

SAMPLE PREPARATION

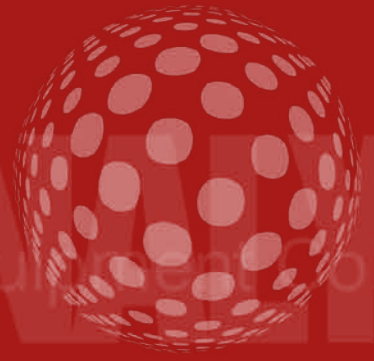
The Programme



metken[®]
Technology behind Specimen

20
YEARS

Diamond Cutting Discs
CBN Cutting Discs
Cutting Fluids



Equipment Consumables

Hot Mounting Resins
Cold Mounting Resins

ABOUT METKON

Equipment Consumables

Abrasive Cut-off Wheels
Ultra-thin Abrasive Cut-off wheels
Diamond Cutting Discs
CBN Cutting Discs
Cutting Fluids

MOUNTING

Equipment Consumables

Hot Mounting Resins
Cold Mounting Resins

GRINDING & POLISHING

Equipment Consumables

Paper Grinding Discs(Plain Back)
Paper Grinding Discs(Self-adhesive)
Diamond Grinding Discs(Magneto)
Diamond Pastes
Diamond Suspensions
Diamond Sprays
Diamond Lubricant
Alumina Powders
Alumina Suspensions
Colloidal Silica
Polishing Clothes
Metkon Magnetic System

PETROGRAPHY

Equipment Consumables

SiC powders
Diamond Cutting Discs
Diamond Cup Grinding Wheels

HARDNESS TESTING

MICROSCOPY & IMAGE ANALYSIS

Equipment Consumables

Grinding Papers
Grinding Stones
Milling Tips

SAMPLE PREPARATION FOR SPECTROSCOPY

Equipment Consumables

ABOUT METKON

Grinding Papers
Grinding Stones
Milling Tips

CUTTING

Equipment Consumables

Abrasive Cut-off Wheels
Ultra-thin Abrasive Cut-off wheels
Diamond Cutting Discs
CBN Cutting Discs
Cutting Fluids

MOUNTING

GRINDING & POLISHING



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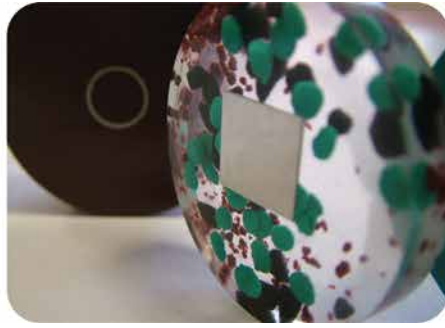
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LIST of PRODUCTS



METALLO



METALLOGRAPHY

OGRAPHY

Metallography is the science of revealing and evaluating the internal structures of materials. It is one of the most important methods of materials research today, indispensable to the scientist as well as to the engineer. More recently, advanced materials such as high tech metal alloys, ceramics, composites and polymers have appeared which made metallography become an increasingly vital part of modern industry. Through a process of cutting, mounting, grinding and polishing, a smooth surface is obtained to reach the materials true structure. In order to achieve high preparation quality and reproducible results; a combination of "Right equipment, Correct preparation method and Right consumables" which we call "Total Preparation Solution" is required.

METKON brings total preparation solutions in metallography. We cover the complete range of instruments and consumables for Metallographic Sample Preparation, from manual machines to sophisticated microprocessor controlled preparation systems. Our systems are used in research laboratories and on production lines, in quality control and in education, in large government installations, automotive companies and small independent laboratories. Materials scientists, designers, engineers and QC managers use METKON products to evaluate the mechanical properties of materials, components and structures.





CUS



CUSTOMERS

TOMERS

Since 1993, METKON as a young and dynamic company, had delivered more than 10,000 instruments globally. Our customer list covers the spectrum from small to large international companies and laboratories in many different industries, including: Automotive, Aerospace, Bearing industry, Electronics, Universities and other industries.

Together with our distributors in more than 30 countries, dedicated aftersales support includes trained service and support personnel, application laboratories, customer training courses, and mobile laboratories featuring a hands-on experience with METKON products and specialists.

METKON is proud to be a partner in providing quality products to a variety of customers including; Agusta, Bosch, Eaton, Faurecia, Fiat, GKN, Hyundai, Honda, INA, Lufthansa, Mercedes Benz, Motorola, Pirelli Schneider, Seagate, SKF, Sony, Toyota, TRW, Yamaha and others.

Our primary goal and the greatest motivation for us is to have you as a satisfied METKON customer.







PRODUCTION DUCTION

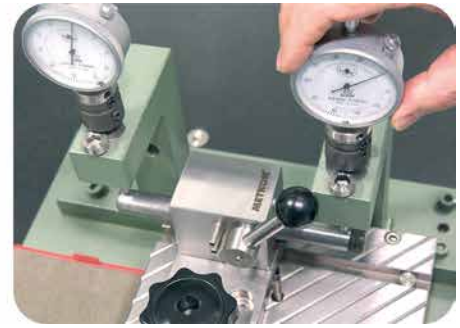
Founded in 1993 as a 3-man- enterprise, METKON today employs over 80 people. Customers around the world have trusted METKON to deliver technologically advanced solutions.

Our state-of-the-art Engineering and Product Development center includes teams of engineers working together to create and test ideas that will be incorporated into instruments designed to meet customer needs.

At our in house manufacturing facility, quality drives production. From sheet metal parts to complex mechanical assemblies, METKON produces most of the components needed in our products, allowing strict control over the entire manufacturing process in accordance with the quality standards of ISO-9001. As a final check before shipping, instruments are thoroughly tested to assure quality and functionality.







QUALITY POLICY

POLICY

Being an ISO 9001-2000 certified firm, our Quality Policy is that all products and services meet the requirements of our customers. Our objective is to justify your trust in our firm by providing quality products and services that are comprehensive and available to you when and wherever you need it.

METKON's Quality Policy is based on three fundamental principles:

- Quality is defined as conformance to requirements.
- Total Quality Management is our business philosophy.
- The benchmark for quality comprises our performance goals which are continuously measured.





MENT

EQUIPMENT



CUTTING

SERVOCUT Series



SERVOCUT is the perfect choice for a broad range of heavy duty cutting applications. It is available in four main sizes and in automatic and/or manual versions:

SERVOCUT 301: Medium Size

(cutting capacity 90/110 mm with cut-off wheel dia. of 250/300 mm)

SERVOCUT 401: Large Size

(cutting capacity 130/150 mm with cut-off wheel dia. of 350/400 mm)

SERVOCUT 501: Very Large Size

(cutting capacity 160/180 mm with cut-off wheel dia. of 450/500 mm)

SERVOCUT 602: Extremely Large Size

(cutting capacity 180/230 mm with cut-off wheel dia. of 500/600 mm)

SERVOCUT has X-Y-Z triple axes cutting capability:

Z-axis Chop cutting: The specimen is clamped and the cut-off wheel approaches the specimen.

Y-axis Table-feed cutting: Feeding the clamped specimen into a rotating cut-off wheel using a T-slotted feed table.

X-axis Parallel Cutting (optional): Parallel serial sectioning in the x-axis with optional movable x-bed. More than one specimens can be cut automatically in one cycle on SERVOCUT 602.

SERVOCUT consists of a cast aluminium base on which the motor and the working space are provided in the form of two separate housings. A large window of Lexan and a sealed LED lamp in the cutting chamber allow precise observation of the cutting process at an optimum degree of safety. A large, T-slotted feed table located in the cutter's generous work area can accommodate a variety of different clamping devices which need to be selected.

SERVOCUT automatic models have advanced techniques and software with programmable coloured HMI touch screen controls increasing the productivity, sample consistency and operator comfort.

METACUT Series



METKON chop cutting machines METACUT series 251/351 are designed for wet cutting of large and small, regularly or irregularly shaped workpieces of metallic, ceramic or composite materials. METACUT 251 has the capacity to cut solid sections up to 115 mm in diameter. The cutting capacity of METACUT 351 is 130 mm. The side access port permits the sectioning of extra - long workpieces, as well. The machine is equipped with a powerful motor, driving the cut-off wheel towards the workpiece. The bottom part of the machine is a large robust alloy base casting. The cutting table is provided with T-Slots increasing the versatility so that different clamping sets can be mounted. The complete system is enclosed in a protective hood with a large shatter proof window to observe the cutting process.

METACUT has the highest safety standards. The interlocking safety device does not allow the motor to be started unless the hood is closed. The hood can not be opened before the motor is stopped. The electronic brake system, which is a standard feature, brings the cutter to a quick full stop in seconds after it has been switched off.

A closed loop recirculating cooling unit is a standard part of the machine. The cutting surface is cooled by spray nozzles whose water jets hit both the cutting wheel and the specimen. This provides an efficient cooling of the sample and prevents the overheating of the surface structure.

CLAMPING VISES

Quick Acting Clamping
Vise Assembly Left
(Stainless Steel)



GR 0030 for METACUT & SERVO CUT 401
GR 0013 for METACUT 251
GR 0122 for SERVO CUT 501
GR 0170 for SERVO CUT 301
GR 0548 for MICRACUT 201

Quick Acting Clamping
Vise Assembly, Right
(Stainless Steel)



GR 0029 for METACUT 351 & SERVO CUT 401
GR 0012 for METACUT 251
GR 0121 for SERVO CUT 501
GR 0172 for SERVO CUT 301

Compact Vise Assembly,
Spring Loaded
(Stainless Steel)



GR 0154 for METACUT 351 & SERVO CUT 401
GR 0151 for METACUT 251 & SERVO CUT 301

Vertical Clamping Device
with clamping shoe



15 02 for METACUT 351 & SERVO CUT 401/501/602
15 01 for METACUT 251 & SERVO CUT 301
15 05 for MICRACUT 201 & GEO CUT

Height Block



15 03 for MTC 251/SRC 301
15 04 for MTC 351/SRC 401/501/602

Fastener vise for longitudinal
sectioning of screws, ball joint, tubes



GR 0310 for MTC 351/SRC 301/401
GR 0312 for MTC 351/SRC 401

Fastener vise for longitudinal
sectioning of screws, fasteners tubes



GR 0453 for MICRACUT 201/151
SRC 301
METACUT 251

Cabinet for floor model



GR 0938 for MTC 351/MCR 201/FORCIPOL 2V
GR 0937 for METACUT 251 & ECOPRESS
GR 0760 for SERVO CUT 301

Fume Condenser



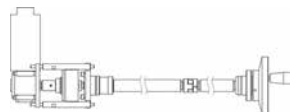
GR 0124-01 for SERVO CUT 401 &
SERVO CUT 501

Laser alignment unit (for MA &
AA models)(To be ordered simultane-
ously together with the machine order)



GR 0125 for SERVO CUT 301/401/501
GR 0135 for SERVO CUT 602

Manual/Auto Table drive system with
electromagnetic clutch(y-axis)(for
MA and AA models)



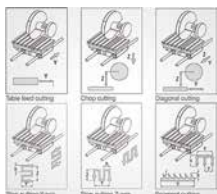
GR 0126 for SERVO CUT 501
GR 0127 for SERVO CUT 401
GR 0129 for SERVO CUT 301

Flange Set with larger diameter



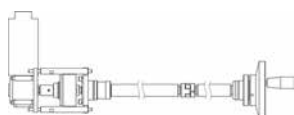
GR 0993 for SERVO CUT 501, Ø166 mm
GR 0992 for SERVO CUT 401, Ø133 mm
GR 0991 for SERVO CUT 301, Ø100 mm
GR 0410 for MICRACUT 201/151, Ø75 mm
GR 0411 for MICRACUT 201, Ø100 mm

Software package for optional
cutting methods; Diagonal Cut, Step
Cut, Segment Cut (for AA models)



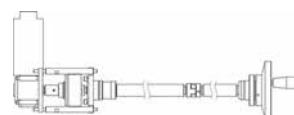
GR 0925 for SERVO CUT 301/401/501

Low Feedrate Kit(y-axis), Feedrate
range: 50 - 4.000 microns/sec



GR 0930-00 for SERVO CUT 301/401/501

Low Feedrate Kit(z-axis) Feedrate
range: 50 - 4.000 microns/sec



GR 0940-00 for SERVO CUT 301/401/501

High precision positioning unit
for Automatic X-Axis



GR 1210 for SRC 401
GR 1211 for SRC 501

CLAMPING VISES

BANDCOOL Band Filter Unit



GR 0591 for SERVOCUT 401/501/602

Mechanical Clamping Device



GR 0610 for SERVOCUT 602

Serial Clamping Device for clamping multiple specimens from 1 to 5



GR 0611 for SERVOCUT 602

Angular Precision Clamping Device in 3-Axis Direction



GR 0612 for SERVOCUT 602

Chain spanner set with anchor block



GR 0033 for SERVOCUT 602

V-Block for holding parts above table slots



15 00 for SERVOCUT 602

FILTERMIST Centrifugal Separator



GR 0134 for SERVOCUT 602

Central Lubricating System with programmable maintenance cycle



GR 0136 for SERVOCUT 602

AUTOCLEAN Automatic Cleaning System for cutting chamber



GR 0137 for SERVOCUT 602

PRECISION CUTTING

MICRACUT Series



MICRACUT precision cutters are used for precise and deformation-free cutting of "Metals, Ceramics, Electronic Components, Crystals, Composites, Biomaterials, Sintered Carbides, Minerals, etc." MICRACUT has its place in virtually any metallurgical, geological, electronics, research, biomedical or industrial laboratory. The applications are endless.

Manual/Motorized drive mechanism positions the specimen head in X-direction with 5 microns accuracy. Automatically adjusted feed rate and cutting force allows even the most delicate samples to be cut without deformation. Powerful cutting motor has variable cut-off wheel speeds in different ranges allowing both high speed and low speed cutting.

MICRACUT family of precision cutters are available in 2 different versions:

MICRACUT 151 Precision Cutter

Max.disc size 150 mm, Speed Range 0-1000 rpm

MICRACUT 201 High Speed Table Feed Precision Cutter

Max.disc size 200 mm, Speed Range 500-5000 rpm



PRECISION CUTTING

Accessories

Automatic X-axis positioning unit for programmable positioning in the X-axis with serial plane parallel cutting capability



GR 0824 for MICRACUT 201

Manual X-axis positioning unit for specimen vises with dovetail plates.



GR 0825 for MICRACUT 201

Stand with rotation for specimen vises with dovetail plates



GR 0826 for MICRACUT 201

Stand for specimen vises with dovetail plates.



GR 0547 for MICRACUT 201

Clamping Tools



GR 0548 for MICRACUT 201
GR 0551 for MICRACUT 201
15 05 for MICRACUT 201 & GEOCUT

Vacuum Sample holder for thin sectioning (To be ordered simultaneously together with the machine order)



GR 0579 for MICRACUT 201

Cutting Table Attachment for manual cutting of extra flat specimens & PCBs



GR 0212 for MICRACUT 151

Dressing Unit



GR 0409 for MICRACUT 151

Universal Specimen Vise



GR 0210 for MICRACUT 201
GR 0400 for MICRACUT 201/151

Specimen vise with double parallel vice for long specimens.



GR 0401 for MICRACUT 201/151

Specimen vise for round, cylindrical and mounted specimens.



GR 0402 for MICRACUT 201/151
GR 0434 for MICRACUT 201/151

Specimen vise for irregular shaped specimens.



GR 0403 for MICRACUT 201 /151

Specimen vise for adhering specimens.



GR 0404 for MICRACUT 201/151

Specimen vise for biomedical samples.



GR 0405 for MICRACUT 201/151

Specimen vise (teardrop shape)



GR 0430 for MICRACUT 201/151
GR 0431 for MICRACUT 201/151

Fastener vise for longitudinal sectioning of screws, fasteners, tubes, etc. from 12 to 45 mm. in length



GR 0453 for MICRACUT 151
MICRACUT 201

Cabinet for floor model



GR 0938 for MTC 351/MCR 201/FORCIPOL 2V

MOUNTING

ECOPRESS Series



ECOPRESS 100

Programmable Automatic Mounting Press with one cylinder, 7" HMI touch screen control, with Siemens PLC control unit, programmable with coloured LCD display, program based mounting sequences, electro hydraulic pressure (requires no air), pressure upto 300 bar, temperature upto 200 C, operation time upto 59:99 minutes, short cycle time, thermostatically controlled heating power of 1250W, automatic cooling cycle with three modes of cooling rates (standart cooling, slow cooling and based on time), programmable preheating and preloading, selectable mould sizes from 25 mm to 50 mm, audible warning signal, ready for operation. 230 V, 1-phase, 50 Hz.



ECOPRESS 200

Programmable Automatic Mounting Press with two cylinders, 7" HMI touch screen control, with Siemens PLC control unit, programmable with coloured LCD display, program based mounting sequences, electro hydraulic pressure (requires no air), pressure upto 300 bar, temperature upto 200 C, operation time upto 59:99 minutes, short cycle time, thermostatically controlled heating power of 2X1250W, automatic cooling cycle with three modes of cooling rates (standart cooling, slow cooling and based on time), programmable preheating and preloading, selectable mould sizes from 25 mm to 50 mm, audible warning signal, ready for operation. 230 V, 1-phase, 50 Hz.



ECOPRESS 50

Automatic Mounting Press with one cylinder, Fully automatic operation with microprocessor controls, electro hydraulic pressure (requires no air), with touch pad front panel controls and digital display of; heating time, moulding temperature, cooling temperature, ram up/down, auto/manual cooling, cycle start/stop, last parameter settings retained in the memory, with direct reading pressure gage, moulding pressure upto 300 bar, temperature upto 200 C, operation time upto 59:99 minutes, short cycle time, thermostatically controlled heating power of 1250W, automatic cooling cycle, selectable mould sizes from 25 mm to 50 mm, audible warning signal, ready for operation. 230 V, 1-phase, 50 Hz.

Cold Mounting



VACUMET

Vacuum Impregnation Unit for cold mounting. Especially designed for embedding and impregnation of porous materials under vacuum. In addition, glueing of specimens to glass slides for thin section analysis is possible. Vacumet is very simple to operate and ensures efficient impregnation.

Accessories for ECOPRESS

Mould Assemblies



- 26 01-02 For ECOPRESS 50/100/200
- 26 02-02 For ECOPRESS 50/100/200
- 26 03-02 For ECOPRESS 50/100/200
- 26 04-02 For ECOPRESS 50/100/200
- 26 05-02 For ECOPRESS 50/100/200
- 26 06-02 For ECOPRESS 50/100/200
- 26 07-02 For ECOPRESS 50/100/200
- 26 08-02 For ECOPRESS 50/100/200

Recirculating Coolant System



GR 1363 For ECOPRESS 50/100/200

Cabinet for floor model



GR 0937 For ECOPRESS 50/100/200



PLANAR GRINDING



DIGIPREP Plan Automatic Planar Coarse Grinder is designed for first step initial planar grinding of very large specimens or a high volume of specimens in specimen holders. It is fast and efficient in providing high quality flat specimen surface thus saving time on the subsequent fine grinding and polishing steps. Specimen holders of 130 mm diameter having 6 specimens can be prepared in less than a minute with up to 150 mm stone cup which requires minimal dressing. DIGIPREP Plan is an automatic planar grinder for the first step plane grinding of metallographic specimens. It can easily provide enough specimens for two or three Digiprep polishing machines.

FORCI Plan is a manual compact bench-top pendulum grinder for initial planar grinding of metallographic specimens. It has a simple and reliable design with low noise and dust generation levels. It is completely enclosed and dustproof with LED spot light. The grinding arm is placed just in front of the machine making it ergonomic and easy to handle. Vertical movement (Z-axis) of grinding head is by hand wheel in front and positioning with 0,01 mm accuracy is possible. It is possible to attach an external dust exhauster to the standard outlet at the rear side. Manual 4 Jaw chuck is available to secure the specimen holder.

PLANNAR GRINDING ACCESSORIES

Mechanical 4-jaw chuck



GR 1830 for Forci Plan/DGP Plan

Floor Cabinet



GR 1802-01 for Forci Plan/DGP Plan

Recirculating coolant tank, stainless steel, 40 lt. capacity, with pump, hoses etc.



GR 1394-00 for Forci Plan/DGP Plan

Pneumatic Clamping Device with 2 Jaws



GR 7599 for Digiprep Plan

Automatic Sample Height Measurement System for full cyclic operation, with automatic dressing of cup grinding stone,



GR 1828 for Digiprep Plan

GRINDING & POLISHING

FORCIPOL Series



FORCIPOL Series of grinding and polishing machines offer practical and economical solutions to your metallographic sample preparation needs...

FORCIPOL Series of instruments are available as Single wheel and Dual wheel Units (200/250/300 mm wheel size). Both single or double wheel versions are available with infinitely variable rotating speeds with digital display. This allows the setting of the optimum speed for each individual preparation process.

The drive elements are fixed on heavy duty aluminium alloy casting. The wheels are mounted on ball bearings allowing the application of high pressures to prepare even large specimens. Ball bearings used provide quite and vibration free operation. Water inlet and flexible water outlets with control valves for wet grinding are standard features. Motor on/off and water on/off buttons are mounted on the front panel.

FORCIPOL instruments can be used for grinding, lapping and polishing with magnetic backed discs and cloths or by quick and simple exchange of wheels. When the number of specimens to be prepared increases, FORCIPOL instruments can be fitted with FORCIMAT automatic head for automation. FORCIMAT automatic head provides high rate sample preparation and frees the operator from the grinding and polishing procedures. It is a microprocessor controlled sample mover designed for medium size laboratories where consistent results are desired. FORCIMAT applies individual force on each sample and can prepare 6 samples simultaneously.

DIGIPREP Series



DIGIPREP preparation systems have advanced techniques and software with programmable HMI touch screen controls increasing the productivity, sample consistency and operator comfort.

DIGIPREP 251/301 programmable Automatic Head is integrated with the Base Unit, thus creating automatic preparation system. It is used to prepare high volumes of metallographic, ceramic and mineralogical specimens with consistent reproducible quality. The Automatic Head can apply both "Central" and/or "Individual" forces. It can accommodate single samples as well as multi-sample holders thus offering a perfect solution for all levels of sample throughput requirements. DIGIPREP's Automatic Head controls the force applied precisely and specimens are prepared exactly the same way everytime, independent of operator skills. With the ability to store and recall preparation programs on the LCD screen, same consistent results are obtained.

DIGIPREP ACCURA Advanced high end grinding and polishing system, robust construction on dual columns for applications requiring extremely flat specimen surfaces. Suitable for both 250 mm and 300 mm applications. Motorized positioning of the Head in vertical (Z) and horizontal (X) axes with memory function.

Metkon offers you MICROLOGUE, on-line access to many preparation methods for different materials on our website. High level of automation improves the efficiency and gives the operator free time for other tasks in the laboratory. Efficiency is further increased by adding DOSIMAT Peristaltic Dispensing Unit for automation and control of consumable consumption.

GRINDING & POLISHING

DIGIPREP Velox



DIGIPREP Velox Fully Automatic Programmable Grinding/Polishing System is developed for operator free sample preparation for high volume sample throughput starting from planar grinding to cleaning and drying. You only need to place the sample holder, select the program number for your specific application and depress the "Start" button. That's it! Your samples will be ready for analysis in 15 – 20 minutes.

DIGIPREP Velox Automatic programmable grinding and polishing system is available with 4 grinding/polishing stations (1 coarse grinding, 1 fine grinding and 2 polishing) which can accommodate 250 mm diameter wheel as well as 300 mm. diameter wheels. The grinding/polishing stations can be configured independently according to the specific requirement of the abrasives. The vibration free, robust platinum and steel construction ensures extremely flat specimen surfaces.

DIGIPREP VELOX ACCESSORIES

Working kit for 250mm. applications



GR 0803 for Velox

Working kit for 300mm. applications



GR 0804 for Velox

Ultrasonic cleaning unit



GR 0880 for Velox

Stand for LEVOMAT with storage for sample holders and consumables



GR 0780 for Velox

Drawer cabinet for storing discs



31 00 for Velox

GRINDING & POLISHING

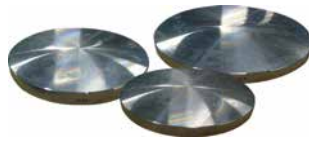
Accessories

PVC wheel for Grinder/Polishers



31 01 for FORCIPOL 1V & FORCIPOL 2V
31 21 for FORCIPOL 1V & FORCIPOL 2V
31 31 for FORCIPOL 300-1V

Aluminium wheel for Grinder/Polishers



31 02 for FORCIPOL 1V & FORCIPOL 2V
31 22 for FRC 1V/2V,DGP 251/301
31 42 for DIGIPREP Accura/Velox
31 52 for DIGIPREP Accura/Velox
31 32 for FRC 300-1V,DGP 301

Splash guard for Grinder/Polishers



31 53 for FORCIPOL 1V & FORCIPOL 2V
31 63 for FORCIPOL1 V/2V,DIGIPREP 251
31 64 for DIGIPREP ACCURA
31 73 for FRC 300-1V,DGP 301/Accura
31 82/83/93 for FORCIMAT

Paper ring for Grinder/Polishers



31 04 for FORCIPOL 1V & FORCIPOL 2V
31 24 for FORCIPOL 1V & FORCIPOL 2V
31 34 for FORCIPOL 300-1V

Cover for Grinder/Polishers



31 06 for FORCIPOL 1V & FORCIPOL 2V
31 36 for FORCIPOL 300-1V

Special Plexyglass Protection Unit



31 10 for FORCIPOL 1V & DIGIPREP 251
31 11 for FORCIPOL 300-1V & DIGIPREP 301

Special Protection Cover



31 12 for DIGIPREP ACCURA

Air filtering and lubricating unit



GR 0440 for FORCIMAT, FORCIMAT-TS
DIGIPREP 251/301/ACCURA

DOSIONE Peristaltic Fluid Dispenser



GR 0874 for FORCIMAT, FORCIMAT-TS
DIGIPREP 251/301

DOSIMAT Peristaltic Fluid Dispenser



40 04 for DIGIPREP 251/301

Dosing Modules for Digiprep Accura



GR 0875 with 4 micro peristaltic pumps
GR 0876 with 6 micro peristaltic pumps

Working Kit for Digiprep Accura



GR 0801 for DIGIPREP Accura
GR 0802 for DIGIPREP Accura

Z-axis material removal with depth control



GR 0872 for DIGIPREP 251/301

Cabinet for floor model



GR 0770 for DIGIPREP Accura
GR 0830 for FRC 1V/300-1V / DGP 251/301
GR 0938 for MTC 351/MCR 201/FORCIPOL 2V

Recirculating Cooling Tank



GR 1394-00 for GEOCUT, SPECTRAL PG
SPECTRAL AG
DIGIPREP PLAN
FORCI PLAN
GR 1383-00 for GEOFORM

ENVIRO Recirculating Filtering System



GR 0865 for FORCIPOL 1V/2V/300-1V
FORCI Plan
DIGIPREP Plan/251/301/Accura/Velox

Individual Force Specimen Holders



- 33 01 for FORCIMAT Specimen holder, 6 x ø 40 mm
- 33 06 for FORCIMAT Specimen holder, Blank
- 33 07 for FORCIMAT Specimen holder, 3 x Ø50 mm
- 45 51 for FORCIMAT Specimen holder, ø 145mm, for 6 x ø 25mm
- 45 54 for FORCIMAT Specimen holder, ø 145mm, for 6xØ 1"
- 45 52 for FORCIMAT Specimen holder, ø 145mm, for 6 x ø 30mm
- 45 55 for FORCIMAT Specimen holder, ø 145mm, for 6x 1 1/4"
- 45 56 for FORCIMAT Specimen holder, ø 145mm, for 6x 1 1/2"
- 45 58 for FORCIMAT Specimen holder, ø 145mm, for 3x 2"

- 33 21 for DIGIPREP 251/301/Accura/Velox Specimen holder, Ø145 mm, for 6xØ 1"
- 33 22 for DIGIPREP 251/301/Accura/Velox Specimen holder, Ø145 mm, for 6 x ø 25mm
- 33 23 for DIGIPREP 251/301/Accura/Velox Specimen holder, Ø145 mm, for 6 x ø 30mm
- 33 24 for DIGIPREP 251/301/Accura/Velox Specimen holder, Ø145 mm, for 6 x ø 40mm
- 33 25 for DIGIPREP 251/301/Accura/Velox Specimen holder, Ø145 mm, for 3 x ø 50mm
- 33 26 for DIGIPREP 251/301/Accura/Velox Specimen holder, Ø145 mm, for 6x 1 1/4"
- 33 27 for DIGIPREP 251/301/Accura/Velox Specimen holder, Ø145 mm, for 6x 1 1/2"
- 33 28 for DIGIPREP 251/301/Accura/Velox Specimen holder, Ø145 mm, for 3x 2"
- 33 29 for DIGIPREP 251/301/Accura/Velox Specimen holder, Ø145 mm, Blank

Set of insert rings



- 33 02 for 30 mm
- 33 03 for 25 mm or 1"
- 33 04 for 1 1/4"
- 33 05 for 1 1/2"

Central Force Specimen Holders (Clamp Type), for Forci Plan/DGP Plan/Velox/Accura/251/301



- 45 81 6 x Ø25 mm., Ø130mm.
- 45 82 6 x Ø30 mm., Ø130mm.
- 45 83 4 x Ø40 mm., Ø130mm.
- 45 84 6 x Ø1", Ø130mm.
- 45 85 6 x Ø1 1/4", Ø130mm.
- 45 86 4 x Ø1 1/2", Ø130mm.
- 45 91 10 x Ø25 mm., Ø160mm.

