

Continuous Molding Technology



fact sheet

Continuous Molding Technology Enhances Large Diameter O-Ring Performance

Historically, technology to produce large diameter molded o-rings has been limited by press and molding capabilities. Parker's proprietary continuous molding technology ensures the strength and reliability of large diameter FKM, HNBR, NBR and EPDM o-ring seals. Parker's solution eliminates the sealing performance problems sometimes found with common serpentine molding methods and spliced rings.

Spliced o-rings are a good solution for many non-critical applications. Potentially, they may be the weakest at their glued or vulcanized joints. Its physical properties, which differ to some degree from the rest of the ring, can affect a seal's reliability. A twisted or fatigued splice, for example, can open, creating failure, leakage and contamination issues.

Parker Innovation

For over sixty years, Parker Hannifin has delivered some of the most innovative sealing solutions in the industry. Our proprietary continuous molding technology gives us the capability to produce o-rings of virtually any size and eliminate the need for splicing.

Our homogenous molding technology is recommended for use in any large diameter o-ring groove where spliced or serpentine molded rings may present reliability issues. It has applications in virtually every market, including: aerospace, chemical processing, energy, oil and gas (EOG), industrial, semiconductor processing, and many others.

Applications

- Large chambers, vessels, lids, doors and containers where spliced o-rings or serpentine rings may present reliability issues
- Vacuum, high pressure and specialty semi-dynamic applications[†]
- Anywhere the strength and integrity of homogeneous molded rings are critical for reliable seal performance

Features and Advantages

- Consistent properties throughout the diameter of the ring
- Easier, more reliable installation versus serpentine molded o-rings
- Reduced potential contamination of leakage through spliced joints
- Material choices include basic FKM, HNBR, NBR, and EPDM materials[†]

[†] For additional information, consult a Parker Applications Engineer.

Availability

Inside Diameter (ID) Sizes & Tolerances	ID's start at > 35.000" ± .220 inches*
Cross-Section Sizes & Tolerances (Existing Tooling Available)	.103 ± .006 inches .139 ± .008 inches .210 ± .010 inches .275 ± .012 inches .375 ± .012 inches Custom cross-section sizes are also available with a tooling cost (see below).
Custom Cross-Sections	Tooling costs for special cross sections (not covered by standard sizes above) \$15,000
Materials	FKM, HNBR, NBR, and EPDM. Contact a Parker applications engineer for other material options.

*ID tolerance increases ± .010 for every additional 1 inches of diameter