

 432-003	ENQUIRY VALVES	Bharat Heavy Electricals Limited (A Government of India undertaking) HIGH PRESSURE BOILER PLANT PURCHASE DEPARTMENT/VALVES TIRUCHIRAPPALLI-620 014.		Phone:0431-257 7086/7210 Email: tender_cell@bheltry.co.in vikasverma@bheltry.co.in vinu@bheltry.co.in
		ENQUIRY NO.	DATE	DUE DATE FOR QUOTATION
		EN-BPS2011	06.10.2016	11.10.2016
		Please quote Enquiry No., and due date in all correspondences. This is only a request for quotation and not an order.		
<u>Date , Time & Venue of tender opening :</u> 11.10.2016 at 14.30 Hrs. at The Tender Opening Cell / Valves Room No. 26, Building -24 Bharat Heavy Electricals Limited Tiruchirappalli - 620014, Tamilnadu, India		<u>Scope of supply</u> Supply of End Covers & End Caps as per the drawings/standards/TDC enclosed. List of Annexures Annexure 1A- Scope of Supply Annexure 1B- Drawings/Standards Annexure 2- Terms & Conditions Annexure 3- Schedule of Deviation Format Annexure 4 A- Unpriced format Annexure 4 B- Priced format Note: Only manufacturers are requested to quote for this enquiry.		
The rate of Excise Duty and Sales Tax, Prevalent on the date of quotation, should be clearly indicated in the quotation itself. Please, submit your lowest quotation subjected to our terms and conditions, so as to reach us on or before the due date. (Latest by 14.00 Hrs. (IST) on the due date). The offers will be opened at 14.30 Hrs. (IST) on the due date in the presence of tenderers who may like to be present. Late tenders will not be considered.		Yours faithfully, For Bharat Heavy Electricals Ltd Vikas Verma Engineer/Purchase/Valves		



434-003/A
Dt.31.08.16

BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT / VALVES
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

Page : 1

PHONE :91-431-2577305
GRAMS : BHARATELEC
FAX NO: 91-431-2520383
E-mail : valpur@bheltry.co.in
WEB : http://mm.bheltry.co.in

Vendor Code : 23505 Vendor Name : M/S Open Tender Dummy Code	Enquiry No EN-BPS2011 - EN-BPS2011	Enquiry Date 06.10.2016	Due Date for Quotation 11.10.2016
Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order			

Item	Description	Unit	Delivery Quantity	Schedule Date
SUPPLY OF THE FOLLOWING ITEM(S) AS PER THE DRAWING(S)/STANDARD(S) GIVEN.				
10	220710090000 2V139501767/01 END COVER-1395	NO	131.00	12.12.16
20	220710380000 2V222601767/01 END COVER-2226	NO	50.00	12.12.16
30	220710400000 2V137001767/01 END COVER-1370	NO	104.00	12.12.16
40	220710430000 2V137301767/01 END COVER-1373	NO	93.00	12.12.16
50	220710540000 2V138001767/01 END COVER-1380	NO	106.00	12.12.16
60	220710690000 2V221401767/01 END COVER-2214	NO	44.00	12.12.16
70	220734970000 4V590304866/02 END COVER-5903	NO	3,500.00	12.12.16
80	220736460000 END COVER 69-BPS:6119-0120-41	NO	1,623.00	12.12.16

The offers should reach us before the time of opening the tenders. The offers will be opened at 14.30 hours on the due date in the presence of the tenderers who may like to be present . Late tenders are liable to be rejected .	Yours faithfully, For BHARAT HEAVY ELECTRICALS LIMITED MANAGER / PURCHASE / VALVES
--	--



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT / VALVES
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

Page : 2

PHONE :91-431-2577305
GRAMS : BHARATELEC
FAX NO: 91-431-2520383
E-mail : valpur@bheltry.co.in
WEB : http://mm.bheltry.co.in

EN-BPS2011 / 06.10.2016

23505

90	220744600000	NO	2,552.00	12.12.16
	TUBE ENDCOVERINT DIA 18			
	BPS:6119-012-02			
	BPS:6119-0120-24			
	BPS DRAWING 6119-0120 REV 02			
	BPS CODE 6119-0120-24			
	PART NUMBER 22 074 460 0000			
100	220744620000	NO	1,633.00	12.12.16
	TUBEENDCOVER INT DIA 24			
	BPS:6119-012-026			
110	220744640000	NO	648.00	12.12.16
	TUBE ENDCOVER INT DIA			
	30BPS:6119-012-028			
120	220744730000	NO	401.00	12.12.16
	TUBEENDCOVER INT DIA 57			
	BPS:6119-012-037			
130	963536450000 42083103873/00	NO	40.00	12.12.16
	TUBE END COVER INTERNAL TYPE			
140	964523540000 4V590004866/01	NO	1,185.00	12.12.16
	END COVER-5900			
150	964529470000 3V425907724/01	NO	122.00	12.12.16
	END COVER 11-5M-4259			
160	964529570000 4V417107575/00	NO	150.00	12.12.16
	TUBE END COVER-4171			
170	964699680000 2V412420264/00	NO	1,435.00	12.12.16
	END CAP FOR 2-1/16" FLANGE			

The offers should reach us before the time of opening the tenders.
The offers will be opened at 14.30 hours on the due date in the presence of the tenderers who may like to be present .
Late tenders are liable to be rejected .

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED

MANAGER / PURCHASE / VALVES



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT / VALVES
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

Page : 3

PHONE :91-431-2577305
GRAMS : BHARATELEC
FAX NO: 91-431-2520383
E-mail : valpur@bheltry.co.in
WEB : http://mm.bheltry.co.in

EN-BPS2011 / 06.10.2016				23505	
180	964699690000 2V459220264/00 END CAP FOR 2-9/16" FLANGE	NO	670.00	12.12.16	
190	964699700000 2V413420264/00 END CAP FOR 3-1/8" FLANGE	NO	826.00	12.12.16	
200	964699710000 2V477820264/00 END CAP FOR 4-1/16" FLANGE	NO	100.00	12.12.16	
210	964699720000 2V4L1420264/00 END CAP FOR 5-1/8" FLANGE	NO	16.00	12.12.16	
220	964699730000 END CAP FOR M10 GREASE NIPPLE	NO	1,141.00	12.12.16	
General Note: 1)The offers are invited in two parts. i)Part-I is bid covering the Techno-commercial terms and conditions. ii)Part-II is price bid stating the price per unit in INR. 2)Techno-Commercial bid will be opened first. 3)Price bid will be opened only if the supplier is qualified Techno-commercially. 4)The price quoted should be kept valid for 120 DAYS from the date of tender opening. 5)LD @0.5% of the total PO value per week to a maximum of 10% of the total PO value will be levied in case of delay in the supply.For staggered delivery schedule, LD shall be 0.5% of the undelivered portion per week of the delay or part thereof subject to a maximum of 10% of the total order value. 6)Annexure of the terms and conditions are enclosed. 7)Drawings are enclosed. 8)Delivery term should be strictly FOR/BHEL/Trichy (For indigenous suppliers) or CFR Chennai Port(For import suppliers). 9)Payment term should be 100% payment after 45 days on acceptance of the material at our stores. 10)The terms and conditions shall be strictly as per our enquiry only. 11)If any deviation is noticed against our enquiry terms and conditions ,your offer will be summarily rejected. The bidder along with its associate/ collaborators/					
The offers should reach us before the time of opening the tenders. The offers will be opened at 14.30 hours on the due date in the presence of the tenderers who may like to be present . Late tenders are liable to be rejected .				Yours faithfully, For BHARAT HEAVY ELECTRICALS LIMITED MANAGER / PURCHASE / VALVES	



434-003/A

BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT / VALVES
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

Page : 4

PHONE :91-431-2577305
GRAMS : BHARATELEC
FAX NO: 91-431-2520383
E-mail : valpur@bheltry.co.in
WEB : http://mm.bheltry.co.in

EN-BPS2011 / 06.10.2016

23505

sub-contractors/sub-vendors/ consultants/ service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.

The offers should reach us before the time of opening the tenders.
The offers will be opened at 14.30 hours on the due date in the presence of the tenderers who may like to be present .
Late tenders are liable to be rejected .

