

Infinity Testing Solutions

Making Testing **Error** Free.



Universal Testing Machine, Hardness Tester

Portable Leeb Hardness Tester, Micro Vickers Hardness Tester

Vickers Hardness Tester, Test Blocks & Diamond Indenters

Customized Brinell Hardness Testers, AMC & Calibrations Services
Of Testing Machines

Analogue Rockwell Hardness tester



Rockwell hardness tester - ITS 150

Load

60 kgf (HRA)
100 kgf (HRB)
150 kgf (HRC)

Max. Test Height

230 mm

Depth of throat

133 mm

Size of base (approx.)

170x430 mm

Machine Height (approx.)

655 mm

Net Weight (approx.)

65 kg

Other

Use of combinations of 60, 100 & 150 kgf. loads against Diamond indenter and 1/16" steel ball indenter permit carrying out tests on Rockwell D, F & G scales. By use of 1/8", 1/4" & 1/2" dia ball indentors in combinations of 60, 100 & 150 kgf. loads, tests can be carried out on Rockwell E, H, K, L, M, P, R, S & V scales also.

Superficial Rockwell hardness tester - ITS 45

Load

15 kgf
30 kgf
45 kgf
60 kgf (HRA)
100 kgf (HRB)
150 kgf (HRC)

Max. Test Height

230 mm

Depth of throat

133 mm

Size of base (approx.)

170x430 mm

Machine Height (approx.)

655 mm

Net Weight (approx.)

65 kg

OPTIONAL

Special indenters,

different ranges master test blocks,

200 mm Flat table,

70 mm Vee table.

Rockwell cum Brinell hardness tester - ITS 250

Load

60 kgf (HRA)
100 kgf (HRB)
150 kgf (HRC)
187.5 kgf
250 kgf

Max. Test Height

330 mm

Depth of throat

150 mm

Size of base (approx.)

210x474 mm

Machine Height (approx.)

850 mm

Net Weight (approx.)

100 kg

Digital Rockwell Hardness tester



Rockwell hardness tester - ITS 150-D

Load

60 kgf (HRA)
100 kgf (HRB)
150 kgf (HRC)

Max. Test Height

230 mm

Depth of throat

133 mm

Size of base (approx.)

170x430 mm

Machine Height (approx.)

655 mm

Resolution

0.1 Rockwell

Net Weight (approx.)

65 kg

Loading Unloading

Manual

OPTIONAL

Special indenters,
different ranges master test blocks,
200 mm Flat table, 70 mm Vee table.

Superficial Rockwell hardness tester- ITS 45-D

Load

15 kgf
30 kgf
45 kgf
60 kgf (HRA)
100 kgf (HRB)
150 kgf (HRC)

Max. Test Height

230 mm

Depth of throat

133 mm

Size of base (approx.)

170x430 mm

Machine Height (approx.)

655 mm

Net Weight (approx.)

65 kg

Resolution

0.1 Rockwell

Loading Unloading

Manual

OPTIONAL

Special indenters,
different ranges master test blocks,
200 mm Flat table, 70 mm Vee table.

Rockwell cum Brinell hardness tester- ITS 250-D

Load

60 kgf (HRA)
100 kgf (HRB)
150 kgf (HRC)
187.5 kgf (Measuring with Brinell
microscope or BIMS)
250 kgf (Measuring with Brinell
microscope or BIMS)

Max. Test Height

330 mm

Depth of throat

150 mm

Size of base (approx.)

210x474 mm

Machine Height (approx.)

850 mm

Net Weight (approx.)

100 kg

Resolution

0.1 Rockwell

Loading Unloading

Manual

OPTIONAL

Special indenters,
different ranges master test blocks,
200 mm Flat table, 70 mm Vee table.

Digital Motorized Rockwell Hardness tester



Rockwell hardness tester - ITSE-150

Load

60 kgf (HRA)
100 kgf (HRB)
150 kgf (HRC)

Max. Test Height

215 mm

Depth of throat

133 mm

Size of base (approx.)

170x430 mm

Machine Height (approx.)

655 mm

Net Weight (approx.)

65 kg

Resolution

0.1 Rockwell

Loading Unloading Motorized

OPTIONAL

Special indenters,
different ranges master
test blocks,
200 mm Flat table, 70
mm Vee table

Superficial Rockwell hardness tester- ITSE-45

Load

15 kgf
30 kgf
45 kgf
60 kgf (HRA)
100 kgf (HRB)
150 kgf (HRC)

Max. Test Height

215 mm

Depth of throat

133 mm

Size of base (approx.)

170x430 mm

Machine Height (approx.)

655 mm

Net Weight (approx.)

65 kg

Resolution

0.1 Rockwell

Loading Unloading

Motorized

OPTIONAL

Special indenters,
different ranges master test
blocks,
200 mm Flat table, 70 mm Vee
table.

