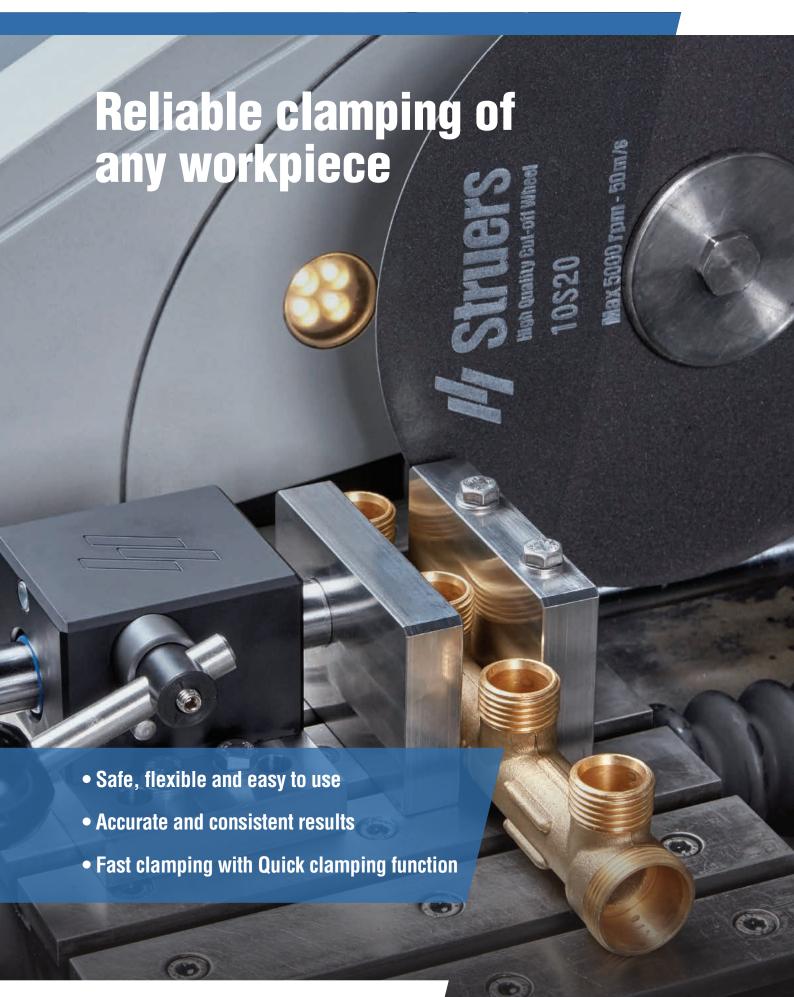
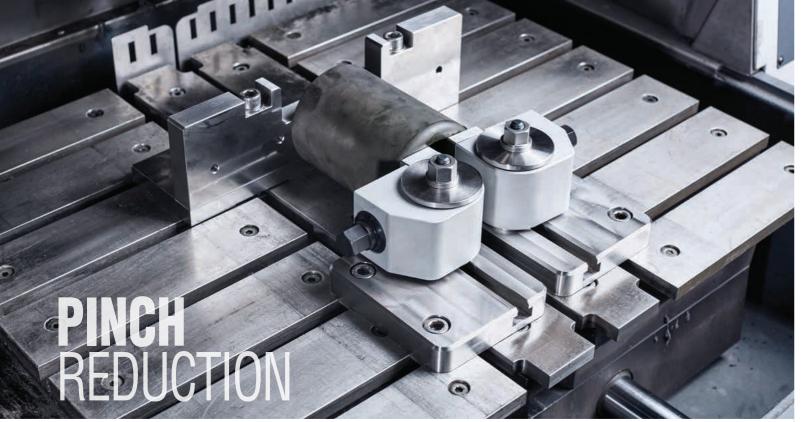


# **Clamping Tools**







Even the most well-built cut-off machine needs good clamping devices to achieve great cutting results.

Struers designs solid and easy-to-use clamping tools to meet any requirement. We offer an extensive programme of clamping tools to fit regularly as well as irregularly shaped workpieces.

# Did you know...

We are often met with particular requirements for clamping challenges and constantly update our product range accordingly. Contact your sales representative for a need assessment.

# **Clamping solutions for any materialographic sectioning**

Quality of clamping is critical for quality of the cut. The wide range of clamping tools from Struers is designed to contribute to great materialographic cutting results.

# A great cut starts with good clamping

Uneven sectioning causes deformations and irregular heat development which changes the structure of the sample. By choosing the right clamping solution, these damages are reduced.

