

TTTD-106-1 Rev No. 5 Form No.		PROJECT ENGINEERING & SYSTEM DIVISION BHEL, HYDERABAD –32.			PY51391					
					Rev No. 00					
					Page 1 of 5					
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. TECHNICAL SPECIFICATION FOR SS HYDRANT VALVE										
					Revisions :		Prepared by:	Checked by:	Approved By:	Date
							-SD-	-SD-	-SD-	
					00	Sumant	Amit/PCS	MNSR	25.07.18	

TD-106-2 Rev No. 5 Form No.		PROJECT ENGINEERING & SYSTEM DIVISION BHEL, HYDERABAD –32.	PY51391
			Rev No. 00
			Page 2 of 5

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 SS Hydrant 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 valves suitable for fire protection systems (both Water/Foam based).

2. VARIANT TABLE:

Var. No.	Description	Material Code
01	SS Hydrant Valve (ISI Approved)	PY9751391016
02	SS Hydrant Valve (FM Approved)	PY9751391024

Note: Bidder to quote as per Material Code as mentioned in the Enquiry.

3. TECHNICAL REQUIREMENTS:

Sl. No.	Requirements	Compliance
3.1	Type	Female oblique type with the outlets angled towards ground
3.2	Size	Inlet of 75 mm and outlet of 63 mm female instantaneous.
3.3	Material of construction	
3.3.1	Body	SS 304
3.3.2	Stop valve	SS 304
3.3.3	Spindle	SS 304
3.3.4	Seat	SS 304
3.3.5	Bonnet	SS 304
3.3.6	Instantaneous Coupling	SS 304
3.4	Code/Standard	FM 1521 for FM approved / IS 5290 Type-A for ISI approved(as per applicable variant mentioned in Enquiry)
3.5	Hydraulic test	

TD-106-2 Rev No. 5 Form No.		PROJECT ENGINEERING & SYSTEM DIVISION BHEL, HYDERABAD –32.		PY51391																					
				Rev No. 00																					
				Page 3 of 5																					
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"> <tr> <td></td> <td>Body</td> <td>21 kg/cm2(g)</td> </tr> <tr> <td></td> <td>Seat</td> <td>14 kg/cm2(g)</td> </tr> <tr> <td>3.6</td> <td>Flow Test</td> <td>900 LPM min AT 7 Kg/cm2</td> </tr> <tr> <td>3.7</td> <td>End Connection</td> <td>As per ANSI B 16.5 150#</td> </tr> <tr> <td></td> <td>Inlet connection</td> <td>Flat Faced, Flanged, only Drilling and OD as per ANSI B 16.5</td> </tr> <tr> <td></td> <td>Outlet connection</td> <td>Female Instantaneous Coupling with Blank Cap & (SS) Chain</td> </tr> <tr> <td></td> <td>Approval</td> <td>FM approved / ISI Approved as mentioned in description (as per applicable variant mentioned in Enquiry)</td> </tr> </table>					Body	21 kg/cm2(g)		Seat	14 kg/cm2(g)	3.6	Flow Test	900 LPM min AT 7 Kg/cm2	3.7	End Connection	As per ANSI B 16.5 150#		Inlet connection	Flat Faced, Flanged, only Drilling and OD as per ANSI B 16.5		Outlet connection	Female Instantaneous Coupling with Blank Cap & (SS) Chain		Approval	FM approved / ISI Approved as mentioned in description (as per applicable variant mentioned in Enquiry)
		Body	21 kg/cm2(g)																						
		Seat	14 kg/cm2(g)																						
	3.6	Flow Test	900 LPM min AT 7 Kg/cm2																						
	3.7	End Connection	As per ANSI B 16.5 150#																						
		Inlet connection	Flat Faced, Flanged, only Drilling and OD as per ANSI B 16.5																						
		Outlet connection	Female Instantaneous Coupling with Blank Cap & (SS) Chain																						
		Approval	FM approved / ISI Approved as mentioned in description (as per applicable variant mentioned in Enquiry)																						
	4. PAINTING As per manufacturer Standard practice or as detailed below whichever is superior in quality. In such case, Purchaser's view shall be binding.																								
	<table border="1"> <tr> <th>Paint Scheme</th> <th>Total DFT</th> </tr> <tr> <td>Primer: Zinc filled Epoxy</td> <td rowspan="3">Minimum 200 Microns</td> </tr> <tr> <td>Intermediate: Epoxy MIO</td> </tr> <tr> <td>Final: Aliphatic Polyurethane</td> </tr> </table>				Paint Scheme	Total DFT	Primer: Zinc filled Epoxy	Minimum 200 Microns	Intermediate: Epoxy MIO	Final: Aliphatic Polyurethane															
Paint Scheme	Total DFT																								
Primer: Zinc filled Epoxy	Minimum 200 Microns																								
Intermediate: Epoxy MIO																									
Final: Aliphatic Polyurethane																									
Final shade of the paints shall be informed after post order.																									
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.																									
Ref. Doc																									

TD-106-2 Rev No. 5 Form No.		PROJECT ENGINEERING & SYSTEM DIVISION BHEL, HYDERABAD –32.	PY51391									
			Rev No. 00									
			Page 4 of 5									
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. 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%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S.no</th> <th style="width: 60%;">Description</th> <th style="width: 30%;">Schedule</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">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 style="text-align: center;">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. 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 packings (h) Arrow indicating top of the packing case.				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*
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*										
Ref. Doc												

TD-106-3	Rev No. 5	Form No.		PRODUCT STANDARD BHEL, HYDERABAD –32. PROJECT ENGINEERING & SYSTEM DIVISION			PY51391	
							Rev No. 00	
							Page 5 of 5	
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.			RECORD OF REVISIONS					
			Rev. No.	Date	Revision Details	Revised By	Checked By	Approved By
			00	25.07.2018	First Issue	-SD-	-SD-	-SD-
			Ref. Doc.					