

STROH

DIAMANTWERKZEUGE



Diamond-Tools



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Dear Customer

Our company history, which combines over 50 years of tradition and experience from three generations, guarantees highest precision and continuous innovations in the tool development sector.

We have worldwide distribution channels and place particular emphasis on service and customer satisfaction. Personal customer support is there for a key element in our work and sales structures.

With a wide range of products we have a great pool of special tools. Each production element is subject to the same critical requirements that are already respected for the material selection. This is the only way to maintain the high quality standard of our company.

As a strong partner we support you with advanced technology, both nationally and internationally. See what we have to offer and become a customer of **STROH Diamantwerkzeuge KG**.

In this catalogue you find informations about our company history, the company philosophy and our range of products. We are also happy to be of assistance for individual requests and inquiries!

Bruchköbel



Main plant:
Sales, Application,
Administration, Production
Kinzigheimer Weg 2e, 63486 Bruchköbel
Germany
Phone +49 (0) 6181 / 9740-0
Fax +49 (0) 6181 / 9740-40
E-Mail: info@stroh-diamant.de

Hünfeld



Production plant:
Im Stauster 5, 36088 Hünfeld
Germany

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Company profile

STROH Diamantwerkzeuge KG is a third generation, medium sized company with its head office in Bruchköbel near Frankfurt am Main (Germany), the production plant in Hünfeld near Fulda (Germany) and an overseas subsidiary in Brazil located in Indaiatuba in Sao Paulo State.

The **STROH Diamantwerkzeuge KG** developed from a family led, small diamond cutting company located in the Rhine-Main area, which has been traditionally populated by diamond cutting businesses.

In 1965 the jewellery diamond cutting business was given up and modified to industrial diamond machining.

Since then **STROH Diamantwerkzeuge KG** has been consistently growing and also expanding its range of tools, while yet maintaining the traditional manufacturing of diamond machining.

An above average investment rate and continuous process improvements have positioned us among the worldwide leading manufacturers of diamond tools and has even given us global market leadership with individual products. The manufacturing of high quality products and the customer satisfaction that goes along with that is our primary goal. With our 3 production sites and many other representations worldwide we offer our customers the best service possible. Personal customer support has top priority for us.

Indaiatuba Brasil



Stroh do Brasil Ltda.
Bairro Chácara Alvorada
Estrada Municipal Idt 334, no 585
CEP 13.337-200
Indaiatuba/SP
BRAZIL



Diamond and CBN-Tools

Diamond roller dressers

Diamond roller truers

Dressing plates

Single point dressers

Multi grain dressers

Chisel diamond tools

Wheel dressers

Hand dressing tools

Hardness indenters

Hardness reference blocks

Gauge points and tips

Diamond- and CBN turning tools

Electroplated abrasive wheels

Diamond- and CBN grinding wheels

Hand lapper

Diamond pastes

Special tools



Single point dresser

The single point diamond is still often used today for various grinding procedures. Since there is no standard and their evaluation is subjective there is a certain fascination tied to diamond quality. You can trust our diamonds even when they are mounted.

Application recommendation:

- Clamp dressing tool as short as possible to avoid vibrations
- Tilt angle of the dresser should be radial 10° to 15°
- Infeed up to maximum 0,03 mm (30µm)
- Feed up to 0,2 mm
- Good cooling, must begin with dressing procedure – otherwise danger of cracking
- After creating a surface, axially rotate the diamond 90°
- Timely remounting increases efficiency

Selection assistance:

Grinding wheel ø	Carat Weight
50	0,33
100	0,50
200	0,50–0,75
300	0,75–1,00
400	1,00
500	1,25–1,50
600	1,50–2,00
800	2,50

Disposable dressing diamonds are maintenance free and can be used to dress discs with fine grains and median disc diameters. We use good quality and forms.

STROH single point Dressing Diamond

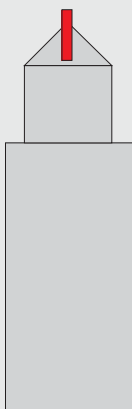
- From 0,10 up to 2,5 Carat
- 4 qualities available: TOP, EXTRA, STANDARD, SPECIAL
- Natural point or grinded point
- Octahedron or dodecahedron
- Regrinding service
- Fastest delivery times

Selecting the diamond is determined by the dimensions of the grinding wheel (diameter and width), the degree of hardness and grain size as well as the individual dressing conditions.

Single point dresser with small synthetic diamond blanks

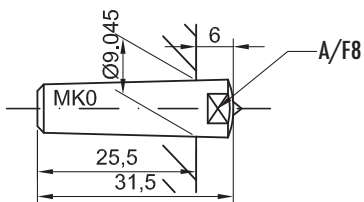
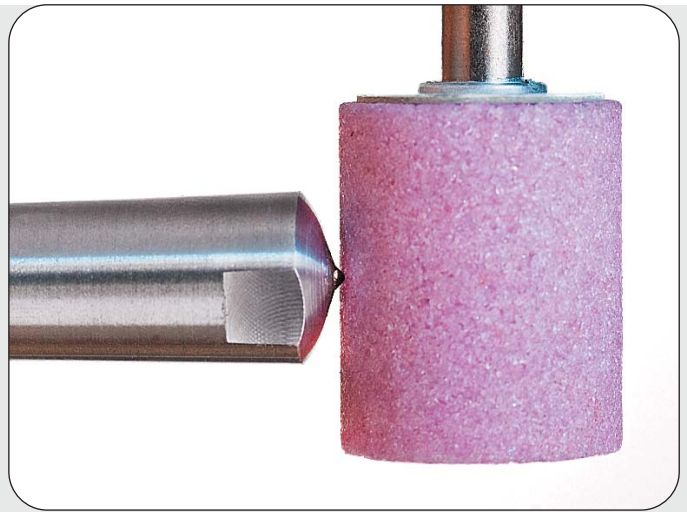
To eliminate natural variations in quality, the trend here is towards synthetic diamond blanks. The properties of the diamond material are always the same in this case.

Plus there is the benefit of the lifelong constant dressing conditions. Because of the constant cross-section surface there is no longer the need to adjust the dressing parameters.

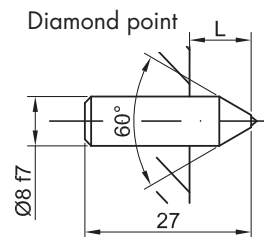




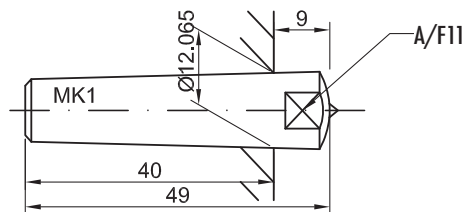
Single point dresser



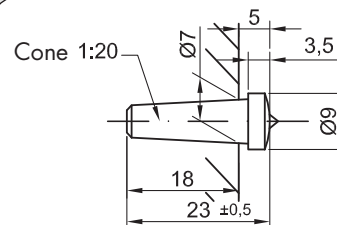
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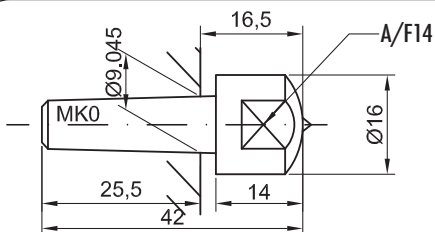
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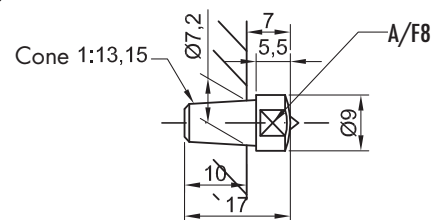
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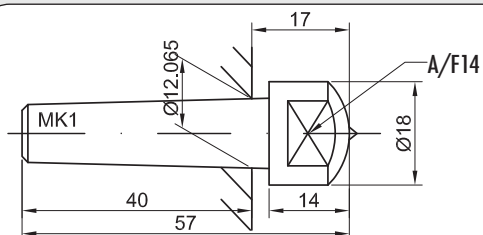
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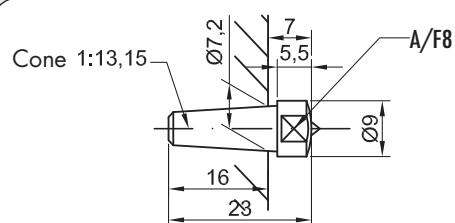
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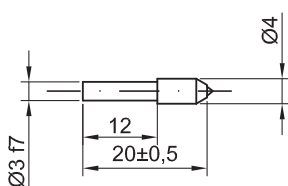
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Jung
NT 65
Cone 1:13,15**



