SOLIDOGRAPHY





Remet) COMPUTERIZED POLISHERS

INNOVATION R Twin

The INNOVATION R TWIN is a computerized grinder polisher for preparation of metallographic samples based on completely automatic cycles managed by a microprocessor. The INNOVATION R TWIN polishers have two working stations and both a washing and drying station. Samples are clamped in a specimen holder, which is attached to the machine with a quick coupling system. The head moves the specimen holder from station to station, performing the preparation cycle following the selected program. Nozzles are connected to the head and they grant the choosen abrasive suspensions.

The running cycle can be interrupted and restarted at any time by pushing a stand-by key.

The working cycles can be programmed and stored inside with the machine switched off or even during the execution of a preparation cycle. The machine is equipped with a main power switch, an emergency stop push button and it complies with all CE standards. The work area is made in AISI 304 stainless steel.

Technical Specifications	Innovation 200 R Twin	Innovation 250 R Twin	Innovation 300 R Twin		
Plate diameter (mm)	200	250	300		
Speed (rpm)	0÷300				
Power (W)	650	700	910		
Power supply	220V / 1-phase				
Weight (kg)	120	150	210		
Dimensions (mm): W	880	960	1200		
D	850	890	950		
Н	680	680	820		





Robomet Robomet **Technical Specifications** 200 250 Plate diameter (mm) Speed plate (rpm) 0÷300 Speed grinding stone (rpm) 1400 2500 Power (W) 380V / 3<u>-</u>phase Power supply Weight (kg) Dimensions (mm): W 1100 1500

ROBOMET

COMPUTERIZED AUTOMATIC POLISHER WITH 6 WORKING STATIONS

ROBOMET is a computerized grinding-polishing machine designed for the preparation of metallographic samples with completely automatic cycles.

The Robomet is designed with the sample holder head surrounded by 5 working stations and one cleaning/drying station.

The samples are clamped in a specimen holder, which is attached to the machine with a quick coupling system in the automatic head. The head moves the specimen holder from station to station, performing the preparation cycle following the selected program. Nozzles for dispensing the abrasive suspension are located in the head and the grinding stone recirculating cooling unit tank is located inside the machine.

The operator is protected from the work area by a plexiglass hood equipped with a safety micro-switch.

ROBOMET carries out the metallographic sample preparation according to the selected method. Every preparation program can be composed by a maximum number of 100 steps, divided into groups of 4 steps at a time. For each step it is possible to set up every parameter of the preparation process.

The machine can store up to 60 different preparation methods in the CPU and it is also possible to record additional cycles on a removable smart card.

The running cycle can be interrupted and restarted at any time by pushing a stand-by key. The working methods can be programmed both while the machine is in process or off line. The machine is equipped with a main power switch, an emergency stop push button and it complies with all CE standards. The work area is made in AISI 304 stainless steel.

Manual Polishers

Heavy duty and corrosion resistant; our polishing machines have chemical resistant oven painted steel bodies, stainless steel drainers and powerful noise free gear driven motors.

The manual polishers are available with wheel diameter of 200, 250, 300, 400 or 600 mm, with fixed or variable speed drives, single or double wheel configurations.





Technical Specifications	LS1	LS2	LS1/LS2 TWIN	LS2A	LS250	LS250 TWIN	LS3	LS3V	LS3V/LS3V TWIN	LS3VA	LS400	COMPUMET
Plate diameter (mm)	200	200	200	200	250	250	300	300	300	300	400	300
Speed (rpm)	300	0÷300	300 0÷300	0÷300	0÷300	O÷300	150/300	0÷300	0÷300 0÷300	0÷300	0÷300	0÷300
Power (W)	180	250	180/250	250/90	250	250	300/450	380	380	380/90	380	380/90
Power supply			220V /	1-phase			380V 3-phase		220	V / 1-ph	ase	
Weight (kg)	31	32	62	50	38	75	42	44	83	70	60	70
Dimensions (mm): W D H	370 500 300	370 500 300	730 500 300	370 500 650	370 500 300	730 500 300	460 630 380	460 630 380	900 630 380	460 630 820	600 675 400	460 630 820



Automatic Polishers



The automatic polishing system "LSA" can be installed on every polisher base. It is pneumatically controlled and it is the ideal tool for dramatically reducing the metallographic sample preparation costs and increasing process repeatability. The automatic system is available in two versions: Central Pressure or Single + Central Pressure.

