 434-003	<h1>ENQUIRY</h1>	<b>Bharat Heavy Electricals Limited</b> (A Government of India undertaking) HIGH PRESSURE BOILER PLANT PURCHASE DEPARTMENT/VALVES TIRUCHIRAPPALLI-620 014.		Phone: 0431-257-7305/4043/7096 Email: <a href="mailto:pr@bheltry.co.in">pr@bheltry.co.in</a> <a href="mailto:imuthu@bheltry.co.in">imuthu@bheltry.co.in</a> <a href="mailto:sivabala@bheltry.co.in">sivabala@bheltry.co.in</a>	
		<b>ENQUIRY NO.</b>	<b>DATE</b>	<b>DUE DATE FOR QUOTATION</b>	
		EN:SOF1592	31.03.2014	21.04.2014	
		Please quote Enquiry No., and due date in correspondences This is only a request for quotation and not an order.			
SL.NO.	MATERIAL CODE DESCRIPTION DRAWING NO TDC NO./Specification	UNIT	QUANTITY	DELIVERY SCHEDULE	
Supply of Packing Setsas per the drawing & TDC enclosed.  <u>Date , Time &amp; Venue of tender</u> A) Technical Bid opening : 21.04.2014 at 14:30 IST at Valves Purchase Tender Room, Building No 24, BHEL Tiruchirappalli-620014, TamilNadu, India. B) Price Bid will be opened only for those vendors whose offers are technically suitable. The intimation regarding price bid opening will be informed later.		<b>AS PER ENCLOSED ANNEXURE-I</b>  <u>Annexure:</u> 1. Terms & Conditions 2. Drawings 3. Required Delivery: As mentioned in our annexure  <u>Note:</u> Only manufacturers are requested to quote for this tender. If Trader or Agent are quoting their offer, "Valid authorization letter from original manufacturer are required along with techno-commercial offer."			
The rate of Excise Duty and Sales Tax, Prevalent on the date of quotation, should be clearly indicated in the quotation itself. If these particulars are not provided, the quotation is liable for rejection. Please, submit your lowest quotation in duplicate subject to our terms and conditions overleaf, for the above materials, so as to reach us on or before the due date by 2:00 P.M. Quotation will be opened at 2:30 P.M. on the due date in the presence of tenderers who may like to present. Late tenders are liable to be rejected.				Yours faithfully,  For Bharat Heavy Electricals Ltd (Valves Purchase)	

1.0 MATERIAL SPECIFICATION - Elastomer materials of grade specified in P.O.or drg. The property requirements are as given in Table-1.

## 2.0 GENERAL

These Elastomeric compounds are for use as O-rings/ packing in water and oil based drilling fluids, seawater, petroleum based lubricants and ethylene glycol anti-freeze mixtures.

Shall be manufactured to the relevant size in the drawing.

The grade nos. specified correspond to the Standards of M/s National; USA.

## 3.0 ENGINEERING REQUIREMENTS

**MATERIAL PROPERTIES:** The property requirements for the elastomers are given in table-1.

The hardness tests shall be carried out as per D2240/ D1415 and tensile tests as per D412/D1414(as per D1457 for PTFE materials).Additional property requirements for grades MS-447 & MS 452 (tested as per D621) are as follows.

MS 447 MS 452

Coefficient of thermal expansion (in/in/ Fx10-5) at 75 to 300°F	6.0+ 0.5	7.6+0.5
% deformation under load (max.)(24 Hours at 2000 psi at 70°F Min).	5.0	3.5
% permanent deformation (max.) after load release	2.0	2.2

## 4.0 INSPECTION & TESTING

The dimensions on the finished product shall conform to the relevant drawing.

Sampling inspection shall be carried out for visual, dimensions & hardness as per Cl.8.0.

The following type tests shall be carried out for conformance to this specification:

### TYPE TESTS

**AIR AGING TEST :** This test shall be carried out in an Air oven (ASTM D573) or by heating in air in a test tube enclosure (ASTM D865).The purpose of this test is to determine the influence of elevated temperatures on the physical properties of vulcanized rubber.

The test shall be carried out at Minimum test temperature shown in table-2 for each grade for 70 hrs. in accordance with ASTM D412 and properties after air aging test shall conform to table-2.

**COMPRESSION SET TEST :**This test shall be carried out in accordance with ASTM D395 B i.e. Compression set under constant deflection in air with exceptions listed out in ASTM D1414 Cl.10.0

The test shall be performed at a minimum test temperature indicated in table-2 for 70 hours, except for Grade MS 225. For grade MS:225, the test duration shall be 22 hours.

The maximum permanent compression set shall comply to table-2.

**LOW TEMPERATURE BRITTLINESS TEST :** This test ensures that rubber will not exhibit fracture when subjected to specified impact conditions. The Test shall be carried out in accordance with ASTM D2137/D746 and shall PASS at the test temperature indicated in table-2.

**IMMERSION TEST :** This test ensures the ability to withstand the effect of liquids and shall be carried out in accordance with ASTM D471/D1414.

The liquids used for the test shall be ASTM Oil 1&3 at a minimum temperature indicated in Table-3 for various grades and Distilled water at a minimum temperature of 212oF for a period of 70 hrs.

Permissible variation in properties after immersion in liquids are given in Table- 3.

Immersion test is not applicable for grades MS 447 & MS 452.

**VALIDITY :** The validity of these Type test results is for two years from the date of test,in the case of PSL 1,2 & 3. However, in case of PSL 4,this test shall be carried out for each batch of purchase order.

The type test shall be conducted at approved laboratory or witnessed by BHEL.

## 5.0 SPECIAL REQUIREMENTS

Insert ring shall be positioned as shown in BHEL drawing or the drawing approved by BHEL.

After Moulding, all parts must be inspected by the vendor/manufacturer to ensure proper positioning of the insert ring. The NDE to be followed can be RT/MT and meet the requirement indicated in the drawing.

The ring must be generally located in the web of the seal, but in no case,in flexible lip of the seal.

No part of the ring shall be visible to the naked eye unless it is specified in the drawings.

## 6.0 DOCUMENTATION

For PSL 1,2 & 3: Certificate of compliance which indicates P.O.No, Drg No,Material grade & type tested compound no, Batchwise Cure/mould date & Shelf life(expiry date) shall be submitted.

