



ABRASIVE CUTTING

# METACUT 302



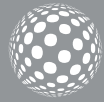


# TABLE-TOP MANUAL

ABRASIVE CUTTING MACHINE



# METACUT 302



METKON chop cutting machine METACUT 302 is the ideal abrasive cut-off machine for metallographic samples, offering perfect solutions for efficient, versatile and high-quality cutting.

- Modern stylish outlook
- 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
- Suitable for both Ø300 mm and Ø250 mm cut-off wheels
- High cutting capacity

## DESIGN

METKON chop cutting machine METACUT 302 is designed for wet cutting of large and small, regularly or irregularly shaped workpieces of metallic, ceramic or composite materials. METACUT 302 is a table top high quality cutting machine suitable for Ø300 and Ø250 mm cut-off wheels. It has the capacity to cut solid sections up to 115 mm in diameter.

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. Spacious cutting chamber and extra-large cutting table enables easy clamping of the specimens to be cut. The quick-clamping devices are removable to permit the installation of conventional clamping tools to hold larger or more intricate workpieces.

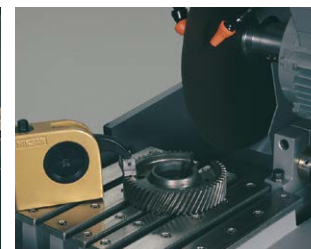
The complete system is enclosed in a protective hood with a large shatter proof window to observe the cutting process. The cutting chamber inside is illuminated with a powerful LED.



Ergonomic handle for fast cutting



Stainless steel clamping devices and T-Slotted table



Various clamping solutions



New design sloping base of the cutting chamber provides easy flowing of the cutting fluid back to the recirculating unit, preventing the accumulation of the cooling fluid. METACUT 302 is available as both table-top unit and optional rigid Floor Cabinet is available as optional accessory. START, STOP, Pump and Lamp touchpad buttons are mounted on the front panel.

METACUT 302 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.

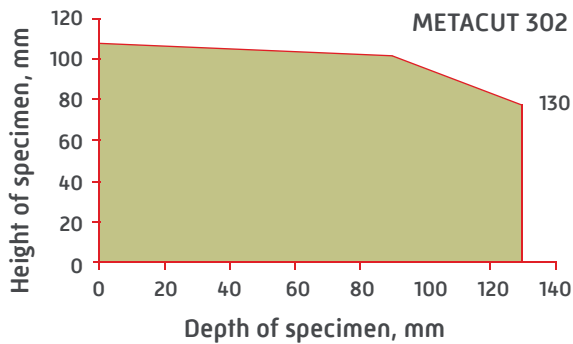
### Cooling System

A closed loop recirculating cooling unit is an optional 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.

### Magnetic Collector Rods

Collects the finest magnetic particles from the cooling liquid and keep it clean.

### Cutting Capacity






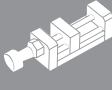


METACUT 302

## CLAMPING DEVICES

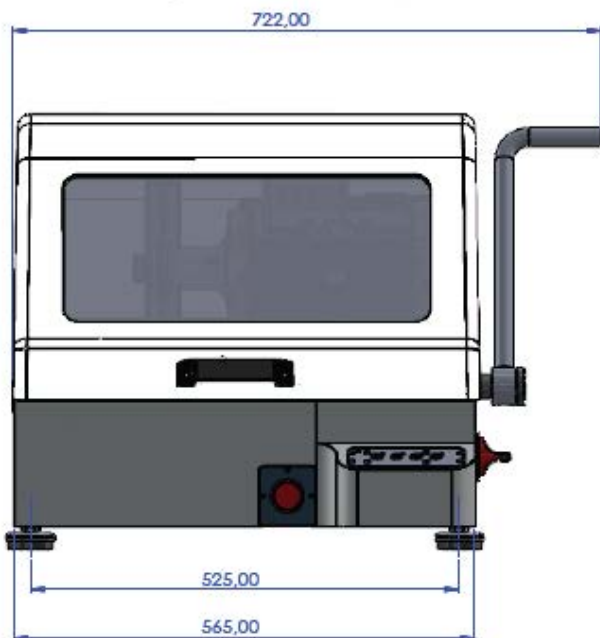
Many sample preparation applications require the sectioning of specimen from a small or irregularly shaped sample or component part. The small size or irregular sample shape can create positioning and clamping difficulties for the operator. To overcome these difficulties METKON offers a number of special 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.