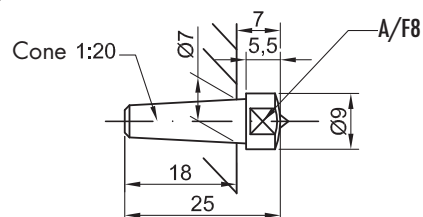
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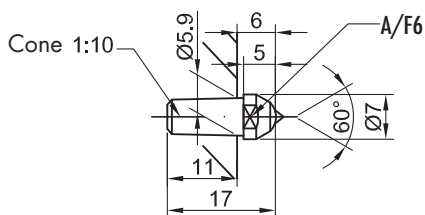
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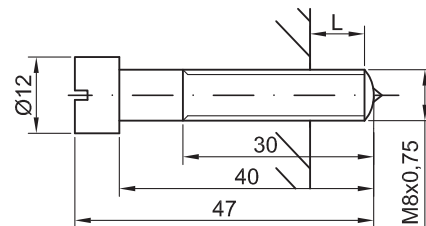


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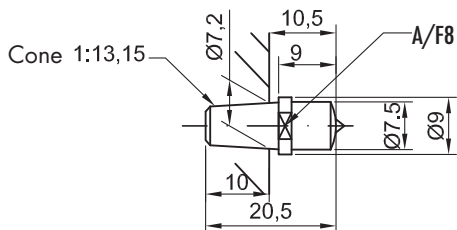
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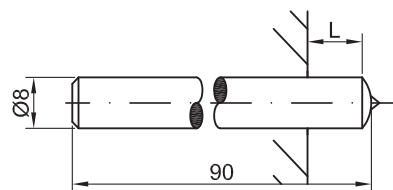


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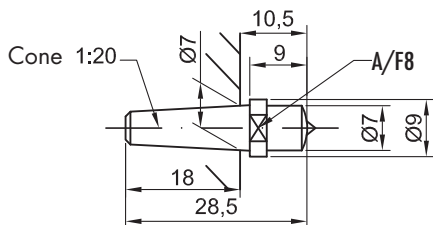
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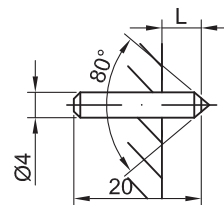
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C8
Cone 1:13,15



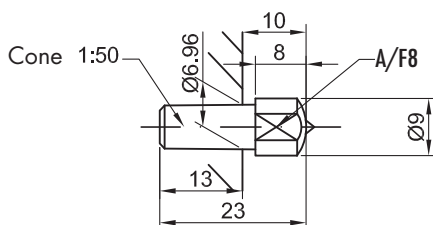
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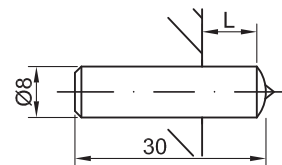
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C8
Cone 1:20



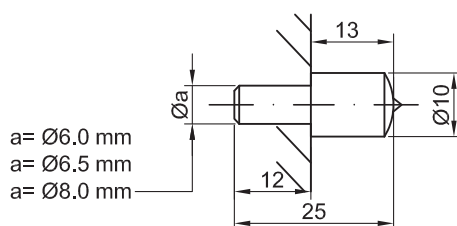
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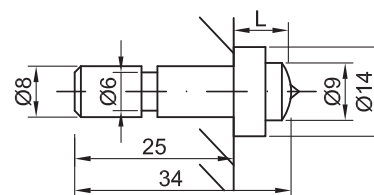
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Kolb
KZ 1+2
Cone 1:50



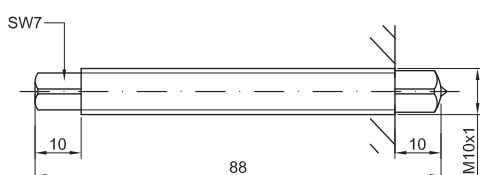
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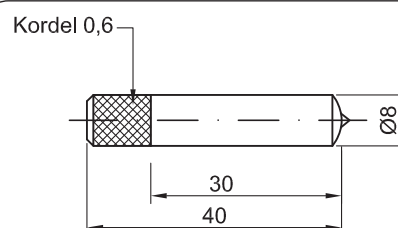
115
Landis



121
Nomoko



116
Niles



122
Jung



Dressing plates

Grain Dressing Plates

The dressing plate can be considered as an universal tool. It has been possible to combine the excellent properties of the single diamond dresser with natural points and the multi grain dresser. The dressing plate is suitable for both: Straight dressing as well as profiling. This is even more apparent when you think about the fact it is already possible to deliver dressing plates with a consistent working width of 0.75 mm. This width is also ideally, considered as the working edge of a diamond dresser respectively a chisel diamond.

That is why these diamond tools are often used instead of a chisel diamond which distinctively reduces operating costs. The same as in multiple grain dressing and precision dressing the dressing plate can be completely used up. The roughness depth of the wheel can be influenced by the respective infeed of the dressing tool in its effective range.

Needle Dressing Plates

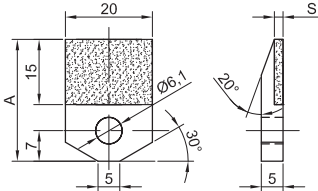
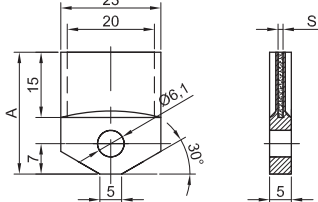
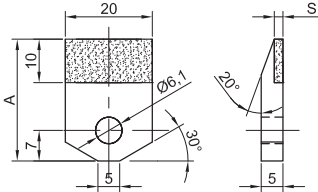
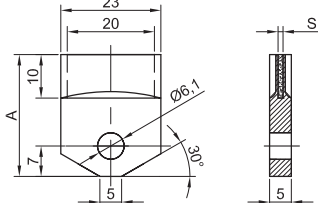
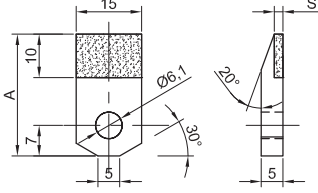
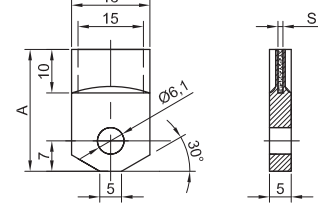
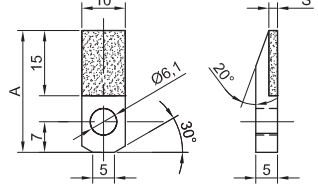
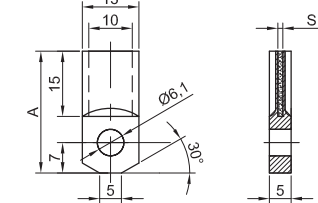
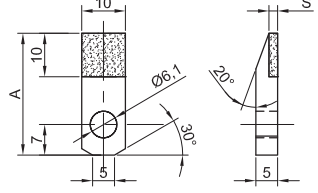
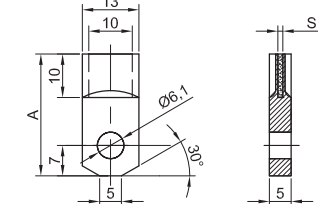
This dressing tool is equipped with high quality needle diamonds that are set according to a specific scheme. They are used for larger discs and longer dressing paths and also profiles.

Dressing Plates with small synthetic diamond blanks

These dressing plates have exact, that means narrowly tolerated, body dimensions. They are equipped with a consistent effective width making them suitable for dressing highly accurate profiles. By using small synthetic diamond blanks instead of natural diamonds consistent dressing conditions can be achieved throughout the lifetime of the tool. With the continuously stable work surface of the blanks no parameter adjustment is necessary. This allows the dressing of step profiles.

Grain dressing plates

in tungsten or carbide bond, handset

Grinding wheel-Ø from...up to...	Order- no.	W Tungsten bond	Order- no.	H Carbide bond																												
600-1200 mm Width up to 500 mm Order-no. 502 for short assembly dimensions	501		511																													
	502		512																													
200-600 mm Width up to 120 mm	503		513																													
	504		514																													
	505		515																													
<table><tr><th colspan="2">Diamond grain size</th><th>Grain size of the grinding wheel</th><th>s= mm</th></tr><tr><td>1</td><td>D501</td><td>120-180</td><td>0,75</td></tr><tr><td>2</td><td>D711</td><td>80-120</td><td>0,90</td></tr><tr><td>3</td><td>D1001</td><td>54-80</td><td>1,15</td></tr><tr><td>4</td><td>D1181</td><td>36-54</td><td>1,40</td></tr><tr><td colspan="2">Type: G (straight dressing)</td><td colspan="2">A=28 mm</td></tr><tr><td colspan="2">Type: P (profiling)</td><td colspan="2">A=33 mm</td></tr></table>					Diamond grain size		Grain size of the grinding wheel	s= mm	1	D501	120-180	0,75	2	D711	80-120	0,90	3	D1001	54-80	1,15	4	D1181	36-54	1,40	Type: G (straight dressing)		A=28 mm		Type: P (profiling)		A=33 mm	
Diamond grain size		Grain size of the grinding wheel	s= mm																													
1	D501	120-180	0,75																													
2	D711	80-120	0,90																													
3	D1001	54-80	1,15																													
4	D1181	36-54	1,40																													
Type: G (straight dressing)		A=28 mm																														
Type: P (profiling)		A=33 mm																														
Ordering information: - Order-no. catalogue - Length of the dressing plate G or P - Diamond grain size - Grain size of the grinding wheel - Bond tungsten or carbide																																



