

**ANNEXURE – I**

SL. NO.	DESCRIPTION	DETAILS
1	ITEM	SS RECEIVER
2	TYPE	VERTICAL, <u>CYLINRICAL</u> WITH BOTH ENDS CLOSED BY FORMED ENDS, IS 4049 (PART 2:1996), MOUNTED ON 4 NOS. LEGS
3	CAPACITY	10 CU. MTR
4	QUANTITY	1 NO.
5	SIZE	1700 ID X 4750 H
6	WORKING PRESSURE	1.325 MPa ( OR 13.25 bar OR 192 psi)
7	HYDRO TEST PRESSURE	1.8935 MPa (OR 19 bar OR 274.56 psi)
8	WORKING TEMPERTURE, MAX	204 °C (OR 400 °F)
9	WORKING FLUID	AIR
10	CODE OF CONSTRUCTION AND DESIGN	ASME SEC VIII DIV 2
11	MOC	
(a)	SHELL	SPEC NO. SA-240: UNS S31600 (SS 316, Plates/Sheets)
(b)	FORMED ENDS	SPEC NO. SA-240: UNS S31600 (SS 316, Plates/Sheets)
(c)	SUPPORT LEGS, LIFTING LUG	IS 2062:2011
(d)	NOZZLE PIPES, SEAMLESS	SPEC NO. SA-312: UNS S31600 (SS 316, Pipes)
(e)	GASKET	CNF
12	THICKNESS	AS PER ASME SEC VIII DIV 2
(a)	SHELL	12 mm or higher
(b)	FORMED ENDS	12 mm or higher
13	RADII & DIMENSIONS	AS PER IS 4049 ( PART 2:1996)
(a)	FORMED END INNER RADIUS	1700 mm
(b)	FORMED END CROWN RADIUS	1700 mm
(c)	FORMED END KNUCKLE RADIUS	175 mm
(d)	FORMED END STRAIGHT FLANGE	38 mm
14	FLANGED NOZZLES	AS PER ANSI B 16.5 CLASS 150
(a)	INLET FLANGE	80 NB
(b)	OUTLET FLANGE	80 NB
(c)	DRAIN	25 NB
(d)	MANHOLE	450 NB
15	SOCKETS, HEAVY, WELDED	
(a)	FOR PRESSURE SWITCH	15 NB
(b)	FOR SAFETY VALVE	25 NB
(c)	FOR PRESSURE GAUGE	15 NB
(d)	FOR VENT, WITH HEX NIPPLE	20 NB
16	FASTENERS	IS 1364 GR 10.9/ASTM A 1993 B7 AND 194 H4
17	PAINTING AND FINISHING	SS PORTION TO BE POLISHED AND MS PORTION TO BE PAINTED WITH TWO COATS OF EPOXY PAINT OVER ONE COAT OF EPOXY PRIMER, AFTER CLEANING WITH WIRE BRUSH

*Handwritten signature*

18	ACCESSORIES	<p>a) PRESSURE GAUGE : 6" DIAL, SS BOURDON, RANGE 0-16 BAR (GLYCERINE FILLED) 15 NB CONNECTION OF REPUTED MAKE</p> <p>b) DRAIN VALVE : 25 NB VALVE, MANUAL OPERATED FLANGE TYPE, (SS304)</p> <p>c) PRESSURE SWITCH : 15 NB WITH SS BELLOW, CONNECTION RANGE 0-16 BAR OF REPUTED MAKE</p> <p>d) SAFETY VALVE : 25 NB CONNECTION RANGE 0-16 BAR OF REPUTED MAKE (BRASS)</p> <p>e) VENT : 20 NB BALL VALVE, MANUAL (SS) SCREWED TYPE OF REPUTED MAKE</p>
19	TEST CERTIFICATES TO BE FURNISHED WITH SUPPLY	<p>a) RAW MATERIAL TEST CERTIFICATE FROM REPUTED NABL ACCREDITED LAB</p> <p>b) RADIOGRAPHY – 10% FOR ALL BUTT JOINT TEST CERTIFICATE TO BE PROVIDED FROM INSPECTION AGENCY (REGISTERED WITH ATOMIC ENERGY REGULATION BOARD, MUMBAI, INDIA)</p> <p>c) HYDRO TEST – TO BE PERFORMED IN PRESENCE OF APPROVED INSPECTOR</p> <p>d) ALL ACCESSORIES</p>
20	DESIGN REVIEW	VENDOR TO PERFORM 'DESIGN REVIEW' OF THE PRESSURE VESSEL TO BE CONDUCTED BY ONE OF THE FOUR PARTIES viz. DNV/LRQA/TUV/ABS AND SUBMIT TO US FOR VETTING CERTIFICATE, AFTER THE PLACEMENT OF ORDER, BUT PRIOR TO THE COMMENCEMENT OF MANUFACTURE.
21	INSPECTION	VENDOR TO CONFIRM ALL OTHER 'INSPECTION' ACTIVITIES RELATED TO THE FABRICATION OF THE PRESSURE VESSEL (LIKE MATERIAL INSPECTION, STAGE INSPECTION, WITNESSING OF LAB TESTS, WELDERS QUALIFICATION, AND RADIOGRAPHY ETC.) TO BE PERFORMED BY ANY ONE OF THE FOUR PARTIES (DNV/LRQA/TUV/ABS)
22	VENDOR QUALIFICATION CRITERION	BIDDER SHALL CONFIRM THAT THE TURNOVER IN SUPPLY OF PRESSURE VESSELS PER YEAR DURING THE LAST THREE FINANCIAL YEARS (2016-17 to 2018-19) WAS MORE THAN RUPEES FIFTEEN LAKH (Rs. 15,00,000) AND SHALL SUBMIT THE COPIES OF THE RELEVANT PURCHASE ORDERS, ALONG WITH THE BID.

**Notes:**

1. The price should include the cost of transportation to CSIR-CMERI
2. The charges of the design review and inspection by third parties are to be included in the offered price
3. The delivery is to be completed within 8-10 weeks

