



CUTTING

METACUT

250/300/350



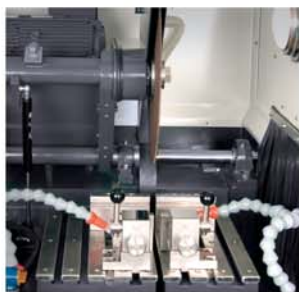
METKON METACUT chop cutting machines are the ideal abrasive cut-off machines for metallographic samples, offering perfect solutions for efficient, versatile and high-quality cutting.

- Compact and powerful
- Easy and quick operation
 - Designed for cutting large and irregular workpieces
 - Manually controlled cutting lever
 - Max. safety with electronic brake and interlocking safety device
 - Stainless steel cutting bed

Design

METKON chop cutting machines METACUT series are designed for wet cutting of large and small, regularly or irregularly shaped workpieces of metallic, ceramic or composite materials. METACUT 250 has the capacity to cut solid sections up to 90 mm in diameter. The cutting capacity of METACUT 300 is 110 mm and of METACUT 350 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 quick-clamping devices are removable to permit the installation of conventional clamping tools to hold larger or more intricate workpieces.

METACUT 350, due to its large size and capacity, already has its floor cabinet integrated as standard.



Large cutting chamber



Front Panel



METACUT 350 Abrasive Cutter



METACUT 300 Abrasive Cutter



The complete system is enclosed in a protective hood with a large shatter proof window to observe the cutting process. The cutting chamber inside is illuminated with a 12-Volt sealed lamp.

METACUT 300 is available in two versions;
 Model 10 02 with fixed rotational speed of 2800 rpm
 Model 10 02 V with variable rotational speeds 2000-2800-3600rpm.
 Variable cutting speed allows the use of one single wheel for cutting many different materials(hard and soft), thus reducing costs.

METACUT 300 and METACUT 250 are both table - top units and rigid Floor Cabinets are available as optional accessories.



Large T-slotted cutting table



Stainless steel clamping devices



The side access port on both sides permits the sectioning of extra-long workpieces

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.



METACUT 250



Stainless steel clamping devices and T-slotted table

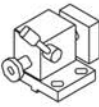
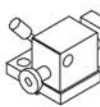
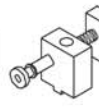


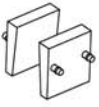
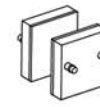
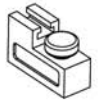
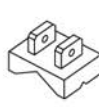



METACUT 250 with floor cabinet

Clamping Devices

Many sample preparation applications require the sectioning of specimen from a small or irregularly shaped sample or component part. The small size or irregular sample shape can create positioning and clamping difficulties for the operator. To overcome these difficulties METKON offers a number of special clamping devices for use with METACUT abrasive cutters which are equipped with stainless T-slotted clamping tables. All clamping devices are made of stainless steel and can be attached to the cutters T-Slot beds in seconds for fast, positive clamping of parts having virtually any configuration.

Clamping Systems for METACUT Cut-off Machines

| | | | | |
|---|--|---|---|---|
| Quick Acting Clamping Vise Assembly, Right | Quick Acting Clamping Vise Assembly, Left | Compact Vise Assembly Spring Loaded | Vertical Clamping Spring loaded | Adjustable Mechanical Stop |
|  |  |  |  |  |
| GR 0029 GR 0012 | GR 0030 GR 0013 | GR 0154 GR 0151 | 15 02 15 01 | GR 0150 GR 0150 |
| Prism Jaw Block Set for Round Specimens | Rubber Coated Jaws for Sensitive Specimens | Height Block | Longitudinal V - Shoe | Traverse V - Shoe |
|  |  |  |  |  |
| GR 0031 GR 0010 | GR 0032 GR 0011 | 15 04 15 03 | YM 1058 YM 1058 | YM 1059 YM 1059 |



METACUT 250



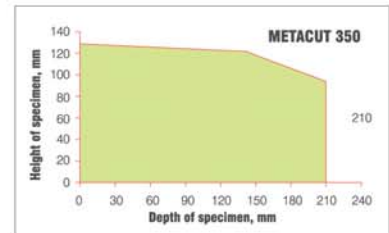
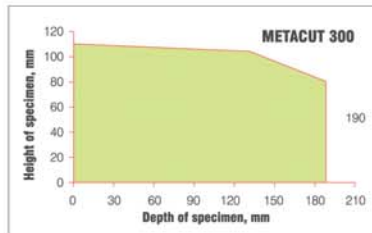
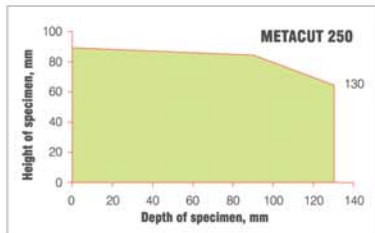
METACUT 300



