

Industrial Glass Processing

Cutting Technology

Silberschnitt

100 Years of Bohle. 100 Years Made in Germany.

Industrial glass processing

Bohle has been developing and producing complete solutions for glass cutting machines for many years. Not only cutting wheels and axles, but also wheel holders, cutting fluids and pillar posts fall into this area.

About us

When it comes to glass, we have secured a very special place: Number one

We are Europe's leading manufacturer and products for glass processing. We not only support glass processors, but also trade and industry. Our portfolio includes a full range of first-class products. These include fittings for glass railings, sliding doors and showers, handling devices and tools as well as processing materials and industrial products.

Efficiency is written in capital letters here. Anyone who cuts glass can rely on Silberschnitt®'s many years of cutting expertise.

Your benefits

- Comprehensive range - the right product for every application and every budget
- Extensive range of accessories from a single source
- Short delivery times and high stock availability
- Technical support as well as technical advice, e.g. for projects worldwide
- Convenient online ordering via the Bohle online shop

Our contribution to sustainability

A sustainable approach to the environment and resources is very important to us. That is why we have produced this catalogue as sustainably as possible. We also operate according to strict environmental standards for our products, production and logistics and not only rely on sustainable processes in our developments, but also on materials of the highest raw material quality and from sustainable sources.

Strictest quality tests



All our products go through multiple quality controls.



Many products are tested according to DIN standards and have test certificates.



Our quality management system has been regularly certified according to ISO 9001 since 1998.

Silberschnitt



Customer Service

We are here for you

Bohle's customer service team is your reliable partner when it comes to planning, specifying and project support. Our experienced team of product experts is at your side with customised solutions. Together we can help to make your orders and projects a success so that your customer is ultimately satisfied.

If you have a question, we will do our best to find the answer. You can rely on us!

- Advice on the right product selection
- Customised quotations and solutions
- Customised product trainings and seminars you and your team
- Installation tips and support for final realisation

We come round

When it comes to industrial glass cutting, it's all about the detail. That's why we are happy to visit you and analyse your glass cutting process directly on site. After all, a small cog has a big effect. Together, we will maximise the efficiency of your glass cutting process.

Workshops

The Bohle Glass Academy offers a comprehensive seminar programme covering many areas of glass processing. Would you like to learn new techniques or improve your expertise in familiar areas? Acknowledged experts Bohle professionals and external instructors look forward to meeting you. The Automatic Glass Cutting seminars are held on site at the customer.

Automatic Glass Cutting Technology

- Introduction: Traditional hand tools and their use
- Effects of cutting geometry and different types of grinds
- Choice of wheel holders and optimizing the choice of wheels
- Cutting and breaking flat glass of different thicknesses and types
- Problem solving in automatic glass cutting and the effects of different parameters
- Open cuts of shapes
- Use of cutting fluids
- Optimised cutting of laminated glass
- Cutmaster® Platinum, The perfect solution for optimal glass cutting
- Precise glass penetration – perfect edge

Target groups

The seminar is designed for those in industrial glass processing who cut glass with standard CNC cutting tables or cutting systems.

If required, the Automatic Glass Cutting Technology seminar can also be held on Saturdays, so your production does not need to be interrupted.

Your Benefits

The important operation parameters, like the right choice of appropriate wheels, cutting pressure, cutting speed and optimum cutting fluid supply, are demonstrated on the glass you use and using your own machinery.

An additional objective of the seminar is to optimize the cutting of technical or special glass such as Ceran, Neoceran, Borofloat, etc., prospectively reducing costs.



To make an appointment, please contact:

@ industry@bohle.de

+49 (0) 2129 5568 801

3 Good Reasons to Choose Bohle for Automatic Glass Cutting

1. High quality cutting wheels

Equipped with state-of-the-art technology, Bohle produces cutting wheels for a wide variety of applications. Whether for float, drawn, thin or thick glass, special glass like display or borosilicate glass, Bohle provides carbide, PCD, coated and microstructured cutting wheels to meet your requirements. **High Quality - Made in Germany.**

- Know-how from more than 100 years
- Reliable and consistent cutting results

2. Complete system solutions

Bohle has been developing and producing complete solutions for cutting machines for many years. By this we mean not only cutting wheels and axles, but also wheel holders and complete pillar posts. The range of pillar posts manufactured to customers' specific wishes has been continuously expanded.

- For all machinery brands
- Worldwide support

3. Glass cutting fluids

A comprehensive range of Silberschnitt® Cutting fluids is available from Bohle. These products meet the needs of the glass industry perfectly and supplement our product range ideally. Together with the Silberschnitt® products for industrial glass processing we offer perfect system solutions for glass manufacturers and processors. Quality from a single source.

- Improved fracture characteristics
- Reduction of glass splintering/dust
- Significantly longer service life of the wheels





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Silberschnitt® Cutting Wheels

Highest precision, best quality and efficient tool life. First-class cutting technology is a question of perfection. Silberschnitt® cutting wheels from Bohle are characterised by the highest quality standards and a long service life. They are manufactured from high-quality raw materials on precision machines with extraordinary care, and convince through excellent cutting results with particularly long service lives.



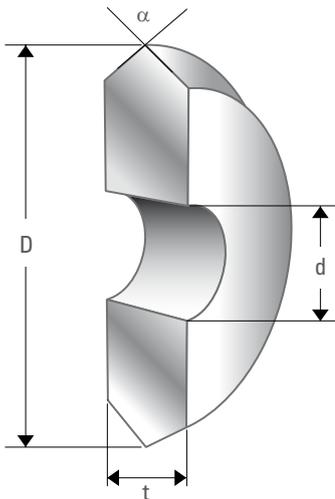
Best raw materials and perfect processing

Bohle recognised the extraordinary properties of tungsten carbide early on. A multiple running performance compared to conventional steel wheels is one of the great advantages of the material. Furthermore, tungsten carbide cutting wheels are characterised by uniformly good cutting properties, and the resulting clean breaking edges for different glass thicknesses. A similar development is taking place with PCD (polycrystalline diamond), which is used in particular when exceptionally long tool lives are also required. A careful selection and analysis of the raw material is the starting point for the production of high-quality cutting wheels.

However, but not only the basic material is decisive for the quality. The greatest know-how lies in the further processing of the blanks, which are given their very special finish on our self-developed machines. Only the grind, the execution of which depends on the later application, leads to a uniformly long service life and optimal cutting results. The majority of well-known cutting machine manufacturers worldwide trust in Silberschnitt® quality and equip their systems with industrial cutting technology from Bohle as a standard.

Customised solutions on the spot

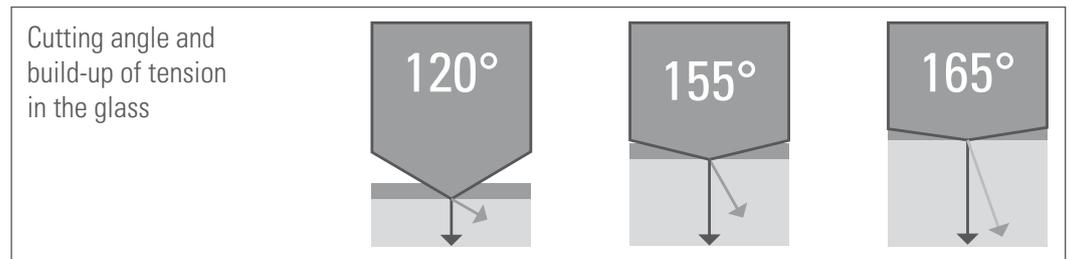
In addition to standard solutions, Bohle will manufacture all Silberschnitt® wheels in increments of 1° (from 75° to 165°) on request. The Bohle professionals will also be happy to assist you on site to find solutions for your applications. Whether you need cutting wheels, wheel holders, complete solutions or other products for automatic glass cutting: by working closely with the customer we can find optimum solutions. Please call us. We are happy to help you!



- α = Cutting angle
($\pm 1^\circ$)
- D = Outside diameter
(+0.15 mm/0.0059"
-0.30 mm/0.0118")
- d = Inside diameter
(+0.04 mm/0.0016")
- t = Wheel thickness
(± 0.01 mm/0.0004")

Cutting angles

In the true sense of the word, glass is not cut, but rather broken. By scoring the surface of the glass with a cutting wheel, tension is built up in the glass. Bending the pane, either by hand or with a tool, results in a controlled break. In order to be able to cut glass of different thicknesses and coatings, the cutting wheel must have the optimum cutting angle. Only when the cutting angle is exactly suited to the glass the best break quality can be achieved and the edge damage can be reduced to a minimum.



Cutting pressure

When cutting glass, the right combination of cutting pressure and cutting angle is very important to keep the score as uniform and narrow as possible. A good score looks like a fine, silvery thread. Excessive cutting pressure increases the risk of glass splintering. In this case, the broken edge exhibits a rough pattern with irregularities. The diagram below can help determine the optimum cutting angle.

Cutting speed

Not only the cutting pressure but also the cutting speed is important for a good cut. In general, we can say that it is better to cut quickly, because doing so reduces the cutting pressure and allows a blunter wheel angle to be selected. This in turn improves the buildup of tension along the score in the glass and results in better breaking quality.