CENTRAL PRESSURE:

Force is applied to the center of the sample holder.

SINGLE + CENTRAL PRESSURE:

The operator has the choice; force can be applied directly to each sample individually (Single Pressure) or to center of the sample holder.



Single + Central Pressure



COMPUMET 300

The Compumet 300 is a microprocessor controlled machine, with programmable preparation procedures and data storage for a completely repeatable process.



Automatic Dispenser

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Designed for dispensing abrasive suspensions and lubricants to be used with automatic polishers to achieve automatic, unattended specimen preparation. Our automatic dispensers have a programmable timer for presetting the total working time and a timer to adjust the spray/pause time of the fluid being applied. Available in 3 bottle or 4 bottle configurations.



A wide range of standard sample holders are available. It is also possible to manufacture special holders for specific needs.



This electrolytic polisher makes it easy to polish and etch even the most difficult specimens where traditional methods prove to be challenging. Pulitrol is available in both a tabletop version and a portable version. This machine consists of a power supply and programming unit that controls the polishing and etching of the specimen.

The control unit incorporates the programming/monitoring functions for polishing, etching, voltage, current, time and electrolyte flow. The machine is supplied with a set of fundamental electrolytes.

Technical Specifications	PULITROL
Polishing	0-120V a 0-10A
Etchant	0-20V a 0-5A
Power supply	220V / 50Hz
Power max. (W)	1200
Timer (sec.)	0-60
Weight (kg)	30
Dimensions (mm): W	500
D	300
Н	200



Mechanical Automatic Systems

These simple automatic systems can be mounted on any polisher and allows the economic preparation of several metallographic specimens at the same time.

Force supplied by a preloaded spring:

Force is supplied by an adjustable spring applying pressure to the sample holder.

These automatic systems can be used for preparing specimens of any shape, size and material.



MINIMO Portable Polisher

Portable grinding and polishing machines for on-site non-destructive metallographic preparation.

Technical Specifications	MINIMO
Disc diameter (mm)	32
Power supply	220V / 1-phase
Handle	90°
Handle power supply	Low voltage
Handle speed (rpm)	1400÷14200



COMPUPLAN

Powerful and fast plane grinding machine for pre-grinding of metallographic and spectrographic samples. Using this machine, sample preparation time and cost can be remarkably decreased. It drastically reduces the subsequent grinding and polishing time and allows to save consumables.



Technical Specifications				
Grinding stone dimensions (mm)	d.365 x 55			
Abrasive belt (mm)	115			
Power of grinding stone motor (kW)	3			
Grinding stone speed (rpm)	1500			
Grinding stone stop	Magnetic brake			
Max. diameter sample holder (mm)	200			
Sample holder speed (rpm)	150			
Sample holder rotation	Bi-direcional			
Power sample holder motor (kW)	0,25			
Max. working pressure (bar)	6			
Working force (N)	200÷700			
Cooling system	Recirculation system			
Power pump motor (kW)	0,12			
Weight (kg)	250			
Dimensions (mm): W	600			
D	775			
Н	1440			

Thin Sections

This system allows the preparation of very thin sections, and allows the operator to section a specimen to a desired thickness.

It consists of:

- Variable low speed polisher LS2 or LS3V (0-150 rpm)
- Precision thinning device with micrometric thickness control and vacuum holder for specimens or glass slides.
- Vacuum impregnation apparatus (necessary for brittle and porous materials
- Vacuum pump
- Black granite surface plate with dial gauge

This system, having the micrometric thinning adjustment, is useful for preparing flat plane-parallel specimens within a few micron tolerance and for thinning samples to a desired thickness for stratigraphic analysis.



Metallographic Consumables

REMET offers a wide range of standard and special consumables for your sample prepairation needs:

- Abrasive Cut-off wheels and diamond abrasiv wheels
- Abrasive grinding discs with or without self adhesive backing
- Polishing cloths
- Diamond paste, diamond spray, diamond suspensions
- Diamond discs for grinding and polishing
- Alumina and OPS for lapping
- Cold and hot mounting resins
- Etchants
- Collections of metallographic samples, atlases and specialistic books.

The range of consumables is increased by a new family of innovatory products, that drastically shortens the metallographic preparation time by reducing the number of steps and the changing time, thanks to the great operating life and the possibility of magnetic backing products.