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED

MANAGER / PURCHASE / VALVES

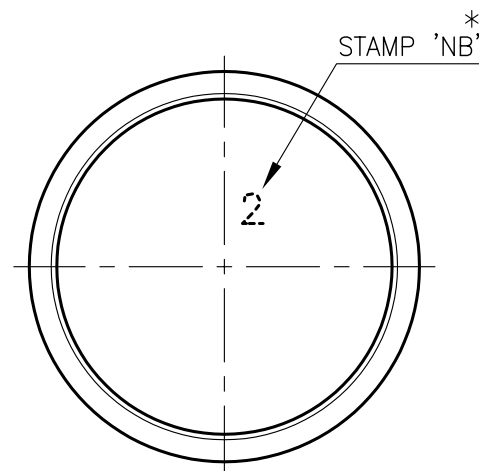
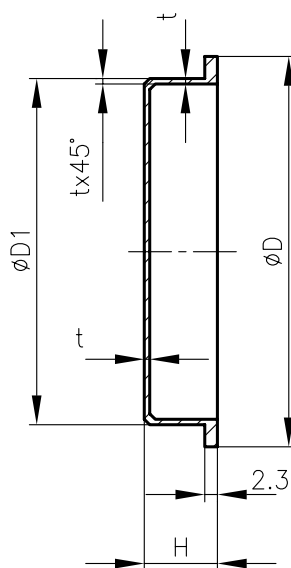
Sl.No:	Material Code	Material Description	Drawing Number	Enquiry Qty	UoM	Net Weight (in Kg.)
1	220710090000	END COVER-1395	2V139501767	131	NO	0.420
2	220710380000	END COVER-2226	2V222601767	50	NO	0.170
3	220710400000	END COVER-1370	2V137001767	104	NO	0.050
4	220710430000	END COVER-1373	2V137301767	93	NO	0.180
5	220710540000	END COVER-1380	2V138001767	106	NO	0.230
6	220710690000	END COVER-2214	2V221401767	44	NO	0.040
7	220734970000	END COVER-5903	4V590304866	3500	NO	0.010
8	220736460000	END COVER 69-BPS:6119-0120-41	6119-0120	1623	NO	0.015
9	220744600000	TUBE ENDCOVERINT DIA 18 BPS:6119-012-024	6119-0120	2552	NO	0.002
10	220744620000	TUBE ENDCOVER INT DIA 24 BPS:6119-012-026	6119-0120	1633	NO	0.004
11	220744640000	TUBE ENDCOVER INT DIA 30BPS:6119-012-028	6119-0120	648	NO	0.004
12	220744730000	TUBE ENDCOVER INT DIA 57 BPS:6119-012-037	6119-0120	401	NO	0.012
13	963536450000	TUBE END COVER INTERNAL TYPE	42083103873	40	NO	0.020
14	964523540000	END COVER-5900	4V590004866	1185	NO	0.010
15	964529470000	END COVER 11-5M-4259	3V425907724	122	NO	1.770
16	964529570000	TUBE END COVER-4171	4V417107575	150	NO	0.040
17	964699680000	END CAP FOR 2-1/16" FLANGE	2V412420264	1435	NO	0.030
18	964699690000	END CAP FOR 2-9/16" FLANGE	2V459220264	670	NO	0.030
19	964699700000	END CAP FOR 3-1/8" FLANGE	2V413420264	826	NO	0.030
20	964699710000	END CAP FOR 4-1/16" FLANGE	2V413420264	100	NO	0.030
21	964699720000	END CAP FOR 5-1/8" FLANGE	2V4L1420264	16	NO	0.030
22	964699730000	END CAP FOR M10 GREASE NIPPLE	SPEC:OF:104	1141	NO	0.030

FOR TOLERANCES OF UNTOLERANCED DIMENSIONS

ALL DIMENSIONS ARE IN MILLIMETRES.
DURING MANUFACTURE REFER RELEVANT QCP/QP

REV 03	DATE 31.03.08	ALTERED M.SRINIVASAN CHD & APPDP.BOOMINATHAN
-----------	------------------	--

DCP:800814

DRAWING CONVERTED INTO
AUTOCAD**NOTES:**

1. MATERIAL :- POLYETHYLENE-TYPE GCA IS: 3395-1965
2. COLOUR :- YELLOW
- * 3. DOTTED VALUE INDICATED FOR ILLUSTRATION ONLY.
ACTUAL SIZE OF NORMAL BORE SHALL BE STAMPED HERE.

SL. No.	NB *	DRAWING NO.	ØD	ØD1 ^{+0.2} ₀	H	t (MIN)	COMPONENT CODE	Wt. (Gms.)
01	1/4"	4-V-5900-04866/01	20	15.30	6.5	0.65	96 452 354 0000	0.70
02	3/8"	4-V-5901-04866/01	27	18.50	6.5	0.65	22 073 495 0000	1.00
03	1/2"	4-V-5902-04866/01	31	22.80	6.5	0.65	22 073 496 0000	1.53
04	3/4"	4-V-5903-04866/01	37	28.10	11.0	1.00	22 073 497 0000	3.51
05	1"	4-V-5904-04866/01	43	34.80	11.0	1.00	22 073 498 0000	5.00
06	1 1/4"	4-V-5905-04866/01	52	43.60	11.0	1.00	96 452 146 0000	7.48
07	1 1/2"	4-V-5906-04866/01	58	49.60	11.0	1.00	22 073 499 0000	9.00
08	2"	4-V-5907-04866/01	71	62.10	11.0	1.00	22 073 500 0000	14.00
09	10	4-V-5731-04866/01	24	15.60	6.5	0.65	22 073 501 0000	0.8

NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
--------	-------------	-----------	------------	----------------	------------	-------------	---------------	------------	---------



365-122

BHARAT HEAVY ELECTRICALS LTD.,

UNIT: HIGH PRESSURE BOILER PLANT.

TIRUCHIRAPALLI 620014.

DRN	NAME	SIGN	DATE	NO. OF VAR
CHD	S.V.NATHAN		05.09.85	
APPD	G.V.RAMANI		10.09.85	

DEPT VL	SCALE	WEIGHT (KG).	REFERENCE INFORMATION	NO. OF ITEMS
CODE 320	NTS	REF. TABLE	CAD:F404866	
TITLE	CARD CODE	DRAWING NO.	REV	
END COVER	U 01	4-V-0000-04866	03	

1		2		3		4		5		6		7		8																																																																																																																																																																																																																																																																																																																																																																																																																																						
DRAWING NO. 2-V-0000-20264																ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP																																																																																																																																																																																																																																																																																																																																																																																																																																				
A		<table><tr><th rowspan="2">SL No.</th><th rowspan="2">DRAWING NUMBER</th><th rowspan="2">FLANGE RATINGS</th><th rowspan="2">END CAP SIZE (mm)</th><th rowspan="2">MATERIAL SPECIFICATION</th><th rowspan="2">MATERIAL CODE</th><th colspan="5">DIMENSIONS (mm)</th><th rowspan="2">Wt / kg</th><th rowspan="2">REMARKS</th></tr><tr><th>øA</th><th>øB</th><th>øC</th><th>D</th><th></th></tr><tr><td>01</td><td>2-V-4124-20264 /0</td><td>2-1/16" - 2M, 3M, 5M, 10M, 15M</td><td>50</td><td rowspan="5">LINEAR LOW DENSITY POLYETHYLENE (COLOUR : BLUE)</td><td>96 469 968 0000</td><td>122</td><td>56</td><td>43.4</td><td>14</td><td></td><td>0.001</td><td></td></tr><tr><td>02</td><td>2-V-4592-20264 /0</td><td>2-9/16" - 2M, 3M, 5M, 10M, 15M</td><td>65</td><td>96 469 969 0000</td><td>144</td><td>69</td><td>62</td><td>16.3</td><td></td><td>0.002</td><td></td></tr><tr><td>03</td><td>2-V-4134-20264 /0</td><td>3-1/8" - 2M, 3M, 5M, 10M, 15M</td><td>80</td><td>96 469 970 0000</td><td>159</td><td>83</td><td>73</td><td>16.5</td><td></td><td>0.003</td><td></td></tr><tr><td>04</td><td>2-V-4778-20264 /0</td><td>4-1/16" - 2M, 3M, 5M, 10M, 15M</td><td>100</td><td>96 469 971 0000</td><td>192.5</td><td>105</td><td>97.6</td><td>15.3</td><td></td><td>0.005</td><td></td></tr><tr><td>05</td><td>2-V-4L14-20264 /0</td><td>5-1/8" - 2M, 3M, 5M, 10M, 15M</td><td>130</td><td>96 469 972 0000</td><td>260</td><td>156</td><td>135</td><td>16</td><td></td><td>0.007</td><td></td></tr><tr><td colspan="14"></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="2" rowspan="5">B</td><td colspan="14"></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="14"></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="14"></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="14"></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="14"></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="2" rowspan="5">C</td><td colspan="14"></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="14"></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="14"></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="14"></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="14"></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>														SL No.	DRAWING NUMBER	FLANGE RATINGS	END CAP SIZE (mm)	MATERIAL SPECIFICATION	MATERIAL CODE	DIMENSIONS (mm)					Wt / kg	REMARKS	øA	øB	øC	D		01	2-V-4124-20264 /0	2-1/16" - 2M, 3M, 5M, 10M, 15M	50	LINEAR LOW DENSITY POLYETHYLENE (COLOUR : BLUE)	96 469 968 0000	122	56	43.4	14		0.001		02	2-V-4592-20264 /0	2-9/16" - 2M, 3M, 5M, 10M, 15M	65	96 469 969 0000	144	69	62	16.3		0.002		03	2-V-4134-20264 /0	3-1/8" - 2M, 3M, 5M, 10M, 15M	80	96 469 970 0000	159	83	73	16.5		0.003		04	2-V-4778-20264 /0	4-1/16" - 2M, 3M, 5M, 10M, 15M	100	96 469 971 0000	192.5	105	97.6	15.3		0.005		05	2-V-4L14-20264 /0	5-1/8" - 2M, 3M, 5M, 10M, 15M	130	96 469 972 0000	260	156	135	16		0.007																												B																																																																																																																																																		C																																																																																																																																																																								A	
		SL No.	DRAWING NUMBER	FLANGE RATINGS	END CAP SIZE (mm)	MATERIAL SPECIFICATION	MATERIAL CODE	DIMENSIONS (mm)					Wt / kg	REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																						
								øA	øB	øC	D																																																																																																																																																																																																																																																																																																																																																																																																																																									
		01	2-V-4124-20264 /0	2-1/16" - 2M, 3M, 5M, 10M, 15M	50	LINEAR LOW DENSITY POLYETHYLENE (COLOUR : BLUE)	96 469 968 0000	122	56	43.4	14		0.001																																																																																																																																																																																																																																																																																																																																																																																																																																							
		02	2-V-4592-20264 /0	2-9/16" - 2M, 3M, 5M, 10M, 15M	65		96 469 969 0000	144	69	62	16.3		0.002																																																																																																																																																																																																																																																																																																																																																																																																																																							
		03	2-V-4134-20264 /0	3-1/8" - 2M, 3M, 5M, 10M, 15M	80		96 469 970 0000	159	83	73	16.5		0.003																																																																																																																																																																																																																																																																																																																																																																																																																																							
04	2-V-4778-20264 /0	4-1/16" - 2M, 3M, 5M, 10M, 15M	100	96 469 971 0000	192.5		105	97.6	15.3		0.005																																																																																																																																																																																																																																																																																																																																																																																																																																									
05	2-V-4L14-20264 /0	5-1/8" - 2M, 3M, 5M, 10M, 15M	130	96 469 972 0000	260		156	135	16		0.007																																																																																																																																																																																																																																																																																																																																																																																																																																									
B																																																																																																																																																																																																																																																																																																																																																																																																																																																				
C																																																																																																																																																																																																																																																																																																																																																																																																																																																				
B																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		C																																																																																																																																																																																																																																																																																																																																																																																																																																																		
				D																																																																																																																																																																																																																																																																																																																																																																																																																																																
						E																																																																																																																																																																																																																																																																																																																																																																																																																																														
D		NOTES: * 1. ALL OTHER DIMENSIONS & DETAILS (ie, THICKNESS, FINSHING, DIMN. E & F, RADIUS AND ANGLE) AS PER SUPPLIER'S SCOPE. 2. TEST CERTIFICATE FOR END COVERS SHOULD BE PROVIDED.																E																																																																																																																																																																																																																																																																																																																																																																																																																																		
		F																																																																																																																																																																																																																																																																																																																																																																																																																																																		
				E																																																																																																																																																																																																																																																																																																																																																																																																																																																
						F																																																																																																																																																																																																																																																																																																																																																																																																																																														
								F																																																																																																																																																																																																																																																																																																																																																																																																																																												