Wheel choice

The smaller, the better. As a rule, wheels with the smallest possible diameter should be used because, in conjunction with the cutting speed, they allow the cutting pressure to be reduced. The cutting angle must be determined according to the glass thickness. The cutting geometry results in a force which creates tension in the glass. The more obtuse the cutting angle is, the greater the build-up of tension.

ACTIVE

- For automatic cutting of shapes as well as laminated glass
- For open cuts in glass thicknesses of 2 to 6 mm in the automotive field
- For standard cutting with an angle from 145° and up
- For coated glass such as low-E

BASIC

- For automatic cutting of float glass 2 to 8 mm thick

CONTACT PLUS

- For thin glass where high edge quality is required
- For display glass as well as LCD, TFT and PDP

Silberschnitt® Cutmaster® Platinum

The cutting wheel for the highest demands

The innovative cutting wheels of the Cutmaster® Platinum series were specially developed by Bohle to produce high-quality cutting edges. Provided with a unique microstructure, these wheels achieve excellent cutting results with minimal edge damage even at low cutting forces. Due to the special arrangement of the structure, the cutting wheel only penetrates the glass surface selectively, no continuous scribe track is created. The dividing crack of the fissure is thus guided exactly in the cutting direction. Accompanying jumps or damage deviating from the scribe line are effectively avoided and edge damage is reduced to a minimum.

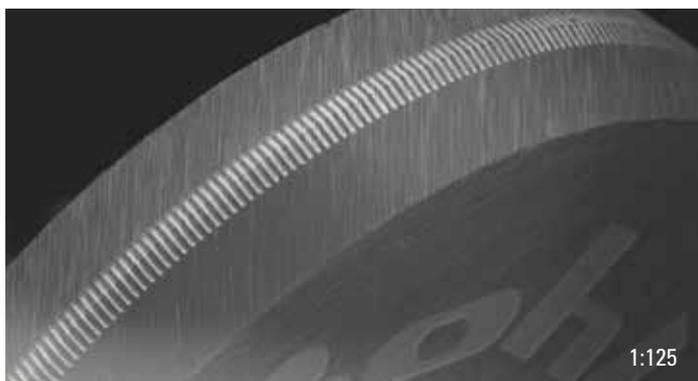
Product highlights

- Excellent edge quality
- Minimal cutting pressure
- Minimal splintering
- Longer service life
- Dry cutting
- Improved edge stability

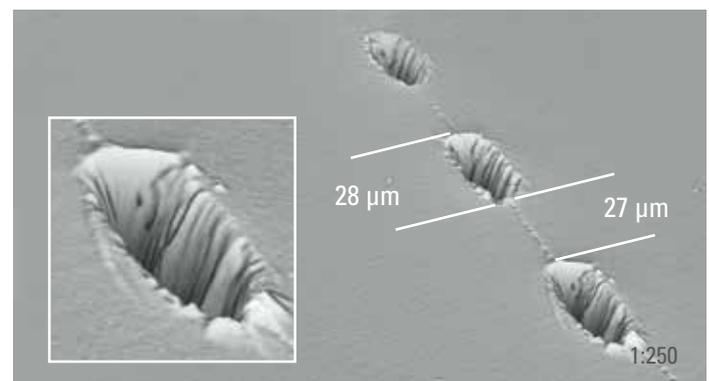


All cutting wheels of the Cutmaster® Platinum series are laser-inscribed with the cutting angle, thus avoiding confusion when they are used.

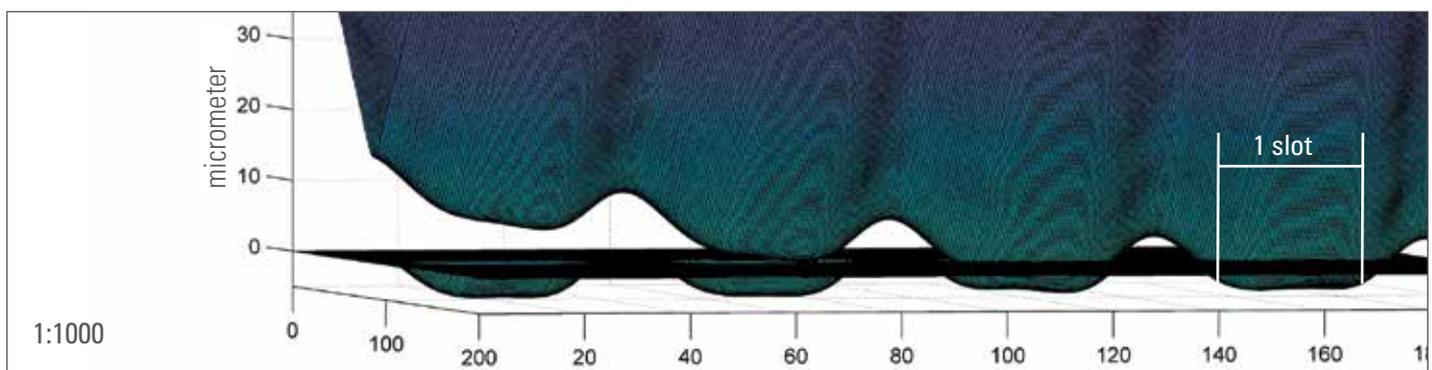
Cutmaster® Platinum



Surfaces after cutting



Glass penetration



Silberschnitt® Cutmaster® Platinum

Wide range of applications

The range of applications is wide: even thin glass of a few micrometres thickness can be cut reliably and precisely with Cutmaster® Platinum. Cutting wheels of the Cutmaster® Platinum series are available in carbide (HM) and polycrystalline diamond (PCD).

- **Float glass**
Slitting cutting of float glass from 0.1 to 19 mm;
Shape cutting of float glass from 0.1 to 2 mm
- **Special glass:**
Medical glass; optical glass; solar glass / photovoltaic glass
Slitting cutting of borosilicate glass up to 25 mm
Slitting cutting of glass ceramic (Ceran, NeoCeran, Robax)
Slitting cutting of leaded glass up to 30 mm.
- **Optical filters**
- **Thin glass**
Shape cutting of 0.1 to 2.0 mm glass · slitting cutting of 0.05 to 3 mm glass

Cutmaster® Platinum carbide cutting wheels

Art. No.	Dimensions in mm (inch)	Slots
06B000P*	ø 2.5 x 0.80 x ø 0.65 mm (ø 0.0984" x 0.0256" x ø 0.0315")	157
66B000P*	ø 3.0 x 0.80 x ø 0.65 mm (ø 0.1181" x 0.0256" x ø 0.0315")	188
12A000P*	ø 4.1 x 1.08 x ø 1.42 mm (ø 0.1614" x 0.0425" x ø 0.0059")	257
02A000P*	ø 5.0 x 1.00 x ø 1.30 mm (ø 0.1969" x 0.00394" x ø 0.0512")	314
03A000P*	ø 5.6 x 1.08 x ø 1.42 mm (ø 0.2205" x 0.0425" x ø 0.0059")	351

Cutmaster® Platinum PCD cutting wheels

Art. No.	Dimensions in mm (inch)	Slots
82D000P*	ø 2.0 x 0.65 x ø 0.80 mm (ø 0.0787" x 0.0256" x ø 0.0315")	125 - 300
81D000P*	ø 2.5 x 0.65 x ø 0.80 mm (ø 0.0984" x 0.0256" x ø 0.0315")	157 - 375
85D000P*	ø 3.0 x 0.65 x ø 0.80 mm (ø 0.1181" x 0.0256" x ø 0.0315")	188
87D000P*	ø 4.1 x 1.08 x ø 1.40 mm (ø 0.1575" x 0.0394" x ø 0.0512")	257
83D000P*	ø 5.0 x 1.08 x ø 1.51 mm (ø 0.1969" x 0.0394" x ø 0.0594")	314
88D000P*	ø 5.6 x 1.08 x ø 1.40 mm (ø 0.2205" x 0.0394" x ø 0.0512")	351

All other wheels in the Bohle range can be produced on request with the special Cutmaster® Platinum micro-structure and with any cutting angle desired.



The plastic version of wheel holders, types 416 and 417, are also available with carbide cutting wheels in the Cutmaster® Platinum version. When ordering, please be sure to specify the desired cutting angle. for example: 416BXXXP 135°

Silberschnitt® Cutmaster® Gold

Cutmaster® Gold - The Long life Cutting Wheel

The innovative Cutmaster® Gold carbide cutting wheel achieves what the glass processing industry has long been waiting for: the balancing act between cost reduction and simultaneous quality improvement. Cutmaster® Gold enables tool life that far exceeds that of a conventional carbide cutting wheel. In addition to the pure cost savings, the increased tool life also means a reduction in maintenance and set-up cycles, as cutting wheels and wheel holders need to be replaced less frequently.

Another advantage is the improved cut quality, which remains consistently at the highest level throughout the entire service life, which significantly reduces the risk of glass breakage and ensures process stability.

Unique performance

The significantly increased service life and continuity of performance compared to conventional carbide cutting wheels is achieved by Cutmaster® Gold through a unique coating. For example, run times of more than 250 kilometres have already been achieved in border cutting on float glass plants. A performance that was previously only possible by using cutting wheels made of polycrystalline diamond (PCD).

