

Mubea Stempler & Matricer



| Modell / Model | Stempel / punches | | | | | | Matrizen / dies | | | | | | | | | | | | | | | | |
|---|-------------------|----------------|----------------|----------------|-------|-------|-----------------|--------------|--------------|--------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|-------------------|-------------------|---|---|
| | ST 15(30005-1) | ST 30(30005-2) | ST 40(30005-3) | ST 50(30005-4) | 50516 | 50525 | MA 30(30001) | MA 45(30002) | MA 60(30003) | MA 80(30004) | WSM45(30033-1) | LWQ45(30070-1) | LWQ60(30070-2) | LWQ45(30080-1) | LWL60(30080-2) | LWQU45(30081-1) | LWQU60(30081-2) | LWLU45(30082-1) | LWLU60(30082-2) | LWQ80(35(30083-1) | LWQ80(35(30083-2) | | |
| KBL 11 N ab Masch.-Nr. / from serial no. 3534 KBL OPTIMA 11, KBL OPTIMA 45-20, KBL OPTIMA 560, MIW 600 | X | X | O | O | | | X | X | O | O | X | X | | X | | X | | X | | X | | | |
| KBL 13 ab Masch.-Nr./ from serial no. 1790 KBL OPTIMA 13, KBL OPTIMA 65-30, KBL OPTIMA 750 | X | X | O | O | | | X | X | O | O | X | X | | X | | X | | X | | X | | | |
| KBL 16 ab Masch.-Nr. / from serial no. 2599 KBL OPTIMA 16; KBL OPTIMA 80-40 | X | X | O | O | | | X | X | O | O | X | X | | X | | X | | X | | X | | | |
| KBL OPTIMA 900 | X | X | X | O | | | X | X | X | O | X | X | X | X | X | X | X | X | X | X | X | X | X |
| KBL 20 ab masch.-Nr. / from serial no. 2708 KBL OPTIMA 20; KBL OPTIMA 100-50, KBL OPTIMA 1100 | X | X | X | O | | | X | X | X | O | X | X | X | X | X | X | X | X | X | X | X | X | |
| KBL 25 ab Masch.-Nr. / serial no. 9821 KBL OPTIMA 25, KBL OPTIMA 130-70, KBL OPTIMA 1300 | X | X | X | O | | | X | X | X | O | X | X | X | X | X | X | X | X | X | X | X | X | |
| KLS 1100 | X | X | X | O | | | X | X | X | O | X | X | X | X | X | X | X | X | X | X | X | X | |
| KL 10, KL 30, KL 350 | X | X | O | O | | | X | X | O | O | X | X | | X | | O | | O | | O | | | |
| KL 11, KL OPTIMA 45, KL OPTIMA 560 KL 13; KL OPTIMA 65, KL OPTIMA 750 KL 16, KL OPTIMA 80 | X | X | O | O | | | X | X | O | O | X | X | | X | | X | | X | | X | | | |
| KL OPTIMA 900, KL 20, KL OPTIMA 100, KL OPTIMA 1100, KL 25, KL OPTIMA 130, KL OPTIMA 1300, KL 100, KL 160 | X | X | X | O | | | X | X | X | O | X | X | X | X | X | X | X | X | X | X | X | X | |
| BF 10, BF 30-12; BF 350 | | | | | X | X | X | X | | | | | | | | | | | | | | | |
| BFL 35, BFL 350, BFLH 400 | X | X | O | O | | | X | X | O | O | X | X | | X | | O | | O | | O | | | |
| HP 350/600, HP 450/760 | X | X | O | O | | | X | X | O | O | X | X | | X | | | | | | | | | |
| HPS 250 | X | X | | | | | X | X | | | X | X | | X | | O | | O | | | | | |
| HPS 350, HPS 350 E, HPSN 450 | X | X | O | | | | X | X | O | | X | X | O | X | O | O | O | O | O | O | O | O | |
| HPSN 600 | X | X | O | O | | | X | X | O | O | X | X | | X | | O | | O | | O | | | |
| HPSN 350, HPSN 500, HPSN 750 | X | X | O | O | | | X | X | O | O | X | X | O | X | O | O | O | O | O | O | O | O | |
| HIW 450, HIW 600 | X | X | O | O | | | X | X | O | O | X | X | | X | | O | | O | | O | | | |
| HIW 1000 | X | X | X | O | | | X | X | X | O | X | X | X | X | X | O | | O | | O | | | |
| KLSH 550 | X | X | O | O | | | X | X | O | O | X | X | | X | | X | | X | | X | | | |
| KLSH 900, KLSH 1100/KBLH 100, HP 1000/760 | X | X | X | O | | | X | X | X | O | X | X | X | X | X | X | X | X | X | X | X | X | |
| KLH 300/610, KLH 500/610, KLH 700/760 KBLH 300, KBLH 500, KBLH 700 | X | X | O | O | | | X | X | O | O | X | X | | X | | X | | X | | X | | | |
| HIW 550, HIW 750 | X | X | O | O | | | X | X | O | O | X | X | | X | | X | | X | | X | | | |
| HIW 1000 ab Baujahr / from year of constr.1987 | X | X | X | O | | | X | X | X | O | X | X | X | X | X | X | X | X | X | X | X | X | |
| MIW 400 | X | X | O | O | | | X | X | O | O | X | X | | X | | O | | O | | O | | | |
| MIW 600, MIW 800, PROFI 500 | X | X | O | O | | | X | X | O | O | X | X | | X | | X | | X | | X | | | |

O = Einsatzbar nur mit Sonderstanzvorrichtung
To be used only with special punching attachment

Schneidspiel zwischen Stempel und Matrize

Die Größe des zu stanzenden Loches wird durch das Ist-Maß des Stempels bestimmt.
Das Schneidspiel zwischen Stempel und Matrize sollte bei ca. 10 % der zu stanzenden Materialdicke liegen.

Das Ist-Maß der Matrizenöffnung ergibt sich aus dem Ist-Maß des Stempels plus dem erforderlichen Schneidspiel. (Schneidspiel = 2 x Schneidspalt).

Wenn Sie bei Ihrer Bestellung kein Maß für das Schneidspiel nennen, dann erhalten Sie Rund- und Vierkant-Matrizen mit folgendem Spiel:

| | | | | |
|---------------|----------|-----------------|--------------------|--------------|
| Stempelmaß | bis 5 mm | von 5 bis 22 mm | von 22 bis 39,5 mm | über 39,5 mm |
| Schneidspiel | 0,2 mm | 0,7 mm | 1,2 mm | 0,2 mm |
| Materialdicke | bis 4 mm | von 4 bis 9 mm | von 9 bis 14 mm | bis 4 mm |

Die Matrizen-Signierung entspricht dem Ist-Maß der Schneidöffnung. Dadurch können Sie Matrizen mit dem jeweils exakten Schneidspiel auswählen und bestellen.

Beispiel:

Der zu stanzende Lochdurchmesser soll 25 mm betragen:

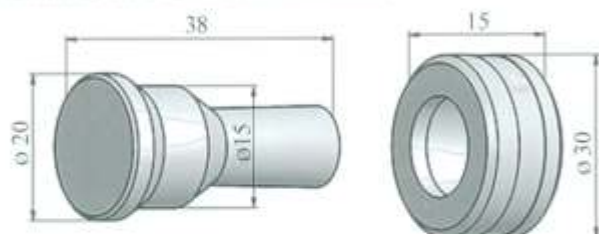
| | | | | | |
|-----------------|----------|----------------|-----------------|------------------|------------------|
| Materialdicke | bis 4 mm | von 4 bis 9 mm | von 9 bis 14 mm | von 14 bis 19 mm | von 19 bis 24 mm |
| Schneidspiel | 0,2 mm | 0,7 mm | 1,2 mm | 1,7 mm | 2,2 mm |
| Matrizenöffnung | 25,2 mm | 25,7 mm | 26,2 mm | 26,7 mm | 27,2 mm |

Langlochmatrizen sind wahlweise mit 0,3 oder 1,0 mm Schneidspiel lieferbar

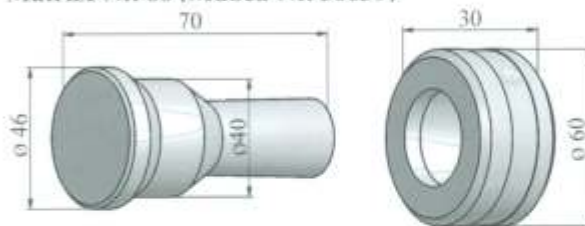
Auf Wunsch können Matrizen mit anderem Schneidspiel gefertigt werden.
(Mehrpreis auf Anfrage)

Die im Katalog aufgeführten Abmessungen sind in Millimeter angegeben.

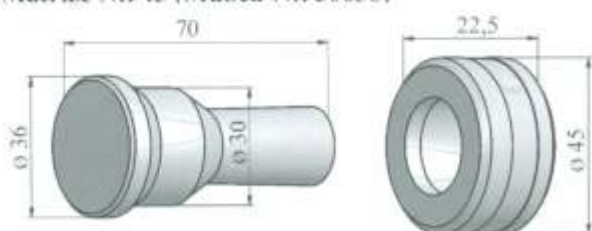
Stempel Nr. 15 (Mubea-Nr. 50505-1)
Matrize Nr. 30 (Mubea-Nr. 50633)



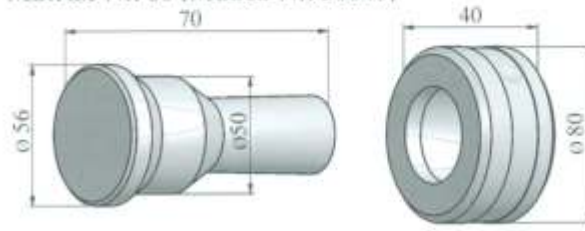
Stempel Nr. 40 (Mubea-Nr. 50505-3)
Matrize Nr. 60 (Mubea-Nr. 50639)



Stempel Nr. 30 (Mubea-Nr. 50505-2)
Matrize Nr. 45 (Mubea-Nr. 50638)



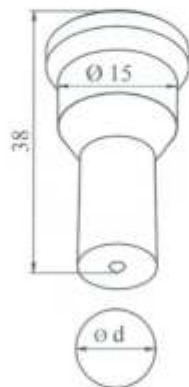
Stempel Nr. 50 (Mubea-Nr. 50505-4)
Matrize Nr. 80 (Mubea-Nr. 50640)



Rundstempel Nr. 15 (Nr. 1)

round punch.

