Cutting

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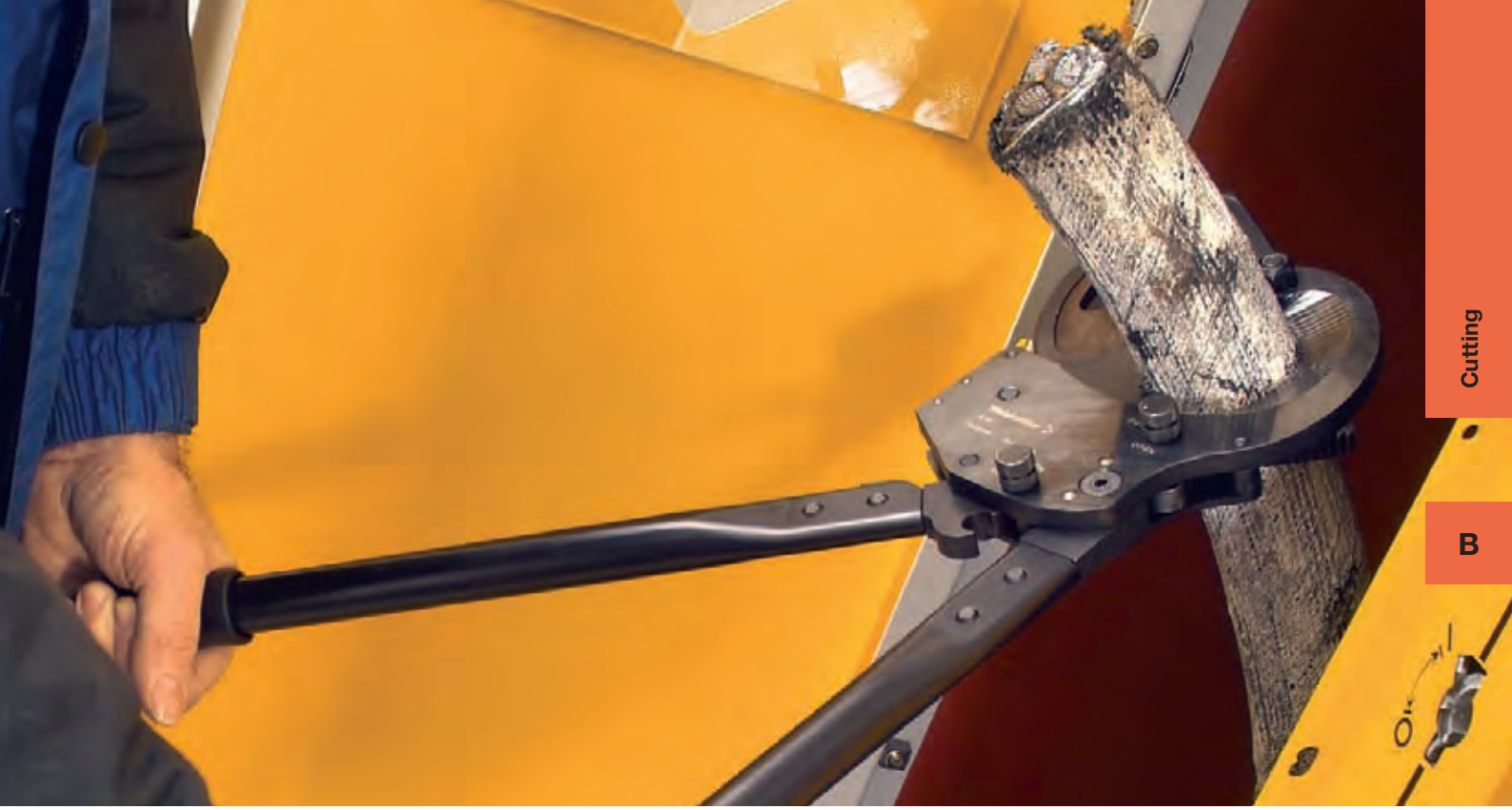
A large number of cables and conductors in many different types and designs are used to connect electrical and electronic components. The cables and wires must be accurately prepared for the various types of connection. The quality of the cutting process is therefore of critical importance. Mechanical efficiency together with the special cutting pattern reduces the manual force required to a minimum.