- 45 92 8 x Ø30 mm., Ø160mm.
- 45 93 6 x Ø40 mm., Ø160mm.
- 45 94 4 x Ø50 mm., Ø160mm.
- 45 95 10 x Ø1", Ø160mm.
- 45 96 8 x Ø1 1/4", Ø160mm.
- 45 97 6 x Ø1 1/2", Ø160mm.
- 45 98 4 x Ø2" ,Ø160mm.

Specimen Loading Fixture For Central Force Application



- 45 60 for FORCI Plan
DIGIPREP Plan/251/301/Accura/Velox
(LEVOMAT)

Central Force Specimen Holders(Rectangular) for Forci Plan/DGP Plan/Velox/Accura/251/301



- 45 44 4 x 25 X 32 mm., Ø 130 mm.
- 45 45 3 x 40 X 70 mm., Ø 160 mm.

Central Force Specimen Holders(Teardrop) for Forci Plan/DGP Plan/Velox/Accura/251/301



- 45 88 6 x 10 - 32 mm. , Ø130 mm.
- 45 89 4 x 10 - 42 mm., Ø130 mm.

Specimen Loading Plate



- 45 10 for ø 130 mm Specimen Holders
- 45 50 for ø 160 mm Specimen Holders

GRINDING & POLISHING

Portable Metallography



MOBIPREP

Portable grinding/polishing & Electrolytic etching
 Contains maintenance-free batteries to work without stationary mains, consists of a control unit and a precision hand-guided grinding-polishing device with high performance micro motor.
 Output 36 V, adjustable in 5 steps
 Hand-guided device:
 High Torque Brushless DC Motor
 Reduction Gear – Angle Piece 90° – Disk 30 mm diameter
 Automatic Charger 12 V / 2,5 A
 Optional Etching Pen
 Dimensions: 104 x 54 x 160 mm, Weight 1 kg.



MOBISCOPE

Portable Metallurgical Microscope
 Basic Magnification : 100x - 800x
 Eyepieces : WF10X/FN18, Dia 23.2
 Objectives : 10x/0.25 (W.D. 7,3 mm), 50x/0.65 (W.D. 0.5mm)
 C-mount adapter (for connecting C-mount cameras)
 Mechanical tube length 160 mm
 Coaxial coarse/fine focus system, range:36mm
 Polarizing Kits : Polarizer and Analyzer
 Coaxial illumination, build-in LED rechargeable, brightness adjustable
 Including portable aluminium case.

PORTABLE METALLOGRAPHY ACCESSORIES

Etching-Pen for electrolytic etching



90 10 for MOBIPREP

Angle Piece



90 11 (90°) for MOBIPREP
 90 12 (45°) for MOBIPREP

Straight quick release piece of, with 3-mm collet on



90 13 for MOBIPREP

Grinding and polishing carriers



90 14 for MOBIPREP

Shoulder bag, synthetic leather



90 15 for MOBIPREP

Magnet Stage



90 30 for MOBISCOPE

Objectives



90 31 (20x) for MOBISCOPE
 90 32 (80x) for MOBISCOPE



ELOPREP

Electrolytic Polishing & Etching System

Automatic and programmable electrolytic polishing and etching of metallographic specimens, with Siemens PLC control unit, user friendly coloured 7" LCD touch screen controls, short polishing times and maximum reproducibility, separate polishing unit equipped with drain pipe and integrated cooling system, optional external etching unit, 0-100 V output voltage for polishing, 0-25 V for etching and 0-15 V for external etching. Variable polishing time and current, with current limitation, built in safety features with continuous control of electrolyte, scanning function for easy determination of parameters, variable speed controlled pump with magnetic stirrer for electrolyte flow.

Ready for operation. Included: Stainless steel cathode (1pc.)

OPTIONAL ACCESSORIES FOR ELOPREP

Cathodes



YM 6904-00 Stainless steel
YM 6937-00 Copper
YM 6936-00 Titanium

Electrolyte container with lid



46 11 for ELOPREP

External etching unit



46 10 for ELOPREP

Masks



46 12 0,5 cm²
46 13 1 cm²
46 14 2cm²
46 15 5cm²
46 16 without aperture
46 17 set of masks

MICROSCOPY & IMAGE ANALYSIS

MICROSCOPY



IMM 901 Inverted Metallurgical Microscope

Basic Magnifications: 100x - 1000x
 Eyepieces: WF 10x eyepieces paired (field of view Ø16mm)
 Objectives: 10x/0.25, 20x/0.40, 40x/0.65, 100x/0.25 (oil)
 Stage: Mechanical stage 200 x 152mm travel with right hand, Coaxial dropdown controls, movable range 15 x 15mm
 Focusing: Coaxial low position coarse & fine focus controls graduated to 2 microns per division.
 Illumination: 6V 20W adjustable light sources with halogen lamp



PST 901 Trinocular Stereo Zoom Microscope

Basic Magnifications: 6.5x - 45x
 Eyepieces: WF 10x, paired
 Objectives: 6.5x - 45x
 Stage: Trinocular zoom head and Post Stand Fluorescence ring illuminator
 Focusing: Rack and pinion system, with antistatic PVC dust cover



UPM 902 Upright Metallurgical Microscope

Head: Trinocular, 30° inclined, 360° rotating.
 Eyepieces: WF10x/22mm.
 Nosepiece: 5-positions, reversed.
 Objectives: 5x/0.15, 10x/0.3, 20x/0.45, 50x/0.55, 100x/0.9 (dry).
 Magnifications: 50x, 100x, 200x, 500x, 1000x.
 Focusing system: Coaxial coarse and fine.
 Stage: Double layer with mechanical sliding stage, 175x145 mm, moving range 76x52 mm.
 Condenser: 0,7 N.A. swing-out type, with iris diaphragm, centrable and focusable.
 Illumination: LED system. 50.000 hours life time. 6300K temperature. 3.6W low energy consumption, light intensity equivalent to a 50W halogen bulb. Brightness is adjustable.
 Metallurgical Attachment: High-power white system with brightness control; field and aperture diaphragms (centrable). Simple sliding darkfield system.
 Filters: Blue, polarizer & analyzer.



IMM 902 Inverted Metallurgical Microscope

Head: Trinocular, 45° inclined.
 Eyepieces: WF10x/22mm.
 Nosepiece: 5-positions.
 Objectives: 5x/0.15, 10x/0.3, 20x/0.45, 50x/0.55.
 Magnifications: 50x, 100x, 200x, 500x.
 Focusing system: Coaxial coarse and fine.
 Stage: 250x230mm; mechanical stage with lowered ergonomic coaxial controls.
 X-Y range: 120x80mm.
 Diaphragms: Diaphragms: Field and aperture diaphragms (centrable).
 Illumination: 12V/50W halogen bulb in external case. Centrable bulb and brightness control.
 Filters: Blue, polarizer & analyzer



PST 902 Trinocular Stereo Zoom Microscope

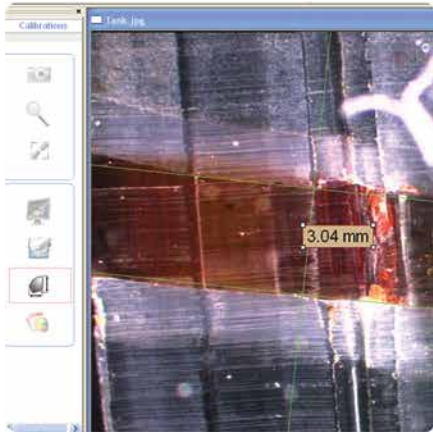
Optical System: Parallel Optics
 Head: Binocular 30° inclined, 360° rotatable
 Stand: Large stand, fixed arm type, with Led illumination, coaxial macro & micro focusing knobs
 Eyepieces: WF10x/22mm, high-point
 Objective: Zoom 0,8x ...6,4x
 Working Distance: 80 mm.
 Photo/Video Beam Splitter: 1 port
 Illumination: Ring light led illuminator, with continuous and external brightness control.



IPP 902 Polarization Laboratory Microscope

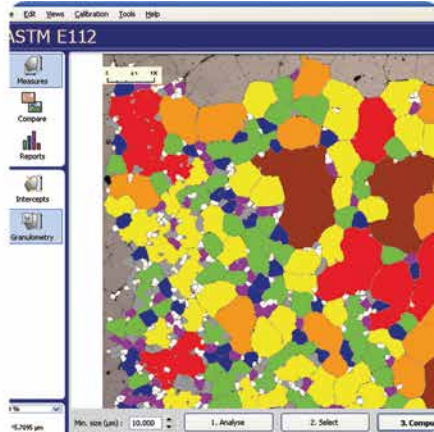
Head: Trinocular, 30° inclined, 360° rotating
 Eyepiece : WF10x/22mm
 Bertrand lens: Swing-out type; centrable (for Conoscopy/Orthoscopy)
 Polarizing attachment: Blue filter, 0°-90° rotating analysing filter, 1 slip (first class red), 1/4 slip, quartz wedge
 Nosepiece: 4-positions with centering mechanism for all objectives
 Objectives: For transmitted and incident polarized light 5x/0.15, 10x/0.25, 20x/0.40, 50x/0.70
 Magnifications: 50x, 100x, 200x, 500x Coaxial coarse and fine 160mm diameter; 360° rotating with stop knob and 0.1° vernier
 Condenser: 0,9 N.A., with iris diaphragm, focusable and centrable. With rotating polarizing filter (swing-out type)
 Illumination: Transmitted light: LED system. Incident light: LED system polarizing attachment with built-in polarizer filter, aperture diaphragm and field diaphragm.

IMAGE ANALYSIS



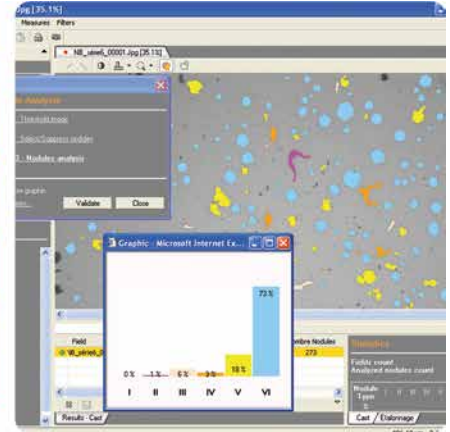
IMAGIN MESURA 200

IMAGIN MESURA 200 allows you to view the live microscope image, compare it with stored images and if necessary save it to the system. Several databases can be created according to the customers, projects, materials or specimens. IMAGIN MESURA 200 has several measurement tools for performing manual measurements of lines, curves, angles, areas etc. after which they can be saved and archived. Many application areas exist like "Weld Assessments, Macro analysis, PCB component measurements etc.



IMAGIN GRANO 200

IMAGIN GRANO 200 module has been designed for automatic measurement of grain size according to ASTM E112 and EN ISO 643. Firstly, the grain boundaries are detected after which the grain size can be calculated in different ways; "Intercept Method" counts the number of intersection in each field and the grain size is calculated by Abrams 3 - circle or Linear Equations. "Area Method" determines the size of each individual grain by area after which the grains are categorized for the calculation of fractions.



IMAGIN NODULA 200

IMAGIN NODULA 200 module is designed for the analysis of graphite in cast irons especially in Ductile and Gray Iron Foundries and Quality Control Labs. Nodularity assesment is made by percent count and nodules proportion. It is also possible to measure "Area percent ferrite, Area percent graphite and Area percent Pearlite". Archiving of all images with calibration and generating Reports creates an additional advantage to increase productivity and zrepeatability.

HARDNESS TESTING

DURALINE



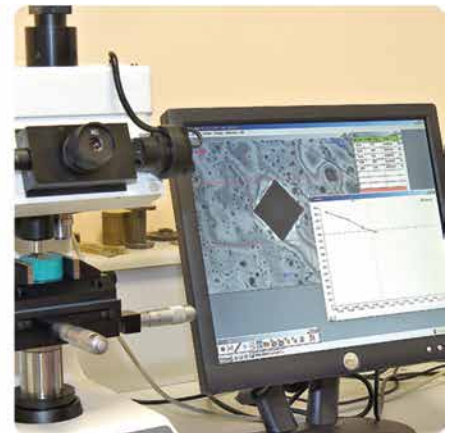
DUROLINE M Microhardness Testers

METKON DUROLINE Microhardness Testers can perform precision microindentation hardness tests on a wide range of engineering materials. These modern testers assure accurate Vickers and Knoop hardness testing throughout their load range from 10 to 1000 grams. The screen shows all the vital information on the test being performed. This includes load, hardness value and converted value. Integral camera port for video and PC combination is standard.



DUROLINE LV&V Vickers Hardness Testers

METKON DUROLINE LV&V Hardness Testers are designed with touch screen displays for easy use. Robust casting and precision mechanics combined with state of the art electronics give rapid, accurate and repeatable results. DUROLINE Vickers Hardness Testers are available in two main versions:
Macro Load: Load range of 1-50 kg
Low Load(L): Load range of 0,2-10 kg
Both versions are equipped with "Automated Rotation". Integral camera port for video and PC combination is standard.

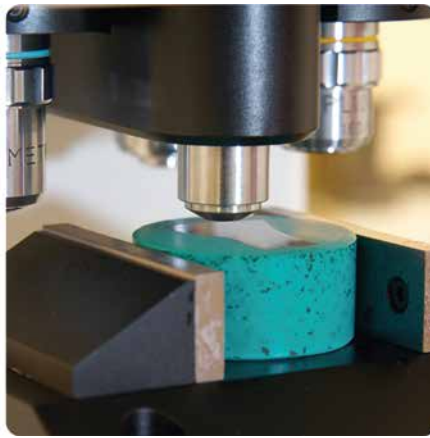


VMS 2000 Automatic Hardness Test Documentation System

VMS 2000 can be connected to any existing Hardness Tester. It consists of "CCD camera Frame Grabber PCB, and VMS software package". The imprint is automatically transferred to the monitor. Measurement is done manually and the hardness value is calculated digitally. Case Depth hardness curves EHT, NHT are automatically generated and archived.



The dual line 10 x filar eyepiece provides easy and accurate measurements. Simply position the left moveable filar line, then the right one and read the diagonal length directly in microns. The flat field 40x measuring objective allows accurate reading of even the smallest imprint.



The alignment of the loading weights over the diamond penetrator provides accurate load application. Selection of the load is conveniently dialed in on the side of the machine. The screen shows all the vital information on the test being performed. This includes load, diagonal lengths, hardness value and converted value.

MICROSCOPY & HARDNESS TESTING

Accessories

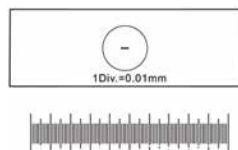
ACCESSORIES FOR MICROSCOPY

Eyepiece



60 11 for IMM 901
62 42 for IMM 902/UPM 902/IPP 902
62 41 for UPM 902
62 71 for PST 902
62 72 for PST 902

Micrometric slide



60 22 for IMM 901
60 23 for PST 901
60 41 for IMM 902/UPM 902/IPP 902

Eyeiece , WF 10x , with ASTM Grain Size E112



GR 0415 for IMM 901

Objective



60 53 for PST 901
60 55 for IMM 902
61 71 for PST 902
61 72 for PST 902
61 73 for PST 902
60 58 for IPP 902

Eyeiece micrometer



60 12 for IMM 901
60 13 for PST 901
62 53 for IMM 902
62 43 for UPM 902/IPP 902
62 73 for PST 902

Mechanical Stage



60 43 for PST 901
60 45 for IMM 902

IMAGIN HARDWARE SET



66 10 for IMM 901, DUROLINE,PST

Holder for metallurgical samples(15 mm hole)



60 25 for IMM 902

MICROSCOPY & HARDNESS TESTING

Accessories

Photo Adapter for IMAGIN HARDWARE SET



60 75 for IMM 902
60 74 for UPM 902
60 76 for PST 902/IPP 902

Halogen bulb, 12V/50W



60 65 for IMM 902

Ergonomic binocular head 30°-60°



62 40 for UPM 902/IPP 902

Eyecup



62 60 for IPP 902

Special protective dust cover



60 67 for IMM 902
60 69 for PST 902
60 68 for IPP 902

Cleaning kit



60 66 for PST 902/IPP 902

Immersion oil



60 64 for IPP 902

Polarized filter



61 81 for IPP 902
61 82 for IPP 902
61 83 for IPP 902
61 84 for IPP 902

ACCESSORIES FOR HARDNESS

Specimen Holder



GR 7902/1 for Ø25 mm
GR 7902/2 for Ø30 mm
GR 7902/3 for Ø40 mm
GR 7903 Fine (Vertical type)
GR 7904 Fine (Horizontal type)
GR 7905 Precision vise (opening 50mm)

Measuring Object Lens 80x & Optical Kit



GR 7906 for DUROLINE M

Vickers Diamond Indenter Knoop Diamond Indenter



GR 7908/M for DUROLINE M
GR 7908/V for DUROLINE LV & DUROLINE V
GR 7909/M for DUROLINE M

Standart block HV 400 or HV 700



GR 7910 for DUROLINE M
GR 7911 for DUROLINE LV & DUROLINE V

Hand press



GR 7912 for DUROLINE M/LV/V

Manual Stage



GR 7913 for DUROLINE M
GR 7914 for DUROLINE LV & DUROLINE V

Calibration scale glass



GR 7915 for DUROLINE M/LV/V

Spare source bulb



GR 7907 for DUROLINE



GEOCUT

GEOCUT consists of a cast aluminium base on which the motor and the working space are provided in the form of two separate housings. A large window of Lexan and a LED lamp in the cutting chamber allow precise observation of the cutting process at an optimum degree of safety. A large feed table located in the cutter's generous work area can accommodate a variety of different clamping devices which need to be selected. The feed table provides a long travel depth making the GEOCUT ideal for cutting long or deep samples in a single pass. Cross-feed table with digital read-out is available for parallel cutting.



GEOFORM

Preparing thin sections requires highly precise instruments and knowhow. GEOFORM has two parts: Cutting and Grinding. On the cutting module, the specimen is fixed on a holder with vacuum and re-sectioned upto a thickness of approx. 0,5mm. The grinding module is designed for precision grinding. A universal vacuum holder accepts different sizes of glass slides by changing the location pins. A built-in digital micrometer ensures high precision and the specimen is ground with an accuracy of 2 microns.



FORCIPOL 300-1V with FORCIMAT-TS

FORCIPOL 300-1V is a strong grinding and polishing instrument with variable speed between 50-600 rpm and for 300 mm diameter wheels. By using appropriate working discs, it can carry the grinding, lapping and polishing processes very smoothly.

FORCIPOL, when coupled with FORCIMAT-TS becomes an automatic thin section preparation system. FORCIMAT-TS is an automatic head with low speed for thin section and petrographic sample preparation. The force is individually applied and adjustable from the front panel.



A complete range of instruments for petrographic sample preparation, starting with a piece of rock and finishing at 20 microns... This exciting product range offers you the latest in technology and functional design to provide high levels of performance in preparation of mineralogical samples and thin section specimens. For mineralogical specimens, the surface is prepared for examination with a reflected light microscope and the preparation procedure is basically similar to the preparation of metallographic specimens.

Preparing thin sections, on the other hand, requires highly specialized equipment and skills because the specimen is extremely thin, generally around 20 microns for observations with transmitted light microscope.

ACCESSORIES FOR PETROGRAPHY

Quick Clamping Device for round petrographic specimens



GR 1811 for GEOCUT

Universal vise for large specimens, rocks, etc.



GR 1812 for GEOCUT

KKP 040 Vertical Clamping Device, with clamp.shoe



15 05 for GEOCUT

Recirculating coolant tank, stainless steel, 40 lt. capacity, with pump, level indicator, hoses etc.



GR 1394-00 for GEOCUT

Recirculating Coolant System



GR 1383-00 for GEOFORM

Accessories set for cutting large specimens, GEOFORM



GR 1815 for 1"x3"
GR 1817 for 2"x3"

Fixture for mounting specimens to glass slides for thin-sectioning



45 61 for GEOFIX

Hot Plate for Geofix



45 65

LAP-TS with Boron Carbide stops for lapping of thin sections, 60 mm. Dia.



33 10 for FRC 300-1V/ Forcimat TS

POL-TS special specimen holder for polishing of thin sections, 60 mm. Dia.

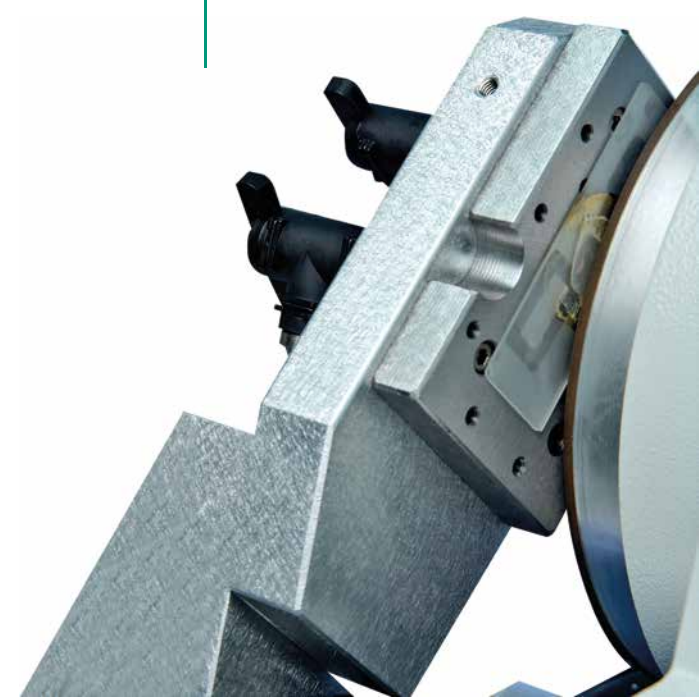


33 11 for FRC 300-1V/ Forcimat TS

Cabinet for floor model



GR 0760 for GEOCUT



SAMPLE PREPARATION FOR SPECTROSCOPY

SPECTRAL Series



SPECTRAL 250

SPECTRAL 250 is a table-top portable surface grinder for the preparation of steel samples for spectroscopy. Its compact design with vibration free operation makes it a practical instrument to work with. Low noise and dust generation levels as well as standard outlet for dust exhauster are additional advantages.



SPECTRAL 350

SPECTRAL 350 Grinders are used to achieve excellent precision flat surfaces of iron and steel samples for spectroscopic analysis. The robust and vibration-free construction has been designed for continuous operation at high sample throughput.

SPECTRAL 350 Series of instruments are available as Single Disc and Dual Disc Units with 350 mm wheel size which is dynamically balanced for smooth running. Due to its special design, grinding paper is sucked to the grinding disc which does not require any glue.

SPECTRAL 350-1 Single Disc Grinder with 2800 rpm fixed speed is the most basic unit of Spectral 350 series.

SPECTRAL 350-2 Dual Disc Grinder has two discs with fixed speed of 2800 rpm.

SPECTRAL 350-2S has two grinding discs with dual speed as 1400 and 2800 rpm. It's the most unique grinder, especially for foundries or steel plants having variety of materials.



SPECTRAL PG

SPECTRAL PG is a compact bench-top pendulum grinder for fast grinding of iron and steel samples for spectroscopic analysis. It has a simple and reliable design with low noise and dust generation levels. It is completely enclosed and dustproof with LED light.

SPECTRAL PG is suitable for wet and dry grinding with minimum maintenance required which is mainly cleaning. It is possible to attach an external dust exhauster to the standard outlet at the rear side. The grinding arm is placed just in front of the machine making it ergonomic and easy to handle.

SPECTRAL PG is especially suitable to grind hard materials like white cast irons.



SPECTRAL AG

SPECTRAL AG is an automatic cup grinder for spectroscopic sample preparation of iron and steel samples.

Heavy duty cast aluminum base with motorized vertical drive provides accurate control. High-torque grinding motor rotating at 2800 rpm guarantees high material removal rate. SPECTRAL AG is equipped with automatic sample feed with fine speed control. Fast advance and reverse are available. Automatic cup wheel positioning is done with a laser measurement station. This ensures extremely precise positioning with shorter times. All important parameters of the grinding process like feedrate and grinding depth are preset with digital display.



SPECTRAL MM

SPECTRAL MM is an automatic milling machine for fast milling of non-ferrous samples for OES and X-ray spectrometer analysis. Automatic fine surface milling guarantees the highest level of reproducibility through automatic processing of the specimen. SPECTRAL MM has a robust and reliable design with low noise and emission levels. It is completely enclosed and sound-insulated with LED-light. The front cover can completely opened for easy access to all sides. SPECTRAL MM is equipped with automatic sample feed with fine speed control. All important parameters of the milling process like feedrate, milling depth, spindle speed are programmable with HMI touch screen controls.



SPECTRAL MMax

SPECTRAL MMax is a fully automatic milling machine for fast milling of steel, cast iron and non-ferrous samples for optic emission and X-ray spectrometer analysis. Automatic fine surface milling guarantees the highest level of reproducibility through automatic processing of the specimen.

SPECTRAL MMax has a robust and reliable design with low noise and emission levels. It is completely enclosed and sound-insulated with LED spot-light. The front cover can be completely opened for easy access to all sides.

SPECTRAL ACCESSORIES

Sample Holder for round specimens, Magnetic type.



GR 1804 for SPECTRAL 250
SPECTRAL 350-1
SPECTRAL 350-2
SPECTRAL 350-2S

Sample Holder for round specimens, Mechanical type.



GR 1805 for SPECTRAL 250
SPECTRAL 350-1
SPECTRAL 350-2
SPECTRAL 350-2S

Mechanical clamping device for samples upto 60 mm.



GR 1801 for SPECTRAL MM
SPECTRAL PG

Permanent Magnetic Clamping Device, 100x150 mm.



GR 1807 for SPECTRAL PG

Electromagnetic clamping device



GR 1820 for SPECTRAL PG
SPECTRAL AG

Pneumatic Clamping Device with 3-Jaws



GR 1819 for SPECTRAL MM
SPECTRAL AG

Milling Head



GR 1808 63 mm for SPECTRAL MM
GR 1809 80 mm for SPECTRAL MM
GR 1823 for ferrous, 80 mm. SPC MMax
GR 1824 for ferrous, 100 mm. SPC MMax
GR 1834 for nonferrous, 100 mm. SPC MMax
GR 1825 With integrated deburring, SPC Mmax

Manual measuring tool for cutter positioning



GR 1810 for SPECTRAL MM

GR 1810 for SPECTRAL MM



GR 1829 for SPECTRAL AG

T-Slotted Table



GR 1816 for SPECTRAL MM
SPECTRAL AG

Air cooling system



GR 1821 for SPECTRAL MM

Automatic height Calibration



GR 1826 for SPECTRAL MMax

SPECTRAL Floor Cabinet



GR 1802-01 for SPECTRAL MM
SPECTRAL AG
SPECTRAL PG
DIGIPREP Plan
FORCI Plan

Recirculating coolant Tank



GR 1394-00 for SPECTRAL PG
SPECTRAL AG
GEOCUT
DIGIPREP Plan
FORCI Plan

Automatic Sample Height Measurement System for full cyclic operation



GR 1828 for SPECTRAL AG

Automatic Sample Height Measurement System for full cyclic operation



GR 1827 for SPECTRAL MM

CONSUMABLES



Consumables for Cutting



Sample preparation starts with cutting and good cutting means a good start

Selecting the right cut-off wheel ensures freedom from burn and distortion and is the best way to save time and consumables. Correct cutting produce specimens which are in perfect condition for the next preparation steps.

Abrasive cut-off wheels



The most commonly used abrasives for the cutting of different materials are SiC and Al₂O₃

Silicon carbide is suitable for non-ferrous metals whereas Aluminium oxide is preferred for ferrous metals. Hard wheels are used for cutting soft materials while soft wheels are recommended for cutting harder materials.

Metkon TRENO type wheels are used to obtain superior cut surfaces. Metkon CUTO series wheels are suitable for routine laboratory applications requiring a balance between wheel life and performance.

