

Make the Cut!



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





EASY POSITIONING

The new 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 new 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.

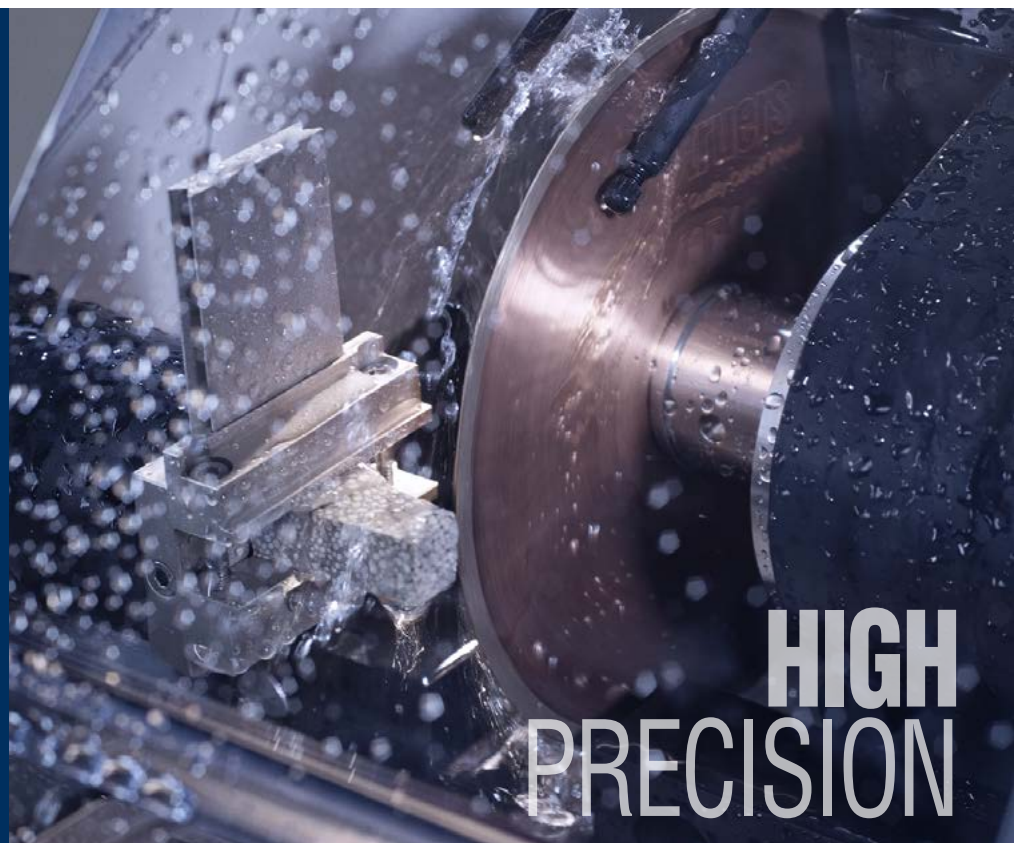
To achieve the optimal preparation result, two grinding modes are available to accurately control material removal.

