.08%		

JVB

Video Measuring Machine

Technical Parameters

Category	Manual Video Measuring Machine / High-Accuracy Manual Video Measuring Machine			
Model number	JVB150/JVB150BF	JVB250/JVB250BF	JVB300/JVB300BF	JVB400/JVB400BF
Travel(mm):X×Y×Z	150×100×100	250×150×200	300×200×200	400×300×200
Overall dimension:(mm)	480×460×620	1200×700×1540	1200×700×1540	1500×985×1630
Weight (kg)	35kg	220kg	240kg	340kg
Load capacity (kg)	10kg	30kg		
Measurement resolution	1μm	0.5μm		
Measurement accuracy	JVB Series: X, Y accuracy: (3+L/200) μm			
	JVB-F Series : X, Y accuracy: (2.5+L/200) μm			
Repeatability	2μm			
Operating mode	Manual			
Magnification	Optical magnification: 0.7X-4.5X, image magnification: 28X-180X			
Software	SINPO-M			
CCD	470,000 pixel, colorfull CCD			
Power supply	110-220V			
Environment	Temperature: 20±5°C, humidity: 45%-75%			
Light source	Programmed control LED cold light	Programmed control 3-loop and 8-area LED cold light (optional 5-loop and 8-area)		



EV Series 3D high performance VISION MEASUREMENT MACHINE

EV series has a high capability / price ratio. Auto focus function as standard configures in this series. It uses high precision marbles as the machine base stand. High precision working table and 0.0001mm resolution optical scales installed in the X, Y, Z axis increase the measuring accuracy to $(2.5+L/200)\mu\text{m}$. The powerful software developed by Easson allows users to output the measuring results to general CAD software such as AUTOCAD, MASTERCAM and etc... or users can directly input the DXF file to the software for comparing. The electronic system of the EV series is advanced, it uses the new multi-axis PCI counter card and light motor controlling card developed by Easson, in this way the controlling system very succinct, For more scientific application, an SPC statistical and analysis software is also included in the software package. Users can use the software to analysis the measuring result, in order to control the error range and result of the manufacturing. All measuring result can be output to general office software such as WORD or EXCEL. This allows users to have measurement reports export directly.

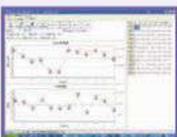
All the EV series can install the Renishaw touch probe and 3D software for 3D measurement.



Model	EV-2515	EV-3020	EV-4030
X, Y, Z Measurement Travel	250 X 150 X 150 (mm)	300 X 200 X 200(mm)	400 X 300 X 250 (mm)
Overall Dimensions	100 X 60 X 140 (cm)	120 X 72 X 160 (cm)	120 X 72 X 160 (cm)
Machine Weight	170kg	280kg	410kg
Repeatability	2 micron		
Max Table Load	25kg		
Operation Mode	X, Y by manua, Z by mouse, keyboard or joysticl		
Resolution	0.1um		
X, Y Measurement Precision	$(2.5+L/200)\mu\text{m}$		
Light Source System	Software controlled adjustable 4-way surface light and straight adjustable contour light		
Structure	00 grade granite base and mast		
Lens	High precision Tele-centric lens		
Magnification	Optical enlarging rate 0.75-4.5x, image enlarging rate 25-145x		
Vision System	High resolution CCD lens (1/2 SONY CCD sensor & special SPC)		



SPARTAN	3020	4030	4030H	6050H
X, Y, Z Measurement Travel	300 X 200 X 200 (mm)	400 X 300 X 250 (mm)	600 X 500 X 300 (mm)	
Overall Dimensions	120 X 72 X 160 (cm)	70 X 90 X 150 (cm)	100 X 136 X 185 (cm)	
Machine Weight	280kg	410kg	1700kg	
Repeatability	2 micron			
Max Table Load	30kg			
Operation Mode	Automatic, CNC control, by mouse or keyboard			
Resolution	0.1um			
X, Y Measurement Precision	$(2.5+L/200)\mu\text{m}$	$(2.5+L/150)\mu\text{m}$	$(3+L/150)\mu\text{m}$	
Light Source System	Controlled by computer, USB control 4 light source			
Structure	00 grade granite base and mast			
Lens	High precision Tele-centric lens			
Magnification	Optical enlarging rate 0.74-4.5x, image enlarging rate 20-125x			
Vision System	High resolution CCD lens (1/2" SONY CCD sensor & special SPC)			
Precision Measuring Head	RENISHAW precision touch probe			
Flat Structure	X/Y/Z stepper motor drive system, 100mm/s		Japanese Panasonics motor system, 150mm/s	



SPC software



AC Servomotor System
The 3 axis of SPARTAN H series adopt the Panasonic AC servo motor system, recognized by the whole industry as the most reliable system, to make sure high speed and reliable measuring.



Full function measuring software



Completed measuring result output



2D/3D complex measuring RENISHAW probes combine the 2D/3D measuring in SPARTAN series. They use the same Coordinates system so SPARTAN series can have the 2D/3D measuring match perfectly.



Auto-zoom Lens



0.5x, 1.5x, 2x Lens



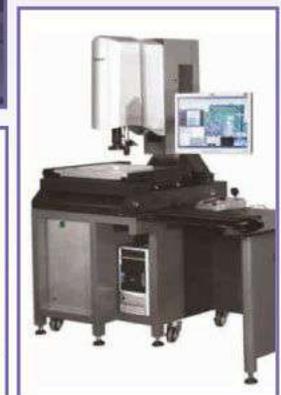
Auto Focus



SPARTAN-6050H



SPARTAN-4030H



SPARTAN-3020



Metrology Solution & Presetting System

TAR-AL PRESETTING SYSTEM

TAR-AL was born as a presetting bench for the workshop environment, in fact 80% of the units sold are placed besides the work centers and only 20% in the metrology rooms at controlled temperature.

TAR-AL is a system that simplifies the setting of 2-point (ID and OD) and 3-point bore gauges.

It replaces the traditional way of using a lot of different ring masters and gage blocks.

Thanks to innovative adapters, a positioning error will be eliminated and the speed of presetting increased. You just input the dimension into the keyboard and the mobile carriage will position itself automatically onto this position. The mobile carriage system will always stay in the desired position.



