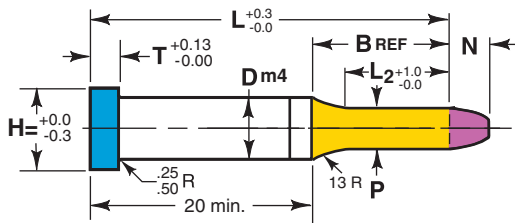


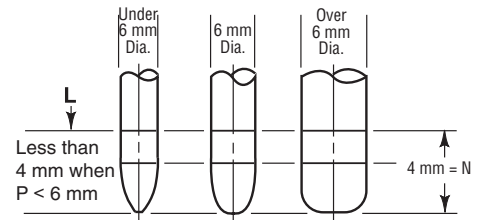
PORTER Ultra Precision Headed Pilots

Ultra Precision Regular Pilot



B & L Lengths do not include Pilot Tip N

Steel: D2 L ≤ 100 OAL, M2 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 to D
 Manufactured to ISO and NAPMA standards where applicable.



Ordering Example:

Qty Steel Type Code L₂/L P
 50 M2 PP 004 2792 x 3.75

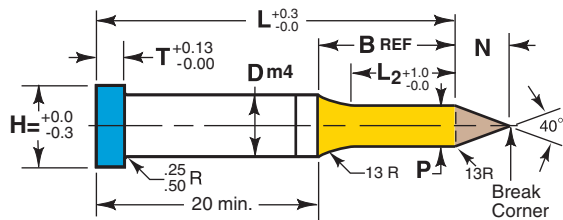
Headless Punch Pilots are also available.
 To order call out: **Regular Pilot = HRP**
Locator Pilot = HLP
Angular Pilot = HAP

Shank		Head		L ₂				Lengths L										N	Round		
D	Pilot Type	H	T	10	15	21	27	47	52	58	62	65	72	73	82	92	102	112	127	Dim.	Range P
4	PP004	7	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4.0	1.55 – 4.00
5	PP005	8	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4.0	1.55 – 5.00
6	PP006	9	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4.0	1.55 – 6.00
8	PP008	11	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4.0	2.45 – 8.00
10	PP010	13	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4.0	3.15 – 10.00
13	PP013	16	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4.0	4.95 – 13.00
16	PP016	19	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4.0	7.95 – 16.00
20	PP020	23	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4.0	8.95 – 20.00
22	PP022	25	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4.0	9.95 – 22.00
25	PP025	28	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4.0	11.95 – 25.00
32	PP032	35	5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4.0	15.95 – 32.00

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

● These sizes also available in PM4 material. P below 1.60 L₂ = 10 max P below 2.50 L₂ = 21 max

Ultra Precision Angular Pilot-PAP Type

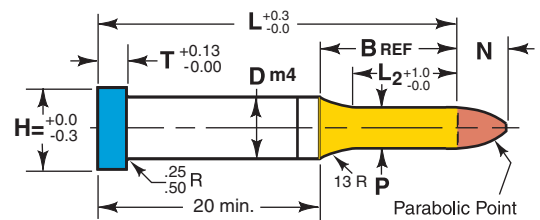


B & L Lengths do not include Pilot Tip N

Ordering Example:

Qty Steel Type Code L₂/L P
 13 M2 PAP 016 2162 x 10.50

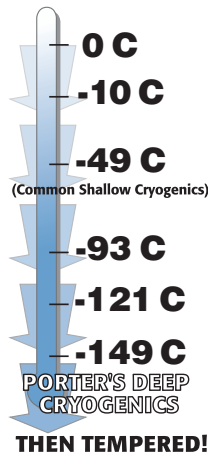
Long Parabolic Locator Pilot-PLP Type



B & L Lengths do not include Pilot Tip N

Ordering Example:

Qty Steel Type Code L₂/L P
 10 PM4 PLP 008 1592 x 5.20



All Porter Ultra Precision Pilots are "Deep Cryogenically" treated for
 1. Wear
 2. Toughness
 3. Dimensional Stability See page 42 for more details.

Shank		Head		L ₂				Lengths L							N	Round	Pilot	
D	Pilot Type	H	T	10	15	21	27	65	72	73	82	92	102	112	127	Dim	Range P	Type
8		11	5	●	●	●	●	●	●	●	●	●	●	●	●	7	2.45 – 8.00	PLP008
10	PAP010	13	5	●	●	●	●	●	●	●	●	●	●	●	●	8	4.85 – 10.00	PLP010
13	PAP013	16	5	●	●	●	●	●	●	●	●	●	●	●	●	10	6.30 – 13.00	PLP013
16	PAP016	19	5	●	●	●	●	●	●	●	●	●	●	●	●	15	9.95 – 16.00	PLP016
20	PAP020	23	5	●	●	●	●	●	●	●	●	●	●	●	●	20	13.60 – 20.00	PLP020
22	PAP022	25	5	●	●	●	●	●	●	●	●	●	●	●	●	22	15.00 – 22.00	PLP022
25	PAP025	28	5	●	●	●	●	●	●	●	●	●	●	●	●	25	17.75 – 25.00	PLP025
32	PAP032	35	5	●	●	●	●	●	●	●	●	●	●	●	●	30	20.85 – 32.00	PLP032

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

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

● These sizes also available in PM4 material.