

HOSTING DETAILS

Email offer send to: **tender_cell@bheltry.co.in**

DESCRIPTION	REMARKS
Contact Person/Address	VIKAS VERMA.Engineer/Purchase/Valves
Approved By	G.SUBHASHINI. Sr. Manager/Purchase/Valves
Email	vikasverma@bheltry.co.in subhashini@bheltry.co.in
Telephone	0431 2577086/7210
Fax	Not applicable
Notification (Reference) NO.	EN-BPS2048 DT:01.02.2017
Tender Title	END COVERS
Tender Type	BUY/SERVICE CONTRACT/WORK CONTRACT
BRIEF DESCRIPTION	NON METALLIC END COVERS
Published in Newspaper	NA
Published On	-
Tender Value in Rs.	-
EMD Value – Rs.	Not applicable
Document Cost – Rs.	Not applicable
Date of Issue of Notification – DD/MM/YY	-
Date of Closure of Sale of Forms – DD/MM/YY	Not applicable
Completed Forms to be submitted by – DD/MM/YY	Not applicable
Date of Opening of Bids – DD/MM/YY	06.02.2017

Brief Details:

TYPE OF TENDER : OPEN TENDER
TENDER OPENING DATE : 06.02.2017
NUMBER OF BIDS : TWO PART BIDS
DELIVERY PERIOD : 4 weeks
LD : As Per BHEL LD Clause
Payment Terms : 100% payment after 45 days of acceptance of materials.
Delivery Terms : FOR BHEL (Stores), TRICHY-14

Tender forwarding Address:

ENQ.NO: EN-BPS2048 DUE DT: 06.02.2017

TENDER ROOM NO: 26,
BHEL, ADMIN 24 BLDG,
GROUND FLOOR,
BHEL, TRICHY-14
0431-2577742/7424



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-BPS2048 - EN-BPS2048	Enquiry Date 01.02.2017	Due Date for Quotation 06.02.2017
Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order			
VIGILANCE AWARENESS WEEK 31st OCT - 05th NOV 2016 FOR VIGILANCE RELATED COMPLAINTS			

Item	Description	Unit	Delivery Quantity	Schedule Date
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SUPPLY OF THE FOLLOWING ITEM(S) AS PER THE DRAWING(S)/STANDARD(S) GIVEN.

10	220710090000 2V139501767/01 END COVER-1395	NO	131.00	28.02.17
20	964529470000 3V425907724/01 END COVER 11-5M-4259	NO	200.00	28.02.17
30	964699730000 END CAP FOR M10 GREASE NIPPLE SPC:-SPEC/OF/104/00	NO	1,013.00	28.02.17
40	964699730000 END CAP FOR M10 GREASE NIPPLE SPC:-SPEC/OF/104/00	NO	808.00	28.02.17

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

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



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Page : 2

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GRAMS : BHARATELEC
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E-mail : valpur@bheltry.co.in
WEB : http://mm.bheltry.co.in

EN-BPS2048 / 01.02.2017

23505

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/ 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.
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Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED

MANAGER / PURCHASE / VALVES



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 Rs 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 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. The spares offer should accompany the offer of main equipment; otherwise the quotation will be overlooked.
- j. **Authorised Dealership Certificate:** Vendor must submit valid authorised dealership/stockist/distributor certificate from the original manufacturer of the bearings. Else, the offer shall be disqualified from further processing during part-1 bid evaluation.

2. COMMERCIAL TERMS & CONDITIONS:

- a. **Technical Terms:** All the items must be delivered strictly as per Drawing/TDC/Standards/Spec (As applicable). Shelf Life certificate must be given for all the applicable items.

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.



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- 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. 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:**
Price should be quoted **FOR BHEL Trichy**/FOR site as mentioned in enquiry inclusive of freight and insurance in transit.
- 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 tender is availing MODVAT credit for his input materials, the effect of proforma invoice should be passed on to the purchaser.
- 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 weeks from the date of PO. Not complying with the aforesaid delivery period shall lead to rejection of the offer.
- l. **Special Provisions for Micro and Small Enterprises (MSE):**
- 20% of the tendered quantity is earmarked for MSE suppliers in this tender.
 - Out of the 20% tendered quantity reserved for MSE suppliers, 4% shall be earmarked for procurement from MSE owned by SC/ST entrepreneurs.
 - 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.
 - 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:

- 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.
- 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.