Rockwell cum Brinell hardness tester- ITSE-250

Load

60 kgf (HRA)
100 kgf (HRB)
150 kgf (HRC)
187.5 kgf (Measuring with
Brinell microscope or BIMS)
250 kgf (Measuring with
Brinell microscope or BIMS)

Max. Test Height

215 mm

Depth of throat

133 mm

Size of base (approx.)

170x430 mm

Machine Height (approx.)

655 mm

Net Weight (approx.)

65 kg

Resolution

0.1 Rockwell

Loading Unloading

Motorized

OPTIONAL

Special indenters,
different ranges master test
blocks,
200 mm Flat table, 70 mm Vee
table.

Touch Screen Motorized Rockwell Hardness Tester



Rockwell hardness tester ITS-150-TS

Load

60 kgf (HRA)
100 kgf (HRB)
150 kgf (HRC)

Max. Test Height

215 mm

Depth of throat

133 mm

Size of base (approx.)

170x430 mm

Machine Height (approx.)

655 mm

Net Weight (approx.)

65 kg

Resolution

0.1 Rockwell

Loading

Unloading

Motorized

OPTIONAL

Special indenters,
different ranges
master test blocks,
200 mm Flat table,
70 mm Vee table.

Superficial Rockwell hardness tester- ITS-45-TS

Load

15 kgf
30 kgf
45 kgf
60 kgf (HRA)
100 kgf (HRB)
150 kgf (HRC)

Max. Test Height

215 mm

Depth of throat

133 mm

Size of base (approx.)

170x430 mm

Machine Height (approx.)

655 mm

Net Weight (approx.)

65 kg

Resolution

0.1 Rockwell

Loading

Unloading

Motorized

OPTIONAL

Special indenters,
different ranges master
test blocks,
200 mm Flat table, 70 mm Vee

Rockwell cum Brinell hardness tester- ITS-250-TS

Load

60 kgf (HRA)
100 kgf (HRB)
150 kgf (HRC)
187.5 kgf (Measuring with
Brinell microscope or BIMS)
250 kgf (Measuring with
Brinell microscope or
BIMS)

Max. Test Height

215 mm

Depth of throat

133 mm

Size of base (approx.)

210x474 mm

Machine Height (approx.)

655 mm

Net Weight (approx.)

65 kg

Resolution

0.1 Rockwell

Loading

Unloading

Motorized

Optical Brinell Hardness Testing Machine

ITS-3000-O



SCREEN

Optical Screen Assembly attached to machine.

WORKSTAGE SIZE

It is customizable as per customer requirement, std 200mm flat table and 70mm vee table comes with machine.

MEASURING RANGE

1mm- 6mm

FOCUSING

Auto focused optical tube fixed in machine.

WORKPIECE HEIGHT

380 mm

MEASURING SYSTEM

Measure dia on optical screen and attached micrometer after that in user manual provided dia and hardness correlation chart for results.

Throat Depth

200 mm

RESOLUTION

1

MOVEMENT

Sample resting screw Movement manually.
Loading unloading by handle controlled by hydraulic power pack.

POWER SUPPLY

3 Phase with good earthing

LOAD

kgf 250 to 3000 in stages of 250 kgf.

OPTIONAL

Fabricated foundation table,
Different ranges of master test blocks,
5mm and 10mm ball indenters,
Double screw machine for heavy samples,
Brinell image analysis system for computerized reports.

Computerized Brinell Hardness Testing Machine

ITS-3000-PC



SCREEN

Connected to Computer via Machine USB Camera.

WORKSTAGE SIZE

It is customizable as per customer requirement, std 200mm flat table and 70mm vee table comes with machine.

MEASURING RANGE

1mm- 6mm

FOCUSING

Auto focused camera tube fixed in machine.

ACCURACY

Mag.: $\pm 0.5\%$

WORKPIECE HEIGHT

380 mm

MEASURING SYSTEM

Camera Image processing Software with high accuracy, auto ,semi auto and manual mode measuring options, truly customizable software.

Throat Depth

200 mm

RESOLUTION

0.01

REPEATABILITY

$\pm 0.5\%$

MOVEMENT

Sample resting screw Movement manually.
Loading unloading by handle controlled by hydraulic power pack.

POWER SUPPLY

3 Phase with good earthing

LOAD

kgf 250 to 3000 in stages of 250 kgf.

OPTIONAL

187.5 kgf load,
Computer system,
Fabricated foundation table,
Different ranges of master test blocks,
5mm and 10mm ball indenters,
Customizations in software,
Double screw machine for heavy samples.



