

SLITTING TECHNOLOGY

Cutting tools & Accessories



*... to get the best
cutting quality!*



BILSTEIN®

INDEX



Note: All dimensions stated in our product catalogue, indicate standard items which are usually available on short term delivery, or could be from stock.

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Extract from the QM manual, section 1:

Our focus on and understanding of the market requirements, combined with our flexible approach and our close proximity to our customers, form the basis for our strong market position.

For us, the term "quality" does not only relate to that of the product, but to all aspects of the organisation, from our excellent customer service, to our loyalty and openness toward our customers.

The quality management system, determined in the quality management manual, contributes to maintaining our high quality standards and competitiveness.

This is recognised through achieving demanding worldwide standards such as ISO 9001/2008.

Re-grinding service

Manufacturer's re-grinding service for constant high cutting quality. Our re-grinding service centre offers you optimal grinding with regard to quality, time, and costs.

Consultation and training

Our professional technicians can offer technical support and solutions, also on your side.

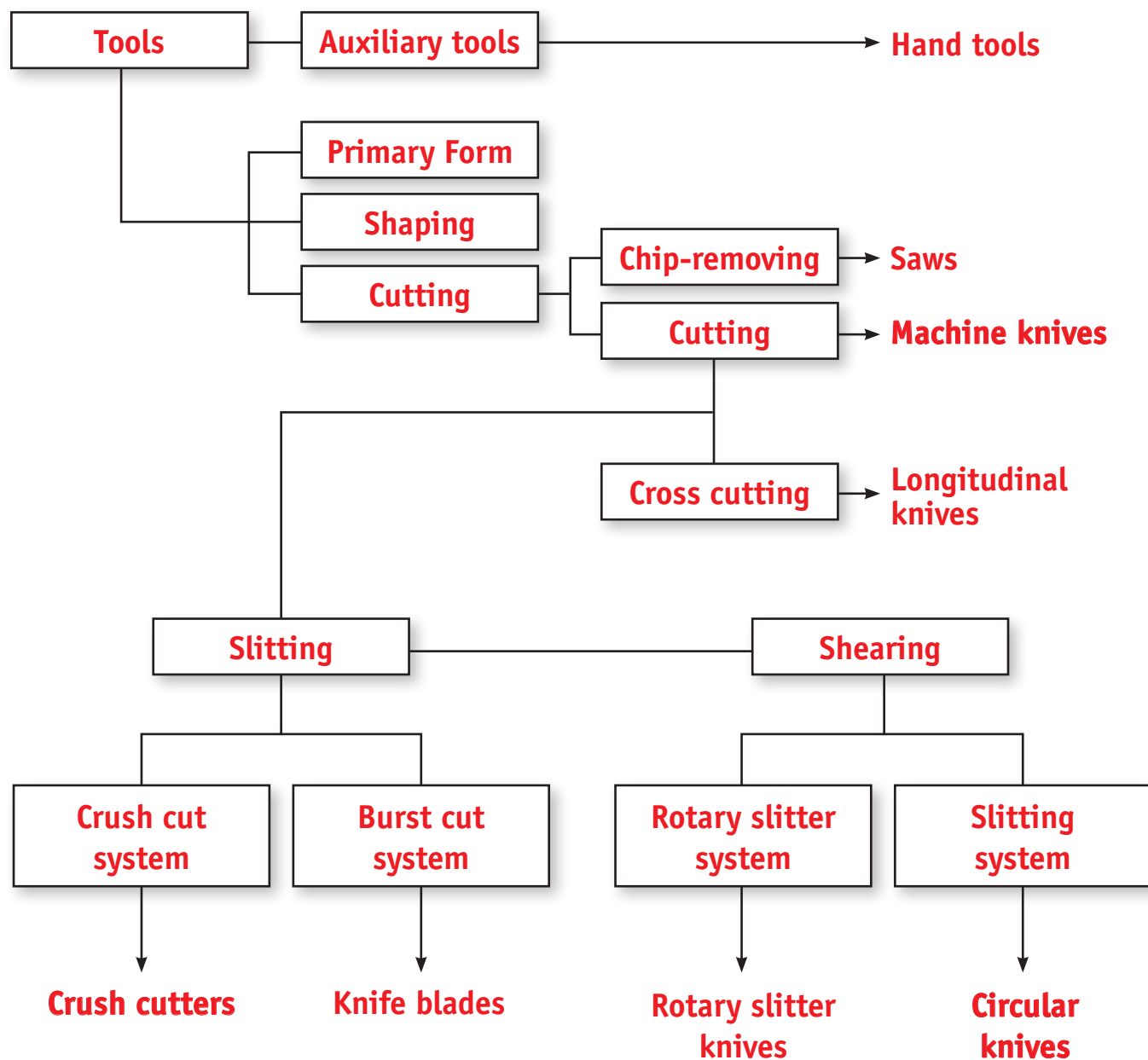
We are your professional partner for all technical questions and offer you the opportunity of co-operating with us to reach your optimum cutting solution in the shortest possible period of time. To this aim, we are not only at your disposal on the telephone but can also visit you to present, perform, and provide training for our solution on site.

Optimum cutting qualities, long service life, and short tooling times do not exclusively depend on the cutting tools used but also on the employees responsible for the handling of the knives.

We offer special on-site training, particularly designed for the users of our cutting tools and, upon request, provided directly on your machines. It does not only include information on cutting in general, but also features information on your particular cutting applications and training on the practical use of the cutting tools.

MACHINE KNIVES

Tool classification



GROUPS OF MATERIALS for cutting tools



Group of material		Material no.	Signature e. g.
LWS	→ Chrome alloyed steel	1.2067 or similar	none
Characteristics of material	Chrome alloyed tool steel of very good toughness and medium capacity wear resistance		
Fields of application	Sufficient for many normal cutting operations with good price/performance ratio		
SBS	→ Specially treated steel	B 153 T or similar	SBS or B 153 T
Characteristics of material	Similar to chrome alloyed tool steel but improved by special treatment		
Fields of application	Demanding cutting operations, similar to high chrome (HWS) steel but with a better price/performance ratio		
HWS	→ High chrome steel with 12 % Cr	1.2201 1.2601 1.2379 1.2080 1.2436 or similar	12 % Cr
Characteristics of material	High alloy ledeburite chrome steel with good capacity of wear resistance and good toughness		
Fields of application	For very demanding cutting operations		
HSS	→ High speed steel	1.3333 1.3343 1.3355 1.3318 or similar	HSS
Characteristics of material	High speed steel with high capacity of wear resistance due to its content of wolfram and molybdenum and with sufficient toughness		
Fields of application	For extremely demanding cutting operations		
HSP	→ HSS powder metal	ASP CPM or similar	HSP
Characteristics of material	High speed steel made of powder metal with better toughness than High speed steel (HSS) by homogeneous structural constitution and, with a better capacity of wear resistance		
Fields of application	Like high-speed steel (HSS) but only with special cutting operations demanded by the materials to be cut		
RFS	→ Stainless steel	1.4112 or similar	RFS
Characteristics of material	Stainless and acid-proof steel with at least 17 % Cr with acceptable wear properties and good toughness		
Fields of application	Cutting operations demanding rust and acid-resisting properties		

→ **Special material on request**

GROUPS OF MATERIALS

for knife holders, spacers and similar



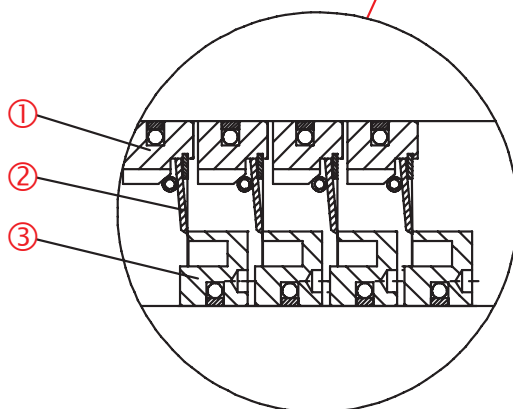
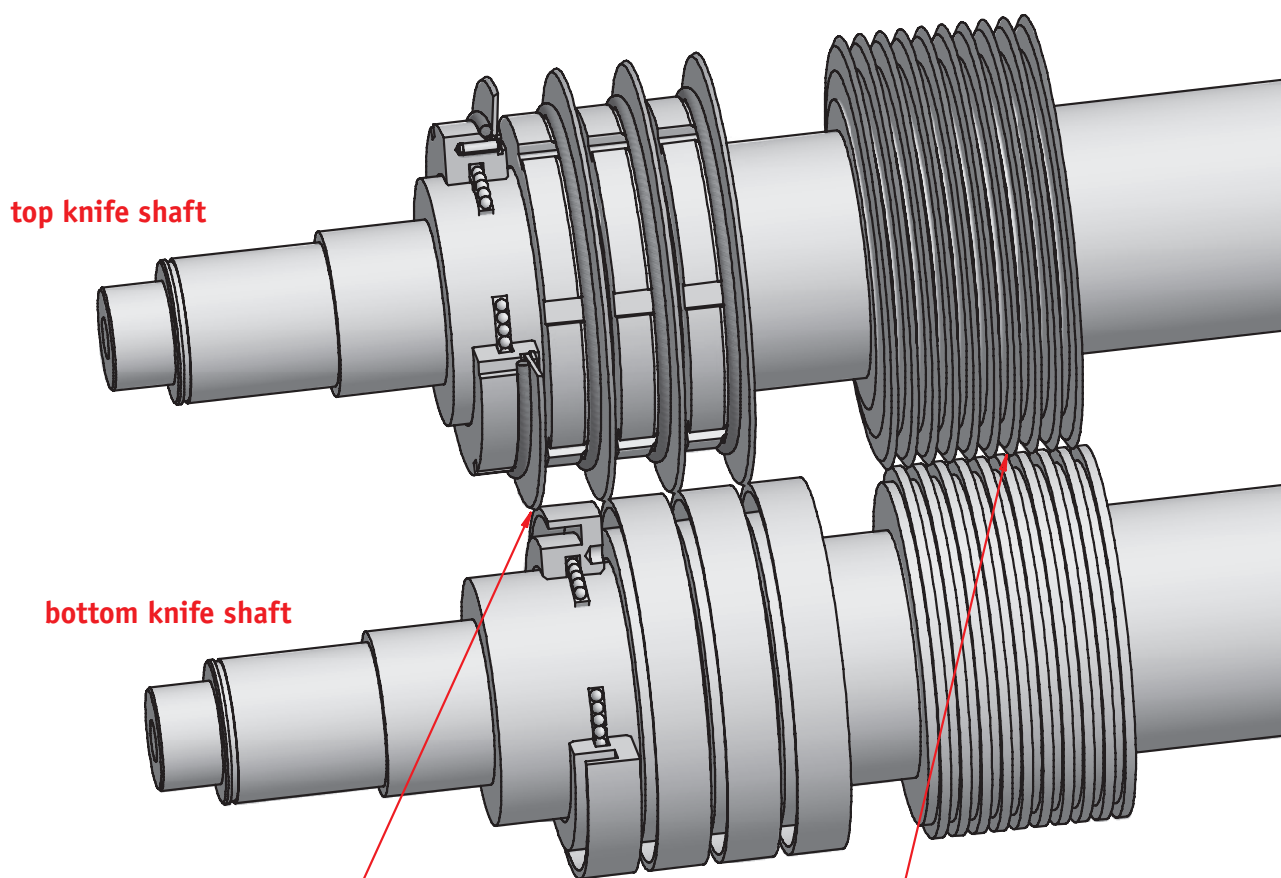
Group of material		Material no.	Signature e. g.
VGS	→ Tempering steel	1.1191 1.1750 1.0503 or similar	none
LWS	→ Alloyed tool steel	1.2003 1.2235 1.2067 1.2419 1.2241 or similar	none
RWS	→ Stainless steel	1.4571 or similar	none
RFS	→ Stainless steel (heat treatable)	1.4112 1.4034 1.4021 or similar	none
FBS	→ Spring steel (hardened)	1.1274 or similar	none
FRS	→ Spring steel (hardened, stainless)	1.4310 or similar	none
ALU	→ Aluminium	3.1645 or similar	none

→ Special material on request

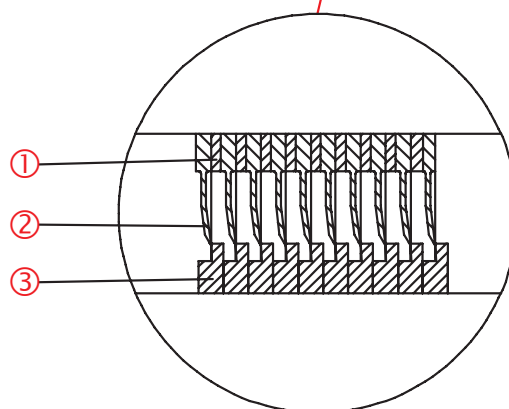
SLITTING SYSTEM

Cutting system for standard types

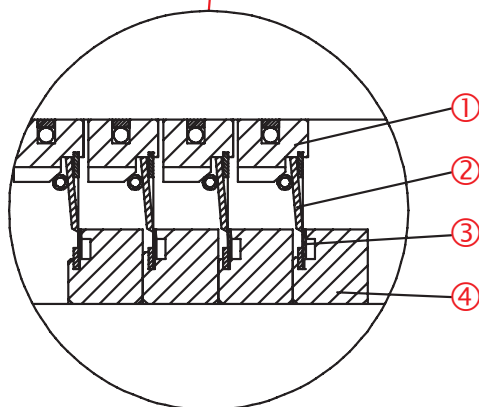
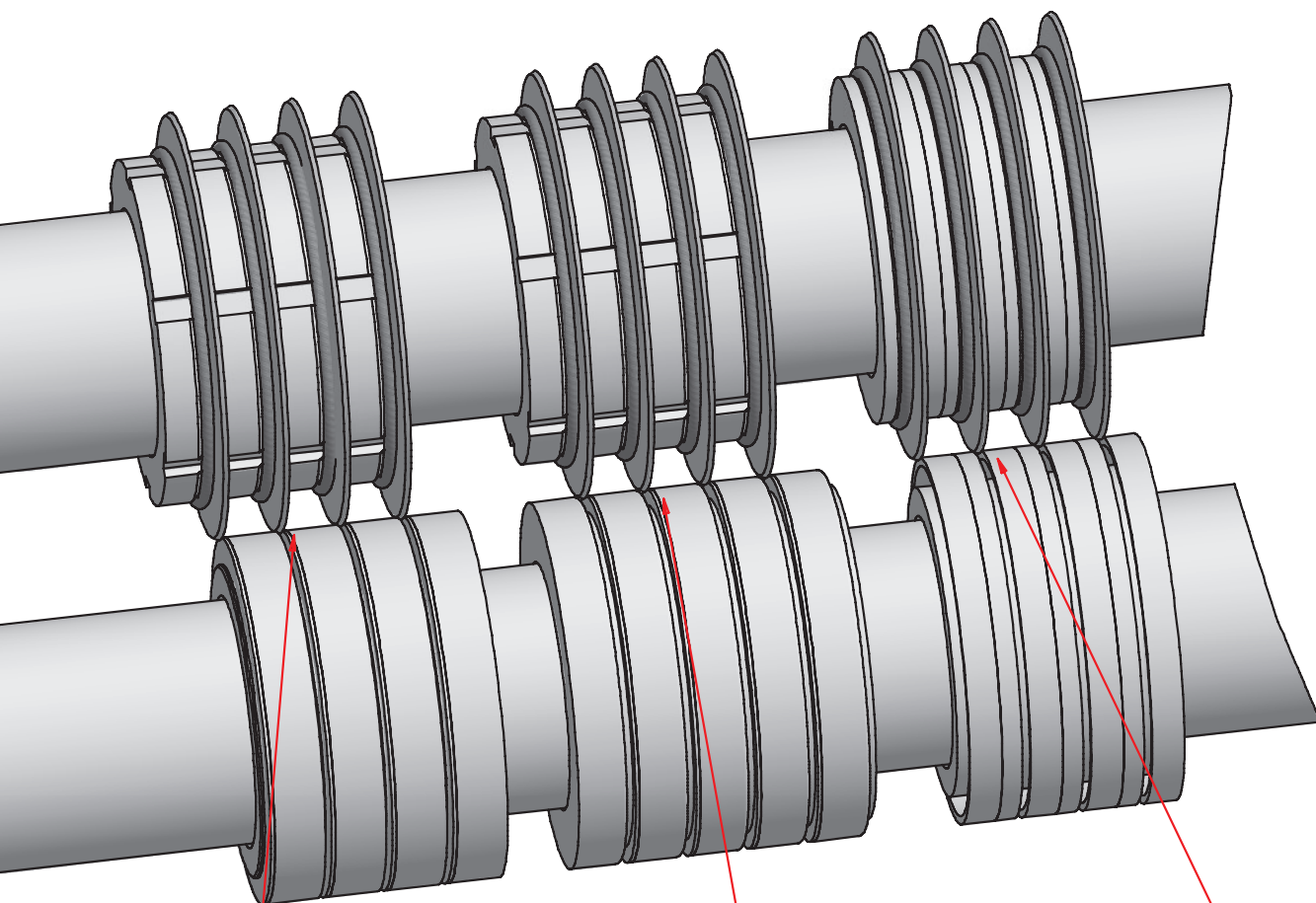
➔ for top and bottom knife shaft



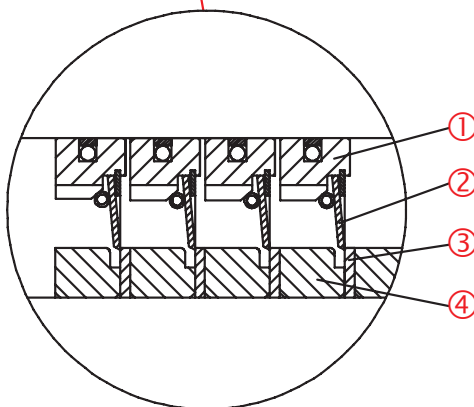
- ① **Complete top knife holder**
(with eccentric fixing on plain shaft)
- ② **Top knife**
- ③ **Bottom knife**
(with eccentric fixing on plain shaft)



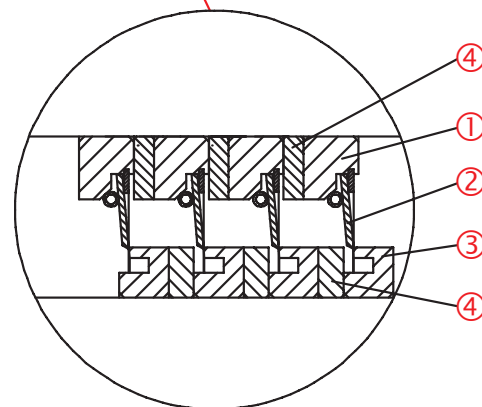
- ① **Spacer**
- ② **Top knife type OFD**
(flat, self-cushioning)
- ③ **Bottom knife**
(for axial clamping)



- ① **Complete top knife holder type MG**
(with eccentric fixing on plain shaft)
- ② **Top knife type ON, OD, OH**
- ③ **Cutter ring type US**
(for axial clamping)
- ④ **Complete cutting ring holder type NSH**
(for axial clamping)



- ① **Complete top knife holder type MG**
(with eccentric fixing on plain shaft)
- ② **Top knife type ON, OD, OH**
- ③ **Cutter ring type US**
- ④ **Spacer type ZE**
(for axial clamping)



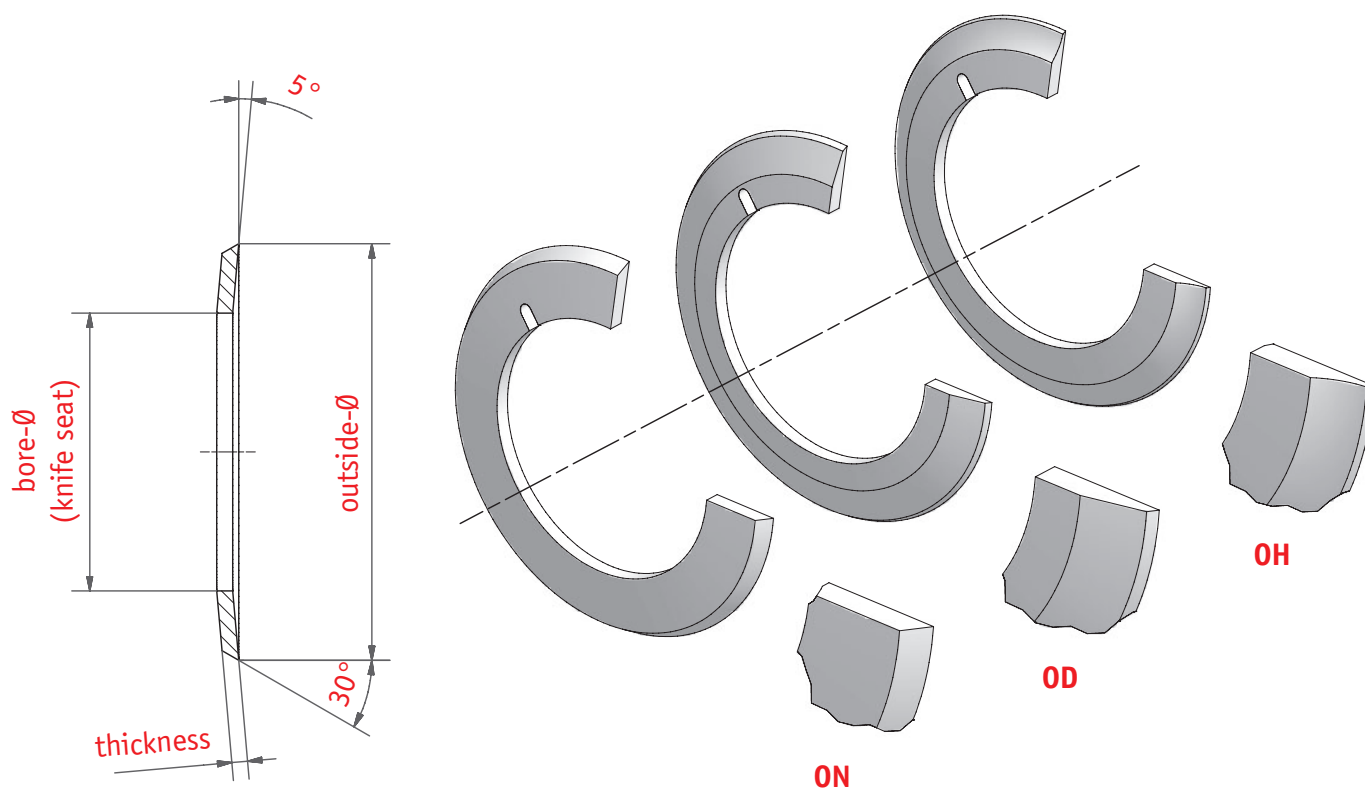
- ① **Complete top knife holder type M**
- ② **Top knife type ON, OD, OH**
- ③ **Bottom knife type N**
- ④ **Spacer type Z**

SLITTING SYSTEM

Top knife type ON, OD, OH



➔ with normal, double, double hollow bevel



Cutting bevel width from 0.15 mm
Cutting bevel 0° – 60° (standard 30°)

Outside-Ø	62	75	75	75	90	100	105	105	105,6	108
Bore-Ø	40	40	45	50	60	70	65	75	81,05	65
Thickness	0.6/1.0	1.0	0.6/1.0	0.6/1.0	1.2	0.8/1.2	0.8/1.2	0.8/1.2	1.2	1.2

Outside-Ø	130	130	140	150	150	170				
Bore-Ø	80	100	70	80,01	90	120				
Thickness	1.5	1.5	3.0	2.0/2.5	3.5	2.0				

