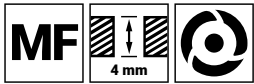


# SCREW-HOLE PUNCHES

|                                                           |           |
|-----------------------------------------------------------|-----------|
| Screw-hole punch with three-point cutting tip             | 298 – 299 |
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## Screw-hole punch with three-point cutting tip

Die: three point cutting tip  
Material: special steel  
Draw-in bolt: metric fine-threads

Suitable for sheet steel, stainless-steel sheets, non-ferrous and light metals, plastics.  
Ideal for switchgear manufacturers, electricians, plumbers, industry and handicrafts.



The through hole should be only slightly bigger than the diameter (+ 1.0 mm) of the traction bolt. Apply (spread) RUKO lubricating paste on the cutting edges and the traction bolt. This reduces wear and thus increases the service life of the Screw-hole punch.

Packing unit: individual cartons

| Ø<br>mm | Through dimensions |         | Conduit &<br>Pipe Size | Ø<br>inch | Draw-in bolt<br>MF | Standard | Ball-bearing |  |
|---------|--------------------|---------|------------------------|-----------|--------------------|----------|--------------|-------------------------------------------------------------------------------------|
|         | M                  | PG      |                        |           |                    |          |              |                                                                                     |
| 12,7    | M 12               | PG 7    |                        | 1/2"      | MF 8               | 109 127  |              | 1                                                                                   |
| 15,2    |                    | PG 9    |                        |           | MF 10              | 109 152  | 109 152 K    | 1                                                                                   |
| 16,0    |                    |         |                        |           | MF 10              | 109 160  | 109 160 K    | 1                                                                                   |
| 16,5    | M 16               |         |                        |           | MF 10              | 109 165  | 109 165 K    | 1                                                                                   |
| 18,0    |                    |         |                        |           | MF 10              | 109 180  | 109 180 K    | 1                                                                                   |
| 18,6    |                    | PG 11   |                        |           | MF 10              | 109 186  | 109 186 K    | 1                                                                                   |
| 19,0    |                    |         |                        | 3/4"      | MF 10              | 109 190  | 109 190 K    | 1                                                                                   |
| 20,0    |                    |         |                        |           | MF 10              | 109 200  | 109 200 K    | 1                                                                                   |
| 20,4    | M 20               | PG 13,5 |                        |           | MF 10              | 109 204  | 109 204 K    | 1                                                                                   |
| 21,0    |                    |         |                        |           | MF 10              | 109 210  | 109 210 K    | 1                                                                                   |
| 22,0    |                    |         |                        |           | MF 10              | 109 220  | 109 220 K    | 1                                                                                   |
| 22,5    |                    | PG 16   | 1/2"                   | 7/8"      | MF 10              | 109 225  | 109 225 K    | 1                                                                                   |
| 23,0    |                    |         |                        |           | MF 10              | 109 230  | 109 230 K    | 1                                                                                   |
| 24,0    |                    |         |                        |           | MF 10              | 109 240  | 109 240 K    | 1                                                                                   |
| 25,0    |                    |         |                        |           | MF 10              | 109 250  | 109 250 K    | 1                                                                                   |
| 25,4    | M 25               |         |                        | 1"        | MF 10              | 109 254  | 109 254 K    | 1                                                                                   |
| 26,0    |                    |         |                        |           | MF 10              | 109 260  | 109 260 K    | 1                                                                                   |
| 27,0    |                    |         |                        |           | MF 10              | 109 270  | 109 270 K    | 1                                                                                   |
| 28,3    |                    | PG 21   | 3/4"                   |           | MF 12              | 109 283  | 109 283 K    | 1                                                                                   |
| 29,0    |                    |         |                        |           | MF 12              | 109 290  | 109 290 K    | 1                                                                                   |
| 30,0    |                    |         |                        |           | MF 12              | 109 300  | 109 300 K    | 1                                                                                   |
| 30,5    |                    |         |                        | 1 7/32"   | MF 12              | 109 305  | 109 305 K    | 1                                                                                   |
| 31,0    |                    |         |                        |           | MF 12              | 109 310  | 109 310 K    | 1                                                                                   |
| 32,0    |                    |         |                        |           | MF 12              | 109 320  | 109 320 K    | 1                                                                                   |
| 32,5    | M 32               |         |                        |           | MF 12              | 109 325  | 109 325 K    | 1                                                                                   |
| 33,0    |                    |         |                        |           | MF 12              | 109 330  | 109 330 K    | 1                                                                                   |
| 34,0    |                    |         |                        |           | MF 12              | 109 340  | 109 340 K    | 1                                                                                   |
| 35,0    |                    |         |                        | 1 3/8"    | MF 12              | 109 350  | 109 350 K    | 1                                                                                   |
| 36,0    |                    |         |                        |           | MF 12              | 109 360  | 109 360 K    | 1                                                                                   |
| 37,0    |                    | PG 29   |                        |           | MF 12              | 109 370  | 109 370 K    | 1                                                                                   |
| 38,0    |                    |         |                        | 1 1/2"    | MF 12              | 109 380  | 109 380 K    | 1                                                                                   |
| 40,0    | M 40               |         |                        |           | MF 12              | 109 400  | 109 400 K    | 1                                                                                   |
| 40,5    |                    |         |                        |           | MF 16              | 109 405  | 109 405 K    | 1                                                                                   |
| 42,0    |                    |         |                        |           | MF 16              | 109 420  | 109 420 K    | 1                                                                                   |
| 43,0    |                    |         | 1 1/4"                 |           | MF 16              | 109 430  | 109 430 K    | 1                                                                                   |
| 45,0    |                    |         |                        |           | MF 16              | 109 450  | 109 450 K    | 1                                                                                   |
| 47,0    |                    | PG 36   |                        |           | MF 16              | 109 470  | 109 470 K    | 1                                                                                   |
| 50,0    |                    |         | 1 1/2"                 |           | MF 16              | 109 500  | 109 500 K    | 1                                                                                   |
| 50,5    | M 50               |         |                        |           | MF 16              | 109 505  | 109 505 K    | 1                                                                                   |
| 51,0    |                    |         |                        |           | MF 16              | 109 510  | 109 510 K    | 1                                                                                   |
| 53,0    |                    |         |                        |           | MF 16              | 109 530  | 109 530 K    | 1                                                                                   |
| 54,0    |                    | PG 42   |                        | 2 1/8"    | MF 16              | 109 540  | 109 540 K    | 1                                                                                   |
| 55,0    |                    |         |                        |           | MF 16              | 109 550  | 109 550 K    | 1                                                                                   |
| 60,0    |                    | PG ~ 48 |                        |           | MF 16              | 109 600  | 109 600 K    | 1                                                                                   |
| 61,5    |                    |         | 2"                     | 2 3/8"    | MF 16              | 109 615  | 109 615 K    | 1                                                                                   |
| 63,5    | M 63               |         |                        | 2 1/2"    | MF 16              | 109 635  | 109 635 K    | 1                                                                                   |