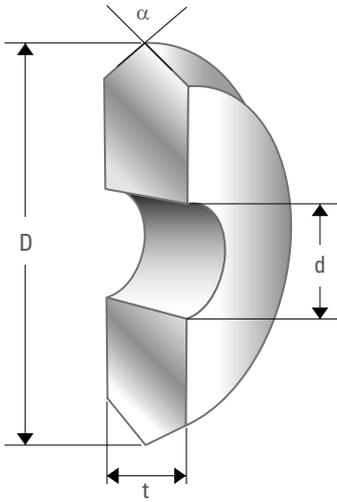
Cutting wheels of the Cutmaster® Gold series also always have angle labeling, which minimises the risk of confusion in practice.

Product highlights

- Cost reduction with simultaneous quality improvement
- Longer service life (up to 10 times more service life)
- Consistently high cutting quality over the entire service life
- Parameter adjustments required less often



Silberschnitt® Cutmaster® Gold



α = Cutting angle
($\pm 1^\circ$)

D = Outside diameter
(+0.15 mm/0.0059"
-0.30 mm/0.0118")

d = Inside diameter
(+0.04 mm/0.0016")

t = Wheel thickness
(± 0.01 mm/0.0004")



Type	02	12	03
D in mm (")	5.0 (0.1969")	4.1 (0.1614")	5.6 (0.1614")
t in mm (")	1.0 (0.0394")	1.08 (0.0425")	1.08 (0.0425")
d in mm (")	1.3 (0.0512")	1.42 (0.0559")	1.42 (0.0559")
Packing unit	1 pc.	1 pc.	1 pc.

125°			12C125G		03C125G
135°	02A135GL	12A135G		03A135G	03C135G
140°				03A140G	
145°	02A145GL	12A145G		03A145G	03C145G
148°		12A148G		03A148G	03C148G
150°	02A150GL	12A150G		03A150G	
152°		12A152G		03A152G	
153°		12A153G		03A153G	
154°				03A154G	
155°	02A155GL	12A155G		03A155G	03C155G
158°		12A158G		03A158G	03C158G
160°	02A160GL				

ACTIVE

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Silberschnitt® PCD Wheels

Long lasting quality

The Silberschnitt® polycrystalline diamond (PCD) cutting wheel was developed for applications demanding a long service life and good cut edge quality. These extremely hard cutting wheels demonstrate their capabilities particularly well when edges are cut during float glass production: the service lives in this application are extraordinarily long. And when cutting very thin glass such as LCD, TFT or PDP, the Silberschnitt® PCD wheels cut cleanly with practically no dusting or splintering. PCD wheels can be re-ground many times and are therefore especially economical. Bohle can produce cutting angles to suit your specific applications.

Product highlights

- Exceptionally long service life
- Consistent quality over the entire service life
- Excellent edge quality
- Regrinding possible



PCD



Wheel holder complete	Article No.	490D000	492D000	495D000	496D000	497D000	498D000
Wheel holder	Article No.	490.5	490.7	432.0C	432.0C	422.0C	422.0C
Wheel	Dimensions	ø 5.0 x 1.08 x ø 1.51 mm	ø 5.0 x 1.08 x ø 1.51 mm	ø 4.1 x 1.08 x ø 1.4 mm	ø 5.6 x 1.08 x ø 1.4 mm	ø 4.1 x 1.08 x ø 1.4 mm	ø 5.6 x 1.08 x ø 1.4 mm
	Article No.	483D000	483D000	487D000	488D000	487D000	488D000
Axle	Dimensions	ø 1.5 x 4.1 mm	ø 1.5 x 6.0 mm	ø 1.39 x 4.1 mm	ø 1.39 x 4.1 mm	ø 1.39 x 9.0 mm	ø 1.39 x 9.0 mm
	Article No.	497D200	497D400	497D141	497D141	497D422	497D422

PCD Cutmaster® Platinum

Wheel holder complete	Article No.	490P000		495P000	496P000	497P000	498P000
Wheel holder	Article No.	490.5		432.0C	432.0C	422.0C	422.0C
Wheel	Dimensions	ø 5.0 x 1.08 x ø 1.51 mm		ø 4.1 x 1.08 x ø 1.4 mm	ø 5.6 x 1.08 x ø 1.4 mm	ø 4.1 x 1.08 x ø 1.4 mm	ø 5.6 x 1.08 x ø 1.4 mm
	Article No.	83D000P		87D000P	88D000P	87D000P	88D000P
Axle	Dimensions	ø 1.5 x 4.1 mm		ø 1.39 x 4.1 mm	ø 1.39 x 4.1 mm	ø 1.39 x 9.0 mm	ø 1.39 x 9.0 mm
	Article No.	497D200		497D141	497D141	497D422	497D422

Silberschnitt® Carbide Wheels

The standard in cutting

Bohle recognised the extraordinary properties of tungsten carbide early on. An increased running performance compared to conventional steel wheels is one of the great advantages of the material.

Furthermore, tungsten carbide cutting wheels are characterised by uniformly good cutting properties and the resulting clean breaking edges for different glass thicknesses. However, it is not only the basic material that is decisive for the quality.

The greatest know-how lies in the further processing of the wheel blanks, which are given their very special grind on specially developed machines. Only the grind, the design of which depends on the subsequent application, leads to a consistently long service life and optimum cutting results.

The majority of well-known cutting machine manufacturers worldwide trust in the proven Silberschnitt® quality and equip their systems with industrial cutting technology from Bohle as standard.

Product highlights

- Long service life
- High quality raw materials
- Superior running properties
- Quality Made in Germany



The optimum packaging for your cutting wheels

- Different packaging sizes to suit your requirements
- Cutting wheel edges are perfectly protected during transport
Reclosable, handy transparent box
Your stock of cutting wheels can be seen at a glance
- Labelling for simple reordering

Please note our packing units:

The first two numbers identify the wheel type. This is followed by a letter (A, B and C), which defines the grind. The three numbers following the letter indicate the cutting angle. If there is no letter after the cutting angle, it is a pack of 10 cutting wheels. The pack of 100 wheels is identified by an „H“ at the end of the code. On pages 18 and 19 you will find a table showing the standard wheels available from Bohle ex stock.

Article No.	Wheel type	Grind	Cutting angle	Packaging
03A155	03	A	155	10
03A155H	03	A	155	100

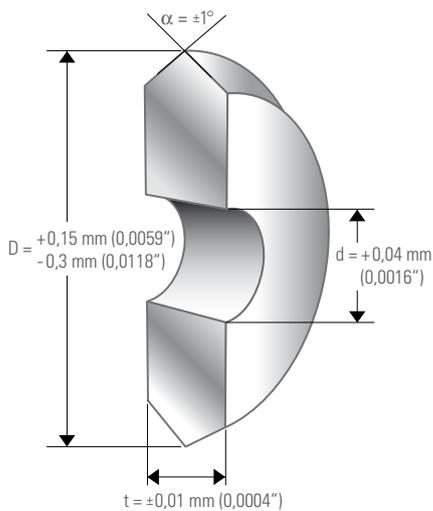
Wheels with special tolerances for Lisecc cutting systems with holder type 439.0 / 439.1:

These wheels have special tolerances. (thickness tolerance +0.01).

The code number has an „L“ (Lisecc) following the cutting angle numbers; the packing unit corresponds to that of all the other wheels.

Article No.	Wheel type	Grind	Cutting angle	Packaging
02A155L	02	A	155	10
02A155LH	02	A	155	100

Silberschnitt® Carbide Wheels



ACTIVE
BASIC
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In order to help you make the right choice from the large number of possible combinations, we have summarised the glass cutting wheels for the most frequent applications in the table below and they are readily available from stock.

- Please select the cutting wheel with the dimensions you require.
- The table on page 7 gives you recommendations for the correct cutting angle.
- Recommendations for choosing the correct grind can be found on page 7.

Example for ordering:

Article No.	Wheel type	Grind	Cutting angle	Packaging
03A135	03	A	135°	10
03A135H	03	A	135°	100

In response to customer wishes, the cutting wheels are now also available on request with engraved cutting angle. The sales unit for these is 100.

The following wheel types are available on request with engraved angles: 03A135HI, 03A145HI, 03A155HI, 12A135HI, 12A145HI, 12A155HI

For all other cutting angles, order article no. 12A000H or 3A000H with I* added at the end. Then indicate the desired angle.



