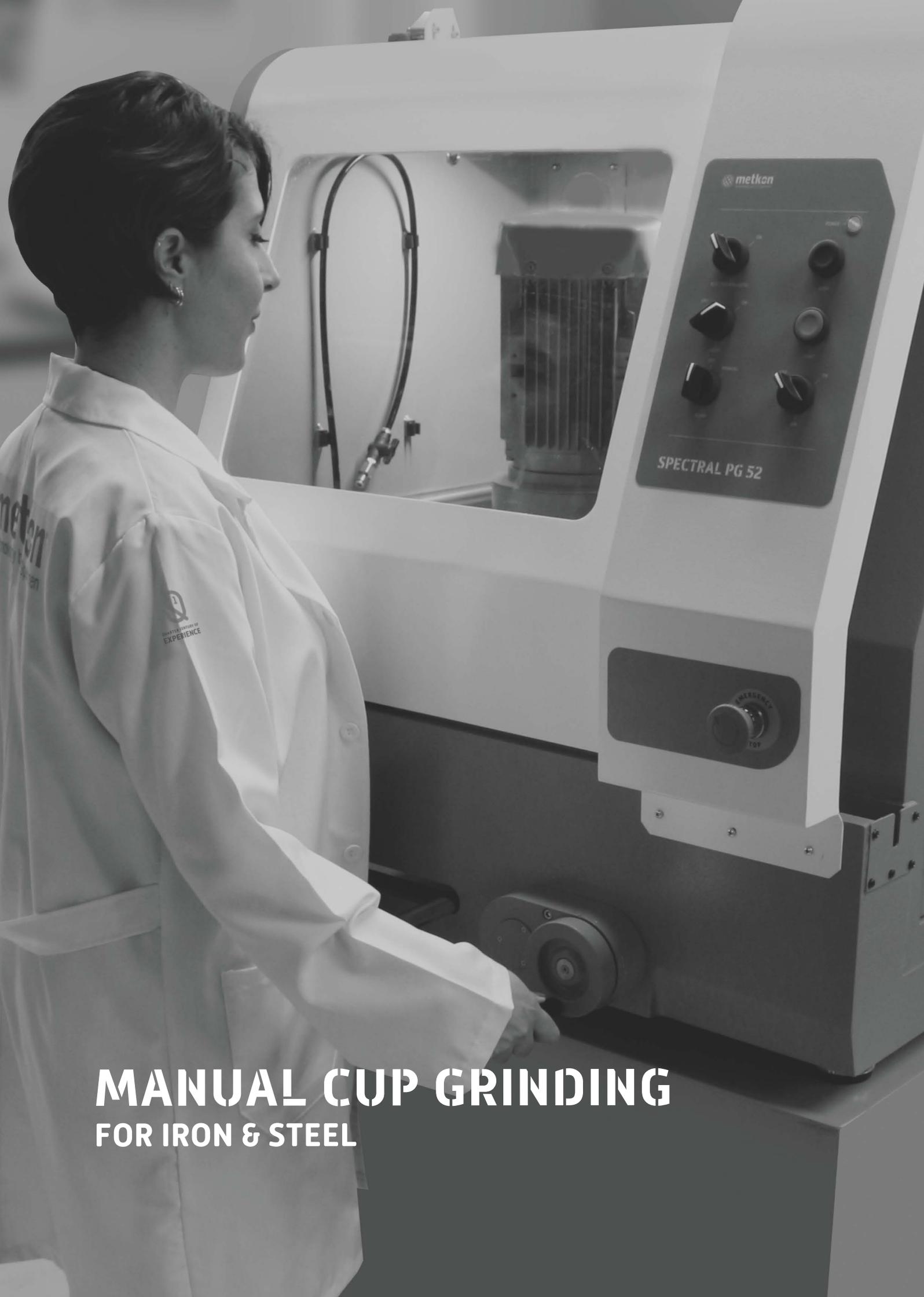




SAMPLE PREPARATION

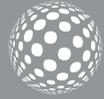
SPECTRAL PG 52





MANUAL CUP GRINDING FOR IRON & STEEL

SPECTRAL PG 52



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.



SPECTRAL PG 52

SPECTRAL PG 52 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 spot light. The front cover can be completely opened for easy access to all sides.

SPECTRAL PG 52 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 52 is especially suitable to grind hard materials like white cast irons. It is also possible to prepare other materials by using special stone cup wheels which are easy to exchange.

Vertical movement (Z-axis) of grinding head is by handwheel in front and positioning with 0,01 mm accuracy is possible. Reproducible flat surfaces are achieved with column mounted on taper bearings. Manual V-shaped clamping vice and Mechano-magnetic plates are available as accessories.

Spectral PG 52 is equipped with braking device permitting a rapid stop of the grinding wheel. The machine is fitted with an interlocking safety device not allowing the hood being opened before the grinding motor is stopped.



