# WE961

## WE961 API PLAN 53B AIR-COOLED HIGH-PRESSURE BARRIER LIQUID SYSTEM



## PRODUCT FEATURES

- The product is composed of bladder accumulator + cooler + measuring control parts + pipeline system; All components are integrated into the bracket for compact construction and easy field installation.
- The cooler can be water cooled, or air cooled when there is no cooling water supply outdoors.
- The product is equipped with a manual refueling pump, which can be more convenient before the operation of the equipment and exhaust, but also in the operation of the equipment, without stopping the case, real-time manual refueling and pressure.
- Optional all kinds of instruments and meters, such as thermometer, pressure switch, liquid level switch, pressure transmitter, liquid level transmitter, etc. Can realize the scene alarm, also can transmit the data to the PLC control panel, better monitor the operation of the mechanical seal.

## PRODUCT APPLICATION

1. WE series gas-free barrier liquid system is used for the double seals of arrangement 3 seal, that is, the pressure of the barrier fluid is higher than the maximum pressure of the seal chamber, and the pressure of the barrier fluid is realized by the bladder accumulator.
2.The barrier system of this scheme is gas-free system, which uses a bladder-type accumulator to prevents contact between the pressurization gas and the barrier liquid, and allows for high-pressure operation.
3.Piping Plan 53B is usually chosen over Piping Plan 52 for dirty, abrasive, or polymerizing products that would either damage the seal faces or cause problems with the buffer liquid system if Piping Plan 52 were used.
4.The clean barrier liquid provides lubrication to the seal faces, but the barrier liquid that passes across the inner seal faces will enter the pumped process stream. Therefore, the process liquid shall be compatible with the barrier liquid and be able to tolerate a small amount of contamination from the barrier liquid.

## SYSTEM PARAMETERS

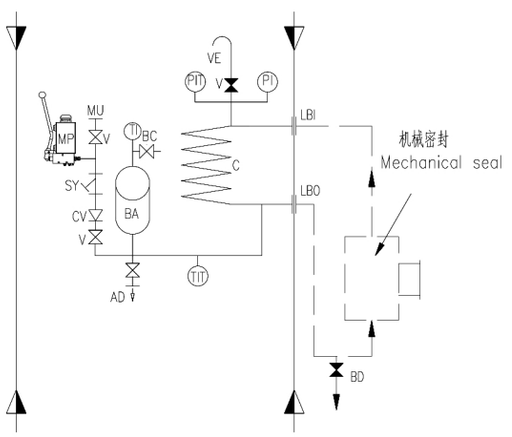
| | |
|---|---|
| Temperature | -20 ° C ~ + 100 °C |
| Pressure | 80bar |
| Volume (heat exchange area) | 20L(4㎡)， 32L(8㎡) |

## SYSTEM MATERIALS

| | |
|---|---|
| Cylinder housing | Carbon steel / 304SS |
| Cylinder bladder | NBR |
| Heat exchanger | 304SS / 316L |
| Piping components | 304SS / 316L |
| Manual refilling pump | 304SS |

## APPLICABLE INDUSTRIES

- Process pumps
- Arduous applications demanding pressurized barrier fluid
- Mixer and agitators
- Wide range of applications requiring high reliability across oil and gas, chemical and general Industry, and high-purity and organics
- High abrasives content
- Slurries




| ITEM | SERVICE |
|---|---|
| RD | Cooler Drain |
| BD | Barrier Fluid Drain |
| AD | Accumulator Drain |
| LBI | Liquid Barrier In (From Seal) |
| LBO | Liquid Barrier Out (To Seal) |
| VE | Vent |
| MU | Make-UP liquid |
| BC | Bladder charge connection |
| C | Cooler |
| BA | Accumulator |

| ITEM | SERVICE |
|---|---|
| V | Valve |
| CV | Check Valve |
| SY | Y-Filter |
| PI | Pressure Gauge |
| PIT | Pressure Transmitter |
| TI | Temperature Gauge |
| TIT | Temp. transmitter |
| BTI | Bladder Temp. Gauge |
| MP | Manual Pump |


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