Order example: Type – outside-Ø x bore-Ø x thickness – material group
OH – 105 x 75 x 1.2 of LWS

Standard material groups: LWS, SBS, HWS, HSS

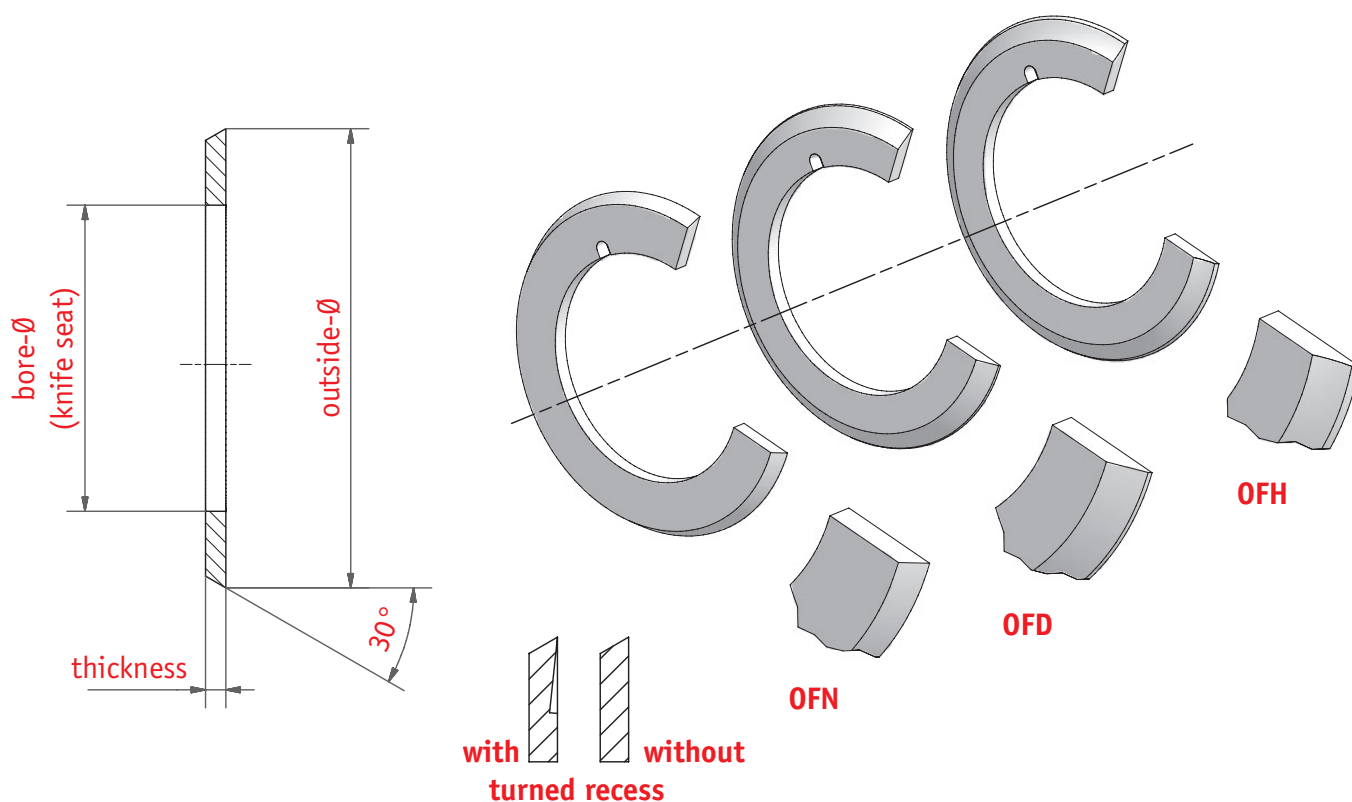
Special materials/dimensions and warehousing upon request

SLITTING SYSTEM

Top knife type OFN, OFD, OFH



➔ flat, with normal, double, double hollow bevel



Cutting bevel width from 0.15 mm
Cutting bevel 0° – 60° (standard 30°)

Outside-Ø	75	75	90	105	105	105	130	130	150	170
Bore-Ø	30	30	60	60	65	75	80	100	120	120
Thickness	0.5	1.0	1.2	1.0	1.5	1.5	1.5	1.5	1.6	1.5

Outside-Ø	180	200	200	220	220	220	220			
Bore-Ø	70	65	90	80	80	120	180			
Thickness	5.0	2.0	4.0	3.0	5.0	2.5	4.0			

Order example:

Type – outside-Ø x bore-Ø x thickness – material group
OFD – 180 x 70 x 5.0 of LWS

Standard material groups: LWS, SBS, HWS

Special materials/dimensions and warehousing upon request

2 - 2.2

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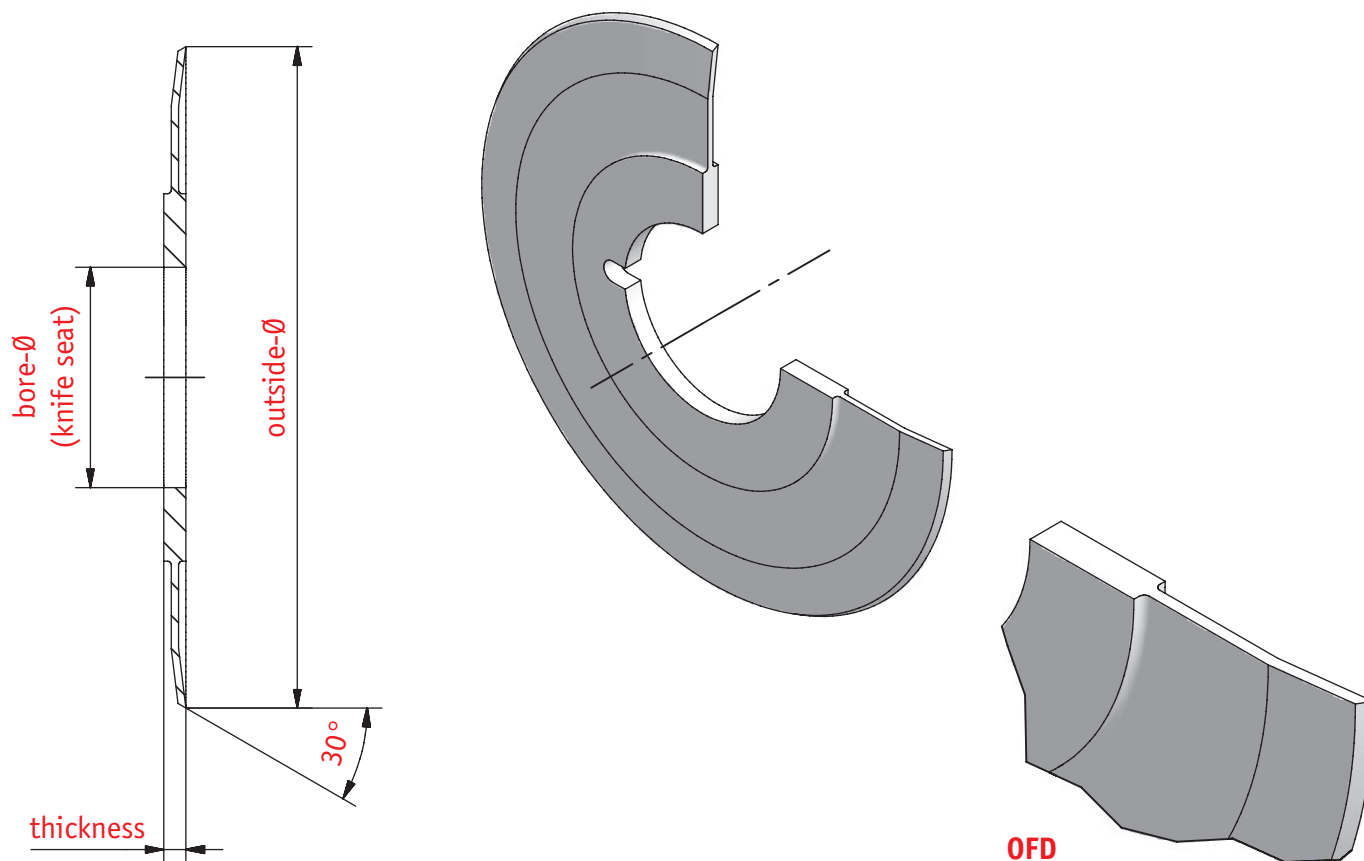
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SLITTING SYSTEM

Top knife type OFD (flat, self-cushioning)



➔ narrow cut system without top knife holder



Outside-Ø	75	80	80	100	105					
Bore-Ø	30	30	40	60	60					
Thickness	≥ 0.5	1	1	1	≥ 1					

Order example: Type – outside-Ø x bore-Ø x thickness – material group
OFD – 80 x 30 x 1.0 of LWS

Standard width tolerance: ± 0.0025
Standard material groups: LWS, SBS, HWS

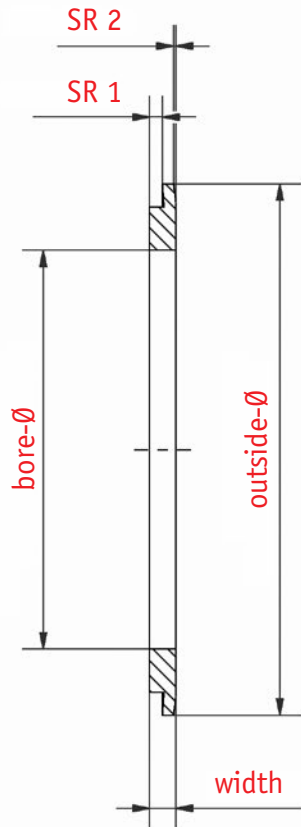
Special materials/dimensions and warehousing upon request

SLITTING SYSTEM

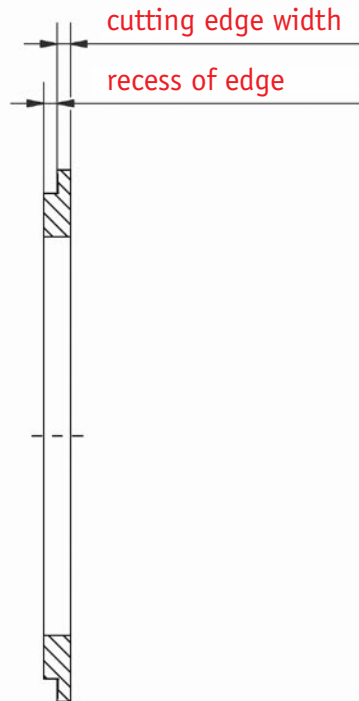
Bottom knife (female knife) type NSS



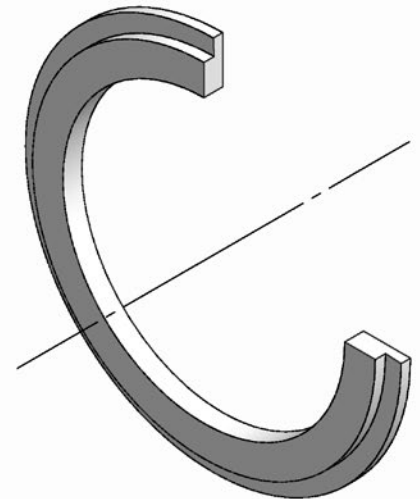
➔ for axial clamping (narrow cut system)



style A



style B



bottom knife

Outside-Ø	46	60	77	80						
Bore-Ø	30	40	45	60						
Thickness	0.5	0.5	0.5	0.5						

Cutting edge height = Width – recess of edge / **recess of edge** style A = SR 1 + SR 2
Order example: Type – outside-Ø x bore-Ø x width / cutting edge width / style
– material group
NSS – 46 x 30 x 1.0 / 0.5 / A of LWS

Standard cutting bevel: 1.5° with width ≤ 1.5 / 3° with width > 1.5

Standard width tolerance: +/- 0.0025

Standard material groups: LWS, HWS

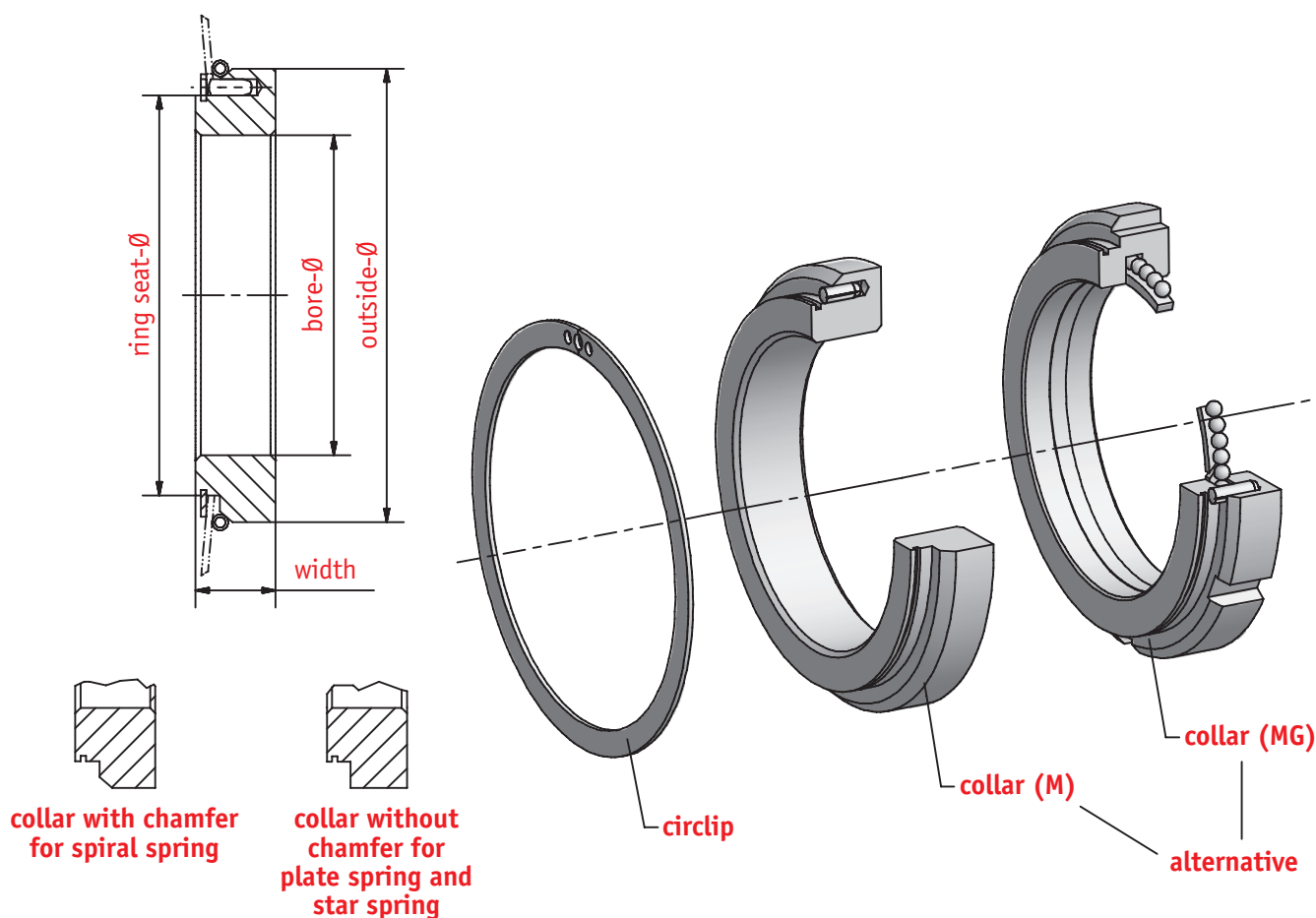
Special materials/dimensions and warehousing upon request

SLITTING SYSTEM

Top knife holder type M, MG



Representation: collar with spiral spring (standard)



Index for collar (M)

outside-Ø	50	55	60	80	80	85	112	132		
ring seat-Ø	40	45	50	70	70	75	100	120		
bore-Ø	25	30	40	45	60	60	80	100		
width from	3	3	3	3	3	3	8	8		

Order example: Type – outside-Ø / ring seat-Ø x bore-Ø x width
 – material group
 M – 85 / 75 x 60 x 10 of VGS

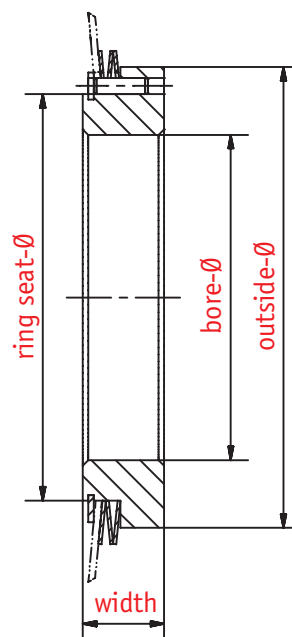
Standard width and tolerance: 5 / 10 / 15 ± 0.005

Standard material group: VGS, LWS, RFS

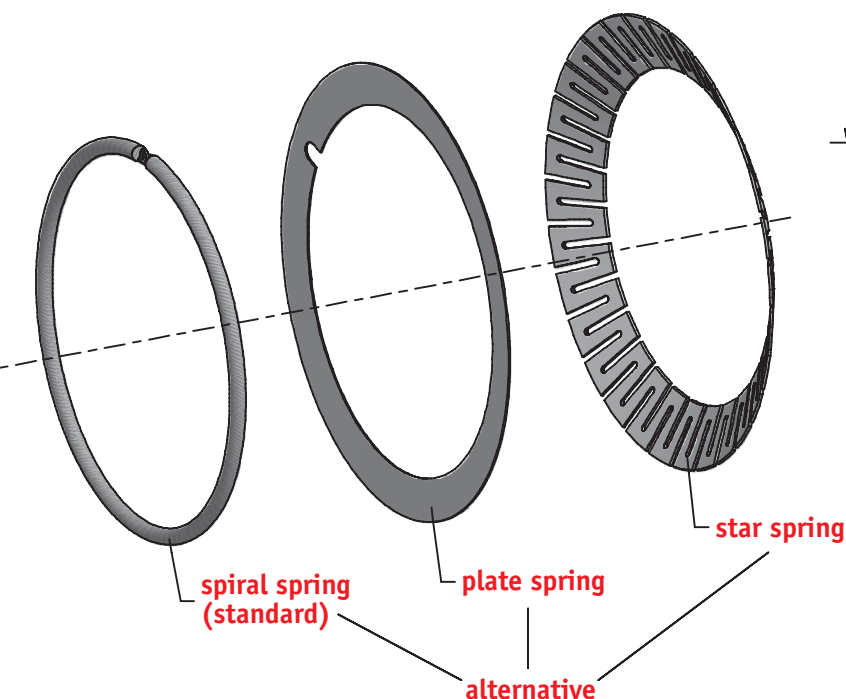
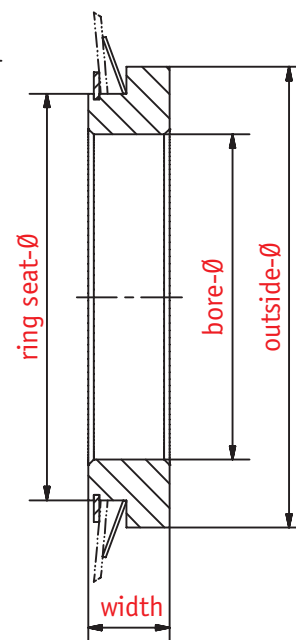
Collars are mounted with standard spiral spring

Special materials and dimensions upon request.

Representation: collar
with plate spring



Representation: collar
with star spring



Index for collar (MG)

outside-Ø	50	55	60	75	80	85	90	100	112	132
ring seat-Ø	40	45	50	65	70	75	80	80	100	120
bore-Ø	25	30	40	45	45	60	60	60	80	100
width from	6	6	6	6	6	6	10	10	10	15

Order example:

Type – outside-Ø / ring seat-Ø x bore-Ø x width
– material group
MG – 85 / 75 x 60 x 10 of VGS

Standard width and tolerance: 10 / 15/ 20 $-0.1/-0.2$

Standard material group: VGS, LWS, RFS

Circlips, spiral springs and mounting tools also available. Please refer to page 2-7 and 2-8
Collars come standard with spiral springs, optionally with plate spring or star spring

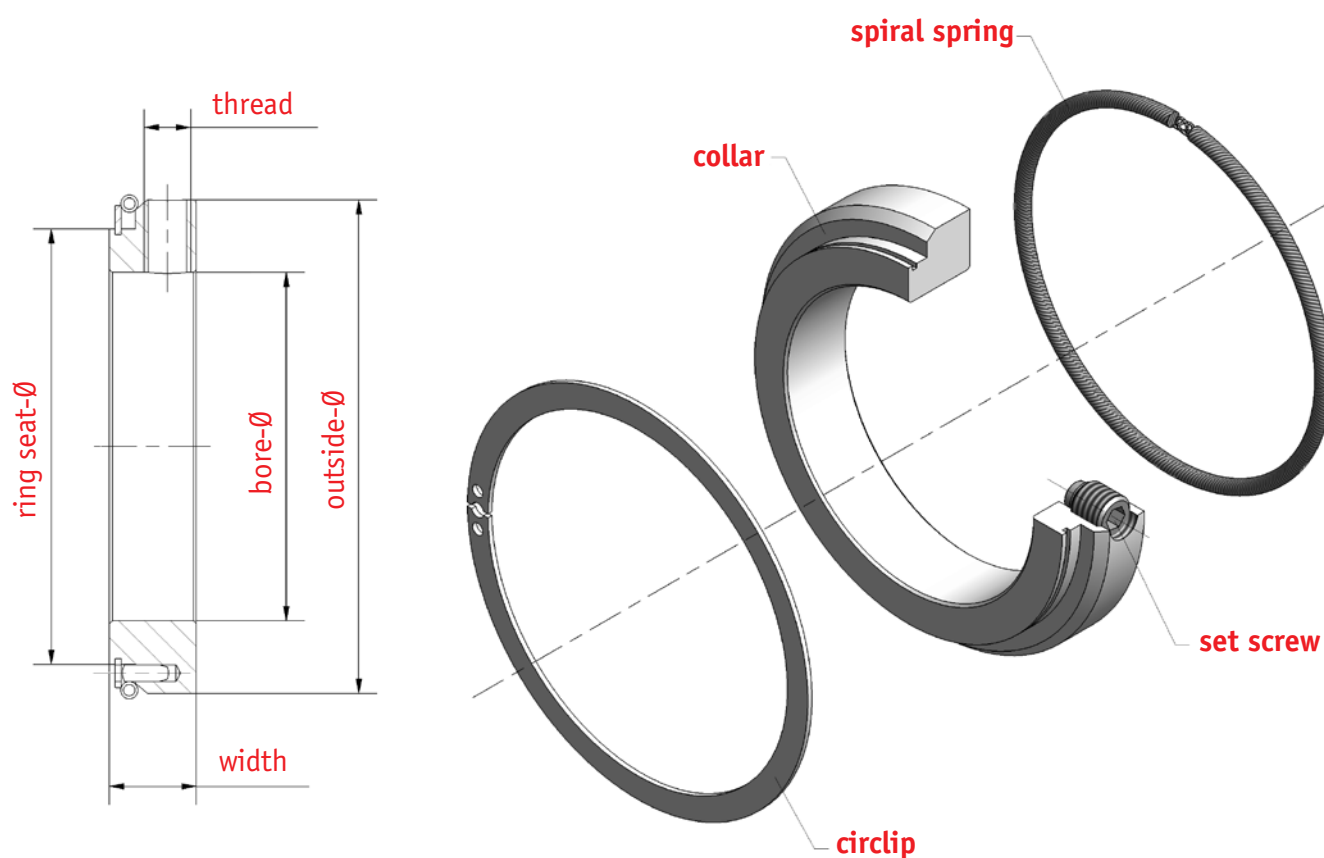
Special material/dimension and warehousing upon request.

