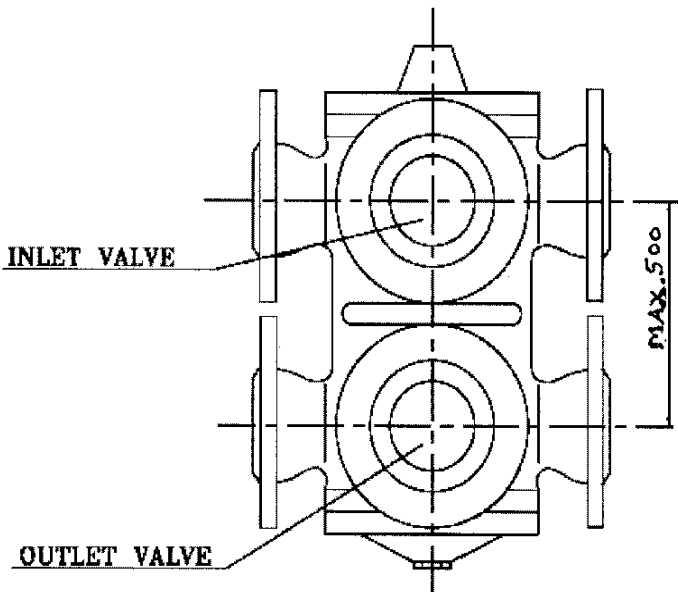


दिनांक एवं हस्ताक्षर SIGN & DATE			उत्पाद मानक STEAM TURBINE ENGINEERING PRODUCT STANDARD				ST 47028 पृष्ठ ०३ का ०१ Page 01 of 03																																				
SUPERSEDES INVENTORY NO. सामग्री सूची संख्या को अतिरिक्तित करती है	COPYRIGHT AND CONFIDENTIAL The information on this documents is the property of Bharat Heavy Electrical Limited It must not be used directly or indirectly in any way detrimental to the interest of the company.	TECHNICAL SPECIFICATION FOR DOUBLE THREE WAY VALVE																																									
		1.0 SCOPE :- 1.1 The specification covers design, manufacturing, assembly, testing and supply of double three way valves, details as per table-1. 1.2 One set of all rubber (VITON) seals as commissioning spares.																																									
		TABLE-1: <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">SL. NO.</th> <th colspan="4">SIZE NB mm</th> <th rowspan="2">MEDIUM</th> <th rowspan="2">WORKING PARAMETER</th> <th rowspan="2">BODY MATERIAL</th> </tr> <tr> <th>VAR. 01</th> <th>VAR. 02</th> <th>VAR. 03</th> <th>VAR. 04</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>125</td> <td>200</td> <td>150</td> <td>100</td> <td>TURBINE OIL VG46</td> <td>12 Kg/cm² 65 °C</td> <td>CARBON STEEL OR GG40</td> </tr> <tr> <td>02</td> <td>200</td> <td>150</td> <td></td> <td></td> <td>FIRE RESISTANT FLUID (PHOSPHATE ESTER)</td> <td>1 Kg/cm² 55 °C</td> <td>CARBON STEEL</td> </tr> <tr> <td>03</td> <td>100</td> <td></td> <td></td> <td></td> <td>-Do-</td> <td>12 Kg/cm² 55 °C</td> <td>STAINLESS STEEL</td> </tr> </tbody> </table>						SL. NO.	SIZE NB mm				MEDIUM	WORKING PARAMETER	BODY MATERIAL	VAR. 01	VAR. 02	VAR. 03	VAR. 04	01	125	200	150	100	TURBINE OIL VG46	12 Kg/cm ² 65 °C	CARBON STEEL OR GG40	02	200	150			FIRE RESISTANT FLUID (PHOSPHATE ESTER)	1 Kg/cm ² 55 °C	CARBON STEEL	03	100				-Do-	12 Kg/cm ² 55 °C	STAINLESS STEEL
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		2.0 FUNCTION :- The oil / Fire Resistant Fluid is cooled in oil cooler before it flows into the system. Double three way valve is used for directing oil / Fire Resistant Fluid to the cooler in operation, while at the same time shutting of the flow in reserve oil cooler. The arrangement of these valves should be such that one hand wheel shall operate both three way valves to establish in flow and out flow for one oil / Fire Resistant Fluid cooler.																																									
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		4.0 MATERIAL :- Body- Refer table-1 Packings -VITON Material of internals to be stainless steel .																																									
		5.0 END CONNECTION :- Flanged as per rating PN 16 DIN 2633.																																									
		6.0 INSTALLATION :- In horizontal pipe lines, valve in vertical position.																																									
		7.0 The bidder shall furnish Quality Plan in specified format. However the min. test requirement envisaged by BHEL are as follows :																																									
हस्ताक्षर एवं दिनांक SIGN & DATE	INVENTORY NO.																																										
		TSX	D.L.OBEROI		अनुवादक TRANSLATED BY																																						
		MEMBER PSC	R.PANJA		निर्माणकर्ता WORKED BY	M.SINGH																																					
		सहमत विभाग AGREED DEPTT.	नाम NAME	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	जांचकर्ता CHECKED BY	S.D.ROY																																					
		MEMBER PSC			पर्यवेक्षणकर्ता SUPERVISED BY	S.C.AGRAWAL																																					