- Diamond disks for fast grinding
- Pre-polishing discs to be used with diamond sprays

Technical Furniture

Modular technical furnishing systems to create work benches of any dimension. Modular components are available with internal shelves, drawers, sinks, angular cabinets, and with different heights to be used as workbenches or desks.

This furniture is manufactured with sturdy fireproof and waterproof panels and scratch resistant laminate or tiled worktops are available.



MULTIFUNCTIONAL CARINET.

Used as a metallographic samples storage cabinet with plastic containers for 30 to 50 mm samples. Without the plastic containers it can be used for a variety of purposes.



AUTOMATIC MOUNTING PRESSES WITH INTERCHANGEABLE MOLD ASSEMBLY



Automatic Mounting Presses IPA Series

These mounting presses quickly produce high quality embedded metallographic samples with every type of mounting resin. The mounting cycle is controlled by a microprocessor with a user-friendly touch panel. These mounting presses can meet the needs of any metallurgical laboratory.

AUTOMATIC PRESSES

Operated by compressed air. The only tasks are positioning the specimens and pouring the resin. SEMI-AUTOMATIC PRESSES

Equipped with a hand operated hydraulic cylinder. Automatically restores the operating pressure to compensate for the decrease in pressure due to the melting of the resin during the mounting process. INTERCHANGEABLE MOLDING UNITS

Both automatic and semiautomatic presses have a full range of mounts with different diameters that can easily be changed to produce your desired mount diameter.

Technical Specifications	IPA 30	IPA 40	IPA TI	IPA SA 30	IPA SA 40	IPA SA TI
Mounting diameter (mm)	30	40	20÷65	30	40	20÷65
Max heating temperature (°C)				200		
Max mounting time (min)		99				
Power (kW)	0,6	0,65	0,6÷0,7	0,6	0,65	0,6÷0,7
Power supply	220V / 1-phase					
Weight (kg)	40	42	43	35	36	38
Dimensions (mm): W	400	400	400	225	225	225
D	400	400	400	480	480	480
Н	510	510	510	680	680	680



Automatic Mounting Presses EVOLUTION Series

The Evolution Series mounting presses have a compact design and they are perfect for the labs that are using phenolic and epoxy mounting resins. These automatic presses are microprocessor controlled, they have heavy duty metal housings and are capable of making mounts from 25mm to 40mm in diameter.

Technical Specifications	IPA 30 E	IPA 40 E	IPA E TI		
Mounting diameter (mm)	30	40	25÷40		
Max heating temperature (°C)	C) 200				
Max mounting time (min)	99				
Power (kW)	0,6	0,65	0,6÷0,7		
Power supply	220V / 1-phase				
Weight (kg)	25				
Dimensions (mm): W	225	225	225		
D	480	480	480		
Н	680	680	680		



Hydraulic and Computerized Mounting Presses

The automatic hydraulic mounting press enables it's user to mount metallographic samples with every kind of hot mounting resin. Fully automatic mounting process is controlled by a microprocessor, which allows samples to be completed economically and safely. The sturdy body is oven painted steel and all machine controls (power switch, cycle start/stop, piston operations) are centrally located to comply with all CE standards. Mounting pressure is supplied by an electro-hydraulic system: it's 100 bar maximum pressure is controlled by a built in pressure gauge. The mold assembly is made with special lapped hardened steel. The machine is supplied with a mold assembly for d. 50 mm mounts, but it is possible to quickly change the mold assembly to produce mounted samples from d. 25 mm to d. 50 mm. The screw closure system of the mold assembly is safe and easy to use. The electric resistance heating system is digitally controlled. Cooling of the unit is achieved by a water circuit; which is connected to a water supply, it is automatically opened at the end of the heating process. Both heating and cooling temperatures can be preset. An audio signal informs the operator when the cycle is completed.

This fully automatic hydraulic press is controlled by a microprocessor with a user-friendly touch panel.

This machine is recommended when high molding pressures

This press is extremely quiet, due to the elecronic pressure control that stops the hydraulic system

are needed.

when the programmed working load has been reached. A full range of mounts with different diameters can be produced simply by changing the mold assembly with a very fast system.



