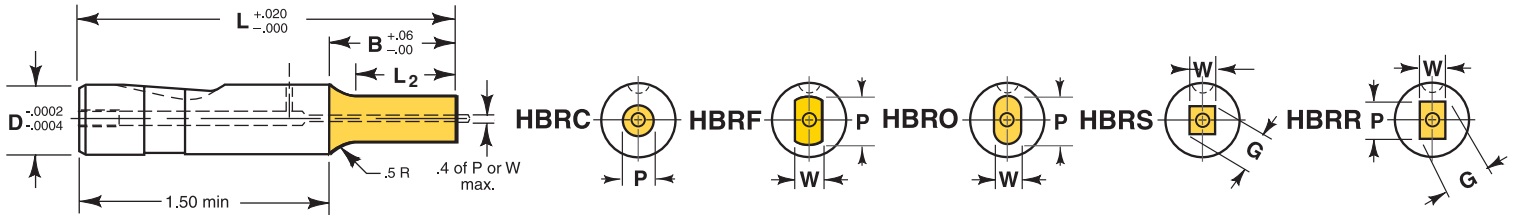
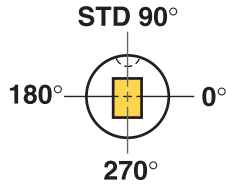


# PORTER Heavy Duty Bal-Lok Retracto Punch (HBR-)



### Ordering Example:

Qty Steel Type D B L W P  
13 M2 HBRO 75 D x 4.00 x .500 x .625



Standard ball seat location is at 90° using reflected view for punches. Alternate locations of 0°, 180° and 270° are available at no extra charge. Custom ball seat locations can be specified as number of degrees counterclockwise from 0° Example call out: BS 180°

Steel: M2 Rc 60-63  
PM4, Rc 63-65 L ≤ 4"

### TOLERANCES

Round P  $\begin{matrix} +.0005 \\ -.0000 \end{matrix}$   $\text{Ⓢ} \text{ .0005 P to D}$

Shape P, W  $\pm .0005$   $\text{Ⓢ} \text{ .001 P,W to D}$

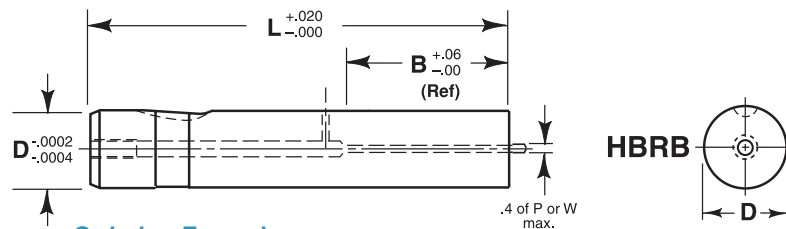
Manufactured to ANSI and NAPMA Standards where applicable.

Back Draft .001/inch L2 max.

Shank		Point Length B				Lengths L in .25" Increments	Point			Replacement Retracto Kit*
		Standard	Alternates				Round	Shape		
D	Code No.	S	B(.75)	C(1.0)	D(1.25)	Range P	Min W	Max P/G		
.375	37	.625	●	●		2.50 thru 4.25	.062 - .374	.125	.374	K2I K4I
.500	50	.750	●	●	●	2.50 thru 4.25	.180 - .499	.187	.499	K6I
.625	62	.875	●	●	●	2.50 thru 4.25	.312 - .624	.250	.624	K6I
.750	75	.937	●	●	●	2.50 thru 4.25	.437 - .749	.312	.749	K9I
.875	87	.937	●	●	●	2.75 thru 4.25	.620 - .874	.375	.874	K9I
1.000	100	.937	●	●	●	3.00 thru 5.00	.750 - .999	.437	.999	K9I
1.250	125	1.000	●	●	●	3.00 thru 5.00	1.000 - 1.249	.500	1.249	K12I

\*Retracto kits available see page 36 for details. Retracto Punches 1.25 ø = no side hole.

# PORTER Heavy Duty Bal-Lok Retracto Punch (HBRB)



### Ordering Example:

Qty Steel Type D B L  
25 PM4 HBRB 50 C x 3.50

Shank		Point Length B				Lengths L in .25" Increments	Replacement Retracto Kit*
		Standard	Alternates				
D	Code No.	S	B(.75)	C(1.0)	D(1.25)		
.375	37	.625	●	●		2.50 thru 4.25	K2I K4I
.500	50	.812	●	●	●	2.50 thru 5.00	K6I
.625	62	.937	●	●	●	2.50 thru 5.00	K6I
.750	75	1.062	●	●	●	2.50 thru 5.00	K9I
.875	87	1.137	●	●	●	2.75 thru 5.00	K9I
1.000	100	1.250	●	●	●	3.00 thru 5.00	K9I
1.250	125	1.437	●	●	●	3.00 thru 5.00	K12I

\*Retracto kits available see page 36 for details. Retracto Punches 1.25 ø = no side hole.

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.