SPECTRAL PG 52 Grinding Machine



Mechanical 3-jaw Chuck



Mechanical Clamping Device



Electromagnetic Clamping Device



Ergonomic Operation

Kemet International Limited

Parkwood Trading Estate, Maidstone, Kent, ME15 9NJ, UK

Tel: +44(0) 1622 755287 Email: sales@kemet.co.uk Web: www.kemet.co.uk



Sample Preparation for Spectroscopy

Optical emission spectrometry (OES) and X-Ray fluorescence are most commonly used techniques for the analysis of metals and solid samples.

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. For the preparation of solid metal samples METKON offers manual and automatic sample preparation machines - from the small table-top disc surface grinder to automatic milling machine. With METKON Sample Preparation Machines, you feel yourself ready for the analysis.



Kemet International Limited

Parkwood Trading Estate, Maidstone, Kent, ME15 9NJ, UK

Tel: +44(0) 1622 755287 Email: sales@kemet.co.uk Web: www.kemet.co.uk

SPECIFICATIONS

ORDER NO	81 03
MODEL NO	PG 52
Grinding motor power, Kw, (S1)	3
Grinding wheel Speed, (rpm)	2800
Cup wheel Diameter, (mm)	150
Radius of arc	68
Travel, mm	203
Z-Axis Stroke, (mm)	60
Operation	Manual
Dimensions, WxDxH, (cm)	94 x 83 x 97
Dimensions, WxDxH, (cm),with cabinet	94 x 83 x 175
Weight, (kgs)	300
Weight, (kgs),with cabinet	385

81 03

— SPECTRAL PG 52

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 3 kW and 2800 rpm, with electronic brake system and overload protection, extraordinary access with sliding door, 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, sample cooling available with water cooling and/or compressed air, complete and ready for operation. Standard packing included. Without clamping devices. Without cooling tank. 400V, 3-phase, 50 Hz.