SLITTING SYSTEM

Top knife holder type MD



➔ with set screw locking (axial)



outside-Ø	50	57	60	80	85					
ring seat-Ø	40	40	50	70	75					
bore-Ø	30	31.75	40	45	60					
width from	10	10	10	10	10					

Order example: Type – outside-Ø / ring seat-Ø x bore-Ø x width
 – material group
 MD – 85 / 75 x 60 x 15 of VGS

Standard width and tolerance: 15 ^{-0.1/-0.2}
 Standard material groups: VGS, LWS, RFS

Circlips, spiral springs and mounting tools also available. Please refer to page 2-7 and 2-8
 Collars come standard with spiral springs; optionally with additional groove

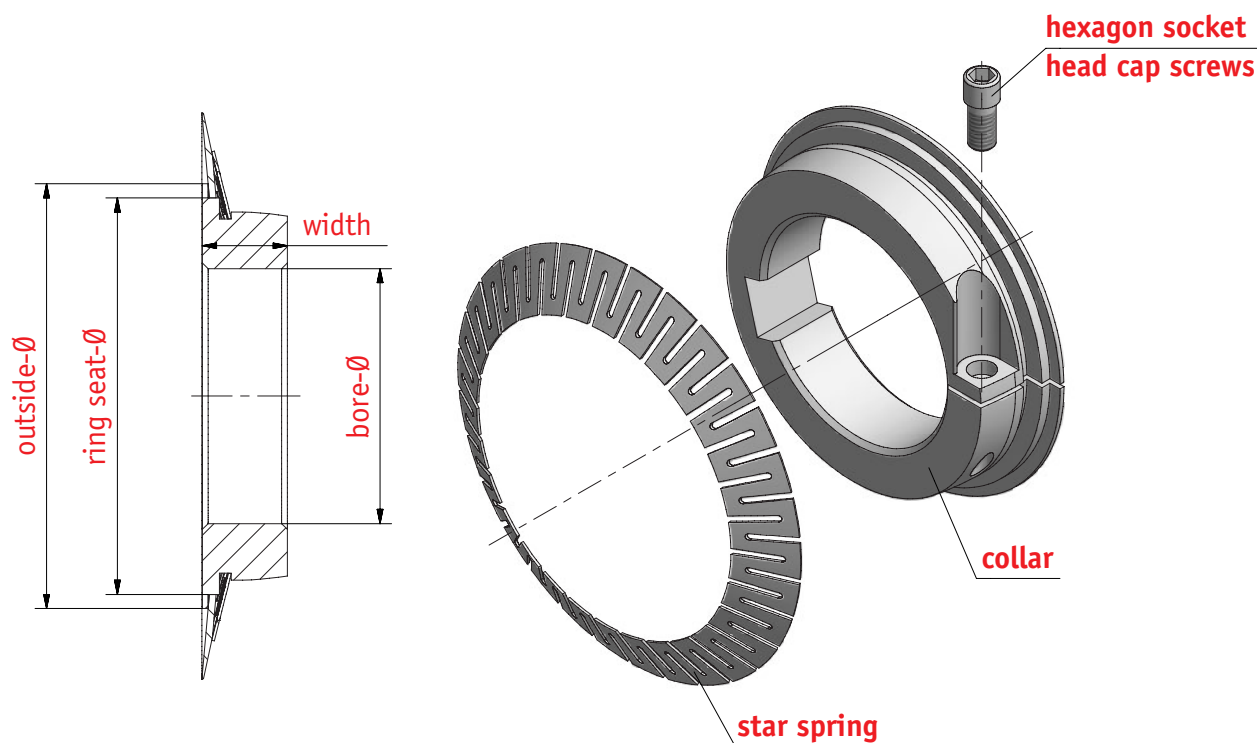
Special material/dimension and warehousing upon request.

SLITTING SYSTEM

Top knife holder type MD



➔ with set screw locking (tangential)



outside-Ø	75	85	112							
ring seat-Ø	70	75	100							
bore-Ø	45	60	80							
width from	15	15	15							

Order example:

Type – outside-Ø / ring seat-Ø x bore-Ø x width
 – material group
 MD – 85 / 75 x 60 x 15 of VGS

Standard width and tolerance: 15 $-0.1/-0.2$

Standard material groups: VGS, LWS, RFS

Circlips, spiral springs and mounting tools also available. Please refer to page 2-7 and 2-8

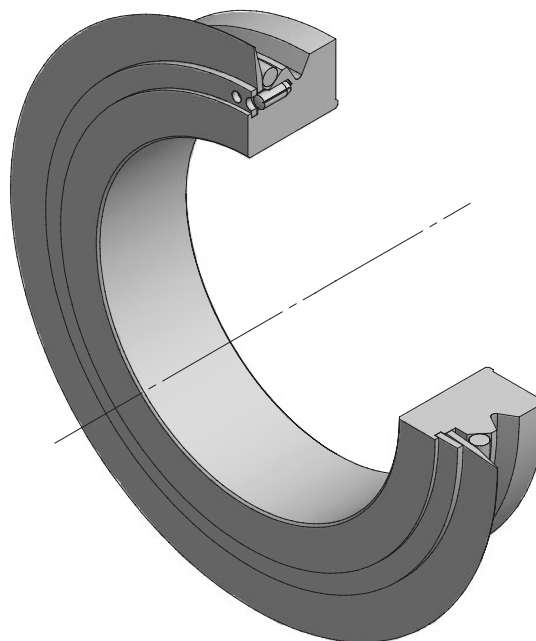
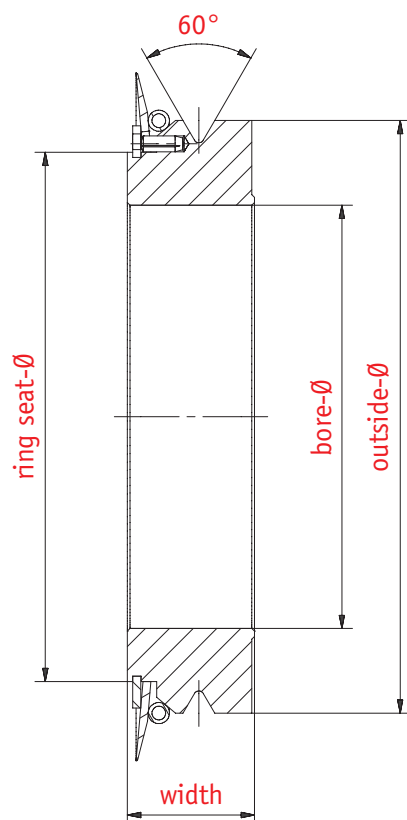
Collars come standard with standard star springs; optionally with additional groove

Special material/dimension and warehousing upon request.

SLITTING SYSTEM

Top knife holder type MS

➔ for Positioning (V-groove)



outside-Ø	85	112	112	115	132	142				
ring seat-Ø	75	100	100	100	120	130				
bore-Ø	60	80	90	90	110	120				
width from	15	19	19	19	24	29				

Order example: Type – outside-Ø / ring seat-Ø x bore-Ø x width
 – material group
 MS – 112 / 100 x 80 x 24 of LWS

Standard width and tolerance: 15 $-0.1/-0.2$
 Standard material groups: VGS, LWS, RFS

Collars come standard with spiral springs.

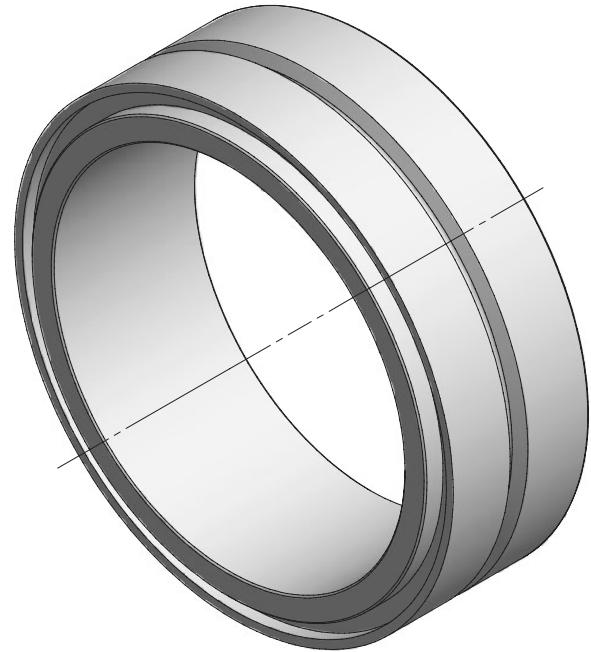
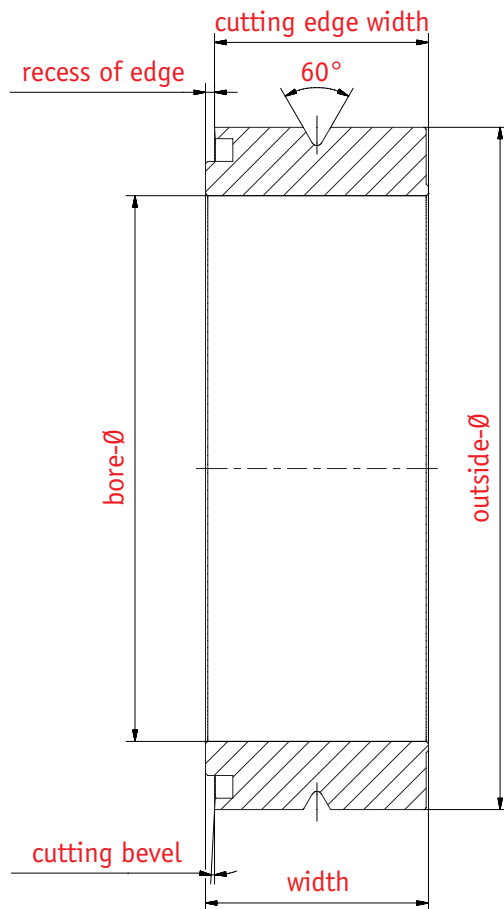
Special material/dimension and warehousing upon request.

SLITTING SYSTEM

Bottom knife (female knife) type NS



➔ for Positioning (V-groove)



outside-Ø	80	105	105	130	150	180	210			
bore-Ø	60	80	90	80	120	150	180			
width from	15	15	15	19	29	29	29			

Order example:

Type – outside-Ø x bore-Ø x width / cutting edge width
 – material group
 NS – 105 x 90 x 15 / 13 of LWS

Standard-cutting bevel: 3°
 Standard width and tolerance: 15 / 19 / 29 ^{-0.05}
 Standard material groups: LWS, HWS

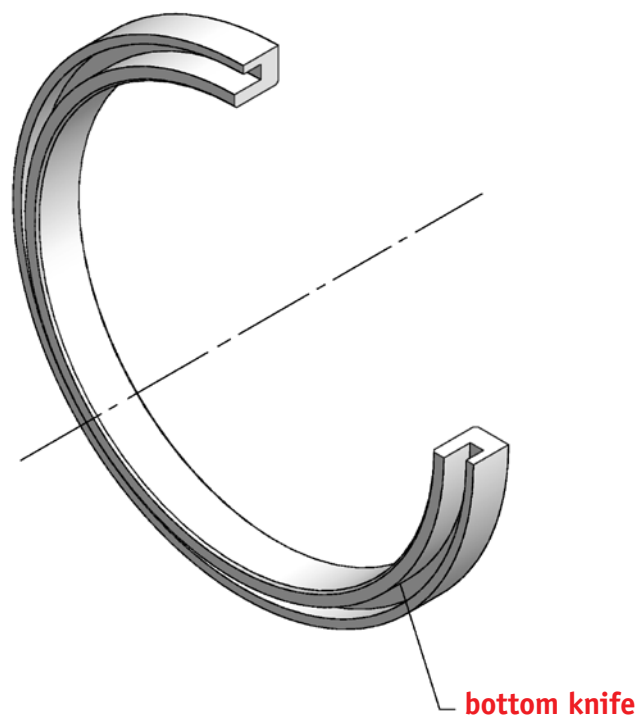
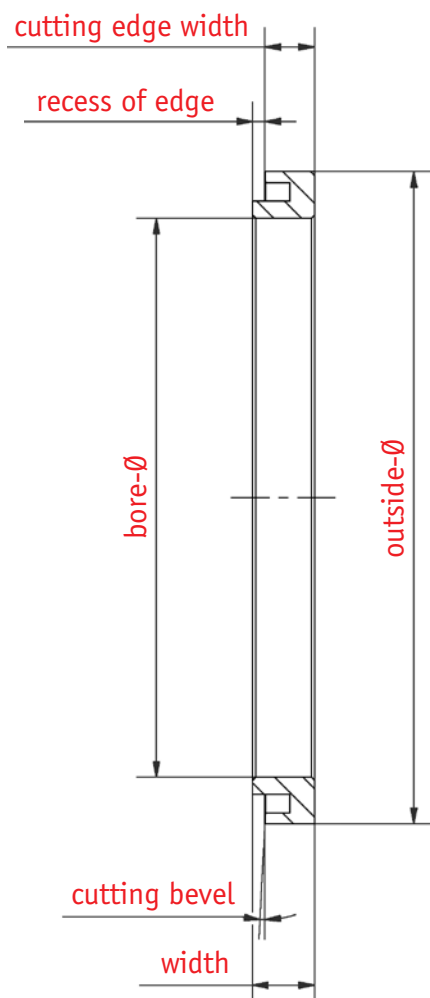
Special material/dimension and warehousing upon request.

SLITTING SYSTEM

Bottom knife (female knife) type N



➔ for axial clamping



outside-Ø	46	60	77	77	80	105	105	124	150	150	160	200
bore-Ø	30	40	45	60	60	80	90	100	100	120	140	160
width from	3	3	3	3	3	5	5	5	5	5	5	5

Order example: Type – outside-Ø x bore-Ø x width / cutting edge width
– material group
N – 105 x 80 x 10 / 8 of LWS

Standard cutting bevel: 3°
Standard width and tolerance: 5 / 10 / 15 / 20 ± 0.005
Standard material groups: LWS, HWS

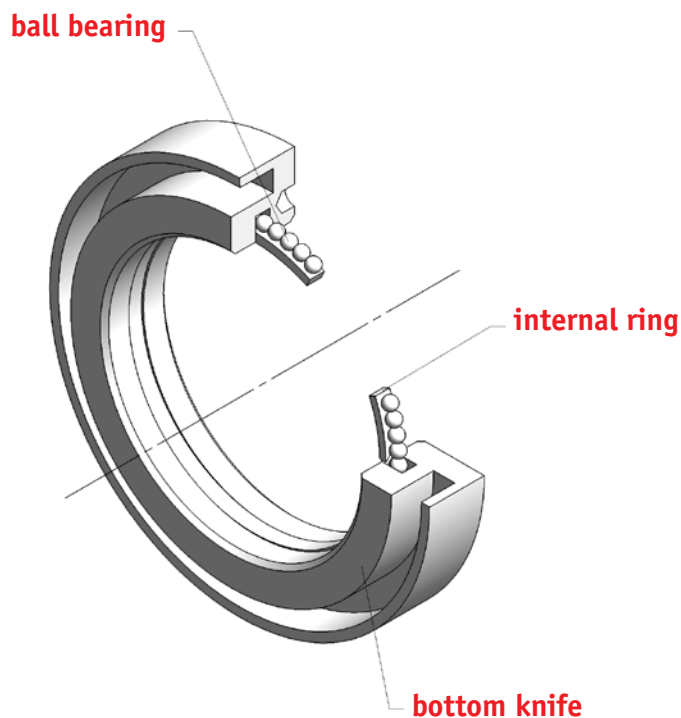
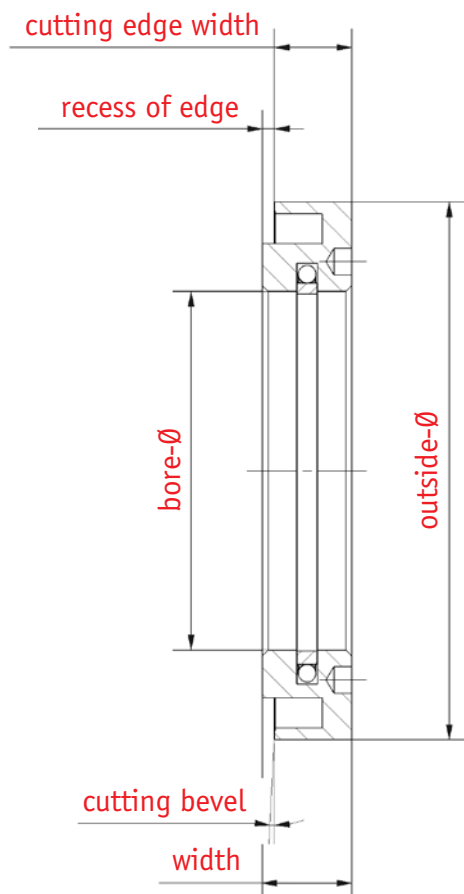
Special material/dimension and warehousing upon request.

SLITTING SYSTEM

Bottom knife (female knife) type NG



➔ with eccentric fixing (self-locking)



outside-Ø	46	60	60	77	77	80	90	105	105	150
bore-Ø	25	30	40	45	60	60	60	60	80	120
width from	6	6	6	6	6	6	10	10	10	15

Order example:

Type – outside-Ø x bore-Ø x width / cutting edge width
– material group
NG – 80 x 60 x 10 / 8.5 of LWS

Standard cutting bevel: 3°
Standard widths and tolerance: 10 / 15 / 20 $-0.02/-0.04$
Standard material groups: LWS, HWS

Mounting tools please refer to page 2-8

Special material/dimension and warehousing upon request.

2-5.3

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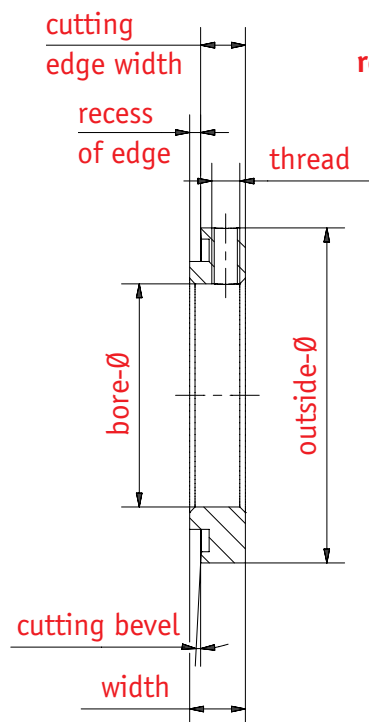
SLITTING SYSTEM

Bottom knife (female knife) type ND

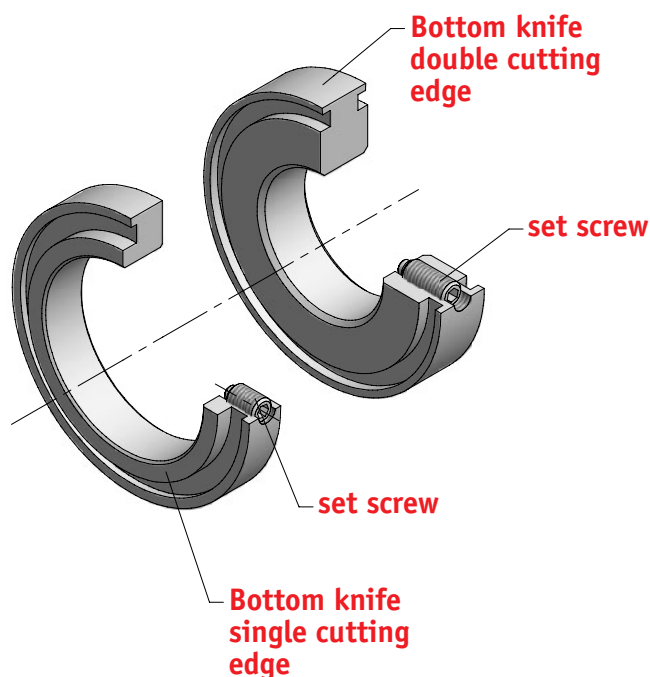
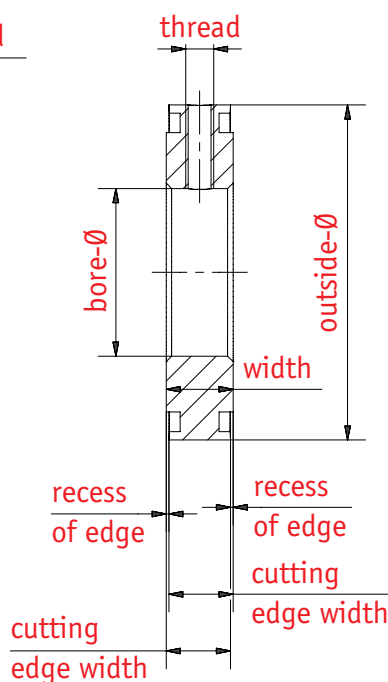


➔ with set screw locking

representation: Bottom knife with single cutting edge



representation: Bottom knife with double cutting edge



outside-Ø	46	50	60	77	80	90	105	130	130	150	160	210
bore-Ø	25/30	25/30	30/40	45/60	60	60	80	80	100	120	100	180
width from	8	8	8	8	8	8	8	10	10	10	10	10

Order example:

Type – outside-Ø x bore-Ø x width / cutting edge width
 – material group / cutting edge on one or both sides
 ND – 105 x 80 x 10 / 8 of LWS

Standard-cutting bevel: 3°
 Standardbreiten und -toleranz: 10 / 15 / 20 -0.02/-0.04
 Standard material groups: LWS, HWS

Screws and mounting tools please refer to page 2-7 and 2-8

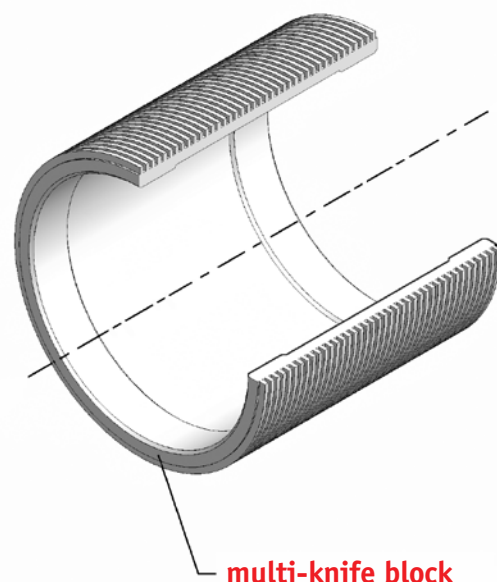
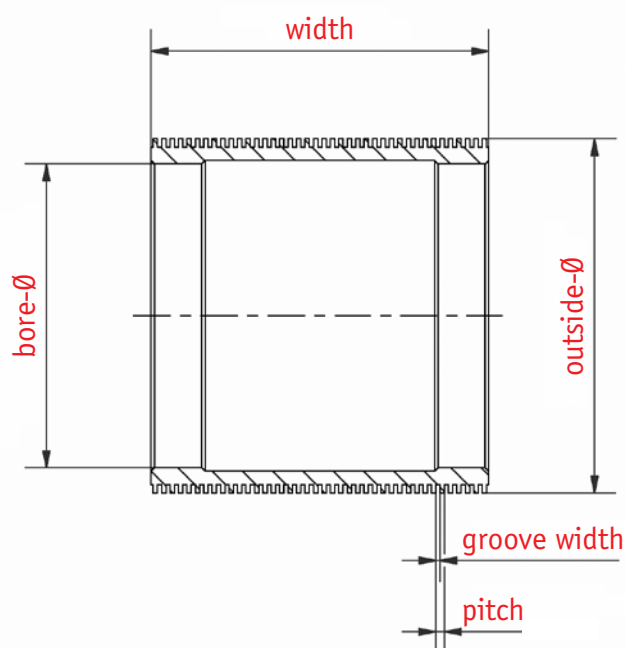
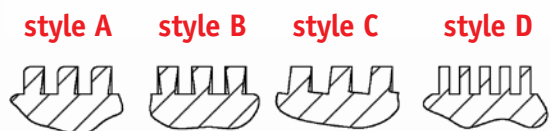
Special material/dimension and warehousing upon request.

