




TD-106-1 Rev No. 5	Form No.		PRODUCT STANDARD SWITCHGEAR HYDERABAD		Product STD NO.	SG 80000
					Rev No 00	
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<div style="display: flex; justify-content: space-between;"> <div style="width: 15%; writing-mode: vertical-rl; transform: rotate(180deg);"> <p>COPYRIGHT AND CONFIDENTIAL</p> <p>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.</p> </div> <div style="width: 85%; text-align: center;"> <p><u>AIR COMPRESSOR, AIR DRYER AND MICRO FILTERS</u> <u>(Material Code: SG9780000003)</u></p> <p>1. Introduction:</p> <p>Purchase specification is intended to design, manufacturing, assembly, testing and supply of Air Compressor with/without refrigerated air dryer, Micron Filters (Course, Fine & Carbon Activated) for Medical grade PSA Oxygen plant of 500 LPM Capacity.</p> <p>The feed air system comprises of screw type air compressor, motor, air cooler, starter and control system etc. The screw compressor with/without integrated type Refrigerated type dryer so as to reduce the moisture load on the desiccant and the condensed water is drained out through a timer operated auto drain valve. To further reduce oil contents from the air, an additional activated carbon filter is provided. Micron air filter is provided before oil filter to remove any particulate matters. Thus, clean, oil free air is available for continuous usage in the system.</p> <p>2. Scope of Supply:</p> <p>Scope of supply shall be Item-1 + Item-2+ Item-3 + Item-4+ Item-5 + Item-6 All Filters 1 set spare + Ball valves, Non return valve, Auto drain valve and other fittings as per Annexure -1.</p> <p>Technical Specifications of major components are as follows:</p> <p>Item No.1: Air Compressor with motor, Integral Refrigerated Air Dryer and Air Suction Filter. If Air dryer is a non-integral type, then Compressor & dryer to be supplied mounted on common skid and power supply of air dryer to be made available from air compressor system. (Quantity: 01 No)</p> <p>Type: SCREW fluid cooled air end heavy duty with world renowned Sigma Profile heavy duty stationary screw air compressor</p> <p>Pressure : 7.0 to 8.0 bar g</p> <p>Stage : Single stage</p> <p>FAD : 280 cfm to 300 cfm as per ISO-1217: 2009</p> <p>Motor : S-1 Duty, minimum IE-2 efficient Squirrel Cage induction motor with TEFC IP 55 enclosure, Class F insulation suitable for 46 C ambient temp.</p> <p>Motor Rating: 45KW</p> <p>Electrical Supply : 415V, 3 Ph, 50 Hz±5%.</p> <p>Noise level: max 85 dB at one(1) meter.</p> <p>Drain : As per Annexure-1</p> </div> </div>						
Revisions: Refer to record of revisions:			Prepared: K. SANGEETHA	Approved: RAVI J	Date: 05.05.2021	

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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.		<p>Item No.2: Refrigeration type Air Dryer</p> <p>i) Capacity: . 280 cfm to 300 cfm</p> <p>ii) Working pressure = 07 bars,</p> <p>iii) Maximum operating pressure = 13 bar.</p> <p>iv) Dew point Temperature at the outlet pressure = +2° C to -3° C,</p> <p>v) Refrigerant Type = R134A or updated.</p> <p>vi) Inlet Temperature of the Air from the compressor to the Air Dryer=55°C.(max)</p> <p>vii) Dryer should operate on 230v/1phase/50Hz supply.</p> <p>Item No.3: Micro Filters Course (Quantity: 01 No)</p> <ul style="list-style-type: none"> • Coalescence Line Filter • Initial differential pressure at saturation < 200 mbar • Aerosol content at Inlet: - 10 mg/m³ • Remaining Aerosol content at Outlet as per ISO 12500- 1:06-2007 <0.1 mg/m³ • Filter Medium: Deep-pleated with support structure & polyester drainage fiber • Application: Filtration of solids, liquids, aerosols and particulate matter. • Connecting Pipe Size- NB50 • Flanges & Counter Flanges along with applicable fasteners and gaskets <p>Item No.4: Micro Filters Fine (Quantity: 01 No)</p> <ul style="list-style-type: none"> • Coalescence Line Filter • Initial differential pressure at saturation < 200 mbar • Aerosol content at Inlet: 10 mg/m³ • Remaining Aerosol content at Outlet as per ISO 12500- 1:06-2007 <0.01 mg/m³ • Filter Medium: Deep-pleated with support structure & polyester drainage fiber • Application: Filtration of solids, liquids, aerosols and particulate matter. • Connecting Pipe Size- NB50 • Flanges & Counter Flanges along with applicable fasteners and gaskets <p>Item No.5: Micro Filter Activated Carbon (Quantity: 01 No)</p> <ul style="list-style-type: none"> • Coalescence Line Filter • Initial differential pressure at saturation < 40 mbar • Aerosol content at Inlet: 10 mg/m³ • Remaining Aerosol content at Outlet as per ISO 12500-1:06- 2007 < 0.003 mg/m³ • Application: exclusively used for removal of oil vapors. • Connecting Pipe Size- NB50 • Flanges & Counter Flanges along with applicable fasteners and gaskets 				
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