Mubea Nr. 50505-1

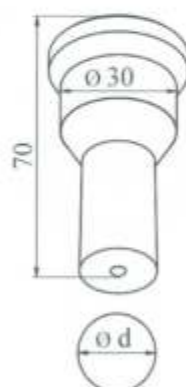


| d= | Best.-Nr. |
|------|--------------|
| 3.0 | M-RST15-0030 |
| 3.5 | M-RST15-0035 |
| 4.0 | M-RST15-0040 |
| 4.5 | M-RST15-0045 |
| 5.0 | M-RST15-0050 |
| 5.5 | M-RST15-0055 |
| 6.0 | M-RST15-0060 |
| 6.5 | M-RST15-0065 |
| 7.0 | M-RST15-0070 |
| 7.5 | M-RST15-0075 |
| 8.0 | M-RST15-0080 |
| 8.5 | M-RST15-0085 |
| 9.0 | M-RST15-0090 |
| 9.5 | M-RST15-0095 |
| 10.0 | M-RST15-0100 |
| 10.5 | M-RST15-0105 |
| 11.0 | M-RST15-0110 |
| 11.5 | M-RST15-0115 |
| 12.0 | M-RST15-0120 |
| 12.5 | M-RST15-0125 |
| 13.0 | M-RST15-0130 |
| 13.5 | M-RST15-0135 |
| 14.0 | M-RST15-0140 |
| 14.5 | M-RST15-0145 |
| 15.0 | M-RST15-0150 |

Rundstempel Nr. 30 (Nr. 2)

round punch

Mubea Nr. 50505-2

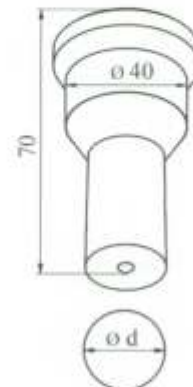


| d= | Best.-Nr. |
|------|--------------|
| 15.5 | M-RST30-0155 |
| 16.0 | M-RST30-0160 |
| 16.5 | M-RST30-0165 |
| 17.0 | M-RST30-0170 |
| 17.5 | M-RST30-0175 |
| 18.0 | M-RST30-0180 |
| 18.5 | M-RST30-0185 |
| 19.0 | M-RST30-0190 |
| 19.5 | M-RST30-0195 |
| 20.0 | M-RST30-0200 |
| 20.5 | M-RST30-0205 |
| 21.0 | M-RST30-0210 |
| 21.5 | M-RST30-0215 |
| 22.0 | M-RST30-0220 |
| 22.5 | M-RST30-0225 |
| 23.0 | M-RST30-0230 |
| 23.5 | M-RST30-0235 |
| 24.0 | M-RST30-0240 |
| 24.5 | M-RST30-0245 |
| 25.0 | M-RST30-0250 |
| 25.5 | M-RST30-0255 |
| 26.0 | M-RST30-0260 |
| 26.5 | M-RST30-0265 |
| 27.0 | M-RST30-0270 |
| 27.5 | M-RST30-0275 |
| 28.0 | M-RST30-0280 |
| 28.5 | M-RST30-0285 |
| 29.0 | M-RST30-0290 |
| 29.5 | M-RST30-0295 |
| 30.0 | M-RST30-0300 |

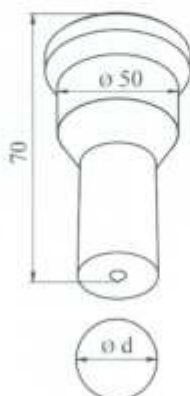
Rundstempel Nr. 40 (Nr. 3)

round punch

Mubea Nr. 50505-3



| d= | Best.-Nr. |
|------|--------------|
| 30.5 | M-RST40-0305 |
| 31.0 | M-RST40-0310 |
| 31.5 | M-RST40-0315 |
| 32.0 | M-RST40-0320 |
| 32.5 | M-RST40-0325 |
| 33.0 | M-RST40-0330 |
| 33.5 | M-RST40-0335 |
| 34.0 | M-RST40-0340 |
| 34.5 | M-RST40-0345 |
| 35.0 | M-RST40-0350 |
| 35.5 | M-RST40-0355 |
| 36.0 | M-RST40-0360 |
| 36.5 | M-RST40-0365 |
| 37.0 | M-RST40-0370 |
| 37.5 | M-RST40-0375 |
| 38.0 | M-RST40-0380 |
| 38.5 | M-RST40-0385 |
| 39.0 | M-RST40-0390 |
| 39.5 | M-RST40-0395 |
| 40.0 | M-RST40-0400 |

Rundstempel Nr. 50 (Nr. 4)round punch
Mubea Nr. 50505-4

| d= | Best.-Nr. |
|------|--------------|
| 40.5 | M-RST40-0405 |
| 41.0 | M-RST40-0410 |
| 41.5 | M-RST40-0415 |
| 42.0 | M-RST40-0420 |
| 42.5 | M-RST40-0425 |
| 43.0 | M-RST40-0430 |
| 43.5 | M-RST40-0435 |
| 44.0 | M-RST40-0440 |
| 44.5 | M-RST40-0445 |
| 45.0 | M-RST40-0450 |
| 45.5 | M-RST40-0455 |
| 46.0 | M-RST40-0460 |
| 46.5 | M-RST40-0465 |
| 47.0 | M-RST40-0470 |
| 47.5 | M-RST40-0475 |
| 48.0 | M-RST40-0480 |
| 48.5 | M-RST40-0485 |
| 49.0 | M-RST40-0490 |
| 49.5 | M-RST40-0495 |
| 50.0 | M-RST40-0500 |

Rundmatrize Nr. 30round die
Mubea Nr. 50633

| d= | Best.-Nr. |
|------|--------------|
| 3.2 | M-RMA30-0032 |
| 3.7 | M-RMA30-0037 |
| 4.2 | M-RMA30-0042 |
| 4.7 | M-RMA30-0047 |
| 5.2 | M-RMA30-0052 |
| 5.7 | M-RMA30-0057 |
| 6.2 | M-RMA30-0062 |
| 6.7 | M-RMA30-0067 |
| 7.2 | M-RMA30-0072 |
| 7.7 | M-RMA30-0077 |
| 8.2 | M-RMA30-0082 |
| 8.7 | M-RMA30-0087 |
| 9.2 | M-RMA30-0092 |
| 9.7 | M-RMA30-0097 |
| 10.2 | M-RMA30-0102 |
| 10.7 | M-RMA30-0107 |
| 11.2 | M-RMA30-0112 |
| 11.7 | M-RMA30-0117 |
| 12.2 | M-RMA30-0122 |
| 12.7 | M-RMA30-0127 |
| 13.2 | M-RMA30-0132 |
| 13.7 | M-RMA30-0137 |
| 14.2 | M-RMA30-0142 |
| 14.7 | M-RMA30-0147 |
| 15.2 | M-RMA30-0152 |
| 15.7 | M-RMA30-0157 |
| 16.2 | M-RMA30-0162 |

Rundmatrize Nr. 45round die
Mubea Nr. 50638

| d= | Best.-Nr. |
|------|--------------|
| 15.7 | M-RMA45-0157 |
| 16.2 | M-RMA45-0162 |
| 16.7 | M-RMA45-0167 |
| 17.2 | M-RMA45-0172 |
| 17.7 | M-RMA45-0177 |
| 18.2 | M-RMA45-0182 |
| 18.7 | M-RMA45-0187 |
| 19.2 | M-RMA45-0192 |
| 19.7 | M-RMA45-0197 |
| 20.2 | M-RMA45-0202 |
| 20.7 | M-RMA45-0207 |
| 21.2 | M-RMA45-0212 |
| 21.7 | M-RMA45-0217 |
| 22.2 | M-RMA45-0222 |
| 22.7 | M-RMA45-0227 |
| 23.2 | M-RMA45-0232 |
| 23.7 | M-RMA45-0237 |
| 24.2 | M-RMA45-0242 |
| 24.7 | M-RMA45-0247 |
| 25.2 | M-RMA45-0252 |
| 25.7 | M-RMA45-0257 |
| 26.2 | M-RMA45-0262 |
| 26.7 | M-RMA45-0267 |
| 27.2 | M-RMA45-0272 |
| 27.7 | M-RMA45-0277 |
| 28.2 | M-RMA45-0282 |
| 28.7 | M-RMA45-0287 |
| 29.2 | M-RMA45-0292 |
| 29.7 | M-RMA45-0297 |
| 30.2 | M-RMA45-0302 |
| 30.7 | M-RMA45-0307 |
| 31.2 | M-RMA45-0312 |
| 31.7 | M-RMA45-0317 |

Rundmatrize**Nr. 60**

round die

Mubea Nr. 50639

**d=****Best.-Nr.**

| | |
|------|--------------|
| 30.7 | M-RMA60-0307 |
| 31.2 | M-RMA60-0312 |
| 31.7 | M-RMA60-0317 |
| 32.2 | M-RMA60-0322 |
| 32.7 | M-RMA60-0327 |
| 33.2 | M-RMA60-0332 |
| 33.7 | M-RMA60-0337 |
| 34.2 | M-RMA60-0342 |
| 34.7 | M-RMA60-0347 |
| 35.2 | M-RMA60-0352 |
| 35.7 | M-RMA60-0357 |
| 36.2 | M-RMA60-0362 |
| 36.7 | M-RMA60-0367 |
| 37.2 | M-RMA60-0372 |
| 37.7 | M-RMA60-0377 |
| 38.2 | M-RMA60-0382 |
| 38.7 | M-RMA60-0387 |
| 39.2 | M-RMA60-0392 |
| 39.7 | M-RMA60-0397 |
| 40.2 | M-RMA60-0402 |
| 40.7 | M-RMA60-0407 |
| 41.2 | M-RMA60-0412 |
| 41.7 | M-RMA60-0417 |
| 42.2 | M-RMA60-0422 |

Rundmatrize**Nr. 80**

round die

Mubea Nr. 50640

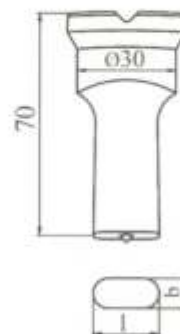
**d=****Best.-Nr.**

| | |
|------|--------------|
| 40.7 | M-RMA80-0407 |
| 41.2 | M-RMA80-0412 |
| 41.7 | M-RMA80-0417 |
| 42.2 | M-RMA80-0422 |
| 42.7 | M-RMA80-0427 |
| 43.2 | M-RMA80-0432 |
| 43.7 | M-RMA80-0437 |
| 44.2 | M-RMA80-0442 |
| 44.7 | M-RMA80-0447 |
| 45.2 | M-RMA80-0452 |
| 45.7 | M-RMA80-0457 |
| 46.2 | M-RMA80-0462 |
| 46.7 | M-RMA80-0467 |
| 47.2 | M-RMA80-0472 |
| 47.7 | M-RMA80-0477 |
| 48.2 | M-RMA80-0482 |
| 48.7 | M-RMA80-0487 |
| 49.2 | M-RMA80-0492 |
| 49.7 | M-RMA80-0497 |
| 50.2 | M-RMA80-0502 |
| 50.7 | M-RMA80-0507 |
| 51.2 | M-RMA80-0512 |