Needle dressing plates

in tungsten or carbide bond, handset

Grinding wheel-Ø from...up to...	Order- no.	W Tungsten bond	Order- no.	H Carbide bond
600-1200 mm Width up to 500 mm	520		530	
	521		531	
200-600 mm Width up to 120 mm	522		532	
	523		533	
	524		534	

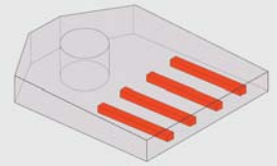
Ø Single needle	Grain size of the grinding wheel	s= mm
1 0,6 mm	120-180	0,75
2 0,8 mm	80-120	0,90
3 1,1 mm	54-80	1,15
4 1,5 mm	36-54	1,40
Type: G (straight dressing)	A=28 mm	
Type: P (profiling)	A=33 mm	

Ordering information:

1. Order-no. catalogue
2. Length of the dressing plate G or P
3. Diamond grain size
4. Grain size of the grinding wheel
5. Bond tungsten or carbide

Dressing plates

with synthetic diamond needles



Order-no. 540		Order-no. 545	
541		546	
542		547	
543		548	
544		549	

Diamond dimension (edge length in mm)

01	0,7x1,0
04	0,4x0,4
05	0,5x0,5
06	0,6x0,6
08	0,8x0,8
10	1,0x1,0

Type: G	(straight dressing)	A=28 mm
Type: P	(profiling)	A=33 mm

Ordering information:

1. Order-no. catalogue
2. Length of the dressing plate G or P
3. Diamond dimension
4. Diamond assembly DA or GA

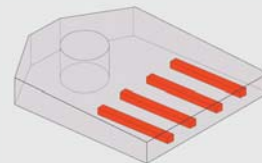
DA		GA	
	DIAGONAL		STRAIGHT



Dressing plates

Dressing plates

with synthetic diamond needles



Order-no. 550		Order-no. 555	
551		556	
552		557	
553		558	
554		559	

Diamond dimension (edge length in mm)

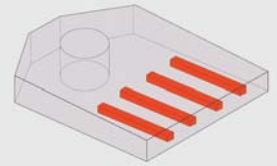
01	0,7x1,0
04	0,4x0,4
05	0,5x0,5
06	0,6x0,6
08	0,8x0,8
10	1,0x1,0
Type: G	(straight dressing) A=28 mm
Type: P	(Profiling) A=33 mm

Ordering information:

1. Order-no. catalogue
2. Length of the dressing plate G or P
3. Diamond dimension
4. Diamond assembly DA or GA

DA  DIAGONAL GA  STRAIGHT

By using small synthetic diamond blanks instead of natural diamonds consistent dressing conditions can be achieved throughout the lifetime of the tool. With the continuously stable work surface of the blanks no parameter adjustment is necessary. This allows the dressing of step profiles.



Order-no.		Order-no.	
560		565	
561		566	
562		567	
563		568	
564		569	

Diamond dimension (edge length in mm)		
01	0,7x1,0	
04	0,4x0,4	
05	0,5x0,5	
06	0,6x0,6	
08	0,8x0,8	
10	1,0x1,0	
Type: G	(straight dressing)	A=28 mm
Type: P	(Profiling)	A=33 mm

Ordering information:

1. Order-no. catalogue
2. Length of the dressing plate G or P
3. Diamond dimension
4. Diamond assembly DA or GA

DA DIAGONAL
GA STRAIGHT



Order-no. H1		Order-no. H2	
Order-no. H3		Order-no. H4	

Order-no. H5		Order-no. H6	
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Order-no. H7		Order-no. H8	
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Chisel diamond tools

The chisel diamond is a precision tool with highly precise Diamond cutting edge geometry. Even the most difficult grinding wheel profiles can be precisely dressed with this precision tool. Selected rough diamonds, the perfect know-how when setting and precise processing machines guarantee a long tool life of our effective chisel diamonds.

Our long-term market success in the natural diamond sector is slowly being secured by the new – even more effective – synthetic diamond materials.

The synthetically manufactured diamonds give the user an improvement in the own manufacturing because all types of grinding wheels (corundum, white aluminium oxide as well as silicon carbide grinding wheels) can be dressed in a cost reducing manner. Our regrinding service helps you apply the benefits of this type of dressing tool – increasing profit – in a very short time frame.

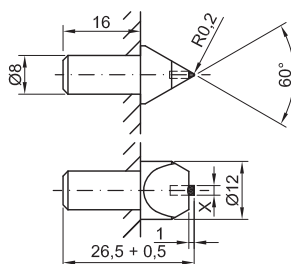
Benefit from our long-term experience!

Chisel diamond tools

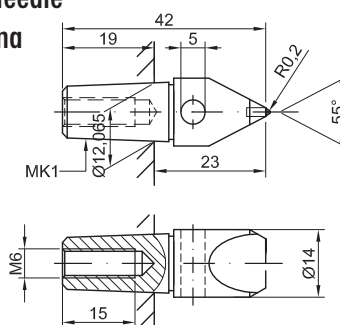
with synthetical diamond blank

Order-no.

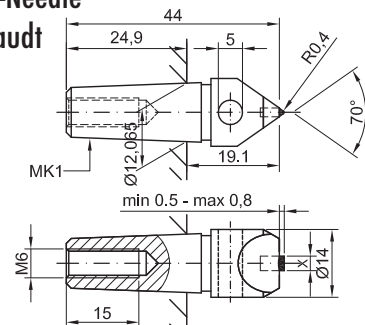
603-Needle MSO



Order-no.

604-Needle
Fortung

Order-no.

605-Needle
Schaudt 



Chisel diamond tools

The chisel diamond tool is used for highest accurate dressing operations. Thoroughly selected diamonds, the right method of setting and special tooling machines guarantee the **STROH-quality**.

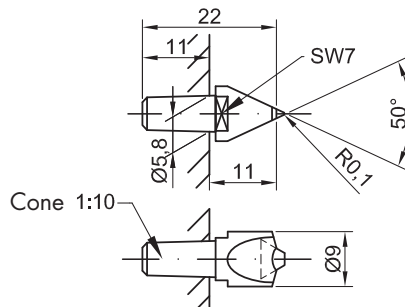
Order-no.

601

Jung RA 39

RA 38 - 53

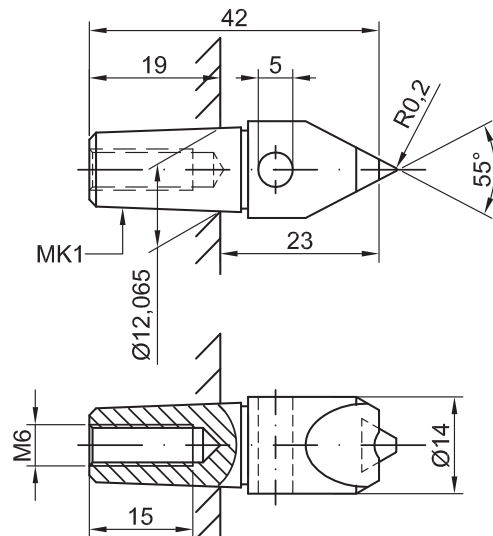
Cone 1:10



Order-no.

604

Fortuna



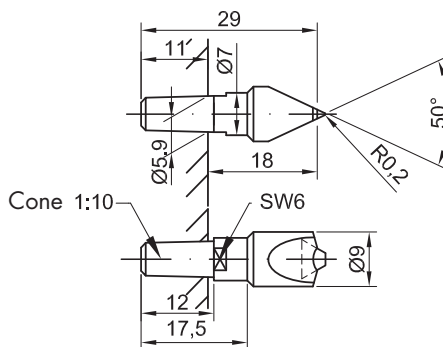
Order-no.

602

Jung

Fu 42 - 13 - 1

Cone 1:10

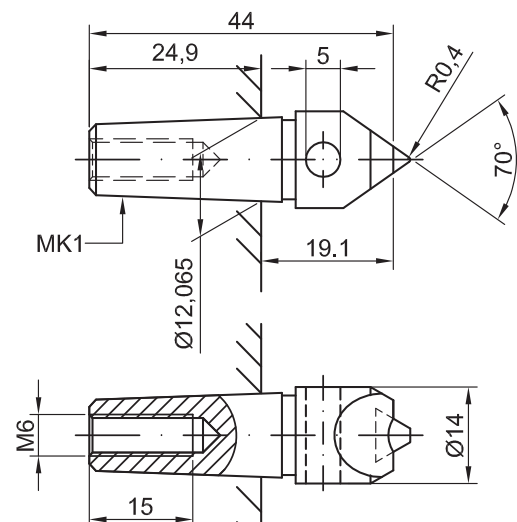


Order-no.

