

# PROFILE RINGS IN ACCORDANCE WITH DIN3869



Profile rings are used as axially static soft seals in combination with screw elements.

Profile rings are used to pipe fittings, armatures, and screw plugs with screw-in connectors in combination with threaded bores. The tightening of the screw connection causes the easily manageable elastomer profile ring to press inward, producing the sealing effect on the surfaces to be sealed.

The profile sealing ring is designed to prevent the escape of media to the outside. This avoids the loss of pressure. Its special geometry keeps the seal from twisting during mounting and in the installation space. At the same time, the profile seal ring keeps dust and dirt out. The mechanical deformation of the cross-section is kept at a minimum thanks to the geometry of the profile.

## DIMENSIONS

The currently available dimensions can be found on our website [dichtomatik.fst.com](http://dichtomatik.fst.com) or on our online ordering platform **EASY**.

## APPLICATIONS

Profile rings are used in a wide range of applications in general industry. Typical applications include:

- Pipe fittings
- Construction machinery
- Agricultural machinery
- Hydraulic presses
- Injection molding machinery
- Hydraulic valves and fittings
- NBR and FKM profile rings for gas devices and equipment

## YOUR ADVANTAGES AT A GLANCE

- Re-mountability of the seal
- Low mechanical deformation of the cross-section under compressive stress
- No twisting of the seal in the groove
- Easy manageability during mounting
- Low sensitivity to gap extrusions
- No relative movement in the groove during pressure pulsation
- Low leakage even with low-viscosity media
- Minimal cross-section deformation
- Profile rings made of NBR are suited to applications in gas devices and equipment in accordance with EN 549 B1/H3 (0 to +80°C)
- Profile rings made of FKM are suited to applications and gas devices and equipment in accordance with DIN EN 549 E1/H3 (0 to +150°C)

## INSTALLATION SPACE AND MOUNTING




The installation space must be carried out in accordance with DIN 3852 Part 11. Accordingly, the surface quality must be maintained at this standard. Other possible installation spaces are defined in accordance with ISO 1179, ISO 9974-2, ISO 9974-3 and ISO 11926.

## Profile rings

All damage to the profile ring must be avoided during assembly. The sealing function is not optimal otherwise. Striations, cavities and scratches must be avoided. Dust, dirt, metal shavings or other foreign bodies must be removed. It is essential to ensure the right installation position. The threaded tips must be covered by using a mounting aid. Mounting tools should be made of a soft material (e.g. POM) and free from sharp edges. The profile rings and the installation space should not be greased for mounting.

Installation cone



Profile	Type	Color	Material	Hardness (Shore A)	Temperature (°C)	Media resistance
	PRR EPDM	violet	EPDM perox	80	-45 to +150	<ul style="list-style-type: none"> <li>Hot water and steam</li> <li>Alkaline washing solution, caustic soda and potassium hydroxide</li> <li>Silicone oils and greases</li> <li>Many polar solvents</li> <li>Many diluted acids and chemicals</li> <li>Good resistance to ozone</li> </ul> <p>Not resistant to mineral oil products</p>
	PRR FKM	green	FKM	80	-20 to +200	<ul style="list-style-type: none"> <li>Mineral oils and greases, synthetic oils and greases</li> <li>Engine, transmission and ATF oils up to about +150°C and fuels</li> <li>Flame-resistant HFD hydraulic fluids</li> <li>Aliphatic, aromatic and chlorinated hydrocarbons</li> <li>DIN EN 549 E1/H3 (0 to +150°C)</li> <li>Water up to a maximum of +80°C</li> <li>Very good resistance to weathering, ozone and aging</li> <li>Very low gas permeability (suited to vacuum applications)</li> <li>Broad chemical resistance</li> </ul> <p>Not stable in hot water, steam, polar solvents, glycol-based brake fluids and low molecular organic acids</p>
	PRR NBR	black	NBR	85	-30 to +100	<ul style="list-style-type: none"> <li>Mineral oil-based lubricating oils and greases</li> <li>H, HL, HLP hydraulic oils</li> <li>Flame-resistant hydraulic fluids</li> <li>HFA, HFB, HFC up to about +60°C</li> <li>DIN EN 549 B1/ H3 (0 up to about +80°C)</li> <li>Water to a maximum of +80°C</li> </ul> <p>Not stable in aromatic and chlorinated hydrocarbons, fuels with high aromatic content, polar solvents, glycol-based brake fluids, and HFD flame-resistant hydraulic fluids</p>

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