

TTTD-106-1 Rev No. 5	Form No.		PROJECT ENGINEERING & SYSTEM DIVISION BHEL, HYDERABAD –32.			PY51397					
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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. TECH SPECIFICATION FOR AIR RELEASE VALVE											
						Revisions :		Prepared by:	Checked by:	Approved By:	Date
								-SD-	-SD-	-SD-	
						00		Anupam	Amit/PCS	MNSR	28.07.18

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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. 1. SCOPE/INTENT: 1.1. This specification covers the technical requirements of constructional features, accessories, inspection, tests, test certificates, documentation, preservation, packing and forwarding of Air Release Valve. 1.2. Scope of supply shall include design, manufacture, inspection, shop testing, shop painting, packing and delivery. 1.3. The supplier shall strictly comply with this standard in all respects. No deviation shall be allowed. However, bidder can raise technical queries on the specification during pre-bid stage and clarifications may be sought from BHEL before the bid submission. APPLICATION: These items shall be suitable for fire protection systems (Water & Foam based protection system). 2. VARIANT TABLE: <table border="1" style="width: 100%;"> <thead> <tr> <th>Var. No.</th> <th>Description</th> <th>Material Code</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>Air Release Valve</td> <td>PY9751397014</td> </tr> </tbody> </table> Note: Bidder to quote as per Material Code as mentioned in the Enquiry. 3. TECHNICAL REQUIREMENTS: <table border="1" style="width: 100%;"> <thead> <tr> <th>Sl. No.</th> <th>Requirements</th> <th>Compliance</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Application</td> <td>Wet Riser in Hydrant System</td> </tr> <tr> <td>2</td> <td>Location</td> <td>At the top of wet riser</td> </tr> <tr> <td>3</td> <td>Fluid Handled</td> <td>Fire Water</td> </tr> <tr> <td>4</td> <td>Size</td> <td>25 NB</td> </tr> <tr> <td>5</td> <td colspan="2">Material Of Construction</td> </tr> <tr> <td>5.1</td> <td>Body</td> <td>Gunmetal, IS:318, LTB-II</td> </tr> <tr> <td>5.2</td> <td>Air Vent</td> <td>Gunmetal, IS:318, LTB-II</td> </tr> <tr> <td>5.3</td> <td>Top cap</td> <td>Gunmetal, IS:318, LTB-II</td> </tr> <tr> <td>5.4</td> <td>Washer</td> <td>Rubber, IS:937</td> </tr> <tr> <td>5.5</td> <td>Ball</td> <td>Rubber, IS:937</td> </tr> <tr> <td>5.5</td> <td>End Connection</td> <td>1" NPT THD.</td> </tr> <tr> <td>6</td> <td colspan="2">Testing and Quality Control</td> </tr> <tr> <td>6.1</td> <td>Hydrostatic Test Pressure</td> <td>21 kgf/cm² for 2.5 minutes</td> </tr> <tr> <td>6.2</td> <td>Working Pressure</td> <td>upto 14 kgf/cm²</td> </tr> </tbody> </table>					Var. No.	Description	Material Code	01	Air Release Valve	PY9751397014	Sl. No.	Requirements	Compliance	1	Application	Wet Riser in Hydrant System	2	Location	At the top of wet riser	3	Fluid Handled	Fire Water	4	Size	25 NB	5	Material Of Construction		5.1	Body	Gunmetal, IS:318, LTB-II	5.2	Air Vent	Gunmetal, IS:318, LTB-II	5.3	Top cap	Gunmetal, IS:318, LTB-II	5.4	Washer	Rubber, IS:937	5.5	Ball	Rubber, IS:937	5.5	End Connection	1" NPT THD.	6	Testing and Quality Control		6.1	Hydrostatic Test Pressure	21 kgf/cm ² for 2.5 minutes	6.2	Working Pressure	upto 14 kgf/cm ²
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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. <table border="1" style="width: 100%;"> <tr> <td style="width: 10%;">7</td> <td style="width: 40%;">Finishing</td> <td style="width: 50%;">Buff Polished</td> </tr> </table> 4. PAINTING As per manufacturer standard practice. 5. INSPECTION AND TESTING As per BHEL QAP (Refer attached Annexure) 6. DOCUMENTATION: 6.1. Along with the offer: Signed and stamped copy of this specification as token of acceptance of the specification for execution in the event of Order. 6.2. After PO Placement: Two copies each of the following documents shall be submitted for approval. - G.A. Drawings with weights and dimensions - Technical Data sheets, Catalogue - Material specification details - Tests to be conducted - O&M manuals - Storage/Preservation instructions for at least three years. Final documentation consisting of above documents shall be submitted in requisite sets (to be decided post order) of hard and soft copies. Schedule for document submissions: <table border="1" style="width: 100%;"> <thead> <tr> <th>S.no</th> <th>Description</th> <th>Schedule</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Submission of GA drawing & Technical Datasheet by vendor</td> <td>7 days from the date of P.O.</td> </tr> <tr> <td>2</td> <td>Approval GA drawing & Technical Datasheet by BHEL</td> <td>14 days from receipt of the document*</td> </tr> </tbody> </table> * The GA drawing & Technical Datasheet submitted by vendor shall be strictly in compliance to all applicable standards and specification.					7	Finishing	Buff Polished	S.no	Description	Schedule	1	Submission of GA drawing & Technical Datasheet by vendor	7 days from the date of P.O.	2	Approval GA drawing & Technical Datasheet by BHEL	14 days from receipt of the document*
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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.		7. PRESERVATION, PACKING & MARKING OR PACKING CASE: 7.1. A suitable temporary rust preventive with minimum life of two years shall be applied inside the item/equipment body in order to prevent corrosion. 7.2. All the item / equipment shall be packed suitably in closed wooden cases in order to avoid damage during transit and storage at BHEL. Suitable supports shall be provided inside the cases in order to avoid internal movement. In case of exported consignments, the packing shall be seaworthy (Refer enclosed Annexure for Export Packing guidelines, AA 0490009, Rev-01). Each item / equipment after end protection should be wrapped in polythene sheet before packing in the cases. Each packing case must contain two copies of the shipping list giving details of all the contents of the case. 7.3. The following marking shall be done on each packing case minimum on two sides and at the top. (a) Complete address of the consignee and destination as per BHEL Purchase Order. (b) BHEL Purchase order Number (c) BHEL item Material Code (d) Number of pieces in each packing case (e) Net Weight (f) Gross Weight (g) Packing case number and total number of packing (h) Arrow indicating top of the packing case.					
Ref.	Doc.						

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			Rev. No.	Date	Revision Details	Revised By	Checked By	Approved By
			00	28.07.2018	First Issue	-SD-	-SD-	-SD-
			01	07.02.2020	Revised Issue	-SD-	-SD-	-SD-
			Ref. Doc.					