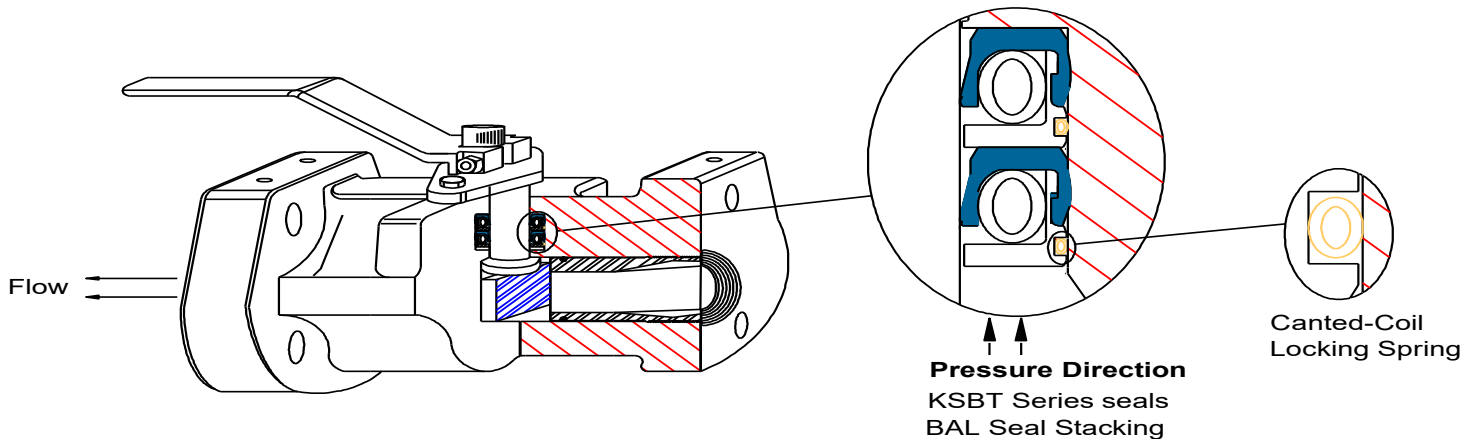


## BAL SEAL® SEALS IN GATE VALVES

The petrochemical industry uses valves to control the flow of various gases and liquids. Elastomeric packings are typical sealing solutions for valve stems. However, the seal developed by Bal Seal Engineering is a direct replacement for the packing and provides reliable sealing.

Under environmental operating conditions, elastomeric packings are prone to compression set and age hardening over time. Also, the conventional packing must be periodically adjusted to maintain good sealing performance. The canted coil spring energizer, however, creates a near-constant sealing contact force against the valve stem, so the Bal Seal seal does not require adjustment.

Compression set, media and environmental factors have no effect on the long-term sealing performance with Bal Seal spring-energized seals. This is an important consideration when valves are loaded into remote areas. Bal Seal seals can be incorporated into many valve types.



### Operating Parameters

Pressure:	Vacuum to 3,000 psi (211 kg/cm <sup>2</sup> )
Media:	Sour gas, water, petroleum, hydrocarbons and solvents
Temperature:	-20 °F to 400 °F (-29 °C to 204 °C)
Speed:	Slow rotation
Additional:	Low frictional forces, variable pressure and temperature endurance

### Features:

- Bal Seal seals with metal locking rings reduce diametrical seal shrinkage and support a radial loading holding spring or O-ring
- Easy seal removal
- Patented, Bal Spring® canted coil spring mounted on the metal ring provides a reliable load to retain the seal within the gland
- Bal Seal Engineering provides filled PTFE seal materials with excellent wear resistance and chemical compatibility
- Unique seal geometry provides excellent sealing performance
- Patented, canted coil spring energizer provides near-constant force for long seal life
- Canted coil springs are available in many different materials and loads to accommodate good sealing and low-frictional drag

For more information and technical assistance, contact a technical sales representative.

**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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