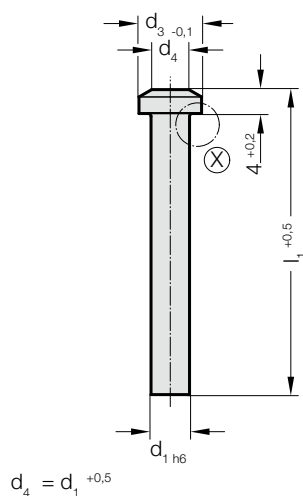
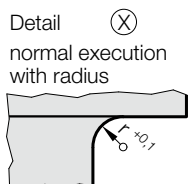


# PUNCH DIN 9844, SHAPE A

220.



## Material:

HSS  
Order No 220.3.  
Hardness:  
Shaft  $64 \pm 2$  HRC  
Head  $52 \pm 3$  HRC

HST  
Order No 220.4.  
Hardness:  
Surface  $\geq 950$  HV 0,3  
Head  $52 \pm 3$  HRC

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

## Execution:

Punch head hot upset-forged. Shaft and shoulder precision plunge-ground.

Stock lengths: 71, 90, 112 mm.  
other lengths and diameters on request!

## 220. Punch DIN 9844, Shape A

d <sub>1</sub>	Gradation			l <sub>1</sub>	71	90	112
	d <sub>1</sub>	d <sub>3</sub>	r				
2	0.1	3.6	0.2		●	●	●
2.3	0.1	4	0.2		●	●	●
2.6	0.1	4.5	0.3		●	●	●
2.9	0.1	5	0.3		●	●	●
3.3	0.1	6	0.3		●	●	●
3.6	0.1	7	0.3		●	●	●
4.1	0.1	8	0.5		●	●	●
4.6	0.1	8.5	0.5		●	●	●
5.1	0.1	9	0.5		●	●	●
5.5	0.1	9.5	0.5		●	●	●
6	0.1	10	0.5		●	●	●
6.5	0.5	10.8	0.7		●	●	●
7.5	0.5	12	0.7		●	●	●
8.5	0.5	13	0.7		●	●	●
9.5	0.5	14.5	0.7		●	●	●
10.5	0.5	16	1		●	●	●
11.5	0.5	18	1		●	●	●
13	0.5	20	1		●	●	●
15	0.5	22	1		●	●	●

## Ordering Code (example):

Punch DIN 9844, Shape A	=	220.
Material MAT	HSS	= 3.
Cutting diameter d <sub>1</sub>	5.5 mm	= 0550.
Length l <sub>1</sub>	71 mm	= 071
Order No	=	220. 3.0550. 071