TRENO

Series Abrasive Cut-off Wheels for use with METACUT & SERVOCUT

Order No:	Code:	Diameter mm:	Arbor mm:	Thickness mm:	Abrasive Type:	Recommended for cutting:	Quantities per pack
19-019	TRENO-Ti	250	32	1.5	SiC	Titanium and Very Ductile Materials	10
19-020	TRENO-NF	250	32	1.5	SiC	Non-ferrous materials	10
19-021	TRENO-H	250	32	1.5	Al ₂ O ₃	Soft Steels and ferrous materials <23 HRC	10
19-022	TRENO-M	250	32	1.5	Al ₂ O ₃	Medium Hard Steels and ferrous materials >23-50 HRC<	10
19-023	TRENO-S	250	32	1.5	Al ₂ O ₃	Hard Steels and ferrous materials >50-60 HRC	10
19-024	TRENO-SS	250	32	1.5	Al ₂ O ₃	Very Hard Steels and ferrous materials >60 HRC	10
19-040	TRENO-NF	300	32	2	SiC	Non-ferrous materials	10
19-041	TRENO-H	300	32	2	Al ₂ O ₃	Soft Steels and ferrous materials <23 HRC	10
19-042	TRENO-M	300	32	2	Al ₂ O ₃	Medium Hard Steels and ferrous materials >23-50 HRC<	10
19-043	TRENO-S	300	32	2	Al ₂ O ₃	Hard Steels and ferrous materials >50-60 HRC	10
19-044	TRENO-SS	300	32	2	Al ₂ O ₃	Very Hard Steels and ferrous materials >60 HRC	10
19-060	TRENO-NF	350	32	2.4	SiC	Non-ferrous materials	10
19-062	TRENO-M	350	32	2.4	Al ₂ O ₃	Medium Hard Steels and ferrous materials >23-50 HRC<	10
19-063	TRENO-S	350	32	2.4	Al ₂ O ₃	Hard Steels and ferrous materials >50-60 HRC	10
19-064	TRENO-SS	350	32	2.4	Al ₂ O ₃	Very Hard Steels and ferrous materials >60 HRC	10
19-070	TRENO-NF	400	32	3	SiC	Non-ferrous materials	10
19-072	TRENO-M	400	32	3	Al ₂ O ₃	Medium Hard Steels and ferrous materials >23-50 HRC<	10
19-073	TRENO-S	400	32	3	Al ₂ O ₃	Hard Steels and ferrous materials >50-60 HRC	10
19-074	TRENO-SS	400	32	3	Al ₂ O ₃	Very Hard Steels and ferrous materials >60 HRC	10
19-082	TRENO-M	432	32	3	Al ₂ O ₃	Medium Hard Steels and ferrous materials >23-50 HRC<	10
19-083	TRENO-S	432	32	3	Al ₂ O ₃	Hard Steels and ferrous materials >50-60 HRC	10
19-092	TRENO-M	500	32	3	Al ₂ O ₃	Medium Hard Steels and ferrous materials >23-50 HRC<	10
19-093	TRENO-S	500	32	3	Al ₂ O ₃	Hard Steels and ferrous materials >50-60 HRC	10
19-097	TRENO-M	600	32	5	Al ₂ O ₃	Medium Hard Steels and ferrous materials > 23-50 HRC <	5
19-098	TRENO-S	600	32	5	Al ₂ O ₃	Hard Steels and ferrous materials >50-60 HRC	5

TRENO-DUR

Extremely Long Life Abrasive Cut-off Wheels for use with METACUT & SERVOCUT

Order No:	Code:	Diameter mm:	Arbor mm:	Thickness mm:	Recommended for cutting:	Quantities per pack
19-026	TRENO-DUR	250	32	1.5	Extremely Low Consumption Rate with Optimum Surface Quality for High Volume Cutting Operations, Cut-Check Applications, etc...	10

TRENO-T

Ultra Thin Abrasive Cut-off Wheels for use with METACUT & SERVOCUT

Order No:	Code:	Diameter mm:	Arbor mm:	Thickness mm:	Recommended for cutting:	Quantities per pack
19-031	TRENO-HT	250	32	1.0	Soft Steel and ferrous materials >20-35 HRC<	10
13-032	TRENO-MT	250	32	1.0	Medium Hard Steels and ferrous materials >38-58HRC<	10

CUTTING



CUTO

Series Abrasive Cut-off Wheels for use with METACUT & SERVOCUT

Order No:	Code:	Diameter mm:	Arbor mm:	Thickness mm:	Recommended for cutting:	Quantities per pack
19-022/A	CUTO-M	250	32	1.5	Medium Hard Steels and ferrous materials >23-50 HRC<	10
19-023/A	CUTO-S	250	32	1.5	Hard Steels and ferrous materials >50-60 HRC	10
19-042/A	CUTO-M	300	32	2	Medium Hard Steels and ferrous materials >23-50 HRC<	10
19-043/A	CUTO-S	300	32	2	Hard Steels and ferrous materials >50-60 HRC	10

TRENO-P

Abrasive Cutting Discs for use with MICRACUT Precision Cutters

Order No:	Code:	Diameter mm:	Arbor mm:	Thickness mm:	Recommended for cutting:	Quantities per pack
18-150	TRENO-HP	150	12.7	0.5	Non-ferrous materials and stainless steels	10
18-151	TRENO-MP	150	12.7	0.5	Medium Hard and hardened Steels and ferrous materials >23	10
18-200	TRENO-HP	200	12.7	0.8	Non-ferrous materials and stainless steels	10
18-201	TRENO-MP	200	12.7	0.8	Medium Hard and hardened Steels and ferrous materials >23	10

*All cut-off wheels are resin bonded.

Diamond cut-off wheels



Metal bonded wheels are used for cutting brittle materials, such as ceramics or minerals, while resin bonded wheels are used for more ductile materials, such as sintered carbides or composites containing predominantly hard phases.

Several factors are important for choosing the appropriate wafering blade. These include: diamond concentration (low and high), diamond bond (metal plate), diamond size (fine or medium), blade diameter and blade thickness.

The diamond concentration is important because

it directly affects the load which is applied during cutting. For example, brittle materials such as ceramics require higher effective loads to section, whereas ductile materials such as metals require more cutting points. The result is that low concentration blades are recommended for sectioning

hard brittle materials such as ceramics and high concentration blades are recommended for ductile materials containing a large fraction of metal or plastic.

DIMOS

Diamond Cutting Discs for use with SERVO CUT & METACUT

Order No:	Diameter mm:	Bond:	Arbor Diameter mm:	Thickness mm:	Diamond Layer's Depth (X) mm:	Diamond Size/ Concentration:	Grain Size: (Mesh)	Recommended For Cutting
19-250	254	metal bonded	32	1,52	10	coarse/high	60/80	For general usage
19-251	254	resin bonded	32	1,52	6,35	medium/high	100	For hard, delicate or brittle materials
19-300	305	metal bonded	32	2,08	10	coarse/high	60/80	For general usage
19-301	305	resin bonded	32	1,65	6,35	medium/high	100	For hard, delicate or brittle materials
19-400	406	metal bonded	32	2,00	10	coarse/high	60/80	For general usage
19-401	406	resin bonded	32	2,41	6,35	medium/high	100	For hard, delicate or brittle materials



CUTTING

DIMOS

Diamond Cutting Wheels for use with MICRACUT

Order No:	Diameter mm:	Bond:	Arbor Diameter mm:	Thickness mm:	Diamond Layer's Depth (X) mm:	Concentration:	Grain Size: (Mesh)	Recommended For Cutting
19-100	101,1	metal bonded	12,7	0,35	4	medium/high	150	• For general use with ferrous and non-ferrous alloys; copper, aluminium, metal matrix composites, PCB boards, thermal spray coatings and titanium alloy.
19-125	127	metal bonded	12,7	0,4	4	medium/high	150	• For general use with ferrous and non-ferrous alloys; copper, aluminium, metal matrix composites, PCB boards, thermal spray coatings and titanium alloy.
19-130	127	metal bonded	12,7	0,4	4	fine/low	220	• For use with hard brittle materials structural ceramics, boron carbide, boron nitride and silicon carbide.
19-126	127	resin bonded	12,7	0,5	5	medium/high	150	• Hard, delicate materials or brittle materials (cannot be used at low speeds. High speed only 950 RPM's or higher.)
19-150	152	metal bonded	12,7	0,5	4	medium/high	150	• For general use with ferrous and non-ferrous alloys; copper, aluminium, metal matrix composites, PCB boards, thermal spray coatings and titanium alloy.
19-157	152	metal bonded	12,7	0,5	4	fine/low	220	• For use with hard brittle materials structural ceramics, carbide, boron nitride and silicon carbide.
19-151	152	resin bonded	12,7	0,5	5	medium/high	150	• For hard, delicate materials or brittle materials (cannot be used at low speeds. High speed only 950 RPM's or higher.)
19-200	203	metal bonded	12,7	0,81	5	medium/high	120	• For general use with ferrous and non-ferrous alloys; copper, aluminium, metal matrix composites, PCB boards, thermal spray coatings and titanium alloy.
19-205	203	metal bonded	12,7	0,81	5	fine/high	220	• For use with hard brittle materials structural ceramics, carbide, boron nitride and silicon carbide
19-201	203	resin bonded	12,7	0,88	5	medium/high	220	• For hard, delicate materials or brittle materials (cannot be used at low speeds. High speed only 950 RPM's or higher.)

CBN

CBN Cutting Discs for use with MICRACUT

Order No:	Diameter mm:	Bond:	Arbor Diameter mm:	Thickness mm:	Diamond Layer's Depth (X) mm:	Diamond Size/ Concentration	Grain Size: (Mesh)	Recommended For Cutting
19-127	125	metal bonded	12,7	0,4	5	medium/high	150	hard metals, iron, steel, lead and titanium, ferrous materials
19-152	150	metal bonded	12,7	0,5	5	medium/high	150	hard metals, iron, steel, lead and titanium, ferrous materials
19-202	200	metal bonded	12,7	0,9	5	medium/high	120	hard metals, iron, steel, lead and titanium, ferrous materials

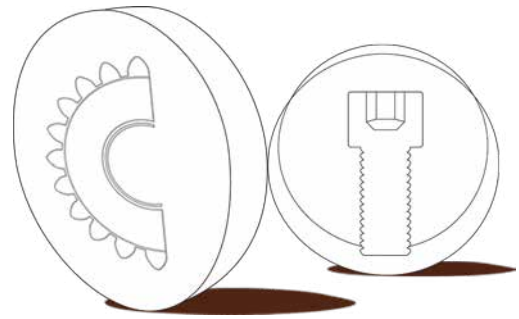
COOLING FLUIDS



Order No:	Code:	Fluid:	Type:	Quantity:	For use with:
19-902	METCOOL	Nature Friendly Soluble Oil	Water-based	5 lt.	METACUT & SERVOCUT
19-905	METCOOL II	Nature Friendly Soluble Oil	Water-based	1 lt.	MICRACUT 151/201
19-906	METCOOL NF	Nature Friendly Soluble Oil Perfect corrosion protection for reactive metals like copper, brass, cobalt, aluminum, tungsten carbide, etc...	Water-based	5 lt.	METACUT & SERVOCUT
YM 6345-00	BAND FILTER	Polyester filter for Band Filter Unit (50ml)			SERVOCUT

*Recommended mix ratio is 3% Metcool to 97% water.

Consumables for Mounting



After cutting the specimen the next step is mounting. The aim of mounting is to handle small or odd shaped specimens and to protect fragile materials, thin layers or coating during preparation as well as to provide good edge retention.

Mounting produces specimens with uniform size so that it is easier to handle in automatic holders for further preparation steps.

Hot Mounting

The most important properties of a hot mounting compound are; Hardness, Shrinkage and Viscosity.

The Hardness of the compound should match the hardness of the specimen in order to avoid uneven abrasion during grinding. If the shrinkage during curing is large, a gap between the specimen and the mount will occur and edge will not be adequately protected. Viscosity is important to reach to all areas.



29-001 BAK-B

29-002 BAK-R

29-003 BAK-S

29-010 NET

29-011 EPO

29-012 DAP

29-013 CON

HOT MOUNTING RESINS

Order No:	Code:	Hot Mounting Resins:	Quality:	Color:	Comments:
29-001	BAK-B	Black Phenolic Powder	1 kg.	●	Standart examination of all materials. Low shrinkage Healind upto 180 C
29-001/10	BAK-B	Black Phenolic Powder	10kg.	●	Standart examination of all materials. Low shrinkage Healind upto 180 C
29-002	BAK-R	Red Phenolic Powder	1 kg.	●	Standart examination of all materials. Low shrinkage Healind upto 180 C
29-002/10	BAK-R	Red Phenolic Powder	10 kg.	●	Standart examination of all materials. Low shrinkage Healind upto 180 C
29-003	BAK-S	Light Brown Phenolic Powder	1 kg.	●	Standart examination of all materials. Low shrinkage Healind upto 180 C
29-003/10	BAK-S	Light Brown Phenolic Powder	10 kg.	●	Standart examination of all materials. Low shrinkage Healind upto 180 C
29-010	NET	Transparent Acrylic Powder	1 kg.	○	Standart examination of all materials. Perfectly transparent
29-011	EPO	Epoxy, Hard	1 kg.	●	Examination of edges surface. Hard with very low shrinkage
29-012	DAP	Diallyphtalat	1 kg.	●	Examination of edges surface. (Coating,deposits,thermal treatment) Very hard with very low shrinkage
29-013	CON	Conductive Backalite Powder	0,5 kg.	●	SEM examination of all materials
29-099	SMOOTH	Mould Release Spray Can.	400 ml.		-



Cold Mounting

Cold mounting is preferred for samples which are sensitive to damage from heat and pressure (like coatings, PCB, etc.)
Cold mounting resins are easy to use.

DMT Acrylic cold mounting resins

- Very fast cure time
- It requires mixing in the ratio 2:1, powder to liquid. The mix is then poured into a mould and allowed to set.

EPOCOLD Epoxy cold mounting resins

- Better results in good edge protection.
- Low shrinkage and moderate hardness.

COLD MOUNTING

Mounting Materials:	Curing Time:	Compounds:	Mixing Ratio Volume:	Mixing Time:	Peak Temperature:	Color:
EPOCOLD	8 Hour	Two Liquids	Resin: 5 Part: Hardener: 1 Part	3 Min.	40-60°C	Clear, Transparent
DMT 20	10 Min.	Powder/Liquid	Resin: 2 Part: Hardener: 1 Part	4-5 Min.	80-87°C	Sem Transparent
DMT 35	5 Min.	Powder/Liquid	Resin: 2 Part: Hardener: 1 Part	2-3 Min.	75-80°C	Light Green, Black
DMT CON	18 Min.	Powder/Liquid	Resin: 1 Part: Hardener: 1 Part	5 Min.	100-106°C	Black
DMT ACE	6 Min.	Powder/Liquid	Resin: 2 Part: Hardener: 1 Part	6 Min.	82-88°C	Green, Transparent



EPO



DMT 20



DMT 35



DMT ACE



DMT CON

DMT

Acrylic cold mounting resins

Order No:	Code:	Cold Mounting Resins:	Type:	Quantity:
29-501	DMT 35	Powder	Acrylic	1 kg.
29-502	DMT 35	Fluid	Acrylic	500 ml.
29-511	DMT 20	Powder (Transparent)	Acrylic	1 kg.
29-512	DMT 20	Fluid (Transparent)	Acrylic	500 ml.
29-513	DMT CON	Powder	Acrylic	0,5 kg.
29-514	DMT CON	Fluid	Acrylic	500 ml.
29-515	DMT ACE	Powder	Acrylic	1 kg.
29-516	DMT ACE	Fluid	Acrylic	500 ml.



EPOCOLD

Epoxy cold mounting resins

Order No:	Code:	Cold Mounting Resins:
29-506	EPOCOLD-H	Epoxy hardener (230 ml.)
29-505	EPOCOLD-R	Epoxy Resin (2x500 ml.)



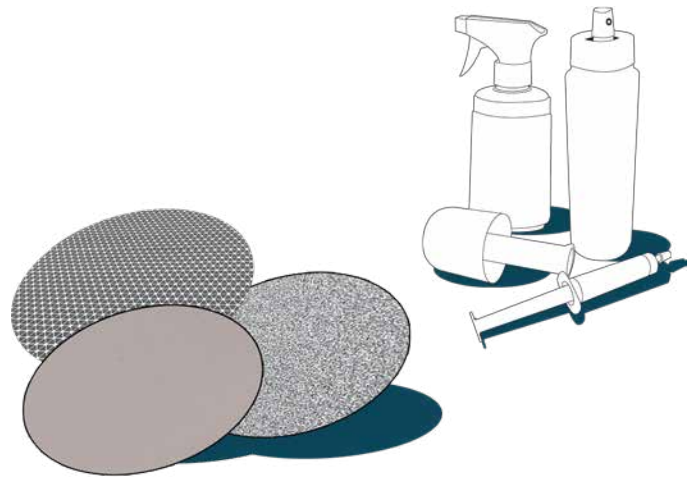
ACCESSORIES

Cold Mounting

Order No:	Descriptions Fluid:
29-551	Spatulas, (100 pcs.)
29-552	Mixing Beakers, (10 pcs.)
29-553	Embedding Form, Ø 25 mm (5 pcs)
29-551	Embedding Form, Ø 30 mm (5 pcs)
29-555	Embedding Form, Ø 40 mm (5 pcs)
29-556	Embedding Form, Ø 50 mm (5 pcs)
29-601	Stainless steel clips (100 pcs.)
29-602	Plastic clips (100 pcs.)



Consumables for Grinding & Polishing



In order to obtain scratchfree surfaces without deformation, successive material removal by abrasives is necessary. Grinding is the next stage after sectioning.

Grinding is divided into two processes: Planar grinding and Fine grinding. The purpose of planar grinding is to obtain a level surface and to remove scale, burrs or surface irregularation from the specimen.

To remove deformation from fine grinding and obtain a surface that is highly reflective, the specimens must be polished before they can be examined under the microscope. Polishing is a complex activity in which factors such as quality and suitability for the cloth, abrasive, polishing pressure, polishing speed and duration need to be taken into account. The quality of the surface obtained after the final polishing depends on all these factors and the finish of the surface on completion of each of the previous stages.

Paper Grinding Discs Plain Back



Plain Back (PL)

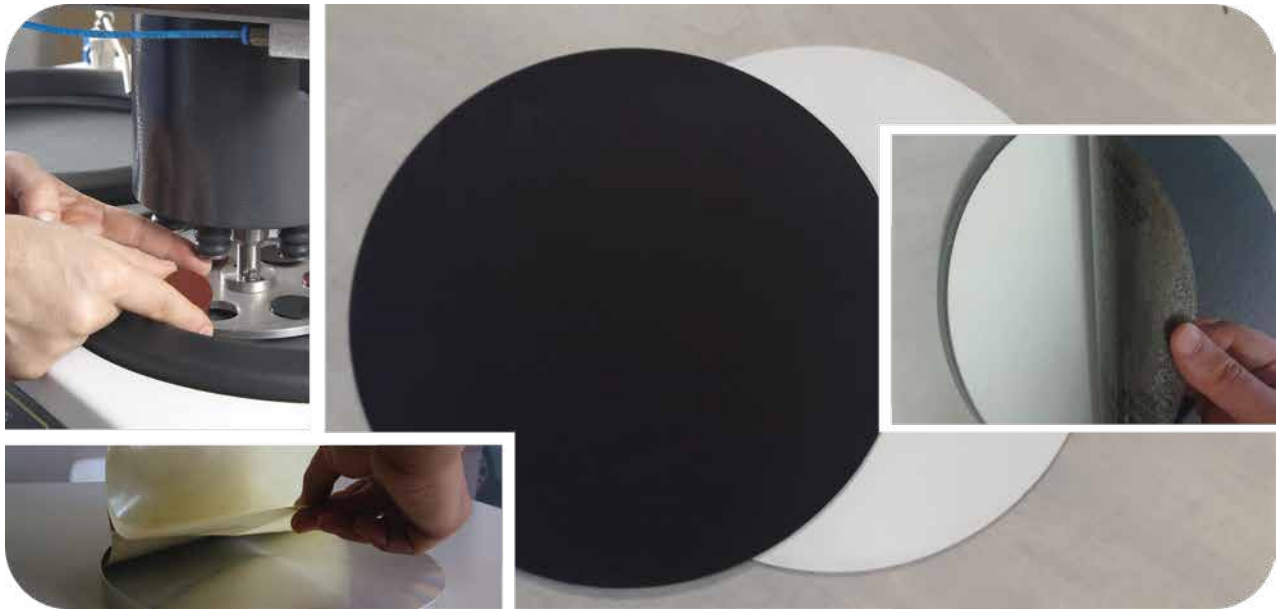
Coarse paper discs (up to 120 grit) are used for planar grinding. Fine grinding removes the deformations resulting from coarse grinding to make the surface ready for polishing which is the final stage. Metkon paper grinding discs are available as "Plain back" and "Foil Back". for CATCHY System.

SiC PAPER GRINDING DISCS

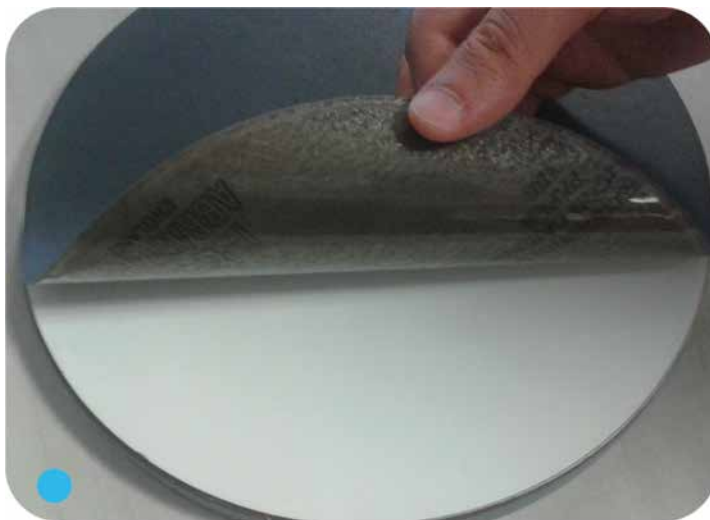
Plain Back

GRINDING

Order No:	Code:	Type:	Diameter:	Grit Size:	Quantity / Pack:
38-020-60	DEMPAX	Plain Back	200	60	100
38-020-120	DEMPAX	Plain Back	200	120	100
38-020-180	DEMPAX	Plain Back	200	180	100
38-020-240	DEMPAX	Plain Back	200	240	100
38-020-320	DEMPAX	Plain Back	200	320	100
38-020-400	DEMPAX	Plain Back	200	400	100
38-020-600	DEMPAX	Plain Back	200	600	100
38-020-800	DEMPAX	Plain Back	200	800	100
38-020-1000	DEMPAX	Plain Back	200	1000	100
38-020-1200	DEMPAX	Plain Back	200	1200	100
38-020-2500	DEMPAX	Plain Back	200	2500	100
38-020-4000	DEMPAX	Plain Back	200	4000	100
38-020-S	DEMPAX	Plain Back	200	Mix(120-2500)	100
38-040-60	DEMPAX	Plain Back	250	60	100
38-040-120	DEMPAX	Plain Back	250	120	100
38-040-180	DEMPAX	Plain Back	250	180	100
38-040-240	DEMPAX	Plain Back	250	240	100
38-040-320	DEMPAX	Plain Back	250	320	100
38-040-400	DEMPAX	Plain Back	250	400	100
38-040-600	DEMPAX	Plain Back	250	600	100
38-040-800	DEMPAX	Plain Back	250	800	100
38-040-1000	DEMPAX	Plain Back	250	1000	100
38-040-1200	DEMPAX	Plain Back	250	1200	100
38-040-2500	DEMPAX	Plain Back	250	2500	100
38-040-4000	DEMPAX	Plain Back	250	4000	100
38-040-S	DEMPAX	Plain Back	250	Mix(120-2500)	100
38-050-060	DEMPAX	Plain Back	300	60	100
38-050-120	DEMPAX	Plain Back	300	120	100
38-050-180	DEMPAX	Plain Back	300	180	100
38-050-240	DEMPAX	Plain Back	300	240	100
38-050-320	DEMPAX	Plain Back	300	320	100
38-050-400	DEMPAX	Plain Back	300	400	100
38-050-600	DEMPAX	Plain Back	300	600	100
38-050-800	DEMPAX	Plain Back	300	800	100
38-050-1000	DEMPAX	Plain Back	300	1000	100
38-050-1200	DEMPAX	Plain Back	300	1200	100
38-050-2500	DEMPAX	Plain Back	300	2500	100
38-050-4000	DEMPAX	Plain Back	300	4000	100
38-050-S	DEMPAX	Plain Back	300	Mix(120-2500)	100



Metkon Catchy System



Foil Back



CATCHY system has a high friction foil which makes the new SiC Foil back grinding papers stick very well and at the same time very easy to remove again.

Traditional PSA back and self adhesive grinding papers are difficult to apply, difficult to remove. The Foil back papers are removed easily, without leaving any trace of adhesive.

Water does not affect the shape of the foil at all. So it does not curl as traditional SiC Paper and stays flat and ready for immediate or later re-use

CATCHY Fix Plate

Order No:	Code:	Description:
CFP	39-083-200	Ø 200 mm, Catchy Fix Plate (1 pc)
CFP	39-083-250	Ø 250 mm, Catchy Fix Plate (1 pc)
CFP	39-083-300	Ø 300 mm, Catchy Fix Plate (1 pc)

SiC PAPER GRINDING DISCS

Foil Back, CATCHY SYSTEM

GRINDING

Order No:	Code:	Type:	Diameter:	Grit Size:	Quantity / Pack:
38-020-60F	DEMPAX-F	Foil Back	200	60	100
38-020-120F	DEMPAX-F	Foil Back	200	120	100
38-020-180F	DEMPAX-F	Foil Back	200	180	100
38-020-240F	DEMPAX-F	Foil Back	200	240	100
38-020-320F	DEMPAX-F	Foil Back	200	320	100
38-020-400F	DEMPAX-F	Foil Back	200	400	100
38-020-600F	DEMPAX-F	Foil Back	200	600	100
38-020-800F	DEMPAX-F	Foil Back	200	800	100
38-020-1000F	DEMPAX-F	Foil Back	200	1000	100
38-020-1200F	DEMPAX-F	Foil Back	200	1200	100
38-020-2500F	DEMPAX-F	Foil Back	200	2500	100
38-020-4000F	DEMPAX-F	Foil Back	200	4000	100
38-040-60F	DEMPAX-F	Foil Back	250	60	100
38-040-120F	DEMPAX-F	Foil Back	250	120	100
38-040-180F	DEMPAX-F	Foil Back	250	180	100
38-040-240F	DEMPAX-F	Foil Back	250	240	100
38-040-320F	DEMPAX-F	Foil Back	250	320	100
38-040-400F	DEMPAX-F	Foil Back	250	400	100
38-040-600F	DEMPAX-F	Foil Back	250	600	100
38-040-800F	DEMPAX-F	Foil Back	250	800	100
38-040-1000F	DEMPAX-F	Foil Back	250	1000	100
38-040-1200F	DEMPAX-F	Foil Back	250	1200	100
38-040-2500F	DEMPAX-F	Foil Back	250	2500	100
38-040-4000F	DEMPAX-F	Foil Back	250	4000	100
38-050-060F	DEMPAX-F	Foil Back	300	60	100
38-050-120F	DEMPAX-F	Foil Back	300	120	100
38-050-180F	DEMPAX-F	Foil Back	300	180	100
38-050-240F	DEMPAX-F	Foil Back	300	240	100
38-050-320F	DEMPAX-F	Foil Back	300	320	100
38-050-400F	DEMPAX-F	Foil Back	300	400	100
38-050-600F	DEMPAX-F	Foil Back	300	600	100
38-050-800F	DEMPAX-F	Foil Back	300	800	100
38-050-1000F	DEMPAX-F	Foil Back	300	1000	100
38-050-1200F	DEMPAX-F	Foil Back	300	1200	100
38-050-2500F	DEMPAX-F	Foil Back	300	2500	100
38-050-4000F	DEMPAX-F	Foil Back	300	4000	100



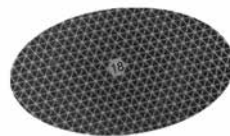
METKON MAGNETIC SYSTEM

Magnetic Preparation METKON Magnetic System is simply an advanced way to grind and polish specimens. It reduces your operating costs and increases specimen quality. Place your SMF Special Magnetic Foil, which is self-adhesive for once and permanently on your existing working wheel (Aluminum or PVC).

Place the Cloth (or MAGNETO) on the TMP Thin Metal Plate which you can then use as a magnetic unit to put on and remove from your disc.. After the grinding or polishing operation you may remove it (non-destructively) and then place it again whenever you need. Without any material destruction!