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Schaudt

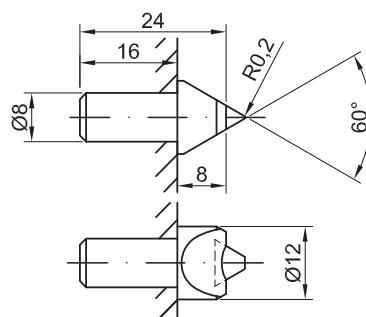
NT65



Order-no.

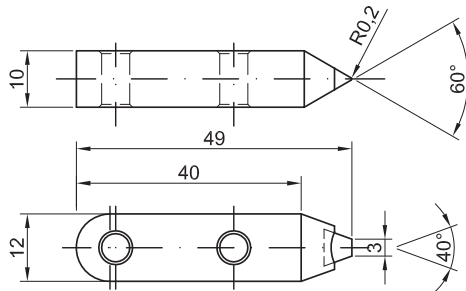
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MSO



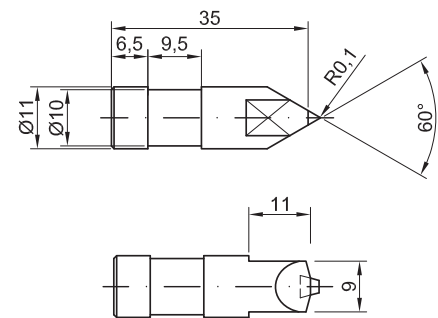
Order-no.

606
Schaudt



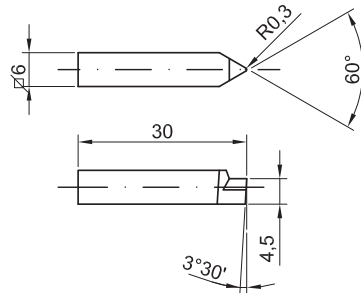
Order-no.

609



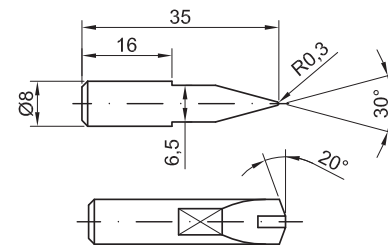
Order-no.

610
Lindner



Order-no.

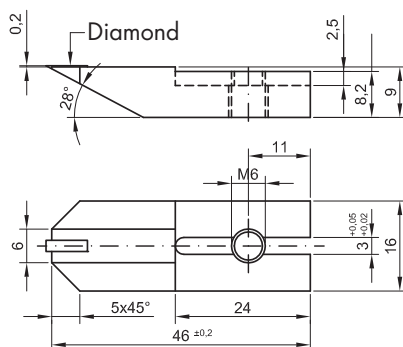
611
Jungner



REISHAUER CHISEL DIAMONDS

Order-no.

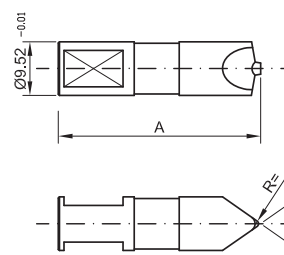
613
NZA



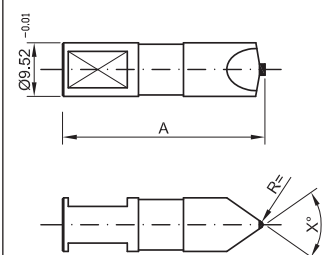
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	1,0-4,0
	1,0-5,0
	1,0-8,0

DIAFORM CHISEL DIAMONDS

Natural diamond



Synthetic diamond



Standard dimension see page 18
Special design possible



STANDARD DIMENSION FOR DIAFORM HOLDERS, ANGLES AND RADIUSSES

Type/Order-no.	Length (mm)	Angle (Degree)	Radius (mm)	Machine-Type
30/125 K	35	30	0,125	AT-ATR BT-BTR
30/250 K	35	30	0,250	
40/125 K	35	40	0,125	
40/250 K	35	40	0,250	
40/500 K	35	40	0,500	
60/125 K	35	60	0,125	
60/250 K	35	60	0,250	
60/500 K	35	60	0,500	
30/125 L	45	30	0,125	2A-2AR-2B-2BR 3A-3AR-3B-3BR 4A-4AR-4B-4BR 5/1-5/2-10/2 6/1-6/2-12/1-12/2 8/1-8/2-14/1-14/2
30/250 L	45	30	0,250	
40/125 L	45	40	0,125	
40/250 L	45	40	0,250	
40/500 L	45	40	0,500	
60/125 L	45	60	0,125	
60/250 L	45	60	0,250	
60/500 L	45	60	0,500	
30/125 EL	58	30	0,125	5/4-6/4 12/4-14/4
30/250 EL	58	30	0,250	
40/125 EL	58	40	0,125	
40/250 EL	58	40	0,250	
40/500 EL	58	40	0,500	
60/125 EL	58	60	0,125	
60/250 EL	58	60	0,250	
60/500 EL	58	60	0,500	
40/R K	35	ca. 40	Triangel roh	for pre-profiling
40/R L	45	ca. 40	Triangel roh	
40/R EL	58	ca. 40	Triangel roh	
60/R K	35	ca. 60	Triangel roh	for pre-profiling
60/R L	45	ca. 60	Triangel roh	
60/R EL	58	ca. 60	Triangel roh	

Wheel dresser

The diamonds on a wheel dresser are arranged evenly on the circumference and in rows. The diamonds we use are specially selected, needle shaped or flat natural diamonds that are held by a special sintered bond. When a surface has developed on a length of 5 - 6 mm, the small wheel should be turned slightly forward. This allows new diamond points to take effect.

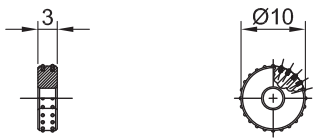
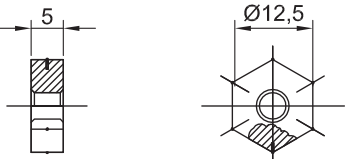
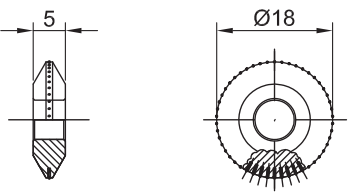
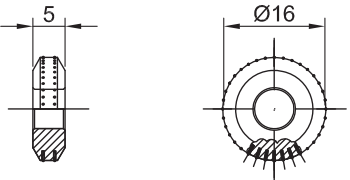
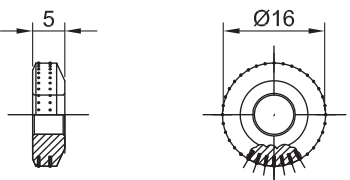
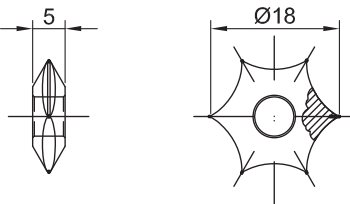
Benefits:	Easy to use, noticeably less expensive than cut profile diamonds
Straight dressing:	Multi-row wheel dresser
Profiling:	Single-row wheel dresser
Dressing feed:	0,01–0,03 mm
Cooling:	By using sufficient coolant longer tool life will be achieved!





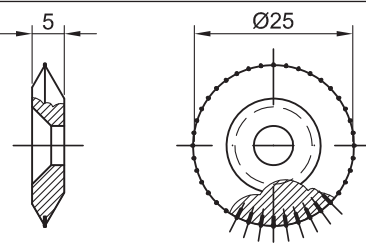
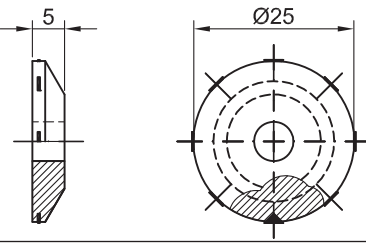
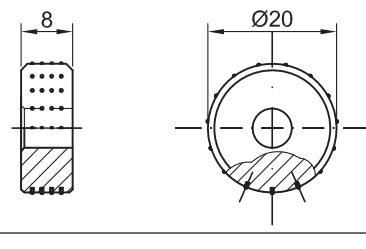
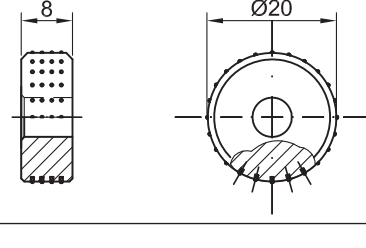
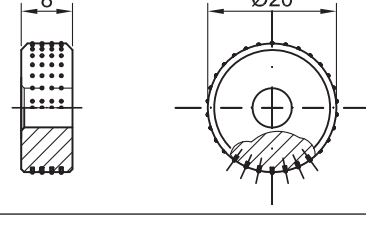
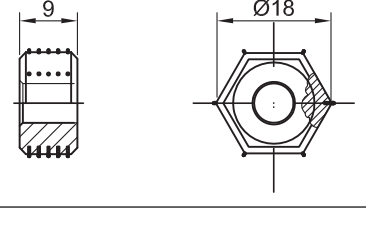
Diamond wheel dresser

