REQUEST FOR QUOTATION



BHARAT HEAVY ELECTRICALS LIMITED Electronics Division PB No. 2606, Mysore Road Bangalore - 560026 **INDIA**

RFQ NUMBER: AKSPROP084

> RFO DATE: 29.01.2024



MMI:PU:RF:003

(address for communication):

(for all correspondence) Purchase Executive: ABHISHEK

Phone: 26998102 Fax : 00918026989215 E-mail: singh.abhishek@bhel.in

1)This RFQ is for entering into Rate contract (RC) with BHEL for the tendered item. Validity of the RC will be 1 year from the award of rate contract. Firm orders will be placed during the tenure of rate contract. Prices will remain firm till the validity of RC or till the completion of supplies against the Purchase Orders placed against this rate contract whichever is later. Please note that these quantities are projections based on the current business scenario and expected orders from customers. In the eventuality of business not coming through, BHEL is not obligated to exhaust the ordering of RC quantities.

2)Reverse Auction Clause: BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on www.bhel.com) for this tender. RA shall be conducted among all the techno-commercially qualified bidders. Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered as initial bids of bidders in RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking.

S1 N	o. Description	Qty	Unit	Delivery qty	Delivery Date
	TI0668104295 3/8 BSP Male QRC with O-ring and SS Ring * HSN/SAC : 3921	9,000	NO	9,000	31.03.2024
	Quick disconnect male coupling for Traction Converter as per Purchase specification PS4452693,REV.02				

Total Number of Items -	1
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2.

NOTES:

1.

- 1. This RFQ is governed by:
- a) INSTRUCTIONS TO BIDDERS/SELLERS and GENERAL CONDITIONS OF CONTRACT FOR PURCHASE available at http://edn.bhel.com (RFQ-PO Terms & Conditions)
- b) Any other specific Terms and Conditions mentioned.

* The HSN/SAC no mentioned against the line items in the RFQ are indicative only.

For and On behalf of BHEL.

ABHISHEK Control Equipment

1 OF 1

	
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	Clause:
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Pre-Qualification Criteria

Rev.: 00

Page: 01 of 01

TE/445/LOCO- QRC-SS

on:

quick release couplings are being used for locomotive traction panels supplied by BHEL to . Hydraulic quick release couplings are made from SS304. They are also subjected to d vibration loads in service.

- should have a clean track record. i.e. the Bidder should not be under hold or blacklisted by he BHEL units / any Govt. of India PSU / Govt of India as on bid submission date.
 - ting Document: A self-declaration shall be submitted by the Bidder along with the quotation.
- er should have supplied hydraulic quick release couplings to Electrical Panel with liquid Glycol) cooling circuit, directly to Indian Railways or indirectly to Indian Railways through idors.

ting Document:

of of supply such as Invoice / P.O. copy shall be furnished with the Offer.

- rs who have not supplied above hydraulic quick release couplings earlier shall be considered Development order and not for this tender. Development PO will be placed only if BHEL is with capability of vendor to manufacture this product.
- ferred that the bidder is the manufacturer of this item. If the bidder is importing the item, nimum value addition in India shall be 20%. Bidder to confirm this in the offer. Value less than 20% is not acceptable.
 - Supporting Document: A self-declaration shall be submitted by the Bidder along with the quotation.
- 4) Vendors, who are not registered in BHEL EDN for supply of hydraulic quick release couplings at the time of quoting, shall submit following document along with the quotation. BHEL representatives may inspect the vendor's works to ascertain their capability of executing the tender.

Documents:

- Details regarding the facilitates (Machineries, Tools, Manpower-Welders etc.) available at their
- b) QS Related documents such as PQR, QAP etc.

Note:

1)Clause wise confirmation to above PQC shall be mandatorily submitted with Offer in format-Annexure- A. Offers without same will be summarily rejected and Bidder's Technical offers proposals will not be evaluated.

REVISIONS:	APPROVED BY		
		Lucia	
	JA	GDISH SHUKLA	
	PREPARED BY	ISSUED	DATE
	6 noraimhayadan	.55625	22
	Narasimha Yadav	445	29.01.2024

	An	nexure -A	١	Reference- TE/445	5/Loco-HQRC
Name Of the \	/endor				
Address & Co	ntact No.				
BHEL Registra	tion No.				
RFQ Detail					
	PQC	Complian	ce		
PQC Clause No.	Clause Description	Complied		ng Document Detail	Remarks
INO.		Yes/No	Detail	Doc. No.	
1					
2					
3					
4					
	Signatur	re and Seal of V	endor		



PURCHASE SPECIFICATION GROUP: TRACTION ENGINEERING

P.S NO. : PS/445/2693

REV. NO: 02

PAGE 01 OF 06

SPECIFICATION FOR

High pressure fluid Coupling for Traction application

REVISION HISTORY:

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June	REV.No.	DATE	NATURE OF CHANGE	REASONS	PREPARED BY	APPROVED BY
	01	16.12.2020 24.09.2022 03.01.2024	FIRST ISSUE Revision Revision	1 1 1	Narasimha Narasimha Narasimha	Devanand V Devanand V Devanand V

ANY DEVIATIONS TO THIS DOCUMENT TO BE BROUGHT OUT CLEARLY BY VENDOR ALONG WITH TECHNICAL OFFER.