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Valves/Purchase, Tiruchirappalli-620014, INDIA

TERMS AND CONDITIONS

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vikasverma@bheltry.co.in

- c. BHEL reserves the right to negotiate or re-float the tender in case the quoted prices are not acceptable.
- d. Supplier shall arrange packing to avoid loss or damages during Road Transport, Site handling & Storage.
- e. Purchase Order, Item Serial Number, Material code, Quantity should be marked on the Packing clearly.
- f. Confirmation for compliance is to be given in the offer for all the conditions specified above and to the respective Purchase Specification.
- g. BHEL reserves the right to finalize the tender either through price bid opening or through Reverse Auction route.
- h. 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.
- i. 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 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 despatch of the materials to follow up with freight forwarder.

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.



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6. TENDER EVALUATION

Part-I Techno Commercial Bid:

- a. All vendors should submit General arrangement drawing, datasheet and C&I diagrams of the offered product if applicable.
- b. Point wise technical confirmation of all pages of our technical specifications and commercial conditions are required with your sign and seal along with commercial bid.
- 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 I 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.



Bharat Heavy Electricals Ltd.

Valves Purchase
Trichy - 620 014. India

BHEL Enquiry EN-BPS2048

Sl No	<u>BHEL COMMERCIAL TERMS AND CONDITIONS for INDIGENOUS SUPPLIES</u>	Vendor's Confirmation
1	Vendor should give confirmation to BHEL's Technical Specification. Any deviations from the specification are to be furnished separately as "Schedule of Deviation". If there is no deviation vendor should indicate "No Deviation".	
2	Vendor to indicate Quoted/Not Quoted item wise.	
3	Prices shall be quoted item wise only.	
4	Prices shall be quoted on " FIRM PRICE " basis only. The prices should be only on FOR Trichy basis inclusive of Packing & Forwarding charges if any.	
5	Validity of offer shall be 4 months from the date of tender opening.	
6	Delivery should be 4 weeks from the date of purchase order	
7	Liquidated damages @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.	
8	Following Risk Purchase clause shall be applicable: 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. The supplier shall be liable for any loss which the Purchaser may sustain by reason of such risk purchases.	
9	Payment terms 100% after 45 days on acceptance of materials at BHEL stores, Trichy	
10	Excise duty, sales tax and other levies (if any) shall be indicated as extra in the offer.	
11	Any warranty replacement during warranty period shall be supplied free of charge on FOR Site basis/destination specified by BHEL	
12	The vendor shall provide necessary drawings, Test Certificates and Operating Maintenance Manuals 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 & details have been obtained.
- Your specific acceptances to BHEL Payment terms, LD and Risk Purchase Clause are essential for consideration of your offer. Otherwise your offer is liable for rejection.

Signature & Office Seal of the vendor

2-V-0000-01767/04

DRAWING NO.

