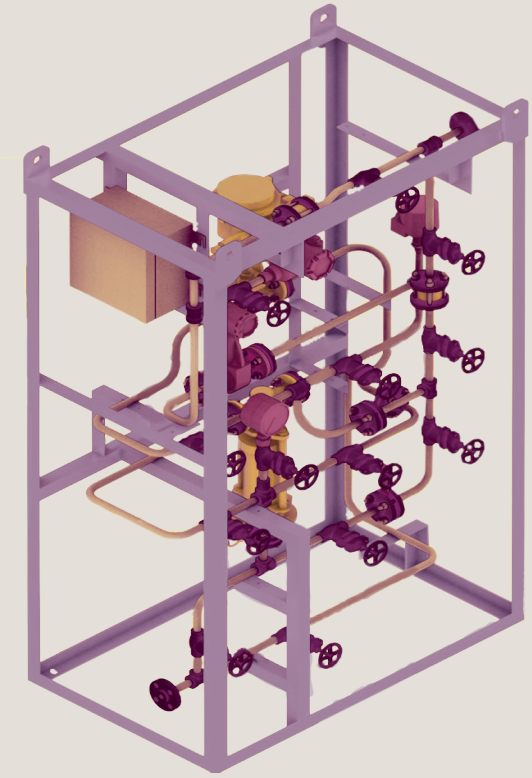
Process Automation

IMI Remosa
Active Purge System

Breakthrough
engineering for
a better world



Active Purge System

IMI Active Purging Panel (APS) is designed to provide fully automated control of purging and blasting for Fluidised Catalytic Cracking (FCC) valves. Here are some of its key features:

Automated Control: purging medium pressure, process pressure and temperature are measured to provide optimal flow under any process condition.

Customisable Design: The APS can be designed for any purging medium (air, nitrogen, steam) and the instrumentation will be selected according to customer standards.

Preventive Maintenance: Local and remote alarms, with fully configurable logics and data logging, will report issues such as missing excessive flow and saturated steam conditions, enabling preventive maintenance.

Components: The APS includes a flow control valve, pressure control valve, pressure transmitter, temperature transmitter, flow meter and transmitter, steam trap, and a bypass line equipped with a static R.O.

Controller: The APS can be controlled by the same PLC controlling the valve, or by a local dedicated PLC.

Plug & play installation: the APS can be installed and commissioned with minimum down-time of the purging function, even during plant operation.

Components:

- Flow control valve.
- Pressure control valve.
- Pressure transmitter.
- Temperature transmitter.
- Flow meter & transmitter.
- Stream trap.
- Bypass line with restricted orifice.
- Local PLC (optional).

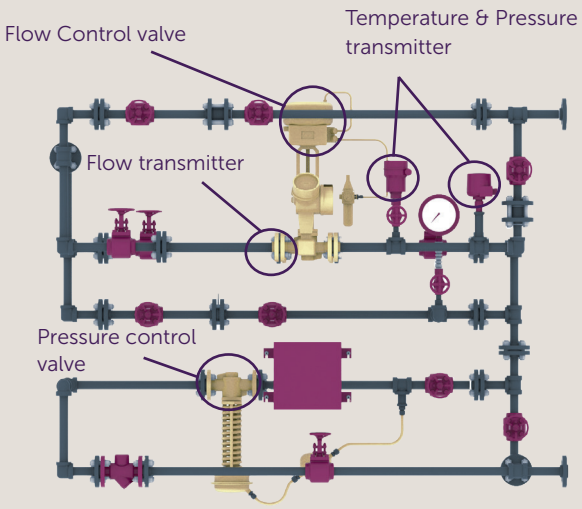
Benefits:

Enhanced Reliability: Prevents damage to valve components by ensuring proper purging.

Reduced Downtime: Minimises downtime due to incorrect purging.

Erosion Prevention: Saturated steam alarm prevents internal erosion due to water.

Typical P&ID Connections:



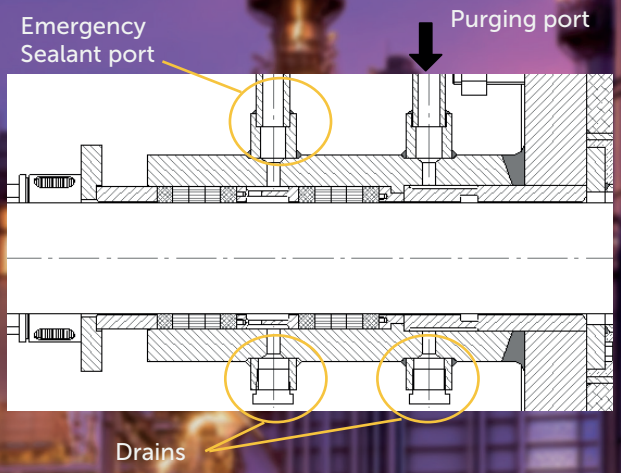
Active Purging vs. Static Purging

Active Purging:
-Active Purging is designed to eliminate the static systems intrinsic issues.
- Active Purging can provide the following features:
Continuous control of purging flow, with local alarm on HPCU HMI and/or to remote DCS.
- Adaptative setpoint for purging flow according to process parameters (temperature, pressure, pressure drop).
- Packing Live Load monitoring: local/remote warning in case the packing system requires maintenance (eg: packing relaxation during startup, partial oxydization of graphite matrix)
- Advanced Thrust Monitoring and Sticking Detector

Static Purging:
- Static purging systems work as long as the purging medium and the process fluid match the expected conditions (temperature, pressure). Outside this scenario the system loses its set-up: too much flow or insufficient flow.
- Malfunctioning can be detected only by human operators, depending on visual indicators installed in the purging systems (flowmeters, pressure gauges).

Purging

Stuffing-box purging purpose is to avoid any dirt deposit or dust particle collection on sliding surfaces between stem/shaft and inner stuffing box.



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