

Port seals

Provide a sealed port for transferring pressurized fluid to adjacent transmission components, ensuring hydraulic pump efficiency and robust transmission function.

Available applications

Automatic transmissions utilising hydraulic circuits.

How it works

The port seal creates a flexible sealing joint which seals pressurized fluid via axial and radial compression of the rubber. The elastomeric material along with the design of the part allows the port seal to function under a wide range of assembly tolerances.

Design examples:

- Single port seal
- Multi-connected port seal
- Self-supported port seal

Each port seal is designed for application specific housing geometries, operating pressures, and stackup conditions.

Superior product materials, SKF formulated HNBR and AEM compounds, are used in the manufacturing of the port seals resulting in:

- Excellent chemical resistance
- Excellent temperature resistance
- High reliability
- Long service life

The value of the SKF port seal:

- Potential to combine multiple port seals to reduce inventory and assembly complexity
- Custom sealing features to accommodate wide assembly tolerances
- Pressure-activated sealing lips provide increased sealing performance over range of fluid pressures
- Metal stampings and coil springs offer support for elastomeric material reducing the potential for rubber fatigue under high pressures and thereby providing consistent flow
- Ability to handle differentials in thermal expansion provides more options for housing materials



SKF has the capability to custom design a port seal solution that is tailored to your application needs via:

- Finite Element Analysis to evaluate sealing load under various fluid pressures and assembly interferences
- Test facilities to evaluate port seal performance and robustness
- SKF has over 100 years of experience in developing and manufacturing custom sealing solutions for the automotive industry

© SKF is a registered trademark of the SKF Group.

© SKF Group 2013

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

PUB SE/P8 06723/2 EN · May 2013

Printed in Sweden on environmentally friendly paper.