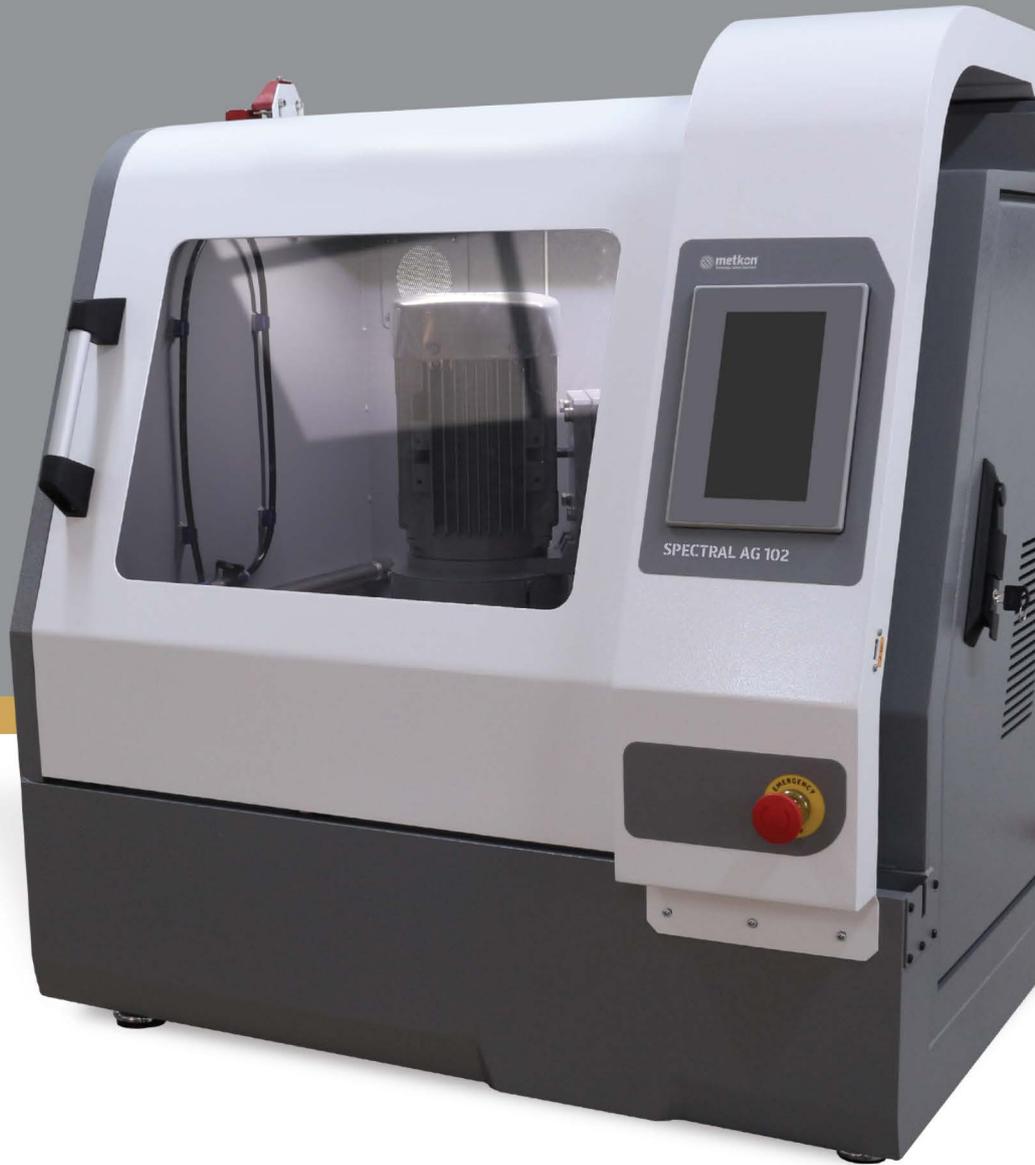
Accessories for Spectral PG 52

- GR 1943 Mechanical 3-jaw chuck
- GR 1801 Mechanical clamping device for samples up to 60 mm.
- GR 1948 Universal Jaws for Mechanical Clamping Device (GR 1801)
- GR 1949 Jaws for Thin Specimens for Mechanical Clamping Device (GR 1801)
- GR 1942 Permanent Magnetic Clamping Device, 100x150 mm.
- GR 1820 Electromagnetic clamping plate
- GR 1907 Floor Cabinet for FORCIPLAN 52/SPECTRAL MM/PG/AG 102
- GR 1945 Recirculating coolant tank, stainless steel, 55 lt. capacity, with pump, hoses etc.
- YM 8813 Fine filter sheets for recirculation cooling tank (GR 1945), 10 pcs
- GR 1540 Magnetic collector rod for recirculation cooling tank

Spare Part Kit for SPECTRAL PG 52

- GR 1944 Recommended Set of Spare Parts, SPC PG 52

* Other voltages and frequencies available upon request. Please state when ordering. All specifications are subject to change without notice.



SAMPLE PREPARATION

SPECTRAL AG 102





en
specimen



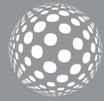
SPECTRAL AG 102

EMERGENCY
STOP

AUTOMATIC CUP GRINDING FOR IRON & STEEL



SPECTRAL AG 102



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.

SPECTRAL AG 102

SPECTRAL AG 102 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 102 is equipped with automatic sample feed with fine speed control. Fast advance and reverse are available. Automatic cup wheel positioning is done with a high precision measurement system. This ensures extremely precise positioning with shorter times. All important parameters of the grinding process like feedrate and grinding depth are adjustable on the touch screen LCD. Pneumatic Clamping Device, Electromagnetic clamping device and T-slotted table are offered as optional accessories.

Air cooling unit is strongly recommended so that the surface temperature of the sample is kept at an optimum. The entire working area is totally enclosed. Electronic brake is integrated to the system for a rapid stop of the grinding stone. The interlocking safety device does not allow the hood to be opened before the grinding motor is stopped.

The front sliding door can be completely opened for easy access and handling. A large window of Lexan and a sealed LED lamp in the grinding chamber allow precise observation of the cutting process at an optimum degree of safety.

Spectral AG 102 can be equipped with automatic Sample Height Measurement System with automatic dressing of cup grinding stone for full cyclic operation.

Automatic Dressing

An automatic diamond dresser keeps the grinding stone plane and sharp for optimum performance and precise results. The multi-pass grinding depth is monitored accurately with material height measurement system. Instead of relying on preparation time, the necessary amount of material to be removed can be specified with the shortest possible grinding time.



SPECTRAL AG 102 with cabinet

Safety

SPECTRAL AG 102 automatic grinding machine has the highest safety standards. The interlocking safety device does not allow the motor to be started unless the sliding door is closed. The sliding door cannot be opened before the grinding motor is stopped. The electronic brake system, which is a standard feature, brings the grinder to a quick full stop in seconds after it has been switched off.



Pneumatic Clamping Device



Electromagnetic Clamping Device



Automatic Dressing



Air Cooling System

Kemet International Limited

Parkwood Trading Estate, Maidstone, Kent, ME15 9NJ, UK

Tel: +44(0) 1622 755287 Email: sales@kemet.co.uk Web: www.kemet.co.uk

AUTOMATIC OPERATION

Automatic Operation

SPECTRAL AG 102 has advanced techniques and software with programmable HMI touch screen controls increasing the productivity, sample consistency and operator comfort.