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



**HIGH
PRECISION**

Precision, reliability



Safety metal plate

Emergency stop



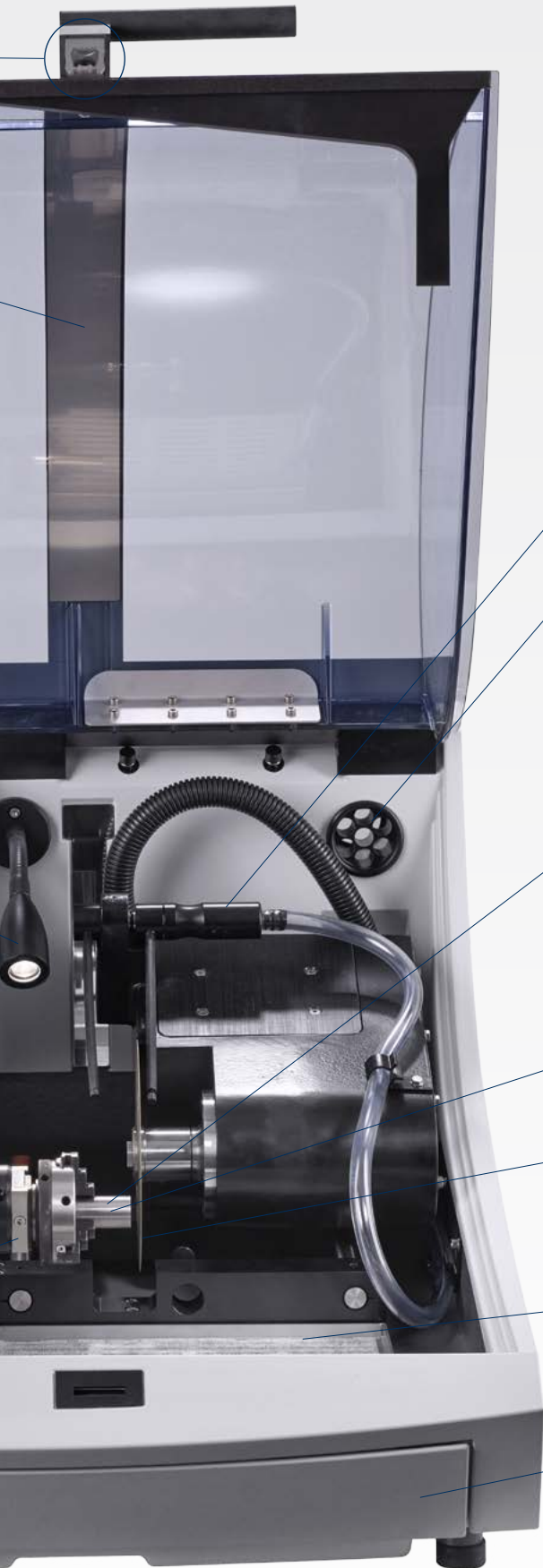
Rotation of specimen holder on Accutom-100



Specimen holders for any workpiece



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

Exhaust



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

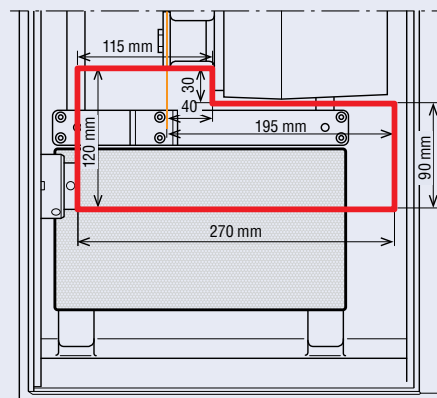
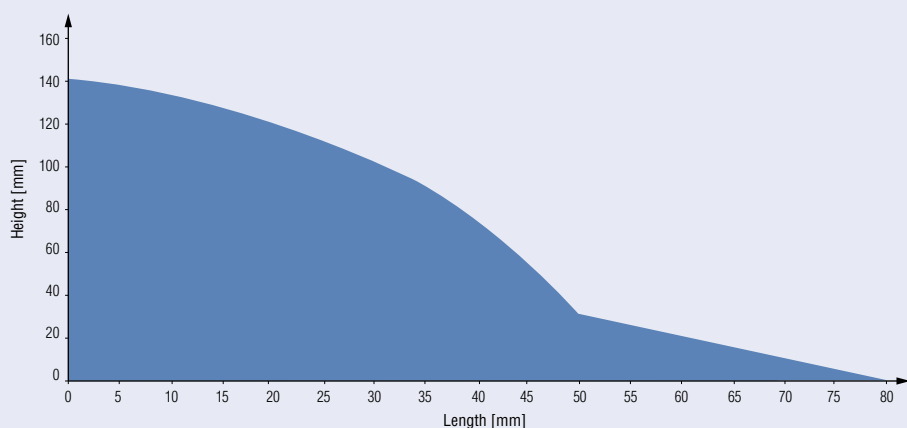
75-150 mm / 3"-6" dia. cut-off wheels

Tray for cut specimens



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

*Accutom-100 only

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		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**Cutting capacity**

