LAPMASTER® WOLTERS

METALLOGRAPHIC EQUIPMENT & SUPPLIES CATALOG

2018

Welcome
to the worldwide
headquarters of
LAPMASTER-WOLTERS
in Mount Prospect, IL.
This is home to our
Metallographic
Products Division.

Visit our new
metallographic demo
laboratory featuring
abrasive cutters,
precision saws,
mounting presses,
grinders, polishers,
ultrasonic cleaners,
microscopes, digital
cameras, imaging
software and hardness
testers.

ORDERING & CONTACT INFORMATION

TO PLACE AN ORDER

Phone toll free	1-877-352-8637
Inside Sales direct phone	1-224-659-7129
Fax	1-224-659-7103
Email	sales@lapmaster.com
Website & MSDS	www.lapmaster-wolters.com
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SALES POLICY

Prices are subject to change without notice.

Minimum order $50.00.

Standard terms Net 30.

All major credit cards accepted.

30 day return policy for supplies. Subject to inspection. May be subject to a restocking fee.

ISO 9001:2008 CERTIFIED

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ABRASIVE CUTTERS

TR EVOLUTION SERIES

Our best selling and most affordable abrasive cutters. Designed to fit on any standard laboratory table and made with a built-in recirculating system inside the stainless steel base. The direct drive cast iron motor provides the quietest operation and most efficient motor on the market.

TR80 EVOLUTION

Cut-off wheel diameter	10.00" (250 mm)
Max cutting diameter	3.14" (80mm)
Cast iron motor power	1.75 HP (1.3 kW)
Spindle speed	2800 RPM
Built-in recirculating system	4.75 gallons (18 liters)
Weight	176 pounds (80 kg)
Dimensions	24.50" W x 28.75" D x 21.50" H
Power Supply	460V/60 Hz/3 phase
	(*Other voltages available*)

TR100 EVOLUTION

Cut-off wheel diameter	12.00" (300 mm)
Max cutting diameter	4.00" (100mm)
Cast iron motor power	3 HP (2.2 kW)
Spindle speed	2800 RPM
Built-in recirculating system	4.75 gallons (18 liters)
Weight	176 pounds (80 kg)
Dimensions	24.50" W x 28.75" D x 21.50" H
Power Supply	460V/60 Hz/3 phase
	(*Other voltages available*)

TR INOX SERIES

The TR INOX Series provides a much larger sectioning area and the belt driven cast iron motor allows for port holes on either side of the unit for sectioning of long pieces. Each model is available with a built-in recirculating system or a larger, separate recirculating system.

TR80 INOX

Cut-off wheel diameter	10.00" (250 mm)
Max cutting diameter	3.14" (80mm)
Cast iron motor power	3HP (2.2 kW)
Spindle speed	2800 RPM
Built-in recirculating system	6.6 gallons (25 liters)
Weight	286 pounds (130 kg)
Dimensions	33.50" W x 40.50" D x 25.00" H
Power Supply	460V/60 Hz/3 phase
	(*Other voltages available*)

TR80 INOX FLOOR MODEL
Same as above plus the following:

Base	Metal cabinet
External recirculating system	10.5 gallons (40 liters)
Weight	352 pounds (160 kg)
Dimensions	33.50" W x 40.50" D x 59.00" H

TR100 INOX

Cut-off wheel diameter	12.00" or 14.00" (300mm or 350mm)
Max cutting diameter	4.00" or 4.75" (100mm or 120mm)
Cast iron motor power	4 HP or 5 HP (3 kW or 3.7 kW)
Spindle speed	2500 RPM
Built-in recirculating system	6.60 gallons (25 liters)
Weight	385 pounds (130 kg)
Dimensions	36.00" W x 40.50" D x 27.00" H
Power Supply	460V/60 Hz/3 phase
	(Other voltages available)

TR100 INOX FLOOR MODEL
Same as above plus the following:

Base	Metal cabinet
External recirculating system	10.5 gallons (40 liters)
Weight	385 pounds (175 kg)
Dimensions	35.50" W x 40.50" D x 61.00" H

TR100 INOX PLC FLOOR MODEL

|	
Cut-off wheel diameter	12.00" or 14.00" (300mm or 350mm)
Max cutting diameter	4.00" or 4.75" (100mm or 120mm)
Cast iron motor power	4 HP or 5 HP (3 kW or 3.7 kW)
Spindle speed	2500 RPM
Built-in recirculating system	10.0 gallons (40 liters)
Weight	385 pounds (130 kg)
Dimensions	36.00" W x 41.00" D x 61.00" H
Power Supply	460V/60 Hz/3 phase
	(Other voltages available)
Control panel	PLC Touchscreen
Available feed options	Manual table feed
	Automatic table feed
	Automatic wheel feed
	Manual cross-feed table
Available optional recirculating system	Metal INOX frame base with wheeled recirculating system, 26.4 gal.

PETROGRAPHIC SECTIONING
Our large range of cutters can be configured for sectioning of any type of petrographic sample. Our available diamond wheels, cross-feed translation table and special clamping devices provide a quick solution for all rock and mineral sectioning requirements.
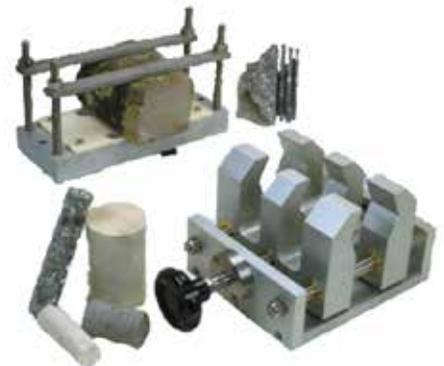
TR100S INOX FLOOR MODEL

Cut-off wheel diameter	12.00" or 14.00" (300mm or 350mm)
Max cutting diameter	4.00" or 4.75" (100mm or 120mm)
Max cutting length	
(with optional longitudinal feed	
work table)	15.75" (400mm)
Cast iron motor power	4 HP or 5 HP (3 kW or 3.7 kW)
Spindle speed	2500 RPM
Built-in recirculating system	10 gallons (40 liters)
Weight	462 pounds (210 kg)
Dimensions	23.50" W x 33.00" D x 71.00" H
Power Supply	460V/60 Hz/3 phase
	(*Other voltages available)*
Available feed options	Manual table feed
	Automatic table feed
	Automatic wheel feed
	Manual cross-feed table
Available control panel	PLC Touchscreen

TR100L INOX FLOOR MODEL

Cut-off wheel diameter	14.00" or 16.00" (350mm or 406ı
Max cutting diameter	4.75" (120mm)
Max cutting length	21.50" (550mm)
Cast iron motor power	5 HP (3.7 kW)
Spindle speed	2500 RPM
Built-in recirculating system	16.40 gallons (100 liters)
Weight	550 pounds (175 kg)
Dimensions	36.00" W x 54.00" D x 61.00" H
Power Supply	460V/60 Hz/3 phase
	(*Other voltages available)*
Available feed options	Manual table feed
	Automatic table feed
	Automatic wheel feed
	Manual cross-feed table
Available control panel	PLC Touchscreen

CLAMPING DEVICES FOR ALL TR SERIES ABRASIVE CUTTERS
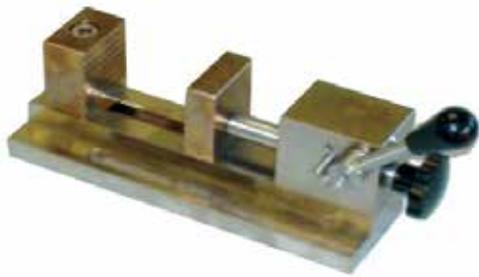
Single Jaw Quick Cam Vises
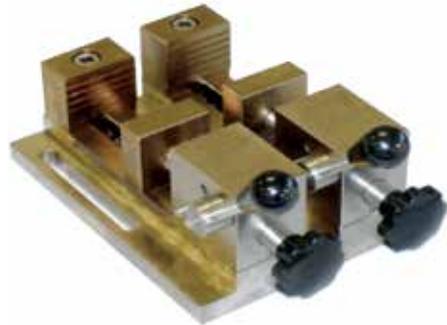
Double Jaw Quick Cam Vises

Single Jaw Screw Type Vises

Double Jaw Screw Type Vises

Compound Vises

Vertical Clamping Kit

Petrographic Vises

FOR MORE INFORMATION, CALL 877.352.8637 OR EMAIL sales@lapmaster.com

MT SERIES LARGE PETROGRAPHIC SAMPLES CUTTER

The MT 5OO cut-off machine is used for preliminary cuts of large samples (max 400 x 170 mm). It is built with a robust stain-less steel body, with a polycarbonate hood, fastened to a strong steel structure in which a wheeled stainless steel tank is located. The machine has a strong work-table with longitudinal and transversal manual movements for cutting slices. A fast clamping device locks the petrographic sample to the work-table. Cooling and cleaning systems are directly connected to the water supply. When the cutting wheel motor starts, automatically a water-spout hits both sides of the cutting wheel. Water is also sprinkled in the bottom of the machine for cleaning the inside walls.

A metallic grid holds coarser cutting residues while the water falls underneath in the stainless steel tank that is   connected to the sewer system of the laboratory. The machine is equipped with a manual washing gun for internal cleaning. Special atten-tion has been paid to guarantee maximal operating security: - the electric board is water tight- the push-button panel has low tension (24 V) - the hood opens only when the cutting wheel is not moving - an internal light allows the control of all cutting steps- full protection of the opera-tor is guaranteed with the strong structure of the cut-off machine, the irremovable cut-ting wheel guard and the transparent polycarbonate hood. The longitudinal translation can be made automatic using an advance-ment system with adjustable speed (0-250 mm/min), with engaging clutch and anterior and posterior stop sensors.

MT 500

Cut-off wheel diameter	20.00" (500mm)
Max cutting capacity	6.70" x 15.75"
Cast iron motor power	7 HP
Recirculating system	26.42 gallons (100 liters)
Weight	2,640 pounds
Dimensions	44.00" W x 76.00" D x 68.00" H
Power Supply	460V/60 Hz/3 phase
	Other voltages available.
Standard feeds	Manual table feed
	Manual cross-feed

SECOMET SERIES

These large abrasive cutters are capable of sectioning extra large parts up to 8.00" x 19.60" in size. The units come standard with a manual table feed semiautomatic wheel feed movement. Optional automation includes automatic table feed with programmable stroke travel, automatic wheel feed and automatic cross feed for cutting slices.

	SECOMET 400	SECOMET 500	SECOMET 600
Cut-off wheel diameter	20.00" (500 mm)	20.00" (500 mm)	24.00" (600mm)
Maximum cutting capacity	6.70" x 15.75"	6.70" x 19.6"	8.00" x 19.60"
Cast iron motor power	15 HP	15 HP	15 HP
Recirculating system	66 gal (250 litre)	66 gal (250 litre)	66 gal (250 litre)
Weight	2640 pounds	3080 pounds	3146 pounds
Dimensions	44.00"w x 76.00"D x 68.00"H	44.00"w x 79.00"D x 68.00"H	44.00"w x 79.00"D x 68.00"H
Power supply	460V/60 Hz/3 phase *(Other voltages available.)*	460V/60 Hz/3 phase *(Other voltages available.)*	460V/60 Hz/3 phase *(Other voltages available.)*
Standard feeds	Manual table feed Semi-auto wheel feed	Manual table feed Semi-auto wheel feed	Manual table feed Semi-auto wheel feed
Optional automatic feeds	Automatic table feed Automatic wheel feed Motorized cross movement	Automatic table feed Automatic wheel feed Motorized cross movement	Automatic table feed Automatic wheel feed Motorized cross movement

MICROMET EVOLUTION SERIES

Our most economical precision saws are quite a step up from the old slow speed diamond saws. These units are variable speed/high speed (0-2,100 RPM) and can accommodate silicon carbide wheels for quickly sectioning non-ferrous material and aluminum oxide wheels for quickly sectioning ferrous materials. They can also use CBN blades for sectioning hard ferrous materials and diamond blades on just about any material.

MICROMET EVOLUTION

Available feed methods	Manual chop saw or manual chop saw with counterbalance weight system
Cut-off wheel diameter	3.00" to 5.00" (76mm to 127mm)
Maximum cutting diameter	1.57" with 5.00" wheel
Motor power	1/8 HP (95W)
Spindle speed	0-2,100 RPM
Built-in recirculating system	0.075 gal. (0.28 ltr)
Dimensions of cutoff wheel zone	4.30" L x 6.30" W x 7.75" H
Weight	33 lbs. (14.97 kg)
Dimensions	12.00" W x 11.75" L x 11.75" H
Power supply	115V/60 Hz/1 phase
	(Other voltages available)

ABRASIVE CUTTERS

MICROMET SERIES

The MICROMET Series of precision saws offers larger sectioning capability capable of accommodating up to 8.00" cutting wheels and have variable speed/high speed (0-3,000 RPM) capabilities for applications using all types of cutting wheels for sectioning the widest range of materials.

MICROMET

Available feed methods	Manual chop saw or manual chop saw with counterbalance weight system
Cut-off wheel diameter	5.00" to 8.00" (76mm to 203mm)
Maximum cutting diameter	2.36" with 8.00" wheel
Motor power	1/3 HP (250 W)
Spindle speed	0-3,000 RPM
Built-in recirculating system	1.10 gal. (4.16 ltr)
Dimensions of cutoff wheel zone	4.30" L x 6.30" W x 7.75" H
Weight	83 lbs. (37.65 kg)
Dimensions	19.75" W x 18.00" D x 15.00" H
Power supply	115V/60 Hz/1 phase
	(Other voltages available)

MICROMET SERIES ACCESSORIES

PRINTED CIRCUIT BOARD TABLE CUTTER ATTACHMENT FOR MICROMET

The table cutter attachment can be installed at the factory on the MICROMET Precision Saw or it can be added in the field to an existing unit.

PETROGRAPHIC THIN SECTIONING SAMPLE HOLDER FOR MICROMET

After proper cleaning of sample, it is cemented to a glass slide and has to be re-sectioned to remove excess material.
This operation may be performed with the MICROMET Precision Saw fitted with the glass slide vacuum sample holder. Thanks to the micrometric movement of the sample holder, it is possible to position the slide in relation to the cutting wheel to obtain specimens of the desired thickness.

PETROGRAPHIC THIN SECTION GRINDING ATTACHMENT FOR MICROMET

This grinding attachment can be connected to the MICROMET Precision Saw and allows the thinning operation of a petrographic sample mounted on a glass slide. The slide is held by a vacuum sample holder. This holder can hold all types of glass slides, including the circular ones with 1" diameter. The structural characteristics of this machine allow thinning without vibrations and the preparation of flat parallel-faced samples. The preparation of thin sections is simple and fast and with reproducible results.

MICROMET AUTOMATIC SERIES

The MICROMET AUTOMATIC Precision Saw features an automatic electro-hydraulic sample advance system and can accommodate up to 6.00" sectioning wheels

Feed methods	Automatic electrohydraulic sample advance system
Cut-off wheel diameter	4.00" to 6.00" (102mm to 152mm)
Maximum cutting diameter	1.77" with 6.00" wheel
Motor power	1/3 HP (250 W)
Spindle speed	0-3,000 RPM
Built-in recirculating system	1.50 gal. (5.69 ltr)
Weight	99 lbs. (44.90 kg)
Dimensions	19.75" W x 23.75" D x 16.50" H
Power supply	115V/60 Hz/1 phase
	(Other voltages available.)
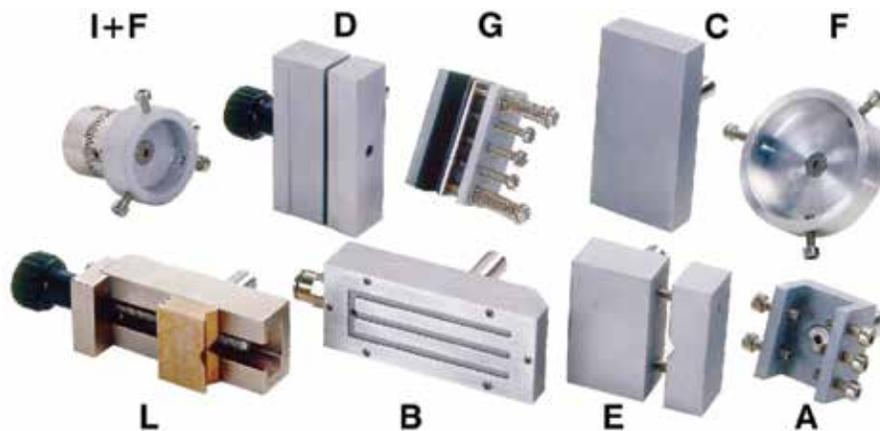
CLAMPING DEVICES FOE ALL MICROMET SERIES PRECISION SAWS

Type A Sample Holder, for irregular shaped samples

Type B Sample Holder, vacuum type to hold glass slides

Type C Sample Holder, for gluing glass slides

Type D Sample Vise, for glass slides

Type E Sample Holder, with "V" groove for bars and tubes

Type F Sample Holder, rotating design for round mounts up to 1.25" (Type I also required)

Type G Sample Holder, for thin samples

Type I Goniometric Sample Holder for 360° rotation (Type F also required)

Type L Micro Vise

Type M support for small vise and sample holders, 90°

Type P Sample Holder, vacuum type for petrographic glass slides

SECOTRON MANUAL SERIES

This manual 3-Axis precision saw features a "Y" cutting table for longitudinal movement with a maximum travel of 250mm and ± 0.01mm accuracy. The, "Z" height of the wheel is controlled by an external crank with 50mm travel and accuracy of ±0.05mm.

SECOTRON 200 MANUAL

Available feed methods	Manual Y and Manual Z Axis
Cut-off wheel diameter	8.00" (200mm)
Maximum cutting diameter	1.57" with 5.00" wheel
"Y" Table maximum travel	10.00" (250mm)
"Y" Table accuracy	± 0.01mm
"Z" height maximum travel	1.97" (50mm)
"Z" height accuracy	± 0.5mm
Motor power	1/8 HP (95 W)
Spindle speed	0 – 3,000 RPM
Built-in recirculating system	3.17 gal. (12.00 ltr)
Weight	143 lbs. (64.86 kg)
Dimensions	24.50" W x 23.50" D x 17.75" H
Power Supply	115V/60 Hz/1 phase
	(*Other voltages available)*

SECOTRON PLC SERIES

These automatic 3-Axis Precision Saws feature a touchpad control panel that controls cutting force, feed rate, speed. Length of cut, X-Y direction of table, the motor voltage absorption, work & pause time for step cutting and coolant pump on or off. "Z" height adjustment is controlled by external handle. The cutting force and the table feed rate are automatically adjusted during the cut if the size and hardness of the work-piece changes to maintain a true feed and pressure rate throughout the cut. The body, cutting area and collection basket are made of high quality stainless steel. The T-slotted work table (250x250mm) supports a variety clamping devices to meet every cutting need.

SECOTRON 200 PLC

Available feed methods	Automatic X-Y-Z and Manual Z Axis
Cut-off wheel diameter	8.00" (200mm)
Maximum cutting diameter	1.57" with 5.00" wheel
"Y" Table maximum travel	10.00" (250mm)
"Y" Table accuracy	± 0.01mm
"Z" height maximum travel	1.97" (50mm)
"Z" height accuracy	± 0.05mm
Motor power	1/8 HP (95 W)
Spindle speed	0 – 3,000 RPM
Built-in recirculating system	3.17 gal. (12.00 ltr)
Weight	143 lbs. (64.86 kg)
Dimensions	24.50" W x 23.50" D x 17.75" H
Power Supply	115V/60 Hz/1 phase (*Other voltages available)*

SECOTRON 300 PLC FLOOR MODEL

Available feed methods	Automatic X-Y-Z and Manual Z Axis
Cut-off wheel diameter	10.00" (250mm)
Maximum cutting diameter	1.57" with 5.00" wheel
"Y" Table maximum travel	13.78" (350mm)
"Y" Table accuracy	± 0.01mm
"Z" height maximum travel	8.00" (200mm)
"Z" height accuracy	± 0.05mm
Motor power	5 HP (3.73 k W)
Spindle speed	0 – 3,000 RPM
Built-in recirculating system	3.17 gal. (12.00 ltr)
Weight	330 lbs. (149.69 kg)
Dimensions	24.50" W x 23.50" D x 17.75" H
Power Supply	460V/60 Hz/3 phase
	(*Other voltages available*)

IPA SEMIAUTOMATIC SERIES

Our new semiautomatic mounting press provides a tremendous value while producing mounts that are of equivalent quality as any automatic mounting press. Program the heating temperature & time and the cooling temperature, pump up to appropriate pressure and produce an excellent mount in minutes.

IPA SA 30

Mount size	1.25"(30 mm.)
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	79.37 lbs. (36 kg)
Dimensions	8.86" W x 18.90" D x 26.77" H
Power supply	115V/60 Hz/1 phase

IPA SA 40

Mount size	1.50" (40 mm.)
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	79.37 lbs. (36 kg)
Dimensions	8.86" W x 18.90" D x 26.77" H
Power supply	115V/60 Hz/1 phase

IPA EVOLUTION SERIES

Our best selling and most economical automatic mounting press heats and cools under pressure for excellent edge retention and a mount cooled down to any desired temperature.

IPA EVOLUTION 1.00"

Mount size	1.00"
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	55.12 lbs. (25 kg)
Dimensions	8.66" W x 18.90" D x 26.77" H
Power supply	115V/60 Hz/1 phase

IPA EVOLUTION 1.25"

Mount size	1.25"
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	55.12 lbs. (25 kg)
Dimensions	8.66" W x 18.90" D x 26.77" H
Power supply	115V/60 Hz/1 phase

IPA EVOLUTION 1.50"

Mount size	1.50"
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	55.12 lbs. (25 kg)
Dimensions	8.66" W x 18.90" D x 26.77" H
Power supply	115V/60 Hz/1 phase

MOUNTING PRESSES

IPA SERIES

The IPA can use any type of mounting material and will produce up to 2.56" (65mm) diameter mounts! All models have an optional ultra-deep mold cylinder available which can produce two full 0.63" (16mm) high mounts with spacer included.

IPA 1.25"

Mount size	1.25"
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	93 lbs. (42.18 kg.)
Dimensions	15.75" W x 15.75" D x 20.00" H
Power supply	115V/60 Hz/1 phase

IPA 1.50"

Mount size	1.50"
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	93 lbs. (42.18 kg.)
Dimensions	15.75" W x 15.75" D x 20.00" H
Power supply	115V/60 Hz/1 phase

IPA 2.00"

Mount size	2.00"
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	93 lbs. (42.18 kg.)
Dimensions	15.75" W x 15.75" D x 20.00" H
Power supply	115V/60 Hz/1 phase

IPA 65

Mount size	2.50" (65mm)
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	93 lbs. (42.18 kg.)
Dimensions	15.75" W x 15.75" D x 20.00" H
Power supply	115V/60 Hz/1 phase

IPA EMA

Mount size	Exchangeable Mold Assembly. Unit comes standard with a 2.00" Mold Cylinder and there are optional 1.25" and 1.50" Mold Sleeves available.
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	93 lbs. (42.18 kg.)
Dimensions	15.75" W x 15.75" D x 20.00" H
Power supply	115V/60 Hz/1 phase

IPA ELECTROHYDRAULIC SERIES

A robust automatic mounting press that has a built-in electrohydraulic pump so there is no need for incoming compressed air connection. Can accept all forms of mounting powders and will make from 1.25" to 2.00" mounts.

IPA ELECTROHYDRAULIC 1.25"

Mount size	1.25"
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	72 lbs. (32.66 kg.)
Dimensions	8.00" W x 19.00" D x 27.50" H
Power supply	115V/60 Hz/1 phase

IPA ELECTROHYDRAULIC 1.50"

Mount size	1.50"
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	72 lbs. (32.66 kg.)
Dimensions	8.00" W x 19.00" D x 27.50" H
Power supply	115V/60 Hz/1 phase

IPA ELECTROHYDRAULIC 2.00"

Mount size	2.00"
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	72 lbs. (32.66 kg.)
Dimensions	8.00" W x 19.00" D x 27.50" H
Power supply	115V/60 Hz/1 phase

IPA ELECTROHYDRAULIC 65

Mount size	2.50" (65mm)
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	72 lbs. (32.66 kg.)
Dimensions	8.00" W x 19.00" D x 27.50" H
Power supply	115V/60 Hz/1 phase

IPA ELECTROHYDRAULIC EMA

Mount size	Exchangeable Mold Assembly. Unit omes standard with a 2.00" Mold Cylinder and there are optional 1.25" and 1.50" Mold Sleeves available.
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	93 lbs. (42.18 kg.)
Dimensions	15.75" W x 15.75" D x 20.00" H
Power supply	115V/60 Hz/1 phase

MOUNTING PRESSES

COMPUPRES ELECTROHYDRAULIC SERIES

Featuring an easy-to-use touchpad LCD display, the COMPUPRES can store all parameters (mounting media name, pressure, heating time, heating temperature, and cool down temperature) for up to 100 mounting procedures. This unit comes standard with an interchangeable 2.00" Mold Cylinder and there are optional 1.00" 1.25" and 1.50" mold sleeves available. The COMPUPRES is also capable of producing two standard size mounts simultaneously with an available duplex spacer.

COMPUPRES

Standard mount size	2.00"
Available mold sleeves	1.00", 1.25" & 1.50"
Maximum heating temperature	400F (200 °C)
Cooling temperature	Adjustable to desired temperature
Weight	120 lbs. (54 kg)
Dimensions	15.75" W x 15.75" D x 20.00" H
Power supply	115V/60 Hz/1 phase
	(Other voltages available)

VACUUM IMPREGNATION SYSTEM

Friable and porous samples, without the structural characteristics to allow the cut or not sold enough to allow the preparation of the cementing surface, must be embedded in cold resins using the proper molds. Vacuum impregnation equipment allows the embedding of sand-like samples and the impregnation of delicate and fragile samples. Thanks to a translatable and rotatable crucible, it is possible the separate deaeration of the sample and of the resin. Once the proper vacuum has been achieved, the resin can be poured on the sample. This procedure allows the preparation of compact and bubble free samples.

TECHNOMAT PRESSURE CHAMBER

When fast-curing resins are allowed to set in a pressure unit, one obtains bubble- and pore free samples. The physical and chemical properties of the resin however remain completely unchanged. This pressure unit that was designed to suit the special technology of fast-curing resins. The pressure level of 2.0 bar was chosen to make allowance for the polymerization behavior of the cold polymer which is used for embedding metallographic specimens and for taking surface impressions in materials testing.

PETROGRAPHIC THIN SECTION CEMENTING DEVICE

Once you have a flat thin section, you can cement it to a glass slide. The sample cemented to the glass slide can then be sectioned and/or ground down to desired thickness. This device for cementing petrographic samples is built with a robust structure having four pressing springs with plastic pressure discs. This provides parallel mounted specimens using a minimal quantity of cement.

HOT PLATE

A hot plate with adjustable temperature may accelerate the bonding process when used in conjunction with Thin Section Cementing Device.