INFINITY TESTING SOLUTION

Product Description

PORTABLE HYDRAULIC BRINELL HARDNESS TESTER

WORKING PRINCIPLE: FHB-3000 Fix the test head of Brinell hardness tester to the test frame. When testing, fix the measuring frame onto the surface of the test piece firmly, load force by operating the handle. The test head is a mini hydraulic system which contains a control valve for controlling force. When force loading to 3000Kgf, the control valve opens, pressure releasing. According to ASTM standard, force loading should be repeated 3 to 4 times, keeping the pin of the pressure gauge reaching the point of 3000Kgf 3 to 4 Times .in this way, it equals the test regulation of test force 3000Kgf, 10mm test ball, force maintaining time; 0 to 5 seconds.

INSTRUMENT FEATURES:

- Test Principle: Apply hydraulic principle permitting loading 3000Kgf manually.
- On-site Testing: It could be applied in workshop, simple operation, easy carrying, and testing body hardness of large parts piece by piece.
- Permanent Indentation: By 3000Kgf and 10mm test ball, the indentation is permanent for re-inspecting.
- High Reliability: It follows Brinell hardness test method completely, the same as desk testers, reflecting the actual mechanical property of material or parts

High Accuracy:

Indication error, repeatability error and test force accuracy comply with ISO, and ASTM standards, the same as desk testers.

- **Wide Application Range:**

As long as clamped to the parts, it could test parts in any shape and size.

- **Wide Test Range:**

It could test various common metal materials by its combination of different test force and test head, that is, wide test range

APPLICATION:

- On-site test of steel products, nonferrous metal, castings, forgings, and semi-finished heat treatment parts.
- Applied to too large parts for desk testers to test. Replace Leeb testers which are in low accuracy and reliability.
- Indentation could be read by indentation automatic measurement system and hardness values displayed directly.

TECHNICAL PARAMETER:

Test Force	3000kg (1000kg, 750kg, 500kg Optional)
Test Ball	10mm Carbide alloy test ball (5mm Optional)
Test Range	32-650HBW
Opening Dimension	350mm (Height) x 100mm(Throat depth)
Indicator Error	Complies with ISO 6506, and ASTM E10.
Repeatability Error	Complies with ISO 6506, and ASTM E10.
Test Force Error	Complies with ISO 6506, and ASTM E10.
Weight	14 kg. Approx.

STANDARD ASSEMBLY :

THB-3000
Tester
Handle
Brinell Hardness Block
20X Reading Microscope
10mm Spare Hard Alloy Test Ball
Anvil (flat, V-type, spot-type)

OPTIONAL ACCESSORIES :

Brinell Hardness Block (High or Low Value)
Hard Alloy Test Ball (5mm,10mm)
Spare Parts (Hydraulic oil Capsule,Hydraulic oil, O-Ring etc.)
Maintaining Tools
Automatic Brinell indentation Measurement System BIMS
Other Specification Chains

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Optical Vickers Hardness Testing Machine

ITS-V50



SCREEN

Optical Screen Assembly attached to machine.

WORKSTAGE SIZE

It is customizable as per customer requirement, std 50mm flat table and 38mm vee table comes with machine.

MEASURING RANGE

0.1mm- 1mm

FOCUSING

focused optical tube fixed in machine with respect to indentation.

MAXIMUM TEST HEIGHT

200 mm

MEASURING SYSTEM

Measure dia on optical screen and attached micrometer after that in user manual provided dia and hardness correlation chart for results.

Throat Depth

135 mm

RESOLUTION

0.001

MOVEMENT

Sample resting screw Movement manually.
Loading unloading by motor.

POWER SUPPLY

Single Phase with good earthing

LOAD

5,10,20,30,50 kgf.

OPTIONAL

Fabricated foundation table,
Different ranges of master test blocks, indenters,
Double screw machine for heavy samples,
Conversion system for computerized reports.

Computerized Vickers Hardness Testing Machine

ITS-V50PC



SCREEN

Connected to Computer via Machine USB Camera.

WORKSTAGE SIZE

It is customizable as per customer requirement, std 50mm flat table and 38mm vee table comes with machine.

MEASURING RANGE

0.05mm- 0.4mm

FOCUSING

Auto focused camera tube fixed in machine with respect to indentation.

ACCURACY

Mag.: $\pm 0.5\%$

MAXIMUM TEST HEIGHT

200 mm

MEASURING SYSTEM

Camera Image processing Software with high accuracy, auto ,semi auto and manual mode measuring options as per sample surface finish, truly customizable software.

Throat Depth

135 mm

RESOLUTION

0.001

REPEATABILITY

$\pm 0.5\%$

MOVEMENT

Sample resting screw Movement manually.
Loading unloading by motor.

POWER SUPPLY

1 Phase with good earthing

LOAD

5,10,20,30,50 kgf

OPTIONAL

Computer system,
Fabricated foundation table,
Different ranges of master test blocks,
Indenter,
Customizations in software,
Double screw machine for heavy samples.