TAR-AL 1000-1500



TAR-AL 2000-3000



TAR-AL 300 (12 inches)

Application range:

Internal : 1-300mm (0.04-12 in)
 External : 25-325 mm (1-13 in)
 Resolution : 0.001 mm (0.000040 in)
 Precision : $U_{95} = 3 \mu\text{m} + L(\text{mm})/300$ or $(0.000120 \text{ in} + L(\text{in})/ 11.81)$
 L=Stroke length
 Operating temperature : 5°+ 40°C (41F ±104F)



TAR-AL 500 (20 inches)

Application range:

Internal : 1-500mm (0.04-20 in)
 External : 25-525 mm (1-21 in)
 Resolution : 0.001 mm (0.000040 in)
 Precision : $U_{95} = 3 \mu\text{m} + L(\text{mm})/300$ or $(0.000120 \text{ in} + L(\text{in})/ 11.81)$
 L=Stroke length
 Operating temperature : 5°+ 40°C (41F ±104F)



TAR-AL S300 (12 inches)

Application range:

Internal : 1-300mm (0.04-12 in)
 External : 40-340 mm (1.57-13.5 in)
 Resolution : 0.0005 mm (0.000020 in)
 Precision : $U_{95} = 1.5 \mu\text{m} + L(\text{mm})/300$ or $(0.000060 \text{ in} + L(\text{in})/ 11.81)$
 L=Stroke length
 Operating temperature : 5°+ 40°C (41F ±104F)



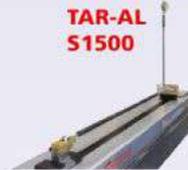
TAR-AL S500



TAR-AL S1000 (40 inches)

Application range:

Internal : 1-1000mm (0.04-40 in)
 External : 40-1040 mm (1.57-41 in)
 Resolution : 0.0005 mm (0.000020 in)
 Precision : $U_{95} = 1.5 \mu\text{m} + L(\text{mm})/300$ or $(0.000060 \text{ in} + L(\text{in})/ 11.81)$
 L=Stroke length
 Operating temperature : 5°+ 40°C (41F ±104F)



TAR-AL S1500



TAR-AL P300 (12 inches)

Application range:

Internal : 1-300mm (0.04-12 in)
 External : 40-340 mm (1.57-13.5 in)
 Resolution : 0.0005 mm (0.000020 in)
 Precision : $U_{95} = 1.0 \mu\text{m} + L(\text{mm})/500$ or $(0.000040 \text{ in} + L(\text{in})/ 20)$
 L=Stroke length
 Operating temperature : 20°C ± 0.5% (68F ±32.9F)



TAR-AL P5000 (20 inches)

Application range:

Internal : 1-500mm (0.04-20 in)
 External : 40-540 mm (1.57-21 in)
 Resolution : 0.0001 mm (0.000040 in)
 Precision : $U_{95} = 1.0 \mu\text{m} + L(\text{mm})/500$ or $(0.000040 \text{ in} + L(\text{in})/ 20)$
 L=Stroke length
 Operating temperature : 20°C ± 0.5% (68F ±32.9F)

ZEROABLE MEASURING INSTRUMENTS



GIOTTO – SHAFT MEASURING CENTER

For checking following parameters ::

- DIAMETERS
- GROOVE DIAMETERS
- OVALITY
- LENGTHS
- ID/OD WIDTHS
- RUN-OUTS TO PART or CENTER-AXIS
- TAPER
- OTHER PARAMETERS ON REQUEST





Granite Inspection Surface Plate

Precision granite measuring tools, instrument bases are of high quality "Taishan Black". After fine grinding, and hand lapping they are provided with high precision and long durability and suitable for measuring applications in factories and laboratories. "Taishan Black" mainly consists of pyroxene, plagioclase, biotite and micromagnetite.

Its structure is hard and compact. It has solidified in a natural way over million of years resulting in its homogeneity, reliable stability, high strength and super hardness. It can keep relatively high precision under heavy load.

Characteristics

- High precision, reliable stability, resistant to deform and guaranteed accuracy under normal temperature.
- Anticorrosion and rust resistant.
- Wear resistant, long service life.
- Measuring precision not to be influenced by breaks and scratches on working surface
- Nonmagnetic
- Glossy surface without sluggishness when the workpiece or tools are moving on it.



Custom Granite

Custom Granite

Physical Properties of

Taishan Black Diamond



Taishan Black No.1



Taishan Black No.2



Granite Straight Edge



Dimension (mm)

400X25X60
630X35X100
1000X50X160
1600X80X250
2000X100X300

Granite Parallel



160X16X25
250X25X40
400X40X63
630X63X100

Box Type V-Block



150X150X150
200X200X200
300X300X300
400X400X400

Granite Square



Dimension (mm)

100X63X16
160X100X20
250X160X25
400X250X40
630X400X63
1000X630X80

Granite Square Ruler



160X160X20
200X200X20
250X250X25
300X300X30
400X400X40
500X500X50

Granite Vee Block



40X90
63X90
100X90
160X90

OptiHite

1D Motorized Machine



- Motorized Movement
- Controller with Graphic Display
- Ergonomic Design with Air Bearing Operation
- Multi Reference Points
- Zero Setting at Any Point
- Passive Temperature Compensation
- USB Port for Communication

Specifications	OptiHite 450	OptiHite 600	OptiHite 1000
Measuring range	450 mm	600 mm	1000 mm
Expandable range	765 mm	915 mm	1315 mm
Resolution	0.005 / 0.001 / 0.0005 mm		
Repeatability (2σ)	On Plane ≤ 0.003 mm		
	On Bore ≤ 0.005 mm		
Max. Measurement speed	600 mm/sec		
Measuring force	1.2 N ± 0.2		
Max. Permissible error *	3+L / 250 μm (L= Length in mm)		
Squareness **	6.5 μm	10 μm	15 μm
Air Cushion	Standard		
Operation time (battery)	16 hrs		
Operation temperature	10°C to 40°C		
Weight	22 kg	24 kg	28 kg
Standard probe	Carbide ball dia 6 X 48 mm		

* Values valid with standard ball probe at temperature 20°C ± 0.5°C

** With electronic probe Magnascan50

Measuring Cycles

- Contact above/below
- Shaft above/below
- Bore above/below
- Groove & ledge measurement
- Squareness measurement
- Parallelism measurement
- Preset at any point
- 1d measurement
- mm/inch conversion
- 500 step memory



Inspechite 600

Precihite Ultra

Optima Advantage



Magnascan

Quick And Effective Squareness Measurement



- Cost effective squareness probe with built-in linear encoder
- Easy to use plug-n-play functionality

Specifications

Resolution- 0.001mm
 Travel length- 6mm
 Output- Magnascan 50 - RS232
 Magnascan100 - RS422

Magnascan 50 - Suitable for Inspechite and OptiHite **HEMA - MG - 0050**

Magnascan 100 - Suitable for Precihite and Optima Advantage **HEMA - MG - 0100**

Other Accessories

Suitable for all Height Gauges



Setting Master
HEMA-CA-0020



Demonstration Job
HEMA-CA-0030



Thermal Printer
HEMA-CA-0040



MICRO-HITE+M



For workshops and laboratories



Motorised displacements



Air cushion system



Adjustable panel



Colour & touch screen



Constant trigger force



Included SCS certificate



1D & 2D measurement modes

	MICRO-HITE+M 350	MICRO-HITE+M 600	MICRO-HITE+M 900
Range of application [mm]	520	770	1075
Max. perm. error [µm], L [mm]	1,8+2L/1000	1,8+2L/1000	1,8+2L/1000
Repeatability (2σ) [µm]	on surface : ≤0,5 on arc : ≤1	on surface : ≤0,5 on arc : ≤1	on surface : ≤0,5 on arc : ≤1
Max. perp. error with IG13 probe [µm]	frontal : 5 lateral : 5	frontal : 7 lateral : 7	frontal : 9 lateral : 9
Max perp. error, mechanical [µm]	frontal : 7	frontal : 9	frontal : 11
Autonomy [h]	8	8	8
Trigger force [N]	1,6 ± 0,25	1,6 ± 0,25	1,6 ± 0,25
Panel [mm]	screen, HxL: 84x152 keyboard: backlit	screen, HxL: 84x152 keyboard: backlit	screen, HxL: 84x152 keyboard: backlit
Resolution	0,1 / 0,001 / 0,0001	0,1 / 0,001 / 0,0001	0,1 / 0,001 / 0,0001
Weight (with panel) [kg]	33	37	45