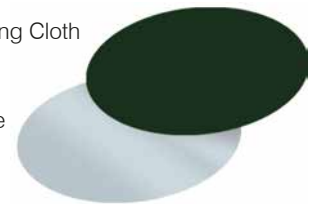
QUICK MAGNETIC SYSTEM for MAGNETO

MAGNETO
Diamond
Grinding Disc



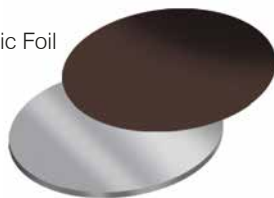
QUICK MAGNETIC SYSTEM for PSA Polishing Cloth

PSA Polishing Cloth



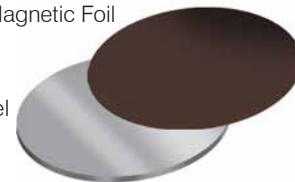
TMP Thin Metal Plate

SMF Special Magnetic Foil



Existing Machine Wheel
(Alum. or PVC)

SMF Special Magnetic Foil



Existing Machine Wheel
(Alum. or PVC)

Abrasive Grade System

FEPA P (Europe)	P60	P120	P180	P240	P320	P400	P600	P8000	P1000	P1200	P2000	P4000
ANSI/CAMI (US)	60	120	180	240	280	320	360	400	500	600	1000	1200
Gain size (Average)	250 μ	125 μ	82 μ	60 μ	46 μ	35 μ	26 μ	22 μ	18 μ	15 μ	10 μ	5 μ

*All Metkon grinding papers are classified according to FEPA Standards.

*The above Abrasive Grading Chart is a general overview only.

GRINDING

MAGNETIC SYSTEM

Order No:	Code:	Magnetic System Accessories:
39-003-200	SMF	Special Magnetic Foil, Ø200
39-003-250	SMF	Special Magnetic Foil, Ø250
39-003-300	SMF	Special Magnetic Foil, Ø300
39-093-200	TMP	Thin Metal Plate, Ø200 (5 pcs)
39-093-250	TMP	Thin Metal Plate, Ø250 (5 pcs)
39-093-300	TMP	Thin Metal Plate, Ø300 (5 pcs)



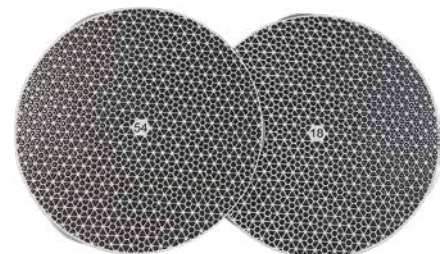
MAGNETO Diamond Grinding Discs (Total Grinding Time 2 Minutes!)

MAGNETO Diamond Grinding Discs for planar grinding, fine grinding and extra fine grinding offer wonderful advantages:

- Only water is needed (No additional diamond suspensions or lubricant)
- The same disc can be used for grinding hard as well as soft materials
- Very clean working environment
- Very high edge sharpness and scratchfree surface
- Very short preparation time

MAGNETO Magneto Diamond Grinding Disc

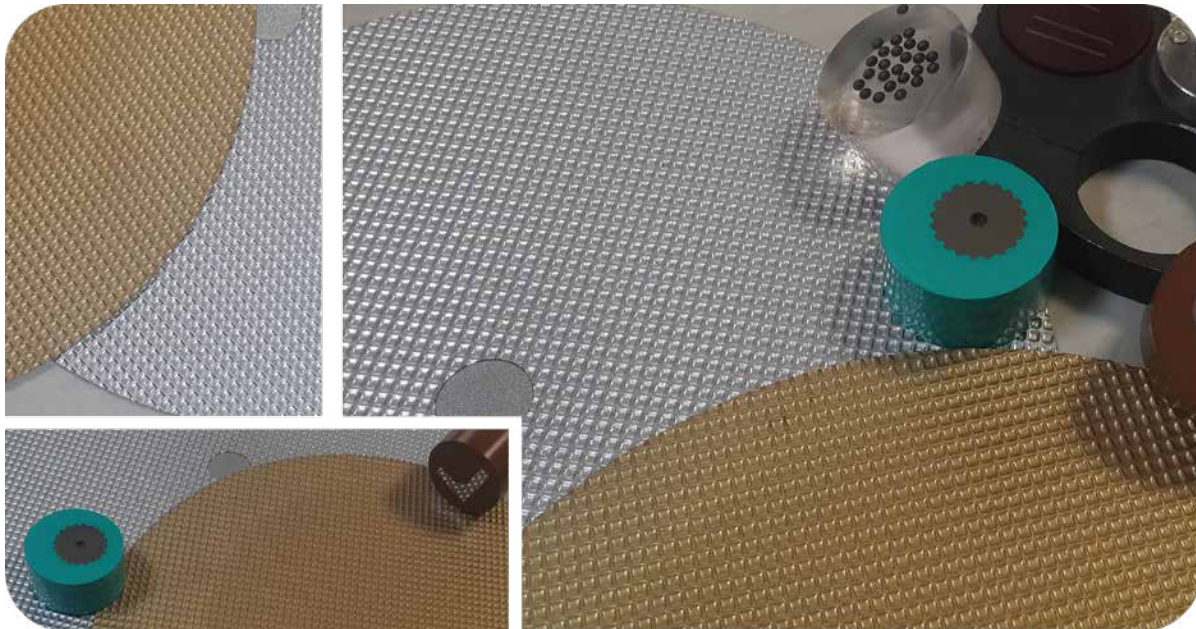
Order No:	Code:	Diameter:	Grit Size mic.:	Recommended for:
38-020-125	MAGNETO 125	200	125	Planar Grinding
38-040-125	MAGNETO 125	250	125	Planar Grinding
38-050-125	MAGNETO 125	300	125	Planar Grinding
38-020-075	MAGNETO 75	200	75	Planar Grinding
38-040-075	MAGNETO 75	250	75	Planar Grinding
38-050-075	MAGNETO 75	300	75	Planar Grinding
38-020-054	MAGNETO 54	200	54	Planar Grinding
38-040-054	MAGNETO 54	250	54	Planar Grinding
38-050-054	MAGNETO 54	300	54	Planar Grinding
38-020-018	MAGNETO 18	200	18	Fine Grinding
38-040-018	MAGNETO 18	250	18	Fine Grinding
38-050-018	MAGNETO 18	300	18	Fine Grinding
38-020-006	MAGNETO 6	200	6	Extra Fine Grinding
38-040-006	MAGNETO 6	250	6	Extra Fine Grinding
38-050-006	MAGNETO 6	300	6	Extra Fine Grinding
38-020-003	MAGNETO 3	200	3	Extra Fine Grinding
38-040-003	MAGNETO 3	250	3	Extra Fine Grinding
38-050-003	MAGNETO 3	300	3	Extra Fine Grinding



CUP GRINDING STONES For DIGIPREP PLAN

Order No:	Code:	Description:	Diameter:	Arbor Dia.:	Grit Size:	Quantity:
80-150	GSW 60	AL ₂ O ₃ Grinding Stone for medium hard steels	150	32 mm.	60	1
80-151	GSR 60	AL ₂ O ₃ Grinding Stone for cast iron and hard steels	150	32 mm.	60	1
80-155	GSW 36	AL ₂ O ₃ Grinding Stone for hard steels	150	32 mm.	36	1
80-156	GSR 36	AL ₂ O ₃ Grinding Stone for cast iron and hard steels	150	32 mm.	36	1





COMPO Fine Grinding Discs

The COMPO Grinding discs are non-diamond grinding discs developed to be used with diamond suspensions or Duo products. The honeycomb cell structure allows the uniform, regular distribution of the periodically pulverized diamond abrasive suspension. The use of the abrasive suspension is optimized, thereby reducing the diamond product's consumption.

COMPO H & S Fine Grinding Discs

- For single step fine grinding
- Can be used with diamond suspensions or 2 in 1 duo diamond products
- Shorter preparation time
- COMPO-H is used for grinding of materials >200 HV
- COMPO-S is used for grinding soft and non-ferrous materials
- Improves efficiency by reducing processing steps
- Provides optimum flatness and high edge retention

COMPO Composite Fine Grinding Discs

Order No:	Code:	Diameter:	Description:
40-010-200	COMPO-H	200	For Hard Materials >200 HV
40-010-250	COMPO-H	250	For Hard Materials >200 HV
40-010-300	COMPO-H	300	For Hard Materials >200 HV
40-020-200	COMPO-S	200	For Soft & NF Materials
40-020-250	COMPO-S	250	For Soft & NF Materials
40-020-300	COMPO-S	300	For Soft & NF Materials

Polishing Cloths

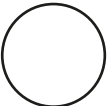
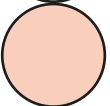

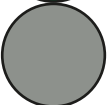
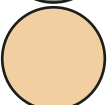
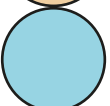
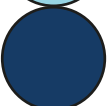


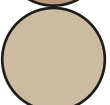
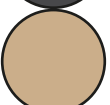
POLISHING









































There are three types of polishing clothes; Woven, Non-Woven and Flocked.

- **Woven cloths** offer 'hard surface' polishing properties and guarantee flat pre-polishing, without deterioration of the edges.
- **Non-woven cloths**, are used on very hard materials for high precision surface finishing such as glass, quartz, sapphire and semi-conductors.
- **The Flocked cloths**, guarantee a super-polished finish. The polishing duration must be as short as possible, to avoid inclusions from being extracted.

POLISHING CLOTHS Self Adhesive Back

	Order No:	Code:	Type:	Composition:	Abrasive/ Grain Size:	Application:
NOWO 	39-005-	NOWO	NonWoven	Semihard, PSA nonwoven impregnated and water-proof	Diamond 9-1 μm	Fine polishing of singlesystal; glass corindon, quartz; ceramic, rocks; etc.
METAPO-P 	39-013-	METAPO-P	Woven	Fine Woven Cloth mounted on a Composite (metal/plastic) semi rigid PSA backing. High wear resistance.	Diamond 9-6 μm	Coarse polishing of hard and semihard metallographic sections and different metarial. Good flatness.
METAPO-B 	39-033-	METAPO-B	Woven	Fine woven synthetic satin cloth munted on a composite (mela/plastic)semi rigid PSA backing.	Diamond 3-1 μm	Final polishing of hard and semi-hard metallographic sections and different materials. Good edge retention on surface treated materials.
METAPO-V 	39-043-	METAPO-V	Woven	Fine Woven Cloth mounted on a Composite (metal/plastic) semi rigid PSA backing. High wear resistance.	Diamond 1-0,1 μm Fine Alum	Final Polishing with extra smooth abrasion; good flatness optical finish of hard materials.
FEDO-6J 	39-015-	FEDO-6J	Flocked	Synthetic fibre flock to a PVC backing.	Diamond 6 μm	Rough polishing of most materials.
FEDO-3 	39-025-	FEDO-3	Flocked	Soft synthetic flock bound to a woven cotton PSA backing. To be used with water based suspensions and lubricants only.	Diamond 3 μm	Intermediate polishing of most materials.
FEDO-1 	39-065-	FEDO-1	Flocked	Soft synthetic flock bound to a woven cotton PSA backing. To be used with water based suspensions and lubricants only.	Diamond 1 μm	Fine polishing of most materials.
FEDO-1N 	39-055-	FEDO-1N	Flocked	Very sofft low nap felt bound to a PSA backing. To be used with water-based suspensioe and lubricants only.	Diamond 0,25 μm	Fine polishing of most materials.
ALSO 	39-075-	ALSO	Flocked	Extra soft and supple cloth, PSA backed excellent chemical resistance.	Diamond 0,25 μm Fine Alum	Optical polishing of glass, single crystals, semi-conductors and soft metals.
WOOL 	39-095-	WOOL	Woven	%100 wool cloth, PSA backed.	Diamond 6-3 μm	For polishing optics and metals.
COLLO 	39-085-	COLLO	Chemo-Textile	Recomended cloth for Chemo-mechanical polishing operations. PSA backed.	Colloidal silica	For use with a chemical mechanical polishing precess with colloidal silica suspension. Especially for non ferrous materials as well as Aluminium, Brass; etc.
PETRI 	39-090-	PETRI	Chemo-Textile	The medium chemo-textile cloth for smoothing and polishing operation.	Diamond 6-1 μm Fine Alum.	For petrography: Rocks, minerals, ceramics; etc.

POLISHING CLOTHS

Order No:	Code:	Diameter:	Color:	Type:	Quantity / Pack:
39-005-200	NOWO	200		Self Adhesive Back	10
39-013-200	METAPO-P	200		Self Adhesive Back	10
39-033-200	METAPO-B	200		Self Adhesive Back	10
39-043-200	METAPO-V	200		Self Adhesive Back	10
39-015-200	FEDO-6J	200		Self Adhesive Back	10
39-025-200	FEDO-3	200		Self Adhesive Back	10
39-065-200	FEDO-1	200		Self Adhesive Back	10
39-055-200	FEDO-1N	200		Self Adhesive Back	10
39-075-200	ALSO	200		Self Adhesive Back	10
39-095-200	WOOL	200		Self Adhesive Back	10
39-085-200	COLLO	200		Self Adhesive Back	10
39-090-200	PETRI	200		Self Adhesive Back	10
39-200-SPC	MIX	200		Self Adhesive Back	5
39-005-250	NOWO	250		Self Adhesive Back	10
39-013-250	METAPO-P	250		Self Adhesive Back	10
39-033-250	METAPO-B	250		Self Adhesive Back	10
39-043-250	METAPO-V	250		Self Adhesive Back	10
39-015-250	FEDO-6J	250		Self Adhesive Back	10
39-025-250	FEDO-3	250		Self Adhesive Back	10
39-065-250	FEDO-1	250		Self Adhesive Back	10
39-055-250	FEDO-1N	250		Self Adhesive Back	10
39-075-250	ALSO	250		Self Adhesive Back	10
39-095-250	WOOL	250		Self Adhesive Back	10
39-085-250	COLLO	250		Self Adhesive Back	10
39-090-250	PETRI	250		Self Adhesive Back	10
39-200-SPC	MIX	250		Self Adhesive Back	5
39-005-300	NOWO	300		Self Adhesive Back	10
39-013-300	METAPO-P	300		Self Adhesive Back	10
39-033-300	METAPO-B	300		Self Adhesive Back	10
39-043-300	METAPO-V	300		Self Adhesive Back	10
39-015-300	FEDO-6J	300		Self Adhesive Back	10
39-025-300	FEDO-3	300		Self Adhesive Back	10
39-065-300	FEDO-1	300		Self Adhesive Back	10
39-055-300	FEDO-1N	300		Self Adhesive Back	10
39-075-300	ALSO	300		Self Adhesive Back	10
39-095-300	WOOL	300		Self Adhesive Back	10
39-085-300	COLLO	300		Self Adhesive Back	10
39-090-300	PETRI	300		Self Adhesive Back	10
39-200-SPC	MIX	300		Self Adhesive Back	5

Diamond products

Diamond, due to its exceptional hardness and cutting capacity, has become the first choice abrasive in metallographic polishing.

Diamonds for metallographic grinding and polishing are available in two different crystalline shapes: Polycrystalline (P) and Monocrystalline (M). Polycrystalline diamonds provide vast numbers of small cutting edges. In the metallographic preparation process these edges result in high material removal, while producing only a shallow scratch depth.

Monocrystalline diamonds are more block-shaped and provide few cutting edges. These diamonds give high material removal with a more variable scratch pattern. For high requirements, the (P)-type diamonds are chosen. The (M) type diamonds are best suited for all-purpose polishing.

METKON offers diamond products in three forms; diamond paste, diamond suspension and two in one products; a perfect mixture of diamond suspension & lubricant.



DIAMOND PASTES Monocrystalline

Order No:	Code:	Type:	Diamond mic.:	Quantity:
39-301-M	DIAPAT-M	Waterbased	0,25 Micron	10 gr. syringe
39-311-M	DIAPAT-M	Waterbased	1 Micron	10 gr. syringe
39-321-M	DIAPAT-M	Waterbased	3 Micron	10 gr. syringe
39-331-M	DIAPAT-M	Waterbased	6 Micron	10 gr. syringe
39-341-M	DIAPAT-M	Waterbased	9 Micron	10 gr. syringe



DIAMOND PASTES Polycrystalline

Order No:	Code:	Type:	Diamond mic.:	Quantity:
39-301-P	DIAPAT-P	Waterbased	0,25 Micron	10 gr. syringe
39-311-P	DIAPAT-P	Waterbased	1 Micron	10 gr. syringe
39-321-P	DIAPAT-P	Waterbased	3 Micron	10 gr. syringe
39-331-P	DIAPAT-P	Waterbased	6 Micron	10 gr. syringe
39-341-P	DIAPAT-P	Waterbased	9 Micron	10 gr. syringe



DIAMOND SUSPENSIONS Monocrystalline

Order No:	Code:	Type:	Diamond mic.:	Quantity:
39-400-M	DIAPAT-M	Waterbased	0,25 Micron	250 ml. pump bottle
39-410-M	DIAPAT-M	Waterbased	1 Micron	250 ml. pump bottle
39-420-M	DIAPAT-M	Waterbased	3 Micron	250 ml. pump bottle
39-430-M	DIAPAT-M	Waterbased	6 Micron	250 ml. pump bottle
39-440-M	DIAPAT-M	Waterbased	9 Micron	250 ml. pump bottle
39-411-M	DIAPAT-M	Waterbased	1 Micron	1 lt. bottle
39-421-M	DIAPAT-M	Waterbased	3 Micron	1 lt. bottle
39-431-M	DIAPAT-M	Waterbased	6 Micron	1 lt. bottle

DIAMOND SUSPENSIONS

Polycrystalline

Order No:	Code:	Type:	Diamond mic.:	Quantity:
39-400-P	DIAPAT-P	Waterbased	0,25 Micron	250 ml. pump bottle
39-410-P	DIAPAT-P	Waterbased	1 Micron	250 ml. pump bottle
39-420-P	DIAPAT-P	Waterbased	3 Micron	250 ml. pump bottle
39-430-P	DIAPAT-P	Waterbased	6 Micron	250 ml. pump bottle
39-440-P	DIAPAT-P	Waterbased	9 Micron	250 ml. pump bottle



DIAMOND 2 IN 1 PRODUCT

Monocrystalline

Order No:	Code:	Diamond Size:	Quantity:
39-510-M	DUOPAT-M	1 Micron	500 ml. bottle with sprayer
39-520-M	DUOPAT-M	3 Micron	500 ml. bottle with sprayer
39-530-M	DUOPAT-M	6 Micron	500 ml. bottle with sprayer



DIAMOND LUBRICANT

Order No:	Code:	Type:	Quantity:
39-502	DIAPAT	Water-Based	1.0 lt. bottle



Alumina products & Colloidal Silica

ALU-MIK is a deagglomerated alumina polishing powder and it produces a fine surface quickly due to the lack of aggregates. ALU-MIK alumina suspensions have been developed to give the operator easy to use pre-prepared polishing media. It requires no dilution with water and can be dispensed with COL-K(NC) Colloidal silica suspension is able to produce the ultimate in high quality mirror polishes on polishing machine. A part abrasive, part chemical polishing action makes colloidal silica well suited to polishing difficult materials such as Aluminium, Stellite and Cobalt Chrome. automating dispensing units, like DOSIMAT.

ALUMINA & COLLOIDAL SILICA

Suspensions & Powders

Order No:	Code:	Alumina Product:
39-200	ALU-MIK	Alum. Susp. 0.05 Mic. 1.0 lt. bottle
39-210	ALU-MIK	Alum. Susp. 0.3 Mic. 1.0 lt. bottle
39-220	ALU-MIK	Alum. Susp. 1.0 Mic. 1.0 lt. bottle
39-100	ALU-MIK	Alum. Powder 0.05 Mic. 500 gr.
39-110	ALU-MIK	Alum. Powder 0.3 Mic. 500 gr.
39-120	ALU-MIK	Alum. Powder 1.0 Mic. 500 gr.
39-600	COL-K(NC)	Colloidal Silica (1 lt.) Bottle





PORTABLE METALLOGRAPHY

In-situ/Field metallography is widely used for microstructure analysis on large parts (samples) that cannot be easily carried or where destructive preparation is permissible such as storage tanks, piping system, power plants, etc. In-situ Metallography allows for quick on-site evaluation of a component. There are numerous advantages in using in-situ/field metallography.

PAPER GRINDING DISCS Self-Adhesive Back

Order No:	Code:	Type:	Diameter:	Grit Size:	Quantity/Pack:
90 20	DEMPAX-P	Self-Adhesive Back	30	80	250
90 21	DEMPAX-P	Self-Adhesive Back	30	120	250
90 22	DEMPAX-P	Self-Adhesive Back	30	320	250
90 23	DEMPAX-P	Self-Adhesive Back	30	500	250
90 24	DEMPAX-P	Self-Adhesive Back	30	800	250
90 25	DEMPAX-P	Self-Adhesive Back	30	1200	250

POLISHING



POLISHING CLOTHS

Self-Adhesive Back

Order No:	Code:	Type:	Diameter:	Grain Size,μ:	Quantity/ Pack:
90 36	PORTO	Self-Adhesive Back	30	0.25-1-3	50
90 27	RADO	Self-Adhesive Back	30	6-9	50

DIAMOND PASTES

Monocrystalline



Order No:	Code:	Type:	Diameter:	Quantity/ Pack:
39-301-M	DIAPAT-M	Water-Based	0.25 μ	10 gr. Syringe
39-311-M	DIAPAT-M	Water-Based	1 μ	10 gr. Syringe
39-321-M	DIAPAT-M	Water-Based	3 μ	10 gr. Syringe
39-331-M	DIAPAT-M	Water-Based	6 μ	10 gr. Syringe
39-341-M	DIAPAT-M	Water-Based	9 μ	10 gr. Syringe



DIAMOND LUBRICANT

Order No:	Code:	Type:	Quantity/ Pack:
39-502	DIAPAT	Water-Based	1 lt. bottle

REPLICA SET & ETCHING



Order No:	Description:
90 28	Cotton rolls (100pcs) for electrolytic etching
90 40	Replica foil 35 microns thick, to be used with acetone
90 41	Microscope slide glasses

Consumables for Petrography

For mineralogical specimens, the surface is prepared for examination with a reflected light microscope and the preparation procedure is basically similar to the preparation of metallographic specimens.

Preparing thin sections, on the other hand, requires highly specialized equipment and skills because the specimen is extremely thin, generally around 30 microns for observations with transmitted light microscope.

SILCA

Silicon Carbide Powder for lapping



Order No:	Code:	Grit Size:	Quantity:
40-0120	SILCA	120	500 gr.
40-0320	SILCA	320	500 gr.
40-0400	SILCA	400	500 gr.
40-0600	SILCA	600	500 gr.
40-1000	SILCA	1000	500 gr.

DIMOS

Diamond Cut-off wheels for GEOFORM & GEOCUT



Order No:	Code:	Type:	Dia. mm.:	Arbor mm.:	Recommended for cutting:	Qty. per pack:	App.:
19-203	DIMOS	Continuous Blade	200	12.7	Rock, minerals, ceramics, glass, etc.	1	Geoform
19-252	DIMOS	Continuous Blade	250	32	For hard Petrographic Applications	1	Geocut
19-302	DIMOS	Continuous Blade	300	32	Hard Petrographic Applications	1	Geocut

CUPO

Diamond Cup Grinding Wheels for Thin Sectioning (Geoform)



Order No:	Code:	Description:	Quantity:
19-155	CUPO	Ø175 Diamond cup grinding wheel, 65 mic	1
19-156	CUPO	Ø175 Diamond cup grinding wheel, 35 mic	1

ACCESSORIES

For Thin Sectioning



Order No:	Description:
40 40	Special Box for Slides
40 41	Standart Slides 27x46x1.27, 144 pcs.

Consumables for Spectroscopic Sample Preparation



Sample preparation of metals and materials have become more and more important because of the rapid development and improvement of both software as well as OES and XRF-devices during the past few years that shifts the detection limit for trace analyses

It is crucial to have the sample properly prepared. The sample needs to be both representative, homogeneous and with an even surface in order to eliminate factors that can influence the results.

DEMPAX

Paper Grinding Disc for Spectral 250 & 350



Order No:	Code:	Type:	Diameter:	Grit Size:	Quantity /Pack:
37-020-060-22	DEMPAX-S	Corundum	200	60	20
37-040-060-22	DEMPAX-S	Corundum	250	60	20
37-065-060-40	DEMPAX-S	Corundum	300	60	20
36-020-060-22	DEMPAX-SZ	Zirconium oxide	200	60	20
36-040-060-22	DEMPAX-SZ	Zirconium oxide	250	60	20
36-065-060-40	DEMPAX-SZ	Zirconium oxide	300	60	20

GRINDING STONES

for Spectral PG



Order No:	Code:	Description:	Grit Size:	Quantity:
80-150	GSW 60	AL ₂ O ₃ Grinding Stone for medium hard steels	60	1
80-151	GSR 60	AL ₂ O ₃ Grinding Stone for cast iron and hard steels	60	1
80-155	GSW 36	AL ₂ O ₃ Grinding Stone for hard steels	60	1
80-156	GSR 36	AL ₂ O ₃ Grinding Stone for cast iron and hard steels	60	1

TIPO

Milling Tips for Spectral MM



Order No:	Code:	Description:	Quantity:
80-200-K	TIPO	Milling tips for non-ferrous materials	(1 set=10pcs.)
80-201-K	TIPO	Milling tips for ferrous materials	(1 set = 10 pcs.)

TIPO

Milling Tips for Spectral MMax

Order No:	Code:	Description:	Quantity:
80-200-K	TIPO	Milling tips for non-ferrous materials	(1 set=10pcs.)
80-202	TIPO	Milling tips for ferrous materials upto 55 HRC	(1 set=10pcs.)
80-203	TIPO	Milling tips for ferrous materials >55-65 HRC <	(1 set=10pcs.)
80-210	TIPO	Milling tips for deburring	(1 set=10pcs.)

LIST of PRODUCTS

ABRASIVE CUT-OFF MACHINES (Chop Cutting)

EQUIPMENT
CUTTING

METACUT 351



12 05

METACUT 351

Abrasive Cutting Machine
Microprocessor controlled, front panel with touch-pad controls, compact powerful 5,5 kW motor, electronic brake system, cutting capacity up to 130mm solid stock, for cut-off wheels upto \varnothing 350 mm, 'extra-large T-slotted clamping table 562x366 mm made of stainless steel, bottom part as rugged alloy base casting, 100 lt. recirculating cooling unit with connection hoses and ready for operation.
Without clamping devices.
400 V, 3 phase, 50 Hz.
Includes a standard set of cutting consumables composed of;
*An assortment of 20 cut-off wheels with 350 mm dia.
*5 lt of Metcool cooling fluid.

Clamping Devices for METACUT 351

GR 0029	Quick Acting Clamping Vise Assembly, Right, for MTC 351 & SRC 401 (Stainless Steel)
GR 0030	Quick Acting Clamping Vise Assembly, Left, for MTC 351 & SRC 401 (Stainless Steel)
GR 0154	Compact Vise Assembly, Spring Loaded, for MTC 351 & SRC 401 (Stainless Steel)
15 02	MBU 1031 Vertical Clamping Device with clamping shoe, clamping height upto 115mm.
15 04	MK 10 22 Height Block, 70 mm
GR 0310	Fastener vise for longitudinal sectioning of screws, ball joint, tubes, etc. from 60 to 100 mm. in length
GR 0312	Fastener vise for longitudinal sectioning of screws, ball joint, tubes, etc. from 90 to 150 mm. in length

Accessories for METACUT 351

GR 0938	Cabinet for floor model, MTC 351/MCR 201/FORCIPOL 2V
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METACUT 251



10 05

METACUT 251

Abrasive Cutting Machine
Microprocessor controlled, front panel with touch-pad controls, compact powerful 3 kW motor, electronic brake system, cutting capacity up to 90/115 mm solid stock, for cut-off wheels upto \varnothing 250/300 mm, twin T-slotted clamping table 255x250 mm made of stainless steel, bottom part as rugged alloy base casting, ABS protective hood, 60 lt. recirculating cooling unit with connection hoses and ready for operation.
Without clamping devices.
400 V, 3 phase, 50 Hz.
Includes a standard set of cutting consumables composed of;
*1 pack of medium type 10 cut-off wheels 250 mm dia.
*1 pack of medium type 10 cut-off wheels 300 mm dia.
*5 lt of Metcool cooling fluid.

