D-Ring Seals

Extruded and Machined D-Ring Seals

No More Spiral Failures:

Spiral failure in dynamic applications is eliminated with Parker's extruded and machined D-Rings.

The flat base of the D-ring provides added gland stability which eliminates the potential for spiral failure, a detrimental rolling tendency common in many dynamic applications. This greatly increases the life of the seal while easing installation.

Parker's precision machining process eliminates potential leak paths such as parting lines and flash extensions. In addition, machined and extruded D-rings are not prone to flow lines, pits and voids.

Contact Information:

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Product Features:

- Eliminates spiral failure in dynamic applications
- Enhances gland stability in application and assembly
- Assembles without lubrication
- Versatile manufacturing process easily accommodates custom profiles
- No leak paths (parting lines, flow lines, flash, non-fills)
- Short lead times
- Minimal tooling cost
- Used for both static and dynamic applications

Parker

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The D-Ring Advantage

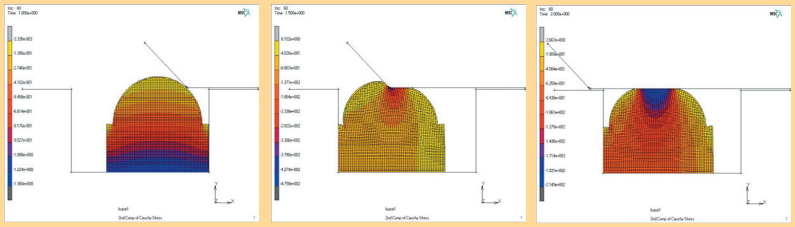
With our unique manufacturing process, sizes can be easily adjusted to meet your application needs with little or no tooling cost. Parker can manufacture D-Rings from most polymer families with tight tolerances and relatively short lead times.

- Available in most polymers
- Hardness ranges from 60 to 90 Shore A
- Up to 18.00" (457.2 mm) internal diameter
- Tight tolerances
- Application engineering assistance
- Finite Element Analysis (FEA)

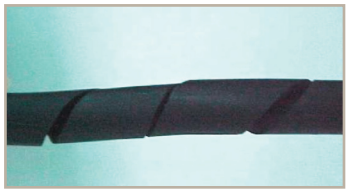
Application Engineering

Our application engineers are available to assist in the design of an optimum extruded and machined D-ring for both existing and concept applications. Finite Element Analysis (FEA) can be used to predict seal behavior in specific applications. In many instances, our application engineers can design a custom specialty cut D-ring that allows for easier installation. In some cases, D-rings can be designed so that lubrication is not required during the assembly process.

Finite Element Analysis (FEA) Illustrates D-Ring Stability in Gland

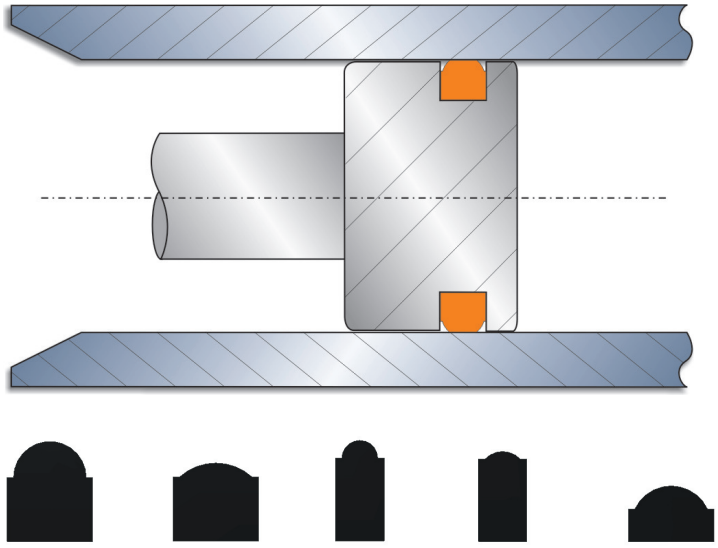


Spiral Failure



Extruded and machined D-rings offer many benefits but, the greatest is the elimination of spiral failure.

Spiral failure occurs when a seal becomes caught or trapped at one point on its diameter and then slides and rolls at the same time. The resulting twisting of the seal as the device is cycled finally causes it to develop a series of deep spiral cuts. The flat base of the D-ring improves gland stability and eliminates the potential of the seal to roll. Evidence of this can be seen in the FEA illustration above. The D-ring slides across the piston gland OD as it is inserted into the bore as opposed to the tendency to roll.



Custom "D" Profiles are Designed to Meet Your Application or Sealing Needs

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