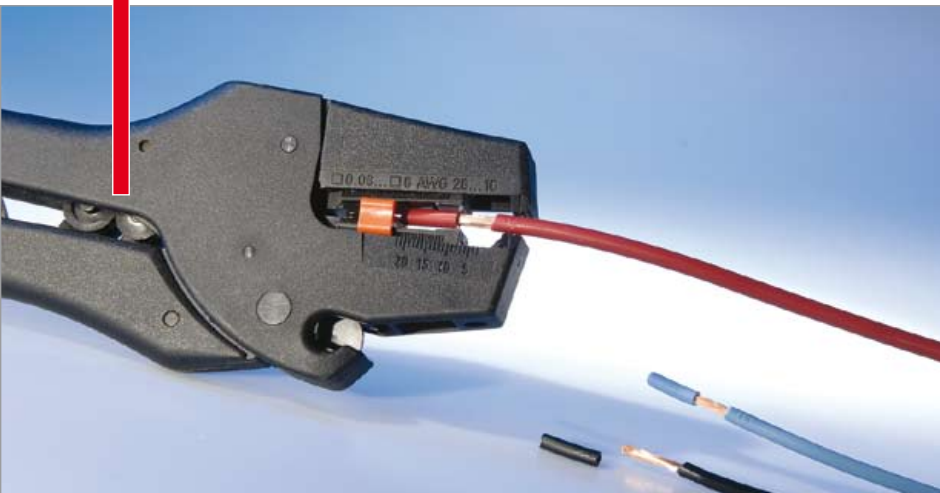


# Tools



## Advantages



## They make your life easier

Tools that you need for your workshop and production halls.

To make work easier and increase productivity and quality.

You'll find cable stripping tools, cable shears and cable stripping knives. Plus tensioning gun for plastic and metal cable ties.



- ✓ Makes work easier
- ✓ Increased quality
- ✓ Increased productivity

## Overview tools



### **Cable shears type KS / Cable stripping knife, type KM / Stripping tool, type UAZ**

Sturdy cable shears KS1. Special cable stripping knife KM for stripping of wiring. Stripping tongs UAZ for single wires up to a diameter of 2.5 mm<sup>2</sup>.

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### **Crimping Tool type CB2**

Electromagnetic tool for crimping insulated cable end sleeves.

**Page 219**



### **Cable tie tool, types KBW / KKBW / KBW/M**

Cable tie tools KBM and KKBW for mounting of plastic cable ties. Cable tie tool KBW/M adjusted to metal cable ties, type KBM.

**Page 220**



## Cable shears, type KS / Cable stripping knife, type KM / Stripping tool, type UAZ

Sturdy cable shears KS1. Suitable for removing cable sheathing and braided shields. EW-PAP cable protection conduit with metal braiding can be processed with these shears. Special cable stripping knife KM for stripping of wiring. Stripping tongs UAZ for single wires up to a diameter of 2.5 mm<sup>2</sup>. A slider is used to adjust the stripping length. The stripping tongs posses an integrated cutting mechanism.



KS 1



KM



UAZ

Type	Order no.		Pack qty.
KS 1	87661016	Approx. length 175.0 mm	1
KM	87661018	Approx. length 170.0 mm	1
With adjustable internal blade.			
UAZ	87661020	Approx. length 190.0 mm	1
For wire cross sections from 0.5 – 2.5 mm <sup>2</sup>			
Adjustable stripping length.			
Can be adjusted to the thickness of the insulation.			
With integrated wire cutter for conductors up to 2.5 mm <sup>2</sup> .			

## Crimping Tool, type CB2



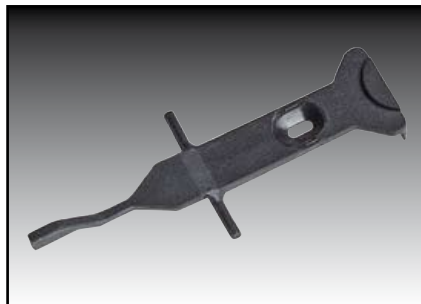
Plastic / Steel

Electromagnetic tool for crimping insulated cable end sleeves complete with accessories.

