

# Make the Cut!



- World-class precision
- Intuitive user interface
- Unique grinding function



## EASY POSITIONING

The Accutom cut-off machines are packed with intuitive easy-to-use functions, enabling world-class cutting precision with a minimum of effort.

# Precision cutting and grinding with a smart and intuitive user interface for higher productivity

Accutom comes in two models, depending on customer needs.

## High precision and easy positioning

Positioning with fingertip precision is easy using the convenient operating keys on the control panel to move the specimen holder in the X-direction with 5 or 100 µm increments and the cut-off/cup wheel motor in the Y-direction. Mounting the specimen holder directly on the X-movement arm ensures Accutom's high level of precision and parallelism.

## Intuitive user interface – easy to learn and use

An intuitive user interface provides a clear overview of each method and related cut-off wheels.

A smart turn/push knob enables fast selection of settings and large icons provide an easy-to-understand overview of functions.

## Rotation and oscillation for shorter cutting time

Rotation of the workpiece significantly reduces cutting time, for example for a tube or round workpiece, while oscillation prevents overheating when cutting hard materials.

## MultiCut for extra productivity

The MultiCut mode boosts productivity by enabling cutting of up to 10 identical or different slices in a single workflow. MultiCut is available on Accutom-100.

## Grinding mode with perfect planeness

Available on Accutom-100, grinding mode can be used for all types of material using multiple bi-directional sweeps between movements in the X-direction to ensure perfect planeness.

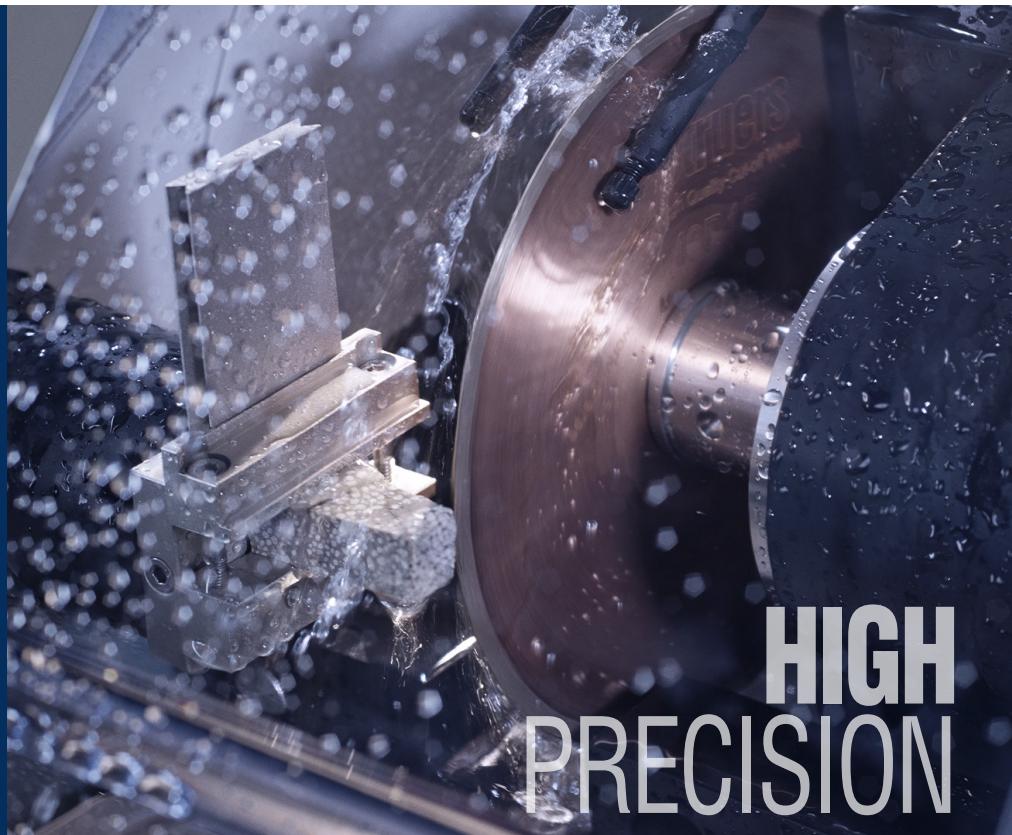
To achieve the optimal preparation result, two grinding modes are available to accurately control material removal.

