

BALL LOCK PILOTS

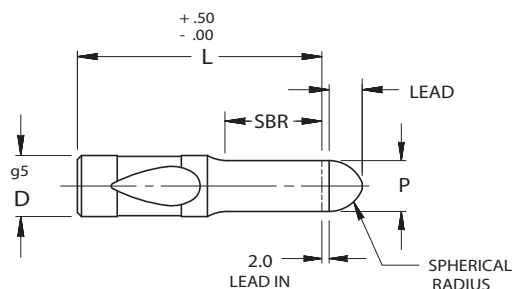
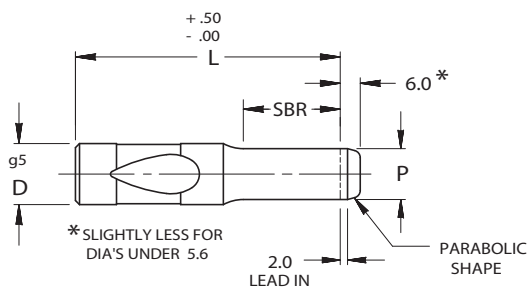


HEAVY DUTY

STANDARD STYLE



BULLET NOSE STYLE



| P DIM | LEAD |
|-----------|------|
| 1.50-9.50 | 4 |
| 9.51-up | 10 |

FOR STANDARD ALTERATIONS SEE PAGES 49-54.

| CATALOG TYPE | SHANK DIA D | RANGE P | LENGTH "L" | | | | | |
|--------------|-------------|---------------|------------|----|----|-----|-----|-----|
| | | | 71 | 80 | 90 | 100 | 110 | 125 |
| MH_10 | 10 | 2.50 - 10.00 | X | X | X | X | X | X |
| MH_13 | 13 | 5.00 - 13.00 | X | X | X | X | X | X |
| MH_16 | 16 | 8.00 - 16.00 | X | X | X | X | X | X |
| MH_20 | 20 | 12.00 - 20.00 | X | X | X | X | X | X |
| MH_25 | 25 | 16.00 - 25.00 | | X | X | X | X | X |
| MH_32 | 32 | 24.00 - 32.00 | | X | X | X | X | X |
| MH_40 | 40 | 30.00 - 40.00 | | X | X | X | X | X |

Material

Steel: M2, RC 60-63

Standard Point Tolerance

Round P $\begin{matrix} +.01 \\ -.00 \end{matrix}$.01 P to D

When P = D Shank Tolerances Apply

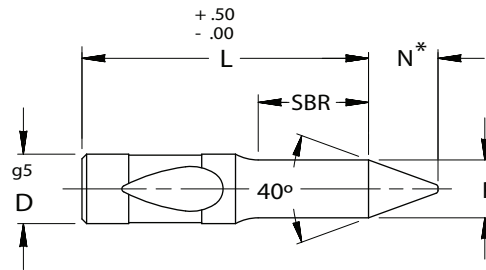
| CATALOG TYPE | SHANK D | SBR | | |
|--------------|---------|-----------|------------|----|
| | | NAPMA STD | ALTERNATES | |
| | | | B | C |
| MH_10 | 10 | 19 | 10 | — |
| MH_13 | 13 | 19 | 13 | 25 |
| MH_16 | 16 | 19 | 13 | 25 |
| MH_20 | 20 | 19 | 13 | 25 |
| MH_25 | 25 | 19 | 13 | 25 |
| MH_32 | 32 | 19 | 13 | 25 |
| MH_40 | 40 | 25 | 19 | 30 |

L=71 SBR MAX=19

BALL LOCK PILOTS

HEAVY DUTY

LONG LEAD STYLE



* N BECOMES 1.2 X P MIN
WHEN P IS BELOW
(SEE CHART)

FOR STANDARD ALTERATIONS SEE PAGES 49-54.

| CATALOG TYPE | SHANK DIA D | RANGE P | N | P BELOW SEE NOTE* | LENGTH "L" | | | | | | |
|--------------|-------------|---------------|----|-------------------|------------|----|-----|-----|-----|-----|-----|
| | | | | | 80 | 90 | 100 | 110 | 125 | 140 | 150 |
| MHA 10 | 10 | 5.90 - 10.00 | 8 | 5.64 | X | X | X | X | X | | |
| MHA 13 | 13 | 9.90 - 13.00 | 10 | 7.11 | X | X | X | X | X | X | |
| MHA 16 | 16 | 12.90 - 16.00 | 15 | 10.74 | X | X | X | X | X | X | X |
| MHA 20 | 20 | 15.90 - 20.00 | 20 | 14.38 | X | X | X | X | X | X | X |
| MHA 25 | 25 | 19.90 - 25.00 | 25 | 18.00 | X | X | X | X | X | X | X |
| MHA 32 | 32 | 24.90 - 32.00 | 30 | 21.67 | X | X | X | X | X | X | X |
| MHA 40 | 40 | 31.90 - 40.00 | 40 | 28.96 | X | X | X | X | X | X | X |

Material
Steel: M2, RC 60-63

Standard Point Tolerance

Round P $\begin{matrix} +.01 \\ -.00 \end{matrix}$ ◎ .01 P to D

When P = D Shank Tolerances Apply

| CATALOG TYPE | SHANK D | SBR | | |
|--------------|---------|-----------|------------|------------------|
| | | NAPMA STD | ALTERNATES | |
| | | | B | C |
| MHA 10 | 10 | 19 | 32 | L MINUS 48 |
| MHA 13 | 13 | 19 | 32 | |
| MHA 16 | 16 | 25 | 38 | |
| MHA 20 | 20 | 25 | 38 | |
| MHA 25 | 25 | 25 | 38 | |
| MHA 32 | 32 | 25 | 38 | |
| MHA 40 | 40 | 30 | 45 | |