



Bharat Heavy Electricals Limited

(A Government of India Enterprise)
High Pressure Boiler Plant
Tiruchirappalli - 620 014

MATERIALS MANAGEMENT

4th Floor, 24 Bldg. HPBP BHEL, Trichy-620014

Phone: 0431 - 257 8109, 7446; E-mail: kevin@bhel.in, mohann@bhel.in; www.bhel.com

NOTICE INVITING e-TENDER

Bid No.: BID NO: GEM/2021/B/1513598

13.09.2021

Subject: Two-part e-Tender inviting techno-commercial and price bid for supply of SOLENOID VALVES for DVC R&M Project

General Instructions

- The tender documents shall be deemed to form an integral part of the purchase order.
- Tender can be cancelled at any stage due to unavoidable circumstances.
- Bidders are advised not to wait till the last minutes w.r.t tender closing time to submit their offer to avoid complications related with internet connectivity / network problem/ power failure etc.
- Bidders are advised take due care while quoting the technical and price bid. Bidders, those who tampers with tendering procedure affecting ordering process or misusing the technical information of the tender document or withdrawing their offer after price bid opening, will be penalized as per BHEL guidelines on suspension of business dealings with suppliers/ contractors. Abridged version of the guideline is available in www.bhel.com.
- It is advised that all the documents to be submitted are kept scanned or converted to PDF format in a separate folder on your computer before starting online submission.
- The qualification of vendors will be based Pre-Qualification Requirement (PQR) document. Subsequently techno-commercial evaluation will be done; hence, it is mandatory to submit the documents sought in PQR, else, your offer will not be evaluated.
- Deviations, if any, may be indicated in the Sub-Delivery Enquiry Deviation Format.
- Customer approval of Bidder is applicable. Techno-commercially qualified Bidders will be asked to submit the credentials for customer approval. The Part-2 bids (Price bid) of the Bidder will be opened, subject to fulfilment of Pre-Qualification Requirement, successful techno-commercial (Part-1 bid) evaluation and Customer acceptance, based on the submitted credentials.
- The Annexure-A {Additional Terms & Conditions (ATC)} & Annexure-B {Vendor Details Questionnaire} shall be submitted.
- Any pre-bid query, kindly contact: Mr. Kevin Ark Kumar, Manager/Materials Management/BOI Tel: 0431-2578109, email: kevin@bhel.in; Mr. N Mohan, Deputy Engineer/Materials Management/BOI Tel: 0431-2577446, email: mohann@bhel.in and get your queries cleared before submitting the offer in EPS.
- DISCLAIMER CLAUSE: Neither Bharat Heavy Electricals Ltd nor the service provider for e-tendering is responsible for any failure of submission of bids, due to failure of internet or other connectivity problems or reasons thereof.
- It is mandatory to upload / submit this combined document, filled up with sign & seal on all the pages, else offer will not be evaluated.

For Bharat Heavy Electricals Limited

Kevin Ark Kumar

Manager / Materials Management

Fourth floor, 24 Building

B.H.E.L., Tiruchirappalli – 620 014, Tamil Nadu

Phone: 0431-2578109 / Email: kevin@bhel.in

	CONTROLS & INSTRUMENTATION (FB) PRE-QUALIFICATION REQUIREMENT (PQR)	CI:PE:PQR: SOV Rev. No: 00 Dt. : 09-09-2021
---	--	--

SOLENOID VALVES

Sl. No.	Description	Bid Requirements	Compliance
1	Past experience / Reference Projects	Vendor to submit signed copy of the reference list of projects, where the offered Solenoid Valves were supplied earlier in the past three years. The reference list should contain the following details: Name of the projects, Size, Material, quantity of fitting and contact details along with relevant PO copies.	1.Reference List Submitted / Not Submitted 2. PO Copies Submitted / Not Submitted
2	Service & Spares support	Spares & service support shall be available in India.	Available / Not Available

Sign & Seal of Company

Note:

This PQR & above mentioned requisite documents shall be mandatorily submitted along with the offer for evaluation.