MOUNTING PRESSES

COMPUPLAN COARSE STONE GRINDING MACHINE

For rapid removal of material on the initial grinding step to produce a sample holder of planar mounts, the COMPUPLAN is the right choice. Featuring a newly designed dressing tool system and large roll-out recirculating coolant system, this heavy duty machine compliments a high volume sample preparation process at a great value.

COMPUPLAN

Dimension of grinding wheel	14.00" x 1.75" (355mm x 44mm)
Power of wheel motor	4 HP
Grinding wheel max speed	1,500 RPM
Power head motor power	1/3 HP
Sample holder rotation speed	150 RPM
Weight	551 pounds (249.93 kg)
Dimensions	31.00" W x 24.00" D x 57.00" H
Power supply	460V/60 Hz/3 phase
	(Other voltages available)

BG100 BELT GRINDER

This wet or dry belt grinder uses standard 4" x 36" abrasive belts features a device and options to hold 1.00", 1.25" or 1.50" metallurgical mounts perpendicular while grinding. This is especially useful for edge rounding and minimizing sample preparation times for automatic polishers.

BG100

Belt size	4" x 36" (102mm x 914mm))
Motor power	0.75 HP
Cooling system	Water
Spindle speed	2,800 RPM
Weight	120 lbs. (53 kg)
Dimensions	24.75" W x 20.00" D x 14.75" H
Power supply	115V/60 Hz/1 phase
	(Other voltages available)

RG500 ROLL GRINDER

This 5-station hand grinder allows the ability to prepare samples from coarse-to-fine grinding. With the 3-7/16" x 60' abrasive rolls available from 240 to 1200 grit; anyone can produce nearly polished samples in minutes. The unit has an easy advancement system to remove used abrasive and provide a fresh abrasive roll area for consistent and rapid grinding. There is a water flow adjustment valve for proper lubrication.

RG500

Roll sizes	3-7/16" x 60'
Available grit sizes	240, 320, 400, 600, 800, 1200
Cooling system	Water
Dimensions	22.25" W x 21.00" D x 8.00" H
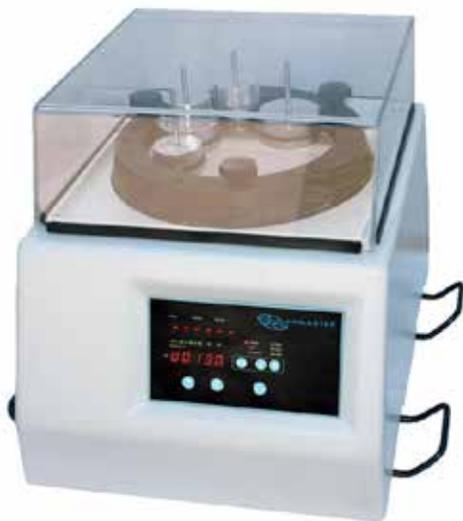
VP200 VIBRATORY POLISHER

The VP200 is a 12" vibratory polisher designed to prepare even the most difficult to polish materials with a very gentile polishing action. Polishing is accomplished by setting the default frequency so that the sample begins to vibrate. Changing the voltage varies the rotational speed. The unit features an interchangeable polishing bowl and variety of available sample holders and weights

VP200

Polishing bowl diameter	12"
Drive mechanism	Horizontal frequency control, speed variable voltage
Frequency	1-240Hz
Variable voltage (speed controller)	1-200 volts
Weight	284 lbs. (128.82 kg)
Dimensions	24.00" W x 25.00" D x 18.00" H
Power supply	115V/60 Hz/1 phase
	(Other voltages available)

LS SERIES — BASE UNITS

The LS Series is our grinder/polisher base available as the base unit alone or can be upgraded to an auto polisher with our LSA Series or LS DIGITAL Series of Power Heads. The wheel speeds available are single speed, two speed or variable speed. We offer 8", 10", 12" and now extra large 16" and 24" models.

LS1

Wheel diameter	8" (200 mm)
Wheel Speed	300 RPM - single speed
Weight	69 lbs (31 Kg)
Dimensions	14.50" W x 19.75" D x 11.75" H
Power supply	115V/60 Hz/1 phase

LS1/ LS2

Wheel diameter	8" (200 mm)
Wheel Speed	300 RPM (Left side)
	0-300 (Right side)
Weight	69 lbs (31 Kg)
Dimensions	14.50" W x 19.75" D x 11.75" H
Power supply	115V/60 Hz/1 phase

LS2

Wheel diameter	8" (200 mm)
Wheel Speed	0-300 RPM - variable speed
Weight	69 lbs (31 Kg)
Dimensions	14.50" W x 19.75" D x 11.75" H
Power supply	115V/60 Hz/1 phase

LS2/ LS2

Wheel diameter	8" (200 mm)
Wheel Speed	0-300 RPM (Left side)
	0-300 RPM (Right side)
Weight	69 lbs (31 Kg)
Dimensions	14.50" W x 19.75" D x 11.75" H
Power supply	115V/60 Hz/1 phase

LS250

Wheel diameter	10" (250 mm)
Wheel Speed	0-300 RPM – variable speed
Weight	71 lbs (32 Kg)
Dimensions	14.50" W x 19.75" D x 12.00" H
Power supply	115V/60 Hz/1 phase

LS250 TWIN

Wheel diameter	10" (250 mm)
Wheel Speed	0-300 RPM (Left side)
	0-300 (Right side)
Weight	69 lbs (31 Kg)
Dimensions	14.50" W x 19.75" D x 11.75" H
Power supply	115V/60 Hz/1 phase

LS3

Wheel diameter	12" (300 mm)
Wheel Speed	150/300 RPM – 2 speed
Weight	71 lbs. (32 kg))
Dimensions	14.50" W x 19.75" D x 12.00" H
Power supply	115V/60 Hz/1 phase

LS3V

Wheel diameter	12" (300mm)
Wheel Speed	0-300 RPM – variable speed
Weight	71 lbs. (32 kg)
Dimensions	14.50" W x 19.75" D x 12.00" H
Power supply	115V/60 Hz/1 phase

LS3V TWIN

Wheel diameter	12" (300 mm)
Wheel Speed	0-300 RPM (Left side)
	0-300 (Right side)
Weight	69 lbs. (31 kg)
Dimensions	14.50" W x 19.75" D x 11.75" H
Power supply	115V/60 Hz/1 phase

LS400

Wheel diameter	16" (400mm)
Wheel Speed	0-300 RPM - variable speed
Weight	92 lbs. (41 kg)
Dimensions	18.00" W x 19.75" D x 11.75" H
Power supply	115V/60 Hz/1 phase

LS600

Wheel diameter	24" (600mm)
Wheel Speed	0-300 RPM — variable speed
Weight	92 lbs. (41 kg)
Dimensions	26.00" W x 27.00" D x 12.75" H
Power supply	115V/60 Hz/1 phase

LSA SERIES — POWER HEADS

Our most economical, non-programmable power heads for automatic polishing. The LSA Series can be configured with Central Pressure for use with sample holders that lock in the samples and the power head rotational force is applied down to center of the sample holder towards the base unit.

The power heads can also be configured with Central Force and Individual Mount Force with six pistons applying force to anywhere from one to six mounts loosely held in an appropriate sample holder.

The power heads are available with a fixed head or with an optional swivel head that allows you to position the sample holder wherever you want in relation to the grinding/polishing wheel.

The LSA Series Power Heads can be configured on any single or dual LS Series base unit.

	LSA-FOR LS2 BASE WITH 8" WHEEL	LSA-FOR LS250V BASE WITH 10" WHEEL	LSA-FOR LS3V BASE WITH 12" WHEEL
Sample pressure	29-58 PSI (2 to 4 bar)	29-58 PSI (2 to 4 bar)	29-58 PSI (2 to 4 bar)
Timer	1 to 99 minutes	1 to 99 minutes	1 to 99 minutes
Power head rotational speed	40 RPM	40 RPM	40 RPM
Power head weight	55 lbs.	55 lbs.	55 lbs.
Power head dimensions	10.50" W x 15.75" D x 17.00" H	10.50" W x 15.75" D x 17.00" H	10.50" W x 15.75" D x 17.00" H
Power supply	115V/60 Hz/1 phase *(Other voltages available)*	115V/60 Hz/1 phase *(Other voltages available)*	115V/60 Hz/1 phase *(Other voltages available)*

GRINDERS & POLISHERS

LS DIGITAL SERIES – POWER HEADS

The LS DIGITAL Power Heads have a touchpad control panel for storing all parameters and multiple steps of a sample preparation procedure including wheel speed, pressure, direction of sample holder, time, water, oil and the optional automatic dispensing system.

The power head can be configured with Central Pressure for use with sample holders that lock in the samples and the power head rotational force is applied down to the center of sample holder towards the base unit.

The power heads can also be configured with Central Force and Individual Mount Force with six pistons applying force to anywhere from one to six mounts loosely held in an appropriate sample holder.

The power heads are available with a fixed position head or with an optional swivel head that allows you to position the sample holder wherever you want in relation to the grinding/polishing wheel.

The LS DIGITAL Power Heads can be configured on any single or dual LS Series base unit.

	LS DIGITAL- FOR LS2 BASE WITH 8" WHEEL	LS DIGITAL- FOR LS250V BASE WITH 10" WHEEL	LS DIGITAL- FOR LS3V BASE WITH 12" WHEEL
Sample pressure	29-58 PSI (2 to 4 bar)	29-58 PSI (2 to 4 bar)	29-58 PSI (2 to 4 bar)
Timer	1 to 99 minutes	1 to 99 minutes	1 to 99 minutes
Power head rotational speed	40 RPM	40 RPM	40 RPM
Power head weight	55 lbs.	55 lbs.	55 lbs.
Power head dimensions	10.50" W x 15.75" D x 17.00" H	10.50" W x 15.75" D x 17.00" H	10.50" W x 15.75" D x 17.00" H
Power supply	115V/60 Hz/1 phase *(Other voltages available)*	115V/60 Hz/1 phase *(Other voltages available)*	115V/60 Hz/1 phase *(Other voltages available)*

COMPUMET SERIES — AUTOMATIC POLISHING SYSTEMS

The COMPUMET Auto Polishers have a touchpad control panel for storing all parameters and multiple steps for up to 60 sample preparation procedures including wheel speed, pressure, direction of sample holder, time, water, oil and the automatic dispensing system. The automatic dispensing system is standard on the 12" model and optional with the 8" and 10"models.

The power head can be configured with Central Pressure for use with sample holders that lock in the samples and the power head rotational force is applied down to the center of the sample holder towards the base unit.

The power head can also be configured with Central Force and Individual Mount Force with six pistons applying force down to anywhere from one to six mounts loosely held in an appropriate sample holder.

The COMPUMET is available with a fixed head or with an optional motorized oscillating head that moves the position the sample holder left-to-right across the polishing wheel for maximum use of the abrasive discs and polishing pads.

	COMPUMET 200 WITH 8" WHEEL	COMPUMET 250 WITH 10" WHEEL	COMPUMET 300 WITH 12" WHEEL
Storage program capacity	60 procedures with multiple steps	60 procedures with multiple steps	60 procedures with multiple steps
Wheel speed	0-300 RPM	0-300 RPM	0-300 RPM
Sample pressure	29-58 PSI (2 to 4 bar)	29-58 PSI (2 to 4 bar)	29-58 PSI (2 to 4 bar)
Timer	1 to 99 minutes	1 to 99 minutes	1 to 99 minutes
Power head rotational speed	40 RPM	40 RPM	40 RPM
Automatic dispensing system	Optional	Optional	Optional
Power head weight	147 lbs. (67 kg)	154 lbs. (70 kg)	183 lbs. (83 kg)
Power head dimensions	18.00" W x 24.75" D x 32.00" H	18.00" W x 24.75" D x 32.00" H	18.00" W x 24.75" D x 32.00" H
Power supply	115V/60 Hz/1 phase	115V/60 Hz/1 phase	115V/60 Hz/1 phase

PETROGRAPHIC THIN SECTION GRINDER/POLISHERS

PETROPOL 801

The PETROPOL 801 Petrographic Polisher is designed to automatically polish petrographic samples with a thinning device that attaches the glass slides by vacuum and features a micrometer to regulate sample thickness. The 8" (200mm) aluminum polishing wheel is variable speed (0-300 RPM) and includes a lapping oil dispenser to assist with precise sample preparation.

PETROPOL 806

The LAPMASTER PETROPOL 806 Petrographic Polisher is designed to automatically polish up to six petrographic samples adhered to 28mm x 48mm glass slides with pressure applied by weights. The 8" (200mm) aluminum polishing wheel is variable speed (0-300 RPM) and features a lapping oil dispenser to assist with easy and quick sample preparation.

PETROGRAPHIC ROCK CORE SAMPLE GRINDER/POLISHER

LS2/RCS

The LS2/RCS Rock Core Sample Grinder/Polisher can accommodate a wide variety of rock core or cylindrical samples by means of a custom-sized containment cylinder. The unit features the rock core sample holder attachment with containment cylinder and cylinder inner core guide.

LS MSP SERIES LARGE SAMPLE MECHANICAL GRINDER/POLISHERS

The LS2/RCS Rock Core Sample Grinder/Polisher can accommodate a wide variety of rock core or cylindrical samples by means of a custom-sized containment cylinder. The unit features the rock core sample holder attachment with containment cylinder and cylinder inner core guide.

LS400 MSP

Wheel diameter	16" (400mm)
Wheel Speed	0-300 RPM – variable speed
Mechanical sample fixture	Included
Weight	107 lbs. (48 kg)
Dimensions	18.00" W x 19.75" D x 24.00" H
Power supply	115V/60 Hz/1 phase

LS600 MSP

Wheel diameter	24" (600mm)
Wheel Speed	0-300 RPM – variable speed
Mechanical sample fixture	Included
Weight	165 lbs. (74kg)
Dimensions	26.00" W x 27.00" D x 24.00" H
Power supply	115V/60 Hz/1 phase

GRINDERS & POLISHERS

MINIMO PORTABLE GRINDER/POLISHER

MINIMO

The MINIMO is a portable grinder/polisher with a 1.25" (30mm) 90° rotating grinding/polishing disc. The disc head is variable speed (1,400 – 14,200 RPM}. Silicon carbide abrasive discs and polishing pads are available along with all standard loose abrasives. An optional portable power station with rechargeable batteries is available.

PULITROL SERIES ELECTROLYTIC POLISHERS

PULITROL

The PULITROL provides effective electrolytic polishing and etching for all metals and alloys. The power source controls can be easily adjusted for polishing/etching tension, current and time.

PULITROL S

The PULITROL S has all of the features of the PULITROL plus a built-in database that stores up to 40 user definable polishing and etching methods for a wide variety of metals and alloys. You can polish and etch separately or automatically switch from polishing to etching If the automatic process is selected.

BTV SERIES

The BTV Series of ultrasonic cleaners are economical yet powerful, stainless steel benchtop cleaning systems. Each model has digital LCD controls for ultrasonic and heater functions, control cycle times and temperature settings up to 175° F (80° C). The ultrasonic sound waves move through the cleaning solution for rapid break-down of microscopic cleaning bubbles that can enhanced with heat. All units come with a standard stainless steel basket for holding submersed samples and easy removal.

	BTV-020	BTV-032	BTV-065	BTV-150	BTV-300
Tank Capacity	0.50 Gallon	0.80 Gallon	1.70 Gallon	4.00 Gallon	7.90 Gallon
Ultrasonic Power	70X/140W Peak	120W/240W Peak	180W/360W Peak	360W/720W Peak	600W/2,000W Peak
Heater Power	50W	100W	200W	300W	500W
Tank Size	5.88"Wx5.25"D x3.88" H	9.38"Wx5.25"D x3.88" H	11.88"Wx5.88"D x5.88" H	13.00"Wx11.88"D x5.88"H	19.75"W x 11.88"D x7.88" H

ULTRASONIC CLEANERS

METAL SUPPORT CABINET

Reinforced stand with swing door and storage area. This cabinet can support heavy equipment such as abrasive cutters and auto polishers.
Dimensions: 35.50: W x 40.50" D x 33.00" H

POKER METALLOGRAPHIC SAMPLES STORAGE CABINET

Multifunctional Wood Storage Cabinet with 10 drawers. Each drawer supplied with a plastic container tray for 100 - 1.25" (30mm) metallographic samples.
Dimensions: 18.50" W x 25.60" D x 34.30" H

POLISHING WHEELS SUPPORT STAND
This stainless steel stand can organize and support up to six polishing wheels

INVERTED MICROSCOPES

UNITRON VERSAMET 4

Available illumination modes	BF/DF/DIC/POL
Viewing head	45 degree trinocular head, 360 degree rotatable, inter-pupillary distance: 50~75mm, splitting ratio binocular: trinocular=100:0 or 0:100
Eyepieces	High eye-point wide field plan eyepiece PL10X/22mm, diopter adjustable, reticle attachable
Available objectives	Long working distance plan achromatic metallurgical objectives: 5X/10X/20X/50X/100X
Nosepiece	Quintuple or sextuple nosepiece with DIC slot
Illumination system	External wide voltage transformer, 100V - 240V input, 12V5A output; with light indicator, intensity adjustable, with infrared induction
Stage	240 X 250mm three-layer mechanical stage, moving range: 50 X 50mm; both way linear guide rail, right low-position adjustment

XJL-20

Available illumination modes	BF/DF/DIC/POL
Viewing head	Hinged binocular tube, with an observation angle of 45°, and a pupil distance of 53-75mm
Eyepieces	10X wide field plan eyepiece and field of view number is Φ22mm, the eyepiece interface is Φ30mm
Available objectives	Infinity plan achromatic objectives: 5X/10X/20X/40X/50X/60X/80X/100X
Nosepiece	Quintuple (Backward ball bearing inner locating)
Illumination system	External wide voltage transformer, 100V - 240V input, 12V5A output; with light indicator, intensity adjustable, with infrared induction
Stage	Mechanical stage overall size: 242mmX200mm and moving range: 30mmX30mm.

LAB FURNITURE

MEIJI TECHNO IM7000 SERIES

Available illumination modes	BF/DF
Viewing head	Siedentopf type trinocular head – inclined at 30°, I.P. adjustment 53mm to 75mm graduated diopter on left eyetube (30mm I.D. eyetubes) with depolarizer, includes 80/20 beamsplitter
Eyepieces	SWH10X Widefield high eyepoint eyepiece
Available objectives	Plan Epi Objective ∞ Infinity Corrected: 5X/10X/20X/50X/100X
Nosepiece	Quintuple Nosepiece, side facing, with positive precision detent, click stops
Illumination system	Lamphouse for use with 12V/50W Halogen Lamp
Stage	Mechanical Stage with 240mm (X) x 184mm (Y) dimensions with 50mm (X) x 40mm (Y) movement and drop down coaxial X-Y controls

OPTIKA IM-3MET

Available illumination modes	BF/POL
Viewing head	Trinocular observation head, inclined 45°.Diopter adjustment on left eyepiece. Interpupillary adjustment 50-75 mm
Eyepieces	Wide field eyepieces EWF10X/22 with field number 22
Available objectives	Infinity corrected optical system IOS (Infinity Optical System). Plan-achromatic LWD objectives infinity corrected, made by following objectives: 5X/10X/20X//50X/100X
Nosepiece	Quintuple revolving nosepiece, rotation on ball bearings
Illumination system	Halogen bulb 12V/50W; intensity light control using a knob on the left side of the frame.
Stage	Fixed stage, dimensions 250x160 mm. Metal stage insert with hole for small dimension specimens

MICROSCOPES

UPRIGHT MICROSCOPES

OPTIKA B-1000 MET

Available illumination modes	BF/DF/DIC/POL
Viewing head	Trinocular Head 100/0 - 50/50 - 0/100 type
Eyepieces	WF10x/22mm or WF10x/24mm
Available objectives	IOS (Infinity corrected): 5X/10X/20X/50X/100X
Nosepiece	Quintuple or sextuple revolving nosepiece
Illumination system	Transmitted illumination: X-LED (8W power). Epi-illumination: special attachment with built-in 100W halogen lamp.
Stage	Standard mechanical stage (or a variety of other stage options)

MEIJI TECHNO MT7000 SERIES

Available illumination modes	BF/DF/POL
Viewing head	Trinocular head —Siedentopf type, Interpupillary adjustment 53mm to 75mm, graduated diopter in left eyetube (30.0mm I.D. eyetube) Inclined at 30 °
Eyepieces	SWH10X Widefield high eyepoint eyepiece, Field No. 22, tube O.D. 30.0 mm
Available objectives	Plan Epi Objectives: 5X/10X/20X/50X/100X
Nosepiece	Ball bearing mounted, quintuple nosepiece
Illumination system	Vertical LED BF/DF/POL Illuminator, with clear blue, clear green, ND 50, Neutral Density filter, and polarizing filters in metal mounts 100V-240V automatic sensing power supply
Stage	Ceramic coated left or right-handed, flat top stage measures 191mm x 126mm and travels: 100mm(X) x 100mm(Y). Ergonomically positioned coaxial drop down controls

XJL-302 SERIES

Available illumination modes	BF/DF
Viewing head	Trinocular Head
Eyepieces	Widefield WF10X/22mm
Available objectives	Infinity Plan Achromatic: 5X/10X/20X/50X/80X
Nosepiece	Quintuple (Backward ball bearing, inner locating)
Illumination system	5 watt variable LED reflected illuminator with field and aperture diaphragm
Stage	Mechanical Stage: 280mm x 270mm, moving range 204mm x 204mm

UNITRON EXAMET-5

Available illumination modes	BF
Viewing head	Trinocular viewing head with a 50/50 split (light distribution 100% binocular, binocular /trinocular 50%/50%), inclined 30° and rotatable 360°
Eyepieces	High eyepoint widefield plan 10x eyepieces with a 23mm field of view
Available objectives	Long working distance M Infinity Plan Achromat: 5X/10X/20X/50X/100X
Nosepiece	Reversed quintuple nosepiece
Illumination system	5 watt variable LED reflected illuminator with field and aperture diaphragm
Stage	Mechanical Stage: 175mm x 145mm with a 76mm (X) x 42mm (Y) movement range

STEREO MICROSCOPES

MEIJI TECHNO RZ SERIES

Viewing head	Trinocular, Rotatable 360°, Cast Aluminum Alloy Construction
Eyepieces	Super Widefield Eyepiece 10X (pair)
Magnification range	10x – 100x
Click stops	Yes, at 12 magnification positions
Working distance	3.54" (90mm)
Stand	Pole stand (as shown)

UNITRON Z10 SERIES

Viewing head	Trinocular viewing body
Eyepieces	WF10x focusable eyepieces, 23mm field of view
Magnification range	8x – 80x magnification range
Click stops	Yes, 1x, 2x, 3x, 4x and 5x
Working distance	3.07" (78mm)
Stand	Coaxial Coarse/Fine Focus LED Stand (as shown)

MEIJI TECHNO EMZ-13 SERIES

Viewing head	Trinocular, Rotatable 360°, Cast Aluminum Alloy Construction
Eyepieces	Super Widefield Eyepiece 10X (pair) with 25mm reticle mount
Magnification range	10x – 70x
Working distance	3.54" (90mm)
Stand	Pole stand with with 20mm pillar (as shown)

UNITRON Z650HR SERIES

Viewing head	Trinocular viewing body
Eyepieces	WF10x focusable eyepieces, 23mm field of view
Magnification range	6x – 50x magnification range
Click stops	Yes, 1x, 2x, 3x, 4x and 5x
Working distance	4.53" (115mm)
Stand	Plain Focusing Stand with tension adjustment (as shown)

OPTIKA SZN-5

Viewing head	Trinocular Head 100/0 - 50/50 - 0/100 type
Eyepieces	EWF10x/22
Magnification range	6.7X – 45X
Working distance	3.94" (110mm)
Stand	Pillar with rack and pinion system
Illumination	Transmitted: 100 mm LED disc Incident: double arm OPTIKA X-LED3.

OPTIKA SZN-8

Viewing head	Trinocular Head 100/0 - 50/50 - 0/100 type
Eyepieces	EWF10x/22
Magnification range	6.7X – 45X
Working distance	3.94" (110mm)
Stand	Simple overhanging stand

MICROSCOPES

MICROSCOPE ACCESSORIES

SPECIMEN LEVELING PRESS

SPECIMEN LEVELING PRESS		METSOPTYP190
PLASTICINE CLAY	0.22 lb. (100 grams)	METSOPTJZJX0911

LED LIGHT SOURCES

MEIJI TECHNO FL-5000-US-DG
LED DUAL ARM ILLUMINATOR

DOLAN-JENNER FIBER LITE® MI-LED
DUAL ARM ILLUMINATOR

OPTIKA LED DUAL ARM ILLUMINATOR

UNITRON QUADRANT
RING LIGHT ILLUMINATOR

MEIJI TECHNO MA964
LED RING LIGHT ILLUMINATOR

OPTIKA CL-16.1
RING LIGHT ILLUMINATOR

ML72 RING LIGHT ILLUMINATOR

MICROSCOPE ACCESSORIES

UNITRON AU-600-HD EXELIS HD

The Excelis HD color microscopy camera set a new standard for excellence in high definition imaging for scientific and industrial applications. The Excelis HD is a full-featured HD cameras offering 60fps in video preview with unrivaled color fidelity and on-board image capturing software.

- 1080p color camera with live video preview without any lag time or compression
- HDMI & USB 2.0 output for video and images
- Built-in mouse control software for HDMI viewing/recording without a computer
- Simultaneous live image output to an HD monitor to a computer via USB 2.0
- On-board camera software with basic image controls (PC & Mac compatible)
- CaptaVision PC Imaging Software for more advanced image control, annotation & analysis
- Exposure time of 0.001 seconds to 10 seconds, 20 scales of Gain value and incredibly efficient 3D noise reduction for fluorescence applications
- Dual FPGA processors and unique algorithms produce perfect color reproduction

Sensor/Adapter	1/2.7"/ 0.5x C-mount recommended; SONY IMX236
Resolution	1920 X 1080
Frame Rate	HDMI: 60fps / USB 2.0: 30fps
Image Capture	Hi Speed SD Card (8 GB)
Video Capture	HDMI: 1080p, 30fps to SD Card / USB 2.0: 1080p, 30fps to PC or Mac
Exposure Time	0.001 sec – 10.0 sec (8 GB)
White Balance	Auto
Settings	Gain, Gamma, Saturation, Contraction
Built-In Software	Cloud 1.0 (With live image measurement)
PC Imaging Software	CaptaVision Imaging Software (for PC only; Mac OS not supported) Advanced Camera Controls: live/still image measurement and annotation, flat field correction; extended depth of focus (focus stacking); image stitching; fluorescence image settings; fluorescence multi-color channel mixer merge; HDR (High Dynamic Range) function Image Types: JPEG, BMP, TIFF, and RAW
Output Modes	Mode 1: USB 2.0 / Mode 2: HDMI
System Compatibility	Windows XP, Vista 7 and 8 (32 or 64-bit) Mac OS X (for image transfer to Mac OS X only
System Requirements	Intel Processor (Core 2 Duo or higher); 2GB memory or more; USB 2.0 Hi-Speed port
Power Supply	CD12V/1A
Warranty	1 Year
Standard Items	Excelis HD Camera, HDMI Cable, USB 2.0 Cable, 12V Power Adapter, 8GB SD Card, USB Mouse, CaptaVision PC Imaging Software

UNITRON AU-600-HDS EXELIS HD

This package includes the Exelis AU-600-HD Digital Camera & Software (as described on prior page) and our 11.6" HD monitor that is attached directly to the camera.