Standard dimension (special types by request)

Order-no.	Dimensions	Diamond content	Diamond Type	Grinding wheel grain size	Grinding wheel diameter	Application
401		0,50 ct.	Needle Diamonds	80-300	10-150 mm	Interior grinding
402		0,15 ct.	Needle Diamonds	60-100	100 mm	Interior grinding
403		1,00 ct.	Needle Diamonds	60-80	80-300 mm	Profiling
404		0,50 ct.	Needle Diamonds	46-100	40-400 mm	Interior grinding Plane grinding
405		0,75 ct.	Needle Diamonds	80-300	10-200 mm	Interior grinding
406		1,50 ct.	Triangle Diamonds or Needle Diamonds	46-60	20-500 mm	Profiling

Diamond wheel dresser

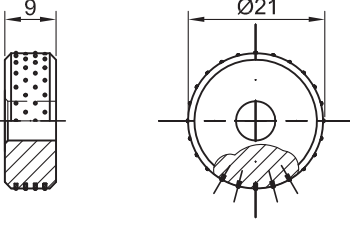
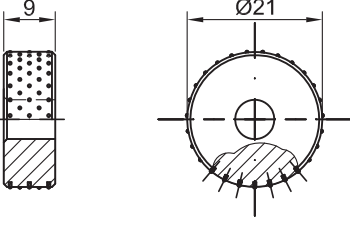
Standard dimension (special types by request)

Order-no.	Dimensions	Diamond content	Diamond Type	Grinding wheel grain size	Grinding wheel diameter	Application
407		1,50 ct.	Needle Diamonds	80-500	200-550 mm	Profiling
408		1,00 ct.	Plane Triangle Diamonds	46-100	200-700 mm	Profiling
409		2,00 ct.	Needle Diamonds	46-80	380-500 mm	Round grinding Plane grinding
410		2,00 ct.	Needle Diamonds	60-120	300-500 mm	Round grinding Plane grinding
411		2,00 ct.	Needle Diamonds	80-200	300-500 mm	Round grinding Plane grinding
412		2,00 ct.	Needle Diamonds	36-60	350-800 mm	Plane grinding

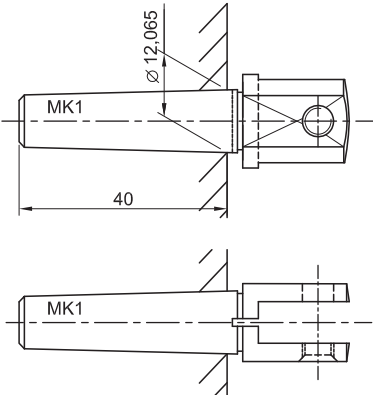
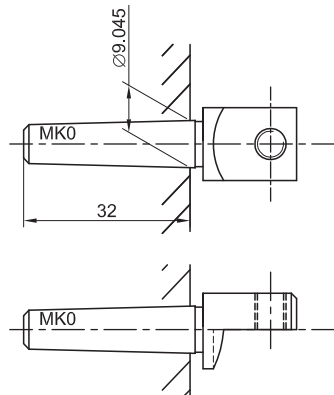
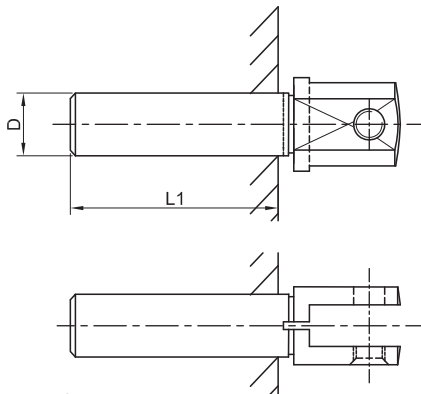
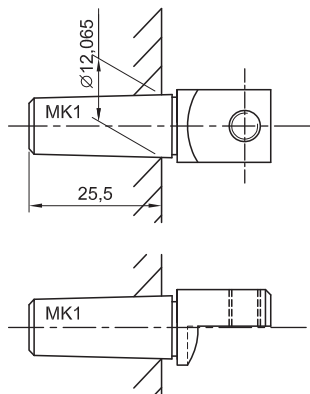


Diamond wheel dresser

Standard dimensions (special types by request)

Order-no.	Dimensions	Diamond content	Diamond Type	Grinding wheel grain size	Grinding wheel diameter	Application
413		5,00 ct.	Needle Diamonds	60-120	400-700 mm	Round grinding Plane grinding
414		5,00 ct.	Needle Diamonds	80-400	700 mm	Interior grinding

HOLDERS FOR WHEEL DRESSER

Order-no. H9		Order-no. H10	
Order-no. H11	 Please specify D and L1	Order-no. H12	



Multi grain dresser

Multiple grain dressers are equipped with a holder and a diamond insert. The dimensions of the diamond insert, as well as the grain size and the bonding/diamond grain ratio are defined by the grinding wheel that needs to be dressed. If you specify us your individual grinding wheel parameters we would like to help you find the correct multi grain dresser.

Compared to single point dressers multi grain dressers offer some advantages:

- **Lower costs**

Even though the actual diamond content is normally much higher in multiple grain dressers than in single grain dressers the price is still lower because mostly smaller diamonds are used.

- **Faster removal**

With multigrain dressers there are generally multiple diamonds at work on the grinding wheel so the work load is distributed over several diamond points and by that a greater feed is made possible.

Result: faster removal of the material. Depending on the area of application diamonds in differing structures can be arranged (see examples).

- **Long tool life**

Because multigrain dressers are slower to wear than single point dressers, they don't need to be adjusted, with the exception of occasional turning, throughout their entire life span.

Result: Remounting and sharpening are completely unnecessary, much less sensitive than single point dressers

- **Short delivery time**

Dressing infeed: 0.01-0.04 mm

Cooling: By applying sufficient coolant longer tool life will be achieved!

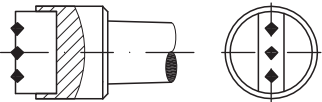
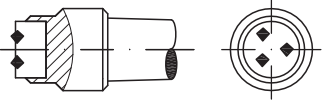
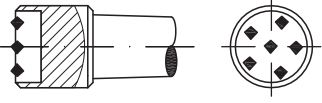
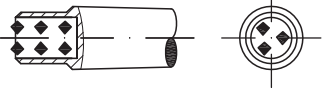
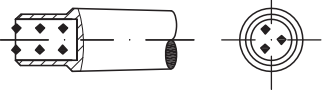
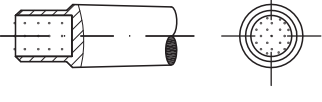
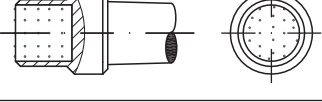
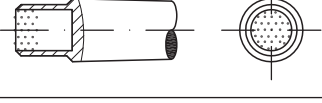
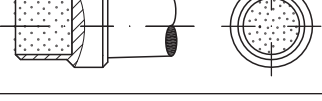
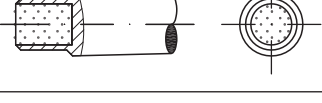
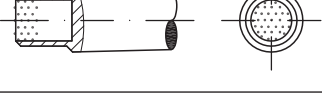
To avoid machine vibrations the holder should be kept as short as possible.