ANNEXURE-A**ADDITIONAL TERMS & CONDITIONS (ATC)**

Description of the Material		SOLENOID VALVES FOR DVC R&M PROJECTS
BHEL Tender No.		GEM/2021/B/1513598
GENERAL INFORMATION		
The bidder has to keep track of any changes by viewing the Corrigendum's issued by the Buyer on time-to- time basis in the Government e Marketplace (GeM) portal. The Company calling for tenders shall not be responsible for any claims/problems arising out of this. Any pre-bid query, kindly contact: Mr. Kevin Ark Kumar , Manager/Materials Management/BOI Tel: 0431-2578109, email: kevin@bhel.in ; Mr. N Mohan , Deputy Engineer /Materials Management/BOI Tel: 0431-2577446, email: mohann@bhel.in .		
Sl. No.	Terms and conditions	Vendor's confirmation
1	Firm Price: The quoted / finalised rates shall be Firm till execution GeM Contract.	Accepted
2	The tender is floated as a Single Package. There will be no Splitting of quantity.	Accepted
3	Delivery term: F.O.R basis Inclusive of Packing, Forwarding, Freight & GST upto Destination. Insurance is in BHEL Scope	Accepted
4	Guarantee / Warranty Period : Guarantee / Warranty clause is 18 months from the date of delivery or 12 months from the date of actual put in use; whichever is earlier.	Accepted
5	Delivery Period: 60 days from manufacturing clearance / document approval. Vendor quoted delivery period shall include all activities i.e. manufacturing / production, Inspection, Packing, Forwarding, dispatch. (15 DAYS FOR DOCUMENT APPVL)	Accepted
6	Techno-Commercial bids of vendors will be evaluated; however, the Price bid will be opened, subject to our customer's approval, else the offer will be rejected. Vendors shall submit credentials for taking up with customer, for their approval.	Accepted
7	Document Submission (to be uploaded in GeM) 1. The documents called for in Pre-Qualification Requirement (PQR) shall be mandatorily submitted. 2. All the technical documents which have been attached along with this tender i.e Specification, Drawings, Data Sheet, QP, packing procedure etc..; signature to be endorsed on all pages with company seal on all Technical documents & Sub-delivery enquiry deviation format. 3. Filled-in/signed Annexure-A, ATC: ADDITIONAL TERMS & CONDITIONS. (Mandatory for Commercial evaluation) 4. Filled-in / signed Annexure B (Vendor questionnaire) 5. If MSE vendor, please attach Udyam Regn Certificate. 6. Self-Certification for Make In India Clause as per Format.	Submitted/ Not Submitted
8	Any deviation on technical/QP/packing requirements shall specifically be indicated in the "sub-delivery enquiry deviation format" attached along with the enquiry. Deviations / clarifications declared elsewhere will not be evaluated. Also, any deviations from the commercial terms and conditions shall be clearly spelt out in this format itself. Deviations / clarifications declared elsewhere will not be evaluated. Deviations taken, if any, by vendor as per our requirement above shall be clearly got accepted by BHEL in writing during enquiry stage itself. In the event of an order no deviations, unless accepted by BHEL in writing during enquiry stage will be entertained and all other techno-commercial requirements will be binding on successful bidder and failure to execute the terms will lead to disciplinary action by BHEL against the said bidder.	No Deviation Format Submitted/ Not Submitted
9	Technical / commercial clarification, if any, will be initiated through EPS / email. Vendor to respond to the clarifications within 2 working days. If the vendor fails to respond, even after three reminders, then the vendor will be considered as non-responsive and the offer is liable to be rejected.	Accepted

