Self-Retaining Seals
Friction-Fit and Press-in-Place Series

Retention without adhesive or fasteners:

Parker designs and manufactures a line of self-retaining seals that can maintain proper sealing position in the groove by friction. Parker’s self-retaining seals are available in friction-fit hollow profiles, press-in-place solid profiles and hybrid configurations of the two.

The friction-fit hollow profiles achieve self-retention by having the seal width slightly oversized from the groove width, while the press-in-place solid profiles achieve self-retention by having retaining features such as ribs or nibs to create an interference between the seal and the groove wall.

Both the friction-fit and press-in-place series can be customized to accommodate many groove types and to provide similar benefits of enhanced retention and easy installation.

Contact Information:

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Product Features:

- High seal retention without the need for adhesive, mechanical fasteners or expensive groove machining
- Standard and custom profiles that can fit many groove designs
- Friction-fit hollow profiles
- Easy installation and servicing
- Press-in-place solid profiles
- Available in a broad selection of materials
- Ideal for wandering groove applications
- Design assistance from Application Engineers
Self-Retaining Sealing Mechanisms

**Friction-Fit Hollow Profiles**

For the friction-fit hollow profile, the seal cross section is designed to be oversized from the groove width, creating a frictional interference between the seal and the groove, resulting in the self-retaining capability of the seal.

![Hollow O](image1.png)

**Press-in-Place Solid Profiles**

For the press-in-place solid profile, the retaining features are integrated directly onto the seal outside and/or inside diameter. Those features create an interference between the seal and the groove wall, resulting in the self-retaining capability for the seal.

![Christmas Tree](image2.png)

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**Typical Groove Configurations**

Self-retaining seals are commonly used for applications that have the following types of groove configurations. Please consult with our Application Engineers for further assistance on groove information.

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**Note:** Parker’s self-retaining seals are not recommended for grooves with large draft angles.

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**Examples of Custom Friction-Fit and Press-in-Place Profiles**

*Note: All W0XX profiles above are ParFab™ profiles and can be found in the ParFab Design Guide (TSD 5420).*

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![Square O-ring Groove](image3.png) ![Dovetail Groove](image4.png) ![Half Dovetail Groove](image5.png) ![Deep Groove](image6.png) and more.