Type	06	66	05
D in mm (")	2.5 (0.0984")	3 (0.1181")	3 (0.1181")
t in mm (")	0.65 (0.0256")	0.65 (0.0256")	1 (0.0394")
d in mm (")	0.8 (0.0315")	0.8 (0.0315")	1.3 (0.0512")
Packing unit	10 / 100 pc.	10 / 100 pc.	10 / 100 pc.
Order No./ Cutting angle	06B000	66A000	05A000
77°			
88°			
90°			
94°			
100°			
110°			
115°			
116°			
118°			
120°	06B120	66B120	05A120
125°	06B125	66B125	
127°			66C127
128°			
130°			
134°			
135°	06B135	66A135	05A135
138°			
140°			05B140
142°			
144°			
145°	06B145	66A145	05A145
148°			05A148
150°		66A150	05A150
152°			05A152
153°			05C153
154°			05A154
155°			05A155
156°			05A156
158°			05A158
159°			
160°			05A160
162°			05A162
163°			
165°			
for Wheel holder	432.6	432.6	432.3
Axles	496.080	496.080	496.130

Silberschnitt® Carbide Wheels



12			02			03			33		07		63	38	08		64
4.1 (0.1614")			5 (0.1969")			5.6 (0.2205")			6.2 (0.2441")		6 (0.2362")		6 (0.2362")	8 (0.3150")	8 (0.3150")		12.5 (0.4921")
1.08 (0.0425")			1 (0.0394")			1.08 (0.0425")			1.08 (0.0425")		1.14 (0.0449")		3 (0.1181")	2 (0.0787")	2 (0.0787")		4 (0.1575")
1.42 (0.0559")			1.3 (0.0512")			1.42 (0.0559")			1.42 (0.0567")		1.55 (0.0610")		1.6 (0.0630")	3,05 (0,1201")	2.6 (0.1024")		3 (0.1181")
10 / 100 pc.			Thickness tolerance +0,01 mm (+0.0004") 10 / 100 pc.			10 / 100 pc.			100 pc.		10 / 100 pc.		10 pc.	10 pc.	10 pc.		10 pc.
12A000	12B000	12C000	02A000	02B000	02C000	03A000	03B000	03C000	33A000	33B000H	07A000	07B000	63A000	38A000	08A000	08B000	64A000
																08B077	
										33B088H							
	12B90															08B090	64A090
										33B094H							
				02B100		03A100											
12A110												07B110					
	12B115						03B115										
12A116				02B116													
12A118	12B118				02C118												
	12B120	12C120		02B120			03B120										
12A125						03A125	03B125										
12A127	12B127			02B127		03A127	03B127			33B127		07B127				08B127H	
12A128																	
12A130	12B130																
12A134									33A134								
12A135	12B135		02A135	02B135		03A135	03B135	03C135	33A135		07A135		063A135			08B135	
						03A138			33A138								
12A140			02A140			03A140			33A140							08B140H	
12A142						03A142											
						03A144											
12A145	12B145		02A145	02B145		03A145	03B145		33A145				63A145				64A145
12A148						03A148							63A148				
12A150			02A150	02B150		03A150		03C150	33A150				63A150	38A150H		08B150H	64A150
12A152						03A152			33A152				63A152R				
12A153						03A153											
12A154						03A154			33A154				63A154R				
12A155			02A155	02B155		03A155	03B155	03C155	33A155				63A155	38A155			64A155
12A156						03A156							63A156R				
12A158			02A158			03A158			33A158				63A158R				
12A159						03A159											
12A160			02A160			03A160		03C160	33A160				63A160	38A160	08A160		64A160
12A162						03A162							63A162				
12A163						03A163											
12A165			02A165			03A165								38A165			64A165
422.0 432.0/432.1			432.3/414.000 416.000 419.000 432.3			422.0 432.0/ 432.1			432.0 422.0 439.16 439.122		417.000 418.000		422.1				

depending on type of insert depending on type of insert depending on type of insert 496.139F
496.422
496.140F 496.160 496.300

Silberschnitt® Wheel Holder

With modern machines and production methods, downtime costs a lot of money. Silberschnitt® wheel holders from Bohle have been specially developed to reduce downtime when changing the cutting wheel. They are characterised by the fact that they can be replaced quickly and also guarantee a clean and safe cut.



Plastic Wheel Holder

Silberschnitt® plastic wheel holders are precision parts with uniformly close tolerances. Different colours allow the cutting edge angle to be assigned at a glance and minimise the risk of confusion. Bohle uses only high-quality, wear-resistant plastics for the holders of types 416 and 417. A special feature is the low frictional resistance - essential for good running properties.

In order to further optimise cutting, Bohle offers a supplement to the usual plastic wheel holders of type 416: With the wheel holder B0439.16 made of metal and use of the plastic rings, which are available in different colours to identify the cutting angle, the cutting properties can be significantly improved. The use of the B0439.16 is particularly recommended for use in mould cutting and open cutting.

Metal Wheel Holder

Silberschnitt® steel wheel holders are precisely matched to the requirements of modern cutting machines. Fast interchangeability and high precision are at the forefront of the design. The steel wheel holders are produced on CNC-controlled machines. This ensures that the slots to accommodate the cutting wheels and the axle bores are made exactly at right angles to each other. Minimal tolerances ensure that the wheels run precisely.

Many major cutting machine manufacturers today exclusively use steel wheel holders of the 432 series. These are particularly suitable for use in machines with high cutting speeds. The metal holders are also excellently suited for cutting thick glass. The wheel holders are dimensionally stable and reliably transfer even high cutting forces to the glass surface. Worldwide trust in Silberschnitt® quality and equip their systems with industrial cutting technology from Bohle as standard.

Silberschnitt® Wheel Holder

We provide all kinds of accessories for OEM

The right solution

Please refer to the specifications of your machine manufacturer when selecting the optimum wheel holder for your cutting machine. Please note that this list is not exhaustive.

Manufacturers: Bavelloni, Benteler, Bottero, Grenzebach, Hegla, Intermac, Lisec, Macotec and Rohmer + Stimpfig



416	
Material	plastic
Version	coloured
Wheel ø	5 mm
	wheel 02
	10

Order No.	416A000	416B000	416C000	Colour
90°				
112°			416C112	ivory white
115°		416B115		water blue
118°			416C118	light blue
120°		416B120		light blue
125°	416A125	416B125	416C125	yellow
127°	416A127	416B127		yellow
130°	416A130	416B130		orange
135°	416A135	416B135		white
140°	416A140	416B140		blue
145°	416A145	416B145		black
150°	416A150	416B150		brown
152°	416A152			red
155°	416A155	416B155		red
160°	416A160			dark green
165°	416A165			light green

417	
Material	plastic
Version	coloured
Wheel ø	6 mm
	wheel 07
	10

Order No.	417A000	417B000	417C000	Colour
90°				
112°	417A90			white
115°				
118°		417B118		light blue
120°		417B120		light blue
125°				
127°		417B127		yellow
130°				
135°	417A135	417B135		white
140°		417B140		white
145°	417A145	417B145		black
150°		417B150		red
152°				
155°	417A155	417B155		red
160°				
165°				

Silberschnitt® Wheel Holder



	432.	432.	432.	432.
Material	steel	steel	steel	steel
Axle	incl.	incl.	incl.	for 496.138F
Wheel type	incl. 03	incl. 12	incl. 33	for 12/03
Wheel ø	5.6 mm	4.1 mm	6.2 mm	for 4.1 / 5.6 mm
	with inscription	with inscription	with inscription	with inscription
				without wheels
110°				432.110
115°				432.115
116°				432.116
125°				432.125
127°				432.127
130°	432.1301	432.1302		432.130
135°	432.1351	432.1352	432.1355	432.135
140°	432.1401	432.1402		432.140
145°	432.1451	432.1452	432.1455	432.145
148°	432.1481	432.1482		432.148
150°	432.1501	432.1502	432.1505	432.150
152°	432.1521	432.1522		432.152
153°	432.1531	432.1532		432.153
154°	432.1541	432.1542		432.154
155°	432.1551	432.1552	432.1555	432.155
156°	432.1561	432.1562		432.156
158°	432.1581	432.1582		432.158
160°	432.1601	432.1602		432.160
163°	432.1631	432.1632		432.163
165°	432.1651	432.1652		432.165



Protective cap for wheel holder module 432

The practical protective cap is slipped over the wheel holder and ensures that the already mounted axle and cutting wheel do not fall out.



Art. No. BO 432.005



	432.0	432.3	432.1	432.6	432.M
Axle	496.138F / 496.139F	496.130	496.138F / 496.139F	496.080	496.138F / 496.139F
Wheel type	12/03	05/02L	12/03	06/66	12/03
Wheel ø	4.1 / 5.6 mm	3 / 5 mm	4.1 / 5.6 mm	2.5 / 3 mm	4.1 / 5.6 mm
	without angle inscription	without angle inscription	with hole for ball pressure piece	without angle inscription	without angle inscription

Suitable for the following glass processing machines:

Armatec, Bando, Bavelloni, Benteler, Billco, Bystronic, GED, Grenzbach, Hegla, Intermac, Laser, Lisec, MacoTec, Perfect Technology, Pfister, Rohmer+Stimpfig - Wheel and axle not included.

Silberschnitt® Wheel Holder



	422.0	422.1	439.1	439.2	439.3	439.16	439.16V	439.122
Material	steel	steel	steel	steel	steel	steel	steel	steel
Axle	496.422	496.160	496.439	496.439		496.140F	496.140F	496.140F
Wheel type	12/03	63	02L	02L	12/03	12/03	12/03	12/03
Wheel ø	4.1 / 5.6 mm	6 mm	5 mm	5 mm	4.1 / 5.6 mm	4.1 / 5.6 mm	4.1 / 5.6 mm	4.1 / 5.6 mm

L = 11.5 L = 16.5 L = 11.0 tempered

Suitable for the following glass processing machines:

	Bottero	Bottero	Lisec	Lisec		Bottero	Bottero	Bottero
	Bystronic	Bystronic						
	Grenzebach	Grenzebach						
	Benteler	Benteler						

Wheel and axle not included.

