



SAMPLE PREPARATION

SPECTRAL
250/350







SPECTRAL 250/350



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 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 exhaustor are additional advantages.

250 mm grinding disc is dynamically balanced for smooth running. Grinding paper is sucked to the grinding disc which does not require any glue. Papers with 40-120 grit can be used to obtain the desired surface quality. The grinding disc is covered halfway by a lid, allowing grinding only in a segment. A safety switch guarantees automatic switch off when the lid is opened.



SPECTRAL 350



SPECTRAL 350-1 Single Disc Grinder

SPECTRAL 350 is 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 Series are equipped with a strong aspiration device in addition to its special design, increasing vacuum for suction which retains the abrasive paper on the disc, eliminating the requirement for any adhesives or fixing attachments. Therefore, the abrasive papers can be used on their full widths and are very easy to exchange. The integrated dedusting system with spark trap allows a dust-free operation.

The grinding disc is covered halfway by a lid and the sheet metal allows grinding only in a segment for operator comfort and protection.

The machine is fitted with an interlocking safety device. When the lid is opened or the emergency button is depressed, the motors are stopped immediately.

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.

CLAMPING VICES

The heat generated during grinding operation can create difficulties in handling for the operator. To overcome these difficulties METKON offers a number of special clamping devices for use with SPECTRAL Series.

Magnetic and mechanical specimen holders for samples up to 50 mm. dia. available ensure maximum operator safety.



Magnetic Type Sample Holder



Mechanical Type Sample Holder



SPECTRAL 350-2 Double Disc Surface Grinder



Vacuum Suction of Grinding Paper

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.

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SPECIFICATIONS

ORDER NO	80 06	80 02-1	80 02	80 02-2S
MODEL NO	250	350-1	350-2	350-2S
Number of Stations	1	1	2	2
Wheel Diameter	250	350	350	350
Wheel Speed, rpm	2800	2800	2800	1400/2800
Motor Power	1,1	2,2	2 x 2,2	2 x 2,2
Dust exauster	Yes	Yes	Yes	Yes
Paper Adjustment	Vacuum	Vacuum	Vacuum	Vacuum
Dimensions, WxDxH, cm	35 x 45 x 33	75 x 60 x 90	110 x 60 x 95	110 x 60 x 95
Weight	40	120	205	205

80 00

— 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., with
rotation speed of 2800 rpm, 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.

80 02-1

— 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 of
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.

80 02

— SPECTRAL 350-2

Dual Disc Surface Grinder
for spectroscopic sample preparation of steels and irons,
course and fine grinding possible on two separate
independent 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.

80 02-2S

— SPECTRAL 350-2S

Dual Disc Surface Grinder
as above, but with two speeds 1400/2800 rpm.

GR 1804

GR 1805

Sample Holders for Spectral 250/350

- Sample Holder for round specimens, Magnetic type.
- Sample Holder for round specimens, Mechanical type.

GR 1850

Spare Part Kit for Spectral 350

- Recommended Set of Spare Parts, SPC 350

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