For PSL 4 : Test certificates for the physical properties ,in addition to certificates mentioned above shall be submitted for each P.O.

7.0 MARKING AND PACKING

Each item shall be packed in polythene cover individually with suitable preservatives like French chalk powder with label having following details.

- (a) Drg. Number & size (b) Purchase Order No. (c) Batch Number
- (d) Compound No. (e) Date of Cure/Mould (f) Shelf life (expiry date)
- (g) Any other relevant details specified in the Purchase Order/drawing.

Each item shall be supplied in sturdy carton boxes to protect against permanent distortion during shipment and storage and from sunlight, dust etc. during shipment and storage. Each box shall contain only one size and lot of the product as given below.

- (1) Size more than 6" -- each separate box (2) Size 2" to 6" -- 5 nos.in one box
- (3) Size below 2" -- 10 nos.in one box.

Each box shall also be labeled with details specified above viz (a) to (g) above.

8.0 SAMPLING PLAN:for elastomeric compounds based on MIL-STD-105(latest) single sampling normal inspection.

Lot size	Sample size	Acceptance/Rejection criteria
26 to 50	8	No defect permitted
51 to 90	13	-do-
91 to 150	20	Accept when no. of defect < 1; Otherwise reject
151 to 280	32	-do-
281 to 500	50	Accept when no. of defect < 2; Otherwise reject

For lot size 25 Nos. & below, 100% inspection shall be done.

TABLE-1 PROPERTY REQUIREMENT OF ELASTOMERS

Elastomer Grade	MS-219MS-220	MS-221MS-225MS-231	MS-233MS-426MS-427MS-428MS-430MS-431MS-447MS-452													
Material	NBR	NBR	NBR	NBR	FKM	FKM	TFEP	TFEP	FVMQ	HSN	XNBR	PTFE	PTFE			
Hardness	Value	60+5	70+5	90+5	70+5	90+5	70+5	90+10	80+5	85+10	80+5	70+5	65+5	63+5		
	Type	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(D)	(D)		
Applicable	Min.	0	-20	-20	32	0	-20	-20	-20	-50	-20	-20	-50	-50		
Temp. Range (oF)	Max.	180	180	180	200	250	250	250	250	250	250	180	250	250		
Tensile strength in Psi (min)		2000	2000	2500	2000	1600	1500	2200	2000	1000	2500	2000	1500	1000		
Ultimate elongation % (min)		500	300	200	350	100	100	100	100	150	150	300	75	75		
Tensile modulus (psi) at 100% elongation (min)		200	400	800	600	500	500	-	1000	500	500	400	-	-		
Tensile modulus (psi) at 50% elongation (min)		-	-	-	-	-	-	1500	-	-	-	-	-	-		
Shelf life in years		2	2	2	2	4	4	4	4	4	2	2	10	10		

NBR - Nitrile FVMQ - Fluoro Silicone (Silastic LS) FKM - Fluoro carbon (VITON, FLUOREL)  
 HSN - Hydrogenated Nitrile TFEP - Tetra fluoro ethylene & Propylene (AFLAS) XNBR - Carboxylated Nitrile  
 PTFE - Teflon (W/25% carbon/graphite filler)-MS447 ; PTFE - Teflon (W/Ryton/MoS2/Carbon filler)-MS452

TABLE-2 : AIR AGING, COMPRESSION AND LOW TEMPERATURE BRITTLENESS TEST REQUIREMENTS

Grade	Temp °F	AIR AGING TEST				COMPRESSION in (%) max	TEST TEMP. FOR LOW TEMPERATURE BRITTLENESS TEST.
		Hardness points	Tensile Strength(%)	Ultimate Elongation(%)	Volume		
MS 219	180	+ 05	+ 10	+ 20	+ 10	40	0°F
MS 220	180	+ 10	+ 15	+ 20	+ 05	30	0°F & -20°F
MS 221	180	+ 05	+ 10	+ 30	+ 10	25	0°F & -20°F
MS 225	212	+ 10	+ 10	+ 20	+ 10	40	32°F
MS 231	250	+ 10	- 40max	- 20max	+ 10	40	0°F
MS 233	250	+ 10	- 40max	- 20max	+ 10	40	0°F & -20°F
MS 426	250	+ 10	+ 10	+ 15	+ 10	30	0°F & -20°F
MS 427	250	+ 10	- 25	- 25	-	40	0°F & -20°F

MS 428	250		+ 05	+ 10	+ 10	+ 10		30		0°F, -20°F, -50°F & -75°F
MS 430	250		+ 10	+ 10	+ 20	+ 10		30		0°F & -20°F
MS 431	180		+ 05	+ 15	+ 20	+ 10		35		0°F & -20°F
MS 447	-		-	-	-	-		-		0°F, -20°F & -50°F
MS 452	-		-	-	-	-		-		0°F, -20°F & -50°F

(\* ) Min. test temperature is same for both air aging test & compression test

TABLE-3 : IMMERSION TEST REQUIREMENT

Grade	Min Test temp. °F (*)	Permissible variation in properties (+) with											
		ASTM Oil # 1				ASTM Oil # 3				Distilled water			
		Hard-ness	Ten-sile stren-gth	Ulti-mate Elon-gation	Volume	Hard-ness	Ten-sile stren-gth	Ulti-mate Elon-gation	Volume	Hard-ness	Ten-sile stren-gth	Ulti-mate Elon-gation	Volume
MS219	180	05	10	20	10	10	20	15	20	05	15	20	10
MS220	180	10	20	20	10	10	20	20	10	10	20	20	10
MS221	180	05	15	30	10	05	15	30	10	05	15	10	05
MS225	212	05	05	10	05	05	05	10	10	-	-	-	-
MS231	250	05	15	10	05	05	10	10	05	05	20	10	10
MS233	250	05	15	10	05	05	10	10	05	05	20	10	10
MS426	250	10	15	20	10	10	15	20	20	10	15	20	10
MS427	250	05	15	25	10	10	20	25	10	05	15	20	10
MS428	250	05	15	10	10	10	20	10	30	05	10	10	10
MS430	250	10	10	20	10	10	10	20	10	05	10	10	10
MS431	180	10	20	20	10	10	20	20	10	-	-	-	-

\*Min.test temp. specified is only for immersion test with ASTM Oil #1 & 3. For distilled water, the test temp. is 212°F.

