



Flexfinish™

UNIQUE FINISHING SOLUTION FOR LARGE DIAMETER O-RINGS



A new surface finishing option from Trelleborg Sealing Solutions virtually eradicates leak paths, offering customers increased performance and extended life in high vacuum environments or toxic and explosive gas applications.

Leak paths can be a problem in any sealing environment, reducing performance and sometimes leading to failure, replacement or redesign. Certain applications, however, require an additional level of security and peace of mind.

Traditionally, tumbling is used for small O-Rings and is useful for high-vacuum or gas applications. However, large diameter O-Rings become knotted using this method, so grinding is employed. This can lead to cater-cornered scratches, which act as leak paths in high-vacuum applications.

Flexfinish™ employs a unique combination of techniques to give large diameter seals an outstandingly even surface finish and the lowest possible flash height.

In combination with Trelleborg's unique FlexiMold™ process, O-Rings can be produced from 200 mm / 7.874 inches to almost infinite diameters with the full visual and dimensional integrity of a molded product, while incurring no additional tooling costs.

Features:

- Designed with high vacuum, explosive, toxic gas and semiconductor applications in mind
- Offers a smoother surface finish than traditional methods, virtually eradicating leak paths
- Flash heights in accordance with ISO 3601-3 grade S
- Surface quality to ISO 3601-3 grade N or S for O-Rings with greater than 200 mm / 7.874 inches inside diameters
- Improves performance for high vacuum environments
- Increases safety for toxic and explosive gas applications
- Can be combined with Trelleborg Sealing Solutions proprietary FlexiMold™ technology
- O-Rings can conform to ISO 3601-1 or other national standard sizes upon request
- Available in FKM, NBR, EPDM, Isolast® FFKM and other materials upon request

OUTSTANDING SURFACE FINISH QUALITY GIVING IMPROVED APPLICATION PERFORMANCE



O-Ring without surface and deflashing treatment showing flash

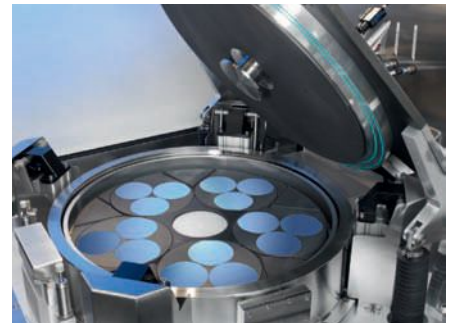
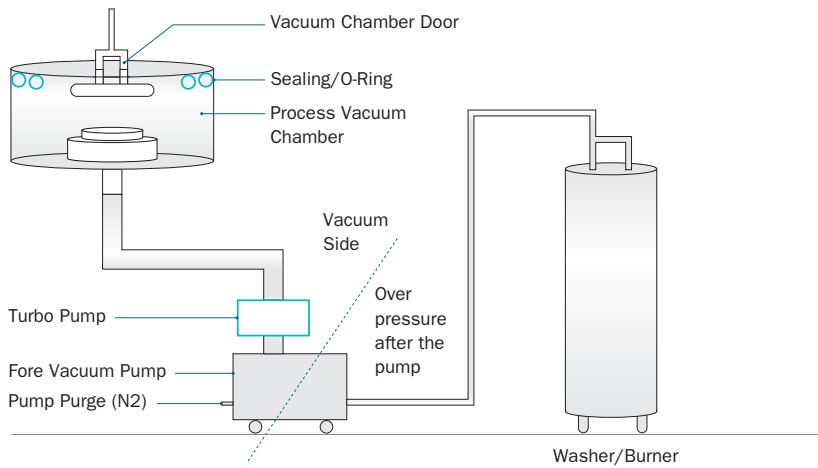


O-Ring following traditional deflashing methods with probable leak paths



O-Ring following Flexifinish™ process with smooth surface finish and flash heights down to grade S

Case Study: Planetary Reactor



Planetary reactor (source: Aixtron SE)

The diagram shows a high vacuum chamber including a fore pump and a turbo pump. O-Rings produced using Flexifinish™ prevent leak paths for gases, ensuring maximum sealing integrity.

LARGE DIAMETER SEALS: FLEXIMOLD™

O-Rings manufactured using the unique FlexiMold™ process offer the full visual and dimensional integrity of a molded product and are available from 200 mm / 7.874 inches to almost infinite diameters or with ISO 3601-1 standard sizes. When designed to a standard cross section size, no

additional tooling costs are charged. FlexiMold™ seals are available in a wide variety of elastomer materials, including the proprietary Isolast® FFKM range and high performance Resifluor™ fluoroelastomers.



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