To optimise the applications in cutting, Bohle offers an addition to the standard type 416 plastic wheel holders. With the metal wheel holder 439.16 and using the plastic rings available in different colours to identify the cutting angle, the cutting properties can be improved significantly.

Especially for applications involving shape cuts or open cuts, it is recommended to use a wheel holder of the 439.16 series.

Wheel holder 439.16 with mounted plastic rings



Art. No.	Wheel type	Dimensions in mm (")	Axle	Dimensions in mm (")
439.16	12	ø 4.1 x 1.08 x ø 1.42 mm (ø 0.1614" x 0.0425" x ø 0.0559")	496.140F	ø 1.4 x 12.0 mm (ø 0.551" x 0.4724")
439.16	03	ø 5.6 x 1.08 x ø 1.42 mm (ø 0.2205" x 0.0425" x ø 0.0559")	496.140F	ø 1.4 x 12.0 mm (ø 0.551" x 0.4724")

Suitable for the following cutting machines: Bavelloni, Bottero, CMS, Grenzebach, Intermac, Macotec, Maver, Pannkoke

				
Art. No.	438R135	438R145	438R150	438R155
Ring set	white	black	brown	red

Silberschnitt® Pillar Posts

Bohle has been developing and producing complete solutions for cutting machines for many years. Not only cutting wheels and axles, but also wheel holders and complete cutting heads fall into this area. The range of customised cutting heads is continuously being expanded.



Range of options

Silberschnitt® cutting heads are available in different versions: For straight cutting with a limited swivel range, for shape cutting with a swivel range of up to 360°. Optionally, the wheel can be held in the cutting position after the cutting process or centred in 0° position. Special solutions with greater overtravel are available on request.

Special solutions for all industries/float glass

Bohle also offers individual special solutions for use in float glass plants. In order to achieve an improvement in cutting quality and service life, existing cutting heads with plastic wheel holders can be converted to the use of high-precision metal holders.

Silberschnitt® Pillar Posts

Always the right solution

Thanks to our many years of experience in industrial glass cutting and co-operation with renowned machine manufacturers, we offer the right fixture for all common machine types. Customised designs and adaptations are also possible at any time. Please do not hesitate to contact us!



Silberschnitt® Pillar Posts



Silberschnitt® Pillar Posts



436.5
limited swivel,
ø 16 mm, H = 42.5 mm



436.6
can rotate 360°,
ø 16 mm, H = 42.5 mm



436.6L
Bavelloni, swivel 360°,
ø 16 mm, H = 44.5 mm



436.16
Bottero, swivel 360°,
ø 16 mm, H = 44.5 mm



436.G
Intermac, Genius, cutting tables
ø 29.5 mm, H = 30.0 mm



436.FOX
Intermac, Fox tables
ø 44 mm, H = 50.5 mm



436.7
Rohmer + Stimpfig
ø 10 mm, H = 35 mm



436.706
Rohmer + Stimpfig, Pfister
ø 10.0 mm, H = 35 mm
Slant 6°



438.054
Ball bearing set
suitable for 436.XX
ø 19 mm x 6 x ø 6 mm



436.1038
M8 x 1, ø 19 mm, L = 55 mm
can rotate 360°



439.047
Laser
H = 45 mm, B = 14 mm, t = 8 mm



436T1027
Bando, limited swivel,
ø 8 mm, H = 44 mm

Silberschnitt® Pillar Posts




436T1028
Bando, swivel 360°, ø 16 mm,
stem ø 8 mm, H = 44 mm






436.3015
Grenzbach, Bottero
limited swivel, ø 15.6 mm,
H = 6 mm, L = 34.2 mm




436.1046
Technometall, swivel 360°,
ø 15.8 mm, H = 32 mm



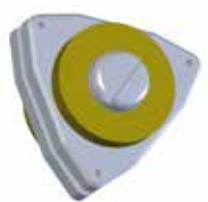

439.1205 various cutting machines
stem ø 6.33 mm, stem length
10.0 mm, total length 22.5 mm,
trailing 3.2 mm, tempered




439.1204
AGC, Asahi cutting machines
swivel 360°, ø 19 mm,
L = 21.0 mm, trailing 2.5 mm




439.1108
GED
ø 7.14 mm, L = 38 mm
trailing 2.0 mm, tempered




434K000
Biebuyck, for 3 carbide wheels,
ø 27.2 mm, thickness = 14.6 mm

Silberschnitt® Axles

Even the supposedly smallest link in the chain should harmonise perfectly with the other components. Silberschnitt® axles are available in a wide range of dimensions and different types of material.



Silberschnitt® PCD Axles

For optimum, smooth running of PCD cutting wheels, PCD axles should be used for mounting them in their wheel holders. These PCD axles meet the demands for high cutting speeds and minimal wear and they guarantee that the cutting wheel rolls smoothly and easily.

Silberschnitt® Carbide Axles

For mounting of the wheels in the wheel holder or support, Silberschnitt® axles are available in various dimensions. With the present-day standard of machine engineering and the high demands made on the glass cuts, axles of carbide alloy steel are to be recommended. These axles meet all the demands for high cutting speeds and minimal wear and they guarantee that the cutting wheel rolls smoothly and easily. They are ideally suitable for extremely thin as well as thick glass.

Silberschnitt® PCD Axles

Article No.	Diameter in mm (")	Length +/- 0.2 mm (0.0079")	Chamfer
497D300	0.80 mm (0.0315")	4.1 mm (0.1614")	0.2 x 30° (1x) (0.0079 x 30")
497D306	0.80 mm (0.0315")	6.0 mm (0.2362")	0.2 x 30° (1x) (0.0079 x 30")
497D310	1.10 mm (0.0433")	6.0 mm (0.2362")	0.2 x 30° (1x) (0.0079 x 30")
497D100	1.30 mm (0.0512")	4.1 mm (0.1614")	0.5 x 30° (1x) (0.0197 x 30")
497D439	1.30 mm (0.0512")	8,0 mm (0.1496")	0.5 x 45° (1x) (0.0197 x 45")
497D141	1.39 mm (0.0547")	4.4 mm (0.1732")	0.5 x 30° (1x) (0.0197 x 30")
497D422	1.39 mm (0.0547")	4.4 mm (0.1732")	0.5 x 30° (1x) (0.0197 x 30")
497D200	1.50 mm (0.0591")	4.2 mm (0.1654")	0.5 x 30° (1x) (0.0197 x 30")
497D400	1.50 mm (0.0591")	6.0 mm (0.2362")	0.5 x 30° (1x) (0.0197 x 30")

Carbide axles with PCD coating

The carbide axle with strong, impact resistant PCD coating is an economical alternative for applications in automotive glass cutting.

Article No.	Diameter in mm (")	Length +/- 0.2 mm (0.0079")	Chamfer
499D080	0.79 mm (0.0311")	4.6 mm (0.1811")	0.3 x 30° (1x) (0.0118 x 30")
499D130	1.30 mm (0.0433")	8 mm (0.1732")	0.5 x 30° (1x) (0.0197 x 30")
499D139	1.39 mm (0.0547")	4.4 mm (0,1732")	0.5 x 30° (1x) (0.0197 x 30")
499D150	1.50 mm (0.0591")	4.4 mm (0.1732")	0.5 x 30° (1x) (0.0197 x 30")

Please enquire about PCD axles with special dimensions.



Silberschnitt® Carbide Axles



Information about special-sized axles not shown in the catalogue is available on request. The following standard carbide axles are available ex stock (in packs of 10):

Article No.	Diameter in mm (")	Length ± 0.2 in mm	Chamfer
496.080	0.80 mm (0.0314")	4.6 mm (0.1811")	0.5 x 45° (2x) (0.0200" x 45°)
496.130	1.30 mm (0.0512")	4.2 mm (0.1654")	0.2 x 45° (2x) (0.0790" x 45°)
496.330	1.30 mm (0.0512")	3.6 mm (0.1417")	0.2 x 45° (2x) (0.0790" x 45°)
496.439	1.30 mm (0.0512")	8.0 mm (0.3149")	0.2 x 55° (1x) (0.0790" x 55°)
496.4391	1.30 mm (0.0512")	14.0 mm (0.5512")	0.2 x 45° (1x) (0.0790" x 55°)
496.138F	1.38 mm (0.0543")	4.2 mm (0.1654")	0.4 x 45° (1x) (0.0157" x 45°)
496.210A	1.38 mm (0.0543")	5.3 mm (0.210")	0.4 x 45° (1x) (0.0157" x 45°)
496.245A	1.38 mm (0.0543")	6.2 mm (0.245")	0.4 x 45° (1x) (0.0157" x 45°)
496.305A	1.38 mm (0.0543")	7.7 mm (0.305")	0.4 x 45° (1x) (0.0157" x 45°)
496.139F	1.39 mm (0.0547")	4.6 mm (0.1811")	0.8 x 35° (1x) (0.0314" x 35°)
496.422	1.39 mm (0.0547")	9.0 mm (0.3543")	0.2 x 45° (2x) (0.0790" x 45°)
496.14F	1.40 mm (0.0551")	4.4 mm (0.1732")	0.4 x 45° (1x) (0.0157" x 45°)
496.140F	1.40 mm (0.0551")	12.0 mm (0.4724")	0.4 x 45° (1x) (0.0157" x 45°)
496.160	1.60 mm (0.0630")	9.0 mm (0.3543")	0.2 x 45° (2x) (0.0790" x 45°)
496.300	3.00 mm (0.1181")	11.0 mm (0.4331")	0.5 x 45° (1x) (0.0200" x 45°)

Silberschnitt® Process Chemicals

The fluid sets the tone

Modern synthetic cutting fluids are definitely preferable to traditional cutting agents such as petroleum or paraffin. The biggest advantages: good lubricating effect, an audibly softer break, and significantly improved edge quality. In addition, modern cutting fluids bind glass dust and significantly reduce crumb formation.

