

REV.	DATE	ALTERED	AMT	REV.	DATE	ALTERED	REV.	DATE	ALTERED
00	06.08.19	CHECKED	KD			CHECKED			CHECKED
		APPROVED	KD			APPROVED			APPROVED

PROJECT:		ADDITIONAL LEAN GAS COMPRESSOR AT EPRU UNIT, URAN PLANT							
OWNER:		OIL & NATURAL GAS CORPORATION LTD.							
OWNER PMC:		PROCESS SYSTEM ENGINEERS(I) PVT. LTD. THANE							
SIGN. & DATE		BHARAT HEAVY ELECTRICALS LTD. HYDERABAD		DRN.	NAME	SIGN.	DATE	NO.OF VAR.	
				CHD.	AMT		21.03.19		
				APPD.	KD		21.03.19	-N.A.-	
DEPT. PE&SD	UNTOL. DIMS. GR.		SCALE	WEIGHT (KG)	REF. TO ASSY. DRG.	ITEM NO.	NO.OF ITEMS		
CODE. 450	C/M/F		NTS	-N.A.-	-N.A.-	-N.A.-	-N.A.-		
TITLE				CARD CODE	BHEL DRG NO.		REV.		
TECHNICAL DATASHEET FOR FPS COMPONENTS				N.A.	PY-VD-4-M116-8661-01		01		
					CUST DRG NO. -NA-				
					SHT. No X		NO. OF SHT. X		

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COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED. It must not be used directly or indirectly in any way detrimental to the interest of the company. 1. DELUGE VALVE <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Sl. No.</th> <th style="width: 40%;">Requirements</th> <th style="width: 50%;">Compliance</th> </tr> </thead> <tbody> <tr> <td>3.1</td> <td>Material of construction</td> <td></td> </tr> <tr> <td>3.1.1</td> <td>Body</td> <td>Cast Steel</td> </tr> <tr> <td>3.1.2</td> <td>Seat</td> <td>SS</td> </tr> <tr> <td>3.1.3</td> <td>Bolts</td> <td>SS</td> </tr> <tr> <td>3.1.4</td> <td>Test & Drain Valve, Installation stop valve, Outlet & Check Valve</td> <td>Cast Steel</td> </tr> <tr> <td>3.2</td> <td>Approval</td> <td>UL/FM Approved</td> </tr> <tr> <td>3.3</td> <td>End Connection</td> <td>Flange drilling matching to ANSI B 16.5 #150</td> </tr> <tr> <td>3.4</td> <td>Type</td> <td>Wet Trim, Differential pressure, Quick release, Diaphragm and with clapper assembly</td> </tr> <tr> <td>3.5</td> <td>Trim Description</td> <td> (1) Wet pilot trim (2) Electrical release trim (3) Test & Alarm trim (4) Drain valve (5) Priming connection (6) Drip check valve (7) Emergency release valve </td> </tr> <tr> <td>3.6</td> <td>Working Pressure</td> <td>10.5 kg/cm² (g) to 12.5 kg/cm²(g)</td> </tr> <tr> <td>3.7</td> <td>Hydro Test Pressure</td> <td>25 kg/cm²(g)</td> </tr> <tr> <td>3.8</td> <td>Seat Pressure</td> <td>16 kg/cm²(g)</td> </tr> <tr> <td>3.9</td> <td>Accessories to be provided along with DV</td> <td> (1) Test Strainer, Drain Valve & NRV (2) Water Motor Gong (3) Instruments such as Pressure Gauge etc. (4) Provision for Solenoid valve mounting (5) Globe valves (including instrument globe valves) (6) Ball valves (7) Positive drain actuators (8) Emergency release (9) GI piping </td> </tr> <tr> <td>3.10</td> <td>Marking on Equipment</td> <td>Mfg. Trade Name, Year of Mfg., Serial No., Size & Model, 'UL' Listed Mark</td> </tr> <tr> <td>3.11</td> <td>Painting</td> <td>As per OEM Standard. Shade shall be Red to RAL 3000</td> </tr> </tbody> </table>				Sl. No.	Requirements	Compliance	3.1	Material of construction		3.1.1	Body	Cast Steel	3.1.2	Seat	SS	3.1.3	Bolts	SS	3.1.4	Test & Drain Valve, Installation stop valve, Outlet & Check Valve	Cast Steel	3.2	Approval	UL/FM Approved	3.3	End Connection	Flange drilling matching to ANSI B 16.5 #150	3.4	Type	Wet Trim, Differential pressure, Quick release, Diaphragm and with clapper assembly	3.5	Trim Description	(1) Wet pilot trim (2) Electrical release trim (3) Test & Alarm trim (4) Drain valve (5) Priming connection (6) Drip check valve (7) Emergency release valve	3.6	Working Pressure	10.5 kg/cm ² (g) to 12.5 kg/cm ² (g)	3.7	Hydro Test Pressure	25 kg/cm ² (g)	3.8	Seat Pressure	16 kg/cm ² (g)	3.9	Accessories to be provided along with DV	(1) Test Strainer, Drain Valve & NRV (2) Water Motor Gong (3) Instruments such as Pressure Gauge etc. (4) Provision for Solenoid valve mounting (5) Globe valves (including instrument globe valves) (6) Ball valves (7) Positive drain actuators (8) Emergency release (9) GI piping	3.10	Marking on Equipment	Mfg. Trade Name, Year of Mfg., Serial No., Size & Model, 'UL' Listed Mark	3.11	Painting	As per OEM Standard. Shade shall be Red to RAL 3000
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2. QUARTZOID BULB DETECTOR