- The CrimmBoss CB2 crimping process is only activated by mechanical contactors when the cable end sleeves have been completely and correctly inserted.
- Contact tongue, small, for diameter range 0.14 – 1.0 mm<sup>2</sup>
- Contact tongue, small, for diameter range 0.5 – 2.5 mm<sup>2</sup>
- Contact tongues included with order



**CrimmBoss CB2**



**Contact tongue**

Type	Order no.	Pack qty.
CrimmBoss CB2	87661022	1
Supply voltage 230V / 50Hz		
Long mains cable: 2.8 m		
CrimmBoss CB2 110V	87661023	1
Supply voltage 110V / 50Hz		
Long mains cable: 2.8 m		
Replacement part		
Contact tongue, large	87980007	1
Diameter range: 0.5 – 2.5 mm <sup>2</sup>		
Contact tongue, small	87980006	1
Diameter range: 0.14 – 1.0 mm <sup>2</sup>		



## Cable tie tool Typ KBW / KKBW / KBW/M



Plastic / Steel

Cable tie tool KBM and KKBW for mounting of plastic cable ties.

- KBW 1K with adjustable automated cutting mechanism, plastic casing, automated metal cutting mechanism
- KKBW is full metal with manual cutting mechanism

Cable tie tool KBW/ adjusted to metal cable ties, type KBM.

With manual cutting mechanism.

- Robust metal tool



KBW 1K



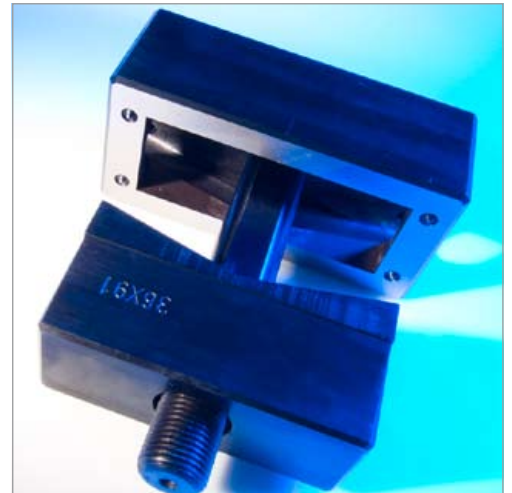
KKBW



KBW/M

Type	Order no.	Pack qty.
Suitable for plastic cable ties:		
KBW 1K	87661012	1
With adjustable automatic cutting device.		
Suitable for cable ties of up to 6 mm width.		
Suitable for plastic cable ties type KKB		
KKBW	87669094	1
With manual cutting mechanism.		
Cable tie tool suitable for plastic cable ties KKB 28 / KB 110.		
Also suitable for plastic cable ties up to 8 mm wide.		
Suitable metal cable ties		
KBW/M	87669090	1
Cable tie tool suitable for cable tie KBM.		
With manual cutting mechanism.		

## Punching tools



## Advantages



## Now there are exact cut-outs

For years, Murrplastik Systemtechnik has been developing easy-to-assemble, maintenance-free connection systems for the routing of services and cable.

Thanks to our practical punching tools, you now have the option of quickly and easily realising the appropriate control cabinet cut-outs for our conduit and cable fittings, cable entry panels (KDP) and cable entry systems (KDL).

You can choose between three different hydraulic punches and a wide range of punching tools.

Punching tools are available for sheet steel and for stainless steel applications.



- ✓ Compact design
- ✓ For workshop and assembly
- ✓ Long service life
- ✓ Easy handling
- ✓ Precise cut-outs
- ✓ Compatible with many other systems



## Overview punching tools



### Hydraulic manual punch, types SW-HG / SW-HW

Practical manual punch without additional conduit and cylinder, ideal for workshop and assembly. SW-HW version: With 306° pivoting angled head.

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### Hydraulic punch with foot pump, type SW-HF

Practical hydraulic punch with foot pump; ideal for use in the workshop. The foot pump does not require use of the hands, leaving both hands free for exact positioning and punching.

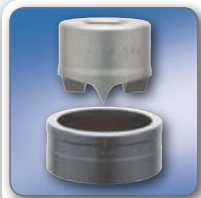
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### Punching tools, types SW-WR / SW-WQ

Several punching tools for the creation of square or rectangular cut-outs. These hole punches are delivered a plastic transport case.