Technical data

Models		TESA-HITE 400	TESA-HITE 700
	mm	415	715
	in	16	28
	mm	0 ÷ 570	0 ÷ 870
	in	0 ÷ 22	0 ÷ 34
	mm	0 ÷ 625	0 ÷ 925
	in	0 ÷ 24	0 ÷ 36
	mm	0 ÷ 795	0 ÷ 1095
	in	0 ÷ 31	0 ÷ 43
	µm	(2,5 + 4 L) µm (L in m)	
	in	(0.0001 + 0.000004 L) in (L in in)	
	On flat surfaces:		
	2σ = < 2 µm / < 0.0001 in		
	Into bores:		
	2σ = < 3 µm / < 0.00015 in		
	µm	9	13
	in	0.00035	0.0005
	kg	27	32

TESA-HITE



Measure It Right



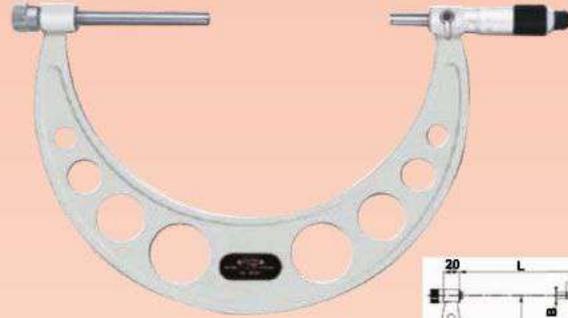
00534020

Order No.	Measuring range		Measuring jaws	Thumb roller
	mm	in	L in mm	
00534020*	0-150	0-6	40	✓
00534021	0-200	0-8	50	✓
00534022	0-300	0-12	60	✓

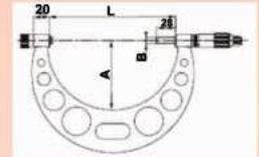


00514018

Order No.	Measuring range	Reading	Travel per revolution	Length of jaws	Thumb roller	Dial face
	mm	mm	mm	mm		
00514018	0-150	0.01	1	40	—	white
00514019	0-150	0.02	2	40	—	white
00514020	0-200	0.02	2	50	✓	white
00514021	0-300	0.02	2	60	✓	white



00114031



Order No.	Measuring range (mm)	Precision (mm)	A (mm)	L (mm)	Number of anvils	Number of anvils
00114030	0-150	0.006	082	158	6	5
00114031	150-300	0.009	185	308	6	8
00114032	300-450	0.011	250	459	6	8
00114033	450-600	0.015	321	609	6	8
00114034	600-750	0.018	401	759	8	8
00114035	750-900	0.020	470	909	8	8
00114036	900-1050	0.021	551	1059	8	8

STANDARD GAGE is a new product line from HEXAGON METROLOGY, the leading supplier in the field of metrology world wide. All are checked individually by means of certified master gauges for their traceability. They are also supplied with an inspection report attesting their conformity to technical specifications.

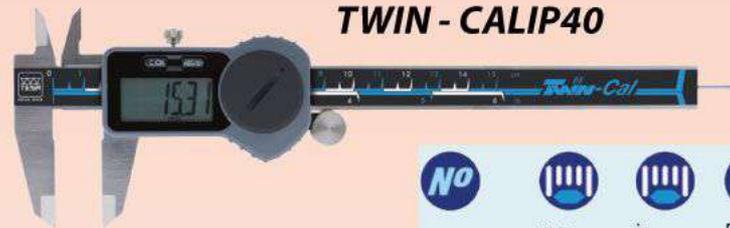


Measure It Right



TESAST Standard Models

No					
	mm	mm	Ø, mm		Insert, mm
01810005	0,8	0,01	28	0 ÷ 0,4 ÷ 0	12,53
01810006	0,8	0,01	38	0 ÷ 0,4 ÷ 0	12,53
01810007	0,5	0,01	28	0 ÷ 0,25 ÷ 0	36,53
01810008	0,5	0,01	38	0 ÷ 0,25 ÷ 0	36,53
01810009	0,2	0,002	28	0 ÷ 100 ÷ 0	12,53
01810010	0,2	0,002	38	0 ÷ 100 ÷ 0	12,53
S18001695	0,2	0,001	38	0 ÷ 100 ÷ 0	12,53

