

O-Rings for ISO 6149 Metric Tube Fittings

No. 5733

Precision seals minimize leakage, improve design flexibility

Description

Parker Hannifin offers a comprehensive selection of o-rings that meet international specifications for metric tube fittings. Traditionally, AS568 sizes have been used for tube fittings in the US. Parker offers seals that are engineered to meet the requirements of ISO 6149 metric tube fittings. This standard, set by the International Standards Organization (ISO), minimizes proliferation of port usage and promotes leak-free connections.

Typical Applications

Parker O-Rings for tube fittings are designed for use in hydraulic lines, fuel and coolant lines in diesel engines for off-highway and agricultural equipment, and other applications requiring elastomers that are resistant to both extrusion and hydraulic media. They combine precision tolerances and a wide variety of specially formulated compound alternatives to provide superior temperature, fluid and pressure resistance.

Availability

These o-rings are available in wide range of polymers, including: NBR, EPDM, HNBR, FKM and many others. Typically, compounds N1210-90 and V0709-90 are specified to provide optimal temperature (up to 275°F and 400°F respectively) and extrusion resistance for most hydraulic applications. Standard tooling has been established for all ISO 6149 sizes in the Nitrile polymer family (see Table 1). For applications requiring a polymer from a different family, please contact the division for available tooling.



Parker O-Rings are available in a range of sizes and materials to fit virtually any ISO 6149 metric tube fitting application.

Table 1. Available O-Ring Sizes for ISO 6149

Port Thread	ID MM (IN)	C/S MM (IN)	Parker O-Ring Size
M8 x 1	6.1 (0.240)	1.6 (0.063)	0024-0063
M10 x 1	8.1 (0.319)	1.6 (0.063)	0031-9063
M12 x 1.5	9.3 (0.366)	2.2 (0.087)	0036-6087
M14 x 1.5	11.3 (0.445)	2.2 (0.087)	0044-5087
M16 x 1.5	13.3 (0.524)	2.2 (0.087)	0052-4087
M18 x 1.5	15.3 (0.602)	2.2 (0.087)	0060-2087
M20 x 1.5*	17.3 (0.681)	2.2 (0.087)	0068-1087
M22 x 1.5	19.3 (0.760)	2.2 (0.087)	0076-0087
M27 x 2	23.6 (0.929)	2.9 (0.114)	0092-9114
M33 x 2	29.6 (1.165)	2.9 (0.114)	0116-5114
M42 x 2	38.6 (1.520)	2.9 (0.114)	0152-0114
M48 x 2	44.6 (1.756)	2.9 (0.114)	0175-6114
M60 x 2	56.6 (2.228)	2.9 (0.114)	0222-8114

*For plugs in cartridge valve cavities only (see ISO 7789)

O-Rings for ISO 6149 Metric Tube Fittings Continued...

Features and Benefits

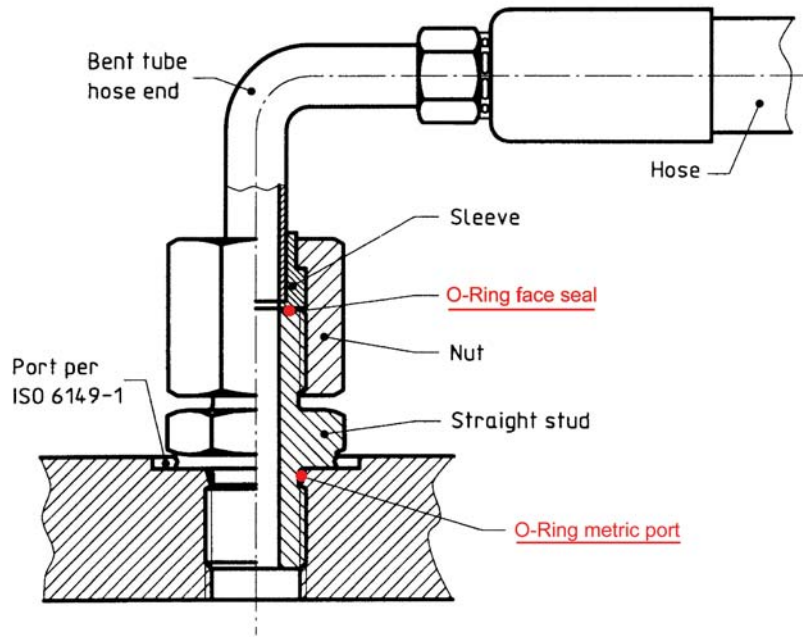
- O-ring availability specifically for all new hydraulic port fitting designs
- Optimized o-ring dimensions designed specifically to perform in ISO 6149 port designs
- Wide range of size and material combinations
- Shorter lead-times due to inventory immediately available from stock*

**Note: Level of inventory is maintained according to customer demand*

Parker Advantages

In addition to its innovative line of sealing products for tube fittings, Parker has developed a range of customer support tools, including:

- Applications engineering assistance
- Ongoing material R&D for prompt response to industry changes
- Fast samples, In-house prototyping and tooling
- In-house mixing for consistency and high quality
- Finite Element Analysis (FEA)-assisted seal design, testing
- Controlled batch traceability
- Parker Service Centers for local sales and logistical support
- Complete line of sealing products



Typical tube fitting port per ISO 6149

Copyright © 2003, Parker Hannifin Corporation, Cleveland, OH. All Rights Reserved.