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### Punching tool type SW-WE

Round hole punch, individual tools for steel or stainless steel plates. Versions for punching holes in metric or Pg threaded connections.

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### Punching tool type SW-WS

Round hole perforator tool sets from M16 to M40 and/or to M63. For steel or stainless steel plates. These hole punches are delivered in a practical plastic transport case. Also ideal for assembly work.

Page 230



### Punching tool type SW-WD

Punching tools for creation of SUB-MIN-D connector cut-outs (9 to 50 poles) for connecting to data transfer cables. Corresponding tension bolt is included in the delivery.

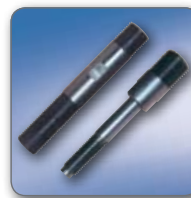
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### Punching tool type SW-ASN

Universal punching tool for creation of various cut-out sizes and shapes. Tools with hole punch width 15 mm and 20 mm.

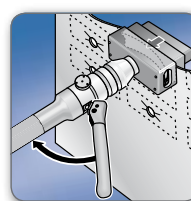
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### Spare part list for punching tools

Replacement parts for the entire punching tool system.

Page 233



### Working instructions: Punching cut-outs

Correctly carried out steps for the use of the punching tool for creating cut-outs.

Page 234





## Hydraulic manual punch, types SW-HG / SW-HW

Practical manual punch without additional conduit and cylinder, ideal for workshop and assembly.

- Hydraulic punch made of high-strength aluminium
- Overload protection via overpressure valve
- Ergonomic handle, springs back automatically

SW-HW version:

The angle head can be pivoted 360° for better handling.



SW-HG



SW-HW

Type	Order no.	Weight kg	Punching force kN	Operating pressure bar	Pack qty.
Compact hydraulic manual punch, straight					
SW-HG hydraulic manual punch	87801010	1.6	75.0	650.0	1
Compact hydraulic manual punch with pivoting head					
SW-HW hydraulic manual angle punch	87801012	1.9	75.0	650.0	1
Consisting of:					
1 pce. compact hydraulic manual punch					
1 each tension bolt version A					
1 pce. tension bolt version A					
1 pce. spacer bushing set (3-parts)					
1 pce. tap drill 11.0 mm					
1 pce. transport case					
Punching performance, round hole perforator:					
2.0 mm sheet steel (St37) max. Ø 84 mm					
3.0 mm sheet steel (St37) max. Ø 64 mm					
2.0 mm stainless steel (V2A) max. Ø 84 mm					
Punching performance, square hole perforator:					
2.0 mm sheet steel (St37) max. 36 x 112 mm					
Spare part see chapter "spare part for punching tool"					

## Hydraulic punch with foot pump, type SW-HF

Practical hydraulic punch with foot pump; ideal for use in the workshop. The foot pump does not require use of the hands, leaving both hands free for exact positioning and punching at the control cabinet. The support frame of the foot pump is splayed. This provides for stable, anti-tip working.

- Overload protection via installed pump safety valve
- Better punching performance than with a manual punch
- For larger punching tools



SW-HF

Type	Order no.	Weight kg	Punching force kN	Operating pressure bar	Pack qty.
Hydraulic punch with foot pump					
SW-HF Hydraulic punch with foot pump	87801014	13.9	100.0	700.0	1
Consisting of:					
1 pce. hydraulic cylinder with quick coupling					
1 pce. hydraulic conduit 2.8 m					
1 each tension bolt version A					
1 pce. tension bolt version A					
1 pce. spacer bushing set (5-parts)					
1 pce. tap drill 11.0 mm					
1 pce. sheet steel transport case					
Punching performance, round hole perforator:					
2.0 mm sheet steel (St37) max. Ø 150 mm					
3.0 mm sheet steel (St37) max. Ø 100 mm					
2.0 mm stainless steel (V2A) max. Ø 100 mm					
Punching performance, square hole perforator:					
2.0 mm sheet steel (St37) max. 138 x 138 mm					
2.0 mm stainless steel (V2A) max. 92 x 92 mm					
Spare part see chapter "spare part for punching tool"					





