

Tool- catalog

Edition 2021



TRUMPF LASERdur Bending Tools
TRUMPF Angle Measuring System ACB

TRUMPF LASERdur Bending Tools TRUMPF Angle Measuring System ACB

Edition: **04/2021**

Mat.No. **1467847 TAT**

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*The **prices** are to be understood as being **exclusive of VAT**.*



Before you continue...

On the contents Here you will find the prices of the bending tools and the sensor tools of the ACB angle measuring system.

Please read the section regarding systematic tool divisions on page 15 and in the Technical Section chapter.

Reference Material [E-shop for Bending tools at www.TRUMPF.com/MyTRUMPF](http://www.TRUMPF.com/MyTRUMPF)

Bending technology catalog (available from your sales partner)	
Operators manual TrumaBend V-Series (V 50 – V 320)	Mat.No. B172
Operators manual TruBend Series 3000	Mat.No. B874
Operators manual TruBend Series 5000 / TrumaBend V-Series (V 500 – V 3200)	Mat.No. B876
Operators manual TruBend Series 7000	Mat.No. B1006
Operators manual TruBend Series 8000	Mat.No. B538

For supplementary information on the use of tools and adapters with SafetyClick, please refer to the instructions listed above.

For further questions, contact your TRUMPF sales partner see Adresses / special tool request

Table of contents

General	Overview and important information.....	10
	Additional charges for the modification of standard tools.....	23
	Additional charges for LASERdur ZN- and AL-coating.....	24
Punches	Punches up to H = 140 mm.....	32
	Punches up to H = 300 mm.....	58
	Tool holders and punch inserts.....	82
	Coining.....	96
	Radius bending.....	102
	Adapter.....	109
Folding	Folding.....	113
	Folding without lower tool displacement.....	115
	Folding with lower tool displacement.....	122
Dies	Selection of dies 30° / 80 / 84°(86°) / 90°	130
	Technical information.....	131
	4 to 5 mm die width	132
	6 mm die width	136
	8 mm die width	141
	10 mm die width	147
	12 mm die width	153
	14 mm die width	158
	16 mm die width	159
	20 mm die width	163
	24 mm die width	166
	30 mm die width	169
	40 mm die width	171
	50 mm die width	173
	60 - 120 mm die width	175
	Adapter.....	178
	VLM - Adjustable die.....	180
RollBend.....	182	
RollBend RBK.....	187	
RollBend 1250.....	192	
SBW - Swivel bending tool	195	
Z bending	Z bending / Inserts.....	198
	Folding insert.....	207
Accessories	Accessories / spareparts punches.....	208
	Tool holders	209
	Dies	210
	Spacers	211
	ACB	216
	Spare parts for ACB sensor tools	220
	In General.....	224
Beading tools.....	226	
Technical Section	Application of beading bars	227
	Use of DV adapters	229
	QuickStop.....	230
	System divisions (according to weight)	232
	Block 150.....	234
	Calculation (Box height, Press force, Die width)	235
	LASERdur TRUMPF hardening process	238
	Reduced-imprint bending	239
	ACB angle measuring system	240
	Maintaining and servicing TRUMPF Bending Tools	249
	Full service	252
Customized solutions	253	
Addresses / special tool request.....	260	

Expertise for any application.

We know that any bending machine delivers maximum performance every day. And that when it comes to achieving the best results, it is important for all components to interact optimally with one another. Because only the original can guarantee this, we have been producing our own bending tools for more than 20 years – in top quality and with the broadest range of tools on the market.



Concentrated expertise.

Our employees at TRUMPF Maschinen Austria in Pasching produce bending tools under one roof using TRUMPF bending machines. These tools are used in TruBend machines of all series worldwide. Our bending tool experts are working on your behalf in all fields ranging from technical consultation, development and production through to dispatch. We use the latest CAD systems and manufacturing methods in order to produce tools with the best quality.

At the same time, we always keep in mind what is most important: that you get the optimum tool at the right time.

Our delivery reliability speaks for itself: in 98% of cases, our customers receive their delivery on the agreed date.

As a rule, standard tools are dispatched from Pasching on the same day they are ordered. As a result, your production can quickly get back on track even in an emergency.



Process experts.

To be able to guarantee high levels of availability and rapid delivery times, we are working continuously to optimize the procedures in our bending tool production. In doing so, we use our SYNCHRO production system for producing our bending tools. In this way, we achieve top quality for products and service.

Talk to us.

If you are interested in where and how TRUMPF bending tools are made, or if you would like to discuss an idea with us – simply get in touch. We are looking forward to your visit.



The TRUMPF bending system

An intelligent
approach.



TruBend:
The advantages for you at a glance.

- 1 Unrivaled productivity.
- 2 Full application freedom.
- 3 All-round user-friendliness.
- 4 Exact results.
- 5 Cutting-edge control.

Modern bending technology offers a wide variety of processing possibilities: air bending and coining, folding and radius bending, and of course the widest possible range of sheet thicknesses and materials.

Whatever you or your customers want to produce, you need a system that supports you flexibly and economically in all your requirements.

The TRUMPF system comprises the machine, tool and software – optimally adapted to one another. You can produce a wide range of parts on one machine, and what is more you can do this as economically and efficiently as possible. The focus is directed on particularly frugal use of energy and material resources.

TruBend machines embody the wealth of experience and forward-looking innovations in press-brake bending technology. Using them, you can produce simple to complex parts in any format precisely and economically.

Equipped for all eventualities.

Our Laserdur tool system comprises not only many typical standard geometries but also many special geometries. These tools can be used on all generations of TRUMPF bending machine. This is also guaranteed in the future. The Safety-Click integrated as standard in tools up to a weight of 13.5 kg permits simple and direct tool setup operations from below.

As individual as your tasks: Special developments.

You need special tools for quite individual applications – our specialists develop these precisely according to your specifications. We guarantee you receive high quality thanks to having our own production and conducting intensive tests on tools using TRUMPF machines. Deliveries are made within a few days.



Economical bending – The right machine for each component geometry.

A wide selection of machine variants with numerous tonnages, bending lengths and versatile equipment features guarantees a machine that is tailor-made for your applications. ACB (Automatically Controlled Bending) guarantees the angle will be correct, right from the first bend.

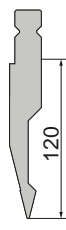
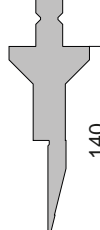
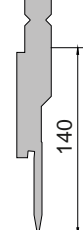
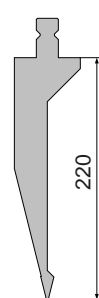
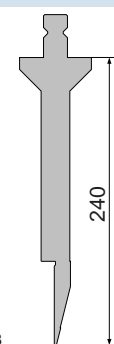





Fast joint speeds of the backgauge and the press beam as well as minimum setup times through automatic and selfcentering tool clamps ensure high productivity and minimize your part costs.

- Full tool flexibility through a broad range of tools
- Ingenious safety systems
- Optimum press force transmission with patented 4-cylinder concept
- Highest precision due to ACB Laser and ACB Wireless
- Precise angles throughout thanks to integrated CNC-crowning
- Durchgängig exakter Winkel dank integrierter CNC-Bombierung
- User-friendly and intuitive user interface on TRUMPF's own Touchpoint machine control system
- Ergonomic bending aids and support brackets
- Short paths for machine operators due to MobileControl Pro

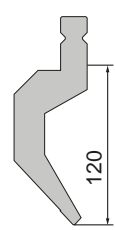
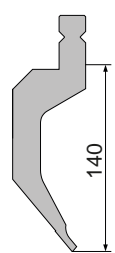
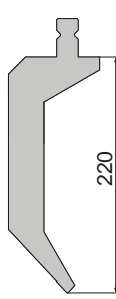
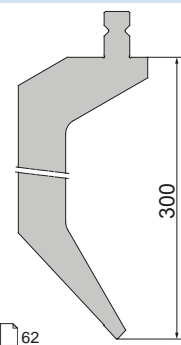




Overview and important information

Punches

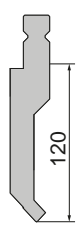
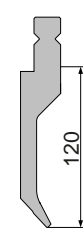




pointed

OW 202/K	OW 210	OW 215/K	OW 202/S	OW 210/S
R1/28°	R1/28°	R0,5/20°	R1/28°	R1/28°
				
 44	 54	 116	 70	 78

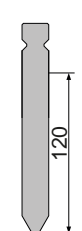
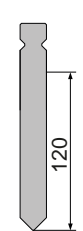




highly offset

OW 200/K	OW 280/K	OW 200/S	OW 300/S
R1/86°	R0,5/80°	R1/86°	R1/86°
			
 32	 36	 58	 62

slightly offset

OW 201/K	OW 204/K	OW 201/S
R1/86°	R1/86°	R1/86°
		
 40	 52	 66

even

OW 203/K	OW 211/K	OW 203/S
R4/60°	R1/89,66°	R4/60°
		
 48	 100	 74

Various applications

Tool holders / Inserts

<p>OW 209/S (OW 320)</p> <p>84/98</p>	<p>OW 209/S <small>.NEW</small> (OW 320)</p> <p>83</p>	<p>OW/K 80 (OW 390, OW 391)</p> <p>90</p>	<p>OW/K 90</p> <p>203</p>	<p>OW/S 190</p> <p>203</p>
<p>OW 320 R0,3-R6</p> <p>86/98</p>	<p>OW 390 R0,5</p> <p>92</p>	<p>OW 391 R0,5</p> <p>92</p>	<p>ZE 90° Z4-10</p> <p>205/206</p>	<p>ZE 180°</p> <p>207</p>

Radius bending

<p>OW 308/K R10-R25</p> <p>102</p>	<p>OW 308/S R15-R50</p> <p>103</p>	<p>Round bars R10 - R50</p> <p>103</p>	<p>EV/70</p> <p>204</p>	<p>EV/70-M</p> <p>204</p>
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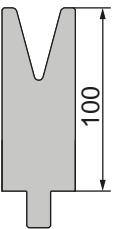
Adapter

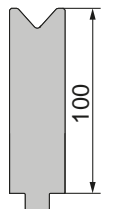
<p>Adapter TRUMPF</p> <p>108 - 110</p>	<p>Adapter TRUMPF</p> <p>110</p>	<p>Adapter EHT, LVD, Amada</p> <p>107</p>
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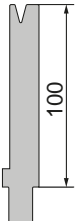
Z Bending

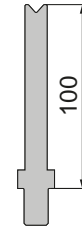
<p>OWZ/K 90° Z4-10</p> <p>199</p>	<p>EVZ 90° Z4-10</p> <p>199</p>
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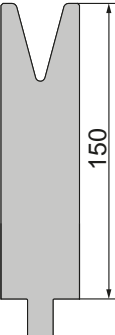
Dies W4-W120

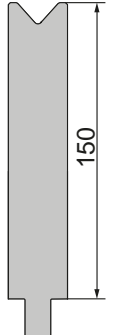
Air bending 30°			
	Type	W	R
	EV001	6	0,6
	EV002	8	1
	EV003	10	1
	EV004	12	1
	EV005	16	1,6
	EV006	20	2
	EV007	24	2,5
	EV W30/30°	30	3
	EV W40/30°	40	5
	EV W50/30°	50	5


Air bending 84°			
	Type	W	R
	EV W6/84°	6	0,6
	EV W8/84°	8	0,8
	EV W10/84°	10	1
	EV W12/84°	12	1
	EV W16/84°	16	1,6
	EV W20/84°	20	2

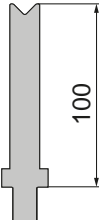
30° „narrow“			
	EV/S W4/30°	4	0,6
	EV/S W5/30°	5	0,6
	EV001/S	6	0,6
	EV002/S	8	1
	EV003/S	10	1
	EV004/S	12	1

84° „narrow“			
	EV/S W4/84°	4	0,6
	EV/S W5/84°	5	0,6
	EV/S W6/84°	6	0,6
	EV/S W8/84°	8	0,8
	EV/S W10/84°	10	1
	EV/S W12/84°	12	1
	EV/S W14/84°	14	1,6

30° „high“			
	EV001/H	6	0,6
	EV002/H	8	1
	EV003/H	10	1
	EV004/H	12	1
	EV005/H	16	1,6
	EV006/H	20	2
	EV007/H	24	2,5

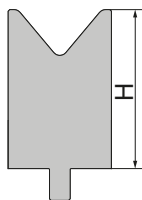
84° „high“			
	EV/H W6/84°	6	0,6
	EV/H W8/84°	8	0,8
	EV/H W10/84°	10	1
	EV/H W12/84°	12	1
	EV/H W16/84°	16	1,6
	EV/H W20/84°	20	2

Coining			
	Type	W	R
	90°		
	EV 040	6	0,6
	EV 041	8	0,8
	EV 042	10	1
	EV 043	12	1
	EV 044	16	1,6

Coining			
	Type	W	R
	90° „narrow“		
	EV/S W4/90°	4	0,6
	EV/S W5/90°	5	0,6
	EV 040/S	6	0,6
	EV 041/S	8	0,8
	EV 042/S	10	1
	EV 043/S	12	1

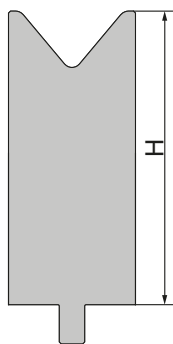
Air bending 80°

Type	H	R
80° (60°)		
EV W24/80°	100	2,5
EV W30/80°	100	5
EV W40/80°	100	5
EV W50/80°	100	5
EV W60/80°	100	5
EV W70/80°	100	5
EV W80/80°	100	5
EV W90/80°	120	8
EV W100/80°	120	8
EV W120/60°	120	8



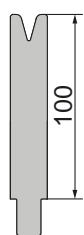
80° „high“

EV/H W24/80°	150	2,5
EV/H W30/80°	150	5
EV/H W40/80°	150	5
EV/H W50/80°	150	5



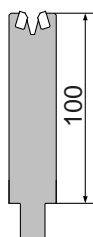
Low impression

Type	W	R
30° „R3“		
EV/S W5/30° R2	5	2
EV001 R3	6	3
EV002 R3	8	3
EV003 R3	10	3
EV004 R3	12	3
EV005 R3	16	3



30° KEV

KEV W8/30°	8
KEV W10/30°	10
KEV W12/30°	12
KEV W16/30°	16
KEV W20/30°	20
KEV W24/30°	24



Folding

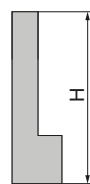
Typ	H	R
„without lower tool displacement“		
OW 215/K	140	0,5
EV-F W6,4	100	2
EV-F W8/30°	100	2,5
EV-F W10/30°	100	2,5
FEV W6/30°	108	0,6
FEV W8/30°	110	1
FEV W10/30°	110	1
FEV W12/30°	110	1



118/121

Folding

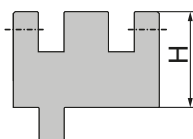
FWZ	100
ZDL	100
MST	100
FWZ/H	150
ZDL/H	150
MST/H	150



125

Adapter

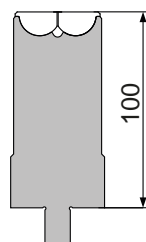
Typ	H
TRUMPF EV	50
TRUMPF DV	50
EHT	40
AMADA	40



178

Low impression / Distortion-free

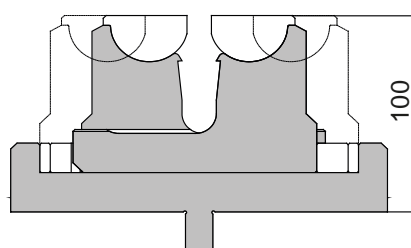
Typ	H	W
90° RollBend		
RB 200	100	8
RB 300 / RBK 300	100	12
RB 400	100	16
RB 500	100	24
RB 600	100	30



188

90° RollBend 1250

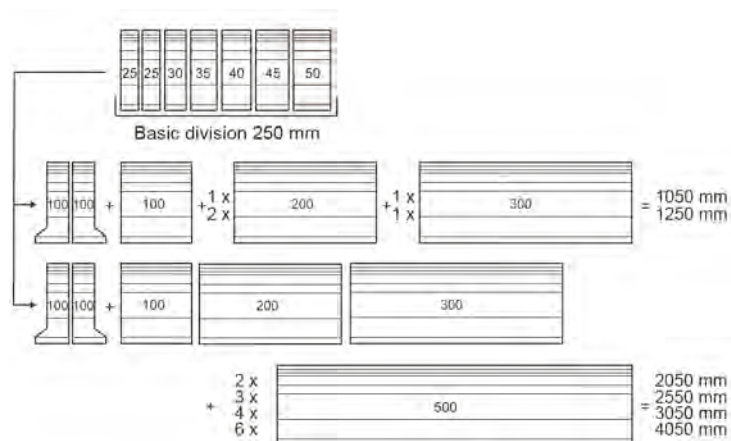
	100	W40
	100	W50
	100	W60
	100	W70
	100	W80



191

System divisions with tools

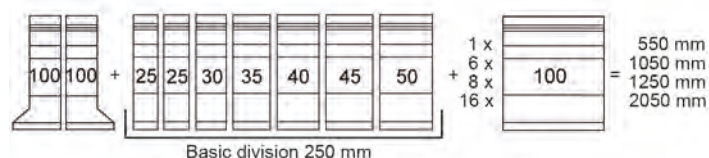
Version B



Advantages

- Short setup time with long tool stations
- Lower procurement price
- Fewer tool switches (even greater workpiece quality)
- Version most often selected and recommended
- Tool lengths of up to 100 mm are equipped with 1 Safety-Click
- Tool lengths of 100 mm or more with a tool weight of max. 13.5 kg are equipped with 2 Safety-Clicks
- Weight-dependent division changes can be found in the technical part under system divisions

Version A



Advantages

- Maximum flexibility
- Minimum tool set-up time
- Weight of the individual part pieces very low.
- All tools can be loaded vertically and horizontally.

Dies

For dies, the division applies in the same way als for punches. Gooseneck tools are replaced with 100 mm part pieces.



Punches



- Punch parts with a weight up to 13.5 kg are equipped with Safety-Click security elements and can also be replaced vertically.
- The punches are aligned automatically.
- Tools can be rotated by 180°.
- Punches smaller than 25 mm are delivered without Safety-Click.

Safety-Click

Punches from TRUMPF are equipped with Safety-Click, a spring-loaded safety mechanism integrated into the tool. The Safety-Click enables vertical tool change. The tool is simply clicked in and out of the machine clamp vertically.

Application range

Safety-Click can be used in:

- Parts from 10 mm onwards (depending on the tool type).
- Tool lengths up to 100 mm with a tool weight of max. 13.5 kg are equipped with 1 Safety-Click.
- Tool lengths of 100 mm or more with a tool weight of max. 13.5 kg are equipped with 2 Safety-Clicks.

Advantages

- Extremely short changeover times.
- The tools can be naturally installed and removed horizontally.

Note

- If the maximum permitted weight per tool is exceeded, the tools are equipped with fixed locking pins, which means they can therefore be replaced only horizontally. You can use lightweight tools to reduce the weight.
- An adapted Safety-Click is available from TRUMPF for shoulder-bearing tools of 10 – 20 mm at the customer's request (see figures below).



Safety-Click for upper tool.../S 10 – 20 mm



Internal view

Punch with Safety-Click

Length	1 Safety-Click		2 Safety-Click		
	10 - 20 mm	25 - 100 mm	200 mm	300 mm	500 mm
OW200/K	✓	✓	✓	✓	○
OW201/K	✓	✓	✓	✓	✓
OW202/K	✓	✓	✓	✓	✓
OW203/K	✓	✓	✓	✓	✓
OW204/K	✓	✓	✓	✓	✓
OW211/K	✓	✓	✓	✓	✓
OW215/K	✓	✓	✓	✓	✓
OW280/K	✓	✓	✓	✓	○
OW200/S	○	✓	✓	○	
OW201/S	○	✓	✓	○	
OW202/S	○	✓	✓	○	
OW203/S	○	✓	✓	○	
OW210/S 140	○	✓	✓	○	
OW210/S 240	○	✓	✓	○	
OW300/S	○	✓	○		
>L< OW200/S	○	✓	✓	✓	
>L< OW201/S	○	✓	✓	✓	
>L< OW202/S	○	✓	✓	✓	
>L< OW203/S	○	✓	✓	✓	
>L< OW210/S 240	○	✓	✓	✓	
>L< OW300/S	○	✓	✓		

- ✓ with Safety-Click
- with locking pins
- Parts > 25 kg available on request





Comfort Slide



Upper tool with Comfort Slide



Lower tool with Comfort Slide

Application

Smooth moving: Heavy and gooseneck tools often do not hang completely vertically in the tool clamp. These tools often tip over at their center of gravity and become jammed. The new sliding blocks and roll pins now ensure that tools cannot tip over and can also be moved very easily. Comfort Slide also protects the tool clamp from abrasion or damage in the long term.

Advantages

- Easier movement of gooseneck and heavy tools (both upper and lower tools)
- Upper tools do not tilt in the tool clamp
- Protects the tool clamp from abrasion or damage
- Available as standard for selected relevant tools
- Included as standard in catalog tools at no extra charge (see table below)
- Recommended in combination with the ToolMaster (KB37)

Information

- Also suitable for lightweight bending tools
- Catalog lower tools of a weight of 14.6 kg and greater are fitted with Comfort Slide.
- If a Comfort Slide is required that is different from our standard designs (see table below), please contact your TRUMPF sales partner.

Standard equipment for punches and dies

Upper tools	Length		Equipment		
	from	to	Safety-Click	Locking pins	Comfort Slide*
OW200/K	10	100	✓		
	101	300	✓		
	301	500		✓	✓
OW201/K	10	100	✓		
	101	500	✓		
OW202/K	10	100	✓		
	101	500	✓		
OW203/K	10	100	✓		
	101	500	✓		
OW204/K	10	100	✓		
	101	500	✓		
OW211/K	10	100	✓		
	101	500	✓		
OW215/K	10	100	✓		
	101	500	✓		
OW280/K	10	100	✓		
	101	300	✓		
	301	500		✓	✓
OW210/S	25	100	✓		
	101	500	✓		
OW200/S	25	100	✓		
	101	200	✓		✓
	201	300			✓
OW201/S	25	100	✓		
	101	200	✓		
	201	300		✓	
OW202/S	25	100	✓		
	101	200	✓		
	201	300		✓	
	301	500		✓	
OW203/S	25	100	✓		
	101	200	✓		
	201	300		✓	
OW210S	25	100	✓		
	101	200	✓		
	201	300		✓	
	301	500		✓	
OW300S	25	35	✓		
	40	100	✓		✓
	Horn tool	100 (69)			✓
	101	200			✓

Lower tools	Standard length		
	200	300	500
EV006/H 30°			✓
EV007 30°			✓
EV007/H 30°			✓
KEV W24/30°			✓
EV/H W24/80°			✓
EV W30/30° R3			✓
EV W30/80°			✓
EV/H W30/80°		✓	—
EV W40/30°			✓
EV W40/80°			✓
EV/H W40/80°		✓	—
EV W50/30°			✓
EV W50/80°			✓
EV/H W50/80°		✓	—
EV W60/80°		✓	—
EV W70/80°		✓	—
EV W80/80°		✓	—
EV W90/80°	✓	—	—
EV W100/80°	✓	—	—
EV W120/80°	✓	—	—

✓ Lower tool with Comfort Slide

— Tool length not available in Standard

* Comfort Slide always comes with roll pins and/or sliding blocks



Lightweight bending tools for air bending

Lightweight bending tools with a weight savings of over 30% significantly reduce the physical effort required by the operator and the setup time.

The following upper tool types are available as standard in lightweight construction

>L< OW200/S



>L< OW 201/S



>L< OW202/S



>L< OW203/S



>L< OW300/S



>L< OW210/S



Price

- Price surcharge for lightweight bending tools:
20% on the respective standard upper tool type, delivery time: 2 weeks
- >L< OW special equipment designs on request

Application area

Up to 10 mm sheet thickness (depending on the tool type)

Advantage

- Reduce physical handling effort for the operator
- Minimize the setup time by applying Safety-Click to the tool length of up to 300 mm
- Same load with lower tool weight

Note

- The combination of lightweight bending tools and standard tools is only permitted to a limited extent
- The specified load on the tools must not be exceeded.
- Due to safety precautions, the holes are sealed.

Normally, lightweight bending tools are equipped with the Safety-Click up to a length of 300 mm:

- Tool lengths up to 100 mm – with 1 Safety-Click
- Tool lengths greater than 100 mm – with 2 Safety-Clicks



	Tool type	Load kN/m	1 Safety-Click	2 Safety-Clicks		500 mm
			25-100 mm	200 mm	300 mm	
Standard	OW200/S	800				
	OW201/S	800				
	OW202/S	600/800				
	OW203/S	2500				
	OW210/S 240	400/1300				
	OW300/S	800				
Lightweight design	>L< OW200/S	800				
	>L< OW201/S	800				
	>L< OW202/S	600/800				
	>L< OW203/S	1300 *				
	>L< OW210/S 240	400/1300				
	>L< OW300/S	800				

* Maximum load of lightweight bending tool OW203/S is reduced to 1300 kN/m.

with Safety-Click


with locking pin

Parts available upon request

Machine types and tool adaptor

Please take note of the tool adaptor version when ordering TRUMPF bending tools!

(Observe installation height of the press brakes)

TruBend / TrumaBend	Head-bearing Tools (OW/K)	Shoulder-bearing Tools (OW/S)		Dies	Lower tool displacement
 Series 3000/C-Series		up to year of manufacture June 2004 	up to year of manufacture July 2004 		
 Series 5000/V-Series					
 TruBend 7036					
 TruBend 7050					
 Series 8000 with TRUMPF tool system					

The following amounts of compressive force should not be exceeded in order not to exceed the maximum permissible surface pressure of the Modufix clamp (starting from year of construction 2002):

- 2500 kN/m for head-bearing tools
- 3000 kN/m for shoulder-bearing tools
- 3000 - 6000 kN/m for shoulder-bearing tools (applies only to 8000 Series)

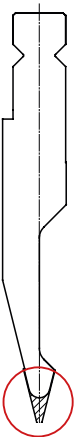
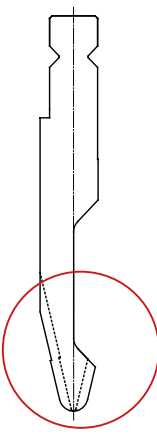



Additional charges for the modification of standard tools

The prices for the most recent modified upper tool radii are already indicated in the catalog. The prices indicated in the extra charge table are valid from a total order length of 200 mm.

Prices for radius changes of 0.3 mm to 10 mm can be determined using the extra charge:

- For radius changes with height modification, **Extra charge 1 (modification)** is to be used.
- For radius changes without height modification, **Extra charge 2 (new manufacture)** is to be used.

Examples of modifications

Upper tools	Lower tools
	
Radius modification Extra charge 1 (Modification)	Radius modification Extra charge 2 (New manufacture)
	
	
	
	Radius Modification Angle Modification Height Modification

Type of modification	Extra	Die width
Radius modification	1	W4-W120
Hight mod. 30 mm	1	W4-W30/80°
Hight mod. 50 mm	1	W4-W50/80°
Angle mod. 50°- 90°	1	W4-W20
Angle mod. 50°- 80°	2	W24-W30
Angle mod. 60°- 80°	2	W40-W100

Extra charge table

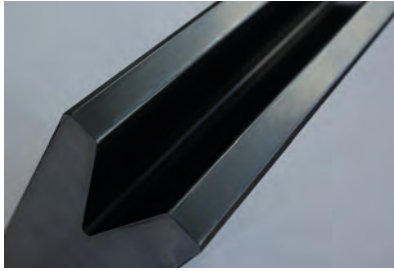
Lengths in [mm]		Extra charge 1	Extra charge 2
up to	100	-	-
	150	-	-
	200	-	-
	250	-	-
	300	-	-
	500	-	-
	550	-	-
	1050	-	-
	1250	-	-
	2050	-	-
	2550	-	-
	3050	-	-
	4050	-	-

Calculating and request for special shapes is best supported in the TRUMPF E-Shop!



Additional charges for LASERdur ZN- and AL-coating

The coated **LASERdur ZN dies** are suitable especially for processing galvanized metal sheets, the **LASERdur AL dies** are suitable especially for processing aluminum sheets.



- For dies for air bending with a die width of up to 24 mm
- For dies for coining with a die width of up to 12 mm
- To achieve optimum bending results, we recommend using large die draw-in radii (R2-R4)
- Special tools are available upon request.

	Length	Extra charge 1	Extra charge 2	
Var. B		Die 45° - 86°	Die 30°, 90°, EV-F	
4050	–	–	–	EUR
3050	–	–	–	EUR
2550	–	–	–	EUR
2050	–	–	–	EUR
1250	–	–	–	EUR
1050	–	–	–	EUR
Var. A				
2050	–	–	–	EUR
1250	–	–	–	EUR
1050	–	–	–	EUR
550	–	–	–	EUR
Block				
250	–	–	–	EUR
150	–	–	–	EUR
Single				
500	–	–	–	EUR
300	–	–	–	EUR
200	–	–	–	EUR
100	–	–	–	EUR
up to 50	–	–	–	EUR

Minimum order quantity 800 mm or € --

Material selection


Material	Galvanized sheet	Mild steel	Hot-rolled steel	Aluminum	Stainless steel
Application of the coated LASERdur ZN dies					
Application of the coated LASERdur AL dies	 Sheet thickness of up to 2 mm	 Sheet thickness of up to 2 mm			

The values of the maximum sheet thicknesses for the specific die widths are not allowed to be exceeded.

ZN and AL dies for air bending


Die width	Radii	Type	Sheet thickness [mm]										
			0,5	0,75	1	1,25	1,5	1,75	2	2,5	3	3,5	
W4	Standard	R0,6 EV/S W4/84°											
		R0,6 EV/S W4/30°											
W5	Standard	R0,6 EV/S W5/84°											
		R0,6 EV/S W5/30°											
		R2 EV/S W5/30° R2											
W6	Standard	R0,6 EV001 (/S)/(H), EV W6/84° (/S)/(H)											
		R3 EV001 R3											
	Special	R2											
W8	Standard	R0,8 EV W8/84° (/S)/(H)											
		R1 EV002 (/S)/(H)											
	Special	R3 EV002 R3											
		R2											
W10	Standard	R1 EV003 (/S)/(H), EV W10/84° (/S)/(H)											
		R3 EV003 R3											
	Special	R2											
W12	Standard	R1 EV004 (/S)/(H), EV W12/84° (/S)/(H)											
		R3 EV004 R3											
	Special	R2											
W16	Standard	R1,6 EV005 (/H), EV W16/84° (/H)											
		R3 EV005 R3											
	Special	R2											
W20	Standard	R2 EV006 (/H), EV W20/84° (/H)											
	Special	R4											
W24	Standard	R2,5 EV007 (/H) EV W24/80° (/H)											
	Special	R4											

 preferred dies

 Area of application

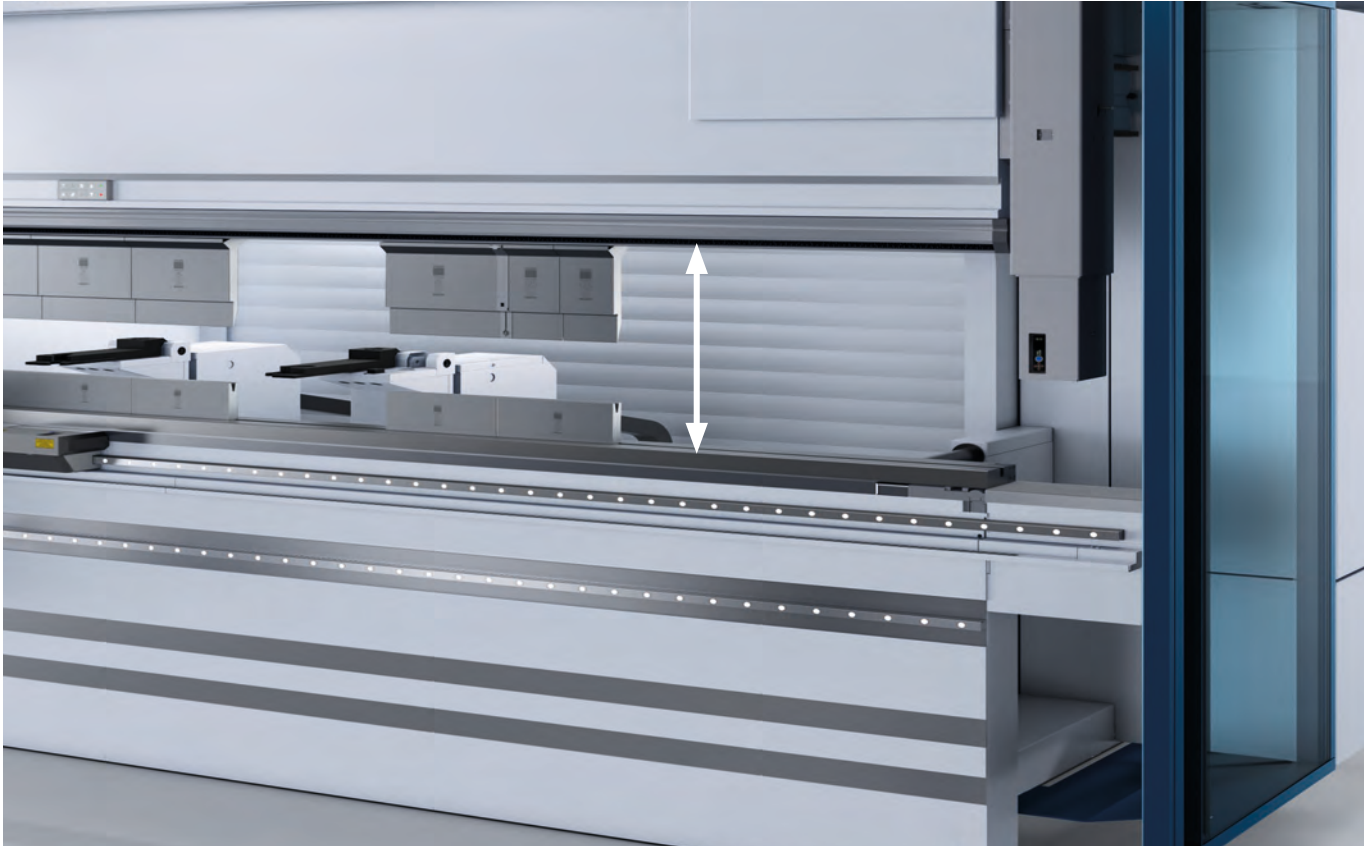
ZN and AL dies for coining

Die width	Radii	Type	Sheet thickness [mm]						
			0,5	0,75	1	1,25	1,5	1,75	2
W6	Standard	R0,6 EV040 90° (/S)							
W8	Standard	R0,8 EV041 90° (/S)							
W10	Standard	R1 EV042 90° (/S)							
W12	Standard	R1 EV043 90° (/S)							

 Area of application

Installation height check

You can determine the suitable tool types for the TruBend / TrumaBend by means of the following tables:



The installation height is the maximum distance between the upper tool clamp and lower tool clamp (see arrow above).

TruBend Series 3000 up to YOM 2015

Installation height 347 mm

TruBend 3066 3120 3180	Height [mm] OW ▼	EV70-M	RollBend 200 - 1250	EV/S-W4-W5	EV W6-W80	KEV W8-W24	EV001-EV007 „R3../S)	EV Z4-10/90°	FEV W6-12	EV W90-120	EV/H W6-W50	EV001/H-EV007/H	VLMBN	VLMDN
Height [mm] EV ►		100	100	100	100	100	100	100	108	120	150	150	185	195
OW.../K	120													
OW210/S 280/K	140													
	160													
	180													
	200													
OW.../S	220													
OW210/S	240													

A > 40 mm A 25-40 mm impossible

A = Removal height

TruBend Series 3000 since YOM 2015

Installation height 350 mm

TruBend 3066 3100	Height [mm] OW ▼	TruBend Series 3000												
		EV70-M	RollBend 200 - 600	EV/S-W4-W5	EV W6-W80	KEY W8-W24	EV001-EV007 ,R3../S)	EV Z4-10/90°	FEV W6-12	EV W90-120	EV/H W6-W50	EV001H-EV007/H	VLMBN *	VLMDN
Height [mm] EV ►		100	100	100	100	100	100	100	108	120	150	150	185	195
OW.../K	120													
OW210/S 280/K	140													
	160													
	180													
	200													
OW.../S	220													
OW210/S	240													

A > 40 mm A 25-40 mm impossible
 A = Removal height *Attention: only when using 5-axis backgauge

TruBend Series 3000 since YOM 2015

Installation height 500 mm

TruBend 3100 with extended Installation height 3170	Height [mm] OW ▼	TruBend Series 3000											
		EV70-M	RollBend 200 - 1250	EV/S-W4-W5	EV W6-W80	KEY W8-W24	EV001-EV007 (.,R3../S)	EV Z4-10/90°	FEV W6-12	EV W90 - 120	EV/H W6-W50	EV001H - EV007/H	VLMBN *
Height [mm] EV ►		100	100	100	100	100	100	108	120	150	150	185	195
OW.../K	120												
OW210/S 280/K	140												
	160												
	180												
	200												
OW.../S	220												
OW210/S	240												
	260												
	280												
OW300/S	300												
	320												
	340												
	360												

A > 60 mm A 45-60 mm impossible
 A = Removal height *Attention: only when using 5-axis backgauge

TruBend Series 5000

Installation height 385 mm

TruBend 5085 5130	Height [mm] EV ▶	◀ Height [mm] OW																				
		EV70-M	EV70	RollBend 200 - 1250	EV/S-W4-W5	EV W6-W80	KEV W8-W24	EV001-EV007 (...R3..S)	FWZ	ZDL	MST	EV Z4-10/90°	FEV W6-12	SBW	EV W90-120	EV/H W6-W50	EV001/H-EV007/H	FWZ/H	ZDL/H	MST/H	VLMEN	VLMEN
Height [mm] EV ▶		100	100	100	100	100	100	100	100	100	100	108	110	120	150	150	150	150	150	150	185	195
OW.../K	120																					
OW210/S 280/K	140																					
	160																					
	180																					
	200																					
OW.../S	220																					
OW210/S	240																					
	260																					
	280																					
OW300/S	300																					

A > 40 mm
 A 25-40 mm
 impossible

A = Removal height

TruBend Series 5000

Installation height 615 mm

TruBend 5085 5130 5170 5230 5320	Height [mm] EV ▶	◀ Height [mm] OW																				
		EV70-M	EV70	RollBend 200 - 1250	EV/S-W4-W5	EV W6-W80	KEV W8-W24	EV001-EV007 (...R3..S)	FWZ	ZDL	MST	EV Z4-10/90°	FEV W6-12	SBW	EV W90-120	EV/H W6-W50	EV001/H-EV007/H	FWZ/H	ZDL/H	MST/H	VLMEN	VLMEN
Height [mm] EV ▶		100	100	100	100	100	100	100	100	100	100	108	110	120	150	150	150	150	150	150	185	195
OW.../K	120																					
OW210/S 280/K	140																					
	160																					
	180																					
	200																					
OW.../S	220																					
OW210/S	240																					
	260																					
	280																					
OW300/S	300																					
	320																					
	340																					
	360																					
	380																					
	400																					
	420																					

A > 60 mm
 A 45-60 mm
 impossible

A = Removal height

TruBend Series 7000

Installation height 295 mm

TruBend 7036	Height [mm] OW	EV70-M	RollBend 200 - 1250	EV/S-W4-W5	EV W6-W80	KEY W8-W24	EV001-EV007(R3..S)	EV Z4-10/90°	FEV W6-12	EV W90-120
Height [mm] EV ▶		100	100	100	100	100	100	100	108	120
OW.../K	120									
OW210/S 280/K	140									
	160									
	180									
	200									
OW.../S	220									
OW210/S	240									

A > 30 mm
 A 15-30 mm
 impossible

A = Removal height

TruBend Series 7000

Installation height 385 mm

TruBend 7050	Height [mm] OW	EV70-M	EV70	RollBend 200 - 1250	EV/S-W4-W5	EV W6-W80	KEY W8-W24	EV001-EV007...R3..S)	FWZ	ZDL	MST	EV Z4-10/90°	FEV W6-12	SBW	EV W90-120	EV/H W6-W50	EV001/H-EV007/H	FWZ/H	ZDL/H	MST/H
Height [mm] EV ▶		100	100	100	100	100	100	100	100	100	100	100	108	110	120	150	150	150	150	150
OW.../K	120																			
OW210/S 280/K	140																			
	160																			
	180																			
	200																			
OW.../S	220																			
OW210/S	240																			
	260																			
	280																			
OW300/S	300																			

A > 40 mm
 A 25-40 mm
 impossible

A = Removal height



TruBend Series 8000

Installation height











TruBend 8230 up to 8600

	Standard	Option 1
Throat depth	420 mm	620 mm
Stroke	500 mm	700 mm
Usable Installation height TRUMPF tool system	675 mm	875 mm
Lower tool displacement		
Attention: folding only possible with OW210/S H=240 and OW215/K or folding tool H=150 (minimum opening = 175 mm)		



TruBend 8800 and 8010

	Standard	Option 1
Throat depth	420 mm	620 mm
Stroke	500 mm	700 mm
Usable Installation height TRUMPF tool system	675 mm	875 mm
Lower tool displacement		

Explanation of symbols

	Max. continuous load
	Folding
	Material, tensile strength
	Weight
	Final processing working surface hardened and ground
	Max. box height
	Vertically exchangeable (Safety-Click)
	Minimum side length (at maximum sheet thickness and minimum punch-radius)
	Minimum Z-dimension at max. sheet thickness
	Technical information

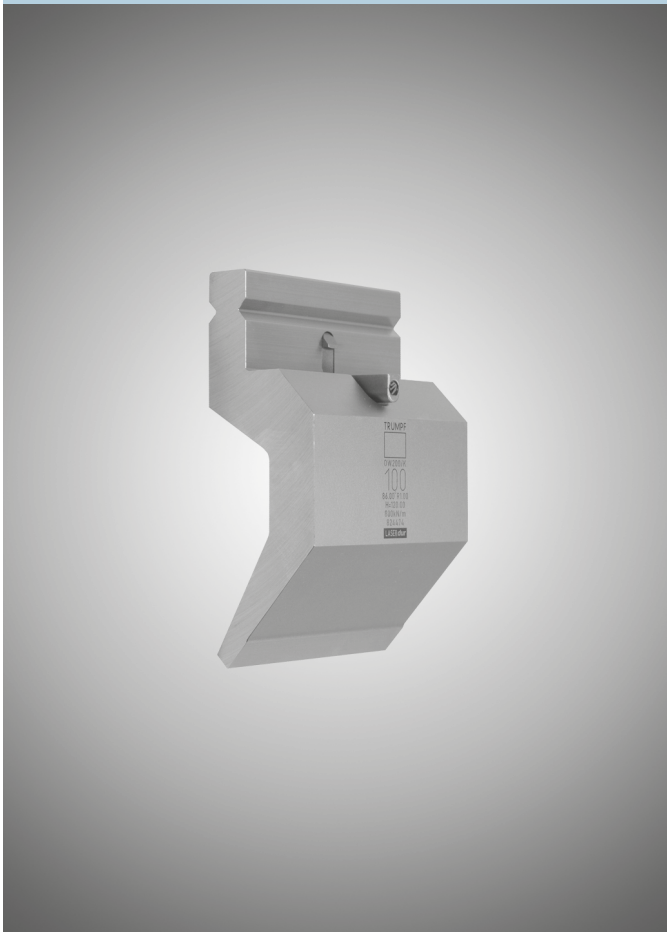
Dies with bore holes for folding tools

	Bore holes available (from 25 mm)
	Bore hole possible (ordering price + 10% surcharge)



Punches up to H = 140 mm

Punch



Delivery time: ex warehouse

OW200/K	Radius:	R1,0 mm
	Angle:	86°
	Height:	120 mm
	Mat. No.	Price
VAR. B		
4050	0823788	- EUR
3050	0823787	- EUR
2550	0835174	- EUR
2050	0823786	- EUR
1250	0825696	- EUR
1050	0867268	- EUR
VAR. A		
2050	0823783	- EUR
1250	0825695	- EUR
1050	1576196	- EUR
550	1601819	- EUR
Block 250		
250	0825692	- EUR
SINGLE		
500	0823781	- EUR
300	0823780	- EUR
200	0823779	- EUR
100	0824474	- EUR
Horn left 100	0824472	- EUR
Horn right 100	0824473	- EUR
50	0824471	- EUR
45	0824470	- EUR
40	0824469	- EUR
35	0824468	- EUR
30	0824467	- EUR
25	0824466	- EUR
20	0838231	- EUR
15	0838230	- EUR
10	0838229	- EUR

Lengths in [mm]

Technical data



800 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



28,9 kg/m



~60 HRC

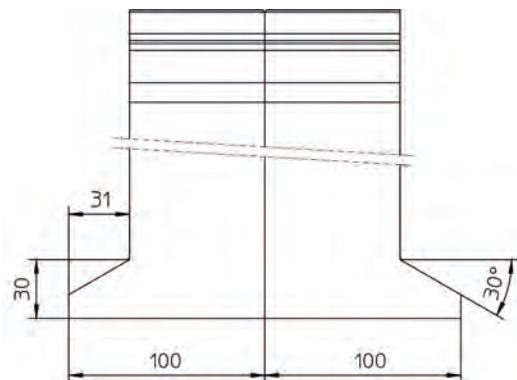


64 mm



10 mm - 300 mm

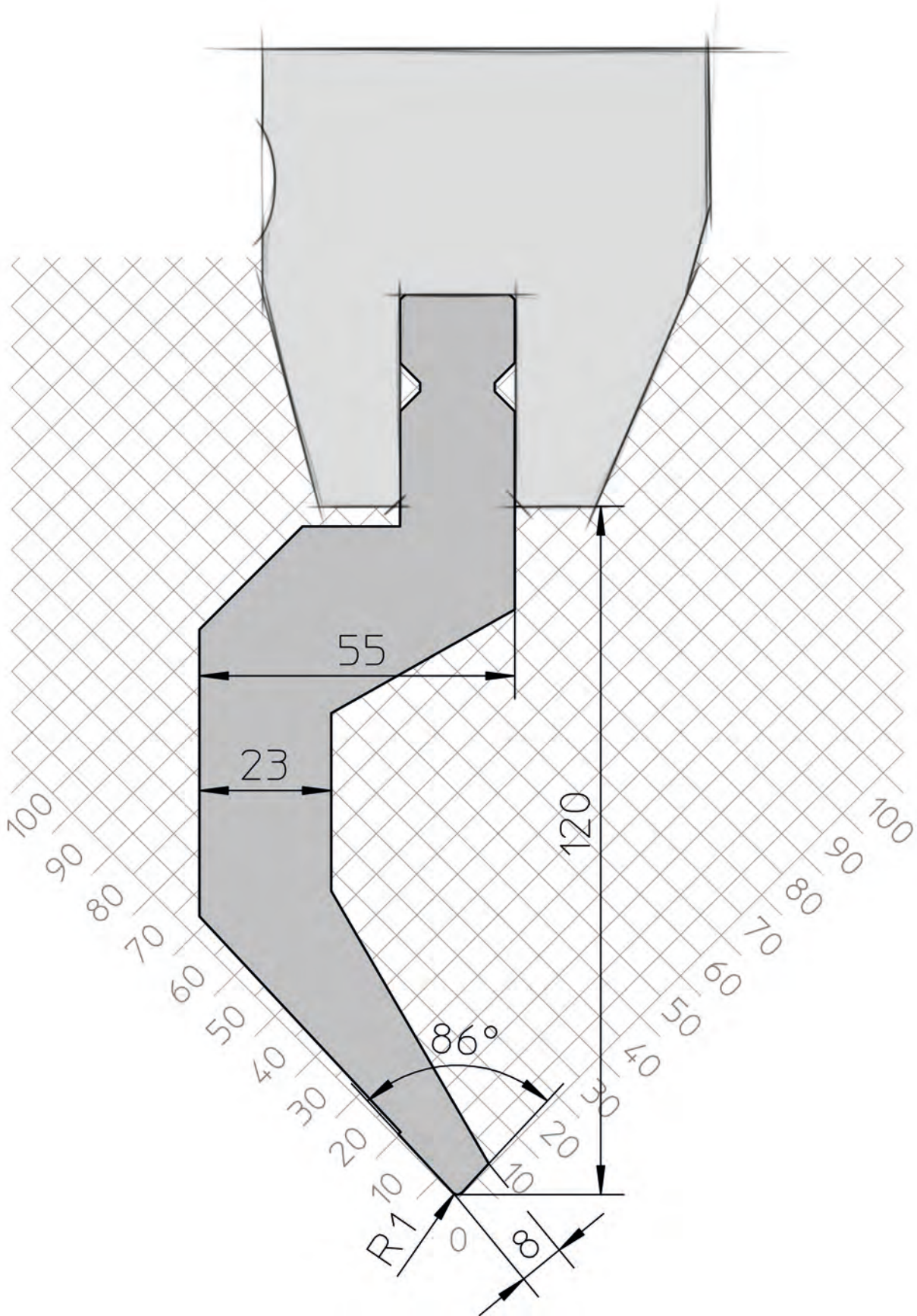
Horn left / right





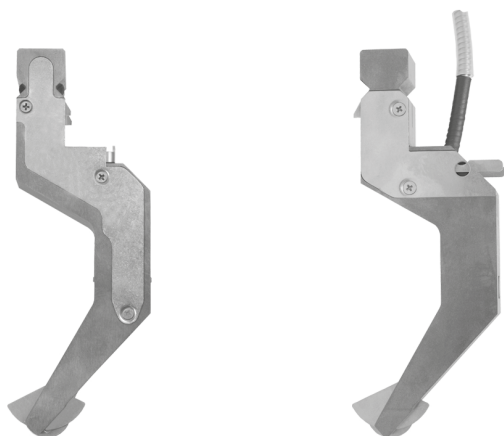
More working radii											Delivery time: 2 weeks	
OW200/K	R0,5 86°	R1,6 86°	R2 86°	R2,3 86°	R2,5 86°	R3 86°	R3,2 86°	R4 86°	R5 86°	R6 86	Radius Angle	Height
	119,8	119,2	119,2	119	119	118,7	118,6	118,3	117,8	117,3		
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price
VAR. B												
4050	0868289	0868295	0868300	0868312	0868319	0868324	0855080	0868407	1938318	0874746		- EUR
3050	0846063	0832791	0831478	0839065	0834501	0834516	0839066	0834532	0834556	0861678		- EUR
2550	0868288	0839388	0847141	0839383	0850076	0853797	0839380	0854438	0864476	0854878		- EUR
2050	0833552	0839386	0852195	0839384	0854453	0848442	0839381	0848454	0873905	0857213		- EUR
1250	0848070	0839387	0860478	0839385	0829977	0868325	0839382	0842424	1254712	0832068		- EUR
1050	1667589	1593107	1645116	1871095	1593190	1674887	1837176	1593195	1658290	1593198		- EUR
VAR. A												
2050	0868284	0868291	0868296	0868308	0868315	0868321	0868395	0868403	2416033	1205298		- EUR
1250	0868283	0868290	0866329	0868307	0868314	0868320	0868394	0868402	1525467	1568387		- EUR
1050	1667588	1871061	1871070	1576241	1871132	1666717	1837175	1753378	2312768	1990209		- EUR
550	1667587	1871050	1651650	1871094	1871131	1697998	1651651	1651652	1674889	1674935		- EUR
Block 250												
250	0833575	0832790	0831477	0839331	0829963	0834515	0839282	0834531	0834555	0832066		- EUR
SINGLE												
500	0833562	0832777	0827213	0839316	0829961	0827226	0839268	0827240	0834542	0832050		- EUR
300	0833561	0832776	0831471	0839315	0829960	0834506	0839267	0834521	0834541	0832049		- EUR
200	0833560	0832775	0827212	0839314	0829959	0827225	0839266	0827239	0834540	0832048		- EUR
100	0833569	0832784	0827218	0839323	0829973	0827234	0839275	0827243	0834549	0832057		- EUR
Horn left 100	0833572	0832787	0831474	0839327	0829971	0834512	0839278	0834528	0834552	0832064		- EUR
Horn right 100	0833573	0832788	0831475	0839329	0829972	0834513	0839279	0834529	0834553	0832065		- EUR
50	0833568	0832783	0827217	0839322	0829970	0827233	0839274	0834525	0834548	0832056		- EUR
45	0833567	0832782	0827216	0839321	0829969	0827232	0839273	0834524	0834547	0832055		- EUR
40	0833566	0832781	0827215	0839320	0829968	0827231	0839272	0834523	0834546	0832054		- EUR
35	0833565	0832780	0831473	0839319	0829967	0834508	0839271	0827242	0834545	0832053		- EUR
30	0833564	0832779	0827214	0839318	0829966	0827230	0839270	0834522	0834544	0832052		- EUR
25	0833563	0832778	0831472	0839317	0829964	0834507	0839269	0827241	0834543	0832051		- EUR
20	1307796	1472577	1472595	1871098	1871135	0853796	1871152	1871211	2623207	1292586		- EUR
15	1307795	1472576	1472593	1871097	1871134	0853794	1871151	1871160	2623206	1292585		- EUR
10	1307794	1489520	1871092	1871096	1871133	0853793	1871140	1871159	2623204	1292584		- EUR

Lengths, radius and height in [mm]





Sensor tool



Delivery time: ex warehouse

ACB OW200/K	Radius:	R1,0 mm
	Angle:	86°
	Height:	120 mm
	Mat. No.	Price
ACB Wireless		
Sensor tool 25	1858866	- EUR
Initial equipment	2040948	- EUR
ACB		
Sensor tool 25	0902753	- EUR
Initial equipment 2.G	1273588	- EUR
Sensor disk		
L22	0912267	- EUR
L12	0912266	- EUR
R28	0902666	- EUR
R19	0904046	- EUR
R18	0901125	- EUR
R10	0901126	- EUR
R05	0902436	- EUR

The sensor disks marked with a star (*) are included in the sensor tool scope of delivery.

Sensor disks OW 200/K



R5/R10 *				
Mat.	s	W	α	R (OW)
StSt	≤ 2.5	≤ 16	90 - 95	≤ 2
St	≤ 2.5	≤ 16	90 - 105	≤ 2
Al	≤ 2.5	≤ 16	90 - 105	≤ 2
R10/R18 *				
Mat.	s	W	α	R (OW)
StSt	≤ 3.0	≤ 20	90 - 100	≤ 4
St	≤ 4.0	≤ 24	90 - 105	≤ 4
Al	≤ 4.0	≤ 24	90 - 105	≤ 4
R19/R28				
Mat.	s	W	α	R (OW)
StSt	≤ 6.0	≤ 50	90 - 95	≤ 6
St	≤ 10.0	≤ 70	90 - 100	≤ 6
Al	≤ 8.0	≤ 70	90 - 100	≤ 6
L12/L22				
Mat.	s	W	α	R (OW)
StSt	≤ 2.5	≤ 16	105 - 135	≤ 3
St	≤ 2.5	≤ 16	105 - 135	≤ 3
Al	≤ 2.5	≤ 16	105 - 135	≤ 3

For bigger tool radii restricted angle measurements ranges are valid!
 Angles of 120°-135° possible, depending on the sensor and application.



Punch



Delivery time: ex warehouse		
OW280/K	Radius:	R0,5 mm
	Angle:	80°
	Height:	140 mm
	Mat. No.	Price
VAR. B		
4050	1203552	- EUR
3050	1203551	- EUR
2550	1203550	- EUR
2050	1202371	- EUR
1250	0994475	- EUR
1050	1483114	- EUR
VAR. A		
2050	1203506	- EUR
1250	1203505	- EUR
1050	1607695	- EUR
550	1587197	- EUR
Block 250		
250	0994474	- EUR
Block 150		
150	1207217	- EUR
SINGLE		
500	0994464	- EUR
300	0994463	- EUR
200	0994462	- EUR
100	0994465	- EUR
Horn left 100	0994472	- EUR
Horn right 100	0994473	- EUR
50	0994471	- EUR
45	0994470	- EUR
40	0994469	- EUR
35	0994468	- EUR
30	0994467	- EUR
25	0994466	- EUR
20	1465755	- EUR
15	1465754	- EUR
10	1293086	- EUR

Lengths in [mm]

Technical data



400 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



30,8 kg/m



~60 HRC

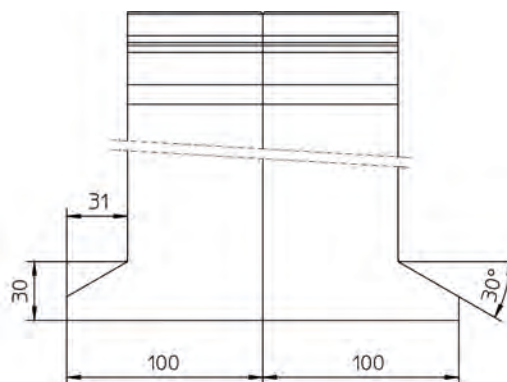


78 mm

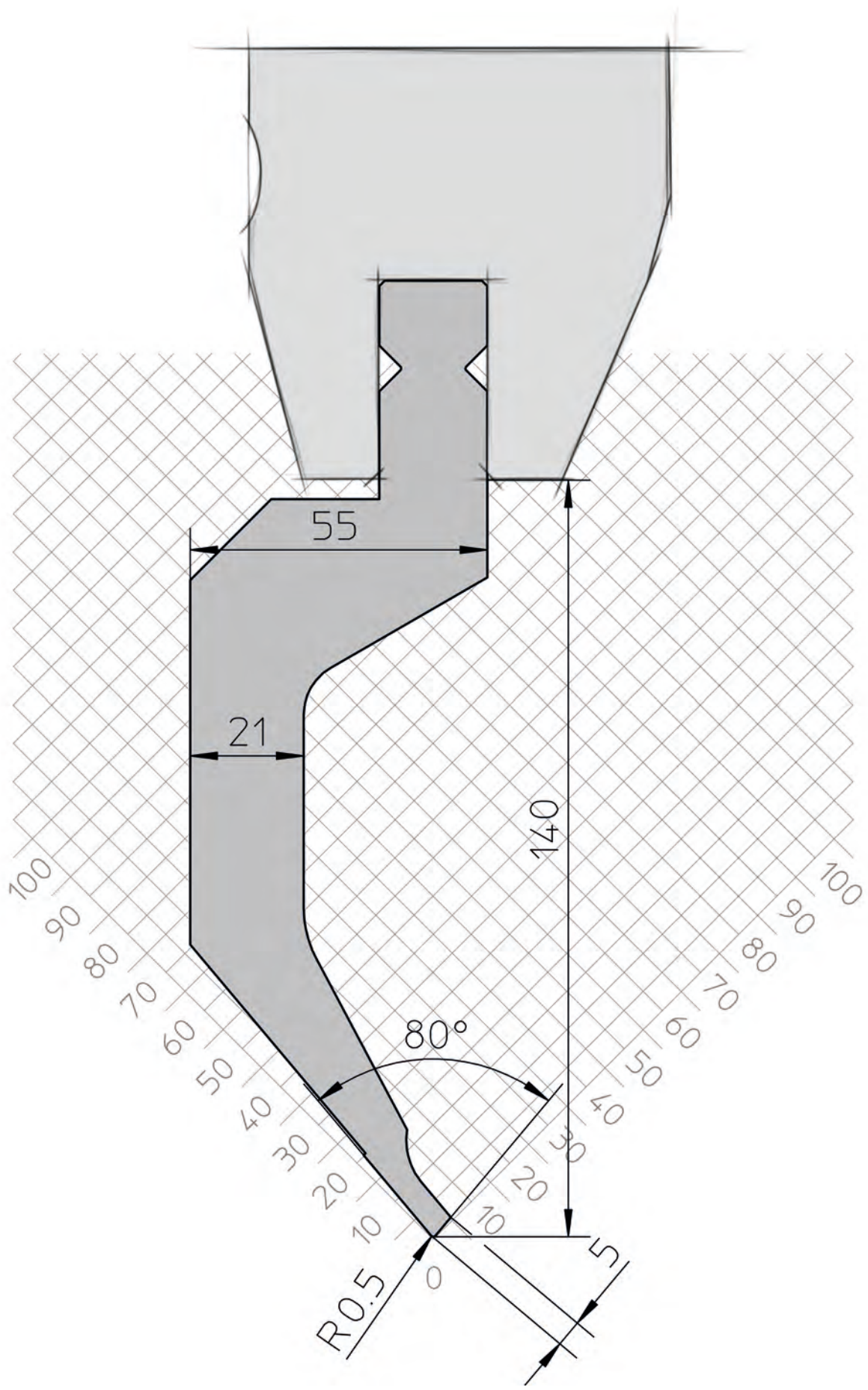


10 mm - 300 mm

Horn left / right

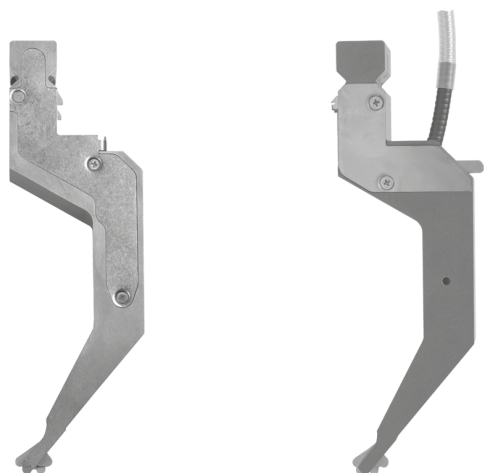








Sensor tool



Delivery time: ex warehouse

ACB OW280/K		Radius:	R0,5 mm
		Angle:	80°
		Height:	140 mm
		Mat. No.	Price
ACB Wireless			
Sensor tool 25	1942753		- EUR
Initial equipment	2040912		- EUR
ACB			
Sensor tool 25	1206823		- EUR
Initial equipment 2.G	1273600		- EUR
Sensor disk			
L14	1206832		- EUR
L10	1206830		- EUR
L08	1206831		- EUR
L05	1206829		- EUR

The sensor disks marked with a star (*) are included in the sensor tool scope of delivery.

Sensor disks OW 280/K



L5/L10 *				
Mat.	s	W	α	R (OW)
StSt	≤ 1.0	≤ 8	85 - 110	≤ 1.0
St	≤ 1.5	≤ 10	85 - 110	≤ 1.5
Al	≤ 1.5	≤ 10	85 - 110	≤ 1.5
L8/L14 *				
Mat.	s	W	α	R (OW)
StSt	≤ 2.0	≤ 12	85 - 110	≤ 2.0
St	≤ 2.5	≤ 16	85 - 110	≤ 2.5
Al	≤ 2.5	≤ 16	85 - 110	≤ 2.5

For bigger tool radii restricted angle measurements ranges are valid!
Angles of 120°-135° possible, depending on the sensor and application.



Punch



Delivery time: ex warehouse

OW201/K	Radius:	R1,0 mm
	Angle:	86°
	Height:	120 mm
	Mat. No.	Price
VAR. B		
4050	0823918	- EUR
3050	0823917	- EUR
2550	0835179	- EUR
2050	0823916	- EUR
1250	0825685	- EUR
1050	0867269	- EUR
VAR. A		
2050	0823912	- EUR
1250	0825684	- EUR
1050	1576193	- EUR
550	1606659	- EUR
Block 250		
250	0825683	- EUR
SINGLE		
500	0823908	- EUR
300	0823907	- EUR
200	0823905	- EUR
100	0824548	- EUR
Horn left 100	0824542	- EUR
Horn right 100	0824545	- EUR
50	0824539	- EUR
45	0824537	- EUR
40	0824534	- EUR
35	0824531	- EUR
30	0824525	- EUR
25	0824523	- EUR
20	0855800	- EUR
15	0855799	- EUR
10	0855798	- EUR

Lengths in [mm]

Technical data



800 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



24,0 kg/m



~60 HRC

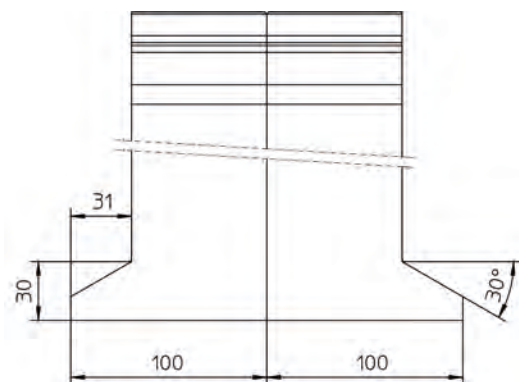


64 mm



10 mm - 500 mm

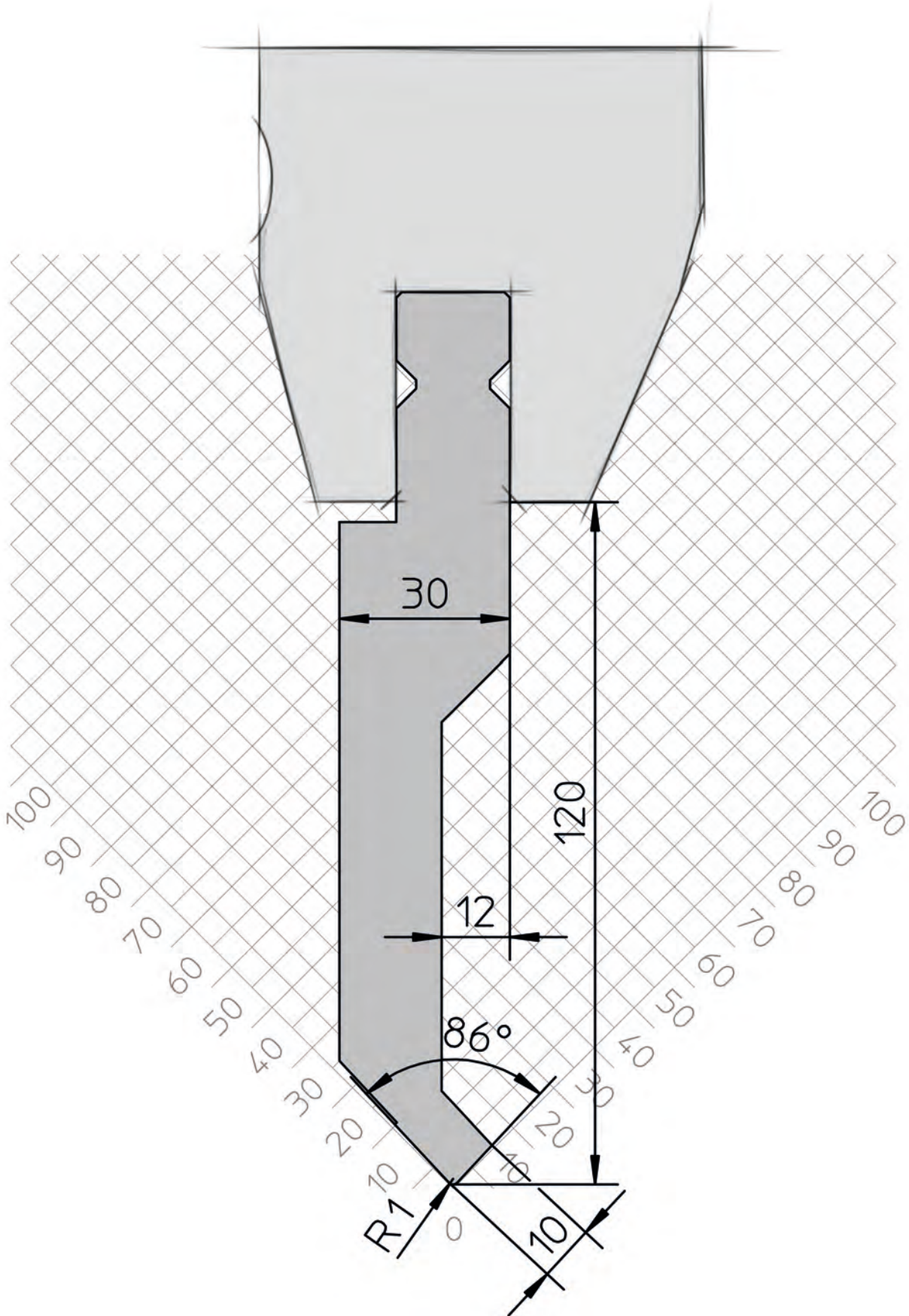
Horn left / right





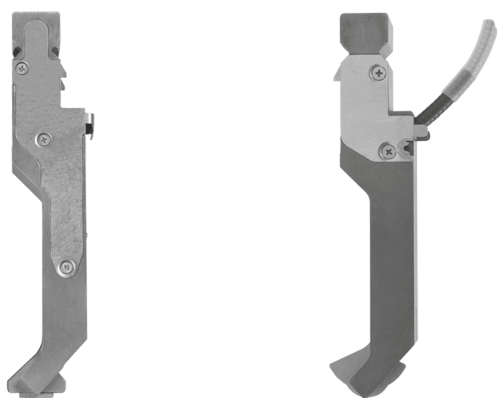
More working radii									Delivery time: 2 weeks
OW201/K	R0,5	R1,6	R2	R2,3	R2,5	R3	R3,2	R4	Radius Angle Height
	86°	86°	86°	86°	86°	86°	86°	86°	
	119,8	119,4	119,2	119	119	118,8	118,6	118,2	
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price
VAR. B									
4050	0868497	0868656	0826169	0868679	0868688	0868697	0868711	0868719	- EUR
3050	0846122	0839398	0826168	0839402	0859508	0831479	0839406	0859510	- EUR
2550	0868496	0839397	0868660	0839401	0868687	0859662	0839405	0868718	- EUR
2050	0868495	0839396	0826167	0839400	0868686	0850134	0839404	0868717	- EUR
1250	0868494	0839395	0826166	0839399	0868685	0831153	0839403	0848067	- EUR
1050	1871251	1827392	1679400	1871265	1871284	1871313	1871319	1871347	- EUR
VAR. A									
2050	0868490	0868652	0826163	0868675	0868681	0868693	0868707	0868713	- EUR
1250	0868489	0868651	0826162	0868674	0868680	0868692	0868706	0868712	- EUR
1050	1576195	1827391	1871260	1871267	1871283	1871312	1871318	1871346	- EUR
550	1859495	1827360	1871259	1871266	1871282	1751926	1871317	1871345	- EUR
Block 250									
250	0846121	0840090	0826161	0840114	0859507	0831151	0840137	0848066	- EUR
SINGLE									
500	0846113	0840077	0826150	0840100	0845638	0831139	0840124	0848055	- EUR
300	0846112	0840076	0826149	0840099	0859493	0831138	0840123	0848054	- EUR
200	0846111	0840075	0826148	0840098	0859492	0831137	0840122	0834059	- EUR
100	0831586	0840086	0826159	0840112	0845639	0831148	0840135	0834061	- EUR
Horn left 100	0846118	0840087	0826157	0840103	0859504	0831149	0840127	0848063	- EUR
Horn right 100	0846119	0840088	0826158	0840104	0859505	0831150	0840128	0848064	- EUR
50	0846110	0840085	0826156	0840111	0859499	0831147	0840134	0834060	- EUR
45	0846109	0840084	0826155	0840109	0859498	0831146	0840133	0848060	- EUR
40	0846108	0840083	0826154	0840108	0859497	0831145	0840132	0848059	- EUR
35	0846107	0840082	0826153	0840107	0859496	0831144	0840131	0848058	- EUR
30	0846106	0840081	0826152	0840106	0859495	0831143	0840130	0848057	- EUR
25	0846105	0840080	0826151	0840105	0859494	0831142	0840129	0848056	- EUR
20	1739016	1827395	1865852	1871270	1871287	1871316	1871342	1871350	- EUR
15	1739015	1827394	1865851	1871269	1871286	1871315	1871341	1871349	- EUR
10	1739014	1827393	1865830	1871268	1871285	1871314	1871320	1871348	- EUR

Lengths, radius and height in [mm]





Sensor tool

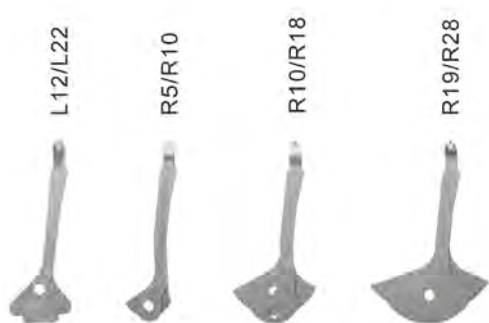


Delivery time: ex warehouse

ACB OW201/K	Radius:	R1,0 mm
	Angle:	86°
	Height:	120 mm
	Mat. No.	Price
ACB Wireless		
Sensor tool 25	2040404	- EUR
Initial equipment	2040989	- EUR
ACB		
Sensor tool 25	0902755	- EUR
Initial equipment 2.G	1273590	- EUR
Sensor disk		
L22	0912271	- EUR
L12	0912270	- EUR
R28	0907795	- EUR
R19	0907796	- EUR
R18	0907792	- EUR
R10	0907793	- EUR
R05	0907794	- EUR

The sensor disks marked with a star (*) are included in the sensor tool scope of delivery.

