

PPC 'S API PLAN 53B SEAL SUPPORT SYSTEM



MADE IN THE USA

API Plan 53B Seal Support System

Description:

PPC's API Plan 53B is a pressurized seal reservoir system utilizing an accumulator to maintain a uniform pressure differential across the inboard seal faces of a dual seal given a loss of barrier fluid through upset conditions or normal consumption during long term operation. The system is coupled with a dual mechanical seal with a barrier fluid between them. The barrier fluid in the system is pressurized to a higher pressure than the seal chamber, normally 15 to 30 psig (1 to 2 bar).

Accumulator Specifications:

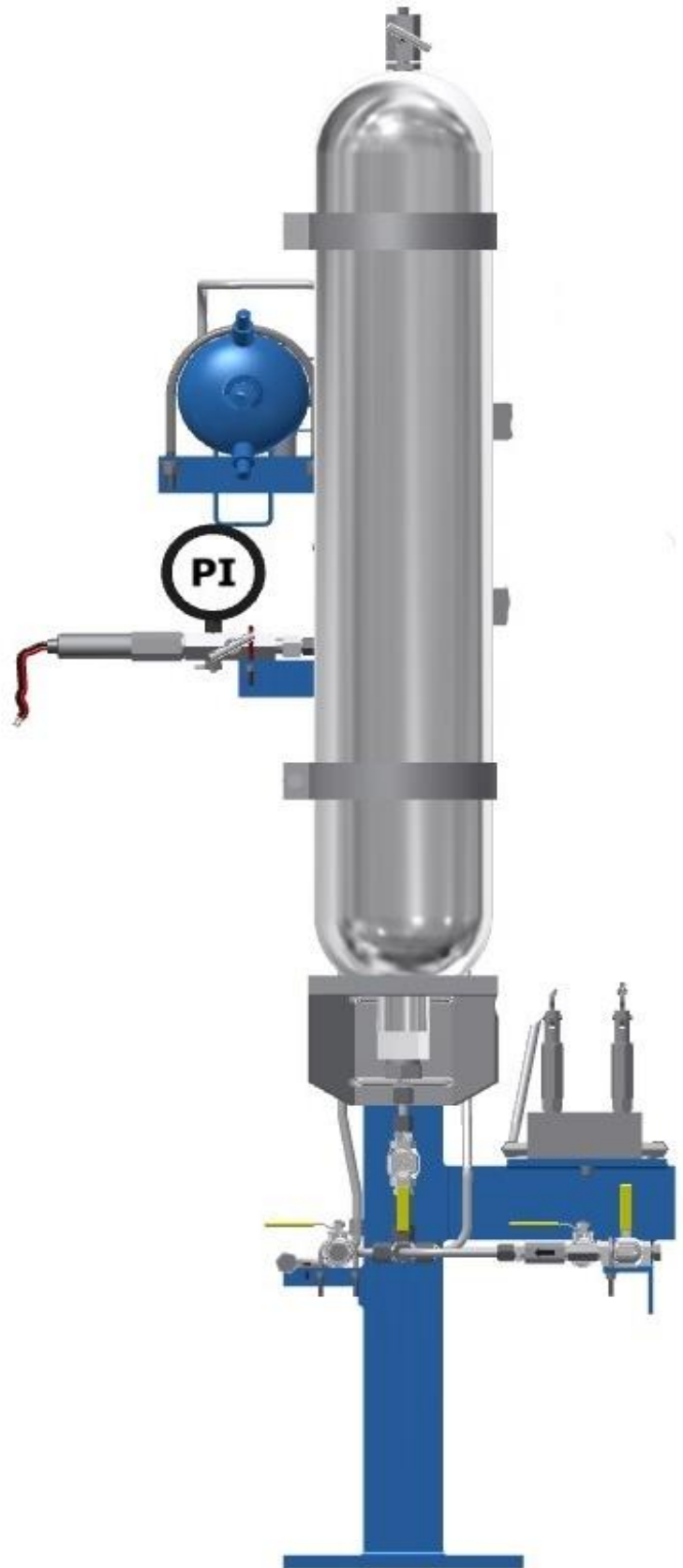
- 10 gallon transfer barrier accumulator: Accumulator Inc. A5TBC2100AS
- 2, 2000 PSI rated
- 2" NPT fluid connection
- Stainless steel shell and components.
- Needle Valve in lieu of Shradder Valve.
- Buna Bladder

Heat Exchanger/Seal Flush Cooler -

- Per PPC Drawing H-1236-F Heat Exchanger. Barrier fluid through tubing at 1500psi and cooling water through shell.