## Method database

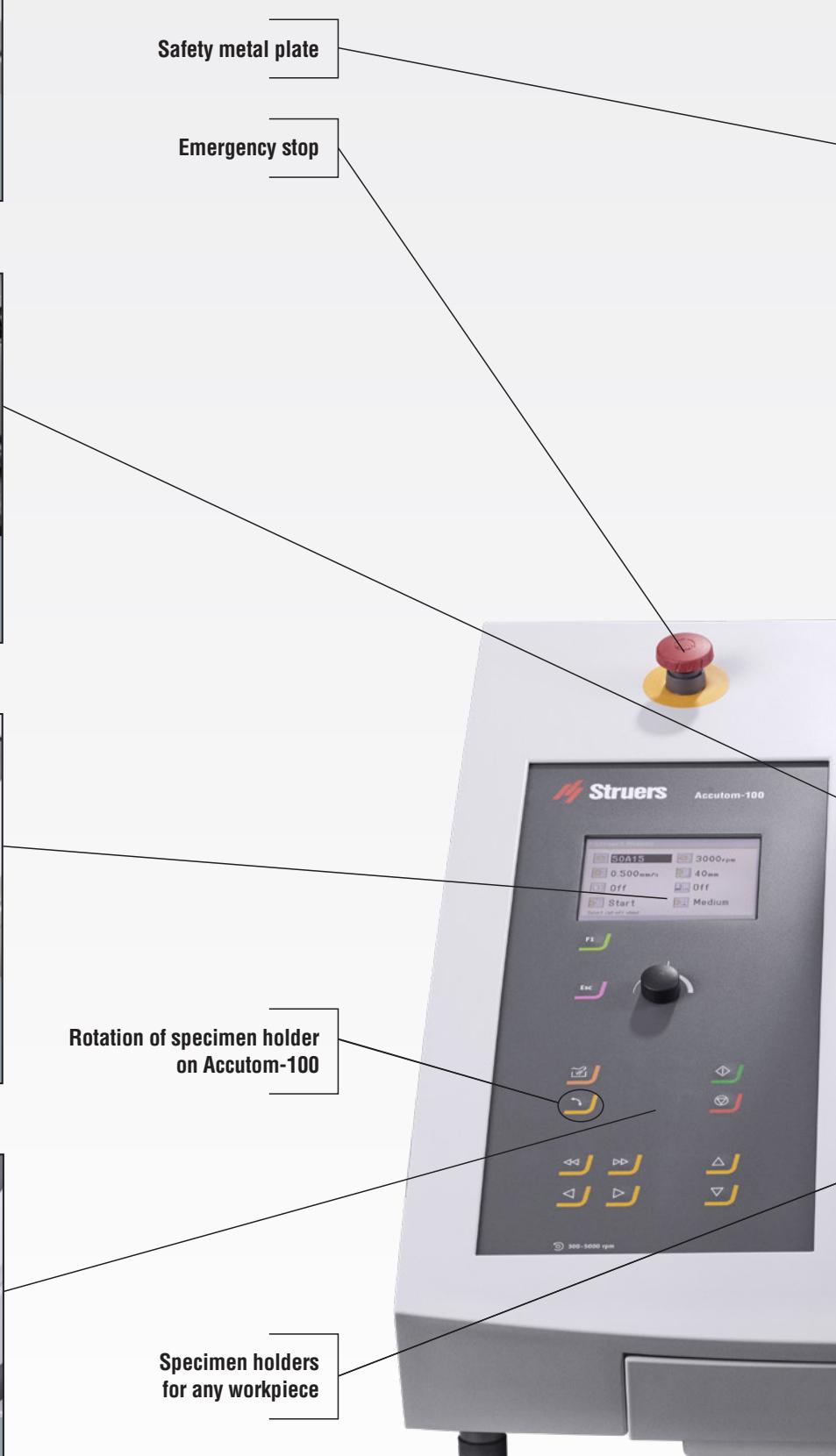
The clear menu system enables easy input and selection of up to 100 cutting and 100 grinding methods that can be named individually.