Sl. No.	Requirements	Compliance
2.1	Type	Frangible bulb type
2.2	Operating temperature *	79 Deg C
2.3	Material of Construction	
2.3.1	Frame	Brass
2.3.2	Bulb	Glass filled with heat sensitivity liquid (colored)
2.3.3	Deflector	Brass
2.3.4	Cap	Copper
2.3.5	Seal	Teflon
2.4	Working pressure	3.5 Kg/cm ² min. & 5.0 Kg/cm ² (max) -g
2.5	Detector approved	UL listed
2.6	End Connection	1/2" NPT
2.7	Max. Working Pressure	12 kg/cm ² (g)
2.8	Hydro Test Pressure	30 kg/cm ² (g)
2.9	Finish	Chrome Plated
2.10	Marking on Equipment	Mfg. Trade Name, Operating Temp, Model, 'UL' Listed Mark

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3. SPRAY NOZZLE

Sl. No.	Requirements	Compliance
3.1	Body	BRASS / STAINLESS STEEL
3.2	Approval	UL listed
3.3	Discharge angle	80° C - 150° C
3.4	K Factor	AS PER APPROVED DRG
3.5	Finish	Chrome plated
3.6	For HVWS Nozzle	
3.6.1	Size	3/4" NPT (M)
3.6.2	Effective Working Pressure	3.5 kg/cm ² (g) to 5 kg/cm ² (g)
3.6.3	Maximum rated pressure	12.5 kg/cm ² (g)
3.7	Marking on Equipment	Mfg. Trade Name, Year & Batch No, K Factor & Spray Angle, Model, 'UL' Listed mark

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4. ALARM VALVE**Alarm Valve with Trim assembly - Size -80NB**

Sl. No.	Requirements	Compliance
1.0	Material of construction	
1.1	Body	Ductile iron
1.2	Clapper	Ductile iron
2.0	Approval	UL listed
3.0	End Connection	Flange drilling matching to ANSI B 16.5 #150
4.0	Type	Variable Pressure Trim alarm Valve
5.0	Trim Description	(1) Alarm Test Valve (2) Drain valve
6.0	Working Pressure	17.5 kg/cm ² (g)
7.0	Hydro Test Pressure	35 kg/cm ² (g)
8.0	Accessories to be provided along with Alarm valve	(1) Strainer (2) Drain valve (3) Restriction Nozzle assembly (4) Sprinkler alarm (5) System Pressure Gauge and Supply Pressure Gauge (6) Retard Chamber (7) Pressure Switch for Retard Chamber (8) Non return valve
9.0	Marking on Equipment	Mfg. Trade Name, Year of Mfg., Serial No., Size & Model, 'UL' Listed Mark
10.0	Painting	As per OEM Standard

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