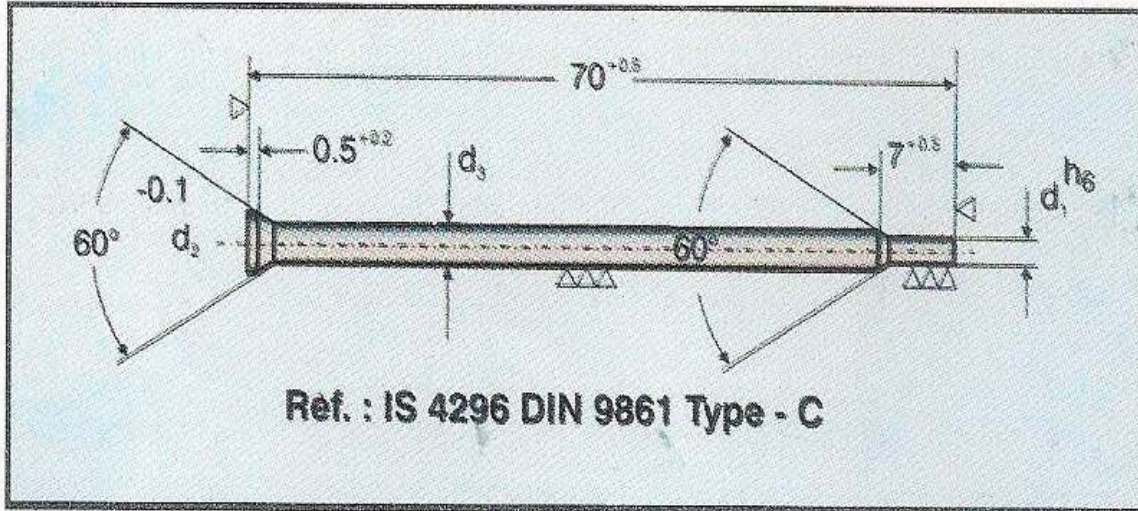


# Precision Piercing Punches



Dimension in mm

| d1       | h6      | L* | d2  | d3 | h6      |
|----------|---------|----|-----|----|---------|
| 0.5-1.5  | -0.006. | 70 | 3   | 2  | -0.006. |
| 1.55-2.5 |         |    | 4.5 | 3  |         |

The dimensions of d1 are in steps of 0.05mm.

Material HSS 6-5-2

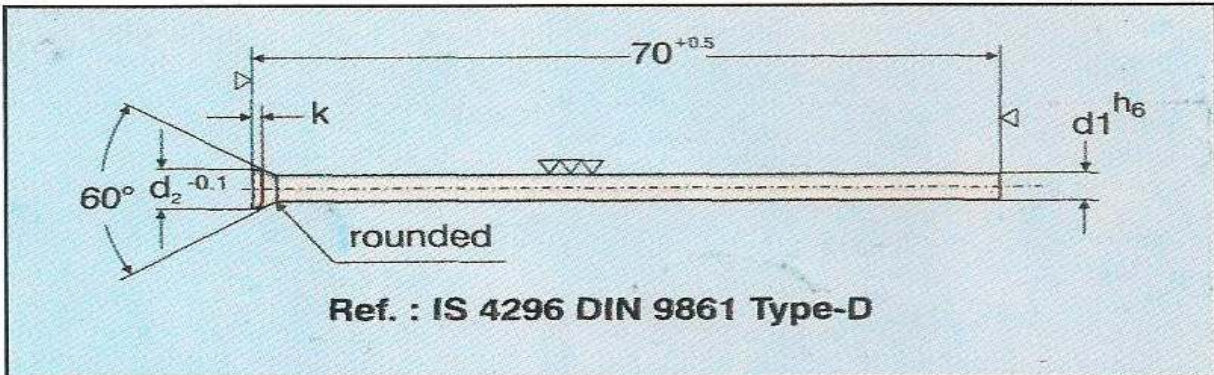
Finish Hardened, tempered and precision plunge ground. The diameter of d1 is concentric to d3 within the specified limit of 0.005 mm.

\*Length Other lengths are 40,50,60,& 80mm

Surface Finish : 0.3-0.4  $\mu\text{m}$

Hardness Shank  $62 \pm 2^\circ$  Rockwell C  
Head  $45 \pm 5$  Rockwell C

# Precision Piercing Punches



Dimensions in mm

| $d_1$      | $h6$   | $d_2$ | $k+0.2$ |
|------------|--------|-------|---------|
| 0.5        | -0.007 | 0.9   | 0.2     |
| 0.55       |        | 1.0   |         |
| 0.6        |        | 1.1   |         |
| 0.65       |        | 1.2   |         |
| 0.7 & 0.75 |        | 1.3   |         |
| 0.8 & 0.85 |        | 1.4   |         |
| 0.9 & 0.95 |        | 1.6   | 0.4     |
| 1.0 & 1.1  |        | 1.8   |         |
| 1.2 & 1.3  |        | 2.0   | 0.5     |
| 1.4 & 1.5  |        | 2.2   |         |
| 1.6 & 1.7  |        | 2.5   |         |
| 1.8 & 1.9  |        | 2.8   |         |
| 2.0        |        | 3.0   |         |
| 2.1 & 2.2  |        | 3.2   |         |
| 2.3 to 2.5 |        | 3.5   |         |
| 2.6 to 2.9 |        | 4.0   |         |
|            |        |       |         |
|            |        |       |         |

