



Application Assistance

Ring Description

A ring specification should include this information:

- A. Minimum cylinder diameter*
- B. Nominal width of ring*
- C. Radial wall*
- D. Joint Style*
- E. Material*



Fits and Tolerances

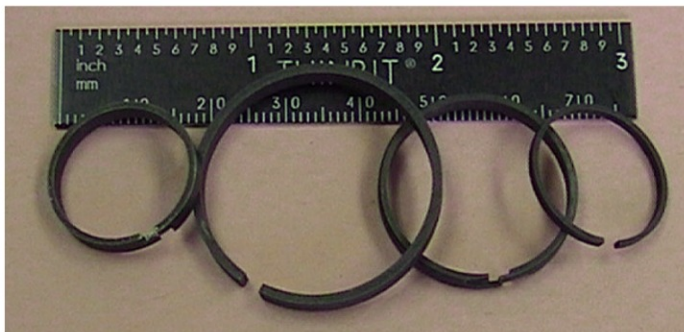
Generally rings will perform best when allowed to float free in the piston groove. Ring groove widths should be .001 - .005 larger than the ring maximum width. Clearance is also necessary under the ring. The ring should not be allowed to bear on the bottom of the groove when in use. This clearance should also accommodate for any radii at the bottom of the groove and the axial tolerance of the piston in the bore (maximum tolerance between the piston OD and the cylinder bore diameter). After considering these two factors and additional 0.30-0.50 is typical in sizing the radial wall. We can assist you in dimensioning a ring to fit your groove or recommend the groove size to accommodate a standard size ring. Rings are end gapped for perfect fit while allowing for thermal expansion in normal hydraulic applications.

Coatings

All iron rings are manganese phosphate coated. This provides an anti-friction anti-scuff coating that absorbs and retains lubricant to prevent rusting and aid in ring break in. Other coatings are available for special applications and environments. These include plating of chrome, silver, nickel and tin.

Special Rings and Ring Features

We can also offer assistance in the design of rings for special applications. Those include multi-ring sets where leakage is critical at extremely high pressures, rings with special features and small diameter rings under 1.5" in diameter.



To further assist you in ring design, be sure to see our suggested Joint Design and Material documents.