**World-class precision makes Accutom ideal for delicate applications such as:**

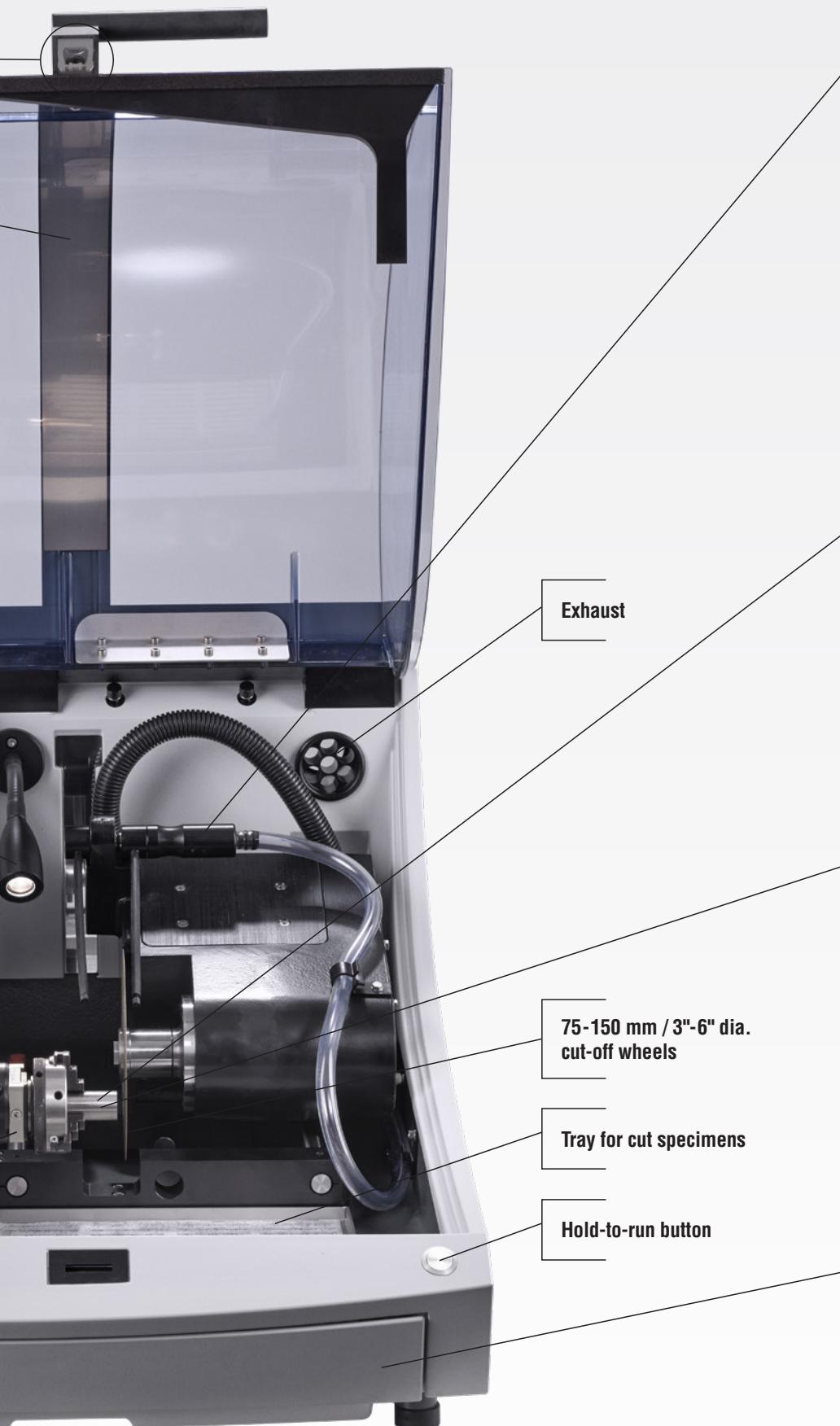
- Bone
- Teeth
- Otolith
- Solder ball
- PCB
- Fibre
- Painted layer
- Minerals
- Concrete