SLITTING SYSTEM

Multi-knife block (female knife) type NB



→ for axial clamping



outside-Ø	77	80	105	105	124	150	150	180	210	240
bore-Ø	60	60	80	90	100	100	120	150	180	210

outside-Ø	250	275	290	300	300	350	390	400	410	450
bore-Ø	210	245	260	250	270	310	350	360	380	416

Order example: Type – outside-Ø x bore-Ø x width / pitch / groove width / style
 – material group
 NB – 180 x 150 x 100 / 10 / 3 / A of LWS

Standard widths and tolerance:
 Standard material group:

pitch style 5 mm on / **groove width** style 2.2 mm on
 50 / 100 ± 0.02
 LWS

Also available with screw fixing

Special material/dimension and warehousing upon request.

2 - 5.5

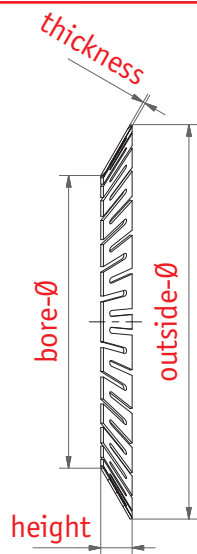
WILHELM BILSTEIN GMBH & CO. KG

Kölner Str. 27-29 phone +49 (0) 22 06 / 60 06-0 sales@bilstein.net
 D-51491 Overath fax +49 (0) 22 06 / 60 06-29/-49 www.bilstein.eu

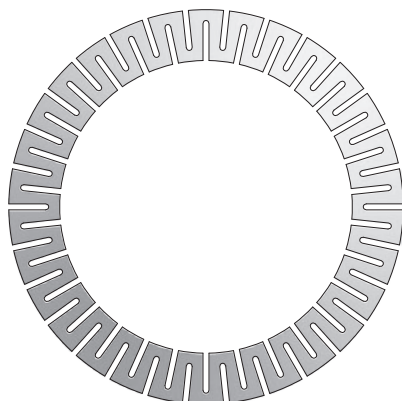
BILSTEIN®

SPARE PARTS FOR SLITTING TOOLS

Springs, circlips and screws



star spring (FR)

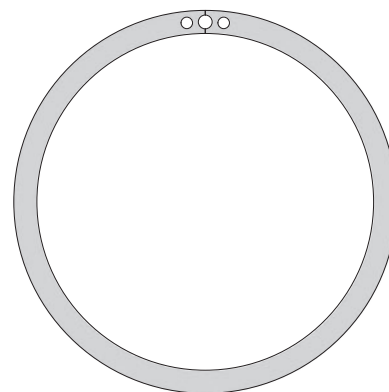


order example:

Type – outside-Ø x bore-Ø x thickness / height
FR – 86 x 64 x 0.5 / 7



circlip (SP)



order example:

Type – outside-Ø x bore-Ø x thickness
SP – 83 x 73 x 1

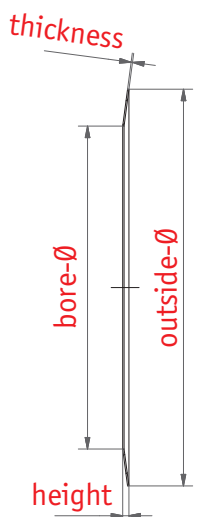
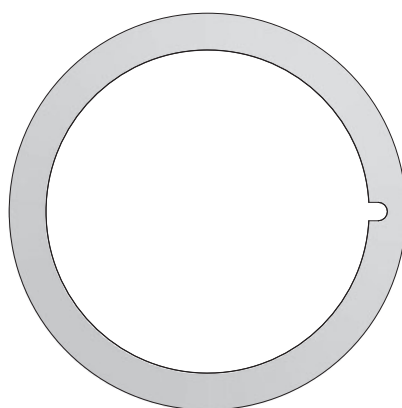
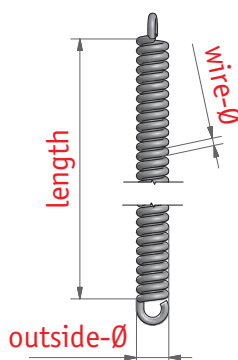


plate spring (FT)

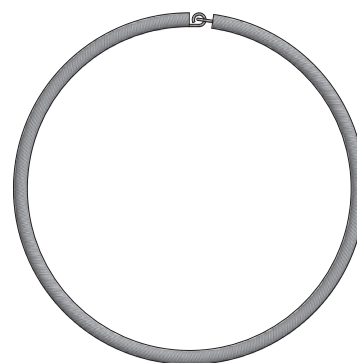


order example:

Type – outside-Ø x bore-Ø x thickness / height
FT – 86 x 70 x 0.3 / 1.35



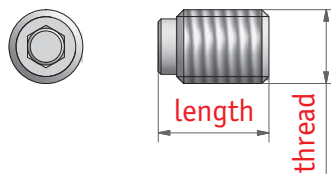
spiral spring (FS)



order example:

Type – outside-Ø x wire-Ø x length
FS – 3.5 x 0.8 x 200

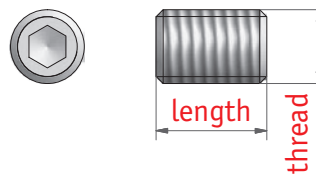
**grub screw with trust piece,
alternative brass tipped (MBZ1)**



order example:

Type – thread – length
MBZ1 – M6 x 12

grub screw (DSG)



order example:

Type – thread – length
DSG – M6 x 12

Please confirm preferred option!

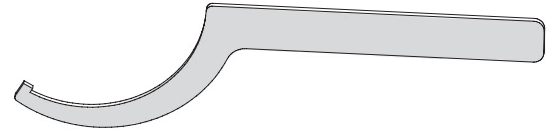
ACCESSORIES FOR CUTTING TOOLS

Wrenches, circlip pliers and appliances



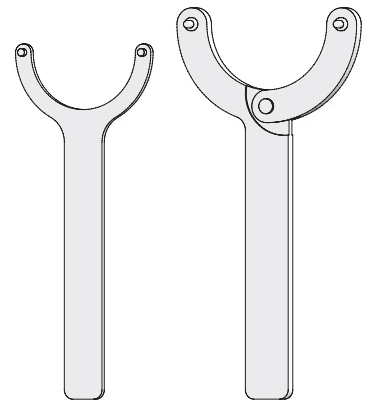
Hook wrench to be used with

- Top knife holder with fixing on plain shaft (as a rule, starting from a width of 10 mm)
- Please indicate the outside diameter of the knife holder!



(Articulated-)pin type spanner (face spanner) to be used with

- Knife holder with fixing on plain shaft (as a rule, starting from a width of 6 mm)
- Bottom knife with fixing on plain shaft
- Knife head on the pneumatic top knife holder
- Please indicate the pitch circle of the pinholes (distance of hole centre)!



Square wedge spanner

- For mechanical crush cut holder (Q40, Q60, etc.)

Hexagon socket head wrench (Allen key)

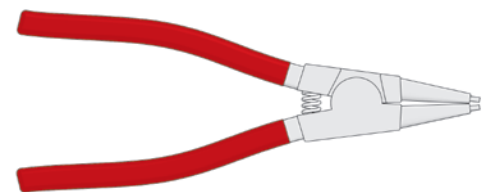
- For mechanical crush cut holder (QHP, POH, Q68 etc.)

Please indicate type of holder and working length (short or long)!



Snap ring circlip pliers (for collars)

- Please indicate the type of article!



Appliances for

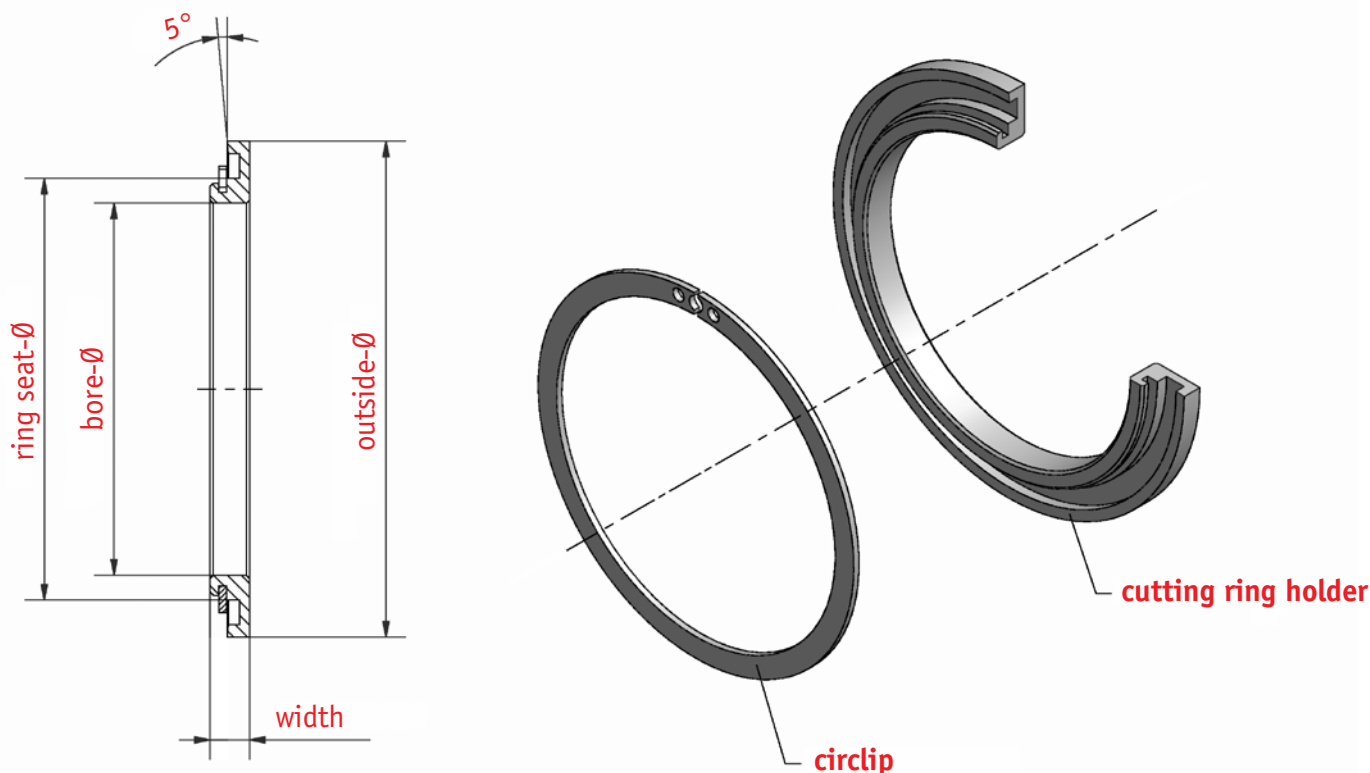
- Assembling / disassembling of knives from knife holders
- Setting / adjusting of knives on shafts
- Etc., individual solutions on demand

SLITTING SYSTEM

Cutting ring holder type NSH



➔ suitable for cutting ring type US, thickness 0.5 mm



outside-Ø	46	60	77	80	124	160				
ring seat-Ø	34	45	62	68	112	148				
bore-Ø	25	35	45	60	100	140				
width from	5	5	5	5	10	10				

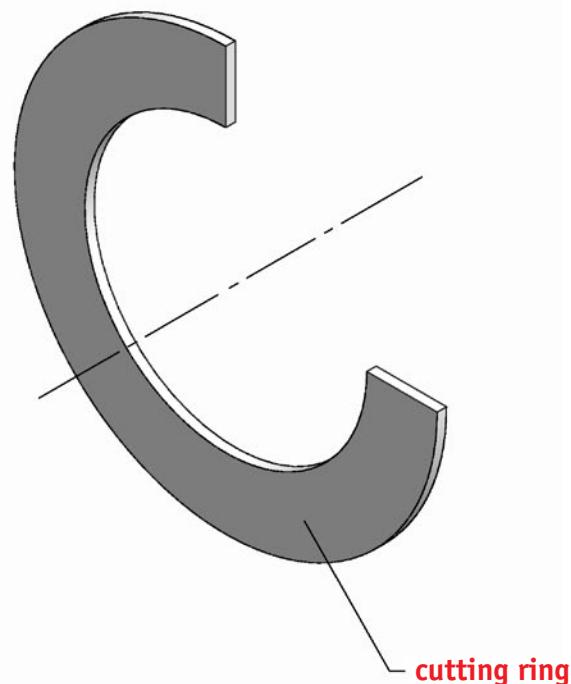
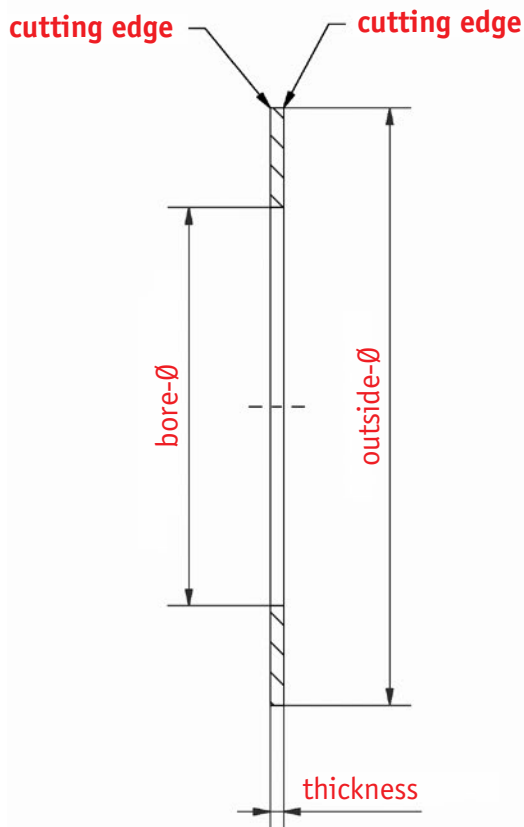
Order example: Type – outside-Ø / ring seat-Ø x bore-Ø x width
 – material group
 NSH – 80 / 68 x 60 x 10 of VGS

Standard width and tolerance: 10 $\pm$ 0.01
 Standard material group: VGS

Special material/dimension and warehousing upon request.

SLITTING SYSTEM

Cutting ring type US



outside-Ø	46	46	60	77	77	80	80	105	105	124	160	
bore-Ø	30	34	45	60	62	60	68	80	90	100	140	
thickness	1.0	0.5	0.5	1.0	0.5	1/2	0,5	1/2	1/2	0.5/1	0.5	

Order example: Type – outside-Ø x bore-Ø x thickness – material group
US – 80 x 60 x 2 of LWS

Standard thickness and tolerances: $0.5 \pm 0.01 / \geq 1 \pm 0.005$

Standard material group: LWS

Special material/dimension and warehousing upon request.

Subject to modification

02.19

SLITTING SYSTEM

Spacer type Z



→ suitable for knife holder type M and bottom knife type N

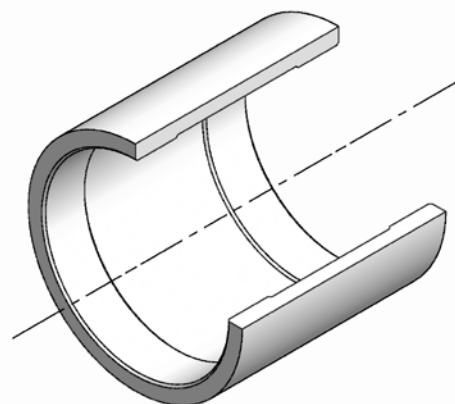
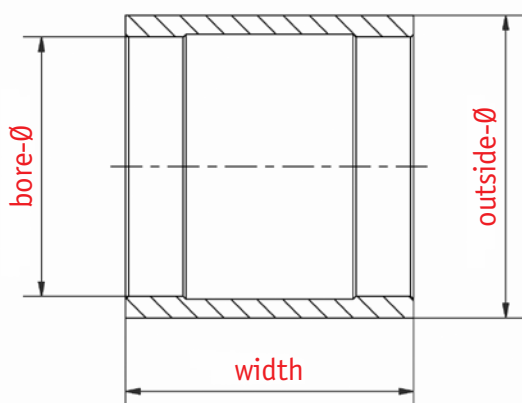


Diagram of spacers greater than 25 mm width

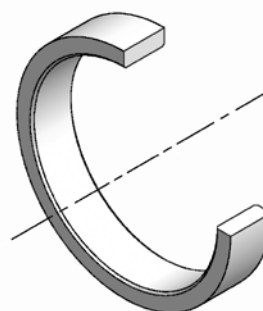


Diagram of spacers less than 25 mm width

outside-Ø	46	60	77	77	80	105	105	124	150	150	160	200
bore-Ø	30	40	45	60	60	80	90	100	100	120	140	160
width from	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1
width bis	100	100	100	500	500	500	500	500	500	500	500	500

Order example: Type – outside-Ø x bore-Ø x width – material group
Z – 80 x 60 x 20 of VGS

Standard width tolerance: up to 0.3 ± 0.02 / up to 100 ± 0.005 / up to 250 ± 0.01 / up to 500 ± 0.05
Standard material groups: VGS, LWS

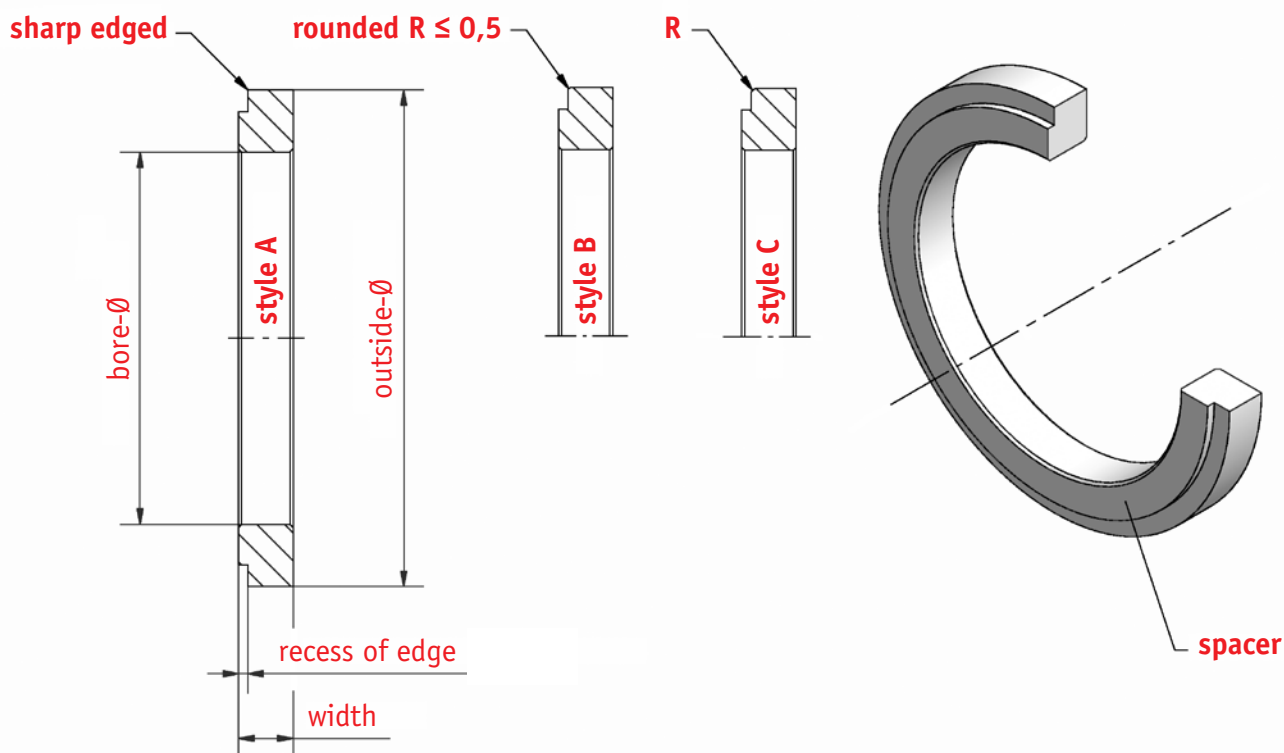
Special material/dimension and warehousing upon request.

SLITTING SYSTEM

Spacer with turned recess type ZE



➔ for axial clamping, suitable for cutting ring type US



outside-Ø	46	77	80	105	105	124	160			
bore-Ø	30	60	60	80	90	100	140			
width from	2	2	2	4	4	4	4			

Order example:

Type – outside-Ø x bore-Ø x width / recess of edge / style / radius – material group
ZE – 80 x 60 x 10 / 2 / C / R 1.0 of VGS

Standard width tolerance:

+/-0.005

Standard material groups:

VGS, LWS

Special material/dimension and warehousing upon request.

