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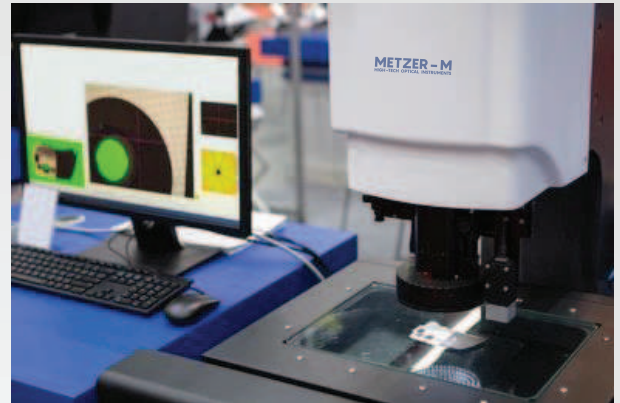
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About Us

METZER-M is a leading manufacturer of precision instruments dedicated to advancing scientific research and industrial applications. Our comprehensive range of products includes high-quality microscopes, and various laboratory equipment designed to meet the rigorous demands of modern science and industry. Our team of experts combines extensive industry knowledge with cutting-edge technology to develop instruments that meet the evolving needs of our customers. We prioritize quality and precision in every aspect of our manufacturing process, ensuring that our equipment provides consistent, repeatable measurements that enhance productivity and maintain stringent quality control standards.

Our Mission

We aim to empower researchers, educators, and industrial professionals by providing reliable, innovative, and high-performance tools. Our commitment to quality and excellence drives us to continually improve and expand our product offerings.

Global Reach

With a strong presence both domestically and internationally, our products are trusted by professionals around the world. We are committed to supporting our customers with exceptional service and comprehensive after-sales support.

Innovation & Quality

At METZER, innovation and quality are at the heart of everything we do. Our state-of-the-art manufacturing facility and rigorous quality control processes ensure that every product we deliver meets the highest standards of reliability and precision.

METZER OPTO INC.

Tower A-0007, ATS Bouquet, Sector - 132, NOIDA - 201305 (U.P)

🌐 www.metzerlab.com

✉ sales@metzermicroscope.com

☎ +91 9897000955

VISION MEASURING MACHINE



APPLICATION

Vision Star Series is a two-element measuring instrument is suitable for all application fields with the purpose of two-dimensional coordinate measurement. It is widely used in precision machinery, electronics, instrumentation, plastics, mobile phone tablet, hardware mold, PCB, LCD, LED display and other industries.

FEATURES

- High-precision marble base, table and column to ensure high stability and rigidity
- Marble table design, with precision V-shaped cross rail, ensure long-term use without deform, effectively guarantee high mechanical precision
- High-quality optical system and high-resolution CCD ensure sharp image edges
- Three-ring and eight-zone LED ring surface cold light source and contour light source, avoid the deformation of precision parts caused by the heat from light

SPECIFICATIONS

Model No.	VISION STAR 300	VISION STAR 400	VISION STAR 200
Travel-X, Y axis	300*200(mm)	400*300(mm)	200*100(mm)
Travel-Z axis (mm)	200 (Travel of linear scale)		180mm (Travel of linear scale)
Z-axis focal length(mm)	90 (Focus range)		
Resolution	1μm		
X,Y-axis accuracy	(2.5+L/150) μm; L=measuring length(mm)		
Stage size (mm)	510*385	610*510	360*260
Glass stage (mm)	360*260	460*360	260*154
Stage load capacity	20kg		15kg
Illumination	LED parallel lamp, Surface illumination: LED 3 ring light		
Vision system	Gigabit color CCD camera; Detent zoom lens 0.7x-4.5x		
Dimension L*W*H(mm)	770*650*1080	960*750*1080	600*550*980
Power Supply	100V-120V/200-240V AC, 50/60HZ		
Net weight	188kg	230kg	140kg

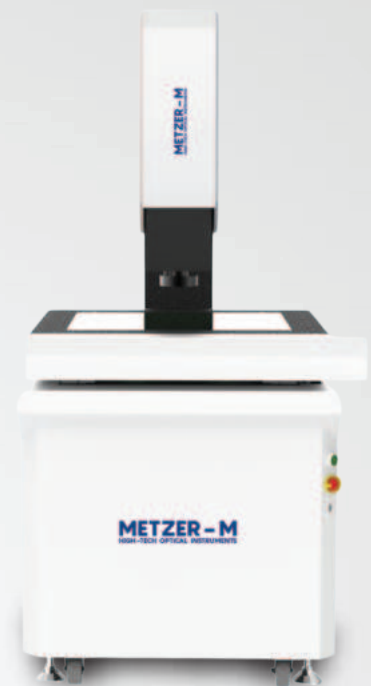
CNC VISION MEASURING MACHINE

INTRODUCTION

Automated Precision Checking METZ – VISION PRO series are automated type non-contact optical measurement device, it is with beautiful and generous structure. Combined with our CNC metrology software, the inspect device can achieve batch measurement with high efficiency.

FEATURES

- X,Y and Z axis of CNC measuring instrument are controlled by servo motor, with high positioning accuracy and smooth movement
- Joystick and mouse operation, easy to use
- High-hardness, high-precision and non-deformable granite base and upright columns are stable, durable and elegant
- Programmable LED cold lights adopted for surface lamps can carry out surface measurement for various complicated work-pieces, with higher measurement accuracy
- Standard with automatic software can measure the complex work-pieces with high efficiency
- Fast Auto Focus, user can choose auto zoom as option according to the needs



METZ VISION STAR PRO

SPECIFICATIONS

MODEL		METZ VISION PRO 300	METZ VISION PRO 400	METZ VISION PRO 500
Stage Size (mm)		506*356	606*456	756*656
Glass Size (mm)		330*230	430*330	530*430
Travel (mm)	X axis	300	400	500
	Y axis	200	300	400
	Z axis	200	200	200
Driving System		CNC (Servo Motor Control)		
Load(KG)		15	20	25
Speed		280 MM/s		
Resolution of X/Y/Z-axis		0.001 MM (1μM)		
Positioning Accuracy		0.003 MM		
Accuracy		(2.5 + L/200)μM L=MEASURING LENGHT(MM)		
Software		Automated Metrology software		
Video System		<ul style="list-style-type: none"> • CCD Camera: High resolution CCD camera • Zoom Lens: 0.7X-4.5X 		
Illumination		Counter illumination: programmable light source Reflective illumination: programmable LED ring light		
Weight (KG)		260	320	380
Power Supply		110V-120V/220V-240V AV, 50/60 Hz		