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		REV.NO	REV. NO. 06		निर्माण PREPARED :	PED	GR. NO 3.50																																				
			30.10.09		जारी ISSUED :	PED	दिनांक DATE :26.03.84																																				

दिनांक एवं हस्ताक्षर SIGN & DATE		उत्पाद मानक STEAM TURBINE ENGINEERING PRODUCT STANDARD		ST 47028																										
				पृष्ठ 3 का 2 Page 02 of 03																										
सामग्री सूची संख्या को अधिकृतित करता है	SUPERSEDES INVENTORY NO.	7.1 Testing of Materials :- The material of components of valve such as body, bonnet, stem & fasteners shall be tested as per relevant specification for its chemical composition & mechanical properties. For remaining components compliance certificate shall be furnished. 7.2 DPT on body, stem & seat and all welded joints. 7.3 Colour matching of valve seat & plug in case of metal to metal contact. 7.4 Function test. (Functional test to be furnished by vendor with offer for BHEL'S approval) 7.5 All welding to be carried out as per qualified procedures and welders in according with ASME sec.IX. 7.6 Hydraulic test at 1.5 times the design pressure. 7.7 Seat leakage test. 8.0 Painting Scheme:- <table border="1"> <thead> <tr> <th>Paint (Coat)</th> <th>Paint Type</th> <th>No. of coat</th> <th>DFT*</th> </tr> </thead> <tbody> <tr> <td>Primer Paint</td> <td>Epoxy base Zinc rich primer paint</td> <td>2 Coats</td> <td>70</td> </tr> <tr> <td>Intermediate Paint</td> <td>Epoxy TiO2 Pigmented Polyamide Cured Paint</td> <td>1 Coat</td> <td>70</td> </tr> <tr> <td>Finish (Final) Paint</td> <td>Aliphatic Acrylic 2 Pack Polyurethane Finish paint</td> <td>2 Coats</td> <td>60</td> </tr> <tr> <td>Shade as per IS:5 or Equivelent</td> <td>Smoke Grey ISC 692</td> <td></td> <td></td> </tr> <tr> <td colspan="2"></td> <td>Total</td> <td>DFT</td> <td>180</td> </tr> </tbody> </table> *DFT – Dry Film Thickness (Final) in microns. <i>Colour shade may be changed during execution of contract.</i> 9.0 GUARANTEE:- The supplier shall guarantee trouble free and satisfactory operation of the equipment for a period of 18 months after delivery or 12 months after commissioning which ever is earlier.				Paint (Coat)	Paint Type	No. of coat	DFT*	Primer Paint	Epoxy base Zinc rich primer paint	2 Coats	70	Intermediate Paint	Epoxy TiO2 Pigmented Polyamide Cured Paint	1 Coat	70	Finish (Final) Paint	Aliphatic Acrylic 2 Pack Polyurethane Finish paint	2 Coats	60	Shade as per IS:5 or Equivelent	Smoke Grey ISC 692					Total	DFT	180
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सामग्री सूची संख्या को SUPERSEDES INVENTORY NO.	10.0 DOCUMENT 10.1 DOCUMENTS REQUIRED ALONGWITH OFFER— Acts of following documents in English language -- (i) Cross sectional and dimensional drawing alongwith Bill Of Material and end connection details . (ii) Quality Plan . (iii) List of spares for 3 years of operation				
COPYRIGHT AND CONFIDENTIAL. The information on this documents is the property of Bharat Heavy Electrical Limited. It must not be used directly or indirectly, in any way detrimental to the interest of the company	10.2 DOCUMENTS AFTER PLACEMENT OF ORDER (i) Four copies of finalized contract drawings - within four weeks of placement of order. (ii) Ten copies of operation and maintenance instructions - within 12 weeks of placement of order. (iii) Six copies of test certificates.	 GENERAL VIEW			
स्वत्वाधिकार एवं गोपनीय इस प्रलेख में दी गई सूचना भारत हेवी इलेक्ट्रिकल्स की संपत्ति है इसका प्रत्यक्ष एवं अप्रत्यक्ष रूप से किसी भी तरह प्रयोग, जो कि कंपनी के हित में हानिकारक हो न किया जाए ।	Cross referred standard:- ASME sec. IX DIN 2633 IS: 5 ISC 692				
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