|                        |                                                                                                                                                                                                                                                                                                                                                                           | Standard | Ball-bearing |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------|
| <b>4</b><br>tlg./pcs.  | Screw-hole punch set<br>3 screw-hole punches<br>Ø 28.3 (PG 21) - 32.0 - 35.0<br>+ 1 spare screw MF 12 x 1.5 x 55                                                                                                                                                                                                                                                          | 109 001  |              |
| <b>11</b><br>tlg./pcs. | Screw-hole punch set<br>6 screw-hole punches<br>Ø 15.2 (PG 9) - 18.6 (PG 11) - 20.4 (M 20 / PG 13.5) -<br>22.5 (PG 16) - 28.3 (PG 21) + 32.0 mm<br><br>+ 1 sheet metal peel drill HSS size 1<br>+ 1 cutting paste 20 ml<br>+ 2 replacement screws MF 10 x 1.0<br>+ 1 replacement screw MF 12 x 1.5                                                                        | 109 002  | 109 002 K    |
| <b>13</b><br>tlg./pcs. | Screw-hole punch set<br>8 screw-hole punches<br>Ø 15.2 (PG 9) - 18.6 (PG 11) - 20.4 (M 20 / PG 13.5) -<br>22.5 (PG 16) - 28.3 (PG 21) - 37.0 (PG 29) - 47.0 (PG 36) +<br>54.0 mm (PG 42)<br><br>+ 1 sheet metal peel drill HSS size 2<br>+ 1 cutting paste 20 ml<br>+ 1 replacement screw MF 10 x 1.0<br>+ 1 replacement screw MF 12 x 1.5<br>+ 1 spare screw MF 16 x 1.5 | 109 003  | 109 003 K    |
| <b>10</b><br>tlg./pcs. | Screw-hole punch set<br>5 screw-hole punches<br>Ø 16.5 (M 16) - 20.4 (M 20 / PG 13.5) - 25.4 (M 25) -<br>32.5 (M 32) + 40.5 mm (M 40)<br><br>+ 1 sheet metal peel drill HSS size 2<br>+ 1 cutting paste 20 ml<br>+ 1 replacement screw MF 10 x 1.0<br>+ 1 replacement screw MF 12 x 1.5<br>+ 1 spare screw MF 16 x 1.5                                                    | 109 006  | 109 006 K    |
| <b>12</b><br>tlg./pcs. | Screw-hole punch set<br>7 screw-hole punches<br>Ø 16.5 (M 16) - 20.4 (M 20 / PG 13.5) - 25.4 (M 25) -<br>32.5 (M 32) - 40.5 (M 40) - 50.5 (M 50) + 63.5 mm (M 63)<br><br>+ 1 sheet metal peel drill HSS size 2<br>+ 1 cutting paste 20 ml<br>+ 1 replacement screw MF 10 x 1.0<br>+ 1 replacement screw MF 12 x 1.5<br>+ 1 spare screw MF 16 x 1.5                        | 109 008  | 109 008 K    |



