

OPERATION AND INSTALLATION INSTRUCTIONS FOR SMAC-SERIES SWIVEL CONNECTORS: 90-DEGREE & STRAIGHT-THROUGH for Diesel Exhaust Fluid (DEF)

WARNING: This swivel connector contains a mechanical seal that will eventually leak product. Before leakage occurs, either replace the swivel with a new one or replace all seal components as per the instructions contained in this sheet. Your swivel connector contains a highly advanced mechanical seal designed for continuous rotation at 350 psi. Factory testing involves an endurance test and pressure test.

FULL-CIRCLE swivels do not require any lubrication. They are fitted with a sealed radial contact ball bearing that supports the rotating portion of the swivel. Do not attempt to push grease or other lubricant into the swivel. The pressure relief fitting on the swivel main housing is designed as a point of leakage, in the event the internal mechanical seal is damaged. Should leakage develop, pushing grease into the swivel will not stop the leak. Instead, replace with a seal kit as outlined in these instructions.

To ensure that the ball bearing is protected from the liquid flowing through the swivel, a three piece mechanical seal is used. The intermediary seal is designed to rotate at one-half the swivel speed. The seal ring floats between two metallic seal faces and seals on both sides. No wearing lip seals, o-rings, or disc seals are utilized. The one o-ring used is a static o-ring that does not see wear.

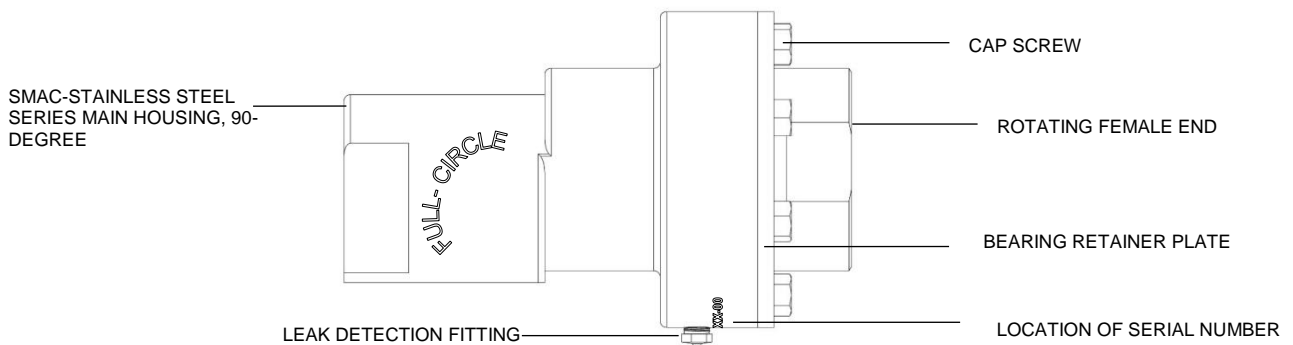
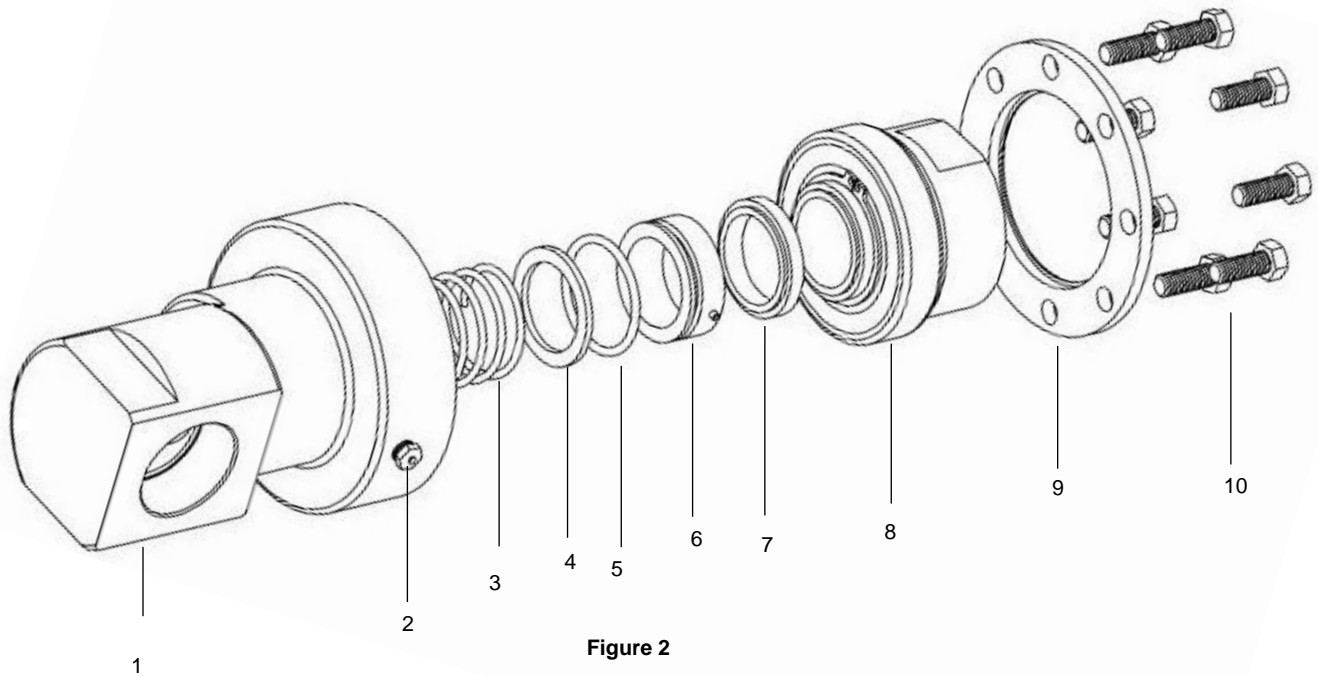


