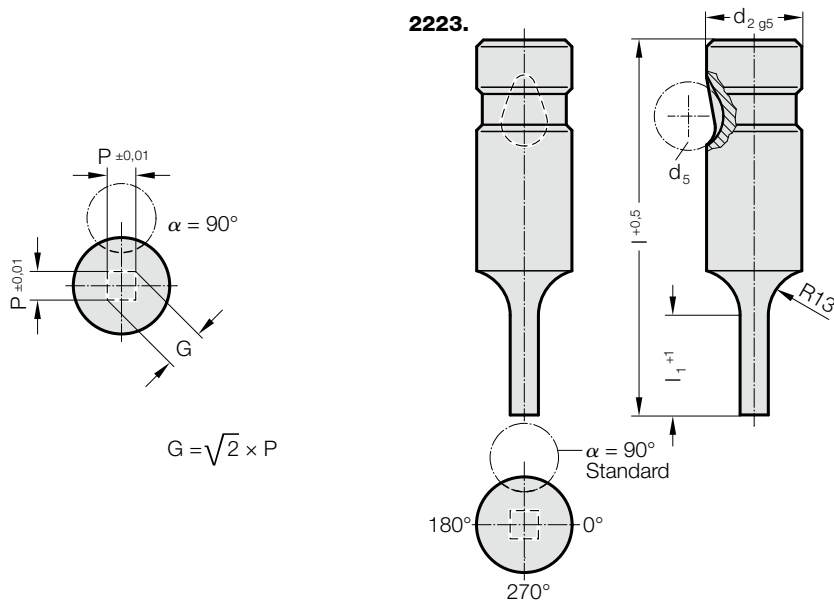


# BALL-LOCK PUNCH, STEPPED, SQUARE, HEAVY DUTY



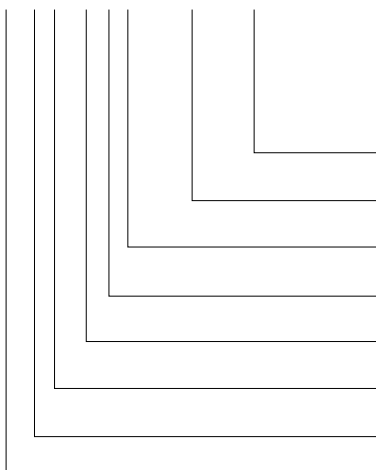
## 2223. Ball-Lock punch, stepped, square, heavy duty

d <sub>2</sub> / Order No	d <sub>5</sub>	P <sub>min</sub>	G <sub>max</sub>	l <sub>1</sub> / Order No	l (Order Code character)	63	71	80	90	100	110	125
						(C)	(D)	(E)	(F)	(G)	(H)	(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<sub>1</sub>=10 where P < 2.20

### Ordering Code (example):

**2223.3F1.0620.B**



**Angle:**  
90°  
**Shape: square, Length P**  
P = 6,2 mm  
**Punch cutting length: l<sub>1</sub>**  
13 mm  
**Length: l**  
90 mm  
**Diameter: d<sub>2</sub>**  
13 mm  
**Type:**  
heavy  
**Execution:**  
square  
**Punch:**  
without ejector pin

**Order Code character**  
= (B)  
  
= 0620  
**Order No**  
= (1)  
**Order Code character**  
= (F)  
**Order No**  
= (3)  
**Order No**  
= (3)  
**Order No**  
= (2)

### 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.