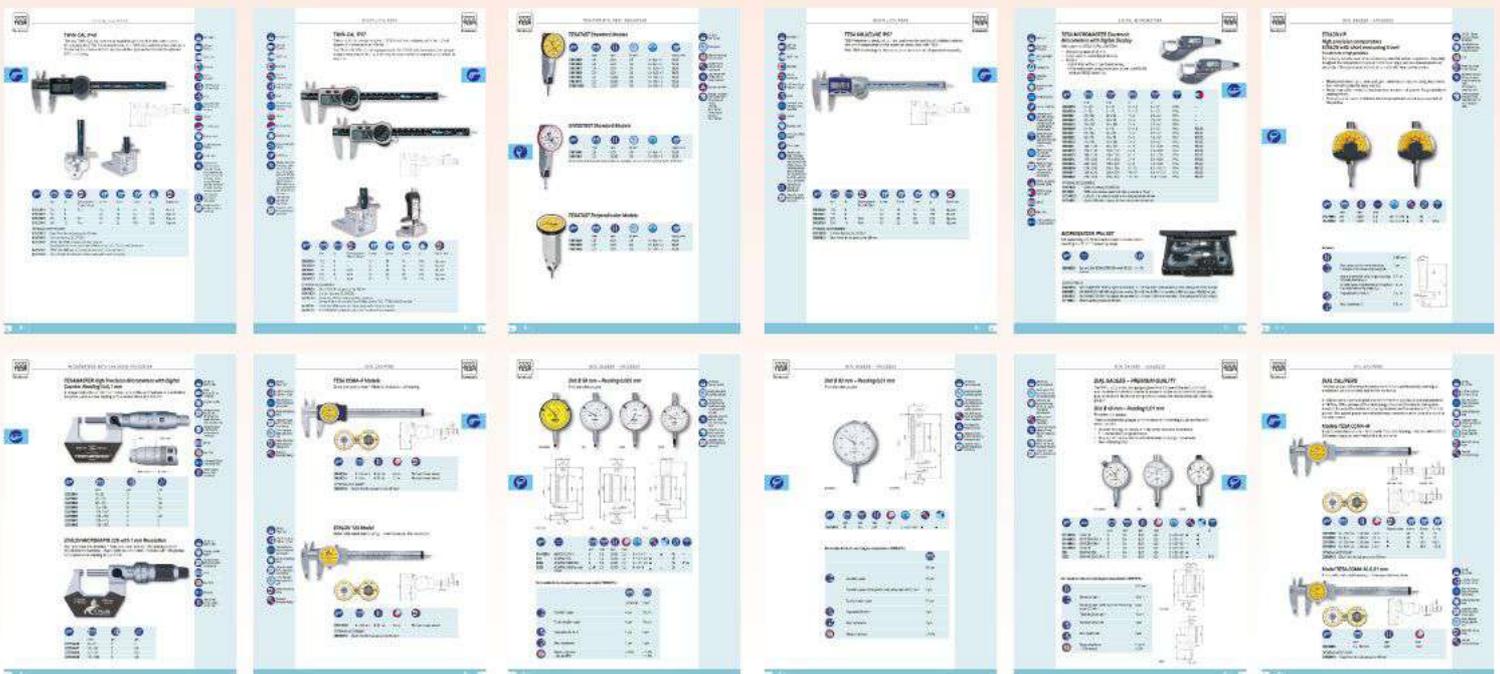


TWIN - CALIP40

No								
	mm	in	Drive system / Thumb roller	A mm	B mm	C mm	g	Depth rod
00530094	150	6	With	40	16	74	150	Round
00530097	150	6	-	40	16	74	150	Square
00530095	200	8	With	50	20	90	200	Square
00530096	300	12	With	64	22	106	280	Square

OPTIONAL ACCESSORIES:

- 00560013 Depth foot for calipers up to 150 mm
- 01961000 Lithium battery, 3V, CR2032
- 04760180 TESA TLC-TWIN wireless emitter-receiver
Compatible with any instrument fitted with a TLC – TESA Link Connector
- 04760181 TESA TLC-USB cable for instruments with a TLC connector
- 04760182 TLC-DIGIMATIC cable for instruments with a TLC connector



Compact and efficient design



STAMPER MK3 - S50

- Flexible and easy-to-use
- Marking on flat or curved surfaces
- Marking on any kind of metal, plastic, wood
- Simple programming with the new touch screen controller
- Aluminum frame and caged ball hardened linear motion guides
- Base with aluminum column and manual height adjustment
- Wide marking area: 130 x 100 mm

MAIN FEATURES	
Marking area	130 x 100 mm (5.12 x 3.94 in)
Dots density	0,025 mm per step (0.98 mil per step)
Marking head dimensions (WxHxD)	272,5 x 248,7 x 261,5 mm (10.73 x 9.79 x 10.29 in)
Head weight	7 Kg (15.4 lb)
Power supply	90 - 264 Vac (50/60HZ) 40 W
Marking Technology	Pneumatic, 6 Bar max. (20NL/1')
Marking speed	Up to 5 cps
On board memory	MicroSD starting from 4 GB
Menu languages	IT-EN-DE
Display	Embedded Touch-Screen 7" Color
Interfaces	Ethernet, USB, Serial RS-232/485, digital I/O

Compact and Powerful Marking Laser

Main Features

Laser source type: YTTERRBIUM PULSED FIBER LASER

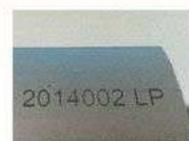
- Wavelength: 1064 nm
- Output power CW: 30W
- Pulse duration: 90-120 ns
- Pulse repetition rate (Min÷Max): 30-200 KHz
- Pulse Energy (Pout=Pnom,RR=30kHz): 1mJ
- Cooling method: air/air
- Power Supply: 110 ÷ 240 VAC ; 50/60 Hz
- Nominal current consumption: 9A
- Head Dimensions and weight (WxHxD): 110x135x510 mm
- Rack Dimensions and weight (WxHxD): 190x360x450 mm
- Operating temperature (100% emission time): +36°C
- Storage Temperature: -10°C ÷ +60 °C
- Humidity (non-condensed): 10-95%



CARBIDE



PLASTIC



ALUMINUM



STEEL

FIBER LASER MARKING ML-MF-WZOH



Technical specifications

Model	ML-MF-W20H
Laser Power	20W
Laser wavelength	1064nm
Repeating Frequency	20-80KHZ
Beam Quality	M<2
Marking Range	100mm x 100mm(Optional)
Marking Depth	0.1-2 mm(depend on material and marking time)
Marking Speed	≤10,000mm/s
Min.line Width	0.01mm
Min.Character	0.15mm
Repeatability Accuracy	±0.002
Power Supply	220V±10% / 50-60Hz
Power Consumption	800W
Weight	≤100kg
Operating System	Win98/Win2000/WinXP/Win 7
Cooling Way	Built-in air cooling
Control Interface	Standard USB
File Format	All character styles from character store of OS
Laser Type	Pulse

FIBER LASER MARKING MACHINE



Model Features

- 1. Excellent beam quality: Raycus laser and FCO lens.
- 2. Low cost: electrical optical conversion rate is up to 30%.
- 3. Maintenance-free and High marking speed.
- 4. Long term service life of the laser source: service time can up to 100,000 hours.

Samples



PORTABLE SEPARATED LASER MARKING MACHINE



PORTABLE INTEGRATED LASER MARKING MACHINE

AUTOMATIC LASER WELDING MACHINE



Model Features

- 1. The working workpieces X, Y, Z, D axis is step driving to meet the needs of large travel.
- 2. High accuracy on repeatedly positioning, high working speed, high efficiency.
- 3. Can weld circle, line, circle, ellipse, square, and any pattern track on plane.
- 4. Large laser power supply, can meet 24 hours mass production.
- 5. With auto focus and rotation functions, can weld any slopes in 3D space.
- 6. The 4 axis linkage control system is specially customized for laser welding, performance stable, easy to use.

Samples



CO₂ LASER MARKING MACHINE



Model Features

- 1. High precision marking, fast speed, engraving depth can be freely controlled.
- 2. The laser power can be adjusted to a variety of non-metallic products for carving and cutting.
- 3. No consumables, low processing costs - the operating life of the laser is up to 20000-30000 hours.
- 4. Marking clear, wear-resistant, carving and cutting efficiency, environmental protection, energy saving.

Samples



ULTRAVIOLET LASER MARKING MACHINE



Model Features

- 1. High beam optical quality, smaller in focusing spot.
- 2. With a further wide list of application.
- 3. Belong to the "cold" processing in heat effect and burning material issues.
- 4. Fast marking speed, high efficiency.