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

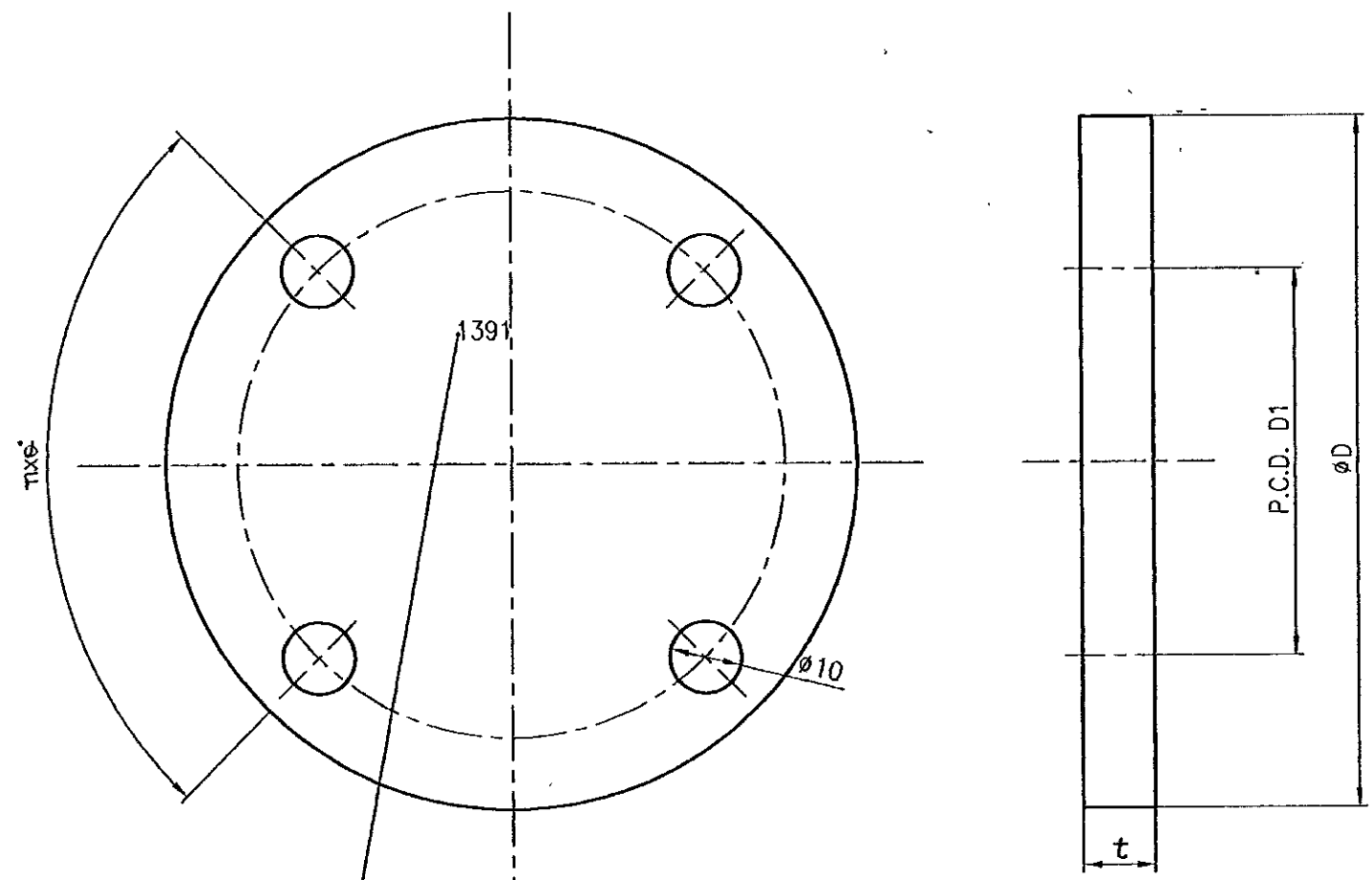
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SL.No.	NP	NB	DRG.No.	DIMENSIONS					MATL. CODE.
				φ D	D1 PCD	t	THK	NET WT (kg)	
01	NP:10&16	100	2-V-1391-01767/1	215	180	3	4x90°	0.117	22071005
02		125	2-V-0103-01767/1	245	210	3	4x90°	0.153	22071006
03		150	2-V-1373-01767/1	SAME AS IN SL.No:-56					
04	NP 16	200	2-V-1394-01767/1	335	295	3	6x60°	0.286	22071008
05		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	NP:10,16&40	600	2-V-1209-01767/1	840	770	6	8x45°	2.850	22071012
09		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
13		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	NP 40	80	2-V-1371-01767/1	SAME AS IN SL.No. 54					
17		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
21		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
25		50	2-V-0187-01767/1	175	135	3	4x90°	0.075	22071027
26	NP 64	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					
29		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	NP:64&100	300	2-V-0184-01767/1	530	460	3	8x45°	1.110	22071033
33		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					
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					
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					
45		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