Subject to modification

02.19

2 - 9.2

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sales@bilstein.net
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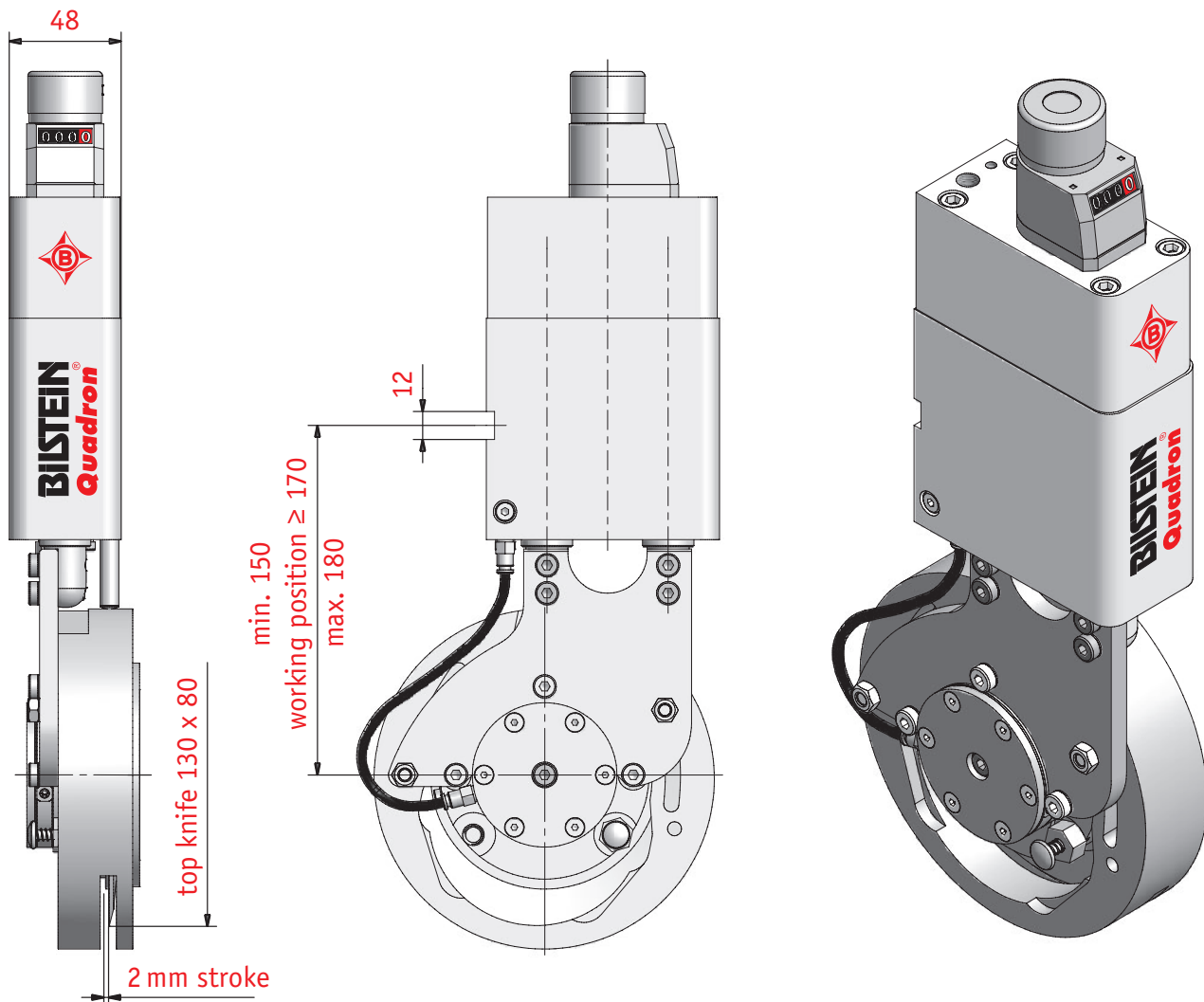
BILSTEIN®

SLITTING SYSTEM

Pneumatic top knife holder QUADRON®



➔ separate air connections for longitudinal and transversal stroke (POH-48C)



Order designation: Type POH-48C

QUADRON®-Top knife holder are regularly equipped with:

- Complete knife head (suitable for top knives of type ON, OD, OH, OFN, OFD, OFH)
- 360° hand guard / cutting width from 50 mm

QUADRON® Standard accessories: (please order separately!)

- 1 Top knife type ON, OD, OH, OFN, OFD, OFH;
Outside-Ø: from 105 mm up to 200 mm
- 2 air hoses (540 mm long, PVC) with coupling, other air hose lengths upon request
- Position indicator optional

Mode of operation:

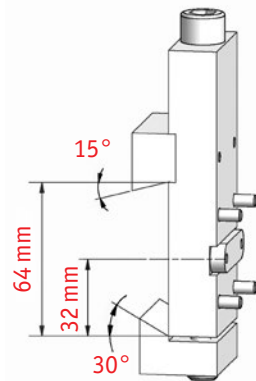
1. Lowering of the knife to its overlap depth (max. permissible pressure: vertically 6 bar)
2. Lateral offsetting of the knife (max. permissible pressure: transversally 4 bar)

SLITTING SYSTEM

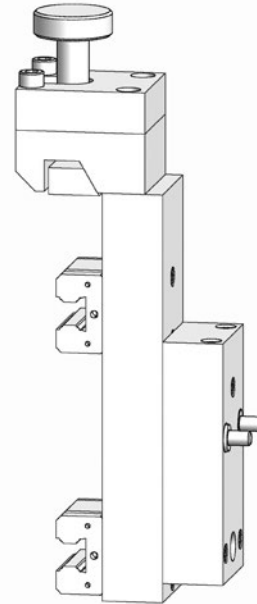
Pneumatic top knife holder QUADRON®



→ type of adapter



**Standard
dovetail adapter
(clamping from below)**



**Adapter for
linear guiding
with strip steel clamping**

Pneumatic top knife holder – advantages of the QUADRON® series

- A two axle guiding device ensures the holder remains free from play and resistant to torsion
- Factory preset shearing angle meeting the customer's demands (allows for fast modification)
- The best cutting result and extended service life of knives is achieved due to power transmission through a flat diaphragm and precise adjustment of cutting force
- Compatible with all known holder models
- Separate air connections for longitudinal and transversal stroke, precise positive control
- Stable, reliable construction for highest demands, easy to mount
- Knife head for single cut or with double knife for waste strip
- Standard hand guard or **360° hand guard**
- **Types of adapter, optionally for:**
 - Standard dovetail (left-hand side)
 - Adapter for linear rail with free from play lineal rail (right-hand side)
 - Alternatively with rack and pinion adjustment
 - Special design on demand
 - Compatible with all marketable machine types

SLITTING SYSTEM

Pneumatic top knife holder QUADRON®



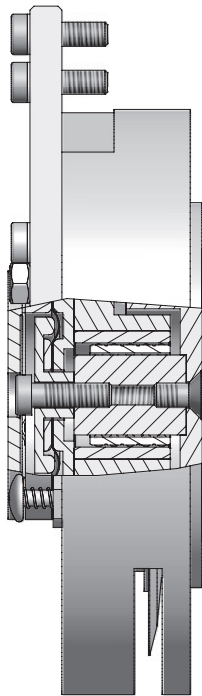
→ differences between QUADRON® models POH-48C and POH-48D

System: ball track/diaphragm

- 1) Lateral pressure to be continuously adjustable with running machine.
- 2) The lateral stroke allows to be moved over the total stroke. High cutting velocities
- 3) Offset is precise; knife is clamped to be engaged via ball track.
- 4) Two air ducts with different pressure values are required, one longitudinal and one lateral stroke; the sequence has to be controlled.
- 5) Hand protection: Standard hand guard or 360° hand guard



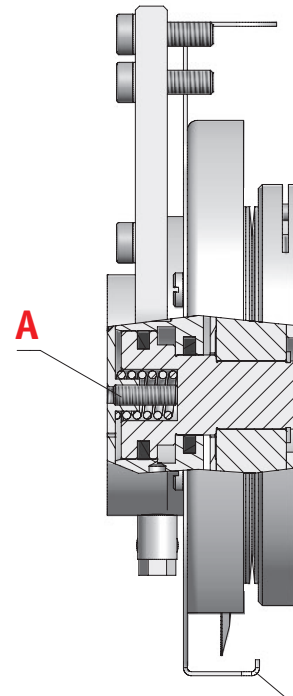
POH-48C



System: piston/belleville spring

- 1) Springs regulate the lateral pressure; changing by replacement of the spring.
- 2) The lateral stroke allows to be limited by screw (A), approx. 0.3 to 0.5 mm. Cutting velocity < 800 m/min
- 3) The springs have an impact on the offset
- 4) Optionally, it is possible to operate with one air connection and sequence control or with two air ducts having the same pressure.
- 5) Hand protection: Standard hand guard or 360°-plus hand guard

POH-48D

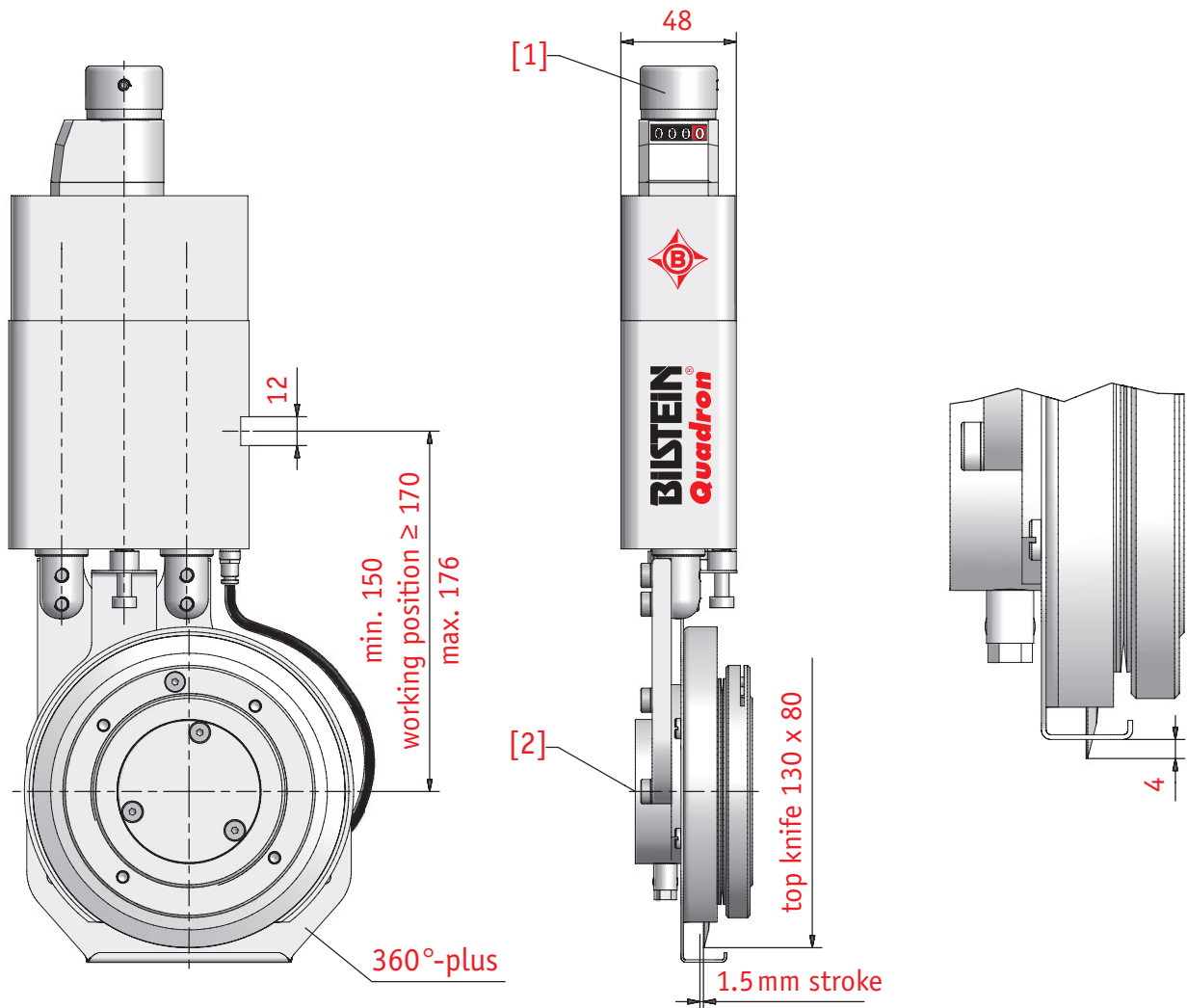


SLITTING SYSTEM

Pneumatic top knife holder QUADRON®



➔ longitudinal and transversal stroke with sequence control (POH-48D)



Order designation: Type POH-48D

QUADRON®-Top knife holder are regularly equipped with:

- Complete knife head (suitable for top knives of type ON, OD, OH, OFN, OFD, OFH)
- Standard hand guard / cutting width from 50 mm

QUADRON® standard accessories: (please order separately!)

- Top knife type ON, OD, OH, OFN, OFD, OFH;
Dimensions: 130 x 80 x 1.5 mm
- 2 air hoses (540 mm long, PVC) with coupling, other air hose lengths upon request
- Position indicator optional

Mode of operation: (permissible pressure: 4 – 6 bar)

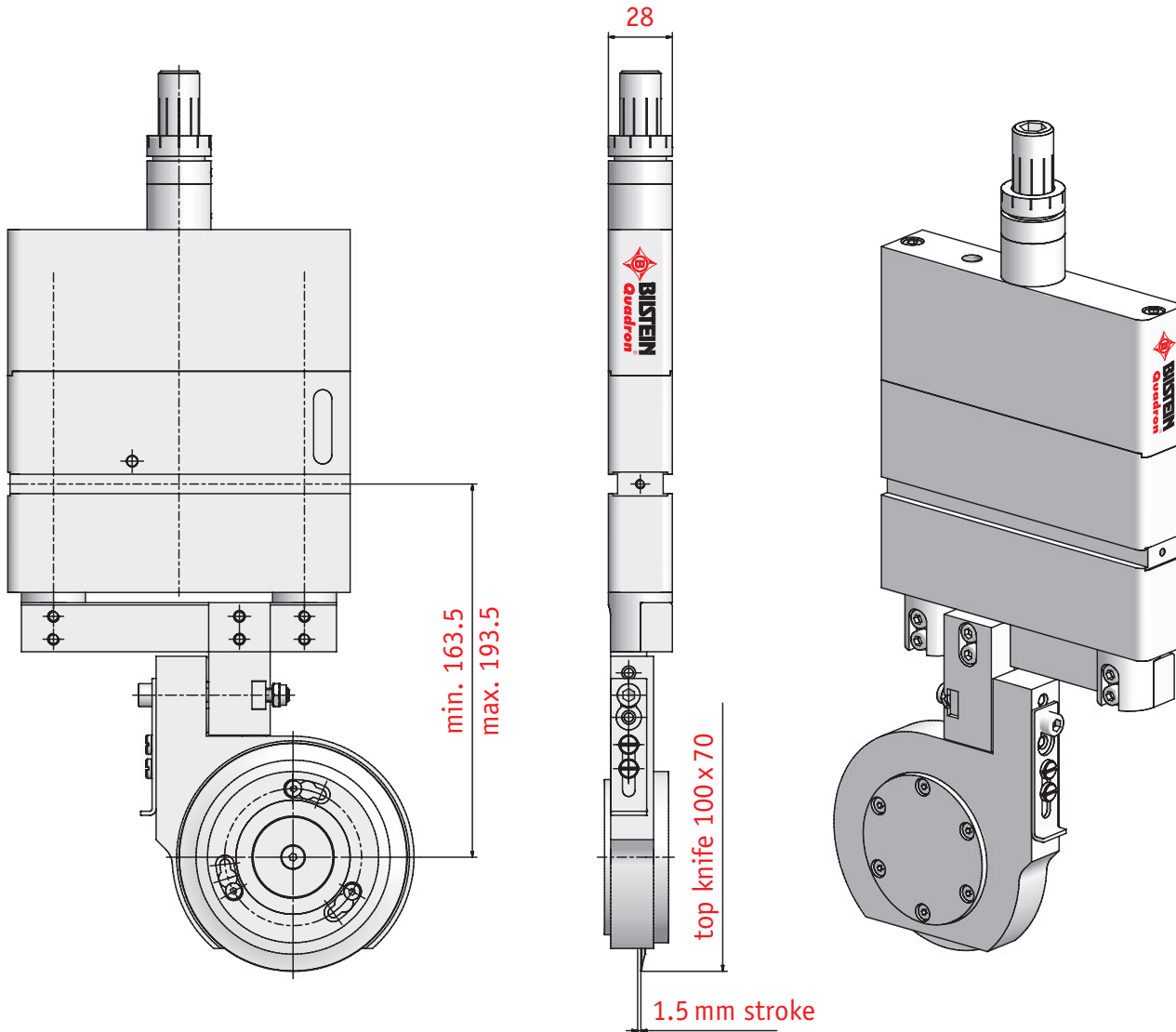
1. Lowering of the knife to its overlap depth (Pre and fine adjustment by means of milled knob [1])
2. Lateral offsetting of the knife (Pre and fine adjustment by means of stop screw [2])

SLITTING SYSTEM

Pneumatic top knife holder QUADRON®



➔ separate air connections for longitudinal and transversal stroke (POH-30C)



Order designation: Type POH-30C

QUADRON®-Top knife holder are regularly equipped with:

- Complete knife head (suitable for top knives of type ON, OD, OH, OFN, OFD, OFH)
- Standard hand guard / cutting width from 30 mm

QUADRON® standard accessories: (please order separately!)

- Top knife type ON, OD, OH, OFN, OFD, OFH;
Outside-Ø: from 100 mm up to 130 mm
- 2 air hoses (540 mm long, PVC) with coupling, other air hose lengths upon request

Mode of operation:

1. Lowering of the knife to its overlap depth (max. permissible pressure: vertically 6 bar)
2. Lateral offsetting of the knife (max. permissible pressure: transversally 4 bar)

SLITTING SYSTEM

Pneumatic top knife holder QUADRON®



➔ narrow type of construction with quick-change head (POH-30C)

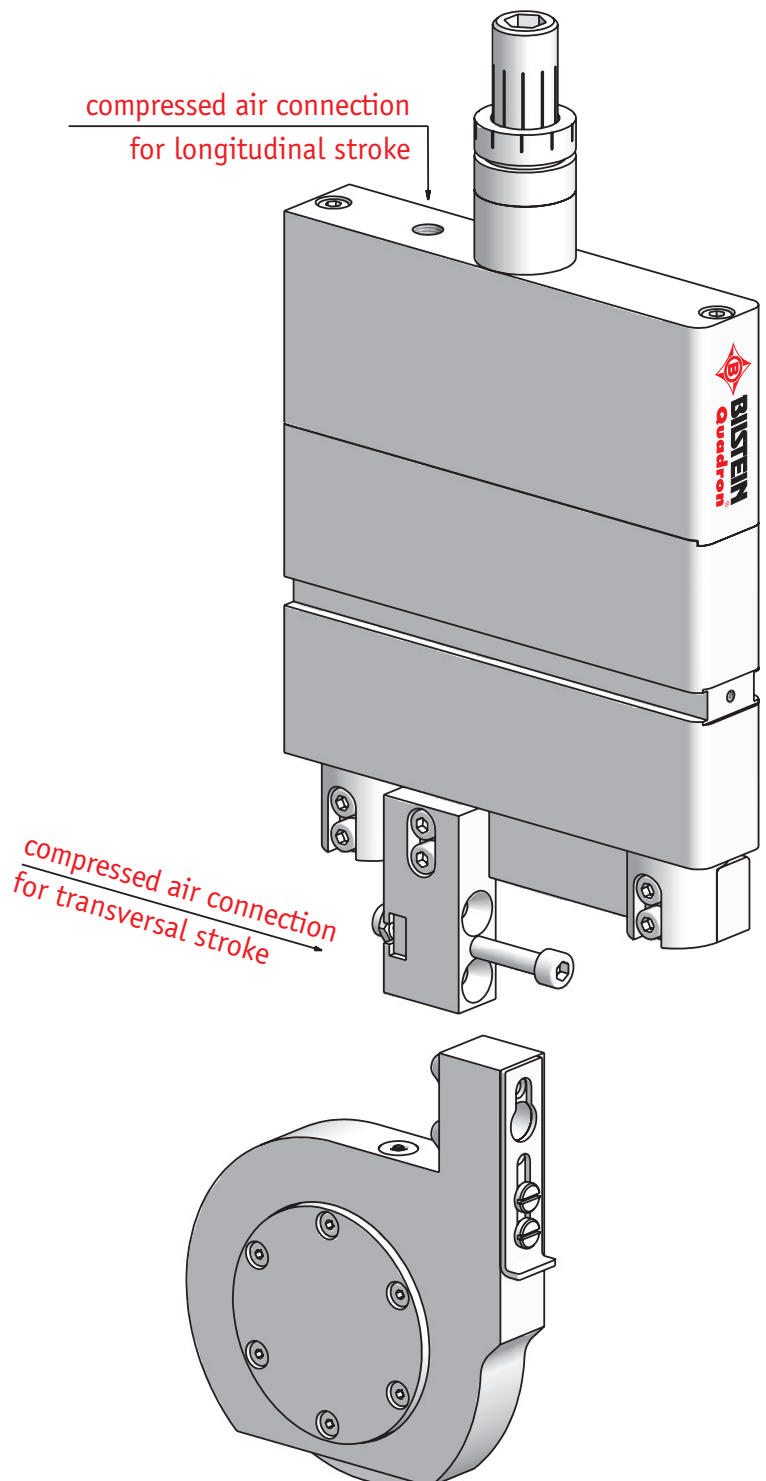
The top knife holder!

advantages of the series POH-30C

- A two axle guiding device ensures holder remains free from play and resistant to torsion
- Factory preset shearing angle meeting the customer's demands (allows for fast modification)
- The best cutting result and extended service life of knives is achieved due to power transmission through a friction free flat diaphragm and precise adjustment of cutting force
- Easy removal of **quick-change knife head** by loosening a screw; self-centring on the holder
- Conversion to crush cut system is possible
- Compatible with all well-known holder models
- Separate air connections for longitudinal and transversal stroke, precise positive control
- Stable, reliable construction for highest demands, easy to mount
- Suitable for cutting width of 30 mm and more
- Standard hand guard

Types of adapter, optionally for:

- Standard dovetail
- Adapter for linear rail with free from play lineal rail
- Alternatively with rack and pinion adjustment
- Special design on demand
- Compatible with all marketable machine types

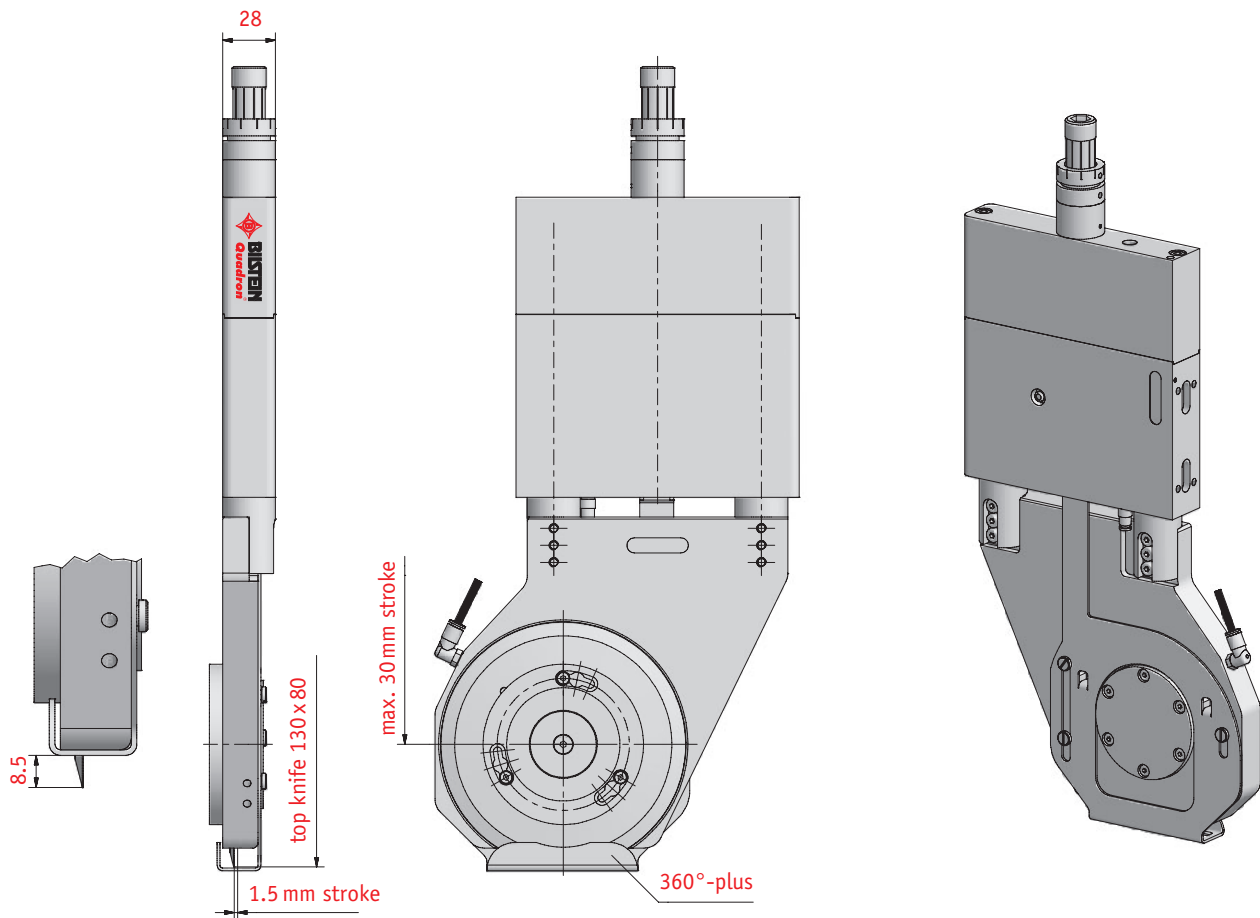


SLITTING SYSTEM

Pneumatic top knife holder QUADRON®



➔ separate air connections for longitudinal and transversal stroke (POH-30C)



Top knife holder for high speed

Order designation: Type POH-30C

QUADRON®-top knife holder are regularly equipped with:

- Complete knife head (suitable for top knives of type ON, OD, OH, OFN, OFD, OFH)
- 360°-plus hand guard / cutting width from 30 mm

QUADRON® standard accessories: (please order separately!)

