

# MANUAL PRECISION CUT-OFF MACHINE

# **QCUT 150 M**



The Qcut 150 M is a manual precision cut-off machine with manual cross feed and cutting discs up to a size of 203 mm / 8 ".

Both the cutting force and the speed of the cutting disc are infinitely adjustable. With different operating modes and cooling systems, a very wide range of applications and materials can be covered.

The user-friendly fastening system for the clamp arm, specimen holder and table top is designed in such a way that they can be changed toolfree.

A wide range of different clamping devices enables versatile use.





# **FUNCTIONAL DESIGN**

The powder-coated stainless steel housing is the stable basis of the compact precision cut-off machine. The robust machine design integrates many clearly and ergonomically positioned functions. The cutting chamber, which is equipped with LED lighting, is covered with a transparent protective hood with a soft-close function.

#### **VARIABLE CUTTING FORCE**

The cutting force can be set manually depending on the sample geometry and sample material, which ensures precise and deformation-free cutting of particularly sensitive materials and samples.  $\geq$ 





#### WIDE RANGE OF ACCESSORIES

With the help of a suitable clamping device from the extensive range of accessories, embedded or non-embedded samples up to a size of Ø 40 mm can be clamped in the cut-off machine comfortable. Larger samples such as PCBs and plate material can be quickly and manually cut with the table top that can be mounted toolfree.

# ADJUSTABLE PARAMETERS FOR VERSATILE APPLICATION

The rotations speed of the precision cutting wheel is infinitely variable adjustable in the range of 150 - 3000 rpm using the rotary knob. Therefore diamond cutting wheels, diamond cup wheels and corundum cutting wheels can be used for a wide variety of applications. The cutting process is started and ended with the QATM start-stop button.

#### **MANUAL Z-AXIS**

The Qcut 150 M is equipped with a manual Z-axis. For parallel cuts or defined grinding with a diamond cup wheel, the specimen can be fed up to 25 mm across.



#### **BASIC MODULE**

#### Qcut 150 M

- I Solid stainless steel housing, powder coated
- I Manual Y-axis
- I Swivel arm with variable load
- I Manual Z-axis with scale
- I Variable speed
- I Table attachment (accessory)
- I Dressing device (option)
- I Rotation device (option)
- I LED illumination of cutting chamber
- I Soft-closing hood
- I Connection to external exhausting system on request

# 3 different operation modes (depending on equipment)

- I Feed-controlled cutting
- I Cutting on table attachment
- I Cutting with lever

200-240V 50/60Hz (1Ph/N/PE)

Order No.: M1870022

100-120V 50/60Hz (1Ph/N/PE)



#### **EQUIPMENT**

#### **COOLING SYSTEMS** (no voltage selection required)

Equipment 1

Cut-off wheel immersion cooling (integrated)



- I Equipment to seal and fill cutting chamber with coolant
- I Incl. drain hose and shut-off valve for easy emptying
- I Sample collector

Order No.: A1870022

#### **Equipment 2**

Recirculation cooling system 15 L incl. filter



- | External two-chamber PVC tank
- I Portable, incl. filter insert and lid
- I Rinsing hose

Flow rate (pump) 12 ltr./min. Filling capacity 15 liters

WxHxD 330 x 398 x 449 mm

Order No.: A1870023

# Equipment 3 Recirculation cooling system 45 L



- I PVC tank with removable separating slide
- I Inlet sieve with filter bag and overflow
- I Mobile, without folding wheels
- I Rinsing hose included

Flow rate (pump) 15 ltr./min. Filling capacity 45 liters

WxHxD 366 x 550 x 600 mm

Order No.: A1870024

#### Equipment 4

Recirculation cooling system 45 L Systemlab





- I PVC tank with removable separating slide
- I Inlet sieve with filter bag and overflow
- I Mobile, with insertion mechanism for System Lab cabinets
- I Rinsing hose included

Flow rate (pump) 15 ltr./min.

Filling capacity 45 liters

WxHxD 366 x 540(640) x 610 mm

Order No.: A1870025

#### **Equipment 5**

# Fresh water cooling system

- I Automatic water valve
- I Waterflow manually adjustable
- I Rinsing hose included

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## OPTION

#### **QCUT 150 M DRESSING DEVICE**



- I For dressing of diamond cut-off wheels or cup wheels
- I Operation by manual lever

Order No.: A1870027

#### PREPARATION ROTATION DEVICE

I Machine prepared for installation of automatic rotation device

Order No.: A1870029

#### **ACCESSORIES**

#### **QCUT 150 M TABLE ATTACHMENT**



I Incl. Cutting guide fixed 90°, parallel cutting guide and small splash guard

Order No.: Z1870020

#### **SPLASH GUARD LARGE**



I Accessory for table attachment

Order No.: Z1870027

#### **PARALLEL CUTTING GUIDE**



I Accessory for table attachment

Order No.: Z1870023

#### **ANGLE CUTTING GUIDE**



I Angular adjustable stopI Accessory for table attachment

Order No.: Z1870024



I Angle cutting guide fixed 90° I Accessory for table attachment

Order No.: Z1870022

#### **CLAMPING ARM**



I Tool-free attachment of arm and sample holder

Standard M

Order No.: Z1870030

Standard L



#### **ACCESSORIES**

#### SAMPLE HOLDER STANDARD

- I For round or irregular shaped samples
- I 3-point clamping
- I Up to 6 fixing screws