B

SL.No.	NP	NB	DRG.No.	DIMENSIONS					MATL. CODE.
				φ D	D1 PCD	t	THK	NET WT (kg)	
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	NP 6	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
52	NP 25	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	150 LBS.	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
56		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	300 LBS.	12"	2-V-1376-01767/1	483	432	3	6x60°	0.544	22071046
60		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
64		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
68		8"	2-V-1381-01767/1	381	330	3	6x60°	0.336	22071055
69	150 C	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
72		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	NP: 10	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
76		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	150 C	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
80		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

DIMENSIONAL TOLERANCES
FOR O.D. UPTO Ø500 ±g
FOR O.D. ABOVE Ø500 ±g



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

F

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	

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.

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			

A

B

C

D

E

F

3-V-0000-07724

DRAWING NO.

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

IDENTIFICATION MARK

TO BE PAINTED ON THE

SMOOTH SURFACE BY

RESPECTIVE-BHEL PART No

SHOWN IN TABULATION

DIMENSIONAL TOLERANCES:–

1. FOR OD UPTO ø 500

0
–3.0

2. FOR OD ABOVE ø 500

0
–5.0

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

CHD

APPD

T.RAJARAMAN

T.RAJARAMAN

V.ALAGARSWAMI

SIGN

SIGN

SIGN

DATE

DATE

DATE

27-6-05

27-6-05

27-6-05

NO.OF
VAR.

DEPT
VL

CODE
340

—

SCALE

N T S

WEIGHT (KG).

—

REFERENCE INFORMATION

—

NO. OF
ITEMS

TITLE

END COVER

CARD
CODE

U 01

DRAWING NO.

3-V-0000-07724

REV

02

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DCP No.	ALTERED By	APPD
—	CHD	DT. 27-6-05
REV.	SL NO 23 ADDED.	
02		
ZONE		
02		

©

Size A3



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**

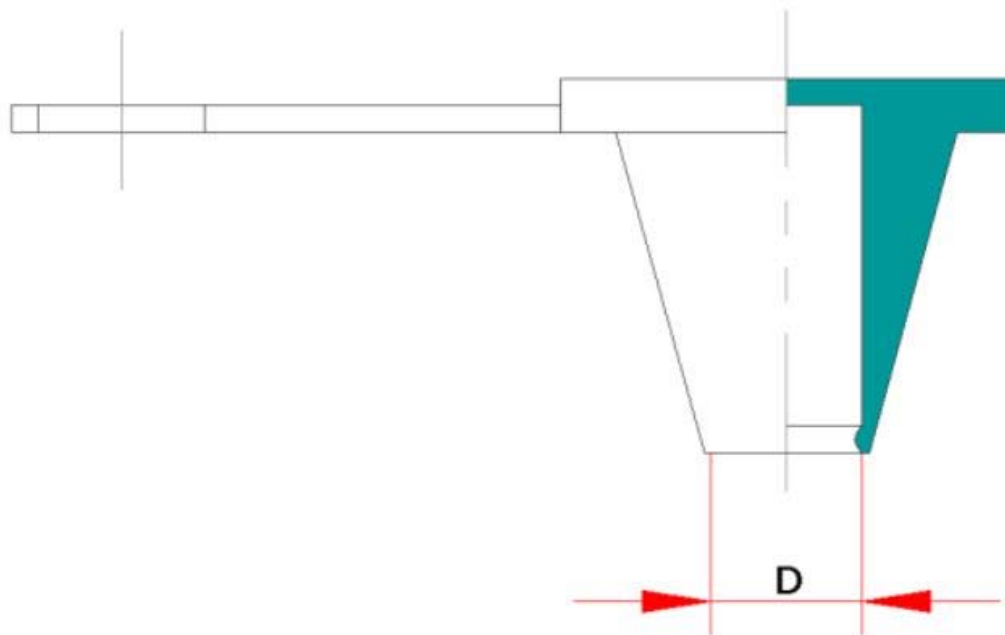
Product: Plastic End Cap for Grease Nipple M10

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**

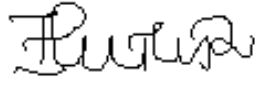
Product: Plastic End Cap for Grease Nipple M10

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