- top knife type ON, OD, OH, OFN, OFD, OFH;
outside-Ø: from 100 mm up to 130 mm
- 2 air hoses (540 mm long, PVC) with coupling, other air hose lengths upon request

Mode of operation:

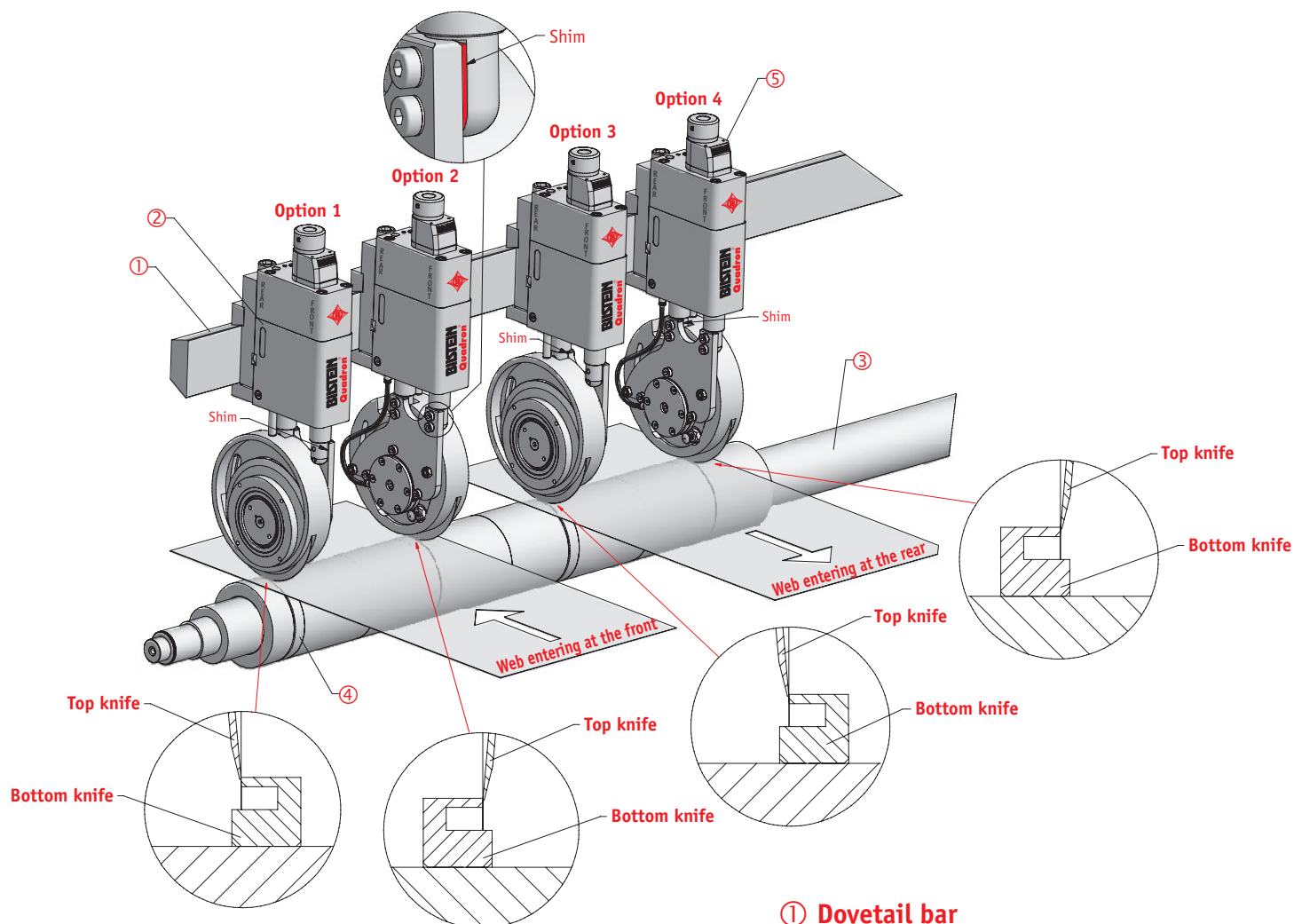
1. Lowering of the knife to its overlap depth (max. permissible pressure: vertically 6 bar)
2. Lateral offsetting of the knife (max. permissible pressure: transversally 4 bar)

SLITTING SYSTEM

Options



➔ **QUADRON®** (to be mounted onto a dovetail bar)

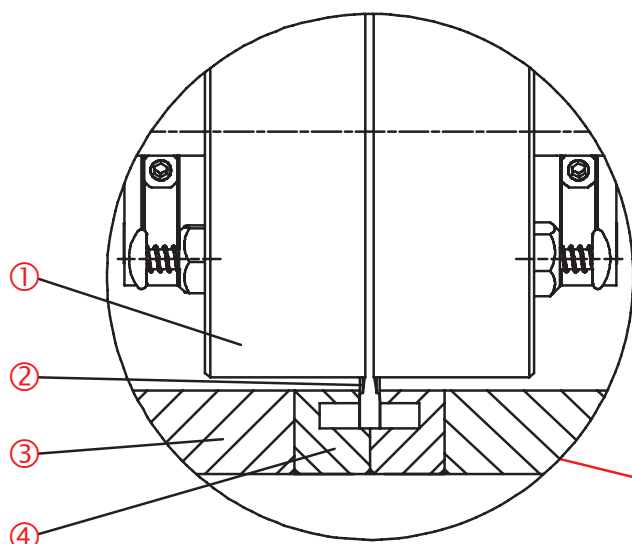


- ① Dovetail bar
- ② Complete pneumatic top knife holder
- ③ Shaft
- ④ Bottom knife
- ⑤ Depth adjustment

SLITTING SYSTEM

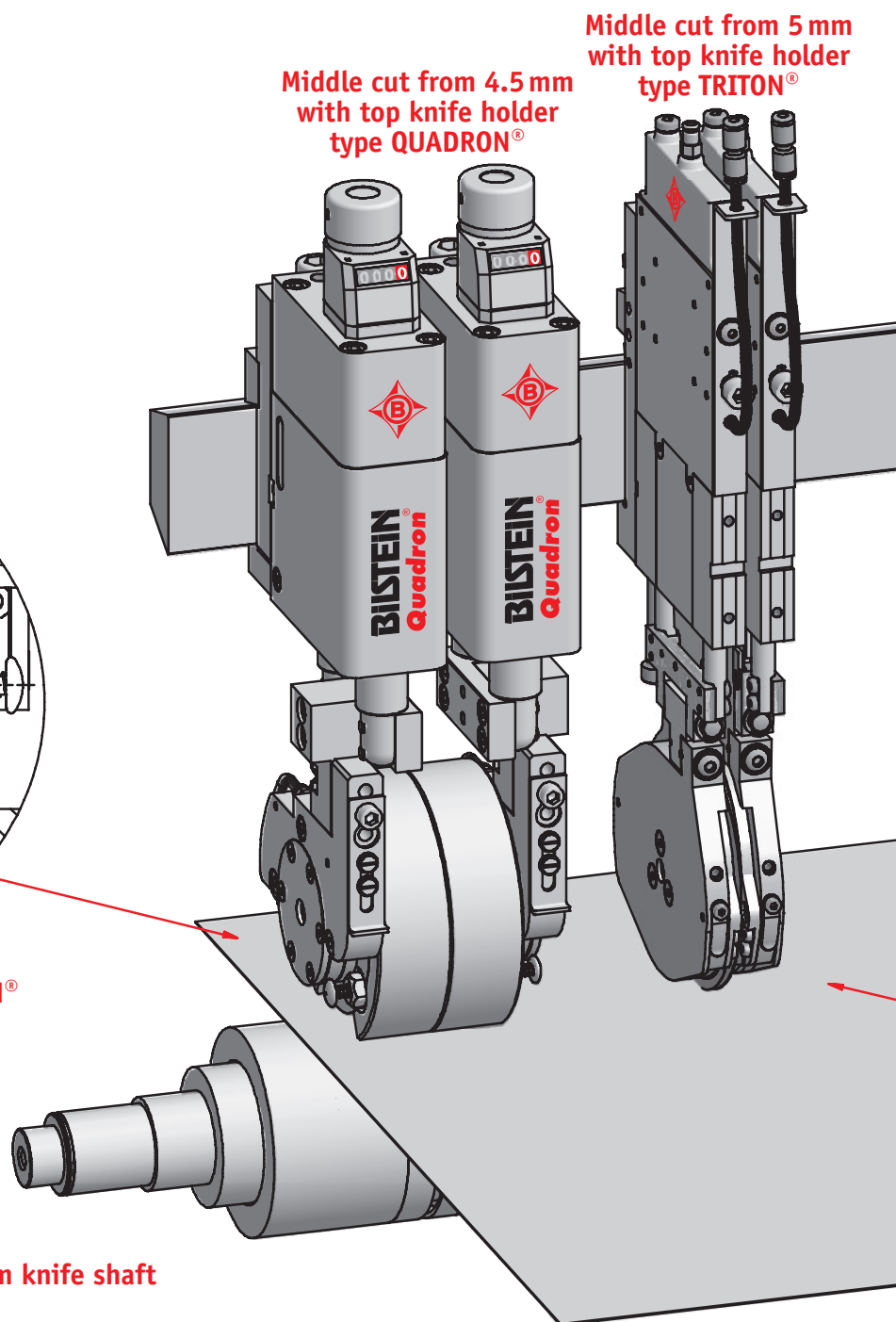
Cutting scheme

➔ for middle cut and edge trim

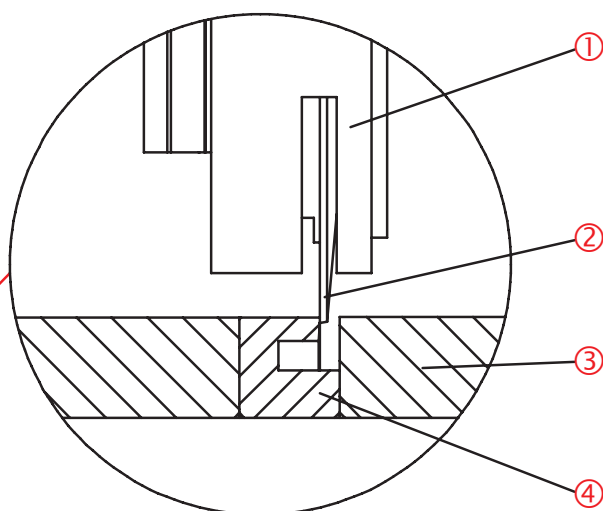
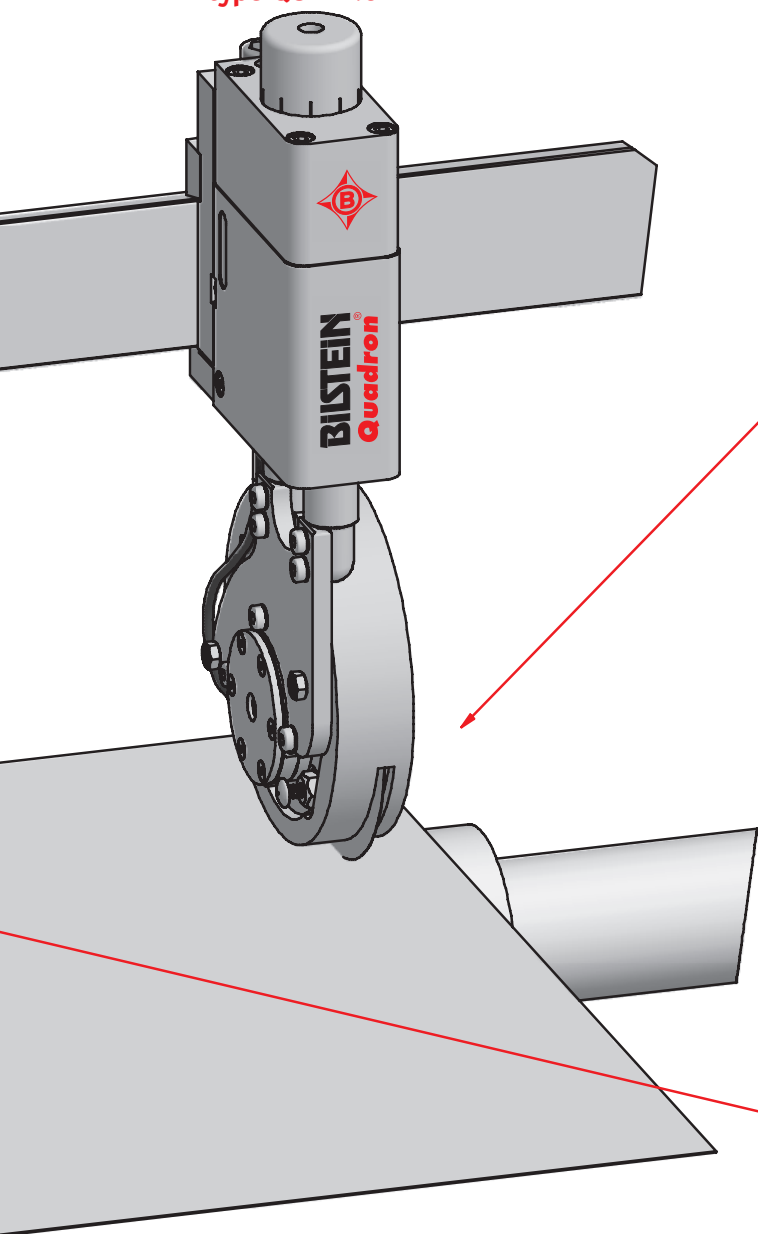


- ① Top knife holder type QUADRON®
- ② Top knife (flat)
- ③ Spacer
- ④ Bottom knife (for axial clamping)

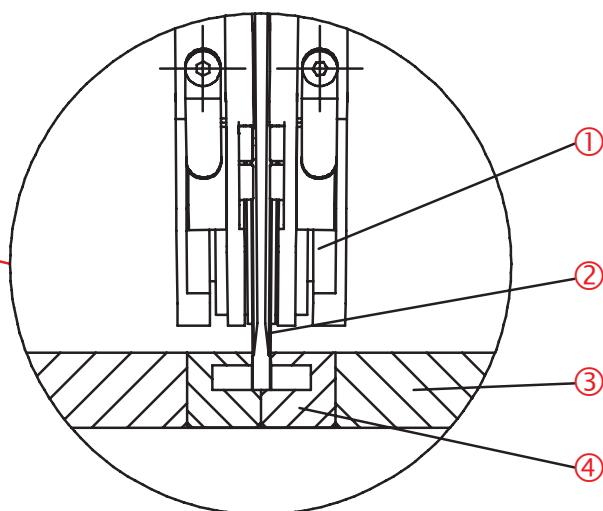
bottom knife shaft



Edge trim with
top knife holder
type QUADRON®



- ① Top knife holder type QUADRON®
- ② Top knife type ON, OD, OH
- ③ Spacer
- ④ Bottom knife
(for axial Clamping)



- ① Top knife holder type TRITON®
- ② Top knife
(flat)
- ③ Spacer
- ④ Bottom knife
(for axial Clamping)

SLITTING SYSTEM

Pneumatic top knife holder TRITON®



➔ separate air connections for longitudinal and transversal stroke (POH-15T)

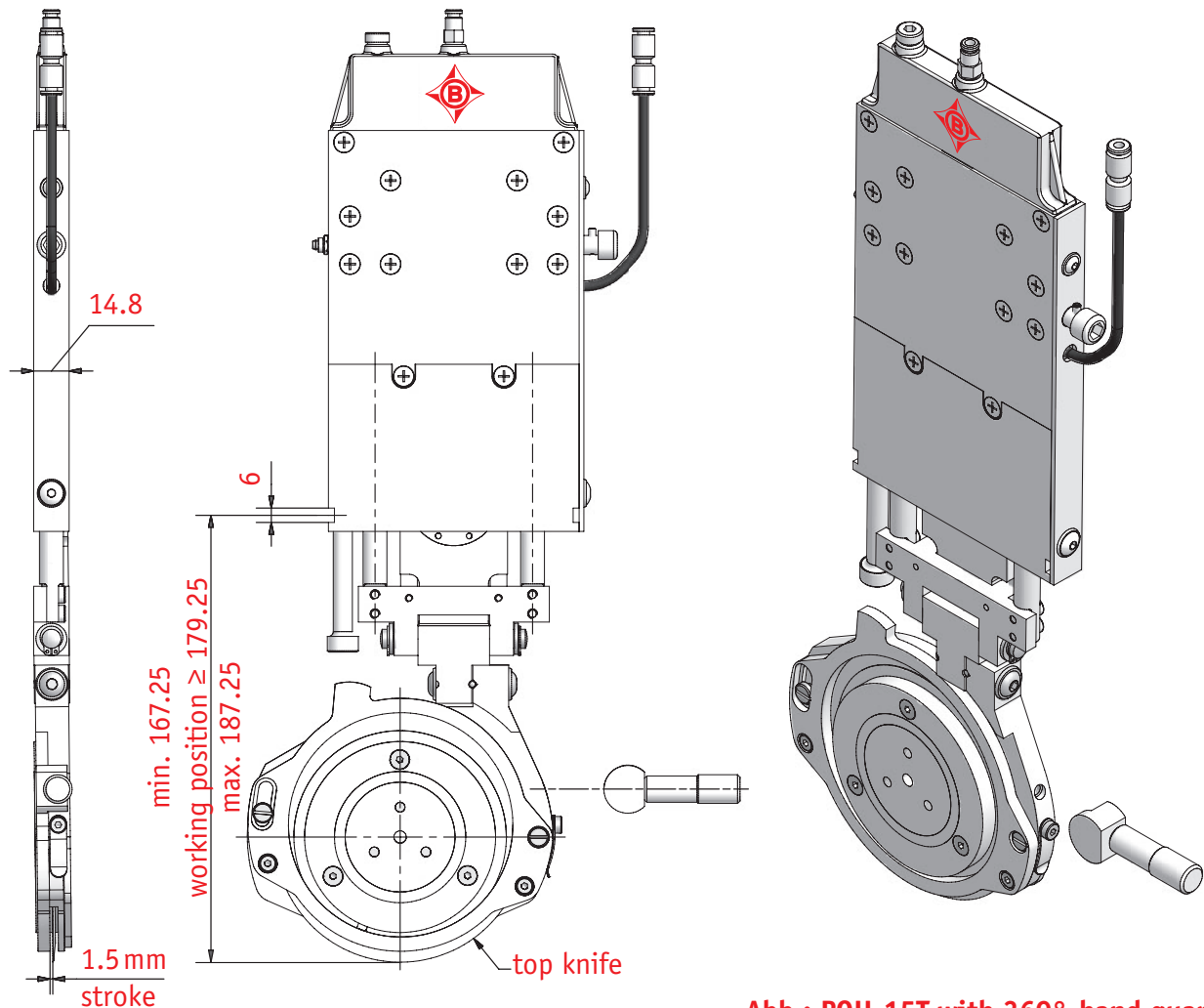


Abb.: POH-15T with 360°-hand guard

Order designation: Type POH-15T

TRITON®-Top knife holders are regularly equipped with:

- Complete knife head (suitable for top knives of type ON, OD, OH, OFN, OFD, OFH)
- Standard hand guard / knifehead detachable / cutting width from 15 mm

TRITON® standard accessories: (please order separately!)