Since both production processes and environmental conditions are different for each manufacturer, the cutting fluid must also be adapted to the respective conditions. Important selection criteria are, for example, glass thickness, surface temperature or the application system.

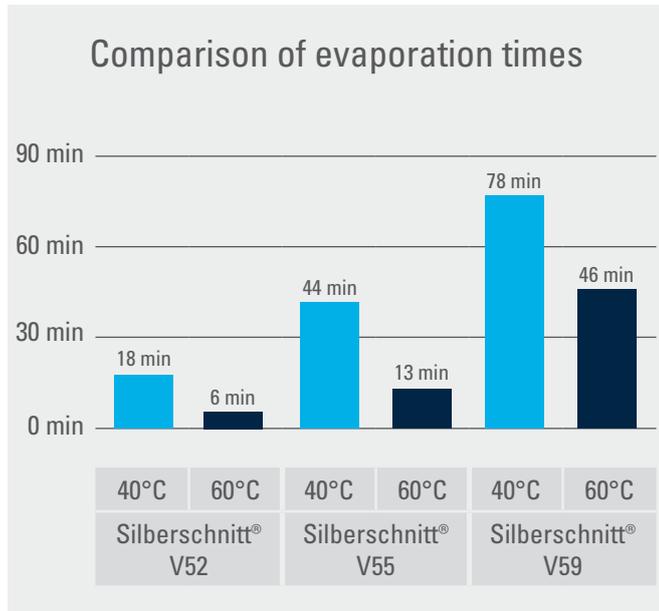
Why cutting fluid?

Silberschnitt® cutting fluids are water-soluble, environmentally friendly and available for all common applications: from guaranteed residue-free washable to reliably residue-free evaporating cutting fluids, which are available in three evaporation levels depending on requirements. Cutting fluids lubricate the cutting wheel, minimise friction and thus enable longer tool life. A reduction in cutting pressure results in less damage to the glass surface, leading to less chipping and better edge quality. In addition, the finest glass particles are bound and consequential damage in downstream process steps is avoided.

Silberschnitt® Cutting Fluids

Washable or evaporating

Silberschnitt® cutting fluids are available for all common applications: from easily washable to fully evaporating cutting fluids. Choose from three evaporation levels or two washable variants to find the optimal solution for your needs.



Safe for People and the environment

Silberschnitt® cutting fluids are synthetically produced, high-purity lubricants which, in contrast to mineral oils containing harmful substances, not only have improved chemical and mechanical properties but also do not harm the health of the user in case of skin contact and inhalation. Both evaporating and washable Silberschnitt® cutting fluids are biodegradable and allergen-free.

Safe for your production process

It is not only the potential impact on human health that makes mineral oils such as petroleum or paraffin unsuitable lubricants for glass cutting. A sometimes highly fluctuating raw material quality and lack of control of raw material quality lead to inconsistent results in production. Silberschnitt® cutting fluids enable excellent product quality, ensure reproducible results and a stable production process.



Benefits for your cutting process

- Cutting fluids lubricate the cutting wheel, minimize friction and thus enable a longer service life.
- A reduction in cutting force results in less damage to the glass surface, which leads to less chipping and better edge quality.
- The binding of the finest glass particles prevents consequential damage in the downstream process steps.

Silberschnitt® Cutting Fluids

Quality factor cutting fluid

The way to first-class edge quality is very simple: rely on modern, synthetic cutting fluids! Compared to traditional lubricants such as petroleum or paraffin, they offer several advantages at once: a unique lubricating effect, an audibly softer break and the binding of glass dust to reduce crumb formation.

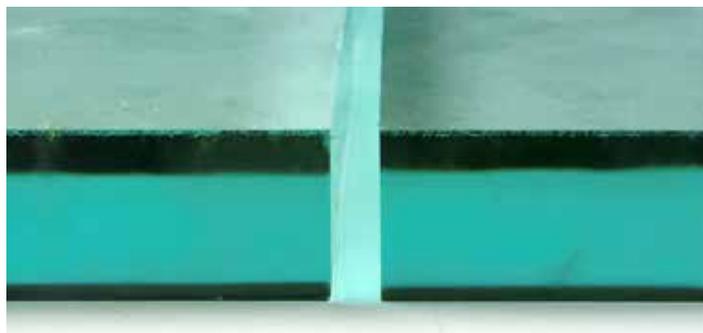


Figure: Dry cut versus cut with added cutting fluid Silberschnitt® V55

The right choice for your application

Since both production processes and environmental conditions are different for each manufacturer, the cutting fluid must also be adapted to the respective conditions. Important selection criteria are, for example, the glass thickness, the surface temperature or the application system. We will be happy to advise you!

PRODUCT	APPLICATION	PROPERTIES	VISCOSITY	ART. NO.	CONTENTS
Evaporating	Silberschnitt® V52 Offline cutting, also for coated and laminated glasses	Short evaporation time	approx. 2 mPas	BO 5002954	5 litres
				BO 5002904	30 litres
				BO 5002934	200 litres
	Silberschnitt® V55 Online and offline cutting, also for mirrors and low-E	Mean evaporation time	approx. 2 mPas	BO 5002955	5 litres
				BO 5002905	30 litres
				BO 5002935	200 litres
	Silberschnitt® V59 Online and offline cutting, for thicker glasses and higher temperatures	Long evaporation time	approx. 3 mPas	BO 5002957	5 litres
				BO 5002907	30 litres
				BO 5002937	200 litres
Washable	Silberschnitt® W41 For automotive glass processing, for thicker glasses and demanding shape cuts, ideal with pressureless oil supply	Low viscosity	approx. 25 mPas	BO 5002902	30 litres
				BO 5002932	200 litres
	Silberschnitt® W60 For automotive glass processing, for thicker glasses and demanding shape cuts, stable lubricating film	High viscosity	approx. 70 mPas	BO 5002956	5 litres
				BO 5002906	30 litres
				BO 5002936	200 litres

Silberschnitt® Blades

Fine contour cuts

Depending on whether straight cuts or fine contour cuts are required, our blades are available in narrow and wide versions. Both variants are available in both plastic and metal holders.



Blades for film cutting

With Silberschnitt® blades, films for sandblast stencils or mounted etching stencils can be cut on modern CNC cutting tables. The narrow blades are used for fine contour cuts, the wide blades are suitable only for straight cuts. Films in thicknesses from 0.2 to 2.6 mm can be cut with the Silberschnitt® blades.

Blades in plastic holder



Article No.	416.1	416.2
Material	plastic	plastic
Blade shape	narrow	wide

Silberschnitt® round blade



Article No.	725
Diameter	ø 25 mm
Cut	Straight

For cutting laminated glass films, 10 blades in a small case, for use in Lisec laminated glass cutting machines.