10	RISK PURCHASE: In case of abnormal delays (beyond the maximum late delivery period as per LD clause) or non-fulfilment of any other terms and conditions given in work order, BHEL may cancel the work order in full or part thereof, and may also make a contract of such work/service from elsewhere / alternative source at the risk and cost of the original contractor. BHEL will take all reasonable steps to complete the contract obligations from alternate source at optimum cost. If bidder does not agree to the above Risk Purchase Clause, BHEL reserves the right to reject the offer. In case for compelling reasons BHEL accepts the offer without acceptance of this clause by the bidder and in the eventuality of Risk Purchase, appropriate action will be taken as per BHEL extant rules. This will be without prejudice to any other right of BHEL under the contract. Risk & cost clause, in line with conditions of contract may be invoked in any of the following cases: 1. Contractor's poor progress of the work vis-à-vis execution timeline as stipulated in the contract, backlog attributable to contractor/ supplier including unexecuted portion of work/ supply does not appear to be executable within balance available period (#) considering its performance of execution. 2. Withdrawal from or abandonment of the work by contractor before completion of the work as per contract. 3. Non completion of work / Non-supply by the contractor within scheduled completion/delivery period as per contract or as extended from time to time, for the reason attributable to the contractor. 4. Termination of contract on account of any other reason (s) attributable to contractor. 5. Assignment, transfer, subletting of contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL. 6. Non-compliance to any contractual condition or any other default attributable to contractor. Risk and Cost amount against balance work will be calculated as follows: Risk & Cost Amount= [(A-B) + (A x H/100)] Where, A= Value of Balance scope of Work/ Supply (*) as per rates of new contract B= Value of Balance scope of Work/ Supply (*) as per rates of old contract being paid to the contractor/ supplier at the time of termination of contract i.e. inclusive of PVC & ORC, if any. H = Overhead Factor to be taken as 5 In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero). *(Balance scope of work/ supply) Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work/ Supply for calculating risk & cost amount. Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities. Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities as per issued drawings would be deemed to be contract quantities. Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose. Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions. However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose. NOTE: In case portion of work is being withdrawn, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work/supply' for calculating Risk & Cost amount.	Accepted
11	PO Acknowledgement: Within 7 days from the date of issue of GeM contract.	Accepted
12	Fraud Prevention Policy Suppliers involving in fraudulent practices or delayed supply (or) non-Supply will be dealt with provision as indicated in "Guidelines for Suspension of Business Dealings with Suppliers / Contractors" which is hosted in website www.bhel.com. The offers of the bidders who are under suspension as also the offers of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL web site www.bhel.com. 1.0 Integrity commitment, performance of the contract and punitive action thereof: 1.1 Commitment by BHEL: BHEL commits to take all measures necessary to prevent corruption in connection with the tender process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in transparent and fair manner, and with equity. 1.2 Commitment by Bidder / Supplier / Contractor: 1.2.1. The bidder / supplier / contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India. 1.2.2. The bidder / supplier / contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issues from time to	Accepted

	time by Govt. of India / BHEL. 1.2.3. The bidder / supplier / contractor will perform / execute the contract as per the contract terms & Conditions and will not default without any reasonable cause, which causes loss of business / money / reputation, to BHEL. If any bidder / supplier / contractor during pre-tendering / tendering / post tendering / award / execution / post-execution stage indulges in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then action may be taken against such bidder / supplier / contractor as per extant guidelines of the company available on www.bhel.com and / or under applicable legal provisions.	
13	Repair & replacements: Within the guarantee period vendor has to replace / rectify the defective/ damaged items on free of cost within a reasonable time of reporting from our end. All incidental charges like freight, insurance and customs duty / GST are to vendor account only. The defective parts and components shall be collected by your Indian agent or / authorized person, only after completing the replacement / repairs. The defective parts / components will not be returned back to vendor works by us due to procedural problems.	Accepted
14	BHEL reserves the right to cancel / modify the tender, if the need so arises, without assigning any further notice or reason therefore.	Accepted
15	JURISDICTION: In case of any suit or other legal proceedings arising under or relating to this Contract, the courts at Trichy, Tamil Nadu only shall have the Jurisdiction and is only after exhausting the arbitration clause.	Accepted
16	SECURITY OF CONFIDENTIAL INFORMATION: The Contractor undertakes and agrees that he/it will not disclose or reveal in part or full the proprietary/confidential information, which terms shall mean and include patents, trademarks, service marks, registered designs, copyright, design rights, know-how, confidential information, trade and business names and any other similar protected information of BHEL received during negotiation or currency of the contract to any third party or governmental authorities without written permission from BHEL. In the event of termination or expiry of the contract, the contractor shall return all proprietary/confidential information to BHEL. This clause shall survive termination or expiry of the contract. All the input details: transmittals and sample drawings supplied for preparation of drawings are confidential information of BHEL for specific purpose only. The contractor shall never pass on / part with the information to anybody and shall maintain the secrecy of the information. As soon as the bills are certified by BHEL, all the relevant drawing files shall be erased from PCs and shall not be made use under any circumstances. BHEL reserves the right to initiate appropriate action including legal proceeds / termination of contract, recovery of damages, penalties etc., if the contractor is found guilty / wrong usage of the documents given by BHEL for any unauthorized activity.	Accepted

By signing this Annexure, the vendor consents the above Additional Terms & Conditions (ATC) are accepted, this Annexure-A, shall be binding between BHEL and the Vendor; and no other terms quoted / mentioned by vendor, elsewhere in the Offer / Quotation will be considered or accepted by BHEL.

