

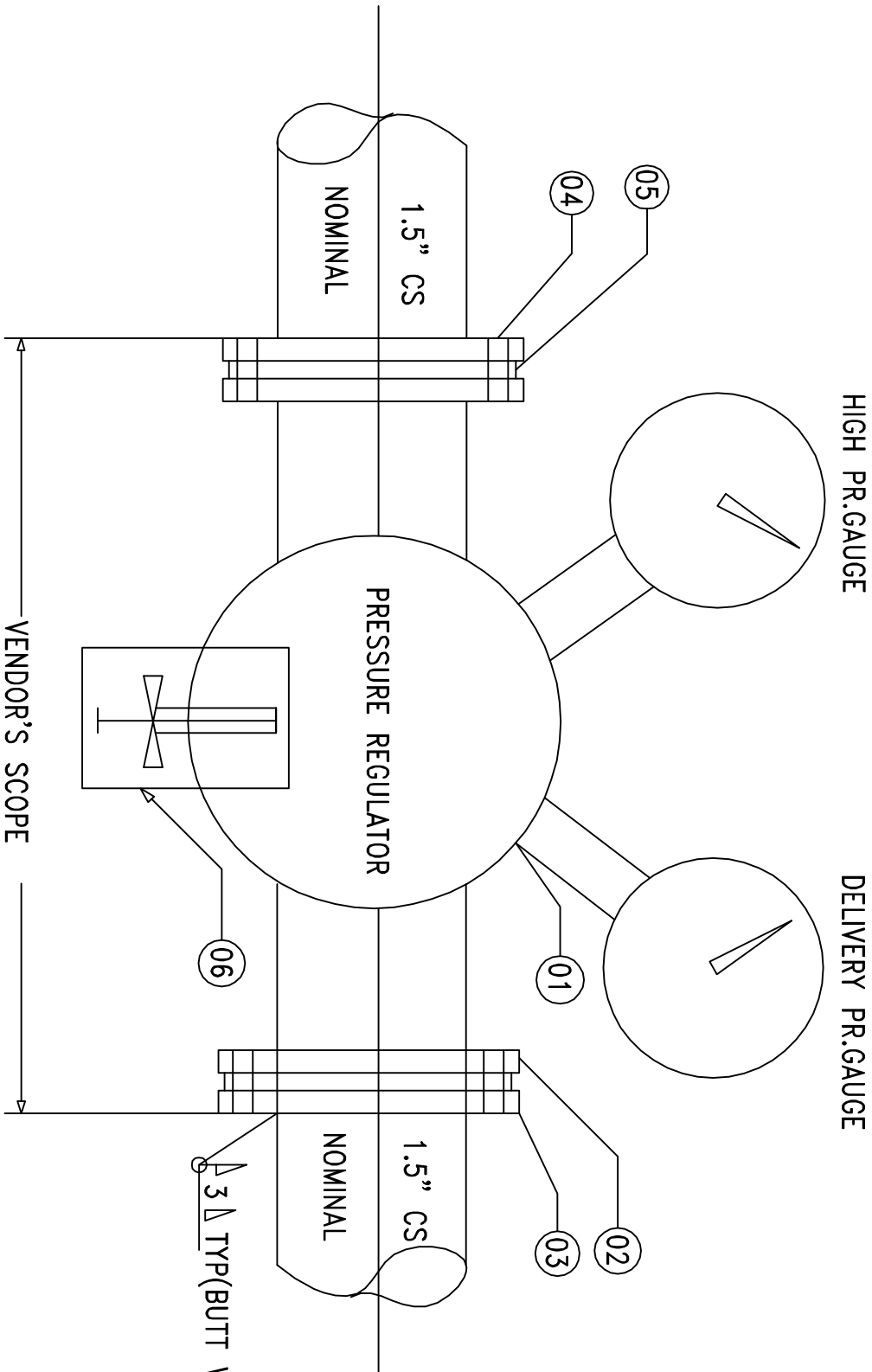
Specification & Datasheet for Pressure Reducing Valve(PRV)

Sl. No.	Specification Requirement		Remarks	Vendor's confirmation (yes/no)
1	Service		Vapour ammonia	
2	Enclosure Protection		IP 65	
3	Operating temperature		0-60 deg	
4	Body Size	Port size	Vendor shall specify	
5	Guiding	No of parts	Vendor shall specify	
6	Valve Material		Corrosion Resistant to Ammonia gas. Vendor shall specify.	
7	Type of control		Locally controllable using pressure regulator.	
8	Pipe size		1.5"	
9	Pipe thickness		3.7 mm (app) as per schedule 40	
10	Pipe material & Standard		Carbon Steel & IS 1239	
11	Working Pressure at inlet		7 kgf/sqcm	
12	Working Pressure at outlet		0-3 kgf/sqcm	
13	Maximum & minimum flow of ammonia gas		500 lpm & 300 lpm	
14	a. Body type, b. guiding, c. no of ports		a. Vendor shall specify b. Vendor shall specify c. Two port	
15	End connection, rating		Flange type. Rating shall be ANSI B16.5	
16	Body material		SS	
17	Bonnet type		Standard	
18	Packing		PTFE	
19	Trim form & trim material		PRV & SS316	
20	Tight shut off		Class IV	
21	Actuator type		Self actuated	
22	Failure position		close	

