

## Service One Pager



### PRODUCT : HPCRS - HIGH PRESSURE CONDENSATE RECOVERY SYSTEM

Document No : SE/SOP/HPCRS

Rev: 00

#### Product

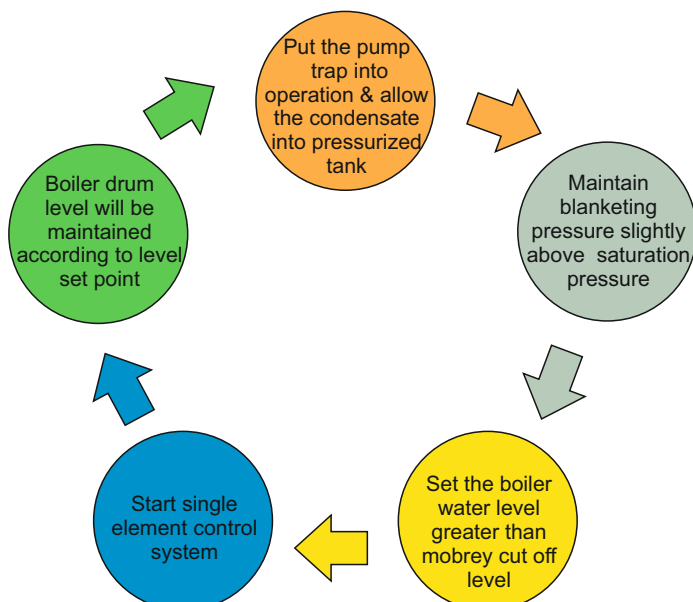
HPCRS, a High Pressure Condensate Recovery System specially designed for the plants where condensate recovery is more than 80%.

The system returns condensate directly to the boiler shell without intervention of boiler feed water tank.

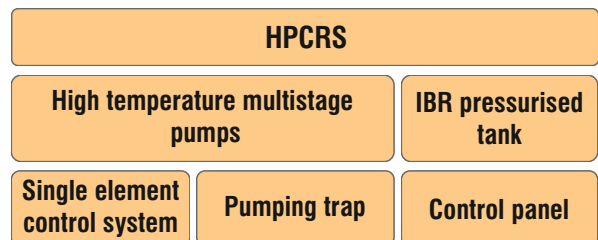
#### System Requirement

- 1 Pit Installation if required for pumping trap.
- 2 Necessary IBR approvals should be obtained from local authorities.
- 3 Instrument air should be free from oil / moisture and as per "ISO 8573-1 : 2001" norms.

#### System Sequence



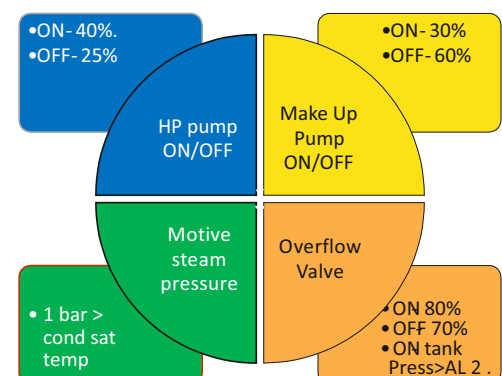
#### Critical Components



#### Installation

1. Pipe line should be installed to ensure that condensate flows by gravity to pump traps.
2. The height of pressurized tank from HP condensate transfer pump suction should be minimum of 3.0 mtr.
3. Ensure all vents and drains were routed to safe locations.
4. Provide sufficient space and platforms for maintenance and shed needs to be provided for pump traps and pressurised tank.
5. Temperature and pressure gauges are recommended in the condensate line to pressurized tank.
6. All condensate line, steam line, tank and pumping traps to be insulated.
7. Install piston actuated valve with pressure switch if multiple process are connected to single pumping trap.

#### Safety Interlocks



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### Troubleshooting

SYMPTOMS	POSSIBLE CAUSES
HP pump not starting	One of the safety is unhealthy.
	OLR setting disturbed.
Pressure not maintained in the tank	Steam blanketing pressure is less.
	Steam blanketing control valve not operating.
Control valve not functioning	No output from PID controller.
	Low/No air pressure.
	Water accumulation in positioner.
	Mechanically stuck.
Condensate accumulation in process	Level sensor of pumping trap is malfunctioning.
	No float movement in trap
	Motive steam pressure not sufficient for pump trap.
	Fuse or MCB trip inside the pump trap control panel.
Gauge glass level	3-way manifold valves not opened.
	Fill the water in condensate pot.
	Arrest SS tube leakages.
Overflow valve not operating	Solenoid coil not operating.

### Periodic Maintenance as per O&M Manual

Cleaning	Lubrication	Checking
Strainers	Dosing pump	Water inside condensate pot
NRV's	Make up pump	Water inside priming chamber of HP pump
Level sensor of pump trap	Greasing of isolation valves	Control valve calibration