## Punching tools type SW-WR / SW-WQ

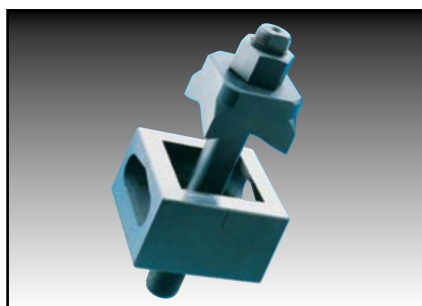


Steel

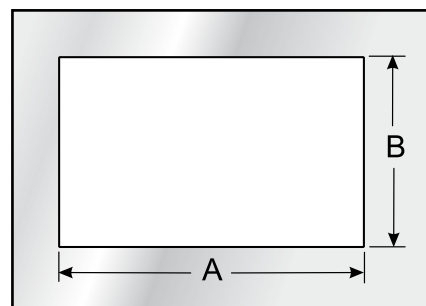
Several punching tools for the creation of square or rectangular cut-outs. These hole punches are delivered in a plastic transport case. Also ideal for mounting use. Corresponding tension bolt is included in the delivery. During the punching process, the attachment points for the screw holes are centred.



SW-WR...



SW-WQ...



Type	Order no.	Punching A mm	Punching B mm	Suitable for	Suitable tension bolt Version	Cut-out for	Corresponds to hydraulic punches SW-HG(HW) / SW-HF	Pack qty.
Hole perforator (rectangular) for sheet steel with centring tips								
SW-WR 17.0x19.0	87801330	17.0	19.0	Sheet steel ≤2 mm	G		●/●	1
SW-WR 21.8x25.8	87801332	21.8	25.8	Sheet steel ≤2 mm	K		●/●	1
SW-WR 22.0x30.0	87801334	22.0	30.0	Sheet steel ≤2 mm	K		●/●	1
SW-WR 22.0x42.0	87801336	22.0	42.0	Sheet steel ≤2 mm	K		●/●	1
SW-WR 25.0x30.0	87801340	25.0	50.0	Sheet steel ≤2 mm	K		●/●	1
SW-WR 36.0x52.0	87801350	36.0	52.0	Sheet steel ≤2 mm	D *	Heavy connectors 6-pole	●/●	1
SW-WR 36.0x65.0	87801352	36.0	65.0	Sheet steel ≤2 mm	D *	Heavy connectors 10-pole	●/●	1
SW-WR 45.0x92.0	87801342	45.0	92.0	Sheet steel ≤2 mm	D *		●/●	1
SW-WR 46.0x86.0	87801354	46.0	86.0	Sheet steel ≤2 mm	D *		●/●	1
SW-WR 46.0x92.0	87801344	46.0	92.0	Sheet steel ≤2 mm	D *		●/●	1
SW-WR 46.0x112.0	87801356	46.0	112.0	Sheet steel ≤2 mm	E		-/●	1
SW-WR 68.0x138.0	87801346	68.0	138.0	Sheet steel ≤3 mm	E		-/●	1
SW-WR 86.0x36.0	87801292	86.0	36.0	Sheet steel ≤2 mm	D *	KDL 16 KDL/E 16 (screwed) KDL/S 16, KD/AG 16	●/●	1
SW-WR 91.0x36.0	87801294	91.0	36.0	Sheet steel ≤2 mm	D *	KDL/E 16 (snap in or screwed)	●/●	1
SW-WR 112.0x36.0	87801290	112.0	36.0	Sheet steel ≤2 mm	D *	KDP/N 24, KDL 24 KDL/E 24, KD/AG 24	●/●	1

