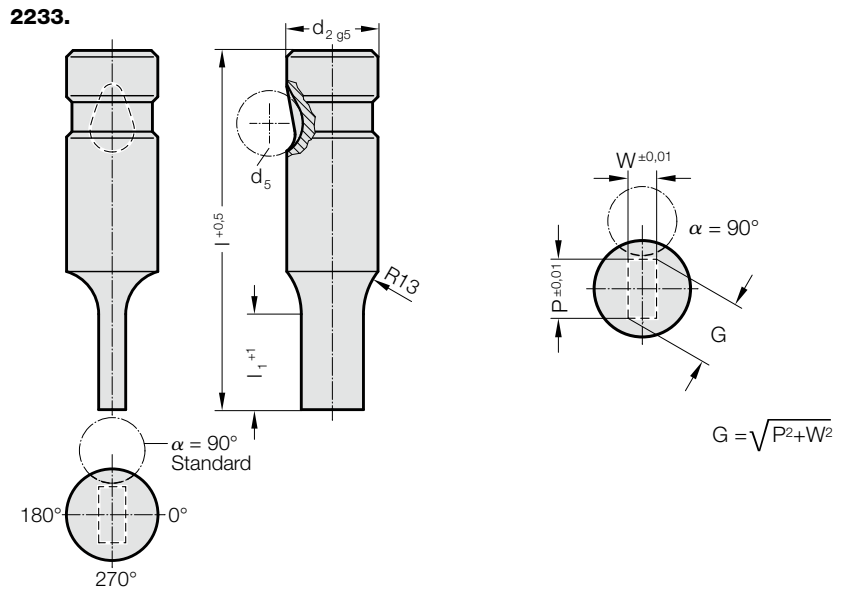


BALL-LOCK PUNCH, STEPPED, RECTANGULAR, HEAVY DUTY



2233. Ball-Lock punch, stepped, rectangular, heavy duty

d_2 / Order No	d_5	W_{min}	G_{max}	l_1 / Order No	l (Order Code character)	63 (C)	71 (D)	80 (E)	90 (F)	100 (G)	110 (H)	125 (J)
10 / (2)	10	1.6	9.9	13(1) 19(2)		●	●	●	●	●	●	●
13 / (3)	12	4.5	12.9	13(1) 19(2)		●	●	●	●	●	●	●
16 / (4)	12	6	15.9	13(1) 19(2) 25(3)		●	●	●	●	●	●	●
20 / (5)	12	8	19.9	13(1) 19(2) 25(3)		●	●	●	●	●	●	●
25 / (6)	12	10	24.9	13(1) 19(2) 25(3)			●	●	●	●	●	●
32 / (7)	12	12.5	31.9	13(1) 19(2) 25(3)			●	●	●	●	●	●
40 / (9)	12	14	39.9	19(2) 25(3) 30(4)				●	●	●	●	●

$l_1=10$ where $W < 2.20$

Material:

HSS

Hardness 62 ± 2 HRC

Execution:

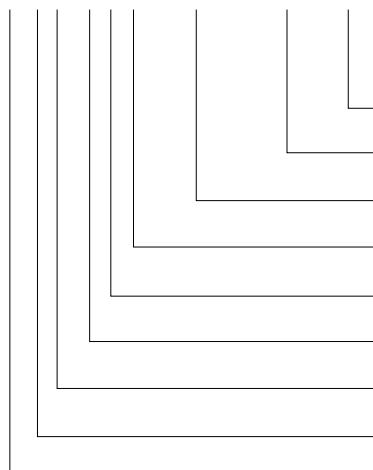
Shaft and punch shape fine ground.
Special dimensions on request.

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):

2233.2F1.0650.0450.B



Angle:
90°

Shape: rectangular, Width W
W = 4,5 mm

Shape: rectangular, Length P
P = 6,5 mm

Punch cutting length: l_1
13 mm

Length: l
90 mm

Diameter: d_2
10 mm

Type:
heavy

Execution:
rectangular

Punch:
without ejector pin

Order Code character
= (B)

= 0450

= 0650

Order No
= (1)

Order Code character
= (F)

Order No
= (2)

Order No
= (3)

Order No
= (3)

= 22