# Precision, reliability



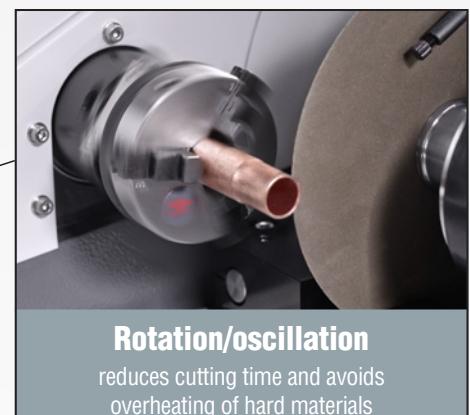
# and reproducibility



**Built-in flushing gun**  
makes cleaning fast, easy and effective



**MultiCut function\***  
provides extra productivity of up to 10 slices in a single workflow



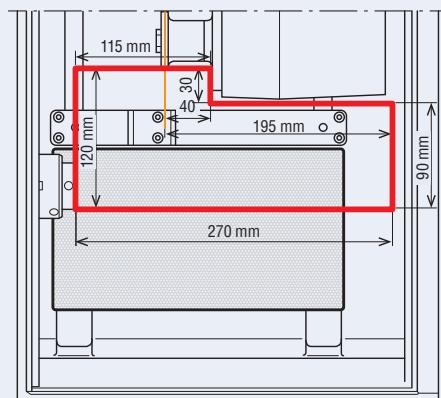
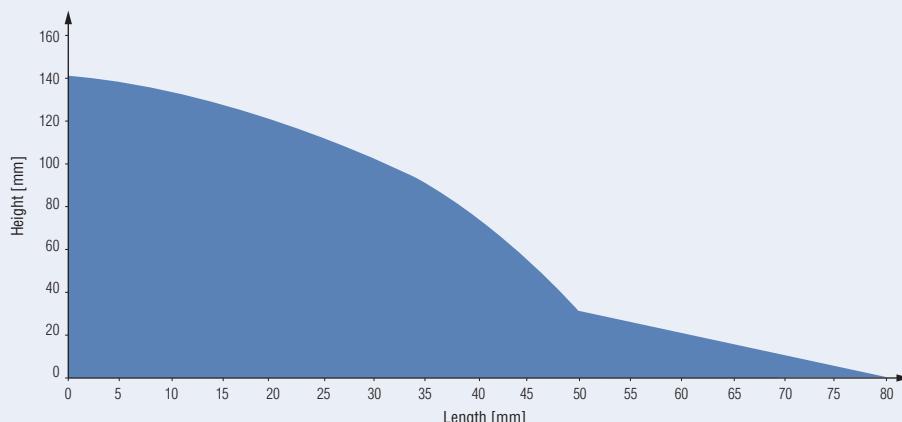
**Rotation/oscillation**  
reduces cutting time and avoids overheating of hard materials



**Built-in recirculation cooling unit**  
no extra tank required – the built-in tank has a capacity of 4.75 l.

## TECHNICAL DATA - Accutom-10/-100

## CUTTING CAPACITY



Subject	Accutom-10	Accutom-100
Specimen holder rotation and oscillation	Yes	Yes
Automatic rotation of specimen holder	No	Yes
Motor rotation speed	300-3000 rpm adjustable in steps of 50 rpm	300-5000 rpm adjustable in steps of 50 rpm
Grinding	No	Feed speed: 0.5 - 7.5 mm/s adjustable in steps of 0.5 mm/s
Cutting	Feed speed: 0.005 - 3 mm/s adjustable in steps of 0.005 mm/s	
Positioning speed	Y= 13 mm/s X= 10 mm/s	
Positioning range	X direction: 60 mm (precision 0.005 mm) Y direction: 110 mm (precision 0.1 mm)	

