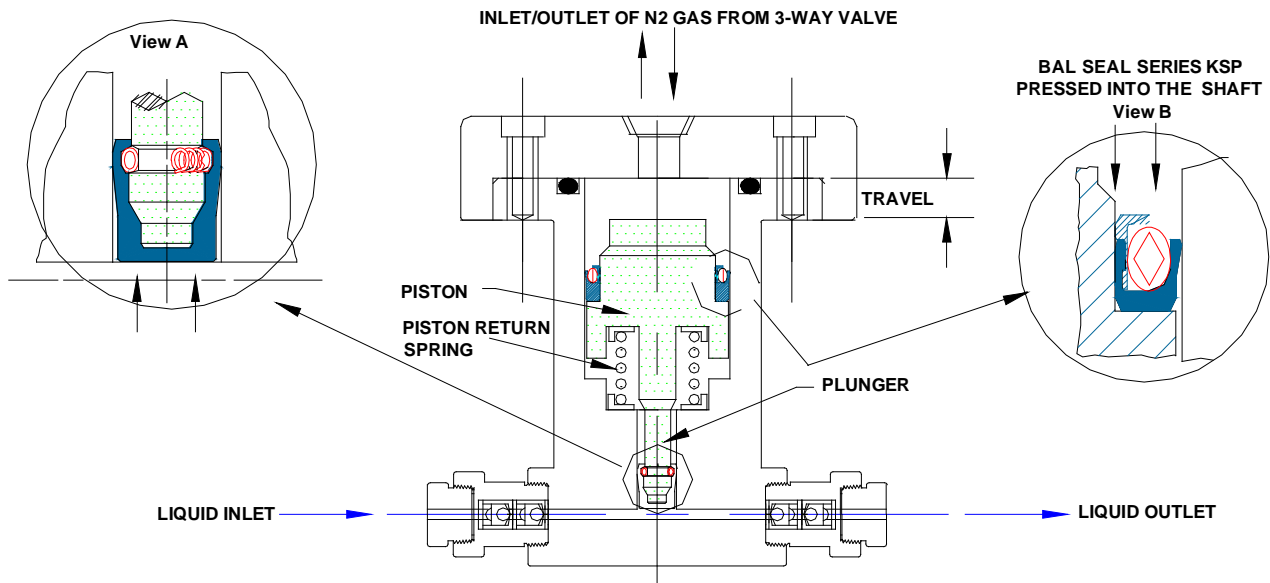


## BAL SEAL® SPRING-ENERGIZED SEALS IN GAS-OPERATED PISTON DISPENSING PUMPS

Gas-operated piston dispensing pumps control the delivery of liquids for a variety of medical, chemical, and laboratory applications. Pressurized nitrogen gas forces the reciprocating piston downward, and then the piston is spring-returned.

Retracting the piston creates a vacuum intake of a precise volume of liquid. Extending the plunger produces a low-pressure liquid discharge. Bal Seal® spring-energized seals in ball-check valves control the flow.

BAL SEAL COVER SEAL  
FOR INERT NON-CONTAMINATION APPLICATIONS



### Seal Selection: Liquid Plunger Seal

The 64X cover Bal Seal spring-energized seal shown in View A is recommended for gas-operated piston dispensing pumps, which require a high degree of chemical compatibility and low dead volume.

Pumped media does not come in contact with the energizing spring. The 64X seal has a snap-on locking feature for ease of assembly and permanently locks the seal onto the piston.

### Gas Piston Seal

The KCX piston seal shown in View B is retained onto the piston by the metal locking ring. The KCX is designed to provide low friction, while offering excellent sealing reliability. The unique, patented, Bal Spring™ canted-coil spring energizer provides a near-constant force for long seal life.

At both low and high deflections, the seal compensates for wear and dimensional variations while maintaining a generally constant force.

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

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