Sensor disks OW 201/K



R5/R10 *				
Mat.	s	W	α	R (OW)
StSt	≤ 2.5	≤ 16	90 - 95	≤ 2
St	≤ 2.5	≤ 16	90 - 105	≤ 2
Al	≤ 2.5	≤ 16	90 - 105	≤ 2
R10/R18 *				
Mat.	s	W	α	R (OW)
StSt	≤ 3.0	≤ 20	90 - 100	≤ 4
St	≤ 4.0	≤ 24	90 - 105	≤ 4
Al	≤ 4.0	≤ 24	90 - 105	≤ 4
R19/R28				
Mat.	s	W	α	R (OW)
StSt	≤ 6.0	≤ 50	90 - 95	≤ 6
St	≤ 10.0	≤ 70	90 - 100	≤ 6
Al	≤ 8.0	≤ 70	90 - 100	≤ 6
L12/L22				
Mat.	s	W	α	R (OW)
StSt	≤ 2.5	≤ 16	105 - 135	≤ 3
St	≤ 2.5	≤ 16	105 - 135	≤ 3
Al	≤ 2.5	≤ 16	105 - 135	≤ 3

For bigger tool radii restricted angle measurements ranges are valid!
Angles of 120°-135° possible, depending on the sensor and application.



Punch



Delivery time: ex warehouse

OW202/K	Radius:	R1,0 mm
	Angle:	28°
	Height:	120 mm
	Mat. No.	Price
VAR. B		
4050	0823827	- EUR
3050	0823826	- EUR
2550	0835183	- EUR
2050	0823825	- EUR
1250	0825705	- EUR
1050	0867272	- EUR
VAR. A		
2050	0823822	- EUR
1250	0825704	- EUR
1050	1579145	- EUR
550	1606730	- EUR
Block 250		
250	0825658	- EUR
SINGLE		
500	0823820	- EUR
300	0823819	- EUR
200	0823818	- EUR
100	0824603	- EUR
Horn left 100	0824599	- EUR
Horn right 100	0824601	- EUR
50	0824598	- EUR
45	0824597	- EUR
40	0824596	- EUR
35	0824595	- EUR
30	0824594	- EUR
25	0824593	- EUR
20	0827316	- EUR
15	0838227	- EUR
10	0838228	- EUR

Lengths in [mm]

Technical data



600 kN/m



800 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



19,5 kg/m



~60 HRC

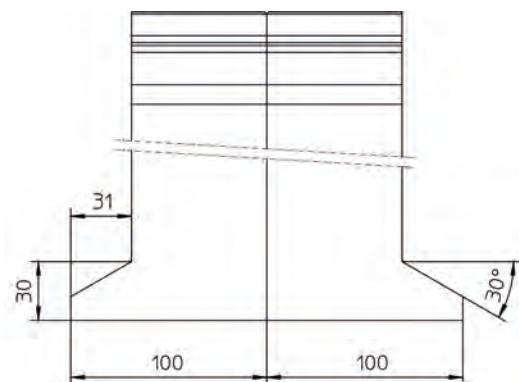


64 mm



10 mm - 500 mm

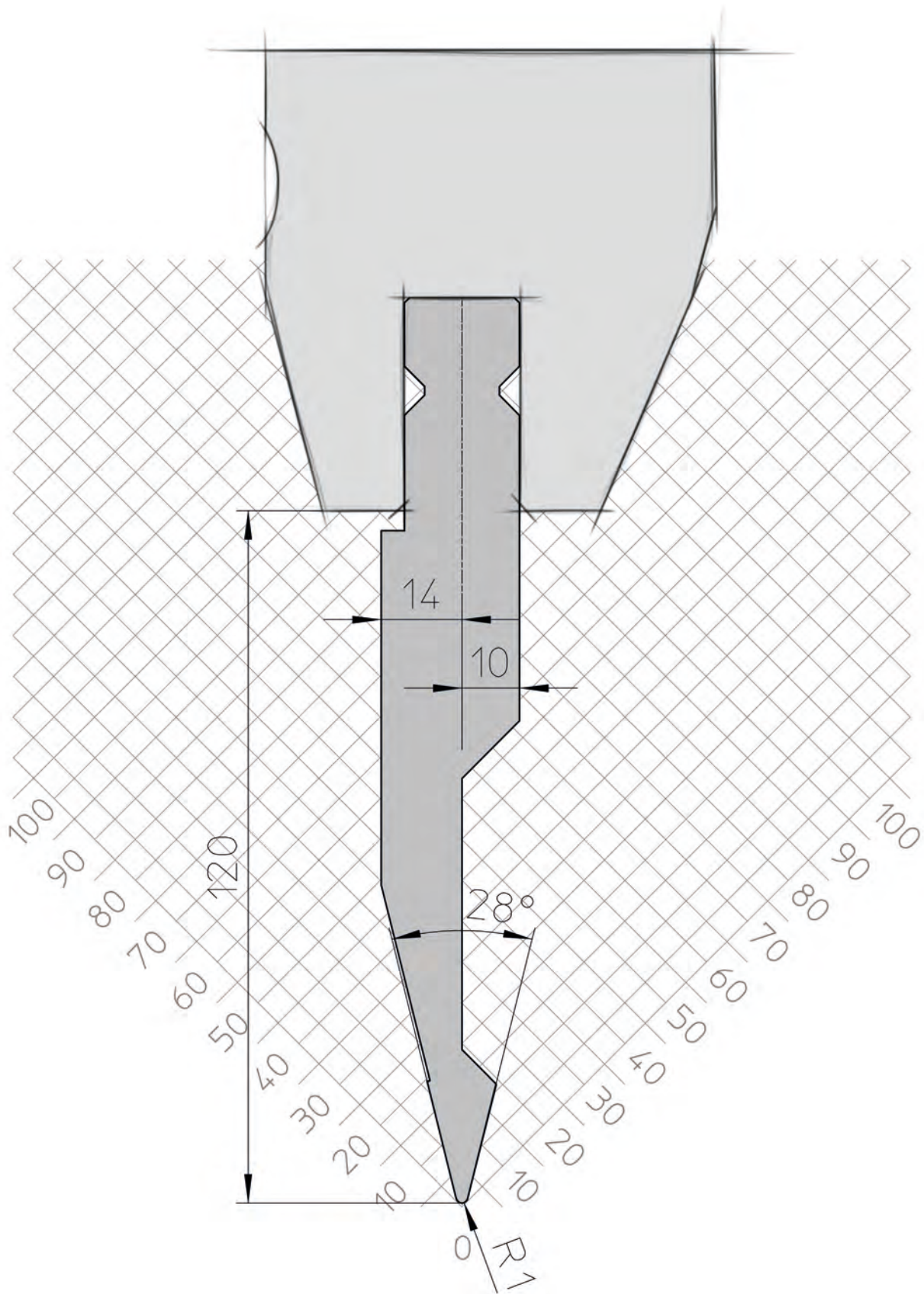
Horn left / right





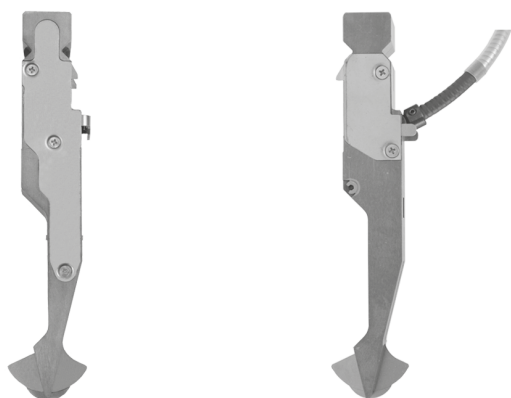
More working radii									Delivery time: 2 weeks
OW202/K	R0,5	R1,6	R2	R2,3	R2,5	R3	R3,2	R4	Radius Angle Height
	28°	28°	28°	28°	28°	28°	28°	28°	
	119,8	117,2	116	115,1	114,4	112,8	112,7	109,8	
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price
VAR. B									
4050	0868521	0868551	0868558	0868564	0868631	0868639	0868644	0868650	- EUR
3050	0829264	0839414	0848038	0839392	0859511	0868638	0839389	0840414	- EUR
2550	0868520	0839413	0868557	0837579	0856001	0868637	0837580	0856002	- EUR
2050	0866975	0839412	0848443	0839393	0827267	0832092	0839390	0842426	- EUR
1250	0839904	0839411	0841286	0839394	0831538	0850922	0839391	0848582	- EUR
1050	1648152	1593248	1673024	1777766	1593265	1624505	1871627	1593283	- EUR
VAR. A									
2050	0868516	0868547	0868553	0868560	0868627	0868633	0868640	0868646	- EUR
1250	0868515	0868546	0868552	0868559	0868626	0868632	0840008	0868645	- EUR
1050	1648151	1871508	1871592	1871597	1726409	1854721	1871626	1871630	- EUR
550	1648150	1871506	1651654	1871596	1863825	1672865	1651656	1651657	- EUR
Block 250									
250	0829262	0840067	0841285	0837836	0827266	0832091	0837892	0840413	- EUR
SINGLE									
500	0829249	0840054	0841274	0837823	0827253	0832078	0837879	0840400	- EUR
300	0829248	0840053	0841273	0837822	0827252	0832077	0837878	0840399	- EUR
200	0829247	0840052	0841272	0837821	0827251	0832076	0837877	0840398	- EUR
100	0829259	0840061	0841283	0837830	0827262	0832085	0837886	0840401	- EUR
Horn left 100	0829257	0840064	0841281	0837833	0827263	0832088	0837889	0840410	- EUR
Horn right 100	0829258	0840065	0841282	0837834	0827264	0832089	0837890	0840411	- EUR
50	0829256	0840060	0841280	0837829	0827261	0832084	0837885	0840407	- EUR
45	0829255	0840059	0841279	0837828	0827260	0832083	0837884	0840406	- EUR
40	0829254	0840058	0841278	0837827	0827259	0832082	0837883	0840405	- EUR
35	0829253	0840057	0841277	0837826	0827258	0832081	0837882	0840404	- EUR
30	0829252	0840056	0841276	0837825	0827257	0832080	0837881	0840403	- EUR
25	0829251	0840055	0841275	0837824	0827256	0832079	0837880	0840402	- EUR
20	1307813	1389671	0863282	1871595	1871621	0853722	1871625	1809416	- EUR
15	1307811	1389655	1809375	1871594	1871600	0853721	1871624	1809415	- EUR
10	0865760	1389652	1809374	1871593	1871599	0853720	1871623	1809414	- EUR

Lengths, radius and height in [mm]





Sensor tool

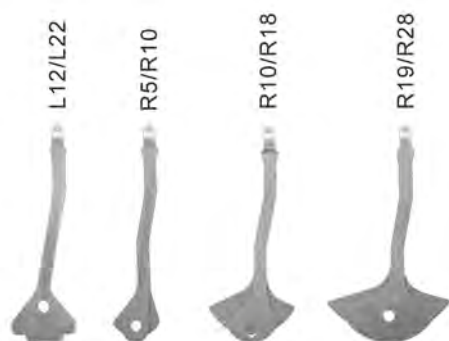


Delivery time: ex warehouse

ACB OW202/K	Radius:	R1,0 mm
	Angle:	28°
	Height:	120 mm
	Mat. No.	Price
ACB Wireless		
Sensor tool 25	1837174	- EUR
Initial equipment	2040986	- EUR
ACB		
Sensor tool 25	0902757	- EUR
Initial equipment 2.G	1273592	- EUR
Sensor disk		
L22	0912273	- EUR
L12	0912272	- EUR
R28	0902668	- EUR
R19	0904178	- EUR
R18	0901129	- EUR
R10	0901130	- EUR
R05	0902438	- EUR

The sensor disks marked with a star (*) are included in the sensor tool scope of delivery.

Sensor disks OW 202/K



R5/R10 *				
Mat.	s	W	α	R (OW)
StSt	≤ 2.5	≤ 16	75 - 95	≤ 2
St	≤ 2.5	≤ 16	75 - 105	≤ 2
Al	≤ 2.5	≤ 16	75 - 105	≤ 2
R10/R18 *				
Mat.	s	W	α	R (OW)
StSt	≤ 3.0	≤ 20	80 - 100	≤ 4
St	≤ 4.0	≤ 24	80 - 105	≤ 4
Al	≤ 4.0	≤ 24	80 - 105	≤ 4
R19/R28				
Mat.	s	W	α	R (OW)
StSt	≤ 6.0	≤ 50	85 - 95	≤ 6
St	≤ 10.0	≤ 70	85 - 100	≤ 6
Al	≤ 8.0	≤ 70	85 - 100	≤ 6
L12/L22				
Mat.	s	W	α	R (OW)
StSt	≤ 2.5	≤ 16	105 - 135	≤ 3
St	≤ 2.5	≤ 16	105 - 135	≤ 3
Al	≤ 2.5	≤ 16	105 - 135	≤ 3

For bigger tool radii restricted angle measurements ranges are valid!
Angles of 120°-135° possible, depending on the sensor and application.



Punch



Delivery time: ex warehouse

OW203/K	Radius:	R4,0 mm
	Angle:	60°
	Height:	120 mm
	Mat. No.	Price
VAR. B		
4050	0825385	- EUR
3050	0825384	- EUR
2550	0835187	- EUR
2050	0825383	- EUR
1250	0825711	- EUR
1050	0867273	- EUR
VAR. A		
2050	0825380	- EUR
1250	0825710	- EUR
1050	1606787	- EUR
550	1606786	- EUR
Block 250		
250	0825709	- EUR
SINGLE		
500	0825378	- EUR
300	0825377	- EUR
200	0825376	- EUR
100	0825394	- EUR
Horn left 100	0825392	- EUR
Horn right 100	0825393	- EUR
50	0825391	- EUR
45	0825390	- EUR
40	0825389	- EUR
35	0825388	- EUR
30	0825387	- EUR
25	0825386	- EUR
20	1247241	- EUR
15	1465780	- EUR
10	1465757	- EUR

Lengths in [mm]

Technical data



1800 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



23,8 kg/m



~60 HRC

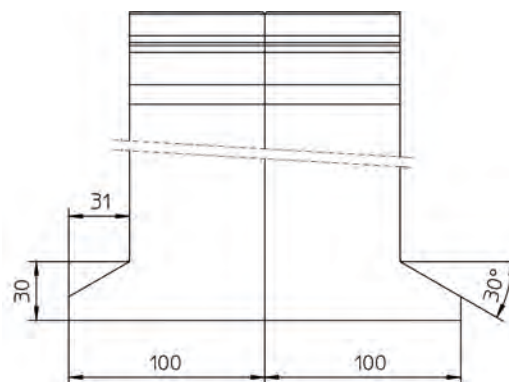


64 mm



10 mm - 500 mm

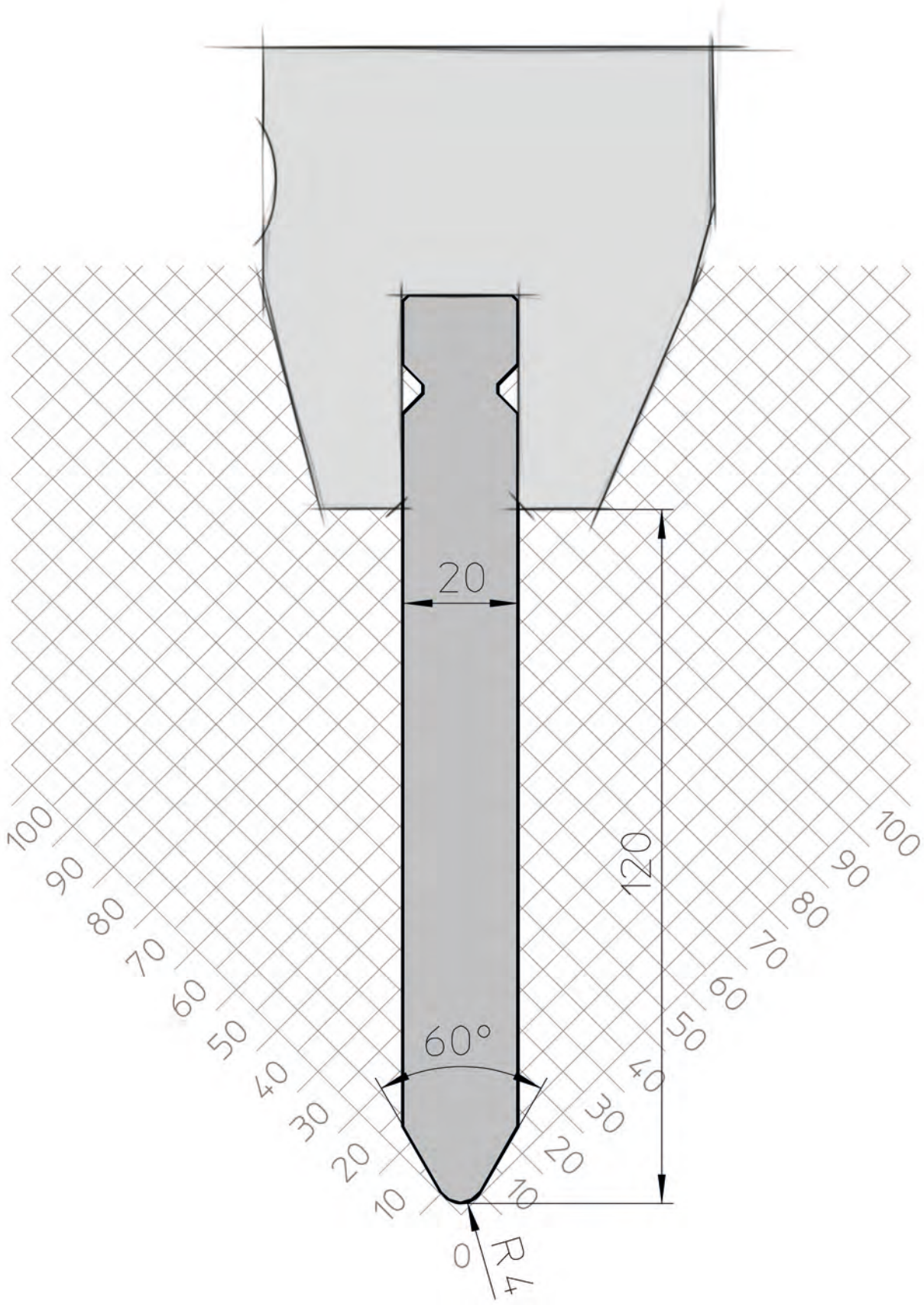
Horn left / right





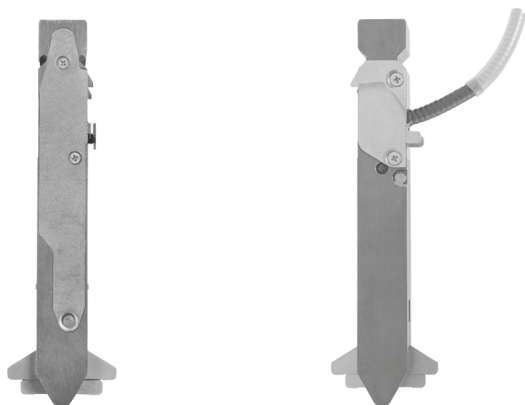
More working radii										Delivery time: 2 weeks
OW203/K	R2	R2,5	R3	R4,7	R5	R6	R6,35	R8	R10	Radius Angle Height Price
	60°	60°	60°	60°	60°	60°	60°	60°	10°	
	119,8	119,8	119,8	119,1	118,8	117,6	117,2	120	120	
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	
VAR. B										
4050	0868931	0868937	0869041	0853703	0869057	0826203	0845500	1325283	1867943	- EUR
3050	0868930	0854737	0847913	0869048	0862440	0826202	0865305	0837201	1358925	- EUR
2550	0868929	0855748	0869040	0837582	0869056	0847142	0852372	0849425	1445059	- EUR
2050	0867449	0865844	0840544	0869047	0855020	0826201	0842342	0841596	1207083	- EUR
1250	0842337	0846233	0839343	0858961	0864668	0826200	0869064	0831201	1246653	- EUR
1050	1657208	1871654	1699901	1871661	1701319	1727938	1835008	1737265	1667217	- EUR
VAR. A										
2050	0868925	0868933	0869036	0869043	0869052	0826197	0869060	2048330	2047825	- EUR
1250	0868924	0868932	0859049	0869042	0869051	0826196	0869059	0863783	2047824	- EUR
1050	1871653	1871656	1699900	1871663	1871665	1871668	1871669	2048329	2047823	- EUR
550	1871652	1871655	1699899	1871662	1871664	1772708	1651709	1773012	2047822	- EUR
Block 250										
250	0842336	0846234	0839357	0837915	0855019	0826195	0842515	0831193	0993996	- EUR
SINGLE										
500	0842322	0846225	0839349	0837902	0850704	0826182	0842504	0831180	0866627	- EUR
300	0842321	0846224	0839348	0837901	0855007	0826181	0842503	0831179	0994030	- EUR
200	0842320	0846223	0839347	0837900	0855006	0826180	0842502	0831178	0872099	- EUR
100	0842323	0839863	0830319	0837909	0850705	0826193	0842512	0831187	0852371	- EUR
Horn left 100	0842333	0846238	0839354	0837912	0855016	0826191	0842513	0831190	1206989	- EUR
Horn right 100	0842334	0846239	0839355	0837913	0855017	0826192	0842514	0831191	1207080	- EUR
50	0842329	0846231	0830990	0837908	0855013	0826190	0842511	0831186	0866628	- EUR
45	0842328	0846230	0839351	0837907	0855012	0826188	0842510	0831185	0993994	- EUR
40	0842327	0846229	0830989	0837906	0855011	0826187	0842509	0831184	0993993	- EUR
35	0842326	0846228	0830988	0837905	0855010	0826186	0842508	0831183	0993992	- EUR
30	0842325	0846227	0830987	0837904	0855009	0826184	0842507	0831182	0993991	- EUR
25	0842324	0846226	0839350	0837903	0855008	0826183	0842506	0831181	0993990	- EUR
20	1980615	1969911	0872719	1980715	1980718	1980733	1980740	2048328	2047821	- EUR
15	1455102	1969840	0872718	1980714	1980717	1980732	1980739	2048327	2047760	- EUR
10	1980614	1969839	0872717	1980713	1980716	1980731	1980737	2048326	2047759	- EUR

Lengths, radius and height in [mm]





Sensor tool



Delivery time: ex warehouse

ACB OW203/K		Radius:	R4,0 mm
		Angle:	60°
		Height:	120 mm
		Mat. No.	Price
ACB Wireless			
Sensor tool 25	1858869		- EUR
Initial equipment	2040985		- EUR
ACB			
Sensor tool 25	0902759		- EUR
Initial equipment 2.G	1273594		- EUR
Sensor disk			
L43	0908872		- EUR
L32	0908873		- EUR
L27	0919840		- EUR
L18	0919842		- EUR

The sensor disks marked with a star (*) are included in the sensor tool scope of delivery.

Sensor disks OW 203/K



L18/L27 *				
Mat.	s	W	α	R (OW)
StSt	≤ 4.0	≤ 24	85 - 105	≤ 4
St	≤ 4.0	≤ 24	85 - 105	≤ 4
Al	≤ 4.0	≤ 24	85 - 105	≤ 4
L32/L43 *				
Mat.	s	W	α	R (OW)
StSt	≤ 6.0	≤ 40	85 - 95	≤ 6
St	≤ 10.0	≤ 70	85 - 95	≤ 6
Al	≤ 10.0	≤ 70	85 - 95	≤ 6

For bigger tool radii restricted angle measurements ranges are valid!

Angles of 120°-135° possible, depending on the sensor and application.



Punch



Delivery time: ex warehouse

OW204/K	Radius:	R1,0 mm
	Angle:	86°
	Height:	120 mm
	Mat. No.	Price
VAR. B		
4050	1751096	- EUR
3050	1751094	- EUR
2550	1751092	- EUR
2050	1751090	- EUR
1250	1751088	- EUR
1050	1751086	- EUR
VAR. A		
2050	1751089	- EUR
1250	1751087	- EUR
1050	1751085	- EUR
550	1751084	- EUR
Block 250		
250	1751081	- EUR
SINGLE		
500	1751083	- EUR
300	1751082	- EUR
200	1751080	- EUR
100	1751077	- EUR
Horn left 100	1751078	- EUR
Horn right 100	1751079	- EUR
50	1751076	- EUR
45	1751075	- EUR
40	1751074	- EUR
35	1751073	- EUR
30	1751072	- EUR
25	1751071	- EUR
20	1751030	- EUR
15	1751029	- EUR
10	1751028	- EUR

Lengths in [mm]

Technical data



400 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



19,8 kg/m



~60 HRC

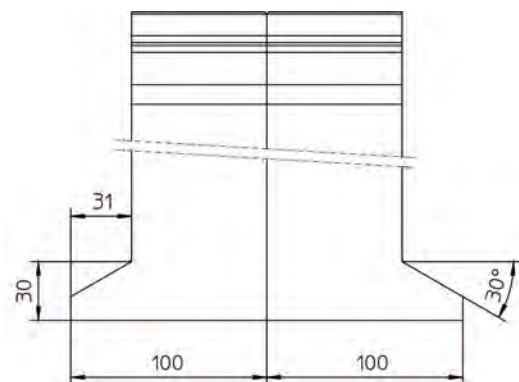


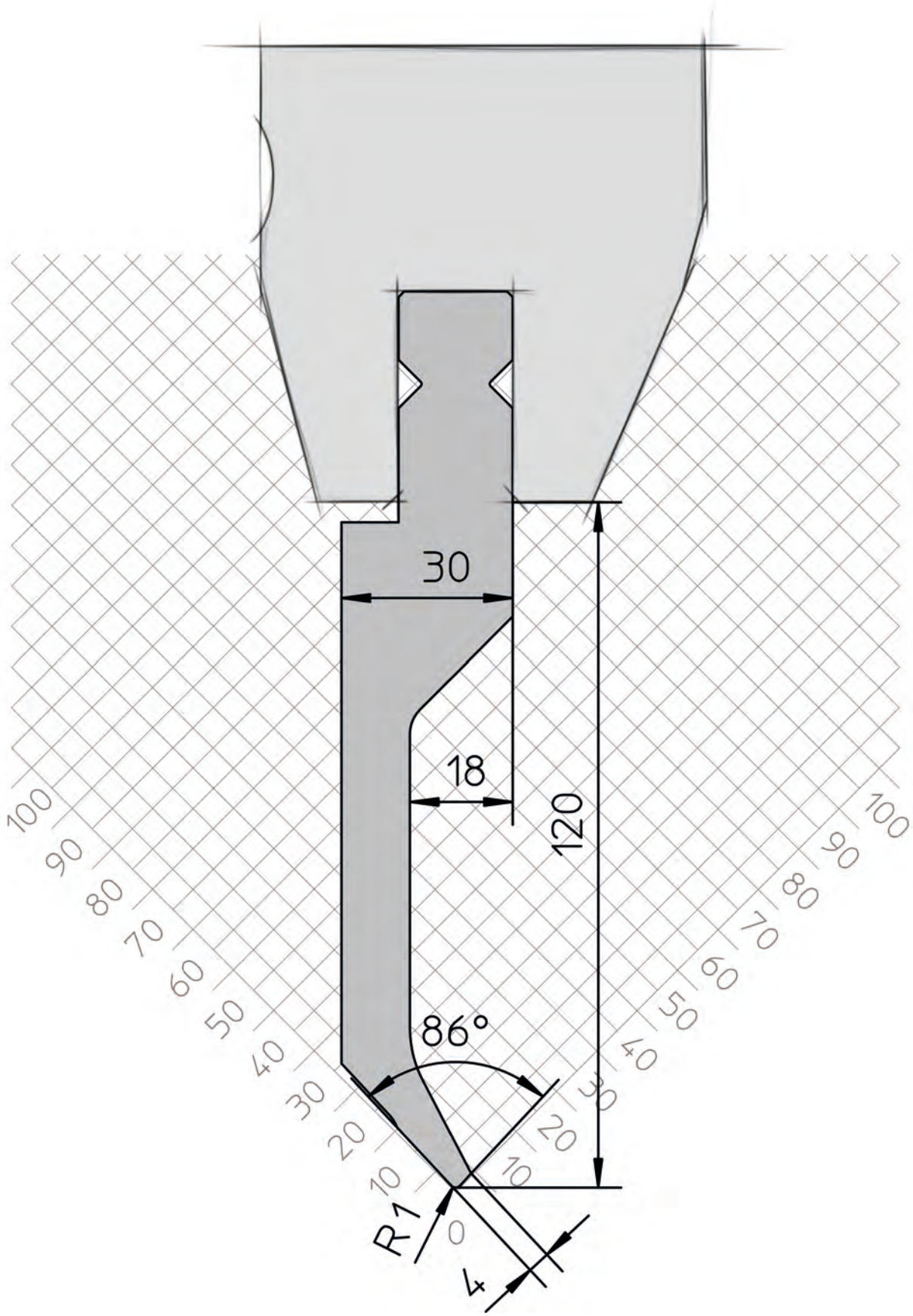
64 mm



10 mm - 500 mm

Horn left / right







Punch OW210/S H=140mm



Delivery time: ex warehouse

OW210	Radius:	R1,0 mm
	Angle:	28°
	Height:	140 mm
	Mat. No.	Price
VAR. B		
4050	0824010	- EUR
3050	0824008	- EUR
2550	0835193	- EUR
2050	0824006	- EUR
1250	0825720	- EUR
1050	0867279	- EUR
VAR. A		
2050	0824000	- EUR
1250	0825719	- EUR
1050	1576244	- EUR
550	1607489	- EUR
Block 250		
250	0825717	- EUR
SINGLE		
500	0823995	- EUR
300	0823993	- EUR
200	0823991	- EUR
100	0824653	- EUR
Horn left 100	0824651	- EUR
Horn right 100	0824652	- EUR
50	0824650	- EUR
45	0824649	- EUR
40	0824648	- EUR
35	0824647	- EUR
30	0824646	- EUR
25	0824641	- EUR
20	0836712	- EUR
15	0836711	- EUR
10	0836710	- EUR

Lengths in [mm]

Technical data



400 kN/m



1300 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



28,7 kg/m



~60 HRC

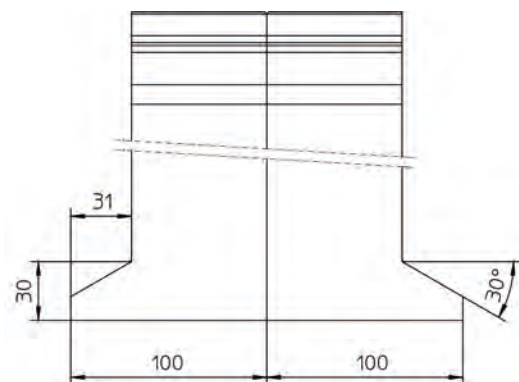


78 mm



25 mm - 300 mm

Horn left / right





More working radii

Delivery time: 2 weeks

OW210	R0,5 28° 139,8	Radius Angle Height
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Mat. No. Price

VAR. B

4050	0869246	- EUR
3050	0869245	- EUR
2550	0869244	- EUR
2050	0833957	- EUR
1250	0853694	- EUR
1050	1674937	- EUR

VAR. A

2050	0863333	- EUR
1250	0869240	- EUR
1050	1576245	- EUR
550	1727645	- EUR

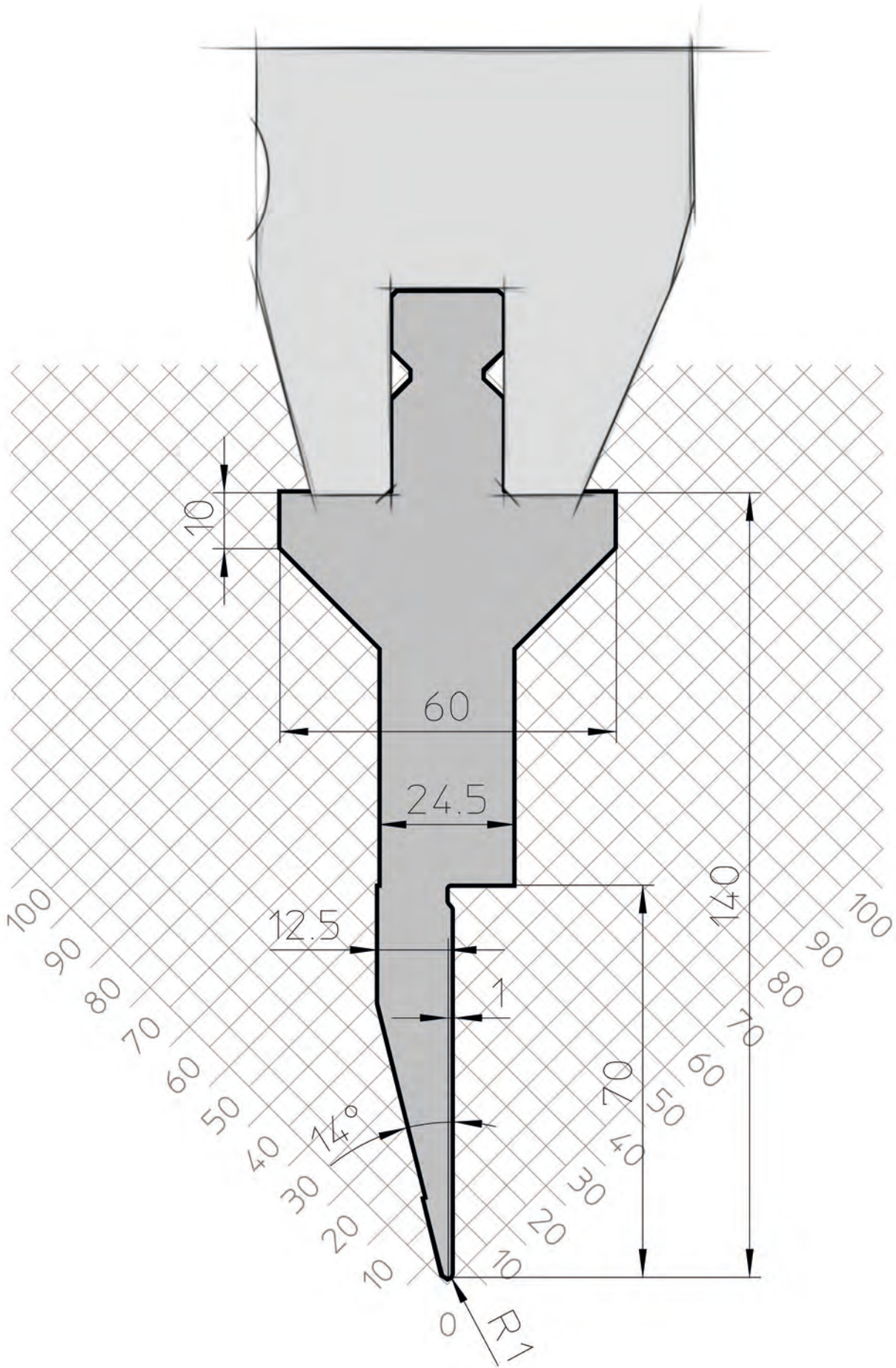
Block 250

250	0833991	- EUR
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SINGLE

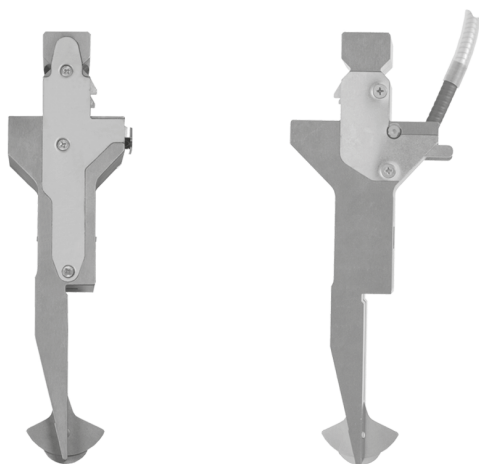
500	0833978	- EUR
300	0833977	- EUR
200	0833976	- EUR
100	0833985	- EUR
Horn left 100	0833988	- EUR
Horn right 100	0833989	- EUR
50	0833984	- EUR
45	0833983	- EUR
40	0833982	- EUR
35	0833981	- EUR
30	0833980	- EUR
25	0833979	- EUR
20	1498688	- EUR
15	1498687	- EUR
10	1451033	- EUR

Lengths, radius and height in [mm]





Sensor tool

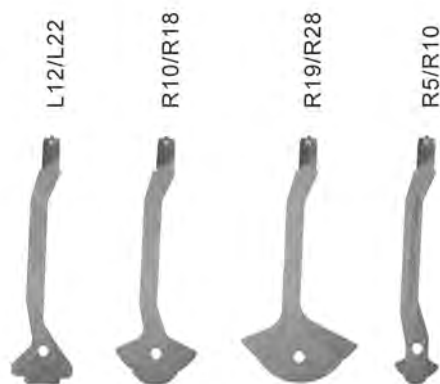


Delivery time: ex warehouse

ACB OW210		Radius:	R1,0 mm
		Angle:	28°
		Height:	140 mm
		Mat. No.	Price
ACB Wireless			
Sensor tool 25	1858870		- EUR
Initial equipment	2040984		- EUR
ACB			
Sensor tool 25	0902761		- EUR
Initial equipment 2.G	1273597		- EUR
Sensor disk			
L22	0912277		- EUR
L12	0912276		- EUR
R28	0902700		- EUR
R19	0904180		- EUR
R18	0902627		- EUR
R10	0902628		- EUR
R05	0902629		- EUR

The sensor disks marked with a star (*) are included in the sensor tool scope of delivery.

Sensor disks OW 210 - H140



R10/R18 *				
Mat.	s	W	α	R (OW)
StSt	≤ 3.0	≤ 20	80 - 100	≤ 4
St	≤ 4.0	≤ 24	80 - 105	≤ 4
Al	≤ 4.0	≤ 24	80 - 105	≤ 4
R19/R28				
Mat.	s	W	α	R (OW)
StSt	≤ 6.0	≤ 50	85 - 95	≤ 6
St	≤ 10.0	≤ 70	85 - 100	≤ 6
Al	≤ 8.0	≤ 70	85 - 100	≤ 6
R5/R10 *				
Mat.	s	W	α	R (OW)
StSt	≤ 2.5	≤ 16	75 - 95	≤ 2
St	≤ 2.5	≤ 16	75 - 105	≤ 2
Al	≤ 2.5	≤ 16	75 - 105	≤ 2
L12/L22				
Mat.	s	W	α	R (OW)
StSt	≤ 2.5	≤ 16	105 - 135	≤ 3
St	≤ 2.5	≤ 16	105 - 135	≤ 3
Al	≤ 2.5	≤ 16	105 - 135	≤ 3

For bigger tool radii restricted angle measurements ranges are valid!
Angles of 120°-135° possible, depending on the sensor and application.



Punches up to H = 300 mm

Punch



Delivery time: ex warehouse

OW200/S	Radius:	R1,0 mm
	Angle:	86°
	Height:	220 mm
Mat. No.	Price	
VAR. B		
4050	0823806	- EUR
3050	0823805	- EUR
2550	0835176	- EUR
2050	0823804	- EUR
1250	0825699	- EUR
1050	0867275	- EUR
VAR. A		
2050	0823801	- EUR
1250	0825698	- EUR
1050	1606802	- EUR
550	1606801	- EUR
Block 250		
250	0825697	- EUR
SINGLE		
300	0823799	- EUR
200	0823798	- EUR
100	0824549	- EUR
Horn left 100	0824481	- EUR
Horn right 100	0824482	- EUR
50	0824480	- EUR
45	0824479	- EUR
40	0824478	- EUR
35	0824477	- EUR
30	0824476	- EUR
25	0824475	- EUR

Lengths in [mm]

Technical data



800 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



65,8 kg/m



~60 HRC

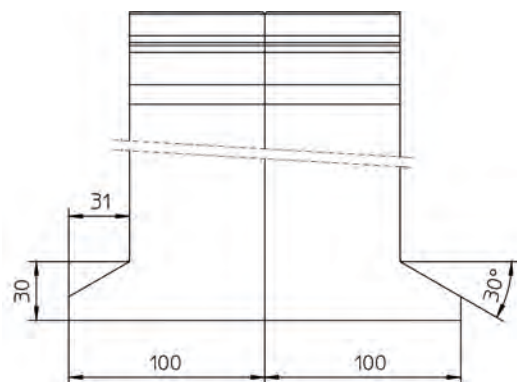


132 mm



25 mm - 200 mm

Horn left / right





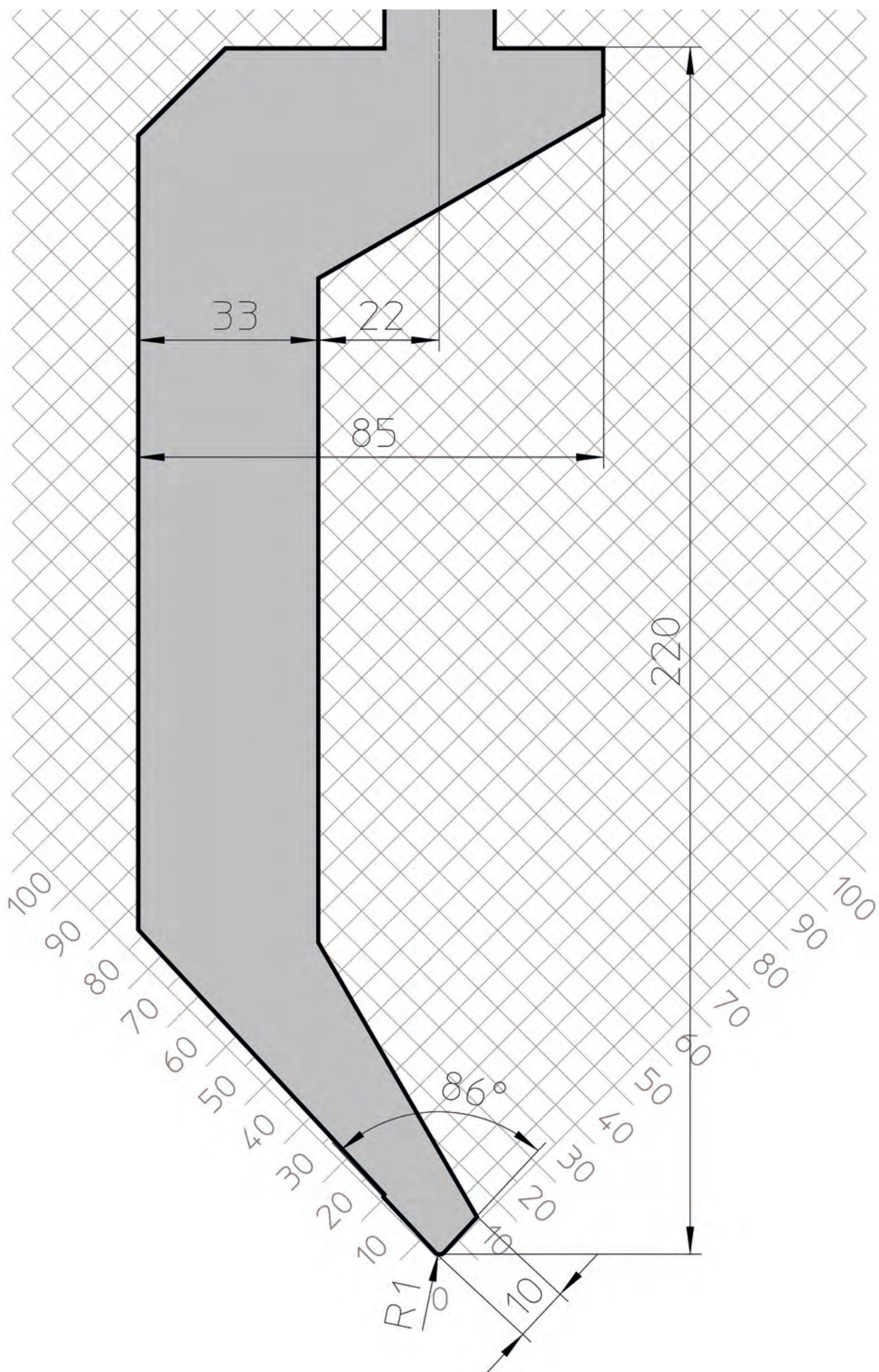
More working radii											Delivery time: 2 weeks
OW200/S	R0,5	R1,6	R2	R2,3	R2,5	R3	R3,2	R4	R5	R6	Radius Angle
	86°	86°	86°	86°	86°	86°	86°	86°	86°	86	Height
	219,8	219,2	219,2	219	218,7	218,5	218,5	218,3	217,8	217,5	Price
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price
VAR. B											
4050	0868415	0828060	0868437	0868470	0828090	0836797	0868485	0825969	0851629	1297183	- EUR
3050	0868414	0828059	0857218	0868469	0828089	0847467	0865362	0825968	0860540	0851946	- EUR
2550	0865720	0868418	0851010	0868468	0868473	0849135	0868484	0862529	0849134	0862530	- EUR
2050	0868413	0828058	0840936	0868467	0828088	0830780	0857669	0825967	0853549	0854879	- EUR
1250	0835648	0828054	0841064	0868466	0828087	0850119	0868483	0825966	0836742	0843708	- EUR
1050	1871735	1871752	1871756	1871782	1871832	1581018	1871835	1718990	1944549	1871840	- EUR
VAR. A											
2050	0868409	0828051	0868435	0868462	0828084	0835901	0868479	0825963	2466235	1766321	- EUR
1250	0868408	0828050	0868434	0868461	0828083	0868474	0868478	0825962	2330453	0859122	- EUR
1050	1871737	1871753	1871757	1871783	1871833	1581017	1871836	1871838	1688297	1871851	- EUR
550	1871736	1871754	1871758	1871784	1871834	1581016	1871837	1871839	2268612	1700246	- EUR
Block 250											
250	0835646	0828048	0840958	0868460	0828081	0830778	0857854	0825960	0836741	0843707	- EUR
SINGLE											
300	0835634	0828036	0840947	0868447	0828069	0830766	0857822	0825958	0836728	0837052	- EUR
200	0835633	0828035	0840946	0868446	0828068	0830765	0857821	0825957	0836727	0843695	- EUR
100	0835644	0828045	0840956	0868448	0828078	0830773	0857823	0825979	0836735	0837053	- EUR
Horn left 100	0835642	0828046	0840954	0868457	0828079	0830776	0857849	0825977	0836738	0843704	- EUR
Horn right 100	0835643	0828047	0840955	0868458	0828080	0830777	0857851	0825978	0836739	0843705	- EUR
50	0835641	0828044	0840953	0868454	0828077	0830772	0857829	0825976	0836734	0843703	- EUR
45	0835640	0828043	0840952	0868453	0828076	0830771	0857828	0825975	0836733	0843702	- EUR
40	0835639	0828042	0840951	0868452	0828075	0830770	0857827	0825974	0836732	0843701	- EUR
35	0835638	0828041	0840950	0868451	0828074	0830769	0857826	0825973	0836731	0843700	- EUR
30	0835637	0828040	0840949	0868450	0828073	0830768	0857825	0825971	0836730	0843699	- EUR
25	0835636	0828039	0840948	0868449	0828072	0830767	0857824	0825970	0836729	0843698	- EUR

Lengths, radius and height in [mm]

More working radii											Delivery time: 3 weeks
OW200/S	R0,5	R1,6	R2	R2,3	R2,5	R3	R3,2	R4	R5	R6	Radius Angle
	86°	86°	86°	86°	86°	86°	86°	86°	86°	86	Height
	219,8	219,2	219,2	219	218,7	218,5	218,5	218,3	217,8	218,5	Price
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price
ACB Wireless											
Sensor tool 25	2289882	2298105	2285738	2298110	2298238	2298263	2298268	2298274	2466827	2284790	- EUR
Initial equipment	2289883	2298106	2285739	2298151	2298239	2298264	2298269	2298275	2466828	2284881	- EUR
ACB											
Sensor tool 25	1285225	0987320	0933594	1602978	0957801	0951078	1271775	0951079	0951080	0951081	- EUR
Initial equipment 2.G	1408977	1397876	1282571	1602990	1354761	1282572	1598742	1282573	1431450	1464788	- EUR
Sensor disk											
L43	0949405	0949405	0949405	0949405	0949405	0949405	0949405	1410933	0949405	1410933	- EUR
L33	0949404	0949404	0949404	0949404	0949404	0949404	0949404	1410931	0949404	1410931	- EUR
L27	0949406	0949406	0949406	0949406	0949406	0949406	0949406	0949406	0949406	0949406	- EUR
L17	0949402	0949402	0949402	0949402	0949402	0949402	0949402	0949402	0949402	0949402	- EUR
L15	0949407	0949407	0949407	0949407							- EUR
L09	0949403	0949403	0949403	0949403							- EUR

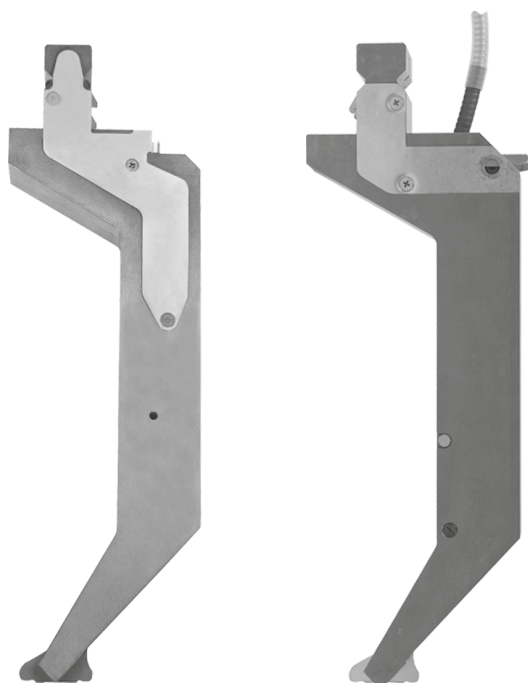
Radius and height in [mm]

Refer to the standard sensor tool for the scope of delivery of the sensor discs included with the sensor tool.





Sensor tool



Delivery time: ex warehouse

ACB OW200/S		Radius:	R1,0 mm
		Angle:	86°
		Height:	220 mm
		Mat. No.	Price
ACB Wireless			
Sensor tool 25	1873173		- EUR
Initial equipment	2040281		- EUR
ACB			
Sensor tool 25	0938411		- EUR
Initial equipment 2.G	1273589		- EUR
Sensor disk			
L43	0949405		- EUR
L33	0949404		- EUR
L27	0949406		- EUR
L17	0949402		- EUR
L15	0949407		- EUR
L09	0949403		- EUR

The sensor disks marked with a star (*) are included in the sensor tool scope of delivery.

Sensor disks OW 200/S



L15/L9 *				
Mat.	s	W	α	R (OW)
StSt	≤ 2.0	≤ 16	90 - 105	≤ 2
St	≤ 2.0	≤ 12	90 - 135	≤ 2
Al	≤ 2.0	≤ 12	90 - 135	≤ 2
L27/L17 *				
Mat.	s	W	α	R (OW)
StSt	≤ 3.0	≤ 24	90 - 135	≤ 4
St	≤ 4.0	≤ 30	90 - 135	≤ 4
Al	≤ 4.0	≤ 24	90 - 135	≤ 4
L43/L33				
Mat.	s	W	α	R (OW)
StSt	≤ 6.0	≤ 50	90 - 135	≤ 6
St	≤ 10.0	≤ 70	90 - 135	≤ 6
Al	≤ 10.0	≤ 70	90 - 135	≤ 6

For bigger tool radii restricted angle measurements ranges are valid!

Angles of 120°-135° possible, depending on the sensor and application.



Punch



Delivery time: ex warehouse

OW300/S	Radius:	R1,0 mm
	Angle:	86°
	Height:	300 mm
Mat. No.	Price	
VAR. B		
4050	1420642	- EUR
3050	1420640	- EUR
2550	1420638	- EUR
2050	1420636	- EUR
1250	1420634	- EUR
1050	1607677	- EUR
VAR. A		
2050	1420635	- EUR
1250	1420633	- EUR
1050	1607676	- EUR
550	1607675	- EUR
Block 250		
250	1420632	- EUR
SINGLE		
200	1420630	- EUR
100	1420613	- EUR
Horn left 100	1420627	- EUR
Horn right 100	1420629	- EUR
50	1420625	- EUR
45	1420623	- EUR
40	1420621	- EUR
35	1420619	- EUR
30	1420617	- EUR
25	1420615	- EUR

Lengths in [mm]

Technical data



800 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



98,8 kg/m



~60 HRC

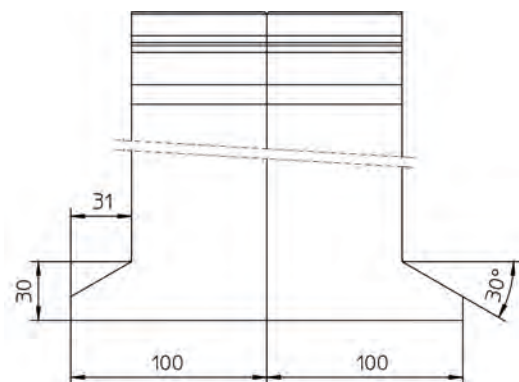


185 mm



25 mm - 100 mm

Horn left / right



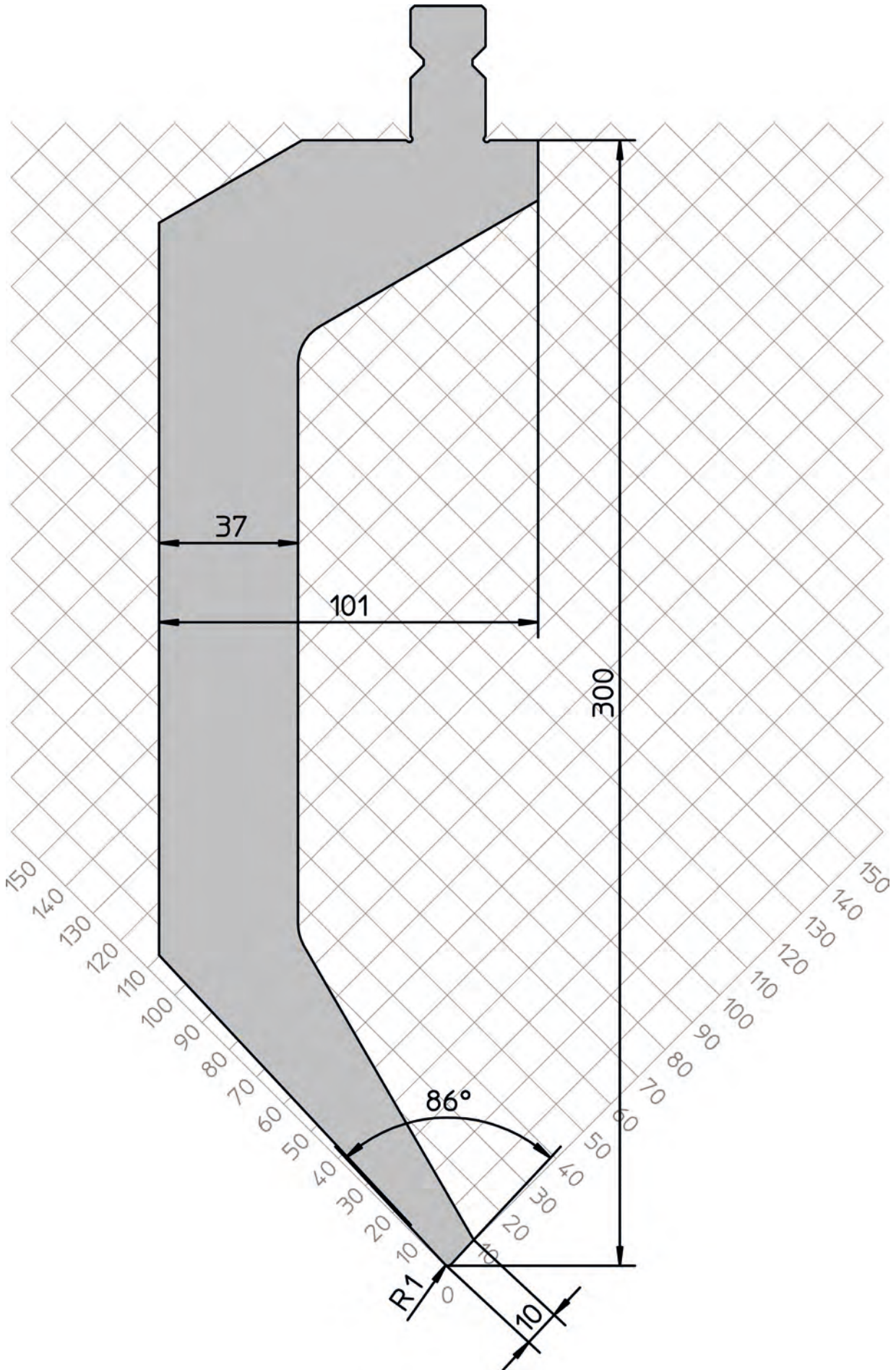
More working radii						Delivery time: 3 weeks
OW300/S	R2	R3	R4	R5	R6	Radius Angle Height
	86°	86°	86°	86°	86°	
	299,2	298,5	298,3	297,8	297,5	
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price
VAR. B						
4050	2051381	2042778	1469391	1871570	1626716	- EUR
3050	1950571	1717419	1469389	1871569	1626714	- EUR
2550	2051380	2051433	1469387	1871568	1626712	- EUR
2050	2051379	1819815	1469385	1871567	1626710	- EUR
1250	2002308	2019399	1469383	1871566	1626708	- EUR
1050	2051378	2051431	2031673	1871565	1626706	- EUR
VAR. A						
2050	2051372	1839037	1469384	1871561	1626709	- EUR
1250	1871337	1871339	1469382	1871540	1626707	- EUR
1050	2051371	2051417	2031672	1871539	1626705	- EUR
550	2051330	2051416	2052149	1871538	1626704	- EUR
Block 250						
250	1871336	1717418	1469381	1871582	1626701	- EUR
SINGLE						
200	1780744	1717417	1469377	1871581	1626700	- EUR
100	1780743	1717414	1469360	1871577	1626687	- EUR
Horn left 100	1871334	1717415	1469374	1871583	1626688	- EUR
Horn right 100	1871335	1717416	1469376	1871584	1626689	- EUR
50	1871333	1717413	1469372	1871576	1626686	- EUR
45	1871332	1717412	1469370	1871575	1626685	- EUR
40	1871331	1717411	1469368	1871574	1626684	- EUR
35	1871310	1717410	1469366	1871573	1626683	- EUR
30	1871309	1717389	1469364	1871572	1626682	- EUR
25	1871308	1717388	1469362	1871571	1626681	- EUR

Lengths, radius and height in [mm]

More working radii						Delivery time: 3 weeks
OW300/S	R2	R3	R4	R5	R6	Radius Angle Height
	86°	86°	86°	86°	86°	
	299,2	298,5	298,3	297,8	297,5	
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price
ACB Wireless						
Sensor tool 25	2300008	2300073	2300078	2300083	2300089	- EUR
Initial equip- ment	2300009	2300074	2300079	2300084	2300090	- EUR
ACB						
Sensor tool 25	2044648	1754493	2044973	2045066	2045150	- EUR
Initial equip- ment 2.G	2044708	1754495	2045090	2045155	2045279	- EUR
Sensor disk						
L43	1434055	1434055	1434055	1434055	1434055	- EUR
L33	1434130	1434130	1434130	1434130	1434130	- EUR
L27	1430773	1430773	1430773	1430773	1430773	- EUR
L17	1430828	1430828	1430828	1430828	1430828	- EUR
L15	1434132					- EUR
L09	1434181					- EUR

Radius and height in [mm]

Refer to the standard sensor tool for the scope of delivery of the sensor discs included with the sensor tool.





Sensor tool



Delivery time: ex warehouse

ACB OW300/S		Radius:	R1,0 mm
		Angle:	86°
		Height:	300 mm
		Mat. No.	Price
ACB Wireless			
Sensor tool 25	2041796		- EUR
Initial equipment	2042076		- EUR
ACB			
Sensor tool 25	1428673		- EUR
Initial equipment 2.G	1428666		- EUR
Sensor disk			
L43	1434055		- EUR
L33	1434130		- EUR
L27	1430773		- EUR
L17	1430828		- EUR
L15	1434132		- EUR
L09	1434181		- EUR

The sensor disks marked with a star (*) are included in the sensor tool scope of delivery.

Sensor disks OW 300/S



L15/L9 *				
Mat.	s	W	α	R (OW)
StSt	≤ 2.0	≤ 16	90 - 105	≤ 2
St	≤ 2.0	≤ 12	90 - 135	≤ 2
Al	≤ 2.0	≤ 12	90 - 135	≤ 2
L27/L17 *				
Mat.	s	W	α	R (OW)
StSt	≤ 3.0	≤ 24	90 - 135	≤ 4
St	≤ 4.0	≤ 30	90 - 135	≤ 4
Al	≤ 4.0	≤ 24	90 - 135	≤ 4
L43/L33				
Mat.	s	W	α	R (OW)
StSt	≤ 6.0	≤ 50	90 - 135	≤ 6
St	≤ 10.0	≤ 70	90 - 135	≤ 6
Al	≤ 10.0	≤ 70	90 - 135	≤ 6

For bigger tool radii restricted angle measurements ranges are valid!

Angles of 120°-135° possible, depending on the sensor and application.



Punch



Delivery time: ex warehouse

OW201/S	Radius:	R1,0 mm
	Angle:	86°
	Height:	220 mm
	Mat. No.	Price
VAR. B		
4050	0823966	- EUR
3050	0823965	- EUR
2550	0835181	- EUR
2050	0823964	- EUR
1250	0825702	- EUR
1050	0867276	- EUR
VAR. A		
2050	0823961	- EUR
1250	0825701	- EUR
1050	1606923	- EUR
550	1606922	- EUR
Block 250		
250	0825700	- EUR
SINGLE		
300	0823959	- EUR
200	0823958	- EUR
100	0824580	- EUR
Horn left 100	0824578	- EUR
Horn right 100	0824579	- EUR
50	0824577	- EUR
45	0824574	- EUR
40	0824572	- EUR
35	0824569	- EUR
30	0824568	- EUR
25	0824566	- EUR
20	0842991	- EUR
15	0842990	- EUR
10	0842989	- EUR

Lengths in [mm]

Technical data



800 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



56,5 kg/m



~60 HRC

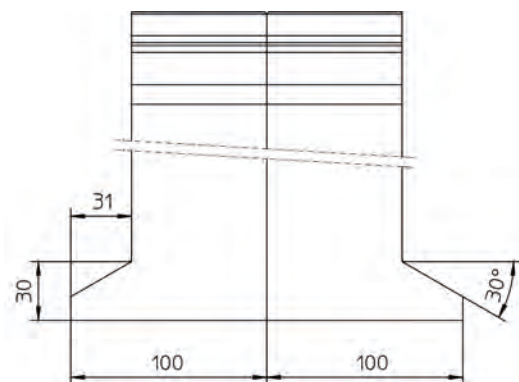


132 mm



25 mm - 200 mm

Horn left / right

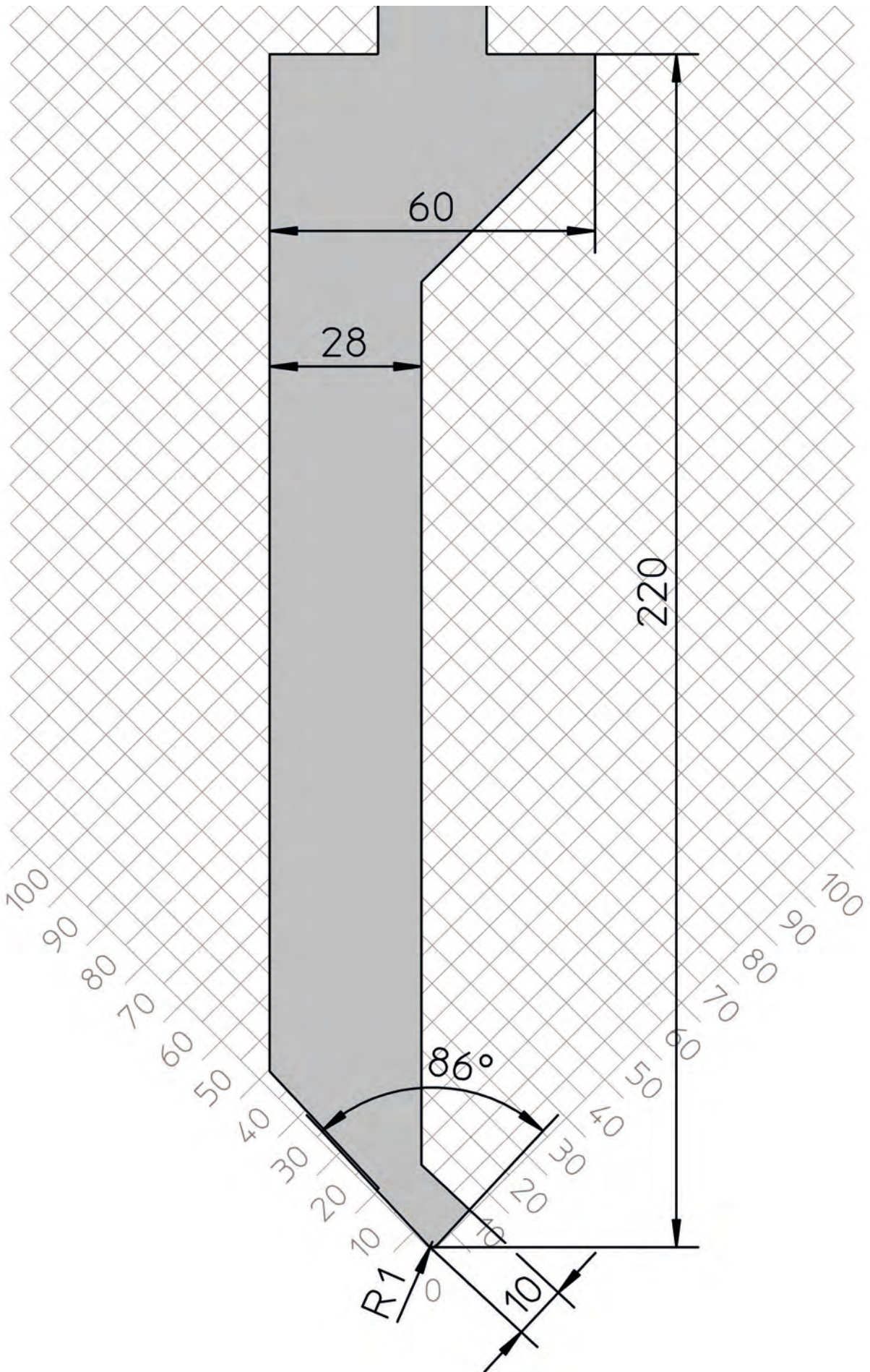


More working radii									Delivery time: 2 weeks
	R0,5	R1,6	R2	R2,3	R2,5	R3	R3,2	R4	Radius
OW201/S	86°	86°	86°	86°	86°	86°	86°	86°	Angle
	219,8	219,4	219,2	219	218,7	218,8	218,6	218,3	Height
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price
VAR. B									
4050	0868730	0868738	0868747	0868779	0868811	0868823	0857670	0868838	- EUR
3050	0868729	0852135	0863335	0868778	0868810	0868822	0852158	0856505	- EUR
2550	0868728	0868737	0862538	0868777	0868809	0867529	0868831	0862531	- EUR
2050	0868727	0868736	0868746	0868776	0868808	0867528	0868830	0868837	- EUR
1250	0862937	0863254	0868744	0868775	0868807	0859471	0868829	0868836	- EUR
1050	1871854	1871857	1871874	1871878	1871911	1871914	1871918	1871934	- EUR
VAR. A									
2050	0868723	0868732	0868740	0868771	0868803	0868818	0868825	0868833	- EUR
1250	0868722	0868731	0868739	0868770	0868802	0868817	0868824	0868832	- EUR
1050	1871856	1871859	1871875	1871879	1871912	1871915	1871919	1762657	- EUR
550	1871855	1871858	1871876	1871880	1871913	1871916	1871920	1871936	- EUR
Block 250									
250	0862936	0852134	0862682	0868769	0868801	0859470	0852157	0846213	- EUR
SINGLE									
300	0862923	0852121	0862542	0868756	0868788	0859457	0852144	0846196	- EUR
200	0862922	0852120	0862669	0868755	0868787	0859456	0852143	0846195	- EUR
100	0862924	0852122	0862670	0868757	0868789	0859458	0852145	0846200	- EUR
Horn left 100	0862933	0852131	0862679	0868766	0868798	0859467	0852154	0846210	- EUR
Horn right 100	0862934	0852132	0862680	0868767	0868799	0859468	0852155	0846211	- EUR
50	0862930	0852128	0862676	0868763	0868795	0859464	0852151	0846207	- EUR
45	0862929	0852127	0862675	0868762	0868794	0859463	0852150	0846206	- EUR
40	0862928	0852126	0862674	0868761	0868793	0859462	0852149	0846205	- EUR
35	0862927	0852125	0862673	0868760	0868792	0859461	0852148	0846204	- EUR
30	0862926	0852124	0862672	0868759	0868791	0859460	0852147	0846203	- EUR
25	0862925	0852123	0862671	0868758	0868790	0859459	0852146	0846202	- EUR
20	1739264	1985307	1985310	1985313	1985316	1985319	1985343	1985346	- EUR
15	1739263	1985306	1985309	1985312	1985315	1985318	1985342	1985345	- EUR
10	1739262	1985305	1985308	1985311	1985314	1985317	1985341	1985344	- EUR

Lengths, radius and height in [mm]

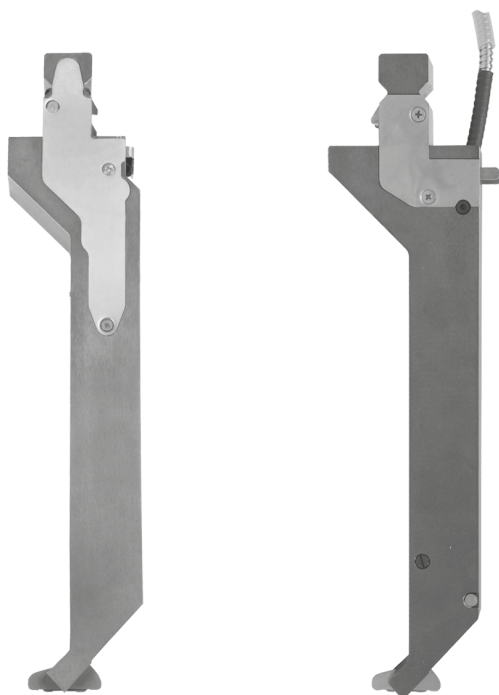
More working radii									Delivery time: 3 weeks
	R0,5	R1,6	R2	R2,3	R2,5	R3	R3,2	R4	Radius
OW201/S	86°	86°	86°	86°	86°	86°	86°	86°	Angle
	219,8	219,4	219,2	219	218,7	218,8	218,6	218,3	Height
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price
ACB Wireless									
Sensor tool 25	2298280	2298295	2298317	2298348	2298357	2298364	2298369	2298375	- EUR
Initial equip- ment	2298291	2298299	2298318	2298349	2298358	2298365	2298370	2298376	- EUR
ACB									
Sensor tool 25	1602991	1322238	0951101	1602998	1415541	0951102	1603011	0950043	- EUR
Initial equip- ment 2.G	1602994	1322269	1282574	1603010	1415606	1282575	1603013	1282576	- EUR
Sensor disk									
L43	0950856	0950856	0950856	0950856	0950856	0950856	0950856	0950856	- EUR
L33	0950857	0950857	0950857	0950857	0950857	0950857	0950857	0950857	- EUR
L27	0950855	0950855	0950855	0950855	0950855	0950855	0950855	0950855	- EUR
L17	0950858	0950858	0950858	0950858	0950858	0950858	0950858	0950858	- EUR
L15	0950854	0950854	0950854	0950854	0950854	0950854	0950854	0950854	- EUR
L09	0950859	0950859	0950859	0950859	0950859	0950859	0950859	0950859	- EUR

Radius and height in [mm]





Sensor tool



Delivery time: ex warehouse

ACB OW201/S		Radius:	R1,0 mm
		Angle:	86°
		Height:	220 mm
		Mat. No.	Price
ACB Wireless			
Sensor tool 25	1950645		- EUR
Initial equipment	2040736		- EUR
ACB			
Sensor tool 25	0950821		- EUR
Initial equipment 2.G	1273591		- EUR
Sensor disk			
L43	0950856		- EUR
L33	0950857		- EUR
L27	0950855		- EUR
L17	0950858		- EUR
L15	0950854		- EUR
L09	0950859		- EUR

The sensor disks marked with a star (*) are included in the sensor tool scope of delivery.