1

2

3

4

5

6

7

8

Size A2

NOTES:

- * 1. ALL OTHER DIMENSIONS & DETAILS (ie, THICKNESS, FINSHING, DIMN. E & F, RADIUS AND ANGLE) AS PER SUPPLIER'S SCOPE.
- 2. TEST CERTIFICATE FOR END COVERS SHOULD BE PROVIDED.

MINIMUM REQUIRED PROPERTIES :

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE
DENSITY (23°C)	ASTM D 1505	g/cc	0.926
MFI (190ø / 2.19kg)	ASTM D 1238	g/10 min	50
TENSILE YIELD STRENGTH	ASTM D 638	MPa	11.5
ELONGATION AT BREAK	ASTM D 638	%	600
FLEXURAL MODULUS	ASTM D 790	MPa	250
FLEXURAL MODULUS	ASTM D 1525	°C	97

APPLICATIONS :

END CAPS ARE USED TO PROTECT THE BODY SEALING GROOVE AREA FROM CONTAMINATIONS OF ENVIRONMENT.

END CAP ASSY DETAILS

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

DCP No.	ALTERED	APPD
REV	CHD	DATE
ZONE		

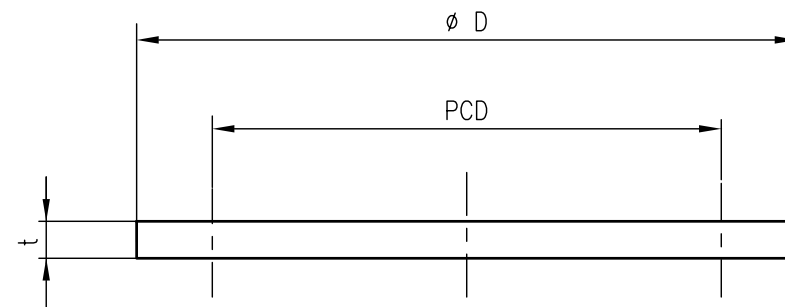
No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
FOR OFE FLANGES									
BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI -620014.				DRN	NAME	SIGN	DATE	NO.OF VAR.	
365-120				CHD	P.ARUNKUMAR	P.A	20-08-2016	20-08-2016	
DEPT VL				APPD	R.ELAYARAJA	R.E	20-08-2016	NO. OF ITEMS	
CODE 340				REFERENCE INFORMATION					
TITLE				CARD CODE	DRAWING NO.				REV
FLANGE END CAP (PLASTIC)				U 01	2-V-0000-20264				0

ALL DIMENSIONS ARE IN MILLIMETRES.

FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP.

SL No.	FLANGE RATINGS	DRAWING NUMBER	MATL. CODE	ø D	PCD	t	NET Wt (Kg)	SUPERSEDED DRG	BHEL PART No.
01	13 5/8" – 2000	SAME AS SERIAL NUMBER 05							
02	21 1/4" – 2000	3–V–4127–07724/01	96 452 938	813	724	6	3.42	VPS–001–9036	4127309
03	3 1/8" – 3000	SAME AS IN SERIAL NUMBER 09							
04	9" – 3000	SAME AS IN SERIAL NUMBER 19							
05	11" – 3000	3–V–4111–07724/01	96 452 939	546	470	6	1.55	VPS–002–9036	4111310
06	13 5/8" – 3000	3–V–4112–07724/01	96 452 940	610	534	6	1.92	VPS–003–9036	4112311
07	20 3/4" – 3000	3–V–4832–07724/01	96 452 941	858	750	6	3.81	VPS–004–9036	4832312
08	2 1/16" – 5000	3–V–4879–07724/01	96 452 942	216	165	3	0.12	VPS–005–9036	4879313
09	2 9/16" – 5000	3–V–4881–07724/01	96 452 943	245	191	3	0.15	VPS–006–9036	4881314
10	3 1/8" – 5000	3–V–4882–07724/01	96 452 944	267	203	3	0.18	VPS–007–9036	4882315
11	4 1/16" – 5000	3–V–4733–07724/01	96 452 945	312	242	3	0.25	VPS–008–9036	4733316
12	7 1/16" – 5000	3–V–4109–07724/01	96 452 946	394	318	6	0.40	VPS–009–9036	4109317
13	11" – 5000	3–V–4259–07724/01	96 452 947	585	483	6	1.77	VPS–010–9036	4259318
14	13 5/8" – 5000	3–V–4265–07724/01	96 452 948	673	591	6	2.35	VPS–011–9036	4265319
15	1 13/16" – 10000	3–V–4178–07724/01	96 452 949	188	146	3	0.09	VPS–012–9036	4178320
16	2 1/16" – 10000	SAME AS IN SERIAL NUMBER 08							
17	2 9/16" – 10000	SAME AS IN SERIAL NUMBER 09							
18	3 1/16" – 10000	SAME AS IN SERIAL NUMBER 10							
19	4 1/16" – 10000	SAME AS IN SERIAL NUMBER 11							
20	7 1/16" – 10000	3–V–4269–07724/01	96 452 950	480	404	6	0.59	VPS–013–9036	4269321
21	11" – 10000	SAME AS IN SERIAL NUMBER 14							
22	13 5/8" – 10000	3–V–4369–07724/01	96 452 951	769	673	6	3.00	VPS–014–9036	4369322
23	3 1/16" – 15000	3–V–4J71–07724/01	96 469 061	290	230	3	0.3	VPS–015–9036	4J71323
						DCP No.		ALTERED	APPD
						—		CHD	DT.
						REV.	SL NO 23 ADDED.		
						02			
ZONE									
02									

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.



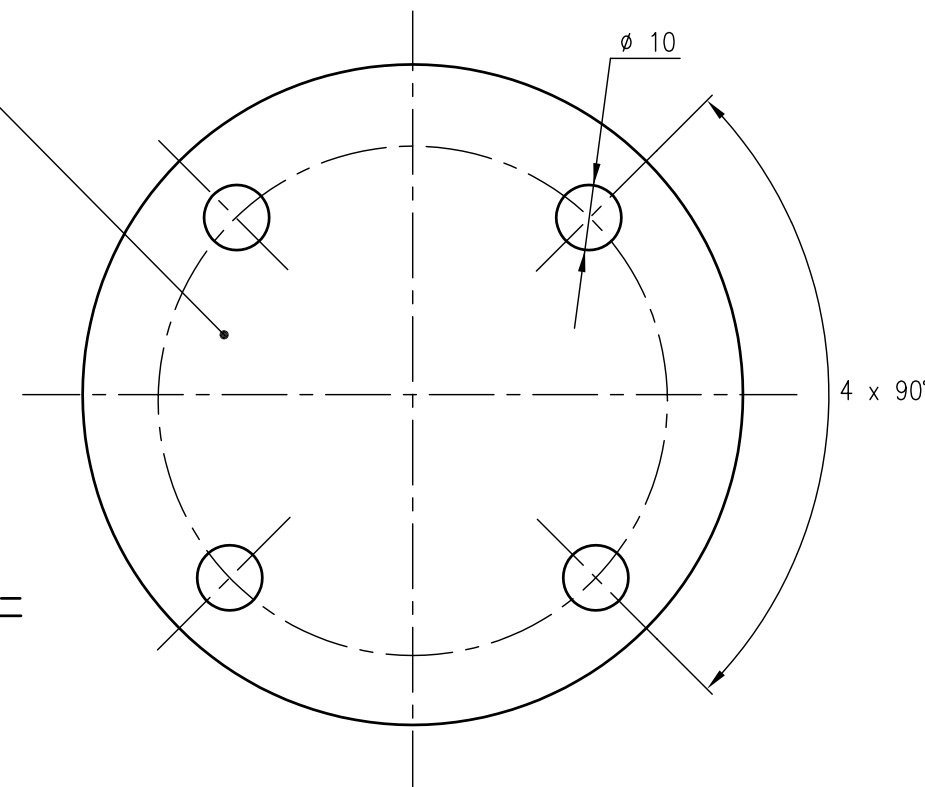
IDENTIFICATION MARK

TO BE PAINTED ON THE

SMOOTH SURFACE BY

RESPECTIVE-BHEL PART No

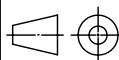
SHOWN IN TABULATION



DIMENSIONAL TOLERANCES:-

1. FOR OD UPTO ϕ 500 $\begin{matrix} 0 \\ -3.0 \end{matrix}$
2. FOR OD ABOVE ϕ 500 $\begin{matrix} 0 \\ -5.0 \end{matrix}$