Clamping Devices for METACUT 251

GR 0012	Quick Acting Clamping Vise Assembly, Right, for MTC 251. (Stainless Steel)
GR 0013	Quick Acting Clamping Vise Assembly, Left, for MTC 251. (Stainless Steel)
GR 0151	Compact Vise Assembly, Spring Loaded, for MTC 251. (Stainless Steel)
15 01	MBU 1011 Vertical Clamping Device with clamping shoe, clamping height upto 90 mm.
15 03	MK 10 21 Height Block, 60 mm
GR 0453	Fastener vise for longitudinal sectioning of screws, fasteners tubes, etc. from 12 to 45 mm. in length

Accessories for METACUT 251&351

GR 0937	Cabinet for floor model, METACUT 251/ECOPRESS
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ABRASIVE CUT-OFF MACHINES (Chop Cutting + Table Feed Cutting)

SERVOCUT 602



14 87	<p>SERVOCUT 602 Fully Automatic Abrasive Cutting Machine</p> <p>For cutting large and multiple specimens, ability to work with cut-off wheels up to Ø600 mm, cutting capacity up to Ø230 mm solid stock 100Hx500D mm for rectangular specimens, 15 kW cutting motor with electronic brake system, with variable cut-off wheel speed 1000-2400 RPM, ability to set fixed peripheral speed of cut-off wheel from 20 to 60 m/s, overload display and protection system, accurate Servo motor driven table and wheel movement for precise and fast positioning, 3-axis joystick with adjustable speed control, stainless steel table (772x772mm) with 575 mm Y-axis movement range, Programmable with 10" HMI touch screen control, Siemens PLC control unit, automatic cut-off wheel diameter measurement and automatic starting position adjustment according to cut-off wheel wear, Positioning System allowing clamping several components simultaneously, with automatic chop cutting and automatic table feed cutting systems, with automatic cutting feedrate control, with extra advanced cutting methods: "Rapid Pulse Cutting, Table Oscillation Cutting, Instafeed Cutting Automatic Chop Cutting, Automatic Table Feed Cutting" Powerful LED illumination, 3 lights warning beacon with audible signal, robust construction, 150 lt recirculating cooling unit with pumps and connection hoses. Ready for operation.</p> <p>Without clamping devices.</p> <p>Includes a standard set of cutting consumables composed of;</p> <p>*An assortment of 10 cut-off wheels with 600 mm dia.</p> <p>*5 lt of Metcool cooling fluid.</p> <p>400 V, 3 phase, 50/60 Hz.</p>
14 87-AX	<p>as above (14 87) and with Automatic X-Axis Movement Kit</p> <p>Servo motor driven cut-off wheel positioning system on X-axis, Precise and fast positioning, 560 mm positioning range, including advanced cutting methods:</p> <p>*"Serial Parallel Cutting" for slicing multiple pieces from a specimen automatically in one cycle.</p> <p>*"Multi Target Cutting" for cutting up to 10 different clamped specimens on the table to be cut automatically in one cycle.</p>
GR 0928	<p>Software package for optional cutting methods;</p> <p>*Diagonal Cut</p> <p>*Step Cut</p> <p>*Segment Cut</p>

Clamping Devices for SERVOCUT 602

GR 0610	Mechanical Clamping Device
GR 0611	Serial Clamping Device for clamping multiple specimens from 1 to 5
GR 0612	Angular Precision Clamping Device in 3-Axis Direction
15 02	MBU 1031 Vertical Clamping Device with clamping shoe, clamping height upto 115mm.
15 04	MK 10 22 Height Block, 70 mm
15 00	V-Block for holding parts above table slots
GR 0033	Chain spanner set with anchor block

Accessories for SERVOCUT 602

GR 0134	FILTERMIST Centrifugal Separator Removes coolant mist for better illumination and viewing (To be ordered simultaneously together with the machine order)
GR 0135	Laser Alignment Unit (To be ordered simultaneously together with the machine order)
GR 0136	Central Lubricating System with programmable maintenance cycle (To be ordered simultaneously together with the machine order)
GR 0137	AUTOCLEAN Automatic Cleaning System for cutting chamber (To be ordered simultaneously together with the machine order)
GR 0591	BANDCOOL Band Filter Unit Band filter conveyor for the automatic collection and disposal of swarf, with capacity of 150 lt., with fluid level indicator, complete system on wheels, with connection kit. 400V, 3phase, 50Hz

SERVOCUT 501-AA



14 77	<p>SERVOCUT 501-AA Automatic Abrasive Cutting Machine</p> <p>Programmable with 7" HMI touch screen control, with Siemens PLC control unit with automatic chop cutting and automatic table-feed cutting systems, with various cutting methods, programmable with coloured LCD display of cutting parameters, accurate and motorized positioning of the specimen in X - Y and Z axis (X-axis for plane parallel cutting is optional), integrated feed path control, power dependent adjustable feed rate, variable cutting force, pulse cutting mode, bar graph overload display, compact cutting motor, 1800 rpm cutting speed, with electronic brake system, cutting capacity upto 160/180 mm solid stock, with cut-off wheels upto Ø450/500mm, twin T-slotted table(Y-direction only) made of stainless steel, bottom part as rugged alloy base casting, 100 lt recirculating cooling unit with connection hoses, ready for operation.</p> <p>Without clamping devices.</p> <p>Includes a standard set of cutting consumables composed of;</p> <p>* An assortment of 20 cut-off wheels with 432 mm dia.</p> <p>* 5 lt of Metcool cooling fluid.</p> <p>400 V, 3 phase, 50 Hz.</p>
14 77-AX	as above(14 77) and including an automatically driven X-axis table with 100mm travel for programmable serial plane parallel cutting.
14 77-V	as above(14 77) and with variable cutting speed 600-2400 rpm.
14 77-V-AX	as above(14 77) and with variable cutting speed 600-2400 rpm. and including an automatically driven X-axis table with 100mm travel for programmable serial plane parallel cutting.
GR 0925	<p>Software package for optional cutting methods;</p> <p>* Diagonal Cut</p> <p>* Step Cut</p> <p>* Segment Cut</p>

Clamping Devices for SERVOCUT 501-AA

GR 0121	Quick Acting Clamping Vise Assembly, Right, for SRC 501 (Stainless Steel)
GR 0122	Quick Acting Clamping Vise Assembly, Left, for SRC 501 (Stainless Steel)
15 02	MBU 1031 Vertical Clamping Device with clamping shoe, clamping height upto 115mm.
15 04	MK 10 22 Height Block, 70 mm

Accessories for SERVOCUT 501-AA

GR 0124-01	Fume Condenser (To be ordered simultaneously together with the machine order)
GR 0125	Laser alignment unit (for MA and AA models) (To be ordered simultaneously together with the machine order)
GR 0126	Manual/Auto Table drive system with electromagnetic clutch(y-axis) (To be ordered simultaneously together with the machine order)(for MA and AA models)
GR 0993	Flange Set with larger diameter, Ø166 mm
GR 0930-00	Low Feedrate Kit(y-axis), for precision cutting or for cutting extremely difficult and hard solid specimens. Feedrate range: 50 - 4.000 microns/sec (To be ordered simultaneously together with the machine order)
GR 0940-00	Low Feedrate Kit(z-axis), for precision cutting or for cutting extremely difficult and hard solid specimens. Feedrate range: 50 - 4.000 microns/sec (To be ordered simultaneously together with the machine order)
GR 1211	High precision positioning unit for Automatic X-Axis (To be ordered simultaneously together with the machine order)
GR 0591	BANDCOOL Band Filter Unit Band filter conveyor for the automatic collection and disposal of swarf, with capacity of 150 lt., with fluid level indicator, complete system on wheels, with connection kit. 400V, 3phase,50Hz

SERVOCUT 401-AA



14 67	SERVOCUT 401-AA Automatic Abrasive Cutting Machine Programmable with 7" HMI touch screen control, with Siemens PLC control unit, with automatic chop cutting and automatic table-feed cutting systems, with various cutting methods, programmable with coloured LCD display of cutting parameters, accurate and motorized positioning of the specimen in X - Y and Z axis (X-axis for plane parallel cutting is optional), integrated feed path control, power dependent adjustable feed rate, variable cutting force, pulse cutting mode, bar graph overload display, compact cutting motor, 2200 rpm cutting speed, with electronic brake system, cutting capacity upto 130/150 mm solid stock, with cut-off wheels upto ø350/400mm, twin T-slotted table(Y-direction only) made of stainless steel, bottom part as rugged alloy base casting, 100 lt recirculating cooling unit with connection hoses, ready for operation. Without clamping devices. Includes a standard set of cutting consumables composed of; *An assortment of 20 cut-off wheels with 400 mm dia. *5 lt of Metcool cooling fluid. 400 V, 3 phase, 50 Hz.
14 67-AX	as above(14 67) and including an automatically driven X-axis table with 100mm travel for programmable serial plane parallel cutting.
14 67-V	as above(14 67) and with variable cutting speed 600-3200 rpm.
14 67-V-AX	as above(14 67) and with variable cutting speed 600-3200 rpm. and including an automatically driven X-axis table with 100mm travel for programmable serial plane parallel cutting.
GR 0925	Software package for optional cutting methods; *Diagonal Cut *Step Cut *Segment Cut

SERVOCUT 401-MA



14 66	SERVOCUT 401-MA Automatic Abrasive Cutting Machine Programmable with 7" HMI touch screen control, with Siemens PLC control Unit, with handwheel driven chop cutting and automatic driven table-feed cutting systems, with various cutting methods, programmable with coloured LCD display of cutting parameters, accurate and motorized positioning of the specimen in X and Y axis (X-axis for plane parallel cutting is optional), manual positioning of the cutting wheel in Z-axis, integrated feed path control, power dependent adjustable feed rate, variable cutting force, pulse cutting mode, bar graph overload display, compact cutting motor, 2200 rpm cutting speed, with electronic brake system, cutting capacity upto 130/150 mm solid stock, with cut-off wheels upto ø350/400mm, twin T-slotted table(Y-direction only) made of stainless steel, bottom part as rugged alloy base casting, 100 lt recirculating cooling unit with connection hoses, ready for operation. Without clamping devices. Includes a standard set of cutting consumables composed of; *An assortment of 20 cut-off wheels with 400 mm dia. *5 lt of Metcool cooling fluid. 400 V, 3 phase, 50 Hz.
14 66-MX	as above(14 66) and including a manually driven X-axis table with 100mm travel for plane parallel cutting.
14 66-AX	as above(14 66) and including an automatically driven X-axis table with 100mm travel for programmable serial plane parallel cutting.
14 66-V	as above(14 66) and with variable cutting speed 600-3200 rpm.
14 66-V-MX	as above(14 66) and with variable cutting speed 600-3200 rpm. and including a manually driven X-axis table with 100mm travel for plane parallel cutting.
14 66-V-AX	as above(14 66) and with variable cutting speed 600-3200 rpm. and including an automatically driven X-axis table with 100mm travel for programmable serial plane parallel cutting.

EQUIPMENT CUTTING

SERVOCUT 401-MM



14 65	<p>SERVOCUT 401-MM Abrasive Cutting Machine with handwheel driven chop cutting and table-feed cutting systems, manual positioning of the specimen in X and Y axis (X-axis for plane parallel cutting is optional), manual positioning of the cutting wheel in Z-axis, compact cutting motor, 2200 rpm cutting speed, with electronic brake system, cutting capacity upto 130/150 mm solid stock, with cut-off wheels upto ϕ350/400mm, twin T-slotted clamping table made of stainless steel, bottom part as rugged alloy base casting, 100 lt recirculating cooling unit with connection hoses, ready for operation. Without clamping devices. 400 V, 3 phase, 50 Hz. Includes a standard set of cutting consumables composed of; *An assortment of 20 cut-off wheels with 400 mm dia. *5 lt of Metcool cooling fluid.</p>
14 65-MX	as above(14 65) and including a manually driven X-axis table with 100mm travel for plane parallel cutting.

Clamping Devices for SERVOCUT 401

GR 0029	Quick Acting Clamping Vise Assembly, Right, for MTC 351 & SRC 401 (Stainless Steel)
GR 0030	Quick Acting Clamping Vise Assembly, Left, for MTC 351 & SRC 401 (Stainless Steel)
GR 0154	Compact Vise Assembly, Spring Loaded, for MTC 351 & SRC 401 (Stainless Steel)
15 02	MBU 1031 Vertical Clamping Device with clamping shoe, clamping height upto 115mm.
15 04	MK 10 22 Height Block, 70 mm
GR 0310	Fastener vise for longitudinal sectioning of screws, ball joint, tubes, etc. from 60 to 100 mm. in length
GR 0312	Fastener vise for longitudinal sectioning of screws, ball joint, tubes, etc. from 90 to 150 mm. in length

Accessories for SERVOCUT 401

GR 0124	Fume Condenser
GR 0125	Laser alignment unit (for MA and AA models) (To be ordered simultaneously together with the machine order)
GR 0127	Manual/Auto Table drive system with electromagnetic clutch(y-axis) (To be ordered simultaneously together with the machine order) (for MA and AA models)
GR 0992	Flange Set with larger diameter, ϕ 133 mm
GR 0930-00	Low Feedrate Kit(y-axis), for precision cutting or for cutting extremely difficult and hard solid specimens. Feedrate range: 50 - 4,000 microns/sec (To be ordered simultaneously together with the machine order)
GR 0940-00	Low Feedrate Kit(z-axis), for precision cutting or for cutting extremely difficult and hard solid specimens. Feedrate range: 50 - 4,000 microns/sec (To be ordered simultaneously together with the machine order)
GR 1210	High precision positioning unit for Automatic X-Axis (To be ordered simultaneously together with the machine order)
GR 0591	BANDCOOL Band Filter Unit Band filter conveyor for the automatic collection and disposal of swarf, with capacity of 150 lt., with fluid level indicator, complete system on wheels, with connection kit. 400V, 3phase, 50Hz

SERVOCUT 301-AA



14 57	<p>SERVOCUT 301-AA Automatic Abrasive Cutting Machine Programmable with 7" HMI touch screen control, with Siemens PLC control unit with automatic chop cutting and automatic table-feed cutting systems, with various cutting methods, programmable with coloured LCD display of cutting parameters, accurate and motorized positioning of the specimen in X - Y and Z axis (X-axis for plane parallel cutting is optional), integrated feed path control, power dependent adjustable feed rate, variable cutting force, pulse cutting mode, bar graph overload display, compact cutting motor, 2850 rpm cutting speed, with electronic brake system, cutting capacity upto 90/110 mm solid stock, with cut-off wheels upto ϕ250/300mm, twin T-slotted table(Y-direction only) made of stainless steel, bottom part as rugged alloy base casting, 100 lt recirculating cooling unit with connection hoses, ready for operation. Without clamping devices. Includes a standard set of cutting consumables composed of; * An assortment of 20 cut-off wheels with 400 mm dia. * 5 lt of Metcool cooling fluid. 400 V, 3 phase, 50 Hz.</p>
14 57-AX	as above(14 57) and including an automatically driven X-axis table with 70mm travel for programmable serial plane parallel cutting.
14 57-V	as above(14 57) and with variable cutting speed 600-4000 rpm.
14 57-V-AX	as above(14 57) and with variable cutting speed 600-4000 rpm. and including an automatically driven X-axis table with 70mm travel for programmable serial plane parallel cutting.
GR 0925	Software package for optional cutting methods; * Diagonal Cut * Step Cut * Segment Cut

SERVOCUT 301-MA



14 56	<p>SERVOCUT 301-MA Automatic Abrasive Cutting Machine Programmable with 7" HMI touch screen control, with Siemens PLC control unit with handwheel driven chop cutting and automatic driven table-feed cutting systems, with various cutting methods, programmable with coloured LCD display of cutting parameters, accurate and motorized positioning of the specimen in X and Y axis (X-axis for plane parallel cutting is optional), manual positioning of the cutting wheel in Z-axis, integrated feed path control, power dependent adjustable feed rate, variable cutting force, pulse cutting mode, bar graph overload display, compact cutting motor, 2850 rpm cutting speed, with electronic brake system, cutting capacity upto 90/110 mm solid stock, with cut-off wheels upto ø250/300mm, twin T-slotted table(Y-direction only) made of stainless steel, bottom part as rugged alloy base casting, 100 lt recirculating cooling unit with connection hoses, ready for operation. Without clamping devices. Includes a standard set of cutting consumables composed of: * An assortment of 20 cut-off wheels with 400 mm dia. * 5 lt of Metcool cooling fluid. 400 V, 3 phase, 50 Hz.</p>
14 56-MX	as above(14 56) and including a manually driven X-axis table with 70mm travel for plane parallel cutting.
14 56-AX	as above(14 56) and including an automatically driven X-axis table with 70mm travel for programmable serial plane parallel cutting.
14 56-V	as above(14 56) and with variable cutting speed 600-4000 rpm.
14 56-V-MX	as above(14 56) and with variable cutting speed 600-4000 rpm. and including a manually driven X-axis table with 70mm travel for plane parallel cutting.
14 56-V-AX	as above(14 56) and with variable cutting speed 600-4000 rpm. and including an automatically driven X-axis table with 70mm travel for programmable serial plane parallel cutting.

SERVOCUT 301-MM



14 55	<p>SERVOCUT 301-MM Abrasive Cutting Machine, with handwheel driven chop cutting and table-feed cutting systems, manual positioning of the specimen in X and Y axis (X-axis for plane parallel cutting is optional), manual positioning of the cutting wheel in Z-axis, compact cutting motor, 2850 rpm cutting speed, with electronic brake system, cutting capacity upto 90/110 mm solid stock, with cut-off wheels upto ø250/300mm, twin T-slotted clamping table made of stainless steel, bottom part as rugged alloy base casting, 80 lt recirculating cooling unit with connection hoses, ready for operation. Without clamping devices. 400 V, 3 phase, 50 Hz. Includes a standard set of cutting consumables composed of: * An assortment of 20 cut-off wheels with 300 mm dia. * 5 lt of Metcool cooling fluid.</p>
14 55-MX	as above(14 55) and including a manually driven X-axis table with 70mm travel for plane parallel cutting.

Clamping Devices for SERVOCUT 301

GR 0170	Quick Acting Clamping Vise Assembly, Left, for SRC.301 (Stainless Steel)
GR 0172	Quick Acting Clamping Vise Assembly, Right, for SRC.301 (Stainless Steel)
GR 0151	Compact Vise Assembly, Spring Loaded, for SRC.301 (Stainless Steel)
15 01	MBU 1011 Vertical Clamping Device with clamping shoe, clamping height upto 90 mm.
15 03	MK 10 21 Height Block, 60 mm
GR 0453	Fastener vise for longitudinal sectioning of screws,fasteners tubes, etc. from 12 to 45 mm. in length
GR 0310	Fastener vise for longitudinal sectioning of screws,ball joint, tubes, etc. from 60 to 100 mm. in length

Accessories for SERVOCUT 301

GR 0760	Cabinet for floor model - SRC.301
GR 0125	Laser alignment unit (for MA and AA models)(To be ordered simultaneously together with the machine order)
GR 0129	Manual/Auto Table drive system with electromagnetic clutch(y-axis) (To be ordered simultaneously together with the machine order) (for MA and AA models)
GR 0991	Flange Set with larger diameter, Ø100 mm
GR 0930-00	Low Feedrate Kit(y-axis), for precision cutting or for cutting extremely difficult and hard solid specimens. Feedrate range: 50 - 4.000 microns/sec (To be ordered simultaneously together with the machine order)
GR 0940-00	Low Feedrate Kit(z-axis), for precision cutting or for cutting extremely difficult and hard solid specimens. Feedrate range: 50 - 4.000 microns/sec (To be ordered simultaneously together with the machine order)

PRECISION CUT-OFF MACHINES

MICRACUT 201



17 06	<p>MICRACUT 201 Automatic High Speed Precision Cut-off Machine, Programmable with 5,7" HMI touch screen control, with Siemens PLC control unit, coloured LCD display of cutting parameter. Moving table feed system, compact cutting motor, with variable cut-off wheel speed from 500 to 5000 rpm, automatic feeding with adjustable feed speed, motorised positioning system with digital readout on the LCD, library of cutting programs for different materials, with built-in recirculation cooling unit, complete and ready for operation. Without clamping tools and specimen vises. 230 V, 50 Hz, AC. Includes a standard set of cutting consumables composed of: * 1 pc. Diamond cutting Disc 200 mm dia. * An assortment of 10 abrasive thin cut-off wheels 200 mm dia. * 1 lt of Metcool II cooling fluid.</p>
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**EQUIPMENT
CUTTING**

Accessories and Clamping Tools for MICRACUT 201

GR 0824	Automatic X-axis positioning unit for programmable positioning in the X-axis with serial plane parallel cutting capability.(0-30 mm)
GR 0825	Manual X-axis positioning unit for specimen vises with dovetail plates.(0-20 mm)
GR 0547	Stand for specimen vises with dovetail plates.
GR 0826	Stand with rotation for specimen vises with dovetail plates
GR 0548	Quick acting clamping vise assembly
15 05	KKP 040 Vertical Clamping Device, with clamp.shoe,MCR 201/Geocut
GR 0551	Quick Clamping Vise for longitudinal sectioning of bolts and fasteners
GR 0579	Vacuum Sample holder for thin sectioning (To be ordered simultaneously together with the machine order)

Specimen Vises for MICRACUT 201

GR 0210	Universal Specimen Vise for MICRACUT 201.
GR 0400	Universal Specimen Vise
GR 0401	Specimen vise with double parallel vice for long specimens.
GR 0402	Specimen vise for round and mounted specimens, ø 32mm.
GR 0403	Specimen vise for irregular shaped specimens.
GR 0404	Specimen vise for adhering specimens.
GR 0405	Specimen vise for biomedical samples.
GR 0430	Specimen vise (teardrop shape) for specimens 18-40mm.
GR 0431	Specimen vise (teardrop shape) for specimens 5-20mm.
GR 0434	Specimen vise for round cylindrical specimens (max. Up to 40 mm dia) .
GR 0453	Fastener vise for longitudinal sectioning of screws,fasteners tubes, etc. from 12 to 45 mm. in length

Optional Flange Sets for MICRACUT 201

GR 0410	Set of Flanges, ø75 mm, suitable for 12,7 and 25,4 mm arbor dias.
GR 0411	Set of Flanges, ø100 mm, suitable for 12,7 and 25,4 mm arbor dias.

MICRACUT 151



16 03	<p>MICRACUT 151 Precision cutter,with touch-pad controls, with digital display 100 W powerful DC cutting motor, variable speed 0-1000 rpm, with digital micrometer cross feed for specimen positioning, counterbalanced sliding weight system,removable cooling unit, automatic cut-off switch, for cutting discs of upto 150 mm. diameter and ready for operation. Without specimen vises. 230 V, 50 Hz, AC. Includes a standard set of cutting consumables composed of;</p> <p>1 pc. Diamond cutting Disc 150 mm dia. 1 lt. Metcool II cooling fluid.</p>
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Accessories for MICRACUT 151

GR 0212	Cutting Table Attachment for manual cutting of extra flat specimens and PCB 's on MICRACUT 151.
GR 0409	Dressing Unit for MICRACUT 151

Specimen Vises for MICRACUT 151

GR 0400	Universal Specimen Vise for MICRACUT 151
GR 0401	Specimen vise with double parallel vice for long specimens.
GR 0402	Specimen vise for round and mounted specimens, ø 32mm.
GR 0403	Specimen vise for irregular shaped specimens.
GR 0404	Specimen vise for adhering specimens.
GR 0405	Specimen vise for biomedical samples.
GR 0430	Specimen vise (teardrop shape) for specimens 18-40mm.
GR 0431	Specimen vise (teardrop shape) for specimens 5-20mm.
GR 0434	Specimen vise for round cylindrical specimens (max. Up to 40 mm dia).
GR 0406	Swivel arm unit for angular cutting.
GR 0453	Fastener vise for longitudinal sectioning of screws,fasteners tubes, etc. from 12 to 45 mm. in length

Optional Flange Sets for MICRACUT 151

GR 0410	Set of Flanges, ø75 mm suitable for 12,7 mm. Arbor dia.
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ECOPRESS 100



25 07

ECOPRESS 100

Programmable Automatic Mounting Press with one cylinder, 7" HMI touch screen control, with Siemens PLC control unit, programmable with coloured LCD display, program based mounting sequences, electro hydraulic pressure (requires no air), pressure upto 300 bar, temperature upto 200 0C, operation time upto 59:99 minutes, short cycle time, thermostatically controlled heating power of 1250W, automatic cooling cycle with three modes of cooling rates(standard cooling,slow cooling and based on time), programmable preheating and preloading, selectable mould sizes from 25 mm to 50 mm, audible warning signal, ready for operation. 230 V, 1-phase, 50 Hz.
Mould assemblies are ordered seperately.
Includes a standard set of mounting consumables composed of 3 different hot mounting compounds; 1 kg of each and a total of 3 kg.

ECOPRESS 200



25 08

ECOPRESS 200

Programmable Automatic Mounting Press with two cylinders, 7" HMI touch screen control, with Siemens PLC control unit, programmable with coloured LCD display, program based mounting sequences, electro hydraulic pressure (requires no air), pressure upto 300 bar, temperature upto 200 0C, operation time upto 59:99 minutes, short cycle time, thermostatically controlled heating power of 2X1250W, automatic cooling cycle with three modes of cooling rates(standard cooling, slow cooling and based on time), programmable preheating and preloading, selectable mould sizes from 25 mm to 50 mm, audible warning signal, ready for operation. 230 V, 1-phase, 50 Hz.
Mould assemblies are ordered seperately.
Includes a standard set of mounting consumables composed of 3 different hot mounting compounds; 1 kg of each and a total of 3 kg.

ECOPRESS 50



25 04

ECOPRESS 50

Automatic Mounting Press with one cylinder, Fully automatic operation with microprocessor controls, electro hydraulic pressure (requires no air), with touch pad front panel controls and digital display of; heating time, moulding temperature, cooling temperature, ram up/down, auto/manual cooling, cycle start/stop, last parameter settings retained in the memory, with direct reading pressure gage, moulding pressure upto 300 bar, temperature upto 200 C, operation time upto 59:99 minutes, short cycle time, thermostatically controlled heating power of 1250W, automatic cooling cycle, selectable mould sizes from 25 mm to 50 mm, audible warning signal, ready for operation.
230 V, 1-phase, 50 Hz.
Mould assemblies are ordered seperately.
Includes a standard set of mounting consumables composed of 3 different hot mounting compounds; 1 kg of each and a total of 3 kg.

Mould Assemblies

26 01-02	Mould assembly, 1" with intermediate ram
26 02-02	Mould assembly, 1 1/4" with intermediate ram
26 03-02	Mould assembly, 1 1/2" with intermediate ram
26 07-02	Mould assembly, 2" with intermediate ram
26 04-02	Mould assembly, 25 mm with intermediate ram
26 05-02	Mould assembly, 30 mm with intermediate ram
26 06-02	Mould assembly, 40 mm with intermediate ram
26 08-02	Mould assembly, 50 mm with intermediate ram

Accessories for ECOPRESS

GR 1363	Recirculating Coolant System, composed of 40 litres stainless steel cooling tank, 24V recirculating pump and connection hoses, etc.
GR 0937	Cabinet for floor model, ECOPRESS

VACUMET



25 06

VACUMET

Self-contained vacuum impregnation unit, with built-in pneumatic vacuum system of -0.65 bar, vacuum gage and one set of supplies for casting epoxy resins.
Includes a standard set of mounting consumables composed of * 10 cups, 10 silicon tubes, 10 wooden mixing spoon 2 scale tubes.

FORCI Plan



36 12

FORCI Plan
Planar Grinding Machine

For initial planar grinding of metallographic specimens in specimen holders, bench top compact design, closed housing, max. safety provided with interlocking switch, robust column mounted in taper roller bearings, low noise with motor of 2,2 kW and 2800 rpm., easy handling with manual sample swing movement from the front side of the machine, ergonomic vertical precision positioning of the grinding head with an accuracy of 0,01 mm., large working space with LED lamp, standard outlet for dust exhauster, complete and ready for operation. Standard packing included.
Sample cooling available with cooling fluid.
Without clamping devices.
Without cooling tank.
400V, 3-phase, 50 Hz.
Includes a standard set of grinding consumables composed of:
*1 pc.150 mm. Dia. AL2O3 Cup Grinding Stone for ferrous materials
*5 lt of Metcool cooling fluid.

Accessories for FORCI Plan

GR 1830	Mechanical 4-jaw chuck
GR 1802-01	Floor Cabinet Forci Plan/DGP Plan/Spectral MM/PG/AG
GR 1394-00	Recirculating coolant tank, stainless steel, 40 lt. capacity, with pump, hoses etc.

DIGIPREP Plan



45 06

DIGIPREP Plan
Automatic Planar Grinding Machine

For initial planar grinding of metallographic specimens in specimen holders, bench top compact design, Fully automatic, with Siemens PLC control unit, Programmable with coloured 7" HMI touch screen control, closed housing, max. safety provided with interlocking switch, large working space with LED lighting, automatic sample feeding with adjustable fine speed, controlled material removal with digital setting of grinding depth with accuracy of 0,01 mm., high torque 2,2 kW grinding motor, with 2800 rpm speed to obtain optimum surfaces on different materials, all parameters on coloured LCD display, Sample cooling available with cooling fluid and/or compressed air. ready for operation, without clamping devices.
Without clamping devices.
Without cooling tank.
400V, 3-phase, 50Hz.
Includes a standard set of grinding consumables composed of:
*1 pc.150 mm. Dia. AL2O3 Cup Grinding Stone for ferrous materials
*5 lt of Metcool cooling fluid.