Weidmüller is a specialist in the cutting of copper or aluminium cables. The product selection ranges from cutting tools for small cross-sections (with direct transmission of force) to cutting tools for large diameters. Weidmüller's wide range of cutting tools fulfils all the criteria for professional cable preparation. The demands Weidmüller makes of its products can be summarised simply: a smooth, straight cut without deforming the conductor. Users profit directly from this philosophy, whilst maintaining ease of use.

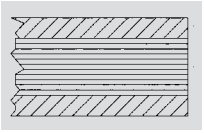


At Weidmüller the term “cutting” refers to the severing of cables, wires and conductors of copper or aluminium with an appropriate tool for the application.
The requirement for all cutting tools is to perform a smooth, straight cut without deforming the conductor.

According to **DIN 8588**, experts differentiate between shear cutting, wedge-action cutting, tearing and breaking.
Shear cutting is employed particularly in the cutting of cables, wires and conductors. Cutting tools with cross blades should perform an oblique cut and operate without play.

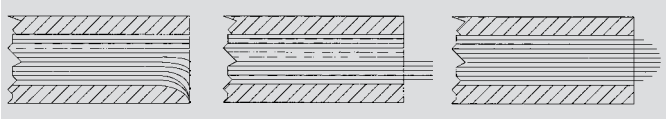
The essential quality characteristics for professional cutting tools are a cutting edge shape which is suited to, and optimised for, the corresponding application, so that the manual forces required for cutting remain low. This allows single-handed operation.
Tools by Weidmüller comply with all requirements imposed on professional cutting tools.

Clean cut



Insulation
Conductor

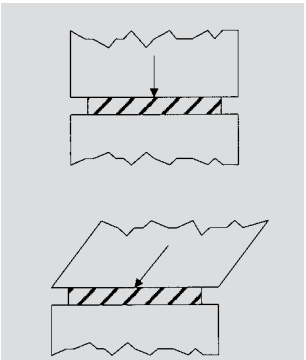
An **“unclean” cut** may have the following appearance:



Conductor sheared off | Conductor pulled out | Squeezed cable

Movement of the blades

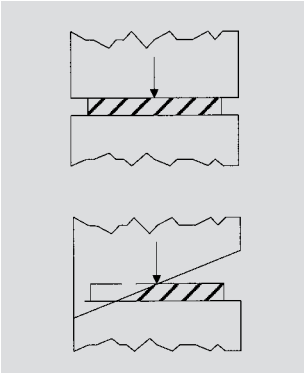
We differentiate between two basic cutting processes:
- Push cut
- Draw cut



In **push cut**, the cutting movement is perpendicular between tool and workpiece.

In **draw cut**, the cutting movement is oblique to the tool.

Position of the blades



In **position 1** the blades act directly and over the whole length, i.e. considerable force is required.

In **position 2**, the blades cross as in a pair of scissors, the cut is therefore “offset” and requires less force.

Cutting tools

- Cutting formation for different cable sizes increases the quality of the cuts for smaller cross-sections
- Not suitable for steel wires, steel-armoured cables, aluminium alloys and hard-drawn copper conductors!
- Cutting without deformation of the conductor

KT 8

KT 12

KT 22

	KT 8	KT 12	KT 22
⌀	max. 8 mm	max. 12 mm	max. 22 mm
●	max. 16 mm²	max. 16 mm²	max. 25 mm²
⁘	max. 16 mm²	max. 25 mm²	max. 50 mm²
⁘	max. 16 mm²	max. 35 mm²	max. 95 mm²

Technical data

		KT8	KT12	KT22
Max. cutting performance, copper cable				
Solid (max. conductor cross-section)	mm²/AWG	16 / 6	16 / 6	25 / 3
Stranded (max. conductor cross-section)	mm²/AWG	16 / 6	25 / 3	50 / 1
Flexible (max. conductor cross-section)	mm²/AWG	16 / 6	35 / 2	95 / 3/0
Flexible, stranded (max. conductor diameter)	mm	8	12	22
Max. cutting performance, aluminium cable				
Stranded (max. conductor cross-section)	mm²/-	16 / 6	25 / 6	70 / 2/0
Stranded (max. conductor diameter)	mm	8	8	22
solid	mm²	16	25	50
Data / telephone / control cable				
Max. outer diameter	mm	8	12	22
Tool data				
Length / Width / Height	mm	165 / 65 / 25	215 / 66 / 28	220 / 66 / 30
Weight	g	180	300	460
Note		Tool closed		Tool closed

Ordering data

Version	Type	Qty	Order No.
	KT 8	1	**9002650000**
	KT 12	1	**9002660000**
Note			

Type	Qty	Order No.
KT 22	1	**1157830000**

Cutting tools

- Easy handling because of automatic opening
- Safety lock reduces risk of injury
- Not suitable for steel wires, steel-armoured cables, aluminium alloys and hard-drawn copper conductors!