This document is part of Tender terms & Conditions and shall be mandatorily uploaded along with the offer documents in GeM Portal in ATC.

ANNEXURE-B

1	GEM ID NO	BID NO : GEM/2021/B/1513598
2	ITEM	SOLENOID VALVES FOR DVC R&M PROJECTS

VENDOR DETAILS

SI No	DESCRIPTION	DETAILS TO BE FILLED
1.	VENDOR / FIRM NAME	
2.	BHEL VENDOR CODE (IF ANY)	
3.	QUOTATION REFERENCE & DATE	
4.	CONTACT PERSON NAME	
5.	CONTACT PERSON MOBILE NO	
6.	CONTACT PERSON EMAIL ID	
7.	WORKS ADDRESS & TELE NO	
8.	OFFICE ADDRESS & TELE NO	
9.	PAN NO	
10.	GST NO	
11.	MSE VENDOR / NON MSE VENDOR	MICRO / SMALL

Sign & Seal of Company

VENDOR QUESTIONNAIRE

Sl no	Terms	Questions	Vendor confirmation
1	HSN CODE	Pl mention	
2	GST	Pl Mention	%
3	MII	Pl mention the percentage of Local content	%
4	Attachments 1	Have you submitted the Udyam registration certificate? (applicable only for Micro & Small Enterprises)	Yes / No
5	Attachments 2	Have you submitted the point wise supporting documents required against Pre-Qualification Report (PQR)?	Yes / No
6	Attachments 3	Have you submitted the filled-in, signed / with company seal "NIL Deviation Format"?	Yes / No
7	Attachments 4	Have you submitted the signed / with company seal, all pages of "Technical Specification, Drawing, datasheet & Quality Plan" with respect to this tender along with your quoted offer?	Yes / No
8	Attachments 5	Have you submitted the filled-in, signed, sealed "Self declaration format for MII clause" as per format in your company letter head? (Indicate the % of Local Content)	Yes / No

PLEASE UPLOAD THIS DOCUMENT IN GEM PORTAL DULY FILLED SIGNED AND STAMPED ALONG WITH YOUR OFFER

PACKAGE DETAILS

ITEM-1 DESTINATION BHEL TRICHY STORES				
SL No.	MATL CODE	DESCRIPTION	UOM	QTY
1	L425819728201001	NORM ALLY CLOSED SOLENOID VALVE	NO	4.00
2	L425919728201001	NORM ALLY CLOSED SOLENOID VALVE	NO	4.00
3	L425919728201001A	NORM ALLY CLOSED SOLENOID VALVE	NO	4.00
4	L426119728201001	NORM ALLY CLOSED SOLENOID VALVE	NO	4.00
5	L426119728201001A	NORM ALLY CLOSED SOLENOID VALVE	NO	4.00
6	L4258S9728201001	NORM ALLY CLOSED SOLENOID VALVE	NO	2.00
7	L4259S9728201001	NORM ALLY CLOSED SOLENOID VALVE	NO	2.00
8	L4261S9728201001	NORM ALLY CLOSED SOLENOID VALVE	NO	2.00
		TOTAL		26.00
ITEM-2 DESTINATION BHEL TRICHY STORES				
SL No.	MATL CODE	DESCRIPTION	UOM	QTY
1	L425819728201002	NORM ALLY OPEN SOLENOID VALVE	NO	4.00
2	L425919728201002	NORM ALLY OPEN SOLENOID VALVE	NO	4.00
3	L425919728201002A	NORM ALLY OPEN SOLENOID VALVE	NO	4.00
4	L426119728201002	NORM ALLY OPEN SOLENOID VALVE	NO	4.00
5	L426119728201002A	NORM ALLY OPEN SOLENOID VALVE	NO	4.00
6	L4258S9728201002	NORM ALLY OPEN SOLENOID VALVE	NO	2.00
7	L4259S9728201002	NORM ALLY OPEN SOLENOID VALVE	NO	2.00
8	L4261S9728201002	NORM ALLY OPEN SOLENOID VALVE	NO	2.00
		TOTAL		26.00
1. Vendor has to quote for all the line items; Partial offer will be rejected. 2. The price shall be on FOR basis inclusive of Packing Forwarding, Freight & GST. 3. All the items shall be despatched to BHEL Stores Trichy. 4. This document is part of tender & shall be signed with company seal & uploaded along with other tender document. By signing this Annexure Vendor agrees to all the above points.				