Microscope

Inverted Metallurgical Microscope

ITS-1001



MECHANICAL BODY

Single mold sturdy stand with anti-rust materials. Extended base for better stability.

TRINOCULAR OBSERVATION HEAD:

Trinocular head with observation head inclined at 45°. Interpupillary distance from 55mm to 75mm.

EYEPIECES:

Wide Field Eyepieces 10X (PAIRED) FOV 18mm with diopter adjustment

NOSEPIECE:

Reverse angle quintuple nosepiece revolves on ball bearing with positive indexing. Soft rubber knurled grip on nosepiece.

OBJECTIVES INFINITY CORRECTED:

- Long Working Distance Plan Achromatic M5X.
- Long Working Distance Plan Achromatic M10X.
- Long Working Distance Plan Achromatic M20X.
- Long Working Distance Plan Achromatic M50X.
- Long Working Distance Plan Achromatic M100X

MAGNIFICATION:

50 X-1000X

MECHANICAL STAGE:

Mechanical Stage with size 210 x 180mm, supported on ball bearing guideways and having low positioned co-axial controls for stage movement.

FOCUSING:

Co-axial focusing control with ball bearing guideways & large knobs, pre focusing lever & tension adjustment ring. The slow motion has 1DIV = 0.02mm. Coarse motion: 35mm. Fine focusing range: 1.4mm.

ILLUMINATION:

The KOHLER Epi illuminator has LED lamp/Halogen lamp, adjustable brightness. Field and aperture diaphragm with yellow, green and blue filters.



Microscope

Inverted Metallurgical Microscope

ITS-1003



MECHANICAL BODY

Single mold sturdy stand with anti-rust materials. Extended base for better stability.

TRINOCULAR OBSERVATION HEAD:

Trinocular head with observation head inclined at 45°. Interpupillary distance from 55mm to 75mm.

EYEPIECES:

Wide Field Eyepieces 10X (PAIRED) FOV 18mm with diopter adjustment

NOSEPIECE:

Reverse angle quintuple nosepiece revolves on ball bearing with positive indexing. Soft rubber knurled grip on nosepiece.

OBJECTIVES INFINITY CORRECTED:

- Long Working Distance Plan Achromatic M5X.
- Long Working Distance Plan Achromatic M10X.
- Long Working Distance Plan Achromatic M20X.
- Long Working Distance Plan Achromatic M50X.
- Long Working Distance Plan Achromatic M100X

MAGNIFICATION:

50X-1000X

MECHANICAL STAGE:

Mechanical Stage with size 180mm x 165mm, supported on ball bearing guideways and having low positioned co-axial controls for stage movement.

FOCUSING:

Co-axial focusing control with ball bearing guideways & large knobs, pre focusing lever & tension adjustment ring. The slow motion has 1DIV =0.02mm. Coarse motion: 35mm. Fine focusing range: 1.4mm.

ILLUMINATION:

The KOHLER Epi illuminator has LED lamp, adjustable brightness. Field and aperture diaphragm with yellow, green and blue filters.

MICROSTRUCTURE ANALYSER SOFTWARE

Grain Size Estimation :

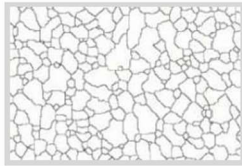
With automatic grain boundary re-construction Analyzer can take any ordinary / practical image for processing. It cleans the same, automatically joins the broken grain boundaries and makes the image perfectly suitable for further automatic analysis. Does not call for manual intercept marking.

Options exist for intercept method (parallel lines or concentric circles depending on the aspect ratio of grains), planimetry method, comparison method. Also results can be obtained in the form of grain size distribution, individual grain area, its perimeter, L/D ratio, mean lineal intercept length, average grain size, largest grain size in microns etc.

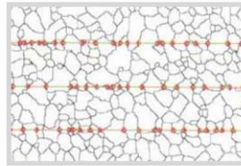
Grain size analysis of ceramic, Copper and other materials can be determined as per the individual method.



Original Image



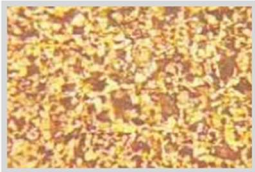
Processed Image



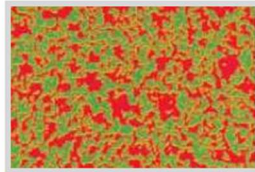
Grain Size 6.5

Phase Analysis :

Based on the gray level difference as many phases can be identified and measured to its fine perfection based on thresholding gray levels. With automatic and manual methods histograms can be generated.