KT 14

- max. 14 mm
- max. 16 mm²
- max. 35 mm²
- max. 70 mm²

KT 20

- max. 20 mm
- max. 16 mm²
- max. 35 mm²
- max. 70 mm²

Technical data

		KT14	KT20
Max. cutting performance, copper cable			
Solid (max. conductor cross-section)	mm²/AWG	16 / 6	16 / 6
Stranded (max. conductor cross-section)	mm²/AWG	35 / 2	35 / 2
Flexible (max. conductor cross-section)	mm²/AWG	70 / 2/0	70 / 2/0
Flexible, stranded (max. conductor diameter)	mm	14	20
Max. cutting performance, aluminium cable			
Stranded (max. conductor cross-section)	mm²/-	70 / 2/0	70 / 2/0
Stranded (max. conductor diameter)	mm	14	20
solid	mm²	35	35
Data / telephone / control cable			
Max. outer diameter	mm	14	20
Tool data			
Length / Width / Height	mm	215 / 66 / 28	215 / 66 / 29
Weight	g	320	400
Note		Tool closed	Tool closed

Ordering data

Version	Type	Qty	Order No.
	KT 14	1	**1157820000**
	KT 20	1	**9002300000**

Note	
	Specifying „solid-core aluminium cable“ corresponds to sector-shaped conductor with individual strands

Front cable cutter

- Can be used in confined spaces wherever cables need to be divided.
- Easy handling
- Minimal hand force required
- Release option in every cutting position
- Not suitable for steel wires, steel-armoured cables, aluminium alloys and hard-drawn copper conductors!

KTF 25

Cu + Al: max. 25 mm

Cu: max. 120 mm²
Al: max. 150 mm²

Cu: max. 120 mm²

KTF 36

Cu + Al: max. 35 mm

Cu: max. 300 mm²
Al: max. 300 mm²

Cu: max. 300 mm²

Technical data

		KTF 25	KTF 36
Max. cutting performance, copper cable			
Stranded (max. conductor cross-section)	mm²/kcmil	120 / 250	300 / 600
Flexible (max. conductor cross-section)	mm²/kcmil	120 / 250	300 / 600
Flexible, stranded (max. conductor diameter)	mm	25	35
Copper sector cable			
Max. cutting performance, aluminium cable			
Stranded (max. conductor cross-section)	mm²/kcmil	150 / 300	300 / 600
Stranded (max. conductor diameter)	mm	25	35
Aluminium sector cable			
Data / telephone / control cable			
Max. outer diameter	mm	25	35
Tool data			
Length / Width / Height	mm	245 / 80 / 40	330 / 100 / 49
Weight	g	900	1400
Note		Tool closed	Tool closed

Ordering data

Version	Type	Qty	Order No.	Type	Qty	Order No.
	KTF 25	1	**9002180000**	KTF 36	1	**9002190000**
Note						

Cable cutter

- One-hand operation
- Easy handling
- Minimal hand force required
- Release option in every cutting position
- Not suitable for steel wires, steel-armoured cables, aluminium alloys and hard-drawn copper conductors!

KT 45 R

Cu + Al: max. 45 mm

Cu: max. 300 mm²
Al: max. 400 mm²

Cu: max. 400 mm²

KT 55

Cu + Al: max. 55 mm

Cu: max. 500 mm²
Al: max. 500 mm²

Cu: max. 500 mm²

Technical data

		KT 45 R	KT 55
Max. cutting performance, copper cable			
Stranded (max. conductor cross-section)	mm²/kcmil	300 / 600	500 / 1000
Flexible (max. conductor cross-section)	mm²/kcmil	400 / 800	500 / 1000
Flexible, stranded (max. conductor diameter)	mm	45	55
Copper sector cable		3 x 70 SM	3 x 150 SM
Max. cutting performance, aluminium cable			
Stranded (max. conductor cross-section)	mm²/kcmil	400 / 800	500 / 1000
Stranded (max. conductor diameter)	mm	45	55
Aluminium sector cable		4 x 70 SE	4 x 150 SE
Data / telephone / control cable			
Max. outer diameter	mm	45	55
Tool data			
Length / Width / Height	mm	290 / 85 / 40	365 / 115 / 45
Weight	g	740	1450
Note			

Ordering data

Version	Type	Qty	Order No.
	KT 45 R	1	**9202040000**
	Pivoting blade KT 45 R	1	**9204270000**
Note	The dimensions of the cable cutter refer to the delivery condition, i.e. the point of the hinged blade parallel to the fixed blade.		

