

# MQA AND MQB TYPES



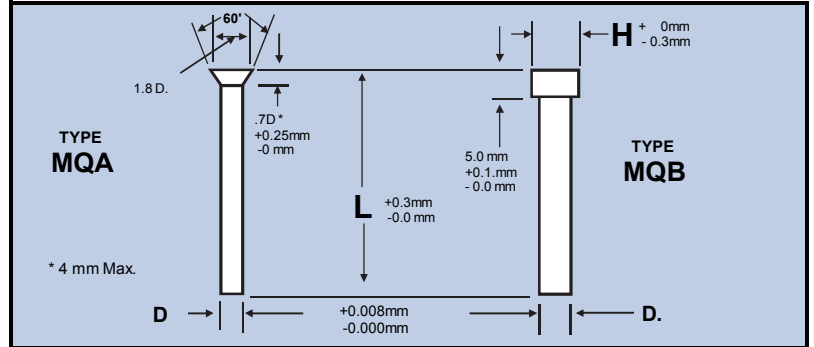
**Royal**

## METRIC PERFORATORS/CORE PIN BLANKS

M-2 HIGH SPEED STEEL, 60-63 RC  
PRECISION FORM-GROUND DIAMETERS

MADE TO ORDER  
IN 0.01 mm INCREMENTS  
10 PIECES MINIMUM

63mm Length



| HOW TO ORDER: EXAMPLES |      |      |   |        |
|------------------------|------|------|---|--------|
| Qty.                   | Type | Dia. | X | Length |
| 50                     | MQA  | 0.95 | X | 63     |
| 25                     | MQB  | 6.55 | X | 63     |

| D<br>DIAMETER RANGE<br>MADE TO ORDER IN 0.01mm INCREMENTS | NET PRICE EACH PER QUANTITY (US \$) |       |       |       |      |       |       |       | MQB<br>TYPE | ML<br>MODIFY<br>LENGTH<br>ADD TO<br>BASE PRICE |
|---|-------------------------------------|-------|-------|-------|------|-------|-------|-------|-------------|--|
|   | MQA                                 |       |       |       | MQB  |       |       |       |             |  |
|   | 100+                                | 50-99 | 25-49 | 10-24 | 100+ | 50-99 | 25-49 | 10-24 | H           |  |
| 0.80mm - 1.60mm   | 1.91                                | 2.43  | 3.23  | 5.37  | 2.89 | 3.52  | 4.74  | 8.78  | 3           | \$0.32 EACH<br>OR<br>\$28.00 MIN               |
| 1.61mm - 2.00mm   | 2.02                                | 2.54  | 3.35  | 5.49  | 3.23 | 3.93  | 5.26  | 9.70  | 4           |  |
| 2.01mm - 3.00mm   | 2.25                                | 2.77  | 3.70  | 5.72  | 3.23 | 3.93  | 5.26  | 9.70  | 5           |  |
| 3.01mm - 4.00mm   | 2.37                                | 2.89  | 3.81  | 5.83  | 3.41 | 4.16  | 5.54  | 10.28 | 6           | \$0.37 EACH<br>OR<br>\$30.00 MIN               |
| 4.01mm - 5.00mm   | 2.60                                | 3.18  | 3.98  | 6.18  | 3.52 | 4.27  | 5.72  | 10.63 | 7           |  |
| 5.01mm - 6.00mm   | 2.95                                | 3.52  | 4.33  | 6.53  | 3.52 | 4.27  | 5.72  | 10.63 | 8           |  |
| 6.01mm - 7.00mm   | 3.23                                | 3.87  | 4.68  | 6.93  | 3.70 | 4.50  | 6.06  | 11.20 | 9           |  |

# MPB TYPE



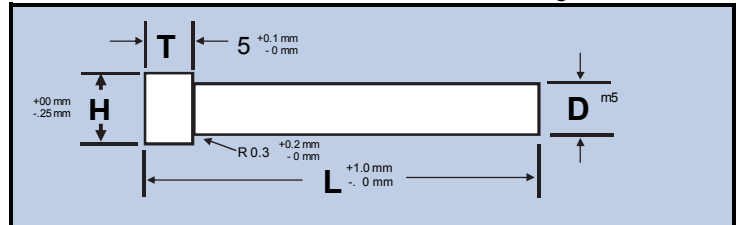
**Royal**

## METRIC PUNCH BLANKS

M-2 HIGH SPEED STEEL, RC 60-63  
HEADS DRAWN 45-55 RC

MADE TO ORDER  
10 PIECES MINIMUM

50, 56, 63, 71, 80, 90, 100, and 125mm Lengths



| HOW TO ORDER: EXAMPLES |        |   |        |
|------------------------|--------|---|--------|
| QTY.                   | CAT No | X | LENGTH |
| 50                     | MPB-3  | X | 63     |

| CATALOG<br>NUMBER | D<br>BODY DIA. |                             | H<br>HEAD<br>DIA. | NET PRICE EACH PER QUANTITY (US \$) |       |      |            |       |       |             |       |       |        |       |       | ML<br>MODIFY<br>LENGTH<br>ADD TO<br>BASE PRICE |
|-------------------|----------------|-----------------------------|-------------------|-------------------------------------|-------|------|------------|-------|-------|-------------|-------|-------|--------|-------|-------|--|
|                   | NOMINAL DIA.   | m <sup>5</sup><br>TOLERANCE |                   | L-LENGTH                            |       |      |            |       |       |             |       |       |        |       |       |  |
|                   |                |                             |                   | 50, 56, & 63 mm                     |       |      | 71 & 80 mm |       |       | 90 & 100 mm |       |       | 125 mm |       |       |  |
|                   |                |                             | 50 +              | 25-49                               | 10-24 | 50 + | 25-49      | 10-24 | 50 +  | 25-49       | 10-24 | 50 +  | 25-49  | 10-24 |       |  |
| MPB-3             | 3              | + 0,009<br>+ 0,004          | 5.0               | 5.35                                | 5.94  | 6.61 | 5.96       | 6.62  | 7.36  | 7.45        | 8.28  | 9.19  | Q      | Q     | Q     |  |
| MPB-4             | 4              | + 0,009<br>+ 0,004          | 7.0               | 5.46                                | 6.08  | 6.75 | 6.23       | 6.92  | 7.68  | 7.95        | 8.84  | 9.82  | 9.44   | 10.49 | 11.65 |  |
| MPB-5             | 5              | + 0,009<br>+ 0,004          | 8.0               | 6.34                                | 7.05  | 7.83 | 6.84       | 7.60  | 8.44  | 7.83        | 8.70  | 9.67  | 9.55   | 10.61 | 11.79 |  |
| MPB-6             | 6              | + 0,009<br>+ 0,004          | 9.0               | 7.33                                | 8.15  | 9.06 | 7.75       | 8.50  | 9.50  | 8.06        | 8.96  | 9.96  | 10.70  | 11.88 | 13.20 |  |
| MPB-8             | 8              | + 0,012<br>+ 0,006          | 11.0              | 7.77                                | 8.64  | 9.60 | 8.05       | 9.02  | 10.20 | 8.44        | 9.38  | 10.43 | 11.02  | 12.24 | 13.61 |  |

Please see PAGE 1 for a more complete list of modifications that are available for any of the ROYAL Family of Pins and Punches