Samples



SMALL SIZE PRECISION LASER CUTTING MACHINE



Model Features

- 1. Practical new type patent integrated design, compact structure reliable, safe, practical and reasonable.
- 2. Using an optical leveling platform, anti-vibration frame design, suitable for high speed movement, high stability.
- 3. High-precision, with full feedback linear motor workpiece, speed is fast, large working area visual precision positioning is optional, automatic precision calibration.

Samples



New DP 1200 Digital Readout

This is the latest Newall product featuring a compact and ergonomic design. A powerful and easy to use Digital Readout, it can be interlaced to the market leading Spherosyn™ and Microsyo™ linear encoders with ease.

Designed for all machining applications this DP 1200 digital readout features:

- Intuitive Use
- High Reliability
- A Panel Mouni Version



DP 1200



IP67 Rating

The DP1200 is compatible with Newall's Spherosyn and Microsyo encoders which withstand the harshest shop conditions.

ACU-RITE® ANILAM®

Digital readouts from **ACU-RITE** make your manually operated machine tools more profitable, improve productivity, and raise the quality of the machined workpiece. The large LCD display clearly shows the actual axis positions. The context-sensitive graphical user guidance makes working with digital readouts from **ACU-RITE** a pleasure.



TECH Linear Encoder Digital Readout Device



TECH Linear Scale is fitted with double scale lips.

Following are the list of 10 major functions:-

1. Bolt Circle Drilling (PCD)
2. Arc Milling Positioning
3. 200-point zero position memory
4. Linear Pattern Drilling
5. Full Calculator Functions
6. Reaching position output (EDM)
7. Control mode setting (EDM)
8. Rising-up height setting (EDM)
9. Taper measurement (Lathe)
10. 200 Tools memory (Lathe)

Every TECH linear scale is design to withstand the harsh working environment of machine shop. The scales are design to be durable and well protected from Metal chips, Coolant and Oil. It is made under strict quality control and every linear scale is laser check for accuracy and to ensure that the precision meet industrial standard.

FAGOR



EASSON

- Easson ES12**
- Up to 4 axis
 - With 5.7" color LCD
 - Graphical guidance



Measure It Right

EVOCAM



Measurement

EVO Cam includes simple on-screen measurement capability, with customisable overlay grid and cursors. Requires remote control console option.

- Customisable overlay grid allows quick on-screen sizing.
- Cursor mode overlays two movable horizontal and vertical lines, allowing measurement of X,Y values, with results displayed on-screen.

Camera zoom	30x optical; 2x digital
Camera resolution	Full-HD 1080p, 1920x1080, 1/2.8" CMOS
Frame rate	60fps
Output	HDMI out
Saved file type	.bmp



FALCON

Video Measuring Machine
for precision 3-axis measurement



Measuring stages

	150mm x 100mm	150mm x 150mm	150mm x 150mm (motorised CNC)
NLEC* Stage Calibration	✓	✓	✓
SLEC** Z-Axis Calibration	✓	✓	✓
Z-Axis Control	Progressive motorised Z-axis for fine and rapid movement		Fully automated CNC control with autofocus

* Non Linear Error Correction ** Segmented Linear Error Correction

Encoder resolution

X = 1µm Y = 1µm Z = 1µm

Video camera

1.3MP colour CMOS camera with 5-position indexed zoom (5:1 ratio) and iris aperture control

Optical data

Zoom Magnification Range	10 - 50x	20 - 100x
Maximum field of view	13.5mm x 6.75mm	
Minimum field of view	2.7mm x 1.35mm	
Working distance	91mm	61mm

Camera/optics

Camera Iris	5-position indexed camera iris allowing increased Z-axis accuracy and enhanced component edge definition.
Zoom Indexing	Repeatable 5-position indexed zoom

TOLTEC
TOLTEC ENGINEERING CO., LTD.

TOLTEC IPC

TOLTEC IPC is an all-in-one industrial computer and especially designed for Toltec Measurement system. It maintains portable convenience from TTC Monitor and stability of industrial computer.

CPU	Core i3-2330E 2.2GHz FCPGA988
RAM memory	4GB
HDD	2.5 in 500 GB
Display	15" Colour TFT LCD
Screen Resolution	1024*768
Contrast Ratio	500:1(Typ)
Power Supply	AC100-240V 50/60Hz
Colour	Red*Black

IPC



RJ45 Ports



Light Knobs
For adjust the auxiliary lights



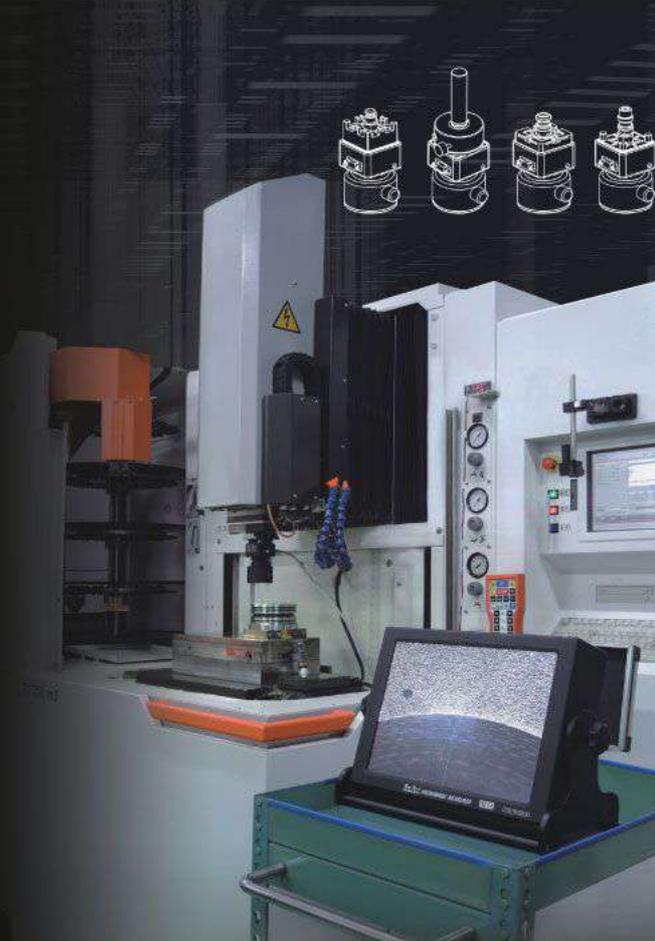
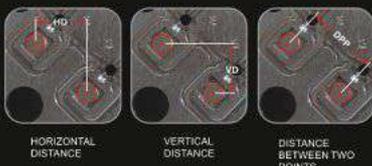
Connector ports
Signals import and export, and power supply



Portable Handle
Allows you to move the monitor freely



Strong Stand with Turning Knobs
The foundation steadily supports the monitor and easily adjust the viewing angle