Multi grain dresser

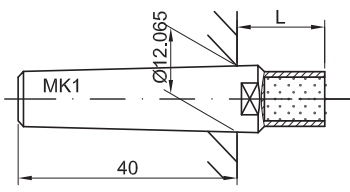
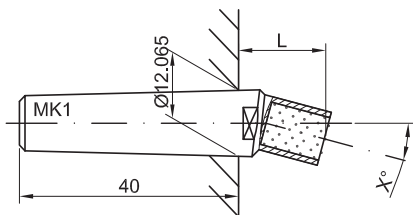
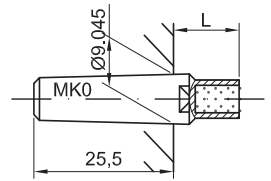
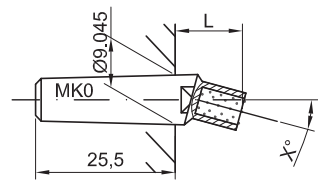
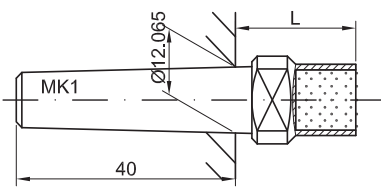
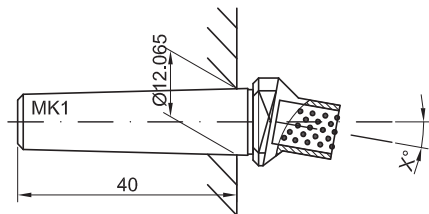
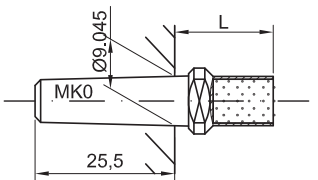
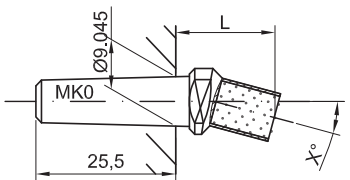
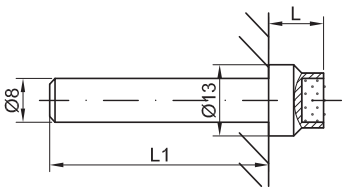
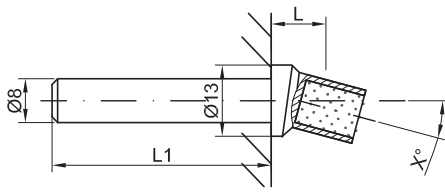
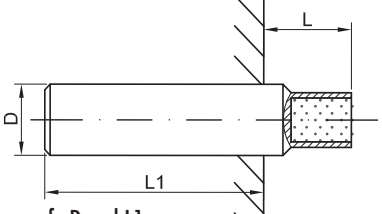
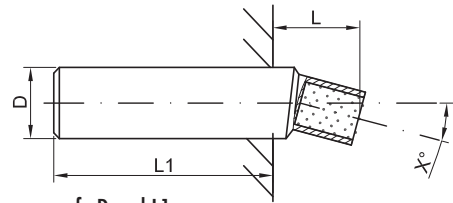
Multi grain dresser

Diamond insert ineasurements

Order-no.	Dimensions	Type/Carat	Insert ineasurement Ø d x l (mm)	Application
3		3/1	16x8	Rough dressing for coarse grit wheels
3a		3/1a	11x6	
6		6/1	14x5	
9		9/1	8x12	Medium rough dressing for medium coase grit wheels
15		15/0,5	8x12	
50b		50/2,5	8x11	Very durable fo wheels up to biggest diamonds and grit 46
50d		50/5	11x11	
60a 60b		60/1 60/2,5	8x4 8x11	High Cutting performance wheel grit 46 until 80
60d		60/5	11x11	
70c		70/3,5	8x11	Special high quality diamond
80a 80b		80/1 80/2,5	8x4 8x11	for dressing fine grit wheels

Multi grain dresser

Standard dimension

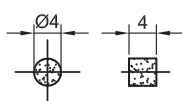
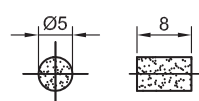
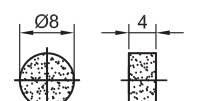
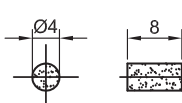
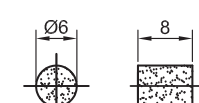
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Order-no. 202		1,0 Carat L = 12		Order-no. 202A
Order-no. 203		3,5 Carat L = 18 5,0 Carat L = 22		Order-no. 203A
Order-no. 204		2,5 Carat L = 18 5,0 Carat L = 18		Order-no. 204A
Order-no. 205		1,0 Carat L = 10 2,5 Carat L = 16		Order-no. 205A
Order-no. 206	 Please specify D and L1	1,0 Carat L = 10 2,5 Carat L = 16	 Please specify D and L1	Order-no. 206A



Fine grain dresser

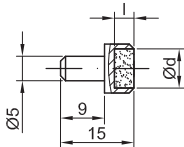
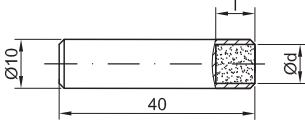
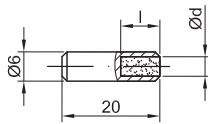
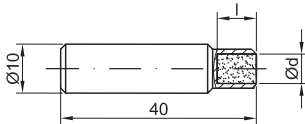
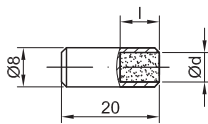
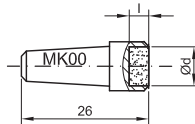
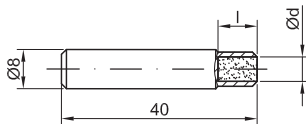
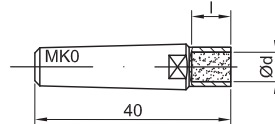
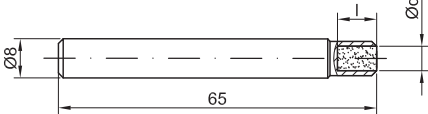
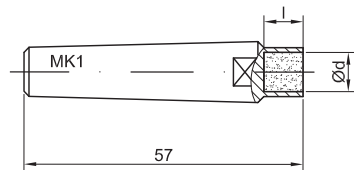
Fine grain dresser contain a heavily block-shaped sintered-bond diamond-grain and are more and more used nowadays for fine dressing operations. Optimal results are obtained with these fine grain dressers when the diamond-grain has at least twice or three times the size of the grain of the grinding wheel. In use they are less delicate and produce an equally rough grinding wheel surface. These fine grain dressers are preferred for wheels with exact, acute angled working edges, for instance single profile wheels, for tooth flank, thread and profile grinding machines.



FEPA for grinding wheels		FEPA for grinding wheels		FEPA for grinding wheels	
Diamond grain size	Grain size of the grinding wheel	Diamond grain size	Grain size of the grinding wheel	Diamond grain size	Grain size of the grinding wheel
D 64	320-600	D 181	120-180	D 602	60-80
D 91	220-320	D 301	100-120	D 711	54-60
D 126	180-220	D 427	80-100	D 851	46-54
Grain size of diamond inserts according FEPA-Standard					
					
0,35 Carat		1,25 Carat		1,25 Carat	
					
0,75 Carat		1,50 Carat		2,50 Carat	
Special design possible					
Tungsten bond for aluminium oxide and semi-friable aluminium grinding wheels				Carbide bond for silicon carbide grinding wheels	

Fine grain dresser

Standard dimensions (other types of holders available)

Order-no. 301		Diamond insert Ød x l (mm) 8 x 4
Order-no. 320 321 322		Diamond insert Ød x l (mm) 5x8 6x8 8x8
Order-no. 302		Diamond insert Ød x l (mm) 4 x 8
Order-no. 323 324 325		Diamond insert Ød x l (mm) 4x8 5x8 6x8
Order-no. 304 305 306		Diamond insert Ød x l (mm) 4x8 5x8 6x8
Order-no. 329 330		Diamond insert Ød x l (mm) 4x4 8x4
Order-no. 311 312		Diamond insert Ød x l (mm) 4x8 5x8
Order-no. 331 332 333 334		Diamond insert Ød x l (mm) 4x8 5x8 6x8 8x8
Order-no. 313 314		Diamond insert Ød x l (mm) 4x8 5x8
Order-no. 335 336		Diamond insert Ød x l (mm) 6x8 8x8



Fine grain dresser

Diamond block dresser

For surface grinding, circular grinding and centerless grinding machines a sturdy dressing tool which guarantees you a constant performance.

Order-no.	Dimensions	Grinding wheel grain size	Grinding wheel diameter	
DBA 46-610 DBA 60-610	6x10 mm	46-60 60-80	Up to Ø 1000 mm	
DBA 80-610 DBA 100-610	6x10 mm	80-100 100-180	Width up to 500 mm	
DBA 46-46 DBA 60-46	4x6 mm	46-60 60-80	Up to Ø 300 mm	
DBA 80-46 DBA 100-46	4x6 mm	80-100 100-180	Width up to 100 mm	

HOLDER

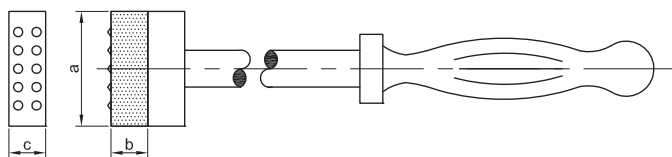
Order-no. H13		Order-no. H14	Please specify D and L1
Order-no. H15		Order-no. H16	Please specify D and L1



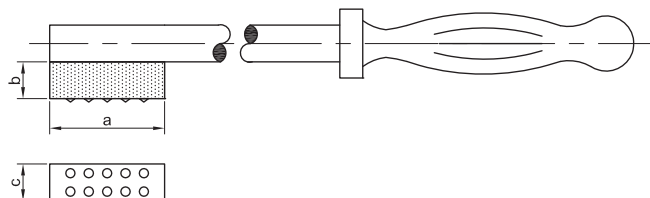
Hand dresser

The hand dressers are all-round tools. They can be used for manual and yet precise dressing of ceramic bond grinding wheels. The solidity of these long-lasting hand dressers leads to a noticeably improved dressing results as compared to the normal metal wheel hand dressers.

