



उत्पाद मानक

STEAM TURBINE ENGINEERING
PRODUCT STANDARD

ST47025
HW0690097

पृष्ठ 4 का 1
Page 1 of 4

SUPERSEDES
INVENTORY NO.

सामग्री सूची संकाय को
अधिकृतित करना है

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स्वात्वाधिकार एवं गोपनीय

इस प्रलेख में दी गई सूचना भारत हेवी इलेक्ट्रिकल्स की संपत्ति है। इसका प्रयोग एवं आरक्षण इस से किसी भी तरह प्रयोग, जो कि कंपनी के हित में हानिकारक हो न किया जाए।

हस्ताक्षर एवं दिनांक
SIGN & DATE

26.7.04


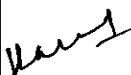
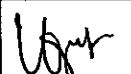
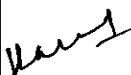
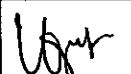
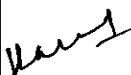
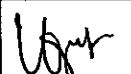
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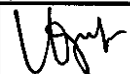
P-5522

GENERAL PURCHASE SPECIFICATION OF VALVES

- 1.0 SCOPE :-** This specification covers the general technical requirements for all valves to be used in turbine integral system handling hot condensate, superheated steam, air steam mixture, steam water mixture, oil & oil vapours, fire resistant fluid & its vapours. Separate specifications to indicate specific requirements e.g. design parameters, nominal size etc. have been prepared for each valve which shall be enclosed with this specification whenever any requirement arises.
- 2.0 RATING:-** Rating of the valves shall be selected by valve supplier for the working conditions as specified in separate specification / documents / drawings / enquiry of desired valve to which specification is enclosed. The rating shall be as per ANSI B16.34 or approved equivalent.
- 3.0 END CONNECTION**
- 3.1** Butt weld end connections of valves shall be suiting to pipe size as mentioned in enclosed specification of valve.
- 3.2** In case of flanged end valves, the supplier shall separately quote for the counter flanges, gaskets, O-ring & fastners of required pressure-temperature rating.
- 4.0 MATERIAL :-** All materials used in the construction of the valve body and other component shall be selected from the best available material for the purpose. The purchaser / owner reserves the right to review the material specification of valve components and to ask changes in selection of material. Any specific material for particular valve has been mentioned in the valve specification.
- 5.0 DRAINAGE OF VALVE BODY :-** Depending on the construction and placement of the valve in piping system, a drain tapping in the body may be required for valves used in oil, steam and water lines. This shall be checked and intimated by purchaser / owner after the receipt of offer or at the time of placement of order. The tapping shall be at the lowest point and on the center line, which shall be suitably plugged with a threaded plug & washer. The drain size for various valve sizes shall be as follows:-
- NB50 to 100 - 15 mm
NB125 to 300 - 20 mm
NB350 & above - 25 mm
- 6.0**
- Each valve shall be marked with an arrow on body showing direction of flow of medium, not applicable for gate valve which can be mounted with either of the sides.
 - Handwheel shall have the indication for opening & closing direction.

हस्ताक्षर एवं दिनांक SIGN & DATE		नाम NAME		दिनांक एवं हस्ताक्षर SIGNATURE & DATE	
TSX	D.L. OBEROI	अनुवादक TRANSLATED BY			
QAX	S.S. CHAUHAN	निर्माणांकक WORKED BY	S.K. GUPTA		26.7.04
सहमत विभाग AGREED DEPTT.	नाम NAME	जांचकर्ता CHECKED BY	V.K. GUPTA		26.7.04
	दिनांक एवं हस्ताक्षर DATE & SIGNATURE	पर्यवेक्षणकर्ता SUPERVISED BY	V.K. GUPTA		26.7.04
	स्वीकृति APPROVED :				
REV.NO. 02		निर्माण PREPARED : STE	जारी ISSUED : STE (TL) HARDWAR	दिनांक DATE :	26.3.84