NOTE: Values indicated in Table are % values, except for Hardness. For hardness, it is variation in absolute value.

**Revision record:**

Rev:00/16.04.90 : First issue

Rev:01/04.12.93 : Editorial corrections

Rev:02/15.11.96 : Elastomer TDCs 5:131,135,154,155,156,157,161,162,163,179,183  
& 184 merged & rewritten

G.Janakiraman  
Qual. Assurance  
**Prepared by**

K.Nagarajan  
Engg/Valves

M.Palanivel  
Purchase/Valves

R.Gurunathan  
Quality Control

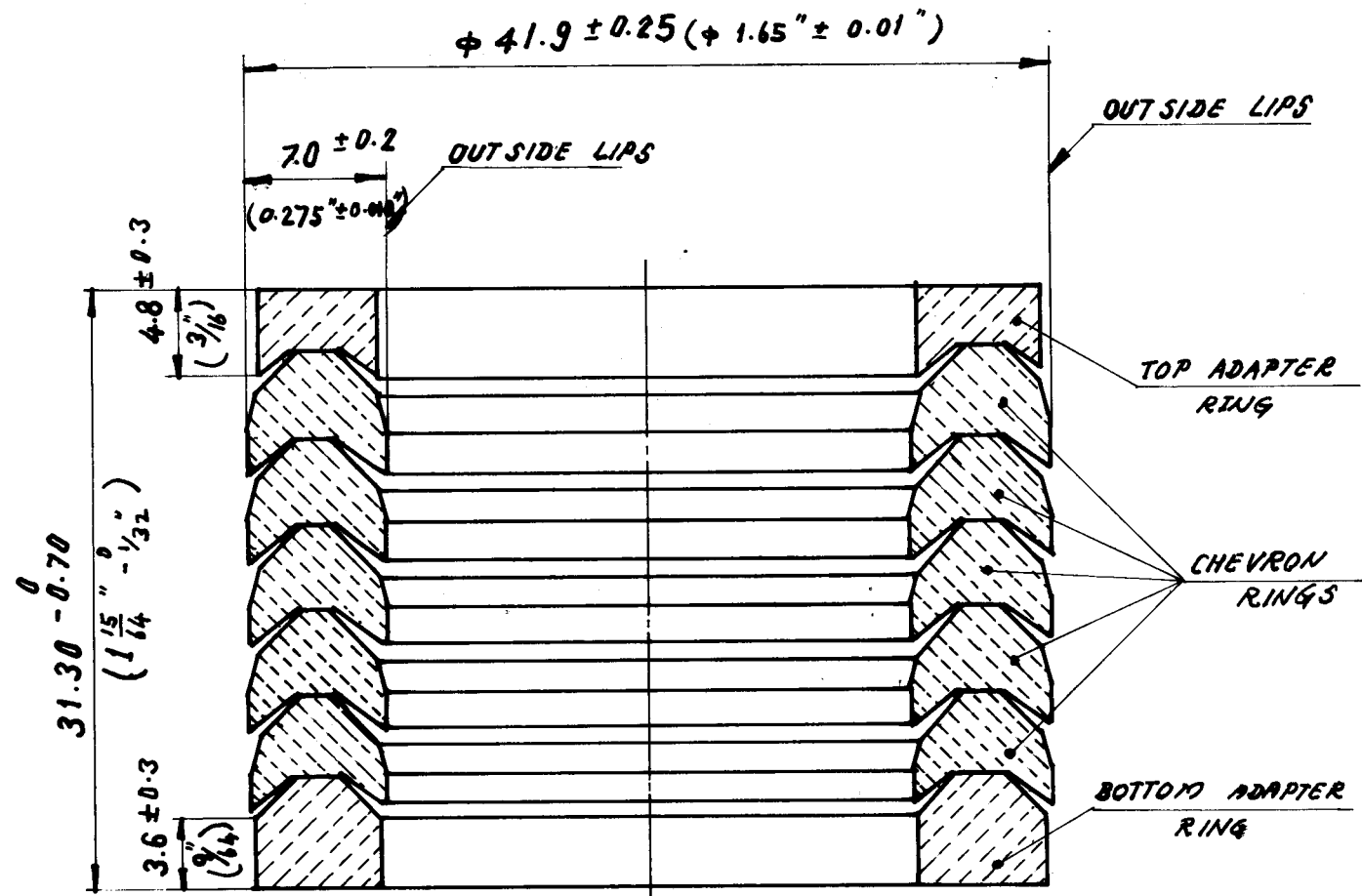
A.L.Nagarajan  
Quality assurance

C.R.Raju  
Qual Assurance  
**Approved by**

**Reviewed by**

**ANNEXURE-I**

<b>Sl No</b>	<b>Material</b>	<b>Material Description</b>	<b>DRG No/Rev No</b>	<b>TDC No/Rev No</b>	<b>Enquiry quantity</b>	<b>Delivery Start</b>	<b>Delivery required</b>
1	964527930000	PACKING SET-4343	4V434307656/00		<b>100</b>	4-6 weeks from the PO date	50 unit per month
2	964649990000	PACKING SET-IND-4498	3V449805880/03	TDC:5:151/02	<b>5000</b>	4-6 weeks from the PO date	1000 unit per month
3	974640670000	V2-PACKING SET-4545	3V454505879/01		<b>200</b>	4-6 weeks from the PO date	50 unit per month