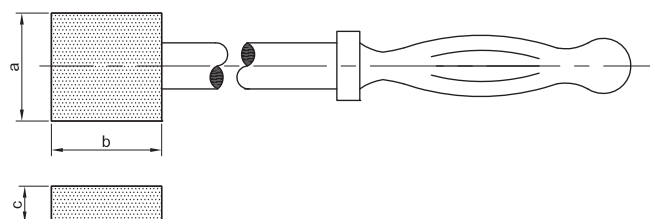
Order-no.	Type G=rough F=fine	Dimensions a x b x c (mm)
HT20	G 20/1,50	25x8x8
HT40	F 40/1,50	25x8x8



Order-no.	Type G=rough F=fine	Dimensions a x b x c (mm)
HP20	G 20/1,50	25x8x8
HP40	F 40/1,50	25x8x8



Order-no.	Dimensions a x b x c (mm)
SH10	24x24x12
for strong conditions	





Hardness testing indenters

Hardness is the resistance of a material against the intrusion of another (harder) body.

We manufacture the various diamond indenters according to applicable procedures and standards.

The geometry of the diamond indenter to measure hardness is determined by the respective standard:

Hardness measurement according to:

- ROCKWELL** cone 120° with radius $r = 0,200 \text{ mm}$
- VICKERS** pyramid 148°7' edge angle / 136° surface angle
- KNOOP** rhomboid with 130° respectively 172°30' edge angle
- BERKOVIC** 3-sided pyramid (Tetrahedron)



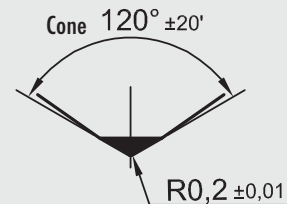
The diamonds are set using a high strength, non-rebounding bond in holders for the common hardness testing machines.

- Standard types for laboratory equipment
- Special mounts for automatic machines and special devices



Hardness testing indenters

Diamonds for testing method „Rockwell“ (Other types available)



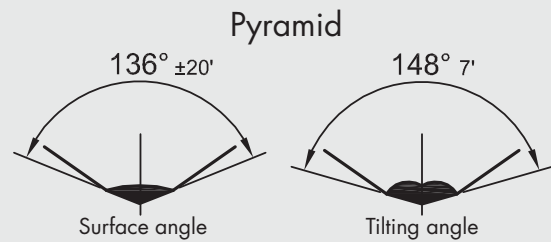
Order-no.		Name	Testing instrument
06		Dorernst 120°	Dorernst
09		Briro E 120°	Reicherter
11		Original Rockwell 120°	z. B. Frank
12		Testor 120°	Wolpert
13		Briro UVN 120°	Reicherter Emco
14		Testor-Automat 120°	Wolpert



Hardness testing indenters

Hardness testing indenters

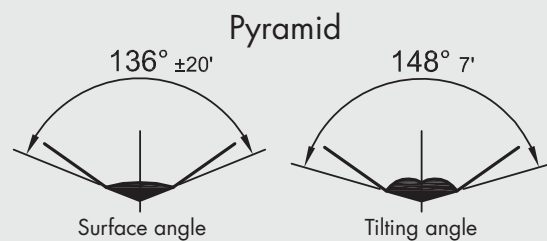
Diamonds for testing method „Vickers“ (Other types available)



Order-no.		Name	Testing instrument
15		Original Vickers 136°	
16		Vickers 136°	Frank
17		Dia-Testor 136°	Wolpert
18		Brivisor 3000H 136°	Reicherter
19		VHT 5 136°	Reicherter

Hardness testing indenters

Diamonds for testing method „Vickers“ (Other types available)



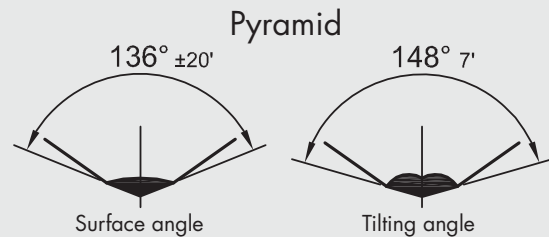
Order-no.		Name	Testing instrument
20		Zwick 1 136°	Zwick
21		Zwick 2 136°	Zwick
22		Briviskop 187.5 136°	Reicherter
23		B 183 Insert for Nr. 22 136°	Reicherter
24		Testor-Automat 136°	Wolpert



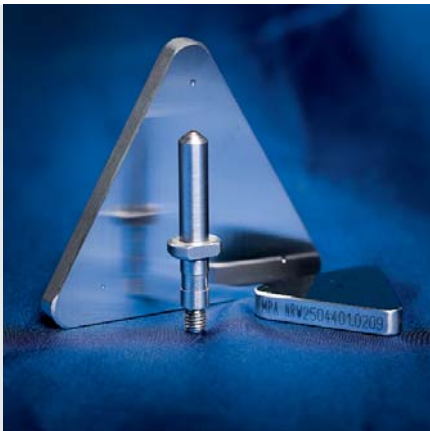
Hardness testing indenters

Hardness testing indenters

Diamonds for testing method „Vickers“ and „Knoop“ (Other types available)



Order-no.		Name	Testing instrument
25		Leitz Durimet 136°	Leitz
26		Mikro Testor 136°	Wolpert
27		Vickers 136°	Frank
28	shape oo Knoop-Diamond	Knoop 172° Knoop diamonds are available for all standard testing machines.	
Special design possible.			



Hardness reference blocks

Hardness reference blocks are an essential appliance in the company quality management system. They serve the purpose of calibrating and testing hardness testing devices in daily use.

Our calibrated hardness reference blocks are manufactured solely in compliance with current valid standards and guarantee the correct operation of your hardness testing devices.

The calibration of the hardness reference blocks is conducted at the accredited by the German calibration laboratory of the MPA NRW.

When using hardness reference blocks it is completely irrelevant whether the determined hardness value of the hardness reference blocks coincides 1:1 with the standard hardness value or not, since according to applicable standards the scale adjustment is conducted with at least two hardness values of which one must be higher and the other lower than the hardness value of the workpiece.

The hardness reference blocks are only to be used for the test procedure for which they were calibrated.



Rockwell

Hardness reference blocks made of steel for the Rockwell test

Block size 60 x 60 x 16 mm
Block weight approx 0,450 kg

Block size 70 x 70 x 70 x 6 mm
Block weight approx 0,13 kg

Hardness scale	Nominal hardness values													
HRA	40	49	55	59,8	62,4	65	67,6	70,2	72,8	75,4	78,1	80,7	82	83,4
HRB (S/W)	60	75	90	100										
HRC				20	25	30	35	40	45	50	55	60	62/63	65
HRF (S/W)	90	95		115										
HR 15N				67,7	70,5	73,4	76,2	79,1	81,9	84,7	87,5	89,9	90,8	91,3
HR 30N				41,2	45,6	50,1	54,6	59,1	63,6	68	72,1	76,8	79	81,2
HR 45N				19,7	25,4	31,2	37	42,8	48,5	54,3	60	65,7	68,5	71,4
HR 15T (S/W)	80	86,5	91	92,2										
HR 30T (S/W)	56,5	69,2	77,3	82										
HR 45T (S/W)	33,5	52,8	64,6	72,1										
HRG (S/W)		62		81	87	94								
HRE (S/W)	95													
HRD				40	44	48	51	55	59	63	67	71	73	75
HRK (S/W)	76	97												
HR 62,5				58,2	61	63,7	66,4	69,2	72	74,7	77,5	80,2	81,6	83
HB-T 2,5/187,5 (W)		25	53	61	65									
HB-T 2,5/62,5 (W)	72	80	85											
HB-T 2,5/31,25 (W)		45	65											



Hardness reference blocks

Vickers

Hardness reference blocks made of steel for the Vickers test

Micro block

Polished surface

Block size 35 x 35 x 35 x 6 mm

Block weight approx 0,035 kg

Hardness scale	Nominal hardness values							
HV 0,001								
HV 0,005	240							
HV 0,010	240							
HV 0,015	240	300	(400)	(450)	(540)			
HV 0,025	240	300	400	450	(540)	(620)	(720)	
HV 0,03	240	300	400	450	540	620	720	
HV 0,05	240	300	400	450	540	620	720	840
HV 0,1	240	300	400	450	540	620	720	840
HV 0,2	240	300	400	450	540	620	720	840
HV 0,3	240	300	400	450	540	620	720	840
HV 0,5	240	300	400	450	540	620	720	840
HV 1	240	300	400	450	540	620	720	840
HV 2	240	300	400	450	540	620	720	840
HV 3	240	300	400	450	540	620	720	840
HV 5	240	300	400	450	540	620	720	840
HV 10	240	300	400	450	540	620	720	840

