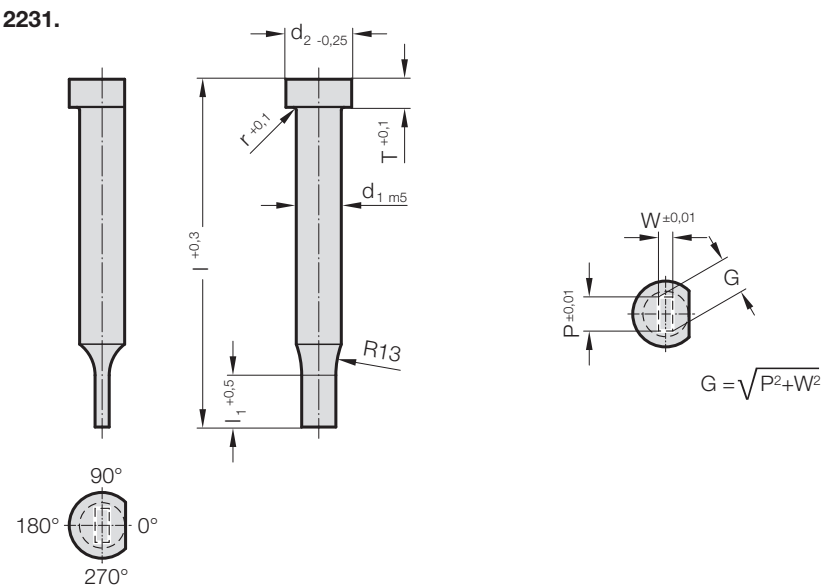


PUNCH, STEPPED, RECTANGULAR, ISO 8020



2231. Punch, stepped, rectangular, ISO 8020

d_1 / Order No	d_2	W_{min}	G_{max}	l_1 / Order No	r	T	l / (Order Code character)	71 (D)	80 (E)	90 (F)	100 (G)	120 (J)
3 / (1)	5	0.5	2.9	8 (1) 10 (2)	0.25	3		●	●	●	●	●
4 / (2)	6	0.8	3.9	8 (1) 13 (3)	0.25	3		●	●	●	●	●
5 / (3)	8	1	4.9	13 (3) 19 (4)	0.3	5		●	●	●	●	●
6 / (4)	9	1.6	5.9	13 (3) 19 (4)	0.3	5		●	●	●	●	●
8 / (5)	11	2	7.9	19 (4) 25 (5)	0.3	5		●	●	●	●	●
10 / (6)	13	3.5	9.9	19 (4) 25 (5)	0.3	5		●	●	●	●	●
13 / (7)	16	4.5	12.9	19 (4) 25 (5)	0.4	5		●	●	●	●	●
16 / (8)	19	6	15.9	19 (4) 25 (5)	0.4	5		●	●	●	●	●
20 / (9)	23	8	19.9	19 (4) 25 (5)	0.4	5		●	●	●	●	●
25 / (10)	28	10	24.9	19 (4) 25 (5)	0.4	5		●	●	●	●	●
32 / (11)	35	10	31.9	25 (5) 30 (6)	0.4	5		●	●	●	●	●

Material:

HSS

Hardness:

Shaft 64 ± 2 HRC

Head 52 ± 5 HRC

ASP 23 - ASP 2023

upon request

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

Execution:

Punch head hot upset-forged. Shoulder, shaft and punch shape fine ground.

The anti-rotation surface parallel to $P = 0^\circ$ as standard.

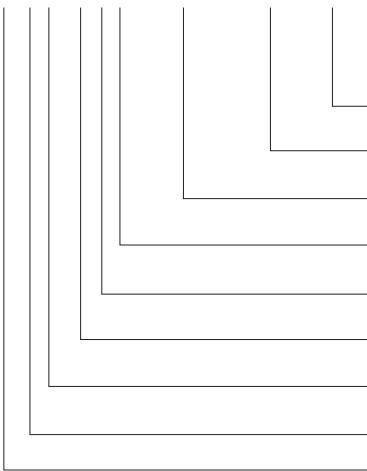
Special dimensions on request.

Note:

With kerf ≤ 0.04 mm, FIBRO rounds off sharp edges if the punch and piercing die bush are ordered together. This reduces the fitting time and the risk of an edge break during operation.

Ordering Code (example):

2231.9F4.1550.1150.B



Angle:

90°

Shape: rectangular, Width W

W = 11,5 mm

Shape: rectangular, Length P

P = 15,5 mm

Punch cutting length: l_1

19 mm

Length: l

90 mm

Diameter: d_1

20 mm

Type:

ISO

Execution:

rectangular

Punch:

without ejector pin

Order Code character

= (B)

= 1150

= 1550

Order No

= (4)

Order Code character

= (F)

Order No

= (9)

Order No

= (1)

Order No

= (3)

= 22