Sensor disks OW201/S



L15/L9 *				
Mat.	s	W	α	R (OW)
StSt	≤ 2.0	≤ 16	90 - 105	≤ 2
St	≤ 2.0	≤ 12	90 - 135	≤ 2
Al	≤ 2.0	≤ 12	90 - 135	≤ 2
L27/L17 *				
Mat.	s	W	α	R (OW)
StSt	≤ 3.0	≤ 24	90 - 135	≤ 4
St	≤ 4.0	≤ 30	90 - 135	≤ 4
Al	≤ 4.0	≤ 24	90 - 135	≤ 4
L43/L33				
Mat.	s	W	α	R (OW)
StSt	≤ 6.0	≤ 50	90 - 135	≤ 6
St	≤ 10.0	≤ 70	90 - 135	≤ 6
Al	≤ 10.0	≤ 70	90 - 135	≤ 6

For bigger tool radii restricted angle measurements ranges are valid!
Angles of 120°-135° possible, depending on the sensor and application.



Punch



Delivery time: ex warehouse

OW202/S	Radius:	R1,0 mm
	Angle:	28°
	Height:	220 mm
Mat. No.	Price	
VAR. B		
4050	0823869	- EUR
3050	0823868	- EUR
2550	0835185	- EUR
2050	0823867	- EUR
1250	0825708	- EUR
1050	0867277	- EUR
VAR. A		
2050	0823863	- EUR
1250	0825707	- EUR
1050	1606976	- EUR
550	1606974	- EUR
Block 250		
250	0825706	- EUR
SINGLE		
500	0823859	- EUR
300	0823858	- EUR
200	0823857	- EUR
100	0824628	- EUR
Horn left 100	0824625	- EUR
Horn right 100	0824626	- EUR
50	0824624	- EUR
45	0824623	- EUR
40	0824622	- EUR
35	0824618	- EUR
30	0824617	- EUR
25	0824614	- EUR
20	0846380	- EUR
15	0837116	- EUR
10	0837115	- EUR

Lengths in [mm]

Technical data



600 kN/m



800 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



49,9 kg/m



~60 HRC

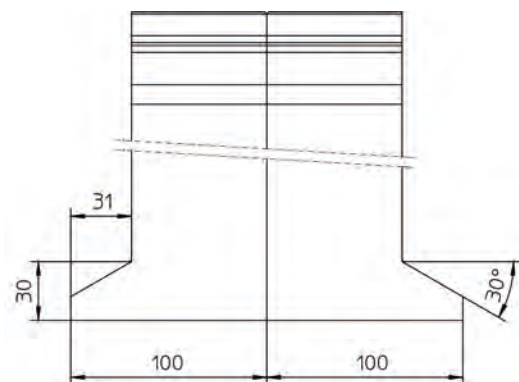


132 mm



25 mm - 200 mm

Horn left / right



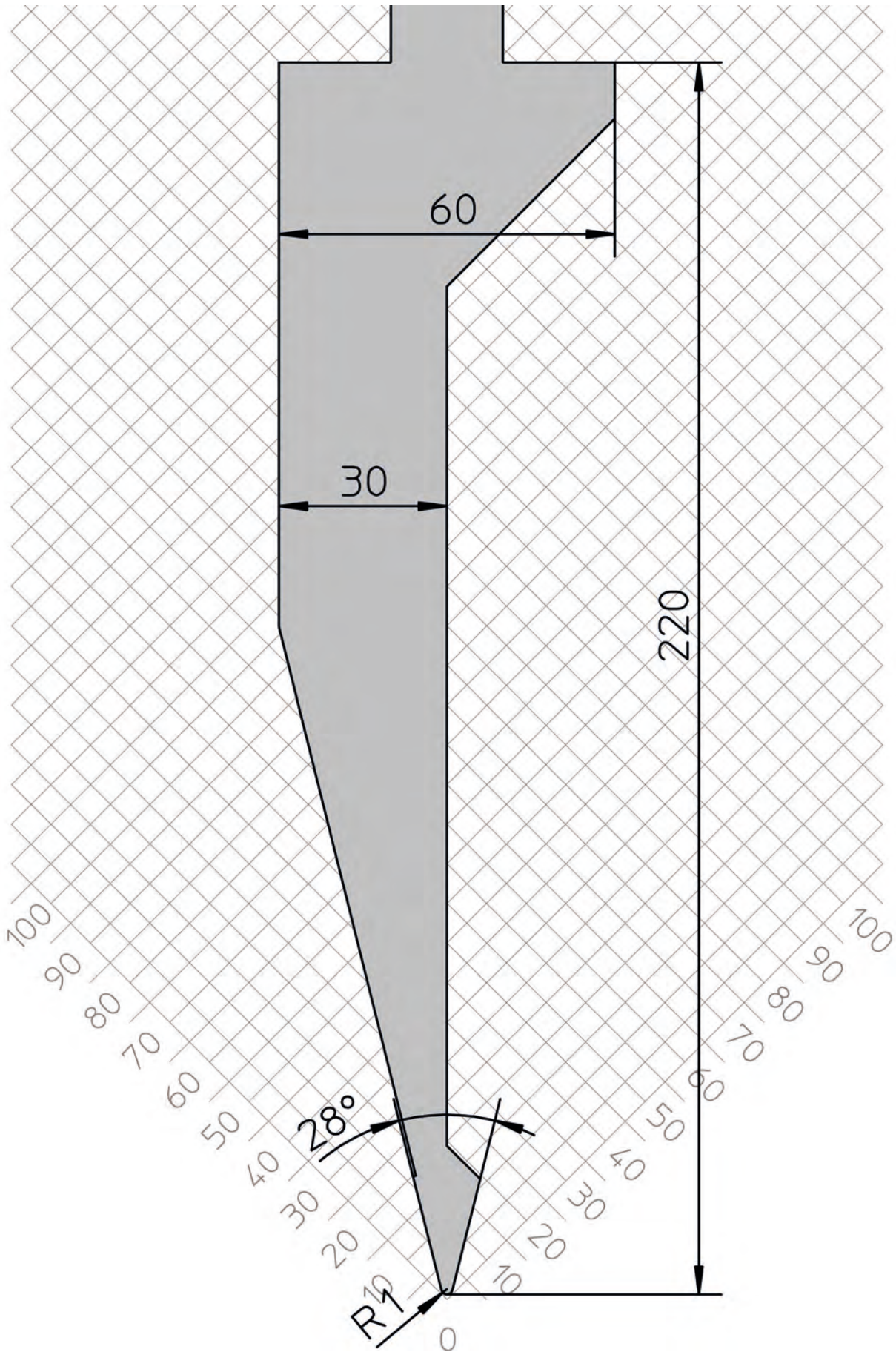


More working radii									Delivery time: 2 weeks
	R0,5	R1,6	R2	R2,3	R2,5	R3	R3,2	R4	Radius
OW202/S	28°	28°	28°	28°	28°	28°	28°	28°	Angle
	219,8	217,8	216	215,6	214	212,8	212,7	209,8	Height
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price
VAR. B									
4050	0868847	0851552	0868860	0868872	0852105	0868881	0868916	0868923	- EUR
3050	0868846	0867084	0868859	0868871	0828020	0868880	0868915	0868922	- EUR
2550	0868845	0868854	0856362	0863624	0846150	0854127	0868914	0860007	- EUR
2050	0868844	0868853	0841516	0868870	0840022	0846169	0868913	0865409	- EUR
1250	0836896	0864327	0848015	0868869	0845258	0860121	0868912	0868921	- EUR
1050	1871940	1696800	1758572	1696806	1872034	1696841	1871996	1696844	- EUR
VAR. A									
2050	0868840	0868849	0868856	0868864	0868874	0835867	0868908	0868918	- EUR
1250	0868839	0868848	0868855	0868863	0868873	0854916	0868907	0868917	- EUR
1050	1871952	1696739	1871960	1696805	1872035	1696840	1871997	1696843	- EUR
550	1871953	1696738	1871959	1696804	1872036	1696809	1871998	1696842	- EUR
Block 250									
250	0837415	0851545	0841515	0855933	0828017	0835866	0868906	0844749	- EUR
SINGLE									
500	0837406	0851536	0841495	0851388	0828005	0835851	0868891	0844733	- EUR
300	0837405	0851535	0841494	0851387	0828004	0835850	0868890	0844732	- EUR
200	0837403	0851534	0841493	0851386	0828003	0835849	0868889	0844731	- EUR
100	0837414	0851537	0841502	0851389	0828014	0835858	0868892	0844736	- EUR
Horn left 100	0837418	0851548	0841512	0859516	0828015	0835861	0868902	0844746	- EUR
Horn right 100	0837419	0851549	0841513	0859517	0828016	0835862	0868903	0844747	- EUR
50	0837413	0851543	0841503	0851395	0828013	0835857	0868898	0844742	- EUR
45	0837412	0851542	0841504	0851394	0828012	0835856	0868897	0844741	- EUR
40	0837411	0851541	0841505	0851393	0828011	0835855	0868896	0844740	- EUR
35	0837410	0851540	0841506	0851392	0828010	0835854	0868895	0844739	- EUR
30	0837409	0851539	0841507	0851391	0828009	0835853	0868894	0844738	- EUR
25	0837408	0851538	0841508	0851390	0828008	0835852	0868893	0844737	- EUR
20	1423562	1985364	1309878	1985422	0845248	1604674	1993583	1993587	- EUR
15	1423561	1985363	1985386	1985421	0845247	1604673	1993582	1993586	- EUR
10	1423560	1985362	1309873	1985390	0845246	1604672	1993581	1993585	- EUR

Lengths, radius and height in [mm]

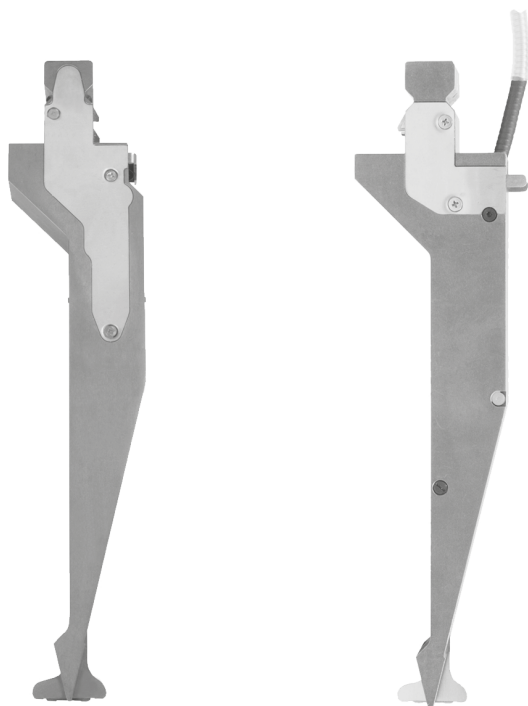
More working radii									Delivery time: 3 weeks
	R0,5	R1,6	R2	R2,3	R2,5	R3	R3,2	R4	Radius
OW202/S	28°	28°	28°	28°	28°	28°	28°	28°	Angle
	219,8	217,8	216	215,6	214	212,8	212,7	209,8	Height
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price
ACB Wireless									
Sensor tool 25	2289866	2260696	2298761	2302162	2298771	2298777	2298793	2298799	- EUR
Initial equipment	2289867	2260697	2298762	2302163	2298772	2298778	2298794	2298800	- EUR
ACB									
Sensor tool 25	1285233	0951117	0951118	0933578	0951119	0951120	1603014	0970511	- EUR
Initial equipment 2.G	1329274	1282884	1282577	1282885	1282886	1282578	1603016	1282579	- EUR
Sensor disk									
L43	0949420	0949420	0962191	0962191	0962191	0962191	0962191	0962191	- EUR
L33	0949421	0949421	0962190	0962190	0962190	0962190	0962190	0962190	- EUR
L27	0949409	0949409	0962189	0962189	0962189	0962189	0962189	0962189	- EUR
L17	0949422	0949422	0962128	0962128	0962128	0962128	0962128	0962128	- EUR
L15	0949408	0949408	1375241						- EUR
L09	0949423	0949423	1375244						- EUR

Radius and height in [mm]





Sensor tool



Delivery time: ex warehouse

ACB OW202/S		Radius:	R1,0 mm
		Angle:	28°
		Height:	220 mm
		Mat. No.	Price
ACB Wireless			
Sensor tool 25	1874196		- EUR
Initial equipment	2040947		- EUR
ACB			
Sensor tool 25	0943008		- EUR
Initial equipment 2.G	1273593		- EUR
Sensor disk			
L43	0949420		- EUR
L33	0949421		- EUR
L27	0949409		- EUR
L17	0949422		- EUR
L15	0949408		- EUR
L09	0949423		- EUR

The sensor disks marked with a star (*) are included in the sensor tool scope of delivery.

Sensor disks OW 202/S



L15/L9 *				
Mat.	s	W	α	R (OW)
StSt	≤ 2.0	≤ 16	45 - 105	≤ 2
St	≤ 2.0	≤ 12	45 - 135	≤ 2
Al	≤ 2.0	≤ 12	55 - 135	≤ 2
L27/L17 *				
Mat.	s	W	α	R (OW)
StSt	≤ 3.0	≤ 24	55 - 135	≤ 4
St	≤ 4.0	≤ 30	55 - 105	≤ 4
Al	≤ 4.0	≤ 24	55 - 105	≤ 4
L43/L33				
Mat.	s	W	α	R (OW)
Al	≤ 10.0	≤ 70	65 - 135	≤ 6

For bigger tool radii restricted angle measurements ranges are valid!

Angles of 120°-135° possible, depending on the sensor and application.



Punch



Delivery time: ex warehouse

OW203/S	Radius:	R4,0 mm
	Angle:	60°
	Height:	220 mm
	Mat. No.	Price
VAR. B		
4050	0825649	- EUR
3050	0825648	- EUR
2550	0835189	- EUR
2050	0825647	- EUR
1250	0825646	- EUR
1050	0867278	- EUR
VAR. A		
2050	0825643	- EUR
1250	0825642	- EUR
1050	1607008	- EUR
550	1607007	- EUR
Block 250		
250	0825714	- EUR
SINGLE		
300	0825630	- EUR
200	0825629	- EUR
100	0825639	- EUR
Horn left 100	0825637	- EUR
Horn right 100	0825638	- EUR
50	0825636	- EUR
45	0825635	- EUR
40	0825634	- EUR
35	0825633	- EUR
30	0825632	- EUR
25	0825631	- EUR
20	1431078	- EUR
15	1431066	- EUR
10	1394894	- EUR

Lengths in [mm]

Technical data



2500 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



51,7 kg/m



~60 HRC

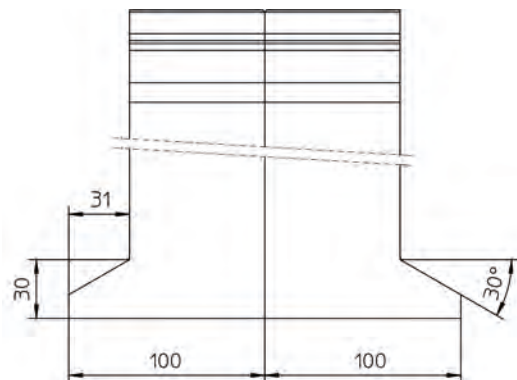


132 mm



25 mm - 200 mm

Horn left / right

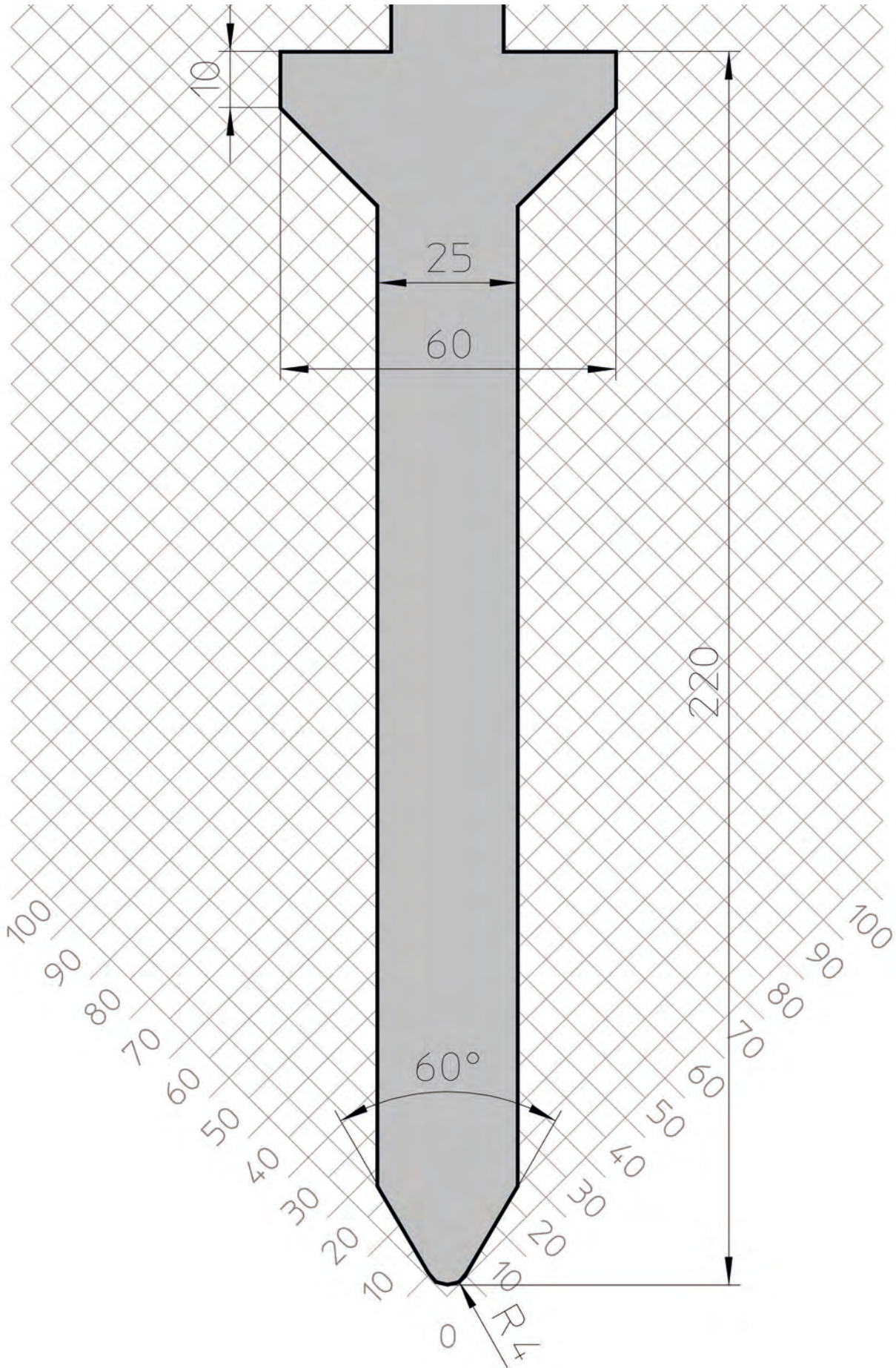


More working radii										Delivery time: 2 weeks
	R2	R2,5	R3	R4,7	R5	R6	R6,35	R8	R10	Radius
OW203/S	60°	60°	60°	60°	60°	60°	60°	60°	28°	Angle
	219,8	219,8	219,8	219	218,6	217,6	217,2	220	220	Height
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price
VAR. B										
4050	0869083	0869091	0869118	0869151	0869160	0869192	0869237	0859117	1322438	- EUR
3050	0869082	0862842	0860541	0869150	0860542	0869191	0869236	0853168	0875054	- EUR
2550	0862914	0852164	0869117	0869149	0869159	0869190	0869235	0862534	1630942	- EUR
2050	0869081	0849062	0869116	0869148	0841566	0869189	0869234	0874848	0866179	- EUR
1250	0840295	0869090	0841541	0869147	0860122	0869188	0869233	0874743	1258280	- EUR
1050	1871999	1872042	1872045	1872047	1678264	1684749	1716739	1716772	1672368	- EUR
VAR. A										
2050	0869078	0869086	0869111	0869143	0869155	0869184	0869229	1321484	1766327	- EUR
1250	0869077	0869085	0869110	0869142	0860120	0869183	0869228	1249949	1766326	- EUR
1050	1872000	1872043	1872046	1872048	1872081	1872082	1872083	1872085	1872086	- EUR
550	1872041	1872044	1839038	1872049	1872050	1758574	1872084	1678263	1700197	- EUR
Block 250										
250	0840294	0849050	0841540	0869141	0841565	0869182	0869227	0841577	0857807	- EUR
SINGLE										
300	0840281	0849048	0841519	0869128	0841546	0869169	0869214	0830784	0866178	- EUR
200	0840280	0849047	0841518	0869127	0841545	0869168	0869213	0846166	0866177	- EUR
100	0840288	0849051	0841526	0869129	0841557	0869170	0869215	0830786	0857795	- EUR
Horn left 100	0840291	0849060	0841543	0869138	0841556	0869179	0869223	0852987	0857804	- EUR
Horn right 100	0840292	0849061	0841537	0869139	0841555	0869180	0869225	0852988	0857805	- EUR
50	0840287	0849057	0841527	0869135	0841558	0869176	0869221	0830785	0857801	- EUR
45	0840286	0849056	0841528	0869134	0841559	0869175	0869220	0841572	0857800	- EUR
40	0840285	0849055	0841529	0869133	0841560	0869174	0869219	0841573	0857799	- EUR
35	0840284	0849054	0841530	0869132	0841561	0869173	0869218	0841574	0857798	- EUR
30	0840283	0849053	0841531	0869131	0841562	0869172	0869217	0841575	0857797	- EUR
25	0840282	0849052	0841532	0869130	0841563	0869171	0869216	0841578	0857796	- EUR
20	1940607	1989115	1625625	1989134	1989137	1677928	1989144	1989149	1565050	- EUR
15	1940606	1989114	1625624	1989133	1989136	1989139	1989143	1989148	1565039	- EUR
10	1940605	1989113	1625623	1989132	1989135	1989140	1989142	1989147	1565038	- EUR

Lengths, radius and height in [mm]

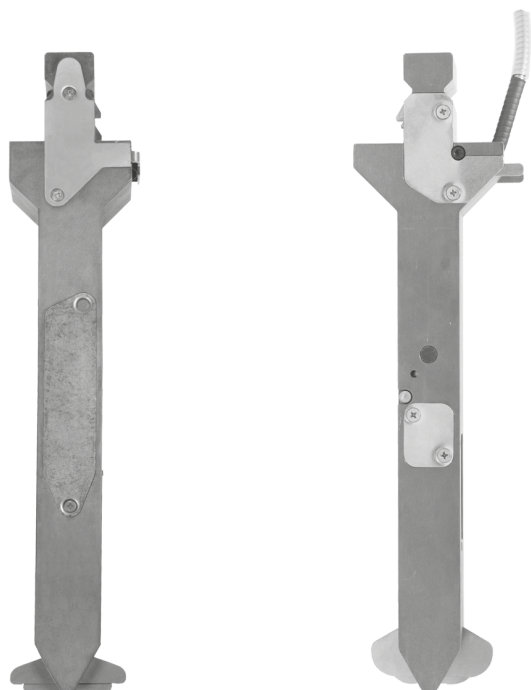
More working radii										Delivery time: 3 weeks
	R2	R2,5	R3	R4,7	R5	R6	R6,35	R8	R10	Radius
OW203/S	60°	60°	60°	60°	60°	60°	60°	60°	28°	Angle
	219,8	219,8	219,8	219	218,6	217,6	217,2	220	220	Height
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price
ACB Wireless										
Sensor tool 25	2298854	2298942	2258891	2298947	2292054	2298952	2298957	2298963		- EUR
Initial equip- ment	2298855	2298943	2258892	2298948	2292055	2298953	2298958	2298964		- EUR
ACB Wireless DB										
Sensor tool 35			2298986	2299021	2299026	2299033	2299039	2299056	2299072	- EUR
Initial equip- ment			2298987	2299022	2299027	2299034	2299040	2299057	2299073	- EUR
ACB										
Sensor tool 25	0947302	1603017	0966925	1311911	1331083	0973357	1320686	0952910		- EUR
Initial equip- ment 2.G	1282580	1603019	1598744	1383964	1471986	1282591	1402719	1320673		- EUR
ACB DB										
Sensor tool 35			1342500	1397027	2041075	1454286	1397065	1360088	1654554	- EUR
Initial equip- ment 2.G			1493167	1397049	2041224	1454288	1397067	1615349	1654556	- EUR
Sensor disk										
L43	0940335	0940335	0940335	0940335	0940335	0940335	0940335	0940335		- EUR
L33	0940338	0940338	0940338	0940338	0940338	0940338	0940338	0940338		- EUR
L27	0932791	0932791	0932791	0932791	0932791	0932791	0932791	0932791		- EUR
L17	0940333	0940333	0940333	0940333	0940333	0940333	0940333	0940333		- EUR
Sensor disk DB										
L58			1306820	1306820	1306820	1306820	1306820	1306820	1306820	- EUR
L47			1306737	1306737	1306737	1306737	1306737	1306737	1306737	- EUR
L44			1221932	1221932	1221932	1221932	1221932	1221932	1221932	- EUR
L31			1221931	1221931	1221931	1221931	1221931	1221931	1221931	- EUR
L28			1221930	1221930	1221930	1221930	1221930	1221930		- EUR
L16			1221929	1221929	1221929	1221929	1221929	1221929		- EUR

Radius and height in [mm]





Sensor tool

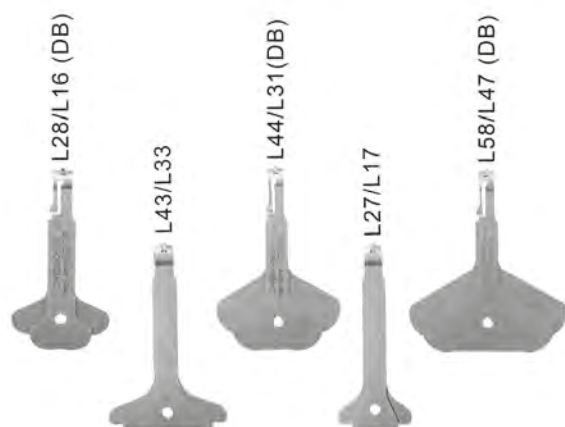


Delivery time: ex warehouse

ACB OW203/S	Radius:	R4,0 mm
	Angle:	60°
	Height:	220 mm
	Mat. No.	Price
ACB Wireless		
Sensor tool 25	1874137	- EUR
Initial equipment	2040945	- EUR
ACB Wireless DB		
Sensor tool 35	2028094	- EUR
Initial equipment	2040944	- EUR
ACB		
Sensor tool 25	0940059	- EUR
Initial equipment 2.G	1273595	- EUR
ACB DB		
Sensor tool 35	1211228	- EUR
Initial equipment 2.G	1273596	- EUR
Sensor disk		
L43	0940335	- EUR
L33	0940338	- EUR
L27	0932791	- EUR
L17	0940333	- EUR
Sensor disk DB		
L58	1306820	- EUR
L47	1306737	- EUR
L44	1221932	- EUR
L31	1221931	- EUR
L28	1221930	- EUR
L16	1221929	- EUR

The sensor disks marked with a star (*) are included in the sensor tool scope of delivery.

Sensor disks OW 203/S und OW203/S DB



L27/L17 *

Mat.	s	W	α	R (OW)
StSt	≤ 4.0	≤ 30	65 - 135	≤ 4
St	≤ 4.0	≤ 24	65 - 135	≤ 4
Al	≤ 4.0	≤ 24	65 - 135	≤ 4

L43/L33 *

Mat.	s	W	α	R (OW)
StSt	≤ 6.0	≤ 40	65 - 135	≤ 6
St	≤ 10.0	≤ 70	65 - 135	≤ 6
Al	≤ 10.0	≤ 70	65 - 135	≤ 6

L28/L16 *

Mat.	s	W	α	R (OW)
StSt	≤ 4.0	≤ 24	70 - 135	≤ 4
St	≤ 4.0	≤ 24	70 - 135	≤ 4
Al	≤ 4.0	≤ 24	70 - 135	≤ 4

L44/L31 *

Mat.	s	W	α	R (OW)
StSt	≤ 8.0	≤ 50	70 - 135	≤ 4
St	≤ 8.0	≤ 50	70 - 135	≤ 4
Al	≤ 8.0	≤ 50	70 - 135	≤ 4

L58/L47 *

Mat.	s	W	α	R (OW)
StSt	≤ 12.0	≤ 80	70 - 135	≤ 4
St	≤ 15.0	≤ 100	70 - 135	≤ 4
Al	≤ 12.0	≤ 80	70 - 135	≤ 4

For bigger tool radii restricted angle measurements ranges are valid!

Angles of 120°-135° possible, depending on the sensor and application.



Punch OW210/S H=240mm



Delivery time: ex warehouse

OW210/S	Radius:	R1,0 mm
	Angle:	28°
	Height:	240 mm
	Mat. No.	Price
VAR. B		
4050	0824045	- EUR
3050	0824043	- EUR
2550	0835195	- EUR
2050	0824041	- EUR
1250	0825725	- EUR
1050	0867280	- EUR
VAR. A		
2050	0824036	- EUR
1250	0825724	- EUR
1050	1607536	- EUR
550	1607535	- EUR
Block 250		
250	0825722	- EUR
SINGLE		
500	0824033	- EUR
300	0824032	- EUR
200	0824031	- EUR
100	0824679	- EUR
Horn left 100	0824677	- EUR
Horn right 100	0824678	- EUR
50	0824675	- EUR
45	0824672	- EUR
40	0824669	- EUR
35	0824667	- EUR
30	0824663	- EUR
25	0824659	- EUR
20	0842994	- EUR
15	0842993	- EUR
10	0842992	- EUR

Lengths in [mm]

Technical data



400 kN/m



1300 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



48,0 kg/m



~60 HRC

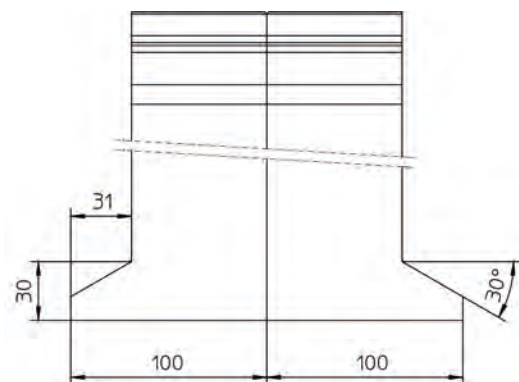


145 mm



25 mm - 200 mm

Horn left / right





More working radii Delivery time: 2 weeks

OW210/S	R0,5 28° 239,8	Radius Angle Height
---------	----------------------	---------------------------

	Mat. No.	Price
--	----------	-------

VAR. B

4050	0869285	- EUR
3050	0869284	- EUR
2550	0865725	- EUR
2050	0869283	- EUR
1250	0869282	- EUR
1050	1871692	- EUR

VAR. A

2050	0869278	- EUR
1250	0869277	- EUR
1050	1871693	- EUR
550	1871694	- EUR

Block 250

250	0865724	- EUR
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SINGLE

500	0865722	- EUR
300	0856233	- EUR
200	0865721	- EUR
100	0839679	- EUR
Horn left 100	0839687	- EUR
Horn right 100	0839688	- EUR
50	0839685	- EUR
45	0839744	- EUR
40	0839743	- EUR
35	0839682	- EUR
30	0839681	- EUR
25	0839680	- EUR
20	1795766	- EUR
15	1795765	- EUR
10	1795764	- EUR

Lengths, radius and height in [mm]

More working radii Delivery time: 3 weeks

OW210/S	R0,5 28° 239,8	Radius Angle Height
---------	----------------------	---------------------------

	Mat. No.	Price
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ACB Wireless

Sensor tool 25	2299116	- EUR
Initial equipment	2299117	- EUR

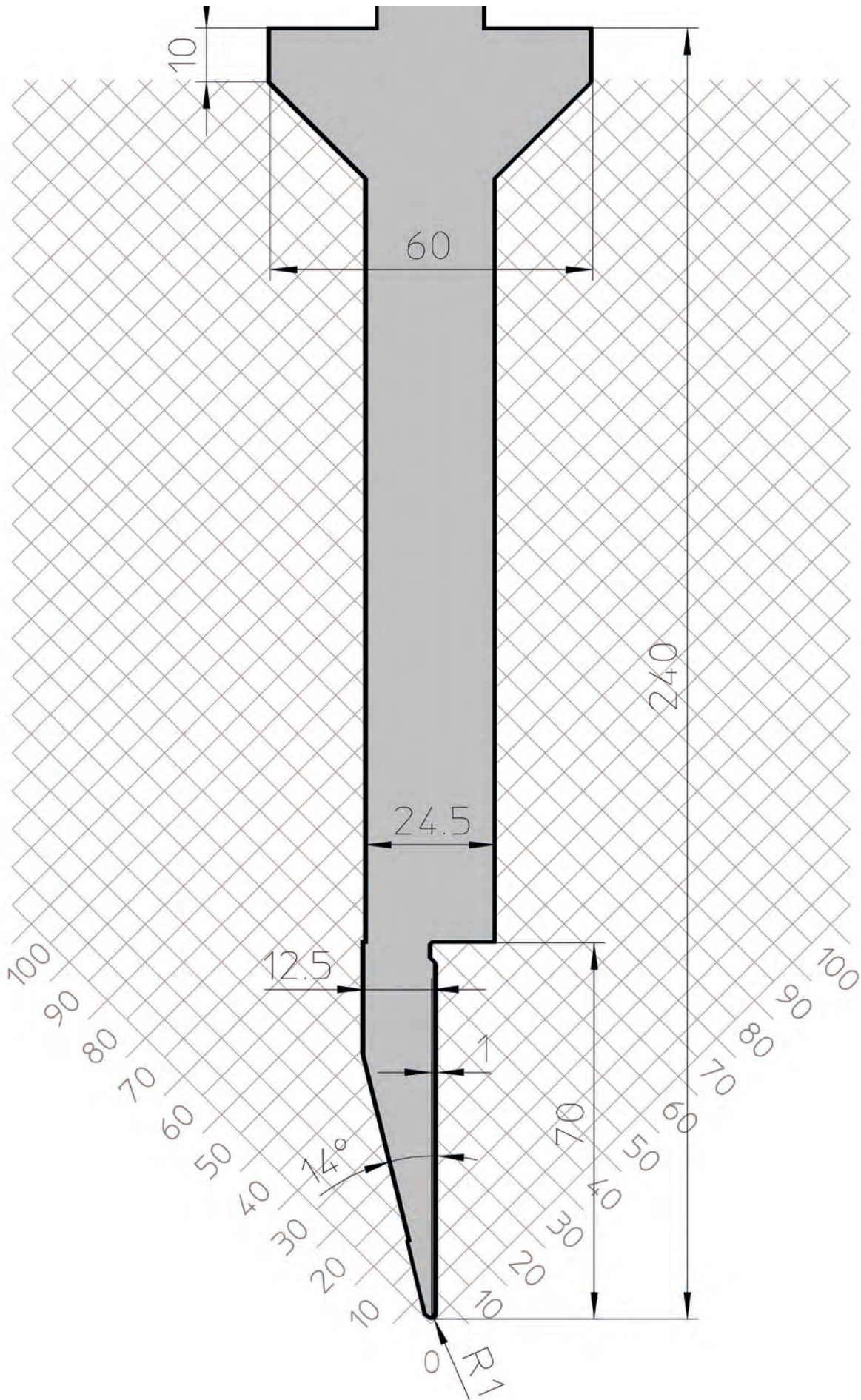
ACB

Sensor tool 25	1200080	- EUR
Initial equipment 2.G	1393466	- EUR

Sensor disk

L27	1238673	- EUR
L18	1238672	- EUR
L16	1226063	- EUR
R07	1226061	- EUR

Radius and height in [mm]





Sensor tool



Delivery time: ex warehouse

ACB OW210/S		Radius:	R1,0 mm
		Angle:	28°
		Height:	240 mm
		Mat. No.	Price
ACB Wireless			
Sensor tool 25	1871672		- EUR
Initial equipment	2040949		- EUR
ACB			
Sensor tool 25	0932643		- EUR
Initial equipment 2.G	1273598		- EUR
Sensor disk			
L27	1238673		- EUR
L18	1238672		- EUR
L16	1226063		- EUR
R07	1226061		- EUR

The sensor disks marked with a star (*) are included in the sensor tool scope of delivery.

Sensor disks OW 210/S H240



L16/R7 *				
Mat.	s	W	α	R (OW)
StSt	≤ 2.0	≤ 12	45 - 135	≤ 2
St	≤ 3.0	≤ 16	45 - 120	≤ 2
Al	≤ 2.0	≤ 12	45 - 135	≤ 2
L27/L18 *				
Mat.	s	W	α	R (OW)
StSt	≤ 3.0	≤ 24	52 - 135	≤ 4
St	≤ 4.0	≤ 30	52 - 135	≤ 4
Al	≤ 4.0	≤ 24	52 - 135	≤ 4

For bigger tool radii restricted angle measurements ranges are valid!

Angles of 120°-135° possible, depending on the sensor and application.

Technical information concerning tool adapters with interchangeable inserts

- Favorable opportunity for different radiuses
- Radius 0.3 to radius 6 mm (standard)
- Blades which can be replaced rapidly
- Tool holders can also be used for folding (see Chapter Folding)
- Tool blades in thin construction
- The heels are NOT included in the block with OW320, OW390 and OW391

OW209/S	OW209/S H=40	OWK80	OWK80
OW320	OW320	OW390	OW391

Tool holders



		Delivery time: ex warehouse	
OW209/S	Radius:	-	
	Angle:	-	
	Height:	40 mm	
	Mat. No.	Price	
VAR. B			
4050	2551458	- EUR	
3050	2551457	- EUR	
2550	2551456	- EUR	
2050	2551455	- EUR	
1250	2551454	- EUR	
1050	2551453	- EUR	
VAR. A			
2050	2551429	- EUR	
1250	2551428	- EUR	
1050	2551427	- EUR	
550	2551426	- EUR	
Block 250			
250	2551469	- EUR	
SINGLE			
500	2551468	- EUR	
300	2551467	- EUR	
200	2551466	- EUR	
100	2551465	- EUR	
50	2551464	- EUR	
45	2551463	- EUR	
40	2551462	- EUR	
35	2551461	- EUR	
30	2551460	- EUR	
25	2551459	- EUR	

Lengths in [mm]

Technical data



2500 kN/m



2000 kN/m



42CrMo4



18,6 kg/m



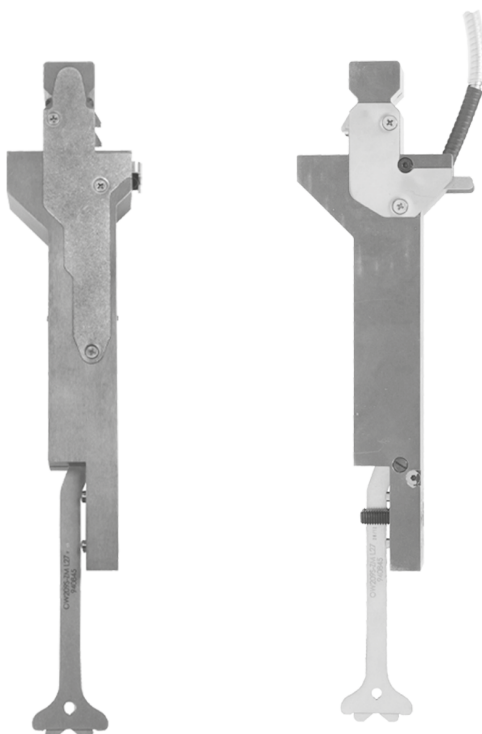
~60 HRC



25 mm - 100 mm



Sensor tool

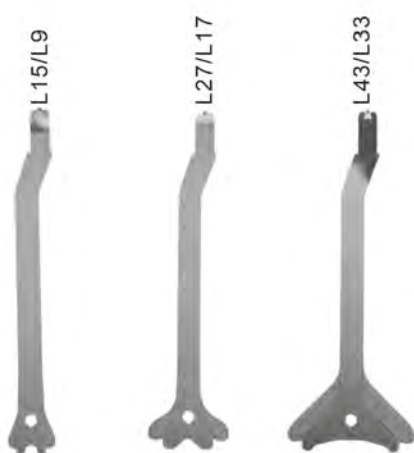


Delivery time: ex warehouse

ACB OW209/S		Radius:	-
		Angle:	-
		Height:	120 mm
		Mat. No.	Price
ACB Wireless			
Sensor tool 25	1957586		- EUR
Initial equipment	2040733		- EUR
ACB			
Sensor tool 25	0914983		- EUR
Initial equipment 2.G	1278416		- EUR
Sensor disk			
L43	0949478		- EUR
L33	0949477		- EUR
L27	0940845		- EUR
L17	0940846		- EUR
L15	0940847		- EUR
L09	0940849		- EUR

The sensor disks marked with a star (*) are included in the sensor tool scope of delivery.

Sensor disks OW 209/S



L15/L9 *				
Mat.	s	W	α	R (OW)
StSt	≤ 2.0	≤ 16	45 - 105	≤ 2
St	≤ 2.0	≤ 12	45 - 135	≤ 2
Al	≤ 2.0	≤ 12	52 - 135	≤ 2
L27/L17 *				
Mat.	s	W	α	R (OW)
StSt	≤ 3.0	≤ 24	65 - 135	≤ 4
St	≤ 4.0	≤ 30	65 - 135	≤ 4
Al	≤ 4.0	≤ 24	65 - 135	≤ 4
L43/L33 *				
Mat.	s	W	α	R (OW)
StSt	≤ 6.0	≤ 50	65 - 135	≤ 6
St	≤ 10.0	≤ 70	65 - 135	≤ 6
Al	≤ 10.0	≤ 70	65 - 135	≤ 6

For bigger tool radii restricted angle measurements ranges are valid!
Angles of 120°-135° possible, depending on the sensor and application.



Insert for OW209/S



1000 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

8,6 kg/m



~60 HRC



*For OW209/S
L=100mm. Heels
NOT included in the
block! See Acces-
sories for I axis
spacer. R < 0,5mm =
400kN/m



Delivery time: ex warehouse

OW320 28°	Radius:	R1,0 mm
	Angle:	28°
	Height:	100 mm
	Mat. No.	Price
VAR. B		
4050	0836147	- EUR
3050	0834649	- EUR
2550	0836146	- EUR
2050	0834451	- EUR
1250	0836145	- EUR
1050	0867283	- EUR
VAR. A		
2050	0836142	- EUR
1250	0831982	- EUR
1050	1607066	- EUR
550	1607065	- EUR
Block 250		
250	0831981	- EUR
SINGLE		
500	0831980	- EUR
300	0831979	- EUR
200	0831978	- EUR
Horn left 130*	0868239	- EUR
Horn right 130*	0868240	- EUR
100	0831977	- EUR
50	0831976	- EUR
45	0831975	- EUR
40	0831974	- EUR
35	0831973	- EUR
30	0831972	- EUR
25	0831971	- EUR

Lengths in [mm]

Insert for OW209/S lock-seam prepared



1000 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

9,4 kg/m



~60 HRC



*For OW209/S
L=100mm. Heels
NOT included in the
block! See Acces-
sories for I axis
spacer. R < 0,5mm =
400kN/m



Delivery time: ex warehouse

OW320-F	Radius:	R1,0 mm
	Angle:	28°
	Height:	100 mm
	Mat. No.	Price
VAR. B		
4050	1245034	- EUR
3050	0992142	- EUR
2550	1235032	- EUR
2050	1304504	- EUR
1250	1357597	- EUR
1050	1607217	- EUR
VAR. A		
2050	1461846	- EUR
1250	1385813	- EUR
1050	1607216	- EUR
550	1607215	- EUR
Block 250		
250	0992141	- EUR
SINGLE		
500	0992140	- EUR
300	0992139	- EUR
200	0992138	- EUR
Horn left 130*	0994760	- EUR
Horn right 130*	0994761	- EUR
100	0992061	- EUR
50	0992137	- EUR
45	0992136	- EUR
40	0992135	- EUR
35	0992134	- EUR
30	0992133	- EUR
25	0992132	- EUR

Lengths in [mm]

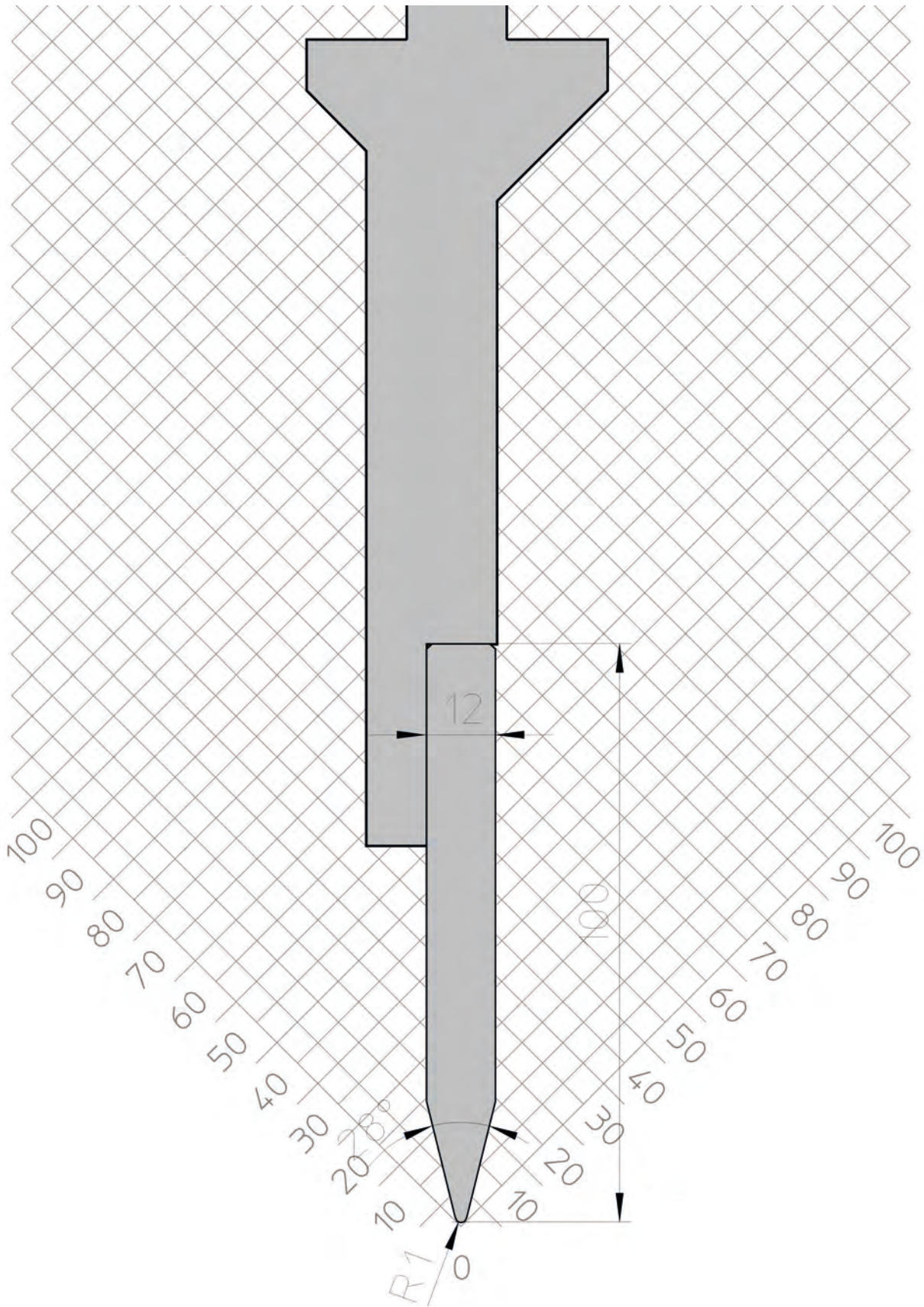


More working radii							Delivery time: ex warehouse	
	R0,3	R1,6	R2	R3	R4	R5		Radius
OW320 28°	28°	28°	28°	28°	28°	28°		Angle
	100	100	100	100	100	100		Height
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price
VAR. B								
4050	0869326	0869334	0869340	0869348	0869354	0869361		- EUR
3050	0869325	0869333	0866096	0843348	0850269	0862750		- EUR
2550	0869324	0869050	0869339	0869347	0857681	0864278		- EUR
2050	0869323	0869332	0866604	0869346	0869353	0869360		- EUR
1250	0866149	0855221	0846921	0846909	0838041	0869359		- EUR
1050	1607057	1607098	1607113	1607117	1607167	1607194		- EUR
VAR. A								
2050	0869319	0869328	0869335	0869342	0869349	0869355		- EUR
1250	0869318	0869327	0852572	0852573	0852574	0852575		- EUR
1050	1607056	1607097	1607112	1607116	1607166	1607193		- EUR
550	1607055	1607096	1607111	1607115	1607165	1607192		- EUR
Block 250								
250	0866148	0855220	0846920	0843347	0833089	0832296		- EUR
SINGLE								
500	0866141	0855219	0846919	0843346	0833088	0832295		- EUR
300	0866140	0855218	0846918	0843345	0833087	0832294		- EUR
200	0866139	0855217	0846917	0843344	0833085	0832293		- EUR
Horn left 130*	1366349	1322099	0869914	1346996	1375396	1245324		- EUR
Horn right 130*	1366351	1322100	0869915	1346998	1375397	1245325		- EUR
100	0866137	0855210	0846910	0843337	0833081	0832292		- EUR
50	0866147	0855216	0846916	0843343	0833080	0832291		- EUR
45	0866146	0855215	0846915	0843342	0833079	0832290		- EUR
40	0866145	0855214	0846914	0843341	0833078	0832289		- EUR
35	0866144	0855213	0846913	0843340	0833077	0832288		- EUR
30	0866143	0855212	0846912	0843339	0833075	0832287		- EUR
25	0866142	0855211	0846911	0843338	0833070	0832286		- EUR

Lengths, radius and height in [mm]

More working radii							Delivery time: 3 weeks	
	R0,3	R1,6	R2	R3	R4	R5		Radius
OW320 28°	28°	28°	28°	28°	28°	28°		Angle
	100	100	100	100	100	100		Height
	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Mat. No.	Price	
ACB								
Inserts	2621176	2621618	2621331	2627813	2616121	2627905		- EUR

Radius and height in [mm]



Insert for sensor tool



Delivery time: ex warehouse		
ACB OW320 28°	Radius:	R1,0 mm
	Angle:	28°
	Height:	100 mm
	Mat. No.	Price
ACB		
Insertss	2616123	- EUR

Insert for sensor tool



Delivery time: ex warehouse		
ACB OW320-F	Radius:	R1,0 mm
	Angle:	28°
	Height:	100 mm
	Mat. No.	Price
ACB		
Inserts	2630565	- EUR



Tool holders



Delivery time: ex warehouse

OW/K 80	Radius:	-
	Angle:	-
	Height:	80 mm
	Mat. No.	Price
VAR. B		
4050	1203581	- EUR
3050	1203580	- EUR
2550	1203569	- EUR
2050	1203568	- EUR
1250	0994305	- EUR
1050	1606513	- EUR
VAR. A		
2050	1203564	- EUR
1250	1203563	- EUR
1050	1606512	- EUR
550	1606511	- EUR
Block 250		
250	0994304	- EUR
Block 150		
150	1207319	- EUR
SINGLE		
500	0994303	- EUR
300	0994302	- EUR
200	0994291	- EUR
100	0994283	- EUR
50	0994290	- EUR
45	0994289	- EUR
40	0994288	- EUR
35	0994287	- EUR
30	0994286	- EUR
25	0994284	- EUR

Lengths in [mm]

Technical data



1000 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



18,8 kg/m



~60 HRC



98 mm



10 mm - 100 mm

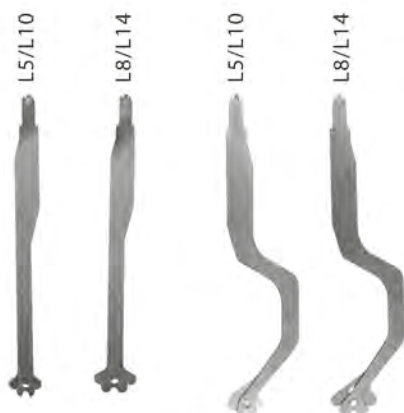
Sensor tool



Delivery time: ex warehouse			
ACB OW/K 80	Radius:	-	
	Angle:	-	
	Height:	80 mm	
	Mat. No.	Price	
ACB			
Sensor tool 25	1204549	- EUR	
Initial equipment 2.G	1273587	- EUR	
Sensor disk			
L14 (OW390)	1205780	- EUR	
L14 (OW391)	1205791	- EUR	
L10 (OW390)	1205777	- EUR	
L10 (OW391)	1205789	- EUR	
L08 (OW390)	1205778	- EUR	
L08 (OW391)	1205790	- EUR	
L05 (OW390)	1205754	- EUR	
L05 (OW391)	1205788	- EUR	

The sensor disks marked with a star (*) are included in the sensor tool scope of delivery.

Sensor disks OW/K-H80



L5/L10 *				
Mat.	s	W	α	R (OW)
StSt	≤ 1.0	≤ 8	45 - 110	≤ 1.0
St	≤ 1.5	≤ 10	45 - 110	≤ 1.5
Al	≤ 1.5	≤ 10	45 - 110	≤ 1.5
L8/L14 *				
Mat.	s	W	α	R (OW)
StSt	≤ 2.0	≤ 12	45 - 110	≤ 2.0
St	≤ 2.5	≤ 16	45 - 110	≤ 2.5
Al	≤ 2.5	≤ 16	45 - 110	≤ 2.5

For bigger tool radii restricted angle measurements ranges are valid!
Angles of 120°-135° possible, depending on the sensor and application.



Insert for OW/K 80



400 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



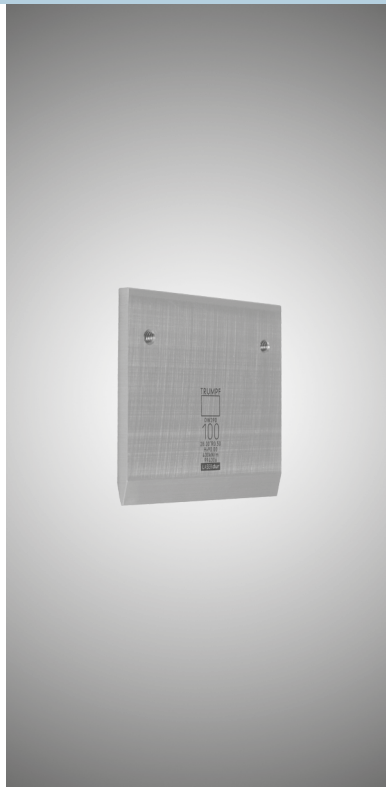
4,0 kg/m



~60 HRC



Heels upon request



Delivery time: ex warehouse

OW390	Radius:	R0,5 mm
	Angle:	28°
	Height:	90 mm
	Mat. No.	Price
VAR. B		
4050	1203729	- EUR
3050	1203728	- EUR
2550	1203727	- EUR
2050	1203726	- EUR
1250	0994352	- EUR
1050	1607325	- EUR
VAR. A		
2050	1203722	- EUR
1250	1203721	- EUR
1050	1607324	- EUR
550	1607323	- EUR
Block 250		
250	0994351	- EUR
Block 150		
150	1207359	- EUR
SINGLE		
500	0994350	- EUR
300	0994349	- EUR
200	0994348	- EUR
100	0994306	- EUR
50	0994347	- EUR
45	0994345	- EUR
40	0994341	- EUR
35	0994338	- EUR
30	0994311	- EUR
25	0994307	- EUR

Lengths in [mm]

Insert for OW/K 80



400 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



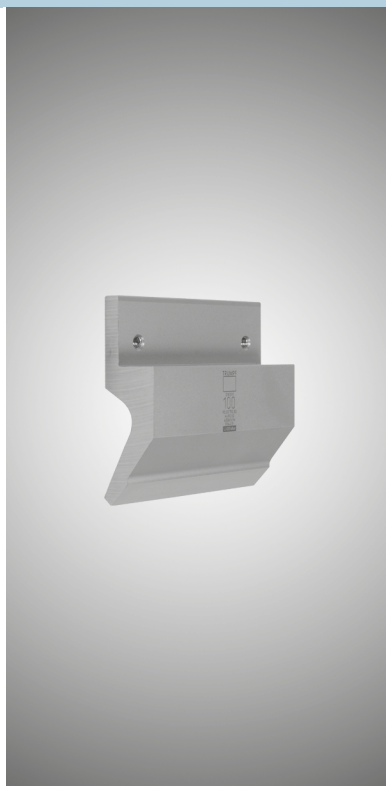
8,9 kg/m



~60 HRC



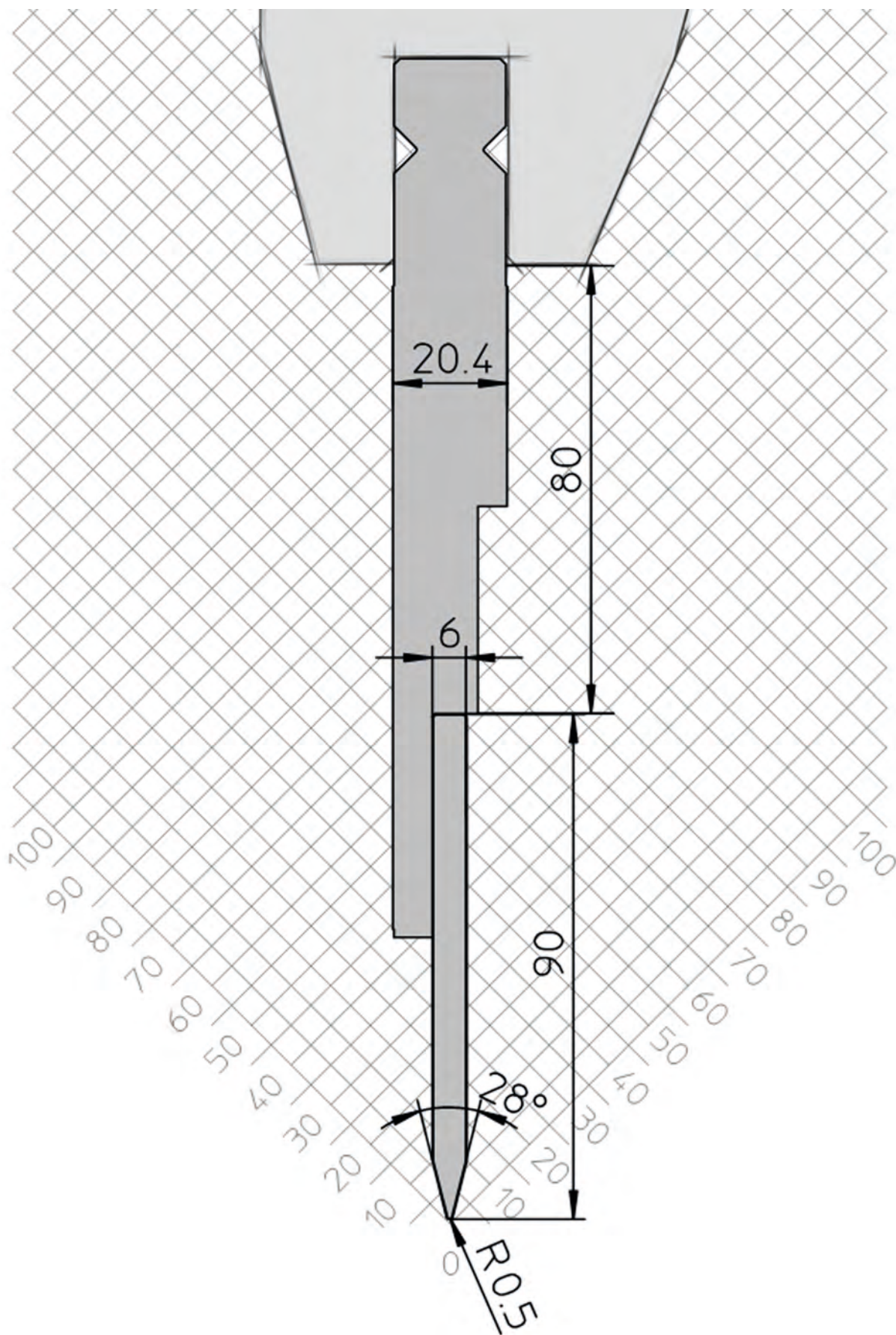
Heels upon request

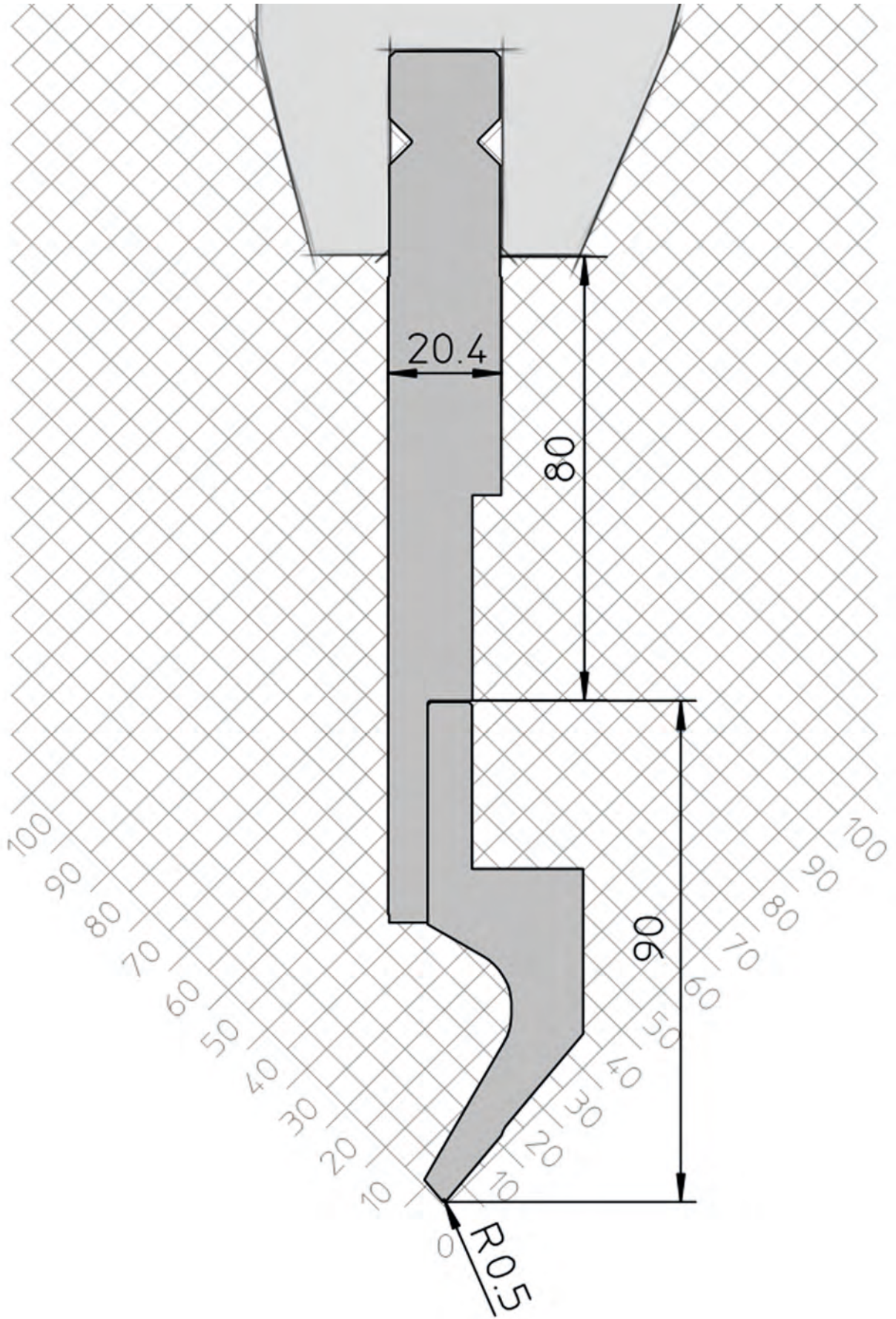


Delivery time: ex warehouse

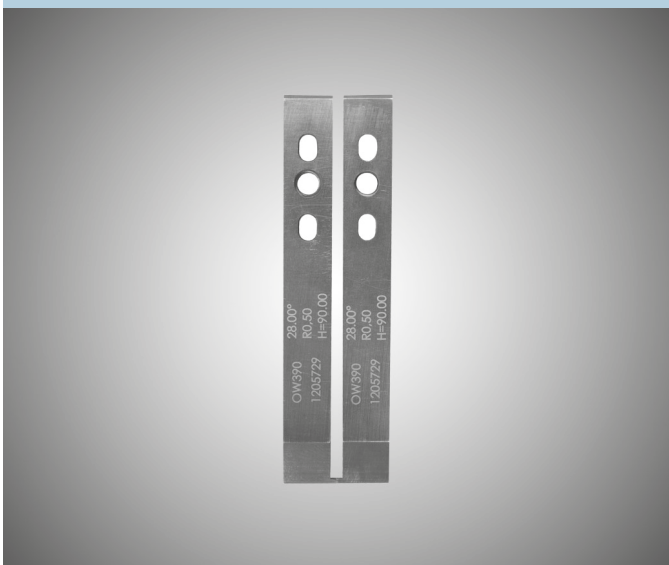
OW391	Radius:	R0,5 mm
	Angle:	80°
	Height:	90 mm
	Mat. No.	Price
VAR. B		
4050	1204647	- EUR
3050	1204646	- EUR
2550	1204645	- EUR
2050	1204642	- EUR
1250	0994418	- EUR
1050	1607414	- EUR
VAR. A		
2050	1204627	- EUR
1250	1204626	- EUR
1050	1607413	- EUR
550	1607412	- EUR
Block 250		
250	0994417	- EUR
Block 150		
150	1207416	- EUR
SINGLE		
500	0994416	- EUR
300	0994415	- EUR
200	0994414	- EUR
100	0994377	- EUR
50	0994413	- EUR
45	0994412	- EUR
40	0994381	- EUR
35	0994380	- EUR
30	0994379	- EUR
25	0994378	- EUR

Lengths in [mm]



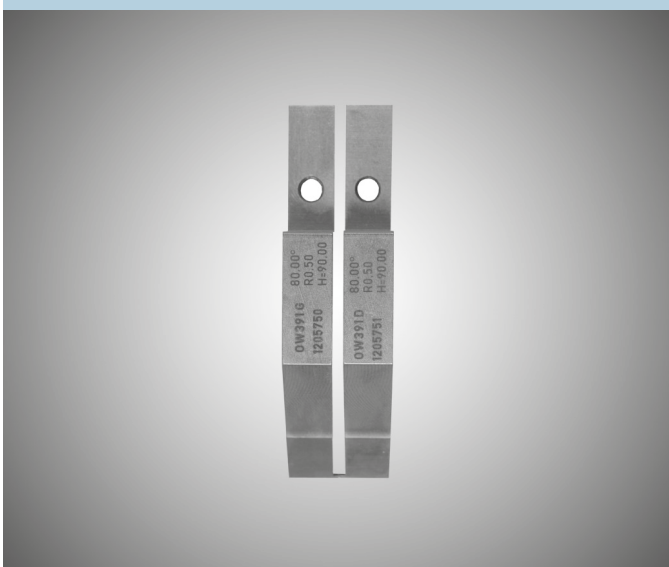


Insert for sensor tool



Delivery time: ex warehouse		
ACB	Radius:	R0,5 mm
OW390	Angle:	28°
	Height:	90 mm
	Mat. No.	Price
ACB		
Insertss	2636906	- EUR

Insert for sensor tool



Delivery time: ex warehouse		
ACB	Radius:	R0,5 mm
OW391	Angle:	80°
	Height:	90 mm
	Mat. No.	Price
ACB		
Insertss	2637876	- EUR



Coining

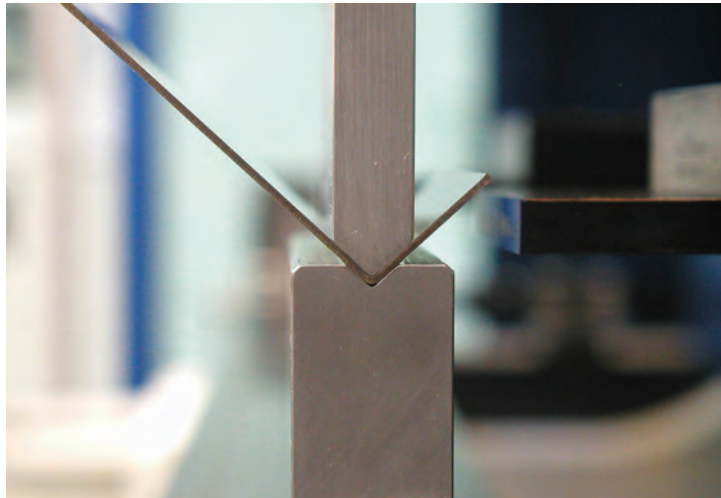
Applications

- Small inner radiuses
- Recesses/holes next to the bending lin
- Material thickness differences (but ACB not usable)

Selection of coining tools for precise coined parts requires great experience. Experimentation is required in a very large number of application cases. Naturally, we also supply coining tools according to customer specifications.