**Langloch-
Stempel****Nr. 30 (Nr. 2)**

oblong punch

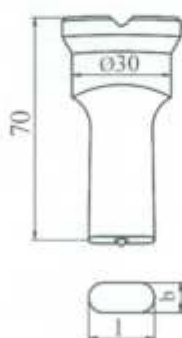
Mubea Nr. 50505-2

**b x l****Best.-Nr.**

| | |
|------------|----------------|
| 5,0 x 10,0 | M-LST30-050100 |
| 5,0 x 13,0 | M-LST30-050130 |
| 5,0 x 15,0 | M-LST30-050150 |
| 5,0 x 20,0 | M-LST30-050200 |
| 5,0 x 25,0 | M-LST30-050250 |
| 5,5 x 11,0 | M-LST30-055110 |
| 5,5 x 13,0 | M-LST30-055130 |
| 5,5 x 15,0 | M-LST30-055150 |
| 5,5 x 20,0 | M-LST30-055200 |
| 5,5 x 25,0 | M-LST30-055250 |
| 6,5 x 13,0 | M-LST30-065130 |
| 6,5 x 15,0 | M-LST30-065150 |
| 6,5 x 20,0 | M-LST30-065200 |
| 6,5 x 25,0 | M-LST30-065250 |
| 6,5 x 30,0 | M-LST30-065300 |
| 7,0 x 15,0 | M-LST30-070150 |
| 7,0 x 20,0 | M-LST30-070200 |
| 7,0 x 25,0 | M-LST30-070250 |
| 7,0 x 30,0 | M-LST30-070300 |
| 8,0 x 13,0 | M-LST30-080130 |
| 8,0 x 16,0 | M-LST30-080160 |
| 8,0 x 20,0 | M-LST30-080200 |
| 8,0 x 25,0 | M-LST30-080250 |
| 8,0 x 30,0 | M-LST30-080300 |
| 9,0 x 13,0 | M-LST30-090130 |
| 9,0 x 18,0 | M-LST30-090180 |
| 9,0 x 20,0 | M-LST30-090200 |
| 9,0 x 25,0 | M-LST30-090250 |
| 9,0 x 30,0 | M-LST30-090300 |
| 9,5 x 13,0 | M-LST30-095130 |
| 9,5 x 15,0 | M-LST30-095150 |
| 9,5 x 20,0 | M-LST30-095200 |
| 9,5 x 25,0 | M-LST30-095250 |
| 9,5 x 30,0 | M-LST30-095300 |

Langloch-Stempel **Nr. 30 (Nr. 2)**

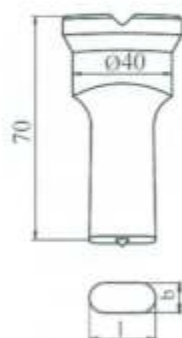
oblong punch
Mubea Nr. 50505-2



| b x l | Best.-Nr. |
|-------------|----------------|
| 10,5 x 15,0 | M-LST30-105150 |
| 10,5 x 21,0 | M-LST30-105210 |
| 10,5 x 25,0 | M-LST30-105250 |
| 10,5 x 30,0 | M-LST30-105300 |
| 11,0 x 15,0 | M-LST30-110150 |
| 11,0 x 20,0 | M-LST30-110200 |
| 11,0 x 25,0 | M-LST30-110250 |
| 11,0 x 30,0 | M-LST30-110300 |
| 12,0 x 20,0 | M-LST30-120200 |
| 12,0 x 25,0 | M-LST30-120250 |
| 12,0 x 30,0 | M-LST30-120300 |
| 13,0 x 20,0 | M-LST30-130200 |
| 13,0 x 25,0 | M-LST30-130250 |
| 13,0 x 30,0 | M-LST30-130300 |
| 13,5 x 20,0 | M-LST30-135200 |
| 13,5 x 25,0 | M-LST30-135250 |
| 13,5 x 30,0 | M-LST30-135300 |
| 14,0 x 20,0 | M-LST30-140200 |
| 14,0 x 25,0 | M-LST30-140250 |
| 14,0 x 30,0 | M-LST30-140300 |
| 16,0 x 25,0 | M-LST30-160250 |
| 16,0 x 30,0 | M-LST30-160300 |
| 17,5 x 25,0 | M-LST30-175250 |
| 17,5 x 30,0 | M-LST30-175300 |
| 19,0 x 25,0 | M-LST30-190250 |
| 19,0 x 30,0 | M-LST30-190300 |
| 20,5 x 25,0 | M-LST30-205250 |
| 20,5 x 30,0 | M-LST30-205300 |
| 22,5 x 30,0 | M-LST30-225300 |
| 24,0 x 30,0 | M-LST30-240300 |
| 25,5 x 30,0 | M-LST30-255300 |

Langloch-Stempel **Nr. 40 (Nr. 3)**

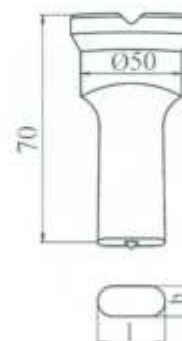
oblong punch
Mubea Nr. 50505-3



| b x l | Best.-Nr. |
|-------------|----------------|
| 11,0 x 35,0 | M-LST40-110350 |
| 11,0 x 40,0 | M-LST40-110400 |
| 13,5 x 35,0 | M-LST40-135350 |
| 13,5 x 40,0 | M-LST40-135400 |
| 14,0 x 35,0 | M-LST40-140350 |
| 14,0 x 40,0 | M-LST40-140400 |
| 16,0 x 35,0 | M-LST40-160350 |
| 16,0 x 40,0 | M-LST40-160400 |
| 17,5 x 35,0 | M-LST40-175350 |
| 17,5 x 40,0 | M-LST40-175400 |
| 19,0 x 35,0 | M-LST40-190350 |
| 19,0 x 40,0 | M-LST40-190400 |
| 20,5 x 35,0 | M-LST40-205350 |
| 20,5 x 40,0 | M-LST40-205400 |
| 22,5 x 35,0 | M-LST40-225350 |
| 22,5 x 40,0 | M-LST40-225400 |
| 24,0 x 40,0 | M-LST40-240400 |
| 25,5 x 40,0 | M-LST40-255400 |
| 26,0 x 40,0 | M-LST40-260400 |
| 27,0 x 40,0 | M-LST40-270400 |

Langloch-Stempel **Nr. 50 (Nr. 4)**

oblong punch
Mubea Nr. 50505-4



| b x l | Best.-Nr. |
|-------------|----------------|
| 11,0 x 45,0 | M-LST50-110450 |
| 11,0 x 50,0 | M-LST50-110500 |
| 13,5 x 50,0 | M-LST50-135500 |
| 17,5 x 50,0 | M-LST50-175500 |
| 20,5 x 50,0 | M-LST50-205500 |
| 22,5 x 50,0 | M-LST50-225500 |
| 24,0 x 50,0 | M-LST50-240500 |
| 25,5 x 50,0 | M-LST50-255500 |
| 26,0 x 50,0 | M-LST50-260500 |
| 27,0 x 50,0 | M-LST50-270500 |

**Langloch-
Matrize**

oblong die

Mubea Nr. 50633



b x l

Best.-Nr.

| | |
|-------------|----------------|
| 5,3 x 10,3 | M-LMA30-053103 |
| 5,3 x 13,3 | M-LMA30-053133 |
| 5,3 x 15,3 | M-LMA30-053153 |
| 5,8 x 11,3 | M-LMA30-058113 |
| 5,8 x 13,3 | M-LMA30-058133 |
| 5,8 x 15,3 | M-LMA30-058153 |
| 6,0 x 11,0 | M-LMA30-060110 |
| 6,0 x 14,0 | M-LMA30-060140 |
| 6,0 x 16,0 | M-LMA30-060160 |
| 6,5 x 12,0 | M-LMA30-065120 |
| 6,5 x 14,0 | M-LMA30-065140 |
| 6,5 x 16,0 | M-LMA30-065160 |
| 6,8 x 13,3 | M-LMA30-068133 |
| 6,8 x 15,3 | M-LMA30-068153 |
| 7,3 x 15,3 | M-LMA30-073153 |
| 7,5 x 14,0 | M-LMA30-075140 |
| 7,5 x 16,0 | M-LMA30-075160 |
| 8,0 x 16,0 | M-LMA30-080160 |
| 8,3 x 13,3 | M-LMA30-083133 |
| 9,0 x 14,0 | M-LMA30-090140 |
| 9,3 x 13,3 | M-LMA30-093133 |
| 9,8 x 13,3 | M-LMA30-098133 |
| 9,8 x 15,3 | M-LMA30-098153 |
| 10,0 x 14,0 | M-LMA30-100140 |
| 10,5 x 14,0 | M-LMA30-105140 |
| 10,5 x 16,0 | M-LMA30-105160 |
| 10,8 x 15,3 | M-LMA30-108153 |
| 11,3 x 15,3 | M-LMA30-113153 |
| 11,5 x 16,0 | M-LMA30-115160 |
| 12,0 x 16,0 | M-LMA30-120160 |

Nr. 30

**Langloch-
Matrize**

oblong die

Mubea Nr. 50638



b x l

Best.-Nr.

| | |
|------------|----------------|
| 5,3 x 20,3 | M-LMA45-053203 |
| 5,3 x 25,3 | M-LMA45-053253 |
| 5,8 x 20,3 | M-LMA45-058203 |
| 5,8 x 25,3 | M-LMA45-058253 |
| 6,0 x 21,0 | M-LMA45-060210 |
| 6,0 x 26,0 | M-LMA45-060260 |
| 6,5 x 21,0 | M-LMA45-065210 |
| 6,5 x 26,0 | M-LMA45-065260 |
| 6,8 x 20,3 | M-LMA45-068203 |
| 6,8 x 25,3 | M-LMA45-068253 |
| 6,8 x 30,3 | M-LMA45-068303 |
| 7,3 x 20,3 | M-LMA45-073203 |
| 7,3 x 25,3 | M-LMA45-073253 |
| 7,3 x 30,3 | M-LMA45-073303 |
| 7,5 x 21,0 | M-LMA45-075210 |
| 7,5 x 26,0 | M-LMA45-075260 |
| 7,5 x 31,0 | M-LMA45-075310 |
| 8,0 x 21,0 | M-LMA45-080210 |
| 8,0 x 26,0 | M-LMA45-080260 |
| 8,0 x 31,0 | M-LMA45-080310 |
| 8,3 x 16,3 | M-LMA45-083163 |
| 8,3 x 20,3 | M-LMA45-083203 |
| 8,3 x 25,3 | M-LMA45-083253 |
| 8,3 x 30,3 | M-LMA45-083303 |
| 9,0 x 17,0 | M-LMA45-090170 |
| 9,0 x 21,0 | M-LMA45-090210 |
| 9,0 x 26,0 | M-LMA45-090260 |
| 9,0 x 31,0 | M-LMA45-090310 |
| 9,3 x 18,3 | M-LMA45-093183 |
| 9,3 x 20,3 | M-LMA45-093203 |
| 9,3 x 25,3 | M-LMA45-093253 |
| 9,3 x 30,3 | M-LMA45-093303 |
| 9,8 x 20,3 | M-LMA45-098203 |

Nr. 45

**Langloch-
Matrize**

oblong die

Mubea Nr. 50638



b x l

Best.-Nr.