#### Standard M (open)



- I For clamping arm M
- I Diameter Ø 30 mm

#### Standard L (open)



- I For clamping arm L
- I Diameter Ø 40 mm

Order No.: Z1870034

Order No.: Z1870035

# Standard L (closed)



- I For clamping arm L
- I Diameter Ø 40 mm, depth 15 mm





- For clamping arm M
- I Diameter Ø 30 mm, depth 15 mm

Order No.: Z1870037

#### SAMPLE HOLDER FLEX

- I To insert in grinding and polishing machines
- I For round or irregular shaped samples
- I 3-point clamping

Order No.: Z1870036

I Up to 6 fixing screws

#### FLEX M (closed)



- For clamping arm M
- I Diameter Ø 30 mm, depth 21 mm

#### FLEX L (closed)



Order No.: Z1870039

- I For clamping arm L
- I Diameter Ø 40 mm, depth 21 mm

Order No.: Z1870038

# SAMPLE HOLDER PARALLEL CLAMPING VICE

- I Parallel clamping jaws
- I Clamping range variable, dependent on screws

#### Sample holder parallel clamping vice M (open)



- I For clamping arm M
- I Diameter Ø 30 mm

# Sample holder parallel clamping vice L (open)



- I For clamping arm L
- I Diameter Ø 40 mm

Order No.: Z1870042

# Sample holder parallel clamping vice M (closed)



- I For clamping arm M
- l Diameter Ø 30 mm, depth 27 mm

Order No.: Z1870043





I Diameter Ø 40 mm, depth 27 mm

Order No.: Z1870040

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## **ACCESSORIES**

#### DROP SHAPE SAMPLE HOLDER M Ø 40 MM



- I For round or irregular shaped samples (Ø13 - Ø40 mm)
- I 12 mm clamping depth
- I 3-point clamping

Usable with clamping arm M Order No.: Z1870044

Usable with clamping arm L Order No.: Z1870045

#### **UNIVERSAL CLAMPING VICE**



- I For samples of any sample geometry
- I Max. sample cross-section: 40 mm x 40 mm
- I 3-point clamping

Usable with clamping arm M Order No.: Z1870046 Usable with clamping arm L

Order No.: Z1870047

#### MATRIX CLAMPING VICE



- I For irregularly shaped samples
- I Max. clamping range: 0 40 mm

Usable with clamping arm M

Order No.: Z1870048

Usable with clamping arm L Order No.: Z1870049

# MINI VICE



- I Max. Clamping range: 0 40 mm
- I Clamping range with prismatic jaw: 0 35mm
- I Incl. prismatic jaw

Usable with clamping arm M

Order No.: Z1870053

Usable with clamping arm L



# ACCESSORIES

#### **DOUBLE PARALLEL VICE**



- I Parallel clamping jaws
- I Fixing a specimen at two clamping points
- I Max. clamping range: 0 40 mm

Usable with clamping arm M Order No.: Z1870055

Usable with clamping arm L Order No.: Z1870056

## **ADAPTOR WITH BALL JOINT**



- I Swivel device for alignment the sample to the cutting disc
- I Can be combined with all clamping devices
- I Swivel range +/- 18°

Usable with clamping arm M Order No.: Z1870057

Usable with clamping arm L





# CATA

# **ACCESSORIES**

# **EXTRA FLANGES**



I Counteracts offset of the cut-off wheel during cutting

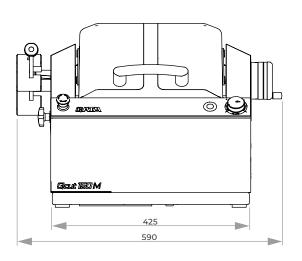
Flange Set Ø 59 mm

Order No.: Z1870050

Flange Set Ø 99 mm Order No.: Z1870051

Flange Set Ø 139 mm Order No.: Z1870052

# Ø40 M



# **ACCESSORIES**

## **BASIC SET QCUT 150 M**

TECHNISCHE DATEN	
Cut-off wheel	Ø 75 - 203 mm/8"
Variable speed	150 - 3000 rpm
Max. cutting capacity	Ø 40 mm
Arbour size	Ø 12.7 mm
Variable adjustable cutting force:	0 - 10 N
Manual vertical movement Y-axis	120 mm
Z-axis (paralell cut) manual	25 mm
Precision Z-axis*	0.01 mm
Motor power	0.37 kW (S1)
Connection power	0.75 kVA
WxHxD	591 x 391 x 590 mm
Weight	45 kg (dep. on equipment)

<sup>\*</sup> the results may differ dependent on material, cut-off wheel or clamping