Influencing variables for coining

- Bending part material
- Sheet thickness
- Inner radius R
- Smallest side length b
- Bending angle
- Angle accuracies
- Sheet thickness tolerances
- Maximum tensile strength of the material used





Insert for coining for OW/K80



800 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

6,2 kg/m



~60 HRC

Chapter Coining.
Heels available
upon request

Delivery time: 1 week

OW390	Radius:	R0,5 mm
	Angle:	90°
	Height:	90 mm
	Mat. No.	Price
VAR. B		
4050	1203801	- EUR
3050	1203800	- EUR
2550	1203749	- EUR
2050	1203748	- EUR
1250	0994375	- EUR
1050	1607329	- EUR
VAR. A		
2050	1203744	- EUR
1250	1203743	- EUR
1050	1607328	- EUR
550	1607327	- EUR
Block 250		
250	0994374	- EUR
Block 150		
150	1207401	- EUR
SINGLE		
500	0994373	- EUR
300	0994372	- EUR
200	0994361	- EUR
100	0994353	- EUR
50	0994360	- EUR
45	0994359	- EUR
40	0994358	- EUR
35	0994357	- EUR
30	0994356	- EUR
25	0994355	- EUR

Lengths in [mm]

Insert for coining for OW/K80



400 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

9,0 kg/m



~60 HRC

Chapter
Coining. Heels
available upon
request

Delivery time: 1 week

OW391	Radius:	R0,5 mm
	Angle:	90°
	Height:	90 mm
	Mat. No.	Price
VAR. B		
4050	1205113	- EUR
3050	1205112	- EUR
2550	1205111	- EUR
2050	1205110	- EUR
1250	0994440	- EUR
1050	1607452	- EUR
VAR. A		
2050	1205095	- EUR
1250	1205093	- EUR
1050	1607451	- EUR
550	1607450	- EUR
Block 250		
250	0994439	- EUR
Block 150		
150	1207445	- EUR
SINGLE		
500	0994438	- EUR
300	0994437	- EUR
200	0994436	- EUR
100	0994419	- EUR
50	0994435	- EUR
45	0994434	- EUR
40	0994433	- EUR
35	0994432	- EUR
30	0994421	- EUR
25	0994420	- EUR

Lengths in [mm]



Tool holders



2500 kN/m



2000 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

38,7 kg/m



~60 HRC



25 mm - 100 mm



Delivery time: ex warehouse

OW209/S	Radius:	-
	Angle:	-
	Height:	120 mm
	Mat. No.	Price
VAR. B		
4050	0832205	- EUR
3050	0832204	- EUR
2550	0835191	- EUR
2050	0832203	- EUR
1250	0830316	- EUR
1050	0867281	- EUR
VAR. A		
2050	0823613	- EUR
1250	0831970	- EUR
1050	1607019	- EUR
550	1607018	- EUR
Block 250		
250	0829335	- EUR
SINGLE		
500	0831318	- EUR
300	0831317	- EUR
200	0831316	- EUR
100	0829332	- EUR
50	0829331	- EUR
45	0829330	- EUR
40	0829329	- EUR
35	0829328	- EUR
30	0829327	- EUR
25	0829319	- EUR

Lengths in [mm]

Tool holders



2500 kN/m



2000 kN/m



42CrMo4



18,6 kg/m



~60 HRC



25 mm - 100 mm



Delivery time: ex warehouse

OW209/S	Radius:	-
	Angle:	-
	Height:	40 mm
	Mat. No.	Price
VAR. B		
4050	2551458	- EUR
3050	2551457	- EUR
2550	2551456	- EUR
2050	2551455	- EUR
1250	2551454	- EUR
1050	2551453	- EUR
VAR. A		
2050	2551429	- EUR
1250	2551428	- EUR
1050	2551427	- EUR
550	2551426	- EUR
Block 250		
250	2551469	- EUR
SINGLE		
500	2551468	- EUR
300	2551467	- EUR
200	2551466	- EUR
100	2551465	- EUR
50	2551464	- EUR
45	2551463	- EUR
40	2551462	- EUR
35	2551461	- EUR
30	2551460	- EUR
25	2551459	- EUR

Lengths in [mm]



Insert for OW209/S



1000 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

9,1 kg/m



~60 HRC

Chapter Coining.
Heels available
upon request

Delivery time: ex warehouse

OW320 90°	Radius:	R1,0 mm
	Angle:	90°
	Height:	100 mm
Mat. No.	Price	
VAR. B		
4050	0832200	- EUR
3050	0832199	- EUR
2550	0835206	- EUR
2050	0832198	- EUR
1250	0832169	- EUR
1050	0867284	- EUR
VAR. A		
2050	0832195	- EUR
1250	0832194	- EUR
1050	1607299	- EUR
550	1607298	- EUR
Block 250		
250	0832168	- EUR
SINGLE		
500	0832167	- EUR
300	0832166	- EUR
200	0832165	- EUR
100	0832164	- EUR
50	0832163	- EUR
45	0832162	- EUR
40	0832161	- EUR
35	0832160	- EUR
30	0832159	- EUR
25	0832158	- EUR

Lengths in [mm]

More working radii

Delivery time: ex warehouse

OW320 90°	R0,2	R0,5	R1,5	Radius
	90°	90°	90°	Angle
	100	100	100	Height
Mat. No.	Mat. No.	Mat. No.	Price	
VAR. B				
4050	0869317	0832226	0833007	- EUR
3050	0869316	0832225	0833006	- EUR
2550	0869315	0835204	0835208	- EUR
2050	0855123	0832224	0833005	- EUR
1250	0849957	0832223	0833004	- EUR
1050	1607274	0867282	0867285	- EUR
VAR. A				
2050	0869311	0829336	0833001	- EUR
1250	0844986	0832023	0831070	- EUR
1050	1607273	1607295	1607321	- EUR
550	1607272	1607294	1607320	- EUR
Block 250				
250	0832285	0829315	0831068	- EUR
SINGLE				
500	0832284	0829314	0831057	- EUR
300	0832283	0829313	0831056	- EUR
200	0832282	0829312	0831055	- EUR
100	0832281	0829311	0831054	- EUR
50	0832280	0829310	0831053	- EUR
45	0832279	0829309	0831052	- EUR
40	0832278	0829308	0831051	- EUR
35	0832277	0829307	0831050	- EUR
30	0832276	0829306	0831049	- EUR
25	0832275	0829305	0831048	- EUR

Lengths, radius and height in [mm]

Punch for coining



Delivery time: ex warehouse

OW211/K	Radius:	R1,0 mm
	Angle:	89.66°
	Height:	120 mm
	Mat. No.	Price
VAR. B		
4050	0824077	- EUR
3050	0824076	- EUR
2550	0835197	- EUR
2050	0824074	- EUR
1250	0825730	- EUR
1050	0867274	- EUR
VAR. A		
2050	0824070	- EUR
1250	0825729	- EUR
1050	1576242	- EUR
550	1607722	- EUR
Block 250		
250	0825728	- EUR
SINGLE		
500	0824063	- EUR
300	0824062	- EUR
200	0824060	- EUR
100	0824732	- EUR
Horn left 100	0824729	- EUR
Horn right 100	0824731	- EUR
50	0824726	- EUR
45	0824724	- EUR
40	0824722	- EUR
35	0824720	- EUR
30	0824718	- EUR
25	0824712	- EUR

Lengths in [mm]

Technical data



1800 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



0,0 kg/m



~60 HRC



64 mm

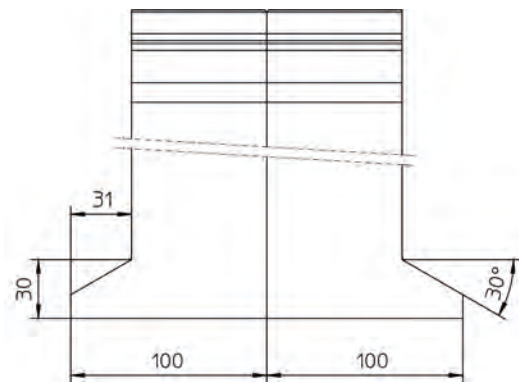


10 mm - 500 mm



Chapter Coining

Horn left / right




More working radii Delivery time: 2 weeks

	R0,2	R0,5		Radius
OW211/K	89.66°	90°		Angle
	119,8	119,8		Height

	Mat. No.	Mat. No.	Price
--	-----------------	-----------------	--------------

VAR. B

4050	0869302	0869310	- EUR
3050	0869301	0869309	- EUR
2550	0869300	0869308	- EUR
2050	0869299	0833955	- EUR
1250	0842901	0869307	- EUR
1050	1871695	1871700	- EUR

VAR. A

2050	0869295	0829419	- EUR
1250	0869294	0869303	- EUR
1050	1871697	1576243	- EUR
550	1871696	1871699	- EUR

Block 250

250	0842931	0829421	- EUR
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SINGLE

500	0842918	0829409	- EUR
300	0842917	0829408	- EUR
200	0842916	0829407	- EUR
100	0842925	0829418	- EUR
Horn left 100	0842928	0829416	- EUR
Horn right 100	0842929	0829417	- EUR
50	0842924	0829415	- EUR
45	0842923	0829414	- EUR
40	0842922	0829413	- EUR
35	0842921	0829412	- EUR
30	0842920	0829411	- EUR
25	0842919	0829410	- EUR

Lengths, radius and height in [mm]



Radius bending

- Optimum tool angle $\sim 30^\circ$
- Overbending by $\sim 10^\circ$ is necessary (depends on material)
- Minimum die width: $\sim (\text{radius} + \text{sheet thickness}) \times 2$
- Round off the result upwards.
- Hardened radius shaft ~ 60 HRC.
- The radiuses at the product will as a rule be somewhat larger than those at the tool (depends on material)



Examples from daily practice

Radius [mm]	Round material		Die width [mm]	Inner radius at the product	
	Minimum bending angle			Sheet thickness 1,5 mm	
	OW308/K	OW308/S		Steel 450 N/mm ²	Stainless steel 700 N/mm ²
R10	90°		W24	10 mm	10,5 mm
R12,5	60°		W30	12,5 mm	13 mm
R15	30° *	90°	W40	15,5 mm	16 mm
R17,5	30° *	70°	W40	17,8 mm	18,5 mm
R20	30° *	60°	W50	20,5 mm	21 mm
R25	30° *	30° *	W60	25,5 mm	26,5 mm
R30		30° *	W70	31 mm	32,5 mm
R35		30° *	W80	36 mm	37,5 mm
R40		30° *	W90	41 mm	43 mm

* depending on the lower tool angle and deflection

Tool adapter (R10-R25)



1300 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



33,3 kg/m



100 mm



Delivery time: ex warehouse

OW308/K	Radius:	Angle:	Height:	Mat. No.	Price
	-	-	106 mm		
VAR. B					
4050				0832213	- EUR
3050				0832212	- EUR
2550				0835202	- EUR
2050				0832211	- EUR
1250				0832210	- EUR
1050				0867643	- EUR
VAR. A					
2050				0832207	- EUR
1250				0832206	- EUR
1050				1607839	- EUR
550				1607838	- EUR
Block 250					
250				0831722	- EUR
SINGLE					
500				0826531	- EUR
300				0827150	- EUR
200				0827151	- EUR
100				0827152	- EUR
50				0831721	- EUR
45				0831720	- EUR
40				0831719	- EUR
35				0831718	- EUR
30				0831717	- EUR
25				0831716	- EUR

Lengths in [mm]



Tool adapter (R15-R50)



1500 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

46,5 kg/m



100 mm



Delivery time: ex warehouse

OW308/S	Radius:	-
	Angle:	-
	Height:	100 mm
	Mat. No.	Price

VAR. B		
4050	0842446	- EUR
3050	0839573	- EUR
2550	0842445	- EUR
2050	0842444	- EUR
1250	0842427	- EUR
1050	0867644	- EUR

VAR. A		
2050	0842448	- EUR
1250	0842447	- EUR
1050	1607830	- EUR
550	1607809	- EUR

Block 250		
250	0839572	- EUR

SINGLE		
500	0839569	- EUR
300	0839568	- EUR
200	0839567	- EUR
100	0839566	- EUR
50	0839565	- EUR
45	0839564	- EUR
40	0839563	- EUR
35	0839562	- EUR
30	0839561	- EUR
25	0839560	- EUR

Lengths in [mm]

Insert for OW 308/K



1300 kN/m

C 45
650 - 800 N/mm²

2,6 kg/m



~60 HRC



Delivery time: ex warehouse

round bars	Radius:	R10,0 mm
	Height:	20 mm
	Mat. No.	Price

VAR. B		
4050	0841925	- EUR
3050	0842538	- EUR
2550	0842067	- EUR
2050	0835550	- EUR
1250	0835020	- EUR
1050	1607908	- EUR

VAR. A		
2050	0842534	- EUR
1250	0837974	- EUR
1050	1607907	- EUR
550	1607906	- EUR

Block 250		
250	0830948	- EUR

SINGLE		
500	0826535	- EUR
300	0830943	- EUR
200	0830942	- EUR
100	0830941	- EUR
50	0830940	- EUR
45	0830939	- EUR
40	0830938	- EUR
35	0830937	- EUR
30	0830936	- EUR
25	0830935	- EUR

Lengths in [mm]



Insert for OW 308/K



1300 kN/m

C 45
650 - 800 N/mm²

3,8 kg/m



~60 HRC



Delivery time: ex warehouse

round bars	Radius:	R12,5 mm
	Height:	25 mm
	Mat. No.	Price

VAR. B

4050	1782831	- EUR
3050	1782829	- EUR
2550	1782827	- EUR
2050	1541448	- EUR
1250	1782824	- EUR
1050	1782822	- EUR

VAR. A

2050	1782825	- EUR
1250	1782823	- EUR
1050	1782821	- EUR
550	1782790	- EUR

Block 250

250	1541447	- EUR
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SINGLE

500	1203818	- EUR
300	1203840	- EUR
200	1203819	- EUR
100	0994059	- EUR
50	1541445	- EUR
45	1541444	- EUR
40	1541443	- EUR
35	1541442	- EUR
30	1541441	- EUR
25	1541440	- EUR

Lengths in [mm]

Insert for OW308/K, OW308/S



1500 kN/m

C 45
650 - 800 N/mm²

5,5 kg/m



~60 HRC



Delivery time: ex warehouse

round bars	Radius:	R15,0 mm
	Height:	30 mm
	Mat. No.	Price

VAR. B

4050	0853731	- EUR
3050	0861406	- EUR
2550	0861877	- EUR
2050	0841924	- EUR
1250	0835021	- EUR
1050	1607936	- EUR

VAR. A

2050	0864237	- EUR
1250	0869384	- EUR
1050	1607935	- EUR
550	1607934	- EUR

Block 250

250	0832340	- EUR
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SINGLE

500	0832339	- EUR
300	0830071	- EUR
200	0832338	- EUR
100	0832337	- EUR
50	0832336	- EUR
45	0832335	- EUR
40	0832334	- EUR
35	0832333	- EUR
30	0832332	- EUR
25	0832331	- EUR

Lengths in [mm]

Insert for OW308/K, OW308/S



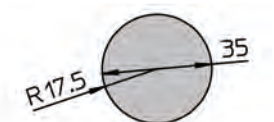
1500 kN/m

C 45
650 - 800 N/mm²

7,6 kg/m



~60 HRC



Delivery time: ex warehouse

round bars	Radius:	R17,5 mm
	Height:	35 mm
	Mat. No.	Price

VAR. B

4050	1782889	- EUR
3050	1782887	- EUR
2550	1782885	- EUR
2050	1782883	- EUR
1250	0852881	- EUR
1050	1782860	- EUR

VAR. A

2050	1782882	- EUR
1250	1782881	- EUR
1050	1782859	- EUR
550	1782858	- EUR

Block 250

250	0852880	- EUR
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SINGLE

500	1598058	- EUR
300	0852879	- EUR
200	0852878	- EUR
100	0852871	- EUR
50	0852877	- EUR
45	0852876	- EUR
40	0852875	- EUR
35	0852874	- EUR
30	0852873	- EUR
25	0852872	- EUR

Lengths in [mm]

Insert for OW308/K, OW308/S



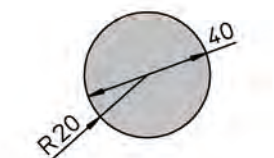
1500 kN/m

C 45
650 - 800 N/mm²

9,8 kg/m



~60 HRC



Delivery time: ex warehouse

round bars	Radius:	R20,0 mm
	Height:	40 mm
	Mat. No.	Price

VAR. B

4050	0859434	- EUR
3050	0861407	- EUR
2550	0851579	- EUR
2050	0855423	- EUR
1250	0835004	- EUR
1050	1607946	- EUR

VAR. A

2050	0869389	- EUR
1250	0869388	- EUR
1050	1607945	- EUR
550	1607944	- EUR

Block 250

250	0835019	- EUR
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SINGLE

500	0826534	- EUR
300	0827153	- EUR
200	0827154	- EUR
100	0827155	- EUR
50	0835018	- EUR
45	0835017	- EUR
40	0835016	- EUR
35	0835015	- EUR
30	0835014	- EUR
25	0835013	- EUR

Lengths in [mm]



Insert for OW308/K, OW308/S



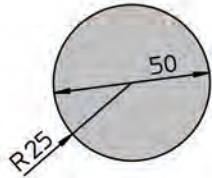
1500 kN/m

C 45
650 - 800 N/mm²

15,3 kg/m



~60 HRC



Delivery time: ex warehouse

round bars	Radius:	R25,0 mm
	Height:	50 mm
	Mat. No.	Price

VAR. B

4050	0842299	- EUR
3050	0848761	- EUR
2550	0842070	- EUR
2050	0835809	- EUR
1250	0841800	- EUR
1050	1607981	- EUR

VAR. A

2050	0869394	- EUR
1250	0869393	- EUR
1050	1607980	- EUR
550	1607949	- EUR

Block 250

250	0835032	- EUR
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SINGLE

500	0835031	- EUR
300	0835030	- EUR
200	0835029	- EUR
100	0835028	- EUR
50	0835027	- EUR
45	0835026	- EUR
40	0835025	- EUR
35	0835024	- EUR
30	0835023	- EUR
25	0835022	- EUR

Lengths in [mm]

Insert for OW308/S



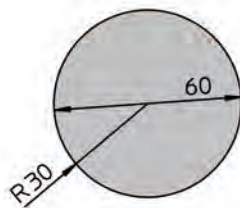
1500 kN/m

C 45
650 - 800 N/mm²

22,2 kg/m



~60 HRC



Delivery time: ex warehouse

round bars	Radius:	R30,0 mm
	Height:	60 mm
	Mat. No.	Price

VAR. B

4050	0869405	- EUR
3050	0869404	- EUR
2550	0864142	- EUR
2050	0869403	- EUR
1250	0864112	- EUR
1050	1607984	- EUR

VAR. A

2050	0869399	- EUR
1250	0869398	- EUR
1050	1607983	- EUR
550	1607982	- EUR

Block 250

250	0864111	- EUR
-----	---------	-------

SINGLE

500	0853551	- EUR
300	0855876	- EUR
200	0864110	- EUR
100	0853550	- EUR
50	0864109	- EUR
45	0864108	- EUR
40	0864107	- EUR
35	0855875	- EUR
30	0864106	- EUR
25	0864105	- EUR

Lengths in [mm]

Insert for OW308/S



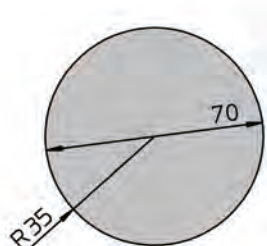
1500 kN/m

C 45
650 - 800 N/mm²

30,2 kg/m



~60 HRC

The 500-mm part length
has a weight of 37 kg with
holder

Delivery time: ex warehouse

round bars	Radius:	R35,0 mm
	Height:	70 mm
	Mat. No.	Price
VAR. B		
4050	0869413	- EUR
3050	0869412	- EUR
2550	0864151	- EUR
2050	0869411	- EUR
1250	0863579	- EUR
1050	1607987	- EUR
VAR. A		
2050	0869407	- EUR
1250	0869406	- EUR
1050	1607986	- EUR
550	1607985	- EUR
Block 250		
250	0864150	- EUR
SINGLE		
500	0864149	- EUR
300	0861138	- EUR
200	0859828	- EUR
100	0859827	- EUR
50	0864148	- EUR
45	0864147	- EUR
40	0864146	- EUR
35	0864145	- EUR
30	0864144	- EUR
25	0864143	- EUR

Lengths in [mm]

Insert for OW308/S



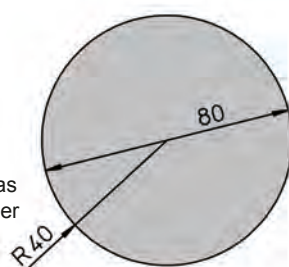
1500 kN/m

C 45
650 - 800 N/mm²

39,5 kg/m



~60 HRC

The 500-mm part length
has a weight of 43 kg with
holder

Delivery time: ex warehouse

round bars	Radius:	R40,0 mm
	Height:	80 mm
	Mat. No.	Price
VAR. B		
4050	0869421	- EUR
3050	0869420	- EUR
2550	0856344	- EUR
2050	0847638	- EUR
1250	0869419	- EUR
1050	1607992	- EUR
VAR. A		
2050	0869415	- EUR
1250	0869414	- EUR
1050	1607991	- EUR
550	1607990	- EUR
Block 250		
250	0847637	- EUR
SINGLE		
500	0847636	- EUR
300	0847635	- EUR
200	0847634	- EUR
100	0847627	- EUR
50	0847633	- EUR
45	0847632	- EUR
40	0847631	- EUR
35	0847630	- EUR
30	0847629	- EUR
25	0847628	- EUR

Lengths in [mm]



Insert for OW308/S



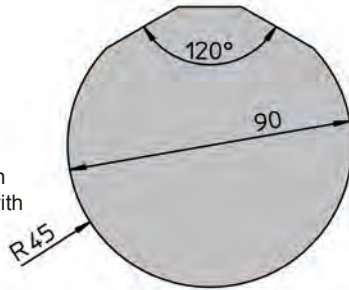
1500 kN/m

C 45
650 - 800 N/mm²

49,3 kg/m



~60 HRC

The 500-mm part length
has a weight of 47 kg with
holder

Delivery time: ex warehouse

round bars	Radius:	R45,0 mm
	Height:	89 mm
	Mat. No.	Price

VAR. B

4050	1461664	- EUR
3050	1461663	- EUR
2550	1461661	- EUR
2050	0871222	- EUR
1250	1461660	- EUR
1050	1608027	- EUR

VAR. A

2050	1461589	- EUR
1250	1461582	- EUR
1050	1608026	- EUR
550	1608025	- EUR

Block 250

250	0871221	- EUR
-----	---------	-------

SINGLE

500	0871220	- EUR
300	0871219	- EUR
200	0852887	- EUR
100	0871212	- EUR
50	0871218	- EUR
45	0871217	- EUR
40	0871216	- EUR
35	0871215	- EUR
30	0871214	- EUR
25	0871213	- EUR

Lengths in [mm]

Insert for OW308/S



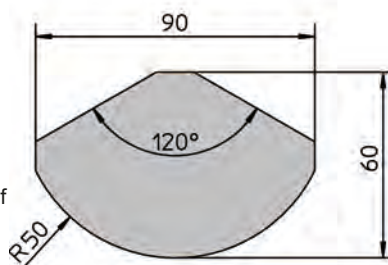
1500 kN/m

C 45
650 - 800 N/mm²

29,9 kg/m



~60 HRC

The 500-mm part
length has a weight of
37 kg with holder

Delivery time: ex warehouse

round bars	Radius:	R50,0 mm
	Height:	60 mm
	Mat. No.	Price

VAR. B

4050	1461702	- EUR
3050	1461700	- EUR
2550	1245215	- EUR
2050	1461699	- EUR
1250	0860395	- EUR
1050	1608054	- EUR

VAR. A

2050	1461693	- EUR
1250	1444371	- EUR
1050	1608053	- EUR
550	1608052	- EUR

Block 250

250	0860474	- EUR
-----	---------	-------

SINGLE

500	0860473	- EUR
300	0860472	- EUR
200	0852886	- EUR
100	0860464	- EUR
50	0860471	- EUR
45	0860470	- EUR
40	0860469	- EUR
35	0860468	- EUR
30	0860467	- EUR
25	0860466	- EUR

Lengths in [mm]

Adapter

Adapter



1300 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

35,8 kg/m

Adapter for other tool adapters
available upon request.

Delivery time: 4 weeks / on request

TRUMPF-EHT	Angle:	-
	Height:	40 mm
	Mat. No.	Price

SINGLE

200 1281055 - EUR

Lengths in [mm]

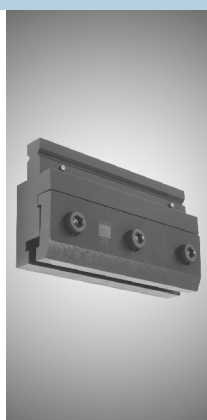
Adapter



1300 kN/m

C 50
700 - 850 N/mm²

33,2 kg/m

Adapter for other tool adapters
available upon request.

Delivery time: ex warehouse

LVD 80 adapter	Angle:	-
	Height:	80 mm
	Mat. No.	Price

SINGLE

200 0831700 - EUR

Lengths in [mm]

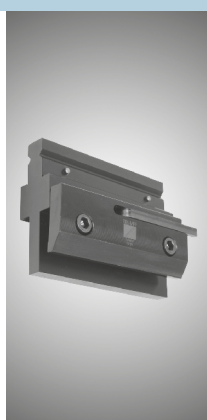
Adapter



1000 kN/m

C 45
650 - 800 N/mm²

26,0 kg/m

Adapter for other tool adapters
available upon request.

Delivery time: ex warehouse

Adapter Amada: type A	Angle:	-
	Height:	80 mm
	Mat. No.	Price

SINGLE

150 0831214 - EUR

Lengths in [mm]

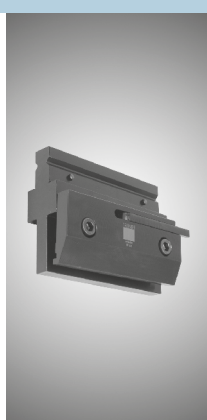
Adapter



1000 kN/m

C 45
650 - 800 N/mm²

27,1 kg/m

Adapter for other tool adapters
available upon request.

Delivery time: ex warehouse

Adapter Amada: type B	Angle:	-
	Height:	80 mm
	Mat. No.	Price

SINGLE

150 0831331 - EUR

Lengths in [mm]



TRUMPF adapter as extension

- As tool extension, for example for nesting (Fig. 1)
- Individual window solutions can be created (Fig. 2)
- More flexibility for angle measuring due to adapter for ACB Wireless sensor tools (Fig. 3)
- Observe the installation height of the press brakes!



Figure 1

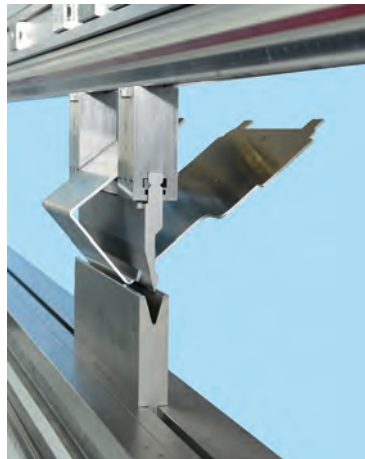


Figure 2



Figure 3

Adapter



1500 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

26,3 kg/m



25 mm - 100 mm



Delivery time: ex warehouse

Modufix H=60

Angle: -

Height: 60 mm

Mat. No. Price

VAR. A

4050	0832616	- EUR
3050	0832615	- EUR
2550	0836965	- EUR
2050	0832614	- EUR
1250	0832613	- EUR
1050	1605787	- EUR
550	1605786	- EUR

Block 250

250	0831695	- EUR
-----	---------	-------

SINGLE





100	0831691	- EUR
50	0831690	- EUR
45	0831689	- EUR
40	0831688	- EUR
35	0831687	- EUR
30	0831686	- EUR
25	0831685	- EUR

ACB Wireless

25	2313180	- EUR
----	---------	-------

Lengths in [mm]

Adapter

-  1500 kN/m
-  42 Cr Mo 4
1080 - 1180 N/mm²
-  35,7 kg/m
-  25 mm - 100 mm







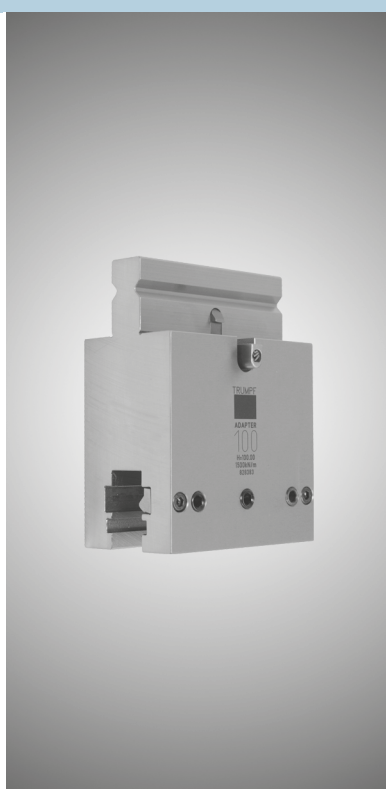
Delivery time: ex warehouse

Modufix H=80		
Angle:	-	
Height:	80 mm	
Mat. No.		Price
VAR. A		
4050	0832714	- EUR
3050	0832713	- EUR
2550	0836962	- EUR
2050	0832712	- EUR
1250	0832711	- EUR
1050	1605810	- EUR
550	1605789	- EUR
Block 250		
250	0832710	- EUR
SINGLE		
100	0832708	- EUR
50	0832707	- EUR
45	0832706	- EUR
40	0832705	- EUR
35	0832704	- EUR
30	0832703	- EUR
25	0832702	- EUR
ACB Wireless		
25	2339817	- EUR

Lengths in [mm]

Adapter

-  1500 kN/m
-  42 Cr Mo 4
1080 - 1180 N/mm²
-  45,3 kg/m
-  25 mm - 100 mm



Delivery time: ex warehouse

Modufix H=100		
Angle:	-	
Height:	100 mm	
Mat. No.		Price
VAR. A		
4050	0830711	- EUR
3050	0830710	- EUR
2550	0836961	- EUR
2050	0830709	- EUR
1250	0829283	- EUR
1050	1605817	- EUR
550	1605816	- EUR
Block 250		
250	0828387	- EUR
SINGLE		
100	0828383	- EUR
50	0828382	- EUR
45	0828381	- EUR
40	0828380	- EUR
35	0828379	- EUR
30	0828378	- EUR
25	0828377	- EUR
ACB Wireless		
25	2339819	- EUR

Lengths in [mm]



Adapter



1500 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



68,6 kg/m



25 mm - 100 mm



Delivery time: ex warehouse

Modufix H=150		
Angle:	-	
Height:	150 mm	
Mat. No.		Price
VAR. A		
4050	0832734	- EUR
3050	0832733	- EUR
2550	0836959	- EUR
2050	0832732	- EUR
1250	0832731	- EUR
1050	1605862	- EUR
550	1605861	- EUR
Block 250		
250	0832730	- EUR
SINGLE		
100	0832728	- EUR
50	0832727	- EUR
45	0832726	- EUR
40	0832725	- EUR
35	0832724	- EUR
30	0832723	- EUR
25	0832722	- EUR
ACB Wireless		
25	2339820	- EUR
Lengths in [mm]		

Dies

Adapter



1000 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



61,9 kg/m



25 mm - 100 mm



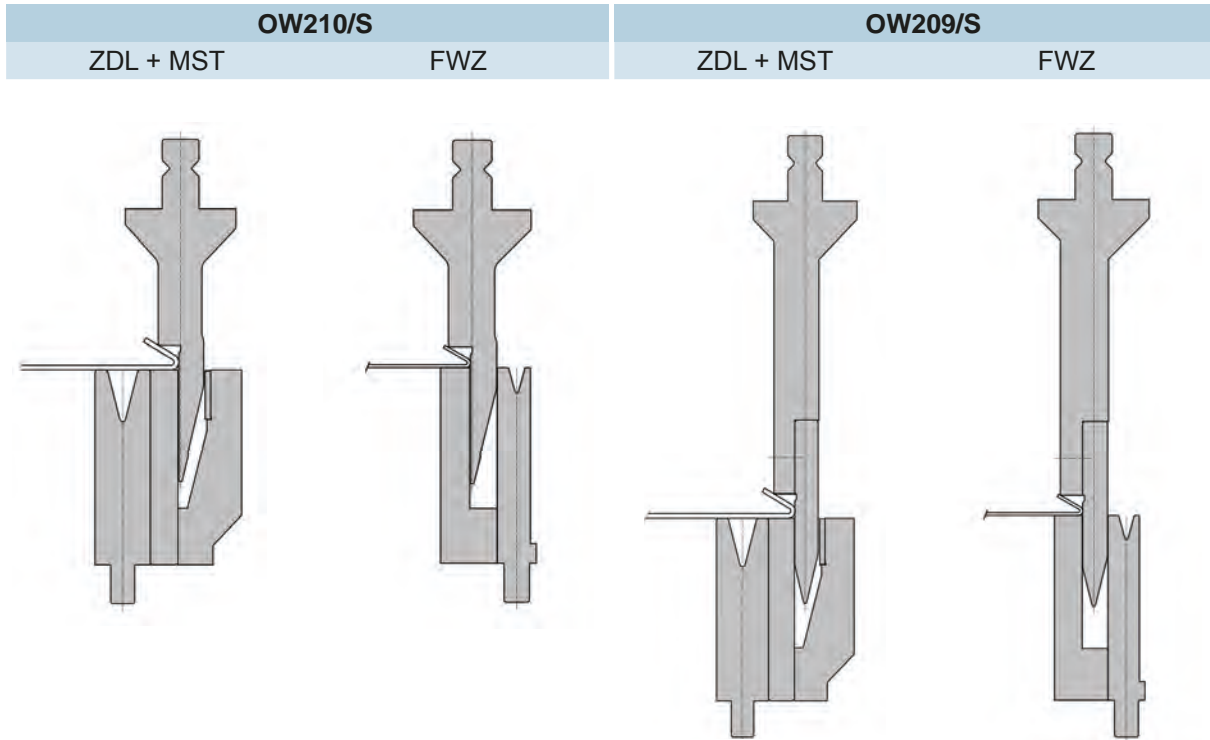
Delivery time: ex warehouse

Modufix H=200		
Angle:	-	
Height:	200 mm	
Mat. No.		Price
VAR. A		
4050	1766444	- EUR
3050	1766443	- EUR
2550	1766442	- EUR
2050	1766441	- EUR
1250	1766440	- EUR
1050	1766439	- EUR
550	1766438	- EUR
Block 250		
250	1766437	- EUR
SINGLE		
100	1766435	- EUR
50	1766434	- EUR
45	1766433	- EUR
40	1766432	- EUR
35	1766431	- EUR
30	1766330	- EUR
25	1766329	- EUR
ACB Wireless		
25	2339851	- EUR
Lengths in [mm]		

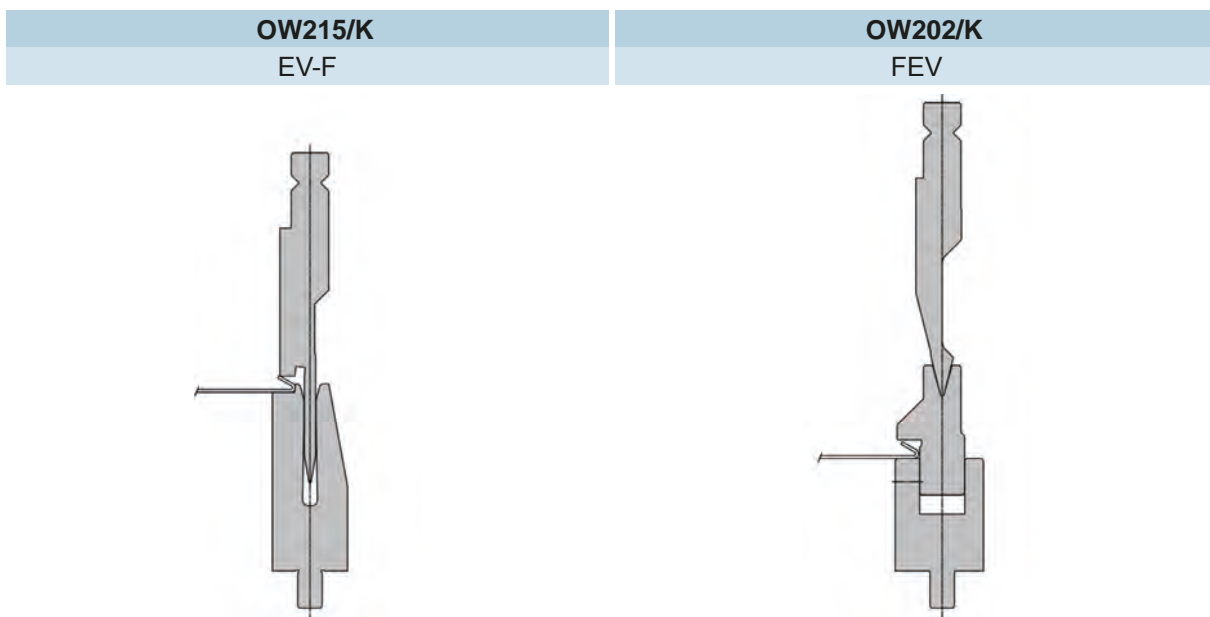
Folding

Sheets can be folded with/without lower tool displacement. All useful information on these two variants is summarized in the following chapter.

Folding with lower tool displacement



Folding without lower tool displacement





Press force during folding

ST37: ~ 400 N/mm²

Hemming

Folding



Sheet thickness	Press force	Press force
0,8 mm	320 kN/m	120 kN/m
1 mm	500 kN/m	150 kN/m
1,25 mm	550 kN/m	170 kN/m
1,5 mm	650 kN/m	220 kN/m
2 mm	800 kN/m	300 kN/m
2,5 mm	1000 kN/m	550 kN/m
3 mm	1300 kN/m	800 kN/m

Stainless steel
(1.4301):
~700 N/mm²

Hemming

Folding



Sheet thickness	Press force	Press force
0,8 mm	500 kN/m	200 kN/m
1 mm	600 kN/m	250 kN/m
1,25 mm	800 kN/m	300 kN/m
1,5 mm	950 kN/m	500 kN/m
2 mm	1300 kN/m	800 kN/m

Folding without lower tool displacement

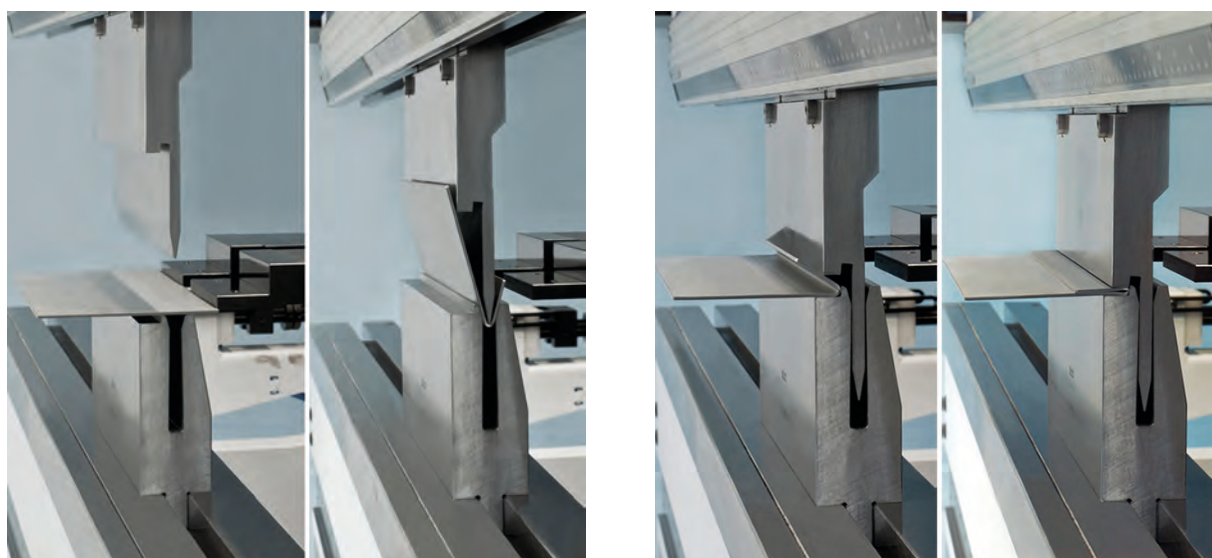
Folding tool OW215 / EV-F

With folding tool OW215, materials up to a sheet thickness of 2 mm can be folded. The upper tool is compatible with all 3 folding dies (EV-F) and can be used without lower tool displacement or a folding table. This makes it particularly interesting for machines from the TruBend Series 3000 and 7000.

Your advantages at a glance

- Only one punch is necessary for all EV-F dies
- Reliability because of the stop edge on the die
- A larger radius on the lower tool is possible (for film-coated workpieces)
- Short setup time - all punches up to 500 mm with a Safety-Click
- No I-axis necessary
- Quick folding on the TruBend Series 5000 and 7000 possible

Bending process



preparation bend

folding

Areas of application

Tool combination		Steel (max. sheet thickness)	Stainless steel (max. sheet thickness)
Punch OW215/K R0,5	Die EV-F W6,4 R2	1,50 mm	1,25 mm
	Die EV-F W8/30° R2,5	1,75 mm	1,50 mm
	Die EV-F W10/30° R2,5	2,00 mm	1,50 mm

Conditions

Machine	TruBend Series 3000, 8000
Control unit	Delem, all versions
Machine	TruBend Series 5000, 7000 (B28)
Control unit	TASC 6000 starting at version 6.0 Touchpoint starting at version 2.0
Machine	TruBend Series 7000
Control unit	TASC 6000 starting at version 4.0

Note: Tools must not be used in embossing mode!



Punch



Delivery time: ex warehouse

OW215/K	Radius:	R0,5 mm
	Angle:	20°
	Height:	140 mm
	Mat. No.	Price
VAR. B		
4050	1908035	- EUR
3050	1908034	- EUR
2550	1908033	- EUR
2050	1908032	- EUR
1250	1908031	- EUR
1050	1908010	- EUR
VAR. A		
2050	1908006	- EUR
1250	1908005	- EUR
1050	1908004	- EUR
550	1908003	- EUR
Block 250		
250	1908049	- EUR
SINGLE		
500	1908048	- EUR
300	1908047	- EUR
200	1908046	- EUR
100	1908042	- EUR
Horn left 100	1908050	- EUR
Horn right 100	1908051	- EUR
50	1908041	- EUR
45	1908040	- EUR
40	1908039	- EUR
35	1908038	- EUR
30	1908037	- EUR
25	1908036	- EUR
20	1908045	- EUR
15	1908044	- EUR
10	1908043	- EUR

Lengths in [mm]

Technical data



400 kN/m



1000 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



22,0 kg/m



~60 HRC

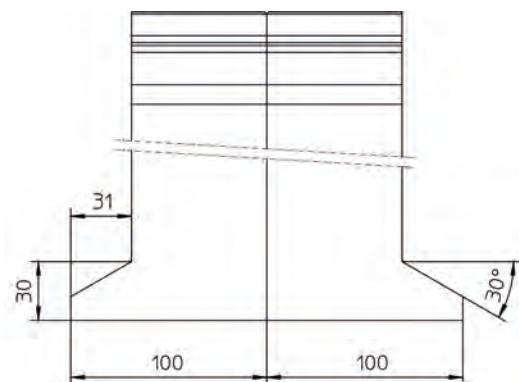


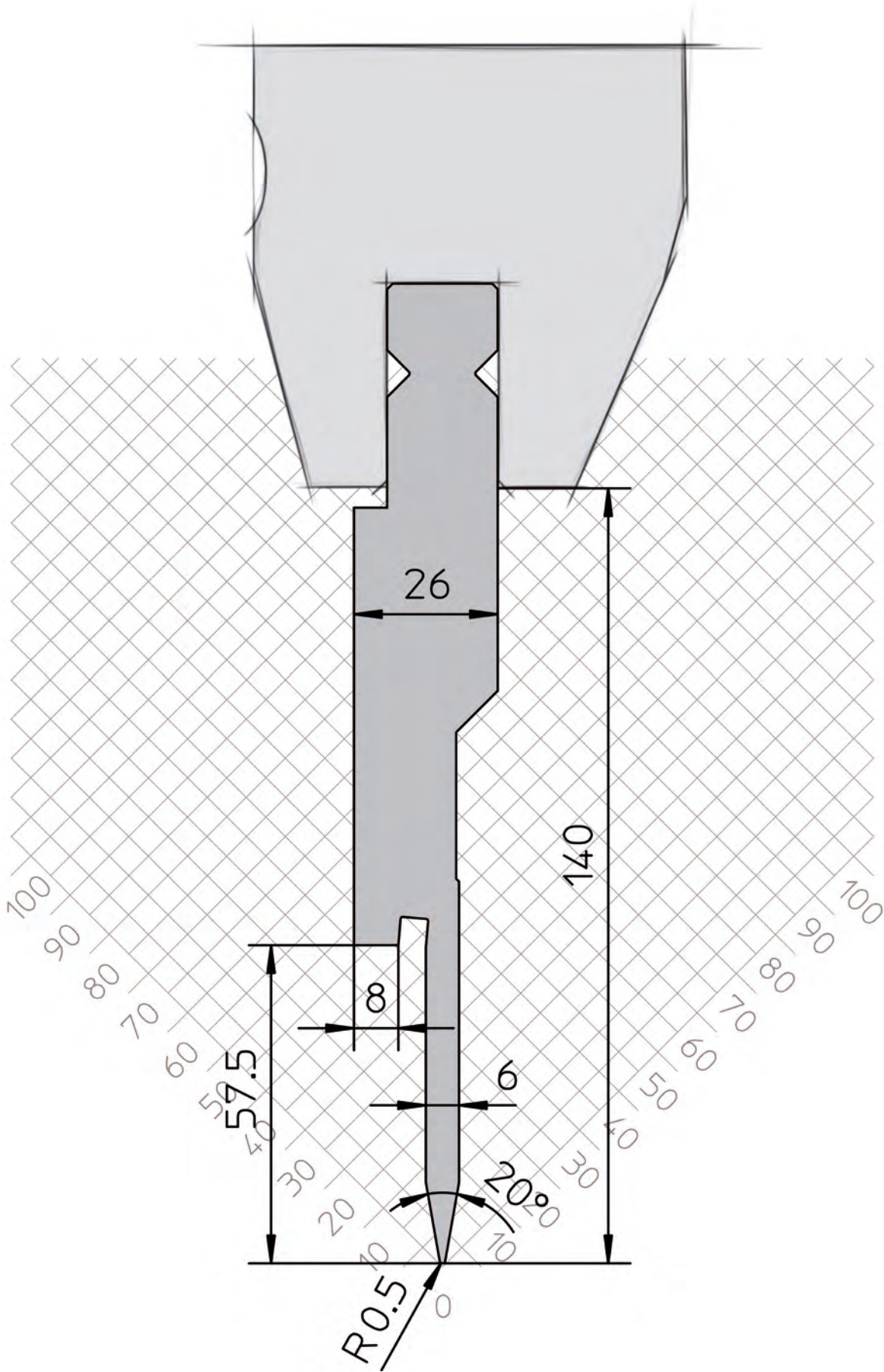
78 mm



10 mm - 500 mm

Horn left / right







Die



400 kN/m



1000 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



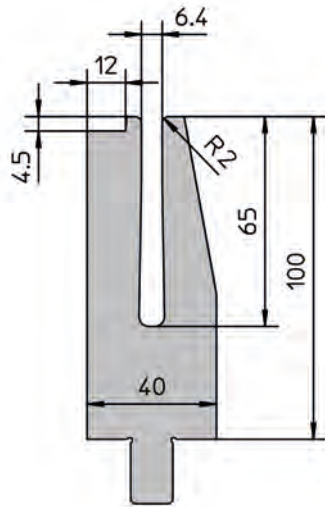
27,3 kg/m



~60 HRC



4,7 mm



Delivery time: ex warehouse

EV-F W6,4	Die width:	6,4 mm
	Angle:	0°
	Height:	100 mm
	Mat. No.	Price

VAR. B		
4050	1963983	- EUR
3050	1963982	- EUR
2550	1963981	- EUR
2050	1963980	- EUR
1250	1963979	- EUR
1050	1963978	- EUR

VAR. A		
2050	1963974	- EUR
1250	1963973	- EUR
1050	1963972	- EUR
550	1963971	- EUR

Block 250		
250	1963997	- EUR

SINGLE		
500	1963996	- EUR
300	1963995	- EUR
200	1963994	- EUR
100	1963993	- EUR
50	1963992	- EUR
45	1963991	- EUR
40	1963990	- EUR
35	1963989	- EUR
30	1963988	- EUR
25	1963987	- EUR
20	1963986	- EUR
15	1963985	- EUR
10	1963984	- EUR

Lengths in [mm]

Die



400 kN/m



1000 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



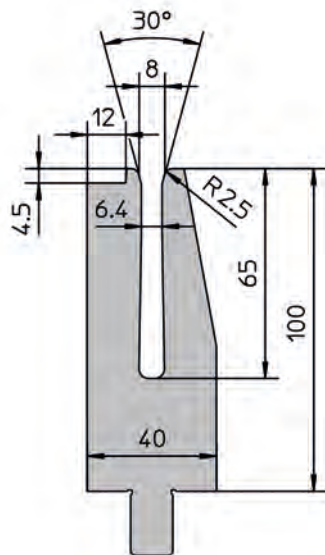
27,3 kg/m



~60 HRC



7,6 mm



Delivery time: ex warehouse

EV-F W8	Die width:	8 mm
	Angle:	30°
	Height:	100 mm
	Mat. No.	Price

VAR. B		
4050	1941578	- EUR
3050	1941577	- EUR
2550	1941576	- EUR
2050	1941575	- EUR
1250	1941574	- EUR
1050	1941573	- EUR

VAR. A		
2050	1941549	- EUR
1250	1941548	- EUR
1050	1941547	- EUR
550	1941546	- EUR

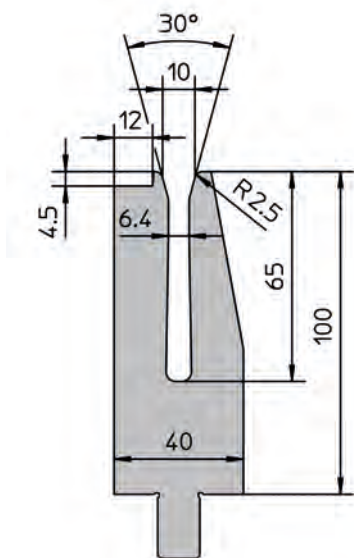
Block 250		
250	1941592	- EUR

SINGLE		
500	1941591	- EUR
300	1941590	- EUR
200	1941589	- EUR
100	1941588	- EUR
50	1941587	- EUR
45	1941586	- EUR
40	1941585	- EUR
35	1941584	- EUR
30	1941583	- EUR
25	1941582	- EUR
20	1941581	- EUR
15	1941580	- EUR
10	1941579	- EUR

Lengths in [mm]



Die



Delivery time: ex warehouse

EV-F W10	Die width:	10 mm
	Angle:	30°
	Height:	100 mm
Mat. No.	Price	
VAR. B		
4050	1908064	- EUR
3050	1908063	- EUR
2550	1908062	- EUR
2050	1908061	- EUR
1250	1908060	- EUR
1050	1908059	- EUR
VAR. A		
2050	1908055	- EUR
1250	1908054	- EUR
1050	1908053	- EUR
550	1908052	- EUR
Block 250		
250	1908078	- EUR
SINGLE		
500	1908077	- EUR
300	1908076	- EUR
200	1908075	- EUR
100	1908074	- EUR
50	1908073	- EUR
45	1908072	- EUR
40	1908071	- EUR
35	1908070	- EUR
30	1908069	- EUR
25	1908068	- EUR
20	1908067	- EUR
15	1908066	- EUR
10	1908065	- EUR

Lengths in [mm]

Minimum seam length

valid for steel, stainless steel and Aluminium



Type of die	Sheet thickness	min. seam length „x“
EVF W6,4 Standard	1 mm	6,9 mm
	1,5 mm	7,2 mm
EVF W8 Standard	1 mm	7,5 mm
	1,5 mm	7,6 mm
EVF W10 Standard	1 mm	7,9mm
	1,5 mm	8,0mm
	2 mm	8,5 mm



FEV Dies

- Folding without I axis (e.g.: TruBend Series 3000, 7000 and 8000)
- Insert can be fixed at H=100
- Folding stroke of the FEV: 8 to 10 mm
- Ideal in combination with OW202/K, OW202/S
- Folding: – stainless steel max. 1.5 mm
– steel, alu max. 2.0 mm
- Partial section lengths up to L=100 mm on request

Die



400 kN/m



800 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

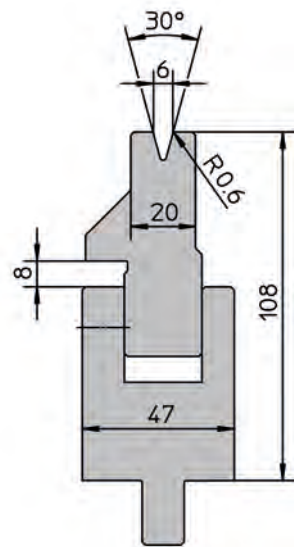
20,0 kg/m



~60 HRC



4,8 mm



Delivery time: ex warehouse

FEV W6/30°

Die width: 6 mm

Angle: 30°

Height: 100 mm

Mat. No. Price

SINGLE

500	1239747	- EUR
300	1239746	- EUR
200	1239743	- EUR
100	1239742	- EUR

Lengths in [mm]

Die



400 kN/m



800 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

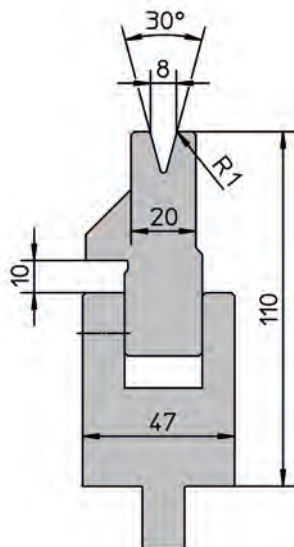
21,0 kg/m



~60 HRC



6,3 mm



Delivery time: ex warehouse

FEV W8/30°

Die width: 8 mm

Angle: 30°

Height: 100 mm

Mat. No. Price

SINGLE

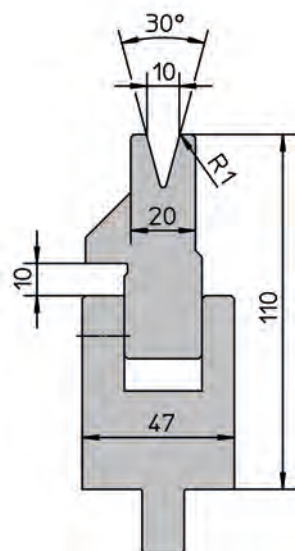
500	1231050	- EUR
300	1231049	- EUR
200	1231048	- EUR
100	1229818	- EUR

Lengths in [mm]



Die

- 400 kN/m
- 800 kN/m
- 42 Cr Mo 4
1080 - 1180 N/mm²
- 20,0 kg/m
- ~60 HRC
- 7,8 mm



Delivery time: ex warehouse

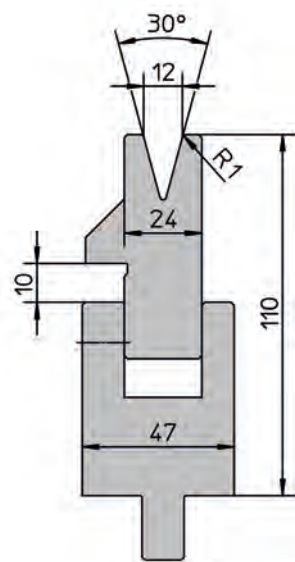
FEV W10/30°	Die width:	10 mm
	Angle:	30°
	Height:	110 mm
	Mat. No.	Price

SINGLE		
500	1240001	- EUR
300	1239920	- EUR
200	1239919	- EUR
100	1239918	- EUR

Lengths in [mm]

Die

- 400 kN/m
- 800 kN/m
- 42 Cr Mo 4
1080 - 1180 N/mm²
- 21,0 kg/m
- ~60 HRC
- 9,3 mm



Delivery time: ex warehouse

FEV W12/30°	Die width:	12 mm
	Angle:	30°
	Height:	100 mm
	Mat. No.	Price

SINGLE		
500	1240043	- EUR
300	1240042	- EUR
200	1240041	- EUR
100	1240010	- EUR

Lengths in [mm]

Folding with lower tool displacement

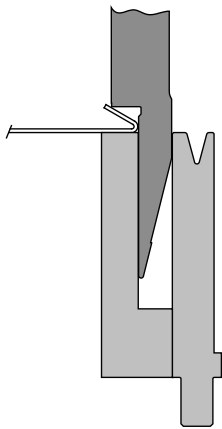
Application

Folding tools (FWZ, ZDL, MST) can be used only in combination with a TruBend Series 5000 / TrumaBend V Series or TruBend Serie 7000 (B28), because the insert of these tools requires lower tool displacement.

Application range

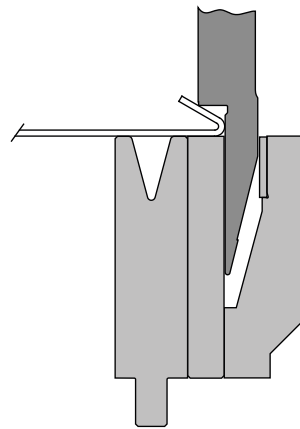
- Stainless steel up to 2 mm sheet thicknesses
- Steel, aluminum up to 2.5 mm sheet thickness

Hemming front



1. Bend to an angle of 30°
2. Hemming: I axis is located thereby in the rear position

Hemming rear



1. Bend to an angle of 30°
2. Hemming: I axis is located thereby in the front position

Assembly options for folding tools

Folding tool front

Folding tool rear
(thin sheets)

Folding tool and ZDL
rear

ZDL rear (thin sheets)

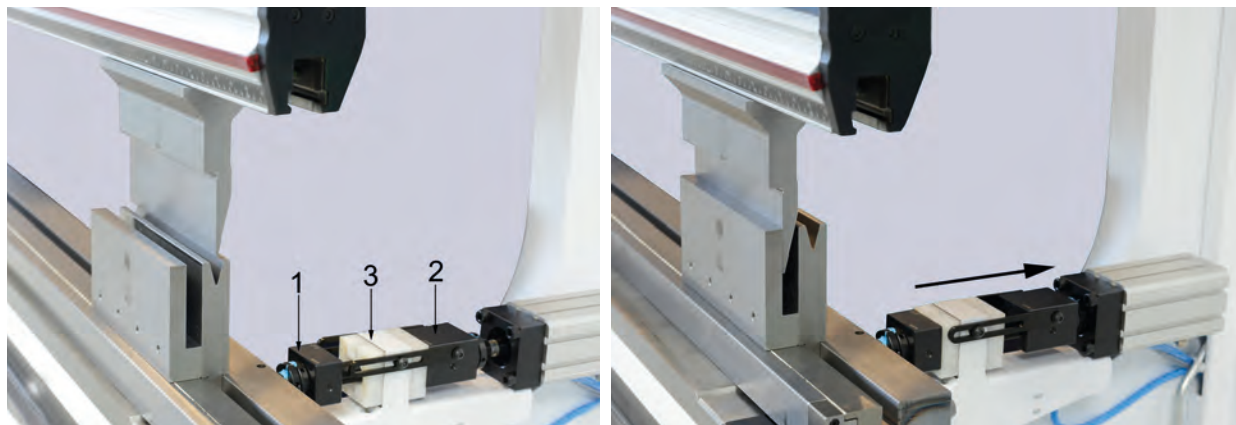
Torque stay rod and
ZDL rear



Pneumatic displacement of the lower tool clamp (I axis)

OW210/S with folding tool at the front:

- The spacer for the position of the displacement path is at the rear of the fixed stop
- The spacer belonging to the lower tool is set up at the front



1 ... spacer for sliding distance
 2 ... spacer for sliding direction
 3 ... rear fixed stop

Hemming at the rear with OW210/S:

- The spacer for the position of the displacement path is at the front of the fixed stop
- The spacer belonging to the lower tool is set up at the rear

The displacement path depends on the tool width of the lower tool. It can be adjusted with the following spacers:

			Folding tool front	Hemming rear
Spacer			Displacement to the rear	Displacement to the front
EV001	30,0 mm	825780	22,7 mm	26,2 mm
EV002	30,0 mm	825780	22,7 mm	26,2 mm
EV003	30,0 mm	825780	22,7 mm	26,2 mm
EV004	27,5 mm	825779	25,2 mm	28,7 mm
EV005	25,0 mm	825778	27,7 mm	31,2 mm
EV006	22,5 mm	825777	30,2 mm	33,7 mm
EV007	20,0 mm	825776	32,7 mm	36,2 mm

In addition, specially configured spacers also exist for special dies.

CNC-controlled displacement of the lower tool clamp (I axis)



Advantages

- Freely programmable positions
- Any number of positions possible in a bending program

Displacement of the lower tool clamp when using the OW209/S

Application

This tool system with an OW209/S holder and OW320-F insert can be used only in combination with a TruBend Series 5000 / TrumaBend V Series or a TruBend Series 7000 (B28), because the insert of these tools requires lower tool displacement.

Application range

- Stainless steel up to 2 mm sheet thicknesses
- Steel, aluminum up to 2.5 mm sheet thickness

Advantages

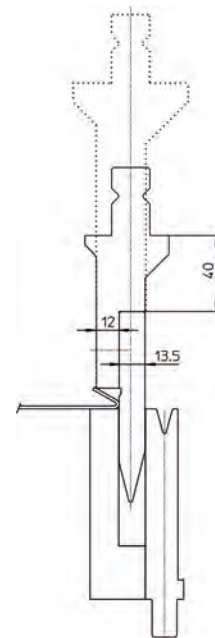
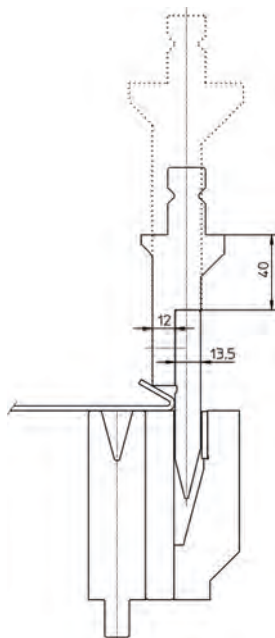
- More flexible with a variety of pre bending radiuses (replaceable OW320-F insert)
- More stable tool tip compared to OW210/S (up to 1000 kN/m)
- Standard solution
- Station operation possible with OW200/S, OW201/S, OW202/S (H=220 mm) because of tool heights of 220 mm

Folding tool rear			
	Spacer		Displacement to the front
EV001	25 mm	825778	31,2 mm
EV002	25 mm	825778	31,2 mm
EV003	25 mm	825778	31,2 mm
EV004	22,5 mm	825777	33,7 mm
EV005	20 mm	825776	36,2 mm

Folding tool front			
	Spacer		Displacement to the rear
EV001	35 mm	845425 *	17,7 mm
EV002	35 mm	845425 *	17,7 mm
EV003	35 mm	845425 *	17,7 mm
EV004	32,5 mm	861938 *	20,2 mm
EV005	30 mm	825780	22,7 mm
EV006	27,5 mm	825779	25,2 mm
EV007	25 mm	825778	27,7 mm

* NOT included in the machine scope of delivery.

See accessories/spare parts for upper tools (spacers)





Die



1200 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

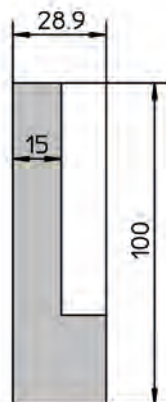
14,7 kg/m



~60 HRC



See screw selection



Delivery time: ex warehouse

FWZ	Angle:	-
	Height:	100 mm
	Mat. No.	Price

VAR. B		
4050	0843943	- EUR
3050	0843115	- EUR
2550	0843942	- EUR
2050	0842348	- EUR
1250	0843244	- EUR
1050	0867525	- EUR

VAR. A		
2050	0843939	- EUR
1250	0843938	- EUR
1050	1606377	- EUR
550	1606376	- EUR

Block 250		
250	0842230	- EUR

SINGLE		
500	0842229	- EUR
300	0842228	- EUR
200	0842227	- EUR
100	0842220	- EUR
50	0842226	- EUR
45	0842225	- EUR
40	0842224	- EUR
35	0842223	- EUR
30	0842222	- EUR
25	0842221	- EUR
25 reduced imprint	1411454	- EUR
25 with groove	1226331	- EUR

Lengths in [mm]

Die



1200 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

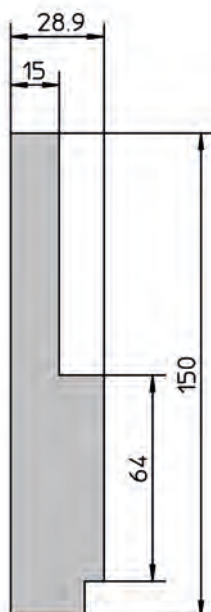
25,3 kg/m



~60 HRC



See screw selection



Delivery time: ex warehouse

FWZ/H	Angle:	-
	Height:	150 mm
	Mat. No.	Price

VAR. B		
4050	0843937	- EUR
3050	0843936	- EUR
2550	0843935	- EUR
2050	0842953	- EUR
1250	0843934	- EUR
1050	0867526	- EUR

VAR. A		
2050	0843930	- EUR
1250	0843929	- EUR
1050	1606412	- EUR
550	1606411	- EUR

Block 250		
250	0842952	- EUR

SINGLE		
500	0842949	- EUR
300	0842948	- EUR
200	0842947	- EUR
100	0842940	- EUR
50	0842946	- EUR
45	0842945	- EUR
40	0842944	- EUR
35	0842943	- EUR
30	0842942	- EUR
25	0842941	- EUR
25 reduced imprint	1457105	- EUR
25 with groove	1256340	- EUR

Lengths in [mm]



Die



1300 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



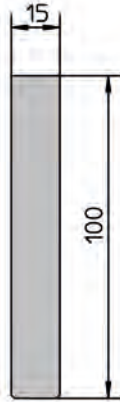
11,8 kg/m



~60 HRC



See screw selection



Delivery time: ex warehouse

ZDL	Angle:	-
	Height:	100 mm
	Mat. No.	Price
VAR. B		
4050	0824895	- EUR
3050	0824894	- EUR
2550	0835283	- EUR
2050	0824887	- EUR
1250	0825838	- EUR
1050	0867520	- EUR
VAR. A		
2050	0824884	- EUR
1250	0825837	- EUR
1050	1606465	- EUR
550	1606464	- EUR
Block 250		
250	0824883	- EUR
SINGLE		
500	0824882	- EUR
300	0824881	- EUR
200	0824880	- EUR
100	0824879	- EUR
50	0824878	- EUR
45	0824877	- EUR
40	0824876	- EUR
35	0824875	- EUR
30	0824874	- EUR
25	0824873	- EUR

Lengths in [mm]

Die



1300 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



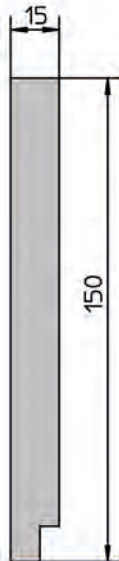
16,2 kg/m



~60 HRC



See screw selection



Delivery time: ex warehouse

ZDL/H	Angle:	-
	Height:	150 mm
	Mat. No.	Price
VAR. B		
4050	0824915	- EUR
3050	0824914	- EUR
2550	0835287	- EUR
2050	0824913	- EUR
1250	0825840	- EUR
1050	0867521	- EUR
VAR. A		
2050	0824909	- EUR
1250	0825839	- EUR
1050	1606505	- EUR
550	1606504	- EUR
Block 250		
250	0824908	- EUR
SINGLE		
500	0824907	- EUR
300	0824905	- EUR
200	0824904	- EUR
100	0824903	- EUR
50	0824901	- EUR
45	0824900	- EUR
40	0824899	- EUR
35	0824898	- EUR
30	0824897	- EUR
25	0824896	- EUR

Lengths in [mm]



Die



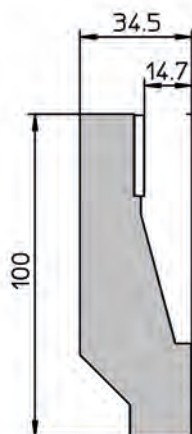
1300 kN/m

C 45
650 - 800 N/mm²

18,0 kg/m



See screw selection



Delivery time: ex warehouse

MST	Angle:	-
	Height:	100 mm
	Mat. No.	Price
VAR. B		
4050	0824932	- EUR
3050	0824931	- EUR
2550	0835281	- EUR
2050	0824930	- EUR
1250	0825799	- EUR
1050	0867522	- EUR
VAR. A		
2050	0824927	- EUR
1250	0825798	- EUR
1050	1606439	- EUR
550	1606438	- EUR
Block 250		
250	0825797	- EUR
SINGLE		
500	0825796	- EUR
300	0825795	- EUR
200	0825794	- EUR
100	0825792	- EUR
50	0825791	- EUR
45	0825790	- EUR
40	0825789	- EUR
35	0825788	- EUR
30	0825787	- EUR
25	0825786	- EUR

Lengths in [mm]

Die



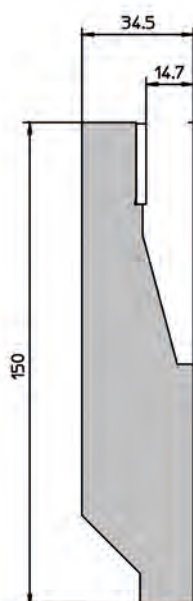
1300 kN/m

C 45
650 - 800 N/mm²

30,6 kg/m



See screw selection



Delivery time: ex warehouse

MST/H	Angle:	-
	Height:	150 mm
	Mat. No.	Price
VAR. B		
4050	0825819	- EUR
3050	0825818	- EUR
2550	0835285	- EUR
2050	0825817	- EUR
1250	0825816	- EUR
1050	0867523	- EUR
VAR. A		
2050	0825813	- EUR
1250	0825812	- EUR
1050	1606462	- EUR
550	1606461	- EUR
Block 250		
250	0825811	- EUR
SINGLE		
500	0825809	- EUR
300	0825808	- EUR
200	0825807	- EUR
100	0825806	- EUR
50	0825805	- EUR
45	0825804	- EUR
40	0825803	- EUR
35	0825802	- EUR
30	0825801	- EUR
25	0825800	- EUR

Lengths in [mm]

DIN6912 bolts for folding tools

Dies (height 100 und 150)	MST + ZDL ZDL + FWZ		ZDL		FWZ	
EV/S-W4/30° EV/S-W5/30° EV001(/S)-W6/30° EV002(/S)-W8/30° EV003(/S)-W10/30°	016381 M8x40 872435 M8x40	1 item 10 items	016373 M8x30 872434 M8x30 + 022365 M8-10 872436 M8-10	1 item 10 items 1 item 10 items	016357 M8x25 872433 M8x25	1 item 10 items
EV004(/S)-W12/30°	809531 M8x45 872439 M8x45	1 item 10 items	105889 M8x35 872437 M8x35 + 022365 M8-10 872436 M8-10	1 item 10 items 1 item 10 items	016373 M8x30 872434 M8x30	1 item 10 items
EV005-W16/30°	800276 M8x50 872438 M8x50	1 item 10 items	016381 M8x40 872435 M8x40 + 022365 M8-10 872436 M8-10	1 item 10 items 1 item 10 items	105889 M8x35 872437 M8x35	1 item 10 items
EV006-W20/30°	831445 M8x55 872440 M8x55	1 item 10 items	809531 M8x45 872439 M8x45 + 022365 M8-10 872436 M8-10	1 item 10 items 1 item 10 items	016381 M8x40 872435 M8x40	1 item 10 items
EV007-W24/30°	833069 M8x60 872441 M8x60	1 item 10 items	800276 M8x50 872438 M8x50 + 022365 M8-10 872436 M8-10	1 item 10 items 1 item 10 items	809531 M8x45 872439 M8x45	1 item 10 items



Required quantity

Single pieces	H = 100	Single pieces	H = 150
Length	Quantity	Length	Quantity
25 - 40 mm	1	25 - 50 mm	2
45 - 100 mm	2	100 mm	4
200 mm	4	200 mm	8
300 mm	6	300 mm	12
500 mm	7	500 mm	14

Blocks	H = 100		H = 150	
	Version A	Version B	Version A	Version B
250 mm	9		14	
550 mm	15	-	26	-
1050 mm	25	25	46	46
1250 mm	29	29	54	54
2050 mm	45	39	86	74
2550 mm	52	46	93	81
3050 mm	65	53	126	102
4050 mm	85	67	166	130

Designation		Mat. No.	Price
10 items cylinder screws M8x25 DIN6912		0872433	- EUR
10 items cylinder screws M8x30 DIN6912		0872434	- EUR
10 items cylinder screws M8x35 DIN6912		0872437	- EUR
10 items cylinder screws M8x40 DIN6912		0872435	- EUR
10 items cylinder screws M8x45 DIN6912		0872439	- EUR
10 items cylinder screws M8x50 DIN6912		0872438	- EUR
10 items cylinder screws M8x55 DIN6912		0872440	- EUR
10 items cylinder screws M8x60 DIN6912		0872441	- EUR
10 items nuts M8x10 DIN934		0872436	- EUR



Selection of dies 30° / 80 / 84°(86°) / 90°

Die 30°



- For angles of 30° to 180°, and for pre bending prior to folding (with OW210 < 30° also possible)
- Min. side length is less than with same die width with 30° R3
- Standard: H100, H150, narrow version

Die 30° with R3



- For angles of 30° to 180°, and for pre bending prior to folding.
- Application for low-impression bending of coated sheets
- Standard: H100

Die 84° (86°)



- If no bendings <90° are being created, then 84° dies are recommended.
- Higher die stress in comparison with 30° dies.
- Less distortion with holes (notches) near the bending line in comparison to 30° dies. In some application cases, coining (90° die) must be used.
- Higher part quality
- Standard: H100, H150, narrow version

Die 80°



- Starting with W24, now only 80° (instead of 84°) is available, since bending is often done with larger punch-radiuses that produce greater spring-back.
- Standard: H100, H150

Die 90°



Lower tools with an opening angle of 90° are used for coining.