## Punching tools type SW-WR / SW-WQ

Type	Order no.	Punching A mm	Punching B mm	Suitable for	Suitable tension bolt Version	Corresponds to hydraulic punches SW-HG(HW) / SW-HF	Pack qty.
Hole perforator (rectangular) for sheet steel with centring tips							
SW-WQ 12.7x12.7	87801300	12.7	12.7	Sheet steel ≤1.75 mm	H	● / ●	1
SW-WQ 15.8x15.8	87801302	15.8	15.8	Sheet steel ≤1.75 mm	H	● / ●	1
SW-WQ 19.0x19.0	87801304	19.0	19.0	Sheet steel ≤2 mm	G	● / ●	1
SW-WQ 22.2x22.2	87801306	22.2	22.2	Sheet steel ≤2 mm	G	● / ●	1
SW-WQ 24.0x24.0	87801308	24.0	24.0	Sheet steel ≤2 mm	G	● / ●	1
SW-WQ 25.4x25.4	87801310	25.4	25.4	Sheet steel ≤2 mm	K	● / ●	1
SW-WQ 45.8x15.8	87801312	45.5	45.5	Sheet steel ≤3 mm	F	● / ●	1
SW-WQ 46.0x46.0	87801314	46.0	46.0	Sheet steel ≤3 mm	F	● / ●	1
SW-WQ 50.8x50.8	87801316	50.8	50.8	Sheet steel ≤3 mm	D *	● / ●	1
SW-WQ 68.0x68.0	87801318	68.0	68.0	Sheet steel ≤3 mm	D *	● / ●	1
SW-WQ 92.0x92.0	87801320	92.0	92.0	Sheet steel ≤3 mm	E	- / ●	1
SW-WQ 125.0x125.0	87801322	125.0	125.0	Sheet steel ≤3 mm	E	- / ●	1
SW-WQ 138.0x138.0	87801324	138.0	138.0	Sheet steel ≤3 mm	E	- / ●	1

\* Suitable tool for forming the cut-out for the tension screw:  
Round hole perforator SW-WE-NS Pg16

Spare part see chapter "spare part for punching tool"





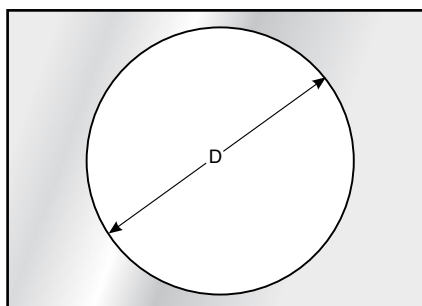
## Punching tool type SW-WE



Steel

Round hole punch, individual tools for steel or stainless steel plates. Versions for punching holes in metric or Pg threaded connections.

- Metric sizes from M16 to M63
- Pg sizes from Pg9 to Pg48



SW-WE...

Type	Order no.	Dimension	Punching D mm	Suitable for	Suitable tension bolt Version	Cut-out for	Pack qty.
Hole perforator (round) for steel sheets							
SW-WE-NS M16	87801210	M16	16.2	Sheet steel ≤2 mm	A		1
SW-WE-NS M20	87801212	M20	20.4	Sheet steel ≤2 mm	A		1
SW-WE-NS M25	87801214	M25	25.4	Sheet steel ≤2 mm	A		1
SW-WE-NS M32	87801216	M32	32.5	Sheet steel ≤3 mm	C		1
SW-WE-NS M40	87801218	M40	40.5	Sheet steel ≤3 mm	C		1
SW-WE-NS M50	87801220	M50	50.5	Sheet steel ≤3 mm	C	KDP/R M50/x	1
SW-WE-NS M63	87801222	M63	63.5	Sheet steel ≤3 mm	C	KDP/R M63/x	1
SW-WE-NS Pg09	87801238	Pg09	15.2	Sheet steel ≤2 mm	A		1
SW-WE-NS Pg11	87801240	Pg11	18.6	Sheet steel ≤2 mm	A		1
SW-WE-NS Pg13	87801242	Pg13	20.4	Sheet steel ≤2 mm	A		1
SW-WE-NS Pg16	87801244	Pg16	22.5	Sheet steel ≤2 mm	A		1
SW-WE-NS Pg21	87801246	Pg21	28.3	Sheet steel ≤2 mm	A		1
SW-WE-NS Pg29	87801248	Pg29	37.0	Sheet steel ≤3 mm	C		1
SW-WE-NS Pg36	87801250	Pg36	47.0	Sheet steel ≤3 mm	C		1
SW-WE-NS Pg42	87801252	Pg42	54.0	Sheet steel ≤3 mm	C		1
SW-WE-NS Pg48	87801254	Pg48	60.0	Sheet steel ≤3 mm	C		1