Blades in metal holder

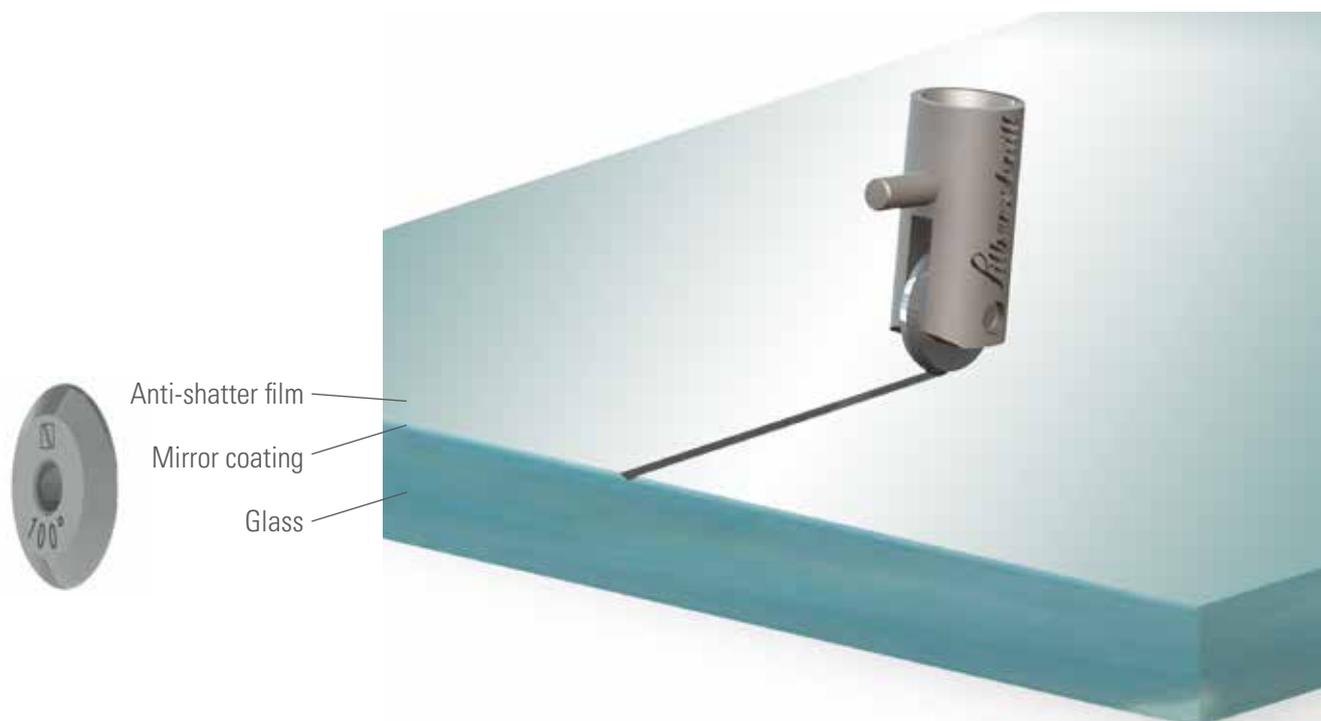


Article No.	432.7	432.8	432.71	432.81	439.1601
Material	steel	steel	steel	steel	steel
Blade shape	narrow	wide	narrow, turned 180°	wide, turned 180°	narrow

Special applications

Cutting of mirrors that are surfaced with anti-shatter film

To cut mirrors that have already been backed with an anti-shatter film during manufacturing, wheels that are specially pre-facetted are used. Depending on the glass thickness, different cutting angles must be used.

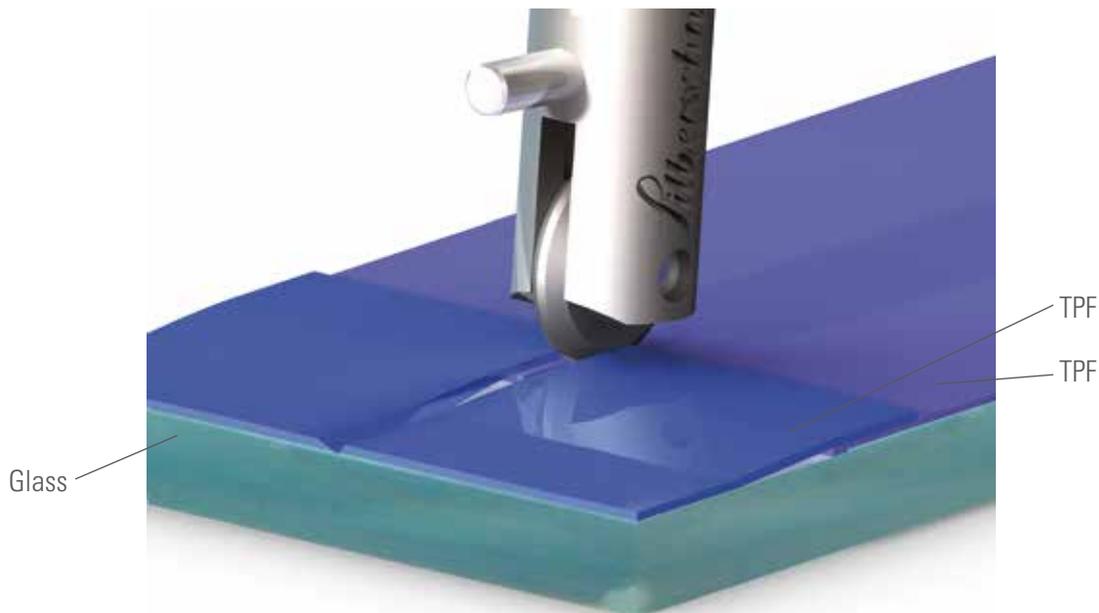


Type						
Article No.	03A100M	416A100M	03A110M	416A110M	03A115M	416A115M
Cutting angle	100°	100°	110°	110°	115°	115°
Glass thickness	4 mm	4 mm	4 mm	4 mm	5/6 mm	5/6 mm

Special applications

Cutting of glass that is protected with TPF (temporary protective film)

The cutting wheel of the Cutmaster® Platinum series with patented micro-structure and a special cutting edge geometry allows a precise cut through the film and optimum penetration into the glass at the same time. Thus the cutting wheel allows a perfect break of the glass. The special cutting geometry in combination with the micro-structure makes it possible to cut the glass using relatively low cutting pressure. With the standard carbide cutting wheels that are generally used, it is only possible to cut through the film by exerting overproportional cutting pressure, thus negatively affecting the break quality.



Type	Carbide wheel	PCD wheel
Article No.	03AP148P	88DP148P
Cutting angle	148°	148°
Glass thickness	6/8 mm	6/8 mm
Article No.	03AP150P	88DP150P
Cutting angle	150°	150°
Glass thickness	8/10 mm	8/10 mm
Article No.	03AP152P	88DP152P
Cutting angle	152°	152°
Glass thickness	10/12 mm	10/12 mm
Article No.	02AP130P	
Cutting angle	130°	
Glass thickness	6/8 mm	

Please contact us for more cutting angle recommendations



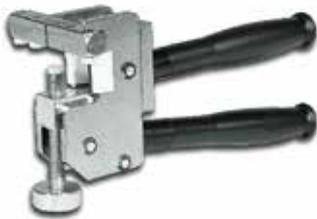
@ industry@bohle.de
 ☎ +49 (0) 2129 5568 801

Please refer to pages 25-27 for an overview of metal wheel holders and suitable carbide axles. PCD axles can be found on page 26.

Accessories

Silberschnitt® cut running pliers, heavy duty

Quick, easy and safe opening of glass cuts, even with thick glass. Precise adjustment to the respective glass thickness. Optimum power transmission over 6 metres when opening the cuts, which is supported by the ergonomically shaped handles.



ART. NR.	GLASS THICKNESS	SALES UNIT
BO 702.0	6 - 25 mm	1 x

i For optimal use of the pliers, use a glass cutter suitable for the glass thickness and application in advance, as well as a sufficient amount of Silberschnitt® cutting fluid.

Silberschnitt® cut running pliers, medium duty

Quick, easy and safe opening of glass cuts, even with thick glass. Precise adjustment to the respective glass thickness. Also ideal for opening straight cuts and corner cut-outs etc.



ART. NR.	GLASS THICKNESS	SALES UNIT
BO 704.0	6 - 15 mm	1 x

i For optimal use of the pliers, use a glass cutter suitable for the glass thickness and application in advance, as well as a sufficient amount of Silberschnitt® cutting fluid.

Silberschnitt® Cut Opening Tapper

The Silberschnitt® cut opening tapper is a high-quality tool specially designed for opening glass from 10 - 20 mm.

The cut opener produces a controlled break with a clean glass edge. Depending on the application, the stop strength can be adjusted individually. Provides a perfect working result even in tricky situations. Due to the striker principle, no throat dimension has to be taken into account.



ART. NR.	GLASS TYPE	SALES UNIT
BO 710.0	Thick glass	1 x

Silberschnitt® Cut Opener

Particularly complicated cuts, such as 90° corners, can be opened without any problems. Ideally suited for many different shape cuts such as corner or edge cuts. A rotatable pressure ring has been integrated for optimum adjustment to all cus.



ART. NR.	GLASS TYPE	SALES UNIT
BO 706.0	Thick glass	1 x

Accessories

Silberschnitt® Thick glass cutting kit in aluminium case

This kit contains all necessary tools for cutting circles and straight cuts in glass up to 25 mm thick and with max. \varnothing of 120 cm. Now also includes oil glass cutter BO 2000.P POWER and practical aluminium carrying case.



ART. NR.	SALES UNIT
BO 2740.0	1 x

The set contains:

ART. NR.	DESCRIPTION	
BO 2000.P	Silberschnitt® 2000.P POWER oil glass cutter	1 x
BO 2045.0	Silberschnitt® transverse handle for glass cutters	1 x
BO 702.0	Silberschnitt® cut running pliers	1 x
BO 710.0	Silberschnitt® cut opening taper for thick glass	1 x
BO 521.0	Silberschnitt® thick glass circle cutter	1 x
BO 5002800	Silberschnitt® cutting fluid for thick glass	1 x
BO 5002810	Dispenser for cutting fluid	1 x

 Only available on request

Glass breaking pliers

The glass breaking pliers allow easy opening and breaking of glass cuts as well as cleaning and correcting of glass cuts. Fine crumbling is possible due to the narrow serration of 0.61 mm of the jaws. The opening width of the pliers is 19 mm. Non-slip and ergonomic handling are ensured by the plastic coating of the handles.



ART. NR.	JAW WIDTH	LENGTH	SALES UNIT
BO 5008020	20 mm	200 mm	1 x

Mounting Aid for Carbide Wheels

The practical mounting aid makes it easier to change the cutting wheel.