Accessories for DIGIPREP Plan

GR 1830	Mechanical 4-jaw chuck
GR 7599	Pneumatic Clamping Device with 2 Jaws (To be ordered simultaneously together with the machine order)
GR 1828	Automatic Sample Height Measurement System for full cyclic operation, with automatic dressing of cup grinding stone, (To be ordered simultaneously together with the machine order)
GR 1394-00	Recirculating coolant tank, stainless steel, 40 lt. capacity, with pump, level indicator, hoses etc.
GR 1802-01	Floor Cabinet for Forci Plan/DGP Plan/Spectral MM/PG/AG

Accessories for Specimen Loading



45 60

LEVOMAT

Specimen Loading Fixture, to level the specimens within the central force specimen holders, without specimen loading plate.

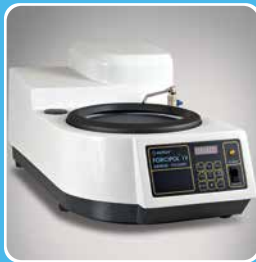
Specimen Loading Plates

45 10	Specimen Loading Plate ø 130 mm
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Specimen Holders for FORCI Plan / DIGIPREP Plan (Central Force Application)

45 81	Clamp type specimen holder, Ø130mm, 6 specimens with Ø25 mm.
45 82	Clamp type specimen holder, Ø130mm, 6 specimens with Ø30 mm.
45 83	Clamp type specimen holder, Ø130mm, 4 specimens with Ø40 mm.
45 84	Clamp type specimen holder, Ø130mm, 6 specimens with Ø1"
45 85	Clamp type specimen holder, Ø130mm, 6 specimens with Ø1 1/4"
45 86	Clamp type specimen holder, Ø130mm, 4 specimens with Ø1 1/2"
45 88	Teardrop specimen holder, Ø130 mm, 6 specimen x 10 - 32 mm.
45 89	Teardrop specimen holder, Ø130 mm, 4 specimen x 10 - 42 mm.
45 44	Clamp type specimen holder, Ø 130 mm for 4 rectangular specimen 25 X 32 mm.

FORCIPOL 1V



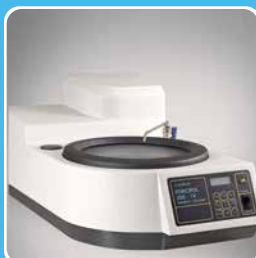
36 02-200	<p>FORCIPOL 1V Grinding and Polishing Machine</p> <p>Single wheel, suitable for 200 mm and 250 mm wheel size, standard interface for FORCIMAT automatic specimen mover, variable speed between 50-600 rpm, with digital display, 3/4 HP motor with overload protection, including water inlet and outlet. 230 V, 1-phase, 50 Hz.</p> <p>Includes a standard set of grinding & polishing consumables;</p> <ul style="list-style-type: none"> • An assortment of 100 grinding papers (various grits), 200 mm dia. • An assortment of 5 polishing cloths with 200 mm dia. • Diamond suspensions, one of each of 6 mic. and 1 mic. plus lubricant
36 02-250	As above, but consumables kit for 250 mm. dia. application.

FORCIPOL 2V



36 09-200	<p>FORCIPOL 2V Grinding and Polishing Machine</p> <p>standard interface for FORCIMAT automatic specimen mover variable speed between 50-600 rpm, with digital display, 3/4 HP motor with overload protection, including water inlet and outlet. 230 V, 1-phase, 50 Hz.</p> <p>Includes a standard set of grinding & polishing consumables;</p> <ul style="list-style-type: none"> • An assortment of 100 grinding papers (various grits), 200 mm dia. • An assortment of 5 polishing cloths with 200 mm dia. • Diamond suspensions, one of each of 6 mic. and 1 mic. plus lubricant
36 09-250	As above, but consumables kit for 250 mm. dia. application.

FORCIPOL 300-1V



36 06-300	<p>FORCIPOL 300-1V Grinding and Polishing Machine</p> <p>Single wheel, suitable for 300 mm wheel size, standard interface for FORCIMAT automatic specimen mover, variable speed between 50-600 rpm, with digital display, 1,0 HP motor with overload protection, including water inlet and an outlet. 230 V, 1-phase, 50 Hz.</p> <p>Includes a standard set of grinding & polishing consumables;</p> <ul style="list-style-type: none"> • An assortment of 100 grinding papers (various grits), 300 mm dia. • An assortment of 5 polishing cloths with 300 mm dia. • Diamond suspensions, one of each of 6 mic. and 1 mic. plus lubricant
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Operational Accessories for FORCIPOL Grinder Polishers

31 01	200 mm application PVC wheel, 200 mm
31 02	
31 53	
31 04	
31 06	
31 10	Aluminium wheel, 200 mm
	Splash guard, 200 mm
	Paper ring, 200 mm
	Cover
	Special Plexyglass Protection Unit, to be used with Forcipol 1V (To be ordered simultaneously together with the machine order)
31 21	250 mm application PVC wheel, 250 mm
31 22	
31 63	
31 24	
31 06	
31 10	Aluminium wheel, 250 mm
	Splash guard, 250 mm
	Paper ring, 250 mm
	Cover
	Special Plexyglass Protection Unit, to be used with Forcipol 1V (To be ordered simultaneously together with the machine order)
31 31	300 mm application PVC wheel, 300 mm
31 32	
31 73	
31 34	
31 36	
31 11	Aluminium wheel, 300 mm
	Splash guard, 300 mm
	Paper ring, 300 mm
	Cover
	Special Plexyglass Protection Unit, to be used with Forcipol 300-1V. (To be ordered simultaneously together with the machine order)

GR 0830	Cabinet for FORCIPOL 1V/300-1V / DIGIPREP 251/301
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FORCIMAT



30 09	FORCIMAT Automatic Specimen Mover Microprocessor controlled, pneumatically adjustable individual force loading system, upto 6 specimens, 90 Watt DC motor, variable rotational speed between 50-150 rpm, front panel with touch-pad controls, audible warning signal, communication capability with all FORCIPOL machines, steel mounting column. Complete and ready for operation. 230 V, 1-phase, 50 Hz.
31 82	Special Splash Guard, 200 mm. for automatic heads.
31 83	Special Splash Guard, 250 mm., to be used with automatic heads
31 93	Special Splash Guard, 300 mm., to be used with automatic heads
GR 0440	Air filtering and lubricating unit

Specimen Holders for FORCIMAT

33 01	FORCIMAT specimen holder, 6 x ø 40 mm
33 02	Set of insert rings for 30 mm
33 03	Set of insert rings for 25 mm or 1"
33 04	Set of insert rings for 1 1/4"
33 05	Set of insert rings for 1 1/2"
33 06	FORCIMAT specimen holder, Blank
33 07	FORCIMAT specimen holder, 3 x Ø50 mm
45 51	FORCIMAT specimen holder, ø 145mm, for 6 x ø 25mm.
45 54	Specimen Holder 6xØ 1"
45 52	FORCIMAT specimen holder, ø 145mm, for 6 x ø 30mm specimen.
45 55	FORCIMAT specimen holder, ø 145mm, for 6x 1 1/4 inch specimen.
45 56	FORCIMAT specimen holder, ø 145mm, for 6x 1 1/2 inch specimen.
45 58	FORCIMAT specimen holder, ø 145mm, for 3x 2 inch specimen.

DOSIONE Peristaltic Fluid Dispenser



GR 0874	DOSIONE Peristaltic Fluid Dispenser Microprocessor controlled, with peristaltic and non-misting pump for diamond suspensions, lubricant or 2 in 1 suspensions, with interface to be connected to FORCIMAT's Automatic Head.
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EQUIPMENT
GRINDING & POLISHING

DIGIPREP 251



45 03

DIGIPREP 251

Programmable with coloured 7" HMI touch screen control, with Siemens PLC control unit, Base Unit with large 0,75HP Motor, Variable wheel speed 50-600 rpm, Quite belt drive, Complementary or Contra rotational direction, Soft Start and Stop function, Retractable water hose, with water supply and drain tubes. Automatic Head, Large LCD screen, programmable sample preparation parameters, central and/or individual force application, steel mounting column, with variable specimen holder speed 50-150 rpm, 100 Watt DC motor, LED lighting, quick-locking swing mounted design, Complete and ready for operation. Without Specimen Holders. 230 V, 1-phase, 50 Hz. Includes the following standard set of consumables;

- * Special Magnetic Foil, Ø 250 mm.
- * Thin Metal Plate(1 pcs), Ø 250 mm
- * Magneto grinding disc 18 mic., 250 mm dia.
- * An assortment of 5 polishing cloths 250 mm dia.
- * Diamond suspensions one of each of 6 mic. and 1 mic., plus lubricant

DIGIPREP 301



45 04

DIGIPREP 301

Programmable with coloured 7" HMI touch screen control, with Siemens PLC control unit. Base Unit with large 1,0HP Motor, Variable wheel speed 50-600 rpm, Quite belt drive, Complementary or Contra rotational direction, Soft Start and Stop function, Retractable water hose, with water supply and drain tubes. Automatic Head, Large coloured LCD screen, programmable sample preparation parameters, central and/or individual force application, steel mounting column, with variable specimen holder speed 50-150 rpm, 100 Watt DC motor, LED lighting, quick-locking swing mounted design, audible warning signal, with holding chuck, Air supply tubes, Complete and ready for operation. Without Specimen Holders. 230 V, 1-phase, 50 Hz. Includes the following standard set of consumables;

- * Special Magnetic Foil, Ø 300 mm.
- * Thin Metal Plate(1 pcs), Ø 300 mm
- * Magneto grinding disc 18 mic., 300 mm dia.
- * An assortment of 5 polishing cloths 300 mm dia.
- * Diamond suspensions, one of each of 6 mic. and 1 mic., plus lubricant.

Optional Accessories for Digiprep 251/301

31 10	Special Plexyglass Protection Unit, to be used with DIGIPREP 251 (To be ordered simultaneously together with the machine order)
31 11	Special Plexyglass Protection Unit, to be used with DIGIPREP 301 (To be ordered simultaneously together with the machine order)
GR 0830	Cabinet for FORCIPOL 1V/300-1V / DIGIPREP 251/301
GR 0440	Air filtering and lubricating unit
GR 0872	Z-axis material removal with depth control, for Digiprep 251/301 (To be ordered simultaneously together with the machine order)

Additional Wheels for Digiprep 251/301

31 22	Aluminium wheel, 250 mm for DIGIPREP 251
31 63	Splash guard, 250 mm for DIGIPREP 251
31 32	Aluminium wheel, 300 mm for DIGIPREP 301
31 73	Splash guard, 300 mm for DIGIPREP 301 / Accura

DOSIMAT Peristaltic Fluid Dispenser



40 04

Fluid Dispenser, microprocessor controlled, with 4 peristaltic pumps (3 for diamond suspensions/lubricant and 1 for alumina suspensions), with interface to be connected to DIGIPREP's Automatic Head, 230 V, 1 ph., 50 Hz.

DOSIONE Peristaltic Fluid Dispenser



GR 08 74	Microprocessor controlled, with peristaltic and non-misting pump for diamond suspensions, lubricant or 2 in 1 suspensions, with interface to be connected to FORCIMAT/DIGIPREP's Automatic Head.
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ENVIRO Recirculating Filtering System



GR 0865	ENVIRO Recirculating Filtering System. Closed loop 1 micron filtering system with 20 lt. recirculating water tank, suitable to operate with line water on 80 micron filter as well. Requires 4 bar compressed air. Ready for operation with all Metkon Grinder/Polishers
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Specimen Loading Plates

YM 6214-00	Filter, 10 inches 1 Micron
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Accessories for Specimen Loading



45 60	LEVOMAT Specimen Loading Fixture, to level the specimens within the central force specimen holders, without specimen loading plate.
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Specimen Loading Plates

45 10	Specimen Loading Plate ø 130 mm
45 50	Specimen Loading Plate ø 160 mm

Specimen Holders for DIGIPREP 251/301 (Central Force Application)

45 81	Clamp type specimen holder, Ø130mm, 6 specimens with Ø25 mm.
45 82	Clamp type specimen holder, Ø130mm, 6 specimens with Ø30 mm.
45 83	Clamp type specimen holder, Ø130mm, 4 specimens with Ø40 mm.
45 84	Clamp type specimen holder, Ø130mm, 6 specimens with Ø1"
45 85	Clamp type specimen holder, Ø130mm, 6 specimens with Ø1 1/4"
45 86	Clamp type specimen holder, Ø130mm, 4 specimens with Ø1 1/2"
45 88	Teardrop specimen holder, Ø130 mm, 6 specimen x 10 - 32 mm.
45 89	Teardrop specimen holder, Ø130 mm, 4 specimen x 10 - 42 mm.
45 44	Clamp type specimen holder, Ø 130 mm for 4 rectangular specimen 25 X 32 mm.
45 45	Clamp type specimen holder, Ø 160 mm for 3 rectangular specimen 40 x 70 mm
45 91	Clamp type specimen holder, Ø160mm, 10 specimens with Ø25 mm.
45 92	Clamp type specimen holder, Ø160mm, 8 specimens with Ø30 mm.
45 93	Clamp type specimen holder, Ø160mm, 6 specimens with Ø40 mm.
45 94	Clamp type specimen holder, Ø160mm, 4 specimens with Ø50 mm.
45 95	Clamp type specimen holder, Ø160mm, 10 specimens with Ø1"
45 96	Clamp type specimen holder, Ø160mm, 8 specimens with Ø1 1/4"
45 97	Clamp type specimen holder, Ø160mm, 6 specimens with Ø1 1/2"
45 98	Clamp type specimen holder, Ø160mm, 4 specimens with Ø2"
45 39	Clamp type specimen holder, Ø220mm, 3 specimens for irregular shaped samples

(Specimen holders with Ø160mm can only be used with DIGIPREP 301 instrument)

Specimen Holders for DIGIPREP 251/301 (Individual Force Application)

33 21	DIGIPREP specimen holder, Ø145 mm, for 6 x Ø 25mm.
33 22	DIGIPREP specimen holder, Ø145 mm, for 6 x Ø 30mm specimen.
33 23	DIGIPREP specimen holder, Ø145 mm, for 6 x Ø 40mm specimen.
33 24	DIGIPREP specimen holder, Ø145 mm, for 3 x Ø 50mm specimen.
33 25	DIGIPREP specimen holder, Ø145 mm, for 6xØ 1" specimen.
33 26	DIGIPREP specimen holder, Ø145 mm, for 6x Ø1 1/4" specimen.
33 27	DIGIPREP specimen holder, Ø145 mm, for 6x Ø1 1/4" specimen.
33 28	DIGIPREP specimen holder, Ø145 mm, for 3x 2" specimen.
33 29	DIGIPREP specimen holder, Ø145 mm, Blank.

DIGIPREP Accura



45 05	<p>DIGIPREP Accura Powerful Preparation System with solid frame design on two columns, suitable for 250 mm as well as 300 mm dia. applications, programmable sample preparation with coloured 7" HMI touch screen control, with Siemens PLC control unit, Base Unit with large 1,5HP Motor, Variable wheel speed 50-600 rpm, Quite belt drive, Complementary or Contra rotational direction, Soft Start /Stop, Retractable water hose, water supply and drain tubes. Motorised positioning of the Head Unit in Z and X axis, central and/or individual force application, with variable specimen holder speed 50-150 rpm, 100 Watt DC motor, LED lighting, Z-axis material removal with depth control, audible warning signal, with holding chuck, Air supply tubes. Complete and ready for operation. Without Specimen Holders. 230 V, 1-phase, 50 Hz.</p>
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Dosing Modules for Digiprep Accura

GR 0875	Automatic Fluid Dispenser, with 4 micro peristaltic pumps (3 for diamond suspensions/lubricant and 1 for alumina suspensions) (To be ordered simultaneously together with the machine order)
GR 0876	Automatic Fluid Dispenser, with 6 micro peristaltic pumps (5 for diamond suspensions/lubricant and 1 for alumina suspensions) (To be ordered simultaneously together with the machine order)

Accessories for Digiprep Accura

GR 0801	Working kit consisting of 250mm alu.wheel, 250mm splash guard and including the following standard set of consumables; *Special Magnetic Foil, Ø 250 mm. *Thin Metal Plate(1 pcs), Ø 250 mm *Magneto grinding disc 18 mic., 250 mm dia. *An assortment of 5 polishing cloths 250 mm dia. *Diamond suspensions one of each of 6 mic. and 1 mic., plus lubricant
GR 0802	Working kit consisting of 300mm alu.wheel, 300mm splash guard and including the following standard set of consumables; *Special Magnetic Foil, Ø 300 mm. *Thin Metal Plate(1 pcs), Ø 300 mm *Magneto grinding disc 18 mic., 300 mm dia. *An assortment of 5 polishing cloths 300 mm dia. *Diamond suspensions one of each of 6 mic. and 1 mic., plus lubricant
31 12	Special Protection Cover, to be used with DIGIPREP Accura (To be ordered simultaneously together with the machine order)
GR 0770	Cabinet for Digiprep Accura
GR 0440	Air filtering and lubricating unit

Additional Wheels for Digiprep Accura

31 42	Aluminium wheel, 250 mm for DIGIPREP Accura/Velox
31 64	Splash guard, 250 mm for DIGIPREP Accura
31 52	Aluminium wheel, 300 mm for DIGIPREP Accura/Velox
31 73	Splash guard, 300 mm for DIGIPREP 301 / Accura

DIGIPREP Velox



45 07

DIGIPREP Velox

Fully automatic programmable grinding and polishing system

Fast, precise and operator-free sample preparation for high volume sample throughput, with 4 stations (1 coarse grinding, 1 fine grinding and 2 polishing), Fully automatic sample cleaning station with water and ethanol, Hot air drying station with timer, Independent grinding & polishing stations with 1,5 HP powerful motor, Comp. or Contra rotational direction, Soft Start/Stop, Suitable for both 250 mm and 300 mm applications, Variable wheel speed ; 100 - 1200 rpm for coarse grinding, 50 - 600 rpm for fine grinding and polishing stations, programmable sample preparation with coloured 10" HMI touch screen control with Siemens PLC control unit, Head movement automatically proceeding from one station to the other with servo driven motor, Z-axis material removal with depth control, central and/or individual force application, with variable specimen holder speed 50-150 rpm, 100 Watt DC motor, audible warning signal, with holding chuck, Air supply tubes,, integrated Automatic Fluid Dispenser for each polishing station, with 8 micro peristaltic pumps, allowing significant savings and perfect reproducibility, (6 for diamond suspensions/lubricant and 2 for alumina suspensions), Complete and ready for operation. Without Specimen Holders. 230 V, 1-phase, 50 Hz.

Accessories for DIGIPREP Velox

GR 0803

Working kit consisting of 250mm aluminum wheel (4 pcs), 250mm splash guard (4 pcs) and including the following standard set of consumables;
*Special Magnetic Foil (4 pcs), Ø 250 mm.
*Thin Metal Plate (4 pcs), Ø 250 mm
*Magneto grinding disc 75 mic., 250 mm dia.
*Magneto grinding disc 18 mic., 250 mm dia.
*An assortment of 5 polishing cloths 250 mm dia.
*Diamond suspensions two pcs of each of 6 µ, 3 µ, 1 µ and lubricant

GR 0804

Working kit consisting of 300mm aluminum wheel (4 pcs), 300mm splash guard (4 pcs) and including the following standard set of consumables;
*Special Magnetic Foil (4 pcs), Ø 300 mm.
*Thin Metal Plate (4 pcs), Ø 300 mm
*Magneto grinding disc 75 mic., 300 mm dia.
*Magneto grinding disc 18 mic., 300 mm dia.
*An assortment of 5 polishing cloths 300 mm dia.
*Diamond suspensions two pcs of each of 6 µ, 3 µ, 1 µ and lubricant

GR 0880

Ultrasonic cleaning unit
(To be ordered simultaneously together with the machine order)

GR 0780

Stand for LEVOMAT with storage for sample holders and consumables

31 00

Drawer cabinet for storing discs

ENVIRO Recirculating Filtering System



GR 0865

ENVIRO Recirculating Filtering System.

Closed loop 1 micron filtering system with 20 lt. recirculating water tank, suitable to operate with line water on 80 micron filter as well. Requires 4 bar compressed air. Ready for operation with all Metkon Grinder/Polishers

Specimen Loading Plates

YM 6214-00

Filter, 10 inches 1 Micron

Accessories for Specimen Loading



45 60

LEVOMAT

Specimen Loading Fixture, to level the specimens within the central force specimen holders, without specimen loading plate.

Specimen Loading Plates

45 10

Specimen Loading Plate ø 130 mm

45 50

Specimen Loading Plate ø 160 mm

Specimen Loading Plates

45 10

Specimen Loading Plate Ø 130 mm

45 50

Specimen Loading Plate Ø 160 mm

Specimen Holders for DIGIPREP Accura/Velox (Central Force Application)

45 81	Clamp type specimen holder, Ø130mm, 6 specimens with Ø25 mm.
45 82	Clamp type specimen holder, Ø130mm, 6 specimens with Ø30 mm.
45 83	Clamp type specimen holder, Ø130mm, 4 specimens with Ø40 mm.
45 84	Clamp type specimen holder, Ø130mm, 6 specimens with Ø1"
45 85	Clamp type specimen holder, Ø130mm, 6 specimens with Ø1 1/4"
45 86	Clamp type specimen holder, Ø130mm, 4 specimens with Ø1 1/2"
45 88	Teardrop specimen holder, Ø130 mm, 6 specimen x 10 - 32 mm.
45 89	Teardrop specimen holder, Ø130 mm, 4 specimen x 10 - 42 mm.
45 44	Clamp type specimen holder, Ø 130 mm for 4 rectangular specimen 25 X 32 mm.
45 45	Clamp type specimen holder, Ø 160 mm for 3 rectangular specimen 40 x 70 mm.
45 91	Clamp type specimen holder, Ø160mm, 10 specimens with Ø25 mm.
45 92	Clamp type specimen holder, Ø160mm, 8 specimens with Ø30 mm.
45 93	Clamp type specimen holder, Ø160mm, 6 specimens with Ø40 mm.
45 94	Clamp type specimen holder, Ø160mm, 4 specimens with Ø50 mm.
45 95	Clamp type specimen holder, Ø160mm, 10 specimens with Ø1"
45 96	Clamp type specimen holder, Ø160mm, 8 specimens with Ø1 1/4"
45 97	Clamp type specimen holder, Ø160mm, 6 specimens with Ø1 1/2"
45 98	Clamp type specimen holder, Ø160mm, 4 specimens with Ø2"
45 39	Clamp type specimen holder, Ø220mm, 3 specimens for irregular shaped samples
	(Specimen holders with Ø160mm can only be used with DIGIPREP 301 instrument)

Specimen Holders for DIGIPREP Accura/Velox (Individual Force Application)

33 21	DIGIPREP specimen holder, Ø145 mm, for 6 x Ø 25mm.
33 22	DIGIPREP specimen holder, Ø145 mm, for 6 x Ø 30mm specimen.
33 23	DIGIPREP specimen holder, Ø145 mm, for 6 x Ø 40mm specimen.
33 24	DIGIPREP specimen holder, Ø145 mm, for 3 x Ø 50mm specimen.
33 25	DIGIPREP specimen holder, Ø145 mm, for 6xØ 1" specimen.
33 26	DIGIPREP specimen holder, Ø145 mm, for 6x Ø1 1/4" specimen.
33 27	DIGIPREP specimen holder, Ø145 mm, for 6x Ø1 1/4" specimen.
33 28	DIGIPREP specimen holder, Ø145 mm, for 3x 2" specimen.
33 29	DIGIPREP specimen holder, Ø145, Blank.

ELOPREP



46 07	<p>ELOPREP Electrolytic Polishing & Etching System Automatic and programmable electrolytic polishing and etching of metallographic specimens, with Siemens PLC control unit, user friendly coloured 7" LCD touch screen controls, short polishing times and maximum reproducibility, separate polishing unit equipped with drain pipe and integrated cooling system, optional external etching unit, 0-100 V output voltage for polishing, 0-25 V for etching and 0-15 V for external etching. Variable polishing time and current, with current limitation, built in safety features with continuous control of electrolyte, scanning function for easy determination of parameters, variable speed controlled pump with magnetic stirrer for electrolyte flow. Ready for operation 230 V, 1-phase, 50 Hz.</p>
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Optional Accessories for ELOPREP

46 10	External Etching unit
46 11	Electrolyte container with lid
46 12	1 set of 5 masks 0,5 cm2
46 13	1 set of 5 masks 1 cm2
46 14	1 set of 5 masks 2 cm2
46 15	1 set of 5 masks 5 cm2
46 16	1 set of 5 masks without aperture
46 17	1 set of masks (0,5, 1, 2, 5 cm2 and 1 without aperture.)
YM 6904-00	Stainless Steel Cathode
YM 6937-00	Copper Cathode
YM 6936-00	Titanium Cathode

PORTABLE METALLOGRAPHY

MOBIPREP



90 01	<p>MOBIPREP Portable grinding/polishing & Electrolytic etching Contains maintenance-free batteries to work without stationary mains, consists of a control unit and a precision hand-guided grinding-polishing device with high performance micro motor. Output 36 V, adjustable in 5 steps Hand-guided device: High Torque Brushless DC Motor Reduction Gear – Angle Piece 90° – Disk 30 mm diameter Automatic Charger 12 V / 2,5 A Optional Etching Pen Dimensions: 104 x 54 x 160 mm, Weight 1 kg.</p>
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Accessories for MOBIPREP

90 10	Etching-Pencil for electrolytic etching
90 11	Angle piece 90 °, with 3-mm collet on
90 12	Angle piece 45 °, with 3-mm collet on
90 13	Straight quick release piece of, with 3-mm collet on
90 14	Grinding and polishing carriers (5 pieces)
90 15	Shoulder bag for Mobiprep, synthetic leather

MOBISCOPE



90 02	<p>MOBISCOPE Portable Metallurgical Microscope Basic Magnification : 100x - 800x Eyepieces : WF10X/FN18, Dia 23.2 Objectives : 10x/0.25 (W.D. 7,3 mm), 50x/0.65 (W.D. 0.5mm) C-mount adapter (for connecting C-mount cameras) Mechanical tube length 160 mm Coaxial coarse/fine focus system, range:36mm Polarizing Kits : Polarizer and Analyzer Coaxial illumination, build-in LED rechargeable, brightness adjustable Including portable aluminium case.</p>
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Accessories for MOBISCOPE

90 30	Magnet Stage
90 31	Objective 20X
90 32	Objective 80X

GEOCUT



14 03	<p>GEOCUT Geological Cutting Machine, for sectioning of rock, ceramics, minerals, glass, concrete etc., with Z-axis cutting wheel positioning and table-feed cutting system, manual positioning of the specimen in X and Y axis, X-Y table bed and cross feed table for cutting of plane parallel sections, mechanical display of cutting thickness, cutting capacity upto 90/100 mm solid stock, for diamond wheels upto ø250/300mm, 6,4 HP compact cutting motor, electronic brake system, interlocking safety switch for hood, bottom part as rugged alloy base casting, ready for operation. Without clamping devices. 400 V, 3 phase, 50 Hz.</p>
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Accessories for GEOCUT

GR 1394-00	Recirculating coolant tank, stainless steel, 40 lt. capacity, with pump, level indicator, hoses etc.
GR 0760	Cabinet for floor model - SRC 301/GEOCUT
Specimen Loading Plates	
GR 1811	Quick Clamping Device for round petrographic specimens
GR 1812	Universal vise for large specimens, rocks, etc.
15 05	KKP 040 Vertical Clamping Device, with clamp.shoe, MCR 201/Geocut

GEOFORM



18 01	<p>GEOFORM Precision Thin Section Cutting and Grinding Machine, for fast and precise material removal of petrographic thin sections, vacuum chuck to hold a variety of slide dimensions, vacuum pump with gauge and filter, separate cutting and grinding compartments, corrosion free aluminium cast base, front panel controls, micrometer for precise grinding off material from the sample on the slide, for diamond cutting wheels up to 200 mm. in dia., complete and ready for operation. Without diamond cutting wheel and grinding wheel. 230 V, 50 Hz, AC.</p>
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Accessories

GR 1383	Recirculating Coolant System, composed of 42 litres stainless steel cooling tank, double 24V recirculating pump and connection hoses, etc.
GR 1815	Geoform accessories set for cutting large specimens. Includes 1" x 3" sample holder, set of flanges, ø73 mm, suitable for 12,7 mm arbor dia., adapter for diamond cutting wheel 32 mm arbor dia.
GR 1817	Geoform accessories set for cutting large specimens. Includes 2" x 3" sample holder, set of flanges, ø73 mm, suitable for 12,7 mm arbor dia., adapter for diamond cutting wheel 32 mm arbor dia.