दिनांक एवं हस्ताक्षर SIGN & DATE		उत्पाद मानक STEAM TURBINE ENGINEERING PRODUCT STANDARD	ST47025 HW0690097 पृष्ठ 4 का 2 Page 2 of 4								
सामग्री सूची संख्या की अधिकारिता करता है SUPERSEDES INVENTORY NO.	<p>3. GLAND SEALING :- Valves working under vacuum are to be provided with gland sealing arrangement.</p> <p>7.0 HYDRAULIC TEST :- Hydraulic test shall be carried out on each valve. After the hydraulic test the internals shall be wiped, cleaned and dried. The body & seat shall be tested hydraulically in accordance with ANSI B16.34. For steam & air service valves, seat leakage shall additionally be tested by air as per ANSI B16.34. Purchaser/owner shall have the right to witness the test. However the test certificates mentioning about test pressure & duration of test along with following informations shall be furnished to purchaser.</p> <ol style="list-style-type: none"> 1. Valve identification No. 2. Type of valve & description 3. Valve size 4. Name of manufacturer 5. Project name 6. Date of testing <p>8.0 CLEANING & SURFACE PROTECTION :- The surfaces shall be rubbed with a solvent (e.g white spirit) to clean & prepare them for the application of the paints. Unmachined surface shall be blast cleaned to remove any rust. Stainless steel portion shall not be painted.</p> <ol style="list-style-type: none"> 1. Outer surface to be protected by painting with two coats of Red oxide Zinc chromate primer. 2. Inside surface to be protected against rusting and corrosion. <p>9.0 IDENTIFICATION PLATE :- Following information in English shall be engraved on a metal sheet properly fixed at a convenient location on the body or body cover.</p> <ol style="list-style-type: none"> 1. Identification No. as specified in enclosed valve specification. 2. Valve type & Description 3. Valve size 4. Pressure rating 5. Manufacturer 6. Year of manufacturing 7. Project name 										
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स्वत्साधिकार एवं गोपनीय इस प्रलेख में दी गई सूचना भारत हेवी इलेक्ट्रिकल्स की सम्पत्ति है। इसका प्रत्यक्ष एवं अप्रत्यक्ष रूप से किसी भी तरह प्रयोग, जो कि कंपनी के हित में अधिकारकाल ही न किया जाए।											
दिनांक एवं हस्ताक्षर SIGN & DATE 26.7.04											
सामग्री सूची संख्या INVENTORY NO. P-5522	REV. NO. 02		<table border="1"> <tr> <td>निर्माणकर्ता WORKED BY</td> <td>S.K.GUPTA</td> <td></td> <td>9/7/04</td> </tr> <tr> <td>जांचकर्ता CHECKED BY</td> <td>V.K.GUPTA</td> <td></td> <td>9/7/04</td> </tr> </table>	निर्माणकर्ता WORKED BY	S.K.GUPTA		9/7/04	जांचकर्ता CHECKED BY	V.K.GUPTA		9/7/04
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जांचकर्ता CHECKED BY	V.K.GUPTA		9/7/04								