| | |
|-------------|----------------|
| 9,8 x 25,3 | M-LMA45-098253 |
| 9,8 x 30,3 | M-LMA45-098303 |
| 10,0 x 19,0 | M-LMA45-100190 |
| 10,0 x 21,0 | M-LMA45-100210 |
| 10,0 x 26,0 | M-LMA45-100260 |
| 10,0 x 31,0 | M-LMA45-100310 |
| 10,5 x 21,0 | M-LMA45-105210 |
| 10,5 x 26,0 | M-LMA45-105260 |
| 10,5 x 31,0 | M-LMA45-105310 |
| 10,8 x 21,3 | M-LMA45-108213 |
| 10,8 x 25,3 | M-LMA45-108253 |
| 10,8 x 30,3 | M-LMA45-108303 |
| 11,3 x 20,3 | M-LMA45-113203 |
| 11,3 x 25,3 | M-LMA45-113253 |
| 11,3 x 30,3 | M-LMA45-113303 |
| 11,5 x 22,0 | M-LMA45-115220 |
| 11,5 x 26,0 | M-LMA45-115260 |
| 11,5 x 31,0 | M-LMA45-115310 |
| 12,0 x 21,0 | M-LMA45-120210 |
| 12,0 x 26,0 | M-LMA45-120260 |
| 12,0 x 31,0 | M-LMA45-120310 |
| 12,3 x 20,3 | M-LMA45-123203 |
| 12,3 x 25,3 | M-LMA45-123253 |
| 12,3 x 30,3 | M-LMA45-123303 |
| 13,0 x 21,0 | M-LMA45-130210 |
| 13,0 x 26,0 | M-LMA45-130260 |
| 13,0 x 31,0 | M-LMA45-130310 |
| 13,3 x 20,3 | M-LMA45-133203 |
| 13,3 x 25,3 | M-LMA45-133253 |
| 13,3 x 30,3 | M-LMA45-133303 |
| 13,8 x 20,3 | M-LMA45-138203 |
| 13,8 x 25,3 | M-LMA45-138253 |
| 13,8 x 30,3 | M-LMA45-138303 |

Nr. 45

Langloch-**Matrize**

oblong die

Mubea Nr. 50638

Nr. 45

| b x l | Best.-Nr. |
|-------------|----------------|
| 14,0 x 21,0 | M-LMA45-140210 |
| 14,0 x 26,0 | M-LMA45-140260 |
| 14,0 x 31,0 | M-LMA45-140310 |
| 14,3 x 20,3 | M-LMA45-143203 |
| 14,3 x 25,3 | M-LMA45-143253 |
| 14,3 x 30,3 | M-LMA45-143303 |
| 14,5 x 21,0 | M-LMA45-145210 |
| 14,5 x 26,0 | M-LMA45-145260 |
| 14,5 x 31,0 | M-LMA45-145310 |
| 15,0 x 21,0 | M-LMA45-150210 |
| 15,0 x 26,0 | M-LMA45-150260 |
| 15,0 x 31,0 | M-LMA45-150310 |
| 16,3 x 25,3 | M-LMA45-163253 |
| 16,3 x 30,3 | M-LMA45-163303 |
| 17,0 x 26,0 | M-LMA45-170260 |
| 17,0 x 31,0 | M-LMA45-170310 |
| 17,8 x 25,3 | M-LMA45-178253 |
| 17,8 x 30,3 | M-LMA45-178303 |
| 18,5 x 26,0 | M-LMA45-185260 |
| 18,5 x 31,0 | M-LMA45-185310 |
| 19,3 x 25,3 | M-LMA45-193253 |
| 19,3 x 30,3 | M-LMA45-193303 |
| 20,0 x 26,0 | M-LMA45-200260 |
| 20,0 x 31,0 | M-LMA45-200310 |
| 20,8 x 25,3 | M-LMA45-208253 |
| 20,8 x 30,3 | M-LMA45-208303 |
| 21,5 x 26,0 | M-LMA45-215260 |
| 21,5 x 31,0 | M-LMA45-215310 |
| 22,8 x 30,3 | M-LMA45-228303 |
| 23,5 x 31,0 | M-LMA45-235310 |
| 24,3 x 30,3 | M-LMA45-243303 |
| 25,0 x 31,0 | M-LMA45-250310 |
| 25,8 x 30,3 | M-LMA45-258303 |
| 26,5 x 31,0 | M-LMA45-265310 |

Langloch-**Matrize**

oblong die

Mubea Nr. 50639

Nr. 60

| b x l | Best.-Nr. |
|-------------|----------------|
| 11,3 x 35,3 | M-LMA60-113353 |
| 11,3 x 40,3 | M-LMA60-113403 |
| 12,0 x 36,0 | M-LMA60-120360 |
| 12,0 x 41,0 | M-LMA60-120410 |
| 13,8 x 35,3 | M-LMA60-138353 |
| 13,8 x 40,3 | M-LMA60-138403 |
| 14,3 x 35,3 | M-LMA60-143353 |
| 14,3 x 40,3 | M-LMA60-143403 |
| 14,5 x 36,0 | M-LMA60-145360 |
| 14,5 x 41,0 | M-LMA60-145410 |
| 15,0 x 36,0 | M-LMA60-150360 |
| 15,0 x 41,0 | M-LMA60-150410 |
| 16,3 x 35,3 | M-LMA60-163353 |
| 16,3 x 40,3 | M-LMA60-163403 |
| 17,0 x 36,0 | M-LMA60-170360 |
| 17,0 x 41,0 | M-LMA60-170410 |
| 17,8 x 35,3 | M-LMA60-178353 |
| 17,8 x 40,3 | M-LMA60-178403 |
| 18,5 x 36,0 | M-LMA60-185360 |
| 18,5 x 41,0 | M-LMA60-185410 |
| 19,3 x 35,3 | M-LMA60-193353 |
| 19,3 x 40,3 | M-LMA60-193403 |
| 20,0 x 36,0 | M-LMA60-200360 |
| 20,0 x 41,0 | M-LMA60-200410 |
| 20,8 x 35,3 | M-LMA60-208353 |
| 20,8 x 40,3 | M-LMA60-208403 |
| 21,5 x 36,0 | M-LMA60-215360 |
| 21,5 x 41,0 | M-LMA60-215410 |
| 22,8 x 35,3 | M-LMA60-228353 |
| 22,8 x 40,3 | M-LMA60-228403 |

Langloch-**Matrize**

oblong die

Mubea Nr. 50639

Nr. 60

| b x l | Best.-Nr. |
|-------------|----------------|
| 23,5 x 36,0 | M-LMA60-235360 |
| 23,5 x 41,0 | M-LMA60-235410 |
| 24,3 x 40,3 | M-LMA60-243403 |
| 25,0 x 41,0 | M-LMA60-250410 |
| 25,8 x 40,3 | M-LMA60-258403 |
| 26,3 x 40,3 | M-LMA60-263403 |
| 26,5 x 41,0 | M-LMA60-265410 |
| 27,0 x 41,0 | M-LMA60-270410 |
| 27,3 x 40,3 | M-LMA60-273403 |
| 28,0 x 41,0 | M-LMA60-280410 |

**Langloch-
Matrize**

oblong die
Mubea Nr. 50640

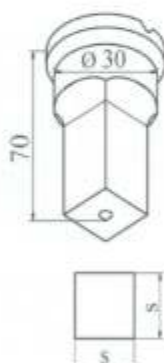


| b x l | Best.-Nr. |
|-------------|----------------|
| 11,3 x 45,3 | M-LMA80-113453 |
| 11,3 x 50,3 | M-LMA80-113503 |
| 12,0 x 46,0 | M-LMA80-120460 |
| 12,0 x 51,0 | M-LMA80-120510 |
| 13,8 x 50,3 | M-LMA80-138503 |
| 14,5 x 51,0 | M-LMA80-145510 |
| 17,8 x 50,3 | M-LMA80-178503 |
| 18,5 x 51,0 | M-LMA80-185510 |
| 20,8 x 50,3 | M-LMA80-208503 |
| 21,5 x 51,0 | M-LMA80-215510 |
| 22,8 x 50,3 | M-LMA80-228503 |
| 23,5 x 51,0 | M-LMA80-235510 |
| 24,3 x 50,3 | M-LMA80-243503 |
| 25,0 x 51,0 | M-LMA80-250510 |
| 25,8 x 50,3 | M-LMA80-258503 |
| 26,3 x 50,3 | M-LMA80-263503 |
| 26,5 x 51,0 | M-LMA80-265510 |
| 27,0 x 51,0 | M-LMA80-270510 |
| 27,3 x 50,3 | M-LMA80-273503 |
| 28,0 x 51,0 | M-LMA80-280510 |

Nr. 80

**Vierkant-
Stempel**

square punch
Mubea Nr. 50505-2

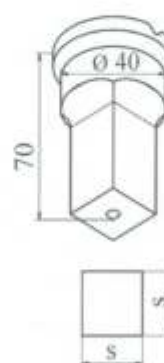


| s= | Best.-Nr. |
|------|--------------|
| 4.0 | M-VKS30-0040 |
| 5.0 | M-VKS30-0050 |
| 6.0 | M-VKS30-0060 |
| 7.0 | M-VKS30-0070 |
| 8.0 | M-VKS30-0080 |
| 9.0 | M-VKS30-0090 |
| 10.0 | M-VKS30-0100 |
| 11.0 | M-VKS30-0110 |
| 12.0 | M-VKS30-0120 |
| 13.0 | M-VKS30-0130 |
| 14.0 | M-VKS30-0140 |
| 15.0 | M-VKS30-0150 |
| 16.0 | M-VKS30-0160 |
| 17.0 | M-VKS30-0170 |
| 18.0 | M-VKS30-0180 |
| 19.0 | M-VKS30-0190 |
| 20.0 | M-VKS30-0200 |
| 21.0 | M-VKS30-0210 |

Nr. 30 (Nr. 2)

**Vierkant-
Stempel**

square punch
Mubea Nr. 50505-3



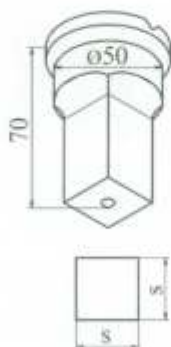
| s= | Best.-Nr. |
|------|--------------|
| 21.5 | M-VKS40-0215 |
| 22.0 | M-VKS40-0220 |
| 22.5 | M-VKS40-0225 |
| 23.0 | M-VKS40-0230 |
| 23.5 | M-VKS40-0235 |
| 24.0 | M-VKS40-0240 |
| 24.5 | M-VKS40-0245 |
| 25.0 | M-VKS40-0250 |
| 25.5 | M-VKS40-0255 |
| 26.0 | M-VKS40-0260 |
| 26.5 | M-VKS40-0265 |
| 27.0 | M-VKS40-0270 |
| 27.5 | M-VKS40-0275 |
| 28.0 | M-VKS40-0280 |

Nr. 40 (Nr. 3)

**Vierkant-
Stempel**

Nr. 50 (Nr. 4)

square punch
Mubea Nr. 50505-4

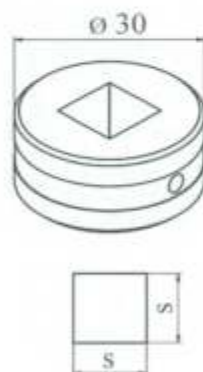


| s= | Best-Nr. |
|------|--------------|
| 28.5 | M-VKS50-0285 |
| 29.0 | M-VKS50-0290 |
| 29.5 | M-VKS50-0295 |
| 30.0 | M-VKS50-0300 |
| 30.5 | M-VKS50-0305 |
| 31.0 | M-VKS50-0310 |
| 31.5 | M-VKS50-0315 |
| 32.0 | M-VKS50-0320 |
| 32.5 | M-VKS50-0325 |
| 33.0 | M-VKS50-0330 |
| 33.5 | M-VKS50-0335 |
| 34.0 | M-VKS50-0340 |
| 34.5 | M-VKS50-0345 |
| 35.0 | M-VKS50-0350 |