Controlled Material Removal

SPECTRAL AG 102 allows you to preset the amount of material to be removed very accurately. The vertical movement of the grinding head is motorized with digital positioning and display on the touch screen LCD. The robust design of the column guarantees high reproducibility. The material to be removed from the specimen can be preset in increments of 10 microns

Grinding Parameters

The preselection of the grinding feed rate is possible from the touch screen LCD. The feed rate is automatically adjusted, if needed reduced, resulting in perfect surfaces and eliminating sample and machine damage.

Multi-pass Grinding

SPECTRAL AG 102 can be programmed to make multi-pass plane parallel grinding operations. It is possible to set the number of passes and the grinding depth of each pass which can be stored under a program number or name.

Programmable Return Positions

SPECTRAL AG 102 has 3 different stop modes:

Auto stop: Stops when the specimen has been through.

Relative Stop: Stops when it has returned to its starting point.

Absolute Stop: Stops when the ultimate reset point in all axes has been reached.



HMI touch screen controls with various grinding methods and database with grinding programs and maintenance monitoring



Database

A library of 99 different grinding programs with related specimen name or number can be saved with all grinding parameters which can be recalled at any time. Data with Metkon grinding cups is also listed for easy selection.



Kemet International Limited

Parkwood Trading Estate, Maidstone, Kent, ME15 9NJ, UK

Tel: +44(0) 1622 755287 Email: sales@kemet.co.uk Web: www.kemet.co.uk



Sample Preparation for Spectroscopy

Optical emission spectrometry (OES) and X-Ray fluorescence are most commonly used techniques for the analysis of metals and solid samples.

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. For the preparation of solid metal samples METKON offers manual and automatic sample preparation machines - from the small table-top disc surface grinder to automatic milling machine. With METKON Sample Preparation Machines, you feel yourself ready for the analysis.



Kemet International Limited

Parkwood Trading Estate, Maidstone, Kent, ME15 9NJ, UK

Tel: +44(0) 1622 755287 Email: sales@kemet.co.uk Web: www.kemet.co.uk

SPECIFICATIONS

ORDER NO	81 05
MODEL NO	AG 102
Grinding motor power, Kw, (S1)	3
Grinding wheel Speed, (rpm)	2800
Cup wheel Diameter, (mm)	150
Radius of arc	-
Travel, mm	-
Table Feedrate, (mm/sn)	10-250
Y-Axis Stroke, (mm)	210
Z-Axis Stroke, (mm)	60
Operation	Automatic
HMI Touch Screen	7"
Program Memory	99
Grinding Depth Accuracy, (µ)	10
Dimensions, WxDxH, (cm)	94 x 83 x 97
Dimensions, WxDxH, (cm),with cabinet	94 x 83 x 175
Weight, (kgs)	300
Weight, (kgs),with cabinet	385

81 05

— SPECTRAL AG 102

Automatic Grinding Machine for fast spectroscopic sample preparation of iron and steel samples, bench top compact design, Programmable with colored 7" HMI touch screen control, with Siemens PLC control unit, accurate and motorized positioning in Y and Z axis, closed housing, max. safety provided with interlocking switch, large working space with LED lighting, extraordinary access for easy handling with sliding door, automatic sample feeding with adjustable fine speed, controlled material removal from the specimen with accuracy of 0.01 mm grinding depth, high torque 3 kW grinding motor, with electronic brake system and overload protection, with 2800 rpm speed to obtain optimum surfaces on different materials, all parameters on colored LCD display, sample cooling available with water cooling and/or compressed air, ready for operation. Without clamping devices. Without cooling tank. 400V, 3-phase, 50Hz.

Accessories for Spectral AG 102

- GR 1819** — Pneumatic Clamping Device with 3-Jaws (To be ordered simultaneously together with the machine order)
 - GR 1929** — Electromagnetic clamping plate (To be ordered simultaneously together with the machine order)
 - GR 1922** — 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 1842** — Automation Software for full cyclic operation. (To be ordered simultaneously together with GR 1828)
 - GR 1816** — T-slotted table
 - GR 1945** — Recirculating coolant tank, stainless steel, 55 lt. capacity, with pump, hoses etc.
 - YM 8813** — Fine filter sheets for recirculation cooling tank (GR 1945), 10 pcs
 - GR 1540** — Magnetic collector rod for recirculation cooling tank
 - GR 1907** — Floor Cabinet for FORCIPLAN 52/SPECTRAL MM/PG/AG 102
- Spare Part Kit for SPECTRAL AG 102**
- GR 1927** — Recommended Set of Spare Parts, SPC AG 102

* Other voltages and frequencies available upon request. Please state when ordering. All specifications are subject to change without notice.

Kemet International Limited

Parkwood Trading Estate, Maidstone, Kent, ME15 9NJ, UK

Tel: +44(0) 1622 755287 Email: sales@kemet.co.uk Web: www.kemet.co.uk