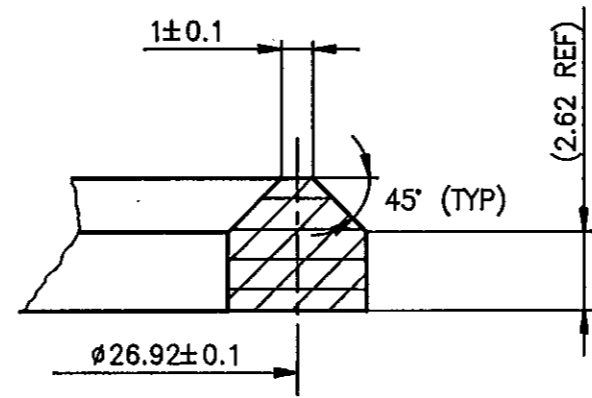
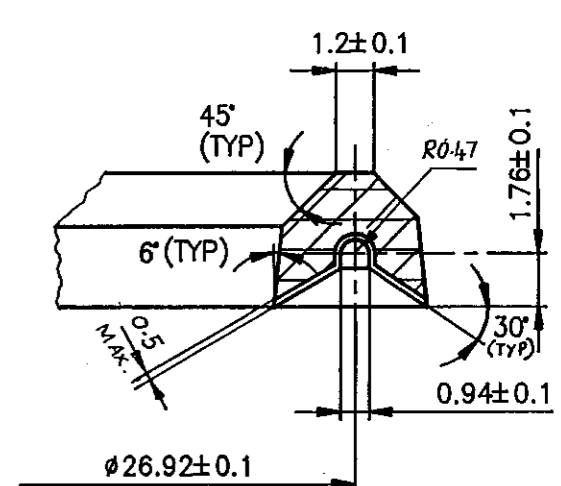
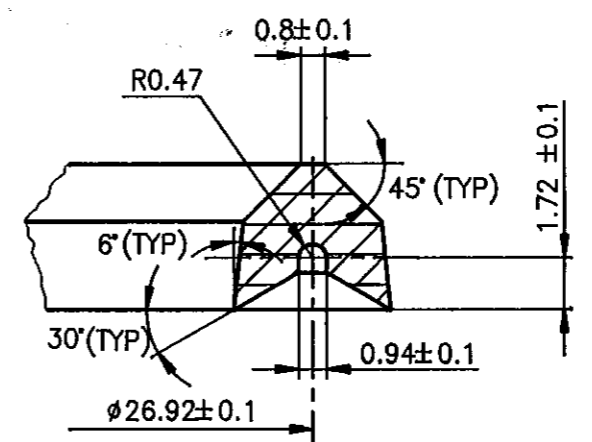
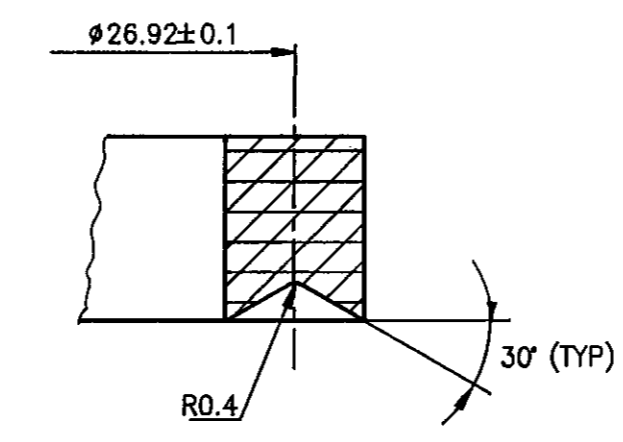
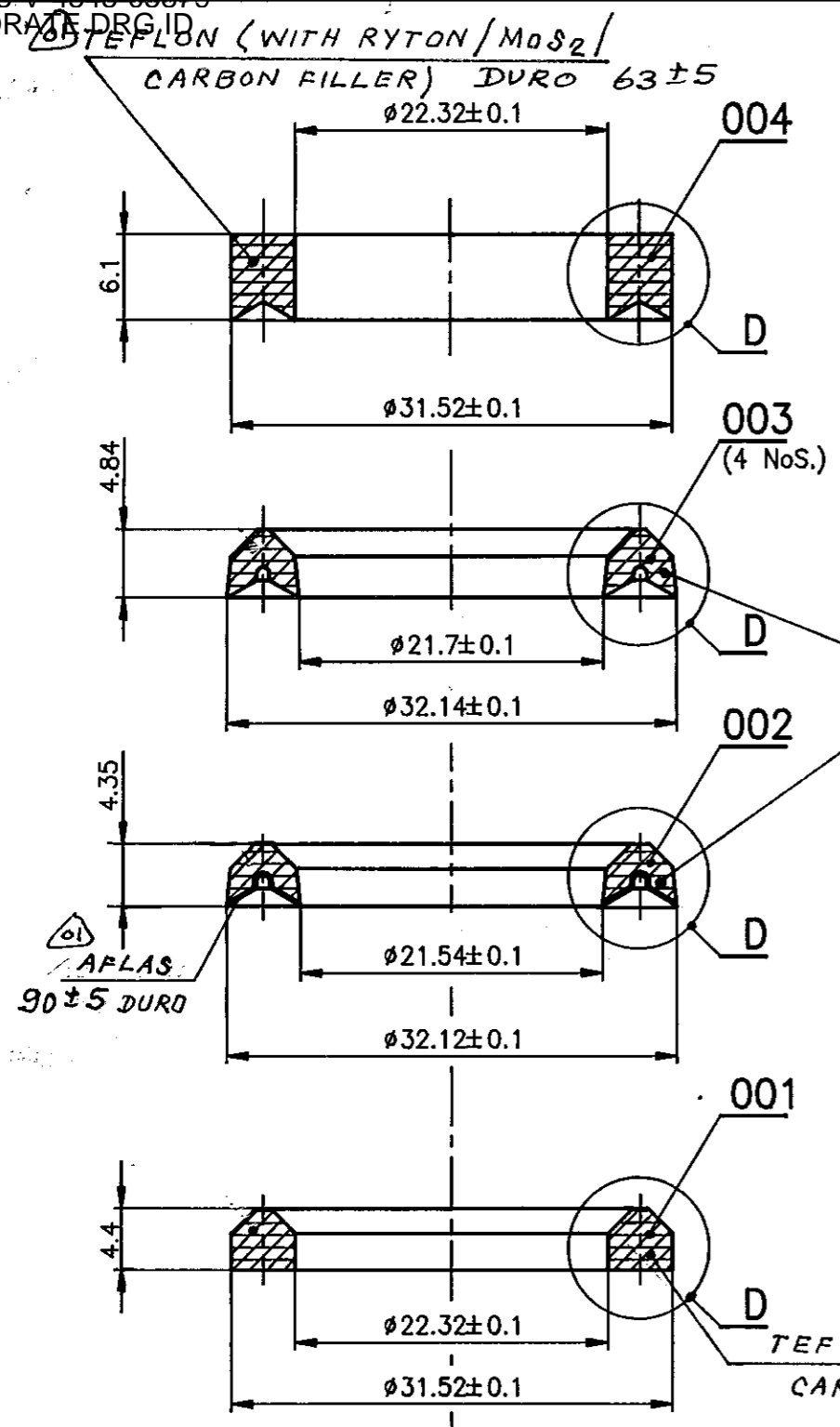
**NOTES:-**

- MATERIAL:- UNIVERSAL GLASS FILLED TEFLON (V-PATTERN GROUP).
- UNSPECIFIED DETAIL WITH RESPECT TO DIMENSIONS, TOLERANCES AND CONTOUR SHALL BE OPTIONAL WITH MANUFACTURER, PROVIDED SERVICEABILITY OF THE PACKING IS NOT IMPAIRED.