GEOFIX



45 61	<p>GEOFIX Fixture for mounting specimens to glass slides for thin-sectioning, provides a uniform thickness of bonding material between the specimen and the glass slide, spring activated loading system with capacity upto 8 specimens, easily placable on hot plate.</p>
45 65	Hot Plate for Geofix

FORCIPOL 300 1V



36 06	<p>FORCIPOL 300 1V Grinding and Polishing Machine Single wheel, suitable for 300 mm wheel size, standard interface for FORCIMAT automatic specimen mover, variable speed between 50-600 rpm, with digital display, 1,5 HP motor with overload protection, including water inlet and outlet. 230 V, 1-phase, 50 Hz.</p>
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Operational Accessories for

33 12	Cast Iron Lapping Disc, 300 mm
31 31	PVC wheel, 300 mm
31 73	Splash guard, 300 mm
31 34	Paper ring, 300 mm
31 36	Cover

FORCIMAT TS

30 10	<p>FORCIMAT TS Automatic Specimen Mover for the preparation of mineralogical specimens, Microprocessor controlled, pneumatically adjustable individual force loading system, upto 6 specimens, 90 Watt DC motor, low rotational speed of 35 rpm, front panel with touch-pad controls, audible warning signal, steel mounting column. Complete and ready for operation. 230 V, 1-phase, 50 Hz.</p>
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Accessories for FORCIMAT TS

GR 0440	Air filtering and lubricating unit
33 09	FORCIMAT specimen mover, 3 x Ø60 mm
33 01	FORCIMAT specimen mover, 6 x ø 40 mm
33 02	Set of insert rings for 30 mm
33 03	Set of insert rings for 25 mm
33 10	LAP-TS special specimen holder with Boron Carbide
33 11	stops for lapping of thin sections, 60 mm. Dia. POL-TS special specimen holder for polishing of thin sections, 60 mm. Dia.

DOSIONE Peristaltic Fluid Dispenser



GR 0874	<p>DOSIONE Peristaltic Fluid Dispenser Microprocessor controlled, with peristaltic and non-misting pump for diamond suspensions, lubricant or 2 in 1 suspensions, with interface to be connected to FORCIMAT's Automatic Head.</p>
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SPECTRAL 250



80 00	<p>SpectraL 250 Table-top Surface Grinder for spectroscopic sample preparation of steels and irons, vibration-free construction, robust steel housing, strong 1,1 kW motor, working disc of 250 mm dia., a rapid stop of the turning disc, suction created by special design retaining the abrasive paper on the disk (no need to glue or fix), disc covered halfway by lid allowing grinding only on a segment, spark trap, dust box and standard outlet for exhauster, easy to clean and ready for operation. 230 V, 1-phase, 50 Hz.</p>
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SPECTRAL 350



80 02-1	<p>SpectraL 350-1 Single Disc Surface Grinder for spectroscopic sample preparation of steels and irons, single disc of 350 mm dia., dynamically balanced, with 2,2 kW driving motor, with rotation speed 2800 rpm, suction created by special design retaining the abrasive paper on the disk (no need to glue or fix), discs covered halfway by lids allowing grinding only on a segment, dedusting system with spark trap and easily replacable filters, with interlocking safety switch not allowing the top cover being opened before the motors are stopped, ergonomically designed and ready for operation. (wooden packing included) 400V, 3-phase, 50Hz.</p>
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80 02	<p>SpectraL 350-2 Dual Disc Surface Grinder for spectroscopic sample preparation of steels and irons, course and fine grinding possible on two separate discs of 350 mm dia., which are dynamically balanced, two individual driving motors (2,2 kW each) with 2800 rpm, suction created by special design retaining the abrasive paper on the disk (no need to glue or fix), discs covered halfway by lids allowing grinding only on a segment, dedusting system with spark trap and easily replacable filters, with interlocking safety switch not allowing the top cover being opened before the motors are stopped, ergonomically designed and ready for operation. (wooden packing included) 400V, 3-phase, 50 Hz.</p>
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80 02-2S	<p>SpectraL 350-2 Dual Disc Surface Grinder as above, but with two speeds 1400/2800 rpm.</p>
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Sample Holders for SPECTRAL 250/350

GR 1804	Sample Holder for round specimens, Magnetic type.
GR 1805	Sample Holder for round specimens, Mechanical type.

Spare Part Kit for SPECTRAL 350

GR 1850	Recommended Set of Spare Parts\ SPC 350
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SPECTRAL PG



80 03

Spectral-PG

Swing Grinding Machine,

for fast spectroscopic sample preparation of iron and steel samples, bench top compact design, closed housing, max. safety provided with interlocking switch, robust column mounted in taper roller bearings, low noise with motor of 2,2 kW and 2800 rpm., easy handling with sample swing movement from the front side of the machine, vertical precision positioning of the grinding head with an accuracy of 0,01 mm., large working space with LED lamp, standard outlet for dust exhauster, standard outlet for water connection, sample cooling available with water cooling complete and ready for operation. Standard packing included. Without clamping devices. Without cooling tank.

400V, 3-phase, 50 Hz.

Accessories for SPECTRAL PG

GR 1801	Mechanical clamping device for samples upto 60 mm.
GR 1807	Permanent Magnetic Clamping Device, 100x150 mm.
GR 1820	Electromagnetic clamping device (To be ordered simultaneously together with the machine order)
GR 1802-01	Floor Cabinet Forci Plan/DGP Plan/SPC MM/PG/AG
GR 1394-00	Recirculating coolant tank, stainless steel, 40 lt. capacity, with pump, hoses etc.

Spare Part Kit for SPECTRAL PG

GR 1851	Recommended Set of Spare Parts, SPC PG
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SPECTRAL AG



80 05

Spectral AG

Automatic Grinding Machine,

for fast spectroscopic sample preparation of iron and steel samples, bench top compact design, Programmable with coloured 7" HMI touch screen control, with Siemens PLC control unit, closed housing, max. safety provided with interlocking switch, large working space with LED lighting, automatic sample feeding with adjustable fine speed, automatic height positioning of the grinding wheel for operation. Controlled material removal with digital setting of grinding depth with accuracy of 0,01 mm., high torque 2,2 kW grinding motor, with 2800 rpm speed to obtain optimum surfaces on different materials, all parameters on coloured LCD display, ready for operation.

Sample cooling available with water cooling and for compressed air.

Without clamping devices.

Without cooling tank.

400V, 3-phase, 50Hz.

Accessories for SPECTRAL AG

GR 1819	Pneumatic Clamping Device with 3 Jaws (To be ordered simultaneously together with the machine order)
YM 7550-00	Soft Jaws for Pneumatic Clamping Device (GR 1819)
GR 1829	Mechanical 3-jaw chuck
GR 1820	Electromagnetic clamping device (To be ordered simultaneously together with the machine order)
GR 1828	Automatic Sample Height Measurement System for full cyclic operation, with automatic dressing of cup grinding stone. (To be ordered simultaneously together with the machine order)
GR 1816	T-slotted table
GR 1394-00	Recirculating coolant tank, stainless steel, 40 lt. capacity, with pump, hoses etc.
GR 1802-01	Floor cabinet Forci Plan/DGP Plan/SPC MM/PG/AG

Spare Part Kit for SPECTRAL AG

GR 1853	Recommended Set of Spare Parts, SPC AG
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EQUIPMENT
SPECTROSCOPIC PREPARATION

SPECTRAL MM



80 04	<p>Spectral MM Automatic fine surface milling machine, for preparation of steels and non-ferrous metal samples for OES and XRF analysis, bench top compact design, with Siemens PLC control unit, Programmable with coloured 7" HMI touch screen control, closed housing, max. safety provided with interlocking switch, large working space with halogen lighting, chip container 3-point chuck suitable for all shapes of sample forms, (cylindrical, mushroom, etc.), for samples upto 80 mm dia. automatic sample feeding with adjustable fine speed control, digital depth setting, digital setting of milling height with accuracy of 0,01 mm., cutting motor 2,2 kW, digital setting of cutter rotational speed to obtain optimum surfaces for different materials, ready for operation. 400 V, 3-phase, 50 Hz.</p>
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Accessories for SPECTRAL MM

GR 1808	Milling head 63 mm for 5 cutting tips, for specimens up to 55 mm dia.
GR 1809	Milling head 80 mm for 6 cutting tips, for specimens up to 60 mm dia.
GR 1810	Manual Measuring tool for cutter positioning
GR 1827	Automatic Sample Height Measurement System for full cyclic operation. (To be ordered simultaneously together with the machine order)
GR 1801	Mechanical clamping device for samples upto 60 mm.
GR 1829	Mechanical 3-jaw chuck
GR 1819	Pneumatic clamping device (To be ordered simultaneously together with the machine order)
YM 7550-00	Soft Jaws for Pneumatic Clamping Device (GR 1819)
GR 1816	T-slotted table
GR 1821	Air cooling system for Spectral MM (To be ordered simultaneously together with the machine order)
GR 1802-01	Floor Cabinet for Forcipol Plan/DGP Plan/SPC MM/PG/AG

Spare Part Kit for SPECTRAL MM

GR 1852	Recommended Set of Spare Parts, SPC MM
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SPECTRAL MMax



80 06	<p>SPECTRAL MMax Full Automatic fine surface milling machine, for preparation of steels, cast iron and non-ferrous metal samples for OES and XRF analysis, Programmable with coloured 10" HMI touch screen control, Siemens PLC control unit, closed housing, max. safety provided with interlocking switch, large working space with LED lighting, chip cotainer, special clamping device suitable for all shapes of sampleforms, (cylindrical, round, oval, etc.) for samples up to 60 mm. dia., with max. 65 HRC, integrated air cooling system, automatic height positioning of the milling head for operaiton, automatic sample feding with adjustable fine speed control, digital depth etting, digital setting of milling height with accuracy of 0,01 mm. milling motor 5.5 kW digital setting of head rotational speed to obtain optimum surfaces for different materials, ready for operation. Withiut milling head, 400V, 3phase, 50 Hz.</p>
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Accessories for SPECTRAL MMax

GR 1823	Milling head for ferrous metaterials 80 mm. for 7 cutting tips
GR 1824	Milling head for ferrous metaterials 100 mm. for 8 cutting tips
GR 1834	Milling head for nonferrous materials, 100 mm. for 8 cutting tips
GR 1825	Milling head with integrated deburring
GR 1826	Automatic height calibration after changing of milling head type for different materials

Spare Part Kit for SPECTRAL MMax

GR 1854	Recommended Set of Spare Parts, SPC MMax
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MICROSCOPY

Inverted Microscopes

IMM 901



60 01	<p>IMM 901 Trinocular Inverted Metallurgical Microscope Basic Magnification : 100x - 1000x Eyepieces : WF10x eyepieces paired (field of view ϕ16 mm) Objectives : 10x/0.25 (W.D. 6.7mm), 25x/0.40 (W.D. 0.76mm) 40x/0.65 (W.D. 0.67mm), 100x/1.25(W.D. 0.3 mm) Stage : Mechanical stage 200x 152mm travel with right hand Coaxial drop-down controls, movable range 15 x 15 mm. Focusing : Coaxial low position coarse & fine focus controls graduated to 2 microns per division. Illumination : 6V 20W adjustable light sources with halogen lamp Size & weight : 540L x 195W x 320H mm & 9kg Complete with dust cover</p>
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Accessories for IMM 901

60 11	Ocular WF 12,5 X for IMM
60 12	WF 10x with reticles (1 mm with 100 divisions)for IMM
60 22	Stage micrometer for IMM, Reticle, 1 mm with 100 divisions
GR 0415	Eyeiece , WF 10x , with ASTM Grain Size E112

IMM 902



60 05	<p>IMM 902 Inverted metallurgical microscope Head: Trinocular, 45° inclined. Eyepieces: WF10x/22mm. Nosepiece: 5-positions. Objectives: 5x/0.15, 10x/0.3, 20x/0.45, 50x/0.55. Magnifications: 50x, 100x, 200x, 500x. Focusing system: Coaxial coarse and fine. Stage: 250x230mm; mechanical stage with lowered ergonomic coaxial controls. X-Y range: 120x80mm. Diaphragms: Field and aperture diaphragms (centrable). Illumination: 12V/50W halogen bulb in external case. Centrable bulb and brightnesscontrol. Filters: Blue, polarizer & analyzer</p>
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Optional Accessories for IMM 902

60 25	Holder for metallurgical samples(15 mm hole)
60 45	Mechanical stage, IMM 902
62 42	Eyeiece WF15x/16mm
62 53	Eyeiece micrometer EWF10x/22mm
60 41	26x76mm micrometric slide. R:1mm, div:0,01mm
60 55	Objective 100x/0,80
60 75	Photo adapter for IMAGINE HARDWARE SET
60 65	12V/50W halogen bulb
60 67	Special protective dust cover, IMM 902

Upright Microscopes

UPM 902



60 04	<p>UPM 902 Upright Metallurgical Microscope Head: Trinocular, 30° inclined, 360° rotating. Eyepieces: WF10x/22mm. Nosepiece: 5-positions, reversed. Objectives: 5x/0.15, 10x/0.3, 20x/0.45, 50x/0.55,100x/0.9 (dry). Magnifications: 50x, 100x, 200x, 500x, 1000x. Focusing system: Coaxial coarse and fine. Stage: Double layer with mechanical sliding stage, 175x145 mm, moving range 76x52 mm. Condenser: 0,7 N.A. swing-out type, with iris diaphragm, centrable and focusable. Illumination: XLED system. 50.000 hours life time. 6300K temperature. 3.6W low energy consumption, light intensity equivalent to a 50W halogen bulb. Brightness is adjustable. Metallurgical Attachment: High-power white XLED system with brightness control; field and aperture diaphragms (centrable).Simple sliding darkfield system. Filters: Blue, polarizer & analyzer.</p>
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Optional Accessories for UPM 902

62 40	Ergonomic binocular head 30°-60°
62 41	Eyeiece EWF10x/22mm
62 42	Eyeiece WF15x/16mm
62 43	Eyeiece micrometer EWF10X/22mm
60 41	26x76mm micrometric slide. R:1mm, div:0,01mm
60 74	Photo adapter for IMAGINE HARDWARE SET

PST 901



60 02	<p>PST 901 Trinocular Stereo Zoom Microscope, Basic Magnification : 6.5x - 45x Eyepieces : WF10x, paired Objectives : 0.65x - 4.5x Trinocular zoom head and Post Stand, Fluorescence ring illuminator, Focusing : Rack and pinion system, with anti-static PVC dust cover Dimension & Net weight : 170Wx250Dx555H mm & 6.0 kg</p>
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Accessories for PST 901

60 13	WF 10x with reticles, 100 divisions, for PST
60 23	Stage micrometer for PST, Reticle, 5 mm with 100 divisions
60 43	Mechanical Stage for PST 901
60 53	Objective\ 0.5x

PST 902



60 07	<p>PST 902 Stereomicroscope Optical System: Parallel Optics Head: Binocular 30° inclined, 360° rotatable Stand: Large stand, fixed arm type, with Led illumination, coaxial macro & micro focusing knobs Eyepieces: WF10x/22mm, high-point Objective: Zoom 0,8x ...6,4x Working Distance: 80 mm. Photo/Video Beam Splitter: 1 port Illumination: Ring light led illuminator, with continuous and external brightness control.</p>
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Optional Accessories for PST 902

62 71	Eyepiece (pair) WF15x/15mm
62 72	Eyepiece (pair) WF20x/12mm
62 73	Micrometric eyepiece WF10x/22mm
61 71	Objective 0,3x(w.d. 280mm)
61 72	Objective 0,5x(w.d. 118mm)
61 73	Objective 2x(w.d. 32,5mm)
60 76	Photo adapter for IMAGINE HARDWARE SET
60 69	Special protective glass, PST 902
60 66	Cleaning kit

Polarized Microscopes

IPP 902



60 06	<p>IPP 902 Polarizing laboratory microscope Head: Trinocular, 30° inclined, 360° rotating Eyepiece: WF10x/22mm Bertrand lens: Swing-out type; centrable (for Conoscopy/Orthoscopy) Polarizing attachment: Blue filter, 0°-90° rotating analysing filter, 1 slip (first class red), 1/4 λ slip, quartz wedge Nosepiece: 4-positions with centering mechanism for all objectives Objectives: For transmitted and incident polarized light 5x/0.15, 10x/0.25, 20x/0.40, 50x/0.70 Magnifications: 50x, 100x, 200x, 500x Focusing system: Coaxial coarse and fine Stage: 160mm diameter; 360° rotating with stop knob and 0.1° vernier Condenser: 0.9 N.A., with iris diaphragm, focusable and centrable. With rotating polarizing filter (swing-out type) Illumination: Transmitted light: XLED system. Incident light: XLED system polarizing attachment with built-in polarizer filter, aperture diaphragm and field diaphragm.</p>
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Optional Accessories for IPP 902

62 40	Ergonomic binocular head 30°-60°
62 42	Eyepiece WF15x/16mm
62 43	Eyepiece micrometer EWF10x/22mm
60 41	26x76mm micrometric slide. R:1mm, div:0,01mm
60 58	60x achromatic objective
60 68	Special protective dust cover, IPP 902
61 81	Blue filter, 45mm diameter
61 82	Green filter, 45mm diameter
61 83	Yellow filter, 45mm diameter
61 84	Frosted glass filter, 45mm diameter
62 60	Eyecup (pair)
60 76	Photo adapter for IMAGINE HARDWARE SET
60 64	Immersion oil, 10ml
60 66	Cleaning kit

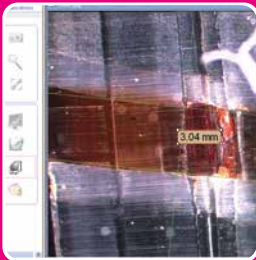
IMAGIN HARDWARE SET

66 10

IMAGIN HARDWARE SET

CMOS Color Camera Resolution 5.0 M. Pixels with Interpole Mod
USB2- PC Interface, C Mount- Microscope Interface.
Including DUROLINE, IMM or PST adapter according to application

IMAGIN MESURA 200

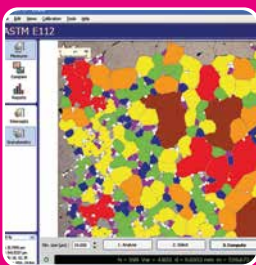


66 02

IMAGIN MESURA 200

Image capture, Image archiving, Image enhancement,
Calibration, measure Length, thickness, width, angle,
radius, curve perimeter, area,
Multi Focus Function
Phase content analysis,
Add Text & Marker Arrow and Calibration Scale, Image
annotation, Image report generator,
Automatically measurements and threshold function,
Direct transfer to Excel.

IMAGIN GRANO 200

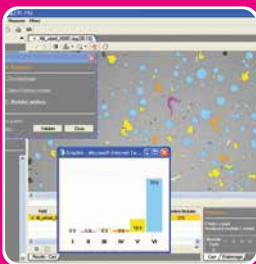


66 04

IMAGIN GRANO 200

Image capture, save and calibration, Grain sizing
software in compliance with ASTM E112 and
EN ISO 643, Horizontal, vertical, diagonal or circles
interception methods.
Instant detection of Grain Boundaries, Powerful report
generator. Direct transfer to Excel.

IMAGIN NODULA 200



66 05

IMAGIN NODULA 200

Image capture, save and calibration, Graphite nodules
automatically detected and coloured with regards to
shape and size, Cast iron analysis in compliance with
ASTM A247 including nodularity, Ferrite/Perlite
fraction. Automatically count Sphericity %, gray iron
flakes, calculates percent, graphite and classifies the
flakes by size. Powerful report generator, Direct
transfer to Excel.

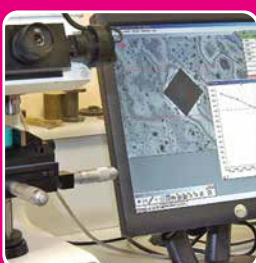
IMAGIN TRIO

66 10

IMAGIN TRIO

Including Imagin Hardware Set, Imagin Mesura 200, Imagin Grano 200 and
Imagin Nodula 200

IMAGIN VMS 2000



71 01

IMAGIN VMS 2000

Automatic Hardness Test and Documentation System

VMS 2000 Software Package Vickers/Knoop,
Brinell measuring system
* Generate case depth
* Direct transfer to excell
* Imprint on the Monitor,
* Digital calculation of Hardness Value,
* Measurement, Documentation and Archiving

DUROLINE-M Microhardness Tester with Auto Turret



71 02

DUROLINE-M

Microhardness Tester with Auto Turret

Test Load : 10, 25, 50, 100, 200, 300, 500, 1000 gf, in conformance with ASTM E-384, ISO/DIS6507-2, HMI touch screen controls with large coloured LCD, with automatic loading and releasing method, Consisting of; X-Y Stage (110x110 mm), Precision Vise, two Standard Test Blocks(HV700, HV400), Diamond Indenter, Pyramid, Measuring Microscope (withx10 Eyepiece, Electronic Type), Object Lensx10, Object Lensx40, Level Adjusting Leg, Camera Mounting Tube, Small Lever, Indenter Cover, Machine Cover, Spare Light Source Bulb (12V, 50W), Power Cord, Parallel output for data print, RS 232 output for PC comm. Instruction and Maintenance Manual.

DUROLINE-LV Vickers(Low Load) Tester with Auto Turret



71 06

DUROLINE-LV

Vickers (Low Load) Tester with Auto Turret

Test Loads : 0.2, 0.3, 0.5, 1, 2, 3, 5, 10 kg., in conformance with ASTM E-384, ISO/DIS6507-2, HMI touch screen controls with large coloured LCD, with automatic loading and releasing method, automated turret rotation, consisting of; 10X, 40X object lens built in, electronic measuring microscope 10X, built in diamond indenter pyramid, anvil V-shape, small level, spare light source bulb, spare fuse, power cord, auxiliary tools, machine cover and Parallel output for data print, RS 232 output for PC comm. instruction manuals..

DUROLINE-V Vickers Hardness Tester with Auto Turret



71 04

DUROLINE-V

Vickers Tester with Auto Turret

Test Loads : 1,2,3,5,10,20,30 and 50 kg., in conformance with ASTM E-384, ISO/DIS6507-2, HMI touch screen controls with large coloured LCD, with automatic loading and releasing method, automated turret rotation, consisting of; 10X object lens built in, electronic measuring microscope 10X, built in diamond indenter pyramid, anvil V-shape, small level, spare light source bulb, spare fuse, power cord, auxiliary tools, machine cover and Parallel output for data print, RS 232 output for PC comm. instruction manuals.

Accessories

GR 7902/1	Specimen holder for Ø25 mm		
GR 7902/2	Specimen holder for Ø30 mm		
GR 7902/3	Specimen holder for Ø40 mm		
GR 7903	Fine specimen holder (Vertical type)		
GR 7904	Fine specimen holder (Horizontal type)		
GR 7905	Precision vise (opening 50mm)		
GR 7906	Object lens 20x and optical kit		
GR 7907	Spare source bulb (10pcs/pk)		
GR 7908/M	Vickers diamond indenter for MH		
GR 7908/V	Vickers diamond indenter for VH/VHL		
GR 7909/M	Knoop diamond indenter for MH		
GR 7910	Standart block HV 400 or HV 700 for Duroline M		
GR 7911	Standart block HV 400 or HV 700 for Duroline LV & V		
GR 7912	Hand press		
GR 7913	Manual stage for MH (Max.load:15kgf)		
GR 7914	Manual stage for Vickers, 25 x 25 mm (Max. load: 80kgf)		
GR 7915	Calibration scale glass.		

Treno Series Abrasive Cut-off Wheels(Pack of 10)

TRENO-TI	19-019	Ø 250mm, for Titanium and Very Ductile Materials
TRENO-NF	19-020	Ø 250mm, for Non-ferrous materials
TRENO-H	19-021	Ø 250mm, for Soft Steels <23 HRC
TRENO-M	19-022	Ø 250mm, for Medium Hard Steels >23-55 HRC<
TRENO-S	19-023	Ø 250mm, for Hard Steels >50-60 HRC
TRENO-SS	19-024	Ø 250mm, for Very Hard Steels >60 HRC
TRENO-NF	19-040	Ø 300mm, for Non-ferrous materials
TRENO-H	19-041	Ø 300mm, for Soft Steels <23 HRC
TRENO-M	19-042	Ø 300mm, for Medium Hard Steels >23-55 HRC<
TRENO-S	19-043	Ø 300mm, for Hard Steels >50-60 HRC
TRENO-SS	19-044	Ø 300mm, for Very Hard Steels >60 HRC
TRENO-NF	19-060	Ø 350mm, for Non-ferrous materials
TRENO-M	19-062	Ø 350mm, for Medium Hard Steels >23-55 HRC<
TRENO-S	19-063	Ø 350mm, for Hard Steels >50-60 HRC
TRENO-SS	19-064	Ø 350mm, for Very Hard Steels >60 HRC
TRENO-NF	19-070	Ø 400mm, for Non-ferrous materials
TRENO-M	19-072	Ø 400mm, for Medium Hard Steels >23-55 HRC<
TRENO-S	19-073	Ø 400mm, for Hard Steels >50-60 HRC
TRENO-SS	19-074	Ø 400mm, for Very Hard Steels >60 HRC
TRENO-M	19-082	Ø 432mm, for Medium Hard Steels >23-55 HRC<
TRENO-S	19-083	Ø 432mm, for Hard Steels >50-60 HRC
TRENO-M	19-092	Ø 500mm, for Medium Hard Steels >23-55 HRC<
TRENO-S	19-093	Ø 500mm, for Hard Steels >50-60 HRC

Treno Series Abrasive Cut-off Wheels (Pack of 5)

TRENO-M	19-097	Ø 600 mm, for Medium Hard Steels > 23-55 HRC <
TRENO-S	19-098	Ø 600 mm, for Hard Steels > 50-60 HRC <

Long Life Abrasive Cut-off Wheels (Pack of 10)

TRENO-DUR	19-026	Ø 250 mm, for Extremely Low Consumption Rate with Optimum Surface Quality for High Volume Cutting Operations, Cut-Check Applications, etc..
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Ultra Thin Abrasive Cut-off Wheels (Pack of 10)

TRENO-HT	19-031	Ø 250 mm, 1.0 mm thickness, for Soft Steels > 20-35 HRC <
TRENO-MT	19-032	Ø 250 mm, 1.0 mm thickness, for Soft&Medium Hard Steels >38-58 HRC<

Cuto Series Abrasive Cut-off Wheels(Pack of 10)

CUTO-M	19-022/A	Ø 250 mm, for Soft&Medium Hard Steels Upto 50HRC
CUTO-S	19-023/A	Ø 250 mm, for Hard Steels > 50-60 HRC <
CUTO-M	19-042/A	Ø 300 mm, for Soft&Medium Hard Steels Upto 50HRC
CUTO-S	19-043/A	Ø 300 mm, for Hard Steels > 50-60 HRC <

Abrasive Cut-off Wheels for Precision Cutting(Pack of 10)

TRENO-HP	18-150	Ø 150 mm, for Non-Ferrous, Stainless steels
TRENO-MP	18-151	Ø 150 mm, for medium and hardened steels
TRENO-HP	18-200	Ø 200 mm, for Non-Ferrous, Stainless steels
TRENO-MP	18-201	Ø 200 mm, for medium and hardened steels

Diamond Cutting Discs (1pc) for Precision Cutting

DIMOS	19-100	ø 100 Diamond Cut-off wheels (Metal Bonded)
DIMOS	19-125	ø 125 Diamond Cut-off wheels (Metal Bonded, med. conc.)
DIMOS	19-130	ø 125 Diamond Cut-off wheels (Metal Bonded, high conc.)
DIMOS	19-126	ø 125 Diamond Cut-off wheels (Resin Bonded)
DIMOS	19-150	ø 150 Diamond Cut-off wheels (Metal Bonded, med. conc.)
DIMOS	19-157	ø 150 Diamond Cut-off wheels (Metal Bonded, high conc.)
DIMOS	19-151	ø 150 Diamond Cut-off wheels (Resin Bonded)
DIMOS	19-200	ø 200 Diamond Cut-off wheels (Metal Bonded, med. conc.)
DIMOS	19-205	ø 200 Diamond Cut-off wheels (Metal Bonded, high conc.)
DIMOS	19-201	ø 200 Diamond Cut-off wheels (Resin Bonded)

CBN Cutting Discs (1pc) for Precision Cutting

CBN	19-127	ø 125 CBN Cut-off wheels (Metal Bonded)
CBN	19-152	ø 150 CBN Cut-off wheels (Metal Bonded)
CBN	19-202	ø 200 CBN Cut-off wheels (Metal Bonded)

Diamond Cut-off Wheels (1pc) for METACUT & SERVOCUT

DIMOS	19-250	ø 250 Diamond Cut-off wheels (Metal Bonded, high conc.)
DIMOS	19-251	ø 250 Diamond Cut-off wheels (Resin Bonded, high conc.)
DIMOS	19-300	ø 300 Diamond Cut-off wheels (Metal Bonded, high conc.)
DIMOS	19-301	ø 300 Diamond Cut-off wheels (Resin Bonded, high conc.)
DIMOS	19-400	ø 400 Diamond Cut-off wheels (Metal Bonded, high conc.)
DIMOS	19-401	ø 400 Diamond Cut-off wheels (Resin Bonded, high conc.)