SIGN / SEAL OF COMPANY

ITEM CATALOGUE-1	
ITEM	NORMALLY CLOSED SOLENOID VALVE
DESCRIPTION	2 Way, 2 Port Single Acting Normally Closed Solenoid Valve Port Size: 1/2" NPT(F) Technical Specification Ref.: TCI:DVC-LOT2/SOV/00 Quality Plan Ref.: QA:CI:STD:QP:11/05 Packing Procedure Ref.: QA:CI:STD:PR:04/03
UNIT OF MEASUREMENT	NUMBER

ITEM CATALOGUE-2	
ITEM	NORMALLY OPEN SOLENOID VALVE
DESCRIPTION	2 Way, 2 Port Single Acting Normally Open Solenoid Valve Port Size: 1/2" NPT(F) Technical Specification Ref.: TCI:DVC-LOT2/SOV/00 Quality Plan Ref.: QA:CI:STD:QP:11/05 Packing Procedure Ref.: QA:CI:STD:PR:04/03
UNIT OF MEASUREMENT	NUMBER

BHARAT HEAVY ELECTRICALS LIMITED

HIGH PRESSURE BOILER PLANT, TIRUCHIRAPALLI – 620 014

TECHNICAL DELIVERY CONDITIONS FOR SUB - DELIVERY COMPONENTS OF CONTROLS AND INSTRUMENTATION



TCI:DVC-LOT2/SOV

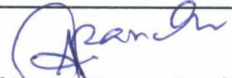
PAGE 1 OF 3

SOLENOID VALVES

for

Project: DVC Combustion Modification Package – LOT 2
Customer Nos.: 4258 to 4262

REVISION HISTORY

REV. No.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
00	06-02-2021	Initial Release	 (N.Rakesh)	 (N.Rakesh)	 (Aswini Kumar Panda)

1.0 TECHNICAL SPECIFICATION

Sl. No.	Characteristics	Requirements
1.0	Site Condition	
1.1	Altitude above mean sea level	110 m above MSL
1.2	Ambient temperature	49.5°C
1.3	Relative humidity	10 – 100 %
2.0	Solenoid Valve	
2.1	Operating Principle	Electromagnetic - Single Coil.
2.2	Power supply	24V DC $\pm$ 10%
2.3	Pick up voltage	85% of rated voltage
2.4	No. of ways & port	2 way 2 port, Direct Acting Solenoid Valve
2.5	Port size (all ports)	½" NPT(F)
2.6	Action	Normally Open or Normally Closed as per purchase enquiry requirement
2.7	Leakage Class	IV or better
3.0	Solenoid Coil	
3.1	Duty	Suitable for continuous energization.
3.2	Insulation Class	Class - H
3.3	Enclosure	Stainless steel, IP-65
3.4	Rating	Vendor to indicate in the offer
4.0	Material	
4.1	Body	Bronze or better
4.2	Plunger	SS 316 or better
4.3	Seat	Buna – N / Viton
5.0	Process Medium	
5.1	Medium	Air
5.2	Operating pressure	5 - 7 bar
5.3	Temperature range	0 - 70 °C
5.4	Flow	2 Nm ³ /min (vendor to select suitable orifice)
6.0	Other Requirements	
6.1	Manual operator/ Manual override	Not required.
6.2	Manual reset	Not required.
6.3	Electrical connection	½" NPT Cable Gland shall be supplied by the Vendor. Flying leads are not acceptable.
6.4	Tests	Seat leakage test/CV test/Coil insulation test