- Top knife type ON, OD, OH, OFN, OFD, OFH;
Dimensions: 105 x 75 x 1.2 mm or 100 x 70 x 1.2 mm
- 2 air hoses (540 mm long, PVC) with coupling, other air hose lengths upon request

Mode of operation:

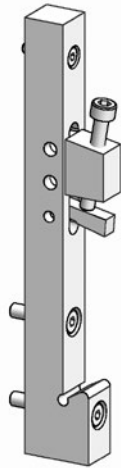
1. Lowering of the knife to its overlap depth (max. permissible pressure: vertically 6 bar)
2. Lateral offsetting of the knife (max. permissible pressure: transversally 4 bar)

SLITTING SYSTEM

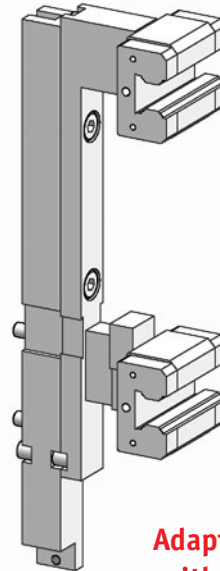
Pneumatic top knife holder TRITON®



→ type of adapter



**Standard
dovetail adapter
(clamping from above)**



**Adapter for linear guiding
with strip steel clamping**

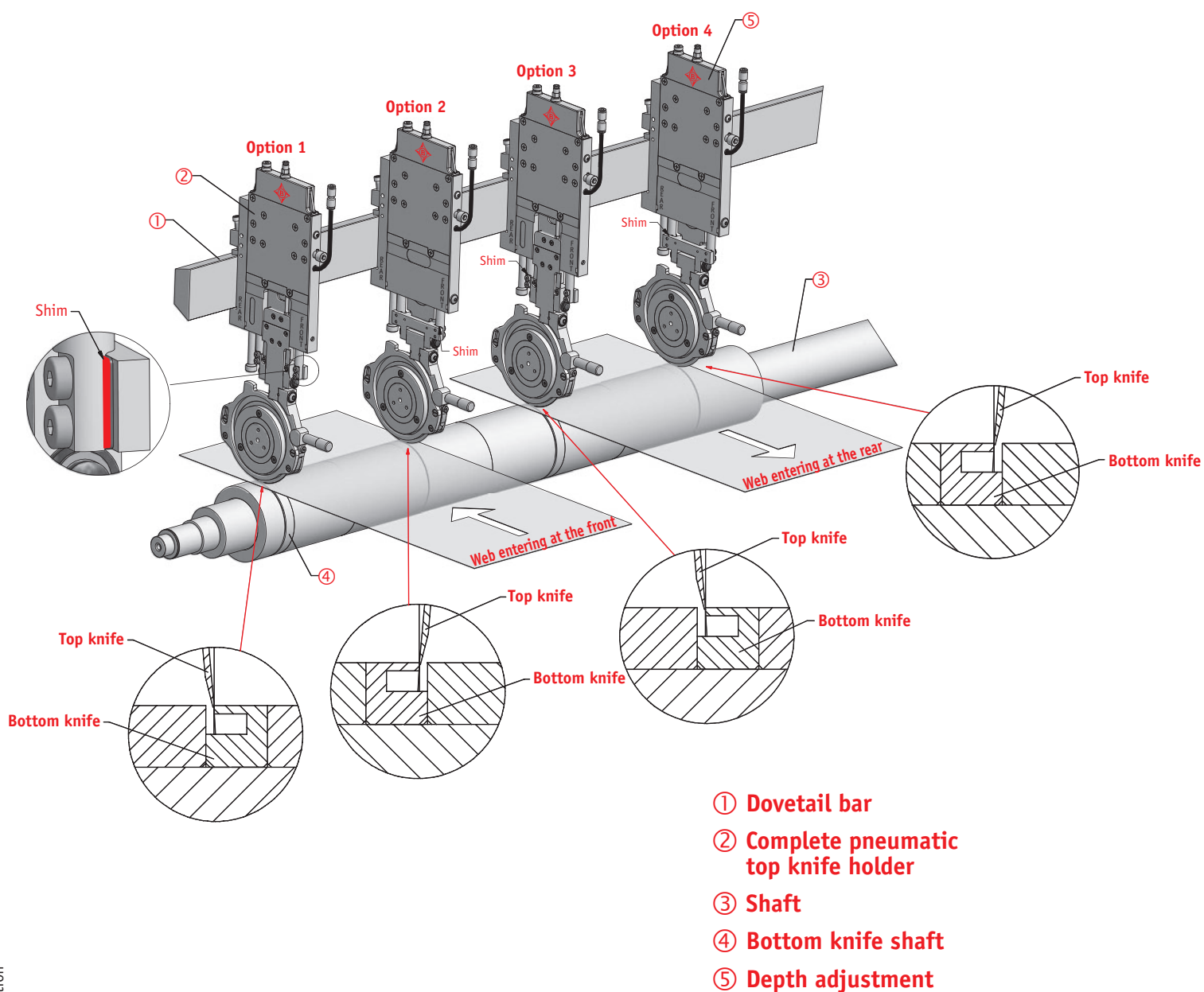
Pneumatic knife holder – advantages of the TRITON® series

- A two axle guiding device ensures the holder remains free from play and resistant to torsion
- Factory preset shearing angle meeting the customer's demands (allows for fast modification)
- The best cutting result and extended service life of knives is achieved due to power transmission through a flat diaphragm and precise adjustment of cutting force
- Completely removable socket cap for the knife head
- Compatible with all known holder models
- Separate air connections for longitudinal and transversal stroke
- Stable, reliable construction for highest demands, easy to mount
- Suitable for cutting width of 15 mm and more
- Standard hand guard or **360° hand guard**
- **Types of adapter, optionally for:**
 - Standard dovetail (left-hand side)
 - Adapter for linear rail with free from lineal slit rail (right-hand side)
 - Alternatively with rack and pinion adjustment
 - Special design on demand
 - Compatible with all marketable machine types

SLITTING SYSTEM

Options

→ **TRITON®** (to be mounted onto a dovetail bar)

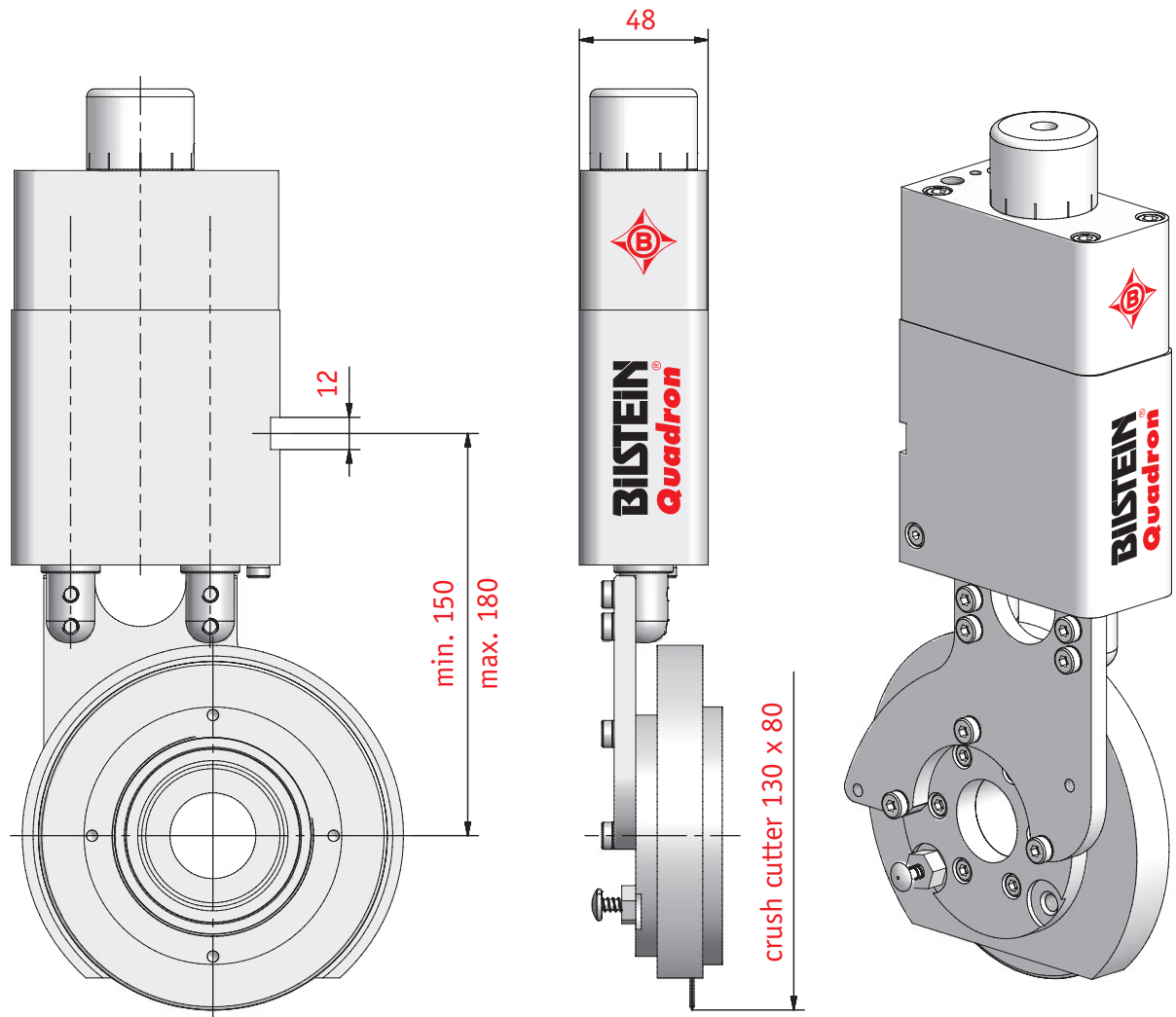


SLITTING SYSTEM

Pneumatic crush cut holder QUADRON®



➔ heavy operating conditions (QHP-48C)



Crush cut holder for high speed and precise cutting width tolerance

Order designation: Type QHP-48C

Crush cut holder are regularly equipped with:

- Complete knife head (suitable for crush cutter QN, QP)
- Standard hand guard / cutting width from 50 mm

Standard accessories: (please order separately!)

- Crush cutter type QN, QP
Dimensions: 130 x 80 x 1.5 mm or 150 x 70 x 2.8 mm
- 1 air hose (540 mm long, PVC) with coupling, other air hose lengths on demand

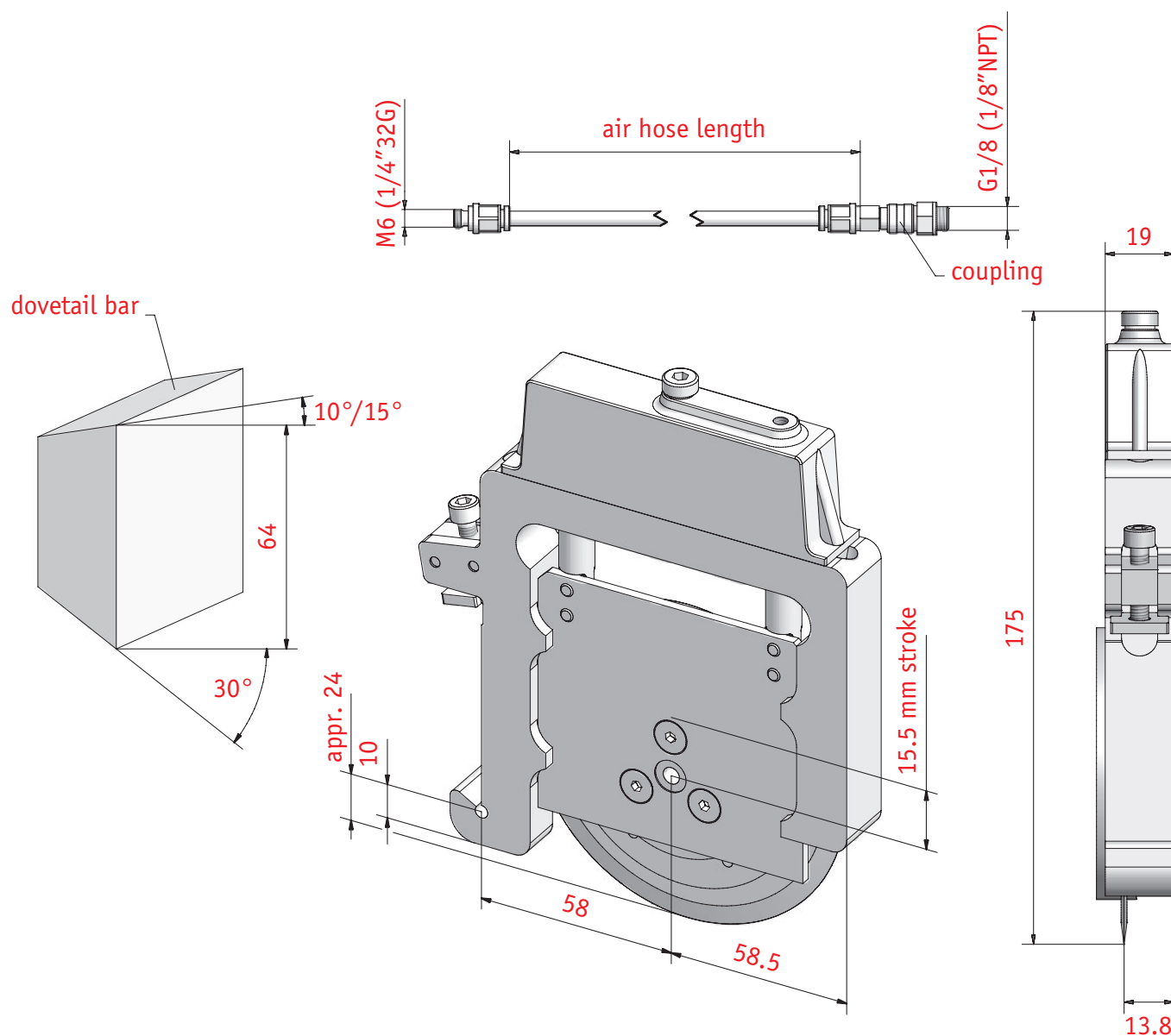
Mode of operation: max. permissible pressure: 6 bar

CRUSH CUT SYSTEM

Pneu. crush cut holder with fixed guiding links



→ type QHP-19W suitable for crush cutter type QN, QP



Crush cut holder for high velocities and precise tolerance of cutting width

QHP-19W Standard accessories:

- 1 crush cutter
- 1 air hose

(please order separately!)

Type QN, QP – 100 x 70 x 1.6 mm / 60° standard bevel
(540 mm long, metal) with coupling

Mode of operation:

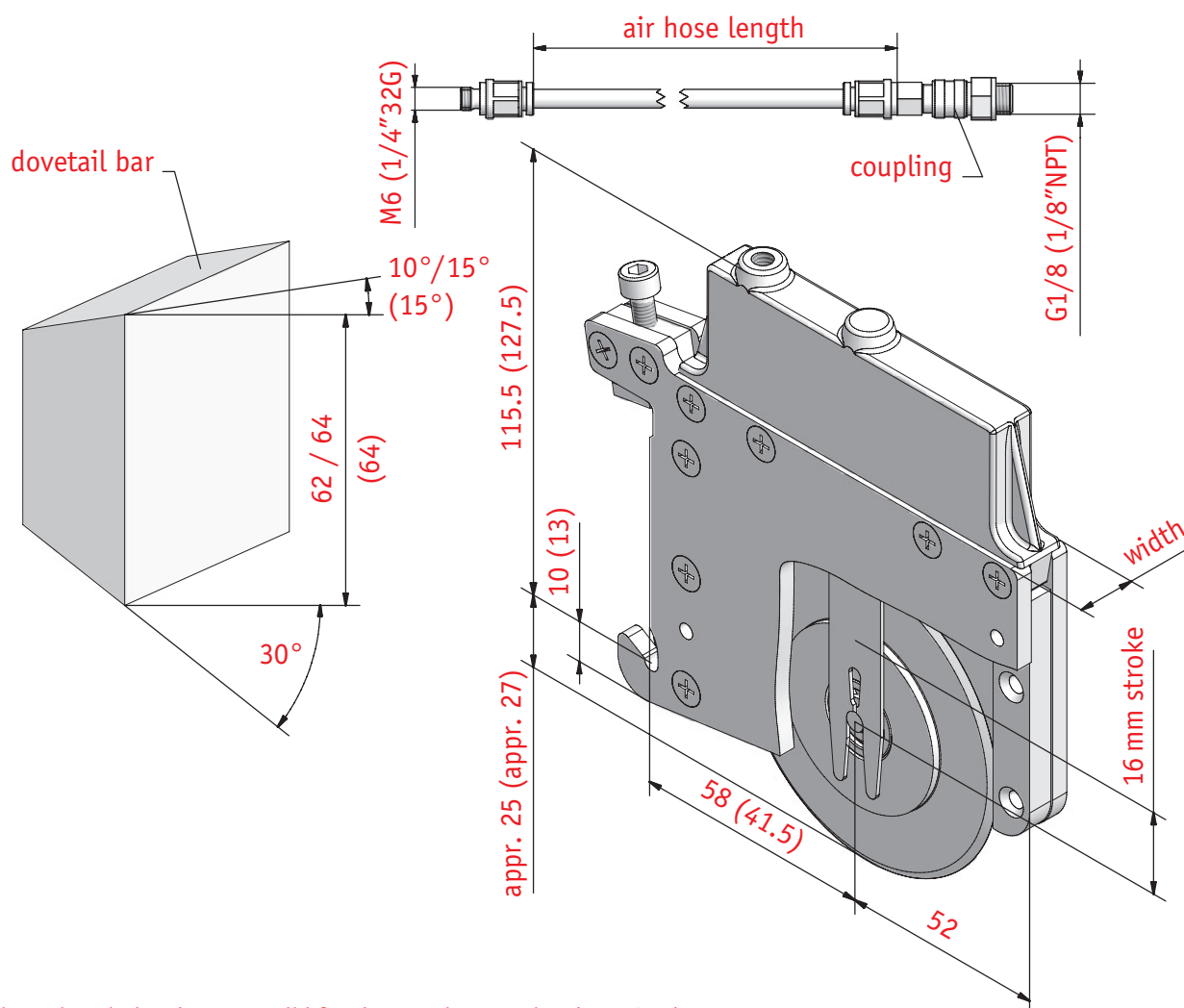
max. permissible pressure: 6 bar

CRUSH CUT SYSTEM

Pneumatic crush cut holder type Q68 (QHA)



➔ suitable for crush cut knife of type QN-77, QP-77



The dimensions in brackets are valid for the American version (type QHA)

width	9.0	9.52	10.0	12.7	15.0	
thickness of knife	5.20			6.35		

Order example: Q68 x 9.0

Q68-Crush cut holders are regularly equipped with ball bearing and bearing bolt.

Q68 standard accessories:

- 1 crush cutter

(please order separately!)

Type QN – 77 x 19 x 5.2 mm / 60° standard bevel,
Type QN – 77 x 19 x 6.35 mm / 60° standard bevel or
Type QN – 77 x 22 x 6.197 mm / 60° standard bevel
(540 mm long, metal) with coupling

- 1 air hose

Mode of operation:

max. permissible pressure: 6 bar

3 - 3.1

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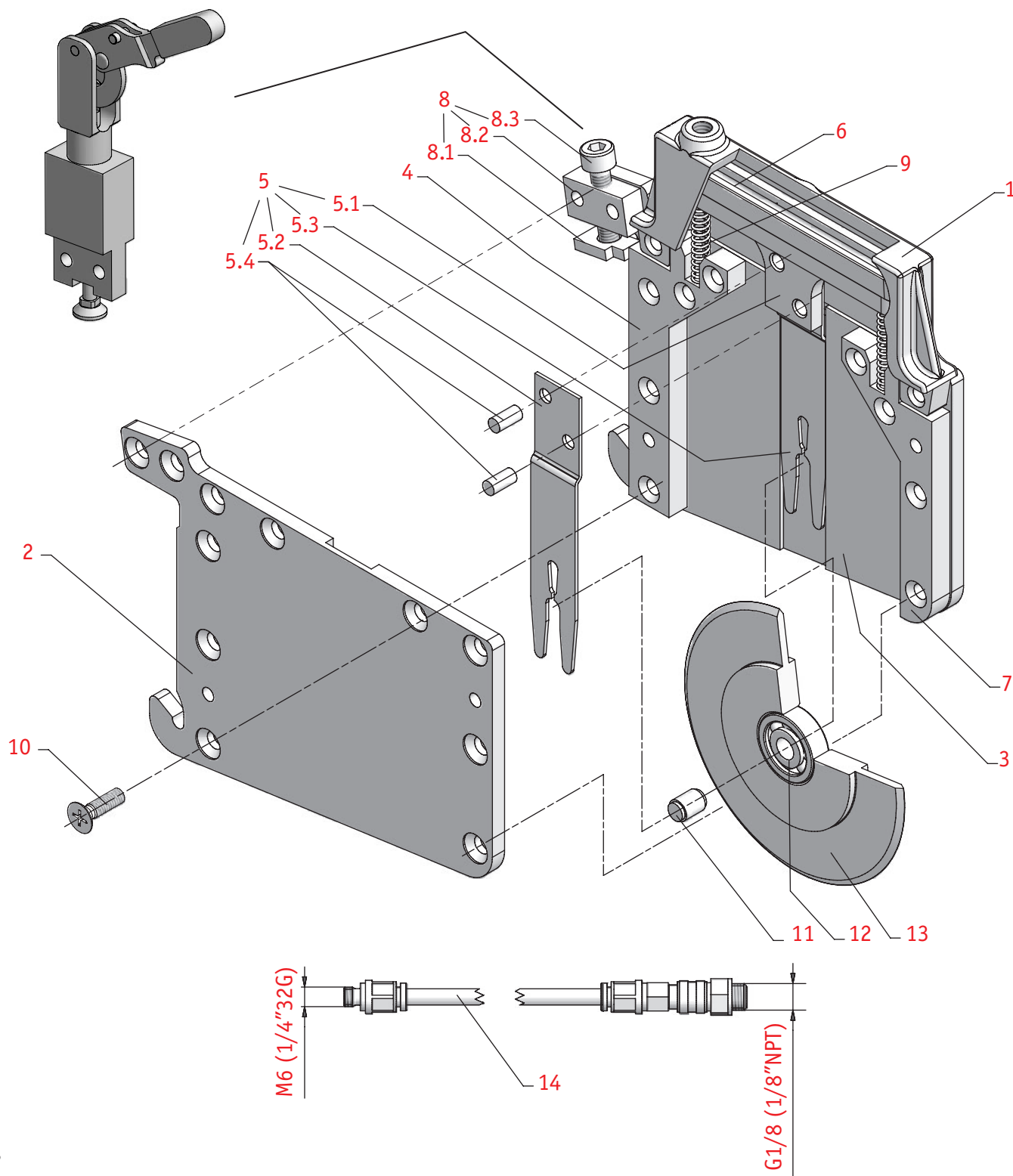
BILSTEIN®

CRUSH CUT SYSTEM

Spare parts



➔ for crush cut holder type Q68



Optional available with quick clamp system (toggle clamp)!

CRUSH CUT SYSTEM

Spare parts



➔ for crush cut holder type Q68

Pos.	Piece	Designation (German)	name (english)
1	1	Druckgehäuse	pressure box
2	1	Seitenteil – rechts	side cover right
3	1	Seitenteil – links	side cover left
4	1	Federnest 1	spring nest 1
5	1	kompletter Kolben mit Gabel	complete piston with fork
5.1	1	Flachkolben	flat piston
5.2	1	Gabel – rechts	fork right
5.3	1	Gabel – links	fork left
5.4	2	Nietstift Ø 4	rivet Ø 4
6	1	Dichtungsmanschette	gasket
7	1	Federnest 2	spring nest 2
8	1	komplettes Spannstück	complete clamping device
8.1	1	Spannplatte	clamping plate
8.2	1	Zwischenstück	spacer
8.3	1	Innensechskant-Schraube	hexagon socket screw
9	2	zylindrische Druckfeder	pressure spring
10	11	Senkschraube	countersunk screw
11	1	Lagerbolzen	bearing bolt
12	1	Kugellager Ø 19 x Ø 6	ball bearing Ø 19 x Ø 6
13	1	Quetschmesser	crush cutter
14	1	kompletter Luftanschluss	complete air connection

On ordering spare parts, indicate holder width and knife thickness!

3 - 3.3

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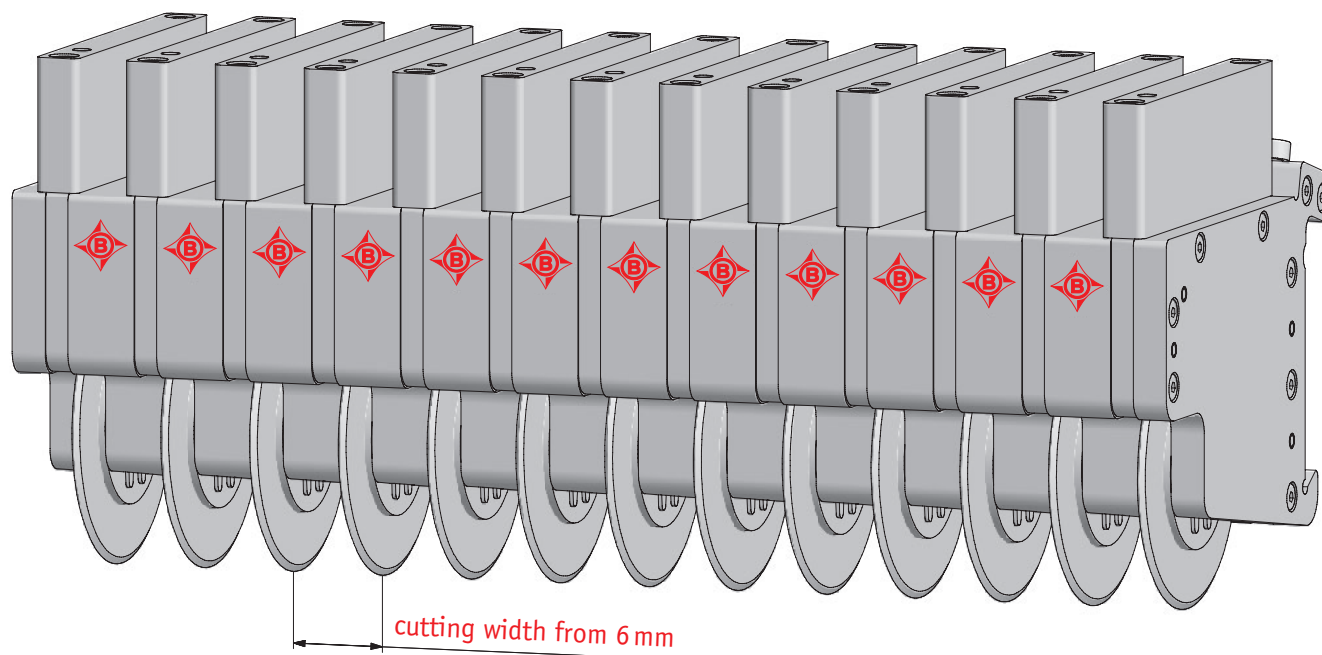
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CRUSH CUT SYSTEM

pneu. crush cut holder on block



→ suitable for crush cutter of type QN, QP



Crush cut holder on block for precise cutting width tolerance

Crush cut holder on block are regularly equipped with ball bearing and bearing bolt.