Diamond Cup Grinding Wheels for Thin Sectioning (Micracut 201)

CUPO	19-155	Ø 175 Dýamond cup grinding wheel, 65 mic
CUPO	19-156	Ø 175 Dýamond cup grinding wheel, 35 mic

Cutting Fluid

METCOOL	19-902	Nature Friendly Soluble Oil, 5 lt.
METCOOL II	19-905	Nature Friendly Soluble Oil, 1 lt.
METCOOL NF	19-906	Nature Friendly Soluble Oil, 5 lt. Perfect corrosion protection for reactive metals like copper, brass, cobalt, aluminum, tungsten carbide, etc...
BAND FILTER	YM 6345-00	Polyester filter for Band filter Unit (50 m)

CONSUMABLES

MOUNTING

Hot Mounting

BAK-B	29-001	Black Phenolic Powder,1 kg.
BAK-B	29-001/10	Black Phenolic Powder,10 kgs.
BAK-R	29-002	Red Phenolic Powder, 1 kg.
BAK-R	29-002/10	Red Phenolic Powder, 10 kgs.
BAK-S	29-003	Light Brown Phenolic powder , 1 kg
BAK-S	29-003/10	Light Brown Phenolic powder , 10 kg
NET	29-010	Transparent Acrylic Powder, 1 kg.
EPO	29-011	Epoxy, Hard 1 kg.
DAP	29-012	Diallyphtalat, 1 kg.
CON	29-013	Conductive backalite powder, 0,5 kg
SMOOTH	29-099	Mould Release Spray Can, 400 GR.

Cold Mounting

DMT 15	29-501	Powder, 1000 GR.
DMT 15	29-502	Fluid, 500 ML.
DMT 20	29-511	Powder (Transparent), 1000 gr
DMT 20	29-512	Fluid (Transparent), 500 ml.
DMT CON	29-513	Conductive cold mounting powder 500 gr
DMT CON	59-514	Conductive cold mounting fluid 500 ML
DMT ACE	29-515	Cold mounting powder, soluble with acetone 1000 gr
DMT ACE	29-516	Cold mounting fluid, soluble with acetone 500 ML
EPOCOLD-H	29-505	Epoxy Resin (2x500 ml.)
EPOCOLD-R	29-506	Epoxy hardener (230 ml)

Cold Mounting Accessories

29-551	Spatulas, (100pcs)
29-552	Mixing Beakers, (10pcs)
29-553	Embedding Form, ø 25 mm. (5 pcs)
29-554	Embedding Form, ø 30 mm. (5 pcs)
29-555	Embedding Form, ø 40 mm. (5 pcs)
29-556	Embedding Form, ø 50 mm. (5 pcs)
29-601	Stainless steel clips (100 pcs)
29-602	Plastic clips (100 pcs)

GRINDING

Paper Grinding Discs, Plain Back (1 Pack 100 Pcs.)

DEMPAX	38-020-060	Ø 200 mm Disc, 60 Grit
DEMPAX	38-020-120	Ø 200 mm Disc, 120 Grit
DEMPAX	38-020-180	Ø 200 mm Disc, 180 Grit
DEMPAX	38-020-240	Ø 200 mm Disc, 240 Grit
DEMPAX	38-020-320	Ø 200 mm Disc, 320 Grit
DEMPAX	38-020-400	Ø 200 mm Disc, 400 Grit
DEMPAX	38-020-600	Ø 200 mm Disc, 600 Grit
DEMPAX	38-020-800	Ø 200 mm Disc, 800 Grit
DEMPAX	38-020-1000	Ø 200 mm Disc, 1000 Grit
DEMPAX	38-020-1200	Ø 200 mm Disc, 1200 Grit
DEMPAX	38-020-2500	Ø 200 mm Disc, 2500 Grit
DEMPAX	38-020-4000	Ø 200 mm Disc, 4000 Grit
DEMPAX	38-020-S	Ø 200 mm Mix Grinding Paper set (10 of each from 120 grit to 2500 grit)
DEMPAX	38-040-060	Ø 250 mm Disc, 60 Grit
DEMPAX	38-040-120	Ø 250 mm Disc, 120 Grit
DEMPAX	38-040-180	Ø 250 mm Disc, 180 Grit
DEMPAX	38-040-240	Ø 250 mm Disc, 240 Grit
DEMPAX	38-040-320	Ø 250 mm Disc, 320 Grit
DEMPAX	38-040-400	Ø 250 mm Disc, 400 Grit
DEMPAX	38-040-600	Ø 250 mm Disc, 600 Grit
DEMPAX	38-040-800	Ø 250 mm Disc, 800 Grit
DEMPAX	38-040-1000	Ø 250 mm Disc, 1000 Grit
DEMPAX	38-040-1200	Ø 250 mm Disc, 1200 Grit
DEMPAX	38-040-2500	Ø 250 mm Disc, 2500 Grit
DEMPAX	38-040-4000	Ø 250 mm Disc, 4000 Grit
DEMPAX	38-040-S	Ø 250 mm Mix Grinding Paper set (10 of each from 120 grit to 2500 grit)
DEMPAX	38-050-060	Ø 300 mm Disc, 60 Grit
DEMPAX	38-050-120	Ø 300 mm Disc, 120 Grit
DEMPAX	38-050-180	Ø 300 mm Disc, 180 Grit
DEMPAX	38-050-240	Ø 300 mm Disc, 240 Grit
DEMPAX	38-050-320	Ø 300 mm Disc, 320 Grit
DEMPAX	38-050-400	Ø 300 mm Disc, 400 Grit
DEMPAX	38-050-600	Ø 300 mm Disc, 600 Grit
DEMPAX	38-050-800	Ø 300 mm Disc, 800 Grit
DEMPAX	38-050-1000	Ø 300 mm Disc, 1000 Grit
DEMPAX	38-050-1200	Ø 300 mm Disc, 1200 Grit
DEMPAX	38-050-2500	Ø 300 mm Disc, 2500 Grit
DEMPAX	38-050-4000	Ø 300 mm Disc, 4000 Grit
DEMPAX	38-050-S	Ø 300 mm Mix Grinding Paper set (10 of each from 120 grit to 2500 grit)

Paper Grinding Discs, Foil Back, for CATCHY System(1 Pack 100 Pcs.)

DEMPAX-F	38-020-060F	Ø 200 mm Disc, 60 Grit
DEMPAX-F	38-020-120F	Ø 200 mm Disc, 120 Grit
DEMPAX-F	38-020-180F	Ø 200 mm Disc, 180 Grit
DEMPAX-F	38-020-240F	Ø 200 mm Disc, 240 Grit
DEMPAX-F	38-020-320F	Ø 200 mm Disc, 320 Grit
DEMPAX-F	38-020-400F	Ø 200 mm Disc, 400 Grit
DEMPAX-F	38-020-600F	Ø 200 mm Disc, 600 Grit
DEMPAX-F	38-020-800F	Ø 200 mm Disc, 800 Grit
DEMPAX-F	38-020-1000F	Ø 200 mm Disc, 1000 Grit
DEMPAX-F	38-020-1200F	Ø 200 mm Disc, 1200 Grit
DEMPAX-F	38-020-2500F	Ø 200 mm Disc, 2500 Grit
DEMPAX-F	38-020-4000F	Ø 200 mm Disc, 4000 Grit
DEMPAX-F	38-040-060F	Ø 250 mm Disc, 60 Grit
DEMPAX-F	38-040-120F	Ø 250 mm Disc, 120 Grit
DEMPAX-F	38-040-180F	Ø 250 mm Disc, 180 Grit
DEMPAX-F	38-040-240F	Ø 250 mm Disc, 240 Grit
DEMPAX-F	38-040-320F	Ø 250 mm Disc, 320 Grit
DEMPAX-F	38-040-400F	Ø 250 mm Disc, 400 Grit
DEMPAX-F	38-040-600F	Ø 250 mm Disc, 600 Grit
DEMPAX-F	38-040-800F	Ø 250 mm Disc, 800 Grit
DEMPAX-F	38-040-1000F	Ø 250 mm Disc, 1000 Grit
DEMPAX-F	38-040-1200F	Ø 250 mm Disc, 1200 Grit
DEMPAX-F	38-040-2500F	Ø 250 mm Disc, 2500 Grit
DEMPAX-F	38-040-4000F	Ø 250 mm Disc, 4000 Grit
DEMPAX-F	38-050-060F	Ø 300 mm Disc, 60 Grit
DEMPAX-F	38-050-120F	Ø 300 mm Disc, 120 Grit
DEMPAX-F	38-050-180F	Ø 300 mm Disc, 180 Grit
DEMPAX-F	38-050-240F	Ø 300 mm Disc, 240 Grit
DEMPAX-F	38-050-320F	Ø 300 mm Disc, 320 Grit
DEMPAX-F	38-050-400F	Ø 300 mm Disc, 400 Grit
DEMPAX-F	38-050-600F	Ø 300 mm Disc, 600 Grit
DEMPAX-F	38-050-800F	Ø 300 mm Disc, 800 Grit
DEMPAX-F	38-050-1000F	Ø 300 mm Disc, 1000 Grit
DEMPAX-F	38-050-1200F	Ø 300 mm Disc, 1200 Grit
DEMPAX-F	38-050-2500F	Ø 300 mm Disc, 2500 Grit
DEMPAX-F	38-050-4000F	Ø 300 mm Disc, 2500 Grit

CATCHY System Accessories

CFP	39-083-200	Ø 200 mm, Catchy Fix Plate (1 pcs)
CFP	39-083-250	Ø 250 mm, Catchy Fix Plate (1 pcs)
CFP	39-083-300	Ø 300 mm, Catchy Fix Plate (1 pcs)

Cup Stones for Planar Grinding-Digiprep Plan (1Pcs)

GSW 60	80-150	AL2O3 White Grinding Stone, 60 grit, for hard steels, Dia 150/32 mm
GSR 60	80-151	AL2O3 Pink Grinding Stone, 60 grit, for cast iron, Dia 150/32 mm
GSW 36	80-155	AL2O3 White Grinding Stone, 36 grit, for hard steels, Dia 150/32 mm
GSR 36	80-156	AL2O3 Pink Grinding Stone, 36 grit, for cast iron, Dia 150/32 mm

MAGNETO Diamond Coarse Grinding Discs (1 Pc. Per Pack)

MAGNETO 125	38-020-125	Ø200 MAGNETO Diamond Disc, 125 mic.
MAGNETO 125	38-040-125	Ø250 MAGNETO Diamond Disc, 125 mic.
MAGNETO 125	38-050-125	Ø300 MAGNETO Diamond Disc, 125 mic.
MAGNETO 75	38-020-075	Ø200 MAGNETO Diamond Disc, 75 mic.
MAGNETO 75	38-040-075	Ø250 MAGNETO Diamond Disc, 75 mic.
MAGNETO 75	38-050-075	Ø300 MAGNETO Diamond Disc, 75 mic.
MAGNETO 54	38-020-054	Ø200 MAGNETO Diamond Disc, 54 mic.
MAGNETO 54	38-040-054	Ø250 MAGNETO Diamond Disc, 54 mic.
MAGNETO 54	38-050-054	Ø300 MAGNETO Diamond Disc, 54 mic.
MAGNETO 18	38-020-018	Ø200 MAGNETO Diamond Disc, 18 mic.
MAGNETO 18	38-040-018	Ø250 MAGNETO Diamond Disc, 18 mic.
MAGNETO 18	38-050-018	Ø300 MAGNETO Diamond Disc, 18 mic.

MAGNETO Diamond Fine Grinding Discs (1 Pc. Per Pack)

MAGNETO 6	38-020-006	Ø200 MAGNETO Diamond Disc, 6 mic.
MAGNETO 6	38-040-006	Ø250 MAGNETO Diamond Disc, 6 mic.
MAGNETO 6	38-050-006	Ø300 MAGNETO Diamond Disc, 6 mic.
MAGNETO 3	38-020-003	Ø200 MAGNETO Diamond Disc, 3 mic.
MAGNETO 3	38-040-003	Ø250 MAGNETO Diamond Disc, 3 mic.
MAGNETO 3	38-050-003	Ø300 MAGNETO Diamond Disc, 3 mic.

COMPO Composite Fine Grinding Discs (1 Pc. Per Pack)

COMPO-H	40-010-200	Ø200 COMPO Composite Grinding Disc - for Hard Materials
COMPO-H	40-010-250	Ø250 COMPO Composite Grinding Disc - for Hard Materials
COMPO-H	40-010-300	Ø300 COMPO Composite Grinding Disc - for Hard Materials
COMPO-S	40-020-200	Ø200 COMPO Composite Grinding Disc - for Soft & NF Materials
COMPO-S	40-020-250	Ø250 COMPO Composite Grinding Disc - for Soft & NF Materials
COMPO-S	40-020-300	Ø300 COMPO Composite Grinding Disc - for Soft & NF Materials

Magnetic System Accessories

SMF	39-003-200	Ø 200 mm, Special Magnetic Foil(1 pc)
SMF	39-003-250	Ø 250 mm, Special Magnetic Foil(1 pc)
SMF	39-003-300	Ø 300 mm, Special Magnetic Foil(1 pc)
TMP	39-093-200	Ø 200 mm, Thin Metal Plate(5 pcs)
TMP	39-093-250	Ø 250 mm, Thin Metal Plate(5 pcs)
TMP	39-093-300	Ø 300 mm, Thin Metal Plate(5 pcs)

Polishing Clothes (Self-adhesive, 10 Per Pack)

METAPO-P	39-013-200	Ø 200 mm., for 6 micron diamonds
METAPO-B	39-033-200	Ø 200 mm., for 3-1 micron diamonds
METAPO-V	39-043-200	Ø 200 mm., for 1-0,1 micron diamonds or alumina
FEDO-6J	39-015-200	Ø 200 mm., for 6 micron diamonds
FEDO-3	39-025-200	Ø 200 mm., for 3 micron diamonds
FEDO-1	39-065-200	Ø 200 mm., for 1 micron diamonds
FEDO-1N	39-055-200	Ø 200 mm., for 0,25 micron diamonds
ALSO	39-075-200	Ø 200 mm., for 0,25 mic. diamonds or alumina
WOOL	39-095-200	Ø 200 mm., %100 wool cloth, for 6-3 micron diamonds or alumina
COLLO	39-085-200	Ø 200 mm., for colloidal silica
PETRI	39-090-200	Ø 200 mm., for petrography
NOWO	39-005-200	Ø 200 mm., for 9-1 microndiamonds
MIX	39-200-SPC	Ø 200 mm., (1 of each METAPO-P, METAPO-B, FEDO-3, FEDO-1, FEDO-1N)
METAPO-P	39-013-250	Ø 250 mm., for 6 micron diamonds
METAPO-B	39-033-250	Ø 250 mm., for 3-1 micron diamonds
METAPO-V	39-043-250	Ø 250 mm., for 1-0,1 micron diamonds or alumina
FEDO-6J	39-015-250	Ø 250 mm., for 6 micron diamonds
FEDO-3	39-025-250	Ø 250 mm., for 3 micron diamonds
FEDO-1	39-065-250	Ø 250 mm., for 1 micron diamonds
FEDO-1N	39-055-250	Ø 250 mm., for 0,25 micron diamonds
ALSO	39-075-200	Ø 250 mm., for 0,25 mic. diamonds or alumina
WOOL	39-095-200	Ø 250 mm., %100 wool cloth, for 6-3 micron diamonds or alumina
COLLO	39-085-250	Ø 250 mm., for colloidal silica
PETRI	39-090-250	Ø 250 mm., for petrography
NOWO	39-005-250	Ø 250 mm., for 9-1 microndiamonds
MIX	39-250-SPC	Ø 250 mm., (1 of each METAPO-P, METAPO-B, FEDO-3, FEDO-1, FEDO-1N)
METAPO-P	39-013-300	Ø 300 mm., for 6 micron diamonds
METAPO-B	39-033-300	Ø 300 mm., for 3-1 micron diamonds
METAPO-V	39-043-300	Ø 300 mm., for 1-0,1 micron diamonds or alumina
FEDO-6J	39-015-300	Ø 300 mm., for 6 micron diamonds
FEDO-3	39-025-300	Ø 300 mm., for 3 micron diamonds
FEDO-1	39-065-300	Ø 300 mm., for 1 micron diamonds
FEDO-1N	39-055-300	Ø 300 mm., for 0,25 micron diamonds
ALSO	39-075-200	Ø 300 mm., for 0,25 mic. diamonds or alumina
WOOL	39-095-200	Ø 300 mm., %100 wool cloth, for 6-3 micron diamonds or alumina
COLLO	39-085-300	Ø 300 mm., for colloidal silica
PETRI	39-090-300	Ø 300 mm., for petrography
NOWO	39-005-300	Ø 300 mm., for 9-1 microndiamonds
MIX	39-300-SPC	Ø 300 mm., (1 of each METAPO-P, METAPO-B, FEDO-3, FEDO-1, FEDO-1N)

DIAMOND PRODUCTS

Diamond Pastes, Monocrystalline

DIAPAT-M	39-301-M	Diamond Paste, 0.25 Mic., 10gr. syringe
DIAPAT-M	39-311-M	Diamond Paste, 1 Mic., 10gr. syringe
DIAPAT-M	39-321-M	Diamond Paste, 3 Mic., 10gr. syringe
DIAPAT-M	39-331-M	Diamond Paste, 6 Mic., 10gr. syringe
DIAPAT-M	39-341-M	Diamond Paste, 9 Mic., 10gr. syringe

Diamond Pastes, Polycrystalline

DIAPAT-P	39-301-P	Diamond Paste, 0.25 Mic., 10gr. syringe
DIAPAT-P	39-311-P	Diamond Paste, 1 Mic., 10gr. syringe
DIAPAT-P	39-321-P	Diamond Paste, 3 Mic., 10gr. syringe
DIAPAT-P	39-331-P	Diamond Paste, 6 Mic., 10gr. syringe
DIAPAT-P	39-341-P	Diamond Paste, 9 Mic., 10gr. syringe

Diamond Suspensions, Monocrystalline

DIAPAT-M	39-400-M	Diamond Suspension 0.25Mic. 250 ml, bottle with sprayer
DIAPAT-M	39-410-M	Diamond Suspension 1 Mic. 250 ml, bottle with sprayer
DIAPAT-M	39-420-M	Diamond Suspension 3 Mic. 250 ml, bottle with sprayer
DIAPAT-M	39-430-M	Diamond Suspension 6 Mic. 250 ml, bottle with sprayer
DIAPAT-M	39-440-M	Diamond Suspension 9 Mic. 250 ml, bottle with sprayer
DIAPAT-M	39-411-M	Diamond Suspension 1 Mic. 1 lt, bottle
DIAPAT-M	39-421-M	Diamond Suspension 3 Mic. 1 lt, bottle
DIAPAT-M	39-431-M	Diamond Suspension 6 Mic. 1 lt, bottle

Diamond Suspensions, Polycrystalline

DIAPAT-P	39-400-P	Diamond Suspension 0.25Mic. 250 ml, bottle with sprayer
DIAPAT-P	39-410-P	Diamond Suspension 1 Mic. 250 ml, bottle with sprayer
DIAPAT-P	39-420-P	Diamond Suspension 3 Mic. 250 ml, bottle with sprayer
DIAPAT-P	39-430-P	Diamond Suspension 6 Mic. 250 ml, bottle with sprayer
DIAPAT-P	39-440-P	Diamond Suspension 9 Mic. 250 ml, bottle with sprayer

Diamond Two in One Products, Monocrystalline

DUOPAT-M	39-510-M	A perfect mixture of 1 mic. Diamand suspension & Diamond Lubricant 500 ml, bottle with sprayer
DUOPAT-M	39-520-M	A perfect mixture of 3 mic. Diamand suspension & Diamond Lubricant 500 ml, bottle with sprayer
DUOPAT-M	39-530-M	A perfect mixture of 6 mic. Diamand suspension & Diamond Lubricant 500 ml, bottle with sprayer

Diamond Lubricant

DIAPAT	39-502	Diamond Lubricant, Water-based, 1.0 lt., bottle		
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Alumina Suspensions

ALU-MIK	39-200	Alumina Susp. 0.05 Mic.1.0 lt., bottle		
ALU-MIK	39-210	Alumina Susp. 0.3 Mic.1.0 lt., bottle		
ALU-MIK	39-220	Alumina Susp. 1.0 Mic.1.0 lt., bottle		

Alumina Powder

ALU-MIK	39-100	Alumina Powder 0.05 Mic. 500gr.		
ALU-MIK	39-110	Alumina Powder 0.3 Mic. 500gr.		
ALU-MIK	39-120	Alumina Powder 1.0 Mic. 500gr.		

Coloidal Silica

COL-K(NC)	39-600	Colloidal Silica (1 lt), bottle		
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PORTABLE METALLOGRAPHY

Paper Grinding Discs

Self-Adhesive Back
(1 Pack 250 Pcs.)

DEMPAX-P	90 20	SiC-grinding papers, self-adhesive, 250 pieces (30 mm), 80 Grit		
DEMPAX-P	90 21	SiC-grinding papers, self-adhesive, 250 pieces (30 mm), 120 Grit		
DEMPAX-P	90 22	SiC-grinding papers, self-adhesive, 250 pieces (30 mm), 320 Grit		
DEMPAX-P	90 23	SiC-grinding papers, self-adhesive, 250 pieces (30 mm), 500 Grit		
DEMPAX-P	90 24	SiC-grinding papers, self-adhesive, 250 pieces (30 mm), 800 Grit		
DEMPAX-P	90 25	SiC-grinding papers, self-adhesive, 250 pieces (30 mm), 1200 Grit		

Polishing Cloth

Self-Adhesive Back
(1 Pack 50 Pcs.)

PORTO	90 26	Polishing Cloth (30 mm) for 0,25, 1, 3 microns (50 pcs.)		
RADO	90 27	Polishing Cloth (30 mm) for 6, 9 microns (50 pcs.)		

Diamond Pastes

Monocrystalline

DIAPAT-M	39-301-M	Diamond Paste, 0.25 Mic., 10gr. syringe		
DIAPAT-M	39-311-M	Diamond Paste, 1 Mic., 10gr. syringe		
DIAPAT-M	39-321-M	Diamond Paste, 3 Mic., 10gr. syringe		
DIAPAT-M	39-331-M	Diamond Paste, 6 Mic., 10gr. syringe		
DIAPAT-M	39-341-M	Diamond Paste, 9 Mic., 10gr. syringe		

Diamond Lubricant

DIAPAT	39-502	Diamond Lubricant, Water-based, 1.0 lt., bottle		
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Replica Set & Etching Consumables

REPLI	90 28 90 40 90 41	Cotton rolls (100 pcs) for electrolytic etching Replica foil 35 microns thick, to be used with acetone Microscope slide glasses		
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CONSUMABLES

PETROGRAPHY

SiC Powders

SILCA	40-0120	Silicon Carbide Powder for lapping, grit 120, 500 gr.		
SILCA	40-0320	Silicon Carbide Powder for lapping, grit 320, 500 gr.		
SILCA	40-0400	Silicon Carbide Powder for lapping, grit 400, 500 gr.		
SILCA	40-0600	Silicon Carbide Powder for lapping, grit 600, 500 gr.		
SILCA	40-1000	Silicon Carbide Powder for lapping, grit 1000, 500 gr.		

Diamond Cutting Discs for Geofom&Geocut

DIMOS	19-203	Ø 200 DiamondCut-offwheels(ContinuousBlade) (Geoform)		
DIMOS	19-252	Ø 250 DiamondCut-offwheelsfor hard petrographicapplications (Geocut)		
DIMOS	19-302	Ø 300 DiamondCut-offwheels(ContinuousBlade) (Geocut)		

Diamond Cup Grinding Wheels for Thin Sectioning (Geoform)

CUPO	19-155	Ø 175 Diamond cup grinding wheel, 65 mic		
CUPO	19-156	Ø 175 Diamond cup grinding wheel, 35 mic		

Glass Slides For Thin Sectioning

40 40		Special Box for Slides		
40 41		Standard Slides 27x46x1.27, 144 pcs.		

SPECTROSCOPY

Paper Grinding Discs for SpectraL 250 & 350 (1 Pack 20 Pcs.)

DEMPAX-S	37-020-60-22	Ø200 Disc, P 60 Grit, Corundum, general use, soft medium-hard materials		
DEMPAX-S	37-040-60-22	Ø250 Disc, P 60 Grit, Corundum, general use, soft medium-hard materials		
DEMPAX-S	37-065-60-40	Ø350 Disc, P 60 Grit, Corundum, general use, soft medium/hard materials		
DEMPAX-SZ	36-020-60-22	Ø200 Disc, P 60 Grit, Zirconium oxide, long life time, hard materials		
DEMPAX-SZ	36-040-60-22	Ø250 Disc, P 60 Grit, Zirconium oxide, long life time, hard materials		
DEMPAX-SZ	36-065-60-40	Ø350 Disc, P 60 Grit, Zirconium oxide, long life time, hard materials		
	YM 4256-00	Dust Filter Bag Set (1 Pack 10 pcs)		

Grinding Stones for SpectraL PG/AG (1Pc.)

GSW 60	80-150	AL2O3 Grinding Stone, 60 grit, for medium hard steels, Dia 150/32 mm		
GSR 60	80-151	AL2O3 Grinding Stone, 60 grit, for cast iron and hard steels Dia 150/32 mm		
GSW 36	80-155	AL2O3 Grinding Stone, 36 grit, for medium hard steels, Dia 150/32 mm		
GSR 36	80-156	AL2O3 Grinding Stone, 36 grit, for cast iron and hard steels Dia 150/32 mm		

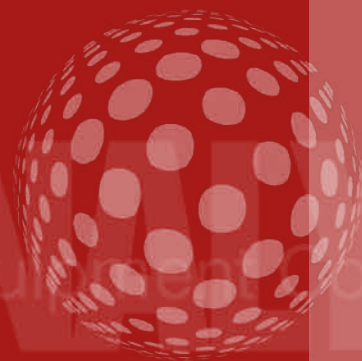
Milling Tips for SPECTRAL MM

TIPO	80-200-K	Milling tips for non-ferrous materials (1 set=10 pcs)		
TIPO	80-201-K	Milling tips for ferrous materials (1 set=10 pcs)		

Milling Tips for SPECTRAL MMax

TIPO	80-200-K	Milling tips for non-ferrous materials (1 set=10 pcs)		
TIPO	80-202	Milling tips for ferrous materials upto 55 HRC (1 set=10 pcs)		
TIPO	80-203	Milling tips for ferrous materials > 55-65 HRC < (1 set=10 pcs)		
TIPO	80-210	Milling tips for deburring (1 set=10 pcs)		

Standard Cutting Discs
CBN Cutting Discs
Cutting Fluids



Equipment Consumables

Hot Mounting Resins

Cold Mounting Resins

ABOUT METKON

Equipment Consumables

Abrasive Cut-off Wheels
Ultra-thin Abrasive Cut-off wheels
Diamond Cutting Discs
CBN Cutting Discs
Cutting Fluids

Equipment Consumables

Hot Mounting Resins
Cold Mounting Resins

GRINDING & POLISHING

Equipment Consumables

Paper Grinding Discs(Plain Back)
Paper Grinding Discs(Self-adhesive)
Diamond Grinding Discs(Magneto)
Diamond Pastes
Diamond Suspensions
Diamond Sprays
Diamond Lubricant
Alumina Powders
Alumina Suspensions
Colloidal Silica
Polishing Clothes
Metkon Magnetic System

Equipment Consumables

SIC powders
Diamond Cutting Discs
Diamond Cup Grinding Wheels

HARDNESS TESTING

MICROSCOPY & IMAGE ANALYSIS

Equipment Consumables

Grinding Papers
Grinding Stones
Milling Tips

SAMPLE PREPARATION FOR SPECTROSCOPY

Equipment Consumables

ABOUT METKON

Grinding Papers
Grinding Stones
Milling Tips

Equipment Consumables

Abrasive
Ultra-thin
Diamond Cutting Discs
CBN Cutting Discs
Cutting Fluids



MOUNTING

GRINDING & POLISHING



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