E-MOBILITY
PLUG & SEAL CONNECTORS

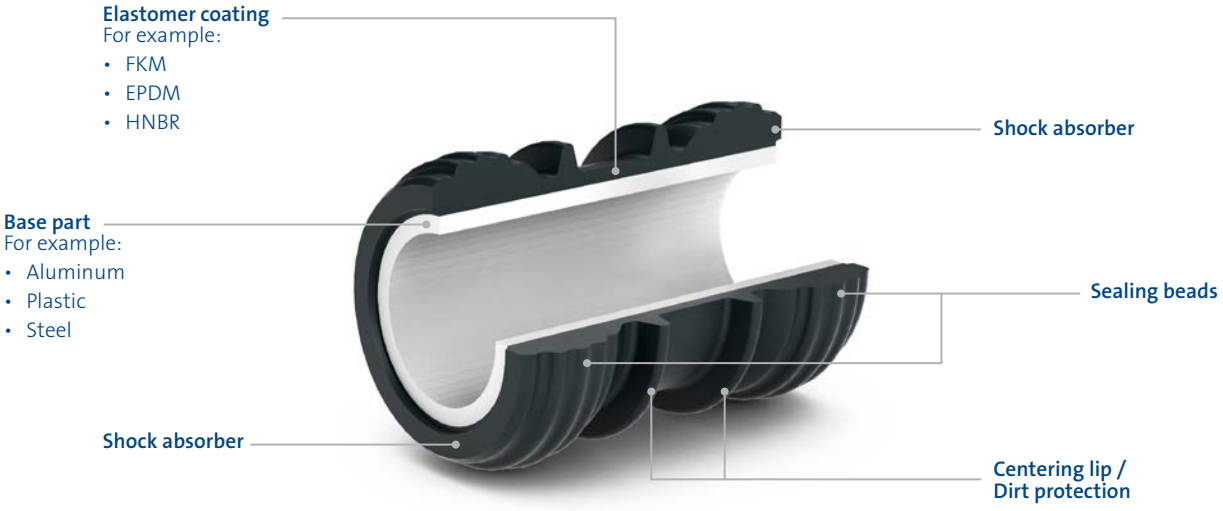
An important and decisive factor in E-Mobility applications such as Battery, power electronics and E-Motor is the thermal management. Plug & Seals are rubber-coated pipe sections that create a safe, leakfree connection between the elements of the thermal management system, enabling an efficient heat transfer between the heat source and the heat consumer.

A secure, low-cost solution for the transport of water, water-glycol, engineered fluids and oils, they can combine several functions in a single component and compensate for conduit misalignment and tolerance variations. Plug & Seals are available in a wide variety of elastomer coatings.

VALUES FOR THE CUSTOMER

- Reliable sealing combined with high resistance against vibrations
- Simple, secure and easy to assemble low-cost fitting
- Compensation for misalignment allow larger tolerances of the mating partners
- Reduction of assembly forces by patented low-load sealing-bead-geometry
- Ensure acoustic and mechanical decoupling
- Combine several functions in a single component
- Design development according to customer-specific requirements

Plug & Seal Connector scheme:



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FEATURES & BENEFITS

Plug & Seals are available in a wide range of dimensions (length, internal and external diameters). FST offers a large selection of rubber coatings, such as FKM, HNBR, EPDM, ACM, AEM, VMQ optimized for performance in the customer specific application.

The base material of the insert can be flexibly chosen from steel, stainless steel, aluminum and plastic, depending on the specific customer needs.

Thanks to the wide range of materials the plug connections can be used in virtually all media transport channels.

OTHER IMPORTANT INFORMATION

- Weight reduction
- Low thermal conductivity of < 0,2 W/[m*K] increases thermal efficiency
- 2K-manufacturing process allowing high design flexibility for the soft and the hard component
- chemical bonding eliminating potential leakage areas
- Special flow-optimized inner geometries generating turbulent stream in the media to increase heat transfer efficiency
- Reduction of sealing locations by Y-shape connectors
- Integration of add-on functions such as a distribution flap for a continuous variable flow distribution or a temperature sensor are possible

Plug & Seal Connector options:

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