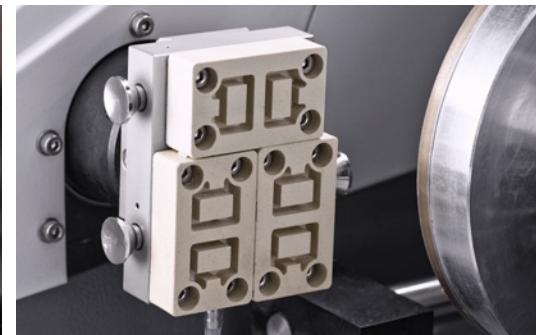
## PHYSICAL SPECIFICATIONS

<b>Cutting capacity*</b>	
Cut-off wheel:	75 mm (3") - 150 mm (6") dia. Arbor size: 12.7 mm
Length of cut-off specimen:	40 mm / 195 mm for 25 mm dia.
Length of workpiece to be clamped:	250 mm
Workpiece width and height:	50 x 130 mm
Workpiece cross section:	54 mm without rotation / 108 mm with rotation
<b>Grinding capacity</b>	No
Cup wheel:	100 mm (4") - 150 mm (6") dia. Arbor size: 12.7 mm 95 x 95 mm (3.7" x 3.7")
Sample:	
<b>Power</b>	
Nominal load	1080 W synchronous motor with high energy efficiency and constant torque in various rpm
Current max	7.2 A
<b>Dimensions</b>	
Height:	44 cm (17.3") cover closed 106 cm (42") cover open
Width:	65 cm (25")
Depth:	71 cm (28") 78 cm (30.9") with plug
<b>Weight</b>	68 kg
<b>Software and electronics</b>	
Controls	Touch pad and push/turn knob
Memory	FLASH-ROM/RAM/NV-RAM
LC Display	TFT-colour 320 x 240 dots with LED back light
<b>Noise level</b>	$L_{PA}$ 67 dBA
<b>Surrounding temperature</b>	5 - 40 °C (41-104 °F)
<b>Humidity</b>	35 - 85 % RH, non condensing
<b>Safety</b>	In compliance with all relevant EU directives
<b>Recirculation cooling unit</b>	
Contents	4.75 l (1.25 gallon)
Flow	1.6 l/min. (0.4 gallon/min.)

\* The actual cutting capacity depends on the specific workpiece dimensions, cut-off wheel and clamping technique.



## FLEXIBLE CLAMPING



# Accessories and Consumables

A wide range of clamping tools and specimen holders for all shapes and sizes is available.

## Accutom-10

Precision cut-off machine with variable speed (300 - 3000 rpm). Variable automatic feed speed and motorized positioning system with digital read-out. Built-in specimen holder rotation and oscillation. Three changeable cutting methods. Complete with recirculation cooling unit, flange set 50 mm dia. and tray for extra filter paper and collection of cut specimens. Specimen holders, cut-off wheels and Corrozip (additive for cooling fluid) are ordered separately.

**Voltage** 200-240 V / 50-60 Hz

**Cat. no.:**  
06286227

## Accutom-100

Precision cut-off and grinding machine with variable speed (300 - 5000 rpm). Variable automatic feed speed and motorized positioning system with digital read-out with MultiCut function. Built-in specimen holder rotation and oscillation and vacuum pump connection for vacuum chuck. Cut-off wheel, cup wheel and material database and 100 optional changeable methods included. Complete with recirculation cooling unit, flange set 50 mm dia. and tray for extra filter paper and collection of cut specimens. Specimen holders, vacuum pump, cut-off wheels, cup wheels and Corrozip (additive for cooling fluid) are ordered separately.