109 001



109 003



109 006



109 008 K



13

## Hand hydraulic punch

|                       |                                                                                                                                                                                                                                              |         |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|                       |                                                                                                                                                                                                                                              |         |
| <b>5</b><br>fig./pcs. | Compact manual hydraulic punch, complete<br>+ 1 distance sleeve<br>+ 1 adapter bolt MF 10 x 1,0, 3/4" UNF fitting<br>+ 1 adapter bolt MF 12 x 1,5, 3/4" UNF fitting<br>+ 1 adapter bolt MF 16 x 1,5, 3/4" UNF fitting<br>pulling power 50 kN | 109 101 |



## Screw-hole punch sets with compact manual hydraulic punch

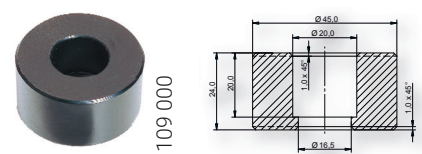
|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |
| <b>13</b><br>fig./pcs. | Screw-hole punch set with compact hand hydraulic punch<br>1 compact manual hydraulic punch complete<br>+ 6 Screw-hole punches Ø 16.5 (M 16) - 20.4 (M 20 / PG 13.5) - 25.4 (M 25) - 32.5 (M 32) - 40.5 (M 40) + 50.5 mm (M 50)<br>+ 1 sheet metal peeling drill HSS size 2<br>+ 1 cutting paste 30 g<br>+ 1 spacer bush<br>+ 1 adapter screw MF 10 x 1.0 receptacle 3/4" UNF<br>+ 1 adapter screw MF 12 x 1.5 receptacle 3/4" UNF<br>+ 1 adapter screw MF 16 x 1.5 receptacle 3/4" UNF<br>Tensile force 50 kN                                   | 109 009 |
| <b>15</b><br>fig./pcs. | Screw-hole punch set with compact hand hydraulic punch<br>1 compact manual hydraulic punch complete<br>+ 8 Screw-hole punches Ø 15.2 (PG 9) - 18.6 (PG 11) - 20.4 (M 20 / PG 13.5) - 22.5 (PG 16) - 28.3 (PG 21) - 37.0 (PG 29) - 47.0 (PG 36) + 54.0 mm (PG 42)<br>+ 1 sheet metal peeling drill HSS size 2<br>+ 1 cutting paste 30 g<br>+ 1 spacer bush<br>+ 1 adapter screw MF 10 x 1.0 receptacle 3/4" UNF<br>+ 1 adapter screw MF 12 x 1.5 receptacle 3/4" UNF<br>+ 1 adapter screw MF 16 x 1.5 receptacle 3/4" UNF<br>Tensile force 50 kN | 109 004 |



# Spare parts

The adapter bolts may be used on all standard hydraulic punches.

Packaging: plastic



|                                                     |           |
|-----------------------------------------------------|-----------|
|                                                     |           |
| Distance sleeve                                     | 109 000   |
| Adapter bolt MT 10 x 1,0, 3/4" UNF fitting          | 109 110   |
| Adapter bolt MT 12 x 1,5, 3/4" UNF fitting          | 109 112   |
| Adapter bolt MT 16 x 1,5, 3/4" UNF fitting          | 109 116   |
| Replacement bolt MT 8 x 1,0 x 40                    | 103 108   |
| Replacement bolt MT 10 x 1,0 x 45                   | 103 110   |
| Replacement bolt MT 12 x 1,5 x 55                   | 103 112   |
| Replacement bolt MT 16 x 1,5 x 60                   | 103 116   |
| Replacement bolt with ball-bearing MT 10 x 1,0 x 50 | 103 110 K |
| Replacement bolt with ball-bearing MT 12 x 1,5 x 60 | 103 112 K |
| Replacement bolt with ball-bearing MT 16 x 1,5 x 70 | 103 116 K |



## Guide values for the use of screw-hole punches

| Ø mm        | Draw-in bolt   | Sheet steel | Stainless-steel sheets | Non-ferrous and light metals | Plastics |
|-------------|----------------|-------------|------------------------|------------------------------|----------|
| 12,7        | MF 8 x 1,0 mm  | 2,0 mm      | 1,0 mm                 | 4,0 mm                       | 4,0 mm   |
| 15,2 - 27,0 | MF 10 x 1,0 mm | 2,0 mm      | 1,0 mm                 | 4,0 mm                       | 4,0 mm   |
| 28,3 - 40,0 | MF 12 x 1,5 mm | 3,0 mm      | 1,5 mm                 | 4,0 mm                       | 4,0 mm   |
| 40,5 - 63,5 | MF 16 x 1,5 mm | 3,0 mm      | 1,5 mm                 | 4,0 mm                       | 4,0 mm   |