With the right clamping solution, the operator can cut closer to the area of interest and even use thin cut-off wheels. This saves time for grinding and reduced risk of burns.

We aim to have a complete, flexible range for just about any need:

Regular workpieces have surfaces which make them simple to clamp. Examples are shafts, cylinders, tubes and camshafts.

Irregularly or odd-shaped workpieces have a geometry which does not fit into conventional clamping tools. Examples: Bolts, valves, gear parts and clutch parts.

## **Purpose-designed tools**

When you have a particular requirement, you can benefit from Struers many years of

experience in application knowledge and customized clamping solutions.

Customized solutions can improve efficiency and process reliability at the same time. By designing a fixture for the workpiece, we achieve an improved repeatability, accuracy and turnaround time.

Workpieces that require multiple cuts are relevant for customized solutions. Examples are crank shafts, CV joints, ball-shaped parts and long shafts for serial cutting.



/ 4 / / 5 /

# **REGULARLY SHAPED WORKPIECES**

# **Quick clamping tools**

Easy and safe to use, the comprehensive range of quick clamping tools is a great option for operators who wish to clamp directly on the cutting table. The clamping set-up can be changed quickly and clamping is easily activated or released with one lever. The clamping force is constant and resilient over time. That means faster turnaround and consistent clamping.

# **Jaws and prisms**

Available as accessories for quick clamping tools to ensure an optimal grip of the work-piece to be sectioned.

# Adjustable support for cylindrical parts

The adjustable support is used for cylindrical work pieces for both cross sectioning and for longitudinal cuts.

## Adjustable stop for serial cutting

Convenient and precise setting of distances when performing repetitive cutting into same lengths. Used together with the end stop, the correct distance to the cut-off wheel can easily be set with the included ruler.

# Pinch-reduction clamping tools

The easily adjustable and compact pinch-reduction tools limit deformations from the cut. Long, solid workpieces of hardened steel tend to build up internal stress during longitudinal cuts. That pinch-effect can cause cut-off wheels to get stuck, cause deformation or break. The tool reduces that effect.

### T-slot turntable

The T-slot turntable for angular cutting accommodates all of our clamping tools and is easily disassembled without tools, for cleaning.

# **IRREGULARLY SHAPED WORKPIECES**

# Base plate clamping tools

The design of this clamping tool for small and odd-sized workpieces is based on experience from the well-proven quick clamping tools. With its supporting rails and integrated backstop, the tool is great for clamping on one side or uneven surfaces. The easily activated, resilient clamping function ensures consistent results.

### **Jaws and prisms**

Prism, Extended and Rubber jaws are available as accessories to ensure an optimal grip of the workpiece.

# **Vertical clamping tools**

The vertical clamping tool is an invaluable tool for clamping of irregular samples, e.g. gear parts. It can be combined with:

- Optional riser block for increased clamping height.
- Optional set of Swivel Shoes for optimum hold.
- Optional Arm Extension.

## Chain spanner

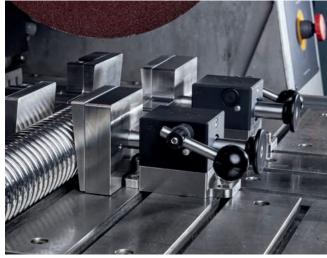
The chain spanner is ideal for clamping of irregularly shaped workpieces.

# Adjustable support blocks

The adjustable support blocks are turnable and can be adjustable both horizontally and vertically. They are available in stand-alone or baseplate versions and can be used with crowns in different heights.

## Sliding rail kit

Ideal for use with vertical clamping tool. The sliding rail allows a reliable extended clamping position by up to 145 mm.



Quick clamping tools with prism type jaw blocks. When applying pressure, the workpiece is pressed towards the cutting table.



Quick clamping tool with prism jaws and adjustable stop for serial cutting.



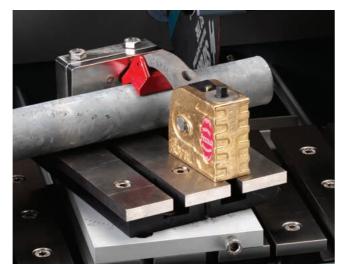
Base plate clamping tool with grooved jaws.



Vertical clamping tools with chain spanners.



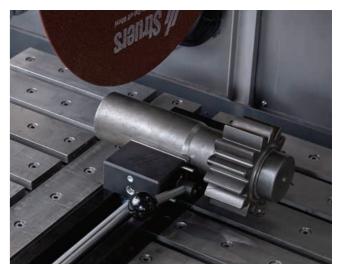
Vertical quick clamping tool, suitable for low, regular-shaped workpieces.