REF:TECI:AFGCS:R832:PRV

23	Hand wheel and location	Required & side mounted	
24	Outlet velocity	17 m/sec (app)	
25	Quantity (Min/Nor/Max)	80/100/120 Kg/hr	
26	Inlet pressure Min/Nor/Max Kg/cm2	5/15.5/20 Kg/cm2	
27	Outlet pressure Min/Nor/Max Kg/cm2	2.5/2.5/2.5 Kg/cm2	
28	Δ P	Vendor shall specify	
29	Δ P Shut off	20 kg/cm2	
30	Temp deg C Oper/max	Ambient / 60	
31	Vapour pressure/ Critical Pressure	15.5 / 113.3 Kg/cm2	
32	Density Kg/m3/Mol wt at 40 Deg C 15.5 Kg/cm2(a)	12.03/17	
33	Required leakage class	Vendor shall specify	
34	Noise level	Vendor shall specify	
35	Valve sizing calculation	Vendor shall specify	
36	Remote operation	Not Required	
37	Local operation	Required	
38	Pressure gauges for local indication	Required at both end for regulated pressure.	
39	Indication	In kgf/cm ² of ammonia pressure	
40	Valve operation	Manual	
41	Paint shade	Light Grey 632 of IS 5.	
42	Mounting	Please refer the drawing.	
43	Tag No.	AFGPRV001	
44	Draining arrangement	Polycarbonate Bowl for Draining Condensate/Dust	
45	Mounting & scope	Please refer the drawing.	
46	Filter Element Size	25 microns	
47	Special requirements	Body material, reducing element & pressure gauges shall be selected by the vendor so that	

		they should not react with ammonia gas.	
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NOTE:
PLEASE REFER THE SPECIFICATION AND DATASHEET.

BILL OF MATERIAL:

ITEM DESCRIPTION	QTY	NO/SET	SPECN. REFERENCE
01. PRESSURE REDUCING VALVE	01	NO.	AS PER SPECN.
02. FLANGE (PRV SIDE)	01	SET	ANSI B16.5
03. COUNTER FLANGE	01	SET	ANSI B16.5
04. FASTENERS	01	SET	GRADE 8.8
05. GASKETS	01	SET	CAF
06. INBUILT DRAINING VALVE WITH ACCESSORIES	01	SET	MANUFACTURER'S STD

CUSTOMER:  ANDHRA PRADESH POWER GENERATION CORPORATION LTD (APGENCO) 1X800 MW Dr.NTTPS STAGE-V, UNIT-8, VIJAYAWADA BTG PKG			
OWNER'S CONSULTANT: 	BHARAT HEAVY ELECTRICALS LTD UNIT- BOILER AUXILIARY PLANT RANIPET-632 406.		DRAWING NAME SIGN DATED
			PRRD.BY M.VJI -SD- 15.05.17
			CHKD.BY D.QUILLY -SD- 15.05.17
			APPD.BY M.J.M -SD- 15.05.17
TITLE :	PRESSURE REDUCING VALVE	BHEL DRAWING NO 3-00-114-39980	REV NO 00

REF:TECI:AFGCS:R833:PRV**Specification & Datasheet for Pressure Reducing Valve(PRV)**

Sl. No.	Specification Requirement		Remarks	Vendor's confirmation (yes/no)
1	Service		Vapour ammonia	
2	Enclosure Protection		IP 65	
3	Operating temperature		0-60 deg	
4	Body Size	Port size	Vendor shall specify	
5	Guiding	No of parts	Vendor shall specify	
6	Valve Material		Corrosion Resistant to Ammonia gas. Vendor shall specify.	
7	Type of control		Locally controllable using pressure regulator.	
8	Pipe size		1.5"	
9	Pipe thickness		3.7 mm (app) as per schedule 40	
10	Pipe material & Standard		Carbon Steel & IS 1239	
11	Working Pressure at inlet		7 kgf/sqcm	
12	Working Pressure at outlet		0-3 kgf/sqcm	
13	Maximum & minimum flow of ammonia gas		500 lpm & 300 lpm	
14	a. Body type, b. guiding, c. no of ports		a. Vendor shall specify b. Vendor shall specify c. Two port	
15	End connection, rating		Flange type. Rating shall be ANSI B16.5	
16	Body material		SS	
17	Bonnet type		Standard	
18	Packing		PTFE	
19	Trim form & trim material		PRV & SS316	
20	Tight shut off		Class IV	