PROFILE PROJECTOR VERTICAL (TABLE -TYPE)



SPECIFICATIONS	METZ -200 T.T	METZ- 300 T.T SUPREME	METZ - 400 T.T SUPREME
SCREEN	Glass screen with 90° cross line Fitted with graduated rotary ring (0-360°) operated by knob, L.C. 1min.		
SCREEN SIZE	200mm	300mm	400mm
Lens AXIS	Vertical	Vertical	Vertical
OPTICS (Standard)	10X	10X	10X
Optional	20X, 50X,	20X, 50X,	20X, 50X,
(Mount)	Screw Mount	Screw Mount	Screw Mount
WORKSTAGE SIZE	150mm X 150mm	310mm X 210mm	310mm X 210mm
MEASURING RANGE	25mm X 25mm	200mm X 100mm	200mm X 100mm
(Optional)	N.A.	X-Axis upto 400mm, Y-Axis upto 200mm	
FOCUSING - Manual	90mm	90mm	90mm
LINEAR MEASUREMENT	Micrometers	Built-in Glass Scale	Built-in Glass Scale
RESOLUTION	5µm	5/1/0.5µm	5/1/0.5µm
MEASURING SYSTEM	Micrometers	D.R.O. / PC based Software	
PROJECTION ACCURACY	±0.05% (Contour / Surface)		
ILLUMINATION (Contour)	24V/150W halogen lamp, illumination control with condenser unit provide light as per lens		
(Surface)	Twin 24V/150W Halogen lamp provides shadowless light on optical axis		
STAND	Pedestal stand with storage		
COOLING SYSTEM	Fan		
POWER SUPPLY	110/220V AC, 50/60Hz		
OPTIONAL ACCESSORIES	Rotary Table, V-block, Centre Holding Device		

DRO FOR PROFILE PROJECTORS



EL 25

- Ergonomic and compact design with panel mounting option
- Basic functions such as Circle and Distance measurement
- Interfaces standard Optical and magnetic RS422 digital encoders
- Linear error compensation for linear axes available
- RS232 communication for software update.
- CE and RoHS approval
- Manufactured with ISO 9001:2015 standard
- Backup memory for 50 results.

The EL250 is an advanced digital readout system for performing three axes (two linear and one angular) geometrical measurement at very high level of precision and accuracy.

EL250 DRO offers simultaneous display of all three axes, along with quick reset keys. For linear axes, it has linear and segmented calibration options.

Functions:

- Line Measurement
- Distance Measurement
- Skew Measurement
- Point Measurement
- Circle Measurement
- Angle Measurement



EL 250



EL 500

The EL550 is an advanced digital readout system for performing three axes (two linear and one angular) geometrical measurement at very high level of precision and accuracy.

Its precise measurement identifies correct rejections. It reduces operator fatigue and provides faster inspection, enhancing productivity.

EL550 offers standard measurement functions and variety of constructions. Additionally it offer result backup utility and DXF export function.

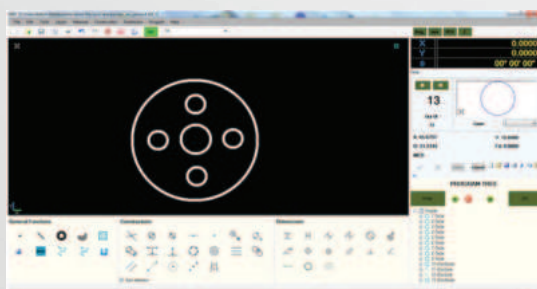
Measurement Function

- Line Measurement
- Distance Measurement
- Skew Measurement
- Wonder Function
- Point Measurement
- Circle Measurement
- Angle Measurement

Constructions

- Point
- Distance
- Line
- Angle
- Circle

CMS2000 is a PC based measuring software specially design for profile projector applications.



CMS 2000

Functions

- Basic features like Point, Line, Arc, Circle measurements
- All construction features available for constructing a Point, Line and Circle
- Direct Dimensioning like Cad software is possible directly on the measured features
- Dimensions for Distance, Radius / Diameter, Angle are possible
- Dimensioning for True Position, Concentricity, Parallelism, Perpendicularity, Angularity, Straightness, Circularity and Symmetricity are also possible.
- X, Y and Theta Axis DRO display available with single click reset feature available
- Easy program and run facility available
- Tolerancing and SPC facility available for batch inspection and analysis
- DXF import / export facility available
- Automatic edge detection facility available as option
- Report generation in Graphical format, Tabular format, tabular dimensions and SPC report available

METALLURGICAL MICROSCOPES (INVERTED SERIES)

FEATURES

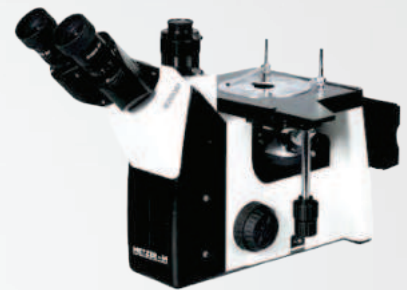
- New research and new development
- Combination with bright field, dark field, polarizing observation, etc. Widely used in the metal, mineral, and electronic field
- Dark field objective, Make observations in dark & bright fields
- Oversize view field eyepiece, view field up to 22mm for comfortable observation
- Oversized three-layer working stage, more choice for samples
- Light distribution (both): 100 : 0 (100% for eyepiece)
- 80: 20 (80% for trinocular head and 20% for eyepiece)

SPECIFICATIONS

Trinocular Observation Head	<ul style="list-style-type: none"> • Siedentopf observation head inclined at 30° rotatable at 360°. • Vertical phototube for micro photography. • Diopter adjustment ring on ocular tube (±5). • Inter-pupillary distance from 52mm to 75mm.
Eyepiece (Anti fungus)	<ul style="list-style-type: none"> • Wide field 10X (paired) F.O.V. 20mm.
Objectives (Infinity corrected)	<ul style="list-style-type: none"> • M Long working distance plan 5X • M Long working distance plan 10X • M Long working distance plan 20X • M Long working distance plan 50X • M Long working distance plan 100X - DRY
Mechanical Body	<ul style="list-style-type: none"> • Co-axial focusing system with large knobs, PRE-FOCUSING LEVER & TENSION ADJUSTMENT RING. • Quintuple nosepiece on ball bearing. • Mechanical stage is 180mm X 155mm. Moving range 80mm X 50mm. • Mechanical stage has low positioned co-axial controls on ball bearing guide ways
Illuminator	<ul style="list-style-type: none"> • Reflected lamp-house with single 5W LED, warm white color or Halogen 6W-20W
Standard Accessories	<ul style="list-style-type: none"> • Blue, green & yellow filters, operating manual, dust cover, Styrofoam moulded pack.