LISTA Electronic Control

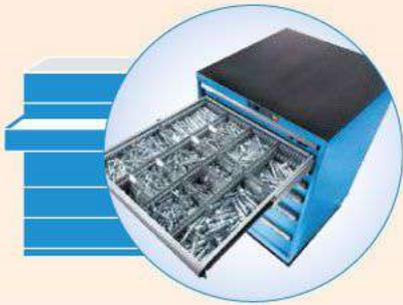
The modular system for internal logistics solutions

Level 1 Security

Access control at the level of the cabinet

LCC – LISTA Cabinet Control

Electronically controlled access to the entire cabinet.
Available for sizes
36 x 36 E (717 x 725 mm)
54 x 36 E (1023 x 725 mm)

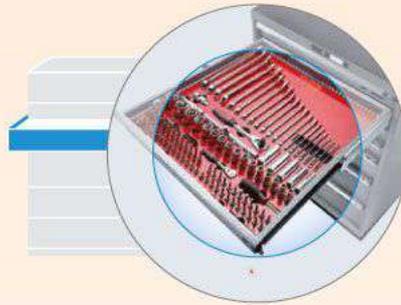


Level 2 Security

Access control at the level of the drawer

LDC – LISTA Drawer Control

Electronically controlled access to specific individual drawers.
Available for sizes
36 x 36 E (717 x 725 mm)
54 x 36 E (1023 x 725 mm)

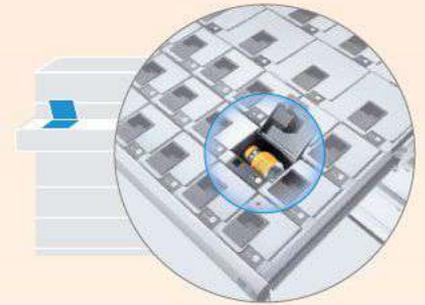


Level 3 Security

Access control by compartment

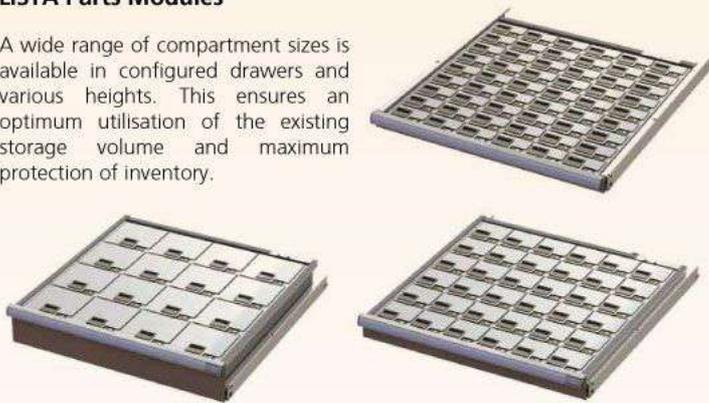
LPC – LISTA Parts Control

Electronically controlled access to specific individual drawer compartments.
Available for sizes
36 x 36 E (717 x 725 mm)



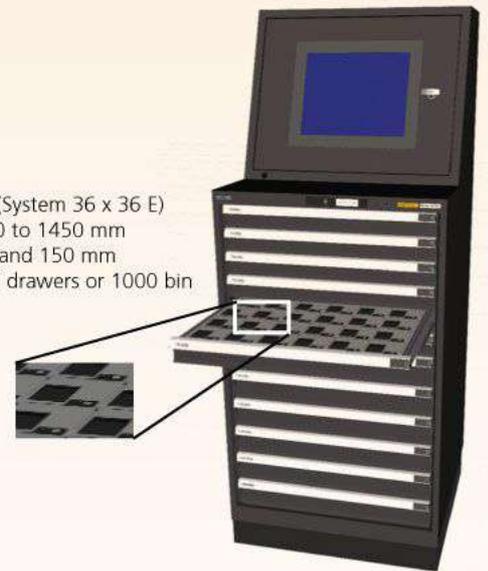
LISTA Parts Modules

A wide range of compartment sizes is available in configured drawers and various heights. This ensures an optimum utilisation of the existing storage volume and maximum protection of inventory.

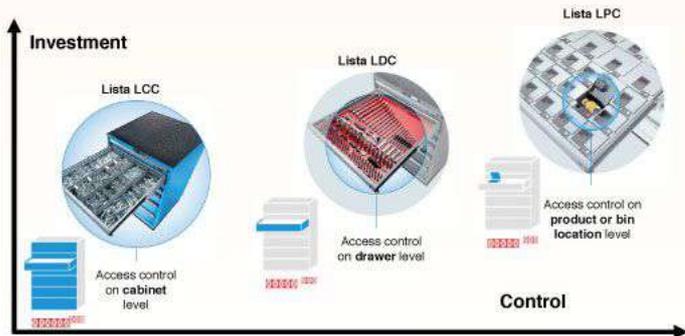


LPC Specifications

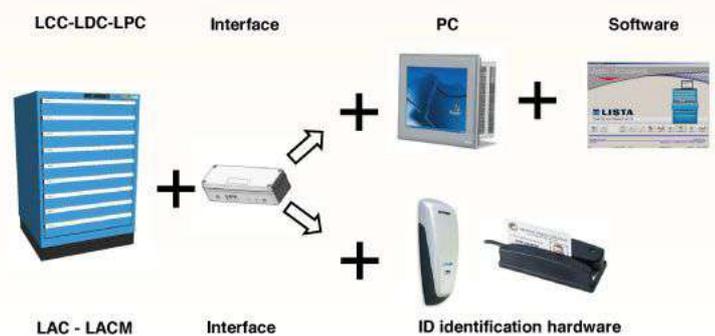
- Footprint 717x725 mm (System 36 x 36 E)
- Cabinet height from 700 to 1450 mm
- Drawer height 75, 100 and 150 mm
- Max. 10 cabinets or 100 drawers or 1000 bin locations per interface



Control Versus Investment



Customized Solutions



Coolant/Oil Mist in working Environment

How can Coolant or Machine Working Fluid affect you?

By Inhalation

• if you inhale the mist, aerosol or vapour generated during machining operations. Your exposure will depend on the type of machining you are doing and how well the machine is enclosed and ventilated.

Exposure is likely to be highest:

- near the metalworking machine;
- in operations involving high-speed tools/grinding or deep cuts;
- at machines where the process is not enclosed;
- where there are inadequate ventilation arrangements.

The current OSHA and NIOSH limits on airborne oil mist are 5 mg/cubic meter

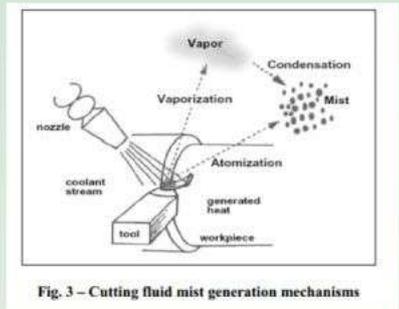


Fig. 3 – Cutting fluid mist generation mechanisms

Risk of Coolant/Oil Mist Inhalation

Exposure to metalworking fluids aerosols have been linked to causing a variety of respiratory conditions, including

- lipid pneumonia, specific form of lung inflammation (pneumonia) that develops when lipids enter the bronchial tree)
- hypersensitivity pneumonitis, is an inflammation of the alveoli within the lung caused by hypersensitivity to inhaled organic dusts.
- asthma,
- acute airways irritation,
- chronic bronchitis, a type of chronic obstructive pulmonary disease (COPD), is characterized by the presence of a productive cough that lasts for three months or more per year for at least two years. Chronic bronchitis usually develops due to recurrent injury to the airways caused by inhaled irritants.
- impaired lung function

How can MicronFilter improve your surroundings?