Application:

- If the inside workpiece radius is to be smaller than the sheet thickness.
- If bore holes, openings or inclined edges are near or in the bending line.
- Contour accuracy for material variations

Every specific angle and inside radius requires its own set of tools (upper and lower tool).

Depending on the material and sheet thickness, the press force during coining is at least three times higher than the press force during air bending.

The springback can only be modified by changing the press force.

Technical information

Maximum flexibility at TRUMPF - Changes to lower tools are possible upon request:



- Height (H)
- Radius (R)
- Angle (W)
- Length (L)
-

Selection of the die width

- The die width is defined by the sheet thickness and the side length.
- The minimum die width is defined by its stability under load.
- Minimum side length = $\sim 0.75 \times$ die width

s (sheet thickness)	minimum die width	optimal die width	maximum die width
0.5	4	4	8
0.75	4	6	12
1	5	8	16
1.25	6	10	20
1.5	6	12	20
1.75	8	12	24
2	10	16	24
2.5	12	20	30
3	16	24	40
3.5	16	30	50
4	20	30	60
4.5	20	40	70
5	30	40	80
6	30	50	90
7	40	60	100
8	50	70	120
10	70	80	150
12	80	100	150
15	90	120	150

All values in [mm]



4 to 5 mm die width

Die



150 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



14,1 kg/m



~60 HRC



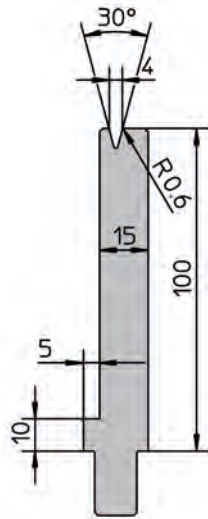
3,3 mm



4,9mm (s=0,9mm)



Bore hole existing
(from 25 mm)



Delivery time: ex warehouse

EV/S-W4/30°

Die width: 4 mm
Angle: 30°
Height: 100 mm
Mat. No. **Price**

VAR. B

4050	1205134	- EUR
3050	1205133	- EUR
2550	1205132	- EUR
2050	1205131	- EUR
1250	0994487	- EUR
1050	1575074	- EUR

VAR. A

2050	1205117	- EUR
1250	1205116	- EUR
1050	1575073	- EUR
550	1603524	- EUR

Block 250

250	0994486	- EUR
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Block 150

150	1210141	- EUR
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SINGLE

500	0994485	- EUR
300	0994484	- EUR
200	0994483	- EUR
100	0994476	- EUR
50	0994482	- EUR
45	0994481	- EUR
40	0994480	- EUR
35	0994479	- EUR
30	0994478	- EUR
25	0994477	- EUR
20	1440483	- EUR
15	1440482	- EUR
10	1236598	- EUR
25 with groove	1211855	- EUR

Lengths in [mm]

Die



250 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



10,3 kg/m



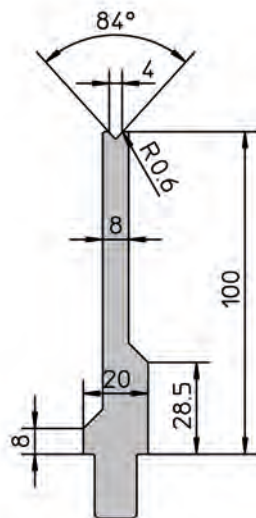
~60 HRC



3,1 mm



3,8mm (s=1mm)



Delivery time: ex warehouse

EV/S-W4/84°

Die width: 4 mm
Angle: 84°
Height: 100 mm
Mat. No. **Price**

VAR. B

4050	1206630	- EUR
3050	1206619	- EUR
2550	1206618	- EUR
2050	1206617	- EUR
1250	1206616	- EUR
1050	1574984	- EUR

VAR. A

2050	1206612	- EUR
1250	1206611	- EUR
1050	1574983	- EUR
550	1603586	- EUR

Block 250

250	1206610	- EUR
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SINGLE

500	1206609	- EUR
300	1206608	- EUR
200	1206607	- EUR
100	1206600	- EUR
50	1206606	- EUR
45	1206605	- EUR
40	1206604	- EUR
35	1206603	- EUR
30	1206602	- EUR
25	1206601	- EUR
20	1391267	- EUR
15	1295659	- EUR
10	1315231	- EUR

Lengths in [mm]



Die

Delivery time: 1 week



250 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

10,3 kg/m



~60 HRC



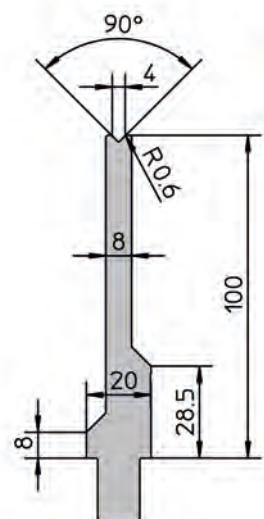
3,1 mm



3,8mm (s=1mm)



Chapter Coining



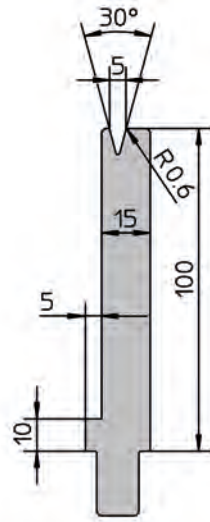
EV/S-W4/90°	Die width:	4 mm
	Angle:	90°
	Height:	100 mm
VAR. B	Mat. No.	Price
4050	1207818	- EUR
3050	1207817	- EUR
2550	1207816	- EUR
2050	1207815	- EUR
1250	1207814	- EUR
1050	1603639	- EUR
VAR. A		
2050	1207810	- EUR
1250	1207789	- EUR
1050	1603638	- EUR
550	1603637	- EUR
Block 250		
250	1207788	- EUR
SINGLE		
500	1207787	- EUR
300	1207786	- EUR
200	1207783	- EUR
100	1207766	- EUR
50	1207782	- EUR
45	1207781	- EUR
40	1207780	- EUR
35	1207769	- EUR
30	1207768	- EUR
25	1207767	- EUR

Lengths in [mm]



Die

- 150 kN/m
- 42 Cr Mo 4
1080 - 1180 N/mm²
- 13,8 kg/m
- ~60 HRC
- 4,1 mm
- 5mm (s=1mm)
- Bore hole existing
(from 25 mm)



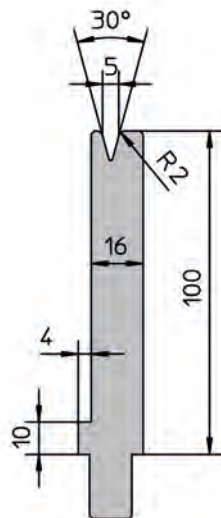
Delivery time: ex warehouse

EV/S-W5/30°		Die width:	5 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	1205451	-	EUR
3050	1205450	-	EUR
2550	1205449	-	EUR
2050	1205448	-	EUR
1250	0994528	-	EUR
1050	1603529	-	EUR
VAR. A			
2050	1205444	-	EUR
1250	1205443	-	EUR
1050	1603528	-	EUR
550	1603527	-	EUR
Block 250			
250	0994527	-	EUR
Block 150			
150	1210148	-	EUR
SINGLE			
500	0994526	-	EUR
300	0994525	-	EUR
200	0994524	-	EUR
100	0994497	-	EUR
50	0994523	-	EUR
45	0994522	-	EUR
40	0994501	-	EUR
35	0994500	-	EUR
30	0994499	-	EUR
25	0994498	-	EUR
20	1463126	-	EUR
15	1463125	-	EUR
10	1345667	-	EUR
25 with groove	1211884	-	EUR

Lengths in [mm]

Die

- 200 kN/m
- 42 Cr Mo 4
1080 - 1180 N/mm²
- 14,5 kg/m
- ~60 HRC
- 4,9 mm
- 6mm (1,25mm)
- Bore hole existing
(from 25 mm)



Delivery time: ex warehouse

EV/S-W5/30° R2		Die width:	5 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	1749793	-	EUR
3050	1749791	-	EUR
2550	1749789	-	EUR
2050	1749787	-	EUR
1250	1749785	-	EUR
1050	1749783	-	EUR
VAR. A			
2050	1749786	-	EUR
1250	1749784	-	EUR
1050	1749782	-	EUR
550	1749781	-	EUR
Block 250			
250	1749778	-	EUR
SINGLE			
500	1749780	-	EUR
300	1749779	-	EUR
200	1749777	-	EUR
100	1749776	-	EUR
50	1749775	-	EUR
45	1749774	-	EUR
40	1749773	-	EUR
35	1749772	-	EUR
30	1749771	-	EUR
25	1749690	-	EUR
20	1749689	-	EUR
15	1749688	-	EUR
10	1749687	-	EUR

Lengths in [mm]



Die



250 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

10,3 kg/m



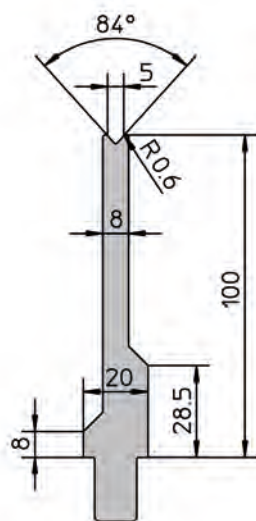
~60 HRC



3,8 mm



3,7mm (s=1,25mm)



Delivery time: ex warehouse

EV/S-W5/84°	Die width:	5 mm
	Angle:	84°
	Height:	100 mm
	Mat. No.	Price

VAR. B

4050	1206698	- EUR
3050	1206697	- EUR
2550	1206696	- EUR
2050	1206695	- EUR
1250	1206694	- EUR
1050	1603632	- EUR

VAR. A

2050	1206690	- EUR
1250	1206669	- EUR
1050	1603631	- EUR
550	1603630	- EUR

Block 250

250	1206668	- EUR
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SINGLE

500	1206667	- EUR
300	1206666	- EUR
200	1206665	- EUR
100	1206632	- EUR
50	1206663	- EUR
45	1206661	- EUR
40	1206660	- EUR
35	1206639	- EUR
30	1206636	- EUR
25	1206633	- EUR
20	1463108	- EUR
15	1442565	- EUR
10	1345699	- EUR

Lengths in [mm]

Die



390 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

10,3 kg/m



~60 HRC



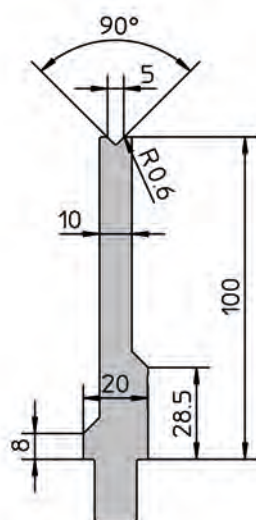
3,8 mm



4,7mm (s=1,25mm)



Chapter Coining



Delivery time: 1 week

EV/S-W5/90°	Die width:	5 mm
	Angle:	90°
	Height:	100 mm
	Mat. No.	Price

VAR. B

4050	1207853	- EUR
3050	1207851	- EUR
2550	1207850	- EUR
2050	1207849	- EUR
1250	1207848	- EUR
1050	1603663	- EUR

VAR. A

2050	1207842	- EUR
1250	1207841	- EUR
1050	1603662	- EUR
550	1603661	- EUR

Block 250

250	1207840	- EUR
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SINGLE

500	1207839	- EUR
300	1207838	- EUR
200	1207837	- EUR
100	1207830	- EUR
50	1207836	- EUR
45	1207835	- EUR
40	1207834	- EUR
35	1207833	- EUR
30	1207832	- EUR
25	1207831	- EUR

Lengths in [mm]



6 mm die width

Die



400 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



17,2 kg/m



~60 HRC



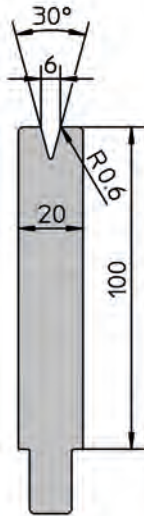
4,8 mm



9,8mm (s=1,5mm)



Bore hole existing
(from 25 mm)



Delivery time: ex warehouse

EV001 30°

Die width: 6 mm

Angle: 30°

Height: 100 mm

Mat. No. Price

VAR. B

4050	0823872	- EUR
3050	0823871	- EUR
2550	0835213	- EUR
2050	0823870	- EUR
1250	0825738	- EUR
1050	0867465	- EUR

VAR. A

2050	0823860	- EUR
1250	0825737	- EUR
1050	1603666	- EUR
550	1603665	- EUR

Block 250

250	0823844	- EUR
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SINGLE

500	0823843	- EUR
300	0823842	- EUR
200	0823841	- EUR
100	0823840	- EUR
50	0823839	- EUR
45	0823838	- EUR
40	0823837	- EUR
35	0823836	- EUR
30	0823835	- EUR
25	0823830	- EUR
20	0836703	- EUR
15	0836702	- EUR
10	0836701	- EUR
25 with groove	0932559	- EUR

Lengths in [mm]

Die



400 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



26,1 kg/m



~60 HRC



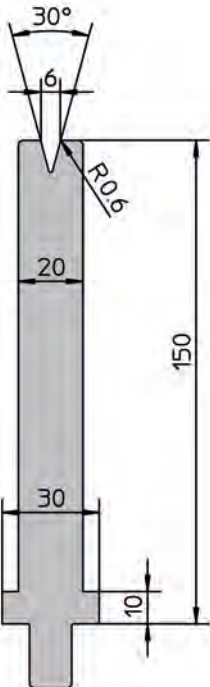
4,8 mm



9,8mm (s=1,5mm)



Bore hole possible
+10%



Delivery time: ex warehouse

EV001/H 30°

Die width: 6 mm

Angle: 30°

Height: 150 mm

Mat. No. Price

VAR. B

4050	0823913	- EUR
3050	0823911	- EUR
2550	0835215	- EUR
2050	0823909	- EUR
1250	0825740	- EUR
1050	0867472	- EUR

VAR. A

2050	0823901	- EUR
1250	0825739	- EUR
1050	1603778	- EUR
550	1603777	- EUR

Block 250

250	0823895	- EUR
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SINGLE

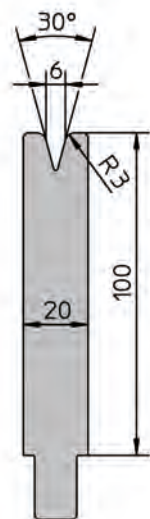
500	0823893	- EUR
300	0823889	- EUR
200	0823886	- EUR
100	0823885	- EUR
50	0823883	- EUR
45	0823882	- EUR
40	0823880	- EUR
35	0823879	- EUR
30	0823878	- EUR
25	0823877	- EUR
25 with groove	0932573	- EUR

Lengths in [mm]



Die

- 400 kN/m
- 42 Cr Mo 4
1080 - 1180 N/mm²
- 17,3 kg/m
- ~60 HRC
- 6,4 mm
- 9,8mm (s=1,5mm)
- Bore hole existing
(from 25 mm)



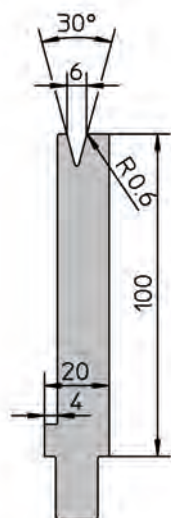
Delivery time: ex warehouse

EV001 R3 30°		Die width:	6 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0860494		- EUR
3050	0858917		- EUR
2550	0860493		- EUR
2050	0860492		- EUR
1250	0860491		- EUR
1050	0867287		- EUR
VAR. A			
2050	0860487		- EUR
1250	0860486		- EUR
1050	1576246		- EUR
550	1603743		- EUR
Block 250			
250	0858916		- EUR
SINGLE			
500	0855433		- EUR
300	0858915		- EUR
200	0858914		- EUR
100	0855432		- EUR
50	0858913		- EUR
45	0858912		- EUR
40	0858911		- EUR
35	0858910		- EUR
30	0858909		- EUR
25	0858908		- EUR
20	1242166		- EUR
15	1242165		- EUR
10	1455402		- EUR
25 with groove	0869966		- EUR

Lengths in [mm]

Die

- 170 kN/m
- 42 Cr Mo 4
1080 - 1180 N/mm²
- 14,4 kg/m
- ~60 HRC
- 4,8 mm
- 6,2mm (s=1mm)
- Bore hole existing
(from 25 mm)



Delivery time: ex warehouse

EV001/S 30°		Die width:	6 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0859051		- EUR
3050	0867266		- EUR
2550	0870607		- EUR
2050	0849843		- EUR
1250	0849815		- EUR
1050	0989588		- EUR
VAR. A			
2050	0870604		- EUR
1250	0870603		- EUR
1050	1603740		- EUR
550	1603699		- EUR
Block 250			
250	0849814		- EUR
SINGLE			
500	0849813		- EUR
300	0849812		- EUR
200	0849811		- EUR
100	0849804		- EUR
50	0849810		- EUR
45	0849809		- EUR
40	0849808		- EUR
35	0849807		- EUR
30	0849806		- EUR
25	0849805		- EUR
20	1200444		- EUR
15	1200443		- EUR
10	1200442		- EUR
25 with groove	0869970		- EUR

Lengths in [mm]



Die



400 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



17,6 kg/m



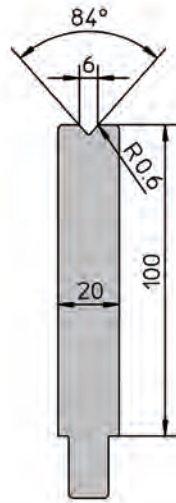
~60 HRC



4,5 mm



9,8mm (s=1,5mm)



Delivery time: ex warehouse

EV W6/84°		Die width:	6 mm
		Angle:	84°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0857516		- EUR
3050	0861833		- EUR
2550	0861832		- EUR
2050	0861831		- EUR
1250	0858874		- EUR
1050	0867292		- EUR
VAR. A			
2050	0861827		- EUR
1250	0861826		- EUR
1050	1603177		- EUR
550	1603176		- EUR
Block 250			
250	0857515		- EUR
SINGLE			
500	0857514		- EUR
300	0857513		- EUR
200	0857512		- EUR
100	0857505		- EUR
50	0857511		- EUR
45	0857510		- EUR
40	0857509		- EUR
35	0857508		- EUR
30	0857507		- EUR
25	0857506		- EUR
20	1304940		- EUR
15	1465620		- EUR
10	1304936		- EUR

Lengths in [mm]

Die



400 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



26,3 kg/m



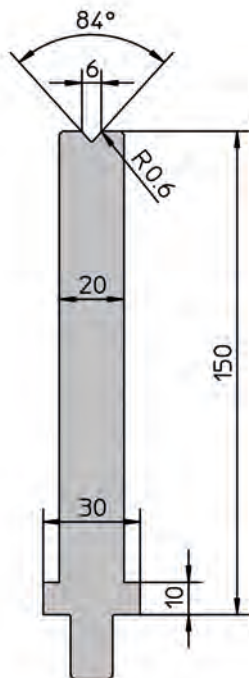
~60 HRC



4,5 mm



9,8mm (s=1,5mm)



Delivery time: ex warehouse

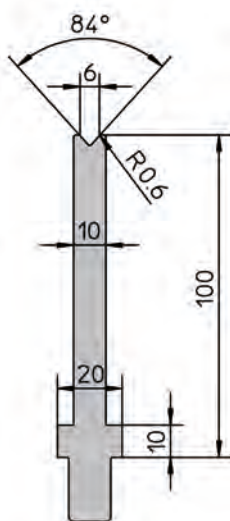
EV/H W6/84°		Die width:	6 mm
		Angle:	84°
		Height:	150 mm
		Mat. No.	Price
VAR. B			
4050	1274520		- EUR
3050	1274519		- EUR
2550	1274517		- EUR
2050	1274516		- EUR
1250	1274515		- EUR
1050	1603205		- EUR
VAR. A			
2050	1274485		- EUR
1250	1274480		- EUR
1050	1603204		- EUR
550	1603203		- EUR
Block 250			
250	1274479		- EUR
SINGLE			
500	1274478		- EUR
300	1274477		- EUR
200	1274476		- EUR
100	1274406		- EUR
50	1274475		- EUR
45	1274474		- EUR
40	1274473		- EUR
35	1274471		- EUR
30	1274470		- EUR
25	1274408		- EUR

Lengths in [mm]



Die

	250 kN/m
	42 Cr Mo 4 1080 - 1180 N/mm ²
	10,6 kg/m
	~60 HRC
	4,5 mm
	5,2mm (s=1,25mm)



Delivery time: ex warehouse

EV/S W6/84°	Die width:	6 mm
	Angle:	84°
	Height:	100 mm
	Mat. No.	Price
VAR. B		
4050	1206507	- EUR
3050	0867527	- EUR
2550	1206506	- EUR
2050	1206505	- EUR
1250	0864724	- EUR
1050	1575077	- EUR
VAR. A		
2050	1206502	- EUR
1250	1206501	- EUR
1050	1575076	- EUR
550	1603521	- EUR
Block 250		
250	0858802	- EUR
SINGLE		
500	0858801	- EUR
300	0858800	- EUR
200	0858799	- EUR
100	0858792	- EUR
50	0858798	- EUR
45	0858797	- EUR
40	0858796	- EUR
35	0858795	- EUR
30	0858794	- EUR
25	0858793	- EUR
20	0858806	- EUR
15	0858805	- EUR
10	0858804	- EUR

Lengths in [mm]

Delivery time: 4 weeks

EV020 86°	Die width:	6 mm
	Angle:	86°
	Height:	100 mm
	Mat. No.	Price
VAR. B		
4050	0824221	- EUR
3050	0824220	- EUR
2550	0835244	- EUR
2050	0824219	- EUR
1250	0825763	- EUR
VAR. A		
2050	0824216	- EUR
1250	0825762	- EUR
Block 250		
250	0824215	- EUR
SINGLE		
500	0824214	- EUR
300	0824213	- EUR
200	0824212	- EUR
100	0824211	- EUR
50	0824210	- EUR
45	0824209	- EUR
40	0824208	- EUR
35	0824207	- EUR
30	0824206	- EUR
25	0824205	- EUR

Lengths in [mm]

Delivery time: 4 weeks

EV020/S 86°	Die width:	6 mm
	Angle:	86°
	Height:	100 mm
	Mat. No.	Price
VAR. B		
4050	0843836	- EUR
3050	0840838	- EUR
2550	0843835	- EUR
2050	0832799	- EUR
1250	0840837	- EUR
VAR. A		
2050	0841463	- EUR
1250	0843831	- EUR
Block 250		
250	0832033	- EUR
SINGLE		
500	0832798	- EUR
300	0832797	- EUR
200	0832796	- EUR
100	0832032	- EUR
50	0832031	- EUR
45	0832030	- EUR
40	0832029	- EUR
35	0832028	- EUR
30	0832027	- EUR
25	0832026	- EUR

Lengths in [mm]

Previous model to 84°

Previous model to 84°



Die



1100 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



18,4 kg/m



~60 HRC



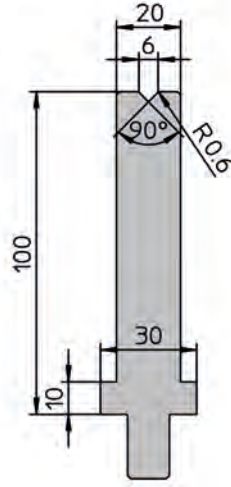
4,5 mm



9,8mm (s=1,5mm)



Chapter Coining



Delivery time: ex warehouse

EV040 90°		Die width:	6 mm
		Angle:	90°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0824522	-	EUR
3050	0824521	-	EUR
2550	0835289	-	EUR
2050	0824520	-	EUR
1250	0825870	-	EUR
1050	0867598	-	EUR
VAR. A			
2050	0824517	-	EUR
1250	0825869	-	EUR
1050	1604335	-	EUR
550	1604334	-	EUR
Block 250			
250	0824516	-	EUR
SINGLE			
500	0824515	-	EUR
300	0824514	-	EUR
200	0824513	-	EUR
100	0824512	-	EUR
50	0824511	-	EUR
45	0824510	-	EUR
40	0824509	-	EUR
35	0824508	-	EUR
30	0824507	-	EUR
25	0824506	-	EUR

Lengths in [mm]

Die



390 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



11,0 kg/m



~60 HRC



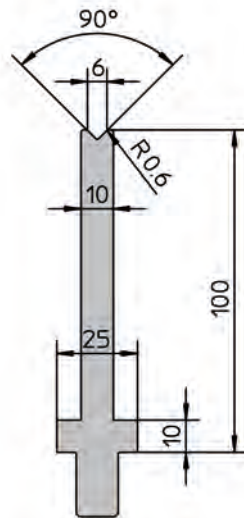
4,5 mm



5,2mm (s=1,5mm)



Chapter Coining



Delivery time: ex warehouse

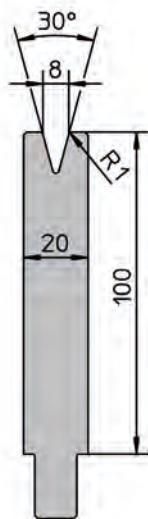
EV040/S 90°		Die width:	6 mm
		Angle:	90°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0844139	-	EUR
3050	0844138	-	EUR
2550	0844137	-	EUR
2050	0844136	-	EUR
1250	0840673	-	EUR
1050	0867608	-	EUR
VAR. A			
2050	0844141	-	EUR
1250	0844140	-	EUR
1050	1604372	-	EUR
550	1604371	-	EUR
Block 250			
250	0840672	-	EUR
SINGLE			
500	0840671	-	EUR
300	0840670	-	EUR
200	0840669	-	EUR
100	0840660	-	EUR
50	0840666	-	EUR
45	0840665	-	EUR
40	0840664	-	EUR
35	0840663	-	EUR
30	0840662	-	EUR
25	0840661	-	EUR

Lengths in [mm]

8 mm die width

Die

	400 kN/m
	42 Cr Mo 4 1080 - 1180 N/mm ²
	17,2 kg/m
	~60 HRC
	6,3 mm
	10mm (s=2mm)
	Bore hole existing (from 25 mm)



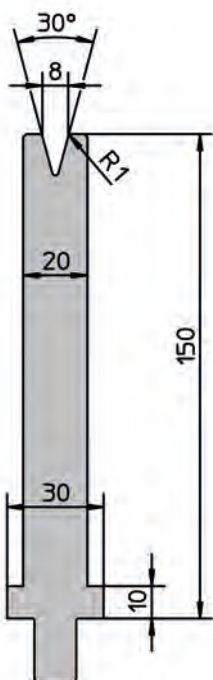
Delivery time: ex warehouse

EV002 30°		Die width:	8 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0823936	-	EUR
3050	0823934	-	EUR
2550	0835217	-	EUR
2050	0823933	-	EUR
1250	0825742	-	EUR
1050	0867466	-	EUR
VAR. A			
2050	0823930	-	EUR
1250	0825741	-	EUR
1050	1594286	-	EUR
550	1594285	-	EUR
Block 250			
250	0823929	-	EUR
SINGLE			
500	0823928	-	EUR
300	0823927	-	EUR
200	0823926	-	EUR
100	0823925	-	EUR
50	0823924	-	EUR
45	0823923	-	EUR
40	0823922	-	EUR
35	0823921	-	EUR
30	0823920	-	EUR
25	0823919	-	EUR
20	0836064	-	EUR
15	0836063	-	EUR
10	0839096	-	EUR
25 with groove	0932570	-	EUR

Lengths in [mm]

Die

	400 kN/m
	42 Cr Mo 4 1080 - 1180 N/mm ²
	25,8 kg/m
	~60 HRC
	6,3 mm
	10mm (s=2mm)
	Bore hole possible +10%










Delivery time: ex warehouse

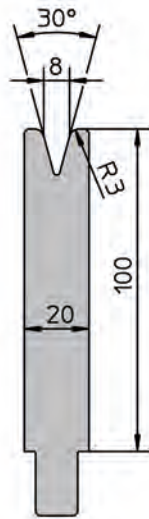
EV002/H 30°		Die width:	8 mm
		Angle:	30°
		Height:	150 mm
		Mat. No.	Price
VAR. B			
4050	0823974	-	EUR
3050	0823973	-	EUR
2550	0835220	-	EUR
2050	0823972	-	EUR
1250	0825744	-	EUR
1050	0867474	-	EUR
VAR. A			
2050	0823969	-	EUR
1250	0825743	-	EUR
1050	1603916	-	EUR
550	1603915	-	EUR
Block 250			
250	0823968	-	EUR
SINGLE			
500	0823946	-	EUR
300	0823945	-	EUR
200	0823944	-	EUR
100	0823943	-	EUR
50	0823942	-	EUR
45	0823941	-	EUR
40	0823940	-	EUR
35	0823939	-	EUR
30	0823938	-	EUR
25	0823937	-	EUR
25 with groove	0932574	-	EUR

Lengths in [mm]



Die

-  400 kN/m
-  42 Cr Mo 4
1080 - 1180 N/mm²
-  16,9 kg/m
-  ~60 HRC
-  8,0 mm
-  10mm (s=2mm)
-  Bore hole existing
(from 25 mm)



Delivery time: ex warehouse

EV002 R3 30°

Die width: 8 mm
Angle: 30°
Height: 100 mm
Mat. No. **Price**

VAR. B

4050	0857864	- EUR
3050	0848421	- EUR
2550	0860500	- EUR
2050	0859479	- EUR
1250	0853761	- EUR
1050	0867288	- EUR

VAR. A

2050	0860496	- EUR
1250	0860495	- EUR
1050	1576399	- EUR
550	1603911	- EUR

Block 250






250	0848420	- EUR
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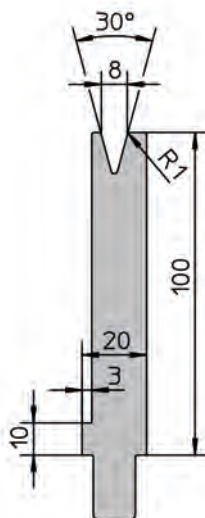
SINGLE

500	0848419	- EUR
300	0848418	- EUR
200	0848417	- EUR
100	0848410	- EUR
50	0848416	- EUR
45	0848415	- EUR
40	0848414	- EUR
35	0848413	- EUR
30	0848412	- EUR
25	0848411	- EUR
20	1465568	- EUR
15	1465567	- EUR
10	1465566	- EUR
25 with groove	0869967	- EUR

Lengths in [mm]

Die

-  200 kN/m
-  42 Cr Mo 4
1080 - 1180 N/mm²
-  14,9 kg/m
-  ~60 HRC
-  6,3 mm
-  7,6mm (s=1,5mm)
-  Bore hole existing
(from 25 mm)



Delivery time: ex warehouse

EV002/S 30°

Die width: 8 mm
Angle: 30°
Height: 100 mm
Mat. No. **Price**

VAR. B

4050	0870611	- EUR
3050	0857458	- EUR
2550	0855649	- EUR
2050	0855208	- EUR
1250	0849803	- EUR
1050	0989589	- EUR

VAR. A

2050	0870608	- EUR
1250	0867079	- EUR
1050	1603800	- EUR
550	1603779	- EUR

Block 250

250	0849802	- EUR
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SINGLE

500	0849800	- EUR
300	0849799	- EUR
200	0849798	- EUR
100	0849791	- EUR
50	0849797	- EUR
45	0849796	- EUR
40	0849795	- EUR
35	0849794	- EUR
30	0849793	- EUR
25	0849792	- EUR
20	1220177	- EUR
15	1220175	- EUR
10	1269504	- EUR
25 with groove	0869971	- EUR

Lengths in [mm]



Die



400 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

17,6 kg/m



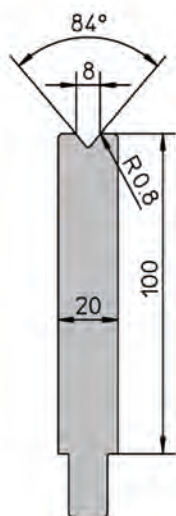
~60 HRC



5,7 mm



10mm (s=2mm)



Delivery time: ex warehouse

EV W8/84°

Die width:	8 mm
Angle:	84°
Height:	100 mm
Mat. No.	Price

VAR. B

4050	0861842	- EUR
3050	0861841	- EUR
2550	0861840	- EUR
2050	0861839	- EUR
1250	0858875	- EUR
1050	0867293	- EUR

VAR. A

2050	0861835	- EUR
1250	0861834	- EUR
1050	1603381	- EUR
550	1603380	- EUR

Block 250

250	0858736	- EUR
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SINGLE

500	0858735	- EUR
300	0858734	- EUR
200	0858733	- EUR
100	0858726	- EUR
50	0858732	- EUR
45	0858731	- EUR
40	0858730	- EUR
35	0858729	- EUR
30	0858728	- EUR
25	0858727	- EUR
20	1332190	- EUR
15	1332168	- EUR
10	1375377	- EUR

Lengths in [mm]

Die



400 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

26,2 kg/m



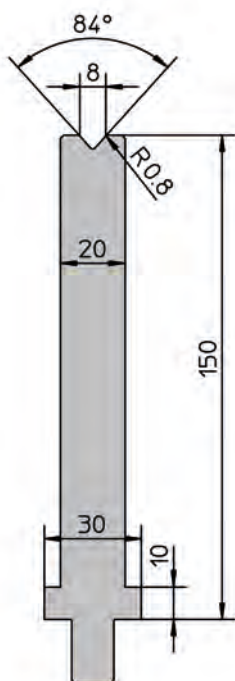
~60 HRC



5,7 mm



10mm (s=2mm)



Delivery time: ex warehouse

EV/H W8/84°

Die width:	8 mm
Angle:	84°
Height:	150 mm
Mat. No.	Price

VAR. B

4050	1272807	- EUR
3050	1272806	- EUR
2550	1272805	- EUR
2050	1272803	- EUR
1250	1272802	- EUR
1050	1603384	- EUR

VAR. A

2050	1272656	- EUR
1250	1272655	- EUR
1050	1603383	- EUR
550	1603382	- EUR

Block 250

250	1272654	- EUR
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SINGLE

500	1272653	- EUR
300	1272652	- EUR
200	1272651	- EUR
100	1272640	- EUR
50	1272634	- EUR
45	1272633	- EUR
40	1272632	- EUR
35	1272631	- EUR
30	1272618	- EUR
25	1272613	- EUR

Lengths in [mm]



Die



350 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



10,9 kg/m



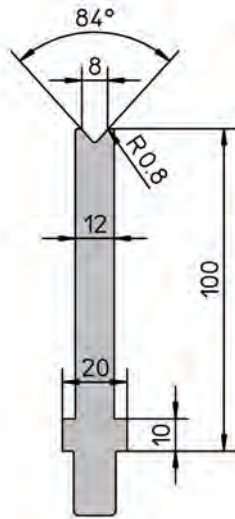
~60 HRC



5,7 mm



6,6mm (s=1,5mm)



Delivery time: ex warehouse

EV/S W8/84°	Die width:	8 mm
	Angle:	84°
	Height:	100 mm
	Mat. No.	Price

VAR. B		
4050	1206548	- EUR
3050	0860807	- EUR
2550	0861294	- EUR
2050	0865349	- EUR
1250	0864725	- EUR
1050	1601276	- EUR

VAR. A		
2050	1206545	- EUR
1250	0862969	- EUR
1050	1601275	- EUR
550	1601274	- EUR

Block 250		
250	0858817	- EUR

SINGLE		
500	0858816	- EUR
300	0858815	- EUR
200	0858814	- EUR
100	0858807	- EUR
50	0858813	- EUR
45	0858812	- EUR
40	0858811	- EUR
35	0858810	- EUR
30	0858809	- EUR
25	0858808	- EUR
20	0858821	- EUR
15	0858820	- EUR
10	0858819	- EUR

Lengths in [mm]

Delivery time: 4 weeks

EV021 86°	Die width:	8 mm
	Angle:	86°
	Height:	100 mm
	Mat. No.	Price

VAR. B		
4050	0824258	- EUR
3050	0824257	- EUR
2550	0835248	- EUR
2050	0824256	- EUR
1250	0825767	- EUR

VAR. A		
2050	0824253	- EUR
1250	0825766	- EUR

Block 250		
250	0824252	- EUR

SINGLE		
500	0824251	- EUR
300	0824250	- EUR
200	0824249	- EUR
100	0824248	- EUR
50	0824247	- EUR
45	0824246	- EUR
40	0824245	- EUR
35	0824244	- EUR
30	0824243	- EUR
25	0824241	- EUR

Lengths in [mm]

Delivery time: 4 weeks

EV021/S 86°	Die width:	8 mm
	Angle:	86°
	Height:	100 mm
	Mat. No.	Price

VAR. B		
4050	0843734	- EUR
3050	0843733	- EUR
2550	0843732	- EUR
2050	0843731	- EUR
1250	0840970	- EUR

VAR. A		
2050	0843736	- EUR
1250	0843735	- EUR

Block 250		
250	0840969	- EUR

SINGLE		
500	0840968	- EUR
300	0840967	- EUR
200	0840966	- EUR
100	0840959	- EUR
50	0840965	- EUR
45	0840964	- EUR
40	0840963	- EUR
35	0840962	- EUR
30	0840961	- EUR
25	0840960	- EUR

Lengths in [mm]

Predecessor to 84°

Predecessor to 84°



Die



1100 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

18,4 kg/m



~60 HRC



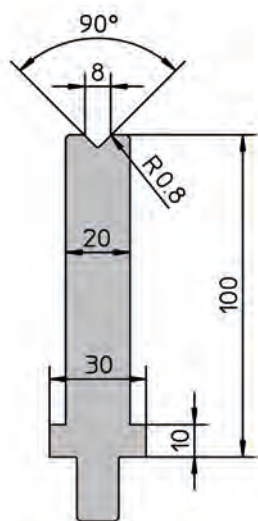
5,7 mm



10mm (s=2mm)



Chapter Coining



Delivery time: ex warehouse

EV041 90°		Die width:	8 mm
		Angle:	90°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0824567		- EUR
3050	0824565		- EUR
2550	0835293		- EUR
2050	0824564		- EUR
1250	0825874		- EUR
1050	0867599		- EUR
VAR. A			
2050	0824561		- EUR
1250	0825873		- EUR
1050	1604376		- EUR
550	1604375		- EUR
Block 250			
250	0824560		- EUR
SINGLE			
500	0824559		- EUR
300	0824558		- EUR
200	0824557		- EUR
100	0824556		- EUR
50	0824555		- EUR
45	0824554		- EUR
40	0824553		- EUR
35	0824552		- EUR
30	0824551		- EUR
25	0824550		- EUR

Lengths in [mm]

Die



460 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

12,3 kg/m



~60 HRC



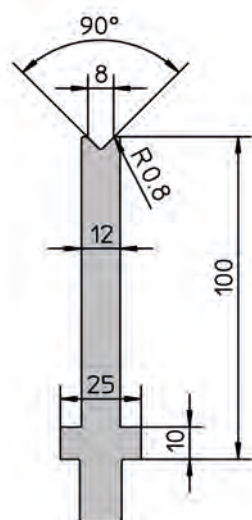
5,7 mm



6,6mm (s=2mm)



Chapter Coining



Delivery time: ex warehouse

EV041/S 90°		Die width:	8 mm
		Angle:	90°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0844148		- EUR
3050	0844147		- EUR
2550	0844146		- EUR
2050	0844145		- EUR
1250	0840689		- EUR
1050	0867609		- EUR
VAR. A			
2050	0844150		- EUR
1250	0844149		- EUR
1050	1604421		- EUR
550	1604420		- EUR
Block 250			
250	0840688		- EUR
SINGLE			
500	0840687		- EUR
300	0840686		- EUR
200	0840685		- EUR
100	0840676		- EUR
50	0840682		- EUR
45	0840681		- EUR
40	0840680		- EUR
35	0840679		- EUR
30	0840678		- EUR
25	0840677		- EUR

Lengths in [mm]



Die



200 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

21,2 kg/m



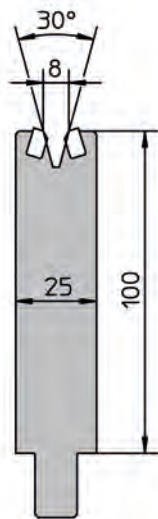
7,6 mm



12,5mm (s=1,5mm)



Not suitable for automation.



Delivery time: ex warehouse

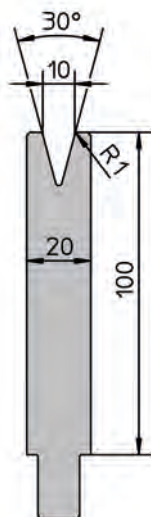
KEV W8/30°		Die width:	8 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0846302		- EUR
3050	0846301		- EUR
2550	0846300		- EUR
2050	0846299		- EUR
1250	0844967		- EUR
1050	0867618		- EUR
VAR. A			
2050	0846311		- EUR
1250	0846303		- EUR
1050	1605336		- EUR
550	1605335		- EUR
Block 250			
250	0844966		- EUR
SINGLE			
500	0844965		- EUR
300	0844964		- EUR
200	0844963		- EUR
100	0844956		- EUR
50	0844962		- EUR
45	0844961		- EUR
40	0844960		- EUR
35	0844959		- EUR
30	0844958		- EUR
25	0844957		- EUR

Lengths in [mm]

10 mm die width

Die

-  400 kN/m
-  42 Cr Mo 4
1080 - 1180 N/mm²
-  16,7 kg/m
-  ~60 HRC
-  7,8 mm
-  10mm (s=2mm)
-  Bore hole existing
(from 25 mm)










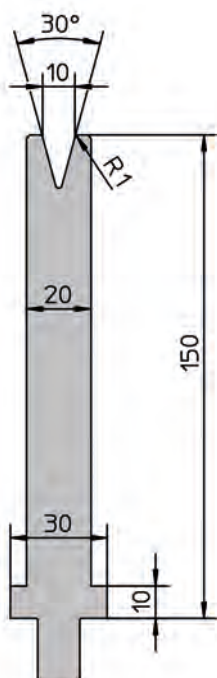
Delivery time: ex warehouse

EV003 30°		Die width:	10 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0824011		- EUR
3050	0824009		- EUR
2550	0835223		- EUR
2050	0824007		- EUR
1250	0825746		- EUR
1050	0867467		- EUR
VAR. A			
2050	0824001		- EUR
1250	0825745		- EUR
1050	1603974		- EUR
550	1603973		- EUR
Block 250			
250	0823999		- EUR
SINGLE			
500	0823998		- EUR
300	0823996		- EUR
200	0823994		- EUR
100	0823992		- EUR
50	0823989		- EUR
45	0823987		- EUR
40	0823984		- EUR
35	0823981		- EUR
30	0823979		- EUR
25	0823977		- EUR
20	0845257		- EUR
15	0845256		- EUR
10	0845255		- EUR
25 with groove	0932571		- EUR

Lengths in [mm]

Die

-  400 kN/m
-  42 Cr Mo 4
1080 - 1180 N/mm²
-  25,6 kg/m
-  ~60 HRC
-  7,8 mm
-  10mm (s=2mm)
-  Bore hole possible
+10%



Delivery time: ex warehouse

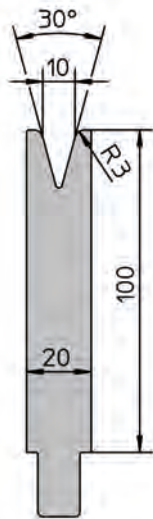
EV003/H 30°		Die width:	10 mm
		Angle:	30°
		Height:	150 mm
		Mat. No.	Price
VAR. B			
4050	0824047		- EUR
3050	0824046		- EUR
2550	0835225		- EUR
2050	0824044		- EUR
1250	0825749		- EUR
1050	0867475		- EUR
VAR. A			
2050	0824037		- EUR
1250	0825748		- EUR
1050	1604077		- EUR
550	1604076		- EUR
Block 250			
250	0824034		- EUR
SINGLE			
500	0824030		- EUR
300	0824027		- EUR
200	0824025		- EUR
100	0824022		- EUR
50	0824020		- EUR
45	0824017		- EUR
40	0824015		- EUR
35	0824014		- EUR
30	0824013		- EUR
25	0824012		- EUR
25 with groove	0932575		- EUR

Lengths in [mm]



Die

- 400 kN/m
- 42 Cr Mo 4
1080 - 1180 N/mm²
- 16,6 kg/m
- ~60 HRC
- 9,5 mm
- 10mm (s=2mm)
- Bore hole existing
(from 25 mm)



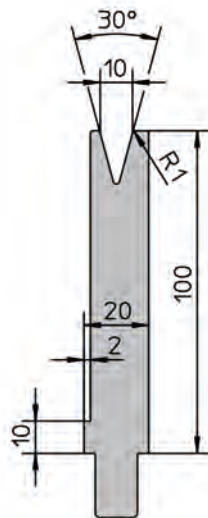
Delivery time: ex warehouse

EV003 R3 30°		
Die width:	10 mm	
Angle:	30°	
Height:	100 mm	
Mat. No.	Price	
VAR. B		
4050	0857866	- EUR
3050	0849665	- EUR
2550	0860512	- EUR
2050	0859474	- EUR
1250	0860511	- EUR
1050	0867289	- EUR
VAR. A		
2050	0860507	- EUR
1250	0860506	- EUR
1050	1576412	- EUR
550	1604057	- EUR
Block 250		
250	0849664	- EUR
SINGLE		
500	0849663	- EUR
300	0849662	- EUR
200	0849661	- EUR
100	0849654	- EUR
50	0849660	- EUR
45	0849659	- EUR
40	0849658	- EUR
35	0849657	- EUR
30	0849656	- EUR
25	0849655	- EUR
20	1465591	- EUR
15	1444679	- EUR
10	1465590	- EUR
25 with groove	0869968	- EUR

Lengths in [mm]

Die

- 200 kN/m
- 42 Cr Mo 4
1080 - 1180 N/mm²
- 15,3 kg/m
- ~60 HRC
- 7,8 mm
- 8,1mm (s=1,5mm)
- Bore hole existing
(from 25 mm)



Delivery time: ex warehouse

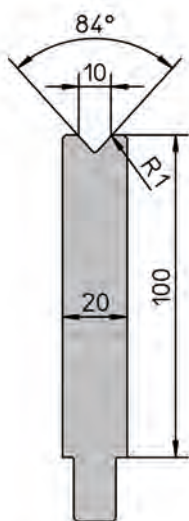
EV003/S 30°		
Die width:	10 mm	
Angle:	30°	
Height:	100 mm	
Mat. No.	Price	
VAR. B		
4050	0870618	- EUR
3050	0849845	- EUR
2550	0870617	- EUR
2050	0857460	- EUR
1250	0849790	- EUR
1050	0989590	- EUR
VAR. A		
2050	0870613	- EUR
1250	0870612	- EUR
1050	1604055	- EUR
550	1604054	- EUR
Block 250		
250	0849789	- EUR
SINGLE		
500	0849788	- EUR
300	0849787	- EUR
200	0849786	- EUR
100	0849779	- EUR
50	0849785	- EUR
45	0849784	- EUR
40	0849783	- EUR
35	0849782	- EUR
30	0849781	- EUR
25	0849780	- EUR
20	0858858	- EUR
15	0858857	- EUR
10	0858856	- EUR
25 with groove	0869972	- EUR

Lengths in [mm]



Die

	500 kN/m
	42 Cr Mo 4 1080 - 1180 N/mm ²
	17,5 kg/m
	~60 HRC
	7,1 mm
	10mm (s=2,5mm)



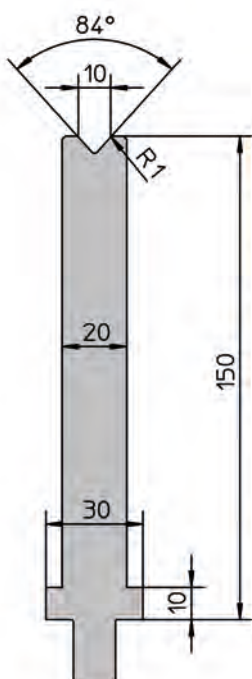
Delivery time: ex warehouse

EV W10/84°		Die width:	10 mm
		Angle:	84°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0857528	-	EUR
3050	0860118	-	EUR
2550	0861849	-	EUR
2050	0861848	-	EUR
1250	0858876	-	EUR
1050	0867294	-	EUR
VAR. A			
2050	0861844	-	EUR
1250	0861843	-	EUR
1050	1594072	-	EUR
550	1594071	-	EUR
Block 250			
250	0857527	-	EUR
SINGLE			
500	0857526	-	EUR
300	0857525	-	EUR
200	0857524	-	EUR
100	0857517	-	EUR
50	0857523	-	EUR
45	0857522	-	EUR
40	0857521	-	EUR
35	0857520	-	EUR
30	0857519	-	EUR
25	0857518	-	EUR
20	1429638	-	EUR
15	1429295	-	EUR
10	1429296	-	EUR

Lengths in [mm]

Die

	500 kN/m
	42 Cr Mo 4 1080 - 1180 N/mm ²
	26,1 kg/m
	~60 HRC
	7,1 mm
	10mm (s=2,5mm)



Delivery time: ex warehouse

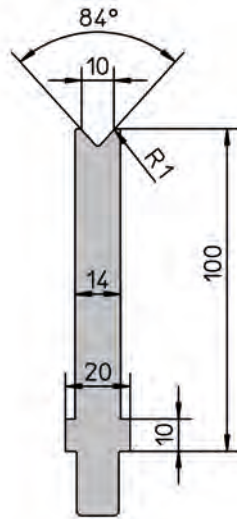
EV/H W10/84°		Die width:	10 mm
		Angle:	84°
		Height:	150 mm
		Mat. No.	Price
VAR. B			
4050	0992251	-	EUR
3050	1272109	-	EUR
2550	1272107	-	EUR
2050	1272106	-	EUR
1250	1272104	-	EUR
1050	1594102	-	EUR
VAR. A			
2050	1272078	-	EUR
1250	1272076	-	EUR
1050	1594101	-	EUR
550	1594100	-	EUR
Block 250			
250	0992250	-	EUR
SINGLE			
500	0992249	-	EUR
300	0992248	-	EUR
200	0992247	-	EUR
100	0992230	-	EUR
50	0992246	-	EUR
45	0992245	-	EUR
40	0992244	-	EUR
35	0992243	-	EUR
30	0992242	-	EUR
25	0992231	-	EUR

Lengths in [mm]



Die

- 400 kN/m
- 42 Cr Mo 4
1080 - 1180 N/mm²
- 13,3 kg/m
- ~60 HRC
- 7,1 mm
- 7,3mm (s=2mm)



Delivery time: ex warehouse

EV/S W10/84°	Die width:	10 mm
	Angle:	84°
	Height:	100 mm
Mat. No.	Price	
VAR. B		
4050	0872304	- EUR
3050	0861962	- EUR
2550	1206568	- EUR
2050	1206567	- EUR
1250	0868088	- EUR
1050	1601200	- EUR
VAR. A		
2050	1206562	- EUR
1250	1206561	- EUR
1050	1601169	- EUR
550	1601168	- EUR
Block 250		
250	0861961	- EUR
SINGLE		
500	0861960	- EUR
300	0861959	- EUR
200	0861958	- EUR
100	0861951	- EUR
50	0861957	- EUR
45	0861956	- EUR
40	0861955	- EUR
35	0861954	- EUR
30	0861953	- EUR
25	0861952	- EUR
20	1202871	- EUR
15	1202870	- EUR
10	1202789	- EUR

Lengths in [mm]

Delivery time: 4 weeks

EV022 86°	Die width:	10 mm
	Angle:	86°
	Height:	100 mm
Mat. No.	Price	
VAR. B		
4050	0824293	- EUR
3050	0824292	- EUR
2550	0835252	- EUR
2050	0824291	- EUR
1250	0825771	- EUR
VAR. A		
2050	0824288	- EUR
1250	0825770	- EUR
Block 250		
250	0824287	- EUR
SINGLE		
500	0824286	- EUR
300	0824285	- EUR
200	0824284	- EUR
100	0824283	- EUR
50	0824282	- EUR
45	0824281	- EUR
40	0824280	- EUR
35	0824279	- EUR
30	0824278	- EUR
25	0824277	- EUR

Lengths in [mm]

Delivery time: 4 weeks

EV022/S 86°	Die width:	10 mm
	Angle:	86°
	Height:	100 mm
Mat. No.	Price	
VAR. B		
4050	0843876	- EUR
3050	0834571	- EUR
2550	0843875	- EUR
2050	0843874	- EUR
1250	0841897	- EUR
VAR. A		
2050	0843870	- EUR
1250	0843869	- EUR
Block 250		
250	0834570	- EUR
SINGLE		
500	0834569	- EUR
300	0834568	- EUR
200	0834567	- EUR
100	0834566	- EUR
50	0834565	- EUR
45	0834564	- EUR
40	0834563	- EUR
35	0834562	- EUR
30	0834561	- EUR
25	0834560	- EUR

Lengths in [mm]

Predecessor to 84°

Predecessor to 86°



Die



1100 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

18,3 kg/m



~60 HRC



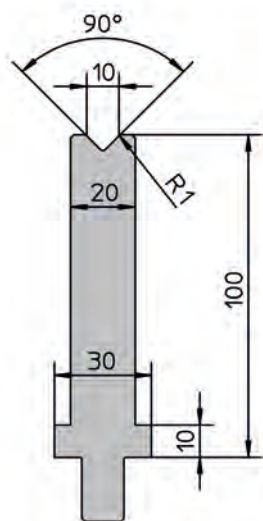
7,0 mm



10mm (s=2,5mm)



Chapter Coining



Delivery time: ex warehouse

EV042 90°	Die width:	10 mm
	Angle:	90°
	Height:	100 mm
	Mat. No.	Price

VAR. B

4050	0824621	- EUR
3050	0824620	- EUR
2550	0835297	- EUR
2050	0824619	- EUR
1250	0825878	- EUR
1050	0867600	- EUR

VAR. A

2050	0824613	- EUR
1250	0825877	- EUR
1050	1605155	- EUR
550	1605154	- EUR

Block 250

250	0824612	- EUR
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SINGLE

500	0824611	- EUR
300	0824610	- EUR
200	0824609	- EUR
100	0824608	- EUR
50	0824607	- EUR
45	0824606	- EUR
40	0824605	- EUR
35	0824604	- EUR
30	0824602	- EUR
25	0824600	- EUR

Lengths in [mm]

Die



530 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

13,7 kg/m



~60 HRC



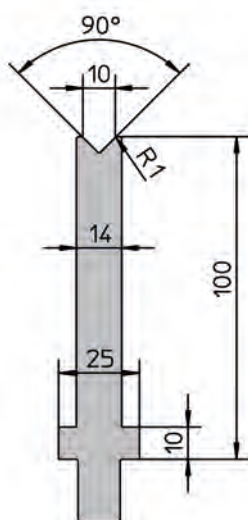
7,0 mm



7,3mm (s=2,5mm)



Chapter Coining



Delivery time: ex warehouse

EV042/S 90°	Die width:	10 mm
	Angle:	90°
	Height:	100 mm
	Mat. No.	Price

VAR. B

4050	0844156	- EUR
3050	0844155	- EUR
2550	0844154	- EUR
2050	0842072	- EUR
1250	0840690	- EUR
1050	0867610	- EUR

VAR. A

2050	0844158	- EUR
1250	0844157	- EUR
1050	1605158	- EUR
550	1605157	- EUR

Block 250

250	0840703	- EUR
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SINGLE

500	0840702	- EUR
300	0840701	- EUR
200	0840700	- EUR
100	0840691	- EUR
50	0840697	- EUR
45	0840696	- EUR
40	0840695	- EUR
35	0840694	- EUR
30	0840693	- EUR
25	0840692	- EUR

Lengths in [mm]



Die



200 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



22,5 kg/m



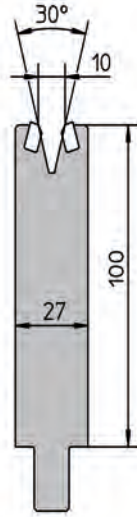
8,7 mm



13,5mm (s=1,5mm)



Not suitable for automation.



Delivery time: ex warehouse

KEV W10/30°	Die width:	10 mm
	Angle:	30°
	Height:	100 mm
	Mat. No.	Price

VAR. B		
4050	0846317	- EUR
3050	0846316	- EUR
2550	0839929	- EUR
2050	0846315	- EUR
1250	0844954	- EUR
1050	0867619	- EUR

VAR. A		
2050	0846319	- EUR
1250	0846318	- EUR
1050	1605339	- EUR
550	1605338	- EUR

Block 250		
250	0839928	- EUR

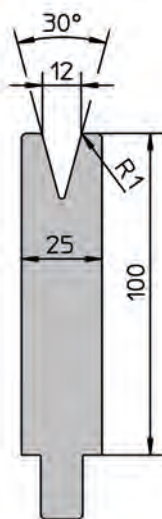
SINGLE		
500	0839927	- EUR
300	0839926	- EUR
200	0839925	- EUR
100	0839918	- EUR
50	0839924	- EUR
45	0839923	- EUR
40	0839922	- EUR
35	0839921	- EUR
30	0839920	- EUR
25	0839919	- EUR

Lengths in [mm]

12 mm die width

Die

-  400 kN/m
-  42 Cr Mo 4
1080 - 1180 N/mm²
-  20,3 kg/m
-  ~60 HRC
-  9,3 mm
-  12,4mm (s=2,5m)
-  Bore hole existing
(from 25 mm)



Delivery time: ex warehouse

EV004 30°		Die width:	12 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0824084		- EUR
3050	0824083		- EUR
2550	0835227		- EUR
2050	0824082		- EUR
1250	0825751		- EUR
1050	0867468		- EUR
VAR. A			
2050	0824079		- EUR
1250	0825750		- EUR
1050	1594313		- EUR
550	1594312		- EUR
Block 250			
250	0824078		- EUR
SINGLE			
500	0824075		- EUR
300	0824073		- EUR
200	0824069		- EUR
100	0824068		- EUR
50	0824067		- EUR
45	0824066		- EUR
40	0824064		- EUR
35	0824061		- EUR
30	0824058		- EUR
25	0824050		- EUR
20	0840390		- EUR
15	0840389		- EUR
10	0840388		- EUR
25 with groove	0932572		- EUR

Lengths in [mm]

Die

-  400 kN/m
-  42 Cr Mo 4
1080 - 1180 N/mm²
-  30,3 kg/m
-  ~60 HRC
-  9,3 mm
-  12,4mm (s=2,5mm)
-  Bore hole possible
+10%



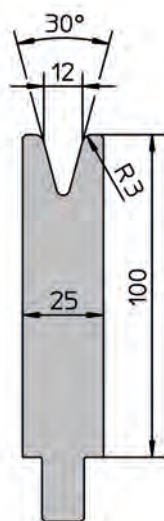
Delivery time: ex warehouse

EV004/H 30°		Die width:	12 mm
		Angle:	30°
		Height:	150 mm
		Mat. No.	Price
VAR. B			
4050	0824122		- EUR
3050	0824121		- EUR
2550	0835229		- EUR
2050	0824120		- EUR
1250	0825753		- EUR
1050	0867476		- EUR
VAR. A			
2050	0824116		- EUR
1250	0825752		- EUR
1050	1604134		- EUR
550	1604133		- EUR
Block 250			
250	0824114		- EUR
SINGLE			
500	0824113		- EUR
300	0824112		- EUR
200	0824110		- EUR
100	0824106		- EUR
50	0824103		- EUR
45	0824101		- EUR
40	0824099		- EUR
35	0824096		- EUR
30	0824093		- EUR
25	0824087		- EUR
25 with groove	0932576		- EUR

Lengths in [mm]

Die

-  400 kN/m
-  42 Cr Mo 4
1080 - 1180 N/mm²
-  20,2 kg/m
-  ~60 HRC
-  10,3 mm
-  12,4mm (s=2,5mm)
-  Bore hole existing
(from 25 mm)









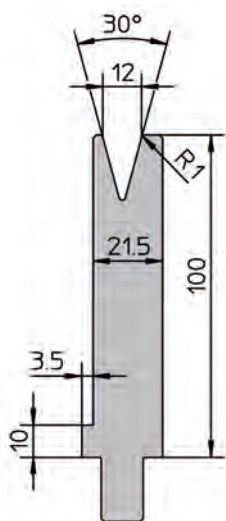
Delivery time: ex warehouse

EV004 R3 30°		Die width:	12 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0858954		- EUR
3050	0851555		- EUR
2550	0851203		- EUR
2050	0836666		- EUR
1250	0859473		- EUR
1050	0867290		- EUR
VAR. A			
2050	0860514		- EUR
1250	0860513		- EUR
1050	1576414		- EUR
550	1604130		- EUR
Block 250			
250	0836665		- EUR
SINGLE			
500	0836664		- EUR
300	0836663		- EUR
200	0836662		- EUR
100	0836661		- EUR
50	0836660		- EUR
45	0836659		- EUR
40	0836658		- EUR
35	0836657		- EUR
30	0836656		- EUR
25	0836655		- EUR
20	1309986		- EUR
15	1238776		- EUR
10	1309985		- EUR
25 with groove	0869677		- EUR

Lengths in [mm]

Die

-  250 kN/m
-  42 Cr Mo 4
1080 - 1180 N/mm²
-  18,1 kg/m
-  ~60 HRC
-  9,3 mm
-  9,2mm (s=2mm)
-  Bore hole existing
(from 25 mm)



Delivery time: ex warehouse

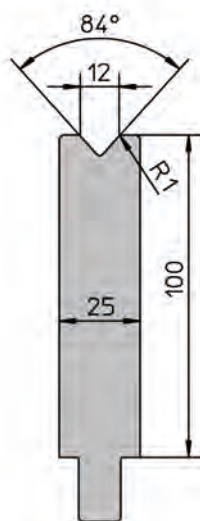
EV004/S 30°		Die width:	12 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0870625		- EUR
3050	0857169		- EUR
2550	0855662		- EUR
2050	0859417		- EUR
1250	0870624		- EUR
1050	0989634		- EUR
VAR. A			
2050	0870620		- EUR
1250	0867080		- EUR
1050	1604101		- EUR
550	1604100		- EUR
Block 250			
250	0855661		- EUR
SINGLE			
500	0855660		- EUR
300	0855659		- EUR
200	0855658		- EUR
100	0855651		- EUR
50	0855657		- EUR
45	0855656		- EUR
40	0855655		- EUR
35	0855654		- EUR
30	0855653		- EUR
25	0855652		- EUR
20	1440526		- EUR
15	1354980		- EUR
10	1354978		- EUR
25 with groove	0869973		- EUR

Lengths in [mm]



Die

	500 kN/m
	42 Cr Mo 4 1080 - 1180 N/mm ²
	21,3 kg/m
	~60 HRC
	8,2 mm
	12,4mm (s=2,5mm)



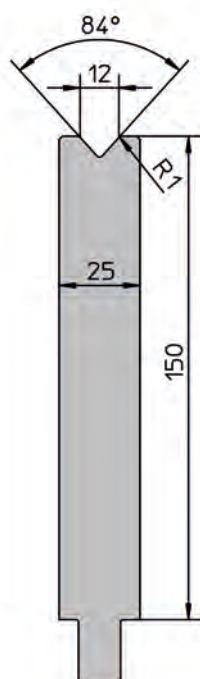
Delivery time: ex warehouse

EV W12/84°		Die width:	12 mm
		Angle:	84°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0861856		- EUR
3050	0859201		- EUR
2550	0861295		- EUR
2050	0861855		- EUR
1250	0860324		- EUR
1050	0867298		- EUR
VAR. A			
2050	0861851		- EUR
1250	0861850		- EUR
1050	1594130		- EUR
550	1594129		- EUR
Block 250			
250	0858725		- EUR
SINGLE			
500	0858724		- EUR
300	0858723		- EUR
200	0858722		- EUR
100	0858715		- EUR
50	0858721		- EUR
45	0858720		- EUR
40	0858719		- EUR
35	0858718		- EUR
30	0858717		- EUR
25	0858716		- EUR
20	0986870		- EUR
15	0986869		- EUR
10	0986868		- EUR

Lengths in [mm]

Die

	500 kN/m
	42 Cr Mo 4 1080 - 1180 N/mm ²
	31,1 kg/m
	~60 HRC
	8,2 mm
	12,4mm (s=2,5mm)



Delivery time: ex warehouse

EV/H W12/84°		Die width:	12 mm
		Angle:	84°
		Height:	150 mm
		Mat. No.	Price
VAR. B			
4050	1273207		- EUR
3050	1273206		- EUR
2550	1273201		- EUR
2050	1273198		- EUR
1250	1273142		- EUR
1050	1594152		- EUR
VAR. A			
2050	1273118		- EUR
1250	1273116		- EUR
1050	1594151		- EUR
550	1594150		- EUR
Block 250			
250	1273115		- EUR
SINGLE			
500	1273114		- EUR
300	1273113		- EUR
200	1273112		- EUR
100	1273081		- EUR
50	1273111		- EUR
45	1273089		- EUR
40	1273088		- EUR
35	1273087		- EUR
30	1273086		- EUR
25	1273083		- EUR

Lengths in [mm]



Die



400 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



14,6 kg/m



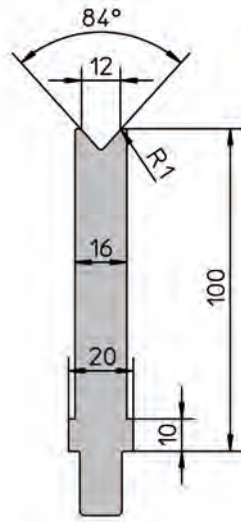
~60 HRC



8,2 mm



8,1mm (s=2,5mm)



Delivery time: ex warehouse

EV/S W12/84°	Die width:	12 mm
	Angle:	84°
	Height:	100 mm
	Mat. No.	Price

VAR. B		
4050	0864777	- EUR
3050	0860808	- EUR
2550	1206572	- EUR
2050	0990813	- EUR
1250	0875026	- EUR
1050	1601270	- EUR

VAR. A		
2050	1206569	- EUR
1250	0864328	- EUR
1050	1601259	- EUR
550	1601258	- EUR

Block 250		
250	0858832	- EUR

SINGLE		
500	0858831	- EUR
300	0858830	- EUR
200	0858829	- EUR
100	0858822	- EUR
50	0858828	- EUR
45	0858827	- EUR
40	0858826	- EUR
35	0858825	- EUR
30	0858824	- EUR
25	0858823	- EUR
20	0858836	- EUR
15	0858835	- EUR
10	0858834	- EUR

Lengths in [mm]

Delivery time: 4 weeks

EV023 86°	Die width:	12 mm
	Angle:	86°
	Height:	100 mm
	Mat. No.	Price

VAR. B		
4050	0824334	- EUR
3050	0824333	- EUR
2550	0835256	- EUR
2050	0824332	- EUR
1250	0825682	- EUR

VAR. A		
2050	0824329	- EUR
1250	0825681	- EUR

Block 250		
250	0824328	- EUR

SINGLE		
500	0824327	- EUR
300	0824325	- EUR
200	0824324	- EUR
100	0824323	- EUR
50	0824322	- EUR
45	0824321	- EUR
40	0824319	- EUR
35	0824318	- EUR
30	0824317	- EUR
25	0824315	- EUR

Lengths in [mm]

Delivery time: 4 weeks

EV023/S 86°	Die width:	12 mm
	Angle:	86°
	Height:	100 mm
	Mat. No.	Price

VAR. B		
4050	0843887	- EUR
3050	0842416	- EUR
2550	0843886	- EUR
2050	0843885	- EUR
1250	0832448	- EUR

VAR. A		
2050	0843881	- EUR
1250	0843880	- EUR

Block 250		
250	0832447	- EUR

SINGLE		
500	0832446	- EUR
300	0832445	- EUR
200	0832444	- EUR
100	0832443	- EUR
50	0832442	- EUR
45	0832441	- EUR
40	0832440	- EUR
35	0832439	- EUR
30	0832438	- EUR
25	0832437	- EUR

Lengths in [mm]

Predecessor to 84°

Predecessor to zu 84°



Die



1100 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

18,2 kg/m



~60 HRC



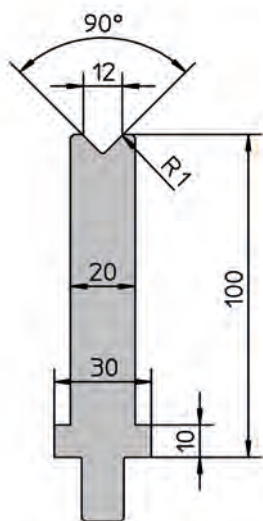
8,2 mm



10mm (s=3mm)



Chapter Coining



Delivery time: ex warehouse

EV043 90°		Die width:	12 mm
		Angle:	90°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0824676		- EUR
3050	0824674		- EUR
2550	0835301		- EUR
2050	0824673		- EUR
1250	0825882		- EUR
1050	0867601		- EUR
VAR. A			
2050	0824668		- EUR
1250	0825881		- EUR
1050	1576550		- EUR
550	1605214		- EUR
Block 250			
250	0824666		- EUR
SINGLE			
500	0824665		- EUR
300	0824664		- EUR
200	0824662		- EUR
100	0824661		- EUR
50	0824660		- EUR
45	0824658		- EUR
40	0824657		- EUR
35	0824656		- EUR
30	0824655		- EUR
25	0824654		- EUR

Lengths in [mm]

Die



550 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

15,0 kg/m



~60 HRC



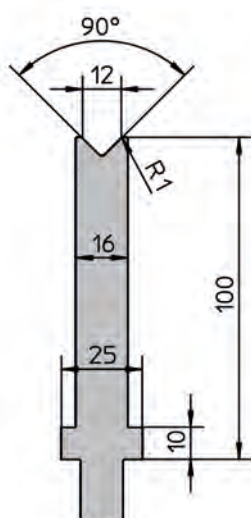
8,2 mm



8,1mm (s=2,5mm)



Chapter Coining



Delivery time: ex warehouse

EV043/S 90°		Die width:	12 mm
		Angle:	90°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0844165		- EUR
3050	0844164		- EUR
2550	0844163		- EUR
2050	0844162		- EUR
1250	0840716		- EUR
1050	0867612		- EUR
VAR. A			
2050	0844167		- EUR
1250	0844166		- EUR
1050	1605281		- EUR
550	1605280		- EUR
Block 250			
250	0840717		- EUR
SINGLE			
500	0840715		- EUR
300	0840714		- EUR
200	0840713		- EUR
100	0840704		- EUR
50	0840710		- EUR
45	0840709		- EUR
40	0840708		- EUR
35	0840707		- EUR
30	0840706		- EUR
25	0840705		- EUR

Lengths in [mm]



14 mm die width

Die



200 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



24,6 kg/m



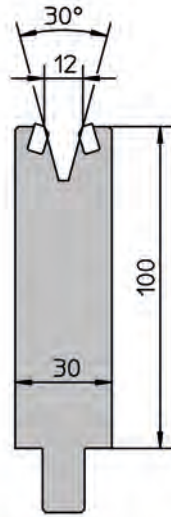
10,5 mm



15mm (s=1,5mm)



Not suitable for automation.



