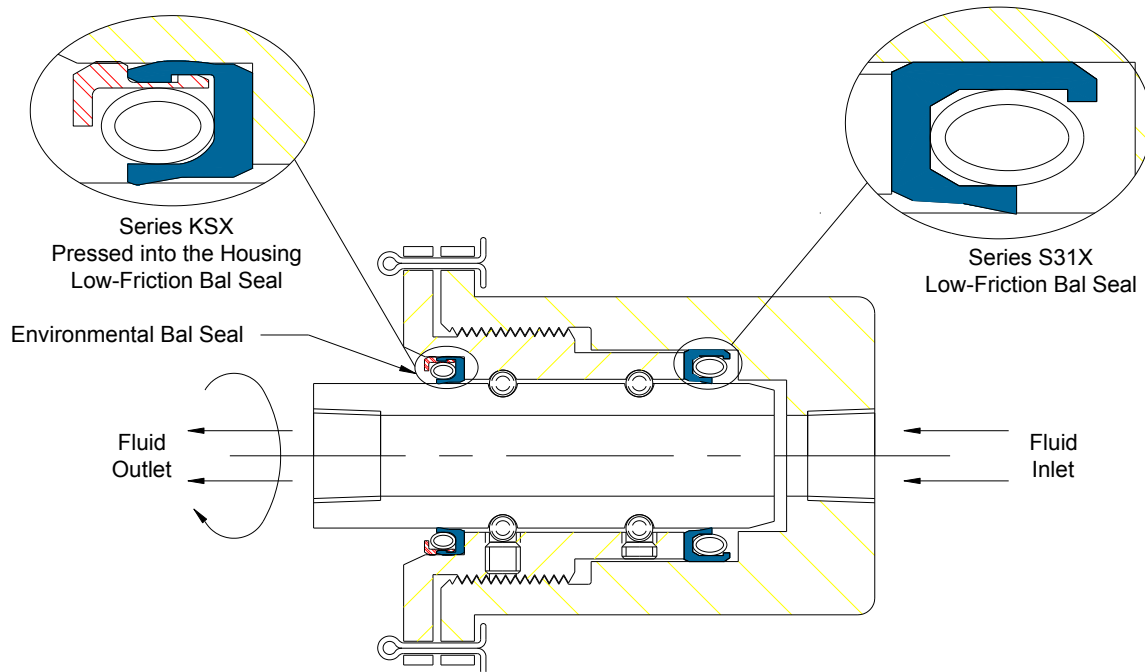


## BAL SEAL® SEALS IN SWIVEL JOINTS

Swivel joints join sections of liquid-carrying lines that are moved and rotated from one position to another. A tanker truck pipeline is an example of a swivel joint application. These devices are available in basic styles for a 360° -rotation in one, two, or three planes of motion.

The swivel joint consists of a stationary housing and an internal rotary member. Between the housing and rotary member is an inner sleeve, which contains two circular grooves that house a series of balls that permit rotary, not axial, motion.



### Operating Parameters

|              |                                            |
|--------------|--------------------------------------------|
| Pressure:    | Vacuum to 15 psi (1.1 kg/cm <sup>2</sup> ) |
| Temperature: | -70°F to 250°F (-57°C to 121°C)            |
| Velocity:    | 2 rpm                                      |
| Media:       | Corrosive fluids                           |
| Additional:  | Chemical compatibility and low friction    |

### Seal Selection: KSX and S31X

#### Features:

- Bal Seal series KSX selected for its excellent metal locking ring retention system.
- Bal Seal series S3 1X selected for complete gland retention.
- Low-friction seal design keeps minimal frictional torque on the shaft.
- Chemically compatible with various fluids.
- Excellent wear-resistant, filled PTFE seal materials operate unlubricated.
- Patented, canted-coil spring energizer provides near-constant force for long seal life.

For more information and technical assistance, consult the Technical Sales Department.

**PATENTS:** The items described in this page include products that are the subject of issued United States and foreign patents or products where patents are pending, including the following: Patents 6,641,141 B2; 7,210,398 B2; 6,161,838; 5,992,856; 5,134,244

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Bal Seal Engineering, Inc. is certified to **ISO 9001** | [www.balseal.com](http://www.balseal.com)