NATIONAL PART NO:- 522117 - BTX  
IMPORTED MATERIAL CODE:- 97 452 574

		96452793	NOTE-1			0.04			
NO. OF PIECES	NAME - DIMENSIONS	MATL. CODE	FINAL MATERIAL	INITIAL MATERIAL	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING NO.	ITEM NO.
REMARKS				TOTAL NET WT (kg)					
NTS	DRAWN	K. Sankar 13/2/88		NL. REF:		ALTERATIONS	DATE	SIGNATURE	ALTERATION INDEX
	CHECKED	M. P. ... 15/2/88		522117-BTX					
	APPROVED	DK 12/2/88		SL. NO: 4226					
	STDS. OFFICER								
	DATE	15-2-88							
TYPE		GROUP		OLD DRG.		NEW DRG.			
TITLE				DRAWING NO.					
PACKING SET				4.V.4343.07656					
(ADJ. CHOKE)									





NOTES:-

1. PACKING ID SHALL BE SUITABLE FOR A STEM DIA 22.17±0.04 & OD FOR A GLAND BORE DIA OF 31.83±0.07
2. RMA A-2 F-3 TOLERANCES SHALL APPLY TO ACTUAL DIMENSIONS.
3. SURFACE FINISH SHOULD BE SMOOTH.
4. THE PACKING RINGS ARE TO BE SUPPLIED IN SETS.
5. MATERIAL CODE 96 464 097 0000
6. MATL. SHALL COMPLY WITH REQUIREMENTS OF LATEST APPLICABLE QUALITY PROCEDURE FOR PSL-1 TO PSL-3 REQUIREMENTS

No.Off	DESCRIPTION	MATERIAL CODE	MATERIAL SPECN. & HEAT TREATMENT	SCRAP SORT	NET WT	GROSS WT.	DRAWING No.	ITEM No.
01	TOP RING		NOTE-6					004
04	MIDDLE RING (HARD)		NOTE-6					003
01	MIDDLE RING (SOFT)		NOTE-6		0.02			002
01	BOTTOM RING		NOTE-6					001

UNLESS OTHERWISE SPECIFIED

BREAK SHARP CORNERS	: 0.25
FILLET RADIUS	: 0.76±0.12
CONCENTRICITY	: 0.25 FIM
SQUARNESS	: 0.25 IN 254
PARALLELISM	: 0.25 IN 254
RFS EXCEPT WHEN (M) MODIFIED.	

DCN. No. OF D491	ALTRD PR CHD	APRD DT. 31/7/99
REV 01	MATL. AFLAS WAS TDC 5.157	
REV 02	MATL. TEFLON WAS MS-447 & MS-452	
REV 03	NOTE-6 INCLUDED.	

CAD No. 0305879

**Bharat Heavy Electricals Ltd.,**  
Boiler Plant Unit Valves Division  
Tiruchirapalli - 620 014

Drawn	Name	Signature	Date
Checked	R.NATARAJAN		31-03-92
Approved	VALAGARSWAMY		31-03-92
	K.RAMALINGAM		31-3-92

