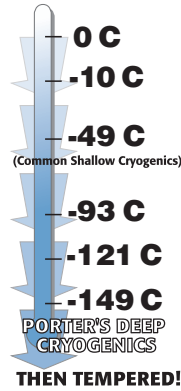
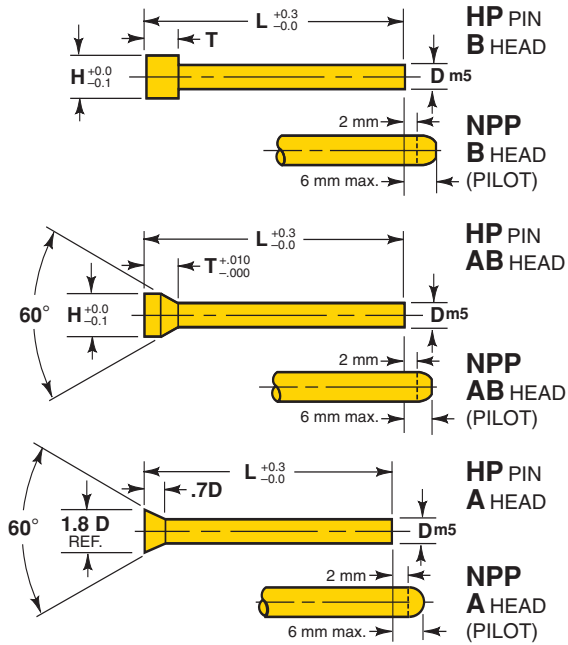


# PORTER HP, NPP, NAP, L & LN Type Perforators

Shank diameters in .025 increments ZeroTemp (Deep Cryogenic) Treated



All Porter Perforators up to #125 are "Deep Cryogenically" treated for:  
 1. Wear  
 2. Toughness  
 3. Dimensional Stability  
 See page 42 for more details.

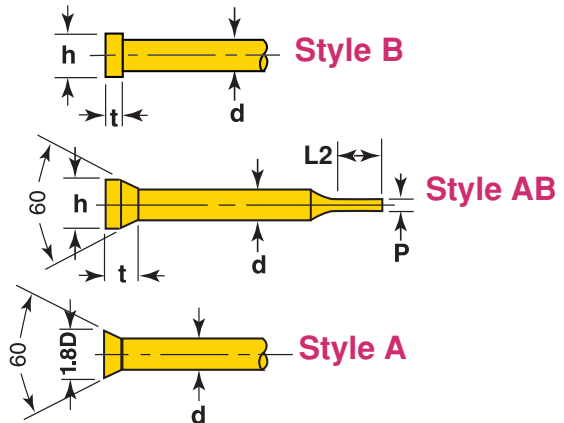
Catalog Code	Size No.	Range L <sup>+0.5</sup> <sub>-0.0</sub>	D m5 Increment	T <sup>+0.1</sup> <sub>-0.0</sub>	H* <sup>+0.0</sup> <sub>-0.1</sub>	m5 Chart
HP Straight Pin	101	32-40	0.6 - 0.79	2.4	1.5	+0.006 +0.003
	102	32-50	0.8 - 1.09	2.4	1.8	+0.006 +0.003
	103	38-56	1.1 - 1.49	2.4	2.2	+0.006 +0.003
	104	38-63	1.5 - 1.89	2.4	2.6	+0.006 +0.003
	105	38-56	1.9 - 2.29	2.4	3.0	+0.006 +0.003
	106	38-71	2.3 - 2.69	2.4	3.4	+0.006 +0.003
	107	38-71	2.7 - 3.09	2.4	3.8	+0.006 +0.003
	108	38-71	3.1 - 3.49	2.4	4.2	+0.009 +0.005
	109	38-71	3.5 - 3.89	2.4	4.6	+0.009 +0.005
	110	38-71	3.9 - 4.29	2.4	5.0	+0.009 +0.005
NPP Radius Pilot Tip	111	38-80	4.3 - 4.69	3.2	5.4	+0.009 +0.005
	112	38-80	4.7 - 5.09	3.2	5.8	+0.009 +0.005
NAP Angled Pilot Tip	113	38-80	5.1 - 5.49	3.2	6.2	+0.009 +0.005
	114	38-80	5.5 - 6.09	3.2	6.8	+0.009 +0.005
	115	38-80	6.1 - 6.49	3.2	7.2	+0.012 +0.007
	116	44-90	6.5 - 6.89	3.2	7.6	+0.012 +0.007
	117	44-90	6.9 - 7.29	3.2	8.0	+0.012 +0.007
	118	44-90	7.3 - 7.69	3.2	8.4	+0.012 +0.007
	119	44-90	7.7 - 8.09	3.2	8.8	+0.012 +0.007
	120	44-90	8.1 - 8.49	5.0	9.2	+0.012 +0.007
	121	50-100	8.5 - 8.89	5.0	9.6	+0.012 +0.007
	122	50-100	8.9 - 9.29	5.0	10.0	+0.012 +0.007
123	50-100	9.3 - 9.69	5.0	10.4	+0.012 +0.007	
124	50-100	9.7 - 10.09	5.0	10.8	+0.012 +0.007	
125	50-100	10.1 - 10.49	5.0	11.2	+0.015 +0.008	
<b>Size 126 and larger "B" style head</b>						
126	56-100	8.5 - 10.00	5.0	13.0		
127	56-100	10.01 - 11.50	5.0	14.5		
128	56-100	11.51 - 13.00	5.0	16.0		
129	56-110	13.01 - 14.50	5.0	17.5		
130	56-110	14.51 - 16.00	5.0	19.0		
131	56-110	16.01 - 18.00	5.0	21.0		
132	56-110	18.01 - 20.00	5.0	23.0		
133	56-110	20.01 - 22.50	5.0	25.5		
134	56-110	22.51 - 25.00	5.0	28.0		
135	56-110	25.01 - 28.50	5.0	31.5		
136	56-110	28.51 - 32.00	5.0	35.0		