METZ 5000 ITM



METZ 5000 ITM (ELITE)



METZ 5000 ITM (MAX)



METZ 5000 ITM (STAR)

- Bright Field
- Dark Field
- DIC

METALLURGICAL MICROSCOPES (UP – RIGHT SERIES)

SPECIFICATIONS

Optical System	Infinity color corrected optical system
Viewing Head	30°inclined gemel trinocular head, interpupillary distance: 54mm~75mm, diopter ± 5 adjustable, splitting ratio R:T=50:50, with 0.5x C-mount
Eyepiece	High eye-point wide field eyepiece WF10x 18mm/20mm
Objectives	<ul style="list-style-type: none"> • Infinity large working distance plan achromatic metallurgical objective 5X Na0.15 W.D.12 • Infinity large working distance plan achromatic metallurgical objective 10X Na0.3 W.D.16 • Infinity large working distance plan achromatic metallurgical objective 20X Na0.4 W.D.12 • Infinity large working distance plan achromatic metallurgical objective 50X Na0.55 W.D.9.15 • Infinity large working distance plan achromatic metallurgical objective 100X Na0.8 W.D.2.1(optional)
Nosepiece	Reversed quadruple nosepiece
Focus Adjustment	<ul style="list-style-type: none"> • Reflected frame with metal plate, coaxial focus system with tension adjustment and up-limited device, coarse range: 23mm, fine precision: 0.002mm. • Transmitted & Reflected frame with glass plate, coaxial focus system with tension adjustment and up-limited device, coarse range: 23mm, fine precision: 0.002mm.
Stage	<ul style="list-style-type: none"> • Double layer mechanical stage with X/Y coaxial adjustment, size: 190mmX150mm, moving range: 76mmX50mm. • Metal plate for transmitted frame; glass plate for transmitted & reflected frame.
Reflected illumination	Reflected lamp-house with single 5W LED, warm white color. Koehler illuminator with center adjustable field and aperture diaphragm.External wide-range adapter, input voltage 100V-240V _ AC50/60Hz, output voltage DC12V2A.
Transmitted illumination	Single 5W LED, white color.(optional)
Other accessories	<ul style="list-style-type: none"> • N.A.1.25 ABBE condenser for transmitted frame, with center preset aperture iris diaphragm. • Polariser and analyzer. Analyzer is adjustable with 360°rotation.(optional) • Digital camera adapter:0.35X, 0.5X(standard), 1X focusing C-mount(optional) • Interference filter for reflected light:blue filter, green filter and white balance filter(optional)



METZ 5000 TUM



METZ 5000 TUM (EDGE)
Reflected



METZ 5000 TUM (EDGE) II
Transmitted & Reflected

STEREO ZOOM MICROSCOPES

SPECIFICATIONS

Zoom Range	0.7X – 4.5X
Eyepeice	10X (Paired), FOV 20mm, Diopter adjustable ± 5
Magnification	7x – 45x (can be increased upto 90x)
Viewing Head	Trinocular Head inclined at 45 degrees
Stand	Pole stand
Working distance	100mm
Illumitaion	Built in base LED 3W – 3V Transmitted & reflected light with light intensity control system



METZ – 7000 TzM



METZ – 7000 TzM
(SUPREME)

SPECIFICATIONS

Zoom Range	0.8X – 5.0X
Eyepeice	Extra Wide Field 10x (Paired) F.O.V. 22mm.
Magnification	8x – 50x (can be increased upto 100X)
Viewing Head	Trinocular Observation inclined at 45° rotatable at 360°
Stand	Track stand with fan type base.
Working distance	115mm
Illimutation	Built in base LED 3W – 3V Transmitted & reflected light with light intensity control system

SPECIFICATIONS

Zoom Range	0.7X – 4.5X
Head	Monocular Zoom
Working Distance	100mm
Output	USB/HDMI camera and LCD screen
Stand	Pole stand with large flat base.
Illumination	LED ring light with intensity controller



METZ – 7000 MzM



METZ – 7000 LCD
STEREOZOOM

SPECIFICATIONS

Zoom Range	0.7X – 4.5X
Display	11.6inch, 1920H*1080V
Imaging sensor	1/2.8inch SONY CMOS
Photograph	5 Mega-pixel
Output Interface	HDMI
Operation	Mouse
Linear Measurements	Point,Line,Parallel lines,Broken lines,Angle,Diameter circle,Radius circle,Three-point circle,Distance from circle to line, Concentric circles,Double circle, Table data export,Calibration
Light Source	LED ring light, brightness adjustable

WELD PENETRATION ANALYSIS SYSTEM



Weld Check Pro Software

This software is an image analysis software for weld penetration analysis. It is a windows- based application. Weld Check Pro provide various superior tools for image capturing, visualisation, enhancement, analysis and report generation. Our imaging solution is a powerful integration of software and hardware that enables the user to automatically capture images, performs metallurgical analysis and generate reports. All modules as per international standards, customised report design support available.

SPECIFICATIONS

- Annotation Tools
- Linear Measurements
- Weld Profile
- Weld Percentage Analysis
- Defect Highlight
- Advance Reporting

STEREO ZOOM MICROSCOPE ACCESSORIES



2x Auxillary Lens



20x Eye Piece



Dark Field Attachment



Mechanical Stage



Circular Led Light

DIGITAL IMAGING CAMERAS



METZ – 5.0 PRO

SPECIFICATIONS

- 5.0 megapixels with progressive scanning CMOS image sensor.
- Sensor: 1/ 2.5" CMOS, MICRON (MT9P031)
- Resolution: 2592×1944 (8bit)
- Pixels Size: 2.2µm×2.2µm
- Frame Rate: 8fps@2592×1944, 30fps@640 × 480
- Support still image capture (JPG,BMP)
- Data Interface: USB2.0 (480 Mbit / sec)

SPECIFICATIONS

- Sensor: 1/ 2.5" CMOS, SONY (ICX252)
- 10.0 megapixels with progressive scanning
- Data Interface: USB 3.0 (480 Mbit / sec)
- Resolution: 2592×1944 (8bit)
- Pixels Size: 2.2µm×2.2µm
- Frame Rate: 97.5fps @648x486, 49.5fps @1298x972, 15.5fps @2592x1944
- Support still image capture (JPG,BMP)



