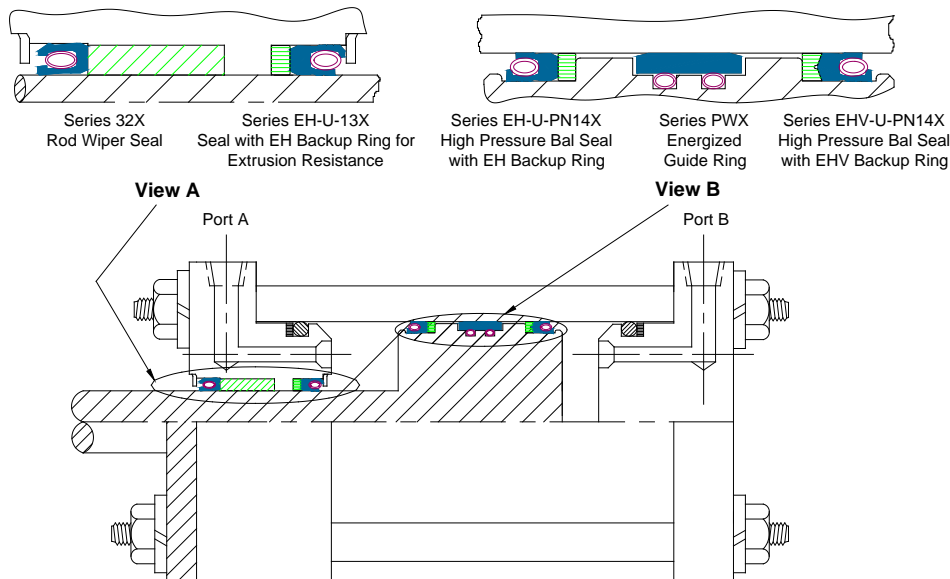


BAL SEAL® SPRING ENERGIZED SEALS IN HIGH-PRESSURE HYDRAULIC CYLINDERS

Numerous industries use hydraulic cylinders in applications such as booster compressors, flight-control actuators, hydraulic-pressure intensifiers, hydraulic-pressure generators, and gas booster pumps. When used with Bal Seal® spring-energized seals, these hydraulic cylinders withstand harsh environments and heavy-duty cycles. Bal Seal spring-energized seals are made in-house of filled PTFE materials.

Hydraulic cylinders can achieve maximum life when supported by Bal Seal spring-energized seals, non-ferrous or high-performance polymer back-up rings, and Bal Spring™ canted coil springs.



Operating Parameters:

Sealing pressure:	40,000 psi (2,812 kg/cm ²)
Typical speed:	Slow
Temperature:	-65°F to 250°F (-54°C to 121°C)
Media:	High-pressure hydraulic fluid, harsh environments and dirt particles
Additional:	Long life, variable pressures, and variable temperatures

Features:

- High-pressure, double-acting, Bal Seal spring-energized seals with patented, Bal Spring canted coil spring energizer for longer life.
- High-pressure back-up rings are designed for minimal seal extrusion and are fabricated from non-scratching, low friction materials.
- Bal Seal spring-energized guide rings hold the piston concentric for reduced seal wear and reduced cylinder bore scratching from piston misalignment.
- Bal Seals spring-energized seals for environmental use provide maximum external sealing, minimal friction and long life.

For more information and technical assistance, consult the Bal Seal Engineering 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