Original Image



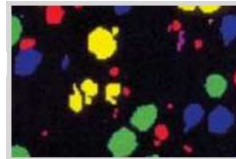
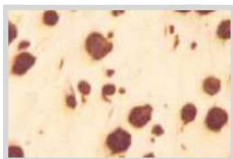
Processed Image

Nodularity Analysis :

Graphite features as per their shape factors are separated in type I to Type VII. Percentage nodularity is Distribution can be obtained as per the size.

Image stitching facility can be used if analysis is required on total 1 mm sq. by stitching/tiling of images.

Under the etched condition one can directly estimate percentage of graphite, pearlite and ferrite.



Flake Analysis :

Graphite flakes are classified in size class from 1 to 8 as per their length. Min, Max f lake length and distribution curve can be plotted. Also separation of the flakes as A, B, C, D is possible in normal cases.



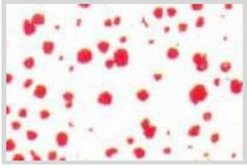
Original Image



Processed Image

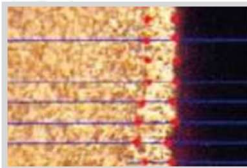
Particle count and size classification :

Individual particles in the given field of view can be marked, separated as per their sizes. Distribution curve can be plotted.



Linear Measurements :

Measurements like plating, coating, decarburisation, inter lamellar distance, degree of banding etc. are done manually or automatically depending on the image contrast. Arbitrary line measurement helps measuring distance in any direction.



Inclusion Analysis:

Given a good polish, accurate results can be obtained by separating and rating inclusions. One can also intermediately see the classification and can correct or edit the same. Advanced modules can also correct few artifacts like scratches on the samples. Automatic motorized stage measurement option can compile the results of multiple fields and the same can be expressed in desired format.

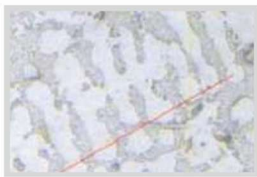


Original Image

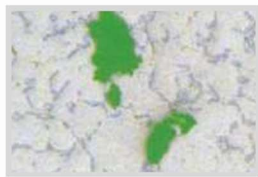


Processed Image

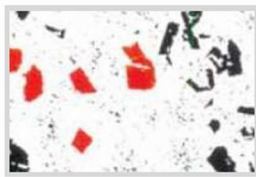
Aluminum Module :



SDAS Measurement



Porosity Measurement



Cuboids Measurement

Micro-Vickers

Micro Vickers Hardness Tester

ITS-1000 (ADT)



Model	ITS-1000 (ADT)	
Turret	Automatic Turret	
Inbuilt printer	Yes	
Data statistic function	Yes	
RS 232 port	Yes	
Objective	10X (Observe); 40X (measure)	
Eyepiece	10X digital eyepiece with built-in encoder	
Total Magnification	100X (measure); 400X (measure)	100X (measure); 400X (measure)
Testing force	10g (0.098N), 25g (0.245N), 50g (0.49N), 100g (0.98N), 200g (1.96N),	
	300g (2.94N), 500g (4.9N), 1000g (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, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
	HV, HK, HBW
Loading speed	≤50μm/sec
Indenter	Standard Rectangular pyramid diamond indenter (136°±0.5°)
Min. measuring unit	0.01μm
Hardness value rang	8HV-2900HV
Data display	LCD touch screen
Loading method	Automatically (Load, dwell and unload the testing force)
Duration time	1-99s (each step is 1 second)
Objective lens center and indenter center	Coincidence accuracy error < 1um (objective lens center position can be adjusted)
X-Y Testing Table	Dim.:100×100 mm, Max. Travel Range: 25×25mm,
	Moving Resolution Ratio: 0.01mm
Test space	Maximum height: 100mm (vertical); Throat depth: 130mm (horizontal)
Light Source	LED Cold light source (can be continuous use for 24 hours, no heat generate ensure stable working, servicing life can reach 100,000 hours)
Machine size and N/W	540*260*650mm 50kg
Packing size and G/W	710*420*627mm 68kg
Power Supply	220V ± 5%, 50/60 Hz (110V is available)
Executed Standard	GB/T4340, ASTM E384 & E92, EN-ISO 6507, JIS B-7734

INFINITY TESTING SOLUTION,

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Universal

Testing machine (Manual Gripping) (UTM)

UTE Series
UTES Series



MODEL	UNIT	UTE 10	UTE 20	UTE 40	UTE 60	UTE 100
Maximum Capacity	kN	100	200	400	600	1000
Measuring range	kN	0-100	0-200	0-400	0-600	0-1000
Load resolution (20000 counts full scale)	N	5	10	20	30	50
Load range with accuracy of Measurement +/-1%	kN	2 to 100	4 to 200	8 to 400	12 to 600	20 to 1000
Resolution of piston movement (Displacement)	mm	0.1	0.1	0.1	0.1	0.1
Clearance for tensile test (At fully descended working piston)	mm	50-700	50-700	50-700	50-800	50-850
Clearance for compression test (At fully descended working piston)	mm	0-700	0-700	0-700	0-800	0-850
Clearance between columns	mm	500	500	500	600	750
Ram Stroke	mm	150	200	200	250	250
Straining/ Piston Speed (at no load)	mm/min	0-300	0-150	0-150	0-100	0-80
CONNECTED LOAD						
Power	HP	1.33	1.33	2.33	2.5	3.5
V		400-440	400-440	400-440	400-440	400-440
Φ		3	3	3	3	3