| $d_1$        | $h6$   | $d_2$ | $k+0.2$ |
|--------------|--------|-------|---------|
| 3.1 to 3.4   | -0.008 | 4.5   | 0.5     |
| 3.5 to 3.9   |        | 5.0   |         |
| 4.0 to 4.4   |        | 5.5   |         |
| 4.5 to 4.9   |        | 6.0   |         |
| 5.0 to 5.4   |        | 6.5   |         |
| 5.5 to 5.9   |        | 7.0   |         |
|              |        |       |         |
| 6.0 to 6.4   | -0.009 | 8.0   | 1.0     |
| 6.5 to 7.4   |        | 9.0   |         |
| 7.5 to 8.4   |        | 10    |         |
| 8.5 to 9.4   |        | 11    |         |
| 9.5 to 10.4  |        | 12    |         |
| 10.5 to 11.4 | 0.011  | 13    | 1.5     |
| 11.5 to 12.4 |        | 14    |         |
| 12.5 to 13.4 |        | 15    |         |
| 13.5 to 14.4 |        | 16    |         |
| 14.5 to 15.4 |        | 17    |         |
| 15.5 to 16.4 |        | 18    |         |

Length

Other lengths are 40,50,60,80,90 & 100mm

$d_1$

The values of diameter  $d_1$  are recommended in steps of 0.05 mm upto 0.95mm dia and in steps of 0.1 mm from 1.0 to 6.4 mm dia and in steps of 0.5mm 6.5 to 16mm diameter

Material

HSS6-5-2

Finish

Hardened, tempered and precision plunge ground

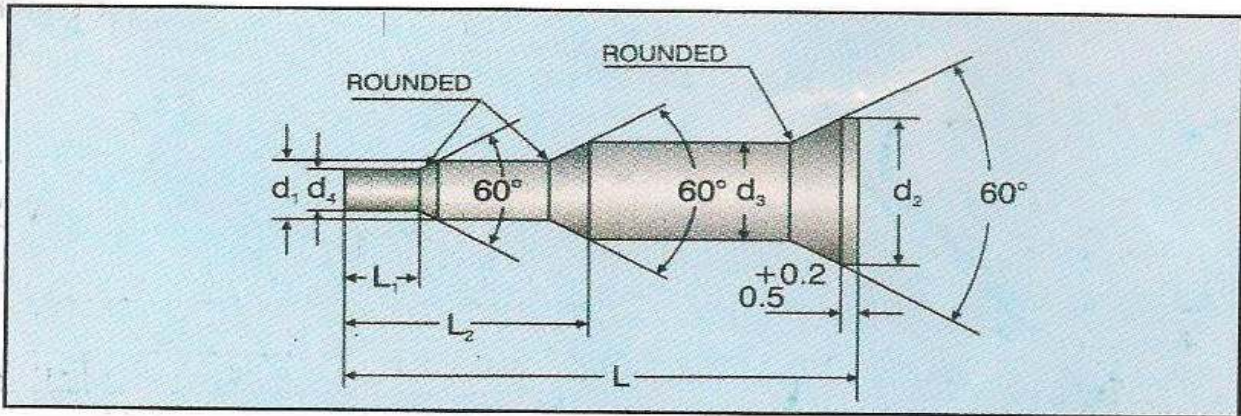
Surface Finish

0.3—0.4  $\mu\text{m}$

Hardness

Shank H/S/S/62 $\pm$ 2° Rockwell C  
Head 45 $\pm$ 5° Rockwell C

# Punches for Sheet Metal Anchorage with Metric Thread



Dimensions in mm

| For Thread | $d_3$ $h_6$ | $d_2$ | $d_1$ $h_6$ | $d_4$ $h_6$ | L               | $L_1$ | $L_2$ |
|------------|-------------|-------|-------------|-------------|-----------------|-------|-------|
| M2         | 3           | 4.5   | 1.65        | 1.0         | 60<br>&<br>70mm | 1.5   | 10    |
| M 2.2      |             |       | 1.8         | 1.05        |                 |       |       |
| M 2.5      |             |       | 2.1         | 1.1         |                 |       |       |
| M 3        |             |       | 2.55        | 1.3         |                 |       |       |
| M 3.5      | 4           | 5.5   | 2.95        | 1.5         |                 | 2.5   |       |
| M 4        |             |       | 3.35        | 2.0         |                 |       |       |
| M 5        | 5           | 6.5   | 4.25        | 2.5         |                 |       |       |
| M 6        | 6           | 8     | 5.1         | 3.4         |                 | 3     |       |
| M 8        | 8           | 10    | 6.85        | 4.2         |                 | 4     | 12    |

Material HSS 6/5/2

Finish Hardened, Tempered, Plunge Ground and Lapped

Length 60 & 70 mm

Hardness Shank  $62 \pm 2^\circ$  Rockwell C  
Head  $45 \pm 5$  Rockwell C

Example of Ordering : ANCHORAGE PUCNH HSS M3 x 70