METZ 10.0 PRO



METZ 4K Ultra HD

Specifications

- Sensor size: Sensor 1/1.9" CMOS SONY
- Pixels Size: 1.85µm × 1.85µm
- Frame rate: 30 FPS
- Resolution: 3840 × 2160
- Gain Control: Support
- Pixel Depth: 12bit
- 10.0 megapixel with progressive scanning
- Definition: 4K UHD
- Support: USB / HDMI
- Exposure: Manual/AUTO
- Photo & Video: Support
- Camera adapter: C-mount
- Power supply: 12V 2A

Specifications

- **Sensor** – 5MP color CMOS Camera sensor, Size 1/2.5 inch (4:3)
- **Effective Resolution** – 2592Horizontal x 1944Vertical, 10.0 megapixel
- **Pixels Size** – 2.2µm x 2.2µm
- **Color Depth** – 12-bit, on-chip
- **SD Card** – Support
- **Shutter Type** – Electronic
- **Exposure** – Auto Exposure
- **Video and Frame rate** – 640x480 @ 30fps, 1280x720@15fps
- **Software Function** – Image, Video
- **Optional Output** – HDMI
- **Power Supply** – DC 5V 2A

Features

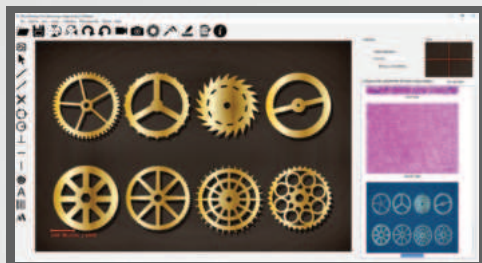
- M- DIGITAL TABLET is the smart digital microscope tablet camera equipped with 5MP color CMOS Camera and 9.7 Inches Tablet.
- It is developed specifically for microscopy applications.



M-DIGITAL TABLET

SOFTWARES

METZER MICRO-MEASURE



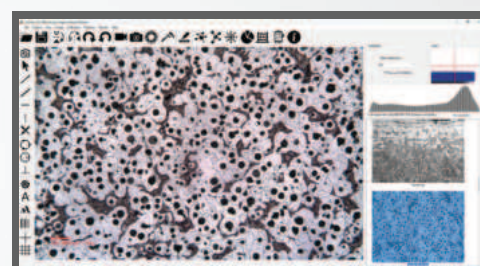
SPECIFICATIONS

- **MEASUREMENT:** Spatial calibration, Line Measurements for Distance, Length, Width, Perimeter, Angle. Three point radius. Area by enclosed line controlled by four arrow keys available on keyboard arrows with zoomed preview. Measurements can be performed on live images.
- **REPORT GENERATION:** Direct printout with original image processed image & tabular results or export to MS office or Excel for further modification. Calibration scale included.

SPECIFICATIONS

- Linear Measurements (Measurements)
- Decarburization (Decarb)
- Total Decarb Method
- Trace Method
- Coating Thickness
- Nodule Analysis
- Flake Analysis
- Porosity Analysis
- Count & Classification
- Particle Size (Manual Method)
- Phase Analysis (Segmentation)
- Grain Analysis
- Cementite (Iron Carbide) Inclusion Analysis Rusting Spheroidization

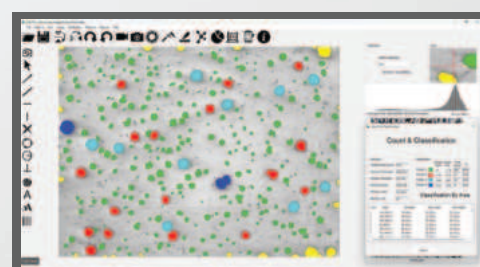
METZER – M INDUSTRY PRO SOFTWARE



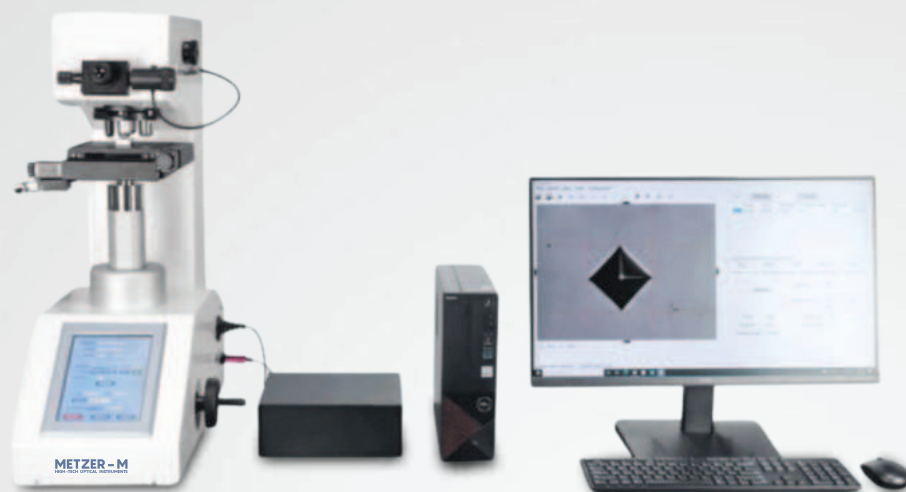
SPECIFICATIONS

- **Live Measurements:** Distance, Length, Width, Perimeter, Angle, Three Point Radius. Accuracy – 1 micron.
- **Count & Classification:** Identification of Objects in an image, count them, obtain Several features Measurements. Objects identification by user or automatically. User Defined classification on basis of Size or intensity
- **Particle Size Analysis:** Various calculation & measurements available for selected Particle are as Follows: Dimensions, Area, Perimeter, Ferrite Length, Min/Max Radius, Thread Length, Thread Width, Fiber Length, Fiber Width.
- **Densitometry Analysis:** Manual, Auto bright and auto dark methods to identity Intensity range defined object to be measured. Roundness, Shape Orientation, Elongation, Equal Circular Di – Ameter, Equal Sphere Volume.
- **Report Generation:** Direct printout with original image processed image & Tabular Results or Export To MS Office or Excel for further modification.

METZER –M PARTICLE ANALYSIS



FULLY AUTOMATIC MICRO-VICKERS HARDNESS MEASURING SYSTEM (WITH TOUCH SCREEN)



MVHT-1000 AT (PRO)

A fully automatic micro-Vickers hardness tester is a sophisticated instrument designed for precise hardness measurement of micro-scale materials. It automates the entire testing process, including indentation, optical measurement, and data analysis. This automation reduces operator error and variability, ensuring high accuracy and repeatability.