Type	Qty	Order No.
KT 55	1	**9202060000**
Pivoting blade KT 55	1	**9204280000**

The dimensions of the cable cutter refer to the delivery condition, i.e. the point of the hinged blade parallel to the fixed blade.

Cable cutter

- Easy handling
- Minimal hand force required
- Release option in every cutting position
- Not suitable for steel wires, steel-armoured cables, aluminium alloys and hard-drawn copper conductors!

KT 80

Cu + Al: max. 80 mm

Cu: max. 630 mm²
Al: max. 1000 mm²

Cu: max. 630 mm²

Technical data

Max. cutting performance, copper cable		**KT 80**
Stranded (max. conductor cross-section)	mm²/kcmil	630 / 1260
Flexible (max. conductor cross-section)	mm²/kcmil	630 / 1260
Flexible, stranded (max. conductor diameter)	mm	80
Copper sector cable		3 x 240 SM
Max. cutting performance, aluminium cable		
Stranded (max. conductor cross-section)	mm²/kcmil	1000 / 2000
Stranded (max. conductor diameter)	mm	
Aluminium sector cable		4 x 240 SE
Data / telephone / control cable		
Max. outer diameter	mm	80
Tool data		
Length / Width / Height	mm	675 / 175 / 55
Weight	g	3240
Note		

Ordering data

Version	**Type**	**Qty**	**Order No.**
	KT 80	1	**9202080000**
	Pivoting blade KT 80	1	**9204290000**

Note	
	The dimensions of the cable cutter refer to the delivery condition, i.e. the point of the hinged blade parallel to the fixed blade.

Cutting and releasing tool

Special release tool for the Weidmüller W-Series terminal connectors.

WAW 1

Notching tool

Tool for releasing poles from WQV 2.5 to WQV 35 cross connections used in Weidmüller W-Series terminal connectors.

WAW 2

Notching tool

Tool for punching out the cross-connection windows of the Weidmüller W-Series terminal connectors
WTR 2.5 disconnect terminal
WSI 6 fuse terminal

Technical data

		WAW 1	WAW 2
Length	mm	167	205
Weight	g	227	338
Note			

Ordering data

Version	Type	Qty	Order No.	Type	Qty	Order No.
	WAW 1 NEUTRAL	1	**9004500000**	WAW 2	1	**9004510000**
Note	A large selection of cross-connectors can be found in our current Terminals Catalogue.					

Cutting and releasing tool

Special cutting tool for clean pinch-free cutting of Weidmüller Z-Series cross-connections

KT ZQV

Cutting tool

Cutting tool for clean cutting of Weidmüller ZQV Series cross-connections

VKSW

Wire channel cutter

Manually-operated wire channel cutter: for cutting (up to 125-mm wide) of wire channels and covers.

- Cutting with no burrs or waste
- Length end stop (1000 mm) with feed mechanism for precision-angled cuts
- Table-top unit for mounting on workbench or similar work places
- Hardened cutting edges made from specialized steel.

Technical data

		KT ZQV	VKSW
Length / Width / Height	mm	215	280 / 285 / 290
Weight	g	300	15000
Note			

Ordering data

Version	Type	Qty	Order No.	Type	Qty	Order No.
	KT ZQV	1	**9002170000**	VKSW	1	**1137530000**
Note	A large selection of cross-connectors can be found in our current Terminals Catalogue.					

Mounting rail cutter

TSLD

Terminal rail cutting and punching tool

Hand-operated mounting rail cutter for cutting and perforating DIN mounting rails

- Cutting with no burrs or waste
- Length end stop (1000 mm) is included in delivery
- Table-top unit for mounting on workbench or similar work places

Copper earthing bar

TS 32 mm according to EN 50035 (s = 1.5 mm)

TS 15/5.5 mm according to EN 50045 (s = 1.0 mm)

TS 35/7.5 mm according to EN 50022 (s = 1.0 mm)

TS 35/15 mm according to EN 50022 (s = 1.5 mm)

Technical data

		TSLD
Width	mm	205
Length	mm	270
Height	mm	200
Weight	g	19000
Note		techn. Angabe ohne Hebel und Längenanschlag

Ordering data

Version	Type	Qty	Order No.
	TSLD	1	**9918700000**

Note	
	A large selection of mounting rails can be found in our current Terminal Connectors Catalogue.