Delivery time: ex warehouse

KEV W12/30°		Die width:	12 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0846171		- EUR
3050	0846184		- EUR
2550	0846324		- EUR
2050	0846323		- EUR
1250	0841609		- EUR
1050	0867620		- EUR
VAR. A			
2050	0846325		- EUR
1250	0845873		- EUR
1050	1605414		- EUR
550	1605413		- EUR
Block 250			
250	0841607		- EUR
SINGLE			
500	0841606		- EUR
300	0841605		- EUR
200	0841604		- EUR
100	0841597		- EUR
50	0841598		- EUR
45	0841599		- EUR
40	0841600		- EUR
35	0841601		- EUR
30	0841602		- EUR
25	0841603		- EUR

Lengths in [mm]

Die



500 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



17,6 kg/m



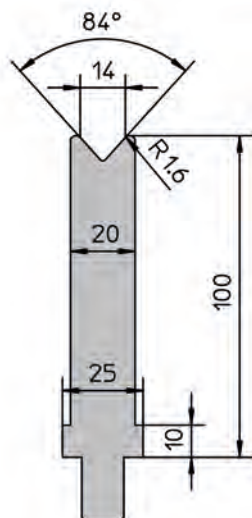
~60 HRC



10,3 mm



10mm (s=3mm)



Delivery time: ex warehouse

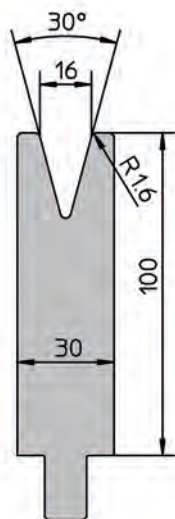
EV/S W14/84°		Die width:	14 mm
		Angle:	84°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	1749339		- EUR
3050	1749337		- EUR
2550	1749335		- EUR
2050	1749333		- EUR
1250	1749331		- EUR
1050	1749329		- EUR
VAR. A			
2050	1749332		- EUR
1250	1749330		- EUR
1050	1749328		- EUR
550	1749327		- EUR
Block 250			
250	1749324		- EUR
SINGLE			
500	1749326		- EUR
300	1749325		- EUR
200	1749323		- EUR
100	1749322		- EUR
50	1749321		- EUR
45	1749320		- EUR
40	1749319		- EUR
35	1749318		- EUR
30	1749317		- EUR
25	1749316		- EUR
20	1749315		- EUR
15	1749314		- EUR
10	1749313		- EUR

Lengths in [mm]

16 mm die width

Die

	500 kN/m
	42 Cr Mo 4 1080 - 1180 N/mm ²
	23,6 kg/m
	~60 HRC
	12,1 mm
	15,1mm (s=3mm)
	Bore hole existing (from 25 mm)



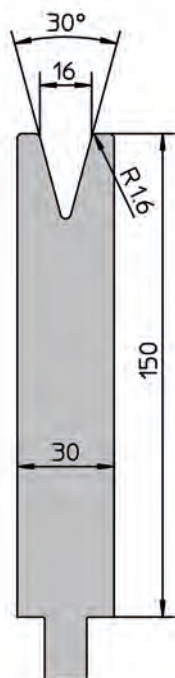
Delivery time: ex warehouse

		Die width:	16 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
EV005 30°			
VAR. B			
4050	0824145		- EUR
3050	0824144		- EUR
2550	0835231		- EUR
2050	0824143		- EUR
1250	0825755		- EUR
1050	0867469		- EUR
VAR. A			
2050	0824140		- EUR
1250	0825754		- EUR
1050	1604170		- EUR
550	1604139		- EUR
Block 250			
250	0824139		- EUR
SINGLE			
500	0824138		- EUR
300	0824137		- EUR
200	0824136		- EUR
100	0824135		- EUR
50	0824134		- EUR
45	0824133		- EUR
40	0824132		- EUR
35	0824131		- EUR
30	0824130		- EUR
25	0824129		- EUR
20	0840387		- EUR
15	0840386		- EUR
10	0840385		- EUR
25 with groove	0939526		- EUR

Lengths in [mm]

Die

	500 kN/m
	42 Cr Mo 4 1080 - 1180 N/mm ²
	35,4 kg/m
	~60 HRC
	12,1 mm
	15,1mm (s=3mm)
	Bore hole possible +10%



Delivery time: ex warehouse

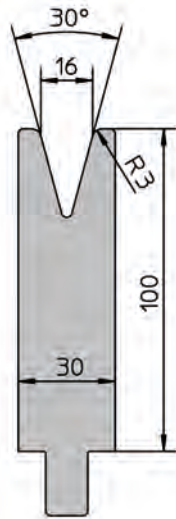
		Die width:	16 mm
		Angle:	30°
		Height:	150 mm
		Mat. No.	Price
EV005/H 30°			
VAR. B			
4050	0824165		- EUR
3050	0824164		- EUR
2550	0835233		- EUR
2050	0824163		- EUR
1250	0825757		- EUR
1050	0867483		- EUR
VAR. A			
2050	0824159		- EUR
1250	0825756		- EUR
1050	1604211		- EUR
550	1604210		- EUR
Block 250			
250	0824160		- EUR
SINGLE			
500	0824158		- EUR
300	0824157		- EUR
200	0824156		- EUR
100	0824155		- EUR
50	0824154		- EUR
45	0824153		- EUR
40	0824152		- EUR
35	0824151		- EUR
30	0824150		- EUR
25	0824149		- EUR
25 with groove	0939527		- EUR

Lengths in [mm]



Die

- 500 kN/m
- 42 Cr Mo 4
1080 - 1180 N/mm²
- 23,2 kg/m
- ~60 HRC
- 13,5 mm
- 15,1mm (s=3mm)
- Bore hole existing
(from 25 mm)



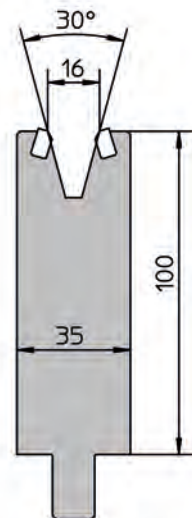
Delivery time: ex warehouse

EV005 R3 30°		Die width:	16 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0857867		- EUR
3050	0850447		- EUR
2550	0860524		- EUR
2050	0860523		- EUR
1250	0860522		- EUR
1050	0867291		- EUR
VAR. A			
2050	0860519		- EUR
1250	0860518		- EUR
1050	1604176		- EUR
550	1604175		- EUR
Block 250			
250	0850446		- EUR
SINGLE			
500	0850445		- EUR
300	0850444		- EUR
200	0850443		- EUR
100	0850436		- EUR
50	0850442		- EUR
45	0850441		- EUR
40	0850440		- EUR
35	0850439		- EUR
30	0850438		- EUR
25	0850437		- EUR
20	1465619		- EUR
15	1465618		- EUR
10	1465617		- EUR
25 with groove	0869969		- EUR

Lengths in [mm]

Die

- 200 kN/m
- 42 Cr Mo 4
1080 - 1180 N/mm²
- 27,8 kg/m
- 12,8 mm
- 17,9mm (s=2mm)
- Not suitable for autom



Delivery time: ex warehouse

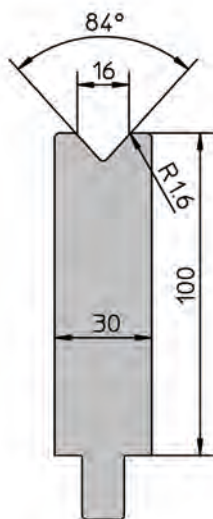
KEV W16/30°		Die width:	16 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0846331		- EUR
3050	0846330		- EUR
2550	0839941		- EUR
2050	0846329		- EUR
1250	0844955		- EUR
1050	0867633		- EUR
VAR. A			
2050	0846333		- EUR
1250	0846332		- EUR
1050	1605700		- EUR
550	1605679		- EUR
Block 250			
250	0839940		- EUR
SINGLE			
500	0839939		- EUR
300	0839938		- EUR
200	0839937		- EUR
100	0839930		- EUR
50	0839936		- EUR
45	0839935		- EUR
40	0839934		- EUR
35	0839933		- EUR
30	0839932		- EUR
25	0839931		- EUR

Lengths in [mm]



Die

	700 kN/m
	42 Cr Mo 4 1080 - 1180 N/mm ²
	24,9 kg/m
	~60 HRC
	11,1 mm
	15,1mm (s=4mm)



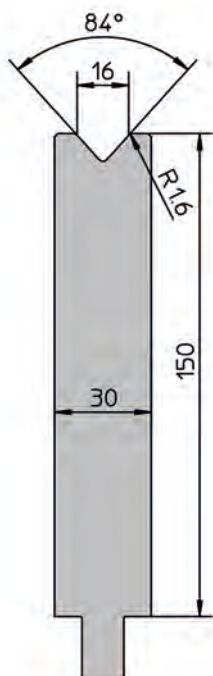
Delivery time: ex warehouse

EV W16/84°		Die width:	16 mm
		Angle:	84°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0861863	-	EUR
3050	0859203	-	EUR
2550	0861297	-	EUR
2050	0857541	-	EUR
1250	0861862	-	EUR
1050	0867299	-	EUR
VAR. A			
2050	0861858	-	EUR
1250	0861857	-	EUR
1050	1594191	-	EUR
550	1594190	-	EUR
Block 250			
250	0857539	-	EUR
SINGLE			
500	0857538	-	EUR
300	0857537	-	EUR
200	0857536	-	EUR
100	0857529	-	EUR
50	0857535	-	EUR
45	0857534	-	EUR
40	0857533	-	EUR
35	0857532	-	EUR
30	0857531	-	EUR
25	0857530	-	EUR
20	1272087	-	EUR
15	1272084	-	EUR
10	1272089	-	EUR

Lengths in [mm]

Die

	700 kN/m
	42 Cr Mo 4 1080 - 1180 N/mm ²
	36,7 kg/m
	~60 HRC
	11,1 mm
	15,1mm (s=4mm)



Delivery time: ex warehouse

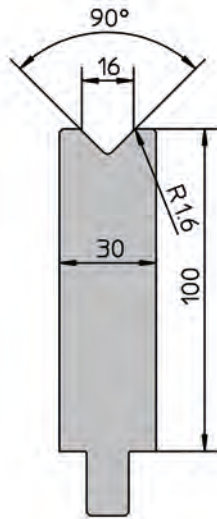
EV/H W16/84°		Die width:	16 mm
		Angle:	84°
		Height:	150 mm
		Mat. No.	Price
VAR. B			
4050	0872583	-	EUR
3050	0864723	-	EUR
2550	1271923	-	EUR
2050	1271922	-	EUR
1250	1271909	-	EUR
1050	1594229	-	EUR
VAR. A			
2050	1264621	-	EUR
1250	1271904	-	EUR
1050	1594228	-	EUR
550	1594227	-	EUR
Block 250			
250	0858787	-	EUR
SINGLE			
500	0858786	-	EUR
300	0858785	-	EUR
200	0858784	-	EUR
100	0858777	-	EUR
50	0858783	-	EUR
45	0858782	-	EUR
40	0858781	-	EUR
35	0858780	-	EUR
30	0858779	-	EUR
25	0858778	-	EUR

Lengths in [mm]



Die

	1400 kN/m
	42 Cr Mo 4 1080 - 1180 N/mm ²
	25,0 kg/m
	~60 HRC
	11,0 mm
	15,1mm (s=4mm)
	Chapter Coining



Delivery time: ex warehouse

EV044 90°	Die width:	16 mm
	Angle:	90°
	Height:	100 mm
	Mat. No.	Price
VAR. B		
4050	0824730	- EUR
3050	0824728	- EUR
2550	0835305	- EUR
2050	0824727	- EUR
1250	0825886	- EUR
1050	0867602	- EUR
VAR. A		
2050	0824721	- EUR
1250	0825885	- EUR
1050	1605286	- EUR
550	1605285	- EUR
Block 250		
250	0824719	- EUR
SINGLE		
500	0824717	- EUR
300	0824716	- EUR
200	0824715	- EUR
100	0824714	- EUR
50	0824713	- EUR
45	0824711	- EUR
40	0824710	- EUR
35	0824709	- EUR
30	0824708	- EUR
25	0824707	- EUR

Lengths in [mm]

Delivery time: 4 weeks

EV024 86°	Die width:	16 mm
	Angle:	86°
	Height:	100 mm
	Mat. No.	Price
VAR. B		
4050	0824370	- EUR
3050	0824369	- EUR
2550	0835260	- EUR
2050	0824368	- EUR
1250	0825847	- EUR
VAR. A		
2050	0824363	- EUR
1250	0825846	- EUR
Block 250		
250	0824362	- EUR
SINGLE		
500	0824364	- EUR
300	0824361	- EUR
200	0824360	- EUR
100	0824359	- EUR
50	0824358	- EUR
45	0824357	- EUR
40	0824356	- EUR
35	0824355	- EUR
30	0824354	- EUR
25	0824353	- EUR

Lengths in [mm]

Predecessor to 84°

20 mm die width

Die



600 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

26,4 kg/m



~60 HRC



15,7 mm

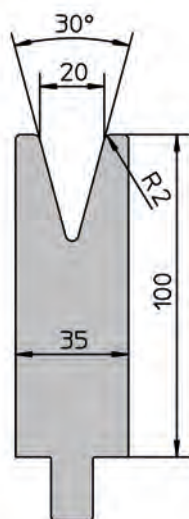


17,3mm (s=4mm)



Bore hole possible

+10%



Delivery time: ex warehouse

EV006 30°		Die width:	20 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0827762		- EUR
3050	0827285		- EUR
2550	0835235		- EUR
2050	0827764		- EUR
1250	0827763		- EUR
1050	0867470		- EUR
VAR. A			
2050	0827766		- EUR
1250	0827765		- EUR
1050	1604213		- EUR
550	1604212		- EUR
Block 250			
250	0827284		- EUR
SINGLE			
500	0827283		- EUR
300	0827282		- EUR
200	0827281		- EUR
100	0827280		- EUR
50	0827279		- EUR
45	0827278		- EUR
40	0827277		- EUR
35	0827276		- EUR
30	0827275		- EUR
25	0827274		- EUR
20	0840383		- EUR
15	0840382		- EUR
10	0840381		- EUR
25 with groove	0869960		- EUR

Lengths in [mm]

Die



600 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

40,1 kg/m



~60 HRC



15,7 mm

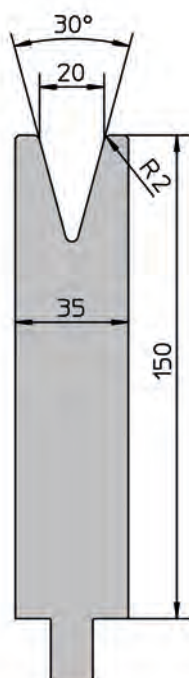


17,3mm (s=4mm)



Bore hole possible

+10%



Delivery time: ex warehouse

EV006/H 30°		Die width:	20 mm
		Angle:	30°
		Height:	150 mm
		Mat. No.	Price
VAR. B			
4050	0831196		- EUR
3050	0831195		- EUR
2550	0835237		- EUR
2050	0830757		- EUR
1250	0831194		- EUR
1050	0867486		- EUR
VAR. A			
2050	0831198		- EUR
1250	0831197		- EUR
1050	1604217		- EUR
550	1604216		- EUR
Block 250			
250	0830756		- EUR
SINGLE			
500	0830755		- EUR
300	0830754		- EUR
200	0830753		- EUR
100	0830752		- EUR
50	0830751		- EUR
45	0830750		- EUR
40	0830749		- EUR
35	0830748		- EUR
30	0830747		- EUR
25	0830746		- EUR
25 with groove	0864915		- EUR

Lengths in [mm]



Die



200 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

29,1 kg/m



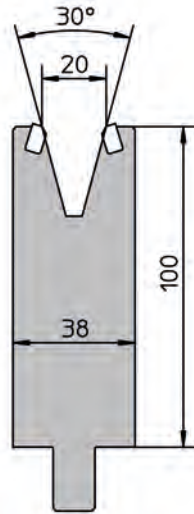
15,2 mm



20,2mm (s=2,5mm)



Not suitable for automation.



Delivery time: ex warehouse

KEV W20/30°	Die width:	20 mm
	Angle:	30°
	Height:	100 mm
	Mat. No.	Price

VAR. B

4050	0870633	- EUR
3050	0864524	- EUR
2550	0862175	- EUR
2050	0870632	- EUR
1250	0870631	- EUR
1050	1605707	- EUR

VAR. A

2050	0870627	- EUR
1250	0870626	- EUR
1050	1605706	- EUR
550	1605705	- EUR

Block 250

250	0862174	- EUR
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SINGLE

500	0855114	- EUR
300	0862173	- EUR
200	0862172	- EUR
100	0855113	- EUR
50	0862171	- EUR
45	0862170	- EUR
40	0862169	- EUR
35	0862168	- EUR
30	0862167	- EUR
25	0862166	- EUR

Lengths in [mm]

Delivery time: 4 weeks

EV025 86°	Die width:	20 mm
	Angle:	86°
	Height:	100 mm
	Mat. No.	Price

VAR. B

4050	0825907	- EUR
3050	0825905	- EUR
2550	0835264	- EUR
2050	0825903	- EUR
1250	0825901	- EUR

VAR. A

2050	0825902	- EUR
1250	0825900	- EUR

Block 250

250	0825899	- EUR
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SINGLE







500	0825898	- EUR
300	0825897	- EUR
200	0825896	- EUR
100	0825895	- EUR
50	0825894	- EUR
45	0825893	- EUR
40	0825892	- EUR
35	0825891	- EUR
30	0825890	- EUR
25	0825889	- EUR

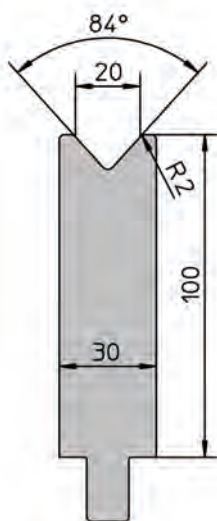
Lengths in [mm]

Predecessor to 84°



Die

	700 kN/m
	42 Cr Mo 4 1080 - 1180 N/mm ²
	24,6 kg/m
	~60 HRC
	14,5 mm
	14,9mm (s=4mm)









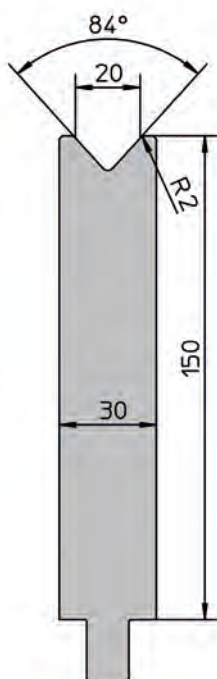
Delivery time: ex warehouse

EV W20/84°		Die width:	20 mm
		Angle:	84°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0857561	-	EUR
3050	0861420	-	EUR
2550	0861870	-	EUR
2050	0861869	-	EUR
1250	0860323	-	EUR
1050	0867300	-	EUR
VAR. A			
2050	0861865	-	EUR
1250	0861864	-	EUR
1050	1594471	-	EUR
550	1594470	-	EUR
Block 250			
250	0857560	-	EUR
SINGLE			
500	0857559	-	EUR
300	0857558	-	EUR
200	0857557	-	EUR
100	0857550	-	EUR
50	0857556	-	EUR
45	0857555	-	EUR
40	0857554	-	EUR
35	0857553	-	EUR
30	0857552	-	EUR
25	0857551	-	EUR
20	1286391	-	EUR
15	1286369	-	EUR
10	1431080	-	EUR

Lengths in [mm]

Die

	700 kN/m
	42 Cr Mo 4 1080 - 1180 N/mm ²
	36,4 kg/m
	~60 HRC
	14,5 mm
	14,9mm (s=4mm)



Delivery time: ex warehouse

EV/H W20/84°		Die width:	20 mm
		Angle:	84°
		Height:	150 mm
		Mat. No.	Price
VAR. B			
4050	0992283	-	EUR
3050	1230842	-	EUR
2550	1271617	-	EUR
2050	1271615	-	EUR
1250	1214666	-	EUR
1050	1594583	-	EUR
VAR. A			
2050	1271604	-	EUR
1250	1271602	-	EUR
1050	1594582	-	EUR
550	1594581	-	EUR
Block 250			
250	0992282	-	EUR
SINGLE			
500	0992281	-	EUR
300	0992280	-	EUR
200	0992279	-	EUR
100	0992272	-	EUR
50	0992278	-	EUR
45	0992277	-	EUR
40	0992276	-	EUR
35	0992275	-	EUR
30	0992274	-	EUR
25	0992273	-	EUR

Lengths in [mm]



24 mm die width

Die



650 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



29,5 kg/m



~60 HRC



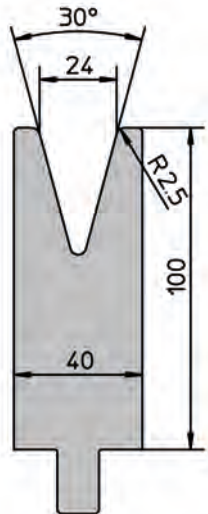
19,1 mm



20mm (s=5mm)



Bore hole possible
+10%



Delivery time: ex warehouse

EV007 30°

Die width: 24 mm

Angle: 30°

Height: 100 mm

Mat. No. Price

VAR. B

4050	0824185	- EUR
3050	0824184	- EUR
2550	0835239	- EUR
2050	0824183	- EUR
1250	0825759	- EUR
1050	0867471	- EUR

VAR. A

2050	0824180	- EUR
1250	0825758	- EUR
1050	1594318	- EUR
550	1594317	- EUR

Block 250

250	0824179	- EUR
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SINGLE

500	0824178	- EUR
300	0824177	- EUR
200	0824176	- EUR
100	0824175	- EUR
50	0824174	- EUR
45	0824173	- EUR
40	0824172	- EUR
35	0824171	- EUR
30	0824170	- EUR
25	0824169	- EUR
25 with groove	0869961	- EUR

Lengths in [mm]

Die



650 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



44,6 kg/m



~60 HRC



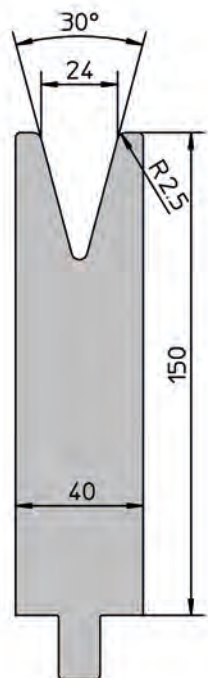
19,1 mm



20mm (s=5mm)



Bore hole possible
+10%



Delivery time: ex warehouse

EV007/H 30°

Die width: 24 mm

Angle: 30°

Height: 150 mm

Mat. No. Price

VAR. B

4050	0824203	- EUR
3050	0824202	- EUR
2550	0835242	- EUR
2050	0824201	- EUR
1250	0825761	- EUR
1050	0867488	- EUR

VAR. A

2050	0824198	- EUR
1250	0825760	- EUR
1050	1604333	- EUR
550	1604332	- EUR

Block 250

250	0824197	- EUR
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SINGLE

500	0824196	- EUR
300	0824194	- EUR
200	0824193	- EUR
100	0824192	- EUR
50	0824191	- EUR
45	0824190	- EUR
40	0824189	- EUR
35	0824188	- EUR
30	0824187	- EUR
25	0824186	- EUR
25 with groove	0869965	- EUR

Lengths in [mm]



Die



200 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

33,4 kg/m



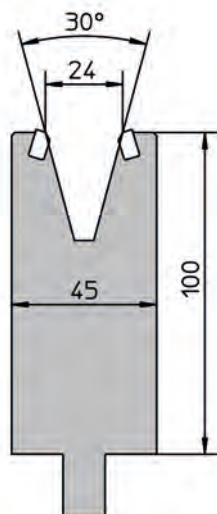
17,3 mm



24mm (s=2,5mm)



Not suitable for automation.



Delivery time: ex warehouse

KEV W24/30°

Die width: 24 mm

Angle: 30°

Height: 100 mm

Mat. No.

Price

VAR. B

4050	0870684	- EUR
3050	0870683	- EUR
2550	0870682	- EUR
2050	0870681	- EUR
1250	0860208	- EUR
1050	1605734	- EUR

VAR. A

2050	0870677	- EUR
1250	0870676	- EUR
1050	1605733	- EUR
550	1605732	- EUR

Block 250

250	0860207	- EUR
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SINGLE

500	0860206	- EUR
300	0860205	- EUR
200	0860204	- EUR
100	0860197	- EUR
50	0860203	- EUR
45	0860202	- EUR
40	0860201	- EUR
35	0860200	- EUR
30	0860199	- EUR
25	0860198	- EUR

Lengths in [mm]

Delivery time: 4 weeks

EV026 86°

Die width: 24 mm

Angle: 86°

Height: 100 mm

Mat. No.

Price

VAR. B

4050	0824404	- EUR
3050	0824403	- EUR
2550	0835268	- EUR
2050	0824402	- EUR
1250	0825851	- EUR

VAR. A

2050	0824399	- EUR
1250	0825850	- EUR

Block 250

250	0824398	- EUR
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SINGLE

500	0824397	- EUR
300	0824396	- EUR
200	0824395	- EUR
100	0824394	- EUR
50	0824393	- EUR
45	0824392	- EUR
40	0824391	- EUR
35	0824390	- EUR
30	0824389	- EUR
25	0824388	- EUR

Lengths in [mm]

Predecessor to 80°



Die



700 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

28,0 kg/m



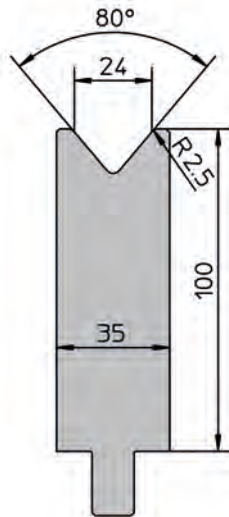
~60 HRC



19,0 mm



18mm (s=5mm)



Delivery time: ex warehouse

EV W24/80°		Die width:	24 mm
		Angle:	80°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0853235		- EUR
3050	0867146		- EUR
2550	0870696		- EUR
2050	0870695		- EUR
1250	0869678		- EUR
1050	1545487		- EUR
VAR. A			
2050	0870691		- EUR
1250	0870690		- EUR
1050	1596558		- EUR
550	1596557		- EUR
Block 250			
250	0853234		- EUR
SINGLE			
500	0832839		- EUR
300	0835118		- EUR
200	0853233		- EUR
100	0835119		- EUR
50	0853232		- EUR
45	0853231		- EUR
40	0853230		- EUR
35	0853229		- EUR
30	0853228		- EUR
25	0853227		- EUR

Lengths in [mm]

Die



700 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

41,7 kg/m



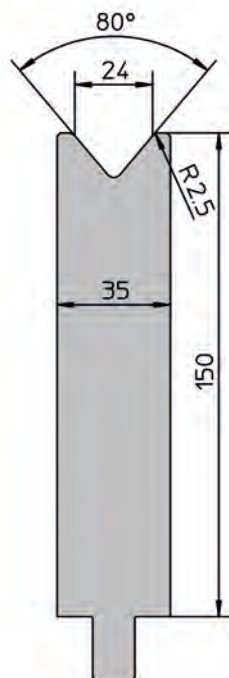
~60 HRC



19,0 mm



18mm (s=5mm)



Delivery time: ex warehouse

EV/H W24/80°		Die width:	24 mm
		Angle:	80°
		Height:	150 mm
		Mat. No.	Price
VAR. B			
4050	1271639		- EUR
3050	1271638		- EUR
2550	1271637		- EUR
2050	1271635		- EUR
1250	1271633		- EUR
1050	1600913		- EUR
VAR. A			
2050	1271599		- EUR
1250	1271598		- EUR
1050	1600912		- EUR
550	1600911		- EUR
Block 250			
250	1271597		- EUR
SINGLE			
500	1271595		- EUR
300	1271594		- EUR
200	1271593		- EUR
100	1215140		- EUR
50	1271592		- EUR
45	1271591		- EUR
40	1271500		- EUR
35	1271499		- EUR
30	1271498		- EUR
25	1271497		- EUR

Lengths in [mm]

30 mm die width

Die



900 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

38,2 kg/m



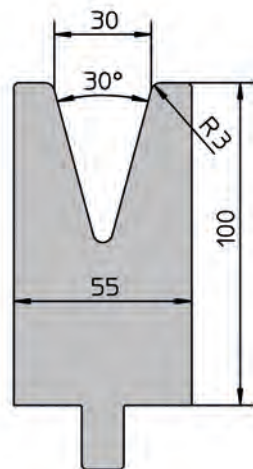
~60 HRC



23,0 mm



27,8mm (s=6mm)



Delivery time: ex warehouse

EV W30/30° R3	Die width:	30 mm
	Angle:	30°
	Height:	100 mm
Mat. No.	Price	

VAR. B

4050	0827787	- EUR
3050	0827786	- EUR
2550	0870698	- EUR
2050	0827785	- EUR
1250	0827784	- EUR
1050	1593984	- EUR

VAR. A

2050	0827781	- EUR
1250	0827780	- EUR
1050	1593983	- EUR
550	1601486	- EUR

Block 250

250	0827779	- EUR
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SINGLE

500	0827778	- EUR
300	0827777	- EUR
200	0827776	- EUR
100	0827775	- EUR
50	0827774	- EUR
45	0827773	- EUR
40	0827772	- EUR
35	0827771	- EUR
30	0827770	- EUR
25	0827769	- EUR
25 with groove	0869974	- EUR

Lengths in [mm]

Delivery time: 4 weeks

EV027 86°

Die width:	30 mm
Angle:	86°
Height:	100 mm
Mat. No.	Price

VAR. B

4050	0824438	- EUR
3050	0824437	- EUR
2550	0835273	- EUR
2050	0824436	- EUR
1250	0825855	- EUR

VAR. A

2050	0824433	- EUR
1250	0825854	- EUR

Block 250

250	0824432	- EUR
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SINGLE

500	0824431	- EUR
300	0824430	- EUR
200	0824429	- EUR
100	0824428	- EUR
50	0824427	- EUR
45	0824426	- EUR
40	0824425	- EUR
35	0824424	- EUR
30	0824423	- EUR
25	0824422	- EUR

Lengths in [mm]

Predecessor to 80°



Die



900 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



34,8 kg/m



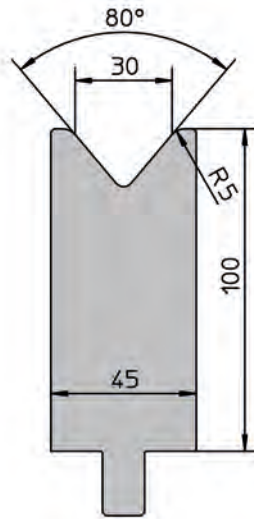
~60 HRC



23,7 mm



23,6mm (s=6mm)



Delivery time: ex warehouse

EV W30/80°		Die width:	30 mm
		Angle:	80°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0866948	-	EUR
3050	0862762	-	EUR
2550	0870706	-	EUR
2050	0870705	-	EUR
1250	0870704	-	EUR
1050	1601515	-	EUR
VAR. A			
2050	0870700	-	EUR
1250	0870699	-	EUR
1050	1601514	-	EUR
550	1601513	-	EUR
Block 250			
250	0862761	-	EUR
SINGLE			
500	0862760	-	EUR
300	0862759	-	EUR
200	0862758	-	EUR
100	0862751	-	EUR
50	0862757	-	EUR
45	0862756	-	EUR
40	0862755	-	EUR
35	0862754	-	EUR
30	0862753	-	EUR
25	0862752	-	EUR

Lengths in [mm]

Die



900 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



52,5 kg/m



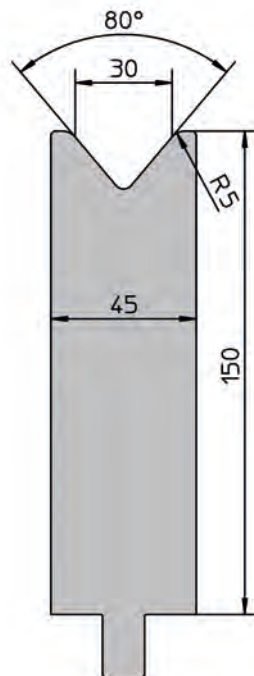
~60 HRC



23,7 mm



23,6mm (s=6mm)



Delivery time: ex warehouse

EV/H W30/80°		Die width:	30 mm
		Angle:	80°
		Height:	150 mm
		Mat. No.	Price
VAR. B			
4050	1212782	-	EUR
3050	1230843	-	EUR
2550	1271580	-	EUR
2050	1271577	-	EUR
1250	1271576	-	EUR
1050	1601498	-	EUR
VAR. A			
2050	1271560	-	EUR
1250	1271557	-	EUR
1050	1601497	-	EUR
550	1601496	-	EUR
Block 250			
250	1212781	-	EUR
SINGLE			
300	1212780	-	EUR
200	1212769	-	EUR
100	1212762	-	EUR
50	1212768	-	EUR
45	1212767	-	EUR
40	1212766	-	EUR
35	1212765	-	EUR
30	1212764	-	EUR
25	1212763	-	EUR

Lengths in [mm]

40 mm die width

Die



900 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

36,7 kg/m



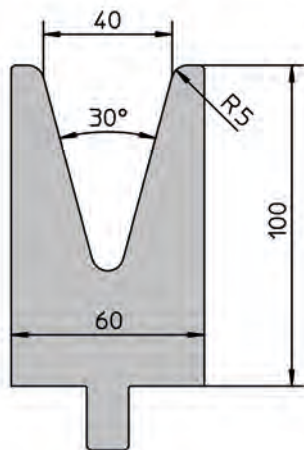
~60 HRC



31,5 mm



32mm (s=6mm)



Delivery time: ex warehouse

EV W40/30°	Die width:	40 mm
	Angle:	30°
	Height:	100 mm
Mat. No.	Price	

VAR. B

4050	1372754	- EUR
3050	1244636	- EUR
2550	0864277	- EUR
2050	1408935	- EUR
1250	0994425	- EUR
1050	1601594	- EUR

VAR. A

2050	1461705	- EUR
1250	1461704	- EUR
1050	1601593	- EUR
550	1601592	- EUR

Block 250

250	0864276	- EUR
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SINGLE

500	0864275	- EUR
300	0864274	- EUR
200	0864273	- EUR
100	0864266	- EUR
50	0864272	- EUR
45	0864271	- EUR
40	0864270	- EUR
35	0864269	- EUR
30	0864268	- EUR
25	0864267	- EUR

Lengths in [mm]

Delivery time: 4 weeks

EV028 86°	Die width:	40 mm
	Angle:	86°
	Height:	100 mm
Mat. No.	Price	

VAR. B

4050	0827714	- EUR
3050	0827713	- EUR
2550	0835519	- EUR
2050	0827649	- EUR
1250	0827715	- EUR

VAR. A

2050	0835515	- EUR
1250	0835514	- EUR

Block 250

250	0827648	- EUR
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SINGLE

500	0827647	- EUR
300	0827646	- EUR
200	0827645	- EUR
100	0827644	- EUR
50	0827643	- EUR
45	0827642	- EUR
40	0827641	- EUR
35	0827640	- EUR
30	0827639	- EUR
25	0827638	- EUR

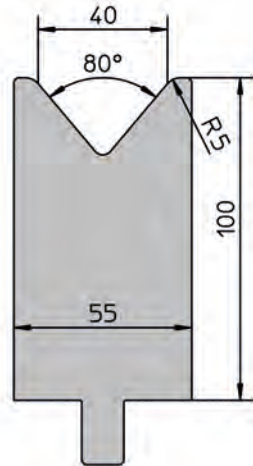
Lengths in [mm]

Predecessor to 80°



Die

- 1200 kN/m
- 42 Cr Mo 4
1080 - 1180 N/mm²
- 40,9 kg/m
- ~60 HRC
- 29,8 mm
- 29mm (s=6mm)



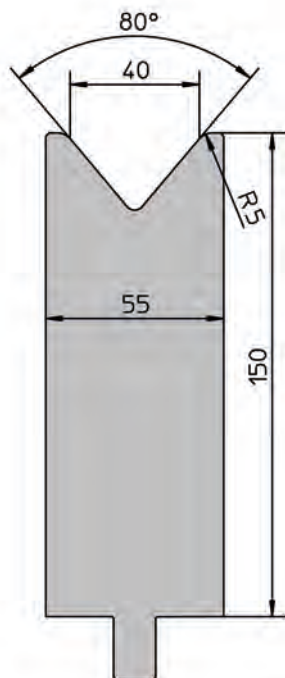
Delivery time: ex warehouse

EV W40/80°		Die width:	40 mm
		Angle:	80°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0867596		- EUR
3050	0862703		- EUR
2550	0868663		- EUR
2050	0861605		- EUR
1250	0868581		- EUR
1050	1534873		- EUR
VAR. A			
2050	0870708		- EUR
1250	0870707		- EUR
1050	1601662		- EUR
550	1601661		- EUR
Block 250			
250	0861604		- EUR
SINGLE			
500	0861603		- EUR
300	0861602		- EUR
200	0861601		- EUR
100	0861594		- EUR
50	0861600		- EUR
45	0861599		- EUR
40	0861598		- EUR
35	0861597		- EUR
30	0861596		- EUR
25	0861595		- EUR

Lengths in [mm]

Die

- 1200 kN/m
- 42 Cr Mo 4
1080 - 1180 N/mm²
- 62,5 kg/m
- ~60 HRC
- 29,8 mm
- 29mm (s=6mm)



Delivery time: ex warehouse

EV/H W40/80°		Die width:	40 mm
		Angle:	80°
		Height:	150 mm
		Mat. No.	Price
VAR. B			
4050	1271508		- EUR
3050	1230934		- EUR
2550	1271504		- EUR
2050	1271502		- EUR
1250	1271477		- EUR
1050	1603085		- EUR
VAR. A			
2050	1271428		- EUR
1250	1271427		- EUR
1050	1603084		- EUR
550	1603083		- EUR
Block 250			
250	1230931		- EUR
SINGLE			
300	1230909		- EUR
200	1230907		- EUR
100	1230898		- EUR
50	1230905		- EUR
45	1230904		- EUR
40	1230902		- EUR
35	1230901		- EUR
30	1230900		- EUR
25	1230899		- EUR

Lengths in [mm]

50 mm die width

Die



1200 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

43,3 kg/m



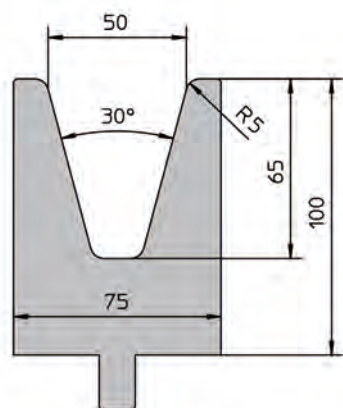
~60 HRC



38,0 mm



41,4mm (s=8mm)



Delivery time: ex warehouse

EV W50/30°		Die width:	50 mm
		Angle:	30°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	1567856	-	EUR
3050	0871432	-	EUR
2550	1766454	-	EUR
2050	1766452	-	EUR
1250	1279646	-	EUR
1050	1766449	-	EUR
VAR. A			
2050	1766451	-	EUR
1250	1766450	-	EUR
1050	1766448	-	EUR
550	1766447	-	EUR
Block 250			
250	0871431	-	EUR
SINGLE			
500	0866298	-	EUR
300	0871430	-	EUR
200	0871429	-	EUR
100	0866297	-	EUR
50	0871428	-	EUR
45	0871427	-	EUR
40	0871426	-	EUR
35	0871425	-	EUR
30	0871424	-	EUR
25	0871423	-	EUR

Lengths in [mm]

Die



1500 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

46,5 kg/m



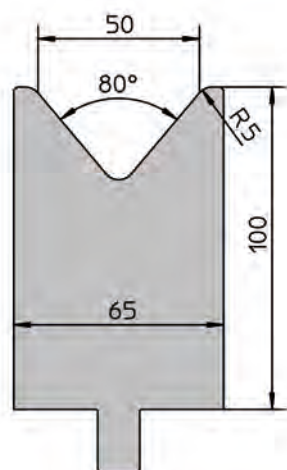
~60 HRC



35,5 mm



37mm (s=10mm)



Delivery time: ex warehouse

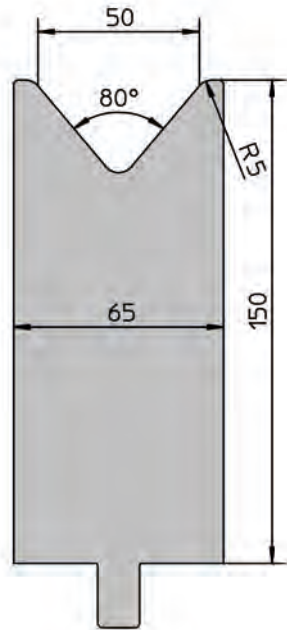
EV W50/80°		Die width:	50 mm
		Angle:	80°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0866949	-	EUR
3050	0862774	-	EUR
2550	0870717	-	EUR
2050	0863205	-	EUR
1250	0870716	-	EUR
1050	1603100	-	EUR
VAR. A			
2050	0870713	-	EUR
1250	0870712	-	EUR
1050	1603089	-	EUR
550	1603088	-	EUR
Block 250			
250	0862773	-	EUR
SINGLE			
500	0862772	-	EUR
300	0862771	-	EUR
200	0862770	-	EUR
100	0862763	-	EUR
50	0862769	-	EUR
45	0862768	-	EUR
40	0862767	-	EUR
35	0862766	-	EUR
30	0862765	-	EUR
25	0862764	-	EUR

Lengths in [mm]



Die

- 1500 kN/m
- 42 Cr Mo 4
1080 - 1180 N/mm²
- 72,0 kg/m
- ~60 HRC
- 35,5 mm
- 37mm (s=10mm)



Delivery time: ex warehouse

EV/H W50/80°		Die width:	50 mm
		Angle:	80°
		Height:	150 mm
		Mat. No.	Price
VAR. B			
4050	1275889	-	EUR
3050	1275887	-	EUR
2550	1275884	-	EUR
2050	1275879	-	EUR
1250	1275877	-	EUR
1050	1603105	-	EUR
VAR. A			
2050	1275816	-	EUR
1250	1275815	-	EUR
1050	1603104	-	EUR
550	1603103	-	EUR
Block 250			
250	1275812	-	EUR
SINGLE			
300	1275787	-	EUR
200	1275786	-	EUR
100	1275765	-	EUR
50	1275784	-	EUR
45	1275783	-	EUR
40	1275782	-	EUR
35	1275781	-	EUR
30	1275768	-	EUR
25	1275766	-	EUR

Lengths in [mm]

Delivery time: 4 weeks

EV029 86°		Die width:	50 mm
		Angle:	86°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0824490	-	EUR
3050	0824489	-	EUR
2550	0835277	-	EUR
2050	0824488	-	EUR
1250	0825863	-	EUR
VAR. A			
2050	0824485	-	EUR
1250	0825862	-	EUR
Block 250			
250	0824483	-	EUR
SINGLE			
300	0824465	-	EUR
200	0824464	-	EUR
100	0824463	-	EUR
50	0824462	-	EUR
45	0824461	-	EUR
40	0824460	-	EUR
35	0824459	-	EUR
30	0824458	-	EUR
25	0824457	-	EUR

Lengths in [mm]

Predecessor to 80°

60 - 120 mm die width

Die



1500 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

51,7 kg/m



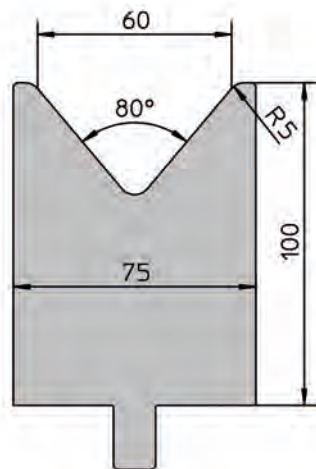
~60 HRC



42,0 mm



44mm (s=10mm)



Delivery time: ex warehouse

EV W60/80°	Die width:	60 mm
	Angle:	80°
	Height:	100 mm
Mat. No.	Price	

VAR. B

4050	0848821	- EUR
3050	0848820	- EUR
2550	0848819	- EUR
2050	0848818	- EUR
1250	0848817	- EUR
1050	0867614	- EUR

VAR. A

2050	0848813	- EUR
1250	0848812	- EUR
1050	1603242	- EUR
550	1603241	- EUR

Block 250

250	0848811	- EUR
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SINGLE

300	0848810	- EUR
200	0848809	- EUR
100	0848802	- EUR
50	0848808	- EUR
45	0848807	- EUR
40	0848806	- EUR
35	0848805	- EUR
30	0848804	- EUR
25	0848803	- EUR

Lengths in [mm]

Die



1500 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

56,3 kg/m



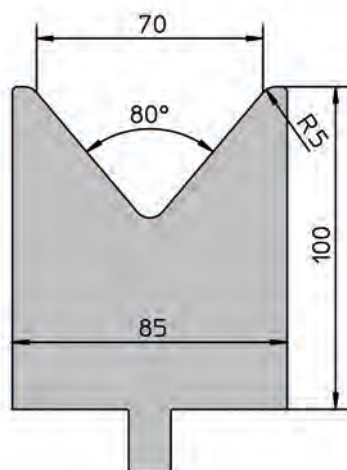
~60 HRC



48,0 mm



45,5mm (s=12mm)



Delivery time: ex warehouse

EV W70/80°	Die width:	70 mm
	Angle:	80°
	Height:	100 mm
Mat. No.	Price	

VAR. B

4050	0848841	- EUR
3050	0848840	- EUR
2550	0848839	- EUR
2050	0848838	- EUR
1250	0848837	- EUR
1050	0867616	- EUR

VAR. A

2050	0848833	- EUR
1250	0848832	- EUR
1050	1603303	- EUR
550	1603302	- EUR

Block 250

250	0848831	- EUR
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SINGLE

300	0848830	- EUR
200	0848829	- EUR
100	0848822	- EUR
50	0848828	- EUR
45	0848827	- EUR
40	0848826	- EUR
35	0848825	- EUR
30	0848824	- EUR
25	0848823	- EUR

Lengths in [mm]



Die



1500 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



64,4 kg/m



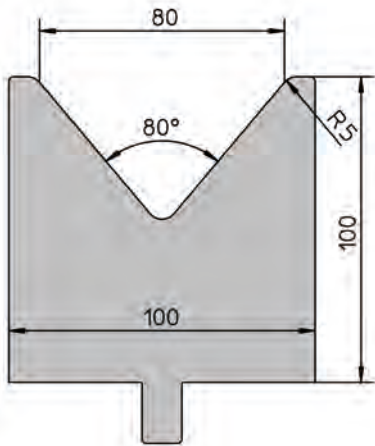
~60 HRC



54,0 mm



53,5mm (s=12mm)



Delivery time: ex warehouse

EV W80/80°	Die width:	80 mm
	Angle:	80°
	Height:	100 mm
	Mat. No.	Price

VAR. B		
4050	0848862	- EUR
3050	0848861	- EUR
2550	0848859	- EUR
2050	0848858	- EUR
1250	0848857	- EUR
1050	0867617	- EUR

VAR. A		
2050	0848853	- EUR
1250	0848852	- EUR
1050	1603307	- EUR
550	1603306	- EUR

Block 250		
250	0848851	- EUR

SINGLE		
300	0848850	- EUR
200	0848849	- EUR
100	0848842	- EUR
50	0848848	- EUR
45	0848847	- EUR
40	0848846	- EUR
35	0848845	- EUR
30	0848844	- EUR
25	0848843	- EUR

Lengths in [mm]

Die



1500 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



84,6 kg/m



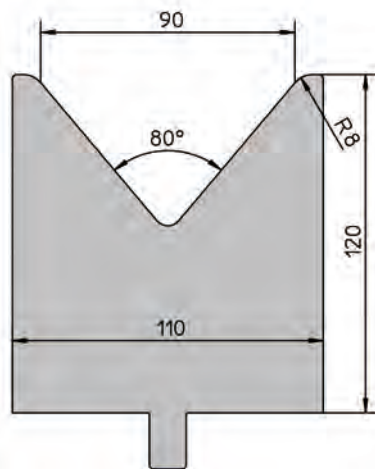
~60 HRC



65,0 mm



60,5mm (s=15mm)



Delivery time: ex warehouse

EV W90/80°	Die width:	90 mm
	Angle:	80°
	Height:	120 mm
	Mat. No.	Price

VAR. B		
4050	0848881	- EUR
3050	0848880	- EUR
2550	0848879	- EUR
2050	0848878	- EUR
1250	0848877	- EUR
1050	1603310	- EUR

VAR. A		
2050	0848873	- EUR
1250	0848872	- EUR
1050	1603309	- EUR
550	1603308	- EUR

Block 250		
250	0848871	- EUR

SINGLE		
200	0848870	- EUR
100	0848863	- EUR
50	0848869	- EUR
45	0848868	- EUR
40	0848867	- EUR
35	0848866	- EUR
30	0848865	- EUR
25	0848864	- EUR

Lengths in [mm]



Die



1500 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



89,4 kg/m



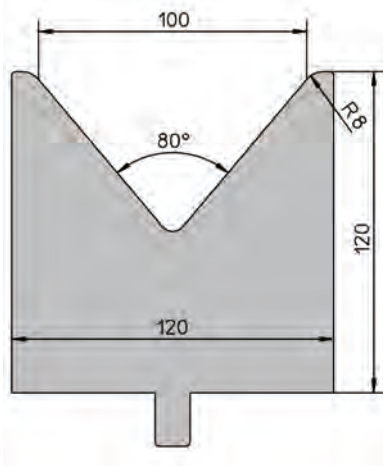
~60 HRC



68,0 mm



68,5mm (s=15mm)



Delivery time: ex warehouse

EV W100/80°	Die width:	100 mm
	Angle:	80°
	Height:	120 mm
	Mat. No.	Price

VAR. B		
4050	0848900	- EUR
3050	0848899	- EUR
2550	0848898	- EUR
2050	0848897	- EUR
1250	0848896	- EUR
1050	1601449	- EUR

VAR. A		
2050	0848892	- EUR
1250	0848891	- EUR
1050	1601448	- EUR
550	1601447	- EUR

Block 250		
250	0848890	- EUR

SINGLE		
200	0848889	- EUR
100	0848882	- EUR
50	0848888	- EUR
45	0848887	- EUR
40	0848886	- EUR
35	0848885	- EUR
30	0848884	- EUR
25	0848883	- EUR

Lengths in [mm]

Die



1600 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



92,4 kg/m



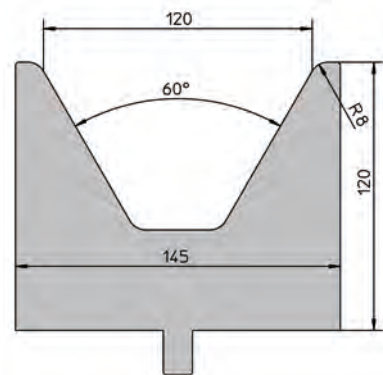
~60 HRC



82,0 mm



79,5mm (s=15mm)



Delivery time: ex warehouse

EV W120/60°	Die width:	120 mm
	Angle:	60°
	Height:	120 mm
	Mat. No.	Price

Block 2000		
2000	1465314	- EUR

Block 1000		
1000	1465313	- EUR

SINGLE		
200	0867228	- EUR
100	0867227	- EUR

Lengths in [mm]



The block length is formed using the longest part pieces of this tool type.



Adapter

Adapter



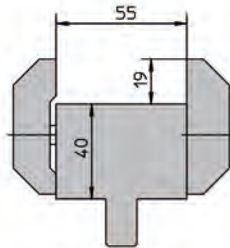
1300 kN/m



C 50
700 - 850 N/mm²



32,9 kg/m



Delivery time: 4 weeks / on request

TRUMPF-EHT

Angle: -
Height: 40 mm
Mat. No. **Price**

SINGLE

500 1282380 - EUR
Lengths in [mm]

Adapter



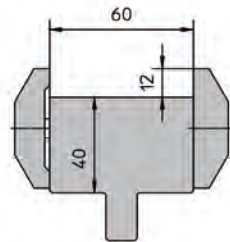
1300 kN/m



C 50
700 - 850 N/mm²



30,0 kg/m



Delivery time: ex warehouse

Amada with clamp

Angle: -
Height: 40 mm
Mat. No. **Price**

SINGLE

500 1464474 - EUR
Lengths in [mm]

Adapter



1300 kN/m



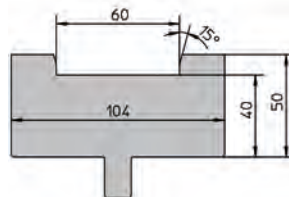
C 45
650 - 800 N/mm²



38,0 kg/m



1x1250mm 826515
1x2050mm 831441
1x2550mm 836719
1x3050mm 831442
1x4050mm 836966



Delivery time: ex warehouse

Amada without clamp

Angle: -
Height: 40 mm
Mat. No. **Price**

SINGLE

500 0831443 - EUR
Lengths in [mm]



Adapter



1500 kN/m



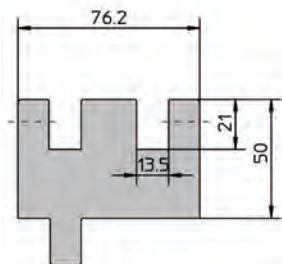
C 45
650 - 800 N/mm²



27,1 kg/m



See Technical section



Delivery time: ex warehouse

TRUMPF DV	Angle:	-
	Height:	50 mm
	Mat. No.	Price

SINGLE		
500	0853308	- EUR
100	1410970	- EUR
50	1410988	- EUR

Lengths in [mm]

Adapter



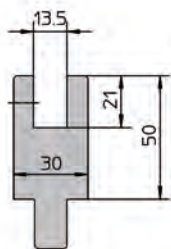
1000 kN/m



C 45
650 - 800 N/mm²



11,6 kg/m



Delivery time: ex warehouse

TRUMPF EV	Angle:	-
	Height:	50 mm
	Mat. No.	Price

SINGLE		
500	1210798	- EUR
100	1210779	- EUR
50	1210795	- EUR

Lengths in [mm]

Adapter



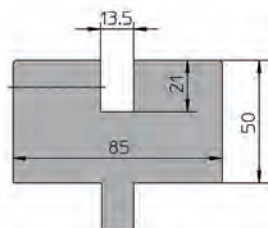
3000 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



33,2 kg/m



Delivery time: ex warehouse

TRUMPF EV	Angle:	-
	Height:	50 mm
	Mat. No.	Price

SINGLE		
500	1621404	- EUR
100	1621403	- EUR

Lengths in [mm]



VLM - Adjustable die

Application

The VLM die from TRUMPF helps with convenient bending of various sheet thicknesses in a single set-up. The die widths can be adjusted as per the request of a customer quickly and easily using setting bars.

Area of application

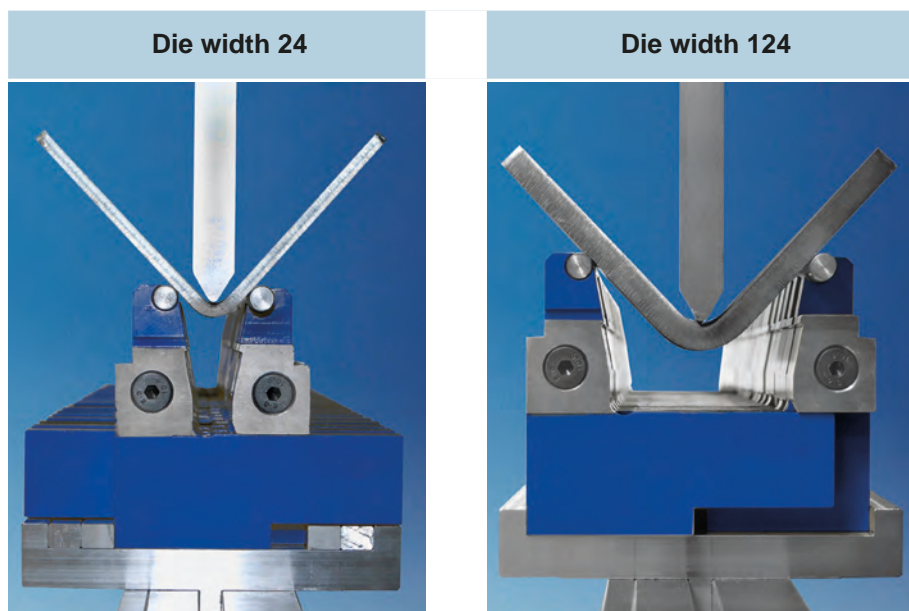
- VLMBN: 3 – 15 mm sheet thickness (max. 1250 kN/m at a bending angle of 90°)
- VLMDN: 5 – 20 mm sheet thickness (max. 2000 kN/m at a bending angle of 90°)

Advantages

- Wide die width range from W24 – W182 possible. Continuous die replacement is thus not required.
- Reduced-imprint bending of rotating and hardened track rollers (minimum wear)
- Lower press forces required
- Production of various bending radii
- Decrease in the down times by up to 30% through the fast and easy replacement of the setting bars.
- Minimum maintenance costs:
 - Replaceable track rollers
 - Replaceable protective foil protecting the die parts against contamination.
- Low collision contour compared to the conventional adjustable dies.

Restrictions

- Bending aid up to max. 150 mm height possible





Die VLMBN (adjustable W24 – W124)

Delivery time: 2 weeks



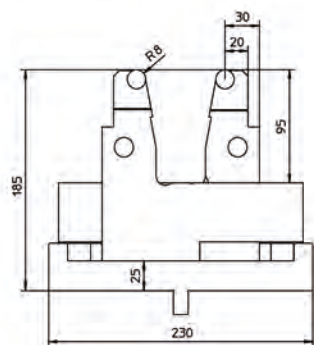
220,0 kg/m



~60 HRC



s=3 to 15 mm, length 1000 mm available upon request. The tool is comprised of holder, trips, track rollers and die jaws.



VLMBN	Angle:	30° - 70°
	Height:	185 mm
	Mat. No.	Price

SINGLE		
500	1392023	- EUR
250	1392021	- EUR
Lengths in [mm]		

Die VLMDN (adjustable W62 – W182)

Delivery time: 2 weeks



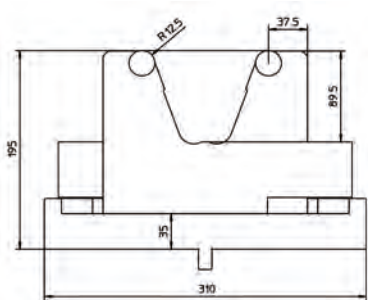
330,0 kg/m



~60 HRC



s=5 to 20 mm, length 1000 mm available upon request. The tool is comprised of holder, strips, track rollers and die jaws.



VLMDN	Angle:	60° - 80°
	Height:	195 mm
	Mat. No.	Price

SINGLE		
500	1392026	- EUR
250	1392025	- EUR
Lengths in [mm]		

Designation	Illustration	Mat. No.	Price
Protective foil set 1 VLMBN 150mm		1544581	- EUR
Protective foil set 2 VLMDN 190mm		1544582	- EUR

Comprising 25 meters Velcro strap and 5 meters protective foil.

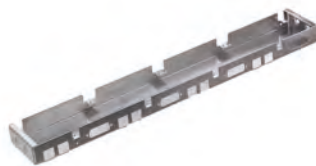
Application

During the bending procedure, the sheet is evenly pressed by the support areas of the side plates. There is almost no relative movement between the tool and workpiece in the process. This has various advantages to traditional bending.

Advantages

- Recesses and holes can be bent without deformation also close to the bending line
- Minimal flanges can be bent
- Ideal for diagonal or tapered parts
- Variable material thickness
- No damage to the film of laminated sheets
- Hardened jaws
- Guaranteed exchangeability due to maximum precision

Bending with RollBend



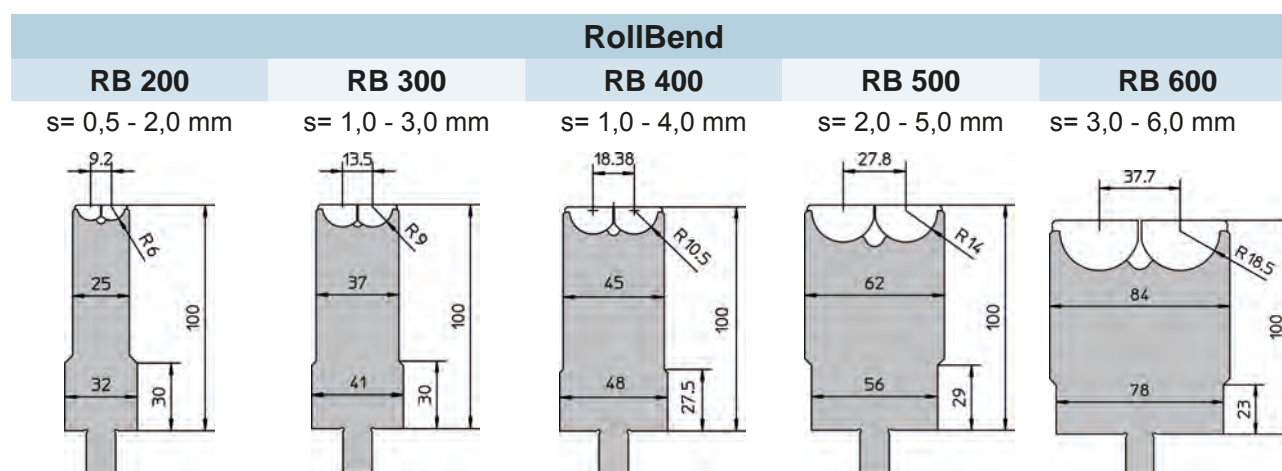
Products

Area of application

- RollBend can be used on all TRUMPF press brakes
- - Sheet thickness of 0.5 to 12.5 mm
- - For laminated sheets, but also for painted and coated surfaces
- - Painted or powdered surfaces do not sustain any damage
- - Bends of 180° to 65° (RB 200 to 40°) possible

Note

- ACB (automatic angle measuring system) is possible in combination with RollBend
- RollBend can be combined with TRUMPF V dies





Press force table (kN/m)

Material	Sheet thickness [mm]	OW	RB 200	RB 300	RB 400	RB 500	RB 600
			Bending angle 90°				
Steel	0,5	R1	30	30	20		
	1,0	R1	100	60	40	30	
	1,5	R1	240	130	90	50	
	2,0	R1	530	260	150	100	80
	2,5	R1		460	270	160	130
	3,0	R1		770	510	270	180
	4,0	R1			970	530	400
	5,0	R4				880	660
	6,0	R4					1050

Material	Sheet thickness [mm]	OW	RB 200	RB 300	RB 400	RB 500	RB 600
			Bending angle 90°				
Stainless Steel	0,5	R1	30	30	30		
	1,0	R1	120	70	50	40	
	1,5	R1	330	180	100	80	
	2,0	R1	800	400	230	150	110
	2,5	R1		680	400	230	170
	3,0	R1		1030	750	380	210
	4,0	R1			1350	710	520
	5,0	R4				1020	780
	6,0	R4					1260

Material	Sheet thickness [mm]	OW	RB 200	RB 300	RB 400	RB 500	RB 600
			Bending angle 90°				
Aluminum	0,5	R1	20	20	10		
	1,0	R1	40	40	20	20	
	1,5	R1	130	80	50	40	
	2,0	R1	290	140	70	60	50
	2,5	R1		240	150	100	70
	3,0	R1		360	260	170	100
	4,0	R1			480	320	240
	5,0	R4					350

Note: Note load on punch.

Table with minimum side lengths (outside dimensions)

Material	Punch radius Sheet thickness	RB 200		RB 300	RB 400		RB 500		RB 600	
		R0,5	R1	R1	R1	R3	R1	R4	R1	R4
Steel	0,5	4,6	4,7	5,6	10,0	10,0				
	1,0	5,3	5,3	6,8	10,1	10,0	15,6	15,7		
	1,5	5,6	5,5	7,6	10,6	10,7	16,0	16,2		
	2,0	5,9	6,1	8,0	10,8	11,0	16,3	17,8	19,4	19,5
	2,5			8,2	11,1	11,2	16,4	17,9	19,8	20,0
	3,0			8,3	11,4	11,5	16,5	18,5	20,6	20,6
	4,0				13,1	13,2	16,8	18,7	21,1	21,2
	5,0						17,0	19,3	22,0	22,0
	6,0								23,4	23,2

Material	Punch radius Sheet thickness	RB 200		RB 300	RB 400		RB 500		RB 600	
		R0,5	R1	R1	R1	R3	R1	R4	R1	R4
Stainless Steel	0,5	4,7	4,8	6,1	10,1	10,1				
	1,0	5,5	5,4	7,4	10,3	10,1	16,4	16,3		
	1,5	5,8	5,8	8,0	11,0	11,1	17,3	16,6		
	2,0	6,1	6,0	8,3	10,9	11,3	17,4	17,1	20,0	20,2
	2,5			8,4	11,1	11,2	17,6	17,5	20,2	20,7
	3,0			8,5	11,5	11,7	17,8	17,7	20,8	20,9
	4,0				13,2	13,3	18,1	18,0	21,4	21,2
	5,0						18,3	18,7	22,2	22,4
	6,0								23,5	23,2

Material	Punch radius Sheet thickness	RB 200		RB 300	RB 400		RB 500		RB 600	
		R0,5	R1	R1	R1	R3	R1	R4	R1	R4
Aluminum	0,5	3,5	3,6	5,7	9,8	9,8				
	1,0	4,9	5,1	7,0	9,9	9,8	15,0	14,6		
	1,5	5,1	5,5	7,7	9,9	10,0	15,5	15,3		
	2,0	5,8	6,0	8,1	10,5	10,6	15,8	16,3	18,7	18,8
	2,5			8,7	10,8	11,1	16,1	16,6	19,9	19,6
	3,0			9,0	11,4	11,8	16,4	16,7	20,0	20,4
	4,0				12,4	12,7	16,9	17,2	20,8	21,3
	5,0								21,9	21,5

Note: All values in [mm]

Optimum area of application



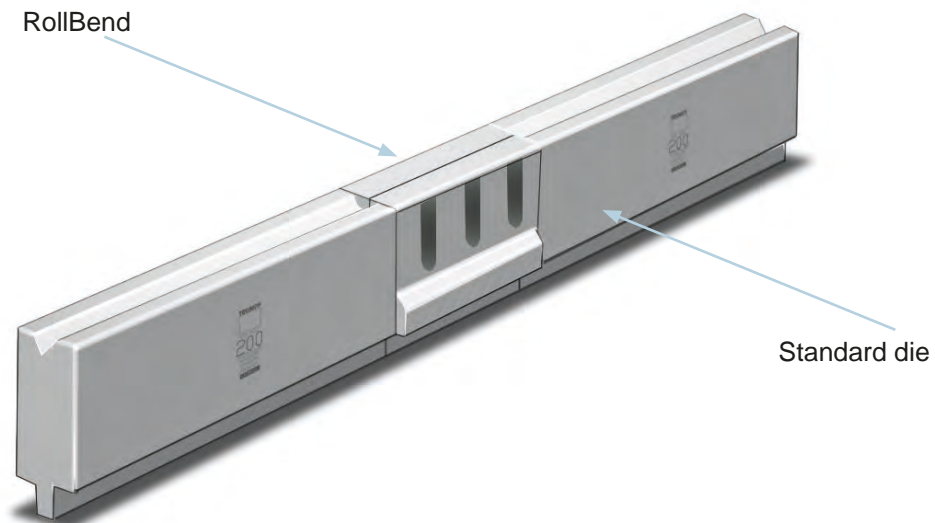
Combination with V dies

When combined, the load limits of the V dies which are below the load limits of the RollBend dies must be observed. This means that the max. permitted sheet thickness is determined by the single V die used when combining tools.