CAD REF No. o307724

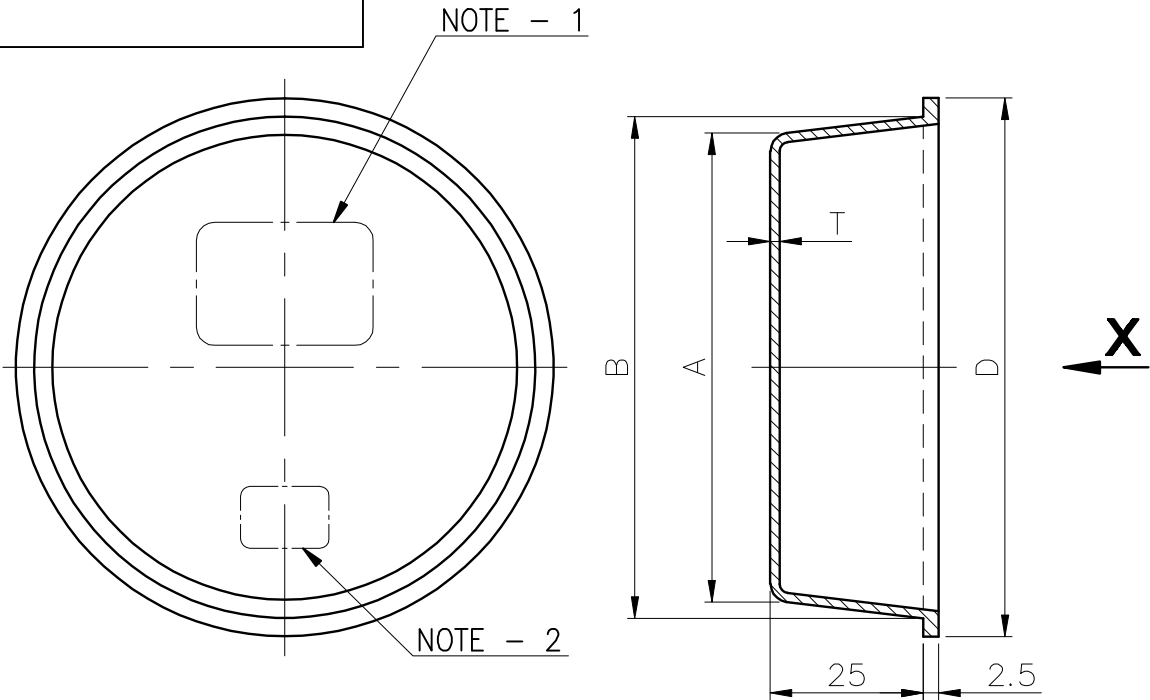
			STANDARD HARD BORAD IS 1658						
No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
 365-121 BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.					DRN	NAME T.RAJARAMAN	SIGN <i>Rajaraman</i>	DATE 27-6-05	NO.OF VAR.
					CHD	T.RAJARAMAN	<i>Rajaraman</i>	27-6-05	
365-121					APPD	V.ALAGARSWAMI	<i>V. Alagarswami</i>	27-6-05	
DEPT VL	—		SCALE N T S	WEIGHT (KG). —	REFERENCE INFORMATIONS —				NO. OF ITEMS
CODE 340									
TITLE END COVER					CARD CODE U 01	DRAWING NO. 3-V-0000-07724			REV 02

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

ALL DIMENSIONS ARE IN MILLIMETRES.

FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP/QP

REV	DATE	ALTERED
		CHD & APPD



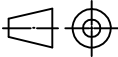
NOTE:

1. STAMP THE EMBLEM ACCORDING TO AA 040 11 21 IN THE DIRECTION 'X'.
2. STAMP THE APPROPRIATE NOMINAL SIZE IN THE DIRECTION 'X'.
3. MATERIAL : UREA FORMALDEHYDE CONFORMING TO IS: 3389 OR POLYVINYL CHLORIDE (PVC) OR OTHER EQUIVALENT.
4. THE TUBE END COVERS SHALL BE FLEXIBLE TO FIT SNUGLY INTO THE TUBE AND WITHSTAND SHOCK DURING TRANSIT OF THE TUBES.
5. THE TUBE END COVERS SHALL PREFERABLY BE OF DARK BLUE OR WHITE IN COLOUR OF VIRGIN QUALITY MATERIAL.
6. THE CORNERS SHALL BE SUITABLY RADIUSD.

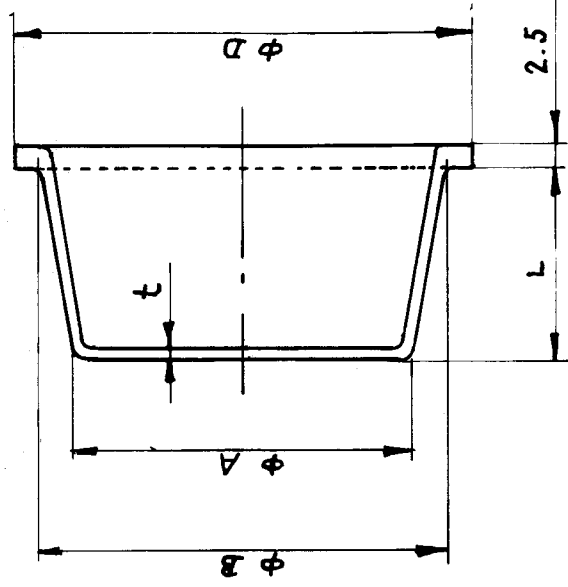
VAR. No.	EMBLEM SIZE	A	B	D	T	DESCRIPTION	PART CODE	UNIT WT. (kg)
01	25	76	82	88	1.5	TUBE END COVER INTERNAL DIA 78	963536450000	0.020

NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
--------	-------------	-----------	------------	----------------	------------	-------------	---------------	------------	---------

 365-127	BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI 620014.				DRN	NAME J.SANKAR	SIGN J.S	DATE 18.02.11	NO.OF VAR
					CHD	K.SRIDHARAN	K.S	18.02.11	
					APPD	K.SRIDHARAN	K.S	18.02.11	

DEPT SB		SCALE NTS	WEIGHT (KG). 0.020	REFERENCE INFORMATION	NO. OF ITEMS
CODE 330					

TITLE TUBE END COVER (INTERNAL TYPE)	CARD CODE U 01	DRAWING NO. 4-20-831-03873	REV 00
--	-------------------	-------------------------------	-----------



(NOTE - 2)

NOTE. SIZE AS SHOWN IN
TABULATION (NOTE-2)



OR PVC OR OTHER EQUIVALENT.

2. MANUFACTURE AND WORKMANSHIP, DESIGNATION AND MARKING & ADDITIONAL INFORMATION FOR PURCHASE SHALL BE ACCORDING TO BPS : 517501 - 7301.

[illegible]

