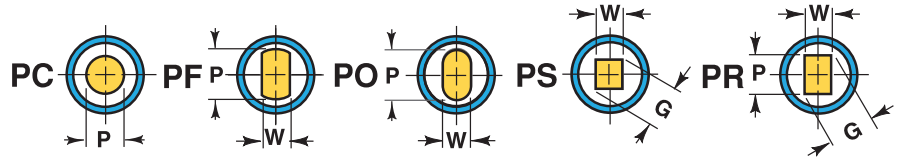
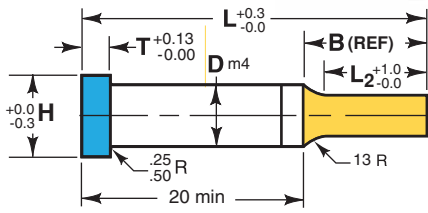


PORTER Ultra Precision Headed Punch (P-)



Ordering Example: Qty Steel Type Code L₂/L W P Locate
13 PM4 PS 013 1971 5.50 x 5.50 LM2

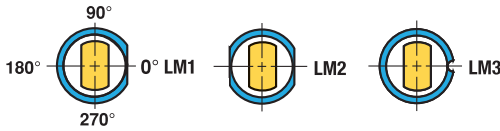
Steel: D2 L ≤ 100, M2 Rc 60-63
PM4, Rc 63-65
Heads Rc 40-55 (25mm Ø and smaller and L ≥ 50)

TOLERANCES

Round P $+0.005$ -0.000 Ⓞ .008 P,W to D
Shape P,W $+0.005$ -0.000 Ⓞ .008 P,W to D

Manufactured to ISO and NAPMA standards where applicable.

Reflected View



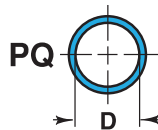
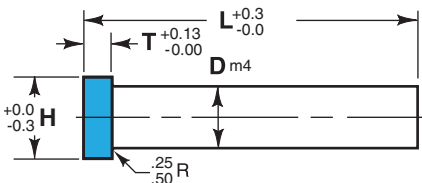
Optional Locating Methods See Page 38 for details and options.

Shank		Head		L ₂				Lengths L												Range P	Min W	Max P/G	
D mm	Code No.	H	T	8	13	19	25	45	50	56	60	63	70	71	80	90	100	110	125				150
4.0	004	7	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●				1.00 – 3.99	1.60	4.00
5.0	005	8	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●				1.20 – 4.99	1.60	5.00
6.0	006	9	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●				1.60 – 5.99	1.60	6.00
8.0	008	11	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		2.50 – 7.99	2.50	8.00
10.0	010	13	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	3.20 – 9.99	3.20	10.00
13.0	013	16	5		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	5.00 – 12.99	4.50	13.00
16.0	016	19	5		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	8.00 – 15.99	6.00	16.00
20.0	020	23	5		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	9.00 – 19.99	8.00	20.00
22.0	022	25	5		●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	10.00 – 21.99	8.50	22.00
25.0	025	28	5		●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	12.00 – 24.99	9.00	25.00
32.0	032	35	5		●	●	●				●	●	●	●	●	●	●	●	●	●	16.00 – 32.00	10.00	32.00

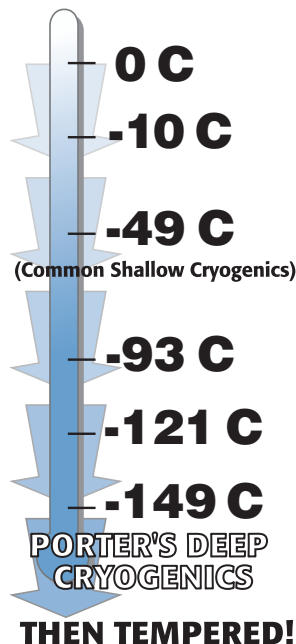
• These sizes also available in PM4 material. P,W below 1.60 L₂ = 8 max. P,W below 2.50 L₂ = 19 max.

All Lengths 110 mm and under in Light Blue Panel have Hot Forged Heads for added strength and toughness.

PORTER Ultra Precision Headed Punch Blank (PQ)



Ordering Example: Qty Steel Type Code L
25 PM4 PQ 020 100



All Porter Ultra Precision Punches up to 25 mm Dia. are “Deep Cryogenically” treated for
1. Wear
2. Toughness
3. Dimensional Stability
See page 42 for more details.

Standard Alterations are changes that are beyond the ranges listed in the catalog that can be altered for a minimal charge. See page 37.

For additional standard forms and configurations see pages 32 and 33.