## Punching tool type SW-WE

Type	Order no.	Dimension	Punching D mm	Suitable for	Suitable tension bolt Version	Cut-out for	Pack qty.
Hole perforator (round) for Steel and stainless steel sheets							
SW-WE-VA M16	87801224	M16	16.2	Steel and stainless steel sheets $\leq 2$ mm	B		1
SW-WE-VA M20	87801226	M20	20.4	Steel and stainless steel sheets $\leq 2$ mm	B		1
SW-WE-VA M25	87801228	M25	25.4	Steel and stainless steel sheets $\leq 2$ mm	B		1
SW-WE-VA M32	87801230	M32	32.5	Steel and stainless steel sheets $\leq 2.5$ mm	C		1
SW-WE-VA M40	87801232	M40	40.5	Steel and stainless steel sheets $\leq 2.5$ mm	C		1
SW-WE-VA M50	87801234	M50	50.5	Steel and stainless steel sheets $\leq 2.5$ mm	C	KDP/R M50/x	1
SW-WE-VA M63	87801236	M63	63.5	Steel and stainless steel sheets $\leq 2.5$ mm	C	KDP/R M63/x	1
SW-WE-VA Pg09	87801256	Pg09	15.2	Steel and stainless steel sheets $\leq 2$ mm	B		1
SW-WE-VA Pg11	87801258	Pg11	18.6	Steel and stainless steel sheets $\leq 2$ mm	B		1
SW-WE-VA Pg13	87801260	Pg13	20.4	Steel and stainless steel sheets $\leq 2$ mm	B		1
SW-WE-VA Pg16	87801262	Pg16	22.5	Steel and stainless steel sheets $\leq 2$ mm	B		1
SW-WE-VA Pg21	87801264	Pg21	28.3	Steel and stainless steel sheets $\leq 2.5$ mm	C		1
SW-WE-VA Pg29	87801266	Pg29	37.0	Steel and stainless steel sheets $\leq 2.5$ mm	C		1
SW-WE-VA Pg36	87801268	Pg36	47.0	Steel and stainless steel sheets $\leq 2.5$ mm	C		1
SW-WE-VA Pg42	87801270	Pg42	54.0	Steel and stainless steel sheets $\leq 2.5$ mm	C		1
SW-WE-VA Pg48	87801272	Pg48	60.0	Steel and stainless steel sheets $\leq 2.5$ mm	C		1
Spare part see chapter "spare part for punching tool"							





## Punching tool type SW-WS



Steel

Round hole perforator tool sets from M16 to M40 and/or to M63.  
For steel or stainless steel plates.  
Punching tools are delivered in a handy plastic transport case.  
Ideal for assembly work.



SW-WS-... M16-M40



SW-WS-... M16-M63

Type	Order no.	Suitable for	Suitable tension bolt Version	Pack qty.
Sheet metal perforator set for sheet steel				
SW-WS-NS M16-M40	87801280	Sheet steel	A & C	1
consisting of:				
1 each M16; M20; M25; M32; M40; transport case				
Sheet metal perforator set for sheet steel				
SW-WS-NS M16-M63	87801282	Sheet steel	A & C	1
consisting of:				
1 each M16; M20; M25; M32; M40; M50; M63; transport case				
Sheet metal perforator set for stainless sheet steel				
SW-WS-VA M16-M40	87801284	Sheet steel and stainless sheet steel	B & C	1
consisting of:				
1 each M16; M20; M25; M32; M40; transport case				
Sheet metal perforator set for stainless sheet steel				
SW-WS-VA M16-M63	87801286	Sheet steel and stainless sheet steel	B & C	1
consisting of:				
1 each M16; M20; M25; M32; M40; M50; M63; transport case				
Spare part see chapter "spare part for punching tool"				

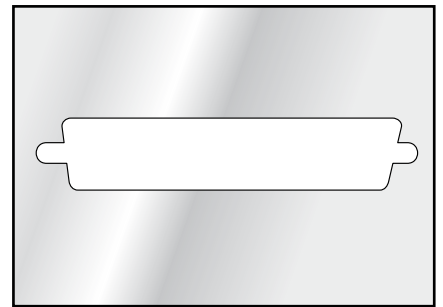


## Punching tool type SW-WD



Steel

Punching tool for creation of SUB-MIN-D plug cut-outs (9 to 50 poles). Simple and quick creation of these cut-outs, e.g. for connection of data transmission cables. Corresponding tension bolt is included in the delivery.