Sl. No.	Characteristics	Requirements
7.0	Documents	
7.1	To be submitted along with offer	a) Sub Delivery Enquiry Deviation Format indicating the Item Description, Technical Specification, Quality Plan, Packing Procedure references. b) Solenoid valve catalogue along with de-codification details.
7.2	To be submitted After Placement of Purchase Order for Approval	a) Data Sheets for Solenoid Valve. b) O&M along with data sheet & test certificates.
7.3	Quality Plan	QA:CI:STD:QP:11/05
7.4	Packing Procedure	QA:CI:STD:PR:04/03

Note:

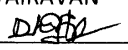
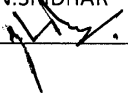
1. Vendor to duly sign and stamp for compliance/confirmation for the BHEL's specification.
2. In case of any deviation it shall be mentioned only in BHEL's Sub-Delivery Enquiry Deviation Format.
3. The entire system and accessories should not contain any asbestos material.



CONTROLS AND INSTRUMENTATION/QA/FB

STANDARD QUALITY PLAN FOR

SOLENOID VALVES

REV	DATE	PREPARED	REVIEWED	APPROVED	REVISION HISTORY
00	17/01/1990	Sd/-	Sd/-	Sd/-	Initial release.
01	16/06/1997	Sd/-	Sd/-	Sd/-	Format revised
02	21/03/2002	Sd/-	Sd/-	Sd/-	Dept. name changed. CTQ requirements added & General revision.
03	08/01/2004	Sd/-	Sd/-	Sd/-	Revised to include the comments/feedback of Internal discussion.
04	20/01/2009	Sd/-	Sd/-	Sd/-	Format Revised. Hydro test included.
05	15/03/2010	RM.VAIRAVAN 	RM.VAIRAVAN 	N.SRIDHAR 	Routine test revised



Sl. No	Component & Operation	Characteristics	Class	Type of Check	Quantum of check		Ref Doc. & Acceptance STD	Format of record	AGENCY			REMARKS
					M	B/C			M	B	C	
A	FINISHED PRODUCTS INSPECTION											
01	Routine tests	a.Physical verification for model, type and dimension	Major	MEAS	100%	20%	Spec. Drg, IS 8935	TR	P	W		
		b. Coil duty	Major	ELEC	Sample	Sample	Mfr Std.	TR	P	W		
		c. Port size (all ports)	Major	PHYS	100%	20%	Spec. Drg, IS 8935	TR	P	W		
		d. Mounting accessories	Major	PHYS	100%	20%	-Do-	TR	P	W		
		e. Power supply voltage variation test	Major	ELEC	100%	20%	-Do-	TR	P	W		
		f. Pick up voltage test	Major	ELEC	100%	20%	-Do-	TR	P	W		
		g. HV/IR test	Major	ELEC	100%	20%	-Do-	TR	P	W		
		i. Hydro test at 15 bar	Major	MECH	100%	20%	-Do-	TR	P	W		
		j. Seat leak test	Major	MECH	100%	20%	-Do-	TR	P	W		
		k. Functional test	Major	ELEC	100%	20%	-Do-	TR	P	W		
		l. Type, Insulation of Copper wire	Major	PHYS	100%	Sample	-Do-	TC	P	V		
02	Type test	a. Enclosure protection test	Major	ENVI	One of Design	One of Design	Spec., IS 60947 Pt.1	TC	P	V		
		b. Temperature rise test for coil	Critical	THER	-Do-	-Do-	Spec. IS 8935	TC	P	V		

B.NOTES:

1.LEGENDS:

THER	:	Thermal	MEAS	:	Measurement
MECH	:	Mechanical	ENVI	:	Environmental
ELEC	:	Electrical	TC	:	Test certificate
TC	:	Test Certificate	TR	:	Test Report

- The vendor at their works shall arrange all testing facilities. Tests for which facilities are not available are to be carried out at recognized National Test Houses like ETDC/CIL/NPL/ERTL etc., at vendor cost.
- Through Log Book / any other documents available at the vendor's works, it shall be possible to correlate the finished products with raw material and in process stage checks / inspection carried out.
- All Measuring & Testing Instruments shall be periodically calibrated from recognized test houses certificates made available during inspection for verification.

