

# PRDS - Steam Conditioning System (SCS)



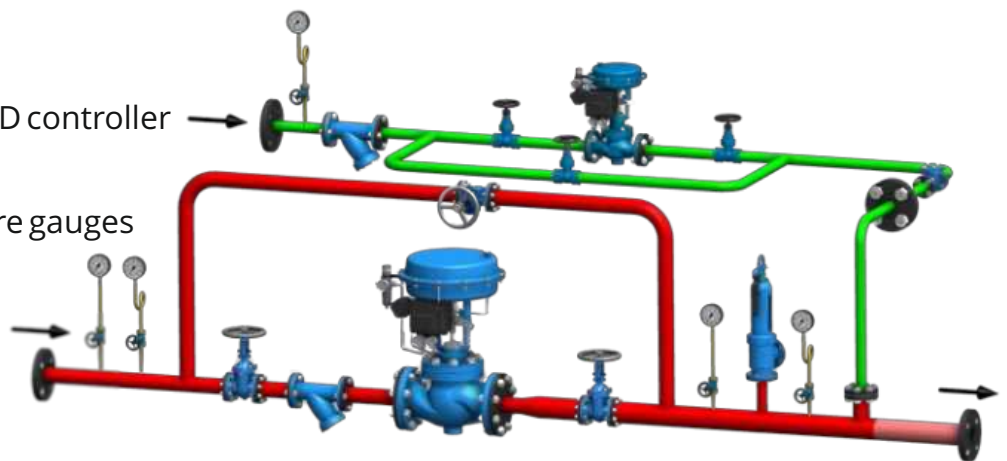
# TECNIK VALVES PVT LTD

Steam generator/boiler generates steam at high pressure and temperature but it is used in different section of the plant at reduced pressures and temperature. Reduction and maintaining pressure and temperature at required level is done through Pressure Reducing and desuperheating System (PRDS). PRDS comprises of two sections-pressure reducing and temperature reducing.

## PRESSURE REDUCING SECTION

This section comprises of

- Pressure transmitter
- Microprocessor based PID controller
- Control valve
- Pressure and temperature gauges
- Isolation valve
- Bypass valve
- Safety valve
- Strainer



Pressure transmitter measures steam pressure at inlet/outlet and gives corresponding signal to PID controller. Depending on the deviation of existing pressure from required set value, controller gives command to modulate control valve and thus inlet/outlet steam pressure is maintained.

## TEMPERATURE REDUCING SECTION

This section comprises of

- RTD / Thermocouple
- Temperature transmitter
- Microprocessor based PID controller
- Control valve
- Pressure and temperature gauges
- Isolation valves
- Bypass valve
- Non return valve
- Strainer
- Spray nozzle assemble

RTD/Thermocouple along with temperature transmitter measures temperature at the outlet steam(vapour) and corresponding output of the transmitter is fed to the controller. Depending on the deviation from the set value, the controller gives control command to control valve to regulate flow of cooling water. Cooling water is mixed with superheated steam in the form of fine droplets. Fine droplets of water remain suspended for some time and absorb heat of superheated steam thus bringing down steam temperature at the required level.

## SPECIFICATIONS :

Inlet/outlet pipe size	: 1/2" to 20"/1/2" and above
Inlet/outlet pipe MOC	: Carbon steel/Alloy steel
Pressure rating	: #150, #300, #600, #900
End connection	: Flanged/ BW
Control valve MOC	: Carbon steel/ Alloy steel
Pressure transmitter	: 2 wire, 4-20 m A output
Controller	: Panel mounted, 4-20 m A output

## APPLICATIONS :

- PRDS for process heating / cooling applications in sugar, food, textile, paper plants
- Ejector PRDS for boiler
- Turbine bypass PRDS
- Deaerator pressure in boiler
- Soot blower in boiler
- Makeup steam

## FEATURES :

- One stop solution
- Complete station IBR approved
- Customised station
- Fit at site
- Very efficient to maintain pressure and temperature



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