Environmental

- Remove micro mist for better breathable air quality.
- Remove unpleasant odour caused by bacteria built up in machines.
- Healthier, Higher attendance, Productive workers.

Safety/Hazards

- Less oil deposits in machines that causes foul contacts, slippery floors and walls.
- Reduce chances of fire hazards by oil deposit.
- Reduce chances of getting diseases.

Machine

- Greatly Reduce fog built up over time in machine
- Clearer visibility for machinist
- Improves the overall performance of machines in terms of Speed and Feeds.
- Less short circuit problem due to oil build-up on Electronic board (reduce downtime).
- Less manpower for cleaning machine.
- Saves cost on coolants. (recycle)



Safety matters



Micronfilter[®] serie KUBE³ Mist Collector

KUBE^{EXTRA} *efficiency*



Under request the KUBE series can be equipped not only with high efficiency cartridges, class "M" according to IFA BGIA classification, efficiency 99.98% (DIN EN60335-2), but also with ABSOLUTE FILTER cartridge type HEPA in both classes: H13 (efficiency 99.997% Dop) and H14 (99.999% efficiency Dop).



All KUBE models are available with a different pressure gauge, as an option, to monitor the filter life.



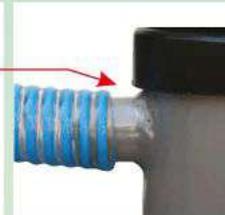
Backward Blades Impeller



Labyrinth Pre-Filter



Cellulose Filter Cartridge High Absorption Power Coalescence Polypropylene Prefilter



Oil Drain System

KUBE^{EASY} *fit*



KUBE does not have any "pre-formed inlet" for suction, which allows, in the most common case of vertical mounting, to fit directly the mist collector on the machine tool, with a simple kit, resulting in savings of time, effort, and last but not least, in a very pleasant aesthetic result.



KUBE200/400 KUBE800/1200 KUBE2000/2500

Dimension (mm)	KUBE200/400	KUBE800/1200	KUBE2000/2500
A	332	467	610
B	328	467	610
C	349	451	551
D	212	260	471
E	192	300	440
F	192	300	475
G	192	300	440
H	192	300	300
I	196	283	349
J	4 x M8Ø153	4 x M8Ø183	6 x M8Ø233
K	Ø25	Ø25Ø	25

KUBE^{EASY} *service*



Maintenance is simple and fast: everything can be accessed through a few screw, without complex or dangerous maneuvers. The cartridges, both filtration and post-filtration, as well as the droplet pre-filter, can be replaced in second, without having to take off any mechanical component. All this translates into a saving valuable resources. The components that make up the filters are made of polyester and cellulose, they do not change consistency or composition in case of aggressive coolants.

	Air Flow	Power	Filtering Area	Ø Inlet	Noise Level	Weight
	m ³ /h	Kw	m ²	mm.	dBak	g
KUBE200	200	0,18	2	120	62	24
KUBE400	400	0,25	2	120	64	25
KUBE800	800	0,37	6	150	66	40
KUBE1200	1200	0,55	6	150	67	41
KUBE2000	2000	0,75	12	200	68	54
KUBE2500	2500	1,11	2	200	69	55

DMG Mori-Seiki



ECOCA



Fanuc RoboDrill



Goodway



HAAS



Foca Seiki



Makino



Okuma



IPA Washing Tank



Schaublin



YCM



Sister VMC



Kinwa Lathe



Mazak



MACHINE CALIBRATION SERVICES

Machine Tool Calibration can be performed on new machine installations to check that the accuracy promised is the accuracy received, or it can be performed on an annual or semi-annual basis to track machine capability or performance degradation due to wear.

Leadscrew compensation files may be updated or optimized during calibration to ensure you are getting the best possible accuracy from your machine tool investment.

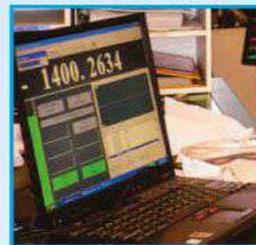
Machine Tool Calibration is rapidly becoming an integral part of the manufacturing process. ISO Registration mandates that all equipment and processes used as part of the quality process be calibration and the process documented.

We provide on-site machine calibration services including the issuance of a calibration certificate demonstrating traceability to national or international standards.

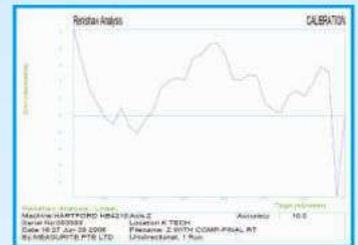
In compliance with ISO standard, our calibration certificates are accompanied by a fully documented Summary Report that include laser setup instruction, environmental reports, machine setup parameters, and copies of all test results.



Laser Calibration on Toshiba Borer.



Software record actual position versus programmed position.



A sample of Error analysis result.



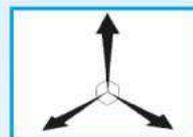
Linear positioning accuracy and repeatability of an axis.
The laser can measure the actual displacement moved along an axis and compare it against the displacement shown by the machine's axis encoders. The basis for error compensation of machine tool CNCs.



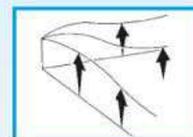
Angular pitch and yaw of an axis.
These are common causes of positioning errors. Even a small error at the spindle can cause a significant effect at the tool tip. Interferometric measurement is fully traceable to national standards



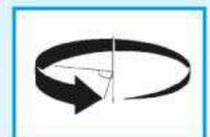
Straightness of an axis
Both horizontal and vertical straightness of motion along an axis can be measured. Straightness errors have a direct influence on machine path accuracy and are unlikely to be uniform along an axis of a machine.



Squareness between axes
Axes need to be square to each other as well as accurate along their length. By using a calibrated optical square and combining two straightness measurements the squareness of two axes can be calculated precisely.



Flatness of a surface
Flatness of reference tables can be critical. This measurement enables a 3D picture of the surface form to be built up.



Rotary axis/table angular positioning
Rotary axes are increasingly common on machine tools. The XR20-W provides for automatic data collection when used with a Renishaw laser and angular optics.

FEATURES

- Suitable for all machine, e.g. Machine Center, Lathe, Grinding Machine etc.
- Machine accuracy can be improved by as much as 500% after leadscrew compensation.
- Certification & fully documented report are given for **ISO** standard compliance.
- Error analysis chart helps to determine any possible machine problems.