T-slot turntable, suitable for angular cutting of e.g. tubes.



Vertical clamping tools with support blocks, riser blocks, arm extensions and crowns in different heights.



Base plate tool right 12 mm with prism jaws.

SPECIFICATIONS FOR REGULARLY SHAPED WORKPIECES	Cat. no
<b>Quick clamping tool for 8 mm T-slots, right</b> For securing the workpiece on the right side of the cut-off wheel. Jaw movement: 50 mm. Jaw height: 55 mm	063169 <sup>-</sup>
Quick clamping tool for 10 mm T-slots For securing the workpiece on the left or right side of the cut-off wheel. Jaw movement: 50 mm. Jaw height: 58 mm	Left: 063169 Right: 063169
Quick clamping tool with short stroke for 10 mm T-slots	Left: 063169
For securing the workpiece on the left or right side of the cut-off wheel. Jaw movement: 12 mm. Jaw height: 58 mm Low quick clamping tool for 10 mm T-slots, right	Right: 063169
For retaining the workpiece on the right side of the cut-off wheel. Jaw movement: 50 mm. Jaw height: 42 mm	0631692
Optional jaws blocks for use with quick clamping tool for 10 mm T-slots, set of 2	
<b>Prism type jaw blocks</b> For clamping of round and oval workpieces.	058769 <sup>-</sup>
Rubber-coated jaw blocks For optimum clamping of sensitive specimens e.g. thin-walled tubes.	058769 <sup>-</sup>
Grooved jaw blocks For optimum clamping of regular workpieces.	058769 <sup>-</sup>
<b>Quick clamping tool for 12 mm T-slots</b> For securing the workpiece on the left or right side of the cut-off wheel. Jaw movement: 60 mm. Jaw height: 83 mm	Left: 063169 <sup>-</sup> Right: 063169 <sup>-</sup>
Optional jaws blocks for use with quick clamping tool for 12 mm T-slots, set of 2	
Prism type jaw blocks For clamping of round and oval workpieces.	058769 <sup>-</sup>
Rubber-coated jaw blocks For optimum clamping of sensitive specimens e.g. thin-walled tubes.	058769
Grooved jaw blocks	
Optimum clamping of regular workpieces.	058769
<b>XL vertical clamping tool for 12 mm T-slots</b> For clamping irregularly shaped workpieces. Clamping height is adjustable up to 176 mm (with riser block).	0587693
XL quick clamping tool for 12 mm T-slots	Left: 058769
For securing regular workpieces on left or right side of cut-off wheel. Jaw movement: 60 mm. Jaw height: 116 mm.  Optional jaws blocks, set of 2	Right: 058769
XL prism type jaw blocks for 12 mm T-slots For optimum clamping of round and oval workpieces.	058769
XL grooved jaw blocks for 12 mm T-slots For optimum clamping of regular workpieces.	058769
Vertical quick clamping tool for 10 mm T-slots For securing the workpiece on the left side of the cut-off wheel. Max. sample height: 50 mm.	Left: 0631692
Optional jaws blocks	
Single prism jaw blocks for vertical quick clamping tool for 10 mm T-slots  Jaw block for optimum clamping of round and oval workpieces.	0587692
High vertical quick clamping tool for 10 mm T-slots, left For securing the workpiece on the left side of the cut-off wheel. Max. sample height: 85 mm. Min. sample height: 35 mm.	0631692
Spring clamp for 8 mm T-slots, left For retaining the workpiece on the left side of the cut-off wheel.	059969
Spring clamp for 10 mm T-slots, right For retaining the workpiece on the right side of the cut-off wheel.	051369
T-slot turntable Suitable for angular cutting of e.g. tubes. The T-slot turntable accommodates all of our clamping tools and is easily disassembled without tools, for cleaning. It is designed with rhombus T-nuts for easiest mounting and repositioning 0-90 degree turnable T-slot table for angular cutting Mount straight or sideways for optimum positioning.	031305
- Table height 42 mm. T-slot turntable for 10 mm T-slots T-slot turntable for 12 mm T-slots	058769 058769
<b>Adjustable support for cylindrical parts</b> To support cylindrical work pieces for both cross sectioning and for longitudinal cuts. For 10 or 12 mm T-slots. Consists of one base plate and two prism parts.	063169
Adjustable stop for serial cutting For serial cutting of equally sized samples. Complete with 10 or 12 mm T-nut, ruler and Allen key.	063169
Pinch-reduction clamping tool, for 10 mm T-slots, left + right	
For clamping of workpieces with internal stress. To reduce/avoid pinching of the cut-off wheel. Complete with spanner.  Pinch-reduction clamping tool, for 12 mm T-slots, left + right	063169
For clamping of workpieces with internal stress. To reduce/avoid pinching of the cut-off wheel. Complete with spanner.	0631690
ACCESSORIES	
F-slot cleaner	