To keep the different press forces for tool combinations within limits, the following recommended values apply.

Tool combination	Steel (max. sheet thickness)	Stainless steel (max. sheet thickness)
RB 200 + EV W8/84°	1,75 mm	1,50 mm
RB 300 + EV W12/84°	2,50 mm	2,00 mm
RB 400 + EV W16/84°	3,50 mm	3,00 mm
RB 500 + EV W24/80°	4,50 mm	4,00 mm
RB 600 + EV W30/80°	5,00 mm	5,00 mm

For a bending angle smaller than 90°, RollBend dies cannot be combined with the standard dies listed above.



RollBend RBK



Application

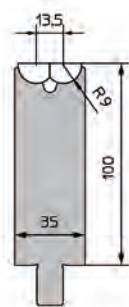
When processing visible parts, it is particularly important that no marks remain on the sheet after the bending operation. For this reason, a RollBend with wear-resistant plastic turning jaws has been developed. This makes it possible to bend parts mark-free.

Advantages

- Mark-free bending
- Ideal for painted, coated or high-gloss surfaces
- Variable material thickness
- No damage to the film of laminated sheets
- Can be used in combination with bending foil
- Tool-free jaw replacement
- Can be combined with standard RollBend
- Unique tool detection through tool labeling incl. Data Matrix Code

RollBend RBK

RBK 300



Technical Data

		RBK 300
Max. sheet thickness	(mm)	2
Max. punch radius at 90°	(mm)	R2,0
Min. bending angle	(°)	60
Die width	(mm)	12
Max. load	(kN/m)	230
Minimum flange length, outside dimension	(mm)	10,5

Pressforce

Sheet thickness (mm)	Steel (kN/m)	Stainless steel (kN/m)
0,5	20	25
1,0	50	60
1,5	110	170
2,0	210	–



RollBend



1000 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



20,1 kg/m



~60 HRC



6,1 mm



12,1mm (s=2mm)



RB 200 + EV W8/84°



Delivery time: ex warehouse

RB 200

Die width: 8 mm
Angle: 40° - 179°
Height: 100 mm
Mat. No. **Price**

Block 2000

4x500 1785940 - EUR

SINGLE

500 1785939 - EUR

300 1785938 - EUR

200 1785937 - EUR

100 1781483 - EUR

50 1785936 - EUR

45 1785935 - EUR

40 1785934 - EUR

35 1785933 - EUR

30 1785932 - EUR

25 1785931 - EUR

Lengths in [mm]



RollBend



1300 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



28,8 kg/m



~60 HRC



8,5 mm



17,7mm (s=3mm)



RB 300 + EV W12/84°



Delivery time: ex warehouse

RB 300

Die width: 12 mm
Angle: 60° - 179°
Height: 100 mm
Mat. No. **Price**

Block 2000

4x500 1786044 - EUR

SINGLE

500	1786043	- EUR
300	1786042	- EUR
200	1786041	- EUR
100	1780175	- EUR
50	1786030	- EUR
45	1786029	- EUR
40	1786028	- EUR
35	1786027	- EUR
30	1786026	- EUR
25	1786025	- EUR

Lengths in [mm]



200 kN/m



42CrMo4



26,3 kg/m



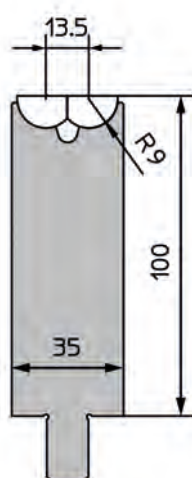
~60 HRC



11,0 mm



RBK 300 + RB 300



.NEW

Delivery time: weeks

RBK 300

Angle: 60° - 179°
Height: 100 mm
Mat. No. **Price**

SINGLE

500	2616887	- EUR
300	2616886	- EUR
200	2616885	- EUR
100	2616884	- EUR
50	2616883	- EUR

Lengths in [mm]



RollBend



1500 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

31,0 kg/m



~60 HRC



13,2 mm



22,7mm (s=4mm)



RB 400 + EV W16/84°



Delivery time: ex warehouse

RB 400

Die width: 16 mm
Angle: 60° - 179°
Height: 100 mm
Mat. No. **Price**

Block 2000

4x500	1840571	- EUR
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SINGLE

500	1840570	- EUR
300	1840569	- EUR
200	1840568	- EUR
100	1840567	- EUR
50	1840566	- EUR
45	1840565	- EUR
40	1840564	- EUR
35	1840563	- EUR
30	1840562	- EUR
25	1840561	- EUR

Lengths in [mm]

RollBend



1700 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

42,4 kg/m



~60 HRC



18,3 mm



30,4mm (s=5mm)



RB 500 + EV W24/80°



Delivery time: ex warehouse

RB 500

Die width: 24 mm
Angle: 60° - 179°
Height: 100 mm
Mat. No. **Price**

Block 2000

4x500	1786115	- EUR
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SINGLE

500	1786114	- EUR
300	1786113	- EUR
200	1786112	- EUR
100	1769612	- EUR
50	1786111	- EUR
45	2085664	- EUR
40	2085663	- EUR
35	2085662	- EUR
30	2085661	- EUR
25	2085620	- EUR

Lengths in [mm]



RollBend

Delivery time: ex warehouse



2000 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



59,0 kg/m



~60 HRC



23,5 mm



42,5mm (s=6mm)



RB 600 + EV W30/80°



RB 600

Die width: 30 mm
Angle: 65° - 179°
Height: 100 mm
Mat. No. **Price**

Block 2000

4x500 1786171 - EUR

SINGLE

500	1786160	- EUR
300	1786159	- EUR
200	1786158	- EUR
100	1781557	- EUR
50	1786157	- EUR
45	2086280	- EUR
40	2086279	- EUR
35	2086278	- EUR
30	2086277	- EUR
25	2086276	- EUR

Lengths in [mm]

RollBend

Delivery time: ex warehouse



2500 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



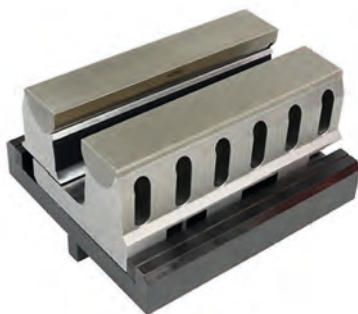
77,0 kg/m



~60 HRC



RB 1250 + EV W40-80; Lengths
300, 500 available upon request.



RB 1250

Angle: 65° - 179°
Height: 100 mm
Mat. No. **Price**

SINGLE

200	1968591	- EUR
100	1968540	- EUR

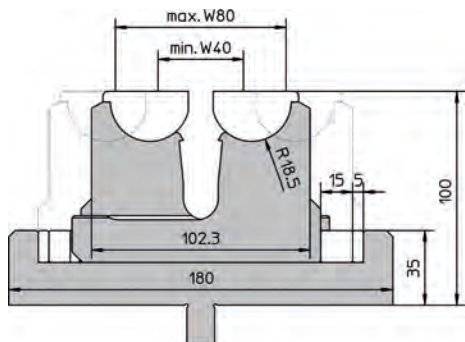
Lengths in [mm]



RollBend 1250

RB 1250

s = 3,0 - 12,5 mm (W40-W80)



Application

TRUMPF's adjustable RollBend is used to conveniently bend various sheet thicknesses in a tool setup within the thick sheet range. The die widths can be adjusted quickly and easily as desired by the user using adjustment bars.

Press force table (kN/m)

Material	Sheet thickness [mm]	RB 1250				
		W40	W50	W60	W70	W80
Steel		Bending angle 90°				
	3,0	105	85			
	4,0	240	190	160	130	
	5,0	390	310	240	205	175
	6,0	630	495	400	330	280
	8,0	1060	830	660	550	460
	10,0			1150	970	790
	12,0				1390	1160

Material	Sheet thickness [mm]	RB 1250				
		W40	W50	W60	W70	W80
Stainless steel		Bending angle 90°				
	3,0	130	100			
	4,0	280	210	170	140	
	5,0	500	380	300	250	210
	6,0	770	590	470	390	320
	8,0	1370	1080	830	680	560
	10,0			1320	1160	970
	12,0					1570

Material	Sheet thickness [mm]	RB 1250				
		W40	W50	W60	W70	W80
Alu-minum		Bending angle 90°				
	3,0	65	55			
	4,0	130	105	85	70	
	5,0	210	175	140	120	100
	6,0	330	290	210	150	115
	8,0	500	410	330	280	230
	10,0			570	480	400
	12,0				740	580

Note: All specifications for using a punch-radius of R4 - R10. Note load on punch.

Standard values for minimum flange length (outside dimension)

		RB 1250				
		W40	W50	W60	W70	W80
Punch radius		R1 - R4	R1 - R4	R4 - R10	R4 - R10	R4 - R10
Material	Sheet thickness					
Steel	3,0	27,0	34,7	42,4		
	4,0	27,5	34,9	42,6	50,6	
	5,0	28,0	35,1	42,8	50,8	57,0
	6,0	28,5	35,3	43,0	51,0	57,2
	8,0	29,5	35,7	43,3	51,4	57,6
	10,0			43,6	51,8	58,0
	12,0				52,2	58,4

		RB 1250				
		W40	W50	W60	W70	W80
Punch radius		R1 - R4	R1 - R4	R4 - R10	R4 - R10	R4 - R10
Material	Sheet thickness					
Stainless Steel	3,0	28,0	36,0	42,5		
	4,0	28,4	36,1	42,7	51,0	
	5,0	28,8	36,3	42,8	51,2	57,2
	6,0	29,2	36,4	43,0	51,4	57,4
	8,0	30,0	36,6	43,4	51,8	57,8
	10,0			43,8	52,2	58,2
	12,0				52,6	58,6

		RB 1250				
		W40	W50	W60	W70	W80
Punch radius		R1 - R4	R1 - R4	R4 - R10	R4 - R10	R4 - R10
Material	Sheet thickness					
Aluminium	3,0	26,5	34,4	41,0		
	4,0	27,0	34,7	41,5	48,7	
	5,0	27,5	35,0	42,0	49,1	56,0
	6,0	28,0	35,3	42,5	49,5	56,2
	8,0	29,0	35,7	43,0	50,3	56,6
	10,0			43,8	51,1	57,0
	12,0				51,9	57,4

Note: All values in [mm]

Optimum area of application

Combination with V dies

When combined, the load limits of the V dies which are below the load limits of the RollBend dies must be observed. This means that the max. permitted sheet thickness is determined by the single V die used when combining tools.

To keep the different press forces for tool combinations within limits, the following recommended values apply:

Tool combination	Steel (max. sheet thickness)	Stainless steel (max. sheet thickness)
RB 1250 W40 + EV W40/80°	6,0 mm	6,0 mm
RB 1250 W50 + EV W50/80°	6,0 mm	6,0 mm
RB 1250 W60 + EV W60/80°	8,0 mm	8,0 mm
RB 1250 W70 + EV W70/80°	10,0 mm	10,0 mm
RB 1250 W80 + EV W 80/80°	12,0 mm	12,0 mm

For a bending angle smaller than 90°, RollBend dies cannot be combined with the standard dies listed above.



RollBend Accessories

Designation	Illustration	Mat. No.	Price
Lubricating grease GLEITMO 805 100 g tube		1851466	- EUR
Protective foil set RB1250, w=100 Comprising 25 meters Velcro strap and 5 meters protective foil.		1969373	- EUR
RBK spring set		2623412	- EUR
Turning jaw set RBK300 / 50		2622898	- EUR
Turning jaw set RBK300 / 100		2622899	- EUR
Turning jaw set RBK300 / 200		2622900	- EUR
Turning jaw set RBK300 / 300		2623011	- EUR
Turning jaw set RBK300 / 500		2623012	- EUR

SBW - Swivel bending tool

Application

The workpiece is placed on the swivel unit and positioned through the backgauge as usual. The swivel bending punch clamps the workpiece between the support surfaces. As soon as the press beam moves downwards, the swivel level bends the flange around the tip of the swivel bending punch.

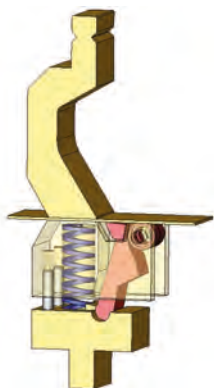
Area of application

- From 0.5 - 1.5 mm sheet thickness
- Can be used from 75° to 140°
- Min. side length 7 - 10 mm
- Bending length: 10- 50 mm
- Lower tool displacement required

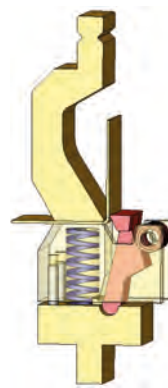
Advantages

- Quick edging of small flanges
- No time-consuming tracking of the high swiveling side
- No reverse bend, as manual tracking unnecessary
- Possibility of rotating 180° for installation
- Can be combined with the conventional die bending tools
- Various edge lengths due to exchangeable tool tips with ariable widths

A blank is clamped between the punch and the die



The swivel lever bends the flange upwards



Ordering examples (for a complete SBW tool)

1x swivel unit 1381470

1x swivel lever (select according to requirements)

1x punch OW/K – SBW H120 L=50 1386073

2x spacer 23.5 mm 1402081 (not necessary with CNC I axis)



Punch

500 kN/m

34,1 kg/m

~60 HRC

10 mm - 50 mm

Tool can be lengthened with MF/S adapter (for station operation). Other lengths for OW/K – SBT available upon request.



Delivery time: 1 week

Punch OW/K-SBW
Radius: R1,0 mm
Angle: 59.9°
Height: 120 mm
Mat. No. Price

SINGLE		
50	1386073	- EUR
Lengths in [mm]		

SBW

500 kN/m

98,0 kg/m

~60 HRC

I-axis required



Delivery time: 1 week

Swivel unit
Height: 110 mm
Mat. No. Price

SINGLE		
50	1381470	- EUR
Lengths in [mm]		

Upper part swivel lever

500 kN/m

0,0 kg/m

~60 HRC



Delivery time: 1 week

Swivel lever W4
Radius:Die width: 4 mm
Height: 0 mm
Mat. No. Price

SINGLE		
50	1386704	- EUR
20	1386706	- EUR
10	1386707	- EUR
Lengths in [mm]		



Upper part swivel lever

Delivery time: 1 week



500 kN/m



0,0 kg/m



~60 HRC



for 1.5 mm sheet



Radius:Die width:

Swivel lever W5

	Mat. No.	Price
SINGLE		
50	1386684	- EUR
40	1422499	- EUR
25	1422498	- EUR
20	1386685	- EUR
10	1386687	- EUR

Lengths in [mm]

Designation	Illustration	Mat. No.	Price
Spacer 23,5mm		1402081	- EUR

Z bending / Inserts

Technical information Z bending

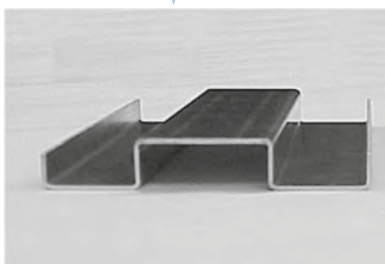
- With one set, you can achieve either 4, 6, 8 or 10 mm steppings with 90° to 90° (embossing process) or different steppings and angles > 90° in the air bending process.
- Modified inserts, e.g. ZE5/90° available upon request
- Tools are suitable for station operation (with EV/70)
- Inexpensive solution with the usage of several inserts (Z inserts, form inserts,...)

Maximum sheet thickness with Z bending

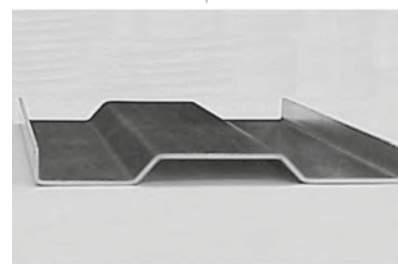
Z-dimension (mm)	Coining (mm)	Air bending (mm)
4	1	1,5
6	1,5	2
8	2	(2,5)*
10	(2,5)*	(3)*

* Observe maximum bending force on inserts

Coining
(90° zu 90°)



Air bending





Punch



1800 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

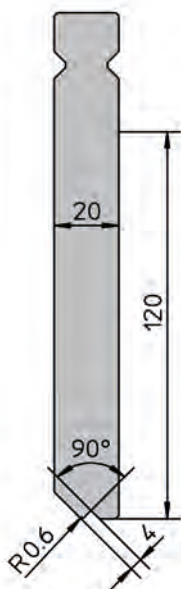
23,8 kg/m



~60 HRC



10 mm - 500 mm



Delivery time: ex warehouse

OW/K Z4-6 90°	Jogging:	Z4
	Angle:	90°
	Height:	120 mm
	Mat. No.	Price

VAR. B		
4050	0841685	- EUR
3050	0841684	- EUR
2550	0841683	- EUR
2050	0832862	- EUR
1250	0841682	- EUR
1050	1606294	- EUR

VAR. A		
2050	0841689	- EUR
1250	0841690	- EUR
1050	1606293	- EUR
550	1606291	- EUR

Block 250		
250	0832861	- EUR

SINGLE		
500	0830264	- EUR
300	0832851	- EUR
200	0832850	- EUR
100	0832859	- EUR
50	0832858	- EUR
45	0832857	- EUR
40	0832856	- EUR
35	0832855	- EUR
30	0832854	- EUR
25	0832853	- EUR

Lengths in [mm]

Die



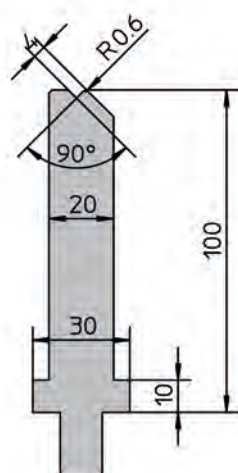
1800 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

18,2 kg/m



~60 HRC



Delivery time: ex warehouse

EV Z4-6 90°	Jogging:	Z4
	Angle:	90°
	Height:	100 mm
	Mat. No.	Price

VAR. B		
4050	0841673	- EUR
3050	0841672	- EUR
2550	0841674	- EUR
2050	0832935	- EUR
1250	0841245	- EUR
1050	1606173	- EUR

VAR. A		
2050	0841668	- EUR
1250	0841667	- EUR
1050	1606172	- EUR
550	1606171	- EUR

Block 250		
250	0832934	- EUR

SINGLE		
500	0830265	- EUR
300	0832932	- EUR
200	0832931	- EUR
100	0832930	- EUR
50	0832929	- EUR
45	0832928	- EUR
40	0832927	- EUR
35	0832926	- EUR
30	0832925	- EUR
25	0832924	- EUR
16	2480826	- EUR

Lengths in [mm]



Punch



1800 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

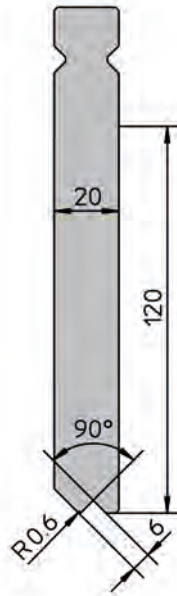
23,8 kg/m



~60 HRC



10 mm - 500 mm



Delivery time: ex warehouse

OW/K Z4-6 90°		Jogging:	Z6
		Angle:	90°
		Height:	120 mm
		Mat. No.	Price
VAR. B			
4050	0841692		- EUR
3050	0841691		- EUR
2550	0841693		- EUR
2050	0832882		- EUR
1250	0839545		- EUR
1050	1606279		- EUR
VAR. A			
2050	0841695		- EUR
1250	0841694		- EUR
1050	1606278		- EUR
550	1606277		- EUR
Block 250			
250	0832881		- EUR
SINGLE			
500	0832872		- EUR
300	0832871		- EUR
200	0832870		- EUR
100	0832879		- EUR
50	0832878		- EUR
45	0832877		- EUR
40	0832876		- EUR
35	0832875		- EUR
30	0832874		- EUR
25	0832873		- EUR

Lengths in [mm]

Die



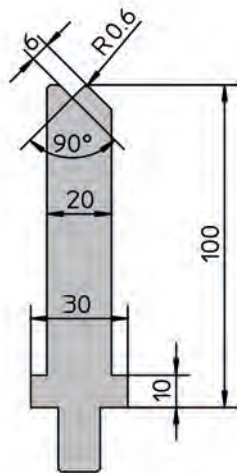
1800 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

18,2 kg/m



~60 HRC





Delivery time: ex warehouse

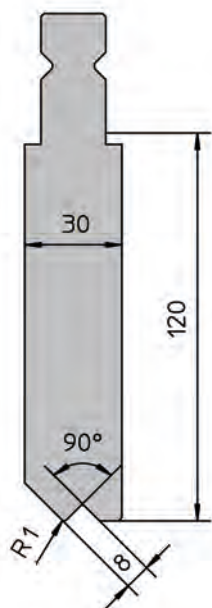
EV Z4-6 90°		Jogging:	Z6
		Angle:	90°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0841710		- EUR
3050	0841709		- EUR
2550	0841708		- EUR
2050	0832936		- EUR
1250	0839546		- EUR
1050	1606210		- EUR
VAR. A			
2050	0841714		- EUR
1250	0841715		- EUR
1050	1606179		- EUR
550	1606178		- EUR
Block 250			
250	0832937		- EUR
SINGLE			
500	0832947		- EUR
300	0832946		- EUR
200	0832945		- EUR
100	0832944		- EUR
50	0832943		- EUR
45	0832942		- EUR
40	0832941		- EUR
35	0832940		- EUR
30	0832939		- EUR
25	0832938		- EUR

Lengths in [mm]



Punch

-  1800 kN/m
-  42 Cr Mo 4
1080 - 1180 N/mm²
-  32,7 kg/m
-  ~60 HRC
-  10 mm - 300 mm







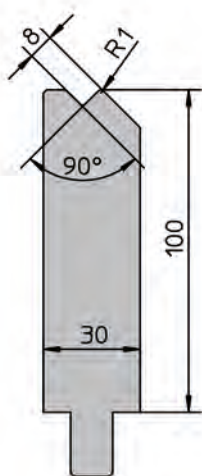
Delivery time: ex warehouse

OW/K Z8-10 90°		Jogging:	Z8
		Angle:	90°
		Height:	120 mm
		Mat. No.	Price
VAR. B			
4050	0841744		- EUR
3050	0841743		- EUR
2550	0841742		- EUR
2050	0841741		- EUR
1250	0841740		- EUR
1050	1606335		- EUR
VAR. A			
2050	0841736		- EUR
1250	0841735		- EUR
1050	1606334		- EUR
550	1606333		- EUR
Block 250			
250	0841727		- EUR
SINGLE			
500	0841719		- EUR
300	0841718		- EUR
200	0841717		- EUR
100	0841728		- EUR
50	0841729		- EUR
45	0841730		- EUR
40	0841731		- EUR
35	0841732		- EUR
30	0841733		- EUR
25	0841734		- EUR

Lengths in [mm]

Die

-  1800 kN/m
-  42 Cr Mo 4
1080 - 1180 N/mm²
-  24,8 kg/m
-  ~60 HRC



Delivery time: ex warehouse

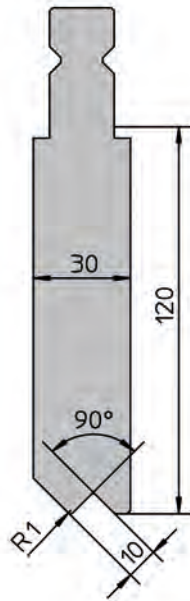
EV Z8-10 90°		Jogging:	Z8
		Angle:	90°
		Height:	100 mm
		Mat. No.	Price
VAR. B			
4050	0841765		- EUR
3050	0841764		- EUR
2550	0841763		- EUR
2050	0841762		- EUR
1250	0841761		- EUR
1050	1606236		- EUR
VAR. A			
2050	0841757		- EUR
1250	0841756		- EUR
1050	1606235		- EUR
550	1606234		- EUR
Block 250			
250	0841755		- EUR
SINGLE			
500	0841748		- EUR
300	0841747		- EUR
200	0841746		- EUR
100	0841745		- EUR
50	0841749		- EUR
45	0841750		- EUR
40	0841751		- EUR
35	0841752		- EUR
30	0841753		- EUR
25	0841754		- EUR

Lengths in [mm]



Punch

-  1800 kN/m
-  42 Cr Mo 4
1080 - 1180 N/mm²
-  32,7 kg/m
-  ~60 HRC
-  10 mm - 300 mm







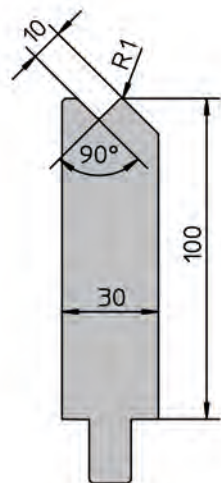
Delivery time: ex warehouse

OW/K Z8-10 90°	Joggling:	Z10
	Angle:	90°
	Height:	120 mm
	Mat. No.	Price
VAR. B		
4050	0841769	- EUR
3050	0841768	- EUR
2550	0841767	- EUR
2050	0832902	- EUR
1250	0841766	- EUR
1050	1606374	- EUR
VAR. A		
2050	0841773	- EUR
1250	0841774	- EUR
1050	1606373	- EUR
550	1606372	- EUR
Block 250		
250	0832901	- EUR
SINGLE		
500	0832892	- EUR
300	0832891	- EUR
200	0832890	- EUR
100	0832899	- EUR
50	0832898	- EUR
45	0832897	- EUR
40	0832896	- EUR
35	0832895	- EUR
30	0832894	- EUR
25	0832893	- EUR

Lengths in [mm]

Die

-  1800 kN/m
-  42 Cr Mo 4
1080 - 1180 N/mm²
-  24,8 kg/m
-  ~60 HRC



Delivery time: ex warehouse

EV Z8-10 90°	Joggling:	Z10
	Angle:	90°
	Height:	100 mm
	Mat. No.	Price
VAR. B		
4050	0841778	- EUR
3050	0841777	- EUR
2550	0841776	- EUR
2050	0832959	- EUR
1250	0841775	- EUR
1050	1606282	- EUR
VAR. A		
2050	0841781	- EUR
1250	0841783	- EUR
1050	1606281	- EUR
550	1606280	- EUR
Block 250		
250	0832958	- EUR
SINGLE		
500	0832957	- EUR
300	0832956	- EUR
200	0832955	- EUR
100	0832954	- EUR
50	0832953	- EUR
45	0832952	- EUR
40	0832951	- EUR
35	0832950	- EUR
30	0832949	- EUR
25	0832948	- EUR

Lengths in [mm]



Tool adapter for Z insert



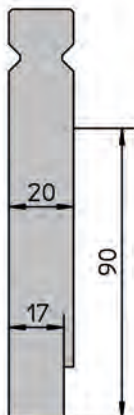
1500 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

19,3 kg/m



10 mm - 100 mm



Delivery time: ex warehouse

OW/K 90	Radius:	-
	Angle:	-
	Height:	90 mm
	Mat. No.	Price
VAR. B		
4050	0843417	- EUR
3050	0843416	- EUR
2550	0843415	- EUR
2050	0843414	- EUR
1250	0843413	- EUR
1050	0867642	- EUR
VAR. A		
2050	0844005	- EUR
1250	0844004	- EUR
1050	1606653	- EUR
550	1606652	- EUR
Block 250		
250	0843412	- EUR
SINGLE		
500	0843402	- EUR
300	0843401	- EUR
200	0843400	- EUR
100	0843410	- EUR
50	0843409	- EUR
45	0843408	- EUR
40	0843407	- EUR
35	0843406	- EUR
30	0843405	- EUR
25	0843403	- EUR

Lengths in [mm]

Tool adapter for Z insert



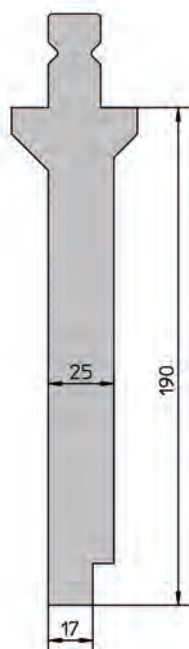
1500 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

43,9 kg/m



25 mm - 100 mm



Delivery time: ex warehouse

OW/S 190	Radius:	-
	Angle:	-
	Height:	190 mm
	Mat. No.	Price
VAR. B		
4050	1461571	- EUR
3050	1461559	- EUR
2550	1461555	- EUR
2050	1461554	- EUR
1250	0856439	- EUR
1050	1606657	- EUR
VAR. A		
4050	1461552	- EUR
3050	1461551	- EUR
2550	1461550	- EUR
2050	1461508	- EUR
1250	1461507	- EUR
1050	1606656	- EUR
550	1606655	- EUR
Block 250		
250	0856438	- EUR
SINGLE		
500	0852365	- EUR
300	0853187	- EUR
200	0853186	- EUR
100	0851017	- EUR
50	0856436	- EUR
45	0856435	- EUR
40	0856434	- EUR
35	0851018	- EUR
30	0856433	- EUR
25	0856432	- EUR

Lengths in [mm]



Tool adapter for Z insert



1500 kN/m



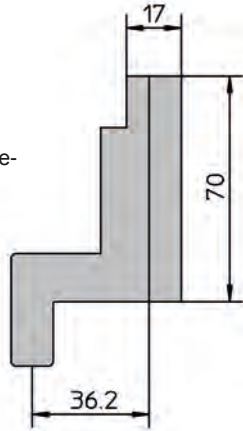
42 Cr Mo 4
1080 - 1180 N/mm²



18,0 kg/m



See Technical Section Displacement of the I axis



Delivery time: ex warehouse

EV70	Angle:	-
	Height:	70 mm
	Mat. No.	Price
VAR. B		
4050	0843433	- EUR
3050	0843432	- EUR
2550	0843431	- EUR
2050	0843430	- EUR
1250	0843429	- EUR
1050	0867641	- EUR
VAR. A		
2050	0844010	- EUR
1250	0844009	- EUR
1050	1605950	- EUR
550	1605929	- EUR
Block 250		
250	0843428	- EUR
SINGLE		
500	0843427	- EUR
300	0843426	- EUR
200	0843425	- EUR
100	0843418	- EUR
50	0843424	- EUR
45	0843423	- EUR
40	0843422	- EUR
35	0843421	- EUR
30	0843420	- EUR
25	0843419	- EUR

Lengths in [mm]

Z bending

Tool adapter for Z insert



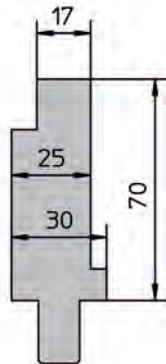
1500 kN/m



42 Cr Mo 4
1080 - 1180 N/mm²



15,0 kg/m



Delivery time: ex warehouse

EV70-M	Angle:	-
	Height:	70 mm
	Mat. No.	Price
VAR. B		
4050	1206770	- EUR
3050	1206759	- EUR
2550	1206758	- EUR
2050	1206757	- EUR
1250	1206756	- EUR
1050	1605991	- EUR
VAR. A		
2050	1206752	- EUR
1250	1206750	- EUR
1050	1605990	- EUR
550	1605989	- EUR
Block 250		
250	0871240	- EUR
SINGLE		
500	0860905	- EUR
300	0871239	- EUR
200	0860904	- EUR
100	0860903	- EUR
50	0871238	- EUR
45	0871237	- EUR
40	0871236	- EUR
35	0871235	- EUR
30	0871234	- EUR
25	0871233	- EUR

Lengths in [mm]



Insert for OWK 90, OW/S 190, EV70, EV70-M



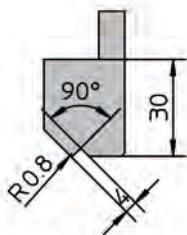
1200 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

6,5 kg/m



~60 HRC



Delivery time: ex warehouse

Z insert 90°	Jogging:	Z4
	Angle:	90°
	Height:	30 mm
	Mat. No.	Price
VAR. B		
4050	0844183	- EUR
3050	0844182	- EUR
2550	0844181	- EUR
2050	0844180	- EUR
1250	0843601	- EUR
1050	1607728	- EUR
VAR. A		
2050	0844185	- EUR
1250	0844184	- EUR
1050	1607727	- EUR
550	1607726	- EUR
Block 250		
250	0843600	- EUR
SINGLE		
500	0843599	- EUR
300	0843598	- EUR
200	0843597	- EUR
100	0843590	- EUR
50	0843596	- EUR
45	0843595	- EUR
40	0843594	- EUR
35	0843593	- EUR
30	0843592	- EUR
25	0843591	- EUR

Lengths in [mm]

Insert for OWK 90, OW/S 190, EV70, EV70-M



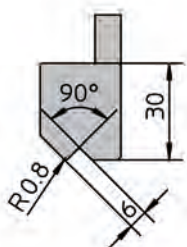
1200 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

6,4 kg/m



~60 HRC



Delivery time: ex warehouse

Z insert 90°	Jogging:	Z6
	Angle:	90°
	Height:	30 mm
	Mat. No.	Price
VAR. B		
4050	0869070	- EUR
3050	0857168	- EUR
2550	0865204	- EUR
2050	0849444	- EUR
1250	0846933	- EUR
1050	1607731	- EUR
VAR. A		
2050	0869363	- EUR
1250	0869362	- EUR
1050	1607730	- EUR
550	1607729	- EUR
Block 250		
250	0846932	- EUR
SINGLE		
500	0846931	- EUR
300	0846930	- EUR
200	0846929	- EUR
100	0845668	- EUR
50	0846928	- EUR
45	0846927	- EUR
40	0845669	- EUR
35	0846926	- EUR
30	0846925	- EUR
25	0846924	- EUR

Lengths in [mm]



Insert for OWK 90, OW/S 190, EV70, EV70-M



1200 kN/m



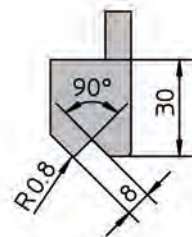
42 Cr Mo 4
1080 - 1180 N/mm²



6,4 kg/m



~60 HRC



Delivery time: ex warehouse

Z insert 90°	Joggling:	Z8
	Angle:	90°
	Height:	30 mm
	Mat. No.	Price

VAR. B		
4050	0869073	- EUR
3050	0869372	- EUR
2550	0869371	- EUR
2050	0847586	- EUR
1250	0846945	- EUR
1050	1607800	- EUR

VAR. A		
2050	0869367	- EUR
1250	0852614	- EUR
1050	1607799	- EUR
550	1607798	- EUR

Block 250		
250	0846944	- EUR

SINGLE		
500	0846943	- EUR
300	0846942	- EUR
200	0846941	- EUR
100	0846934	- EUR
50	0846940	- EUR
45	0846939	- EUR
40	0846938	- EUR
35	0846937	- EUR
30	0846936	- EUR
25	0846935	- EUR

Lengths in [mm]

Insert for OWK 90, OW/S 190, EV70, EV70-M



1200 kN/m



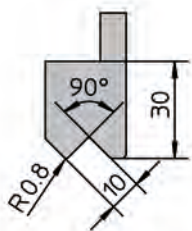
42 Cr Mo 4
1080 - 1180 N/mm²



6,4 kg/m



~60 HRC



Delivery time: ex warehouse

Z insert 90°	Joggling:	Z10
	Angle:	90°
	Height:	30 mm
	Mat. No.	Price

VAR. B		
4050	0869075	- EUR
3050	0860119	- EUR
2550	0857248	- EUR
2050	0857465	- EUR
1250	0846957	- EUR
1050	1607803	- EUR

VAR. A		
2050	0869380	- EUR
1250	0852615	- EUR
1050	1607802	- EUR
550	1607801	- EUR

Block 250		
250	0846956	- EUR

SINGLE		
500	0846955	- EUR
300	0846954	- EUR
200	0846953	- EUR
100	0846946	- EUR
50	0846952	- EUR
45	0846951	- EUR
40	0846950	- EUR
35	0846949	- EUR
30	0846948	- EUR
25	0846947	- EUR

Lengths in [mm]

Folding insert

Insert for OWK 90, OW/S 190, EV70, EV70-M

Delivery time: ex warehouse



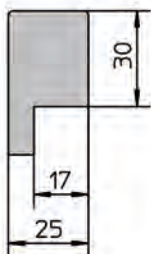
1300 kN/m

42 Cr Mo 4
1080 - 1180 N/mm²

6,8 kg/m



~60 HRC

For holder see chapter Punches:
Punch holder

Insert flat 180°

Height: 30 mm
Mat. No. Price

VAR. B

4050	1461879	- EUR
3050	1461878	- EUR
2550	1461876	- EUR
2050	0863682	- EUR
1250	1461872	- EUR
1050	1605924	- EUR

VAR. A

2050	1461860	- EUR
1250	1461849	- EUR
1050	1605923	- EUR
550	1605922	- EUR

Block 250

250	0863681	- EUR
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SINGLE





500	0852366	- EUR
300	0863680	- EUR
200	0863679	- EUR
100	0848033	- EUR
50	0848034	- EUR
45	0863678	- EUR
40	0863677	- EUR
35	0863676	- EUR
30	0863675	- EUR
25	0852376	- EUR

Lengths in [mm]



Accessories / spareparts punches

Designation	Illustration	Mat. No.	Price
Safety-Click for OW200/S, OW300/S		0830281	- EUR
Safety-Click for OW200/K OW280/K		0830280	- EUR
Safety-Click for OW201/S, OW202/S, OW203/S, OW210, OW210/S, OW209/S, OW308/S, Modufix MF/S, OW/S 190		0830279	- EUR
Safety-Click for OW201/K, OW204/K, OW215/K, OW308/K		0830278	- EUR
Safety-Click for OW202/K, OW/K Z8/90°, OW/K Z10/90°		0830277	- EUR
Safety-Click for OW203/K, OW211/K, OW/K 90, OW/K 80, OW/K Z4/90°, OW/K Z6/90°		0830276	- EUR
10 locking pins for OW without safety click (ISO 8742 D5x26)		0872631	- EUR

Designation	Illustration	Mat. No.	Price
2 x roll pins		2635041	- EUR
10 x sliding blocks, small		2634904	- EUR
10 x sliding blocks, large		2634906	- EUR
10 x sliding blocks for lower tools		2634907	- EUR

Tool holders

10 items cylinder screws DIN 6912-M6x10 (OW/K 80)		1413689	- EUR
10 items cylinder screws DIN 6912-M6x20 (OW209/S)		1413674	- EUR
10 items cylinder screws M6x16 ISO4762 (OW/K 90, OW/S 190)		1413690	- EUR
10 items cylinder screws ISO4762-M8x90 (OW308/K, OW308/S)		1413691	- EUR

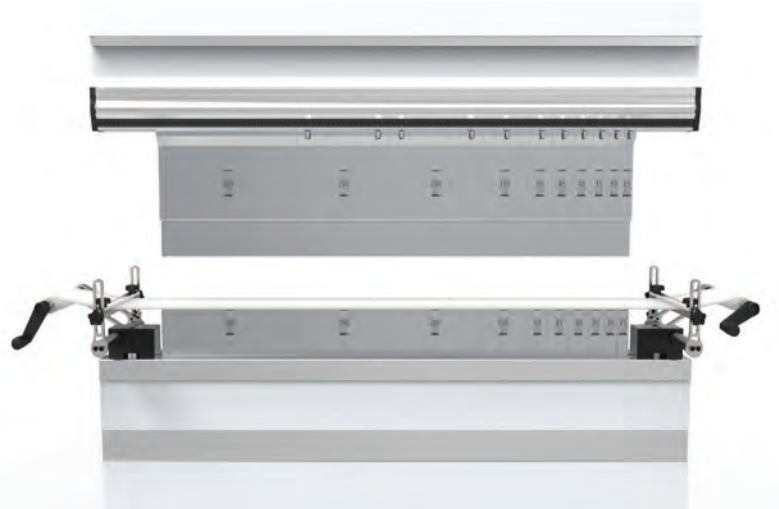


Dies

Bending foil holder (BFH)

Advantages

- Higher productivity and user-friendliness thanks to the intelligent unrolling device
- Short setup times due to infinitely variable adjustment of the foil holder
- Guaranteed functionality and safety when using the tool at any position on the die clamp
- Suitable for different foil dimensions
- Clean foil cutting due to integrated foil foil separation groove
- Useable on all TruBend series
- Collision Check with TruTops Bend V5.0 or higher




TRUMPF Bending foil holder set-up variant

Designation	Illustration	Mat. No.	Price
BFH TRUMPF bending foil holder left/right		1905450	- EUR
BFH basic module left/right		1905481	- EUR
BFH extension module left/right		1905484	- EUR





Designation	Illustration	Mat. No.	Price	
Bending foil b=100 mm, l=30m, s=0,4mm		0845855	- EUR	
Bending foil Heavy b=100mm, l=18m, s=0,8mm		2454702	- EUR	
Bending foil Heavy b=150mm, l=18m, s=0,8mm		1868051	- EUR	
Fabric bending foil w=120mm, l=1m		1710197	- EUR	
Fabric bending foil w=120mm, l=3m		1835856	- EUR	
Fabric bending foil w=120mm, l=6m		1755314	- EUR	
Fabric bending foil w=120mm, l=10m		1720866	- EUR	
Fabric bending foil w=240mm, l=1m		1761109	- EUR	
Fabric bending foil w=240mm, l=6m		2045034	- EUR	
Plastic insert l=500mm (for KEV die)			0839792	- EUR

Spacers

Spacer 35mm		0845425	- EUR
Spacer 32,5mm		0861938	- EUR



Ejection aid 30° die

Designation	Illustration	Mat. No.	Price
Ejection aid H=5.4 mm; l=500 mm (grey)		2238821	- EUR
Ejection aid H=8 mm; l=500 mm (blue)		2079876	- EUR
Ejection aid H=9.5 mm; l=500 mm (yellow)		2238822	- EUR
Ejection aid H=10.5 mm; l=500 mm (green)		2238824	- EUR



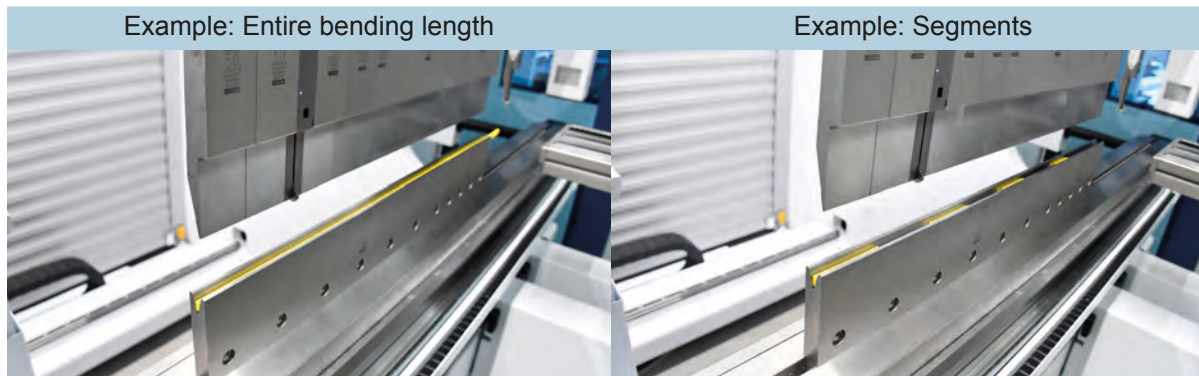
When creating sharp bends with 30° dies, the bent sheet metal may become jammed in the die. TRUMPF ejection aids solve this problem. By inserting a plastic strip into the die, the workpiece can be easily removed after bending.

- The ejection aid is supplied in L = 500 mm and can be cut to any desired length with a knife.

Application

Ejection aids are inserted into the V-groove of the 30° standard die. They provide help during the removal of the component after sharp bends.

The ejection aid is most effective when its length is equal to the bending length.



Advantages

- Can be combined with standard dies
- Can be used for manual and automatic bending
- Simple handling due to color coding: gray, blue, yellow and green
- Greater productivity and user-friendliness thanks to reliable bending

Areas of application

The ejection aid for 30° bends with punch R1 can be used with different dies and sheet thicknesses (S).

Depending on the combination, the ejection pressure is LOW (1), OPTIMAL (2) or HIGH (3):

Color code	EV001 R0.6	EV001 R3	EV002 R1	EV002 R3	EV003 R1	EV003 R3	EV004 R1	EV004 R3	EV005 R1.6	EV005 R3	EV006 R2
	W6/30°		W8/30°		W10/30°		W12/30°		W16/30°		W20/30°
S=1mm											
Gray	2	2	2	2	2	2					
Blue			3	3	3	3					
S=1,5mm											
Gray	1	1	1	1							
Blue			3	3	2	2	2	2			
Yellow							3	3	2	2	
Green									3	3	
S=2mm											
Blue			1	1	1	1	1	1			
Yellow					3	3	2	2	1	1	
Green							3	3	2	2	2
S=2,5mm											
Yellow							2	2	1	1	
Green							3	3	2	2	1
S=3mm											
Yellow							1	1			
Green							2	2	1	1	1



Polymer V-Strip (KVL)

.NEW

Designation	Illustration	Mat. No.	Price
Bar KVL W6/40° R3 550		2550590	- EUR
Bar KVL W6/40° R3 1050		2550631	- EUR
Bar KVL W6/40° R3 2700		2550632	- EUR
Bar KVL W8/40° R3 550		2550586	- EUR
Bar KVL W8/40° R3 1050		2550587	- EUR
Bar KVL W8/40° R3 2700		2550588	- EUR
Bar KVL W10/40° R3 550		2435352	- EUR
Bar KVL W10/40° R3 1050		2435353	- EUR
Bar KVL W10/40° R3 2700		2548707	- EUR
Bar KVL W12/40° R3 550		2435158	- EUR
Bar KVL W12/40° R3 1050		2435159	- EUR
Bar KVL W12/40° R3 2700		2548706	- EUR
Bar KVL W14/40° R3 550		2435156	- EUR
Bar KVL W14/40° R3 1050		2435157	- EUR
Bar KVL W14/40° R3 2700		2548643	- EUR
Bar KVL W16/40° R3 550		2433570	- EUR
Bar KVL W16/40° R3 1050		2433621	- EUR
Bar KVL W16/40° R3 2700		2548404	- EUR

Application

When processing visible parts, it is particularly important that the entire length of the component is as mark-free as possible. For this reason, the polymer V-strip (KVL) has been developed to achieve perfect bending results over the entire product length.









Advantages

- Low-mark up to mark-free bending possible
- No separate holder required
- Standard die can be used (EV004 W12/30°, EV004/S W12/30°, EV006 W20/30°)
- Different die widths with one standard die
- Ideal for painted, coated or high-gloss surfaces
- High service life
- Easy handling







Technical Data

		KVL W6	KVL W8	KVL W10	KVL W12	KVL W14	KVL W16
Basic die		EV004 W12/30° EV004/S W12/30°	EV004 W12/30° EV004/S W12/30°	EV006 W20/30°	EV006 W20/30°	EV006 W20/30°	EV006 W20/30°
Max. sheet thickness	(mm)	1	1,25	1,5	1,5	1,75	2
Min. bending angle	(°)	50	50	50	50	50	50
Die width	(mm)	6	8	10	12	14	16
Max. load	(kN/m)	230	230	230	230	230	230
Available length *	(mm)	550, 1050	550, 1050	550, 1050	550, 1050	550, 1050	550, 1050
Material		Steel, stainless steel, aluminum	Steel, stainless steel, aluminum	Steel, stainless steel, aluminum	Steel, stainless steel, aluminum	Steel, stainless steel, aluminum	Steel, stainless steel, aluminum

* Special lengths on request

Designation	Illustration	Mat. No.	Price
Additional license for software		0853185	- EUR
Additional extension cable for sensor tools, L=1500 mm		0919112	- EUR
Additional short extension cable for sensor tools, L=500mm		1273132	- EUR
ACB module, 2nd gen.		1253913	- EUR
electronic screwdriver 2,5x50		0140800	- EUR
Torque Screwdriver complete		2234347	- EUR



Designation	Illustration	Mat. No.	Price
Reversing blade slotted 0,5x3 for Torque Screwdriver		1940273	- EUR
Stop pin		0902665	- EUR
Retaining clip		0358056	- EUR
Magnet with tie-clip		0342979	- EUR
Calibrating die 90° complete		0935355	- EUR
Guide rod - calibrating die		0928523	- EUR


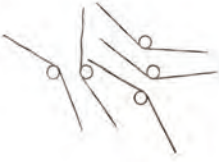






Designation	Illustration	Mat. No.	Price
Guide body cpl.		0932900	- EUR
Replaceable element 90°		0932898	- EUR
Replaceable element 120°		0932899	- EUR
Spring (l=57.3mm) - calibrating die		1560926	- EUR
Assembly device for sensor disk		0932914	- EUR
Spacer 0.1x12.7		0903268	- EUR







Designation	Illustration	Mat. No.	Price
Assembly sheet		0906262	- EUR



Spare parts for ACB sensor tools





Designation	Illustration	Mat. No.	Price
4 screws M3x5-4.8		0872632	- EUR
5 springs		0872633	- EUR
ACB Click - Locking bolt Set		1373219	- EUR
Spring (l=10.9mm) - ACB Click		0358529	- EUR
Screw for sensor disk M1.6x8 (OW200/K, OW..../S)		0902819	- EUR
Screw for sensor disk M2x8 (OW/K80, OW/K130, OW280/K)		0755413	- EUR



Designation	Illustration	Mat. No.	Price
Screw for sensor disk M1,6x6 (OW201/K, OW202/K, OW203/K)		0138704	- EUR
Lever for OW200/K		0901184	- EUR
Lever for OW200/S		0901188	- EUR
Lever for OW200/S-ZM		1305652	- EUR
Lever for OW201/K		0902640	- EUR
Lever for OW201/S, OW202/S, OW203/S, OW209/S, OW210/S, OW210		0901191	- EUR



Designation	Illustration	Mat. No.	Price
Lever for OW201/S, 202/S, 203/S (+DB), 209/S, 210S - ZM		1258405	- EUR
Lever for OW202/K		0901190	- EUR
Lever for OW203/K		0908885	- EUR
Lever for OW280/K - D		1209383	- EUR
Lever for OW280/K - G		1209382	- EUR
Lever for OW/K 80 - G, OW/K 130 - G		1209380	- EUR







Designation	Illustration	Mat. No.	Price
Lever for OW/K 80 - D, OW/K 130 - D		1209381	- EUR
Lever for OW300/S-ZM		1434211	- EUR
Stop pin OW/K 80		1204322	- EUR
Compression spring d0.4 De3.6 Lo12.8 for stop pin OW/K 80, OW/K 130		0353942	- EUR

Sensor disks for 1. version (not ZM sensors)

Prices as with standard sensor disks

OW200/S - R1		OW201/S - R1		OW202/S - R1		OW203/S - R4		OW210/S - R1	
	Mat.No.		Mat.No.		Mat.No.		Mat.No.		Mat.No.
R5	902437	R5	914362	R5	902439	L18	919842	R5	902629
R10	901128	R10	911053	R10	901132	L27	919840	R10	902628
R18	901127	R18	911052	R18	901131	L32	908873	R18	902627
R19	903961	R19	914364	R19	904009	L43	908872	R19	904180
R28	902667	R28	914363	R28	902669			R28	902700
L12	912268	L12	915074	L12	912274			L12	912276
L22	912269	L22	915075	L22	912275			L22	912277



Designation	Illustration	Mat. No.	Price
Quickstop		0843809	- EUR
Side stop complete		0843740	- EUR
Eyebolt M12X20.5 DIN580 C15E		019860	- EUR
Scotch-Brite fine		0814638	- EUR
Scotch-Brite rough		0814639	- EUR
Hand-held magnet with detachment lever		0982944	- EUR

Designation	Illustration	Mat. No.	Price
Magnetic Side Stop		2258824	- EUR
Magnetic Flex Stop		2550847	- EUR

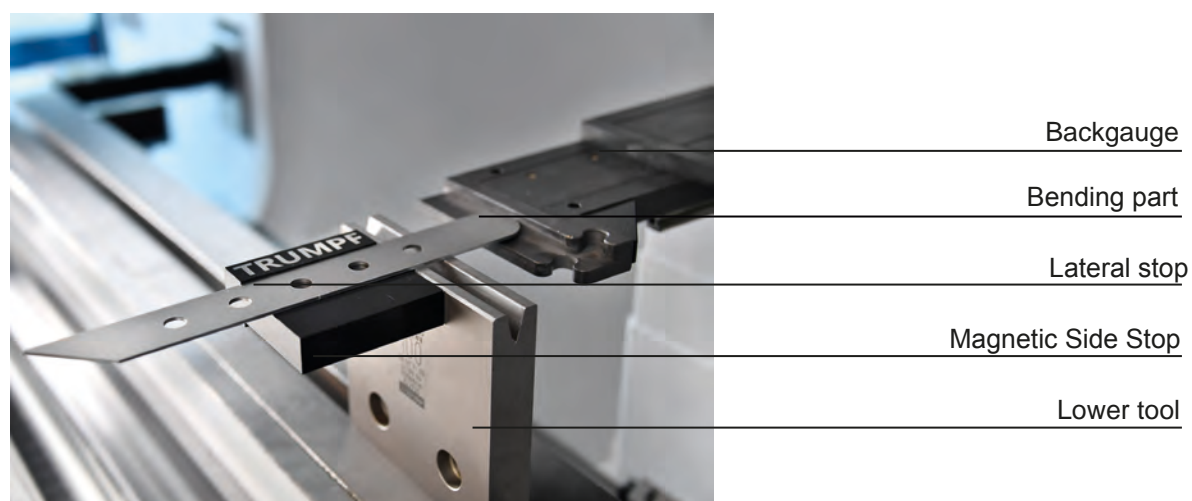
Magnetic Side Stop / Magnetic Flex Stop

Application

Use the Magnetic Side Stop/Flex Stop when fastening small bending parts. The magnets of the accessory part make the Magnetic Side Stop/Flex Stop stick to the lower tool and therefore provide a larger support area for your bending part. Additionally, with the Magnetic Flex Stop, the desired angle can be continuously adjusted thanks to the rotary mechanism.

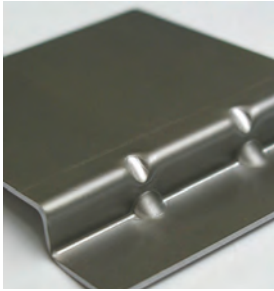
Advantages

- Can be positioned as desired
- Easy and quick fixation using magnets
- Can be used on all dies
- Lateral stop
- Only with Magnetic Flex Stop: Continuous adjustment of the desired angle, practical engaging at 45°, 90°, 135°





Beading tools



Beading bars can be set at any point between individual segments of the standard dies. Punches are not engaged (see Technical section).

Designation	Illustration	Mat. No.	Price
Beading bar R1/60° H=97.5mm		1257288	- EUR
Beading bar R2 H=149mm		1213530	- EUR
Beading bar R2 H=99mm		0855836	- EUR
Beading bar R2,5 H=95,5mm		0855544	- EUR

Application of beading bars

Application

Tools for diagonal beading are used to stabilize angles.

By using beading bars, angles can be produced with bracing in only one step. Beading bars can be set at any point between individual segments of the standard dies. The punches are not engaged in this area. The beading bars are standard TRUMPF tools.

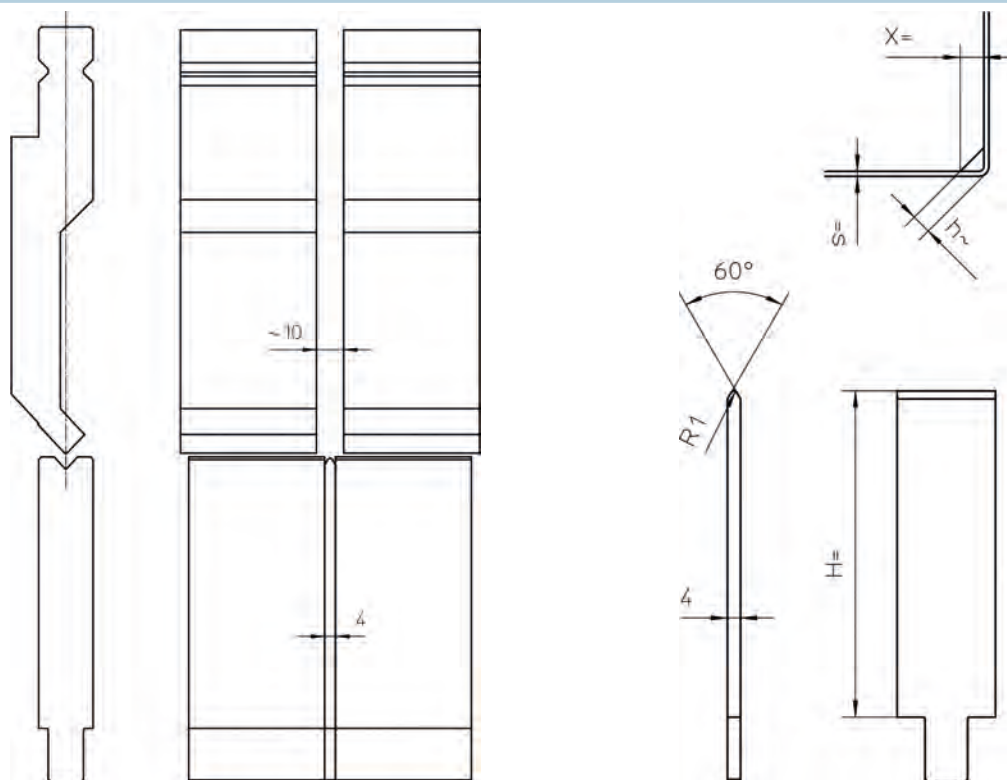
Area of application

Up to 4 mm sheet thickness.

Advantages

- Producing angles and bracing in one step.
- For bracing of sides in case of thin sheet metals.
- Available as a standard tool.
- Beading bars provide maximum flexibility – beading distances freely selectable.

Sketches of tools



- Measure the drawing (incl. length)
- Specify the tolerances
- Specify the material type
- Specify the sheet thickness



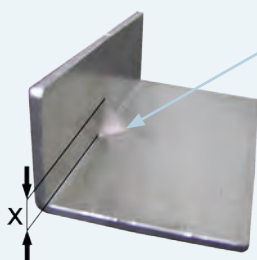
Application of standard beading bars (standard values)

Combination of dies with 80°, 84° and 30° and punches with 1 mm radius.

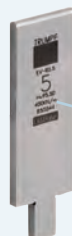
Beading bar R2		Sheet thickness [mm]						
H = 99 mm								
H = 149 mm		0,8	1	1,5	2	2,5	3	
EV W6	3,5 10							Beading height x Distance of the punches
EV W8	5 12	4,5	12					Beading height x Distance of the punches
EV W10	6 14	6	6	6,5	6			Beading height x Distance of the punches
EV W12		7,5	7,5	7,5	7,5			Beading height x Distance of the punches
EV W16			10,5	10				Beading height x Distance of the punches
			21	22				

Beading bar R1/60°		Sheet thickness [mm]						
H = 97,5 mm								
		0,8	1	1,5	2	2,5	3	
EV W10			4	3,5	3			Beading height x Distance of the punches
EV W12			5,5	5	5			Beading height x Distance of the punches
EV W16				8	8	7,5		Beading height x Distance of the punches
EV W20					11	10,5	10,5	Beading height x Distance of the punches
EV W24						13	13	Beading height x Distance of the punches
					18	20	22	
						18	22	

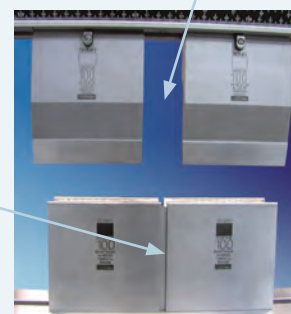
Beading bar R2,5		Sheet thickness [mm]						
H = 95,5 mm								
		0,8	1	1,5	2	2,5	3	
EV W16					6	5		Beading height x Distance of the punches
EV W20					9	8,5	8	Beading height x Distance of the punches
EV W24						11,5	11	Beading height x Distance of the punches
					20	20	20	
						20	20	



X = Beading height [mm]



Beading bar



Distance of the punches [mm]

Use of DV adapters

Application

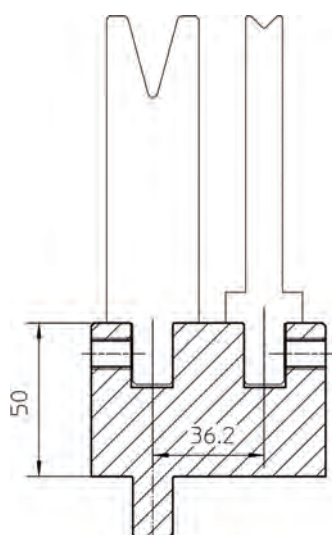
Two different dies can be used with DV adapters. These can be tools that have the same opening angle but different die widths, or vice versa. Another possibility is dies with different working radii or narrow dies combined with dies of normal width.

Advantages

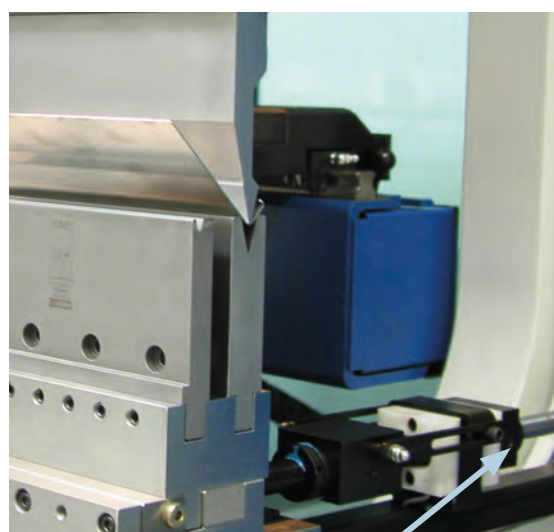
- Station operation, where the individual stations produce a longer bending length as the bending length of the machine (drawing 2). Various bending lengths can be produced at one station.
- Increase of die height by 50 mm
- Double sheet bends, i.e. various sheet thicknesses in one product (depending on the die width)
- Shorter and longer sides in one product (dependent on the die width).
- Technological advantages, e.g. through the use of 84° and 30° dies (drawing 1)
- Two different bending radii can be produced with one punch.

Note

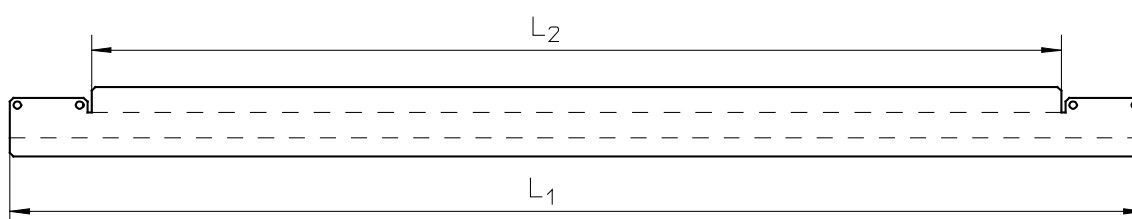
The displacement is done through the I axis (thus not suitable for TruBend series 3000/TrumaBend C series).



Drawing 1



Spacer 20 mm



Drawing 2

Application

The stop aids for the TruBend/TrumaBend – called short „QuickStop“ – can be used in 2 and 4 axis machines. Here, QuickStop can be used together on individual (mounted only on one gauge finger) as well as on both gauge fingers.

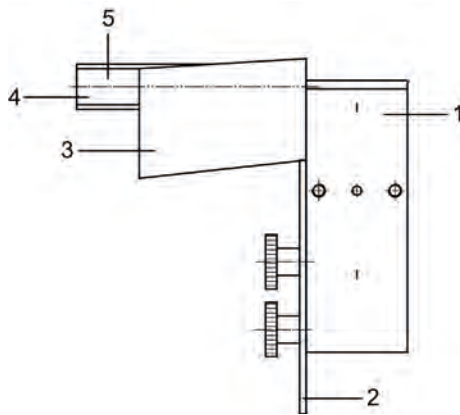
Application range

- Sheet thickness of up to 5 mm
- Bending of small and medium-sized parts
- For 2-axis and 4-axis backgauge of the TruBend Series 3000 and 5000

Note

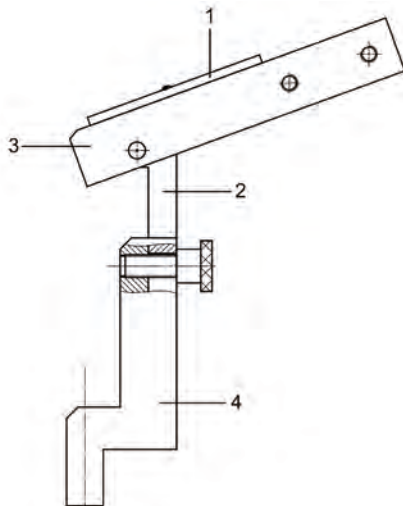
- There might be unevenness in large or thick parts.
- In case of the TruBend/TrumaBend with 6 axis backgauge, QuickStop cannot be used due to the different shape and separate programming option of the gauge fingers.

Stop situation from above



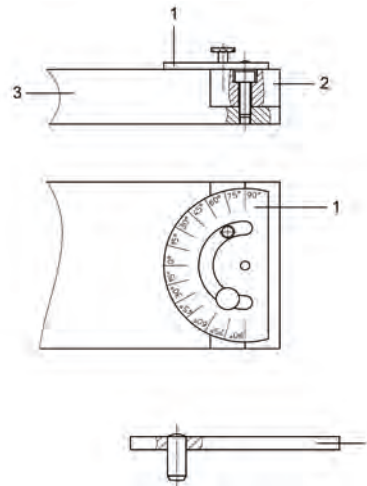
- 1 ... Lateral stop
- 2 ... Front gauge
- 3 ... Product
- 4 ... Die
- 5 ... Bending line

Lateral stop complete



- 1 ... Goniometer
- 2 ... Height adjustment
- 3 ... Rocker
- 4 ... Lateral stop

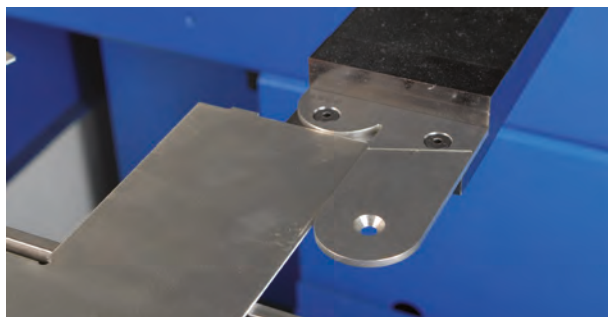
Angle setting



- 1 ... Goniometer
- 2 ... Mounting device for goniometer
- 3 ... Gauge finger

Application examples

Stop plates round



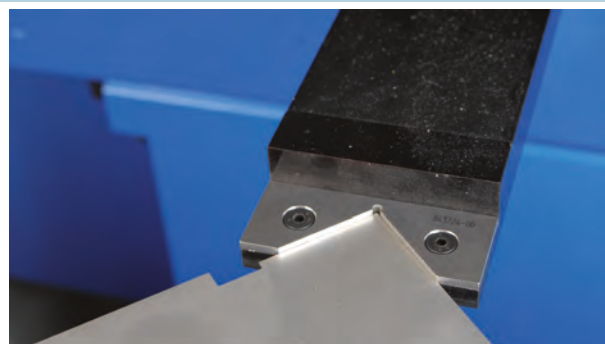
2 x stop plates round



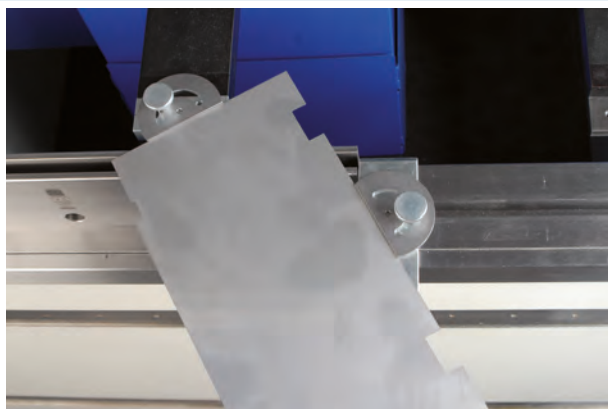
2 x 90° stop plates



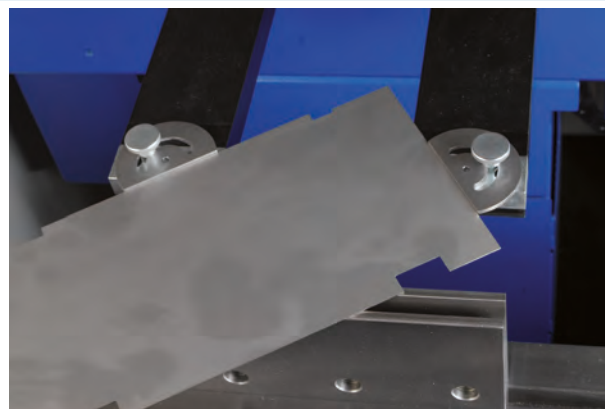
Stop plates 90°



Angle setting / lateral stop



Angle setting



Angle setting / lateral stop



QuickStop Case



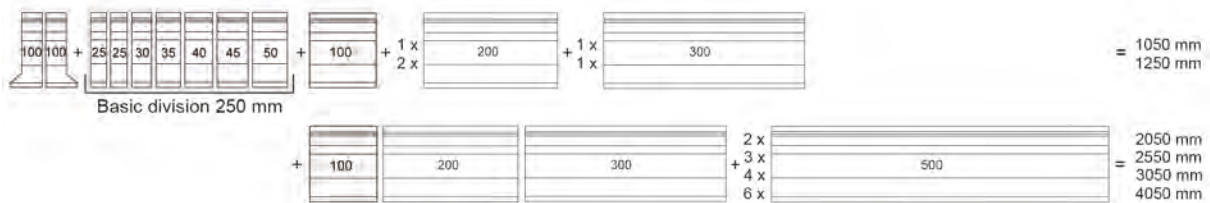
System divisions (according to weight)

Punches

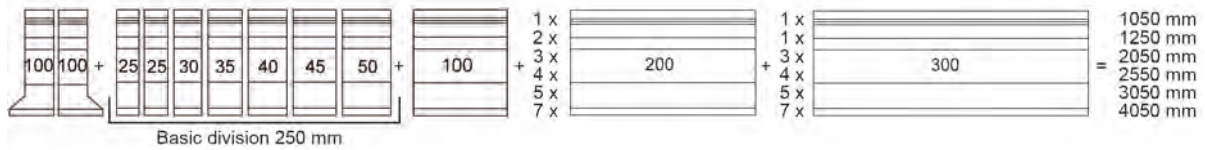
The maximum length of the sections is based on the tool weight. The weight of the tool segments must not exceed 25 kg.