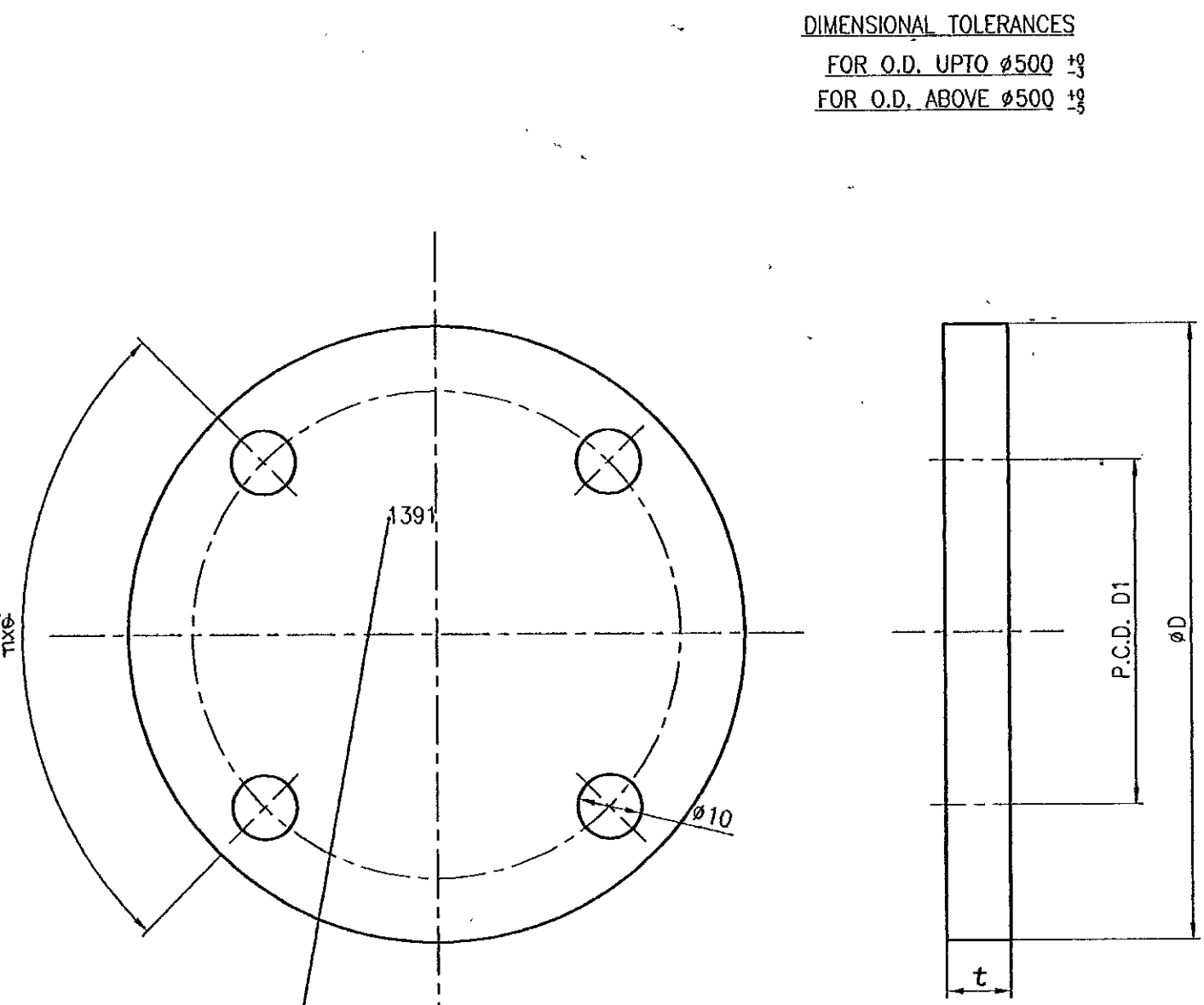
2-V-0000-01767/04

DRAWING NO.

ALL DIMENSIONS ARE IN MILLIMETRES. FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER RELEVANT QCP / QP

A	SL.No.	NP	NB	DRG.No.	DIMENSIONS					MATL. CODE.
					φ D	D1 P.C.D	t	TXE	NET WT (kg)	
A	01	NP:10&16	100	2-V-1391-01767/1	215	180	3	4x90°	0.117	22071005
	02		125	2-V-0103-01767/1	245	210	3	4x90°	0.153	22071006
	03		150	2-V-1373-01767/1	SAME AS IN SL.No:-56					
	04		200	2-V-1394-01767/1	335	295	3	6x60°	0.286	22071008
B	05	NP 16	250	2-V-1395-01767/1	405	355	3	6x60°	0.420	22071009
	06		300	2-V-1317-01767/1	460	410	3	6x60°	0.542	22071010
	07		400	2-V-1318-01767/1	580	525	6	8x45°	1.350	22071011
	08		600	2-V-1209-01767/1	840	770	6	8x45°	2.850	22071012
C	09	NP:10,16&40	15	2-V-2301-01767/1	95	65	3	4x90°	0.021	22071013
	10		20	2-V-2341-01767/1	105	75	3	4x90°	0.027	22071014
	11		25	2-V-2302-01767/1	115	85	3	4x90°	0.032	22071015
	12		32	2-V-2242-01767/1	135	100	3	4x90°	0.044	22071016
D	13	NP:10,16&40	40	2-V-0203-01767/1	145	110	3	4x90°	0.051	22071017
	14		50	2-V-0204-01767/1	160	125	3	4x90°	0.063	22071003
	15		65	2-V-0205-01767/1	180	145	3	4x90°	0.080	22071018
	16		80	2-V-1371-01767/1	SAME AS IN SL.No. 54					
E	17	NP 40	100	2-V-1372-01767/1	SAME AS IN SL.No:- 55					
	18		125	2-V-2226-01767/1	SAME AS IN SL.No:- 41					
	19		150	2-V-2411-01767/1	300	250	3	4x90°	0.226	22071021
	20		200	2-V-2412-01767/1	375	320	3	6x60°	0.356	22071022
F	21	NP 64	250	2-V-0181-01767/1	445	385	3	6x60°	0.503	22071023
	22		300	2-V-0183-01767/1	510	450	3	8x45°	1.031	22071024
	23		400	2-V-1217-01767/2	635	585	6	8x45°	1.709	22071025
	24		500	2-V-1218-01767/1	755	670	6	8x45°	2.279	22071026
G	25	NP 64	50	2-V-0187-01767/1	175	135	3	4x90°	0.075	22071027
	26		65	2-V-0188-01767/1	200	160	3	4x90°	0.100	22071064
	27		80	2-V-1378-01767/1	SAME AS IN SL.No:-65					
	28		100	2-V-0103-01767/1	SAME AS IN SL.No:-2					
H	29	NP 100	150	2-V-0191-01767/1	340	280	3	4x90°	0.290	22071030
	30		200	2-V-1395-01767/1	SAME AS IN SL.No:-5					
	31		250	2-V-0182-01767/1	470	400	3	6x60°	0.560	22071032
	32		300	2-V-0184-01767/1	530	460	3	8x45°	1.110	22071033
I	33	NP:64&100	15	2-V-2341-01767/1	SAME AS IN SL.No:-10					
	34		20	2-V-2214-01767/1	SAME AS IN SL.No:-43					
	35		25	2-V-2242-01767/1	SAME AS IN SL.No:-12					
	36		32	2-V-1370-01767/1	SAME AS IN SL.No:-53					
J	37	NP 100	40	2-V-1377-01767/1	SAME AS IN SL.No:-64					
	38		50	2-V-1371-01767/1	SAME AS IN SL.No:-54					
	39		65	2-V-1391-01767/1	SAME AS IN SL.No:-1					
	40		80	2-V-1372-01767/1	SAME AS IN SL.No:-55					
K	41	NP 250	100	2-V-2226-01767/1	265	210	3	4x90°	0.173	22071038
	42		150	2-V-0354-01767/1	350	290	3	6x60°	0.207	22071068
	43		15	2-V-2214-01767/1	125	90	3	4x90°	0.037	22071069
	44		25	2-V-0203-01767/1	SAME AS IN SL.No:-13					
L	45	NP 250	40	2-V-0205-01767/1	SAME AS IN SL.No:-15					
	46		65	2-V-2225-01767/1	SAME AS IN SL.No:-55					
	47		250	2-V-0347-01767/1	585	490	3	8x45°	1.328	22071039

A	SL.No.	NP	NB	DRG.No.	DIMENSIONS					MATL. CODE.
					φ D	D1 P.C.D	t	TXE	NET WT (kg)	
A	48	NP 2.5	800	2-V-0112-01767/1	975	920	6	12x30°	3.864	22071001
	49		1200	2-V-0113-01767/1	1375	1320	6	16x22½°	7.800	22071002
	50		300	2-V-0109-01767/1	435	395	3	6x60°	0.486	22071072
	51		200	2-V-0126-01767/1	360	310	3	6x60°	0.329	22071073
B	52	NP 2.5	300	2-V-0127-01767/1	485	430	3	8x45°	0.602	22071074
	53		2"	2-V-1370-01767/1	152	121	3	4x90°	0.050	22071040
	54		3"	2-V-1371-01767/1	190	152	3	4x90°	0.082	22071041
	55		4"	2-V-1372-01767/1	229	190	3	4x90°	0.120	22071042
C	56	150 LBS.	6"	2-V-1373-01767/1	279	241	3	4x90°	0.180	22071043
	57		8"	2-V-0191-01767/1	SAME AS IN SL.No:-29					
	58		10"	2-V-1395-01767/1	SAME AS IN SL.No:-5					
	59		12"	2-V-1376-01767/1	483	432	3	6x60°	0.544	22071046
D	60	300 LBS.	14"	2-V-1386-01767/1	533	476	6	6x60°	0.654	22071047
	61		16"	2-V-1387-01767/1	597	540	6	8x45°	0.824	22071048
	62		20"	2-V-1512-01767/1	695	635	6	10x36°	1.200	22071049
	63		24"	2-V-1388-01767/1	813	749	6	10x36°	1.534	22071050
E	64	NP: 10	2"	2-V-1377-01767/1	165	127	3	4x90°	0.061	22071051
	65		3"	2-V-1378-01767/1	209	168	3	4x90°	0.098	22071052
	66		4"	2-V-1379-01767/1	254	200	3	4x90°	0.147	22071053
	67		6"	2-V-1380-01767/1	317	270	3	6x60°	0.232	22071054
F	68	150 C	8"	2-V-1381-01767/1	381	330	3	6x60°	0.336	22071055
	69		10"	2-V-1382-01767/1	444	387	3	8x45°	0.457	22071056
	70		12"	2-V-1383-01767/1	521	451	3	8x45°	0.630	22071057
	71		14"	2-V-1384-01767/1	584	514	6	10x36°	0.784	22071058
G	72	NP: 10	1½"	2-V-1370-01767/1	SAME AS IN SL.No:-53					
	73		300	2-V-0522-01767/1	440	400	3	6x60°	0.52	22071060
	74		400	2-V-0537-01767/1	565	515	6	8x45°	1.31	22071061
	75		500	2-V-0538-01767/1	670	620	6	10x36°	1.5	22071062
H	76	150 C	600	2-V-0539-01767/1	780	725	6	10x36°	1.7	22071063
	77		800	2-V-0503-01767/1	1015	950	6	12x30°	2.5	22071075
	78		26"	2-V-N834-01767/1	785	745	6	9x40°	1.7	22071076
	79		28"	2-V-N847-01767/1	835	795	6	10x36°	1.9	22071077
I	80	NP: 10	30"	2-V-N848-01767/1	885	845	6	11x32.7°	2.1	22071078
	81		32"	2-V-N827-01767/1	940	900	6	12x30°	2.3	22071079
	82		36"	2-V-N988-01767/1	1170	1085	6	8x45°	3.5	22071080
	83		36"	2-V-N846-01767	1055	1010	6	11x32.7°	2.7	22071081



