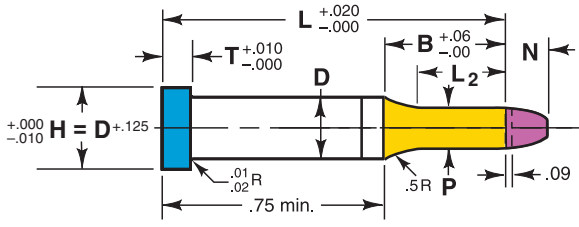


PORTER Ultra Precision Headed Pilots

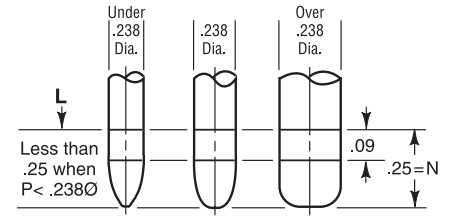


B & L Lengths do not include Pilot Tip N

Ordering Example:

Qty Steel Type D B L P
5 PM4 PP 50 C x 2.50 x .374

**Steel: A2 L ≤ 4" OAL, M2 Rc 60-63
PM4 L ≤ 4" OAL, Rc 63-65**
Heads Rc 40-55 (1" Ø and smaller and L ≥ 2")
P $^{+.0002}_{-.0000}$ ◎ .0003 P to D
Manufactured to ANSI and NAPMA Standards where applicable.

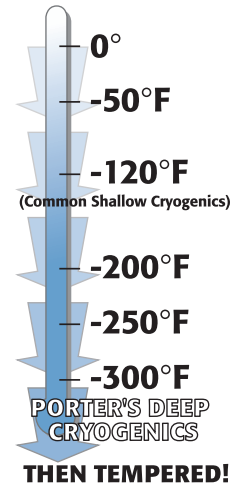


Ultra Precision Regular Pilot

Pilot Type	D $^{+.0004}_{+.0002}$	Point Length B Alternates					Lengths L in .25" Increments	Range P $^{+.0002}_{-.0000}$	N	T
		A(.50)	B(.75)	C(1.0)	D(1.25)	E(1.5)				
PP12	.1250	●	●	●	●		1.25 thru 3.00	.061 – .1250	.250	.125
PP18	.1875	●	●	●	●		1.25 thru 3.75	.061 – .1875	.250	.125
PP25	.2500	●	●	●	●		1.25 thru 3.75	.061 – .2500	.250	.188
PP31	.3125	●	●	●	●		1.25 thru 4.00	.092 – .3125	.250	.188
PP37	.3750	●	●	●	●		1.50 thru 4.50	.124 – .3750	.250	.188
PP43	.4375	●	●	●	●		1.50 thru 4.00	.186 – .4375	.250	.188
PP50	.5000	●	●	●	●		1.50 thru 4.50	.224 – .5000	.250	.188
PP62	.6250	●	●	●	●		1.50 thru 4.50	.309 – .6250	.250	.188
PP75	.7500	●	●	●	●	●	1.50 thru 4.50	.389 – .7500	.250	.188
PP100	1.0000	●	●	●	●	●	1.50 thru 4.50	.484 – 1.0000	.250	.188

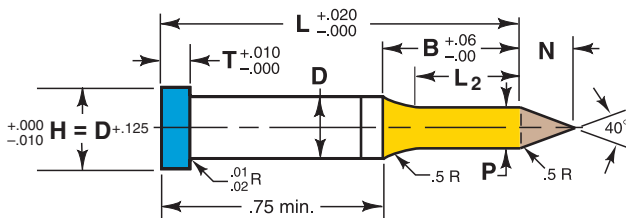
P below .060 Ø available B=1.00 max
P below .050 Ø available B=.75 max

All Lengths under 4.50 OAL in Light Blue Panel have Hot Forged Heads for added strength and toughness.



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

Ultra Precision Angular Pilot-PAP Type

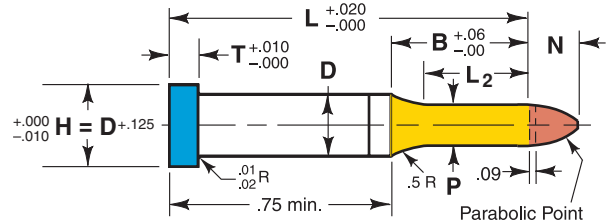


B & L Lengths do not include Pilot Tip N

Ordering Example:

Qty Steel Type D B L P
13 M2 PAP 18 D x 3.00 x .155

Long Parabolic Locator Pilot-PLP Type



B & L Lengths do not include Pilot Tip N

Ordering Example:

Qty Steel Type D B L P
5 M2 PLP 75 B x 2.25 x .686

Pilot Type	D $^{+.0004}_{+.0002}$	Point Length B Alternates				Lengths L in .25" Increments	Range P $^{+.0002}_{-.0000}$	N MAX	T	Pilot Type
		B(.75)	C(1.0)	D(1.25)	E(1.5)					
PAP18	.1875	●	●	●		2.25 thru 3.50	.061 – .1875	.187	.125	PLP18
PAP25	.2500	●	●	●		2.25 thru 3.50	.061 – .2500	.250	.188	PLP25
PAP31	.3125	●	●	●		2.25 thru 4.00	.092 – .3125	.312	.188	PLP31
PAP37	.3750	●	●	●		2.25 thru 4.00	.124 – .3750	.375	.188	PLP37
PAP43	.4375	●	●	●		2.25 thru 4.25	.186 – .4375	.437	.188	PLP43
PAP50	.5000	●	●	●		2.25 thru 5.50	.224 – .5000	.500	.188	PLP50
PAP62	.6250	●	●	●		2.25 thru 5.25	.309 – .6250	.625	.188	PLP62
PAP75	.7500	●	●	●	●	2.25 thru 5.25	.389 – .7500	.750	.188	PLP75
PAP100	1.0000	●	●	●	●	3.00 thru 5.00	.484 – 1.0000	1.000	.188	PLP100

All Lengths under 4.50 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.