Macro block

Polished surface

Block size 70 x 70 x 70 x 6 mm

Block weight approx 0,13 kg

Hardness scale	Nominal hardness values							
HV 1	140	240	300	400	450	540	620	720 840
HV 2	140	240	300	400	450	540	620	720 840
HV 3	140	240	300	400	450	540	620	720 840
HV 5	140	240	300	400	450	540	620	720 840
HV 10	140	240	300	400	450	540	620	720 840
HV 20	140	240	300	400	450	540	620	720 840
HV 30	140	240	300	400	450	540	620	720 840
HV 50	140	240	300	400	450	540	620	720 840
HV 60	140	240	300	400	450	540	620	720 840
HV 100	140	240	300	400	450	540	620	720 840
HV 120	140	240	300	400	450	540	620	720 840
HV 125	140	240	300	400	450	540	620	720 840
HV 150	140	240	300	400	450	540	620	720 840

Knoop

Hardness reference blocks made of steel for the Knoop test

Polished surface
Block size 35 x 35 x 35 x 6 mm
Block weight approx 0,035 kg

Hardness scale	Nominal hardness values								
HK 0,005	140	240							
HK 0,01	140	240							
HK 0,015	140	240	300	400	450	540			
HK 0,025	140	240	300	400	450	540	620	720	
HK 0,05	140	240	300	400	450	540	620	720	840
HK 0,1	140	240	300	400	450	540	620	720	840
HK 0,2	140	240	300	400	450	540	620	720	840
HK 0,3	140	240	300	400	450	540	620	720	840
HK 0,5	140	240	300	400	450	540	620	720	840
HK 1	140	240	300	400	450	540	620	720	840
HK 2	140	240	300	400	450	540	620	720	840

Brinell

Hardness reference blocks made of steel for the Brinell test

Block size
100 x 100 x 16 mm re. 150 x 100 x 16 mm*
Block weight approx 1,26 kg re. 1,88 kg*

* nominal hardness 150 HBW

Hardness scale	Nominal hardness values								
HBW 5/125	150								
HBW 5/250	150	200							
HBW 5/750	150	200	250	300	350	400	450	500	600
HBW 10/500	150								
HBW 10/1000	150	200							
HBW 10/3000*	150	200	250	300	350	400	450	500	600

Block size 70 x 70 x 70 x 6 mm
Block weight approx 0,13 kg

Hardness scale	Nominal hardness values								
HBW 2,5/15,625	100								
HBW 2,5/31,25	100								
HBW 2,5/62,5	100	150	200						
HBW 2,5/187,5	100	150	200	250	300	350	400	450	500
Polished surface									
HBW 1/5	150								
HBW 1/10	150		240						
HBW 1/30	150		240	300		400	450	540	620



Hardness reference blocks

Aluminium

Hardness testing indenters aluminium

Rockwell

Block size 75 x 75 x 16 mm
Block weight approx 0,195 kg

Hardness scale		Nominal hardness values		
HRB	(S/W)		37	60
HRE	(S/W)	67	85	92
HRF	(S/W)	66	84	90
HRH	(S/W)	93		
HRK	(S/W)	36	61	72
HR 15 T	(S/W)	66	76	80
HR 30 T	(S/W)	27	48	56
HR 45 T	(S/W)		20	34

Brinell

Block size 150 x 100 x 16 mm
Block weight approx 0,52 kg

Hardness scale	Nominal hardness values		
BW 5/62,5	60	80	
HBW 5/125	60	80	100
HBW 5/250	60	80	100
HBW 10/250	60	80	
HBW 10/500	60	80	100
HBW 10/1000	60	80	100

Vickers

Block size 75 x 75 x 16 mm
Block weight approx 0,195 kg

Hardness scale	Nominal hardness values		
HV 1	60	80	100
HV 2	60	80	100
HV 3	60	80	100
HV 5	60	80	100
HV 10	60	80	100
HV 20	60	80	100
HV 30	60	80	100
HV 50	60	80	100
HV 60	60	80	100



Brinell

Block size 75 x 75 x 16 mm
Block weight approx 0,195 kg

Hardness scale	Nominal hardness values		
HBW 2,5/15,625	60	80	
HBW 2,5/31,25	60	80	100
HBW 2,5/62,5	60	80	100



Gauge points

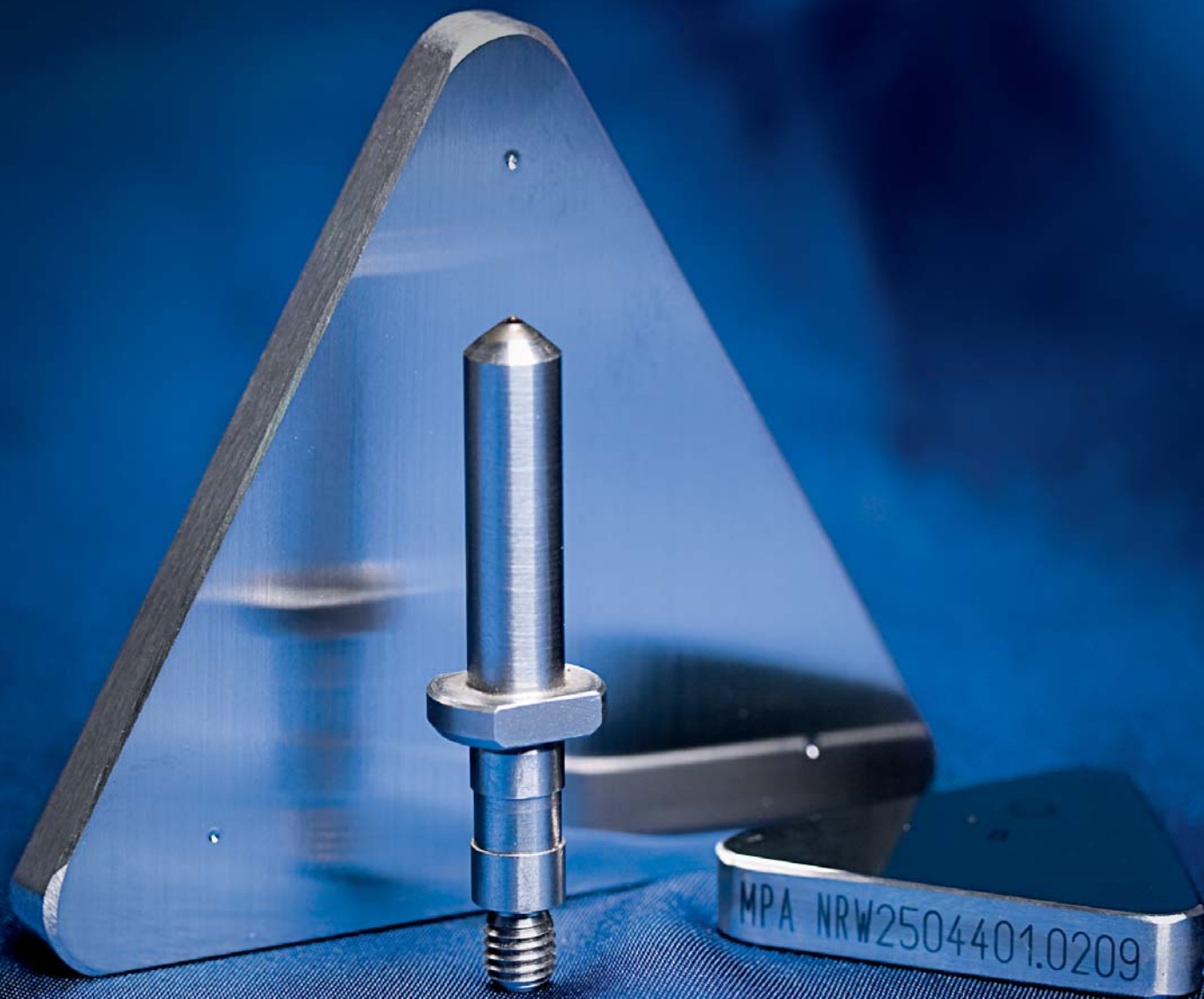
With the rising automation, the ratio and importance of the diamond gauge points are also increasing. Special requirements of individual users and the conditions of the respective measurement stations have maintained to a large diversity in holder shapes.

The diamond is cut, either conical with a radius, spherical or flat depending on the intended tool use.

As a general rule gauge points are manufactured according to customer drawings. Our specialized manufacturing methods for these tools make it possible to manufacture even difficult customer specifications with consistent high quality.

SAMPLES FOR DIAMOND GAUGE POINTS

1		2	
3		4	
8		10	
Further specifications available			



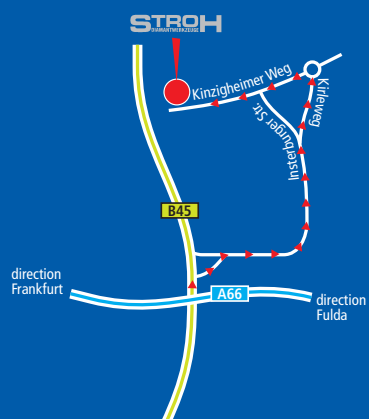
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