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

Grinding capacity*

Cup wheel:	100 mm (4") - 150 mm (6") dia. Arbor size: 12.7 mm
Sample:	95 x 95 mm (3.7" x 3.7")

Power

Nominal load	370 W synchronous motor with high energy efficiency and constant torque in various rpm
Current max	10 A

Dimensions

Height:	440 mm (17.3") cover closed 1065 mm (42") cover open
Width:	644 mm (25.4")
Depth:	720 mm (28.3") 784 mm (30.9") with plug

Weight	68 kg
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Software and electronics

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

Noise level	60 dBA, at idle running, at a distance 1.0 m (39.4")
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Surrounding temperature	5 - 40 °C (41-104 °F)
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Humidity	0 - 95 % RH, non condensing
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Safety	Please refer to the Declaration of Conformity
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Recirculation cooling unit

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.

SPECIFICATIONS

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 cat. No. 49900045) are ordered separately.

Cat. no:	Voltage
06286127	200-240 V / 50-60 Hz

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, cut-off wheels, cup wheels and Corrozip (additive for cooling fluid cat. No. 49900045) are ordered separately.

Cat. no:	Voltage
06176127	200-240 V / 50-60 Hz

Welch Vacuum Pump

Used on Discoplan-TS, CitoVac for external pump and Accutom-100, -50, -5 and -2. 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)
115 V / 60 Hz 06196121
230 V / 50/60 Hz 06196133

CONSUMABLES

Cat.no

Diamond Cup Wheel, MOP15 91 µm

For grinding of hard and brittle materials on Accutom-100. Metal bond. Size 150 mm dia. 40800199

Diamond Cup Wheel, MOP15 40 µm

For grinding of hard and brittle materials on Accutom-100. Metal bond. Size 150 mm dia. 40800200

Filter paper, 100 pcs.

For Accutom-10/-100, size 240 x 130 mm (9.4" x 5.1") 49900060

Cut-off wheels

All types of cut-off wheels from the size of 76 - 152 mm / 3 - 6", including abrasive wheels, can be used on Accutom-10/-100. Struers offer a large variety of diamond, CBN, Al₂O₃ and SiC cut-off wheels covering all possible applications. See special brochure for more information about cut-off wheels.

ACCESSORIES

Cat.no

Flange set

Different flanges can be used to achieve the highest precision or the biggest cutting capacity. For Secotom-15/-50 and Accutom-10/-100. 42 mm dia. flange set (max. 168 mm / 6.6" cut-off wheel)
65 mm dia. flange set
110 mm dia. flange set

05036901
05996919
05036902



Flange Set for cup wheels on Accutom-100

For use with cup wheels on Accutom-100

06176902



Specimen holders with dovetail

Specimen Holder CATAN

for small workpieces Max. opening: 10 mm

04276915

Specimen Holder CATSI

for general use. Max. opening: 60 mm

04946903

Specimen Holder CATFF

teardrop type with opening. For workpieces 15 - 40 mm dia.

04946904

Specimen Holder CATTY

with 7 screws for irregular workpieces. Max. 40 mm width

04946905

Specimen Holder CATRE

for cylindrical workpieces. Max opening 40 mm dia.

04946907

Specimen Holder CATAL

for long workpieces. With double parallel vice

04946909

Three-jaw Chuck

For centering and clamping cylindrical workpieces up to 65 mm dia.

05036919

Tilting Joint CATJO

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

04946906

Angling Joint CATJA

to be mounted between the dovetail and the specimen holder. The specimen holder can then be angled 30° to one side and 90° to the other side.

04946908

Specimen Holder CATNI

with goniometer

04276911

Specimen Holder CATPE

for adhering workpieces

04276912

Specimen holder CATAP

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

04276913

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.

06176901

Kit for an external recirculation tank

To be used if you do not want to clean the included tank or where 4.75 litre cooling fluid is not enough. Can also be used if you want to filter the fluid to ensure that the fluid is as clean as possible. Includes 2 x 2 m hoses and front plate to be placed instead of the recirculation tank front.

05996918



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.



FLEXIBLE CLAMPING

**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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