Department	Grade of	Scale	REF. NL. TELEX.
EDC/V&SB		N T S	BHE:NL
Code			
340			

REF.NL.DRG.No.	V25468	REV.
REF.NL.PART No.	V25468-3	REV.
SL.No.	V0065	

Title: **PACKING SET (2 1/16" - 2,000 PSI)**

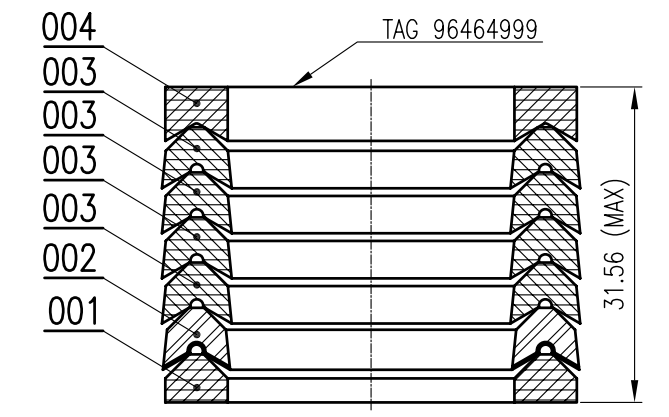
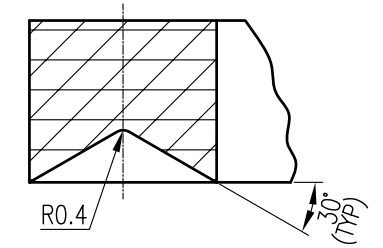
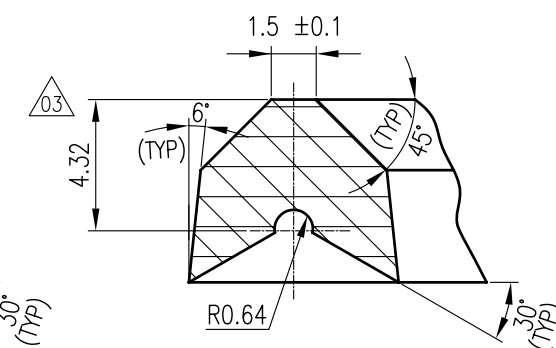
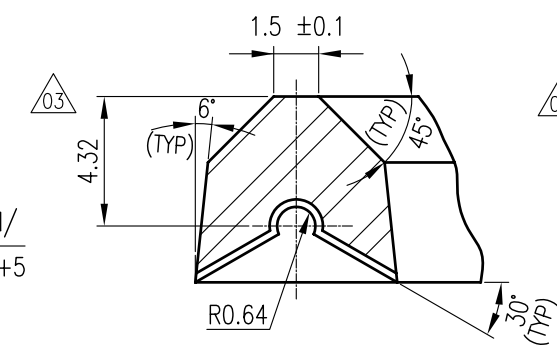
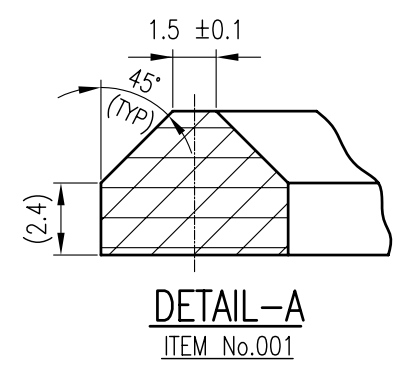
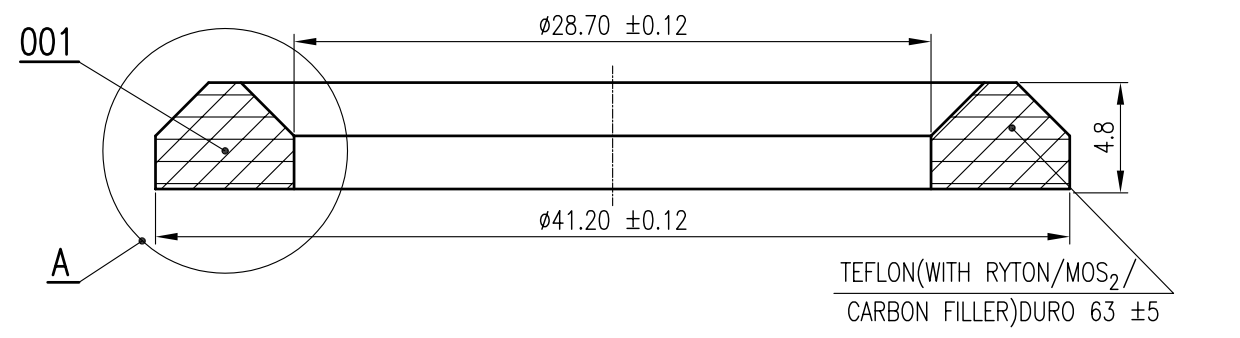
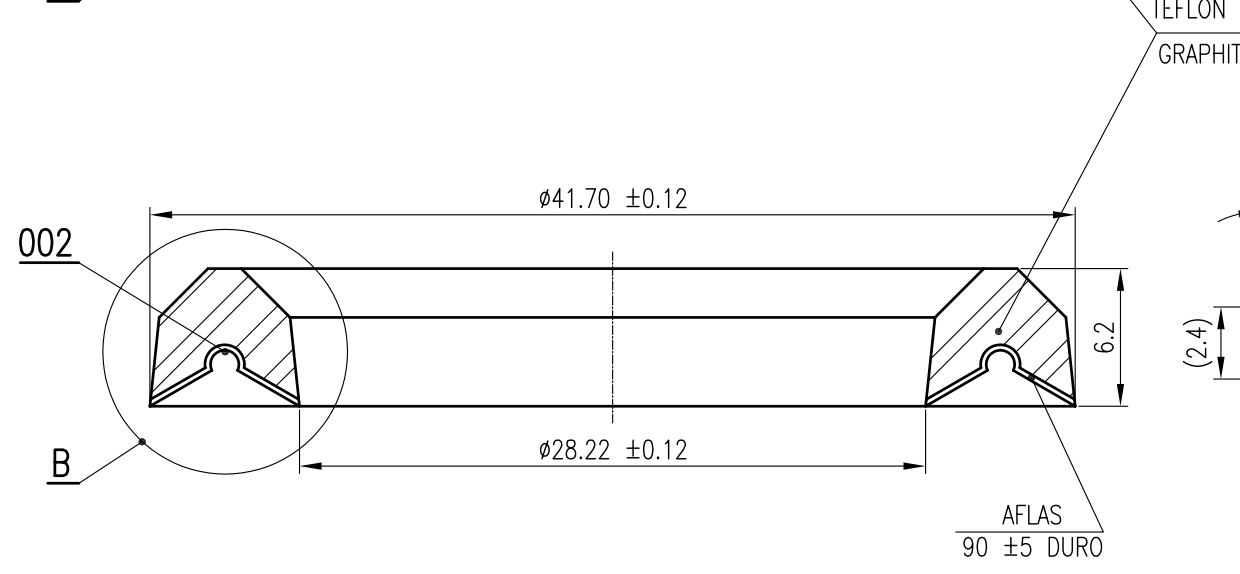
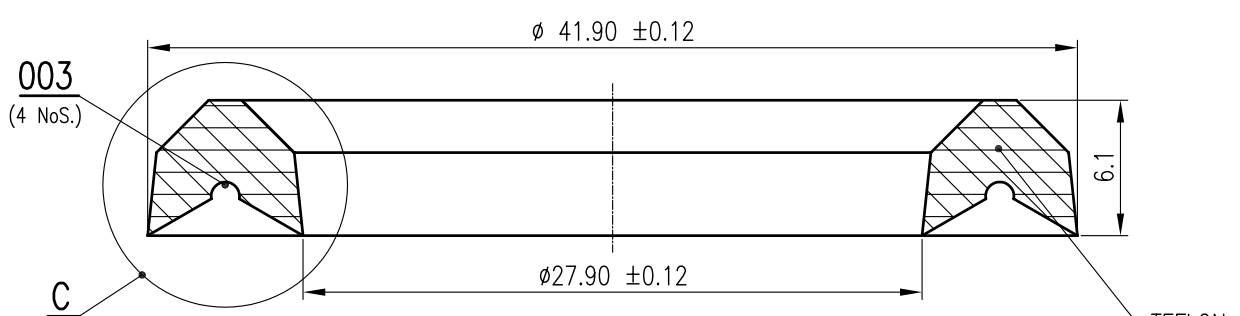
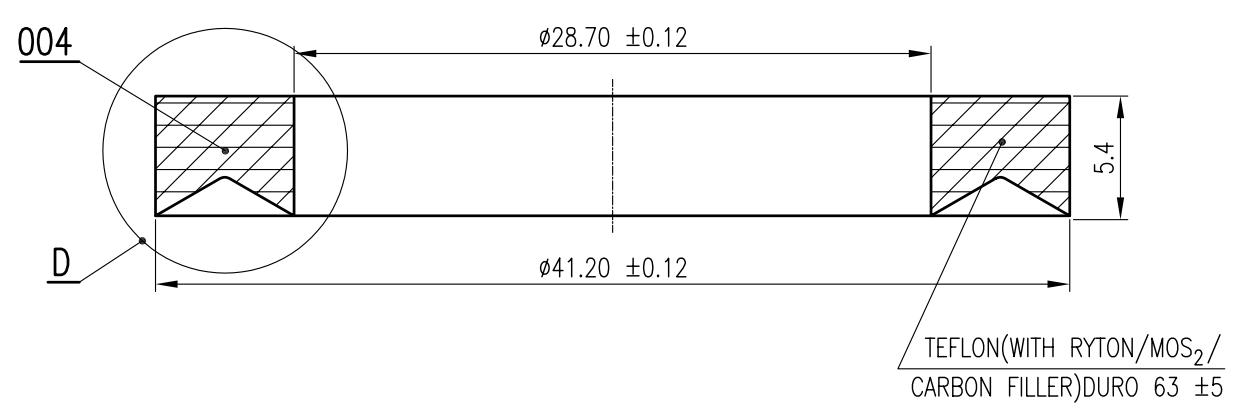
Drawing No. **3-V-4545-05879**