The new Excelis HDS Camera & Monitor Systems allow users to view and capture images and video directly to the supplied SD card without the need for a computer or separate monitor! The 11.6" HD display offers beautiful, crystal-clear image quality, and vibrant, true-to-life color with exceptional viewing from all angles. It can be used as a stand-alone system, or connected to a PC via USB cable where images can be displayed simultaneously on the Excelis HDS monitor and the PC.

For even more flexibility and ideal for teaching environments, the HDMI architecture allows Excelis HDS to be connected to an HDMI-enabled projector as well.

Left: *Excelis* HDS shown on a Z650HR Stereo Microscope

Above: Side View of *Excelis* HDS Camera & Monitor System

- 1080p color camera with live video preview without any lag time or compression
- HDMI & USB 2.0 output for video and images
- Built-in mouse control software for HDMI viewing/recording without a computer
- Simultaneous live image output to an HD monitor to a computer via USB 2.0
- On-board camera software with basic image controls (PC & Mac compatible)
- CaptaVision PC Imaging Software for more advanced image control, annotation & analysis
- Exposure time of 0.001 seconds to 10 seconds, 20 scales of Gain value and incredibly efficient 3D noise reduction for fluorescence applications
- Dual FPGA processors and unique algorithms produce perfect color reproduction

Monitor	Mountable 11.6" HD Display (mounting hardware included)
Contrast	1000:1
Dot Pitch	0.1338mm
Input Modes	AC power, HDMI
Warranty	1 Year
Standard Items	Excelis HD Camera, 11.6" HD Monitor with mounting brackets/hardware, HDMI Adapter, Y Power Splitter, HDMI cable, USB 2.0 Cable, 12V Power Adapter, 8 GB SD Card, USB Mouse, CaptaVision PC Imaging Software

DIGITAL CAMERAS

MEIJI TECHNO HD1500 MET

The HD1500MET is our full featured 6 MP camera with a 1/3" CMOS chip. A 0.3X C" mount adapter (MA151/35/03) is needed to attach it to any standard Meiji Techno America Trinocular Microscope. The HD1500MET features a full HD (1080x1920) resolution, which provides high fidelity images with a refresh rate of 60fps- frames per second when connected via HDMI, so there is absolutely no lag in the live video feed when moving your specimen or part. Included with the 11.8" High Definition display is a mounting kit that allows the display to be mounted directly in front of the HD1500MET.

The HD1500MET provides extremely powerful measurement functionality including: freehand lines, rectangles, polygons, circles, bicircles, angles, point-line distance and much more. In addition to the ability to measure point-line distance, angles, the length of curves and lines, the camera can measure the perimeter & area of enclosed features such as: rectangles, polygons, and circles. The unique calibration and magnification functions coupled with the ability to export the results to Excel or text files, make the measurements more convenient and simple.

Sensor	1/2.8" CMOS
C-mount	0.3X
Megapixels	2 - 6 MP
Resolution	3264 x 1840 Static, 1920 x 1080 Dynamic
Frame Rate	60fps by HDMI,30fps by USB 2.0
Image Capture	Hi Speed SD Card (8GB)
Video Capture	HDMI: 1080p, 30fps to SD Card / USB 2.0: 1080p, 30fps to PC or Mac
System Compatibility	Windows XP, Vista 7 and 8 (32 or 64-bit) Mac OS X (for image transfer to Mac OS X only
System Requirements	Intel Processor (Core 2 Duo or higher); 2GB memory or more; USB 2.0 Hi-Speed port
Warranty	1 Year
Standard Items	HD1500MET Camera, 11.8in HDMI Monitor, HDMI Cable, USB Cable, 12V AC/DC Power adapter, SD Card, Mouse , Application Metrics Software ISCapture

MEIJI TECHNO HD1500MET-M

This package includes the HD1500MET Digital Camera & Software (as described on prior page) along with a 11.8" HD monitor that is attached directly to the camera.

Included with the 11.8" High Definition display is a mounting kit that allows the display to be mounted directly in front of the HD1500MET-M.

The 11.8" High Definition display is used with the provided USB 2.0 mouse, with this the user can access menus that provide all the features of the camera such as exposure, white balance, color control (red or blue), gamma, brightness, sharpness, saturation, denoise, color temperature plus allows the user to save images and videos directly on the full SD card due to the onboard operating system.

You can flip the image horizontally, vertically, do a split screen where-in one side of the monitor is a live image and the other half is the captured image. You can also digitally increase/decrease the zoom if needed if your stereo system has reached it's magnification potential, this will give you the added digital magnification needed.

Superimpose a cross-line reticle directly on your live image, first click gives you a red line second click gives you a green line, and the third click omits the crossline. The live video and still shots can be saved directly on the removable full SD card for subsequent image capture. All this is achieved without the need for a PC. You may also connect directly to any monitor or TV with a HDMI port for a wider view if necessary. All USB 2.0, HDMI, SD card, power supply is all supplied.

Monitor	Mountable 11.8" HD Display (mounting hardware included)
Contrast	1000:1
Dot Pitch	0.1338mm
Input Modes	AC power, HDMI
Warranty	1 Year
Standard Items	HD1500MET-M Camera, 11.8in HDMI Monitor, HDMI Cable, USB Cable, 12V AC/DC Power adapter, SD Card, Retina Screen, Mouse , "L" Bracket Adapter for Monitor to Camera connectivity, Application Metrics Software ISCapture

UNITRON INSPEX HD 1080P

The Inspex HD 1080p is a modular digital inspection system offering 1080p images at 60fps. With an integrated LED light, removable USB image capture, and a wide variety of mounting and stand options, the Inspex HD 1080p is a best-in-class solution.

Inspex HD 1080p has a simple to use on-screen menu that enables many of the camera features. An optional external controller enables the use of three memory pre-sets, infrared mode, real time dimensioning grids, exposure and focus control.

An ideal instrument for production areas, micro-assembly work, electronics, inspection, gross imaging, quality control, presentation and training applications.

(Inspex HD 1080p shown with optional monitor)

Maximum Field of View	11.02" (280mm) x 6.46" (164mm)
Camera Resolution	HD 1080p (1920 x 1080)
Connections	HDMI out, USB for image capture
Focus	Auto / Manual
Illumination	Adjustable LED illumination
Response Time	5 ms
Input/Output Modes	HDMI Output; USB 2.0 x4 RJ45 Ethernet network connector General purpose IO port x3; DC 24v power jack
Recommended Monitor	16:9 DVI & HDMI Response time: 5ms Signal: Full HD 1080p– monitor not included
Standard Items	Auto / Manual Focus, Image Capture, Brightness Adjustment, Magnification Adjustment, Snapshot, Overview, High Contrast Mode, Height Adjustable

UNITRON OMNI 1080P

The OMNI Digital Imaging System is an integrated full HD (1080p) digital microscope and measurement system that operates without a PC. The custom platform incorporates a highly configurable and upgradeable set of inspection and measurement applications such as focus stacking, 2D measurement, side by side and overlay image comparison, custom on-screen reticle, and lens distortion correction.

The OMNI's platform has a powerful image processing and control engine that delivers superb full HD live video image quality at 60 frames per second enabling it to be used as a solution in a broad range of quality control, testing, rework, assembly, inspection and documentation tasks.

The GUI (Graphical User Interface) is a custom designed mouse-controlled interface delivering intuitive and efficient operation and control of the full application suite.

Its unique ability to stay in calibration over the entire zoom range is one of many features that differentiates this system from other digital inspection systems.

Camera control functions (auto/manual focus, exposure, gain, brightness, white balance) ensure ultra-sharp, high contrast imaging.

The OMNI's quick response, cable-free interchangeable illumination modules with intensity and quadrant control, ensure shadow-free illumination and glare reduction.

Maximum Field of View	9.10" (231mm) x 5.35" (136mm)
Camera Resolution	HD 1080p (1920 x 1080); 60fps; 30x optical / 2x digital
Zoom	5D lens; 2.5x-122x (24" screen)
Basic Functions	Auto / Manual focus, brightness adjustment, magnification adjustment, snapshot, overview, high contrast mode, height adjustable
Response Time	5 ms
Input/Output Modes	HDMI Output; USB 2.0 x4 RJ45 Ethernet network connector General purpose IO port x3; DC 24v power jack
Monitor Format	HD ready or Full HD16:9 (recommended) — monitor not included

DIGITAL INSPECTION
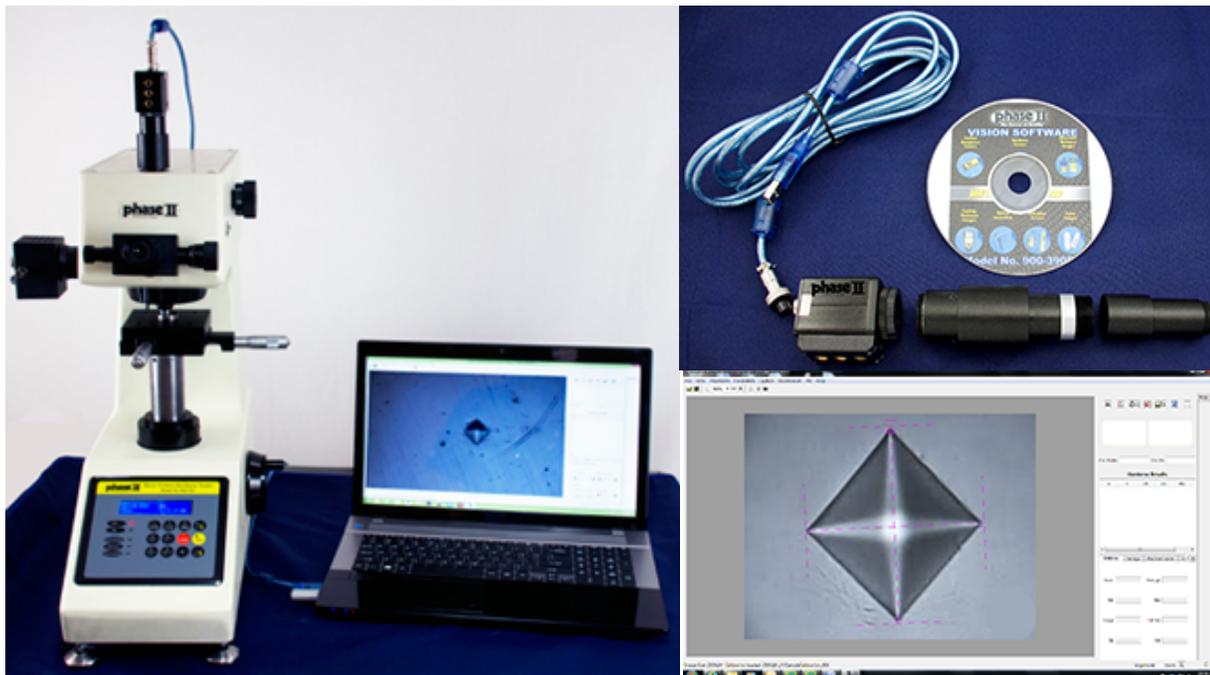
HARDNESS TESTERS

900-391D SINGLE INDENTER

Includes single indenter (Vickers or Knoop) microhardness tester, 2 objectives (10X & 40X), X-Y stage with digital micrometers, automatic turret control, video camera, camera adapter and USB software for manual and automatic on-screen measurements. This advanced microhardness tester is a state-of-the-art, precise system suitable for microhardness analysis of metallic specimens in laboratories or production environments.

This system is versatile and user-friendly; designed for accurate hardness testing of small precision parts, thin materials, coatings, wires and case depth determinations.

All of our hardness testers come with a 5 year warranty and free lifetime technical support.

Testing Range	1HV~2967HV
Test Forces	0.098N(10g), 0.246N(25g), 0.49N(50g), 0.98N(100g), 1.96N(200g), 2.94N(300g), 4.90N(500g), 9.80N(1000g)
Max Height of the Specimen	70mm
Carriage Control	Automatic (loading/holding-up of the load/unloading)
Magnification of the microscope	100X & 400X
Dwell Time of the Test Force	0-90 seconds (5 second increments)
Dimension of the X-Y Table	100 ×100mm
Movement Field of the XY Table	25×25mm
Light Source/Power Supply	115V/60 Hz/1 phase *(other voltages available)*
Net Weight	77.16 lbs. (35kg)
Tester Dimensions	12.01" W x 19.49" D" x 21.65" H
Items Included	Base Machine w/Auto-Turret, X-Y Stage w/ Micrometer, Mini Thin Part Holding Fixture, Mini Drill Chuck Fixture, Mini Vise fixture, Video Cam w/Adapter, Measurement Software, USB Cable
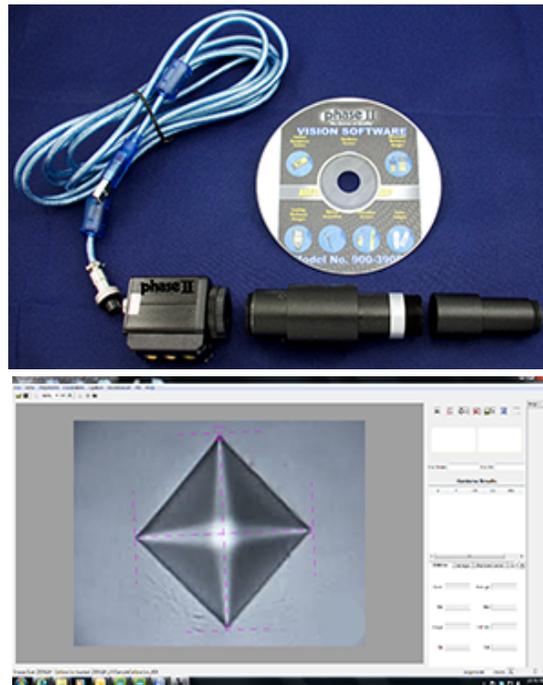
900-392D DUAL INDENTER

Includes dual indenter (Knoop and Vickers) microhardness tester, 3 objectives (10X, 20X & 40X), X-Y stage with digital micrometers, automatic turret control, video camera, camera adapter and USB software for manual and automatic on-screen measurements.

This advanced microhardness tester is a state-of-the-art, precise system suitable for microhardness analysis of metallic specimens in laboratories or production environments.

This system is versatile and user-friendly; designed for accurate hardness testing of small precision parts, thin materials, coatings, wires and case depth determinations. The dual indenters allow switching back-and-forth automatically from performing Vickers indents to Knoop indents. The 3 objectives provide greater magnification flexibility.

All of our hardness testers come with a 5 year warranty and free lifetime technical support.

Testing Range	1HV~2967HV
Test Forces	0.098N(10g), 0.246N(25g), 0.49N(50g), 0.98N(100g), 1.96N(200g), 2.94N(300g), 4.90N(500g), 9.80N(1000g)
Max Height of the Specimen	90mm
Carriage Control	Automatic (loading/holding-up of the load/unloading)
Magnification of the microscope	100X, 200X & 400X
Dwell Time of the Test Force	0-90 seconds (5 second increments)
Dimension of the X-Y Table	100 ×100mm
Movement Field of the XY Table	25×25mm
Light Source/Power Supply	115V/60 Hz/1 phase *(other voltages available)*
Net Weight	72.75 lbs. (33kg)
Tester Dimensions	12.01" W x 19.49" D" x 21.65" H

MACRO VICKERS HARDNESS TESTERS
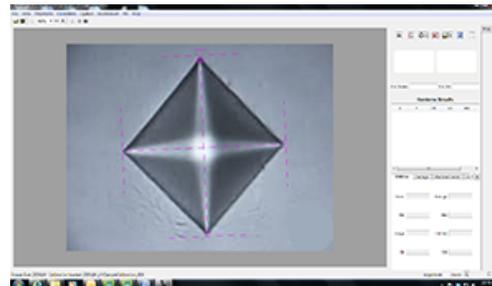
900-398B MACRO VICKERS

This Macro Vickers hardness tester features a load cell, closed circuit system and software for manual and auto-matic on-screen measurements.. Designed for the accurate hardness testing of small precision parts, thin materials, case hardened layers and all sorts of steel components. This unit covers a load range from 1kg to 50kg, with digital technology. Conforming to ASTM E-384/92 Vick-ers hardness testing standards, this unit is offered with a 5 year warranty and free lifetime technical support.

The large LCD shows the measuring methods, the testing force, the indentation length, hardness value, the dwell time of the testing force as well as the number of the mea-surement on its screen. All information such as diagonal lines length of indentation, hardness values, data statistics and hardness conversions can be displayed on the LCD as well as your laptop or PC.

Testing Range	1HV~2967HV
Test Forces	9.807x 19.61x 24.52x 29.42x 49.03x 98.07x 196.1x 249.2x 490.3 N 1x 2x 2.5x 3x 5x10x 20x 30x 50 kgf
Max Height of the Specimen	170mm
Carriage Control	Automatic (loading/holding-up of the load/unloading)
Magnification of the microscope	100X, 200X
Dwell Time of the Test Force	0-60 seconds
Min.Graduation Value of the Testing Drum Wheel	0.125um
Light Source/Power Supply	115V/60 Hz/1 phase *(other voltages available)*
Package Dimensions	8.86" W x 21.06" D x 22.84" H
Items Included	Base Machine, Video Cam w/ Adapter, Measurement Software, Large test table, "V" Shape test table, 10X Digital Micro Lens, Bullseye Level, Adjustable Screw, Vickers Hardness Block, RS232 Interface Line

ROCKWELL/SUPERFICIAL HARDNESS TESTERS

900-388 DIGITAL—LOAD CELL— MOTORIZED—ROCKWELL/SUPERFICIAL WITH AUTOMATED Z-AXIS

Automated Z-Axis. Just press START key once, entire test process will be finished automatically. Regardless of the size of the sample, the position of the sample, the distance between the indenter and sample surface. The sample will be auto-lifted to approach the indenter and finish hardness testing automatically.

Extended dolphin nose allows vertical hardness test height of 11.8" and throat depth of 8.6".

Built-in micro-printer.

Horizontal dolphin nose Indenter is suitable also for internal and external hardness testing.

Rockwell Hardness Testing on Surfaces difficult to reach. Hardness Testing internal surface of rings and tubes.

The tester meets the following standards: ISO 6508-2, ASTM E18.

Minor Load	29.4N ͤ 3kgf Ė, 98.1N (10kgf)
Major Load	147.1N(15kgf), 294.3N(30kgf), 441.3N(45kgf), 588.4N (60kgf), 980.7N (100kgf), 1471N (150kgf)
Test Force Application	Load Cell Closed Loop
Test Force Control	Motorized
Results Display	Hi Def LCD Readout
Resolution	0.1HR
Vertical Capacity	7.80"
Throat Depth	5.90"
Dimensions	23.62" W x 9.84" D x 27.56" H
Weight	190 lbs.
Power Supply	115V/60 HZ/1 phase
Items Included	C/N scale Diamond Indenter
	1/16" Ball Indenter
	120° cone diamond indenter
	2- HRC test Blocks
	1- HRB Test Block
	2- HRN Test Block
	1- HRT Test Block
	Test Table 5.87" (150mm)
	Flat Anvil 2.5" (63mm)
	Std. V- Anvil
	Dust Cover
	Accessory Case

HARDNESS TESTERS

900-387 DIGITAL—LOAD CELL—MOTORIZED—ROCKWELL/SUPERFICIAL

This digital Rockwell/Superficial Rockwell hardness tester with fully automated load/unload procedures affords highly sensitive and accurate readings. Micro computer controlled Touch Screen with USB output to PC. The 900-387 digital Rockwell hardness tester offers programmable scale conversions, dwell times, statistical capabilities and test counter. Capable of testing in all of the regular Rockwell hardness scales

Direct Loading Method With Load-Cell Instead of Dead Weight System. High Speed Test Cycle and Extremely Accurate Loading Control

Automatic conversions to HB, HV, Other Rockwell Scales

Touch Screen selectable system

Upper/Lower Limit Settings

Minor Load	29.4N⊑ 3kgf, 98.1N (10kgf)
Major Load	147.1N(15kgf), 294.3N(30kgf), 441.3N(45kgf), 588.4N (60kgf), 980.7N (100kgf), 1471N (150kgf)
Test Force Application	Load Cell Closed Loop
Test Force Control	Motorized
Results Display	Hi Def LCD Readout
Resolution	0.1HR
Vertical Capacity	7.80"
Throat Depth	5.90"
Dimensions	23.62" W x 9.84" D x 27.56" H
Weight	220 lbs.
Power Supply	115V/60 HZ/1 phase
Items Included	C/N scale Diamond Indenter
	1/16" Ball Indenter
	2- HRC test Blocks
	1- HRB Test Block
	2- HRN Test Block
	1- HRT Test Block
	Test Table 5.87" (150mm)
	Flat Anvil 2.5" (63mm)
	Std. V- Anvil
	Dust Cover
	Accessory Case

900-386 DIGITAL DEAD WEIGHT—MOTORIZED—ROCKWELL/SUPERFICIAL WITH TALL FRAME

his unit can measure Rockwell and superficial Rockwell hardness and change those values of Rockwell hardness into HB, HV, HLD, HK and σb values. Loaded with features such as ultra precise measurements, wide measuring range, automatic main test force loading/unloading, digitally displayed results, etc. The unit is suitable for hardness testing on carbon steel, alloy steel, cast iron, non ferrous metal and engineering plastics

The protruding indenter design is ideal for testing inside diameters and recesses, often impossible with more traditional hardness testers. Inside diameters as small as 1-1/2-inches can be tested with the standard indenter. Operators can test close to vertical surfaces, to within 1/4-inch with the standard indenter. Testing is fast, accurate and there are fewer broken diamonds due to an outstanding viewing area.

Minor Load	29.4N 3kgf, 98.1N (10kgf)
Major Load	147.1N(15kgf), 294.3N(30kgf), 441.3N(45kgf), 588.4N (60kgf), 980.7N (100kgf), 1471N (150kgf)
Test Force Application	Dead Weight
Test Force Control	Motorized
Results Display	Hi Def LCD Readout
Vertical Capacity	16.90"
Throat Depth	7.80"
Dimensions	15.75" W x 28.74" D x 39.37" H
Weight	285 lbs.
Power Supply	115V/60 HZ/1 phase
Hardness Scales	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HR15W, HR30W, HR45W, HR15X, HR30X, HR45X, HR15Y, HR30Y and HR45Y
Items Included	C/N scale Diamond Indenter
	1/16" Ball Indenter
	2- HRC test Blocks
	1- HRB Test Block
	2- HRN Test Block
	1- HRT Test Block
	Test Table 5.87" (150mm)
	Flat Anvil 2.5" (63mm)
	Std. V- Anvil
	Dust Cover
	Accessory Case

900-375 ANALOG DEAD WEIGHT–MANUAL–ROCKWELL/SUPERFICIAL

This analog Rockwell Hardness Tester tests both Rockwell hardness and Superficial Rockwell hardness in one unit, with state of the art design and dynamic precision. This unit is ruggedly engineered to obtain highly sensitive and accurate readings.

Conforming to ASTM E-18 Rockwell hardness standards, it will offer unmatched repeatability in all Rockwell hardness scales. A perfect performer suited for any environment including heat treatment facilities, tool rooms, workshops, laboratories and inspection labs.

All of our hardness testers come with a 5-year warranty and lifetime technical support

Minor Load	29.4N₣ 3kgfÈ, 98.1N (10kgf)
Major Load	147.1N(15kgf), 294.3N(30kgf), 441.3N(45kgf), 588.4N (60kgf), 980.7N (100kgf), 1471N (150kgf)
Test Force Application	Dead Weight
Test Force Control	Manual
Results Display	Dual Scale Dial
Vertical Capacity	6.00"
Throat Depth	5.50"
Dimensions	18.20" W x 9.40" D x 26.00" H
Weight	250 lbs.
Power Supply	115V/60 HZ/1 phase
Hardness Scales	HRA B,C,D,E,F,G,H,K , L, M (superficial) HR15N, HR15T, HR30N, HR30T, HR45N, HR45T
Items Included	C/N scale Diamond Indenter
	1/16" Ball Indenter
	2- HRC test Blocks
	1- HRB Test Block
	2- HRN Test Block
	1- HRT Test Block
	Test Table 5.87" (150mm)
	Flat Anvil 2.5" (63mm)
	Std. V- Anvil
	Dust Cover
	Accessory Case

HARDNESS TESTERS

ROCKWELL HARDNESS TESTERS

900-367 DIGITAL–LOAD CELL–MOTORIZED–ROCKWELL

This digital Rockwell hardness tester with fully automated load/unload procedures affords highly sensitive and accurate readings. Micro computer controlled Touch Screen with USB output to PC. The 900-367 digital Rockwell hardness tester offers programmable scale conversions, dwell times, statistical capabilities and test counter. Capable of testing in all of the regular Rockwell hardness scales

Entire Rockwell Hardness Test Cycle Performed Automatically.

Direct Loading Method With Load-Cell Instead Of Dead Weight System. High Speed Test Cycle and Extremely Accurate Loading Control

- Automatic conversions to HB, HV, Superficial Rockwell Scales
- Touch Screen selectable system
- Upper/Lower Limit Settings

Minor Load	98.1N (10kgf)
Major Load	60 Kgf, 100 Kgf, 150 Kgf
Test Force Application	Load Cell Closed Loop
Test Force Control	Motorized
Results Display	Hi Def LCD Readout
Resolution	0.01HR
Vertical Capacity	7.80"
Throat Depth	5.90"
Dimensions	9.84" W x 23.60" D x 27.50" H
Weight	220 lbs.
Power Supply	115V/60 HZ/1 phase
Items Included	C scale Diamond Indenter
	1/16" Ball Indenter
	3- HRC Test Blocks
	1- HRB Test Block
	1- HRA Test Block
	Test Table 5.87" (150mm)
	Flat Anvil 2.5" (63mm)
	Std. V- Anvil
	Dust Cover
	Accessory Case

900-415 DIGITAL—LOAD CELL—MOTORIZED—ROCKWELL WITH CAST IRON BODY

This digital Rockwell hardness tester with fully automated load/unload procedures affords highly sensitive and accurate readings. Micro computer controlled Touch Screen with USB output to flash drive. The 900-415 digital Rockwell hardness tester offers programmable scale conversions, dwell times, statistical capabilities and test counter. Capable of testing in all of the regular Rockwell hardness scales.