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सामग्री सूची संख्या को अधिकांशित करना है SUPERSEDES INVENTORY NO.	<p>10.0 STANDARD :- Latest issue and amendments of all applicable international standard shall apply.</p> <p>11.0 PACKING :- Valve ends, machined and unmachined surface, etc. shall be protected against rusting & corrosion and valve shall be packed according to mode of transport and storage in top shade store gantry in tropical climatic conditions for a period of 8-12 months.</p> <p>12.0 GUARANTEE :- The supplier shall guarantee trouble free operation of the equipment for a period of 2 years after installation and commissioning or a period of 3 years from the date of dispatch of equipment whichever is earlier. If during erection/commissioning and operation at site, any defect in any component is detected, purchaser's / owner's site representative shall prepare the assessment report and a copy of the same shall be forwarded to the supplier. The supplier shall replace / rectify the concerned items free of charge. The supplier, if he so desires, may deputed his representative to site at his own cost otherwise the report of purchaser's / owner's site representative shall be binding on the supplier.</p> <p>13.0 SPARES :- The offer of valves shall include the requirement of spares to be made available at the time of erection & commissioning. A separate offer of spares to be required for 3 to 5 years of operation shall also be separately enclosed along with main offer.</p> <p>14.0 SPECIAL TOOLS & TACKLES :- Any special tools & tackles, required for erection, commissioning and maintenance of valves shall be included in main offer per set of valves.</p> <p>15.0 QUALITY ASSURANCE, INSPECTION AND TESTING :-</p> <p>15.1 The manufacturer shall conduct all tests required to ensure all the component parts of the valve offered conform to the requirements of the specification and in compliance with requirements of applicable codes and standards.</p> <p>15.2 The bidder shall submit along with his offer quality plan in the prescribed BHEL's format.</p> <p>15.3 The particulars of the proposed shop tests and procedures for the tests shall be submitted to the BHEL / owner for approval along with quality plan.</p> <p>15.4 The equipment shall be dispatched only after inspection and clearance of material by BHEL / owner and approval of test certificates by BHEL / owner.</p> <p>15.5 The minimum tests/ checks to be carried out on the valve as envisaged by purchaser shall be as per the specification of desired valve to which this specification is enclosed. This is , however not intended to form a comprehensive testing programme as it is supplier's responsibility to prepare the detailed quality plan, which should also include tests, checks carried out by supplier as a part of their normal practice. This quality plan is subject to the approval of BHEL and owner. BHEL/owner reserves the right to ask for any more checks at the time of quality plan finalisation.</p>				
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हस्ताक्षर एवं दिनांक SIGN & DATE 26.7.04					
सामग्री सूची संख्या INVENTORY NO. P-5522	REV. NO. 02		निर्माणकर्ता WORKED BY S.K.GUPTA		9/7/04
			जांचकर्ता CHECKED BY V.K.GUPTA		9/7/04

SIGN दिनांक एवं स्थिति & DATE		उत्पाद मानक STEAM TURBINE ENGINEERING PRODUCT STANDARD	ST47025 HW0690097	
			पृष्ठ 4 का 4 Page 4 of 4	
सामग्री सूची संख्या INVENTORY NO.	<p>16.0 ACTUATORS :- As mentioned in valve specification, separately enclosed with this specification, the actuators shall be supplied along with handwheel to facilitate manual operation of valve. Direction of rotation of handwheel for opening and closing of valve shall be indicated on handwheel.</p> <p>17.0 DOCUMENTS</p> <p>17.1 Documents required along with the offer / at the time of registration :- The supplier shall submit 6 copies of following documents in English language along with the offer to enable purchaser for complete technical scrutiny of the offer.</p> <ol style="list-style-type: none"> 1. Cross sectional & dimensional drawing of valve along with actuator (if required) in assembled condition giving items nos. description, material specification of all components, details of bypass valve (if envisaged), gland sealing arrangement, end connection details, clear space required for operation & dismantling of valve & actuator for maintenance for approval by the purchaser. 2. Quality plan for approval by purchaser. 3. List of commissioning spares, maintenance spares for 3 to 5 years of operation for reference. 4. Any special requirements of lubricant for reference. <p>The document submitted along with the offer at the time of registration and approved by purchaser / owner shall be the basis of the order and no changes shall be made with out permission of purchaser / owner.</p> <p>Scrutiny and approval of documents, submitted along with the offer, by purchaser / owner shall not release the supplier and his sub-vendors of their responsibility under the contract .</p> <p>17.2 Documents to be submitted after placement of the order :-</p> <ol style="list-style-type: none"> 1. 10 copies of finalised contract drawing within 8 weeks. 2. 10 copies operation/ maintenance/ erection instructions for each station within 12 weeks. 3. Instruction of conservation and deconservation within 12 weeks. <p>18.0 Six copies of all actual test certificates and quality documents shall be furnished to purchaser/owner.</p> <p>19.0 If there are any deviation from this specification in offer, the same shall be clearly spelled out clausewise by supplier.</p> <p>20.0 Cross referred standards :- ANSI B16.34</p>			
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