


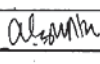





SIGN & DATE	SIGN & DATE		<b>PRODUCT STANDARD</b> <b>STEAM TURBINE ENGINEERING</b>		ST 45 001		
					PAGE 2 OF 4		
SUPERSEDES	INVENTORY No.	<p>alternates material which shall be subjected to BHEL/BHEL's customer's approval.</p> <p>4.0 <u>DOCUMENTS</u></p> <p>4.1 <u>Documents alongwith Offer</u></p> <p>Supplier shall submit the offer alongwith cross-sectional drawing of spray nozzle, bill of material and information on the test conducted to establish the following:-</p> <p>(i) Flow vs. Pressure characteristics.</p> <p>(ii) Particle size achieved.</p> <p>(iii) Spray cone angle.</p> <p>(iv) Length of throw.</p> <p>In case test were not conducted by him but got done elsewhere, the name of test lab shall be given alongwith the certificate of lab.</p> <p>4.2 <u>Documents after Placement of Order:</u></p> <p>Supplier shall submit 10 copies of document mentioned in clause 4.1 after incorporating BHEL comments.</p> <p>5.0 <u>QUALITY PLAN:</u> Supplier shall submit Quality Plan to be followed during manufacturing of nozzle. This shall be approved by Purchaser/owner.</p> <p>6.0 <u>INSPECTION &amp; CERTIFICATES:</u></p> <p>6.1 Supplier shall give compliance certificate stating that product supplied confirms to the agreement made in the order.</p> <p>6.2 Each nozzle shall be subjected to hydraulic test at 1.5 times the maximum inlet pressure mentioned in the table.</p> <p>6.3 <u>PERFORMANCE TEST:</u></p> <p>BHEL/BHEL's customer may ask to conduct test on a</p>					
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INVENTORY No.	SIGN & DATE	Rev. 01 WORKED BY A. B. GUPTA CHECKED BY K. C. SACHAN					
P-5557	11/5/85	20.2.85 20.2.85					

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SUPERSEDES		INVENTORY No.	<p>sample nozzle to prove the compliance of the nozzles with respect to information submitted alongwith offer and shall have the right to witness the test. However, a separate price may be quoted for such a test.</p> <p>7.0 WHEREVER Standards have been mentioned, the latest issue &amp; amendment shall apply.</p> <p>8.0 <u>GUARANTEE</u>: The supplier shall guarantee trouble free operation of the equipment for a period of 2 years after installation and commissioning <sup>for</sup> or a period of 3 years from the day of despatch of equipment whichever is earlier.</p> <p>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 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 depute 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>9.0 <u>CONSERVATION/PACKING</u>: The component shall be conserved so as to last for one year after despatch.</p> <p>Packing shall be seaworthy and such that any external damage to the component during transit is eliminated.</p> <p>10. <u>GENERAL</u>: If there is any deviation from this specification in offer, the same should be clearly spelled out clause-wise by supplier.</p>			
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Rev. 01.		Rev. 01.		Rev. 01.		Rev. 01.	
WORKED BY		WORKED BY		WORKED BY		WORKED BY	
A. B. GUPTA		A. B. GUPTA		A. B. GUPTA		A. B. GUPTA	
CHECKED BY		CHECKED BY		CHECKED BY		CHECKED BY	
K. C. SACHAN		K. C. SACHAN		K. C. SACHAN		K. C. SACHAN	
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PRODUCT STANDARD		
STEAM TURBINE ENGINEERING		
		FORM <b>ST45001</b> PAGE 4 OF 4
<b>TABLE-1</b>		
	Type A (Flash Box)	Type B (LP Exh.)
Bore mm	6.5	3.2
Capacity	34 lit/mt.	6.52 lit/mt.
Pressure drop across nozzle	4 kg/cm <sup>2</sup>	8 kg/cm <sup>2</sup>
Spray cone angle at tip.	90°	70°
Maximum Inlet pr.	20 kg/cm <sup>2</sup>	20 kg/cm <sup>2</sup>
Thread connection	R 1/2"	R 1/4"
Material	X10CrNiTi189	X10CrNiTi189

TABLE-2		
	Type A (Flash Box)	Type B (LP Exhaust)
Bore mm	5.5	4.8
Capacity	22.4 lit/min	15.60 lit/min
Pressure Drop Across Nozzle kg/cm	4	9
Spray Cone Angle of Tip	90°	70°
Maximum Inlet Pr. kg/cm <sup>2</sup>	45	45
Thread Connection	R 1/2"	R 1/4"
Material	X10CrNiTi189	X10CrNiTi 189