STANDARD ACCESSORIES						
FOR TENSION TEST						
Clamping jaws for round specimens of diameter	mm	10-20	10-20	10-25	10-25	10-25
		20-30	20-30	25-40	25-40	25-45
Clamping jaws for flat specimens of thickness	mm	0-10	0-10	0-15	0-15	0-22
		10-20	10-20	15-30	15-30	22-44
Width	mm	50	50	65	70	70
FOR COMPRESSION TEST						
Pair of Compression Plates of Dia.	mm	120	120	120	120	160
FOR TRANSVERSE TEST						
Table with adjustable rollers						
Width of rollers	mm	160	160	160	160	160
Diameter of Rollers	mm	30	30	30	50	50
Maximum clearance between supports	mm	500	500	500	600	800
Radius of punch tops	mm	6,12	6,12	12,16	16,22	16,22

● Due to constant R&D specifications & features are subject to change without notice.

● Colour scheme subject to confirm at the time of order.

Universal

Testing machine(Hydraulic Gripping) (UTM)

UTE-HGFL Series
UTES-HGFL Series



MODEL	UNIT	UTE-HGFL 10	UTE-HGFL 20	UTE-HGFL 40	UTE-HGFL 60	UTE-HGFL 100
Maximum Capacity	kN	100	200	400	600	1000
Measuring range	kN	0-100	0-200	0-400	0-600	0-1000
Load resolution (50000 counts full scale)	N	2	4	8	12	20
Load range with accuracy of Measurement +/-1%	kN	2 to 100	4 to 200	8 to 400	12 to 600	20 to 1000
Resolution of piston movement (Displacement) for UTE	mm	0.1	0.1	0.1	0.1	0.1
Clearance for tensile test (At fully descended working piston)	mm	50-700	50-700	50-700	50-800	50-850
Clearance for compression test (At fully descended working piston)	mm	0-700	0-700	0-700	0-800	0-850
Clearance between columns	mm	500	500	500	600	750
Ram Stroke	mm	150	200	200	250	250
Straining/ Piston Speed (at no load)	mm/min	0-300	0-150	0-150	0-100	0-80
CONNECTED LOAD						
Power	HP	2.33	2.33	3.33	3.5	5
V		400-440	400-440	400-440	400-440	400-440
Φ		3	3	3	3	3

STANDARD ACCESSORIES							
FOR TENSION TEST							
Clamping jaws for round specimens of diameter	mm	10-20	10-20	10-20	10-20	10-20	10-20
		20-30	20-30	20-30	20-30	20-30	20-30
		.....	.....	30-40	30-40	30-40	30-40
		.....	.....	.....	.....	40-50	40-50
Clamping jaws for flat specimens of thickness	mm	0-10	0-10	0-10	0-10	0-10	0-10
		10-20	10-20	10-20	10-20	10-20	10-20
		.....	.....	20-30	20-30	20-30	20-30
		.....	.....	.....	.....	30-40	30-40
Width	mm	50	50	65	70	70	70
FOR COMPRESSION TEST							
Pair of Compression Plates of diameter.	mm	120	120	120	120	160	160
FOR TRANSVERSE TEST							
Table with adjustable rollers							
width of rollers	mm	160	160	160	160	160	160
Diameter of Rollers	mm	30	30	30	50	50	50
Maximum clearance between supports	mm	500	500	500	600	800	800
Radius of punch tops	mm	6,12	6,12	12,16	16,22	16,22	16, 22

• Due to constant R & D specifications & features are subject to change without notice.

Broaching Machine

Motorized V/U Notch Broaching machine

ITS-M-Broach



Highly Precision

- Consistency in all specimen
- Simple clamping for specimen
- Tool guide for proper alignment
- Bottom System for easy operation
- Notch as per indian / International Standards.

ACHIEVE REQUIRED ANGLE, NOTCH RADIUS AND DEPTH IN A SINGLE STROKE

Broaches can be supplied for standard BS, ISO, EN, ASTM and other International Standard notch profiles. Due to the variety of broaches and notch configurations, broaches are ordered separately.

For broach quotation, please specify

- a) Notch type
- b) Depth of notch
- c) Applicable Standard
- d) Material specification/Hardness Rc

Our broaches meet most standards i.e. BS, ISO, EN, ASTM and many other International Standard notch profiles.

