

GLC ● GDC ● GUC ●

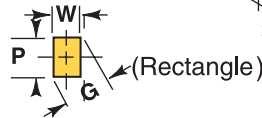
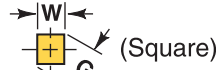
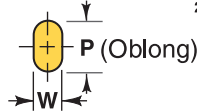
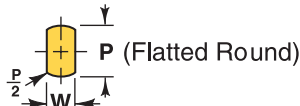
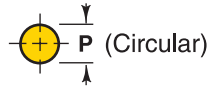
GLF ■ GDF ■ GUF ■

GLO ● GDO ● GUO ●

GLS ■ GDS ■ GUS ■

GLR ■ GDR ■ GUR ■

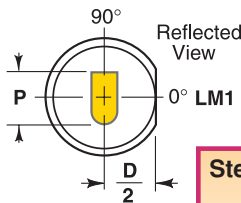
GLZ ● GDZ ● GUZ ●



Additional Standard Forms (Z) See pages 32 and 33.

Body ØD	Code No.	Length L			Circular ID Range P	Shape ID		ØC ±0.12	Match Punch Shank Ø
		10.0	13.0	16.0		Min. W	Max. P/G		
6.0	006	•	•	•	1.50-4.00	1.50	4.00	4.37	4.0
8.0	008	•	•	•	1.50-5.00	1.50	5.00	5.37	5.0
10.0	010	•	•	•	1.50-6.00	1.50	6.00	6.37	6.0
13.0	013		•	•	2.50-8.00	2.00	8.00	8.37	8.0
16.0	016		•	•	3.50-10.00	3.20	10.00	10.37	10.0
20.0	020		•	•	5.50-13.00	4.50	13.00	13.37	13.0
22.0	022		•	•	8.00-16.00	6.00	16.00	16.37	16.0
25.0	025			•	10.00-20.00	8.00	20.00	20.37	20.0

- Locating flats and dowels, see page 38.
- Alterations, see page 37.
- Guide Bushing I.D. should be at least .0127mm larger than the punch point that it is used with.

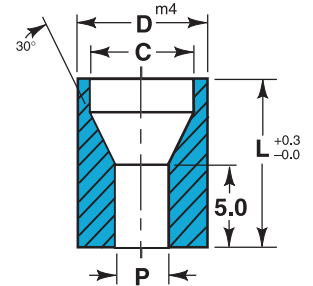


Steel: D2 Rc 60-63
TOLERANCES
 P & W $\begin{matrix} +0.008 \\ -0.000 \end{matrix}$ © 0.008 P to D
 Manufactured to ISO and NAPMA standards where applicable.

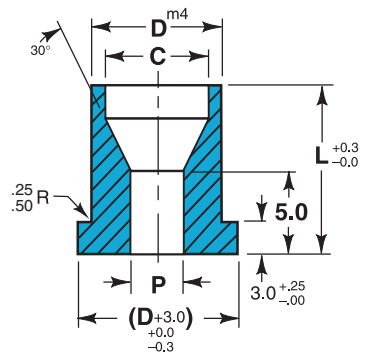
Ordering Example:

Headless 4 ea. GLC 010 x 13 x 4.50
 Head-Down 4 ea. GDO 013 x 16 x 2.50 x 6.00 LM1
 Head-Up 4 ea. GUS 008 x 10 x 3.00 LM1

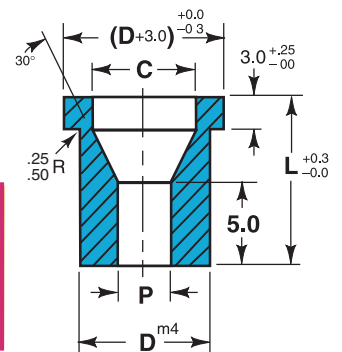
GL-HEADLESS



GD-HEAD-DOWN



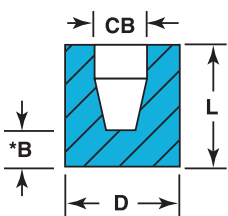
GU-HEAD-UP



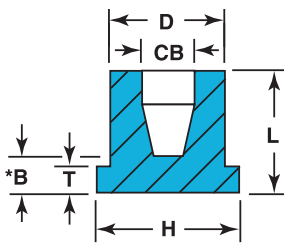
Ordering Example:

Headless 4 ea. GLC 010 x 13 x 4.50
 Head-Down 4 ea. GDO 013 x 16 x 2.50 x 6.00 LM1
 Head-Up 4 ea. GUS 008 x 10 x 3.00 LM1

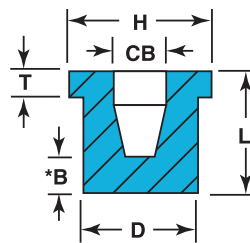
HL HEADLESS



HD HEAD DOWN



HU HEAD UP



For Round and Shaped Punches

- Eliminate Vibration
- Will not wear or gall punch
- Will not distort alignment because the punch shears its own bore.

Headless	Head Down	Head Up	D $\begin{matrix} +0.08 \\ +0.18 \end{matrix}$	L ±0.15				Punch P/W Range	H $\begin{matrix} +0 \\ -0.3 \end{matrix}$	CB	T ±0.15
				8	10	13	16				
HL-006	HD-006	HU-006	6.0	•	•	•		1.0-3.4	9.0	3.5	3.0
HL-008	HD-008	HU-008	8.0		•	•	•	1.0-4.9	11.0	5.2	3.0
HL-010	HD-010	HU-010	10.0		•	•	•	1.0-6.5	13.0	7.2	3.0
HL-013	HD-013	HU-013	13.0		•	•	•	2.5-7.9	16.0	9.2	3.0
HL-016	HD-016	HU-016	16.0			•	•	3.0-9.5	19.0	11.2	3.0

Ordering Example:

8 ea. HL 010 x 13
 6 ea. HD 013 x 16
 10 ea. HU 008 x 10

* The counterbore "CB" is so constructed that the land length equals 1.5 x P.