Version B

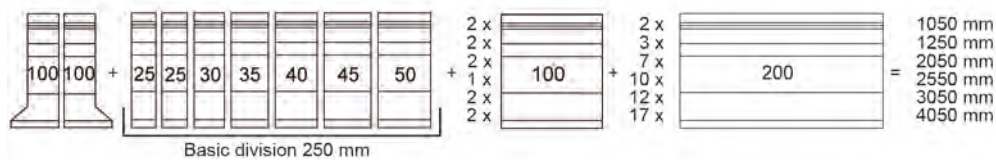
Division version for tool sets with a **weight of up to 50 kg/m**



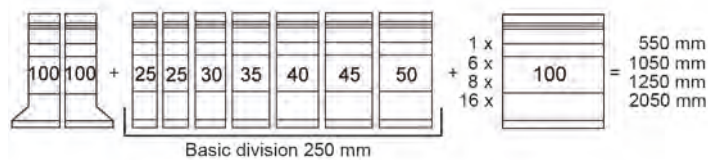
Division version for tool sets with a **weight of more than 50 kg/m**
(type OW200/S, OW201/S, OW203/S)



Division variants for tool sets with **weights 83 kg/m or more**
(type OW300/S)



Version A

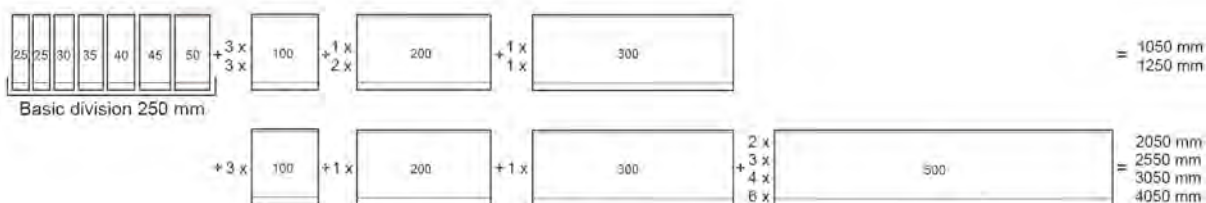


Dies

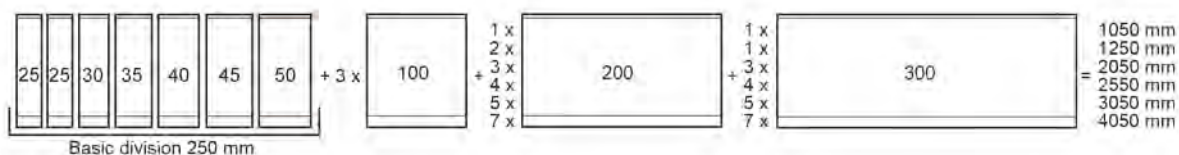
The maximum length of the sections is based on the tool weight. The weight of the tool segments must not exceed 25 kg.

Version B

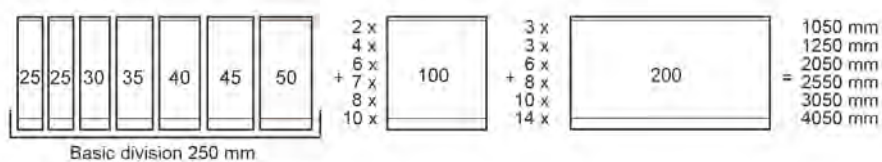
Division version for tool sets with a **weight of up to 50 kg/m**



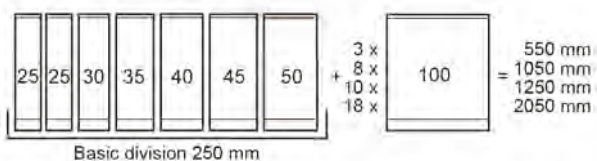
Division version for tool sets with **weights starting from 50 kg/m**
(type EV W60/80°, EV W70/80°, EV W80/80°)



Division version for tool sets with a **weight of more than 83 kg/m**
(type EV W90/80°, EV W100/80°, EV W120/60°)



Version A

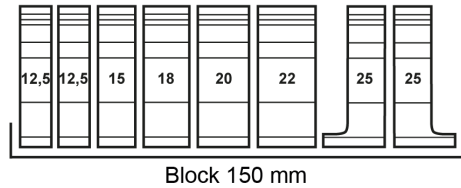


Block 150

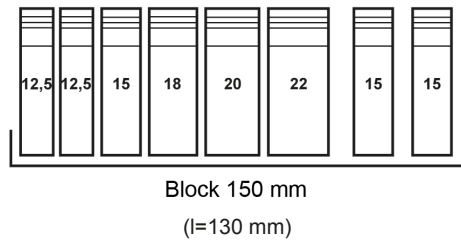
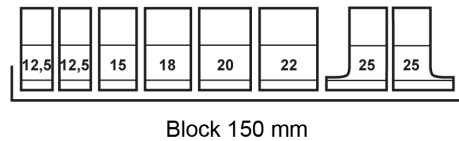
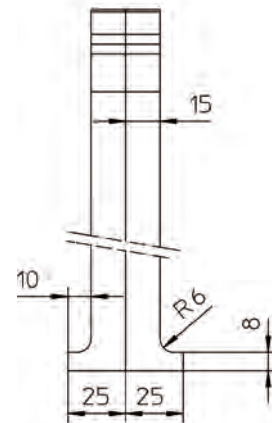
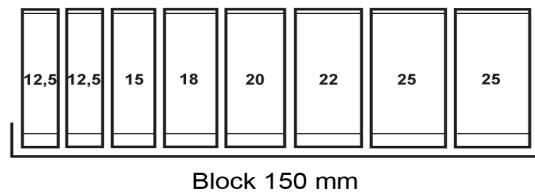
Additional divisions

Info

OW280/K



- This tool division is not included in the B/A standard division.
- Also available with other tools upon request.
- Sketch of heels

OW/K 80
OW/K 130OW390
OW391EVW 4/30°
EVW 5/30°

Block 150, tool elements < 25 mm

Important!

- Punches smaller than 25 mm are delivered without Safety-Click (OW.../S).
- 30° dies cannot be supplied with bore holes.

Calculation

(Box height, Press force, Die width)

Calculation of the maximum nest height

- The maximum box height is defined mainly by the installation height of the machine.
- The installation height is the maximum clearance between lower edge-punch adaptor and upper edge-die adaptor.
- Calculation by means of BendGuide-App or E-Shop possible

Punch height	Box internal height
OWH	SHI
120	64
130	71
140	78
150	85
160	91
170	98
180	105
190	112
200	118
210	125
220	132
230	138
240	145
250	152
260	159
270	165
280	172
290	179
300	185
310	192
320	199
330	206
340	212
350	219
360	226
370	232
380	239
390	246
400	253
410	259
420	266
430	273
440	279
450	286
460	293
470	300
480	306
490	313
500	320
Standardhöhen	

$$OWH = \frac{SHI}{0,95} \times 1,414 + B$$

$$SHI = \frac{OWH - B}{1,414} \times 0,95$$

B ... Center of press beam to Modufix outer edge

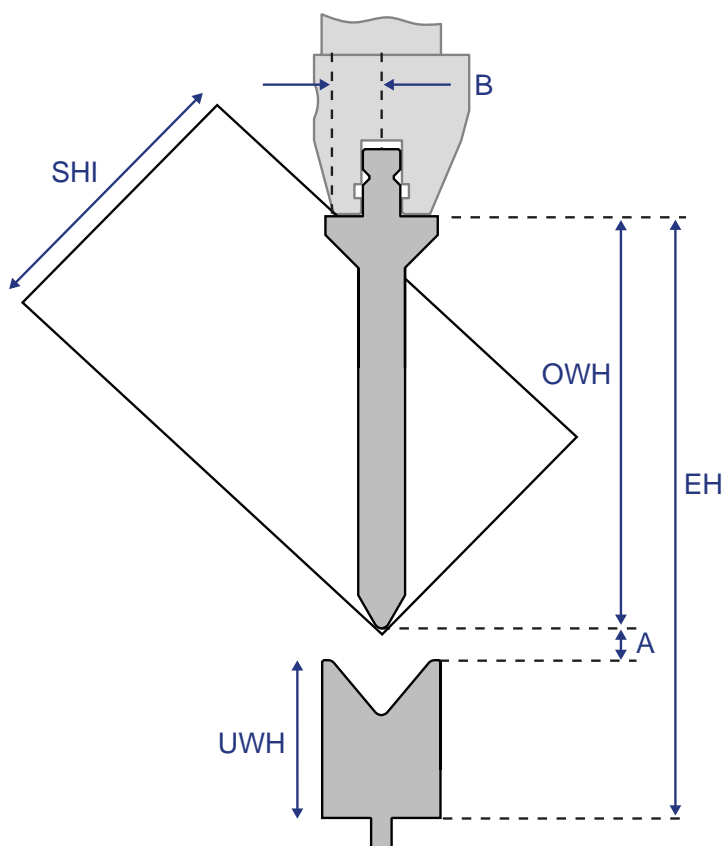
A ... Removal height

SHI..... Box internat height

OWH.. Punch heigth

UWH.. Die height

EH..... Installation heigth





Calculation of the die width

Selection of the die width

- The inner radius is a function of the die width and the punch radius.
- The die width is defined by the sheet thickness and the side length.
- The minimum die width is defined by its stability under load.

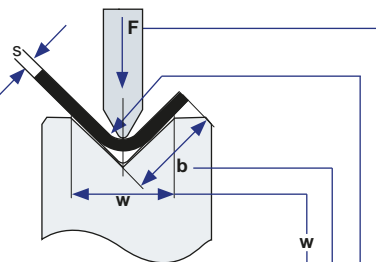
Sheet thickness s	0,5 - 2,6 mm	3,0 - 8,0 mm	9,0 - 12,0 mm
Die width w	6 × s	8 × s	10 × s

Maximum load of dies

30°				84°		80°		90°	
EV		EV		EV		EV		EV	
EV/S-W4/30° EV/S-W5/30°	150 kN/m	EV004/S 30°	250 kN/m	EV/S-W4/84° EV/S-W5/84°	250 kN/m	EV W24/80° EV/H W24/80°	700 kN/m	EV/S-W4/90°	250 kN/m
EV/S-W5/30°-R2	200 kN/m	KEV W12/30°	200 kN/m	EV W6/84° EV/H W6/84°	400 kN/m	EV W30/80° EV/H W30/80°	900 kN/m	EV/S W5/90°	390 kN/m
EV001 30° EV001/H 30° EV001 R3 30°	400 kN/m	EV005 30° EV005/H 30° EV005 R3 30°	500 kN/m	EV/S W6/84°	250 kN/m	EV W40/80° EV/H W40/80°	1200 kN/m	EV040 90°	1100 kN/m
EV001/S 30°	170 kN/m	KEV W16/30°	200 kN/m	EV W8/84° EV/H W8/84°	400 kN/m	EV W50/80° EV/H W50/80°	1500 kN/m	EV040/S 90°	390 kN/m
EV002 30° EV002/H 30° EV002 R3 30°	400 kN/m	EV006 30° EV006/H 30°	600 kN/m	EV/S W8/84°	350 kN/m	EV W60/80° EV W70/80° EV W80/80° EV W90/80° EV W100/80°	1500 kN/m	EV041 90°	1100 kN/m
EV002/S 30° KEV W8/30°	200 kN/m	KEV W20/30°	200 kN/m	EV W10/84° EV/H W10/84°	500 kN/m	EV W120/60°	1600 kN/m	EV041/S 90°	460 kN/m
EV003 30° EV003/H 30° EV003 R3 30°	400 kN/m	EV007 30° EV007/H 30°	650 kN/m	EV/S W10/84° EV/H W12/84° EV/H W12/84°	500 kN/m			EV042 90°	1100 kN/m
EV003/S 30° KEV W10/30°	200 kN/m	KEV W24/30°	200 kN/m	EV/S W12/84°	400 kN/m			EV042/S 90°	530 kN/m
EV004 30° EV004/H 30° EV004 R3 30°	400 kN/m	EV W30/30° R3 EV W40/30°	900 kN/m	EV/S W14/84°	500 kN/m			EV043 90°	1100 kN/m
		EV W50/30°	1200 kN/m	EV W16/84° EV/H W16/84°	700 kN/m			EV043/S 90°	550 kN/m
				EV W20/84° EV/H W20/84°	700 kN/m			EV044 90°	1400 kN/m

Press force table (recommended values)

Press force required for 90° air bending



Material: 450 N/mm², STEEL

s	Material: 450 N/mm ² , STEEL																				
	4	5	6	8	10	12	14	16	20	24	30	40	50	60	70	80	90	100	120	150	
	3,1	3,8	4,5	5,7	7,1	8,2	10,3	11,1	14,5	19	23,7	29,8	34,5	42	48	54	65	68	82	112,5	
	1	1,1	1,4	1,7	2,1	2,5	2,8	3,3	4,1	4,7	4,7	6	7,7	8,7	10,6	12	13,7	15	18,2	18,5	
0,5	45	35	28	21																	
0,75	102	78	64	46	36	30															
1		167	131	91	70	57	48	41													
1,25			204	142	109	88	74	64	50												
1,5			294	204	157	127	107	92	72												
1,75				278	213	173	146	126	99	81											
2					279	226	190	164	129	106											
2,5						353	297	256	201	166	131										
3							428	369	290	238	188	140									
3,5								503	394	325	256	190	151								
4									515	424	335	248	197	163							
4,5										652	537	424	314	249	207	177					
5											523	388	308	255	218	190					
6												754	558	443	368	314	274	243			
7													760	604	501	428	373	331	297		
8														864	705	595	515	454	406	335	
10															1101	930	805	710	634	523	415
12																1339	1159	1022	914	754	597
15																	1597	1427	1178	933	
20																		2538	2094	1659	

Material: 700 N/mm², STAINLESS STEEL

s	Material: 700 N/mm ² , STAINLESS STEEL																						
	4	5	6	8	10	12	14	16	20	24	30	40	50	60	70	80	90	100	120	150			
	3,1	3,8	4,5	5,7	7,1	8,2	10,3	11,1	14,5	19	23,7	29,8	34,5	42	48	54	65	68	82	112,5			
	1,1	1,3	1,6	2	2,4	2,9	3,2	3,9	4,9	5,2	6,5	8,6	10,8	11,8	14,7	17,1							
0,5	71	54	44	32																			
0,75	159	122	99	72	56	46																	
1		260	203	141	108	88	74	64															
1,25			317	221	169	137	116	100	78														
1,5			457	318	244	198	166	144	113														
1,75				433	332	269	227	195	153	126													
2					434	352	296	255	200	165													
2,5						550	462	399	313	258	204												
3								574	451	371	293	217											
3,5									782	614	505	399	296	235									
4										801	660	521	386	307	254								
4,5											1014	835	660	489	388	322	275						
5													814	603	479	397	339	296					
6														1172	869	690	572	489	426	378			
7															1182	939	779	665	580	515	463		
8																1344	1096	926	801	706	632	521	
10																		1447	1252	1104	987	814	
12																			1803	1590	1421	1172	
15																				2484	2220	1832	1451

b1= min. flange length at max. sheet thickness (die 84°)
b2= min. flange length at max. sheet thickness (die 30°)
Ri was determined by tests at optimum sheet thickness

Optimal die width

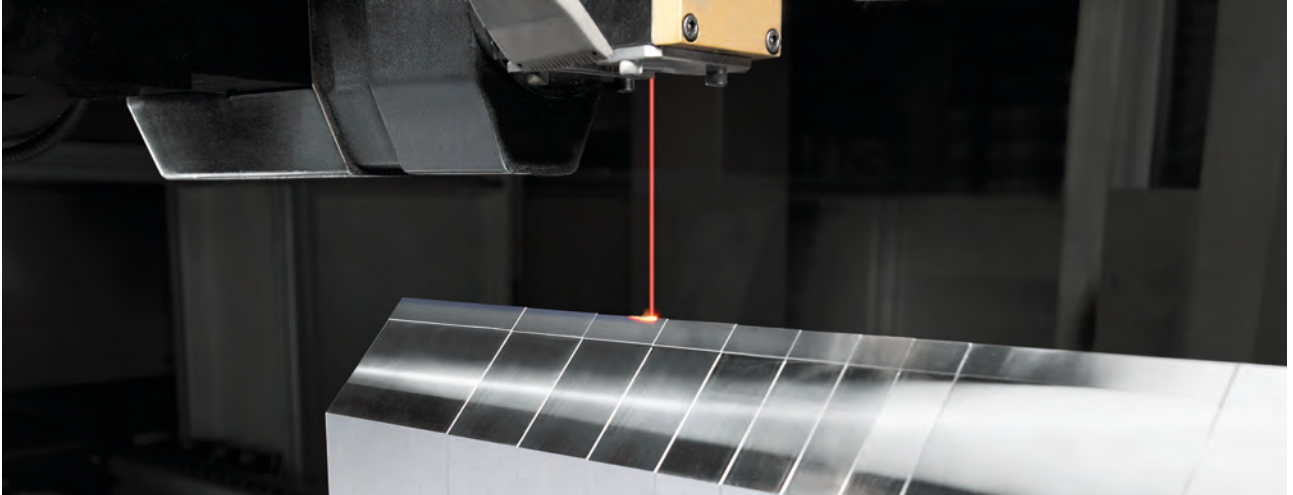
F in kN
s, w, b, Ri in mm

All values apply to the following upper tool radii:
W4-5 ... R0,5 W6-40 ... R1 W50-150 ... R4



LASERdur TRUMPF hardening process

Hardness through laser exposure



TRUMPF tools are laser-hardened. Thanks to utilization of a TRUMPF TLF high-performance laser with innovative special hardening optics, improvements over earlier laser hardening in terms of hardening depth and the width of the hardened zone have been achieved:

- Degree of hardness ~60 HRC
- Hardened depth to 3 mm
- Tough tool core
- No hardness distortion
- Extremely wear-resistant working zones

Only the surface of the tool is hardened with laser hardening; the interior of the tool remains „soft“. The tool does not crack or splinter under excessive loads; instead, either the tool splits or the hard layer is pressed into the soft core.



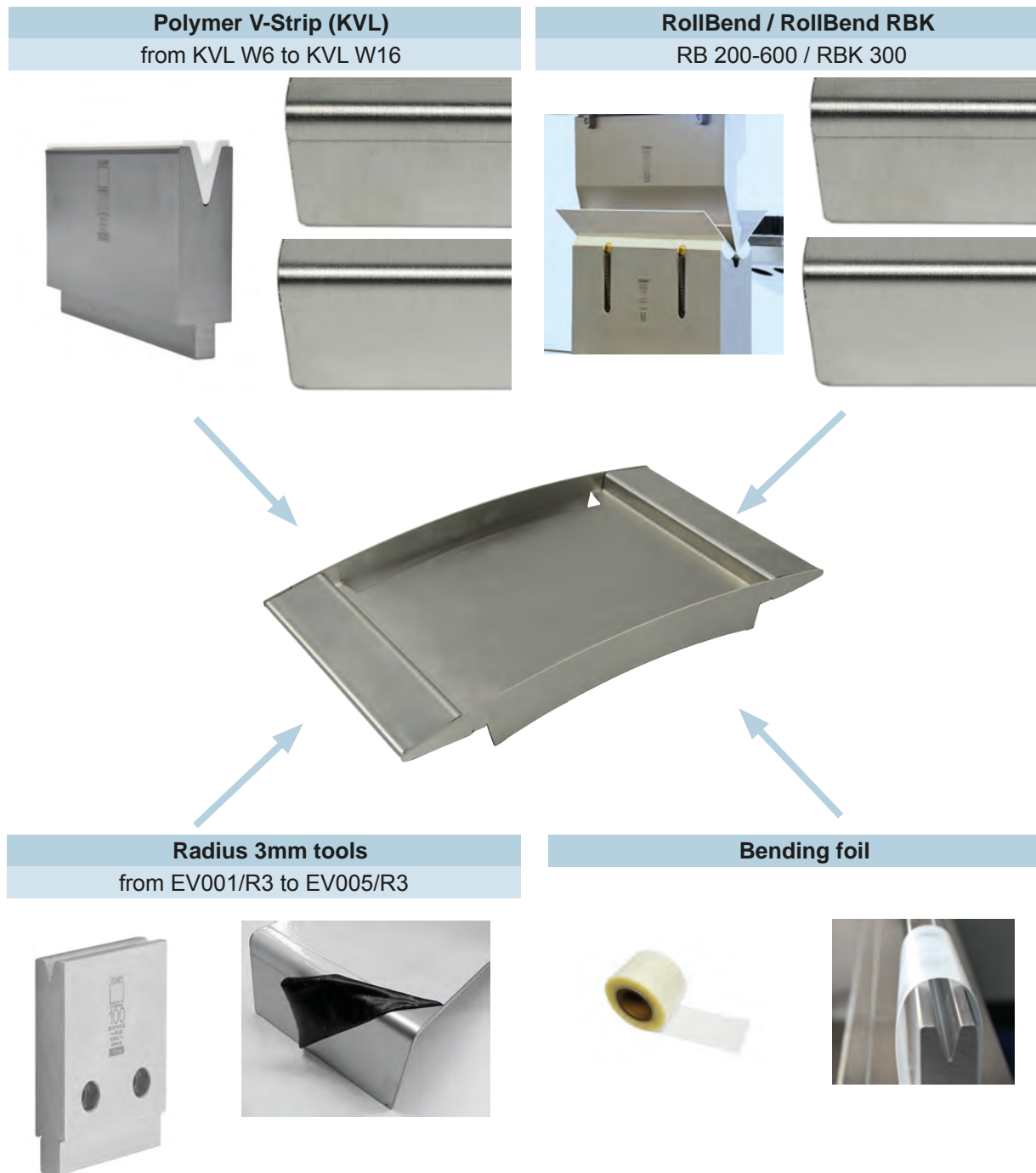
Hardened zones (depending on tool type)



Reduced-imprint bending

Note

More detailed information can be found in the bending technology catalog.



Material: 700 N/mm², Stainless steel with foil

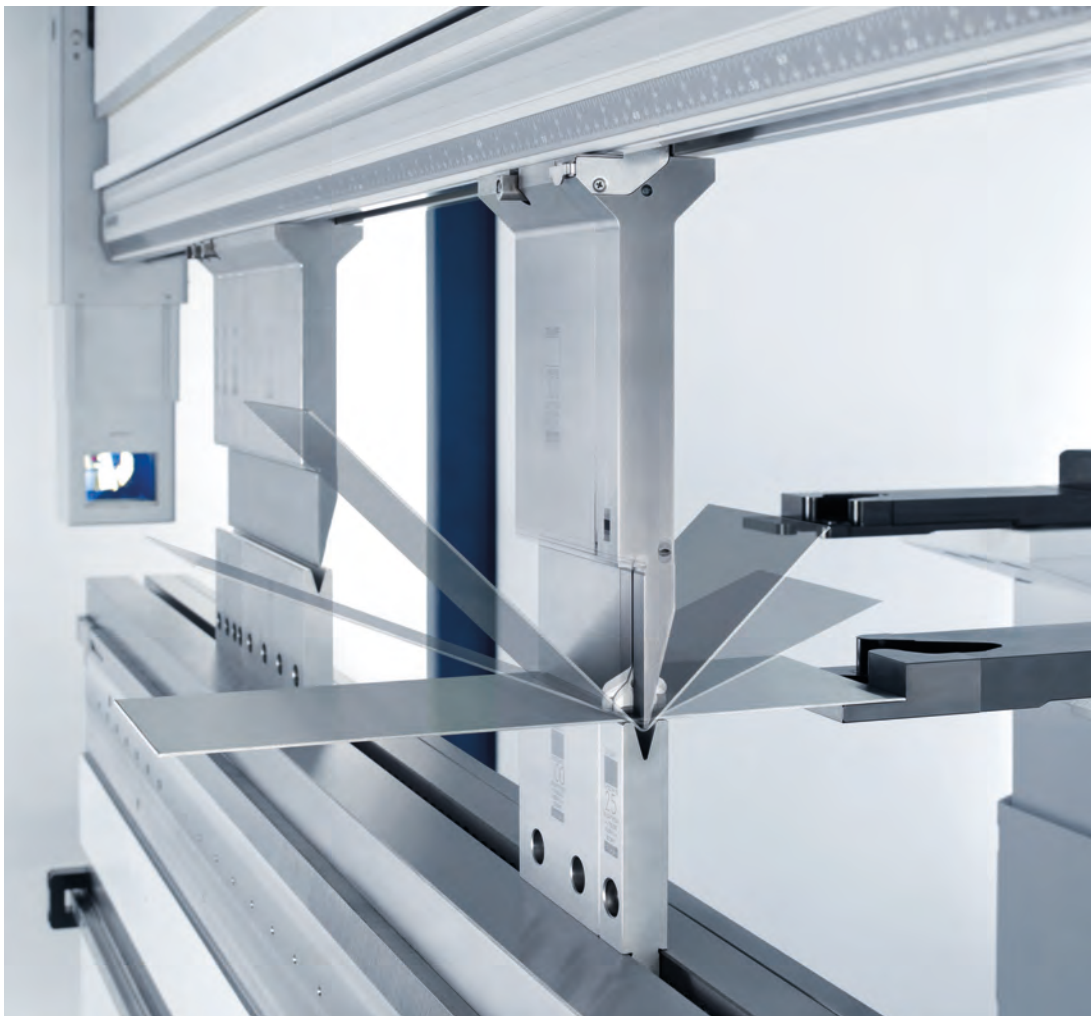
Max. sheet thickness	0,9 mm	1 mm	1,25 mm	1,5 mm
EV001 R3 30°	ok	ok		
EV002 R3 30°	ok	ok	ok	
EV003 R3 30°	ok	ok	ok	ok
EV004 R3 30°	ok	ok	ok	ok
EV005 R3 30°		ok	ok	ok



ACB angle measuring system

Use the ACB angle measuring system

- **Increase your angle qualities**
Automatic measurement and regulation always provide a high-precision bending angle.
Angle accuracy → Typically $\pm 0,3^\circ$
- **Get work started more quickly**
Time-consuming insertion procedures are dispensed with.
- **React flexibly**
The ACB angle measuring system measures and regulates the angle, regardless of material variations.
- **Reduce your materials consumption**
The parts can be made of „nested“ sheets or from remainder sheets, it makes no difference any more to the subsequent bending work cycle.
- **Avoid rejects**
Bending workpieces that have been processed with the ACB angle measuring system have exact angles.
- **Shorten your machining times**
Precise-angle workpieces emerge from the TruBend/ TrumaBend which require neither reworking nor renewed measurement for quality assurance purposes.



ACB Wireless angle measuring system, TruBend Series 5000

Structure of the ACB angle measuring system

ACB Wireless

The ACB Wireless angle measuring system consists of a ACB sensor tool with sensor discs. The system automatically detects the position of the sensor tools. Communication between sensor tool and control is wireless.

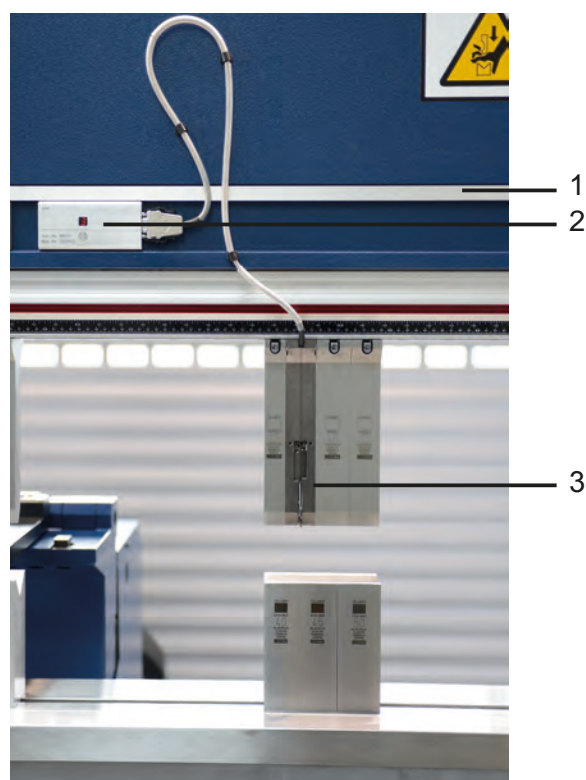
ACB 2. G.

The ACB angle measuring system consists of a sensor tool with sensor discs and an ACB module for connecting to the control. Magnets are attached to the ACB module and to the connection cables so that the ACB module can be placed anywhere on the press beam.



ACB Wireless angle measuring system
TruBend Series 5000 (B23), 3rd generation, TruBend Series 7000 (B28)

1 ... Sensor tool with sensor discs



ACB angle measuring system 2. G.
TruBend Series 5000
TrumaBend V Series (V 500 – V 3200)

1 ... Contact strip for ACB module
2 ... ACB module
3 ... Sensor tool with sensor discs

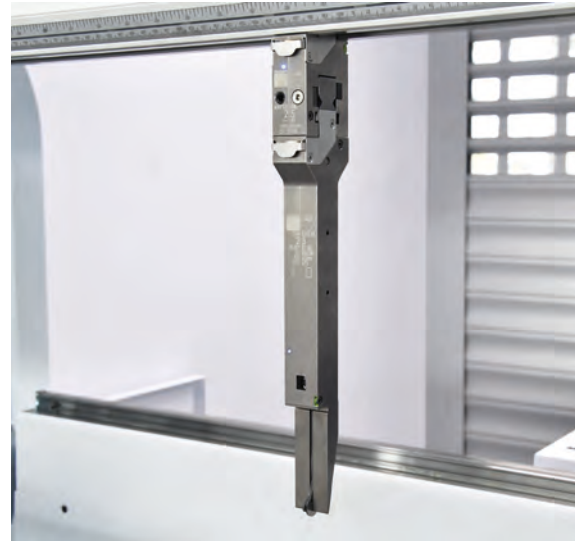


Aapter ACB Wireless

Exact angles are of great importance when bending customized window solutions or in the event of large nesting heights. For this reason, an adapter was developed for ACB Wireless sensor tools to increase the flexibility for angle measuring. With angle measuring systems of the ACB range, the first part of a series is already perfect.

Advantages

- Large nesting heights
- Customized window solutions
- High angular accuracy
- High speed
- Short flanges can be bent
- Completely different adapter heights available
- Mirroring surfaces can be bent
- Can be used in combination with standard adapters
- Easy, safe setup in the machine due to robust Safety-Click



Technical Data

Adapter heights (non cascable)	60 mm, 80 mm, 100 mm, 150 mm, 200 mm
Length	25 mm
TruBend Series 5000 (B23)*:	
Max. number of sensor tools per bend / max. number of sensor tools	2/8
TruBend Series 7000 (B28)*:	
Max. number of sensor tools per bend / max. number of sensor tools	1/6

Requirements

Machines: TruBend Series 5000 (B23), third generation, TruBend Series 7000 (B28), TruBend Cell 5000 (KB36)

Control: Touchpoint

* Current data can be found in the machine's Operator's manual.



Thick sheet sensor tool

The DB (thick sheet) sensor tool has been especially adapted to meet the requirements of bending thick sheet metal. It is now possible to bend sheets of up to 15 mm thickness immediately with angle precision.

Advantages

- Robust casing of the sensor tool (35 mm wide)
- Thick, wear-resistant sensor disks
- Simple, toolless sensor disk replacement
- Overload protection in the form of a joint on the sensor disk holder
- Simple, safe loading into the machine thanks to sturdy Safety-Click

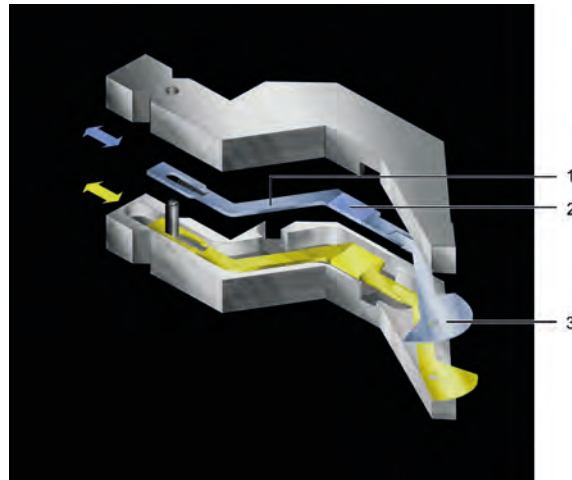




Measuring principle

Angle measurement in the punch

The angle measurement system is integrated into the punch and is loaded in the work stations with the conventional punches.



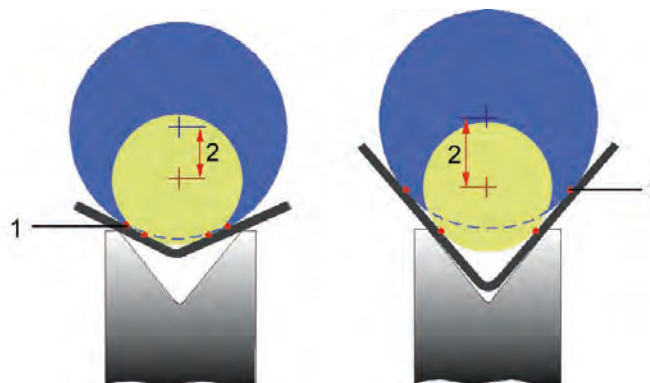
- 1 ... Bracket
- 2 ... Sensor disk holder
- 3 ... Sensor disk

Four-point measurement with sensor disks

Two sensor disks with different diameters are located in the sensor tool which center themselves in the sides.

During the bending process in the work cycle, the sensor disks acquire 4 contact points on the inner sides of the bend (1). The distance between the disk centers (2) changes with the depth of penetration of the disks.

The system calculates the actual angle from the distance between the disk centers. Different angles create different distances between the disk centers:



1 ... Contact points on the inner sides of the bend

2 ... Distance between the disk centers

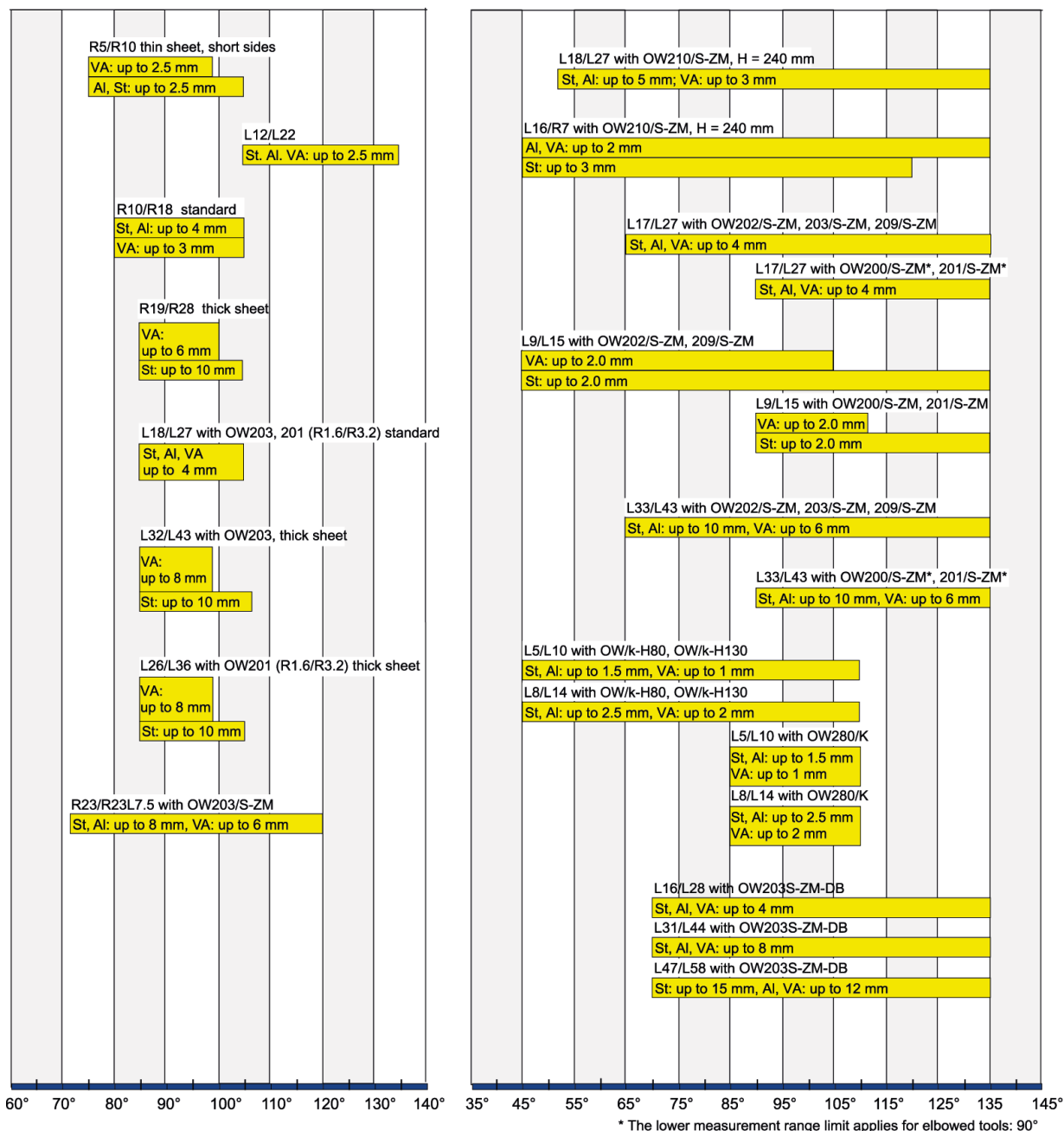
Areas of utilization of the sensor discs

Note

Only applies in compliance with the correct tools in relation to the sheet thickness.

Measurement range

42°-135° (dependent upon material and sensor disks)



The angle range for the sensor disk combination R5/R10 (75° - 105°) does not apply for the tools OW200/K and OW201/K nor for OW200/S and OW201/S (86° tools).

Folding is not possible with the sensor disk combination L18/L27!



ACB initial equipment

Note

An initial equipment is a requirement for the first machine! A supplementary license is required for each additional machine.

Technical data	ACB Wireless	ACB 2. G.
Sensor tools	All usual standard punches. Special radiuses upon request.	All usual standard punches. Special radiuses upon request.
Tool width	25 mm / 35 mm	25 mm / 35 mm
Max. number of Sensor tools per ACB module		1
Max. number of ACB modules per press brake		8
Max. number of sensors for each bending/ Max. number of sensors	2 / 8 TruBend Series 5000 (B23) 1 / 6 TruBend Series 7000 (B28)	3 / 8 TruBend Series 5000 (B03) 2 / 8 TruBend Series 5000 (B23)
Prerequisites		
Machines	TruBend Series 5000 (B23) with Wireless Modufix, TruBend Series 7000 (B28)	TruBend Series 5000 (B03/B23) TrumaBend V-Series (V 500 - V 3200)
Control system	Touchpoint	TASC 6000 / Touchpoint
ACB module		Version A3

Scope of delivery ACB Wireless



Initial equipment consisting of:

- 1 ACB Wireless sensor tool (specified by the customer)
- 1 ACB software (form with Code No.)

Accessories:

- 1 Locking pin
- 1 90° calibrating die
- 1 Installation device for sensor disks
- 1 Electronic screwdriver 2.5
- 1 Spacer
- 1 Assembly sheet
- 10 Test sheets

Scope of delivery ACB 2. G.



Initial equipment consisting of:

- 1 Sensor tool (specified by the customer)
- 2 ACB module
- 1 ACB software (form with Code No.)

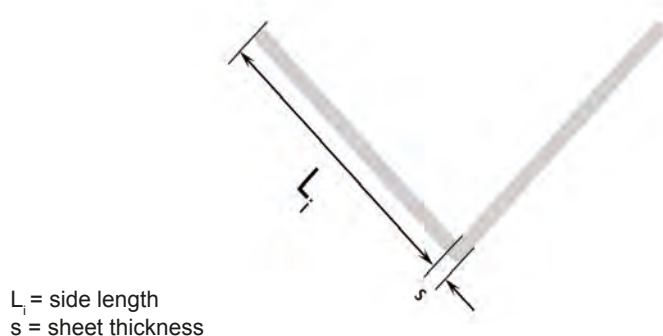
Accessories:

- 1 Locking pin
- 1 90° calibration die + programming diagram
- 1 Installation device for sensor disks
- 1 Electronic screwdriver 2.5
- 1 Spacer
- 1 Assembly sheet
- 10 Test sheets
- 1 Users guide

Required side length

Minimum side length L_i – overview

Depending on the material properties and the sensor disk radius, the minimum side length L_i will vary but it can be reliably determined with the sensor tool.



L_i = side length
 s = sheet thickness

The following values for L_i were established in test sequences. The table does not take spring-back angle into account. This way the values for L_i are independent of materials:

Sensor discs pair	R5/ R10	R10/ R18	R19/ R28	L5/ L10	L8/ L14	L9/ L15	L12/ L22	L16/ R7	L16/ L28	L17/ L27	L18/ L27	L26/ L36	L31/ L44	L32/ L43	L33/ L43	L47/ L58
Angle																
40°				17.6	22.9	24.3		25.7								
45°				15.8	20.5	21.7		23.0			37.4					
50°				14.3	18.5	19.7		20.9			33.9					
55°				13.1	17.0	18.0		19.1			31.0					
60°				12.1	15.7	16.6		17.6			28.7				44.7	
65°				11.2	14.6	15.5		16.4	29.0	26.7	26.7		44.6		41.5	57.6
70°	15.3			10.5	13.6	14.5		15.3	27.0	25.0	25.0		41.4		38.9	53.6
75°	14.0	24.5		9.8	12.8	13.6		14.4	25.2	23.5	23.5		38.7		36.6	50.2
80°	12.9	22.5	34.8	9.3	12.1	12.9		13.6	23.7	22.2	22.2	29.2	36.3	34.7	34.7	47.1
85°	11.9	20.6	31.6	8.8	11.5	12.2		12.9	22.3	21.1	21.1	27.7	34.1	32.9	32.9	44.5
90°	11.0	19.0	29.0	8.4	10.9	11.6		12.3	21.1	20.1	20.1	26.5	32.2	31.4	31.4	42.1
95°	10.2	17.5	26.7	8.0	10.4	11.1		11.8	20.1	19.2	19.2	25.3	30.5	30.1	30.1	40.0
100°	9.4	16.1	24.5	7.6	10.0	10.6	15.7	11.3	19.1	18.5	18.5	24.3	29.0		28.9	38.1
105°	8.7	14.8		7.3	9.6	10.2	15.1	10.8	18.2	17.8	17.8		27.6		27.9	36.4
110°				7.0	9.2	9.8	14.6	10.4	17.4	17.2	17.2		26.3		26.9	34.9
115°				6.8	8.9	9.5	14.1	10.1	16.7	16.6	16.6		25.2		26.1	33.5
120°				6.5	8.6	9.2	13.7	9.8	16.0	16.1	16.1		24.1		25.4	32.2
125°						8.9	13.3	9.5	15.4	15.7	15.7		23.1		24.7	31.0
130°						8.6	13.0	9.2	14.8	15.3	15.3		22.2		24.1	29.9
135°						8.4	12.7	9.0	14.3	14.9	14.9		21.4		23.6	29.0
140°																
145°																

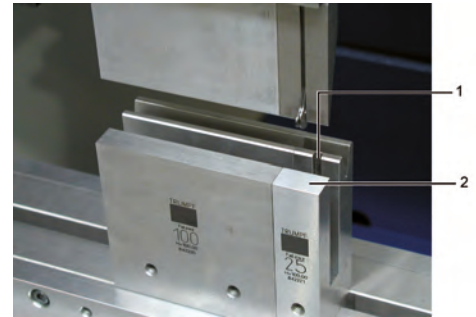
L_i = [mm]



Folding with the ACB angle measuring system

Die with groove

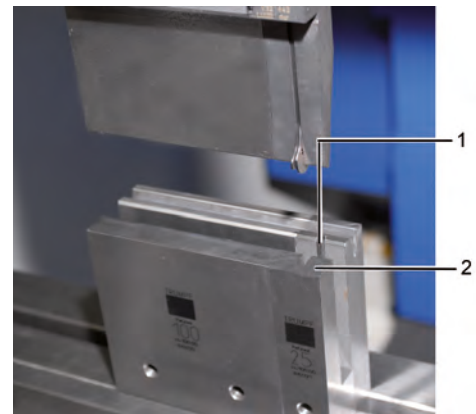
- Punch OW210/S-ZM
- Sensor disks: L16/R7
- Die with groove + FWZ (see Chapter folding)



1 ... Die with groove
2 ... FWZ

FWZ with groove (for „rapid“ folding)

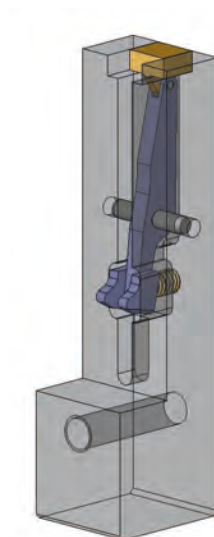
- Punch OW210/S-ZM
- Sensor disks: L16/R7
- Die with groove + FWZ with groove (see Chapter folding)



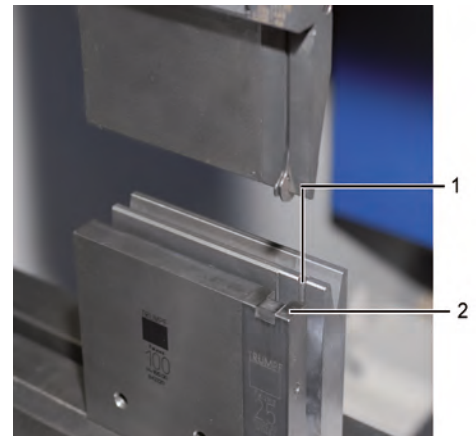
1 ... Die with groove
2 ... FWZ with groove

Low-impession FWZ with groove (for „rapid“ folding)

- Punch OW210/S-ZM
- Sensor disks: L16/R7
- Die with groove + low-impession FWZ (see Chapter folding)



Sketch of low-impession FWZ



1 ... Die with groove
2 ... Low-impession FWZ

Maintaining and servicing TRUMPF Bending Tools

General rules for workpiece maintainance

Please comply with the following instructions to ensure a high quality standard for your bending tools and products:

Use gloves in order to avoid rust
(do not use solvents for degreasing purposes).



In order to achieve an optimum edge result, clean the
tool adapter thoroughly.



After use, carefully clean and preserve the tools (using
a commercially available preservative)



Prevent damage by providing contact-free
storage.

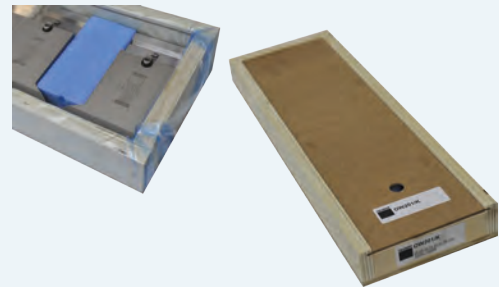




Replace wearing parts on a regular basis (pins, Safety-Click,...) with original TRUMPF replacement parts in order to avoid damage to the Modufix or to the tools



Use TRUMPF security packaging for any return deliveries you might make (please enclose a delivery slip with the merchandise, listing our order number and the precise reason for returning the items). Please coordinate your return delivery by telephone with your sales partner!



Maintenance accessories

The use of fine-grained polishing substances (e.g.: Sctoch-Brite™) in conjunction with oil can remove unusually severe soiling from the working zones.

As a basic rule, damaged segments should be replaced. Regrinding and renewed hardening are however available upon request. Please note however that combinations with new tools will no longer be possible afterwards because of the dimensional changes involved.

Scotch-Brite™
(see General Accessories)





Special care tips for processing hot rolled sheet steel

Particles from the scale layer become loose during the press brake bending of hot rolled sheet steel and form deposits on both the dies and the clamping. With inadequate equipment maintenance servicing, this leads to irreparable damage to the tools and impairs the quality of the finished product.



Early and regular maintenance servicing of the elements described above with an oil-soaked rag increases the service life and has a positive effect on the exactness of the bent parts. Determination of the cleaning interval here is always the responsibility of the machine operator.





Full service

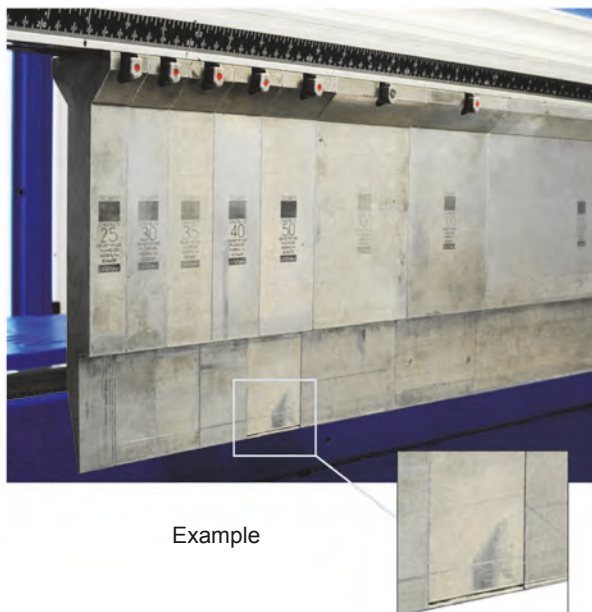
Full service for bending tools

Despite the extreme wear-resistance of the contact zone of TRUMPF bending tools, wear can occur with certain applications due to the constant relative movement between the tool and the workpiece. When tools are worn, there can no longer be a 100% guarantee for the precision of the bend. The TRUMPF full service (grinding etc.) makes this possible again.

Your advantages at a glance

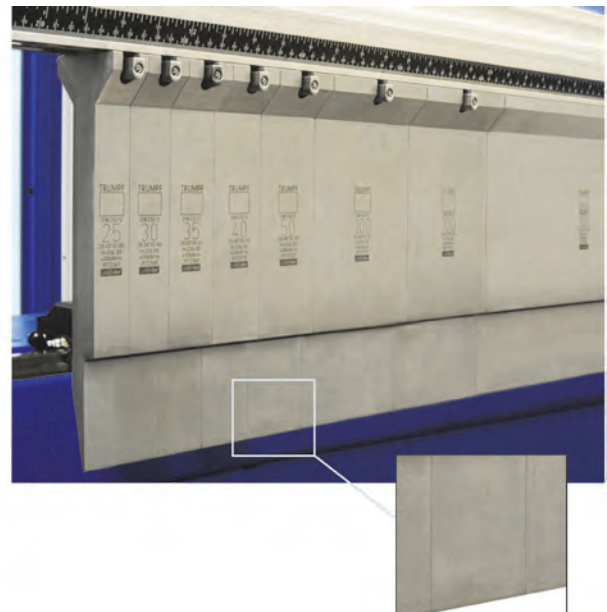
- The guarantee of functionality and reliability thanks to full service.
- ACB sensor tools can be reground together with the punches
- For tool segments that can no longer be reworked, there is the possibility of an immediate exchange for new ones.
- New tool data are supplied via USB flash drive or are available in the download area of the MyTRUMPF customer portal - interchangeability is guaranteed again.

Before



Example

After



Additional information

Requirement: original TRUMPF tools

Machine types: TruBend Series 3000 / 5000 / 7000 / 8000, TrumaBend V Series and C Series

Tool data: USB flash drive / MyTRUMPF customer portal download area

Customized solutions

Technical customer consulting

Unusual projects need unusual tools: our experts check your inquiry with regard to feasibility and work with you to develop complex special tools according to your specifications. You can rely on our expertise.

The advantage to you

- No loss of time in finding solutions and testing them
- No loss of production due to missing tools
- Increased productivity

What we offer

- Experience and expertise in bending technology
- Tools and machine from a single provider

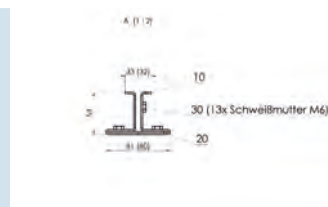
Sequence query

From the query to the development stage to the tool.

Request

Drawing or sketch

- Via e-mail (common 3D formats: .sat, .stp, .step, .igs, .sldprt or .dxf, ...)



Development

According to customer requirements

- SolidWorks, TecZone Bend, TruTops Bend



Quotation

Listing of tools

- Length of piece, delivery time





Ordering procedure

Start of the test phase

- Provision of customer material
- Test with 100 mm long test tools (wire EDM)
- Short response time to contour change
- High contour precision



Production

- Preparation of 3D production drawings using SolidWorks
- Production of bending tools incorporating the latest machine technology with accuracy down to the μm



Test of bending tools with customer's sheet metal

- Establishing the press force, Y position, index positions
- Checking the part geometry



Upon request, a **sample part** will be sent to the customer for checking and approval.



Download of bending tool data

Bending tool data is available online in the download area of MyTRUMPF as soon as your order has been confirmed.

Shipping of the designed bending tools
in high quality safety packaging.



Special solution examples

You will find some special solution examples on the following pages. You can find these and other tool solutions in the bending type catalog, in the E-Shop for Bending Tools, which you can access via www.TRUMPF.com/MyTRUMPF, or in TRUMPFtube, TRUMPF's YouTube channel.



A small excerpt from the bending type catalog table of contents:

- Radius tools
- Tools for U-parts
- Tools for hat profiles
- Rotating jaw tools
- Clamp tools
- Tools and additional equipment for reduced-imprint bending
- Swivel bending tool
- Countersink forming tools
- Window tools
- Hinge tools
- Upper tool and die rotated by 180°
- Offset bending line
- Reinforcing beads
- Tools for frames
- Coated dies
- Lightweight bending tools

Better yet, see the options offered by TRUMPF for yourself.

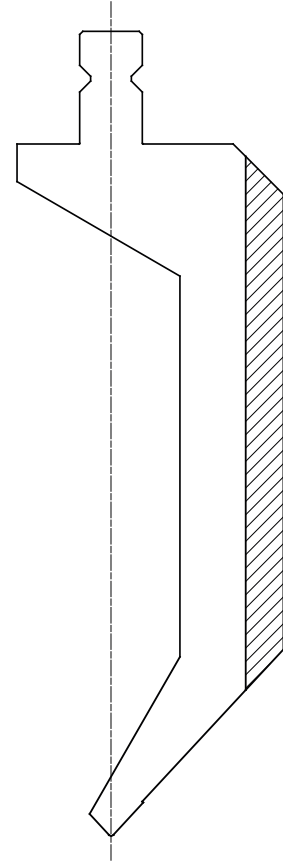
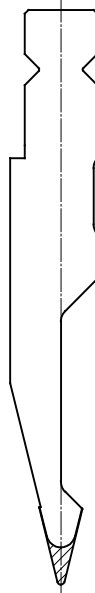
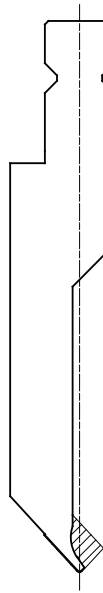
The key to success is combining Know – How with quality and technology.
 We believe in technical consultation so that we can do justice to your requirements.

Modified upper tools

Punching lug milled

Punching radius increased

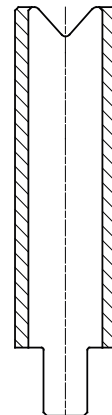
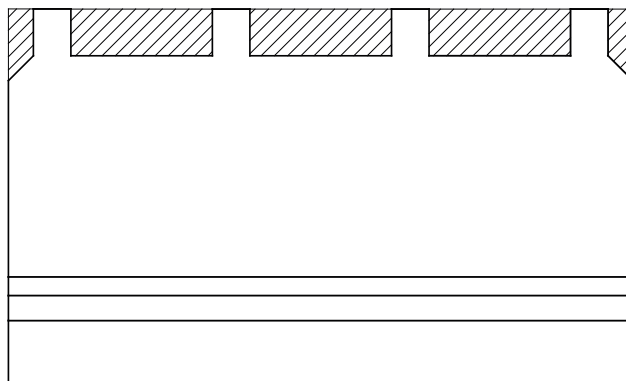
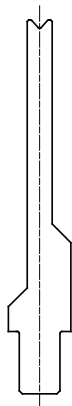
Punching back milled



Modified lower tools

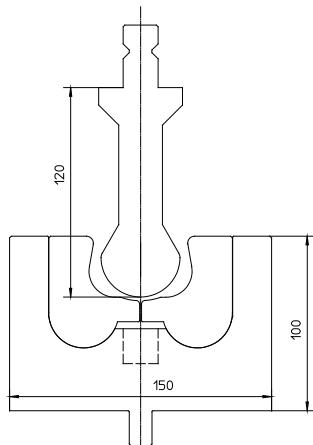
Die for flanges released

Die milled to a narrow design

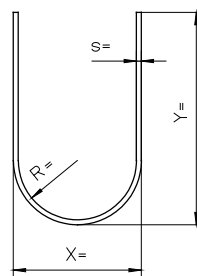


Large rotating jaw

Tool Drawing



- Measure the drawing (incl. length).
- Specify the tolerances.
- Specify the material type: _____
- Specify the sheet thickness: _____

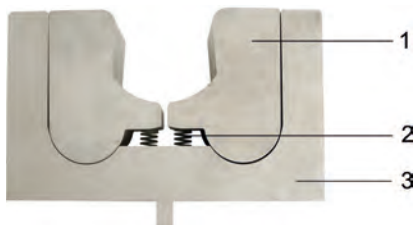


Producing U parts in one step



Lower tool

Upper tool



- 1 ... Rotating jaw
- 2 ... Return spring
- 3 ... Rotating jaw body

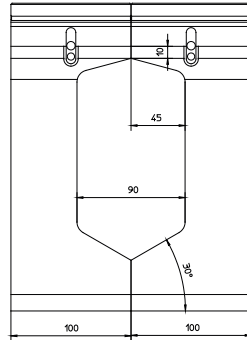


Product

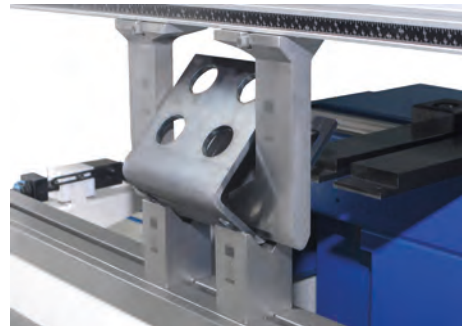
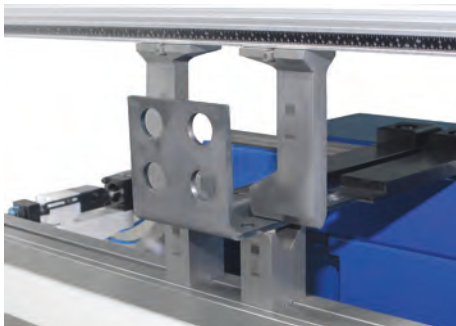
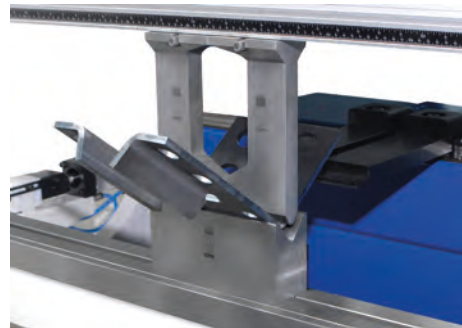
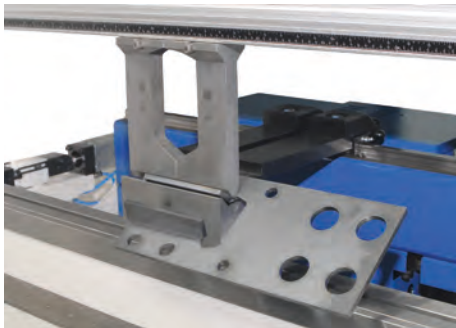


Horn window tool

Tool



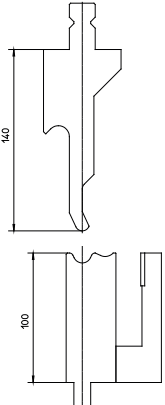
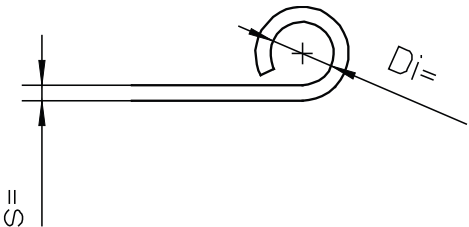
Part swivels in the horn recess



Product
(Frame part for car industrie)



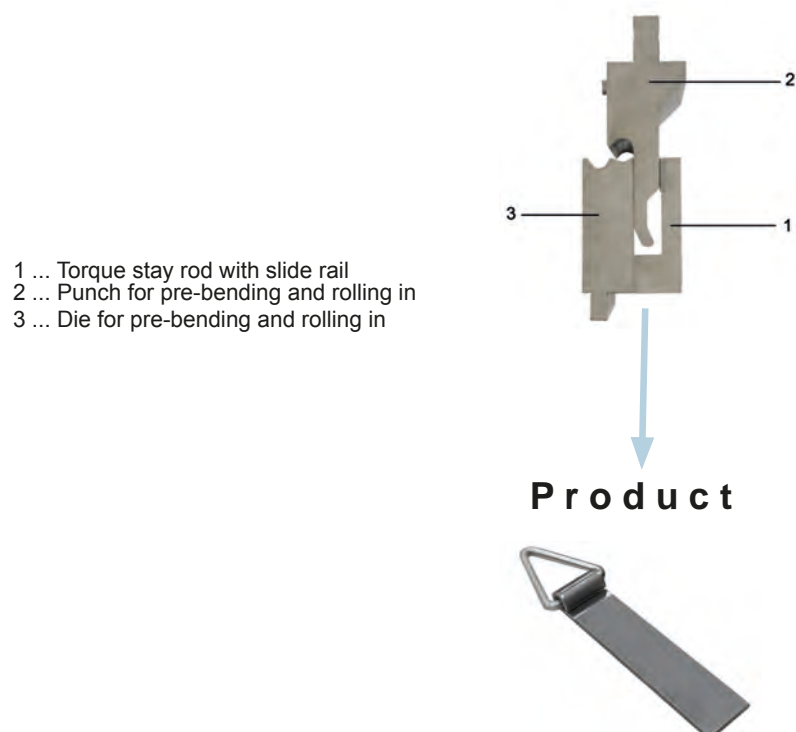
Hinge tool assembly

Tool	Drawing
	<ul style="list-style-type: none"> ■ Measure the drawing (incl. length). ■ Specify the tolerances. ■ Specify the material type: _____ ■ Specify the sheet thickness: _____ 

Producing hinge in three steps



Complete tool





Addresses / special tool request

TRUMPF Maschinen Austria GmbH & Co KG

Österreich

Industriepark 24
A-4061 Pasching

☎ +43 7221 603 0
 ✉ +43 7221 603 42037
 🌐 www.trumpf.com
 @ biegewerkzeuge@at.trumpf.com

TRUMPF Werkzeugmaschinen Deutschland, Vertrieb + Service GmbH + Co KG

Deutschland

Johann-Maus-Straße 2
D-71254, Ditzingen

☎ +49 7156 303 33222
 ✉ +49 7156 303-31473
 🌐 www.trumpf.com
 @ biegewerkzeuge@de.trumpf.com

TRUMPF S.A.S.

France

Paris Nord II, 86 Allee des Erables
F-95956 Roissy-Charles-de-Gaulle

☎ +33-1-48 17 8042
 ✉ +33-1-48 630 579
 🌐 www.trumpf.com
 @ outillages@fr.trumpf.com

TRUMPF Maschinen AG

Schweiz

Ruessenstr. 8
CH-6341 Baar

☎ +41 (58) 257 76 72
 ✉ +41 (58) 257 64 01
 🌐 www.trumpf.com
 @ ch-werkzeug@ch.trumpf.com

TRUMPF S.r.l. a Socio unico · Società del Gruppo TRUMPF

Italia

Via del Commercio 6
I-20090 Buccinasco (MILANO)

☎ +39-02-48489482
 ✉ +39-02-48489501
 🌐 www.trumpf.com
 @ utensili@it.trumpf.com

TRUMPF Maquinaria S.A.

España

C/ Valportillo Primera nº 1
E-28108 Alcobendas (Madrid)

☎ +34 916 573 669
 ✉ +34 916 614 213
 🌐 www.trumpf.com
 @ miguel.pascual@es.trumpf.com

TRUMPF Maskin AB

Sverige

Aleforsvägen 5
S-44117 Alingsås

☎ +46-322-669700
 ✉ +46-322-669710
 🌐 www.trumpf.com
 @ order@se.trumpf.com

TRUMPF Slovakia s.r.o.

Slovensko

Galgovecká 7
SK - 040 11 Kosice

☎ +421-55-728 09 17
 ✉
 🌐 www.trumpf.com
 @ nastroje@sk.trumpf.com

TRUMPF Praha spol. s r.o.

Česká Republika

K Hájum 2a
CZ-155 00 PRAHA 5 - Stodulky

☎ +420/251 106 214 (/ 215 / 219)
 ✉ +420/251 106 201
 🌐 www.trumpf.com
 @ info@cz.trumpf.com

TRUMPF Polska Spolka z ograniczona odpowiedzialnoscia Sp.k.

Polska

ul. Polczynska 111
01-303 Warszawa

☎ +48 22 57539-00
 ✉ +48 22 57539-01
 🌐 www.pl.trumpf.com
 @ info@pl.TRUMPF.com



TRUMPF Corporation

Japan 1-18-2 Hakusan, Midori-ku
JPN-Yokohama 2260006

☎ +81-45-931-57 10
✉ +81-45-931-57 14
🌐 www.trumpf.com
@ tools@trumpf.co.jp

TRUMPF Pte Ltd

Singapore 25 International Business Park,#02-
28/29 German Center
Singapore 609916

☎ +65-65 62 77 80
✉ +65-65 62 77 88
🌐 www.trumpf.com
@ bendmt@trumpf.com.sg

TRUMPF Hungary Kft.

Magyarország Lincoln u. 1 I. em.
2220, Vecsés

☎ +36 29 999 100
✉ +36 29 999 101
🌐 www.trumpf.com
@ szerszam@hu.trumpf.com

V.A.C. Machines nv/sa

België Kleine Pathoekeweg 13-15
B-8000 Brugge

☎ +32 (0)50 45 60 44
✉ +32 (0)50 31 55 80
🌐 www.vac-machines.be
@ spare.parts@vac-machines.be

TruTekniikka Oy

Suomi Varsikuja 2
FIN-01740 Vantaa

☎ +358 20 728 9880
✉ +358 20 728 9881
🌐 www.trutek.fi
@ info@trutek.fi

AVN PLADETEKNIK A/S

Danmark Dalager 1
DK-2605, Brøndby

☎ +45-7020-0411
✉ +45-4324-5537
🌐 www.avn.dk
@ bre@avn.dk

TRUMPF Nederland B.V.

Nederland John Maynard Keynesstraat 301
NL-7559 SV Hengelo

☎ +31 88 4002-440
✉ +31 88 4002-444
🌐 www.trumpf.com
@ onderdelen@nl.trumpf.com

TRUMPF Inc.

United States 111 Hyde Road, Farmington
CT 06032, USA

☎ +1 860 255 6000
✉ +1 860 255 6433
🌐 www.trumpf.com
@ pressbracketooling@us.trumpf.com

TRUMPF Bulgaria EOOD

Bulgaria 140 Mimi Balkanska Str.
1540 Sofia

☎ +359 2 860-1492
✉
🌐 www.trumpf.com
@ info@bg.trumpf.com

TRUMPF Ltd.

United Kingdom President Way, Airport Executive Park
GB-Luton Beds. LU2 9NL

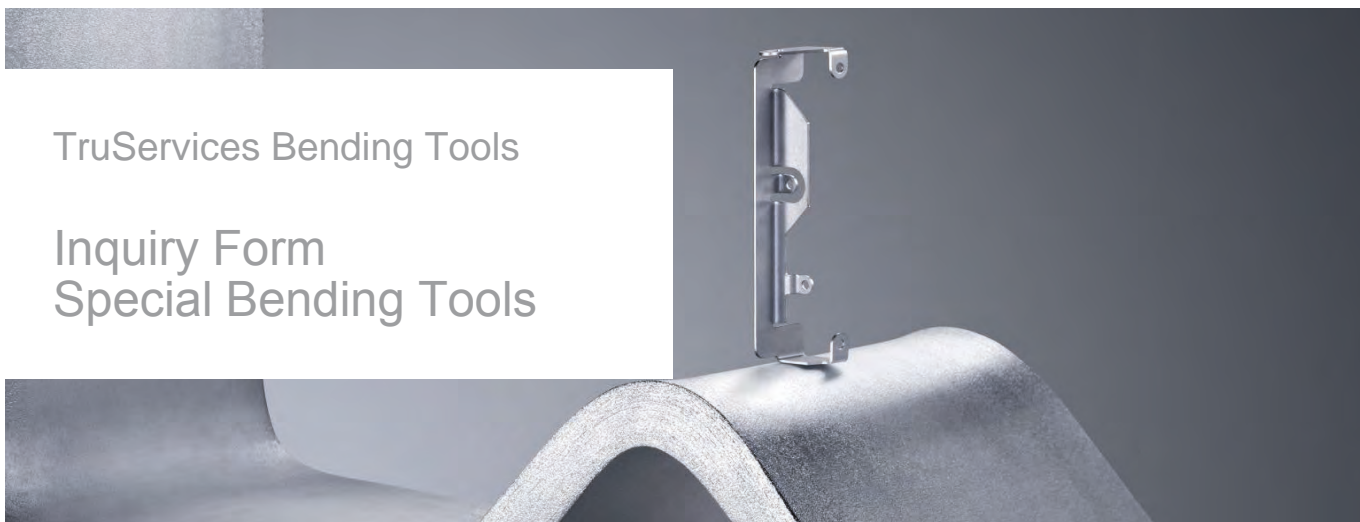
☎ +44-158 2399 221
✉ +44-158 2399 261
🌐 www.trumpf.com
@ tooling@uk.trumpf.com





TruServices Bending Tools

Inquiry Form Special Bending Tools



Customer data

Customer number	
Company	
Street	
ZIP code/place	
Contact person	
Telephone	
Fax	
E-mail	
Date	

Product data

Material	<input type="checkbox"/> St	<input type="checkbox"/> VA
	<input type="checkbox"/> Alu	
	<input type="checkbox"/> Others:	
Sheet thickness (mm)		
Bending length (mm)		
Desired tool length (mm)		
Desired division		

Machine data

Machine type	
Mounting height (mm)	
Bending length (mm)	
Tool clamp	<input type="checkbox"/> TRUMPF <input type="checkbox"/> TRUMPF-EHT <input type="checkbox"/> Others:

	Yes	No
Drawing in "sldprt" format as a file in the attachment (alternative: .prt/.step/.stp/.x_t/.igs/.sat/.geo/.fx/.bmt/.dxf/.dwg)	<input type="checkbox"/>	<input type="checkbox"/>
Dimension in file included	<input type="checkbox"/>	<input type="checkbox"/>
Bending radii in file included	<input type="checkbox"/>	<input type="checkbox"/>
Tolerances in file included	<input type="checkbox"/>	<input type="checkbox"/>
Bending process with BendMaster	<input type="checkbox"/>	<input type="checkbox"/>
Bending process with TruBend Cell 7000	<input type="checkbox"/>	<input type="checkbox"/>
Station bending preferred	<input type="checkbox"/>	<input type="checkbox"/>
Reduced-imprint bending	<input type="checkbox"/>	<input type="checkbox"/>
Bending foil on the sheet	<input type="checkbox"/>	<input type="checkbox"/>
Testing sheets will be sent to TRUMPF (for the attention of "Showroom")	<input type="checkbox"/>	<input type="checkbox"/>

Remarks

Contact

Find your contact details in the beginning of this catalog.

