



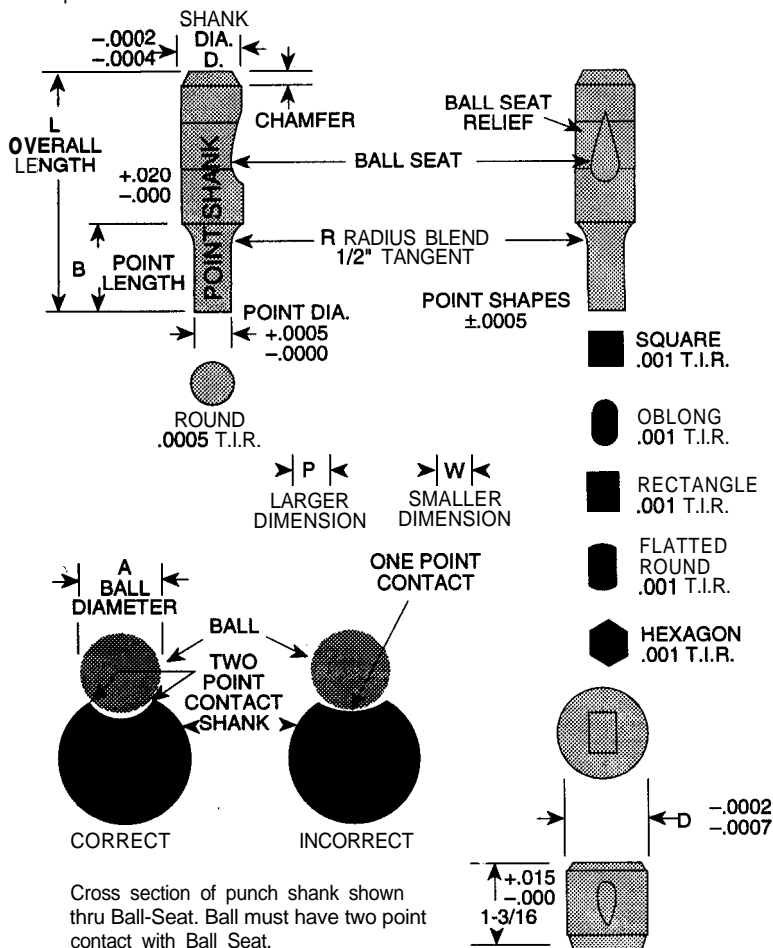
ball lock information

All A.N.S.I. standard basic ball lock, light and heavy duty punches, die buttons and retainers are included in this catalog. Light-Duty Interchangeable Punches are **standard** in Round, Oblong, Square, Rectangular, Flatted Round and Hexagon shapes with punches available in 1/4" to 1" O.D. Shank sizes. Size of the Locking Ball in the retainer ranges from 1/4" diameter to 3/8" diameter. The Light-Duty series will pierce up to 1/8" stock.

Heavy-Duty Interchangeable Punches are standard in Round, Oblong, Square, Rectangular, Flatted Round, and Hexagon shapes with punches available in 3/8" to 1-1/4" O.D. Shank sizes. Size of the Locking Ball in the retainer is 1/2" diameter. The Heavy-Duty series **generally** will pierce up to 3/8" stock in all but a few of the larger sizes.

STANDARD LOCATIONS FIVE BASIC SHAPES

To insure proper locking of the Ball Lock, insert the punch or die button with the Ball Seat at approximately 90° to the Ball and then twist the punch or button until an audible click heard.



LIGHT DUTY PUNCH

D SHANK DIAMETER	A BALL DIAMETER
1/4	1/4
3/8	1/4
1/2	5/16
5/8	5/16
3/4	3/8
7/8	3/8
1	3/8

HEAVY DUTY PUNCH

D SHANK DIAMETER	A BALL DIAMETER
3/8	3/8
1/2	1/2
5/8	1/2
3/4	1/2
7/8	1/2
1	1/2
1-1/4	1/2

DIE BUTTON

D O.D. OF BUTTON	A BALL DIAMETER
1/2	5/16
5/8	5/16
3/4	3/8
7/8	3/8
1	3/8
1-1/4	3/8
1-1/2	3/8
1-3/4	3/8