Direct Loading Method With Load-Cell Instead Of Dead Weight System. High Speed Test Cycle and Extremely Accurate Loading Control

Automatic conversions to HB, HV, Superficial

Rockwell Scales

Touch Screen selectable system

Upper/Lower Limit Settings

Minor Load	98.1N (10kgf)
Major Load	588.4N (60kgf), 980.7N (100kgf), 1471N (150kgf)
Test Force Application	Load Cell Closed Loop
Test Force Control	Motorized
Results Display	Hi Def LCD Readout
Resolution	0.01HR
Vertical Capacity	8.00"
Throat Depth	7.80"
Dimensions	8.00" W x 31.00" D x 22.00" H
Weight	175 lbs.
Power Supply	115V/60 HZ/1 phase
Items Included	C scale Diamond Indenter
	1/16" Ball Indenter
	3- HRC Test Blocks
	1- HRB Test Block
	1- HRA Test Block
	1- HRT Test Block
	Test Table 5.87" (150mm)
	Flat Anvil 2.5" (63mm)
	Std. V- Anvil
	Dust Cover
	Accessory Case

900-410 DIGITAL–DEAD WEIGHTS– MANUAL–ROCKWELL WITH CAST IRON BODY

The 900-410 Digital Rockwell Hardness Tester can be used directly to measure the most popular regular Rockwell hardness scales and it can quickly convert that hardness value into HB, HV, HLD, HK and many other scales. Loaded with many useful features such as ultra precise results, wide measuring range, scale and test force selectable, automatic main test force loading/unloading, high resolution digital display and USB data storage. The 900-410 is suitable for testing hardness of carbon steel, alloy steel, cast iron, non-ferrous metals and engineering plastics. The tester meets the following standard: ASTM E18, ISO 6508-2, and BS EN ISO6508-2.

Minor Load	98.1N (10kgf)
Major Load	60 Kgf, 100 Kgf, 150 Kgf
Test Force Application	Dead Weights
Test Force Control	Manual
Load Dwell Duration	2 - 50 seconds
Results Display	Hi definition backlight LCD
Resolution	0.1HR
Vertical Capacity	8.00"
Throat Depth	7.87"
Dimensions	8.07" W x 31.49" D x 22.04" H
Weight	175 lbs.
Power Supply	115V/60 HZ/1 phase
Items Included	Large Anvil
	Small Diameter Anvil
	V-shaped Anvil
	Five Test Blocks
	One each, HRA 70-85
	One each, HRB 75-95
	One each, HRC 25-35
	One each, HRC 40-50
	One each, HRC 55-65
	120 deg. Diamond Indentor
	1/16" Carbide Ball indentor
	Storage Box

HARDNESS TESTERS

900-331 ANALOG—DEAD WEIGHTS— MANUAL—ROCKWELL

The 900-331 Rockwell scale hardness tester is easy to operate, yet engineered to obtain highly sensitive and accurate readings. Conforming to ASTM E-18 Rockwell Hardness standards, the 900-331 tester will offer unmatched repeatability in all standard Rockwell Hardness scales (table shown below). A perfect, rugged performer suited for any environment including heat treat facilities, tool rooms, workshops, laboratories and inspection labs. Lifetime technical support is included.

FEATURES

Direct analog dial reading

Advanced design, easy to operate

Engineered to obtain highly sensitive and accurate readings

Conforms to ASTM E-18

Perfect for laboratories, workshops, tool rooms, inspection labs, etc.

Minor Load	98.1N (10kgf)
Major Load	60 Kgf, 100 Kgf, 150 Kgf
Test Force Application	Dead Weights
Test Force Control	Hydraulic Dashpot System
Load Dwell Duration	2 - 50 seconds
Results Display	Analog Dial Gage
Vertical Capacity	6.70"
Throat Depth	6.67"
Dimensions	8.50" W x 20.00" D x 30.00" H
Weight	242 lbs.
Power Supply	115V/60 HZ/1 phase
Items Included	C-scale Diamond Indentor
	1/16" Ball Indentor
	3- HRC Test Blocks
	1- HRB Test Block
	1-HRA Test Block
	Test Table 5.87" (150mm)
	Flat Anvil 2.5" (63mm)
	Std. Vee Anvil
	Accessory Case
	Dust Cover

900-366 DIGITAL—DEAD WEIGHTS— MOTORIZED—ROCKWELL WITH TALL FRAME

This digital Rockwell hardness tester with fully automated load/unload procedures affords highly sensitive and accurate readings. Micro computer controlled with USB output to built-in mini printer or PC. The 900-366 digital Rockwell hardness tester offers programmable scale conversions, dwell times, statistical capabilities and test counter. Capable of testing in all of the regular Rockwell® scales.

Automatic conversions to: HRN, HRT, HB, HV, HLD and σb.

FEATURES

Easily obtain Average, Min/Max, S, R

Menu selectable system

Upper/Lower Limit Settings

Memory of 500 test results

Curved Surface Auto Correction

Minor Load	98.1N (10kgf)
Major Load	588.4N (60kgf), 980.7N (100kgf), 1471N (150kgf)
Test Force Application	Dead Weights
Test Force Control	Motorized
Results Display	Hi Def LCD Readout
Resolution	0.1HR
Vertical Capacity	16.50"
Throat Depth	6.50"
Dimensions	7.87" W x 21.60" D x 28.34" H
Power Supply	115V/60 HZ/1 phase
Items Included	C scale Diamond Indenter
	1/16" Ball Indenter
	Built-in mini printer
	3- HRC Test Blocks
	1- HRB Test Block
	1- HRA Test Block
	Test Table 5.87" (150mm)
	Flat Anvil 2.5" (63mm)
	Std. V- Anvil
	Dust Cover
	Accessory Case

HARDNESS TESTERS

SUPERFICIAL HARDNESS TESTERS

900-346 DIGITAL LOAD-CELL-MOTORIZED-SUPERFICIAL WITH ONE TOUCH TESTING

This digital Superficial Rockwell hardness tester with fully automated load/unload procedures affords highly sensitive and accurate readings. Micro computer controlled Touch Screen with USB output to PC. The 900-346 digital Superficial Rockwell hardness tester offers programmable scale conversions, dwell times, statistical capabilities and test counter. Capable of testing in all of the regular Rockwell hardness scales

Direct Loading Method With Load-Cell Instead Of Dead Weight System. High Speed Test Cycle and Extremely Accurate Loading Control

Automatic conversions to HB, HV, Regular Rockwell Scales
Touch Screen selectable system
Upper/Lower Limit Settings

Minor Load	29.4N 3kgf
Major Load	147.1N(15kgf), 294.3N(30kgf), 441.3N(45kgf)
Test Force Application	Load Cell Closed Loop
Test Force Control	Motorized
Results Display	Hi Def LCD Readout
Resolution	0.01HR
Vertical Capacity	7.80"
Throat Depth	5.90"
Dimensions	9.84" W x 23.62" D x 27.56" H
Weight	220 lbs.
Power Supply	115V/60 HZ/1 phase
Items Included	N-scale Diamond Indenter
	1/16" Ball Indenter
	2- HRN Test Blocks
	3- HRT Test Block
	Test Table 5.87" (150mm)
	Flat Anvil 2.5" (63mm)
	Std. V- Anvil
	Dust Cover
	Accessory Case

900-345 ANALOG–DEAD WEIGHTS– MANUAL–SUPERFICIAL

Used for testing thin and soft material in the Superficial Rockwell Hardness scales, this hardness tester is ruggedly engineered to obtain highly sensitive and accurate readings. Conforming to ASTM E-18 Superficial Rockwell Hardness standards, this hardness tester will offer unmatched repeatability in all Superficial Rockwell Hardness scales (table shown below). A perfect performer suited for any environment including heat treat facilities, tool rooms, workshops, laboratories and inspection labs. Lifetime technical support is also included.

FEATURES

Direct analog dial reading

Engineered to obtain highly sensitive and accurate readings

Conforms to ASTM E-18

Perfect for laboratories, workshops, tool rooms, inspection labs, etc.

For testing thin, soft material in the Superficial Rockwell scales (900-345)

Minor Load	29.4N 3kgf
Major Load	147.1N(15kgf), 294.3N(30kgf), 441.3N(45kgf)
Test Force Application	Dead Weights
Test Force Control	Manual
Results Display	Analog Dial Gage
Resolution	0.01HR
Vertical Capacity	6.70"
Throat Depth	6.60"
Dimensions	8.90" W x 19.60" D x 28.00" H
Weight	190 lbs.
Power Supply	115V/60 HZ/1 phase
Items Included	N-scale Diamond Indenter
	1/16" Ball Indenter
	3- HRN Test Blocks
	3- HRT Test Block
	Test Table 5.87" (150mm)
	Flat Anvil 2.5" (63mm)
	Std. V- Anvil
	Dust Cover
	Accessory Case

HARDNESS TESTERS

BRINELL HARDNESS TESTERS

90O-357 DIGITAL–LOAD CELL–MOTORIZED–BRINELL

This advanced model has 3 indentors and 2 objectives which covers all common Brinell scales and all loads from 62.5kfg to 3000kgf. The touch screen monitor shows instant Brinell readings and no manual scope is needed.

The test load is applied via a closed-loop control unit with a load cell, a DC motor and an electronic measurement and control unit. The result is highly accurate Brinell hardness tester measurements at all test loads up to 0.5%. The common load overshoot or undershoot as known from traditional dead weight, or open-loop, systems is eliminated. The absence of mechanical weights not only eliminates friction problems but also makes the equipment less sensitive to misalignments caused by vibrations.

The unit combines a touch screen computer and brinell hardness tester in one complete Brinell hardness testing package. All the required parameters can be selected on the panel computer. It's clear display and touch screen make it easy to use and eliminates user error. The clear video screen using it's CCD interface will directly display the dynamic indentation image, lock the image and automatically measure the Brinell hardness. The operator can choose the selectable conversion values among the hardness scales, save the results of each measurement and generate the image report. The load of test forces is accomplished using state of the art load cell system combined with precision mechanical drive.

Test Force (kgf)	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
Test Force (N)	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N
Test Range	3.18 – 653HBW
Loading Method	Automatic (LoadingDwell/Unloading)
Hardness Reading	Indentation Displaying and Automatic Measuring on Touch Screen
Computer	CPU: Intel I3, Memory: 2G, SSD: 32G
Conversion Scale	HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBS, HBW
Data Output	USB Port, VGA Interface, Network Interface
Turret Control	Automatic Recognition and Shifting (Three Indenters, Two Objectives)
Objectives	1X, 2X
Total Magnification	20X, 40X
Dwell Time	0-95 seconds
Max. Height of Sample	10.24" (260mm)
Throat	5.91" (150mm)
Standards	ISO 6506 ASTM E10-12 JIS Z2243 GB/T 231.2
Dimensions	12.99" W x 23.62" D x 46.06" H
Weight	331 lbs.

900-355 DIGITAL–LOAD CELL–MOTORIZED–BRINELL

Innovative closed-loop technology. The Brinell hardness tester incorporates the latest load cell technology. The test load is applied via a closed-loop control unit with a load cell, a DC motor and an electronic measurement and control unit. The result is highly accurate Brinell hardness measurements at all test loads up to 0.5%. The common load overshoot or undershoot as known from traditional dead weight, or open-loop, systems is eliminated. The absence of mechanical weights not only eliminates friction problems but also makes the equipment less sensitive to misalignments caused by vibrations.

The whole weight of the tester is 50% less than the traditional dead weights type tester.

Test load selection by keyboard and LCD screen.

Fully automatic test cycles. The Brinell Hardness Tester features a fully automatic test cycle, load application, holding, unloading, is performed fully automatically. This greatly improves reproducibility of test results since operator influence is eliminated.

Selectable dwell times by screen. The indenter, load, and other test information are shown clearly on the large LCD screen.

The directions for 0.102F/D2 ratios selecting according to the materials and hardness range can be showing on the screen.

Equipped with a 20X optical microscope to measure the diameter of Brinell indention.

Brinell Hardness Calculator (BHC) make the hardness value calculation easier and convenient.

Test Loads	3000kgf (29400N), 1500Kgf (14700N), 1000Kgf (9800N), 750Kgf (7355N),500Kgf (4900N), 250Kgf (2452N), 187.5Kgf (1839N), 125Kgf (1226N),100Kgf (980N), 62.5Kgf(612.9N)
Test Range	8 – 650HBW
Loading Method	Automatic (LoadingDwell/Unloading)
Hardness Reading	Indentation Displaying and Automatic Measuring on Touch Screen
Computer	CPU: Intel I3, Memory: 2G, SSD: 32G
Conversion Scale	HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBS, HBW
Data Output	USB Port, VGA Interface, Network Interface
Turret Control	Automatic Recognition and Shifting (Three Indenters, Two Objectives)
Total Magnification	20X
Dwell Time	2-99 seconds
Max. Height of Sample	9.06" (230mm)
Throat	5.51" (140mm)
Dimensions	10.24" W x 20.87" D x 29.53" H
Weight	243lbs.

90O-356 DIGITAL–LOAD CELL–MOTORIZED–BRINELL WITH TALL FRAME

Innovative closed-loop technology. The tester incorporates the latest load cell technology. The test load is applied via a closed-loop control unit with a load cell, a DC motor and an electronic measurement and control unit. The result is highly accurate Brinell hardness measurements at all test loads up to 0.5%. The common load overshoot or undershoot as known from traditional dead weight, or open-loop, systems is eliminated. The absence of mechanical weights not only eliminates friction problems but also makes the equipment less sensitive to misalignments caused by vibrations.

The gross weight of the tester is 50% less than the traditional dead weights type testers.

Test load selection by keypad and shown on the LCD screen.

Fully automatic test cycles. The Brinell hardness Tester features a fully automatic test cycle, load application, dwell, unloading, is performed fully automatically. This greatly improves reproducibility of test results since operator influence is eliminated.

Selectable dwell times by screen. The indenter, load, and other test information are shown clearly on the large LCD screen.

The directions for 0.102F/D2 ratios selecting according to the materials and hardness range can be showing on the screen.

Equipped with a 20X optical microscope to measure the diameter of Brinell indention.

Brinell Hardness Calculator (BHC) makes the hardness value calculation easy and convenient.

Test Loads	3000kgf (29400N), 1500Kgf (14700N), 1000Kgf (9800N), 750Kgf (7355N),500Kgf (4900N), 250Kgf (2452N), 187.5Kgf (1839N), 125Kgf (1226N),100Kgf (980N), 62.5Kgf(612.9N)
Test Range	3.18 – 658HBW
Loading Method	Automatic (LoadingDwell/Unloading)
Hardness Reading	Indentation Displaying and Automatic Measuring on Touch Screen
Computer	CPU: Intel I3, Memory: 2G, SSD: 32G
Conversion Scale	HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBS, HBW
Total Magnification	20X
Dwell Time	2-99 seconds
Max. Height of Sample	16.92" (430mm)
Dimensions	11.81" W x 23.62" D x 39.37" H
Weight	364lbs.

OPTICAL BRINELL READER

PHT-5000 OPTICAL BRINELL HARDNESS VIDEO MEASUREMENT SYSTEM

Friendly User Interface: Automatic measurement with a key stroke or a click of a button. Test results can be manually generated or corrected with a single mouse drag move

High reliability: Advanced image processing and analysis echnologies in automatic measurement. Field proven under severe sample surface conditions;

Single camera with four magnifications: 1.3M pixel CMOS USB camera with two camera tubes with each tube height having two magnifications.

Full measurement range is covered with four magnifications for better measurement accuracy. Specifically, tube 1 magnification #1 is suitable for indentation diameters 3-6mm, magnification #2 for 0.8-1.6mm, while tube 2 magnification #3 for 2-4mm, and magnification #4 for 1-2mm.

Includes the basic functions of an imaging system such as image capture, camera calibration, image processing, geometric measurement, document labeling, and album management; automatically or manually measures the indentation diameter and calculates the Brinell hardness (HB) value; HB2 (DIN 1605 standard) automatic measurement:

Automatically or manually measures the indentation diameters on the calibration sample and the test sample, and automatically interpolates the Brinell hardness (HB) value for the test sample; Converts Brinell (HB) to other hardness scales—Validates the test results with sample dimensions; automatically updates the statistical values such as average, min and max, standard deviation, Cp and Cpk;

Auto-alarm: Automatically marks the out of spec measurements; Test report: Automatically generates customizable WORD or EXCEL report.

MEASURING METHODS: UCI & LEEB

There are two basic methods of portable hardness testing that is accepted in the field today.

"Ultrasonic Contact Impedance" is based on a 136 degree diamond at the end of a vibrating rod being depressed into the test surface at a fixed load. The difference in Ultrasonic vibration frequency is then calculated into a hardness value. The UCI test procedure is slower than the Dynamic Impact style, however the "UCI" method of hardness testing is portable, easy and accurate. It also has its own advantages when utilized for certain testing applications. UCI testers are not restricted to large mass items like dynamic type testers. These units can test metals as thin as 1mm and at a hardness value as low as 20HRC (75HB).

They also excel at performing hardness tests on larger, harder metals as well. Another reason for the rise in popularity is due to the fact that the UCI method is categorized as "Non-Destructive". That translates into less scrap parts/ lower manufacturing costs due to necessary inspections.

"Dynamic Impact" is based on the Leeb principle of hardness, developed by Dietmar Leeb in the 1970's. A spring loaded impact body is thrust to the test surface, effecting rebound. The speed of both the initial thrust and the rebound is measured in a non-contact mode. This is calculated as a Leeb hardness value and then automatically converted to Rockwell C, B, Brinell, Vickers and Shore Values. It has effectually brought easy, fast and accurate results to portable hardness testing.

PHT-6000 SERIES FOR UCI (ULTRASONIC CONTACT IMPEDANCE) & DYNAMIC IMPACT (LEEB) HARDNESS TESTING

UCI PORTABLE HARDNESS TESTER W/MANUAL PROBE

PHT-6001 UCI HARDNESS TESTER
w/1kgf Probe
For use on polished surfaces. Below Ra 125μin

PHT-6002 UCI HARDNESS TESTER
w/2kgf Probe
For use on smooth surfaces. Below Ra 200μin

PHT-6005 UCI HARDNESS TESTER
w/5kgf Probe
For use on machined surfaces. Below Ra 400μin

PHT-6010 UCI HARDNESS TESTER
w/10kgf Probe
For use on rough surfaces. Below Ra 600μin

UCI PORTABLE HARDNESS TESTER W/MOTORIZED PROBE

PHT-6030 UCI HARDNESS TESTER
w/.30kgf Probe
Best for checking coating layer hardness; Finished thin parts

PHT-6080 UCI HARDNESS TESTER
w/.80kgf Probe
Best for smooth bearing type surfaces

PHT-6100 UCI HARDNESS TESTER
w/1kgf Probe
Best for machined surfaces

FEATURES

Non-Destructive hand held hardness tester

Combines UCI and Leeb hardness testing in one state of the art device

Test steel with min thickness of .08" and unlimited max thickness

Blazing fast test results

Rockwell, Brinell Vickers conversions shown on display

Large Memory w/USB Output

Choice of manual UCI probes; 1kg, 2kg, 5kg & 10kg

Optional Motorized Probes: .30kg, .80kg, & 1kgf

Available Impact Devices(Leeb) D, DC, D+15, G & DL

SPECIFICATIONS

Hardness Range: HRC: 20.3- 68; HRB: 61-85.6 ; HV: 80-1599; HB: 76-618

Scale Selection: Rockwell C (HRC); Rockwell B (HRB); Rockwell A (HRA); Brinell (HB); Vickers (HV); Leeb (HLD)

Tolerance: +/- 3.0% deviation of average from the reference value of the test block with a minimum of 5 tests

Display Type: LCD Color Screen w/Backlight, adjustable brightness

Language Selection: English, German, Chinese, Spanish, etc.

Data Logger: Letters, Numerals

Data Memory: 2000 groups of measured data ; 20 groups of calibration data

Statistical Software Supplied-can be saved in Word or Excel

Data Output: USB – cable supplied

Power Supply Rechargeable Lithium Battery: Voltage-4.2V, 4800mAh

Auto Power Off: 5 minutes

Recharging Time: Approx. 8 hours

Battery Usage: Approx. 6 hours (no backlight)

Net Weight(base unit): 2lbs (w/probe)

Unit Dimensions: 7.00" H x 3.10" W x 1.10" D

PHT-3500

State of the art, digital tester is designed to test the hardness of large hard metal parts. Loaded with useful functions and a built in mini-printer the PHT-3500 is clearly the industry leader for fast accurate hardness testing with advanced USB output and thermal printing capabilities. The PHT-3500 can perform tests that easily convert to the most popular hardness scales, including Rockwell, Brinell, Vickers, Shore, etc. Designed to test large hard parts. Example: Tool steel should be close to 1" thick of solid material.

SPECIFICATIONS

Accuracy: +/- 0.5% (referred to L=800,

Repeatability accuracy: +/- 4L units) L=Leeb

Measuring range: 200-960 HL

Materials: steel & cast steel, alloy tool steel, stainless steel, grey cast iron, spheroidal iron, cast aluminum, brass, bronze, wrought copper alloy.

Battery type: AA alkaline (4)

Operating temperature: 5-104 degrees F

Dimensions: 150 x 74 x 32mm

Weight: 245 grams

PHT-2100

Our new Rugged all metal frame portable hardness tester is suited for rough environments such as mining facilities, pipeline, bridge and tower inspections, etc. and is packed with features typically found on high end models only. This new leeb hardness tester is designed to test the hardness of large hard metal parts. Loaded with useful functions only found on high priced models the PHT-2100 is clearly setting a new industry standard by being the most accurate, economically priced hardness tester on the market today. Fast test speeds coupled with memory and output, this unit is a hand's down winner whether you are out in the field or in the QC shop. The PHT-2100 can perform tests that easily convert to the most popular hardness scales, including Rockwell, Brinell, Vickers, Shore, etc. Designed to test large hard parts. Example: Tool steel should be close to 1" thick of solid material.

SPECIFICATIONS

Accuracy: +/- 0.5% (referred to L=800,

Repeatability accuracy: +/- 4L units) L=Leeb

Measuring range: 200-960 HL

Materials: steel & cast steel, alloy tool steel, stainless steel, grey cast iron, spheroidal iron, cast aluminum, brass, bronze, wrought copper alloy.

Battery type: AA alkaline (2)

Operating temperature: 5-104 degrees F

Dimensions: 150 x 74 x 32mm

Weight: 245 grams

PHT-1900 SERIES

State of the art, digital portable hardness tester is designed to test the hardness of large hard metal parts. Clean crisp display shows the incredible functions that can only be found on this new portable hardness tester such as auto-probe detection, auto direction detector, single and multi-point calibration make the new 1900 the most versatile portable hardness tester in the industry. Blazing fast test speeds coupled with memory and output, this unit is a must have for virtually any work shop. The PHT-1900 portable hardness tester can perform tests that easily convert to the most popular hardness scales, including Rockwell, Brinell, Vickers, Shore, etc. Designed to test large hard parts:

Example: Tool steel should be close to 1" thick of solid MateriaL

SPECIFICATIONS

Accuracy: +/- 0.5% (referred to L=800,

Repeatability accuracy: +/- 4L units) L=Leeb

Measuring range: 200-960 HL

Materials: steel & cast steel, alloy tool steel, stainless steel, grey cast iron, spheroidal iron, cast aluminum, brass, bronze, wrought copper alloy.

Battery type: AA alkaline (4)

Operating temperature: 5-104 degrees F

Dimensions: 150 x 74 x 32mm

Weight: 245 grams

PHT-1800 SERIES

State of the art, digital portable hardness tester is designed to test the hardness of large hard metal parts. Loaded with useful functions only found on high priced models the PHT-1800 portable hardness tester is clearly setting a new industry standard by being the most accurate, economically priced portable hardness tester on the market today. Fast test speeds coupled with memory and output, this unit is a hand's down winner whether you are out in the field or in the QC shop. The PHT-1800 portable hardness tester can perform tests that easily convert to the most popular hardness scales, including Rockwell, Brinell, Vickers, Shore, etc.

SPECIFICATIONS

Accuracy: +/- 0.5% (referred to L=800,

Repeatability accuracy: +/- 4L units) L=Leeb

Measuring range: 200-960 HL

Materials: steel & cast steel, alloy tool steel, stainless steel, grey cast iron, spheroidal iron, cast aluminum, brass, bronze, wrought copper alloy.

Battery type: AA alkaline (2)

Operating temperature: 5-104 degrees F

Dimensions: 150 x 74 x 32mm

Weight: 245 grams

HARDNESS TESTERS

PORTABLE HARDNESS TESTERS

PHT-1700 SERIES

Loaded with features, this economically priced portable hardness tester is capable of measuring the surface hardness of a broad variety of metals on flat and round surfaces. This instrument comes complete with the universal D impact device, calibrated test block and rugged carry case. Designed to test large hard parts. Example: Tool steel should be close to 1" thick of solid material

SPECIFICATIONS

Accuracy: +/- 0.5% (referred to L=800,

Repeatability accuracy: +/- 4L units) L=Leeb

Measuring range: 200-960 HL

Materials: steel & cast steel, alloy tool steel, stainless steel, grey cast iron, spheroidal iron, cast aluminum, brass, bronze, wrought copper alloy.

Battery type: AAA alkaline (2)

Operating temperature: 5-104 degrees F

Dimensions: 108 x 62 x 25mm

Weight: 230 grams

ACCESSORIES FOR PORTABLE HARDNESS TESTERS

D-PROBE: METSHPHT1800-100

Universal standard unit. Will handle the majority of hardness testing applications. Weight: 75g

D+15 -PROBE: METSHPHT1800-110

Very narrow contact area with a set back measurement coil. This device is used to measure hardness in grooves and recessed surfaces. Weight: 80g

DL -PROBE: METSHPHT1800-115

This model features a needle front section with a diameter of 4mm and a length of 50mm. It is suitable for testing in extremely confined spaces, the base of grooves and on special components such as gear wheels. For use on steel and cast steel only!

DC-PROBE: METSHPHT1800-120

Very short impact device for those confined areas, i.e. inside bores for internal measurements. Conforms to the D measuring range. Weight: 50g

G-PROBE: METSHPHT1800-125

This device has an enlarged test tip, and an increased impact energy range (approx. 9 times the D, 72 ft-lb.). Can be used on lower quality finishes for measuring hardness in the Brinell range only (max. 650 HB). Designed to be used with heavy components such as heavy castings and forgings.
Weight: 250g

C-PROBE: METSHPHT1800-130

A reduced impact energy impact device (approximately ¼ of the D Type 2 ft-lb.) for measuring the hardness of surface hardened components, coatings, thin wall or impact sensitive components. Applies a small superficial indentation.
Weight: 75g

TECHNICAL DATA FOR PORTABLE HARDNESS TESTER IMPACT DEVICES

IMPACT DEVICES	D/DC/DL	D + 15	C	G
Impact Energy	11Nmm	11Nmm	3Nmm	90Nmm
Mass of the impact body	5.5g	7.8g	3.0g	20g
TEST TIP				
Hardness	1600HV	1600HV	1600HV	1600HV
Diameter	3mm	3mm	3mm	5mm
Material		Tungsten carbide	Tungsten carbide	
IMPACT DEVICE				
Diameter	20mm	20mm	20mm	30mm
Length	147/86mm	162mm	141mm	254mm
Weight	75/50g	80g	75g	250g
MAX. HARDNESS OF SAMPLE	940HV	940HV	1000HV	650HB
PREPARATION OF SURFACE				
Roughness class ISO	N7	N7	N5	N9
Max. roughness depth Rt	10 µ m	10 µ m	2.5 µ m	30 µ m
Average roughness Ra	2 µ m	2 µ m	0.4 µ m	7 µ m
MIN. WEIGHT OF SAMPLE				
Of compact shape	5kg	5kg	1.5kg	15kg
On solid support	2kg	2kg	0.5kg	5kg
Coupled on plate	0.1kg	0.1kg	0.02kg	0.5kg
MIN. THICKNESS OF SAMPLE				
Coupled	3mm	3mm	1mm	10mm
Min. thickness of layers	0.8mm	0.8mm	0.2mm	
INDENTATION OF TEST TIP				
WITH 300HV				
Diameter	0.54mm	0.54mm	0.38mm	1.03mm
Depth	24 µ m	24 µ m	12 µ m	53 µ m
WITH 600HV				
Diameter	0.45mm	0.45mm	0.32mm	. 90mm
Depth	17 µ m	17 µ m	8 µ m	41 µ m
WITH 800HV				
Diameter	0.35mm	0.35mm	0.30mm	
Depth	10 µ m	10 µ m	7 µ m	

Abrasive Cut-Off Wheels

Abrasive cutting has proven to be one of the most effective methods for sectioning materials for Metallographic sample preparation. The key to achieving quality sections is to select the proper abrasive Cut-Off Wheel for your application. Choosing the correct wheel not only ensures ease of cutting, but also reduces the amount of damage introduced to the sample in the sectioning process. This greatly reduces time spent in subsequent grinding and polishing steps.