IDENTIFICATION MARK TO BE PAINTED ON THE SMOOTH SURFACE
(FOR EXAMPLE:"1391" FOR SL.No.1,DRG.No.2-V-1391-01767/1)

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

REV 04	DATE 19.7.2K	ALTERED R.L. CHD & APPD M.R.K.
ZONE	SL.NO.83 INCLUDED. DIMS.CORRECTED FOR SL.NO.78 TO 82. DCN NO.HM 0459	

MATL SPECN. STANDARD HARD BOARD IS.1658									
No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT									
RETRACED WITH REV.4 ON 19.7.2000									
BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.				DRN	NAME N. L. NARAYANAN	SIGN N. L. NARAYANAN	DATE 19/7/2000	NO.OF VAR.	
365-120				CHD	R.L.NARAYANAN	APPD M.RAJAKUMAR	19/7/2000		
DEPT V L		SCALE N T S		WEIGHT (KG).		REFERENCE INFORMATION		NO. OF ITEMS	
CODE 320						CAD REF:- C201767			
TITLE END COVER						DRAWING NO. 2-V-0000-01767		REV 04	
						CARD CODE U 01			



365-147/B
31.08.16

BHEL – Tiruchirappalli – 620014, India

Valves Engineering and R&D

PURCHASE SPECIFICATION

DOC No: **SPEC:OF:104** Rev: **00**

Effective Date: **07/10/2016**

Page: **1** of **2**

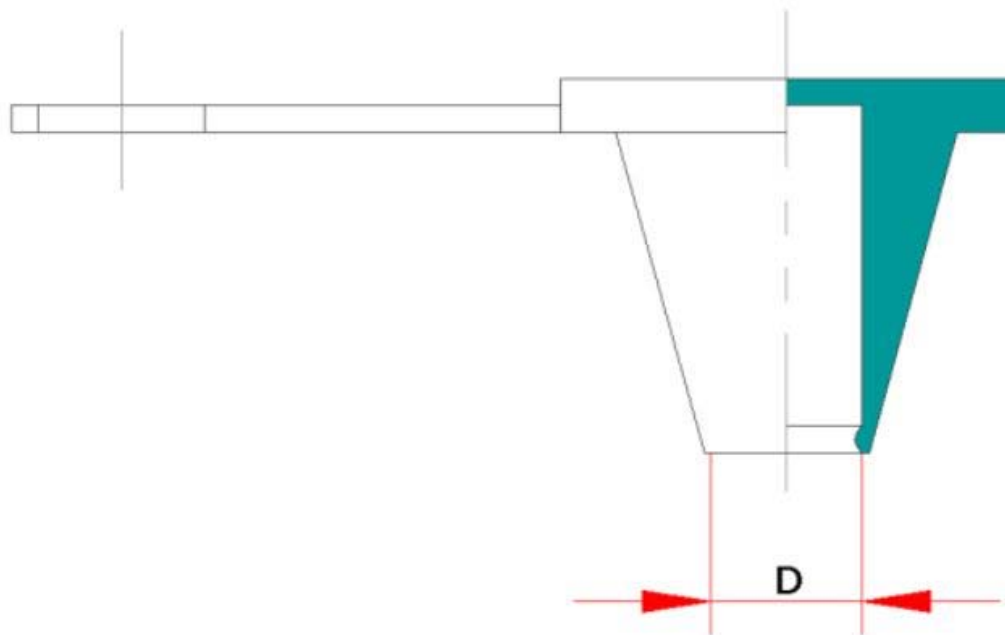
Product: Plastic End Cap for Grease Nipple M10

Revision Record:

Rev. No	Date	Details of Revision
Click here to enter text.	Click here to enter a date.	Click here to enter text.

Specification - Plastic End Cap to fit on the head of Grease Nipple M10. (As per the Fig A)

Dia D shall be designed to meet the Cap shall be designed to meet the dimensional requirements of Grease Nipple as per IS 4009-2 Type A M10 x 1.



(Fig A)

Material – Low Density Polyethylene

Colour – Red

Service Condition – Suitable for Sour Service conditions in Offshore Oil Field Equipments.



365-147/B
31.08.16

BHEL – Tiruchirappalli – 620014, India

Valves Engineering and R&D

PURCHASE SPECIFICATION

DOC No: **SPEC:OF:104** Rev: **00**

Effective Date: **07/10/2016**

Page: **2 of 2**

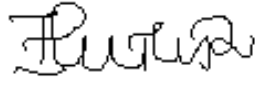
Product: Plastic End Cap for Grease Nipple M10

For better understanding of the requirement. 3D and usage images are shown below

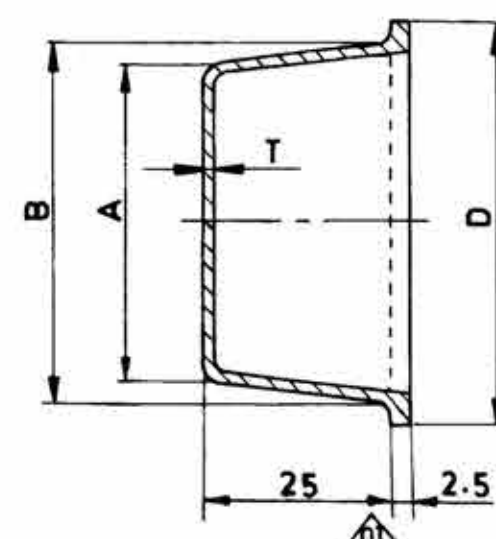
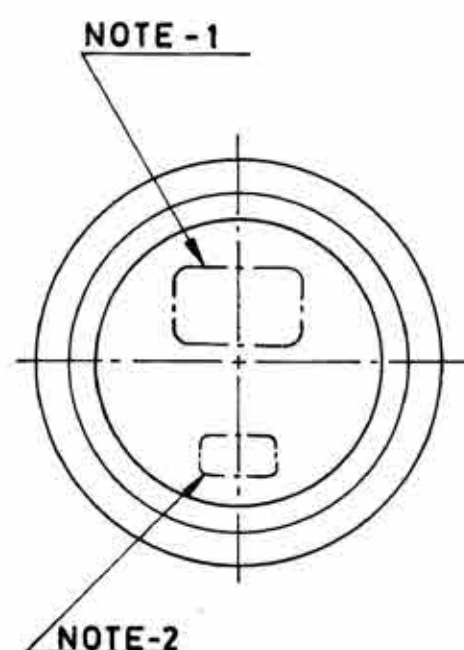


Other Requirements -

- ◆ Guarantee certificate and compliance to be provided along with supply.
- ◆ Supplier to quote Part number of offered item and Detailed Technical Specification of the item.

Signature			
Name	P.Arunkumar	R.Elayaraja	C.Kathirvelu
Designation			
Date	Click here to enter a date.	Click here to enter a date.	Click here to enter a date.
Action	Prepared By	Checked & Reviewed By	Approved By

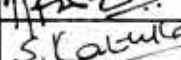
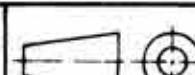
CAUTION THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LTD. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY



NOTE

- 1 . STAMP THE EMBLEM ACCORDING TO AA 040 11 21 IN THE DIRECTION 'X'.
- 2 . STAMP THE APPROPRIATE NOM SIZE IN THE DIRECTION 'X'.
- 3 . MATERIAL : UREA FORMALDEHYDE CONFORMING TO IS:3389 OR
POLYVINYL CHLORIDE (PVC) OR OTHER EQUIVALENT.
- 4 . THE TUBE END COVERS SHALL BE FLEXIBLE TO FIT SNUGLY IN TO THE TUBE
AND WITHSTAND SHOCK DURING TRANSIT OF THE TUBES .
- 5 . THE TUBE END COVERS SHALL PREFERABLY BE OF DARK BLUE OR WHITE
IN COLOUR OF VIRGIN QUALITY MATERIAL .
- 6 . THE CORNERS SHALL BE SUITABLY RADIUSED