SW-WD...

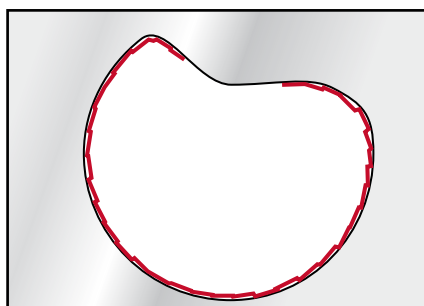
Type	Order no.	Punching for	Suitable for	Suitable tension bolt Version	Pack qty.
Hole perforator for SUB-MIN-D plug					
SW-WD 9-pole	87801360	SUB-MIN-D 9-pole	Sheet steel ≤2 mm	L	1
SW-WD 15-pole	87801362	SUB-MIN-D 15-pole	Sheet steel ≤2 mm	L	1
SW-WD 25-pole	87801364	SUB-MIN-D 25-pole	Sheet steel ≤1.75 mm	L	1
SW-WD 37-pole	87801366	SUB-MIN-D 37-pole	Sheet steel ≤1.75 mm	L	1
SW-WD 50-pole	87801368	SUB-MIN-D 50-pole	Sheet steel ≤1.65 mm	L	1
Spare part see chapter "spare part for punching tool"					



## Punching tool type SW-ASN



Universal punching tool for creation of various cut-out sizes and shapes.  
Tools with hole punch width 15 mm and 20 mm.



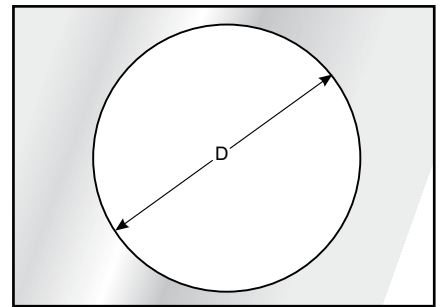
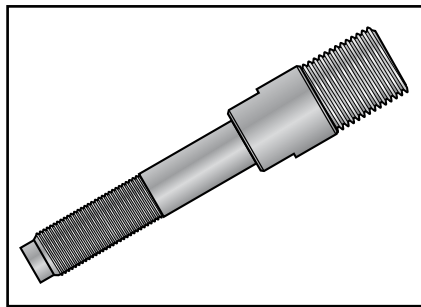
SW\_ASN...

Type	Order no.	Hole punch width mm	Hole punch length mm	Hole diameter mm	Suitable for	Pack qty.
Special ASN nibbling tool						
SW-ASN 15	87801370	15.0	6.5	21.5	Sheet steel ≤2 mm	1
SW-ASN 20	87801372	20.0	9.0	28.5	Sheet steel ≤2 mm	1
Spare part see chapter "spare part for punching tool"						

## Spare part list for punching tools



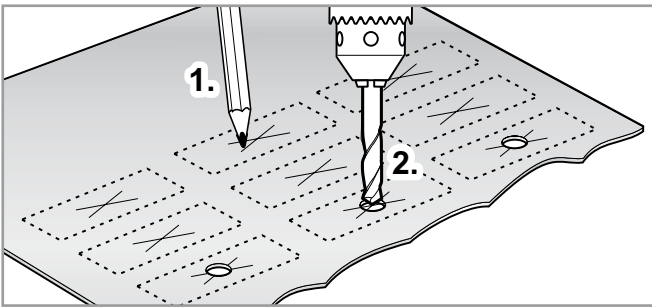
Replacement parts for the entire punching tool system.