Lapmaster offers a wide variety of abrasive Cut-Off Wheels engineered for a variety of materials and applications; however, by combining different abrasive types, sizes and bonds Lapmaster Cut-Off Wheels can be developed for virtually any application.

To further assist you in choosing the Lapmaster Cut-Off Wheel for your application please contact your Lapmaster representative.

ABRASIVE CUT-OFF WHEELS

DESCRIPTION	BOND	PART#
With 1.25" (32mm) Arbor Hole RR = Rubber resin bond Rub = Rubber bond Res = Resin bond		
4"x.025"x.5" S:C - Medium Non-Ferrous (Pack of 10)	RR	METSACUT004MNFT
5"x.025"x.5" AlOx- Medium Ferrous (Pack of 10)	RR	METSACUT005MS45
5"x.025"x.5" S:C - Medium Non-Ferrous (Pack of 10)	RR	METSACUT005MNFT
6"x.020"x.5" AlOx Cutoff Wheel For Soft Steel RC30 (Pack Of 10)	RR	METSACUT006SS30
6"x.020"x.5" AlOx Cutoff Wheel For Med Steel RC45 (Pack Of 10)	RR	METSACUT006MS45
6"x.020"x.5" AlOx Cutoff Wheel For Hard Steel RC60 (Pack Of 10)	RR	METSACUT006HS60
6"x.020"x.5" SiC Cutoff Wheel For Soft Non-Ferrous RC30 (Pack Of 10)	RR	METSACUT006SNFT
6"x.020"x.5" SiC Cutoff Wheel For Medium Non-Ferrous RC45 (Pack Of 10)	RR	METSACUT006MNFT
6"x.020"x.5" SiC Cutoff Wheel For Hard Non-Ferrous RC60 (Pack Of 10)	RR	METSACUT006HNFT
7"x.030"x.5" AlOx Cutoff Wheel For Soft Steel RC30 (Pack Of 10)	RR	METSACUT007SS30
7"x.030"x.5" AlOx Cutoff Wheel For Medium Steel RC45 (Pack Of 10)	RR	METSACUT007MS45
7"x.030"x.5" AlOx Cutoff Wheel For Hard Steel RC60 (Pack Of 10)	RR	METSACUT007HS60
7"x.025"x.5" SiC Cutoff Wheel For Soft Non-Ferrous RC30 (Pack Of 10)	RR	METSACUT007SNFT
7"x.025"x.5" SiC Cutoff Wheel For Medium Non-Ferrous RC45 (Pack Of 10)	RR	METSACUT007MNFT
7"x.035"x.5" SiC Cutoff Wheel For Hard Non-Ferrous RC60 (Pack Of 10)	RR	METSACUT007HNFT
7"x.040"x1.25" AlOx - Medium Steel RC45 (10 Pack)	RR	METSACUT007THIN
8"x.032"x1.25 Reinforced Aluminum Oxide - (10 Pack)	Res	METSACUT008REIN
9"x.062"x1.25" AlOx - Hard Steel RC60 (Pack of 10)	RR	METSACUT009HS60
9"x.062"x1.25" AlOx - Medium Steel RC45 (Pack of 10)	RR	METSACUT009MS45
9"x.062"x1.25" AlOx - Soft Steel RC30 (Pack of 10)	RR	METSACUT009SS30
9"x.045"x1.25" AlOx - General Purpose (Pack of 25)	RR	METSACUT009RB45
9"x.032"x1.25" AlOx - Thin Wheel Applications (Pack of 10)	RR	METSACUT009THIN
9"x.062"x1.25" S:C - Hard Non-Ferrous (Pack of 10)	RR	METSACUT009HNFT
9"x.062"x1.25" S:C - Medium Non-Ferrous (Pack of 10)	RR	METSACUT009MNFT
9"x.062"x1.25" S:C - Soft Non-Ferrous (Pack of 10)	RR	METSACUT009SNFT
9"x.032"x1.25" S:C - Soft Non-Ferrous (Pack of 10)	RR	METSACUTSC9THIN
9"x.032"x1.25" S:C - Medium Non-Ferrous (Pack of 10)	RR	METSACUT009MNTH
9"x.032"x1.25" S:C - Hard Non-Ferrous (Pack of 10)	RR	METSACUT009HNTH
9"x.062"x1.25" SiC/AlOx - For Cast Iron (Pack of 10)	Res	METSACUT009CAST
10"x.062"x1.25" AlOx - Hard Steel RC60 (Pack of 10)	RR	METSACUT010HS60
10"x.062"x1.25" AlOx - Medium Steel RC45 (Pack of 10)	RR	METSACUT010MS45
10"x.062"x1.25" AlOx - Soft Steel RC30 (Pack of 10)	RR	METSACUT010SS30
10"x.045"x1.25" AlOx - General Purpose (Pack of 10)	Res	METSACUT010RB45
10"x.094"x.625" Reinforced AlOx General Purpose - (10 pack)	Res	METSACUT010REIN
10"x.062"x1.25" AlOx - Medium Hard Steel (10 pack)	Res	METSACUTR10HS60
10"x.062"x1.25" S:C - Hard Non-Ferrous (Pack of 10)	RR	METSACUT010HNFT
10"x.062"x1.25" S:C - Medium Non-Ferrous (Pack of 10)	RR	METSACUT010MNFT
10"x.062"x1.25" S:C - Soft Non-Ferrous (Pack of 10)	RR	METSACUT010SNFT
10"x.032"x1.25" Thin S:C - Med. Non-Ferrous (Pack Of 10)	RR	METSACUTS10THIN
10"x.062"x1.25" SiC/AlOx - For Cast Iron (Pack of 10)	Res	METSACUT010CAST
12"x.062"x1.25" AlOx - Hard Steel RC60 (Pack of 10)	RR	METSACUT012HS60
12"x.100"x1.25" AlOx - Medium Steel RC45 (Pack of 10)	RR	METSACUT012MS45
12"x.100"x1.25" AlOx - Soft Steel RC30 (Pack of 10)	RR	METSACUT012SS30
12"x.094"x1.00" Reinforced AlOx - (10 Pack)	Res	METSACUT012REIN
12"x.045"x1.25" AlOx - General Purpose (Pack of 25)	Res	METSACUT012RB45
12"x.064"x1.25" AlOx - Hard Steel RC60 (Pack of 10)	Rub	METSACUT012RB60

Additional sizes available upon request.

ABRASIVE CUT-OFF WHEELS

Abrasive
Cut-Off Wheels

DESCRIPTION	BOND	PART#
With 1.25" (32mm) Arbor Hole RR = Rubber resin bond Rub = Rubber bond Res = Resin bond		
12"x.062"x1.25" S:C - Hard Non-Ferrous (Pack of 10)	RR	METSACUT012HNFT
12"x.062"x1.25" S:C - Medium Non-Ferrous (Pack of 10)	RR	METSACUT012MNFT
12"x.045"x1.25" Thin S:C - Medium Non-Ferrous (Pack of 10)	RR	METSACUTT12MN45
12"x.062"x1.25" S:C - Soft Non-Ferrous (Pack of 10)	RR	METSACUT012SNFT
14"x.085"x1.25" AlOx - Hard Steel RC60 (Pack of 10)	RR	METSACUT014HS60
14"x.085"x1.25" AlOx - Medium Steel RC45 (Pack of 10)	RR	METSACUT014MS45
14"x.115"x1.25" AlOx - Soft Steel RC30 (Pack of 10)	RR	METSACUT014SS30
14"x.080"x1.25" S:C - Hard Non-Ferrous (Pack of 10)	RR	METSACUT014HNFT
14"x.090"x1.25" S:C - Medium Non-Ferrous (Pack of 10)	RR	METSACUT014MNFT
14"x.080"x1.25" S:C - Soft Non-Ferrous/Alum (Pack of 10)	RR	METSACUT014SNFT
14"x.125"x1.25" Reinforced AlOx - General Purpose	R	METSACUT014REIN
16"x.100"x1.25 AlOx - Hard Steel RC60 (Pack of 10)	RR	METSACUT016HS60
16"x.100"x1.25 AlOx - Medium Steel RC45 (Pack of 10	RR	METSACUT016MS45
16"x.100"x1.25 AlOx - Soft Steel RC30 (Pack of 10)	RR	METSACUT016SS30
16"x.100"x1.25 S:C - Hard Non-Ferrous (Pack of 10)	RR	METSACUT016HNFT
16"x.100"x1.25 S:C - Medium Non-Ferrous (Pack of 10)	RR	METSACUT016MNFT
16"x.100"x1.25 S:C - Soft Non-Ferrous (Pack of 10)	RR	METSACUT016SNFT
20"x.125x1.25" - AlOx - Hard Steel RC60 (Pack of 10)	RR	METSACUT020HS60
20"x.125x1.25" - AlOx - Hard Steel RC45 (Pack of 10)	RR	METSACUT020MS45
20"x.125x1.25" - AlOx - Hard Steel RC30 (Pack of 10)	RR	METSACUT020SS30
20"x.125x1.25" - S:C - Hard Non-Ferrous (Pack of 10)	RR	METSACUT020HNFT
20"x.125x1.25" - S:C - Medium Non-Ferrous (Pack of 10)	RR	METSACUT020MNFT
20"x.125x1.25" - S:C - Soft Non-Ferrous (Pack of 10)	RR	METSACUT020SNFT
24"x.125x1.25" - AlOx - Hard Steel RC60 (Pack of 10)	RR	METSACUT024HS60
24"x.125x1.25" - AlOx - Hard Steel RC45 (Pack of 10)	RR	METSACUT024MS45
24"x.125x1.25" - AlOx - Hard Steel RC30 (Pack of 10)	RR	METSACUT024SS30
24"x.125x1.25" - S:C - Hard Non-Ferrous (Pack of 10)	RR	METSACUT024HNFT
24"x.125x1.25" - S:C - Medium Non-Ferrous (Pack of 10)	RR	METSACUT024MNFT
24"x.125x1.25" - S:C - Soft Non-Ferrous (Pack of 10)	RR	METSACUT024SNFT

Additional sizes available upon request.
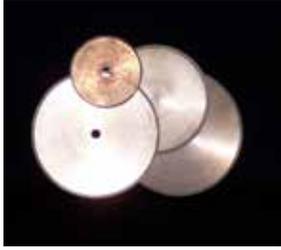
**Diamond
Wafering Blades**

For applications which require greater precision and thin sectioning capability, Lapmaster recommends Diamond Wafering Blades. Diamond Wafering Blades should be used with a precision low speed wafering saw.

Low concentration blades are suggested for hard brittle materials and ceramics, while high concentration blades are used with metallics.

To further assist you in choosing the Lapmaster Wafering Blade for your application please contact your Lapmaster representative.

DIAMOND WAFERING BLADES

DESCRIPTION		PART NUMBER
3"x.006"x.5" High Concentration Wafering Blade	Ferrous Material	METSDCUTW03H006
3"x.006"x.5" Low Concentration Wafering Blade	Non-Ferrous Material	METSDCUTW03L006
4"x.012"x.5" High Concentration Wafering Blade	Ferrous Material	METSDCUTW04H012
4"x.012"x.5" Low Concentration Wafering Blade	Non-Ferrous Material	METSDCUTW04L012
4"x.015"x.5" High Concentration Wafering Blade	Ferrous Material	METSDCUTW04H015
4"x.015"x.5" Low Concentration Wafering Blade	Non-Ferrous Material	METSDCUTW04L015
5"x.015"x.5" High Concentration Wafering Blade	Ferrous Material	METSDCUTW05H015
5"x.015"x.5" Low Concentration Wafering Blade	Non-Ferrous Material	METSDCUTW05L015
6"x.020"x.5" High Concentration Wafering Blade	Ferrous Material	METSDCUTW06H020
6"x.020"x.5" Low Concentration Wafering Blade	Non-Ferrous Material	METSDCUTW06L020
7"x.025"x.5" High Concentration Wafering Blade	Ferrous Material	METSDCUTW07H025
7"x.025"x.5" Low Concentration Wafering Blade	Non-Ferrous Material	METSDCUTW07L025
8"x.035"x.5" High Concentration Wafering Blade	Ferrous Material	METSDCUTW08H035
8"x.035"x.5" Low Concentration Wafering Blade	Non-Ferrous Material	METSDCUTW08L035

DIAMOND BLADES FOR CARBIDE & CERAMICS

DESCRIPTION	PART NUMBER
8" x .050 x 1.25" Resin Bond Diamond Blade	METSDCUTRES0008
10" x .050 x 1.25" Resin Bond Diamond Blade	METSDCUTRES0010
12" x .050 x 1.25" Resin Bond Diamond Blade	METSDCUTRES0012
12" x .060 x 1.25" Resin Bond Diamond Blade	METSDCUTRES6012

CBN BLADES RESIN BONDED FOR HARD FERROUS MATERIAL

DESCRIPTION	PART NUMBER
5" x.030" x 1.25" (32mm) CBN Cutoff Blade for Hard Steel	METSDCBNW050220
6" x.050" x 1.25" (32mm) CBN Cutoff Blade for Hard Steel	METSDCBN006HS60
7" x. 050" x 1.25" (32mm) CBN Cutoff Blade for Hard Steel	METSDCBN007HS60
8" x .050" x 1.25" (32mm) CBN Cutoff Blade for Hard Steel	METSDCBN008HS60
10" x .050" x 1.25" (32mm) CBN Cutoff Blade for Hard Steel	METSDCBN010HS60
12" x .060" x 1.25" (32mm) CBN Cutoff Blade for Hard Steel	METSDCBN012HS60

Sectioning Accessories

SECTIONING ACCESSORIES

DESCRIPTION	PART NUMBER
Water Soluble Cutting Fluid Gold Formula - Gallon (20:1 mix ratio)	METSACUTGFLGALL
Blue Soluble Cutting Fluid - Gallon (20:1 mix ratio)	METSACUTBFLGALL
Cool Cut Lubricating Fluid for Slow Speed Saws - 1 Quart (30:1 mix ratio)	METSCOOLCUT0032
Dressing Stick For Wafering Blade (1 each)	METSDRESSTK0001

Compression Mounting

Mounting of specimens is generally required for providing a convenient way to hold a specimen while it is being ground and polished, or for preserving and edge for examination. Mounting materials fall into one of two categories:

1. Compression Mounting Materials
2. Cold Mount Mounting Materials

Compression mounting requires the use of heat and pressure in a mounting press to prepare a mounted specimen. Cold mounting is performed at room temperature using a two part castable system.

COMPRESSION MOUNTING

PHENOLICS
Lapmaster offers phenolic material in three different colors: black, green and red. Phenolic material is economical, easy to use and cures quickly. Packaged in convenient 5 Lbs. Containers, phenolic materials may also be purchased in larger bulk containers as well.

ULTRA FINE EPOXY MOUNTING POWDER
A fine epoxy mounting powder that offers superior flow characteristics, high hardness and excellent edge retention. Color: Black

EPOXY MOUNTING COMPOUND
Epoxy mounting powder that offers high hardness with excellent edge retention. Color: Black

DIALLYL PHTHALATE
Another high hardness, minimum edge separation compression mounting material. Lapmaster's product is glass filled. Color: Blue

LUCITE
Lucite is a transparent compression mount material which allows viewing into the specimen. Lucite is packaged in 5 Lbs. Containers.

DESCRIPTION	PART NUMBER
Red Phenolic - 5 lb. Container	METSBAKERED0005
Black Phenolic - 5 lb. Container	METSBAKEBLK0005
Green Phenolic - 5 lb. Container	METSBAKEGRN0005
Red Phenolic - 25 lb. Container	METSBAKERED0025
Black Phenolic - 25 lb. Container	METSBAKEBLK0025
Green Phenolic - 25 lb. Container	METSBAKEGRN0025
Ultra Fine Epoxy Mounting Powder- Glass Filled - 5 lb Container	METSFINEPOW0005
Epoxy Mounting Compound, 4 pounds	METSEDGEMNT0004
Epoxy Mounting Compound, 25 pounds	METSEDGEMNT0025
Diallyl Phthalate - Glass Filled - 5 lb. Container	METSDIALPOW0005
Diallyl Phthalate - Glass Filled - 25 lb. Container	METSDIALPOW0025
Lucite - 5 lb. Container	METSLUCE0000005
Lucite - 25 lb. Container	METSLUCE0000025
Conductive Mount (graphite flakes) - 1 lb Container	METSCONDMNTGF01
Conductive Mount (graphite powder) - 1 lb Container	METSCONDMNTGP01
Conductive Mount (copper) - 1 lb Container	METSCONDMNTCM01

NEW

PHENOLIC PREMOLDS (PACKAGES OF 100)

Green 1.00"	METSPREMGRN0001
Green 1.25 "	METSPREMGRN11/4
Green 1.50"	METSPREMGRN11/2
Red 1.00"	METSPREMRED0001
Red 1.25"	METSPREMRED11/4
Red 1.50"	METSPREMRED11/2
Black 1.00"	METSPREMBLK0001
Black 1.25"	METSPREMBLK11/4
Black 1.50"	METSPREMBLK11/2

MOUNTING

Cold Mounting

COLD MOUNTING

SLOW CURE EPOXY
2 Part "low" viscosity epoxy system offering a hard, low shrinkage mount. The low viscosity of this product offers superior flow properties. Cure time is 8 hours.

FAST CURE EPOXY
Lapmaster features an epoxy mounting system which offers excellent edge retention, good abrasion resistance, and fast cure time — approximately 30 minutes.

HEAT CURE EPOXY
Ultra low viscosity for excellent penetration of small parts, voids, cracks and other fine features.
Extremely hard with low shrinkage and excellent edge retention. 90min cure time in oven at 131F (55C).
Can mix large amounts in one batch and pour over a 4 hour time period (if left at room temp).

FAST CURE ACRYLIC
A two part acrylic mounting system which cures in approximately 15 minutes. It has good flow characteristics and good penetration into holes and recess.

DESCRIPTION	PART NUMBER
Slow Cure Epoxy (8 hour) - Resin - 32 oz.	METSEPOXRESS032
Slow Cure Epoxy (8 hour) - Resin - Gallon	METSEPOXRESS128
Slow Cure Epoxy (8 hour) - Hardener - 16 oz.	METSEPOXHARS016
Slow Cure Epoxy (8 hour) - Hardener - 32 oz.	METSEPOXHARS032
Fast Cure Epoxy (30 min Cure)- Resin - 32 oz.	METSEPOXRES0032
Fast Cure Epoxy (30 min Cure)- Resin - Gallon.	METSEPOXRES0128
Fast Cure Epoxy (30 min Cure)- Hardener - 16 oz.	METSEPOXHAR0016
Fast Cure Epoxy (30 min Cure)- Hardener - 32 oz.	METSEPOXHAR0032
Heat Cure Epoxy (90 min Cure) - Resin 32oz	METSEPOXRESHC32
Heat Cure Epoxy (90 min Cure) - Hardener 16oz	METSEPOXHARHC16
Fast Cure Acrylic Liquid (15min Cure)- 12 oz.	METSACRYLIQ0012
Fast Cure Acrylic Liquid (15min Cure)- 64 oz.	METSACRYLIQ0064
Fast Cure Acrylic Liquid (15min Cure)- 2-1/2 gal.	METSACRYLIQ0320
Fast Cure Acrylic Powder (15min Cure)- 1 lb.	METSACRYPOW0001
Fast Cure Acrylic Powder (15min Cure)- 5 lb.	METSACRYPOW0005
Fast Cure Acrylic Powder (15min Cure)- 25 lb	METSACRYPOW0025

MOUNTING

PETROGRAPHIC MOUNTING — THIN SECTIONS TO GLASS SLIDES

Petrographic Mounting

DESCRIPTION	PART NUMBER
INPLEX Resin for cold embedding (1 kg resin, 20ml hardener)	METSPETRRIT002
Epoxy Resin for cold impregnation (1 kg resin, 0.8 kg hardener)	METSPETRRIM002
Epoxy Resin for cold gluing (1 kg resin, 0.2 kg hardener)	METSPETRRIN002
Epoxy Resin for cold gluing by UV (1 kg resin)	METSPETRRFT001
Epoxy Resin for gluing, double syringe, 3-6 minute cure time (50ml)	METSPETRACR007
Flourescent Dye for dissolving into epoxy resin (20g)	METSPETRRIM003
Colored Blue Dye for cold resins (100g)	METSPETRACR003
Lakeside Bars 70c, removable glue, 140° C melting point - 12 pieces	METSPETRACR011
Lakeside Bars 30L, removable glue, 60° C melting point - 2 pieces	METSPETRACR027
Canada Balsam (25 ml)	METSPETRACR004
Eukitt (500 ml)	METSPETRACR005
Paraffina Wax Drops (1 Kg)	METSPETRACR006
Red Wax (25 ml)	METSPETRNCACR

MOUNTING

MOUNTING ACCESSORIES

MOLD CUPS
Designed for casting mounts with cold mounting materials from 1" - 1.5" diameters.

Mounting Accessories

SPECIMEN CLIPS
Specimen clips are used to support specimens while the mounting material cures. Lapmaster offers both plastic and stainless steel support clips which are packaged in 100 piece containers.

MOLD RELEASE
Mold release is used to help eject the specimen from either the mounting press or mold. Lapmaster offers mold release for hot and cold mounting applications. It is available in aerosol spray, alcohol based liquid or a Non-Hazmat silicone liquid form.

DESCRIPTION	PART NUMBER
1.00" Disposable Mold Cups (Pack of 50)	METSMOLDCUP1.00
1.25" Disposable Mold Cups (Pack of 50)	METSMOLDCUP1.25
1.5" Disposable Mold Cups (Pack of 50)	METSMOLDCUP1.50
2 Part Reusable Plastic Mounting Cup, 1.00", Box of 12	METSPLASCUP1.00
2 Part Reusable Plastic Mounting Cup, 1.25", Box of 12	METSPLASCUP1.25
2 Part Reusable Plastic Mounting Cup, 1.50", Box of 12	METSPLASCUP1.50
Rubber Mounting Cup, 1.00", Box of 5	METSRUBBCUP1.00
Rubber Mounting Cup, 1.25", Box of 5	METSRUBBCUP1.25
Rubber Mounting Cup, 1.50", Box of 5	METSRUBBCUP1.50
Phenolic Ring Forms, 1.00" OD. Box of 10	METSFORM0101.00
Phenolic Ring Forms, 1.25" OD. Box of 11	METSFORM0101.25
Phenolic Ring Forms, 1.50" OD. Box of 12	METSFORM0101.50
Wooden Stirring Sticks, Box of 1000	METSSTIRSTK1000
Graduated Paper Mixing Cups, Box of 100	METSCUPSMIX0100
Stainless Steel Support Clips (Pack of 100)	METSCLIP100METL
Plastic Support Clips (Pack of 100)	METSCLIP100PLAS
Dry Powder Mold Release Spray - 15oz Aerosol Spray	METSMOLDREL0HOT
Alcohol Based Liquid Mold Release 2oz (Non Aerosol)	METSMOLDRELLIQ2
Silicone Liquid Mold Release NON-HAZ 2oz (Non Aerosol)	METSMOLDRESSIL2

GRINDING WHEELS

Grinding Wheels

DESCRIPTION	PART NUMBER
Grinding Wheel, Aluminum Oxide, 8" X 1.75" X 1.5", 150 Grit	METSGRNDAL80150
Grinding Wheel, Aluminum Oxide, 14" X 1.75" X 1.5", 150 Grit	METSGRNDALX0150
Grinding Wheel, Silicon Carbide, 14" X 1.75" X 1.5", 150 Grit	METSGRNDSIC0150

ABRASIVE ROLLS

Abrasive Rolls

Our Abrasive Rolls are manufactured using the same high quality material as the Abrasive Discs. Our Abrasive Rolls are also available in a variety of sizes and grits.

DESCRIPTION	PART NUMBER
3" x 75' Silicon Carbide Roll - 120 grit	METSROLL3750120
3" x 75' Silicon Carbide Roll - 240 grit	METSROLL3750240
3" x 75' Silicon Carbide Roll - 320 grit	METSROLL3750320
3" x 75' Silicon Carbide Roll - 400 grit	METSROLL3750400
3" x 75' Silicon Carbide Roll - 600 grit	METSROLL3750600
3 - 7/16" X 60' Silicon Carbide Roll - 240 grit	METSROLL7600240
3 - 7/16" X 60' Silicon Carbide Roll - 320 grit	METSROLL7600320
3 - 7/16" X 60' Silicon Carbide Roll - 400 grit	METSROLL7600400
3 - 7/16" X 60' Silicon Carbide Roll - 600 grit	METSROLL7600600
3 - 7/16" x 60' Silicone Carbide Roll - 800 grit	METSROLL7600800
3 - 7/16" x 60' Silicone Carbide Roll - 1200 grit	METSROLL7601200

Abrasive Belts

Our Abrasive Belts feature premium graded silicon carbide abrasive bonded to an "X" weight cotton backing. These Belts can be used both in wet or dry applications and are available in a variety of sizes and grits.

Abrasive Belts

Our Abrasive Belts are also available in Aluminum Oxide (ALOX) and Zirconia Alumina (ZA) for additional applications.