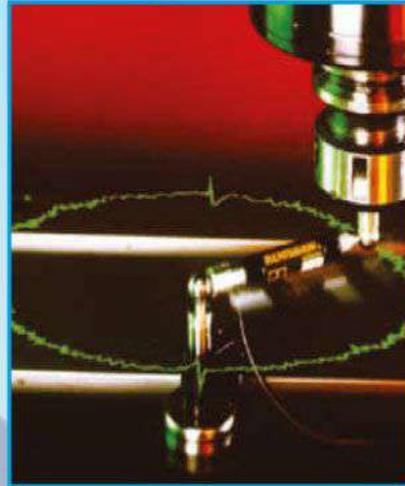


Measure It Right

We provide on-site **Ball Bar** check on your machine. The **Ball Bar** test is able to diagnose the machine inaccuracy. It can check squareness, reversal spikes, cyclic error, scaling factor, servo mismatch and more.

We also provide geometric accuracy test on your machine. This will ensure that your machine is still within the manufacturer specs and is up to standard.

In compliance with **ISO** standard, our calibration certificates are accompanied by a fully documented Summary Report and copies of all test results.



Reduces down-time

Reduces both machine down-time and maintenance costs.



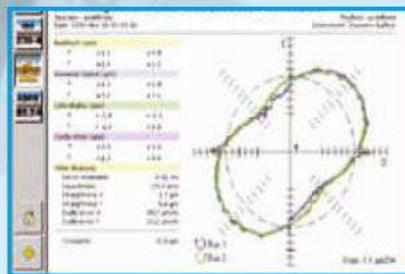
Compliance

Reports comply with **ISO, ASME** and **JIS** standard.



Predictive Maintenance

Forms the basis of predictive maintenance programs.



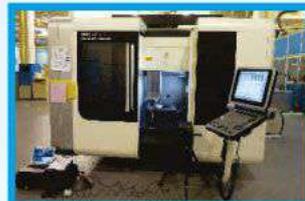
Ball Bar On Doosan



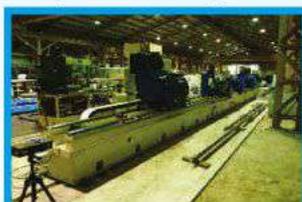
Haas



DMG 5axis



Deep Hole Drilling



Tacchi Lathe



Okuma



Mori Seiki



GEOMETRICAL ACCURACY TESTS - (ISO 1701-1974 E)

DECKEL MILLING MACHINE MODEL: FP 3 LG REPORT NO: SG-ESA-1109-7

NO	DIAGRAM	OBJECT	INSTRUMENTS	ALLOWED DEVIATIONS	RESULT	PASS	FAIL
G1	[Diagrams showing vertical movement checks]	Checking of Straightness of the Vertical Movement of the knee a) in the vertical plane of symmetry of the machine b) in the plane perpendicular to the vertical plane of symmetry of the machine	Dial Gauge and Square	a) 0.025mm for a measuring length of 300	0.001 in for a measuring length of 12in	0.006mm	PASS
				b) 0.025mm for the measuring length of 300	0.001 in for a measuring length of 12in	0.010mm	PASS
G2	[Diagrams showing squareness checks]	Checking of squareness of the table surface to the column legs for knee (in these position - in the middle and near the corners of the travel) : a) in the vertical plane of symmetry of the machine b) in the plane perpendicular to the vertical plane of symmetry of the machine	Dial Gauge and Square	a) 0.025mm for a measuring length of 300 with angle α in degree	0.001 in for a measuring length of 300 with angle α in degree	0.010mm	PASS
				b) 0.025mm for the measuring length of 300	0.001 in for a measuring length of 12in	0.006mm	PASS

FEATURES

- Suitable for all machine, e.g. Machine Center, Lathe, Grinding Machine etc.
- Machine accuracy can be checked and compared.
- Certification & fully documented report are given for **ISO** standard compliance.
- Error analysis chart helps to determine any possible machine problems and formulate the solution.

Rotary Table



Agie Charmilles Mikron 5axis



MANUAL PULSE GENERATOR/ REMOTE HANDWHEEL

Measurite provides a wide range of remote handwheel and MPG (Manual Pulse Generator) to suits different machines and for different controllers.

These MPG can be used for new machine or for replacement on your existing worn-out MPG. Even if your existing MPG is of a different brand, our experienced engineer are able to recommend and customised the MPG to suit your machine.

Technical Characteristics :

Power supply (dc)	: 5V, 12V, 24V
Pulse per revolution	: 25ppr, 100ppr
Push button	: Up to 3
E-stop button option	
Enable button option	
Magnetic option	
Cable length	: 3M, 4M, 5M
LED lamp	



Nemicon UFO Series



FutureLife EHDW



Tosoku RE45T Series



Sumtak RT Series



Tosoku Hc1 Series



Nemicon HTDM Series



FutureLife HDW

FEATURES

- Suitable for all machine/CNC brand, e.g. Machine Center, Lathe, Grinding Machine, etc.
- Rugged and suitable for machine tools environment.
- Resistance to dust and coolant.
- Axis selection and step selection.
- Suitable for replacing other brand of handwheel.



Nemicon HP-L / Brother MPG



Spring Cable

Measu^{ite} Pte Ltd is an independent Fanuc Repair and Servicing Specialist.

With 20 years of industry experience, we can help you to solve Fanuc faults, modify PMC software and service Fanuc controls, servos, and spindles drives. We can supply original manufactures parts.

Our Promise: Price Savings

We provide the best value in the marketplace for CNC/FANUC parts and repairs.

Our prices are usually lower than other FANUC parts and repair centers, and

Measu^{ite} goes further to deliver the greatest possible value at significant savings over original manufacturer parts.

We Provide **FREE** On-site Initial Evaluation of the problem. No Hidden Charges.



Motors



Fanuc Fan



Monitors



Control Packages



Fanuc keyboard



Test Station



GE Fanuc Automation i Series CNC



Repair Station



SPECIALIZE IN MACHINE CONTROLS:

- **CNC :**
 - FANUC 6
 - FANUC 10/11/12
 - FANUC 0(A, B, C & i)
 - FANUC 21 & 21i
 - FANUC 16i & 18i
 - FANUC 16(A, B & C) & 18(A, B & C)
- **SERVO DRIVE :**
 - AC Analog
 - Alpha, Alphai Series & Alpha is Series
 - FANUC AC Digital Series (S, C & D)
 - FANUC DC and DCM Series
- **SPINDLE DRIVES :**
 - Alpha, Alphai Series & Alpha is Series
 - FANUC AC Digital and Analog
 - FANUC AC Serial Interface
 - FANUC AC Series I & S

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SITEL MK3



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ANILAM



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ENGINEERING

TOLTEC
TOLTEC ENGINEERING CO., LTD.

HEROLASER



Measurite
Measure It Right

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