**Voltage** 200-240 V / 50-60 Hz

**Cat. no.:**  
06176227

**Cat. no.:**  
06196121

**Cat. no.:**  
06196133

## Welch Vacuum Pump

Used on Discoplan-TS, CitoVac for external pump and Accutom-100.

Vacuum: ~907 mbar.

Output: ~28 l/min. (06196133) ~34 l/min. (06196121).

Dimensions L x W x H, cm (in):  
37.5 x 21 x 25.5 (14.8 x 8.3 x 10.0)

Voltage:  
115 V / 60 Hz

230 V / 50-60 Hz



**Cat. no.:**  
04276911

Specimen holder CATNI, with goniometer



**Cat. no.:**  
04276915

Specimen holder CATAN, for small workpieces  
Max. opening: 10 mm.



**Cat. no.:**  
04946904

Specimen holder CATFF, teardrop type with opening  
For workpieces 15 - 40 mm dia.



**Cat. no.:**  
04946903

Specimen holder CATSI, for general use  
Max. opening: 60 mm. To be used with a fixed stand, manual X-stand, or a rotary stand.



**Specimen holder CATAL, for long workpieces**  
With a double parallel vice.

**Cat. no.:**  
04946909



**Three-jaw chuck**  
For centering and clamping cylindrical workpieces up to 65 mm dia.



**Tilting joint CATJO, to be mounted between the dovetail and the specimen holder.**  
The specimen holder can then be angled  $\pm 10^\circ$ .

**Cat. no.:**  
04946906



**Angling joint CATJA, to be mounted between the dovetail and the specimen holder.**  
The specimen holder can then be angled  $30^\circ$  to one side and  $90^\circ$  to the other side.