|  |   |   |   |  |   |
|--|---|---|---|--|---|
| <p>Quick Acting Clamping Vise Assembly, Right</p>  <p>GR 0012</p> | <p>Quick Acting Clamping Vise Assembly, Left</p>  <p>GR 0013</p> | <p>Compact Vise Assembly Spring Loaded</p>  <p>GR 0151</p> | <p>Vertical Clamping Device with clamping shoe</p>  <p>15 01</p> | <p>Height Block</p>  <p>15 03</p> | <p>Fastener Vise for Longitudinal Sectioning of Screws</p>  <p>GR 0453</p> |
|--|---|---|---|--|---|

# SPECIFICATIONS

|                              |                      |
|------------------------------|----------------------|
| ORDER NO                     | 10 05                |
| MODEL NO                     | METACUT 302          |
| Cutting Power kW(S1)         | 3                    |
| Wheel Speed, rpm             | 2800                 |
| Operation                    | Manual               |
| Wheel Diameter, (mm)         | Ø300 / Ø250          |
| Cutting Capacity, Ø (mm)     | Ø115 / Ø90           |
| Cutting Capacity, # (mm)     | 50 x 195 / 50 x 165  |
| T-Slot table dimension, (mm) | 255 x 250            |
| T-Slot dimension, (mm)       | 12                   |
| Size, WxDxH, (cm)            | 58 x 68 x 49         |
| Weight, (kgs)                | 132                  |
| Cooling Unit, (lt)           | 60                   |
| Mains, (V)                   | 3 phase 400 V, 50 Hz |



## 10 05

### — METACUT 302

Abrasive Cutting Machine Microprocessor controlled, front panel with touch-pad controls, compact powerful 3 kW motor, electronic brake system, cutting capacity up to 115/90 mm solid stock, for cut-off wheels up to Ø300/250 mm, twin T-slotted clamping table 255x250 mm made of stainless steel, bottom part as rugged alloy base casting, ABS protective hood, Ready for operation. Without clamping devices, without recirculation cooling tank.

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.

### Cooling System for METACUT 302

**GR 0019** — Recirculation Cooling Tank, 60 lt, for METACUT 302

**YM 8813** — Fine filter sheets for recirculation cooling tank

(GR 0018/0019/1675/1945/1988), 10 pcs

**GR 1540** — Magnetic collector rod for recirculation cooling tank

### Clamping Devices for METACUT 302

**GR 0012** — Quick Acting Clamping Vise Assembly, Right, for MTC 302 [Stainless Steel]

**GR 0013** — Quick Acting Clamping Vise Assembly, Left, for MTC 302 [Stainless Steel]

**GR 0151** — Compact Vise Assembly, Spring Loaded, for MTC 302/SRC 302 [Stainless Steel]

**15 01** — MBU 1011 Vertical Clamping Device with clamping shoe, clamping height up to 90 mm.

**15 03** — MK 10 21 Height Block, 60 mm

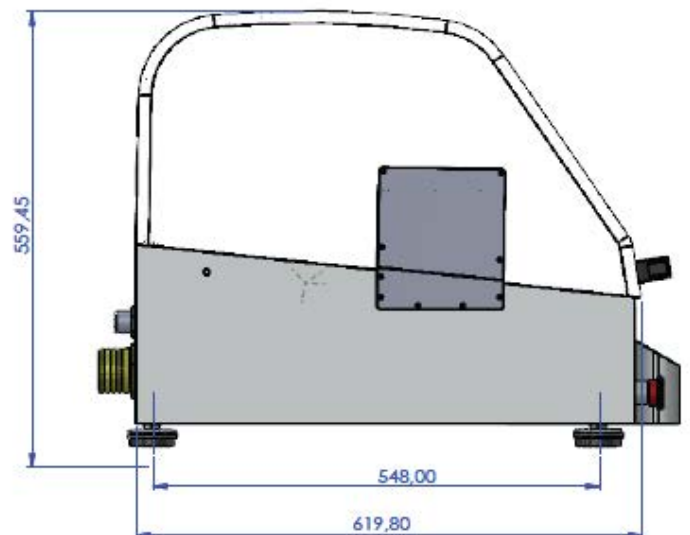
**GR 0453** — Fastener vise for longitudinal sectioning of screws, fasteners tubes, etc. from 12 to 45 mm. in length

### Accessories for METACUT 302

**GR 0939** — Cabinet for floor model, MTC 302

### Spare Part Kit for METACUT 302

**GR 1962** — Recommended Set of Spare Parts, METACUT 302



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

