

Controls & Instrumentation/Fossil Boilers

GOGGLE VALVE – E, C&I input details

Project :- TATA Kalinganagar project, 2 x 250 TPH

Cust. Nos.: - 1430 & 1431

1. HYDRAULIC POWER UNIT – CONTROL PANEL :

Hydraulic power unit has to be equipped with a control panel with necessary controls for the operation of the valve using Hydro motor, operation of the vent valve & clamping/de-clamping operation etc. as applicable. The control panel should meet the following requirements,

- Power supply isolation switch/fuses/Overload relays of suitable rating.
- Lockable Local/Remote selector switch.
- Facility for local operation through Push buttons, Indicating lamps
- Provision for status indication and fault annunciation.
- Facility for remote operation and provision for remote signal interface.
- Termination of all the electrical accessories on the valve in the control panel.
- The panel shall be suitable for placing in outdoor, dusty environment and shall have canopy to protect from rain & other falling objects. Colour of the panel will be indicated later.

2. 1 no. of 415 V, 3 Ø, 3 wire, AC power will be provided up to the control panel. It is vendor's responsibility to derive the required control supplies and distribute up to the valves. The power supply has to be rated suitably taking care of the power rating of all the drives, cable run length distances from the power pack unit to the goggle valve.

3. Following signal exchanges shall be provided as minimum in the control panel.

Interposing relays shall be provided in the control panel to receive the open/close command signals from the DCS.

- a. Goggle Valve Open
- b. Goggle Valve Close

Potential free output contacts shall be provided to DCS for the following feedback signals from valve:

- a. Hydraulic power Unit On
- b. Hydraulic Power Unit Off
- c. Hydraulic Oil Pressure too low
- d. Hydraulic Power Unit in Auto
- e. Hydraulic Power Unit in Remote
- f. Hydraulic Power Unit in Local
- g. Hydraulic Power Unit Group Fault
- h. Goggle valve open
- i. Goggle valve close
- j. Vent Valve Open
- k. Vent Valve Close
- l. Valve Clamped
- m. Valve De Clamped

If additional signals are envisaged as per vendor's design to meet the system requirement, then the same have to be terminated at the control panel for remote interface.

4. Proximity non-contact type, Limit switches shall be provided for position limit sensing.
5. All the electrical accessories/panels shall be of flame proof construction taking care of the Gas group, Zone and Temperature class requirements and shall meet IP 55 protection class.
6. All Cables that run between various vendor supplied equipment, shall be in vendor's scope. All cables shall be of voltage grade 1.1 kV, PVC, Type C insulated, Armoured, FRLS sheathed. For Control cables, Minimum conductor size shall be 1.5 sq.mm. Vendor to supply necessary cable trays for routing of the cables.
7. Vendor to supply Double compression type, Brass with Nickel plated, Flame proof cable glands for the termination of cables.
8. Nothing in this specification shall be construed to relieve the vendor from his responsibility. This specification covers the minimum requirements of the system. It is the responsibility of the vendor to include all the requirements for completeness of the system.