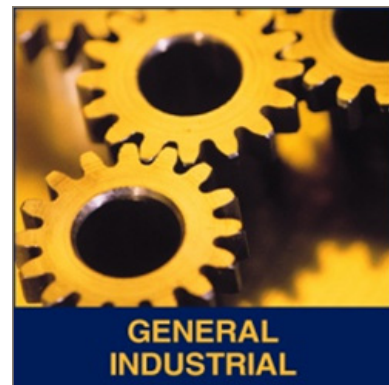


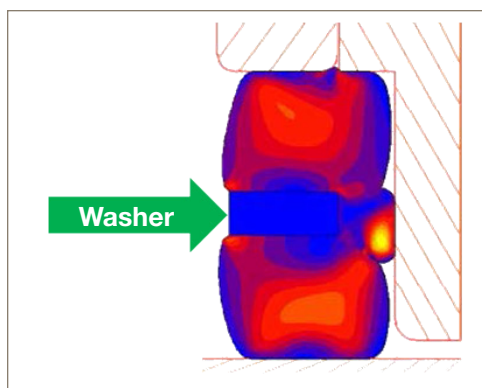
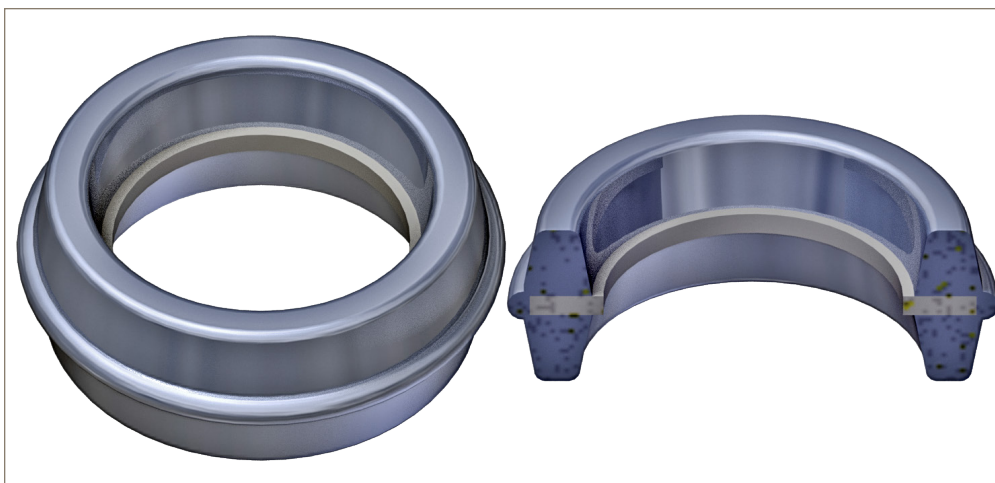
Reinforced Seals

Engineered Solutions
Issue 9



Problem:

An axial seal was required to seal water between three concentric components in a newly developed shower head. Packaging constraints dictated a very narrow sealing area with no support on the inside face of the seal. Traditional seal designs were leaking and extruding out of the seal gap into the water stream.



Solution:

Parker Engineered Seals Division designed a seal with an overmolded stainless steel washer, reinforcing the inside diameter in order to prevent extrusion even under vacuum. The outer surface of the seal is shaped to allow easy assembly while affording adequate retention for subsequent assembly operations. A symmetric design eliminates the need to orient the seal for installation, yet still balances the need to seal against all three mating components. To add further value to the design solution, the new EPDM compound, EJ273-70, was recommended for its outstanding chloramine resistance. A self-lubricating version, EJ274-70, is also available. Chloramines are being phased in across the United States to replace chlorine as a water disinfectant, but standard EPDM rubber degrades in this new chemical environment. The engineering expertise and program management of Parker ESD provided the customer with a successful, leak-free joint with delivery of the very first prototype seals.

Applications: Any axial sealing application where an inner support wall is not feasible.

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Contact Parker Engineered Seals Division and ask for a product engineer to review your application and see what opportunities are waiting to be discovered!



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