I			
	APPROVED BY:		
	Devanand V, AGM (TE)	
	Deanand, V		
	PREPARED BY:	Issued By	DATE
	G. naraimhayadan		
	Narasimha Yadav	TE	16.12.2020



PURCHASE SPECIFICATION

GROUP: TRACTION ENGINEERING

P.S NO.: PS/445/2693

REV. NO: 02

PAGE 02 OF 06

<u>SPECIFICATION For High pressure fluid Coupling for Traction application</u>

1.0 SCOPE:

This technical specification covers the requirements of design, manufacture, testing at works, packing and dispatch of High pressure fluid coupling as per ISO 16028.

2.0 **APPLICATION:**

High pressure fluid Coupling mentioned in this Purchase Specification is required to be used in various Traction Loco Projects.

3.0 **ELIGIBILITY CRITERIA:**

The Bidder should be approved by BHEL and should have supplied the offered item for Indian Railways projects of EMU/MEMU/DEMU or Locomotives or Metros operating in India.

CLAUSE BY CLAUSE COMPLAINCE: 4.0

Vendor to submit clause by clause compliance to complete Purchase specification along with the technical bid.

INTERCHANGEBILITY 5.0

Offered Male and Female components shall be independently interchangeable with Couplings of other make.

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PURCHASE SPECIFICATION

GROUP: TRACTION ENGINEERING

P.S NO.: PS/445/2693

REV. NO: 02

PAGE 03 OF 06

6.0 ITEMS COVERED UNDER THIS PURCHASE SPECIFICATION

SI. No.	BHEL Material Code	Item Description	
1	TI0668104295	3/8 BSP Male Quick Coupling with O-ring and SS Retaining Ring	

7.0 TECHNICAL SPECIFICATION:

Male coupling should be supplied with O-ring and SS Retaining Ring

Sl. No.	Description	Requirement
1	Material	SS
2	Sealing	EPDM
3	Style	Flat Surface
4	System Connection	Push
5	Locking Mechanism	Ball locking system
6	Interchangeable	Yes
7	Application Fluid	Water(70%)+Glycol(30%) (Antifrogen N44%)
8	Size inch	3/8 BSPP
9	Rated Pressure (bar)	2.5
10	Max operating pressure (bar)	10
11	Working temperature range max	80 degree Celsius
12	Working temperature range min	-20 degree Celsius
13	Rated Flow (I/min)	12
14	Max Flow (I/min)	46
15	Burst (ISO 18869)	>40
16	Disconnect force (ISO 18869):N-m	58.8
17	Connect force (ISO 18869):N-m	186.2
18	Spillage (ISO 18869) cc	0.01
19	Pressure Loss at rated flow(bar)	1

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PURCHASE SPECIFICATION

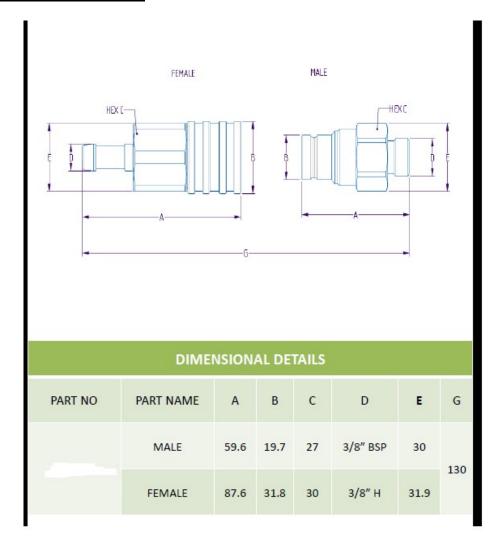
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P.S NO.: PS/445/2693

REV. NO: 02

PAGE 04 OF 06

Drawing and Dimensions:



C-Across Flat dimensions

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PURCHASE SPECIFICATION

GROUP: TRACTION ENGINEERING

P.S NO. : PS/445/2693

REV. NO: 02

PAGE 05 OF 06

8.0 CLIMATIC & ENVIRONMENTAL CONDITIONS:

Offered Items should comply with the following environmental conditions.

- (a) Relative Humidity: up to 98% saturation during rainy season which may be as long as five (5) months.
- (b) Altitude: At any altitude between 0 and 1776 m above mean sea level.
- (c) Rainfall: Very heavy and continuous (up to 2500mm during rainy season)
- (d) Atmosphere during hot weather: Extremely dusty, humid and salty. The EMU/MEMU shall be working in coastal area also and thus shall be continuously exposed to highly corrosive, salty atmosphere along with industrial pollutants.

9.0 DESIGN REQUIREMENTS/ DOCUMENTS TO BE PROVIDED BY SUPPLIER

Drawings, weights, etc.	To be provided by supplier
Type test protocol & procedure/ Type test reports	Supplier to submit the complete reports of type test conducted on the proposed/offered cable.
Technical Manual / Catalogue	To be provided by supplier
QAP	To be provided by supplier

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P.S NO. : PS/445/2693

REV. NO: 02

PAGE 06 OF 06

10.0 TESTING:

- (a) The Purchaser, his duly authorized representative and/or outside inspection agency acting on behalf of the Purchaser shall have, at all reasonable times, free access to the Contractors premises or Works and shall have the power, at all reasonable times, to inspect and examine the materials and workmanship of the works during its manufacture or erection. If part of the ordered material is being manufactured or assembled at other premises or works, the manufacturer shall obtain permission to inspect as if the material were manufactured or assembled on the manufacturer's own premises or works. Inspection may be made at any stage of manufacture, dispatch or at site as per option of the Purchaser and the equipment if found unsatisfactory due to bad workmanship or quality, material is liable to be rejected.
- (b) The inspection by Purchaser and issue of Inspection Certificate thereon shall in no way limit the liabilities and responsibilities of the Manufacturer in respect of the agreed quality assurance program forming a part of the Contract.

End of the Document*