SPECIFICATIONS FOR IRREGULARLY SHAPED WORKPIECES	Cat. no.
Vertical clamping tool for 8 mm T-slots Clamping height adjustable up to 58 mm. Complete with operating key and one flat clamping shoe.	05036915
<b>Vertical clamping tool for 10 mm T-slots</b> Clamping height adjustable up to 58 mm. Complete with operating key and one flat clamping shoe.	05116905
Vertical clamping tool for 12 mm T-slots Clamping height adjustable up to 105 mm. Complete with operating key and one flat clamping shoe.	05046904
Swivel shoes for vertical clamping tool For optimum hold. Set of 4 multi-shaped swivel shoes for vertical clamping tool (05046904, 05116905 or 05036915).	05116911
Arm extension for vertical clamping tool For extending clamping arm of 8 mm, 10 mm and 12 mm vertical clamping tool (05036915, 05116905, 05046904).	05046906
Riser block for 10 mm T-slots For elevating vertical clamping tool (05116905) when clamping high work pieces. To increase the clamping height by 60 mm	05116910
Riser block for 12 mm T-slots For elevating vertical clamping tool (05046904) when clamping high workpieces. To increase the clamping height by 74 mm	05046905
Sliding Rail Kit, incl. 12 mm vertical clamping device Complete with operating key, stop and one exchangeable flat swivel shoe. Max clamping height: 145 mm	05876922
Chain spanner for 12 mm T-slots Complete with anchor block and operating key.	05046912
<b>0.5 m extension chain</b> For use with chain spanner (05046912). Including chain assembly set.	05046924
Support block with base plate, for 12 mm T-slots Turnable, horizontally and vertically adjustable support block with base plate. Height adjustment range 20 mm. Used with customizable crowns (05876902), which are ordered separately. Additional support blocks (05876923) can be added to the base plate.  Support block for 12 mm T-slots	05876901
Turnable, horizontally and vertically adjustable support block. Height adjustment range 20 mm. Used with customizable crowns (05876902/03/04), which are ordered separately.	05876924
Extra support block for 12 mm T-slots Additional support block for use with support block (05876901)	05876923
<b>Cr own for support block, 60-80 mm</b> customizable crown. Used with support block (05876901 or 05876924), height adjustment range 60-80 mm.	05876902
Crown for support block, 80-100 mm Customizable crown. Used with support block (05876901 or 05876924), height adjustment range 80-100 mm.	05876903
Crown for support block, 100-120 mm Customizable crown. Used with support block (05876901 or 05876924), height adjustment range 100-120 mm.	05876904
Base plate clamping tool, for 8 mm T-slots, right For securing small and irregular workpieces on the right side the of cut-off wheel. Complete with spanner. Jaw movement: 60 mm. Max. round workpiece height: 40 mm.	06316907
Base plate clamping tool, for 10 mm T-slots, left For securing small and irregular workpieces on the left side of the cut-off wheel. Complete with spanner. Jaw movement: 115 mm. Max. round workpiece height: 62 mm.	06316905
Base plate clamping tool, for 10 mm T-slots, right For securing small and irregular workpieces on the right side of the cut-off wheel. Complete with spanner. Jaw movement: 115 mm. Max. round workpiece height: 62 mm.	06316906
<b>Base plate clamping tool, for 12 mm T-slots, left</b> For securing small and irregular workpieces on the left side of the cut-off wheel. Complete with spanner. Jaw movement: 240 mm. Max. round workpiece height: 62 mm.	06316908
Base plate clamping tool, for 12 mm T-slots, right For securing small and irregular workpieces on the right side of the cut-off wheel. Complete with spanner. Jaw movement: 240 mm. Max. round workpiece height: 62 mm.	06316909
Bolt clamping tool for 8 mm T-slots With ruler for easy positioning of the workpiece. Clamping range 4-12 mm dia.	05996917
Fixed stand for 10 mm T-slots Stand for specimen holders with dovetail clamp.	05876927
	06316919
and clamp even challenging work pieces. For 10 mm T-slots For 12 mm T-slots	063169 063169

Cut-off machine	8 mm T-slots	10 mm T-slots	12 mm T-slots
Secotom-15/-50	Χ		
Labotom-5/-15		Χ	
Discotom-100/-10		Х	
Axitom-5			Χ
Exotom-150			Х
Magnutom-400/-500/-500	0		Χ

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



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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.

### Learn more



