



BACK-UP RING

Available Size Range:	2" IPS - 24" IPS
FM Class 150	4" IPS - 20" IPS
FM Class 200	4" IPS - 18" IPS

Material: ASTM A536, GR 65/45/12
Standard: Convoluted Type, Ductile Iron, 150 lb. Drilling
Finish: Red Oxide Primer

- Central's new design improves Back-Up Ring Stiffness by 40% - 100%, and has an equivalent or better stress distribution than other rings.
- Central's Back-Up Rings are 20% - 30% lighter than other rings on the market which means ease of handling and reduced freight costs.

The new Central Plastics ductile iron backup ring was optimally designed using Solid Modeling and Finite Element Analysis (FEA) techniques. The object of the optimization was to produce a backup ring with similar deflection and stress characteristics to the convoluted design and minimal weight.

This objective was achieved by producing a design that provides a direct path for the clamping forces, provided by the bolts, to reach the point of contact with the stub end. All unnecessary material is removed. The result is a stiff and light design with excellent stress distribution. Laboratory tests confirmed that the new Central design meets all requirements laid out in the relevant standards for the specified pressure ratings.