All broaches, which have a unique serial number, are tested to ensure that they cut the correct form before despatch and a Certificate of Conformance is issued with each broach.

Standard Broaches (Optional)

Our standard broaches are designed for use on carbon steels up to 42 Rc.

'C' Type 2mm deep 'V' notch

'H' Type 3.3mm deep 'V' notch (For use on round samples)

'N' Type 2mm and 3mm deep 'U' notch

JS' Type 5mm deep 'U' notch (With packer - 2 cuts required)

PORTABLE LEEB HARDNESS TESTER

Features:

- Compact plastic case, suitable for use under poor working conditions. Test at any angle even upside down.
- Wide measuring range. It can measure the hardness of all metallic materials.
- Direct display of hardness scales HRB, HRC, HV, HB, HS, HL.
- Large screen (segment LCD), showing functions and parameters. With EL background light
- Large capacity memory could store 100 groups information.



Main Application:

- Die cavity of molds.
- Bearings and other parts.
- Failure analysis of pressure vessel, steam generator and other equipment.
- Heavy work piece.
- The installed machinery and permanently assembled parts.
- Testing surface of a small hollow space.

Measuring Range	(170-960)HLD, (17-68.5)HRC, (19-651)HB,(80-976)HV, (30-100)HS, (59-85)HRA, (13-100)HRB
Measuring Direction	360°
Hardness Scale	HL,HB,HRB,HRC,HRA,HV,HS
Display	Segment LCD
Data Memory	Max. 100 groups
Working Voltage	3V (2 AA size alkaline battery)
Continuous Working Period	About 100 Hours (With backlight off)
Communication Interface	Communication Interface

Delivery Set:

SrNo.	Item	Quantity
1.	Display indicator with Main Unit	1
2.	D-type impact device	1
3.	Standard testblock	1
4.	Cleaning brush(I)	1
5.	Small supporting	1
6.	Alkaline battery	1
7.	Manual	1
8.	Instrument package case	1

Type of Impact Devices (Optional)



Product Details



Large capacity memory could store 100 groups information



Press the Scale hardness key to switch HI, HB, HRB, HRC, HRA, HV, HS

Double Disk

METALLOGRAPHY SPECIMEN POLISHING MACHINE

ITS-PM



INFINITY TESTING SOLUTION

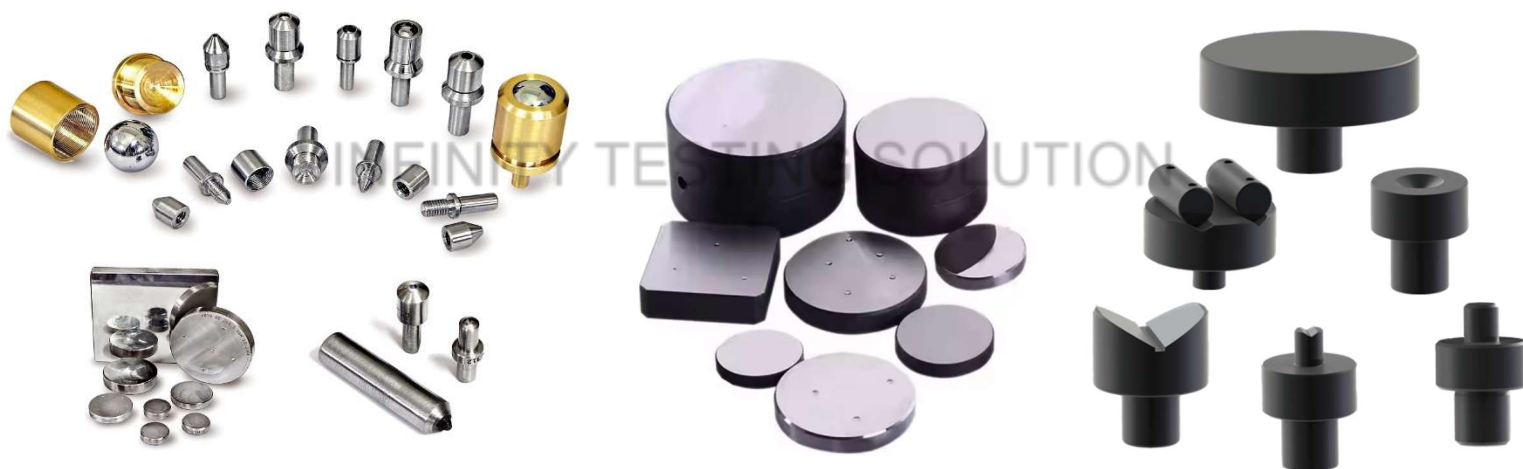
TECHNICAL SPECIFICATIONS

MODEL	PM-M2	PM-M2(V)	PM-M2(VD)
Diameter of Polishing Disc	200mm		
Rotating Disc Mode	Fixed	Variable	Variable
Rotating Disc Speed	960 RPM	50-1250 RPM	50-1250 RPM
Motor Specifications	180W (A.C)	180W (D.C)	180W (D.C)
Display Type	.....	.....	Digital Display
Power Source	220 Volts 50 Hz		
Dimensions	720x490x320mm		

Accessories



Inserts, rack jaws, Pinion shafts for Universal testing machine.
Also we are providing special inserts as per customers sample requirements.