- Type test certificate shall not be earlier than 5 years from the date of Purchase enquiry.
- Vendor to give tentative inspection program in advance and confirm exact date two weeks in advance for arranging BHEL's inspection.
- Packing shall be as per the "PACKING PROCEDURE" indicated in the specification.

C. REFERENCE STANDARDS:

(For Indicated Standards Refer the Latest Version)

IS 8935	:	Actuators – Electric solenoid operated
IS 60947 pt.1	:	General rules for low voltage switchgear. (Degree of Enclosure protection offered by enclosures)
IS 4905	:	Methods of random sampling

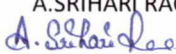
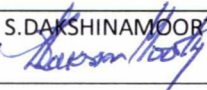
SQP11R5.doc

M - MANUFACTURER/ SUB-VENDOR; **B** - BHEL / TPI ; **C** - CUSTOMER / TPI
P - PERFORM ; **W** - WITNESS **V** - VERIFICATION ;

**BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPPALLI**

**CONTROLS AND INSTRUMENTATION / FB
QUALITY ASSURANCE**

**STANDARD PACKING PROCEDURE
FOR
ALL INSTRUMENTS AND MISCELLENEOUS ITEMS
(ELECTRICAL, ELECTRONIC AND PNEUMATIC)**

Rev	Date	Prepared	Checked	Approved	Revision History
00	01.01.96	Sd/-	Sd/-	Sd/-	Initial History
01	28.03.02	Sd/-	Sd/-	Sd/-	Department name changed
02	26.02.07	Sd/-	Sd/-	Sd/-	Revised after discussion with Shipping Dept.
03	17.12.16	A.SRIHARI RAO 	RM.VAIRAVAN 	S.DAKSHINAMOORTHY 	Revised to suit all type of instruments.

1. Scope

This procedure gives minimum guidelines to be complied with for packing of Electrical, Electronic and pneumatic Instruments. This packing shall be suitable for different handling operations and for the adverse conditions during transportation and during indoor / outdoor storage for period more than one year.

2. Material for packing

The individual instrument shall be packed in carton box (specifically made for particular instrument) and grouped together inside a box made of wood or plywood as per National / International standard.

3. Packing

- Items shall be inspected for cleanliness immediately before packaging. Dirt, oil, residue, metal chips or other forms of contamination shall be removed.
- Adequate protection shall be provided against mechanical damage and atmospheric corrosion in transit and, for equipment suitable for outside storage, for prolonged storage at the site prior to installation.
- Water proof barrier material – high density polythene shall be used as a resistant to grease and water; it shall protect items from airborne and windblown soils.
- Desiccants like silica gel to be used inside the carton box. Silica gel shall conform to IS 3401. The gel is to be packed in sachets placed at different positions inside the components for absorbing moisture. The quantity of silica gel shall be adequate for storage period of one year.
- All tapped openings in equipment shall be plugged with plastic plugs to protect internal / external threads.
- Use a sturdy cardboard shipping carton, large enough for at least 3 inch foam padding around the instrument.
- Do not use loose plastic foam pieces, which can shift during transport.
- Secure the box flaps with packaging tape or box staples.

3.1) Marking & Labelling:

- Components and their containers shall be identified by marking. Shipping marks shall be on all sides of package. The shipping marks shall be at least 3 inches high where space permits. Markings are to be in black paint or ink depending on shade of the package surface.
- Cautionary symbols to be stenciled in red waterproof paint or ink.

QA:CI:STD:PR:04 / Rev 03

- The gap between job and the box shall be filled with suitable material like jute, coir, thermo coal, etc.
- For export packing additional care shall be taken as per contract requirements if applicable. Otherwise, suitable box made of seasoned wood and / or plywood sheets of required thickness shall be used with suitable sea worthy packing protection.

4. Marking

- After completing the packing, Stencil marking, as per dispatch instructions and symbol marking as per Annexure – I shall be made. Please ensure the box is stenciled with “FRAGILE ITEM”, “HANDLE WITH CARE”.