Features

- Automatic turret digital display touch screen Micro-Vickers hardness tester
- Fully automatic Micro-Vickers hardness measurement and control
- 8-inch touch screen interface is easy for users to operate.
- Automatic movement of X and Y axis
- Panoramic scanning
- Automatic edge finding
- Z-axis automatic focusing
- Automatic indentation measurement
- Automatically generate inspection reports

TECHNICAL PARAMETERS

Test force	10gf (0.098N), 25gf (0.245N), 50gf (0.49N), 100gf (0.98N), 200gf (1.96N), 300gf (2.94N), 500gf (4.9N), 1Kg (9.8N)
Standards	GB/T 4340.2, ASTM E92
Measurement resolution	0.01μm
Data display & output	8-inch touch screen displays readings, can store 20 test results, comes with a USB flash drive, built-in printer or RS-232 interface can be chosen
Converting scale	Rockwell, Brinell
Hardness measuring range	8-2900HV
Test force applying	Automatic (Loading, dwelling, unloading)
Magnification of measuring microscope	400X (testing), 100X (testing, observing)
Test force dwelling time	1-99s
Max. Height of test piece	160mm
Depth of throat	160mm
Dimensions	540*260*650mm
Weight	About 50Kg
Power supply	AC220V±5%, 50-60Hz

DIGITAL MICRO VICKERS HARDNESS TESTER



METZ-MVHT 1000 MT
(KEYPAD DISPLAY)



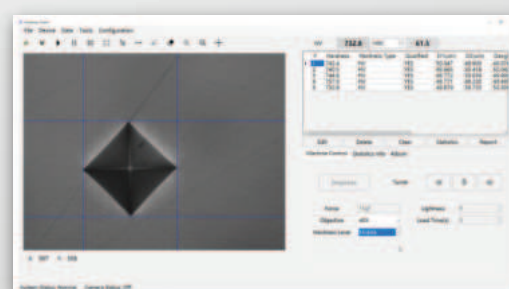
METZ-MVHT 1000 AT
(TOUCH SCREEN DISPLAY)

Technical Specifications

Model	METZ-MVHT 1000 AT	METZ-MVHT 1000 MT
Turret	Automatic turret	Manual Turret
Test force	10gf (0.098N), 25gf (0.245N), 50gf (0.49N), 100gf (0.98N), 200gf (1.96N), 300gf (2.94N), 500gf (4.9N), 1kgf (9.8N)	
Hardness scale	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1	
Conversion Scale	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HBS, HR15N, HR30N, HR45N, HR15T, HR30T, HR45	
Hardness range	5-3000HV	
Min. measuring unit	0.025µm (maximum resolution 0.01µm)	
Data display	5.6" touch screen	
Data output	built-in printer	
Sample Height	maximum sample height: 110mm, Throat depth: 110mm	
X-Y Testing table	Dimension: 100x100mm Max movement: 25x25mm	
Force loading type	Automatic (Loading, Dwell, Unloading)	
Magnification	Eyepiece: 10X electronic eyepiece with encoder; Objective: 10X (observation); 40x (measuring) Total: 100x (observation); 400X (Measuring)	
Duration time	1-60s	
Power supply	AC220V±5%, 50-60Hz	
Standard	ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2	

MICRO / VICKERS HARDNESS MEASUREMENT SOFTWARE (OPTIONAL PURCHASE)

Support Automatic and manual measurement, and generate test report in word or Excel format including indentation image, hardness curve, hardness value, etc



BRINELL HARDNESS TESTERS



METZ – HB 3000B

MANUAL BRINELL HARDNESS TESTER

SPECIFICATIONS

Measuring range	8-650HBW
Test force	187.5, 250, 500, 750, 1000, 1500, 3000kgf (1838.8, 2415.8, 4903.5, 7355.3, 9807, 14710.5, 29421N)
Max. height of test piece	230mm
Depth of throat	120mm
Dwelling time	1~15s
Power supply	220V AC or 110V AC, 50 or 60Hz
Dimensions	709 x 230 x 854mm
Weight	Approx. 205kg

ELECTRONIC BRINELL HARDNESS TESTER

SPECIFICATIONS

Measuring range	8-650HBW
Test force	62.5, 100, 125, 187.5, 250, 500, 750, 1000, 1500, 3000kgf (612.9, 980.7, 1225.9, 1838.8, 2415.8, 4903.5, 7355.3, 9807, 14710.5, 29421N)
Max. height of test piece	280mm
Depth of throat	150mm
Dwelling time	5~60s
Power supply	220V AC or 110V AC, 50 or 60Hz
Dimensions	532 x 235 x 930mm
Weight	Approx. 144kg



METZ – HB 3000C



METZ – HB 3000E

AUTO TURRET TOUCH SCREEN DIGITAL DISPLAY BRINELL HARDNESS TESTER

SPECIFICATIONS

Measuring range	8-650HBW
Test force	187.5, 250, 500, 750, 1000, 3000kgf (1838.8, 2415.8, 4903.5, 7355.3, 9807, 29421N)
Max. height of test piece	280mm
Depth of throat	150mm
Power supply	220V AC or 110V AC, 50 or 60Hz
Dimensions	532 x 235 x 930mm
Weight	Approx. 147kg

PORTABLE HYDRAULIC BRINELL HARDNESS TESTER

METZ THB-3000 portable Brinell Hardness Tester adopts hydraulic principle and applies 3000kgf test force by hand operation Tester. It is unique portable hardness tester in the world which applies test condition with 3000Kg test force on a 10mm carbide ball indenter. The testing result of this instrument is true and accurate with good repeatability and it has a good correspondence with tensile strength. The test condition and accuracy meet the requirements of ISO 6506 and ASTM E110 and can be test rough castings, non ferrous metals and semi finished products after tempering heat treatment.

Features

- On-site Testing
- Accurate Testing
- Permanent Indentation
- Wide Application Range
- Wide Testing Range