**Specimen holder CATRE, for cylindrical workpieces**  
Max. opening 40 mm dia.

**Cat. no.:**  
04946907



**Specimen holder CATAP**  
with ceramic vacuum chuck for thin sections.  
For one 27 x 46 / 28 x 48 mm glass slide.

**Cat. no.:**  
04276913



**Specimen holder CATPE, for adhering workpiece**

**Cat. no.:**  
04276912



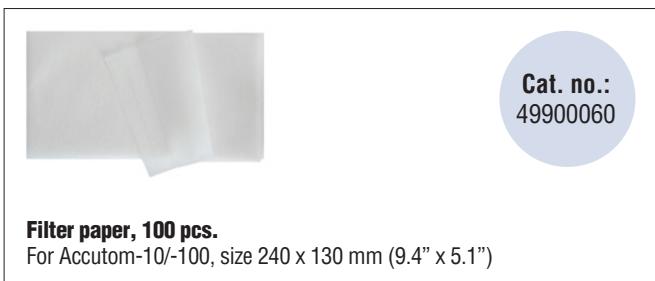
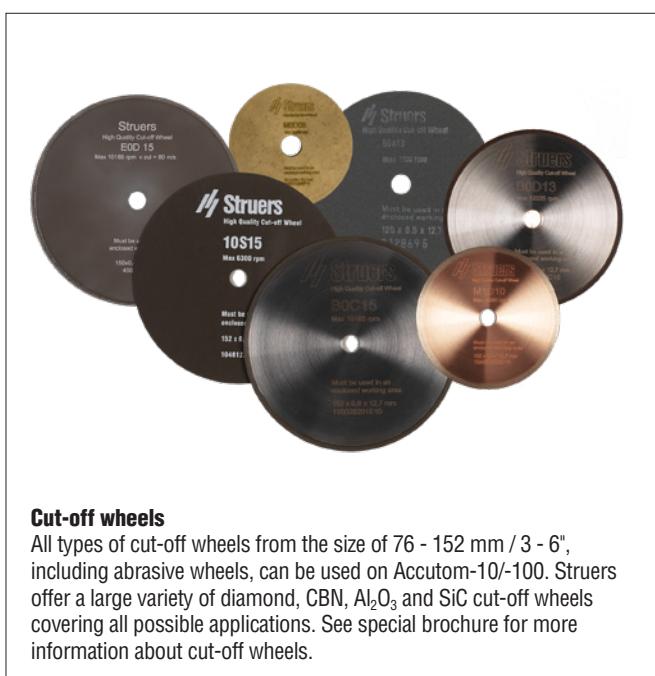
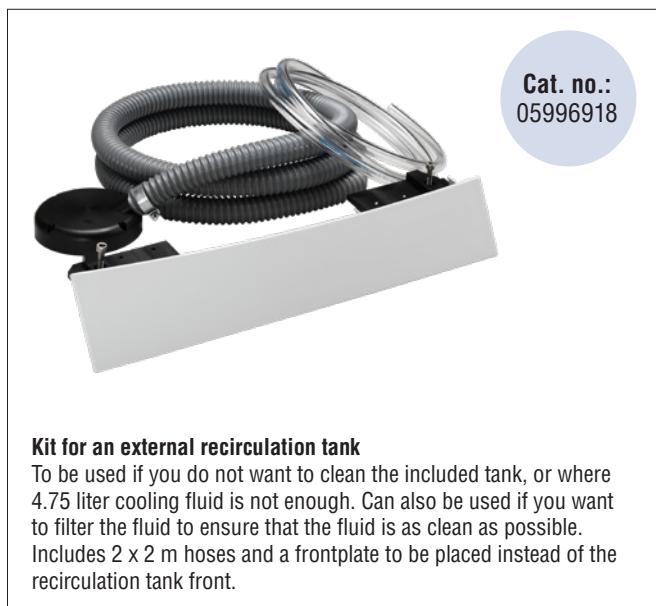
**Vacuum chuck \***  
For thin sections. With three separate ceramic vacuum chucks with individual valves. Choose between one to three of 27 x 46 or 28 x 48 mm / two 25 x 75 mm (1 x 3") / one 50 x 75 mm (2 x 3") glass slides. To be used on Accutom-100. Vacuum pump with vacuum of minimum 900 mBar and approx. 30 l/min is recommended to secure the glass slide.

**Cat. no.:**  
06176901



**Specimen holder CATTY, with seven screws for irregular workpieces**  
Max. 40 mm width.

**Cat. no.:**  
04946905



## Additive for cooling

To protect the machine from corrosion and to improve the cutting/grinding process and cooling quality.  
See Struers e-shop on struers.com for more information.



**Corrozip**

For protection of machine from corrosion and to improve cutting and cooling qualities.

For use in Recirculation Cooling Units.

For use in water-free cutting.

**Cat. no.: 49900046**

**Cat. no.: 49900045**



**Unitclean**

For cleaning of Recirculation Cooling Units to stop attack of micro-organisms and remove unpleasant odours.

**Cat. no.: 49900040**

**Water-free Cutting Fluid**

For cutting of water-sensitive materials.  
Special pump tube required.

**Cat. no.: 49900070**

**Corrozip-Cu**

Additive for use in recirculation cooling units, in particular for machines which mainly cut copper and copper alloys. The formula protects the machine from corrosion while improving cutting and cooling qualities.

**Cat. no.: 49900068**

**Cat. no.: 49900069**

Struers' equipment conforms with the provisions of the applicable International Directives and their appurtenant Standards. (Please contact your local supplier for details)

Struers' products are subject to constant product development. Therefore, we reserve the right to introduce changes in our products without notice.

\*Special order item, please contact your local sales representative for more information before ordering.

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## Ensuring Certainty

With offices and affiliates in 24 countries and a presence in more than 50 countries worldwide, Struers is the world's leading materialographic solution supplier. We are dedicated to enabling our customers to ensure certainty in all aspects of materialographic preparation and testing as well as material hardness testing - wherever they are in the world. Struers offers a complete range of equipment, consumables, service and training programmes – all supported by the most comprehensive knowledge base, global applications support and a certified global service set-up.

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