PUNCH, STEPPED, SLOT, ~ DIN 9861

2249. Punch, stepped, slot, ~ DIN 9861

| $\mathrm{d}_{1} /$ Order No | $\mathrm{d}_{2}$ | $\mathrm{W}_{\text {min }}$ | $\mathrm{G}_{\text {max }}$ | $\mathrm{I}_{1} /$ Order No | k | I (Order Code character) | $71$ <br> (D) | $\begin{aligned} & 80 \\ & (E) \\ & \hline \end{aligned}$ | $\begin{gathered} 100 \\ (\mathrm{G}) \end{gathered}$ | $120$ <br> (J) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $3 /(1)$ | 4.5 | 0.5 | 2.9 | 8 (1) 10 (2) | 0.5 |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| 4/(2) | 5.5 | 0.8 | 3.9 | 8 (1) 13 (3) | 0.5 |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| 5/(3) | 6.5 | 1 | 4.9 | 13 (3) 19 (4) | 0.5 |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| $6 /(4)$ | 8 | 1.6 | 5.9 | 13 (3) 19 (4) | 0.5 |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| $8 /(5)$ | 10 | 2 | 7.9 | 19 (4) 25 (5) | 1 |  | - | $\bigcirc$ | - | $\bigcirc$ |
| 10/(6) | 12 | 3.5 | 9.9 | 19 (4) 25 (5) | 1 |  | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ |
| 13/(7) | 15 | 4.5 | 12.9 | 19 (4) 25 (5) | 1 |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| 16/(8) | 18 | 6 | 15.9 | 19 (4) 25 (5) | 1.5 |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| 20/(9) | 22 | 8 | 19.9 | 19 (4) 25 (5) | 1.5 |  | $\bigcirc$ | $\bigcirc$ | - | $\bigcirc$ |

Ordering Code (example):
2249.39G5.1650.1220. $\underline{B}$


## Material:

HSS
Order No 2249.3.
ASP 2023
Order No 2249.6

Order Code character
$=1220$
$=1650$
Order No
= (5)
Order Code character
= (G)
Order No
$=$ (9)
Order No
= (3)
Order No
= (9)
Order No
$=(4)$
$=22$

Hardness:
Shaft $64 \pm 2$ HRC
Head $52 \pm 5$ HRC

Description of FIBRO materials for tool and die components see at the beginning of Chapter E.

## Execution:

Punch head heat compressed. Contact area, shaft and cutting form precision ground. The locating flat is designed parallel with the dimension $\mathrm{P}=0^{\circ}$.

## Note:

With kerf $\leq 0.04 \mathrm{~mm}$, FIBRO rounds off sharp edges, if the punch and bush are ordered together. This reduces the fitting time and the risk of an edge break during operation.