25	66	72	78	1.5	21		TUBE END COVER INT DIA 69	6119 0120 41	22 073 646	0 015			
25	63	69	75	1.5	20		TUBE END COVER INT DIA 66	6119 0120 40	22 074 476	0 014			
15	60	66	72	1.5	19		TUBE END COVER INT DIA 63	6119 0120 39	22 074 475	0 014			
15	57	63	69	1.5	18		TUBE END COVER INT DIA 60	6119 0120 38	22 074 474	0 013			
15	54	60	66	1.5	17		TUBE END COVER INT DIA 57	6119 0120 37	22 074 473	0 012			
15	51	57	63	1.5	16		TUBE END COVER INT DIA 54	6119 0120 36	22 074 472	0 012			
15	48	54	60	1.5	15		TUBE END COVER INT DIA 51	6119 0120 35	22 074 471	0 009			
15	45	51	57	1.5	14		TUBE END COVER INT DIA 48	6119 0120 34	22 074 470	0 008			
15	42	48	54	1.5	13		TUBE END COVER INT DIA 45	6119 0120 33	22 074 469	0 008			
-	39	45	51	1.5	12		TUBE END COVER INT DIA 42	6119 0120 32	22 074 468	0 007			
-	36	42	48	1.5	11		TUBE END COVER INT DIA 39	6119 0120 31	22 074 467	0 006			
-	33	39	45	1.5	10		TUBE END COVER INT DIA 36	6119 0120 30	22 074 466	0 006			
-	30	36	42	1.5	09		TUBE END COVER INT DIA 33	6119 0120 29	22 074 465	0 005			
-	27	33	39	1	08		TUBE END COVER INT DIA 30	6119 0120 28	22 074 464	0 004			
-	24	30	36	1	07		TUBE END COVER INT DIA 27	6119 0120 27	22 074 463	0 004			
-	21	27	33	1	06		TUBE END COVER INT DIA 24	6119 0120 26	22 074 462	0 004			
-	18	24	30	1	05		TUBE END COVER INT DIA 21	6119 0120 25	22 074 461	0 003			
-	15	21	27	1	04		TUBE END COVER INT DIA 18	6119 0120 24	22 074 460	0 002			
-	12	18	24	1	03		TUBE END COVER INT DIA 15	6119 0120 23	22 074 459	0 001			
-	9	15	21	1	02		TUBE END COVER INT DIA 12	6119 0120 22	22 074 458	0 001			
-	6	12	18	1	01		TUBE END COVER INT DIA 9	6119 0120 21	22 074 457	0 001			
EMBLEM SIZE	A	B	D	T	VARIANT NO.	ITEM NO.	DESCRIPTION	BPS CODE	ITEM NO. MATL SPEC	MATL CODE	A C UNIT	UNIT WT QTY	GS ZONE

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT											
 Bharat Heavy Electricals Ltd., BOILER PLANT UNIT TIRUCHIRAPALLI-620 014				DRN	NAME G.D.N	SIGN 	DATE 1.9.82	NO.	VAR.		
				CHD	T.K						
				APFD	S.K						
DEPT SS	GRADE OF UNTOL DIM S/M/K		SCALE N T S	WEIGHT (KG)	REFER UNIT WT.	REF TO 6000 OLD DRG	BPS 517501	ITEM NO.			
CODE 850											
TITLE TUBE END COVER (INTERNAL TYPE)				CARD CODE U 07	DRAWING NO. 6119-0120		REV				

REV Q2	DATE 01.07.93	ALTERED [Signature]	REV Q2	DATE 31.3.83	ALTERED [Signature]
	CHECKED [Signature]			CHECKED [Signature]	
NOTE 5 ALTERED. LETTER REF.	EMBLEM SIZE 15 WAS 25				
NO. MM: MPL: BPS: 0764 DATED	WIDTH SIZES REINPRODUCED				
18.06.93					



BHARAT HEAVY ELECTRICALS LTD

Valves/Purchase, Tiruchirappalli-620014, INDIA

TERMS AND CONDITIONS

Phone: 0431 257 7210/7086

Email: vinu@bheltry.co.in

vikasverma@bheltry.co.in

1. QUOTATIONS:

- a. **Submission of Tender:** Each offer should be sent in double cover separately and the same should be sealed and super scribed with correct Tender No., item of supply and due date of opening. Two or more quotations should not be sent in one cover. Price Bid should contain only Price in INR per unit for each type. Tender must be strictly sent to the address given below and not in any individual's name.

Tender Opening Cell/Valves
Room No.26, Building-24, High Pressure Boiler Plant
Bharat Heavy Electricals Limited
Tiruchirappalli - 620 014, Tamil Nadu, India
Or
Email ID: tender_cell@bheltry.co.in

- b. **Late tenders:** Late tenders shall not be considered under any circumstance.
- c. **Regulations:** Tender should be accompanied by detailed technical literature, Catalogue and detailed dimensional drawings in ENGLISH. Tenders should be free from CORRECTION AND ERASURES. Corrections if any must be attested. All amounts shall be indicated both in words as well as figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.
- d. **Two Part Bid Systems:** Tender calls for two part bid system (Techno-Commercial & Price Bid), first the Techno-Commercial bid will be opened. Techno-commercially suitable/qualified vendors alone will be intimated for price bid opening or Reverse Auction.
- e. **PVC:** Price Variation Clause is not acceptable. Prices should be firm.
- f. **Catalogue:** Manufacturer's name, Trade Mark or Patent No. if any should be specified. Illustrative leaflets giving technical particulars are required along with quotation wherever necessary.
- g. **Acceptance:** The purchaser shall be under no obligation to accept the lowest or any other tender and shall be entitled to accept or reject any tender in part or full without assigning any reason whatsoever.
- h. **Samples:** Samples should be submitted separately if specially requested in tender before due date of the enquiry. They should be clearly marked with the enquiry number and date on the outside cover to facilitate identification.
- i. **Spares:** The tenderer should quote separately for spares that are required for two years trouble free operation (if mentioned in enquiry). The spares offer should accompany the offer of main equipment; otherwise the quotation will be overlooked.

2. COMMERCIAL TERMS & CONDITIONS:

- a. **Technical Terms:** All the items must be delivered strictly as per Drawing/TDC/Standards/Spec (As applicable)
- b. **Terms of Payment:**
For Indigenous supplier: 100% after 45 days on satisfactory receipts and acceptance of material at BHEL stores/ Site acknowledgement.
Any deviation in the above payment terms will attract loading as mentioned below.
Base rate of SBI (As applicable on the date of bid opening. Commercial bid opening date in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.
LC will not be operated for indigenous vendors. Offers with payment terms as LC from Indigenous vendors will be rejected.
For Import supplier: 100% payment on CAD basis after 45 days from the date of receipt of documents, specified in PO, at BHEL's bank. Respective bank charges to respective account.
Any deviation in the above payment term will attract loading as "Base rate of SBI (as applicable on the date of bid opening. Commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders."
In the case of Usance LCs the loading will be considered @ 1.5% on the offered Value. For LC at sight the loading will be considered @ 3.5% on the offered Value.
- c. **Liquidated Damage:** Liquidated damages shall be 0.5% of the total order value or part thereof subject to a maximum of 10% of the total order value. For staggered delivery schedule, LD shall be 0.5% of the undelivered portion per week of the delay or part thereof subject to a maximum of 10% of the total order value.



BHARAT HEAVY ELECTRICALS LTD

Valves/Purchase, Tiruchirappalli-620014, INDIA

TERMS AND CONDITIONS

Phone: 0431 257 7210/7086

Email: vinu@bheltry.co.in

vikasverma@bheltry.co.in

Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offer value).

d. Delivery Terms:

For Indigenous Suppliers: Price should be quoted **FOR BHEL Trichy**/FOR site as mentioned in enquiry inclusive of freight and insurance in transit.

For import Suppliers: CFR/CIF Chennai seaport

e. Validity of Offer: Prices should be valid for 120 days from the date of tender opening.

f. Taxes & Duties: If any Sales Tax is payable as extra to the quoted price, it should be specifically stated in quotation along with CST & T.N.G.S.T No. failing which the purchaser will not be liable for payment of Sales Tax. Our T.N.G.S.T No. 3550005 Dated 01-04-1995 C.S.T. No. 259383 Dt. 11.06.1991.

g. Guarantee Clause: The vendor shall give a guarantee for the performance of his supplies for a period of eighteen months from the date of dispatch or twelve months from the date of commissioning whichever is earlier.

h. Risk Purchase: Alternatively the purchaser at their option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of seller either the whole of goods or any part which the supplier has failed to deliver or dispatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitute therefore. Supplier shall be liable for any loss which the purchaser may sustain by reason for such risk purchases in addition to penalty at the rate mentioned in clause 2.b above.

i. MODVAT/CREDIT: If any Excise Duty is payable, the chapter head/sub-head reference and the rate of the duty should be quoted. If the tenderer is availing MODVAT credit for his input materials, the effect of proforma invoice should be passed on to the purchaser. For imported components, Duty benefits should be passed to BHEL.

j. Miscellaneous: Any other conditions which might have been quoted by the seller and are in contravention to the terms prescribed, the order and which have not been specifically accepted in by Purchaser will not be applicable to the contract.

k. Delivery: Delivery schedule shall be strictly within **4-8 weeks** from the date of PO.

l. Performance Bank Guarantee: If tender Calls for Performance Bank Guarantee, Vendor should provide a performance bank guarantee (PBG) in BHEL format for 10% of the total Purchase order value valid for warranty/guarantee period with an additional claim period of 2 months. PBG should be issued from list of consortium banks.

m. Special Provisions for Micro and Small Enterprises (MSE):

- i. 20% of the tendered quantity is earmarked for MSE suppliers in this tender.
- ii. Out of the 20% tendered quantity reserved for MSE suppliers, 4% shall be earmarked for procurement from MSE owned by SC/ST entrepreneurs.
- iii. In case MSE vendor participating in the tender quotes within the price band of LI +15%, they will be allowed to supply the portion of the requirement subject to acceptance of LI price by MSE vendor. In case of more than one such MSE, the supply shall be shared proportionately.
- iv. MSE suppliers can avail the intended benefits only if they submit along with offer, attested copies of either EM II certificate having deemed validity (Two years from the date of issue of acknowledgement in EM II) or valid NSIC certificate or EM II certificate along with CA certificate applicable for the year, certifying quantum of investment in plant and machinery within the permissible limit as per the act for relevant status (Micro or small) where the deemed validity of EM II is over. Date to be reckoned for determining the deemed validity will be the last date of technical bid submission. Non submission of such documents will lead to consideration of their bids at par with other bidders and MSE status of such suppliers shall be shifted to Non MSE supplier till the supplier submits these documents.