Hand Pump

- Stainless steel hand pump for low volume and high pressure - Model SP3A-160
- Mounting bracket for mounting to 4" square tubing stand.



Instrumentation:

- Pressure Switch,
 - Neo-Dyne, 316SS, 1/2 NPT,
 - SPDT, 375-725 psig
 - INC/ 330-680 psig
 - DEC, 4000 psig
- Pressure Indicator, Ashcroft, 316LSS, 1/2 NPT, 0-1000 psi, 4.5"
- Block and Bleed, Anderson Greenwood, M5VIS-44, 316/PTFE, 1/2 NPT, 6000 psi @200F, 0 to 500F
- Check Valve, Generant, 3/8" NPT, Stainless Steel, 10-2400 psig
- Pressure Gauge – 4-1/2" DIAL, 1/2" L.C. Stainless Tube & Socket, Range 0 to 1500 psig.
- Pressure Switch – DPDT, Explosion Proof, CL 1 DIV 1 GR B/C/D, 316SS Wetted, United Electric QJ120-15274 (80-1700 PSI DECR)

Fittings and Tubing:

- 316SS
- Accumulator brackets for mounting accumulator to 4" square tubing (includes base and std brackets).

Stand:

- 304SS Seal System Stand –Per PPC drawing 00-008-X-05.

Painting or Coatings

- N/A
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Exceptions/Exclusions:

Please see the following list of exclusions to the submitted specifications:

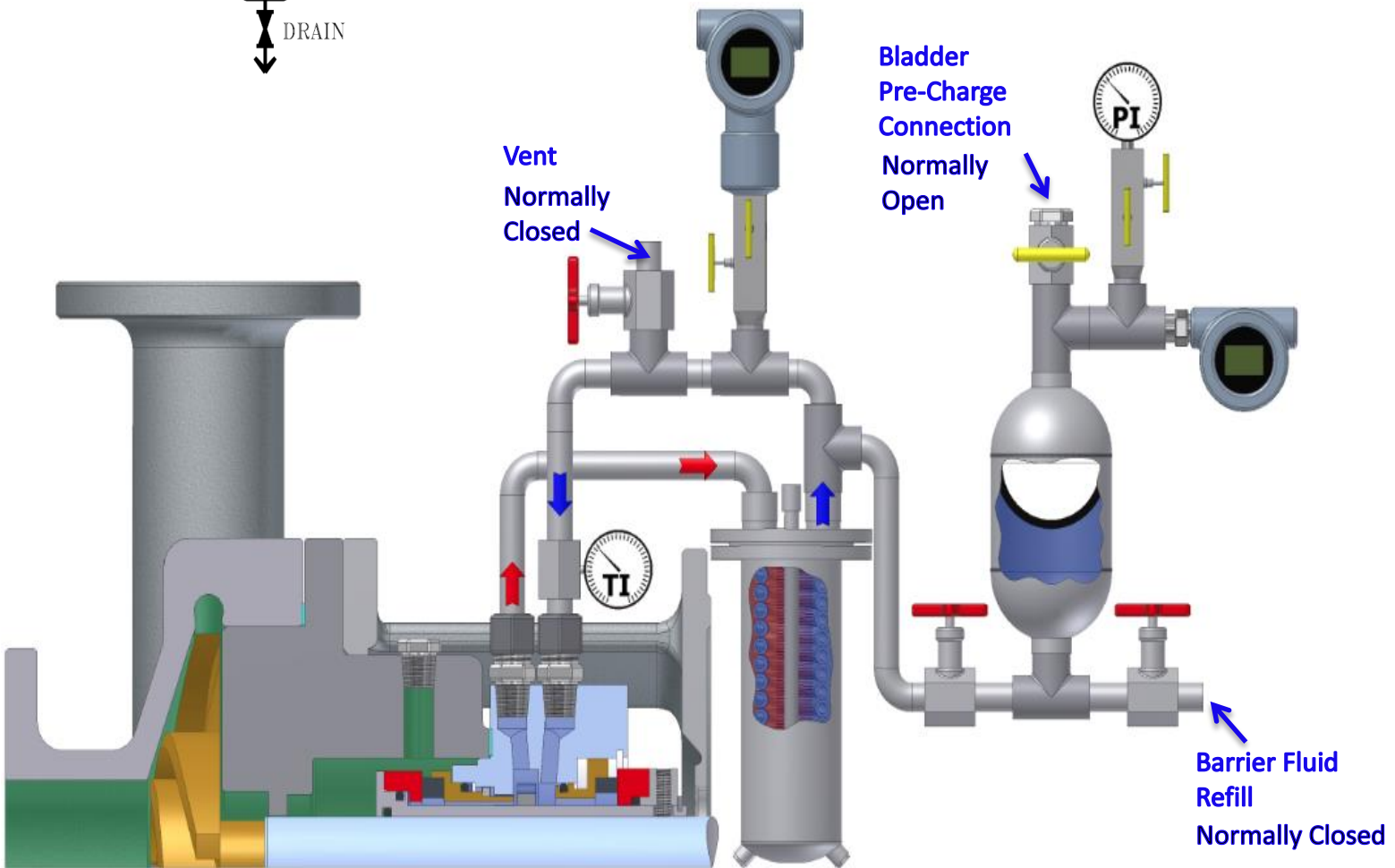
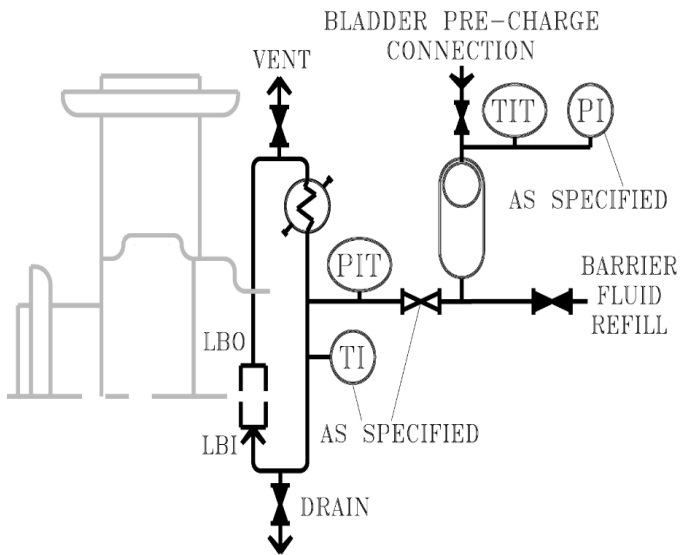
- N/A
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Plan 53B

Description: Plan 53B utilizes a pre-pressurized BLADDER ACCUMULATOR isolating pressurized gas from barrier fluid and providing a PRESSURIZED system greater than the process pressure being sealed. Provides clean BARRIER fluid to an Arrangement 3 dual seal. Circulation provided by an internal pumping ring.

Objective: Same as Plan 53A, but handles higher pressures.

Advantages: Same as Plan 53A. Prevents pressurized gas entrainment. Additional cooling provided by finned tubing, forced air cooled or water-cooled barrier cooler depending on heat load.



Notes and Disclaimers:

1. Installation of this system is not included in the scope of this proposal. This can be added at the customer's request and quoted separately.
2. Stainless steel components are not coated; fabricated carbon steel components may be coated/painted at PPC's discretion.
3. Component specific data sheets, material certifications, calibration certificates, from Vendor furnished components are not included unless specifically listed.
4. System is not designed for sour service (NACE requirements). If required, a cost adder will apply.
5. Any changes of the scope might be subject to re-quote and price changes by PPC. Upon acceptance of an order, the approved drawing(s) alone will be the ultimate reference for the scope of delivery.
6. PPC Mechanical Seals has made every effort to comply with any specifications provided. However, it is the Customer's responsibility to ensure that the items contained within this quote comply with those requirements.

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