**Vierkant-
Matrize**

Nr. 30

square die
Mubea Nr. 50633



| s= | Best.-Nr. |
|------|--------------|
| 4.2 | M-VKM30-0042 |
| 4.7 | M-VKM30-0047 |
| 5.2 | M-VKM30-0052 |
| 5.7 | M-VKM30-0057 |
| 6.2 | M-VKM30-0062 |
| 6.7 | M-VKM30-0067 |
| 7.2 | M-VKM30-0072 |
| 7.7 | M-VKM30-0077 |
| 8.2 | M-VKM30-0082 |
| 8.7 | M-VKM30-0087 |
| 9.2 | M-VKM30-0092 |
| 9.7 | M-VKM30-0097 |
| 10.2 | M-VKM30-0102 |
| 10.7 | M-VKM30-0107 |
| 11.2 | M-VKM30-0112 |

**Vierkant-
Matrize**

Nr. 45

square die
Mubea Nr. 50638



| s= | Best.-Nr. |
|------|--------------|
| 11.7 | M-VKM45-0117 |
| 12.2 | M-VKM45-0122 |
| 12.7 | M-VKM45-0127 |
| 13.2 | M-VKM45-0132 |
| 13.7 | M-VKM45-0137 |
| 14.2 | M-VKM45-0142 |
| 14.7 | M-VKM45-0147 |
| 15.2 | M-VKM45-0152 |
| 15.7 | M-VKM45-0157 |
| 16.2 | M-VKM45-0162 |
| 16.7 | M-VKM45-0167 |
| 17.2 | M-VKM45-0172 |
| 17.7 | M-VKM45-0177 |
| 18.2 | M-VKM45-0182 |
| 18.7 | M-VKM45-0187 |
| 19.2 | M-VKM45-0192 |
| 19.7 | M-VKM45-0197 |
| 20.2 | M-VKM45-0202 |
| 20.7 | M-VKM45-0207 |
| 21.2 | M-VKM45-0212 |
| 21.7 | M-VKM45-0217 |
| 22.2 | M-VKM45-0222 |

**Vierkant-
Matrize**

Nr. 60

square die
Mubea Nr. 50639



| s= | Best.-Nr. |
|------|--------------|
| 21.7 | M-VKM60-0217 |
| 22.2 | M-VKM60-0222 |
| 22.7 | M-VKM60-0227 |
| 23.2 | M-VKM60-0232 |
| 23.7 | M-VKM60-0237 |
| 24.2 | M-VKM60-0242 |
| 24.7 | M-VKM60-0247 |
| 25.2 | M-VKM60-0252 |
| 25.7 | M-VKM60-0257 |
| 26.2 | M-VKM60-0262 |
| 26.7 | M-VKM60-0267 |
| 27.2 | M-VKM60-0272 |
| 27.7 | M-VKM60-0277 |
| 28.2 | M-VKM60-0282 |
| 28.7 | M-VKM60-0287 |
| 29.2 | M-VKM60-0292 |

**Vierkant-
Matrize**

Nr. 80

square die
Mubea Nr. 50640



| s= | Best.-Nr. |
|------|--------------|
| 28.7 | M-VKM80-0287 |
| 29.2 | M-VKM80-0292 |
| 29.7 | M-VKM80-0297 |
| 30.2 | M-VKM80-0302 |
| 30.7 | M-VKM80-0307 |
| 31.2 | M-VKM80-0312 |
| 31.7 | M-VKM80-0317 |
| 32.2 | M-VKM80-0322 |
| 32.7 | M-VKM80-0327 |
| 33.2 | M-VKM80-0332 |
| 33.7 | M-VKM80-0337 |
| 34.2 | M-VKM80-0342 |
| 34.7 | M-VKM80-0347 |
| 35.2 | M-VKM80-0352 |
| 35.7 | M-VKM80-0357 |

**Winkelstahl-
Matrize**

Nr. 45 E

offset round die
Mubea Nr. 50653-1



| d= | Best.-Nr. |
|------|---------------|
| 3.2 | M-WSM45E-0032 |
| 3.7 | M-WSM45E-0037 |
| 4.2 | M-WSM45E-0042 |
| 4.7 | M-WSM45E-0047 |
| 5.2 | M-WSM45E-0052 |
| 5.7 | M-WSM45E-0057 |
| 6.2 | M-WSM45E-0062 |
| 6.7 | M-WSM45E-0067 |
| 7.2 | M-WSM45E-0072 |
| 7.7 | M-WSM45E-0077 |
| 8.2 | M-WSM45E-0082 |
| 8.7 | M-WSM45E-0087 |
| 9.2 | M-WSM45E-0092 |
| 9.7 | M-WSM45E-0097 |
| 10.2 | M-WSM45E-0102 |
| 10.7 | M-WSM45E-0107 |
| 11.2 | M-WSM45E-0112 |
| 11.7 | M-WSM45E-0117 |
| 12.2 | M-WSM45E-0122 |
| 12.7 | M-WSM45E-0127 |
| 13.2 | M-WSM45E-0132 |
| 13.7 | M-WSM45E-0137 |
| 14.2 | M-WSM45E-0142 |
| 14.7 | M-WSM45E-0147 |
| 15.2 | M-WSM45E-0152 |
| 15.7 | M-WSM45E-0157 |
| 16.2 | M-WSM45E-0162 |
| 16.7 | M-WSM45E-0167 |

**Winkelstahl-
Matrize**

Nr. 45 E

offset round die
Mubea Nr. 50653-1



| d= | Best.-Nr. |
|------|---------------|
| 17.2 | M-WSM45E-0172 |
| 17.7 | M-WSM45E-0177 |
| 18.2 | M-WSM45E-0182 |
| 18.7 | M-WSM45E-0187 |
| 19.2 | M-WSM45E-0192 |
| 19.7 | M-WSM45E-0197 |
| 20.2 | M-WSM45E-0202 |
| 20.7 | M-WSM45E-0207 |
| 21.2 | M-WSM45E-0212 |
| 21.7 | M-WSM45E-0217 |
| 22.2 | M-WSM45E-0222 |
| 22.7 | M-WSM45E-0227 |
| 23.2 | M-WSM45E-0232 |
| 23.7 | M-WSM45E-0237 |
| 24.2 | M-WSM45E-0242 |
| 24.7 | M-WSM45E-0247 |
| 25.2 | M-WSM45E-0252 |
| 25.7 | M-WSM45E-0257 |
| 26.2 | M-WSM45E-0262 |
| 26.7 | M-WSM45E-0267 |
| 27.2 | M-WSM45E-0272 |
| 27.7 | M-WSM45E-0277 |
| 28.2 | M-WSM45E-0282 |
| 28.7 | M-WSM45E-0287 |
| 29.2 | M-WSM45E-0292 |
| 29.7 | M-WSM45E-0297 |

**Langloch-
Winkelstahl-
Matrize**

Nr. 45 E

quer
oblong offset die transverse
Mubea Nr. 50679-1



| b x l | Best.-Nr. |
|------------|-----------------|
| 5,3 x 10,3 | M-LWQ45E-053103 |
| 5,3 x 13,3 | M-LWQ45E-053133 |
| 5,3 x 15,3 | M-LWQ45E-053153 |
| 5,3 x 20,3 | M-LWQ45E-053203 |
| 5,3 x 25,3 | M-LWQ45E-053253 |
| 5,8 x 11,3 | M-LWQ45E-058113 |
| 5,8 x 13,3 | M-LWQ45E-058133 |
| 5,8 x 15,3 | M-LWQ45E-058153 |
| 5,8 x 20,3 | M-LWQ45E-058203 |
| 5,8 x 25,3 | M-LWQ45E-058253 |
| 6,0 x 11,0 | M-LWQ45E-060110 |
| 6,0 x 14,0 | M-LWQ45E-060140 |
| 6,0 x 16,0 | M-LWQ45E-060160 |
| 6,0 x 21,0 | M-LWQ45E-060210 |
| 6,0 x 26,0 | M-LWQ45E-060260 |
| 6,5 x 12,0 | M-LWQ45E-065120 |
| 6,5 x 14,0 | M-LWQ45E-065140 |
| 6,5 x 16,0 | M-LWQ45E-065160 |
| 6,5 x 21,0 | M-LWQ45E-065210 |
| 6,5 x 26,0 | M-LWQ45E-065260 |
| 6,8 x 13,3 | M-LWQ45E-068133 |
| 6,8 x 15,3 | M-LWQ45E-068153 |
| 6,8 x 20,3 | M-LWQ45E-068203 |
| 6,8 x 25,3 | M-LWQ45E-068253 |
| 6,8 x 30,3 | M-LWQ45E-068303 |
| 7,3 x 15,3 | M-LWQ45E-073153 |
| 7,3 x 20,3 | M-LWQ45E-073203 |
| 7,3 x 25,3 | M-LWQ45E-073253 |
| 7,3 x 30,3 | M-LWQ45E-073303 |
| 7,5 x 14,0 | M-LWQ45E-075140 |
| 7,5 x 16,0 | M-LWQ45E-075160 |
| 7,5 x 21,0 | M-LWQ45E-075210 |
| 7,5 x 26,0 | M-LWQ45E-075260 |
| 7,5 x 31,0 | M-LWQ45E-075310 |

**Langloch-
Winkelstahl-
Matrize**

Nr. 45 E

quer
oblong offset die transverse
Mubea Nr. 50679-1



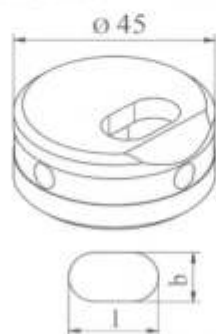
| b x l | Best.-Nr. |
|-------------|-----------------|
| 8,0 x 16,0 | M-LWQ45E-080160 |
| 8,0 x 21,0 | M-LWQ45E-080210 |
| 8,0 x 26,0 | M-LWQ45E-080260 |
| 8,0 x 31,0 | M-LWQ45E-080310 |
| 8,3 x 13,3 | M-LWQ45E-083133 |
| 8,3 x 16,3 | M-LWQ45E-083163 |
| 8,3 x 20,3 | M-LWQ45E-083203 |
| 8,3 x 25,3 | M-LWQ45E-083253 |
| 8,3 x 30,3 | M-LWQ45E-083303 |
| 9,0 x 14,0 | M-LWQ45E-090140 |
| 9,0 x 17,0 | M-LWQ45E-090170 |
| 9,0 x 21,0 | M-LWQ45E-090210 |
| 9,0 x 26,0 | M-LWQ45E-090260 |
| 9,0 x 31,0 | M-LWQ45E-090310 |
| 9,3 x 13,3 | M-LWQ45E-093133 |
| 9,3 x 18,3 | M-LWQ45E-093183 |
| 9,3 x 20,3 | M-LWQ45E-093203 |
| 9,3 x 25,3 | M-LWQ45E-093253 |
| 9,3 x 30,3 | M-LWQ45E-093303 |
| 9,8 x 13,3 | M-LWQ45E-098133 |
| 9,8 x 15,3 | M-LWQ45E-098153 |
| 9,8 x 20,3 | M-LWQ45E-098203 |
| 9,8 x 25,3 | M-LWQ45E-098253 |
| 9,8 x 30,3 | M-LWQ45E-098303 |
| 10,0 x 14,0 | M-LWQ45E-100140 |
| 10,0 x 19,0 | M-LWQ45E-100190 |
| 10,0 x 21,0 | M-LWQ45E-100210 |
| 10,0 x 26,0 | M-LWQ45E-100260 |
| 10,0 x 31,0 | M-LWQ45E-100310 |
| 10,5 x 14,0 | M-LWQ45E-105140 |
| 10,5 x 16,0 | M-LWQ45E-105160 |
| 10,5 x 21,0 | M-LWQ45E-105210 |
| 10,5 x 26,0 | M-LWQ45E-105260 |
| 10,5 x 31,0 | M-LWQ45E-105310 |