Technical Specifications	COMPUPRES	IPA	
Mounting diameter (mm)	25-	÷50	
Max. heating temperature (°C)	20	00	
Max. mounting time (min)	99		
Pressure (bar)	100		
Power (kw)	0,7		
Power supply	220V / 1-phase		
Weight (kg)	50 55		
Dimensions (mm): W	510	400	
D	605	500	
Н	526	510	



MICROCUTTERS FOR RESEARCH (Remet



Micromet EVOLUTION

Available in MANUAL and SEMI-AUTOMATIC, our Micromet Evolution Series is a compact and cost effective machine that is ideal for precision cuts of delicate work pieces.



Technical Specifications				
Max cut-off wheel diameter (mm)	150			
Max cutting diameter (mm)	45			
Motor power (W)	95			
Cut-off wheel speed (rpm)	0÷2.100			
Pump output (litre/min)	8			
Tank capacity (litres)	2,6			
Semiautomatic working load (kg)	0,5			
Cross arm travel (mm)	25			
Weight (kg)	15			
Power supply	220V / 1-phase			
Dimensions (mm): W	310			
D	300			
Н	300			

Micromet Manual, Semi-automatic and Automatic



The Micromet series Cut-Off Machines are available in AUTOMATIC, SEMI-AUTOMATIC and MANUAL versions.

These machines are ideal for precision cutting of delicate samples. These machines have: variable speed blades, variable working load, accurate micrometric positioning, stainless steel bases and a large transparent cutting hood made of shock resistant plexiglass.



Technical Specifications		MICROMET Semiautomatic	MICROMET Manual		
Max cut-off wheel diameter (mm)	150	200	200		
Max cup wheel diameter (mm)		150	•		
Max cutting diameter (mm)	50	60	60		
Motor power (W)		200			
Cut-off wheel speed (rpm)	0 ÷ 3000				
Pump output (litre/min)	8				
Tank capacity (litres)	5,5 4 4				
Max working load (kg)	3,5	1	Manual		
Cross arm travel (mm)		25			
Weight (kg)	40	38	36		
Power supply	220V / 1-phase				
Dimensions (mm): W	500	500	500		
D	600	460	460		
Н	420	380	380		

Sample Holders



- For irregular shaped samples
- Vacuum type
- Flat for samples to be glued Mechanical type for glass slides
- With "V" groove for bars and tubes
- For cylindrical samples (d. max 40 mm)
- G For thin samples
- Goniometric holder, rotation 360°
- L Micro vice

SECOTRON 200 - 300





The Secotron 200 is a 3 axis precision cutter. Cutting is performed with a longitudinal feeding work table with controlled feed rate and cutting pressure. The height of the cut-off wheel and the "X" position of the samples can be adjusted to obtain extremely accurate cuts. Available PLC controls make this cut-off machine suitable

for high precision applications.

Technical Specifications	Secotron 200	Secotron 300	
Max cut-off wheel diameter (mm)	200	300	
Motor power (W)	800	4.000	
Cut-off wheel speed (rpm)	0 ÷ 3	3.000	
Pump output (litre/min.)	11	20	
Tank capacity (litres)	10	80	
Table longitudinal travel (mm)	250	400	
Table speed (mm/sec.)	0,02 ÷ 2		
Table cross-feed travel (mm)	50	100	
Cut-off wheel vertical travel (mm)	50	200	
Weight (kg)	75	150	
Power supply	220V / 1-phase	380V / 3-phase	
Dimensions (mm): W	620	700	
D	600	750	
H	450	550	



CUT-OFF MACHINES FOR LABORATORY Remet

EVOLUTION cut-off machines



The Evolution Series abrasive cut-off machines are compact and cost effective bench top cutters with stainless steel components, plexiglass hood, tubular aluminum frame and electroless nickel plated vise support.

The ergonomic controls are located on the handle. Removable side port allow for the sectioning of long work pieces. The machines weight and design provide excellent stability.

Technical Specifications	TR 80 E	TR 100 E
Max cutting diameter (mm)	80	100
Cutting wheel diameter (mm)	250	300
Distance cut-off wheel spindle/work table (mm)	230	240
Motor power (kW)	1,3	2,2
Coolant tank capacity (litres)	18	20
Power supply	380V / 220 (others or	V / 3-phase request)
Weight (Kg)	80	100
Dimensions (mm): W	625	625
D	730	730
Н	550	550



TR 100 E Automatic

Metallographic cut-off machines

Available in Bench top and floor standing models this series of Metallographic Cutters have large work areas and powerful motors with Poly-V belt drives. The stainless steel body, strong plexiglass hood with anodized aluminum frame and electroless nickel plated components are highly corrosion resistant. The bench top models come with integrated coolant recirculating systems while the

floor models have external coolant recirculating systems. We offer many custom features such as power feed systems, table feed systems and

other modifications to meet your specific needs.