**Ordering Example:**

Qty.	Style	Size	L	D	Head Style
18	HP	106 x 71 x 2.50			AB
12	NPP	106 x 60 x 2.50			AB
16	NAP	106 x 60 x 2.50			AB

- \* H Diameter <sup>+0.0</sup><sub>-0.3</sub> Sizes #26 thru #136.
- All perfs are head drawn for additional toughness.
- Pilot tip is not included in the "L" length of "NPP" & "NAP" pilots.
- Perforators (up to #125) are ZeroTemp treated (See page 42) giving you the toughest M2 steel perforator for your money.
- \*\* 40° angled tip pilot also available, call out "NAP"

**Steel: D2, M2 Rc 60-63**  
**Heads Rc 40-55 (L ≥ 50)**  
**TOLERANCES**  
 P <sup>+0.005</sup><sub>-0.000</sub>    Ⓞ .008    P to D  
 Manufactured to ISO and NAPMA standards where applicable.



**Ordering Example:**

Qty.	Cat #	L	P	Head Style
12	N102	x 58 x 1.40 x		AB
12	LN102	x 58 x 1.40 x		B

Catalog Number	N L2	d m5	h	t	Range of Lengths	P	LN L2	Catalog Number
N-100	3.0	1.6	2.6	2.4	38 to 63	.8- 1.09	6.0	LN-100
N-101	3.0	1.6	2.6	2.4	38 to 63	1.1- 1.59	8.0	LN-101
N-102	4.0	2.0	3.0	2.4	38 to 63	1.1- 1.59	8.0	LN-102
N-103	4.0	2.0	3.0	2.4	38 to 63	1.6- 1.99	10.0	LN-103
N-104	5.0	2.4	3.4	2.4	38 to 71	1.5- 1.99	10.0	LN-104
N-105	5.0	2.4	3.4	2.4	38 to 71	2.0- 2.39	12.0	LN-105
N-106	6.0	3.2	4.2	2.4	38 to 71	2.0- 3.19	14.0	LN-106
N-107	8.0	3.9	5.0	2.4	38 to 71	2.4- 3.89	18.0	LN-107
N-108	11.0	4.7	5.8	3.2	45 to 80	2.8- 4.69	24.0	LN-108
N-109	12.0	5.6	6.8	3.2	45 to 80	3.2- 5.59	26.0	LN-109
N-110	13.0	6.5	7.6	3.2	50 to 90	3.8- 6.49	28.0	LN-110
N-111	14.0	8.5	9.6	5.0	50 to 100	4.8- 8.49	30.0	LN-111
N-112	16.0	10.1	11.2	5.0	63 to 100	6.5- 10.09	34.0	LN-112