5. Packing Slip

- A copy of the packing slip, kept in a polythene cover shall be kept inside the box. Another copy of the packing slip, kept in a polythene cover shall be kept outside the box and firmly fixed to the case.

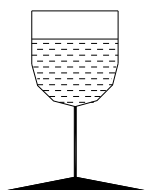
6. Caution

- Do not pack any other Mechanical items with this case.

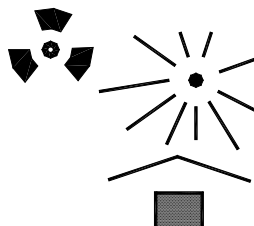
7. General

- These packing procedures are the minimum requirements in addition to the standard instructions mentioned in the Purchase Order and Specification.
- Deviation to meet the packing procedure requirements / non-clarity in packing approach in any quotation will be liable for rejection of offer.

ANNEXURE – 1



FRAGILE, HANDLE WITH CARE



PROTECT FROM HEAT AND RADIOACTIVE SOURCES



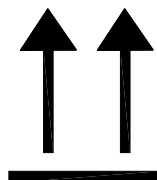
USE NO HOOKS

NOTE: The design of heavy goods packages cannot always resist top lifting by grabhooks.



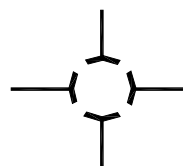
KEEP DRY

NOTE: Not all cases have waterproof internal liners: plywood used in the construction may not have a waterproof glue line.



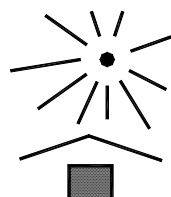
THIS WAY UP

NOTE: Certain designs of small cases make it difficult to distinguish top from bottom.

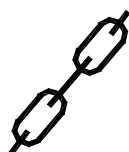


CENTRE OF GRAVITY

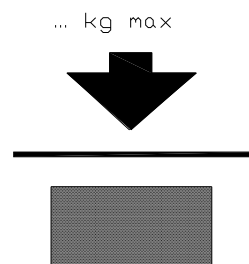
NOTE: This should be stencilled as a minimum on the two longest case sides (this information will normally be supplied by the manufacturer of the item(s) packed).



KEEP AWAY FROM HEAT



INTERNATIONAL "SLING HERE" SYMBOL



STACKING LIMITATION

NOTE: The maximum load in kilograms should be marked above the arrow.

		PURCHASE / MM / BOI ENQUIRY DEVIATION	
429-024		PAGE 1 OF 1	
SCHEDULE OF DEVIATION TO BOI ENQUIRY NO:		GEM/2021/B/1513598	DATE 13.09.2021
DESCRIPTION	SOLENOID VALVES FOR DVC R&M PROJECTS		
SPECIFICATION	TCI:DVC-LOT2/SOV/00		
QUALITY PLAN	QA:CI:STD:QP:11/05		
PACKING PROCEDURE	QA:CI:STD:PR:04/03		
DOCUMENT REFERENCE	BHEL ENQ. CALLED FOR	FIRM'S ALTERNATIVE OFFER	
CERTIFIED THAT OTHER THAN THE ABOVE DEVIATIONS, WE ARE ACCEPTING ALL THE OTHER SPECIFICATIONS AND REQUIREMENTS IN FULL TO YOUR ENQUIRY.			
STATION:			
DATE:		SIGNATURE OF FIRM'S REPRESENTATIVE	
		FIRM SEAL	
NOTE 1. Deviations should be taken only in the extreme case. 2. If necessary, use additional sheets with page control number.			

/ On Bidder's office letter pad /

Self-Declaration

Enquiry No.	
Enquiry Date	

In line with Government public procurement order Number P-45021/2/2017-B.E-II dated 15.06.2017, and further modified order dt.04.06.2020 issued by DPIIT,

I / We hereby declare that I / We are a "Local Supplier" meeting the requirement of minimum local content (.....%) defined in the above government notification for the goods against above mentioned enquiry Number.

Details of location at which local value addition will be made is as follows:

Door No.	
Street / Address 1	
Street / Address 2	
District	
State	
Country	
PIN Code	

We also understand that the false declarations will be considered as breach of Integrity and liable for action.

For Company Name:

Seal:

Signature:

Date:

Place:

(Please fill all the yellow color field)