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

08890-864-V-3 DRAWING NO.

**NOTES:-**

1. PACKING ID SHALL BE SUITABLE FOR A STEM DIA OF 28.52 ±0.02 AND OD FOR A GLAND BORE DIA OF 41.35 ±0.07.
2. RMA A-2 F-3 TOLERANCES SHALL APPLY TO ACTUAL DIMENSIONS.
3. SURFACE FINISH SHOULD BE SMOOTH.
4. THE PACKING RINGS ARE TO BE SUPPLIED IN SETS.
5. UNSPECIFIED TOLERANCES ±0.25mm.
6. UNSPECIFIED ANGLE TOLERANCES ± 1/2°.
7. MATL. SHALL COMPLY WITH REQUIREMENTS OF LATEST APPLICABLE QUALITY PROCEDURE FOR PSL-1 TO PSL-3 REQUIREMENTS.
8. IMP. MATL. CODE. 97 464 048.



CAD REF No. o305880

04	TOP RING			NOTE-7					004
03	MIDDLE RING (HARD)			NOTE-7					003
02	MIDDLE RING (SOFT)			NOTE-7					002
01	BOTTOM RING			NOTE-7					001
No OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No

DCP No. 800546	ALTERED BY CHD	APPD DT. 30-12-2005	DCP No. 800432	ALTERED BY CHD	APPD DT. 06-4-05
REV. 03	DIMENSION LOCATION MODIFIED IN PLACES MARKED AS $\Delta_{03}$ IN DETAIL-B & DETAIL-C		REV. 02	REVISED AND REDRAWN IN CAD MATL. CODE 96 464 999 WAS 96 464 098	
ZONE $\Delta_{03}$			ZONE $\Delta_{02}$		

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.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT

MATL. CODE : 96 464 999

	<b>BHARAT HEAVY ELECTRICALS LTD.,</b>	DRN	R.NATARAJAN	SIGN	DATE	NO. OF VAR.
	UNIT: HIGH PRESSURE BOILER PLANT.	CHD	R.NATARAJAN		06-4-05	
	365-121	APPD	V.ALAGARSWAMI		06-4-05	

DEPT VL	SCALE N T S	WEIGHT (KG) ~0.05	REFERENCE INFORMATIONS	NO. OF ITEMS
CODE 340			REF.NL.DRG.No. V04468 REF.NL.PART No. - SL.No. V0064	
TITLE	CARD CODE	DRAWING NO.	REV.	
<b>PACKING SET</b> (2 1/16"-5000 PSI)	U 01	<b>3-V-4498-05880</b>	03	



Format for Un-priced Bid

BHEL Enquiry No. &amp; Date

EN-SOF1592 / 27.03.2014

Vendor's Offer Ref No. &amp; Date

Enq SI No.	Material Code	Description	Unit	Qty	Unit Price in INR	Value in INR
1	964527930000	PACKING SET-4343	Nos	100		
2	964649990000	PACKING SET-IND-4498	Nos	5000		
3	974640670000	V2-PACKING SET-4545	Nos	200		
<b>Total Ex-works Value in Rs</b>						
Packing & Forwarding Charges if extra						
Excise Duty						
CST/VAT						
Freight Charges if extra						
Transit Insurance Charges if extra						
Delivery Term						
Delivery Schedule						
Validity of offer						
<b>Consignment Package Details</b>						
Approximate Net / Gross Weight in Kgs						
Dimension of Consignment						

Signature &amp; Seal of Vendor

**NOTE:**The Un-Priced Bid (Techno-Commercial Bid) should be submitted strictly in line with the above **FORMAT**

Technical documents should be enclosed with the offer.

**Prices should be quoted in INR**



# BHARAT HEAVY ELECTRICALS LTD

Valves/Purchase, Tiruchirappalli-620014, INDIA

## TERMS & CONDITIONS

Phone: 0431 257 7096

Email: sivabala@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 should not be addressed to any individual's name but only by designation as below:

SR. MANAGER/PURCHASE/VALVES  
HIGH PRESSURE BOILER PLANT  
BHARAT HEAVY ELECTRICALS LIMITED  
TIRUCHIRAPPALLI - 620 014, TAMILNADU, INDIA

- 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 Bid Systems:** The offers are invited in twopart 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 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 No 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.

### 2. COMMERCIAL TERMS & CONDITIONS:

- a. **Terms of Payment:**

**For Indigenous Suppliers:** 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. Techno-commercial bid opening 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 Suppliers:** 100% payment after 45 days on CAD basis or Usance LC(45 days)

Any deviation in the above payment term will attract loading as mentioned below.

"Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.

Payment Terms requested in offer	No.of loading days
CAD at Sight	45 days
LC at Sight	45 days + 0.5%(at offered value)
Confirmed LC	60 days + 0.5%(at offered value)

- b. **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).