REF:TECI:AFGCS:R833:PRV

21	Actuator type	Self actuated	
22	Failure position	close	
23	Hand wheel and location	Required & side mounted	
24	Outlet velocity	17 m/sec (app)	
25	Quantity (Min/Nor/Max)	80/100/120 Kg/hr	
26	Inlet pressure Min/Nor/Max Kg/cm2	5/15.5/20 Kg/cm2	
27	Outlet pressure Min/Nor/Max Kg/cm2	2.5/2.5/2.5 Kg/cm2	
28	ΔP	Vendor shall specify	
29	ΔP Shut off	20 kg/cm2	
30	Temp deg C Oper/max	Ambient / 60	
31	Vapour pressure/ Critical Pressure	15.5 / 113.3 Kg/cm2	
32	Density Kg/m3/Mol wt at 40 Deg C 15.5 Kg/cm2(a)	12.03/17	
33	Required leakage class	Vendor shall specify	
34	Noise level	Vendor shall specify	
35	Valve sizing calculation	Vendor shall specify	
36	Remote operation	Not Required	
37	Local operation	Required	
38	Pressure gauges for local indication	Required at both end for regulated pressure.	
39	Indication	In kgf/cm ² of ammonia pressure	
40	Valve operation	Manual	
41	Paint shade	Light Grey 632 of IS 5.	
42	Mounting	Please refer the drawing.	
43	Tag No.	AFGPRV001	

REF:TECI:AFGCS:R833:PRV

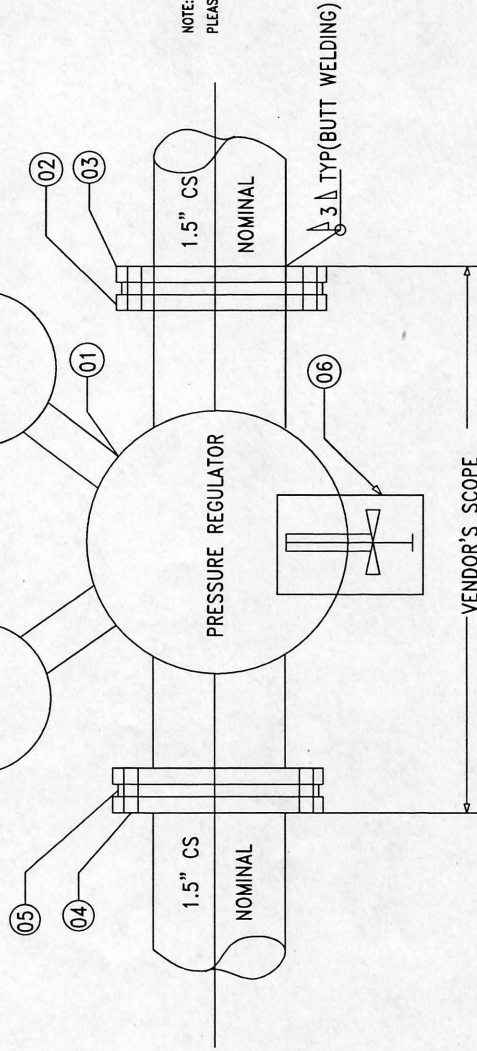
44	Draining arrangement	Polycarbonate Bowl for Draining Condensate/Dust	
45	Mounting & scope	Please refer the drawing.	
46	Filter Element Size	25 microns	
47	Special requirements	Body material, reducing element & pressure gauges shall be selected by the vendor so that they should not react with ammonia gas.	

REF:TECI:ATGCS:R833:PRV

ALL DIMENSIONS ARE IN MILLIMETRES

HIGH PR. GAUGE

DELIVERY PR. GAUGE



NOTE:
PLEASE REFER THE SPECIFICATION AND DATASHEET.

BILL OF MATERIAL:

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02. FLANGE (PRV SIDE)	01	SET	ANSI B16.5
03. COUNTER FLANGE	01	SET	ANSI B16.5
04. FASTENERS	01	SET	GRADE 8.8
05. GASKETS	01	SET	CAF
06. INBUILT DRAINING VALVE WITH ACCESSORIES	01	SET	MANUFACTURER'S STD

CUSTOMER:	ANDHRA PRADESH POWER DEVELOPMENT CO. LTD ANDHRA PRADESH, INDIA 1x800 MW STAGE-II UNIT#3, KRISHNAPATNAM
OWNER'S CONSULTANT:	DEVELOPMENT CONSULTANTS PVT. LTD. CONSULTING ENGINEERS KOLKATA MUMBAI CHENNAI NEW DELHI
	BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT Noida

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Indirectly in any way detrimental to the interest of this company.	ENR	ENR	ENR	23.05.17

TITLE	PRESSURE REDUCING VALVE
DRAWING NO.	3-00-114-40033
SHEET	1 OF 1
REV.	00
SIZE-A3	