**Langloch-
Winkelstahl-
Matrize
quer**

Nr. 45 E

oblong offset die transverse

Mubea Nr. 50679-1



| b x l | Best.-Nr. |
|-------------|-----------------|
| 10,8 x 15,3 | M-LWQ45E-108153 |
| 10,8 x 21,3 | M-LWQ45E-108213 |
| 10,8 x 25,3 | M-LWQ45E-108253 |
| 10,8 x 30,3 | M-LWQ45E-108303 |
| 11,3 x 15,3 | M-LWQ45E-113153 |
| 11,3 x 20,3 | M-LWQ45E-113203 |
| 11,3 x 25,3 | M-LWQ45E-113253 |
| 11,3 x 30,3 | M-LWQ45E-113303 |
| 11,5 x 16,0 | M-LWQ45E-115160 |
| 11,5 x 22,0 | M-LWQ45E-115220 |
| 11,5 x 26,0 | M-LWQ45E-115260 |
| 11,5 x 31,0 | M-LWQ45E-115310 |
| 12,0 x 16,0 | M-LWQ45E-120160 |
| 12,0 x 21,0 | M-LWQ45E-120210 |
| 12,0 x 26,0 | M-LWQ45E-120160 |
| 12,0 x 31,0 | M-LWQ45E-120310 |
| 12,3 x 20,3 | M-LWQ45E-123203 |
| 12,3 x 25,3 | M-LWQ45E-123253 |
| 12,3 x 30,3 | M-LWQ45E-123303 |
| 13,0 x 21,0 | M-LWQ45E-130210 |
| 13,0 x 26,0 | M-LWQ45E-130260 |
| 13,0 x 31,0 | M-LWQ45E-130310 |
| 13,3 x 20,3 | M-LWQ45E-133203 |
| 13,3 x 25,3 | M-LWQ45E-133253 |
| 13,3 x 30,3 | M-LWQ45E-133303 |
| 13,8 x 20,3 | M-LWQ45E-138203 |
| 13,8 x 25,3 | M-LWQ45E-138253 |
| 13,8 x 30,3 | M-LWQ45E-138303 |
| 14,0 x 21,0 | M-LWQ45E-140210 |
| 14,0 x 26,0 | M-LWQ45E-140260 |
| 14,0 x 31,0 | M-LWQ45E-140310 |
| 14,3 x 20,3 | M-LWQ45E-143203 |
| 14,3 x 25,3 | M-LWQ45E-143253 |
| 14,3 x 30,3 | M-LWQ45E-143303 |
| 14,5 x 21,0 | M-LWQ45E-145210 |

**Langloch-
Winkelstahl-
Matrize
quer**

Nr. 45 E

oblong offset die transverse

Mubea Nr. 50679-1



| b x l | Best.-Nr. |
|-------------|-----------------|
| 14,5 x 26,0 | M-LWQ45E-145260 |
| 14,5 x 31,0 | M-LWQ45E-145310 |
| 15,0 x 21,0 | M-LWQ45E-150210 |
| 15,0 x 26,0 | M-LWQ45E-150260 |
| 15,0 x 31,0 | M-LWQ45E-150310 |
| 16,3 x 25,3 | M-LWQ45E-163253 |
| 16,3 x 30,3 | M-LWQ45E-163303 |
| 17,0 x 26,0 | M-LWQ45E-170260 |
| 17,0 x 31,0 | M-LWQ45E-170310 |
| 17,8 x 25,3 | M-LWQ45E-178253 |
| 17,8 x 30,3 | M-LWQ45E-178303 |
| 18,3 x 30,3 | M-LWQ45E-183303 |
| 18,5 x 26,0 | M-LWQ45E-185260 |
| 18,5 x 31,0 | M-LWQ45E-185310 |
| 19,0 x 31,0 | M-LWQ45E-190310 |
| 19,3 x 25,3 | M-LWQ45E-193253 |
| 19,3 x 30,3 | M-LWQ45E-193303 |
| 20,0 x 26,0 | M-LWQ45E-200260 |
| 20,0 x 31,0 | M-LWQ45E-200310 |
| 20,8 x 25,3 | M-LWQ45E-208253 |
| 20,8 x 30,3 | M-LWQ45E-208303 |
| 21,5 x 26,0 | M-LWQ45E-215260 |
| 21,5 x 31,0 | M-LWQ45E-215310 |
| 22,3 x 30,3 | M-LWQ45E-223303 |
| 22,8 x 30,3 | M-LWQ45E-228303 |
| 23,0 x 31,0 | M-LWQ45E-230310 |
| 23,5 x 31,0 | M-LWQ45E-235310 |
| 24,3 x 30,3 | M-LWQ45E-243303 |
| 25,0 x 31,0 | M-LWQ45E-250310 |
| 25,8 x 30,3 | M-LWQ45E-258303 |
| 26,5 x 31,0 | M-LWQ45E-265310 |

**Langloch-
Winkelstahl-
Matrize
längs**

Nr. 45 E

oblong offset die longitudinal

Mubea Nr. 50680-1



| b x l | Best.-Nr. |
|------------|-----------------|
| 5,3 x 10,3 | M-LWL45E-053103 |
| 5,3 x 13,3 | M-LWL45E-053133 |
| 5,3 x 15,3 | M-LWL45E-053153 |
| 5,3 x 20,3 | M-LWL45E-053203 |
| 5,3 x 25,3 | M-LWL45E-053253 |
| 5,8 x 11,3 | M-LWL45E-058113 |
| 5,8 x 13,3 | M-LWL45E-058133 |
| 5,8 x 15,3 | M-LWL45E-058153 |
| 5,8 x 20,3 | M-LWL45E-058203 |
| 5,8 x 25,3 | M-LWL45E-058253 |
| 6,0 x 11,0 | M-LWL45E-060110 |
| 6,0 x 14,0 | M-LWL45E-060140 |
| 6,0 x 16,0 | M-LWL45E-060160 |
| 6,0 x 21,0 | M-LWL45E-060210 |
| 6,0 x 26,0 | M-LWL45E-060260 |
| 6,5 x 12,0 | M-LWL45E-065120 |
| 6,5 x 14,0 | M-LWL45E-065140 |
| 6,5 x 16,0 | M-LWL45E-065160 |
| 6,5 x 21,0 | M-LWL45E-065210 |
| 6,5 x 26,0 | M-LWL45E-065260 |
| 6,8 x 13,3 | M-LWL45E-068133 |
| 6,8 x 15,3 | M-LWL45E-068153 |
| 6,8 x 20,3 | M-LWL45E-068203 |
| 6,8 x 25,3 | M-LWL45E-068253 |
| 6,8 x 30,3 | M-LWL45E-068303 |
| 7,3 x 15,3 | M-LWL45E-073153 |
| 7,3 x 20,3 | M-LWL45E-073203 |
| 7,3 x 25,3 | M-LWL45E-073253 |
| 7,3 x 30,3 | M-LWL45E-073303 |
| 7,5 x 14,0 | M-LWL45E-075140 |
| 7,5 x 16,0 | M-LWL45E-075160 |
| 7,5 x 21,0 | M-LWL45E-075210 |
| 7,5 x 26,0 | M-LWL45E-075260 |
| 7,5 x 31,0 | M-LWL45E-075310 |
| 8,0 x 16,0 | M-LWL45E-080160 |

**Langloch-
Winkelstahl-
Matrize**

Nr. 45 E

längs

oblong offset die longitudinal

Mubea Nr. 50680-1



b x l

Best.-Nr.

| | |
|-------------|-----------------|
| 8,0 x 21,0 | M-LWL45E-080210 |
| 8,0 x 26,0 | M-LWL45E-080260 |
| 8,0 x 31,0 | M-LWL45E-080310 |
| 8,3 x 13,3 | M-LWL45E-083133 |
| 8,3 x 16,3 | M-LWL45E-083163 |
| 8,3 x 20,3 | M-LWL45E-083203 |
| 8,3 x 25,3 | M-LWL45E-083253 |
| 8,3 x 30,3 | M-LWL45E-083303 |
| 9,0 x 14,0 | M-LWL45E-090140 |
| 9,0 x 17,0 | M-LWL45E-090170 |
| 9,0 x 21,0 | M-LWL45E-090210 |
| 9,0 x 26,0 | M-LWL45E-090260 |
| 9,0 x 31,0 | M-LWL45E-090310 |
| 9,3 x 13,3 | M-LWL45E-093133 |
| 9,3 x 18,3 | M-LWL45E-093183 |
| 9,3 x 20,3 | M-LWL45E-093203 |
| 9,3 x 25,3 | M-LWL45E-093253 |
| 9,3 x 30,3 | M-LWL45E-093303 |
| 9,8 x 13,3 | M-LWL45E-098133 |
| 9,8 x 15,3 | M-LWL45E-098153 |
| 9,8 x 20,3 | M-LWL45E-098203 |
| 9,8 x 25,3 | M-LWL45E-098253 |
| 9,8 x 30,3 | M-LWL45E-098303 |
| 10,0 x 14,0 | M-LWL45E-100140 |
| 10,0 x 19,0 | M-LWL45E-100190 |
| 10,0 x 21,0 | M-LWL45E-100210 |
| 10,0 x 26,0 | M-LWL45E-100260 |
| 10,0 x 31,0 | M-LWL45E-100310 |
| 10,5 x 14,0 | M-LWL45E-105140 |
| 10,5 x 16,0 | M-LWL45E-105160 |
| 10,5 x 21,0 | M-LWL45E-105210 |
| 10,5 x 26,0 | M-LWL45E-105260 |
| 10,5 x 31,0 | M-LWL45E-105310 |

**Langloch-
Winkelstahl-
Matrize**

Nr. 45 E

längs

oblong offset die longitudinal

Mubea Nr. 50680-1



b x l

Best.-Nr.