METACUT 350

| Order No | 10 01 | 10 02 | 12 03 |
|-------------------------------|-----------------------|-----------------------|-----------------------|
| Cutting Power kW (S1) | 2,2 | 4 | 5,5 |
| Cutting Power kW (S3) | 3 | 5,1 | 7,9 |
| Wheel speed, (rpm) | 2800 | 2800/Variable | 2200 |
| Operation | Manual | Manual | Manual |
| Wheel diameter, (mm) | Ø 250 | Ø 250/Ø 300 | Ø 350/Ø 400 |
| Cutting Capacity Ø (mm) | Ø90 | Ø110 | Ø130 |
| Cutting Capacity, # (mm) | 60 x 135 | 70 x 200 | 75 x 240 |
| T-Slot table dimensions, (mm) | 212 x 232 | 300 x 380 | 406 x 360 |
| T-Slot dimension, (mm) | 12 | 12 | 12 |
| Size WxDxH (cm) | 71 x 70 x 54 | 74 x 77 x 67 | 115 x 90 x 152 |
| Weight, (kg) | 126 | 180 | 410 |
| Cooling unit, (lt) | 60 lt. | 60 lt. | 80 lt. |
| Mains, (V) | 3 phase 400V, 50Hz AC | 3 phase 400V, 50Hz AC | 3 phase 400V, 50Hz AC |

Cutting Capacity



Specifications

12 03 METACUT 350

Abrasive Cutting Machine
Compact motor, electronic brake system, cutting capacity up to 120/130mm solid stock, for cut-off wheels upto ø350/400mm, large T-slotted clamping table 406X360 mm made of stainless steel, bottom part as rugged alloy base casting, 80lt. recirculating cooling unit with connection hoses integrated base cabinet and ready for operation.
Without clamping devices.
400 V, 3 phase, 50 Hz.

Clamping Devices for METACUT 350

- GR 0029 Quick Acting Clamping Vise Assembly, Right.
- GR 0030 Quick Acting Clamping Vise Assembly, Left.
- GR 0031 Prism Jaw Block Set for round specimens
- GR 0032 Rubber coated jaw block set for sensitive specimens
- GR 0154 Compact Vise Assembly, Spring Loaded.
- 15 02 MBU 1031 Vertical Clamping Device with clamping shoe. clamping height upto 115mm.
- 15 04 MK 10 22 Height Block, 70 mm
- YM 1058 Longitudinal V-Shoe
- YM 1059 Traverse V-Shoe
- GR 0150 Adjustable Mechanical Stop, to adjust the cutting length of the specimen up to 120 mm for repetitive cuts.
- GR 0033 Chain spanner set with anchor block
- GR 1230 Angular cutting Fixture, for cutting upto 45 degrees angle, complete with its vise and ready for operation.

Accessories for METACUT 350

- GR 0124 Fume Condenser
- GR 0207 Manual cutting table for X-axis, 90 mm travel

10 02 METACUT 300

Abrasive Cutting Machine
Compact motor, electronic brake system, cutting capacity up to 85/110mm solid stock with cut-off wheels ø250/300mm, large T-slotted clamping table 300 x 380 mm made of stainless steel, bottom part as rugged alloy base casting, 60 lt. recirculating cooling unit with connection hoses integrated base cabinet and ready for operation.
Without clamping devices.
400 V, 3 phase, 50 Hz.

10 02-V as above(10 02) and having variable cutting speed with 3 different fixed speeds

10 01 METACUT 250

Abrasive Cutting Machine
Compact motor, electronic brake system, cutting capacity up to 90mm solid stock, for cut-off wheels upto ø250mm, twin T-slotted clamping table made of stainless steel, bottom part as rugged alloy base casting, GRP protective hood, 60 lt. recirculating cooling unit with connection hoses and ready for operation.
Without clamping devices. 400 V, 3 phase, 50 Hz.

Clamping Devices for METACUT 300/250

- GR 0012 Quick Acting Clamping Vise Assembly, Right.
- GR 0013 Quick Acting Clamping Vise Assembly, Left.
- GR 0010 Prism Jaw Block Set for round specimens
- GR 0011 Rubber coated jaw block set for sensitive specimens
- GR 0151 Compact Vise Assembly, Spring Loaded.
- 15 01 MBU 1011 Vertical Clamping Device with clamping shoe, clamping height upto 90 mm.
- 15 03 MK 10 21 Height Block, 60 mm
- YM 1058 Longitudinal V-Shoe
- YM 1059 Traverse V-Shoe
- GR 0150 Adjustable Mechanical Stop, to adjust the cutting length of the specimen up to 60 mm for repetitive cuts.
- GR 0453 Fastener vise for longitudinal sectioning of screws, fasteners tubes, etc. from 12 to 45 mm. in length

Accessories

- 10 11 Cabinet for floor model METACUT 250
- GR 0936 Cabinet for floor model METACUT 300

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