Hydraulic hole puncher

The IP protection classes for housings, cable glands, heavy-duty connectors and industrial Ethernet connectors can only be maintained under two conditions: the sheet metal must not be bent during the punching process and the size of the punched-out holes must correspond precisely with the specifications. The IE-KO-HAT hydraulic sheet metal hole puncher, together with its accessories, guarantees you the highest quality workmanship available. It ensures that the connector fits precisely with the punched-out holes so that you can fulfill the proper IP protection class requirements.

The hydraulic hole puncher punches out precise holes for accommodating metric and PG cable glands.

Automatic centre punching at the drill points when punching out holes for heavy-duty connectors.

Punching out holes for a variety of industrial Ethernet connectors.

The table below lists the round splitting stamps and their corresponding tension screws – for manual use and for use with the hydraulic screws

Type	Descriptions	Dimension	Order No.	Tension screw Ø x l in mm	Order No.	Hydraulic screw (tension bolt) Ø in mm	Order No.
KOS M 16	Round splitting stamp for M16 cable glands	Ø 16.2 mm	**9204880000**	9.5 x 50	**9205030000**	19 x 9.5	**9205000000**
KOS M 20	Round splitting stamp for M20 cable glands	Ø 20.4 mm	**9204950000**	9.5 x 50	**9205030000**	19 x 9.5	**9205000000**
KOS M 25	Round splitting stamp for M25 cable glands	Ø 25.4 mm	**9204900000**	9.5 x 50	**9205030000**	19 x 9.5	**9205000000**
KOS M 32	Round splitting stamp for M32 cable glands	Ø 32.5 mm	**9204910000**	19.0 x 55	**9205040000**	19	**9205010000**
KOS M 40	Round splitting stamp for M40 cable glands	Ø 40.5 mm	**9204920000**	19.0 x 75	**9204780000**	19	**9205010000**
KOS PG 9	Round splitting stamp for PG9 cable glands	Ø 15.2 mm	**9204930000**	9.5 x 50	**9205030000**	19 x 9.5	**9205000000**
KOS PG 11	Round splitting stamp for PG11 cable glands	Ø 18.6 mm	**9204940000**	9.5 x 50	**9205030000**	19 x 9.5	**9205000000**
KOS PG 13	Round splitting stamp for PG13 cable glands	Ø 20.4 mm	**9204950000**	9.5 x 50	**9205030000**	19 x 9.5	**9205000000**
KOS PG 16	Round splitting stamp for PG16 cable glands	Ø 22.5 mm	**9204960000**	9.5 x 50	**9205030000**	19 x 9.5	**9205000000**
KOS PG 21	Round splitting stamp for PG21 cable glands	Ø 28.3 mm	**9204970000**	9.5 x 50	**9205030000**	19 x 9.5	**9205000000**
KOS PG 29	Round splitting stamp for PG29 cable glands	Ø 37.0 mm	**9204980000**	19.0 x 55	**9205040000**	19	**9205010000**
KOS PG 36	Round splitting stamp for PG36 cable glands	Ø 47.0 mm	**9204990000**	19.0 x 75	**9204780000**	19	**9205010000**
Information: Hydraulic screw included in the IE-KO-HAT set. Tension screws only used for manual operation.							

Hydraulic hole puncher

IE-KO-HAT

- Pressure-relief valve protects against overload
- Cylinder head angled 90°
- Angled head, 360° turnable
- Ergonomic handle springs back by itself
- Waste pieces no longer become jammed thanks to the three-way splitting
- Hydraulic punch made from high-strength aluminium (approx. 40 % weight savings)

Technical data

Maximum steel-sheet punching performance		**IE-KO-HAT**
Round holes up to	Ø 85 mm	2.0 mm F = 370 N/mm²
Round holes up to	Ø 64 mm	3.0 mm F = 370 N/mm²
Square holes up to	68 x 68 mm	2.0 mm F = 370 N/mm²
Rectangular holes up to	36 x 112 mm	2.0 mm F = 370 N/mm²
Maximum stainless-steel-sheet punching performance		
Round holes up to	Ø 64 mm	2.5 mm F = 600 N/mm²
Tool data		
Length / width / height	mm	290/120/70
Weight	kg	1.9
Punching force	kN	75
Max. operating pressure	bar	650
Including accessories (contents)		1 hydraulic screw Ø 19.0 mm 1 hydraulic screw Ø 19 x 9.5 mm 1 HSS pre-drill Ø 10 mm 1 spacer nut set (3-part) 1 bridge
Information		