Type	Order no.	Tensioning screw Version	Length mm	Pilot hole D mm	Pack qty.
<b>Tensioning screw</b>					
SW-WE-ZS Type A	87801410	A	100.0	10.0	1
SW-WE-ZS Type B	87801412	B	100.0	11.5	1
SW-WE-ZS Type C	87801414	C	120.0	20.0	1
SW-WE-ZS Type D	87801416	D	165.0	24.0	1
SW-WE-ZS Type E	87801434	E	173.0	30.0	1
SW-WE-ZS Type F	87801436	F	141.0	20.0	1
SW-WE-ZS Type G	87801438	G	106.0	14.0	1
SW-WE-ZS Type H	87801440	H	87.0	10.0	1
SW-WE-ZS Type K	87801442	K	106.0	17.0	1
SW-WE-ZS Type L	87801444	L	87.0	10.0	1
<b>Spacer bushing set</b>					
SW-WS-DS 3-pce.	87801430				1
SW-WS-DS 5-pce.	87801432				1
<b>Predrill</b>					
SW-WE-VB 10.0 mm	87801420				1
SW-WE-VB 11.0 mm	87801422				1
SW-WE-VB 11.5 mm	87801424				1
<b>Replacement stamp for special nibbling tool</b>					
SW-ASN 15 stamp	87801374				1
SW-ASN 20 stamp	87801376				1



## Assembly

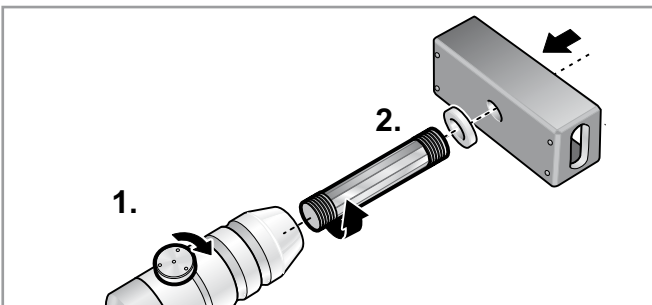


Establish and mark cut-outs.

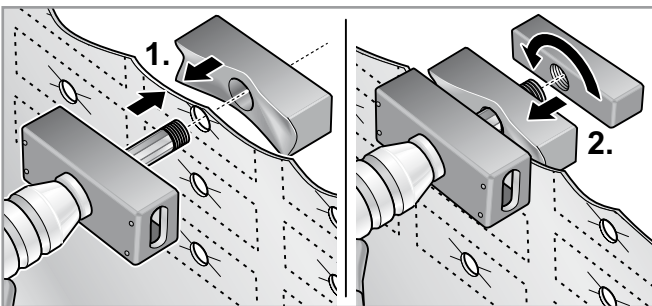
Caution:

Ensure sufficient distance between the press cuts!

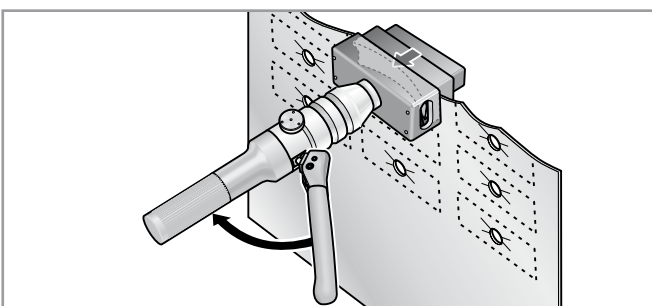
Mark drilling point for the pilot hole for the tension screw and punch out the pilot hole for the tension screw.



Screw in corresponding tension screw into the tool head and close the valve on the punching tool. Push on appropriate spacer and die.

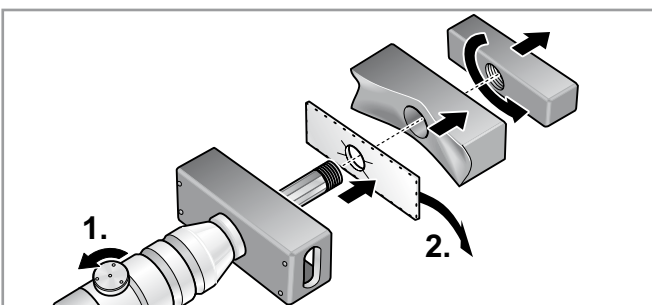


Insert tension screw into pilot hole. Stick or screw stamp onto tension bolt. Secure with lock nut where needed. Align die and draw in lock nut by hand.



Activate hydraulic mechanism until the press cut is completed. Then actuate 3 – 4 further strokes. This ensures an easier removal of the plate from the die.

Caution: If excessive force is required, inspect the hydraulic tool and punching tool! Observe the tool's operating instructions.



Remove hydraulic tool from the cut-out. Open valve and remove lock nut and stamp. Remove plate from the die.