ART. NR.	SUITABLE FOR WHEEL CARRIERS	SALES UNIT
BO 440	432.0, 432.3, 490.5	1 x

Screwdriver, slotted

2.0 x 40 mm with round blade, total length 86 mm



ART. NR.	SALES UNIT
BO 442	1 x

Accessories

Test pin

The test pin is used to check the slot dimension in the wheel carrier. If the test pin fits into the gap, the wheel carrier must be replaced.



ART. NR.	SLOT DIMENSION	SALES UNIT
B04 38.114	1.14 mm	1 x

i Quick check of the wear condition of the wheel carrier

Assortment box

The assortment box with two inserts and carrying handle is used for safe and orderly storage of cutting wheels and wheel holders.

The case is also equipped with the smartphone magnifier BO 4403.0 and the practical mounting aid BO 440. Dimensions: 275 x 240 x 80 mm (L x W x H)



ART. NR.	SALES UNIT
BO 4400.0	1 x

i Supplied without cutting wheels and/or wheel holders.

Measuring device TinCheck®

The TinCheck® quickly and reliably identifies the tin bath side of soda-lime glass. Modern LED technology provides the result at the touch of a button. The device is handy and portable.

Simply place the handy device on the glass pane, press the start button, done. The result is displayed immediately and remains for reading. If necessary, the measuring mode of the device can be changed. In „user mode“, the unit displays numerical values for each side of the glass. In this way, comparative measurements can be made for special glass. The side with the higher number is the tin side



Product highlights

- Simple operation
- Handy and portable
- Modern LED technology
- Optical and acoustic display of the result
- Programmable

ART. NR.	SALES UNIT
BO 5164615	1 x

i Not suitable for borosilicate glass.

Accessories

Magnifier for smartphone

With the magnifying glass attachment for smartphone or tablet, the quality of the break edge can be checked quickly and easily.

As the magnifier is simply attached to the camera of one's own smartphone or tablet, operation is extremely user-friendly. No additional software needs to be installed. The magnifier has an integrated LED illumination to achieve optimal shots even in difficult lighting conditions. Dimensions: 6.7 x 4.5 x 2.8 cm (L x W x H) Maximum thickness of the smartphone or tablet (incl. cover): 12 mm



ART. NR.	SALES UNIT
BO 4403.0	1 x

Mobile pressure gauge

The pressure gauge for determining tensile and compressive forces is used to check the actual cutting pressure transmitted to the cutting head.

Until now, it was not possible with older cutting systems to determine the actual cutting force in Newtons via the setting manometer or via the spring pressure. With the mobile pressure gauge from Bohle, the cutting force that is transferred to the cutting wheel by the cylinder of the cutting head can be determined exactly. It is also suitable for modern systems: A comparison of the set machine parameters with the actual cutting force generated can be carried out quickly and easily. The pressure gauge has an easy-to-read 4½-digit and freely scalable LCD display. It can be operated with standard primary batteries as well as with environmentally friendly rechargeable batteries.



ART. NR.	SALES UNIT
BO 5164850	1 x

Product highlights

- Easy handling
- Quick control of the actual cutting force
- Permanently reproducible cutting results

Good to know

It's not always the wheel's fault

You're not really satisfied with the results of the cutting machine. Based on our experience, we have compiled a questionnaire to help you quickly identify possible problems and easily remedy them yourself. Please check if one or more of the following points may be the cause of your problem:

- Does the wheel still rotate easily when installed?
- Does the wheel have too much lateral play when installed?
- Is the wheel affected by glass particles or running freely in the wheel holder
- Is sufficient cutting fluid being applied or does it stop dispensing during the cutting process?
- Is the wheel angle right for the glass thickness / glass type / shape cuts or straight cuts?
- Is the cutting pressure right for the wheel angle and the glass thickness/ glass type?
- Does the wheel holder have too much lateral play in the cutting head?
- Is the axle worn?
- Is the cutting speed appropriate for the glass being cut?
- Is the wheel aligned 100% precisely in the cutting direction?
(Wheel running slightly offset from the cutting direction?)
Can be recognised by hard breaking, poor broken edge quality and high wear.
Please note: This fault occurs gradually.
- Are you producing a fine, silvery score line or a white score line? A white track indicates too much cutting pressure or insufficient cutting fluid.
- Is the type of grind of the wheel appropriate for the cutting process and material?
- Are you using the right grind (ACTIVE) for coated glass?
- Does the glass contain excessive separating powder? This impairs perfect cutting and can cause the wheel to jam.
- Are you using glass with high stresses?
- Are you using the right wheel diameter for your glass?
- Small radii and thin glass should be cut with small cutting wheels.
- Is the wheel worn?

Selection guide for automatic glass cutting supplies

General information

Date of inquiry:

Company name:

Customer ID (if available):

Contact person:

E-mail address:

Cutting table

Bavelloni	Grenzebach	Macotec	RS technology / Rohmer & Stimpfig
Benteler	Hegla	Maver / Mawei	Tuomas
Bottero	Intermac	Olbricht	
Glaston / Bystronic	LiSEC	Pannkoke	Other: <input type="text"/>

Machine model: Year of construction:

Cutting wheel holder



Cutting wheel

Outer diameter (mm):

Thickness (mm):

Bore hole (mm):

Cutting angle (°):

Axle

Diameter (mm):

Length (mm):

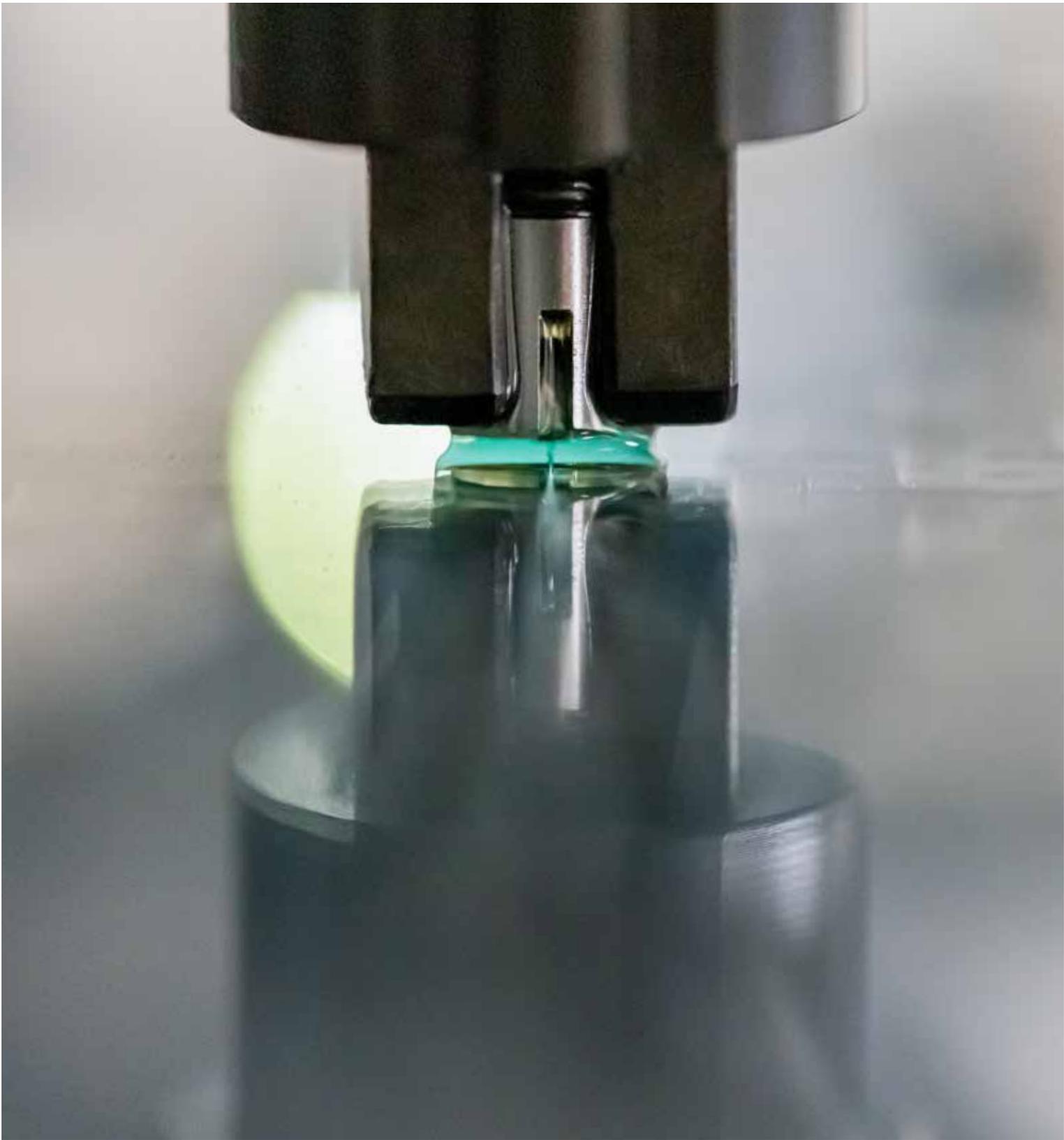
Application details

Type of cuts Straight cuts Shape cuts Open cuts

Glass thicknesses (mm):

Type of glass:

Further information:



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