ABRASIVE BELTS

SILICON CARBIDE BELTS   SOLD IN PACKS OF 10

DESCRIPTION	PART NUMBER
4" x 36" Silicon Carbide Belt - 50 Grit (Pack of 10)	METSBELT4360050
4" x 36" Silicon Carbide Belt - 60 Grit (Pack of 10)	METSBELT4360060
4" x 36" Silicon Carbide Belt - 80 Grit (Pack of 10)	METSBELT4360080
4" x 36" Silicon Carbide Belt - 120 Grit (Pack of 10)	METSBELT4360120
4" x 36" Silicon Carbide Belt - 180 Grit (Pack of 10)	METSBELT4360180
4" x 36" Silicon Carbide Belt - 240 Grit (Pack of 10)	METSBELT4360240
4" x 36" Silicon Carbide Belt - 320 Grit (Pack of 10)	METSBELT4360320
4" x 36" Silicon Carbide Belt - 400 Grit (Pack of 10)	METSBELT4360400
4" x 36" Silicon Carbide Belt - 600 Grit (Pack of 10)	METSBELT4360600

ALUMINUM OXIDE BELTS   SOLD IN PACKS OF 10

DESCRIPTION	PART NUMBER
4" x 36" Aluminum Oxide Belt - 60 Grit (Pack of 10)	METSBELT436AL60
4" x 36" Aluminum Oxide Belt - 80 Grit (Pack of 10)	METSBELT436AL80
4" x 36" Aluminum Oxide Belt - 100 Grit (Pack of 10)	METSBELT436A100
4" x 36" Aluminum Oxide Belt - 120 Grit (Pack of 10)	METSBELT436A120
4" x 36" Aluminum Oxide Belt - 180 Grit (Pack of 10)	METSBELT436A180
4" x 36" Aluminum Oxide Belt - 240 Grit (Pack of 10)	METSBELT436A240
6" x 48" Aluminum Oxide Belt - 50 Grit (Pack of 10)	METSBELT648AL50
6" x 48" Aluminum Oxide Belt - 60 Grit (Pack of 10)	METSBELT648EC60
6" x 48" Aluminum Oxide Belt - 80 Grit (Pack of 10)	METSBELT648AL80
6" x 48" Aluminum Oxide Belt - 100 Grit (Pack of 10)	METSBELT648A100
6" x 48" Aluminum Oxide Belt - 120 Grit (Pack of 10)	METSBELT648A120
6" x 48" Aluminum Oxide Belt - 180 Grit (Pack of 10)	METSBELT648A180
6" x 48" Aluminum Oxide Belt - 240 Grit (Pack of 10)	METSBELT648A240

ZIRCONIA ALUMINA BELTS   SOLD IN PACKS OF 10

DESCRIPTION	PART NUMBER
4" x 36" Zirconia Alumina Belt - 60 Grit (Pack of 10)	METSBELT436ZA60
4" x 36" Zirconia Alumina Belt - 80 Grit (Pack of 10)	METSBELT436ZA80
4" x 36" Zirconia Alumina Belt - 100 Grit (Pack of 10)	METSBELT436Z100
4" x 36" Zirconia Alumina Belt - 120 Grit (Pack of 10)	METSBELT43SZ120
6" x 48" Zirconia Alumina Belt - 60 Grit (Pack of 10)	METSBELT648ZA60
6" x 48" Zirconia Alumina Belt - 80 Grit (Pack of 10)	METSBELT648ZA80
6" x 48" Zirconia Alumina Belt - 100 Grit (Pack of 10)	METSBELT648Z100
6" x 48" Zirconia Alumina Belt - 120 Grit (Pack of 10)	METSBELT648Z120

Additional sizes and grits are available upon request.

Abrasive Discs

Lapmaster offers a complete line of Abrasive Discs for your Metallographic sample preparation needs. These products are excellent for coarse and fine grinding of Metallographic specimens.

Our Discs feature premium graded silicon carbide bonded to a sturdy "C" weight backing. The premium graded silicon carbide allows high cutting rates, yet produces consistent and uniform finishes. The high performance resin bonding system permits wet or dry operation allowing for longer paper life.

These Discs are available in Plain Back and Water Resistant pressure-sensitive adhesive backings.

Our Abrasive discs are also available in Aluminum Oxide (ALOX) and Zirconia Alumina (ZA) for additional applications.

ABRASIVE DISCS

SILICON CARBIDE ABRASIVE PAPER DISCS   SOLD IN 100 DISC PACKS

DESCRIPTION	PART NUMBER
1" PSA Backed Silicon Carbide Abrasive Paper Discs - 180 Grit	METSPAPRA010180
1" PSA Backed Silicon Carbide Abrasive Paper Discs - 240 Grit	METSPAPRA010240
1" PSA Backed Silicon Carbide Abrasive Paper Discs - 320 Grit	METSPAPRA010320
1" PSA Backed Silicon Carbide Abrasive Paper Discs - 400 Grit	METSPAPRA010400
1" PSA Backed Silicon Carbide Abrasive Paper Discs - 600 Grit	METSPAPRA010600
2-7/8" PSA Backed Silicon Carbide Abrasive Paper Discs - 180 Grit	METSPAPR2780180
2-7/8" PSA Backed Silicon Carbide Abrasive Paper Discs - 240 Grit	METSPAPR2780240
2-7/8" PSA Backed Silicon Carbide Abrasive Paper Discs - 320 Grit	METSPAPR2780320
2-7/8" PSA Backed Silicon Carbide Abrasive Paper Discs - 400 Grit	METSPAPR2780400
2-7/8" PSA Backed Silicon Carbide Abrasive Paper Discs - 600 Grit	METSPAPR2780600
8" Plain Backed Silicon Carbide Abrasive Paper Discs - 60 Grit	METSPAPRP080060
8" Plain Backed Silicon Carbide Abrasive Paper Discs - 80 Grit	METSPAPRP080080
8" Plain Backed Silicon Carbide Abrasive Paper Discs - 120 Grit	METSPAPRP080120
8" Plain Backed Silicon Carbide Abrasive Paper Discs - 180 Grit	METSPAPRP080180
8" Plain Backed Silicon Carbide Abrasive Paper Discs - 240 Grit	METSPAPRP080240
8" Plain Backed Silicon Carbide Abrasive Paper Discs - 320 Grit	METSPAPRP080320
8" Plain Backed Silicon Carbide Abrasive Paper Discs - 400 Grit	METSPAPRP080400
8" Plain Backed Silicon Carbide Abrasive Paper Discs - 600 Grit	METSPAPRP080600
8" Plain Backed Silicon Carbide Abrasive Paper Discs - 800 Grit	METSPAPRP080800
8" Plain Backed Silicon Carbide Abrasive Paper Discs - 1200 Grit	METSPAPRP081200
8" Plain Backed Silicon Carbide Abrasive Paper Discs-1/2" hole-60 Grit	METSPAPRC/20060
8" Plain Backed Silicon Carbide Abrasive Paper Discs-1/2" hole-80 Grit	METSPAPRC/20080
8" Plain Backed Silicon Carbide Abrasive Paper Discs-1/2" hole-120 Grit	METSPAPRC/20120
8" Plain Backed Silicon Carbide Abrasive Paper Discs-1/2" hole-180 Grit	METSPAPRC/20180
8" Plain Backed Silicon Carbide Abrasive Paper Discs-1/2" hole-240 Grit	METSPAPRC/20240
8" Plain Backed Silicon Carbide Abrasive Paper Discs-1/2" hole-320 Grit	METSPAPRC/20320
8" Plain Backed Silicon Carbide Abrasive Paper Discs-1/2" hole-400 Grit	METSPAPRC/20400
8" Plain Backed Silicon Carbide Abrasive Paper Discs-1/2" hole-600 Grit	METSPAPRC/20600
8" Plain Backed Silicon Carbide Abrasive Paper Discs-1/2" hole-800 Grit	METSPAPRC/20800
8" Plain Backed Silicon Carbide Abrasive Paper Discs-1/2" hole-1200 Grit	METSPAPRC/21200
8" PSA Backed Silicon Carbide Abrasive Paper Discs - 60 Grit	METSPAPRA080060
8" PSA Backed Silicon Carbide Abrasive Paper Discs - 80 Grit	METSPAPRA080080
8" PSA Backed Silicon Carbide Abrasive Paper Discs - 120 Grit	METSPAPRA080120
8" PSA Backed Silicon Carbide Abrasive Paper Discs - 180 Grit	METSPAPRA080180
8" PSA Backed Silicon Carbide Abrasive Paper Discs - 240 Grit	METSPAPRA080240
8" PSA Backed Silicon Carbide Abrasive Paper Discs - 320 Grit	METSPAPRA080320
8" PSA Backed Silicon Carbide Abrasive Paper Discs - 400 Grit	METSPAPRA080400
8" PSA Backed Silicon Carbide Abrasive Paper Discs - 600 Grit	METSPAPRA080600
8" PSA Backed Silicon Carbide Abrasive Paper Discs - 800 Grit	METSPAPRA080800
8" PSA Backed Silicon Carbide Abrasive Paper Discs - 1000 Grit	METSPAPRA081000
8" PSA Backed Silicon Carbide Abrasive Paper Discs - 1200 Grit	METSPAPRA081200

Additional sizes and grits are available upon request.

GRINDING & POLISHING

ABRASIVE DISCS

SILICON CARBIDE ABRASIVE PAPER DISCS **SOLD IN 100 DISC PACKS**

Abrasive Discs

DESCRIPTION	PART NUMBER
200mm Plain Backed Silicon Carbide Abrasive Paper Discs - 60 Grit	METSPAPR2000060
200mm Plain Backed Silicon Carbide Abrasive Paper Discs - 80 Grit	METSPAPR2000080
200mm Plain Backed Silicon Carbide Abrasive Paper Discs - 120 Grit	METSPAPR2000120
200mm Plain Backed Silicon Carbide Abrasive Paper Discs - 180 Grit	METSPAPR2000180
200mm Plain Backed Silicon Carbide Abrasive Paper Discs - 240 Grit	METSPAPR2000240
200mm Plain Backed Silicon Carbide Abrasive Paper Discs - 320 Grit	METSPAPR2000320
200mm Plain Backed Silicon Carbide Abrasive Paper Discs - 400 Grit	METSPAPR2000400
200mm Plain Backed Silicon Carbide Abrasive Paper Discs - 600 Grit	METSPAPR2000600
200mm Plain Backed Silicon Carbide Abrasive Paper Discs - 800 Grit	METSPAPR2000800
200mm Plain Backed Silicon Carbide Abrasive Paper Discs - 1200 Grit	METSPAPR2001200
10" Plain Backed Silicon Carbide Abrasive Paper Discs - 60 Grit	METSPAPRP100060
10" Plain Backed Silicon Carbide Abrasive Paper Discs - 80 Grit	METSPAPRP100080
10" Plain Backed Silicon Carbide Abrasive Paper Discs - 120 Grit	METSPAPRP100120
10" Plain Backed Silicon Carbide Abrasive Paper Discs - 180 Grit	METSPAPRP100180
10" Plain Backed Silicon Carbide Abrasive Paper Discs - 240 Grit	METSPAPRP100240
10" Plain Backed Silicon Carbide Abrasive Paper Discs - 320 Grit	METSPAPRP100320
10" Plain Backed Silicon Carbide Abrasive Paper Discs - 400 Grit	METSPAPRP100400
10" Plain Backed Silicon Carbide Abrasive Paper Discs - 600 Grit	METSPAPRP100600
10" Plain Backed Silicon Carbide Abrasive Paper Discs - 800 Grit	METSPAPRP100800
10" Plain Backed Silicon Carbide Abrasive Paper Discs - 1200 Grit	METSPAPRP101200
10" PSA Backed Silicon Carbide Abrasive Paper Discs - 60 Grit	METSPAPRA100060
10" PSA Backed Silicon Carbide Abrasive Paper Discs - 80 Grit	METSPAPRA100080
10" PSA Backed Silicon Carbide Abrasive Paper Discs - 120 Grit	METSPAPRA100120
10" PSA Backed Silicon Carbide Abrasive Paper Discs - 180 Grit	METSPAPRA100180
10" PSA Backed Silicon Carbide Abrasive Paper Discs - 240 Grit	METSPAPRA100240
10" PSA Backed Silicon Carbide Abrasive Paper Discs - 320 Grit	METSPAPRA100320
10" PSA Backed Silicon Carbide Abrasive Paper Discs - 400 Grit	METSPAPRA100400
10" PSA Backed Silicon Carbide Abrasive Paper Discs - 600 Grit	METSPAPRA100600
10" PSA Backed Silicon Carbide Abrasive Paper Discs - 800 Grit	METSPAPRA100800
10" PSA Backed Silicon Carbide Abrasive Paper Discs - 1200 Grit	METSPAPRA101200
250mm Plain Backed Silicon Carbide Abrasive Paper Discs - 60 Grit	METSPAPR2500060
250mm Plain Backed Silicon Carbide Abrasive Paper Discs - 80 Grit	METSPAPR2500080
250mm Plain Backed Silicon Carbide Abrasive Paper Discs - 120 Grit	METSPAPR2500120
250mm Plain Backed Silicon Carbide Abrasive Paper Discs - 180 Grit	METSPAPR2500180
250mm Plain Backed Silicon Carbide Abrasive Paper Discs - 240 Grit	METSPAPR2500240
250mm Plain Backed Silicon Carbide Abrasive Paper Discs - 320 Grit	METSPAPR2500320
250mm Plain Backed Silicon Carbide Abrasive Paper Discs - 400 Grit	METSPAPR2500400
250mm Plain Backed Silicon Carbide Abrasive Paper Discs - 600 Grit	METSPAPR2500600
250mm Plain Backed Silicon Carbide Abrasive Paper Discs - 800 Grit	METSPAPR2500800
250mm Plain Backed Silicon Carbide Abrasive Paper Discs - 1200 Grit	METSPAPR2501200

Additional sizes and grits are available upon request.

Abrasive Discs

ABRASIVE DISCS

SILICON CARBIDE ABRASIVE PAPER DISCS   **SOLD IN 100 DISC PACKS**

DESCRIPTION	PART NUMBER
12" Plain Backed Silicon Carbide Abrasive Paper Discs - 60 Grit	METSPAPRP120060
12" Plain Backed Silicon Carbide Abrasive Paper Discs - 80 Grit	METSPAPRP120080
12" Plain Backed Silicon Carbide Abrasive Paper Discs - 120 Grit	METSPAPRP120120
12" Plain Backed Silicon Carbide Abrasive Paper Discs - 180 Grit	METSPAPRP120180
12" Plain Backed Silicon Carbide Abrasive Paper Discs - 240 Grit	METSPAPRP120240
12" Plain Backed Silicon Carbide Abrasive Paper Discs - 320 Grit	METSPAPRP120320
12" Plain Backed Silicon Carbide Abrasive Paper Discs - 400 Grit	METSPAPRP120400
12" Plain Backed Silicon Carbide Abrasive Paper Discs - 600 Grit	METSPAPRP120600
12" Plain Backed Silicon Carbide Abrasive Paper Discs - 800 Grit	METSPAPRP120800
12" Plain Backed Silicon Carbide Abrasive Paper Discs - 1200 Grit	METSPAPRP121200
12" PSA Backed Silicon Carbide Abrasive Paper Discs - 60 Grit	METSPAPRA120060
12" PSA Backed Silicon Carbide Abrasive Paper Discs - 80 Grit	METSPAPRA120080
12" PSA Backed Silicon Carbide Abrasive Paper Discs - 120 Grit	METSPAPRA120120
12" PSA Backed Silicon Carbide Abrasive Paper Discs - 180 Grit	METSPAPRA120180
12" PSA Backed Silicon Carbide Abrasive Paper Discs - 240 Grit	METSPAPRA120240
12" PSA Backed Silicon Carbide Abrasive Paper Discs - 320 Grit	METSPAPRA120320
12" PSA Backed Silicon Carbide Abrasive Paper Discs - 400 Grit	METSPAPRA120400
12" PSA Backed Silicon Carbide Abrasive Paper Discs - 600 Grit	METSPAPRA120600
12" PSA Backed Silicon Carbide Abrasive Paper Discs - 800 Grit	METSPAPRA120800
12" PSA Backed Silicon Carbide Abrasive Paper Discs - 1200 Grit	METSPAPRA121200
300mm Plain Backed Silicon Carbide Abrasive Paper Discs - 60 Grit	METSPAPR3000060
300mm Plain Backed Silicon Carbide Abrasive Paper Discs - 80 Grit	METSPAPR3000080
300mm Plain Backed Silicon Carbide Abrasive Paper Discs - 120 Grit	METSPAPR3000120
300mm Plain Backed Silicon Carbide Abrasive Paper Discs - 180 Grit	METSPAPR3000180
300mm Plain Backed Silicon Carbide Abrasive Paper Discs - 240 Grit	METSPAPR3000240
300mm Plain Backed Silicon Carbide Abrasive Paper Discs - 320 Grit	METSPAPR3000320
300mm Plain Backed Silicon Carbide Abrasive Paper Discs - 400 Grit	METSPAPR3000400
300mm Plain Backed Silicon Carbide Abrasive Paper Discs - 600 Grit	METSPAPR3000600
300mm Plain Backed Silicon Carbide Abrasive Paper Discs - 800 Grit	METSPAPR3000800
300mm Plain Backed Silicon Carbide Abrasive Paper Discs - 1200 Grit	METSPAPR3001200
15" Plain Backed Silicon Carbide Abrasive Paper Discs - 60 Grit	METSPAPRP150060
15" Plain Backed Silicon Carbide Abrasive Paper Discs - 80 Grit	METSPAPRP150080
15" Plain Backed Silicon Carbide Abrasive Paper Discs - 120 Grit	METSPAPRP150120
15" Plain Backed Silicon Carbide Abrasive Paper Discs - 180 Grit	METSPAPRP150180
15" Plain Backed Silicon Carbide Abrasive Paper Discs - 240 Grit	METSPAPRP150240
15" Plain Backed Silicon Carbide Abrasive Paper Discs - 320 Grit	METSPAPRP150320
15" Plain Backed Silicon Carbide Abrasive Paper Discs - 400 Grit	METSPAPRP150400
15" Plain Backed Silicon Carbide Abrasive Paper Discs - 600 Grit	METSPAPRP150600
15" Plain Backed Silicon Carbide Abrasive Paper Discs - 800 Grit	METSPAPRP150800
15" Plain Backed Silicon Carbide Abrasive Paper Discs - 1200 Grit	METSPAPRP151200

Additional sizes and grits are available upon request.

Abrasive Discs

ABRASIVE DISCS

SILICON CARBIDE ABRASIVE PAPER DISCS   SOLD IN 100 DISC PACKS

DESCRIPTION	PART NUMBER
15" PSA Backed Silicon Carbide Abrasive Paper Discs - 60 Grit	METSPAPRA150060
15" PSA Backed Silicon Carbide Abrasive Paper Discs - 80 Grit	METSPAPRA150080
15" PSA Backed Silicon Carbide Abrasive Paper Discs - 120 Grit	METSPAPRA150120
15" PSA Backed Silicon Carbide Abrasive Paper Discs - 180 Grit	METSPAPRA150180
15" PSA Backed Silicon Carbide Abrasive Paper Discs - 240 Grit	METSPAPRA150240
15" PSA Backed Silicon Carbide Abrasive Paper Discs - 320 Grit	METSPAPRA150320
15" PSA Backed Silicon Carbide Abrasive Paper Discs - 400 Grit	METSPAPRA150400
15" PSA Backed Silicon Carbide Abrasive Paper Discs - 600 Grit	METSPAPRA150600
15" PSA Backed Silicon Carbide Abrasive Paper Discs - 800 Grit	METSPAPRA150800
15" PSA Backed Silicon Carbide Abrasive Paper Discs - 1200 Grit	METSPAPRA151200

ALUMINUM OXIDE ABRASIVE DISCS-PSA BACKED

DESCRIPTION	PART NUMBER
12" Aluminum Oxide Abrasive Cloth Disc - 60 Grit Pack of 25	METSPAPRA12AL60
12" Aluminum Oxide Abrasive Cloth Disc - 80 Grit Pack of 50	METSPAPRA12AL80
12" Aluminum Oxide Abrasive Cloth Disc - 100 Grit Pack of 50	METSPAPRA12A100
12" Aluminum Oxide Abrasive Cloth Disc - 120 Grit Pack of 50	METSPAPRA12A120
12" Aluminum Oxide Abrasive Cloth Disc - 180 Grit Pack of 50	METSPAPRA12A180
12" Aluminum Oxide Abrasive Cloth Disc - 220 Grit Pack of 50	METSPAPRA12A220
12" Aluminum Oxide Abrasive Cloth Disc - 240 Grit Pack of 50	METSPAPRA12A240

ZIRCONIA ALUMINA ABRASIVE DISCS-PSA BACKED   SOLD IN PACKS OF 25

DESCRIPTION	PART NUMBER
8" Zirconia Alumina Abrasive Cloth Disc - 60 Grit	METSPAPRA08ZA60
12" Zirconia Alumina Abrasive Cloth Disc - 60 Grit	METSPAPRA12ZA60
12" Zirconia Alumina Abrasive Cloth Disc - 120 Grit	METSPAPRA12Z120
12" Zirconia Alumina Abrasive Cloth Disc - 180 Grit	METSPAPRA12Z180
12" Zirconia Alumina Abrasive Cloth Disc - 220 Grit	METSPAPRA12Z220

Additional sizes and grits are available upon request.

DIAMOND GRINDING DISCS

LAPMASTER "LMDG" FIXED DIAMOND FINE GRINDING/POLISHING DISCS

"LMDG" Diamond Discs

The LAPMASTER "LMDG" is an innovative diamond grinding disc that extends fine grinding to single-micron grit sizes! It replaces conventional polishing processes, achieving superior results in terms of material removal rate, surface quality, planarity of the sample and life of the consumable. Lapmaster "LMDG" provides for an easy, clean and efficient fine grinding process.

Uses only water for lubrication (NO SLURRY OR OIL)

Metal backing for use with a magnetic system.

DESCRIPTION	PART NUMBER
8", (200mm),125 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0080125
8", (200mm), 75 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0080075
8", (200mm), 60 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0080060
8", (200mm), 54 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0080054
8", (200mm), 30 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0080030
8", (200mm), 18 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0080018
8", (200mm), 15 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0080015
8", (200mm), 9 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0080009
8", (200mm), 6 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0080006
8", (200mm), 3 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0080003
8", (200mm), 2 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0080002
8", (200mm), 1 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0080001
10", (250mm), 125 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0100125
10", (250mm), 75 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0100075
10", (250mm), 60 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0100060
10", (250mm), 54 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0100054
10", (250mm), 30 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0100030
10", 250mm, 18 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0100018
10", (250mm), 15 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0100015
10", (250mm), 9 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0100009
10", (250mm), 6 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0100006
10", (250mm), 3 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0100003
10", (250mm), 2 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0100002
10", (250mm), 1 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0100001
12", (300mm), 125 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0120125
12", (300mm), 75 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0120075
12", (300mm), 60 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0120060
12", (300mm), 54 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0120054
12", (300mm), 30 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0120030
12", (300mm), 18 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0120018
12", (300mm), 15 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0120015
12", (300mm), 9 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0120009
12", (300mm), 6 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0120006
12", (300mm), 3 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0120003
12", (300mm), 2 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0120002
12", (300mm), 1 micron Lapmaster "LMDG" Diamond Disc	METSLMDG0120001

DIAMOND GRINDING DISCS

PIATTO DIAMOND GRINDING DISCS
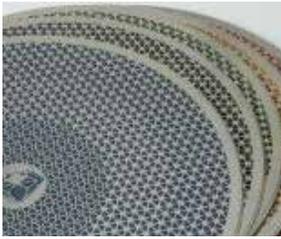
A special resin bonded diamond grinding disc which offers significant improvements over other disc systems on the market today. These diamond discs are designed to replace over 200 sheets of the equivalent SiC grinding discs. With a more evenly distributed abrasive grain size you will achieve a uniform grind and perfect edge retention on a wide range of materials. With a steel backing to be used with a magnetic system.

| DESCRIPTION	PART NUMBER
8" (200mm) PIATTO Diamond Grinding Disc, 80 grit	METSPIAT0080080
8" (200mm) PIATTO Diamond Grinding Disc, 120 grit	METSPIAT0080120
8" (200mm) PIATTO Diamond Grinding Disc, 240 grit (220P)	METSPIAT0080220
8" (200mm) PIATTO Diamond Grinding Disc, 360 grit (600P)	METSPIAT0080600
8" (200mm) PIATTO Diamond Grinding Disc, 600 grit (1200P)	METSPIAT0081200
10" (250mm) PIATTO Diamond Grinding Disc, 80 grit	METSPIAT0100080
10" (250mm) PIATTO Diamond Grinding Disc, 120 grit	METSPIAT0100120
10" (250mm) PIATTO Diamond Grinding Disc, 240 grit (220P)	METSPIAT0100220
10" (250mm) PIATTO Diamond Grinding Disc, 360 grit (600P)	METSPIAT0100600
10" (250mm) PIATTO Diamond Grinding Disc, 600 grit (1200P)	METSPIAT0101200
12" (300mm) PIATTO Diamond Grinding Disc, 80 grit	METSPIAT0120080
12" (300mm) PIATTO Diamond Grinding Disc, 120 grit	METSPIAT0120120
12" (300mm) PIATTO Diamond Grinding Disc, 240 grit (220P))	METSPIAT0120220
12" (300mm) PIATTO Diamond Grinding Disc, 360 grit (600P)	METSPIAT0120600
12" (300mm) PIATTO Diamond Grinding Disc, 600 grit (1200P)	METSPIAT0121200
14" (350mm) PIATTO Diamond Grinding Disc, 80 grit	METSPIAT0140080
14" (350mm) PIATTO Diamond Grinding Disc, 120 grit	METSPIAT0140120
14" (350mm) PIATTO Diamond Grinding Disc, 240 grit (220P)	METSPIAT0140220
14" (350mm) PIATTO Diamond Grinding Disc, 360 grit (600P)	METSPIAT0140600
14" (350mm) PIATTO Diamond Grinding Disc, 600 grit (1200P)	METSPIAT0141200

ALLEGRAN ROUGH POLISHING DIAMOND DISCS - FOR FERROUS MATERIALS

Rough polishing discs are designed to be used with diamond suspensions (1 µm thru 15 µm) for the rough polishing step of ferrous materials such as steels and iron. Use a final polishing cloth after this step for finer polishing. These metal backed discs and metal backed polishing cloths work directly on a magnetic system.

DESCRIPTION	PART NUMBER
8" (200mm) ALLEGRAN #1 Diamond Polishing Disc, for up to 1µm	METSALEG0080001
8" (200mm) ALLEGRAN #3 Diamond Polishing Disc, for 3µm to 6µm	METSALEG0080003
8" (200mm) ALLEGRAN #9 Diamond Polishing Disc, for 6µm to 15µm	METSALEG0080009
10" (200mm) ALLEGRAN #1 Diamond Polishing Disc, for up to 1µm	METSALEG0100001
10" (200mm) ALLEGRAN #3 Diamond Polishing Disc, for 3µm to 6µm	METSALEG0100003
10" (200mm) ALLEGRAN #9 Diamond Polishing Disc, for 6µm to 15µm	METSALEG0100009
12" (200mm) ALLEGRAN #1 Diamond Polishing Disc, for up to 1µm	METSALEG0120001
12" (200mm) ALLEGRAN #3 Diamond Polishing Disc, for 3µm to 6µm	METSALEG0120003
12" (200mm) ALLEGRAN #9 Diamond Polishing Disc, for 6µm to 15µm	METSALEG0120009
14" (200mm) ALLEGRAN #1 Diamond Polishing Disc, for up to 1µm	METSALEG0140001
14" (200mm) ALLEGRAN #3 Diamond Polishing Disc, for 3µm to 6µm	METSALEG0140003
14" (200mm) ALLEGRAN #9 Diamond Polishing Disc, for 6µm to 15µm	METSALEG0140009

Rough polishing discs are designed to be used with diamond suspensions (1 μm thru 15 μm) for the rough polishing step of non-ferrous materials such as aluminum and soft alloys. Use a final polishing cloth after this step for finer polishing. These metal backed discs and metal backed polishing cloths work directly on a magnetic system.

