

 CSU & FP	PLANT PURCHASE SPECIFICATION	NO.: BHEL/FP/TS/22 REV NO : 00 REV .DT : Sheet 1 of 3
	FABRICATION PLANT, JAGDISHPUR	
	DEPARTMENT: PRODUCTION	

SECTION- IV
TECHNICAL SPECIFICATIONS FOR HIGH PRESSURE SEAMLESS STEEL OXYGEN GAS CYLINDERS

SL. NO	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED/TO BE CONFIRMED BY VENDOR	DEVIATIONS, IF ANY
1.0	REQUIREMENT		
1.1	Design, manufacture and supply of ISI marked, Brand New, Empty, high pressure seamless steel oxygen gas cylinders ,flat type, concave bottom, cylinders of 46.7 litres water capacity as per IS:7285[part 2]:2004, complete with neck ring with valve as per IS:3224,threaded 25.4mm as per IS; 3224-2002 & with guard , painted as specified under gas cylinder rules,2004 and supported with manufacturer's test certificate and approval from the Chief controller of explosive, Government of India, Nagpur and detailed specification as per following:	vendor to confirm	
2.0	SPECIFICATION		
2.1	Cylinder material should be follow IS:7285(part-2)-2004	vendor to confirm	
2.2	Water capacity of oxygen cylinder is 46.7 liter, with outer diameter is 232 mm & overall length should be 1370 mm.	vendor to confirm	
2.3	Minimum wall thickness of oxygen cylinder is 5.3 mm & nominal tare weight Approx. 52.0 kg	vendor to confirm	
2.4	Working Pressure should be 150 Kgf/cm ² (g)	vendor to confirm	
2.5	Gas capacity should be 7 Cubic Meter	vendor to confirm	
2.6	Neck thread was cleanly cut with 1"-14 TPI. as per IS: 3224-2002	vendor to confirm	
2.7	Neck ring to be included	vendor to confirm	
2.8	Type of Bottom should be concave	vendor to confirm	
2.9	The cylinders are to be fitted with appropriate valves conforming to requirements of gas cylinders rules,2004 and as per IS:3224-1"	vendor to confirm	
2.10	Make of valves shall be Tekno, Vanaz, United Sanghai, Bharatiya valves, M/s IOCL, M/s NOL and M/s Shenko or other reputed makes.	vendor to confirm	
2.11	Valve guard/cap to be provided	vendor to confirm	
2.12	Painting shall be done as per gas cylinders rules,2004	vendor to confirm	
2.13	Technical data sheet & complete drawing of cylinder with valve, neck ring and guard are to be submitted along with offer.	Vendor to submit	

	Prepared By	Checked by	Approved By
Signature :			
Name :	Maharshi Manohar, ET	V K Choudhary, Engr.	Ajay Dwivedi, Sr. Engineer
Date of Issue :			



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3.0	Testing and Inspection		
3.1	Hydro static stretch test at a pressure 250 kgf/cm ² as required under rule 35 of the gas cylinder rules 2004	vendor of confirm	
3.2	Leakage test	vendor of confirm	
3.3	Bend test	vendor of confirm	
3.4	Tensile test & impact test, impact test carried out in accordance with specification IS:7285(part-2) -2004	vendor of confirm	
3.5	The cylinder shall be inspected & tested in accordance with the scheme of testing BIS license no. CM/L - 0640642 by B.I.S (ISI) approved agencies.	vendor of confirm	
3.6	cylinder free from seams, cracks, lamination & other defect	vendor of confirm	
3.7	It is inspected that maximum wall stress should be 46.59 kgf/mm ² , under an internal pressure of 250kgf/cm ²	vendor of confirm	
3.8	These cylinder were quenched at approximate 850 degree centigrade in oil & tempered at approximate 560 degree centigrade	vendor of confirm	
3.9	Neck thread was cleanly cut with 1"-14 TPI. as per IS: 3224-2002 & checked calibrated gauges.	vendor of confirm	
3.10	Original Certificates of Inspection Reports and Test certificates of gas cylinders duly signed by B.I.S(ISI) authority and approval letter from The Chief controller of Explosives, Nagpur for permitting filling of Oxygen Gas in these cylinders and further use shall be submitted to BHEL by the vendor.	vendor of confirm	
3.11	All the charges of testing & inspection by BIS and approval from CCOE shall be borne by Vendor.	vendor of confirm	
3.12	Pre dispatch inspection at supplier`s works shall be offered to BHEL prior to dispatch.		
4.0	Marking:		
4.1	Serial number and identification of manufacturer and year of manufacturing.	vendor of confirm	
4.2	Test pressure and date of the hydraulic test.	vendor of confirm	
4.3	Tare weight in kg.	vendor of confirm	
4.4	Inspector's official mark.	vendor of confirm	
4.5	A whole number, indicating the value of yield stress in Mpa on which the calculation of wall thickness was based.	vendor of confirm	
4.6	CCOE License number.	vendor of confirm	
5.0	Warranty		
5.1	Warranty for cylinders and valves shall be given for a period of 24 months from the date of supply against Deficiency in performance and failure in materials and workmanship.	vendor of confirm	



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6.0	Qualification Requirement		
6.1	Only those vendors, who have Supplied high pressure Oxygen Gas Cylinders for industrial use for at least one customer (Minimum 50 Nos.) in the past three Years and such cylinders, should be working satisfactorily till date for which The vendor should submit following details/supporting documents which are necessary for qualifying their offer.	vender of confirm	
6.2	Purchase order copies and performance certificate from two customers for the satisfactory performance of the same, supplied to them in the customer's letter head to be submitted along with offer.	vender to submit	
6.3	Name & designation of the contact person of the customer	vender to submit	
6.4	Phone, FAX no and email address of the contact Person of the customer.	vender to submit	
7.0	BHEL reserves the right to verify information submitted by vendor. In case the information is found to be false / incorrect, the offer shall be rejected.	vender to confirm	