Special Hardness testing Machine Indenters, Different ranges Master test blocks,
special anvils for sample resting.

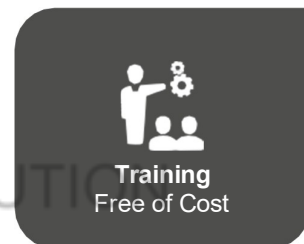


Objectives, lens for Vickers, Micro Vickers, Microscope, eyepiece.
Also, many attachments like bend rebend attachment, shear test attachment, threaded Sholder attachment,
customized tables, machine internal parts.

Installation, Training And Online Support



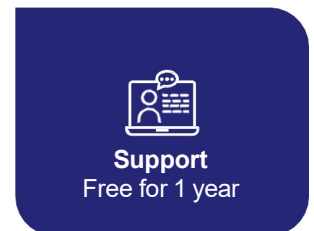
Installation and Training is for all customers and usually takes place within 8 to 10 days of the delivery of the system at customer premises. General Calibration is done/check free of cost after installation. Subsequent calibrations are required after every one year and are chargeable at per calibration.



We offer two type of support:

ONLINE & OFFLINE

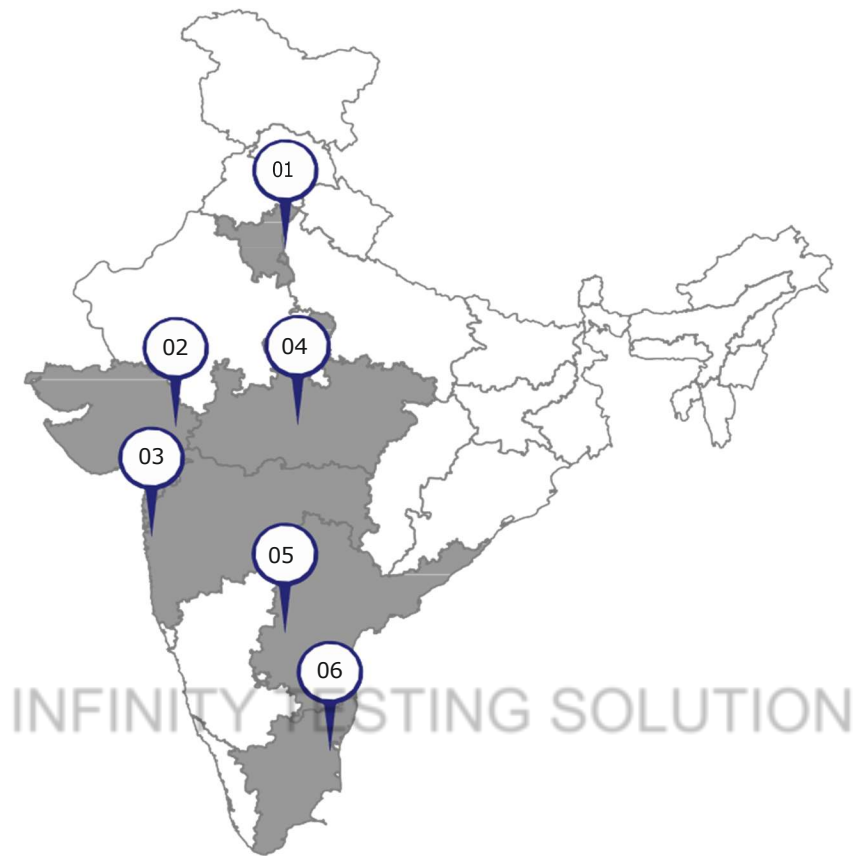
Online support is free of cost throughout the life of the system and resolves 90% of the issues arising in system.



1100+ USERS

Service provided all across the India

Indian Roots



- ❖ **Delhi**
- ❖ **Rajkot**
- ❖ **Pune**
- ❖ **Indore**
- ❖ **Pune**
- ❖ **Chennai**
- ❖ **Satara**
- ❖ **Kolhapur**

INFINITY TESTING SOLUTION

Contact to get all your queries answered

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Ichalkaranji-416115 Maharashtra-India



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<mailto:salesnppindia@gmail.com>

Notes

INFINITY TESTING SOLUTION