LARGAN ROUGH POLISHING DIAMOND DISCS — FOR NON-FERROUS MATERIALS

DESCRIPTION	PART NUMBER
8" (200mm) LARGAN Diamond Polishing Disc	METSLARG0080009
10" (250mm) LARGAN Diamond Polishing Disc	METSLARG0100009
12" (300mm) LARGAN Diamond Polishing Disc	METSLARG0120009
14" (350mm) LARGAN Diamond Polishing Disc	METSLARG0140009
Dressing Stick For Diamond Discs	METSDRESSTK0001

Lapping Films

DIAMOND FILMS

Diamond films consist of a 3 mil polyester backing coated with a layer of precision graded diamond. These films are ideal for applications where flatness, and edge retention are critical such as electronic components or with samples composed of multiple materials of various hardness. Available in micron sizes ranging from 0.25 to 30 microns.

LAPPING FILMS

DIAMOND LAPPING FILM

DESCRIPTION	PART NUMBER
4" PSA Diamond Lapping Film 1/2 Micron 10 Per Pack	METSFILMA0401/2
4" PSA Diamond Lapping Film - 1 Micron 10 Per Pack	METSFILMA040001
4" PSA Diamond Lapping Film - 3 Micron 10 Per Pack	METSFILMA040003
4" PSA Diamond Lapping Film - 6 Micron 10 Per Pack	METSFILMA040006
4" PSA Diamond Lapping Film - 9 Micron 10 Per Pack	METSFILMA040009
4" PSA Diamond Lapping Film - 15 Micron 10 Per Pack	METSFILMA040015
4" PSA Diamond Lapping Film - 30 Micron 10 Per Pack	METSFILMA040030
8" Plain Backed Diamond Lapping Film - 1/2 Micron	METSFILMP0801/2
8" Plain Backed Diamond Lapping Film - 1 Micron	METSFILMP080001
8" Plain Backed Diamond Lapping Film - 3 Micron	METSFILMP080003
8" Plain Backed Diamond Lapping Film - 6 Micron	METSFILMP080006
8" Plain Backed Diamond Lapping Film - 9 Micron	METSFILMP080009
8" Plain Backed Diamond Lapping Film - 15 Micron	METSFILMP080015
8" Plain Backed Diamond Lapping Film - 30 Micron	METSFILMP080030
8" PSA Backed Diamond Lapping Film - 1/2 Micron	METSFILMA0801/2
8" PSA Backed Diamond Lapping Film - 1 Micron	METSFILMA080001
8" PSA Backed Diamond Lapping Film - 3 Micron	METSFILMA080003
8" PSA Backed Diamond Lapping Film - 6 Micron	METSFILMA080006
8" PSA Backed Diamond Lapping Film - 9 Micron	METSFILMA080009
8" PSA Backed Diamond Lapping Film - 15 Micron	METSFILMA080015
8" PSA Backed Diamond Lapping Film - 30 Micron	METSFILMA080030
12" Plain Backed Diamond Lapping Film - 1/2 Micron	METSFILMP1201/2
12" Plain Backed Diamond Lapping Film - 1 Micron	METSFILMP120001
12" Plain Backed Diamond Lapping Film - 3 Micron	METSFILMP120003
12" Plain Backed Diamond Lapping Film - 6 Micron	METSFILMP120006
12" Plain Backed Diamond Lapping Film - 9 Micron	METSFILMP120009
12" Plain Backed Diamond Lapping Film - 15 Micron	METSFILMP120015
12" Plain Backed Diamond Lapping Film - 30 Micron	METSFILMP120030
12" PSA Backed Diamond Lapping Film - 1/2 Micron	METSFILMA1201/2
12" PSA Backed Diamond Lapping Film - 1 Micron	METSFILMA120001
12" PSA Backed Diamond Lapping Film - 3 Micron	METSFILMA120003
12" PSA Backed Diamond Lapping Film - 6 Micron	METSFILMA120006
12" PSA Backed Diamond Lapping Film - 9 Micron	METSFILMA120009
12" PSA Backed Diamond Lapping Film - 15 Micron	METSFILMA120015
12" PSA Backed Diamond Lapping Film - 30 Micron	METSFILMA120030

GRINDING & POLISHING

LMB SERIES POLISHING CLOTHS & PADS WITH STAINLESS STEEL METAL BACKING, FOR MAGNETIC SYSTEMS

MADE IN THE USA WITH THE HIGHEST QUALITY MATERIALS!

Available in all popular pad types and sizes for easy conversion to the LAPMASTER LMB Ssytem!

LMB-HGN Hard woven cloth pad used to replace some rough grinding steps when used with polycrystalline diamond.
Use with diamond 6 micron and up.
Most effective with 15 micron and up.

LMB-PANW Napless, non-woven textile. Excellent for flatness and edge retention on a wide range of materials; ferrous and non-ferrous metals, ceramics, PCB, minerals among others.
Use with diamond 15 - 1 micron.

LMB-GLD Woven acetate polishing pad. Used for fine grinding and polishing of ferrous metals, non-ferrous metals, plastics and coatings.
Used with diamond 9 - 3 micron.

LMB-ASFL Silk style polishing cloth used to produce mirror surfaces on ferrous and non-ferrous, and microelectronics. Best results obtained with 3-micron diamond and finer.
Use diamond 9 - 1 micron.

LMB-RED Woven wool felt polishing pad. For polishing ferrous metals with aluminas less than 9 micron particle size.

LMB-PLUS Synthetic nap polishing cloth specifically designed for sintered carbides and steels.
For use with all micron sizes.

LMB-FWL A special woven 100% wool polishing pad. Used to polish ferrous metals, non-ferrous metals and polymers.
Use with diamond 9 - 1 micron.

LMB-FNL A final polishing cloth with a medium rayon nap. Excellent for final polishing on all materials with diamond or alumina.
Use with diamond or alumina 5 - 0.02 micron.

LMB-DBN A final polishing cloth with a short synthetic nap. Excellent for final polishing on all materials with diamond or alumina.
Use with diamond or alumina 5 - 0.02 micron.

LMB-SUPREME A long life, chemical resistant (CHEM), polyurethane polishing pad. Excellent for final polishing with alumina or colloidal silica. Most effective during chemicalmechanical polishing of soft non-ferrous materials.
Use with alumina or colloidal silica ,1 - 0.02 micron.

POLISHING CLOTHS & PADS FOR MAGNETIC SYSTEMS

DESCRIPTION	PART NUMBER
8" LMB-HGN SS Metal Backed Polishing Pad - 5 Pack	METSPADSHGNM008
10" LMB-HGN SS Metal Backed Polishing Pad - 5 Pack	METSPADSHGNM010
12" LMB-HGN SS Metal Backed Polishing Pad - 5 Pack	METSPADSHGNM012
8" LMB-PANW SS Metal Backed Polishing Pad - 5 Pack	METSPADSPANM008
10" LMB-PANW SS Metal Backed Polishing Pad - 5 Pack	METSPADSPANM010
12" LMB-PANW SS Metal Backed Polishing Pad - 5 Pack	METSPADSPANM012
8" LMB-GLD SS Metal Backed Polishing Pad - 5 Pack	METSPADSGLDM008
10" LMB-GLD SS Metal Backed Polishing Pad - 5 Pack	METSPADSGLDM010
12" LMB-GLD SS Metal Backed Polishing Pad - 5 Pack	METSPADSGLDM012
8" LMB-ASFL SS Metal Backed Polishing Pad - 5 Pack	METSPADSBLSM008
10" LMB-ASFL SS Metal Backed Polishing Pad - 5 Pack	METSPADSBLSM010
12" LMB-ASFL SS Metal Backed Polishing Pad - 5 Pack	METSPADSBLSM012
8" LMB-RED SS Metal Backed Polishing Pad - 5 Pack	METSPADSREDM008
10" LMB-RED SS Metal Backed Polishing Pad - 5 Pack	METSPADSREDM010
12" LMB-RED SS Metal Backed Polishing Pad - 5 Pac	METSPADSREDM012
8" LMB-PLUS SS Metal Backed Polishing Pad - 5 Pack	METSPADSPLSM008
10" LMB-PLUS SS Metal Backed Polishing Pad - 5 Pack	METSPADSPLSM010
12" LMB-PLUS SS Metal Backed Polishing Pad - 5 Pack	METSPADSPLSM012
8" LMB-FWL SS Metal Backed Polishing Pad - 5 Pack	METSPADSFWLM008
10" LMB-FWL SS Metal Backed Polishing Pad - 5 Pack	METSPADSFWLM010
12" LMB-FWL SS Metal Backed Polishing Pad - 5 Pack	METSPADSFWLM012
8" LMB-FNL SS Metal Backed Polishing Pad - 5 Pack	METSPADSFNLM008
10" LMB-FNL SS Metal Backed Polishing Pad - 5 Pack	METSPADSFNLM010
12" LMB-FNL SS Metal Backed Polishing Pad - 5 Pack	METSPADSFNLM012
8" LMB-DBN SS Metal Backed Polishing Pad - 5 Pack	METSPADSDBNM008
10" LMB-DBN SS Metal Backed Polishing Pad - 5 Pack	METSPADSDBNM010
12" LMB-DBN SS Metal Backed Polishing Pad - 5 Pack	METSPADSDBNM012
8" LMB-SUPREME SS Metal Backed Polishing Pad, Chem. Resistant - 5 Pack	METSPADSSUPM008
10" LMB-SUPREME SS Metal Backed Polishing Pad, Chem. Resistant- 5 Pack	METSPADSSUPM010
12" LMB-SUPREME SS Metal Backed Polishing Pad, Chem. Resistant- 5 Pack	METSPADSSUPM012

GRINDING & POLISHING

LMR SERIES POLISHING CLOTHS & PADS WITH METALIZED RUBBER BACKING, FOR MAGNETIC SYSTEMS

MADE IN THE USA WITH THE HIGHEST QUALITY MATERIALS!

This is a more cost effective option than stainless steel metal backing

The metal impregnated rubber backing works equally as well at a lower cost to manufacture.

Available in all popular pad types and sizes for easy conversion to the LAPMASTER LMR Ssytem!

LMR-HGN Hard woven cloth pad used to replace some rough grinding steps when used with polycrystalline diamond.
Use with diamond 6 micron and up.
Most effective with 15 micron and up.

LMR-PANW Napless, non-woven textile. Excellent for flatness and edge retention on a wide range of materials; ferrous and non-ferrous metals, ceramics, PCB, minerals among others.
Use with diamond 15 - 1 micron.

LMR-GLD Woven acetate polishing pad. Used for fine grinding and polishing of ferrous metals, non-ferrous metals, plastics and coatings.
Used with diamond 9 - 3 micron.

LMR-ASFL Silk style polishing cloth used to produce mirror surfaces on ferrous and non-ferrous, and microelectronics. Best results obtained with 3-micron diamond and finer.
Use diamond 9 - 1 micron.

LMR-RED Woven wool felt polishing pad. For polishing ferrous metals with aluminas less than 9 micron particle size.

LMR-PLUS Synthetic nap polishing cloth specifically designed for sintered carbides and steels. For use with all micron sizes.

LMR-FWL A special woven 100% wool polishing pad. Used to polish ferrous metals, non-ferrous metals and polymers.
Use with diamond 9 - 1 micron.

LMR-FNL A final polishing cloth with a medium rayon nap. Excellent for final polishing on all materials with diamond or alumina.
Use with diamond or alumina 5 - 0.02 micron.

LMR-DBN A final polishing cloth with a short synthetic nap. Excellent for final polishing on all materials with diamond or alumina.
Use with diamond or alumina 5 - 0.02 micron.

LMR-SUPREME A long life, chemical resistant (CHEM), polyurethane polishing pad. Excellent for final polishing with alumina or colloidal silica. Most effective during chemicalmechanical polishing of soft non-ferrous materials.
Use with alumina or colloidal silica ,1 - 0.02 micron.

POLISHING CLOTHS & PADS FOR MAGNETIC SYSTEMS

DESCRIPTION	PART NUMBER
8" LMR-HGN Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSHGNMR08
10" LMR-HGN Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSHGNMR10
12" LMR-HGN Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSHGNMR12
8" LMR-PANW Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSPANMR08
10" LMR-PANW Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSPANMR10
12" LMR-PANW Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSPANMR12
8" LMR-GLD Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSGLDMR08
10" LMR-GLD Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSGLDMR10
12" LMR-GLD Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSGLDMR12
8" LMR-ASFL Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSASLMR08
10" LMR-ASFL Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSASLMR10
12" LMR-ASFL Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSASLMR12
8" LMR-RED Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSREDMR08
10" LMR-RED Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSREDMR10
12" LMR-RED Metalized Rubber Backed Polishing Pad - 5 Pac	METSPADSREDMR12
8" LMR-PLUS Metalized Rubber Backed Plishing Pad - 5 Pack	METSPADSPLSMR08
10" LMR-PLUS Metalized Rubber Backed Plishing Pad - 5 Pack	METSPADSPLSMR10
12" LMR-PLUS Metalized Rubber Backed Plishing Pad - 5 Pack	METSPADSPLSMR12
8" LMR-FWL Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSFWLMR08
10" LMR-FWL Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSFWLMR10
12" LMR-FWL Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSFWLMR12
8" LMR-FNL Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSFNLMR08
10" LMR-FNL Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSFNLMR10
12" LMR-FNL Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSFNLMR12
8" LMR-DBN Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSDBNMR08
10" LMR-DBN Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSDBNMR10
12" LMR-DBN Metalized Rubber Backed Polishing Pad - 5 Pack	METSPADSDBNMR12
8" LMR-SUPREME Metalized Rubber Backed Polishing Pad, Chem. Resistant-5 Pack	METSPADSSUPMR08
10" LMR-SUPREME Metalized Rubber Backed Polishing Pad, Chem. Resistant-5 Pack	METSPADSSUPMR10
12" LMR-SUPREME Metalized Rubber Backed Polishing Pad, Chem. Resistant-5 Pack	METSPADSSUPMR12

GRINDING & POLISHING

LMA SERIES POLISHING CLOTHS & PADS WITH PSA BACKING

MADE IN THE USA WITH THE HIGHEST QUALITY MATERIALS!

Made with the same pad materials as the LMB & LMR series pads, but with PSA backing.
Available in all popular pad types and sizes for easy conversion to the LAPMASTER LMA Ssytem!

LMA-HGN Hard woven cloth pad used to replace some rough grinding steps when used with polycrystalline diamond.
Use with diamond 6 micron and up.
Most effective with 15 micron and up.

LMA-PANW Napless, non-woven textile. Excellent for flatness and edge retention on a wide range of materials; ferrous and non-ferrous metals, ceramics, PCB, minerals among others.
Use with diamond 15 - 1 micron.

LMA-GLD Woven acetate polishing pad. Used for fine grinding and polishing of ferrous metals, non-ferrous metals, plastics and coatings. Used with diamond 9 - 3 micron.

LMA-ASFL Silk style polishing cloth used to produce mirror surfaces on ferrous and non-ferrous, and microelectronics. Best results obtained with 3-micron diamond and finer.
Use diamond 9 - 1 micron.

LMA-RED Woven wool felt polishing pad. For polishing ferrous metals with aluminas less than 9 micron particle size.

LMA-PLUS Synthetic nap polishing cloth specifically designed for sintered carbides and steels. For use with all micron sizes.

LMA-FWL A special woven 100% wool polishing pad. Used to polish ferrous metals, non-ferrous metals and polymers.
Use with diamond 9 - 1 micron.

LMA-FNL A final polishing cloth with a medium rayon nap . Excellent for final polishing on all materials with diamond or alumina.
Use with diamond or alumina 5 - 0.02 micron.

LMA-DBN A final polishing cloth with a short synthetic nap. Excellent for final polishing on all materials with diamond or alumina.
Use with diamond or alumina 5 - 0.02 micron.

LMA-SUPREME A long life, chemical resistant (CHEM), polyurethane polishing pad. Excellent for final polishing with alumina or colloidal silica. Most effective during chemicalmechanical polishing of soft non-ferrous materials.
Use with alumina or colloidal silica ,1 - 0.02 micron.

GRINDING & POLISHING

GRINDING & POLISHING

POLISHING CLOTHS & PADS WITH PSA BACKING

DESCRIPTION	PART NUMBER
8" LMA-HGN PSA Backed Polishing Pad - 10 Pack	METSPADSHNYA008
10" LMA-HGN PSA Backed Polishing Pad - 10 Pack	METSPADSHNYA010
12" LMA-HGN PSA Backed Polishing Pad - 10 Pack	METSPADSHNYA012
8" LMA-PANW PSA Backed Polishing Pad - 10 Pack	METSPADSPANA008
10" LMA-PANW PSAr Backed Polishing Pad - 10 Pack	METSPADSPANA010
12" LMA-PANW PSA Backed Polishing Pad - 10 Pack	METSPADSPANA012
8" LMA-GLD PSA Backed Polishing Pad - 10 Pack	METSPADSGLDA008
10" LMA-GLD PSA Backed Polishing Pad - 10 Pack	METSPADSGLDA010
12" LMA-GLD PSA Backed Polishing Pad - 10 Pack	METSPADSGLDA012
8" LMA-ASFL PSA Backed Polishing Pad - 10 Pack	METSPADSASLA008
10" LMA-ASFL PSA Backed Polishing Pad - 10 Pack	METSPADSASLA010
12" LMA-ASFL PSA Backed Polishing Pad - 10 Pack	METSPADSASLA012
8" LMA-RED PSA Backed Polishing Pad - 10 Pack	METSPADSBILRA08
10" LMA-RED PSA Backed Polishing Pad - 10 Pack	METSPADSBILRA10
12" LMA-RED PSA Backed Polishing Pad - 10 Pack	METSPADSBILRA12
8" LMA-PLUS PSA Backed Polishing Pad - 10 Pack	METSPADSPLSA008
10" LMA-PLUS PSAr Backed Polishing Pad - 10 Pack	METSPADSPLSA010
12" LMA-PLUS PSA Backed Polishing Pad - 10 Pack	METSPADSPLSA012
8" LMA-FWL PSA Backed Polishing Pad - 10 Pack	METSPADSFWLA008
10" LMA-FWL PSA Backed Polishing Pad - 10 Pack	METSPADSFWLA010
12" LMA-FWL PSA Backed Polishing Pad - 10 Pack	METSPADSFWLA012
8" LMA-FNL PSA Backed Polishing Pad - 10 Pack	METSPADSBRNA008
10" LMA-FNL PSA Backed Polishing Pad - 10 Pack	METSPADSBRNA010
12" LMA-FNL PSA Backed Polishing Pad - 10 Pack	METSPADSBRNA012
8" LMA-DBN PSA Backed Polishing Pad - 10 Pack	METSPADSDBNA008
10" LMA-DBN PSA Backed Polishing Pad - 10 Pack	METSPADSDBNA010
12" LMA-DBN PSA Backed Polishing Pad - 10 Pack	METSPADSDBNA012
8" LMA-SUPREME PSA Backed Polishing Pad, Chem. Resistant - 10 Pack	METSPADSCHMA008
10" LMA-SUPREME PSA Backed Polishing Pad, Chem. Resistant- 10 Pack	METSPADSCHMA010
12" LMA-SUPREME PSA Backed Polishing Pad, Chem. Resistant- 10 Pack	METSPADSCHMA012

GRINDING & POLISHING

POLISHING CLOTHS & PADS

Lapmaster Polishing Pads are offered in a wide range of sizes and are made from different types of materials to accommodate any polishing application, including Metallographic, petrographic, fiber optics, and many more.

SILK   Recommended for rough polishing with diamond. Excellent for friable materials such as coal and petrographic samples. Available with plain backing only.

NTR   A soft napped final polishing cloth best used with 6-micron diamond and finer. Available with PSA backing only.

LAPMASTER SUPREME   A long life, chemical resistant, polyurethane polishing pad. Excellent for final polishing with alumina or colloidal silica. Available with PSA backing only.

MICRO LP   100% pure wool. Recommended for intermediate and final polishing stages with diamond or alumina. Available with PSA backing only.

ASR   Synthetic silk mounted on a rigid backing. Best results obtained with diamond. Available with PSA backing only.

NYLON   Napless nylon weave provides excellent finish on most materials. Excellent for flatness and edge retention. Available with plain and PSA backing.

PAN-W   Napless, non-woven textile. Excellent for flatness and edge retention. Available with PSA backing only.

ASFL   Silk style polishing cloth used to produce mirror surfaces. Best results obtained with 3-micron diamond and finer. Available with PSA backing only.

GOLD CLOTH   Extremely durable, uniquely woven nylon, for use with diamond, 15-3 micron. Produces excellent flatness and provides a very high material removal rate on a wide variety of materials.

VELPOL   A short nap synthetic velvet. Recommended for final polishing with diamond, alumina or colloidal silica. Available with PSA backing only.

ASF   Similar to ASFL, but with a thicker, softer backing. Available with PSA backing only.

COTTON   Recommended for rough polishing with diamond compound. Available with plain backing only.

FINAL POLISHING CLOTH
A medium nap rayon cloth. Excellent for final polishing with diamond or alumina. Available with plain and PSA backing

SELVYT   Medium nap cotton cloth. Excellent for intermediate or final polishing with diamond. Available with plain backing only.

DURA WOOL 100% black wool for general rough polishing with aluminum oxide powders & suspensions for steels and other ferrous based materials.

NYLON FINAL A Fine, short napped high density synthetic cloth. Excellent for final polishing with diamond and colloidal silica.

RED FELT 100% wool. Used on a wide variety of materials. Recommended for intermediate or final polishing with diamond.

IMPERIAL Final polish cloth recommended for softer materials. Excellent with colloidal silica and aluminas.

HEAVY NYLON Hard woven cloth pad used to replace some rough grinding steps when used with polycrystalline diamond.

FINE WOOL 100% wool cloth. Finer weave for final polishing with diamond.

SATIN Durable, synthetic silk style cloth used with diamond for intermediate and final polishing.

BROWN FINAL Durable, short nap synthetic used for final polishing with diamond or alumina.

STAINLESS STEEL DISC Re-usable Stainless metallic plate used with magnet discs or magnetic platens for convenient application and removal any PSA grinding or polishing consumable.

PSA MAGNET DISC Flexible, long lasting magnet disc with PSA backing to adhere to conventional platens.

PSA Grinding/Polishing Pad

Re-usable Steel Plate

Flexible PSA Magnet

Polisher Platen

Polishing Pads

POLISHING CLOTHS & PADS

POLISHING CLOTHS	SOLD IN PACKS OF 10 (EXCEPT FOR 1" & 2 7/8")
DESCRIPTION	PART NUMBER
1" PAN-W PSA Backed Polishing Cloths - 100 Pack	METSPADSPANA001
2-7/8" PAN-W PSA Backed Polishing Cloths - 100 Pack	METSPADSPANA278
8" PAN-W PSA Backed Polishing Cloths	METSPADSPANA008
10" PAN-W PSA Backed Polishing Cloths	METSPADSPANA010
12" PAN-W PSA Backed Polishing Cloths	METSPADSPANA012
15" PAN-W PSA Backed Polishing Cloths	METSPADSPANA015
16" PAN-W PSA Backed Polishing Cloths	METSPADSPANA016
12" PAN-W Plain Backed Polishing Cloths	METSPADSPANP012
1" VELPOL PSA Backed Polishing Cloths - 100 Pack	METSPADSVELA001
2-7/8" VELPOL PSA Backed Polishing Cloths - 100 Pack	METSPADSVELA278
8" VELPOL PSA Backed Polishing Cloths	METSPADSVELA008
10" VELPOL PSA Backed Polishing Cloths	METSPADSVELA010
12" VELPOL PSA Backed Polishing Cloths	METSPADSVELA012
15" VELPOL PSA Backed Polishing Cloths	METSPADSVELA015
16" VELPOL PSA Backed Polishing Cloths	METSPADSVELA016
8" ASR PSA Backed Polishing Cloths	METSPADSASRA008
10" ASR PSA Backed Polishing Cloths	METSPADSASRA010
12" ASR PSA Backed Polishing Cloths	METSPADSASRA012
8" ASFL PSA Backed Polishing Cloths	METSPADSASLA008
10" ASFL PSA Backed Polishing Cloths	METSPADSASLA010
12" ASFL PSA Backed Polishing Cloths	METSPADSASLA012
15" ASFL PSA Backed Polishing Cloths	METSPADSASLA015
8" ASF PSA Backed Polishing Cloths	METSPADSASFA008
12" ASF PSA Backed Polishing Cloths	METSPADSASFA012
15" ASF PSA Backed Polishing Cloths	METSPADSASFA015
8" NTR PSA Backed Polishing Cloths	METSPADSNTRA008
10" NTR PSA Backed Polishing Cloths	METSPADSNTRA010
12" NTR PSA Backed Polishing Cloths	METSPADSNTRA012
15" NTR PSA Backed Polishing Cloths	METSPADSNTRA015
10" Silk Plain Backed Polishing Cloths - For an 8" polisher	METSPADSSLKP010
12" Silk Plain Backed Polishing Cloths - For a 10" Polisher	METSPADSSLKP012
14" Silk Plain Backed Polishing Cloths - For a 12" Polisher	METSPADSSLKP014
8" Satin PSA Backed Polishing Cloths	METSPADSSATA008
10" Satin PSA Backed Polishing Cloths	METSPADSSATA010
12" Satin PSA Backed Polishing Cloths	METSPADSSATA012
2-7/8" Nylon PSA Backed Polishing Cloths - 100 Pack	METSPADSNYLA278
8" Nylon PSA Backed Polishing Cloths	METSPADSNYLA008
10" Nylon PSA Backed Polishing Cloths	METSPADSNYLA010
12" Nylon PSA Backed Polishing Cloths	METSPADSNYLA012
15" Nylon PSA Backed Polishing Cloths	METSPADSNYLA015
16" Nylon PSA Backed Polishing Cloths	METSPADSNYLA016
10" Nylon Plain Backed Polishing Cloths	METSPADSNYLP010
14" Nylon Plain Backed Polishing Cloths	METSPADSNYLP014

Additional sizes and materials are available upon request.
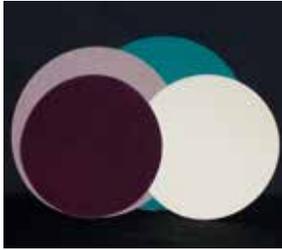
Polishing Pads

