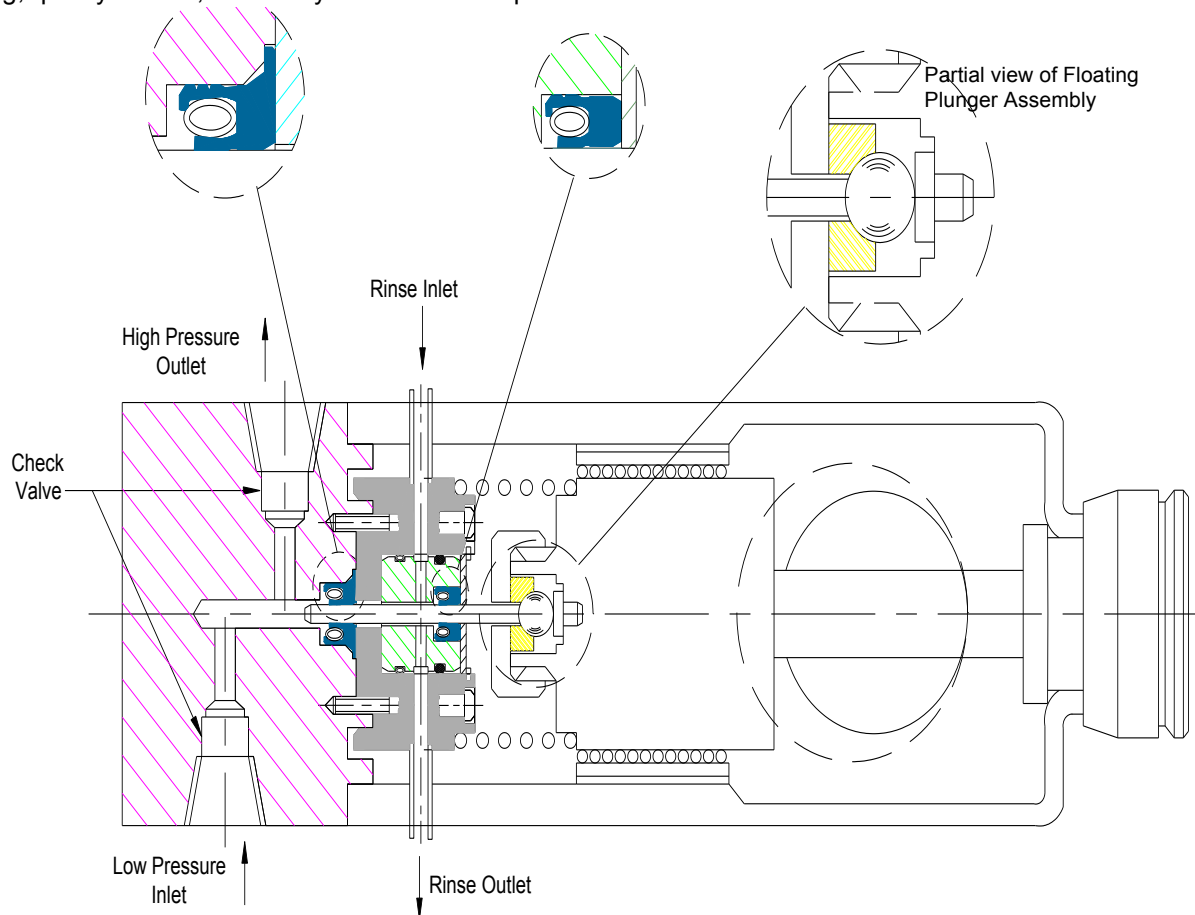


BAL SEAL® SEALS IN HIGH-PRESSURE LIQUID CHROMATOGRAPHY (HPLC) PLUNGER PUMPS

High-pressure liquid chromatography (HPLC) is a technique used to separate the components of a chemical mixture. The mixture is dissolved in a solvent, then forced to flow through a chromatographic column, where it is separated into its individual components.

A standard reciprocating plunger pump is shown below. Retracting the sealed plunger creates a vacuum intake of solvent from the buffer reservoir. Extension produces a high-pressure fluid discharge through the pump outlet and towards the column.

Typical industrial and pharmaceutical applications of HPLC include formulation testing, toxicological studies, drug screening, quality control, and analysis of trace components.



SEAL SELECTION

Spring energized and o-ring loaded Bal Seal® seals are designed for HPLC plunger pumps, providing reliable service at pressures to 10,000 psi (700 kg/cm²) at 70°F (20°C).*

Bal Seal Engineering sealing jackets, springs, and o-rings are available in a variety of materials to meet compatibility, friction, and other requirements. Many materials other than those described here are available. Biocompatible materials for HPLC systems designed for biological samples are available.

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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