Q68 standard accessories: (please order separately!)

- 1 crush cutter
Type QN – 77 x 12 x 2.5 mm / 60° standard bevel or
Type QN – 77 x 19 x 5.2 mm / 60° standard bevel or
Type QN – 77 x 19 x 6.35 mm / 60° standard bevel
- 1 air hose
(540 mm long, metal) with coupling

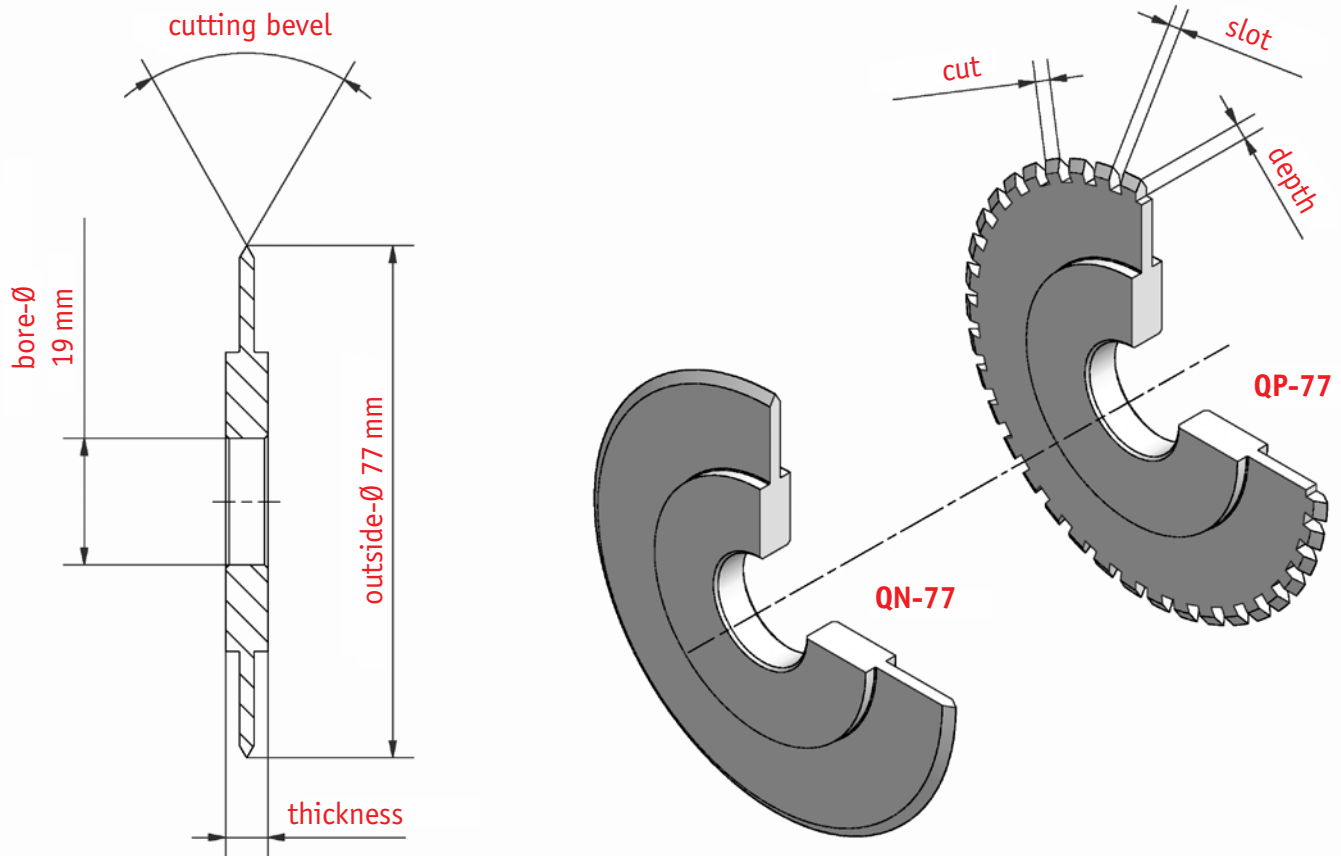
Mode of operation: max. permissible pressure: 6 bar

CRUSH CUT SYSTEM

crush cut knife type QN-77, QP-77



➔ suitable for pneumatic crush cut holder type Q68



for holder width	9.0	9.52	10.0	12.7	15.0	
thickness	5.20			6.35		

Order example:

QN-77

Type – outside-Ø x bore-Ø x thickness / bevel /
– material group
QN – 77 x 19 x 5.2 / 30° of HWS

QP-77

Type – outside-Ø x bore-Ø x thickness / bevel /
cut / slot / depth / – material group
QP – 77 x 19 x 6.35 / 30° / 2 / 2 / 2.5 of HWS

Standard bevel: 30° / 60°
Standard material group: HWS
Standard hardness: 61-63HRc

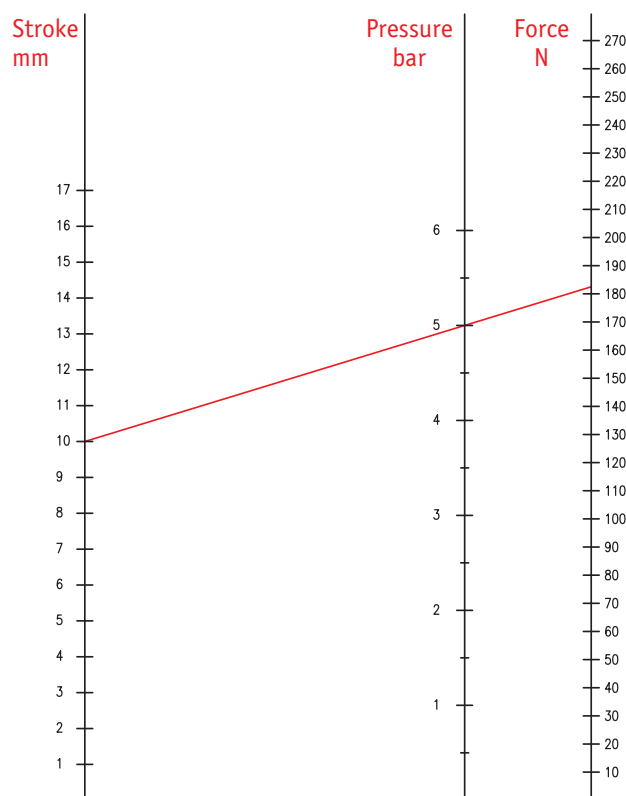
Dimensions for perforation upon request

CRUSH CUT SYSTEM

Force diagram for crush cutters



→ type Q68 and QHA in relation to stroke and pressure

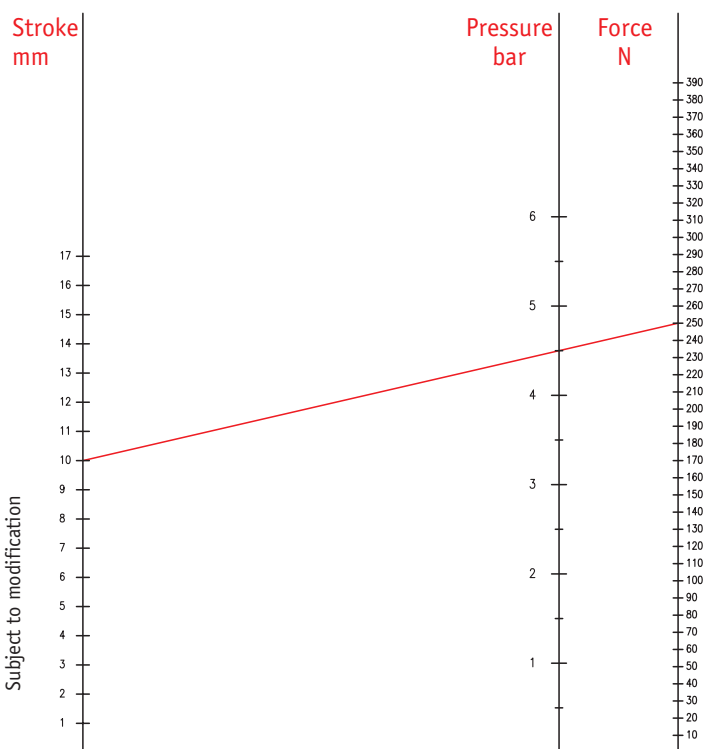


For holder width 9 / 9.52 / 10 mm

Hold to use charts:

Use a ruler to connect the points of the desired stroke path (mm) and of the selected air pressure (bar). The extension of the drawn line indicates the resulting force (N).

Example: With a stroke of 10 mm and an air pressure of 5 bar the power exerting onto the crush cutter is 182 N.



For holder width 12.7 / 15 mm

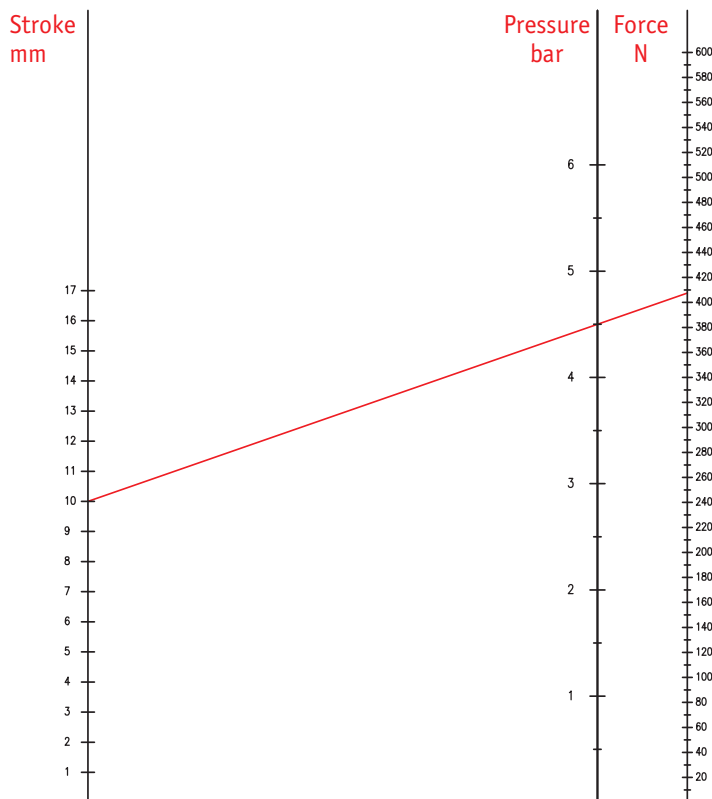
Example: With a stroke of 10 mm and an air pressure of 4.5 bar the power exerting onto the crush cutter is 250 N.

CRUSH CUT SYSTEM

Force diagram for crush cutters

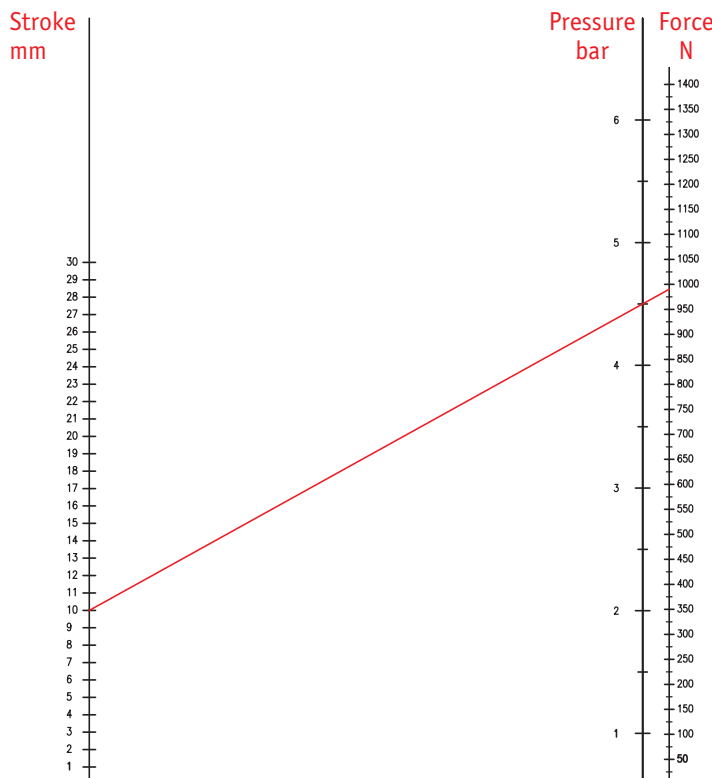


➔ type Q68, QHP-48C in relation to stroke and pressure



For holder width 20 mm

Example: With a stroke of 10 mm and an air pressure of 4.5 bar the power exerting onto the crush cutter is 407 N.

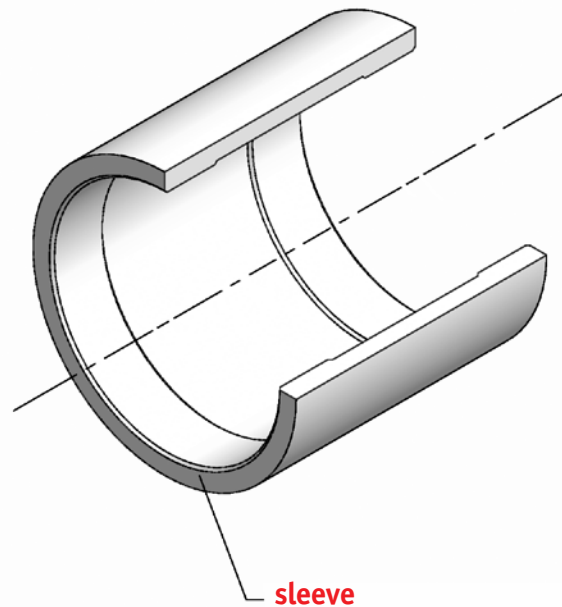
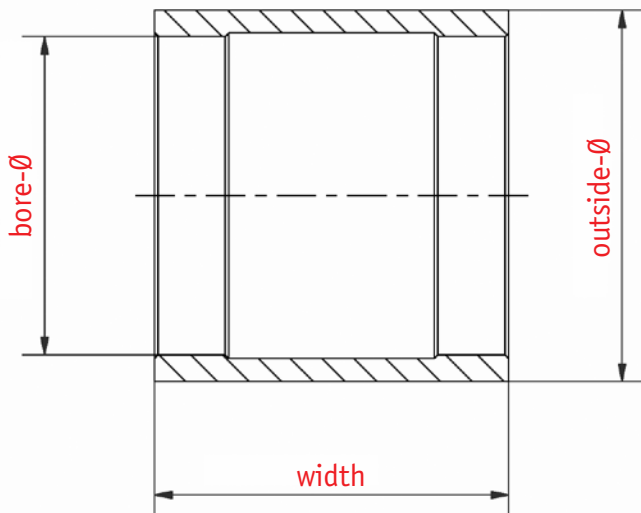


For holder width type QHP-48C

Example: With a stroke of 10 mm and an air pressure of 4.5 bar the power exerting onto the crush cutter is 990 N.

CRUSH CUT SYSTEM

Glasshard sleeve type BG



Order example: Type – outside-Ø x bore-Ø x width – material group
BG – 198 x 160 x 150 of LWS

Standard material group: LWS
Standard hardness: 63-65HRc

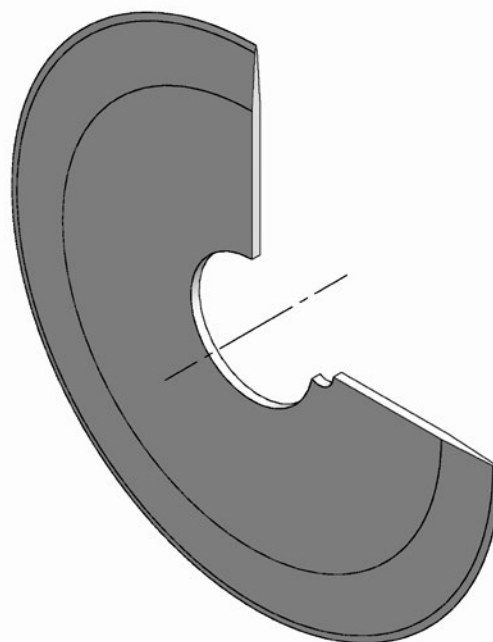
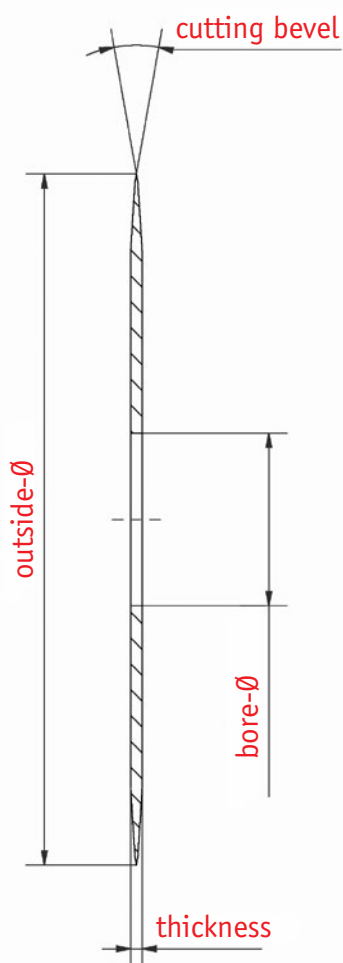
All dimensions up to outside-Ø 450 mm upon request

BURST CUT SYSTEM

Circular knife, core cutter type H



➔ for axial clamping



circular knife, core cutter

outside-Ø	100	105	120	150						
bore-Ø	30	55	30	20						
thickness	1.0	1.5	1.0	2.0						

Order example:

Type – outside-Ø x bore-Ø x thickness
– material group
H – 105 x 55 x 1.5 of HWS

With double sided, double bevel, and with or without groove
Standard material groups: LWS, HWS

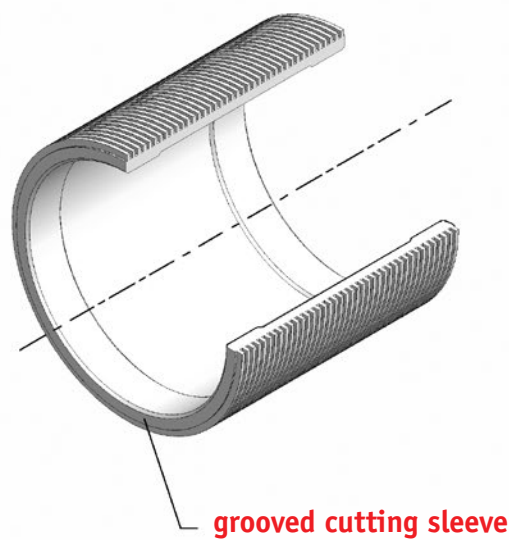
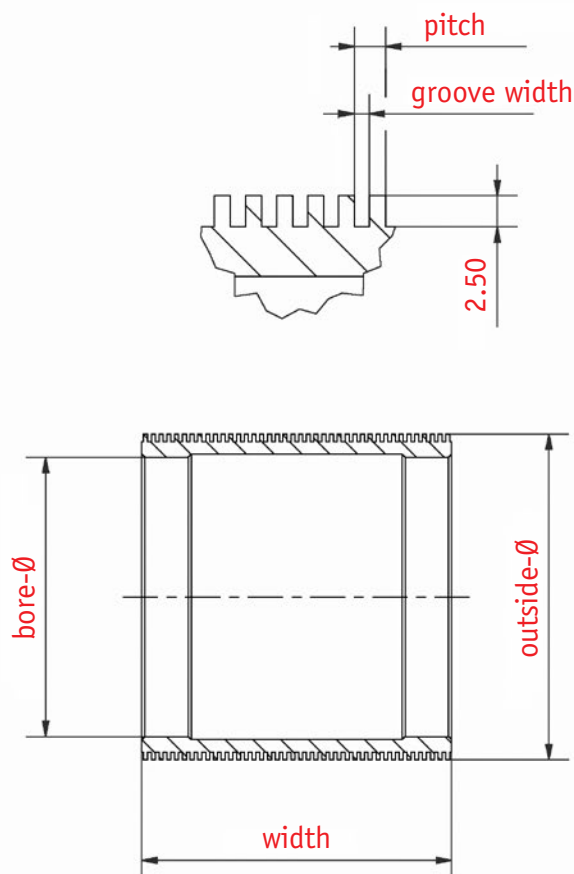
Special materials/dimensions and warehousing upon request.
e.g.: one-sided unsymmetrical bevel

BURST CUT SYSTEM

Grooved cutting sleeve QNB for razor blades



→ for axial clamping



outside-Ø	80	105	150	150	160	190	290	390		
bore-Ø	60	90	100	120	130	160	260	350		

Order example:

Type – outside-Ø x bore-Ø x width / pitch / groove width
 – material group
 QNB – 150 x 120 x 100 / 2 / 1 of LWS

pitch from 1 mm on / **groove width** from 0.5 mm on
standard-pitch 2 / **standard-groove width** 1

Standard widths and tolerance: 50 / 100 ^{-0.05}
 Standard material groups: LWS, ALU

Special materials/dimensions and warehousing upon request.

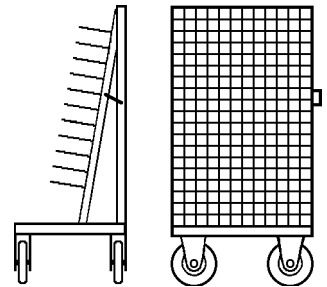
ACCESSORIES FOR CUTTING TOOLS

Storing, rust prevention and hand protection

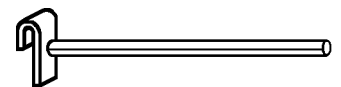


Gridiron cart

- Clearly arranged
- Individually partitionable
- Easy handling, easy access
- Protection against damages
- For transport and storing purposes

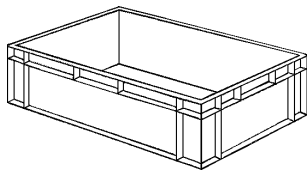


Spike carriers for gridiron cart



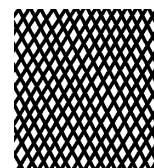
Stackable plastic storage box

Colour blue, 400 x 300 x 85 mm



Grating for intermediate layer

for stackable-storage box of LDPE,
945 mm wide



Special corrosion prevention paper

Anticorrosive oil

Long-duration preservative

Cleaning concentrates

Lot size / packing unit

each roll 25 kg / 50 kg, 100 cm wide,
to be cut to any size desired

10 / 60 litres (each with safety data sheet)

10 litres (each with safety data sheet)

30 litres (each with safety data sheet)

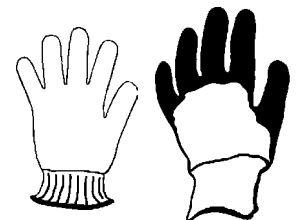
Other dimensions and quantities upon request!

Gloves made of Kevlar

- Protection against cutting injuries

Gloves made of cotton/plastics (partly coated)

- Improved handling



- Prices upon request -

NOTICES

[illegible]

Subject to modification

02.19

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