POLISHING CLOTHS & PADS

POLISHING CLOTHS   SOLD IN PACKS OF 10

DESCRIPTION	PART NUMBER
8" Heavy Nylon PSA Backed Polishing Cloths	METSPADSHNYA008
10" Heavy Nylon PSA Backed Polishing Cloths	METSPADSHNYA010
12" Heavy Nylon PSA Backed Polishing Cloths	METSPADSHNYA012
8" Gold Cloth PSA Backed Polishing Cloths	METSPADSGLDA008
10" Gold Cloth PSA Backed Polishing Cloths	METSPADSGLDA010
12" Gold Cloth PSA Backed Polishing Cloths	METSPADSGLDA012
1" Final Polish Cloth Medium Nap Rayon PSA Backed - 100 Pack	METSPADSFNLA001
2-7/8" Final Polish Cloth Medium Nap Rayon PSA Backed - 100 Pack	METSPADSFNLA278
8" Final Polish Cloth Medium Nap Rayon PSA Backed - 10 Pack	METSPADSFNLA008
10" Final Polish Cloth Medium Nap Rayon PSA Backed - 10 Pack	METSPADSFNLA010
12" Final Polish Cloth Medium Nap Rayon PSA Backed - 10 Pack	METSPADSFNLA012
15" Final Polish Cloth Medium Nap Rayon PSA Backed - 10 Pack	METSPADSFNLA015
16" Final Polish Cloth Medium Nap Rayon PSA Backed - 10 Pack	METSPADSFNLA016
10" Final Polish Cloth Medium Nap Rayon Plain Backed - 10 Pack	METSPADSFNLP010
14" Final Polish Cloth Medium Nap Rayon Plain Backed - 10 Pack	METSPADSFNLP014
8" Brown Final Polish Cloth Short Nap Rayon PSA Backed - 10 Pack	METSPADSBRNA008
10" Brown Final Polish Cloth Short Nap Rayon PSA Backed - 10 Pack	METSPADSBRNA010
12" Brown Final Polish Cloth Short Nap Rayon PSA Backed - 10 Pack	METSPADSBRNA012
15" Brown Final Polish Cloth Short Nap Rayon PSA Backed - 10 Pack	METSPADSBRNA015
10" Brown Final Polish Cloth Short Nap Rayon Plain Backed - 10 Pack	METSPADSBRNP010
14" Brown Final Polish Cloth Short Nap Rayon PSA Backed - 10 Pack	METSPADSBRNP014
8" Nylon Fiber Final Polish PSA Polishing Cloths	METSPADSBLUA008
10" Nylon Fiber Final Polish PSA Polishing Cloths	METSPADSBLUA010
12" Nylon Fiber Final Polish PSA Polishing Cloths	METSPADSBLUA012
8" Red Felt PSA Polishing Cloths	METSPADSREDA008
10" Red Felt PSA Polishing Cloths	METSPADSREDA010
12" Red Felt PSA Polishing Cloths	METSPADSREDA012
10" Red Felt Plain Backed Polishing Cloths	METSPADSREDP010
14" Red Felt Plain Backed Polishing Cloths	METSPADSREDP014
10" Selvyt Plain Backed Polishing Cloths	METSPADSSELP010
14" Selvyt Plain Backed Polishing Cloths	METSPADSSELP014
8" Lapmaster Supreme PSA Backed Polishing Cloths- Chemical Resistant	METSPADSSUPA008
10" Lapmaster Supreme PSA Backed Polishing Cloths- Chemical Resistant	METSPADSSUPA010
12" Lapmaster Supreme PSA Backed Polishing Cloths- Chemical Resistant	METSPADSSUPA012
15" Lapmaster Supreme PSA Backed Polishing Cloths- Chemical Resistant	METSPADSSUPA015
10" Cotton Plain Backed Polishing Cloths	METSPADSCOTP010
14" Cotton Plain Backed Polishing Cloths	METSPADSCOTP014
8" Dura Wool PSA Backed Polishing Cloths	METSPADSDWLA0008
10" Dura Wool PSA Backed Polishing Cloths	METSPADSDWLA0010
12" Dura Wool PSA Backed Polishing Cloths	METSPADSDWLA0012
15" Dura Wool PSA Backed Polishing Cloths	METSPADSDWLA0015

Additional sizes and materials are available upon request.
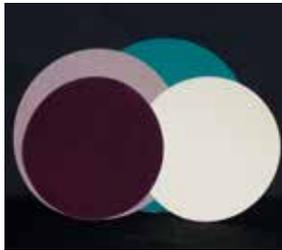
POLISHING CLOTHS & PADS

Polishing Pads

POLISHING CLOTHS   SOLD IN PACKS OF 10

DESCRIPTION	PART NUMBER
10" Billiard Plain Backed Polishing Cloths	METSPADSBILP010
14" Billiard Plain Backed Polishing Cloths	METSPADSBILP014
8" Micro LP PSA Backed Polishing Cloths	METSPADSMICA008
12" Micro LP PSA Backed Polishing Cloths	METSPADSMICA012
15" Micro LP PSA Backed Polishing Cloths	METSPADSMICA015
8" Imperial PSA Backed Polishing Cloths	METSPADSIMPA008
10" Imperial PSA Backed Polishing Cloths	METSPADSIMPA010
12" Imperial PSA Backed Polishing Cloths	METSPADSIMPA012
10" Imperial Plain Backed Polishing Cloths	METSPADSIMPP010
8" Fine Wool PSA Backed Polishing Cloths	METSPADSFWLA008
10" Fine Wool PSA Backed Polishing Cloths	METSPADSFWLA010
12" Fine Wool PSA Backed Polishing Cloths	METSPADSFWLA012
15" Fine Wool PSA Backed Polishing Cloths	METSPADSFWLA015
10" Fine Wool Plain Backed Polishing Cloths	METSPADSFWLP010
14" Fine Wool Plain Backed Polishing Cloths	METSPADSFWLP014

Additional sizes and materials are available upon request.

Magnetic Mounting

STAINLESS STEEL DISC

A stainless, metallic plate for use with our magnetic discs or a magnetic platen for quick and convenient application and removal of any PSA consumable.

FLEXIBLE MAGNETIC

DISCS

These flexible, long lasting magnet discs have a PSA backing and are used to convert a conventional platen to a magnetic platen for use with our stainless steel disc.

MAGNETIC MOUNTING SYSTEMS

| DESCRIPTION	PART NUMBER
8" PSA Magnetic Disc To Covert A Standard Polishing Plate To Magnetic	METSMAGSA080000
10" PSA Magnetic Disc To Covert A Standard Polishing Plate To Magnetic	METSMAGSA100000
12" PSA Magnetic Disc To Covert A Standard Polishing Plate To Magnetic	METSMAGSA120000
8" SS Disc for Mounting Polishing Cloths & Abrasive Discs	METSSTSTMAG0008
10" SS Disc for Mounting Polishing Cloths & Abrasive Discs	METSSTSTMAG0010
12" SS Disc for Mounting Polishing Cloths & Abrasive Discs	METSSTSTMAG0012
8" Teflon Coated SS Disc for Mounting Polishing Cloths & Abrasive Discs	METSSTSTTEF0008
10" Teflon Coated SS Disc for Mounting Polishing Cloths & Abrasive Discs	METSSTSTTEF0010
12" Teflon Coated SS Disc for Mounting Polishing Cloths & Abrasive Discs	METSSTSTTEF0012

GRIT GRABBERS

Grit Grabbers are a reusable PSA backing used to affix plain backed Abrasive Discs and Polishing Cloths to our magnetic mounting system or your existing platen.

GRIT GRABBERS (REUSABLE PSA BACKING)

SOLD IN PACKS OF 10

DESCRIPTION	PART NUMBER
8" Double Sided PSA Disc For Attaching Plain Back Abrasive Discss	METSGRAB0080000
10" Double Sided PSA Disc For Attaching Plain Back Abrasive Discss	METSGRAB0100000
12" Double Sided PSA Disc For Attaching Plain Back Abrasive Discss	METSGRAB0120000

PSA Grinding/Polishing Pad

Re-usable Steel Plate

Flexible PSA Magnet

Polisher Platen
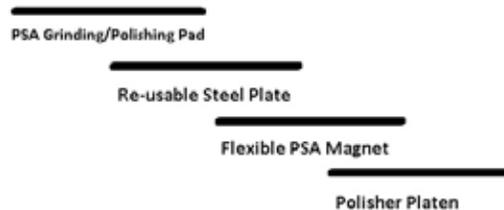
Diamond Pastes

Lapmaster's diamond compounds are formulated from the highest quality diamond. The tight tolerance particle size distribution guarantees consistent results. The water/oil soluble paste not only cleans easily, but also works well with most lubricants. Packaged in easy to use 18 gram syringes.

DIAMOND COMPOUNDS

MONOCRYSTALLINE DIAMOND COMPOUND

DESCRIPTION	PART NUMBER
18 Gram Syringe - 1/10 Micron Diamond Compound	METSDIAPS18K/10
18 Gram Syringe - 1/4 Micron Diamond Compound	METSDIAPS18K1/4
18 Gram Syringe - 1/2 Micron Diamond Compound	METSDIAPS18K1/2
18 Gram Syringe - 1 Micron Diamond Compound	METSDIAPS18K001
18 Gram Syringe - 3 Micron Diamond Compound	METSDIAPS18K003
18 Gram Syringe - 6 Micron Diamond Compound	METSDIAPS18K006
18 Gram Syringe - 9 Micron Diamond Compound	METSDIAPS18K009
18 Gram Syringe - 15 Micron Diamond Compound	METSDIAPS18K015
18 Gram Syringe - 30 Micron Diamond Compound	METSDIAPS18K030
18 Gram Syringe - 45 Micron Diamond Compound	METSDIAPS18K045

POLYCRYSTALLINE DIAMOND COMPOUND

DESCRIPTION	PART NUMBER
18 Gram Syringe - 1 Micron Diamond Compound	METSDPCDS18KD01
18 Gram Syringe - 3 Micron Diamond Compound	METSDPCDS18KD03
18 Gram Syringe - 6 Micron Diamond Compound	METSDPCDS18KD06
18 Gram Syringe - 9 Micron Diamond Compound	METSDPCDS18KD09
18 Gram Syringe - 15 Micron Diamond Compound	METSDPCDS18KD15

DIAMOND LUBRICANTS & EXTENDERS

Diamond Lubricants

BLUE LUBE
Low viscosity, alcohol based diamond lubricant. Used to accommodate diamond to cut aggressively and when water based products cannot be used. Popular with our Diamond Aerosol Sprays. Packaged in pint and gallon containers.

RED LUBE
High viscosity, glycol based diamond lubricant. The high viscosity will reduce the aggressiveness of the diamond cutting to accommodate more delicate materials. Packaged in pint and gallon containers.

WATER BASED LUBRICANT
Clear, low viscosity, glycol based diamond lubricant. Aggressive diamond cutting and easy cleaning. Packaged in quart and gallon containers.

OIL BASED LUBRICANT
Purple, medium viscosity, petroleum and glycol based diamond lubricant. A product of our Lapping/Polishing production machine division.   Offers a more reflective finish when used with diamond. Packaged in 500ml, 2.5 liter and 5 liter containers.

DESCRIPTION	PART NUMBER
Blue Lube - 16 oz. (alcohol-based)	METSLUBEBLUPINT
Blue Lube - 1 gallon (alcohol-based)	METSLUBEBLUGALL
Red Lube - 16 oz. (Glycol-based)	METSLUBEREDPINT
Red Lube - 1 gallon (Glycol-based)	METSLUBEREDGALL
Water Based lubricant - 32 oz.	METSLUBEWAT0032
Water Based lubricant - 1 gallon	METSLUBEWAT0128
Oil Based Lubricant - 500ml	LAP5LUBP5000002
Oil Based Lubricant - 2.5 litre	LAP5LUBP2.50001
Oil Based Lubricant - 5.0 litre	LAP5LUBP5.00003

DIAMOND AEROSOL SPRAY
5oz. CAN

Diamond Aerosols

DIAMOND SPRAY
The diamond aerosol spray consists of high performance polycrystalline diamond in a quick evaporating carrier. The propellant is ozone safe and an inverted spray top makes dispensing to the cloth easy.

DESCRIPTION	PART NUMBER
1/4 Micron Diamond Aerosol Spray - Polycrystalline	METSDSPY00001/4
1 Micron Diamond Aerosol Spray - Polycrystalline	METSDSPY0000001
3 Micron Diamond Aerosol Spray - Polycrystalline	METSDSPY0000003
6 Micron Diamond Aerosol Spray - Polycrystalline	METSDSPY0000006
9 Micron Diamond Aerosol Spray - Polycrystalline	METSDSPY0000009
15 Micron Diamond Aerosol Spray - Polycrystalline	METSDSPY0000015
30 Micron Diamond Aerosol Spray - Polycrystalline	METSDSPY0000030

Diamond Suspensions

Lapmaster's diamond suspensions are low viscosity suspensions designed for high stock removal rates and precision finishes. They are water soluble, clean easily, and will not clog dispensing lines.

Diamond suspensions are available with either polycrystalline or monocrystalline diamond. Polycrystalline diamond has up to 300% more surface area than monocrystalline diamond resulting in much higher stock removal rates and finer scratch patterns. Polycrystalline diamond is recommended for hard materials, brittle coatings, or sample composed of mixed hardness.

DIAMOND SUSPENSIONS

POLYCRYSTALLINE DIAMOND SUSPENSION

DESCRIPTION	PART NUMBER
1/10 Micron Polycrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSPCD1/10
1/4 Micron Polycrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSPCD01/4
1/2 Micron Polycrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSPCD01/2
1 Micron Polycrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSPCD0001
3 Micron Polycrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSPCD0003
6 Micron Polycrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSPCD0006
9 Micron Polycrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSPCD0009
15 Micron Polycrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSPCD0015
1/20 Micron Polycrystalline Suspension - 16 oz	METSDSUSPCDP/20
1/10 Micron Polycrystalline Suspension - 16 oz	METSDSUSPCDP/10
1/4 Micron Polycrystalline Suspension - 16 oz	METSDSUSPCDP1/4
1/2 Micron Polycrystalline Suspension - 16 oz	METSDSUSPCDP1/2
1 Micron Polycrystalline Suspension - 16 oz	METSDSUSPCDP001
3 Micron Polycrystalline Suspension - 16 oz	METSDSUSPCDP003
6 Micron Polycrystalline Suspension - 16 oz	METSDSUSPCDP006
9 Micron Polycrystalline Suspension - 16 oz	METSDSUSPCDP009
15 Micron Polycrystalline Suspension - 16 oz	METSDSUSPCDP015
1 Micron Polycrystalline Suspension - 1gallon	METSDSUSPCDGL01
3 Micron Polycrystalline Suspension - 1gallon	METSDSUSPCDGL03
6 Micron Polycrystalline Suspension - 1gallon	METSDSUSPCDGL06
9 Micron Polycrystalline Suspension - 1gallon	METSDSUSPCDGL09
15 Micron Polycrystalline Suspension - 1gallon	METSDSUSPCDGL15

MONOCRYSTALLINE DIAMOND SUSPENSION

DESCRIPTION	PART NUMBER
1/4 Micron Monocrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSMNO01/4
1/2 Micron Monocrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSMNO01/2
1 Micron Monocrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSMNO0001
3 Micron Monocrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSMNO0003
6 Micron Monocrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSMNO0006
9 Micron Monocrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSMNO0009
15 Micron Monocrystalline Suspension - 8 oz. With Pump Sprayer	METSDSUSMNO0015
1/4 Micron Monocrystalline Suspension - 16 oz	METSDSUSMNOP1/4
1/2 Micron Monocrystalline Suspension - 16 oz	METSDSUSMNOP1/2
1 Micron Monocrystalline Suspension - 16 oz	METSDSUSMNOP001
3 Micron Monocrystalline Suspension - 16 oz	METSDSUSMNOP003
6 Micron Monocrystalline Suspension - 16 oz	METSDSUSMNOP006
9 Micron Monocrystalline Suspension - 16 oz	METSDSUSMNOP009
15 Micron Monocrystalline Suspension - 16 oz	METSDSUSMNOP015
1 Micron Monocrystalline Suspension - 1gallon	METSDSUSMNOGL01
3 Micron Monocrystalline Suspension - 1gallon	METSDSUSMNOGL03
6 Micron Monocrystalline Suspension - 1gallon	METSDSUSMNOGL06
9 Micron Monocrystalline Suspension - 1gallon	METSDSUSMNOGL09
15 Micron Monocrystalline Suspension - 1gallon	METSDSUSMNOGL15

Abrasive
Powders & Slurries

ABRASIVE POWDERS & SLURRIES

ALUMINA POWDER

Lapmaster's alumina powders are high purity, polishing powders designed for final polishing of most metallographic speci-
mens. They are available in two different versions — standard and deagglomerated. The standard version is suggested for
most applications. The deagglomerated version goes through an extra milling procedure to breakdown agglomerates, and
is recommended for final polishing of more critical applications. Both versions are available in three micron sizes: 0.05, 0.3
and 1.0 micron.

DESCRIPTION	PART NUMBER
0.05 Micron Alumina Powder - 1 lb.	METSALPD.0501LB
0.3 Micron Alumina Powder - 1 lb.	METSALPD0.301LB
1.0 Micron Alumina Powder - 1 lb.	METSALPD1.001LB
0.05 Micron Alumina Powder - 5 lb.	METSALPD.0505LB
0.3 Micron Alumina Powder - 5 lb.	METSALPD0.305LB
1.0 Micron Alumina Powder - 5 lb.	METSALPD1.005LB
0.05 Micron Deagglomerated Alumina Powder - 1 lb.	METSALPD.05D1LB
0.3 Micron Deagglomerated Alumina Powder - 1 lb.	METSALPD0.3D1LB
1.0 Micron Deagglomerated Alumina Powder - 1 lb.	METSALPD1.0D1LB
0.05 Micron Deagglomerated Alumina Powder - 5 lb.	METSALPD.05D5LB
0.3 Micron Deagglomerated Alumina Powder - 5 lb.	METSALPD0.3D5LB
1.0 Micron Deagglomerated Alumina Powder - 5lb	METSALPD1.0D5LB

ALUMINA SLURRY

Lapmaster' alumina slurry is formulated from the same high purity alumina used in our powders. These ready made slurries
are not only easy to use, but guarantee consistent performance from lot to lot. Available in 0.05, 0.3 and 1.0 micron sizes,
they are packaged in convenient to use 6 oz. Bottles or gallon containers.

DESCRIPTION	PART NUMBER
0.05 Micron Alumina Slurry - 6 oz.	METSALSY.0506OZ
0.3 Micron Alumina Slurry - 6 oz.	METSALSY0.306OZ
1.0 Micron Alumina Slurry - 6 oz.	METSALSY1.006OZ
0.05 Micron Alumina Slurry - 1 Gallon	METSALSY.050GAL
0.3 Micron Alumina Slurry - 1 Gallon	METSALSY0.30GAL
1.0 Micron Alumina Slurry - 1 Gallon	METSALSY1.00GAL
5.0 Micron Alumina Slurry - 1 Gallon	METSALSY5.00GAL

Abrasive
Powders & Slurries

ABRASIVE POWDERS & SLURRIES

POLISHING SUSPENSIONS

COLLOIDAL SILICA

Colloidal silica is an excellent polishing solution for producing scratch-free specimens. It employs a chemical/mechanical action which delivers perfect finihsed on many materials. To achieve these fine finishes, the surface of the material being polished is chemically altered while very fine silica particles ranging from 0.02 – 0.06 micron remove the altered layer. Lapmaster's colloidal silica is non-freezing and non-drying thus eliminating many of the problems associated with other colloidal silica. The non-freezing characteristic allows the material to be shipped in cold weather without fear of the silica particles falling out of suspension. The non-drying characteristic allows a polishing cloth to be reused after drying out preventing the dried silica particles from re-crystallizing and forming large scratch producing agglomerates. We also now have new, low viscosity and non-crystallizing colloidal silica available at 0.05 micron and 0.04 micron.

COLLOIDAL ALUMINA

Colloidal alumina is an acidic dispersion which uses a chemical/mechanical action to produce superior surfaces. Outstanding results have been achieved on pure metals such as copper, nickel, tungsten, and beryllium, as well as steel and aluminum. Lapmaster's colloidal alumina is offered in 0.10 micron size.

DESCRIPTION	PART NUMBER
Colloidal Silica, 0.02 - 0.06 micron - 6oz.	METSCOLLSIL0006
Colloidal Silica, 0.02 - 0.06 micron - 32oz.	METSCOLLSIL0032
Colloidal Silica, 0.02 - 0.06 micron - 1 gal.	METSCOLLSIL0128
Colloidal Silica, 0.02 - 0.06 micron - 5 gal.	METSCOLLSIL0640
Colloidal Silica, low viscosity & non-crystallizing, 0.05 micron - 1 gal.	METSCOLLCS50128
Colloidal Silica, low viscosity & non-crystallizing, 0.04 micron - 1 gal.	METSCOLLCS40128
Colloidal Alumina, 0.10 micron - 6 oz.	METSCOLLALM0006
Colloidal Alumina, 0.10 micron - 32 oz.	METSCOLLALM0032
Colloidal Alumina, 0.10 micron - 1 gal.	METSCOLLALMGALL
Colloidal Alumina, 0.10 micron - 5 gal.	METSCOLLALM05GA

ROCKWELL HARDNESS TEST BLOCKS

COMPLIANT WITH ASTM E-18-CURRENT*

DESCRIPTION	PART NUMBER
HRC Low-Range Test Block 20-30	METSHDNSBLK0001
HRC Mid-Range Test Block 35-55	METSHDNSBLK0002
HRC High-Range Test Block 59-65	METSHDNSBLK0003
HRBW Test Block 40-59	METSHDNSBLK0004
HRBW Test Block 60-79	METSHDNSBLK0005
HRBW Test Block 80-100	METSHDNSBLK0006
HR30N Low-Range Test Block 40-50	METSHDNSBLK0007
HR30N Mid-Range Test Block 55-73	METSHDNSBLK0008
HR30N High-Range Test Block 75-80	METSHDNSBLK0009
HR30TW Test Block 43-56	METSHDNSBLK0010
HR30TW Test Block 57-70	METSHDNSBLK0011
HR30TW Test Block 70.1 - 82	METSHDNSBLK0012

*Other certified and non-certified test blocks are available; consult your LAPMASTER representative.
**Part numbers, specifications, and prices are subject to change.*

COMPLIANT WITH ASTM E-18-05*

DESCRIPTION	PART NUMBER
HRC Low-Range Test Block 20-30	METSHDNSBLK0013
HRC Mid-Range Test Block 35-55	METSHDNSBLK0014
HRC High-Range Test Block 59-65	METSHDNSBLK0015
HRB Low-Range Test Block 40-59	METSHDNSBLK0016
HRB Mid-Range Test Block 60-79	METSHDNSBLK0017
HRB High-Range Test Block 80-100	METSHDNSBLK0018
HR30N Low-Range Test Block 40-50	METSHDNSBLK0019
HR30N Mid-Range Test Block 55-73	METSHDNSBLK0020
HR30N High-Range Test Block 75-80	METSHDNSBLK0021
HR30T Low-Range Test Block 43-56	METSHDNSBLK0022
HR30T Mid-Range Test Block 57-70	METSHDNSBLK0023
HR30T High-Range Test Block 70-82	METSHDNSBLK0024

*Other certified and non-certified test blocks are available; consult your LAPMASTER representative.
**Part numbers, specifications, and prices are subject to change.*

MICROHARDNESS TEST BLOCKS

DESCRIPTION	PART NUMBER
Test Block, Vickers (500 gf, 700 HV range)	METSHDNSBLK0025
Test Block, Knoop (500 gf, 700 HK range)	METSHDNSBLK0026
Test Block, Vickers (300 gf, 700 HV range)	METSHDNSBLK0027
Test Block, Knoop (300 gf, 700 HK range)	METSHDNSBLK0028
Test Block, Vickers (500 gf, 500 HV range)	METSHDNSBLK0029
Test Block, Knoop (500 gf, 500 HK range)	METSHDNSBLK0030

*Other certified and non-certified test blocks are available; consult your LAPMASTER representative.
**Part numbers, specifications, and prices are subject to change.*

CLEANERS & SOLUTIONS

ULTRASONIC CLEANING SOLUTIONS

FORMULATED CLEANING CONCENTRATES & SOLUTIONS

DESCRIPTION	PART NUMBER
OC- Optical Cleaner (1 Gallon)	LAP5UCSOC000001
OC- Optical Cleaner (5 Gallon Pail)	LAP5UCSOC000005
BC- Buffing Compound Remover (1 Gallon)	LAP5UCSBC000001
BC- Buffing Compound Remover (5 Gallon Pail)	LAP5UCSBC000005
OR - Oxide Remover (1 Gallon)	LAP5UCSOR000001
EC - Electronic Cleaner (1 Gallon)	LAP5UCSEC000001
EC - Electronic Cleaner (5 Gallon Pail)	LAP5UCSEC000005
GP- General Purpose Cleaner (1 Gallon)	LAP5UCSGP000001
IS- Industrial Strength Cleaner (1 Gallon)	LAP5UCSIS000001
IS- Industrial StrengthCleaner (5 Gallon Pail)	LAP5UCSIS000005
MC1- Metal Cleaner (1 Gallon)	LAP5UCSMC100001
MC1- Metal Cleaner (5 Gallon Pail)	LAP5UCSMC100005
MC2- Metal Cleaner (1 Gallon)	LAP5UCSMC200001
MC2- Metal Cleaner (5 Gallon Pail)	LAP5UCSMC200005
MC3- Metal Cleaner (1 Gallon)	LAP5UCSMC300001
MC3- Metal Cleaner (5 Gallon Pail)	LAP5UCSMC300005
RS- Rust Stripper (35 lb Pail)	LAP5UCSRS000035
RS- Rust Stripper (175 lb Drum)	LAP5UCSRS000175
RS- Rust Stripper (485 lb Drum)	LAP5UCSRS000485

CLEANERS & SOLUTIONS

DEFINITIONS

ANSI
American National Standards Institute.

FEPA
Federation of European Producers of Abrasives. The FEPA distinguishes between grain for sanding paper (FEPA P) and grain for sharpening stones or wheels (FEPA F) The decisive factor for comparison is FEPA F. FEPA P is only used for sanding paper.

MICRON
As measuring unit it describes 1 thousandth of a millimeter (1 µ = 0.001mm).

MM
Micro-mesh grit in comparison to other standards.

ANSI US Grit	FEPA P - Paper	Micron µm	FEPA F-Grain	JIS R6001 Japan 1973	MM
60	P60	269	F60	J60	
			F70		
80	P80	201			
			F80		
	P100	162			
			F90		
120	P120	125	F100	J100	
			F120		
150	P150	100			
180	P180	82	F150	J150	
220	P220	68	F180	J180	
			F220	J220	
				J240	
				J280	
	P240	58.5 ± 2		J320	
240	P280	52.2 ± 2	F230		
	P320	46.2 ± 1.5		J360	
			F240		
280	P360	40.5 ± 1.5		J400	
320	P400	35.0 ± 1.5	F280		
				J500	
360	P500	30.2 ± 1.5	F320	J600	
	P600	25.8 ± 1			
400	P800	21.8 ± 1	F360	J700	1500
	P1000	18.3 ± 1		J800	
500			F400	J1000	
600	P1200	15.3 ± 1			1800
	P1500	12.6 ± 1	F500	J1200	2400
800	P2000	10.3 ± 0.8			3200
			F600	J1500	
1000	P2500	8.4 ± 0.5		J2000	
	P3000	7			
1200	P4000				
	P5000	5			
			F800		
			F1000	J3000	4000
					6000
			F1200	J4000	8000
			F1500	J6000	12000
			F2000	J8000	