Clamping systems



TR 60 with pneumatic clamping system



TR 80 with longitudinal table and PLC controlled



TR 100 with cross feed table





	Technical Specifications	TR 60	TR 70	TR 80	TR 80	TR 100	TR 100
	roemical opocinications		111.70	bench top	floor model	bench top	floor model
	Max cutting diameter (mm)	60	70	80	80	100	100
	Cut-off wheel diameter (mm)	200	230	250	250	300/350	300/350
	Distance cut-off wheel spindle/work table (mm)	220	230	280	280	300	300
	Motor power (kW)	1,1	1,3	2,2	2,2	3/3,7	3/3,7
4	Tank capacity (litres)	20	20	25	40	25	40
	Power supply	380V / 3-phase (others on request)					
	Weight (kg)	100	105	130	160	145	175
	Dimensions (mm): W	800	800	850	850	900	900
	D	910	910	1030	1030	1030	1030
	Н	590	590	640	1490	680	1530



steel tank with support loom

CUT-OFF MACHINES FOR LARGE CUTS

TR100 S and TR100 L



These robust and powerful cut-off machines are designed to cut large irregular shaped samples. The stainless steel body, strong plexiglass hood with anodized aluminum frame and electroless nickel plated components are highly corrosion

These floor model machines come with large capacity external coolant recirculating systems and supporting machine stands/cabinets. We offer many custom features such as power feed systems, table feed systems and other modifications to meet your specific needs.

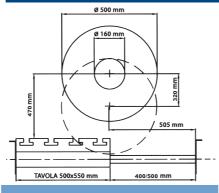
Technical Specifications	TR 100 S floor model	TR 100 S longitudinal work tablle	TR 100 L floor model	
Max cutting section (mm)	100/120	100 x 400	120 x 550	
Cut-off wheel diameter (mm)	300/350	300/350	350/400	
Distance cut-off wheel spindle/work table (mm)	420	300	320	
Motor power (kW)	3/3,7	3/3,7	3,7	
Tank capacity (litres)	50	50	100	
Power supply	380V / 3-phase (others on request)			
Weight (kg)	210	240	280	
Dimensions (mm): W	800	800	900	
D	840	1150	1370	
Н	1800	1800	1465	



SECOMET 400 - SECOMET 500

A large and powerful cut-off machine for cutting very large and irregular shaped work pieces. 3-axis, X-Y-Z movement capabilities. Smooth hydraulic downward movement of the cut-off wheel, with longitudinal and cross-feed movement of the work table.

All movements can be automated. Very sturdy structure with stainless steel interior, strong plexiglass hood with anodized aluminum frame and electroless nickel plated worktable. Liquid coolant is pumped from the stainless steel wheeled tank with a separate container for collecting cutting swarf.



Technical Specifications	SECOMET 400	SECOMET 500	
Max cutting capacity (mm)	170 X 400	170 X 500	
Cut-off wheel diameter (mm)	500	500	
Distance cut-off wheel spindle/work table (mm)	470	470	
Motor power (kW)	11	11	
Coolant tank capacity (litres)	250	250	
Power supply	380V / 3-phase		
Weight (kg)	1200	1400	
Dimensions (mm): W	1100	1100	
D	1900	2000	
Н	1700	1700	



Bar Cutters



Manual and automatic machines for cold cut with high accuracy and flatness in the production environment of high-frequency hardened bars, chromed bars, etc.

Technical Specifications	TG 250 M	TG 250 A	TG 300 M	TG 300 A	
Max cutting capacity (mm)	80	80	100/120	100/120	
Cut-off wheel diameter (mm)	250	250	300/350	300/350	
Motor power (kW)	2,2	2,2	3/4	3/4	
Coolant tank capacity (litres)	40	40	50	50	
Power supply	380V / 3-phase				
Weight (kg)	165	165	180	180	
Dimensions (mm): W	850	1050	900	110	
D	1200	1200	1200	1200	
Н	1490	1490	1530	1530	



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