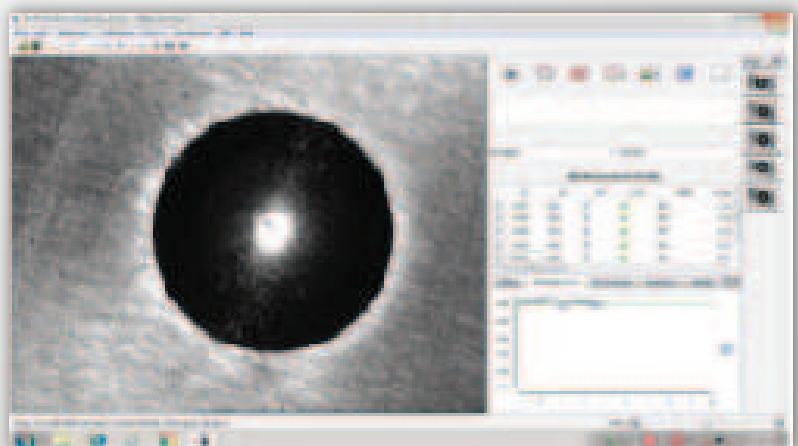
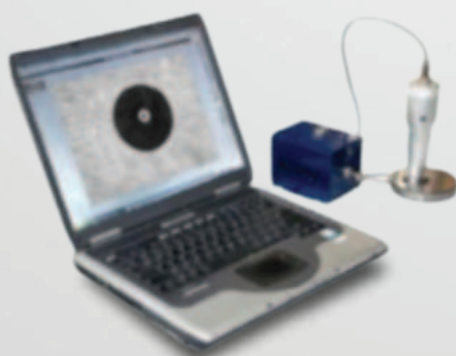
Test Force	3000kgf (1000kg, 750kg, 500kgf optional)
Accuracy of Test Force	0.5%
Indenter	10mm Carbide test ball (5mm optional)
Test Range	16-450 HBW
Max. Specimen Height	350 mm
Max. Depth of Throat	100 mm
Repeatability	Complies with ISO 6506, and ASTM E10
Error	Complies with ISO 6506, and ASTM E10
Net Weight	14 kg

METZ BRINELL PRO SOFTWARE

METZ Brinell Pro Analysis Software is a handy instrument to measure the diameter of Brinell impression. With this hand held instrument entire sequence is very simple.

Features

- Auto measurement Mode
- Hardness curve graph
- Hardness conversion
- Statistical Calculation
- Geometry measurement
- Hardness Report



ROCKWELL HARDNESS TESTERS



METZ – RHT 150A

ROCKWELL HARDNESS TESTER (ANALOGUE)

SPECIFICATIONS

Measuring range	20-95HRA, 10-100HRBW, 20-70HRC
Test force	588.4, 980.7, 1471N (60, 100, 150kgf)
Max. height of test piece	170mm
Depth of Throat (mm)	130
Min. scale value	0.5HR
Dimensions	466 x 238 x 630mm
Weight	65kg

ROCKWELL HARDNESS TESTER (DIGITAL MOTORIZED)

SPECIFICATIONS

Digital Display	Clear and precise LCD/LED display for reading hardness values, eliminating human error
Automatic Loading and Unloading:	Motorized or automated loading/unloading mechanism for consistent and repeatable measurements.
Multiple Scales	Capability to measure in multiple Rockwell scales (A, B, C, etc.) for versatility.
Data Storage	Internal memory for storing test results, often with USB or RS232 interfaces for data export.
Calibration Functions:	Automated or semi-automated calibration processes to ensure accuracy over time.
Statistical Analysis	Built-in software for statistical analysis of test results, including averages, min/max, and standard deviations.
Compliance	Adherence to international standards such as ASTM, ISO, and JIS for quality assurance.



METZ – RHT 150D



METZ – RHT 150TE

ROCKWELL HARDNESS TESTER (TOUCH SCREEN DIGITAL DISPLAY)

Measuring range	20-88HRA, 20-100HRBW, 20-70HRC
Test force	588.4, 980.7, 1471N (60, 100, 150kgf)
Max. height of test piece	220mm
Depth of Throat (mm)	165mm
Min. scale value	0.1HR
Dwelling time	1-99s
Power supply	AC 220V or 110V, 50 or 60Hz
Dimensions	580 x 220 x 750mm
Weight	Approx. 80kg

SINGLE COLUMN DIGITAL DISPLAY ELECTRONIC UNIVERSAL TESTING MACHINE



MAIN APPLICATION

METZ – UTM-A series (single column) digital display electronic universal testing machine is mainly used for testing and analyzing the tensile, compression, bending, shearing, tearing, peeling and other mechanical properties of non-metallic materials, such as metal wire, rubber plastic, waterproof roll, wire and cable, chemical fiber textile, etc. according to GB, ISO, JIS, ASTM, DIN and various standards provided by users. It is an ideal testing equipment for scientific research institutes, colleges and universities, industrial and mining enterprises, technical supervision, commodity inspection and arbitration departments.

TECHNICAL PARAMETERS

Model	UTM-01A	UTM-02A	UTM-03A	UTM-05A	UTM-01A	UTM-02A	UTM-03A	UTM-05A
Maximum force	100N	200N	300N	500N	1000N	2000N	3000N	5000N
Measuring range of force	4%—100%F.S							
Easuring accuracy of force	Better than $\pm 1\%$ of indication value							
Cross beam displacement measuring accuracy	0.01mm							
Speed control range	0.05–500mm/min.							
Effective test space	800mm (customizable)							
Tensile grips	50mm Corrugated jaws							
Working environment	Room temperature $\sim 35^{\circ}\text{C}$, relative humidity no more than 80%							
Power supply	Single phase, 220V $\pm 10\%$, 50Hz							
Dimensions	500 \times 410 \times 1530mm							
Weight	120 kg							

COMPUTER CONTROLLED ELECTRONIC UNIVERSAL TESTING



METZ – UTM 600E

MAIN APPLICATION

UTM-600E computer controlled electronic universal testing machine is mainly used for testing and analyzing the tensile, compression, bending, shearing, tearing, peeling and other mechanical properties of non-metallic materials, such as metal wire, rubber plastic, waterproof roll, wire and cable, chemical fiber textile, etc. according to GB, ISO, JIS, ASTM, DIN and various standards provided by users. It is an ideal testing equipment for scientific research institutes, colleges and universities, industrial and mining enterprises, technical supervision, commodity inspection and arbitration departments.

MAIN TECHNICAL PARAMETERS

- Maximum test force: 600kN
- Relative error of indication: better than $\pm 1\%$ of indication
- Effective force measuring range: 0.4% - 100% FS
- Speed regulation range: 0.01 ~ 300mm / min (stepless speed regulation)
- Speed accuracy: better than $\pm 1\%$ of the indicated value
- Displacement resolution: 0.0025mm
- Displacement measuring accuracy: better than $\pm 1\%$ of the indicated value
- Effective tensile test space: 600mm
- Effective compression space: 550mm
- Effective test width: 600mm
- Working environment: room temperature 10 ~ 35 ℃, humidity 20% ~ 80%
- Power supply: three-phase, 380V $\pm 10\%$, 50Hz
- Host size: 1200 × 1050 × 2690mm
- Weight: 2800kg

DIGITAL DISPLAY ELECTRONIC UNIVERSAL TESTING MACHINE



METZ – UTM 50D

MAIN APPLICATION

UTM-50D is widely used in tensile, compression, bending and shear tests of metal and nonmetal materials. With a variety of accessories, it can also be used to test the mechanical properties of profiles and components. It also has a very wide application prospect in the field of rope, belt, wire, rubber, plastic and other materials with large sample deformation and fast test speed. It is suitable for quality supervision, teaching and scientific research, aerospace, iron and steel metallurgy, automobile, construction materials and other experimental fields

