EVQ

EVQ API PLAN 52/53A MECHANICAL SEAL SUPPORT SYSTEMS





PRODUCT FEATURES

- The EV system is a complete barrier fluid system that provides fast and trouble-free field installation for most application scenarios. These systems are pre-assembled and include all necessary components and accessories.
- Part of the medium in the pressure system is the barrier fluid , which is then pressurized through a connection to the plant's gas supply. The system can also be pressurized by moving a nitrogen cylinder. The seal is cooled by a "thermosiphon" effect.

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

SYSTEM MATERIALS

Storage tank	304SS
Heat exchange tubes	304SS

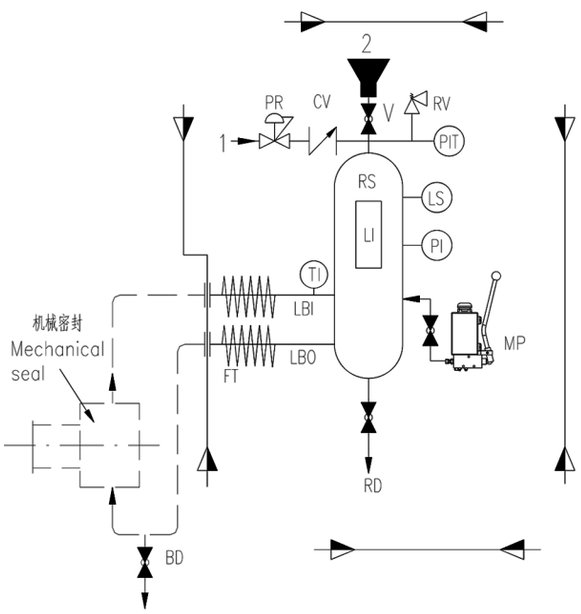
SYSTEM PARAMETERS

Temperature	-20°C~ +80°C
Pressure	16Bar
Volume (heat exchange area)	12L(0.24㎡)， 24L(0.24㎡)

PRODUCT APPLICATION

For API Plan 53A

1. EV series thermosiphon system is used with the double seals of arrangement 3 seal , that is, the pressure of the isolation fluid is higher than the maximum pressure of the seal chamber and at least 0.14MPa (20psi) higher, which can be achieved by flushing nitrogen at the top of the reservoir.
2.This scheme is usually used in services where no leakage to atmosphere can be tolerated, It may also be selected for applications where the pump may be operated dry or the pump process fluid
may be damaging to the seal faces.
3.Plan 53 is usually chosen over 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.



ITEM	SERVICE
RD	Reservoir Drain
BD	Barrier Fluid Drain
LBI	Liquid Buffer In (From Seal)
LBO	Liquid Buffer Out (To Seal)
1	From External Pressure Source
2	Make-up Liquid
RS	Reservoir
LI	Level Gauge
V	Valve

ITEM	SERVICE
PI	Pressure Gauge
RV	Relief Valve
PIT	Pressure Transmitter
PR	Pressure Regulator
TI	Temperature Gauge
LS	Level Switch
MP	Manual Pump
CV	Check Valve
FT	Finned Tubing

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FBU is certified to API Q1, ISO 9001, ISO 14001