- c. **Delivery Terms:**

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

**For Import Suppliers:** FOB nearest SEA Port/FCA nearest AIR port.



# BHARAT HEAVY ELECTRICALS LTD

Valves/Purchase, Tiruchirappalli-620014, INDIA

## TERMS & CONDITIONS

Phone: 0431 257 7096

Email: sivabala@bheltry.co.in

- d. **Validity of Offer:** Prices should be valid for 200 days from the date of tender opening (Part-I Techno Commercial bid).
- e. **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.
- f. **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.
- g. **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.
- h. **Preferential Delivery:** If a contract is placed on a higher tender as a result of this invitation to tender in preference to the lowest acceptable offer in consideration of the earliest delivery, the seller will be liable to pay to the purchaser the difference between the contract rate and that of the lowest acceptable tender on the basis of final price FOR destination, including all elements of freight, sales tax, duties and other incidents, incidental in case of failure to complete supplies in terms of such contract within the date of delivery specified in the tender and incorporated in the contract.
- 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 as per BHEL tender requirement which are as indicated against each item in our tender. If supplier offers more than this delivery period BHEL will operate 0.5% loading factor for evaluation of their offer for every week delay.
- l. **Performance Bank Guarantee:** If tender Calls for Performance Bank Guarantee, Vendor should provide a performance bank guarantee (PBG) for 10% of the total Purchase order value valid for warranty/guarantee period with an additional claim period of 2 months.
- 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.
- o. **Reverse Auction:** BHEL reserves the right to go for a Reverse Auction (RA) instead of Opening the price bid, which will be decided after techno-commercial bid evaluation. Information and general terms and conditions governing RA are given below:-

### GENERAL TERMS AND CONDITIONS OF RA

Against this enquiry for the subject item/system with detailed scope of supply as per enquiry specifications, BHEL may resort to "REVERSE AUCTION PROCEDURE" i.e., ON LINE BIDDING ON INTERNET.

- a. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
- b. BHEL will engage the service provider who will provide all the necessary training and assistance before commencement of on line bidding on internet.
- c. BHEL will inform the vendor in writing in case of reverse auction, the details of Service Provider to enable them to contact & get trained.



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- d. Business rules like event date, time, Start price, bid decrement value; extensions etc. also will be communicated through service provider for compliance.
- e. Vendors have to mail/fax the Compliance form in the prescribed format (provided by the Service provider) before the start of the Reverse auction. Without this, the vendor will not be eligible to participate in the event.
- f. BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the vendor to enable them to fill-in the price and keep it ready for keying in during the Auction.
- g. Reverse auction will be conducted on the scheduled date & time.
- h. At the end of Reverse Auction event, the lowest bidder value will be known on the network.
- i. The lowest bidder has to mail/fax the duly signed Filled-in prescribed format as provided on case-to-case basis to BHEL through Service provider within 24 hours of Auction without fail.
- j. Any variation between the on-line bid value and the signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHEL as per prevailing procedure.

### **3. GENERAL CONDITIONS**

- a. All items shall be supplied as per the Purchase Specifications mentioned in our Enquiry to the latest applicable revision / Drawing
- b. BHEL reserves the right to finalize the tender as per item sl no 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.
- c. 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.
- d. 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.
- e. BHEL reserves the right to negotiate or re-float the tender in case the quoted prices are not acceptable.
- f. Supplier shall arrange packing to avoid lose or damages during Road Transport, Site handling & Storage.
- g. Purchase Order, PO Item SI No, Material code, Quantity should marked the Packing clearly.
- h. Confirmation for compliance is to be given in the offer for all the conditions specified above and to the respective Purchase Specification.
- i. Vendors shall give dispatch schedule to BHEL for various chains against the pending orders once in 15 days.

### **4. DOCUMENTATION:**

#### **For Indigenous suppliers:-**

- a. **With Consignment:** Duplicate for transporter copy of Invoice, Packing List, Delivery Challan, O&M manual Material Test Certificate, Test Certificates, 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, Tamilnadu.](#)

#### **To Purchase:**

- i. **FOR BHEL TRICHY case-**Copy of Invoice, Packing list, LWB and Delivery challan for reference, original IBR documents/Inspection despatch clearance certificates
- ii. **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 SI No, Material code, quantity, Unique SI No 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. **Through 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 bankers to BHEL bankers
- c. **To 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.



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- d. **Identification:** Purchase Order, PO item SI No, Material code, quantity, Unique SI No if any should be provided in all materials and packing clearly.

**Note\***- Supplier should provide the filled Annexure-3A and Bids should be as per annexure-3B & 3C



# Bharat Heavy Electricals Ltd

Valves Purchase  
Tiruchirappalli- 620 014. India

Annexure 3A

Phone : 0431-257-7305/4043/7096E-mail:[pr@bheltry.co.in](mailto:pr@bheltry.co.in)

[imuthu@bheltry.co.in](mailto:imuthu@bheltry.co.in)  
[sivabala@bheltry.co.in](mailto:sivabala@bheltry.co.in)

BHEL Enquiry No.EN-SOF1592

Date: 27.03.2014

Sl No	<b>BHEL COMMERCIAL TERMS AND CONDITIONS</b>	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 as per the format (Annexure 3B) enclosed.	
3	<b>Prices</b> shall be <b>quoted item wise</b> only as per the format (Annexure 3C) enclosed.	
4	Prices shall be quoted on " <b>FIRM PRICE</b> " basis only. The prices should be only on <b>FOR BHEL TRICHY basis</b> inclusive of Packing & Forwarding charges if any.	
5	<b>Validity of offer</b> shall be for a minimum period of <b>200 days</b> from the date of Techno Commercial Bid opening	
6	<b>Delivery period</b> from the date of Purchase order shall be clearly mentioned in the offer.	
7	<b>Liquidated damages</b> @ 0.5% per week subject to a maximum of 10% of the order value shall be applicable for delay in deliveries.	
8	<b>Following Risk Purchase clause</b> 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	<b>Payment terms</b> 100% after 45 days on acceptance of material at BHEL stores, No other payment term is acceptable to BHEL.	
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 BHEL Trichy basis/destination specified by BHEL	
12	The materials shall be guaranteed for a period of 12 months from the date of commissioning or 18 months from the supply, whichever is earlier.	
13	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.	
14	<b>Offers</b> should be submitted only in <b>sealed covers</b> super-scribing clearly the <b>Enquiry reference and due date.</b>	

**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, Otherwise your offer is liable for rejection.

Signature & Office Seal of the vendor