MAIN TECHNICAL PARAMETERS

- Maximum test force: 600kN
- Relative error of indication: better than $\pm 1\%$ of indication
- Effective force measuring range: 0.4% - 100% FS
- Speed regulation range: 0.01 ~ 300mm / min (stepless speed regulation)
- Speed accuracy: better than $\pm 1\%$ of the indicated value
- Displacement resolution: 0.0025mm
- Displacement measuring accuracy: better than $\pm 1\%$ of the indicated value
- Effective tensile test space: 600mm
- Effective compression space: 550mm
- Effective test width: 600mm
- Working environment: room temperature 10 ~ 35 ℃, humidity 20% ~ 80%
- Power supply: three-phase, 380V $\pm 10\%$, 50Hz
- Host size: 1200 × 1050 × 2690mm
- Weight: 2800k

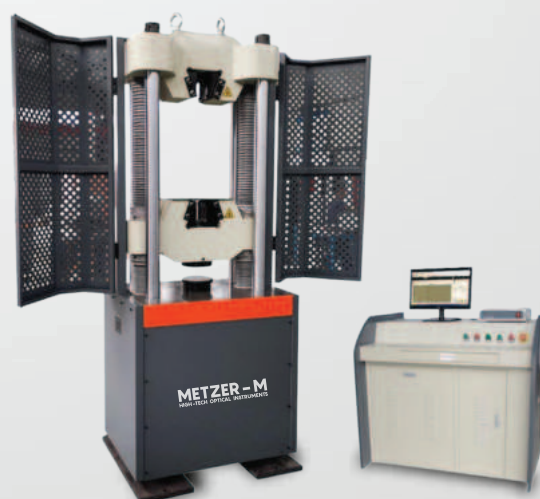
ELECTRO-HYDRAULIC SERVO UNIVERSAL TESTING MACHINE

MAIN APPLICATION

UTM-1000D computer controlled electro-hydraulic servo universal testing machine adopts oil cylinder lower type and four column host, which is mainly used for tensile, compression, bending and shear tests of metal and non-metal. It is suitable for metallurgy, construction, light industry, aviation, aerospace, materials, colleges and universities, scientific research institutions and other fields. The test operation and data processing comply with the requirements of GB/T 228.1-2010 <<Metallic materials-Tensile Testing-Part 1: Method of Test at Room Temperature>>.

MAIN TECHNICAL PARAMETERS

- Max. Test load: 100KN
- Max. Tensile testing space: 600mm
- Compression testing space: 500mm
- Piston travel: 200mm
- Distance between columns: 450mm
- Clamping range of round specimen: $\Phi 6$ - $\Phi 13$ mm, $\Phi 13$ - $\Phi 26$ mm, $\Phi 26$ - $\Phi 40$ mm
- Clamping thickness of flat specimen: 0-15mm, 15-30mm
- Max. clamping width of flat specimen: 80mm
- Pressing plate size: $\Phi 160$ mm
- Maximum distance between two points of bending fulcrum: 380mm
- Bending roll width: 140mm
- Clamping means: Hydraulic clamping
- Dimensions: 780*680*2130mm
- Motor power: 0.75KW
- Weight: 1400KG
- Hydraulic station weight:



METZ – UTM 1000D

PORTABLE LEEB HARDNESS TESTER



METZ HT- 1

SALIENT FEATURES

- Large LCD Display (28X64 dot matrix) showing hardness value, Direction of impact device, hardness scale, material, test Time for average and battery icon
- Direct Display of hardness in HV, HB, HRC, HRB, HRA and HS Scales.
- 7 types of impact devices can be attached for special application and need not to be recalibrated when changing them.
- the machine identify the type of impact device automatically
- Upto 600 groups (impact times: 32~1) of data can be stored in internal memory of the machine.
- Upper and lower limit of hardness can be preset, when the tested value exceeds the limits, alarm buzz automatically
- Back light on/off facility is given by pressing key to make machine converient for use in poor light.
- User Calibration function.
- By Using Software, data con he transfered and saved in pc for future use

TECHNICAL SPECIFICATION

Measuring Materials	Steel & cast steel, alloy tool steel, stainless steel, gray cast iron, nodular cast iron, cast aluminium alloy, copper zinc alloys (brass), copper and tin alloy, copper (bronze), forged steel
Measuring Range	HLD(170-960), HB(19-683), HV(80-1042), HS(30.6-102.6), HRA(59.1-88), HRB(13.5-101.7), HRC(17.9-69.5)
Indication Error	± 6 HLD
Measuring Direction	360°
Hardness Scale	HL, HB, HRC, HRA, HV, HS
Display	128*64 digital SIP LCD
Data Memory	Max 600 groups (relative to impact times 1-32 adjustable)
Power	AA battery 2 pcs (working time 200 hours if backlight off)
Working Temperature	-20°C – 55°C
Size	125 x 68 x 24mm
Weight	0.4 kg



METZ HT- 2

BARCOL HARDNESS TESTER



METZ - B1

TECHNICAL PARAMETERS

Range	0~100HBa, Amount to 25~100HBW
Resolution	0.5 HBa
Indenter	• 84~88HBa ±1HBa • 42~52HBa ±2HBa
Repeatability Error	• 81~88HBa ±1HBa • 42~52HBa ±2HBa
Weight	500g

WEBSTAR HARDNESS TESTER

TECHNICAL PARAMETERS

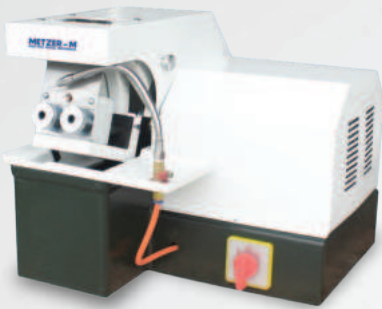
Testing Range	0~20HW
Accuracy	0.5HW (5~17HW)
Specimen thickness	0.4~6mm
Inner diameter	10mm
Weight	0.5kg



METZ - W1

METALLOGRAPHIC SPECIMEN CUTTING MACHINE

Table Type



SPECIFICATIONS	METZ – CM 30	METZ – CM 55
Max. cutting diameter	Ø30mm	Ø 55mm
Rotating speed of main shaft	Cutting Disc Specification: 250 x 2 x 32mm	Cutting Disc Specification: 300 x 2 x 32mm
Sand wheel specification	rotating speed: 2800 rpm	rotating speed: 2800 rpm
Power supply	Motor: 1.1 KW	Motor: 2.2 KW
Motor	Power supply: three phases, 380V, 50Hz.	Power supply: three phases, 380V, 50Hz.
Dimensions (L x W x H)	Dimensions: 470 x 390 x 360 mm	Dimensions: 650 x 500 x 400mm
	Net weight: 60 Kg	Net weight: 60 Kg