3. GENERAL CONDITIONS:

- a. BHEL reserves the right to finalize the tender as per item serial number wise or as a total package or project wise. Separate orders will be released for each project and documents should be supplied for each order separately.
- b. BHEL reserves the right to increase or reduce or split the Tender Quantity and to NOT to order for some or all material based on the changes in project.
- c. BHEL shall have the right to visit vendor works during the execution of contract along with end customer for verifying status, inspection and testing of the material.
- d. BHEL reserves the right to negotiate or re-float the tender in case the quoted prices are not acceptable.



BHARAT HEAVY ELECTRICALS LTD

Valves/Purchase, Tiruchirappalli-620014, INDIA

TERMS AND CONDITIONS

Phone: 0431 257 7210/7086

Email: vinu@bheltry.co.in

vikasverma@bheltry.co.in

- e. Supplier shall arrange packing to avoid lose or damages during Road Transport, Site handling & Storage.
- f. Purchase Order, Item Serial Number, Material code, Quantity should marked the Packing clearly.
- g. Confirmation for compliance is to be given in the offer for all the conditions specified above and to the respective Purchase Specification.
- h. BHEL reserves the right to finalize the tender either through price bid opening or through Reverse Auction route.
- i. BHEL reserves the right to reject the offer of a particular bidder due to unsatisfactory past performance in the execution of a contract at any of BHEL projects / units.
- j. The Drawings and Technical documents given in this enquiry are the sole property of BHEL. This should not be modified, reproduced or misused in any form.

4. FRAUD PREVENTION POLICY:

The bidder along with its associate/collaborators/sub-contractors/sub-vendors/consultants/service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of the BHEL management about any fraud or suspected fraud as soon as it comes to their notice.

5. DOCUMENTATION

For Indigenous suppliers:

- a. **With Consignment:** Duplicate for transporter copy of Invoice, Packing List, Delivery Challan, O&M manual, Material Test Certificate and other test Certificates if any, Calibration Report, Compliance Certificate & Guarantee/Warranty Certificate etc.
- b. **To BHEL Finance:**
Original and Duplicate Invoice for payment with GR reference, should be sent directly to

**Sr Manager/Finance/Valves-Bills section
HPBP, BHEL Tiruchirappalli-620014, Tamil Nadu, India**

To BHEL Purchase:

FOR BHEL TRICHY case: Copy of Invoice, Packing list, LWB and Delivery challan for reference, original IBR documents/Inspection despatch clearance certificates

FOR Site case: Original Excise Invoice, Original LWB, Original Packing List, Original IBR documents, Original despatch clearance Certificate, Original Inspection report, Test certificates as per PO, Original Site Acknowledgment etc.

- c. **Identification:** Purchase Order, PO item serial number, Material code, Quantity, Unique Serial Number if any should be provided in all despatch documents, materials and packing clearly.

For Import suppliers:

- a. **With Consignment:** O&M Manual and Packing List, Fumigation Certificates (In case of SEA shipment).
- b. **To Bank:**

All Original Documents in Triplicate Bill of lading in case of SEA/Airway Bill in case of AIR consignment, the invoice indicating the Unit price & total price, Packing List contains quantity, net & gross weight, Packing dimensions, Certificate of Origin, all Inspection test certificates, Guarantee/warranty certificates are to be sent through supplier's banker to BHEL's banker.

To BHEL Purchase:

One copy of above non-negotiable documents are to be sent to purchase department after dispatch of the materials to follow up with freight forwarder.

- c. **Identification:** Purchase Order, PO item serial number, Material code, Quantity, Unique Serial Number if any should be provided in all despatch documents, materials and packing clearly.

6. TENDER EVALUATION

Part-I Techno-Commercial Bid:

- a. All vendors should submit General arrangement drawing, datasheet and C&I diagrams if any of the offered product.



BHARAT HEAVY ELECTRICALS LTD

Valves/Purchase, Tiruchirappalli-620014, INDIA

TERMS AND CONDITIONS

Phone: 0431 257 7210/7086

Email: vinu@bheltry.co.in

vikasverma@bheltry.co.in

- b. Point by point technical confirmation of all pages of our technical specifications and commercial conditions are required with your sign and seal along with techno commercial Offer.
- c. Offers from supplier not having technical capability or not agreed for commercial terms, will be rejected

Part-II Price Bid:

- a. Bidders qualified for part II will be intimated for participating in priced bid opening/Reverse Auction.
- b. L1 bidder will be decided based on landed cost for the equipment to BHEL.
- c. For evaluation, the exchange rate shall be taken as TT selling rate of SBI on date of Part-1 bid opening.

7. LOADING CRITERIA

- a. "Base rate of SBI (as applicable on the date of bid opening. Commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.
- b. For import vendors: Usance LCs the loading will be considered @ 1.5% on the offered Value. For LC at sight the loading will be considered @ 3.5% on the offered Value.
- c. Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value).
- d. If supplier offers more than the required delivery period BHEL will operate 0.5% loading factor for evaluation of their offer for every week delay.

8. DISCLAIMER CLAUSE:

The Organization (Bharat Heavy Electricals Ltd.) is not responsible for any failure of submission of bids due to failure of internet or other connectivity problems or reasons thereof.

SCHEDULE OF DEVIATIONS**Enquiry Reference:****Offer Reference:****Date:****Commercial Deviation**

Clause No:	Description	Supplier Deviation

Technical Deviation

Clause No:	Description	Supplier Deviation

We confirm the acceptance of all the technical and commercial requirements as per BHEL tender, except the above deviations

Signature with seal



BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

High Pressure Boiler Plant

Tiruchirapalli 620 014

PURCHASE VALVES

(To be filled and submitted along with Offer)

BHEL Commercial Terms and Conditions for INDIGENOUS SUPPLIERS FOR RC / NON RC – TWO BID SYSTEM To be furnished along with offer

Technical confirmation to BHEL's Specification as called for in BHEL Format shall be furnished. If needed additional sheets shall be used.		Supplier's Confirmation / Comments
Tender opening Route	Tender opening consists of two part systems viz: 1. Techno-Commercial Bid & 2. Price Bid. Techno-Commercial Bid will be opened First. After scrutiny and evaluation of Techno-Commercial offers, the Price bid (of techno-commercially qualified) will be opened with due intimation to suppliers.	
Offers	Offers should be submitted only in a sealed cover super-scribing clearly the Enquiry No. and due date.	
Prices	Prices shall be quoted item wise /BHEL Material code wise on FIRM PRICE basis only as per the BHEL Enquiry.	
Validity of offer for NON-RC Items	<u>VALIDITY OF OFFER FOR NON-RC ITEMS:</u> Minimum for a period of 120days from the date of tender opening.	
Validity of offer for RC items	<u>VALIDITY OF OFFER FOR RC ITEMS:</u> Minimum for a period of 1 year (One year) from the date of Finalization of tender.	-NA-
Delivery Terms	FOR BHEL/TRICHY basis only inclusive of P & F, Insurance and other charges if any.	
Delivery period	Delivery schedule shall be strictly as per BHEL tender requirement. Indicate the early delivery period in the offer.	
Liquidated damages	Liquidated damages shall be 0.5% of the total order value or part thereof subject to a maximum of 10% of the total order value. For staggered delivery schedule, LD shall be 0.5% of the undelivered portion per week of the delay or part thereof subject to a maximum of 10% of the total order value.	

**BHEL Commercial Terms and Conditions for
INDIGENOUS SUPPLIERS FOR RC / NON RC – TWO BID SYSTEM
To be furnished along with offer**

Confirmation to BHEL'S Drawing / Specs / TDC	Item-wise confirmation to BHEL's Drawing(s) / Specification / TDC is required in the offer itself.	
Inspection	Material must be inspected as per Drawings/BHEL Specifications/Standards. Final inspection by BHEL Inspector at BHEL, Trichy.	
Inspection Charges	Please indicate the Inspection charges if any in the offer itself and indicate the details of Inspection Agency.	-NA-
Payment Terms	100% payment will be made after 45 days on acceptance of materials at our Stores.	
Excise Duty (ED)	Indicate the Excise duty (ED) and Cess in the offer clearly if applicable.	
CST Tax Details	Indicate the CST - details in the offer clearly if applicable.	
VAT Tax Details	Indicate the VAT - details in the offer clearly if applicable.	
Risk Purchase Clause	Risk Purchase shall be applicable as per BHEL Terms and Conditions. The Purchaser at his option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the time stipulated or if the same were not available, the best and the nearest available substitute therefore.	
Liability	The supplier shall be liable for any loss which the Purchaser may sustain by reason of such risk purchases	
Guarantee	The supplier shall give a guarantee for the performance of his supplies for a period of eighteen months from the date of dispatch or twelve months from the date of commissioning whichever is earlier.	
Warranty	Any warranty replacement during warranty period shall be supplied free of cost on FOR BHEL / Trichy basis.	
Documents	The supplier shall provide necessary Invoice, Delivery challan, drawings, Test Certificates, Guarantee Certificates and Operation & Maintenance Manuals etc., as called for in the Technical Specification, in the required number of copies at no extra cost.	
NOTE	It is confirmed that all the terms and conditions stipulated in the Enquiry have been fully understood by us and all clarifications and details have been obtained.	

Signature & Office Seal of the supplier