Ordering data

Version	Type	Qty.	Order No.
	IE-KO-HAT	1	**1966810000**
Information			

Accessories

	Type	Qty.	Order No.
	KOHS 19 Hydraulic screw	1	**9205010000**
	KOHS 9 5/19 Hydraulic screw	1	**9205000000**
	KOPD 10.0 Pre-drill	1	**9205020000**
Information	Splitting stamp on the next page		

Hole punch

Custom stamp for Industrial Ethernet connections

Type	Description	Dimensions	Qty.	Order No.
IE-KOK-V1	Custom shape for Bajonet 01 metal	Ø 27 mm x single-sided 25.9 mm	1	**1966780000**
IE-KOK-V4	Custom shape for Push Pull V04 plastic	Ø 23.2 mm x double-sided 20.2 mm	1	**1966790000**
IE-KOK-V5	Custom shape for RockStar® V05 metal	22.0 x 22.0 mm	1	**9204790000**

Rectangular splitting stamp for heavy-duty connectors

Type	Description	Dimensions	Size	Qty.	Order No.
KOK 52 x 36	Splitting stamp for 6-pole heavy-duty connectors	52.0 x 36 mm	3	1	**9204820000**
KOK 65 x 36	Splitting stamp for 10-pole heavy-duty connectors	65.0 x 36 mm	4	1	**9204830000**
KOK 86 x 36	Splitting stamp for 16-pole heavy-duty connectors	86.0 x 36 mm	6	1	**9204850000**
KOK 91 x 36	Splitting stamp for 16-pole heavy-duty connectors	91.0 x 36 mm		1	**9204860000**
KOK 112 x 36	Splitting stamp for 24-pole heavy-duty connectors	112.0 x 36 mm	8	1	**9204870000**

Rectangular splitting stamp for switches

Type	Description	Dimensions	Qty.	Order No.
KOK 46 x 46	Rectangular splitting stamp for switches	46.0 x 46.0 mm	1	**9204810000**
KOK 68 x 68	Rectangular splitting stamp for switches	68.0 x 68.0 mm	1	**9204840000**

Round splitting stamp for metric cable glands

Type	Description	Dimensions	Qty.	Order No.
KOS M 16	Round splitting stamp for M16 cable glands	Ø 16.2 mm	1	**9204880000**
KOS M 20	Round splitting stamp for M20 cable glands	Ø 20.4 mm	1	**9204950000**
KOS M 25	Round splitting stamp for M25 cable glands	Ø 25.4 mm	1	**9204900000**
KOS M 32	Round splitting stamp for M32 cable glands	Ø 32.5 mm	1	**9204910000**
KOS M 40	Round splitting stamp for M40 cable glands	Ø 40.5 mm	1	**9204920000**

Round splitting stamp for high-strength cable glands

Type	Description	Dimensions	Qty.	Order No.
KOS PG 9	Round splitting stamp for PG9 cable glands	Ø 15.2 mm	1	**9204930000**
KOS PG 11	Round splitting stamp for PG11 cable glands	Ø 18.6 mm	1	**9204940000**
KOS PG 13	Round splitting stamp for PG13 cable glands	Ø 20.4 mm	1	**9204950000**
KOS PG 16	Round splitting stamp for PG16 cable glands	Ø 22.5 mm	1	**9204960000**
KOS PG 21	Round splitting stamp for PG21 cable glands	Ø 28.3 mm	1	**9204970000**
KOS PG 29	Round splitting stamp for PG29 cable glands	Ø 37.0 mm	1	**9204980000**
KOS PG 36	Round splitting stamp for PG36 cable glands	Ø 47.0 mm	1	**9204990000**

Tension screw

Type	Description	Dimensions	Qty.	Order No.
KOBBS	Tension screw	9.5 x 50 mm	1	**9205030000**
KOBBS	Tension screw	19 x 55 mm	1	**9205040000**
KOBBS	Tension screw	19 x 75 mm	1	**9204780000**