SPECIFICATIONS	METZ – ACM 60	METZ – ACM 80	METZ – ACM 100
Max. cutting diameter	Ø60mm	Ø80mm	Ø100mm
Rotating speed of main shaft	2800 rpm	2800 rpm	2800 rpm
Sand wheel specification	250 x 2 x 32mm	250 x 2 x 32mm	300 x 2.5 x 32mm
Power supply	380V, 50Hz (three phases)	380V, 50Hz (three phases)	380V, 50Hz (three phases)
Motor	2.2KW	3KW	3KW
Dimensions (L x W x H)	710 x 710 x 700mm	710 x 710 x 700mm	770 x 710 x 700mm
Weight	Approx. 115kg	Approx. 125kg	Approx. 136kg



Floor Type



SPECIFICATIONS	CUTPRO 50
Max cutting diameter	50mm
Cut-off wheel dia	8" (Max.)
Cutting motor Capacity	2 HP
Self Centring Vice	2"
Coolant Pump Capacity	0.13 HP
Cooling	high flow water jets to provide optimum cooling
illumination	Fluorescent light in the working area provides safe and clear illumination
Coolant Tank capacity	20 Liters
Dimensions (W x D x H)	600mm x 1000mm x 920mm
Weight	150 Kg. (approx.)

METALLOGRAPHIC SPECIMEN MOUNTING PRESS



METZ – SMP

SPECIFICATIONS

Model	SMP – 30	SMP – 45
Sample diameter	Φ30mm	Φ45mm
Heating Range	Max190℃	Max190℃
Holding time Range	0-30min	0-30min
Machine Power	800w	≤ 800w
Input voltage	220V/50HZ	220V/50HZ
Dimension	260mm×360mm×450mm	260mm×360mm×450mm
Net weight	35kg	45kg

SPECIFICATIONS

Model	SMP STAR 30	SMP STAR 45
Sample diameter	φ30mm	φ30mm
Heating power	450~1000w	450~1000w
Heating Range	100~200℃	100~200℃
Cooling Range	20℃~90℃	20℃~90℃
Holding time Range	0-999(s)	0-999(s)
Input Voltage	Single-phase 220V 50HZ	Single-phase 220V 50HZ
Cooling mode	Water /slow Cooling	Water /slow Cooling
Dimension	350mm×400mm×465mm	390mm×450mm×495mm
Net Weight	48kg	65kg



METZ – SMP STAR

SPECIFICATIONS

Model	SMP – PRO
Sample Diameter	φ25mm, φ30mm, φ40mm, φ50mm 1 inch, 1.25 inch, 1.5 inch, 2 inch
System Pressure	0-20MPa
Cooling Range	40~90 °C
Heating Temp.	90~200 °C
Heating Power	2400W for 25,30mm & 3000W for 40,50mm
Power	4500W
Voltage	220V, 50Hz
Dimensions	530*485*463mm



METZ – SMP PRO

METALLOGRAPHIC POLISHING MACHINE

SPECIFICATIONS

Model	METZ – 2001
Diameter of Polishing Disc	200 mm
Rotation Speed	30-1250 rpm
Rotating Disc Mode	Variable
Motor Specification	180 W. (D.C)
Display	Digital
Power Supply	Single Phase 220 volt A.C
Dimension	730 x 405 x 308 mm
Cooling style	With cooling system. Water connection 1 x fresh water connection R 1/2" max 6 bars
Standard Delivery	2pcs. Of polishing cloth
Weight	52 Kgs



SPECIFICATIONS

Model	METZ – 2002 SUPREME
Diameter of Polishing Disc	200 mm
Rotation Speed	50-1250 rpm
Rotating Disc Mode	Fixed
Motor Specification	180 W. (D.C)
Power Supply	Single Phase 220 volt A.C
Dimension	430 x 205 x 208 mm
Cooling style	With cooling system
Standard Delivery	2 pcs. Of polishing cloth
Weight	18 Kgs (Approx.)



AUTOMATIC POLISHING MACHINE

TECHNICAL PARAMETERS

Model	METZ – 2000 STAR
Input Voltage	220V or 380V 50HZ
Speed	50r/min
The force acting on each sample	0-40N
Preparation sample quantity	1-3 PCS
Net weight	15kg



SPECIFICATIONS

Model	METZ – 2000 PRO
Wheel diameter	φ250mm
Wheel quantity	2
Rotational rotation	Clockwise or anticlockwise
Rotational speed	50-1000r/min&150/300r/min
Power head speed	5-150r/min
Loading range	5-60N
Sample preparation time	0-9999S
Sample diameter	φ30mm(φ22mm /φ45mm)
Preparation sample quantity	6 PCS
Air pressure	0.6-0.8MPa
Lighting	LED
Input Voltage	AC220V 50HZ
Input power	1.1kw
Dimension	730mm X710mm X635mm
Net weight	98kg



MUFFLE FURNACES

METZ – 2006



Our Industrial muffle furnaces are specially designed to suit IS and ASTM Standard. It is applied in growing fields of Medical research, agricultural, industrial, metal treatment, ash determination & wool industries

TECHNICAL SPECIFICATION

- Outside Body made of G.I. Sheet powder coated
- Inner muffle of Ceramic with high grade ceramic instillation.
- Door insulation of HFK bricks.
- Heating element are made from kanthal A1 Wire.
- A Uniform distribution through all 4 sides with kanthal wire.
- Max. Working temp upto 11000C.
- Equipped with digital temp. Controller cum indicator fitted on top side of the unit with indicating lamps & switches.
- A special type of thermocouple fuse for safety to avoid over heating.

OPTIONAL ACCESSORIES

- Digital Timer
- Solid state fuses for extra safety
- PID Controller with printer interface

Sizes available for industrial muffle furnaces are as below

Inner Dimension	Rating K.W	Power Consumer	Net weight
9"x4"x4"	2	9	30 KG
10"x5"x5"	2.5	1	40 KG
12"x6"x6"	3.5	15	55 KG
18"x9"x9"	6	26	80 KG

METZER – M

HIGH-TECH OPTICAL INSTRUMENTS

METZER OPTO INC.

Tower A-0007, ATS Bouquet, Sector - 132, NOIDA - 201035 (U.P.)
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