| | |
|-------------|-----------------|
| 10,8 x 15,3 | M-LWL45E-108153 |
| 10,8 x 21,3 | M-LWL45E-108213 |
| 10,8 x 25,3 | M-LWL45E-108253 |
| 10,8 x 30,3 | M-LWL45E-108303 |
| 11,3 x 15,3 | M-LWL45E-113153 |
| 11,3 x 20,3 | M-LWL45E-113203 |
| 11,3 x 25,3 | M-LWL45E-113253 |
| 11,3 x 30,3 | M-LWL45E-113303 |
| 11,5 x 16,0 | M-LWL45E-115160 |
| 11,5 x 22,0 | M-LWL45E-115220 |
| 11,5 x 26,0 | M-LWL45E-115260 |
| 11,5 x 31,0 | M-LWL45E-115310 |
| 12,0 x 16,0 | M-LWL45E-120160 |
| 12,0 x 21,0 | M-LWL45E-120210 |
| 12,0 x 26,0 | M-LWL45E-120260 |
| 12,0 x 31,0 | M-LWL45E-120310 |
| 12,3 x 20,3 | M-LWL45E-123203 |
| 12,3 x 25,3 | M-LWL45E-123253 |
| 12,3 x 30,3 | M-LWL45E-123303 |
| 13,0 x 21,0 | M-LWL45E-130210 |
| 13,0 x 26,0 | M-LWL45E-130260 |
| 13,0 x 31,0 | M-LWL45E-130310 |
| 13,3 x 20,3 | M-LWL45E-133203 |
| 13,3 x 25,3 | M-LWL45E-133253 |
| 13,3 x 30,3 | M-LWL45E-133303 |
| 13,8 x 20,3 | M-LWL45E-138203 |
| 13,8 x 25,3 | M-LWL45E-138253 |
| 13,8 x 30,3 | M-LWL45E-138303 |
| 14,0 x 21,0 | M-LWL45E-140210 |
| 14,0 x 26,0 | M-LWL45E-140260 |
| 14,0 x 31,0 | M-LWL45E-140310 |
| 14,3 x 20,3 | M-LWL45E-143203 |
| 14,3 x 25,3 | M-LWL45E-143253 |

**Langloch-
Winkelstahl-
Matrize**

Nr. 45 E

längs

oblong offset die longitudinal

Mubea Nr. 50680-1



b x l

Best.-Nr.

| | |
|-------------|-----------------|
| 14,3 x 30,3 | M-LWL45E-143303 |
| 14,5 x 21,0 | M-LWL45E-145210 |
| 14,5 x 26,0 | M-LWL45E-145260 |
| 14,5 x 31,0 | M-LWL45E-145310 |
| 15,0 x 21,0 | M-LWL45E-150210 |
| 15,0 x 26,0 | M-LWL45E-150260 |
| 15,0 x 31,0 | M-LWL45E-150310 |
| 16,3 x 25,3 | M-LWL45E-163253 |
| 16,3 x 30,3 | M-LWL45E-163303 |
| 17,0 x 26,0 | M-LWL45E-170260 |
| 17,0 x 31,0 | M-LWL45E-170310 |
| 17,8 x 25,3 | M-LWL45E-178253 |
| 17,8 x 30,3 | M-LWL45E-178303 |
| 18,3 x 30,3 | M-LWL45E-183303 |
| 18,5 x 26,0 | M-LWL45E-185260 |
| 18,5 x 31,0 | M-LWL45E-185310 |
| 19,0 x 31,0 | M-LWL45E-190310 |
| 19,3 x 25,3 | M-LWL45E-193253 |
| 19,3 x 30,3 | M-LWL45E-193303 |
| 20,0 x 26,0 | M-LWL45E-200260 |
| 20,0 x 31,0 | M-LWL45E-200310 |
| 20,8 x 25,3 | M-LWL45E-208253 |
| 20,8 x 30,3 | M-LWL45E-208303 |
| 21,5 x 26,0 | M-LWL45E-215260 |
| 21,5 x 31,0 | M-LWL45E-215310 |
| 22,3 x 30,3 | M-LWL45E-223303 |
| 22,8 x 30,3 | M-LWL45E-228303 |
| 23,0 x 31,0 | M-LWL45E-230310 |
| 23,5 x 31,0 | M-LWL45E-235310 |
| 24,3 x 30,3 | M-LWL45E-243303 |
| 25,0 x 31,0 | M-LWL45E-250310 |
| 25,8 x 30,3 | M-LWL45E-258303 |
| 26,5 x 31,0 | M-LWL45E-265310 |

**Schlüsselloch-Stempel
zum Stanzen von Löchern
für Profilzylinder**

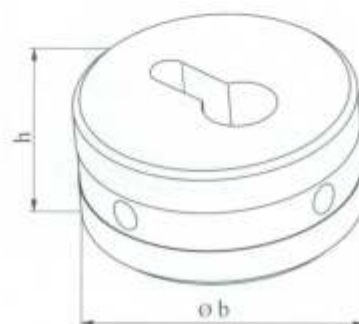
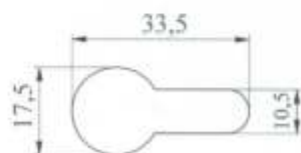
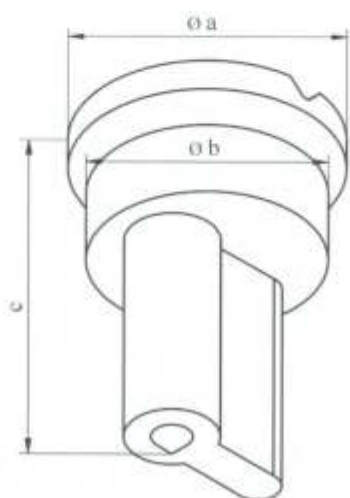
key hole punch, for punching
holes for sectional cylinders

Mubea Nr. 50570-2
Mubea Nr. 50570-3 * **auf Anfrage / price on application**

**Schlüsselloch-Matrize
zum Stanzen von Löchern
für Profilzylinder**

key hole die, for punching
holes for sectional cylinders

Mubea Nr. 50684-2
Mubea Nr. 50684-3 * **auf Anfrage / price on application**



| Stempel Nr. | Ø | | | Bestell-Nr. |
|----------------|----|----|----|-------------------|
| | a | b | c | |
| 30 | 36 | 30 | 70 | M-SLS30-335175105 |
| 40 * | 46 | 40 | 70 | M-SLS40-335175105 |

Abmessung: 33,5 x 17,5 x 10,5 mm

| Matrize Nr. | h | Ø | | Bestell-Nr. |
|----------------|------|----|---|-------------------|
| | | b | b | |
| 45 | 22,5 | 45 | | M-SLM45-337177107 |
| 60 * | 30 | 60 | | M-SLM60-337177107 |

Abmessung: 33,7 x 17,7 x 10,7 mm

* Einsetzbar nur mit Sonderstanzvorrichtung

* To be used only with special punching attachment

Außer bei den Modellen:

Except on models:

KBL OPTIMA 900, KBL 20, KBL OPTIMA 20, KBL OPTIMA 100-50, KBL OPTIMA 1100
KBL 25, KBL OPTIMA 25, KBL OPTIMA 130-70, KBL OPTIMA 1300, KL OPTIMA 900,
KL 20, KL OPTIMA 100, KL OPTIMA 1100, KL 25, KL OPTIMA 130, KL OPTIMA 1300,
KL 100, KL 160, KLS 1100, HIW 1000, KLSH 900, KLSH 1100, KBLH 1000, HP 1000/760

Bei Bestellung bitte angeben:
Materialstärke + Festigkeit

When ordering please state:
Material thickness + tensile strength

**Eckenabrund-Stempel
zum Abrunden von Ecken
(90°) für Flachmaterial**

corner radiusing punch for rounding off

corners (90°) of flats

Mubea Nr. 50569-2

Mubea Nr. 50569-3 *

Mubea Nr. 50569-4 **

auf Anfrage / price on application

**Eckenabrund-Matrize
zum Abrunden von Ecken
(90°) für Flachmaterial**

corner radiusing die for rounding off

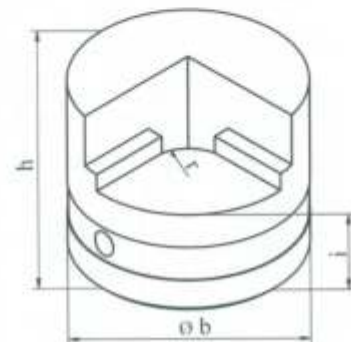
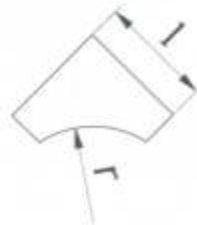
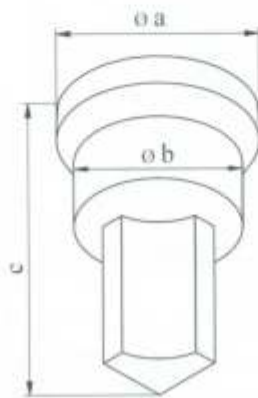
corners (90°) of flats

Mubea Nr. 50629-2

Mubea Nr. 50629-3 *

Mubea Nr. 50629-4 **

auf Anfrage / price on application



| Stempel Nr. | Ø a | Ø b | c | r | l | Bestell-Nr. |
|----------------|--------|--------|----|----|----|----------------|
| 30 | 36 | 30 | 77 | 5 | 19 | M-SLS30-000005 |
| 30 | 36 | 30 | 77 | 10 | 19 | M-SLS30-000010 |
| 30 | 36 | 30 | 77 | 15 | 19 | M-SLS30-000015 |
| 40 * | 46 | 40 | 77 | 22 | 28 | M-SLS40-000022 |
| 50 ** | 56 | 50 | 77 | 30 | 35 | M-SLS50-000030 |

| Matrizen Nr. | h | Ø i | Ø b | Bestell-Nr. |
|-----------------|----|--------|--------|----------------|
| 45 | 45 | 22.5 | 45 | M-SLM45-000005 |
| 45 | 45 | 22.5 | 45 | M-SLM45-000010 |
| 45 | 45 | 22.5 | 45 | M-SLM45-000015 |
| 60 * | 54 | 30 | 60 | M-SLM60-000022 |
| 80 ** | 65 | 40 | 80 | M-SLM80-000035 |

* Einsetzbar nur mit Sonderstanzvorrichtung
Außer bei den Modellen:

* To be used only with special punching attachment
Except on models:

KBL OPTIMA 900, KBL 20, KBL OPTIMA 20, KBL OPTIMA 100-50, KBL OPTIMA 1100,
KBL 25, KBL OPTIMA 25, KBL OPTIMA 130-70, KBL OPTIMA1300, KL OPTIMA 900,
KL 20, KL OPTIMA 100, KL OPTIMA 1100, KL 25, KL OPTIMA 130, KL OPTIMA 1300,
KL 100, KL 160, KLS 1100, HIW 1000, KLSH 900, KLSH 1100, KBLH 1000, HP 1000/760

** Einsetzbar nur mit Sondersatzvorrichtung

** To be used only with special punching attachment

Bei Bestellung bitte angeben:

When ordering please state:

Materialstärke + Festigkeit

Material thickness + tensile strength

**Trenn-Abrund-Stempel
von Flachstahl**

shearing and one-sided

radiusing punch

Mubea Nr. 50568-2
Mubea Nr. 50568-3 *
Mubea Nr. 50568-4 **

auf Anfrage / price on application

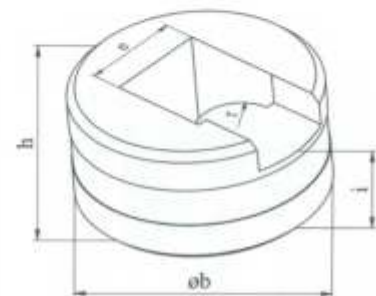
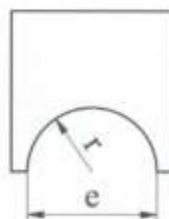
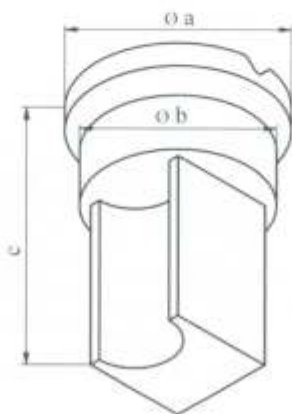
**Trenn-Abrund-Matrize
von Flachstahl**

shearing and one-sided

radiusing die

Mubea Nr. 50628-2
Mubea Nr. 50628-3 *
Mubea Nr. 50628-4 **

auf Anfrage / price on application



| Stempel Nr | Ø | | c | e | r | Bestell-Nr. |
|---------------|----|----|----|------|----|--------------|
| | a | b | | | | |
| 30 | 36 | 30 | 77 | 16.5 | 10 | TAS30-165100 |
| 40 * | 46 | 40 | 77 | 25.7 | 15 | TAS40-257150 |
| 50 ** | 56 | 50 | 77 | 32.5 | 18 | TAS50-325180 |

| Matrize Nr. | Ø | | | Bestell-Nr. | |
|----------------|------|----|------|-------------|--------------|
| | e | h | i | | |
| 45 | 16.5 | 45 | 22.5 | 45 | TAM45-165225 |
| 60 * | 25.7 | 54 | 30 | 60 | TAM60-257300 |
| 80 * | 32.5 | 65 | 40 | 80 | TAM80-325400 |

* Einsetzbar nur mit Sonderstanzvorrichtung
Außer bei den Modellen:

KBL OPTIMA 900, KBL 20, KBL OPTIMA 20, KBL OPTIMA 100-50, KBL OPTIMA 1100,
KBL 25, KBL OPTIMA 25, KBL OPTIMA 130-70, KBL OPTIMA 1300, KL OPTIMA 900,
KL 20, KL OPTIMA 100, KL OPTIMA 1100, KL 25, KL OPTIMA 130, KL OPTIMA 1300,
KL 100, KL 160, KLS 1100, HIW 1000, KLSH 900, KLSH 1100, KBLH 1000, HP 1000/760

** Einsetzbar nur mit Sonderstanzvorrichtung

* To be used only with special punchin attachment
Except on models:

** To be used only with special punching attachment

Bei Bestellung bitte angeben:

Materialbreite
Materialstärke
Materialfestigkeit

When ordering please state:

material width
material thickness
material tensile strength

**Trenn-Doppel-Abrund-Stempel
von Flachstahl**

shearing and double-sided

radiusing punch

Mubea Nr. 50567-2
Mubea Nr. 50567-3 *
Mubea Nr. 50567-4 **

auf Anfrage / price on application

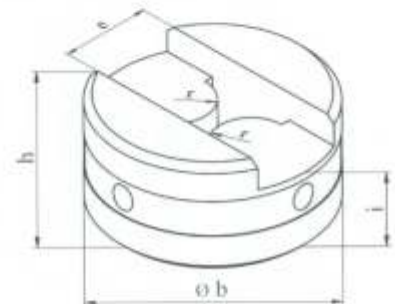
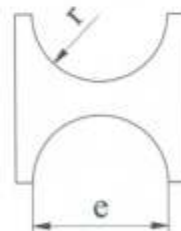
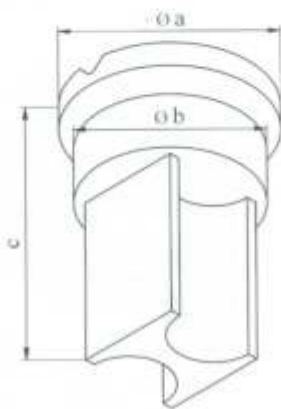
**Trenn-Doppel-Abrund-Matrize
von Flachstahl**

shearing and double-sided

radiusing die

Mubea Nr. 50627-2
Mubea Nr. 50627-3 *
Mubea Nr. 50627-4 **

auf Anfrage / price on application



| Stempel Nr. | \varnothing a | \varnothing b | c | e | r | Bestell-Nr. |
|----------------|--------------------|--------------------|----|------|----|--------------|
| 30 | 36 | 30 | 77 | 16.5 | 10 | TDS30-165100 |
| 40 * | 46 | 40 | 77 | 25.7 | 15 | TDS40-257150 |
| 50 ** | 56 | 50 | 77 | 32.5 | 18 | TDS50-325180 |

| Matrize Nr. | e | h | i | \varnothing b | Bestell-Nr. |
|----------------|------|----|------|--------------------|--------------|
| 45 | 16.5 | 45 | 22.5 | 45 | TDM45-165225 |
| 60 * | 25.7 | 54 | 30 | 60 | TDM60-257300 |
| 80 ** | 32.5 | 65 | 40 | 80 | TDM80-325400 |

* *Einsetzbar nur mit Sonderstanzvorrichtung*
Außer bei den Modellen:

KBL OPTIMA 900, KBL 20, KBL OPTIMA 20, KBL OPTIMA 100-50, KBL OPTIMA 1100,
KBL 25, KBL OPTIMA 25, KBL OPTIMA 130-70, KBL OPTIMA 1300, KL OPTIMA 900,
KL 20, KL OPTIMA 100, KL OPTIMA 1100, KL 25, KL OPTIMA 130, KL OPTIMA 1300,
KL 100, KL 160, KLS 1100, HIW 1000, KLSH 900, KLSH 1100, KBLH 1000, HP 1000/760

** *Einsetzbar nur mit Sonderstanzvorrichtung*

Bei Bestellung bitte angeben:
Materialstärke + Festigkeit

* *To be used only with special punching attachment*
Except on models:

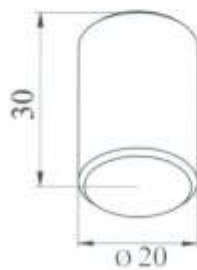
** *To be used only with special punching attachment*

When ordering please state:
material thickness + tensile strength

**Stempelbeilage
zu Stempel Nr. 15**

punch addition

Bestell-Nr. M-STB-282030
Mubea Nr. 50529



**Reduzierung von
Stempel 30 / 15**

punch reduction

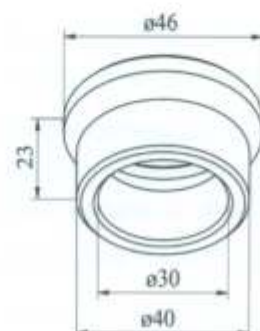
Bestell-Nr. M-RDH-3015
Mubea Nr. 50531-3



**Reduzierung von
Stempel 40 / 30**

punch reduction

Bestell-Nr. M-RDH-4030
Mubea Nr. 50531-5



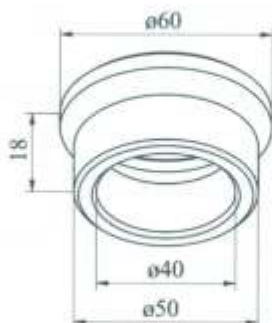
Reduzierung von Stempel 40 / 15
auf Anfrage / price on application
Mubea-Nr. 50531-4

Reduzierung von Stempel 50 / 30
auf Anfrage / price on application
Mubea-Nr. 50531-1

**Reduzierung von
Stempel 50 / 40**

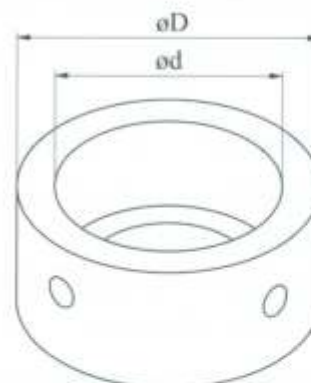
punch reduction

Bestell-Nr. M-RDH-4030
Mubea Nr. 50531-2 **38.40 €**



Reduzierung von Matrizen

reduction for dies



| D / d | Höhe | | Bestell-Nr. | |
|---------|------|---------|-------------|-------------------|
| 45 / 30 | 20,5 | 21.00 € | M-RDH-4530 | Mubea Nr. 50606-1 |
| 60 / 30 | 28,0 | 30.00 € | M-RDH-6030 | Mubea Nr. 50606-2 |
| 60 / 45 | 28,0 | 30.00 € | M-RDH-6045 | Mubea Nr. 50606-3 |
| 80 / 30 | 38,0 | 31.00 € | M-RDH-8030 | Mubea Nr. 50606-4 |
| 80 / 45 | 38,0 | 31.00 € | M-RDH-8045 | Mubea Nr. 50606-5 |
| 80 / 60 | 38,0 | 31.00 € | M-RDH-8060 | Mubea Nr. 50606-6 |

Die in diesem Katalog genannten Preise sind Grundpreise in EURO, bei Wiederverkauf durch den Handel jedoch unverbindliche Preisempfehlungen. Die Mehrwertsteuer ist in den Preisen nicht enthalten und wird separat ausgewiesen.

Für Zwischenabmessungen und abweichendes Schneidspiel wird ein Aufpreis pro Stempel und pro Matrize berechnet.

Preisstellung: ab Werk; ausschl. Verpackung

Um Ihren Auftrag schnell, genau und mit der nötigen Sorgfalt zu bearbeiten, bitten wir Sie, folgende Punkte zu prüfen bzw. zu beachten:

- passen die gewünschten Stempel und Matrizen in die Werkzeugaufnahme der vorhandenen Maschinen. Form und Abmessung der Stempel und Matrizen sind auf den Katalogseiten ersichtlich, eventuell bitte an vorhandenen Werkzeugen prüfen.
- ist das Eckenmaß der zu stanzenden Form nicht größer als der Schaftdurchmesser des Stempels
- sind Reduzierungen von einer größeren Vorrichtung auf die gewünschten kleineren Stempel und Matrizen vorhanden.
- Bei Stempeln und Matrizen, die von der Katalognorm und -form abweichen, geben Sie bitte die zu bearbeitende Materialstärke und -qualität an.

Damit sich die Lebensdauer von Stempeln und Matrizen verlängert und die Stanzqualität verbessert wird, sollten folgende Punkte beachtet werden:

- richtiges Schneidspiel zwischen Stempel und Matrize, d. h. 10 % der Materialstärke (bei Sondermaterial eventuell Rücksprache)
- beim Einbau der Werkzeuge auf gleichmäßiges Spiel zwischen Stempel und Matrize achten.
- beim Stanzen mit Stempelsprühgeräten arbeiten oder den Stempel manuell mit Stanzöl bestreichen.
- bei Formstempeln muss der mitgelieferte Verdrehungsstift eingebaut werden.
- Stempel und Matrize müssen fest und sicher in der Vorrichtung eingebaut sein. (Fingerschutzklappe anbringen)
- der Abstreifer muss parallel zur Matrizenoberfläche sein, bei höhenstellbaren Abstreifern, nahe an Materialoberfläche absenken.
- der Stempeldurchmesser darf nicht kleiner sein, wie die vorhandene Materialstärke.
- zum Schutz von Maschine und Werkzeug sollte die benötigte Stanzkraft nach folgender Formel überprüft werden:

Lochumfang x Materialstärke x Materialfestigkeit

Wir stehen Ihnen bei Fragen jederzeit gerne zur Verfügung.