figure 1: SMAC-SERIES 90° SWIVEL JOINT
(main housing varies depending on swivel model number)

INSTALLATION – HOSE REEL APPLICATION

For HOSE REEL INSTALLATION, the rotating female end of the swivel should be attached to the hose reel (see figure 1). A FLEX-CONNECTOR should be installed on the stationary female end. The FLEX-CONNECTOR will ensure that severe misalignment problems will not adversely affect the ball bearing in the swivel.

Once installed, there is no break-in period required. HOWEVER, if the SMAC-SERIES swivel is used to replace another brand, the brake on the hose reel may have to be adjusted. This is because the SMAC-SERIES swivel may rotate easier than other makes. CAUTION: If the hose reel brake is not adjusted, the hose reel may wind-up faster than what you are used to. BE CAREFUL.



- 1 – MAIN HOUSING
(ILLUSTRATED SWIVEL BODY IS THE 90-DEGREE TYPE;
STRAIGHT-THROUGH CONFIGURATIONS NOT SHOWN
ARE ALSO AVAILABLE).
- 2 – PRESSURE RELIEF FITTING
- 3 – SPRING
- 4 – SPACER

- 5 – O-RING FOR STATIONARY SEAL (STATIC O-RING)*
- 6 – STATIONARY SEAL*
- 7 – SEAL RING*
- 8 – ROTATING FEMALE END*
- 9 – BEARING RETAINER PLATE
- 10- CAP SCREWS

*Denotes parts included in repair kit

Operating Parameters:

Temperature Range: -40 degrees F to +150 degrees F

Maximum Working Pressure: 100 psi

Maximum Allowable Pressure: 350 psi

Maximum Hydrostatic Test Pressure: 2000 psi.

Maximum Rotational Speed: 100 RPM.

Fluid Compatibility: Model numbers ending in -SSD are only recommended for Diesel Exhaust Fluid. Leakage will occur if used for other liquids or gases.

Permanent Product Marking: Serial number, year of mfg., pipe size for DN40 through DN50, model number, company name. All other pertinent information is contained on firmly affixed label plates attached to the product.

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