



Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
PROJECT ENGINEERING MANAGEMENT

Enq No.: PE/PG/RTC/E-5560/2017

Date: 07.04.2017

TENDER ENQUIRY THROUGH E-PROCUREMENT

DUE DATE
April, 18, 2017
02:00 P.M.

Subject: Tender Enquiry for Rate Contract of Gun Metal Valves for one year

Dear Sir,

We are pleased to invite your tender offers for subject package. Please upload your best quotation/ offer in two (2) parts on <https://bheleps.buyjunction.in> for the requirement strictly as per schedule of price format before above mentioned due date & time. The details of the tender enquiry is as mentioned below:

Sl. No	Description for which Rate Contract is desired	Tentative Quantity	Delivery required
1	Gun Metal Valves - Refer Technical specification no PE-TS-020-100-M003 for detailed description.	As per BOQ cum price schedule in Annexure-I) cumulative for the Prospective Projects as per Annexure-III.	The delivery period shall be four (04) months from drawing/doc approval for respective project/requirement under the RC. Other schedules like submission of drawings, approval of drawings, inspection etc. shall be as per the Technical Specification no. PE-TS-020-100-M003. Any deficiency in documents submitted w.r.t. agreed specification/ comments from BHEL shall be treated as non-submission and no. of days delay in submission of complete documents during approval process, on account of this, would be reduced from the delivery. The vendor shall be responsible for getting approval from BHEL as early as possible and BHEL will support the process, in full, within above time frame and terms & conditions." Delays due to non-fulfilment of the requirements as specified in the specification shall be to the vendor's account. Vendors shall be informed that delivery period mentioned above is for contractual LD calculation purpose, however in case of exigencies BHEL may ask for early delivery.

Please reply to:
PEM -Power Sector
PPEI Building,
BHEL House
HRD & ESI Complex,
Plot-25, Sector-16-A NOIDA – 201301

Phone: 0120-4213591
Fax : 0120-4329026
e-mail: ncsharma@bhelpem.co.in

Regd. Office:

Siri Fort
New Delhi - 110049

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(i) Rate contract on firm price basis is proposed for one year from placement of Rate Contract PO.

(ii) Rate Contract will be finalized on total lump sum basis instead of item wise evaluation. There is % allocation weightage against BOQ quantity of each item which shall be used for arriving at price break up. Vendors to note that evaluation shall be done on CST basis, however in case, the entire business volume goes to one vendor (or volume of business shared between the vendors in line with enquiry) having manufacturing facility in the same state, then BHEL may do suitable amendment in PO on case to case basis for taking care the provision of VAT in case of project falling in the same State where manufacturing factory of the vendor is also located.

(iii) Bidders to note the following:-

- a) Rate contract shall be decided on the basis of grand Total FOR site price of Total BOQ as listed in price format (Annexure-I).
- b) Though evaluation is proposed on Grand Total FOR site, but there is % allocation weightage against BOQ quantity of each item which shall be used for arriving at price break up. Bidders need to give only their Ex Works price.
- c) Bidders also requires to mention % of taxes/ duties (against respective column for ED, CST & Service Tax etc.) applicable for each item of the BOQ.
- d) Bidder to give % of freight charges considering anywhere in India in the freight column.
- e) Rest of the prices shall be derived by BHEL in line with % allocation fixed for each item.
- f) For better clarity to the bidders where value is to be filled is noted as "to be quoted" and for other columns it will be noted as "derived" which denotes shall be derived by BHEL as per % allocation fixed against each item.

(iv) Refer Annex-I for tentative Qty of Gun Metal Valves required for prospective projects (refer Annex-III), however bidders to consider delivery anywhere in India. Quantity variation shall be applicable in line with cl. no. 6 of GCC rev-06. Project list is indicative only, BHEL may ask for delivery anywhere in India for any of the project added in the prospective project list for existing projects during RC period.

(v) Rate Contract is proposed to be done with 2 vendors in ratio of 60:40 value wise at L1 FOR site price for Gun Metal Valves (% of splitting of RC between 2 vendors may be changed during ordering process if L1 bidder is not customer approved); however order for a project shall NOT be split the same shall be informed to bidders through NIT.

(vi) L1 rates shall be counter offered to vendors (L2, L3 & so on) in succession. If none accepts L1 rates, RC shall be done with L1 vendor for 100 % value. Since the rate contract is being proposed on two vendors, vendors shall be asked to quote prices with CST against form C and same state ordering shall not be done to save VAT.

(vii) Drawings/ documents, equipment manufacture inspection & dispatch requirement will be as per Technical Specification no. PE-TS-020-100-M003.

(viii) **Pre-Qualifying Requirements (PQR):** All the bidders (registered/ non-registered) to submit documents fulfilling PQR requirements (as per enclosed annex-IV) with the bid & their further evaluation shall be done based on qualification in PQR.

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(ix) Bidders to note that their bid shall be conditional subject to qualify PQR by registered vendors & non-registered vendors have to qualify PQR & get registered with PEM for the package.

For registration in PEM "Bidders needs to apply & get registered for subject package with PEM before P-2 (price bid opening) & **hence you need to apply online for registration on PEM web portal & have to enclose acknowledgement with this effect with the bid documents else your bid will not be considered for evaluation**"

Online Registration Portal is operational in BHEL. Non-registered Vendors, who wish to apply for registration with BHEL-PEM, have to apply through Online Registration Portal available at www.bhelpem.com → vendor section → Online Supplier Registration. All credentials and/or documents duly signed and stamped related to registration has to be uploaded on the website and submit the application for registration. One set of hard copy of the filled-up SRF downloaded from Online Registration Portal duly signed and stamped has to be submitted.

(x) Bidders are required to submit offer strictly in accordance with the requirements of the above tender documents. Deviations (Technical as well as Commercial) from NIT are generally not acceptable, if any, Technical deviations and Commercial deviations shall be furnished in "Cost of Withdrawal sheet" (as per Annexure-II of GCC Rev. 06, copy enclosed) **only under the headings "TECHNICAL DEVIATIONS" and "COMMERCIAL DEVIATIONS"** respectively, along with reasons for taking such deviations. Deviations (Technical & Commercial) taken other than as mentioned on cost of withdrawal sheet shall not be considered.

(GCC Rev. 06 is available on <http://www.bhelpem.com/Documents/GCC/GCC-Rev-06.pdf> , you are requested to kindly download the same).

Tender Enquiry Terms and Conditions: -

- Offers should be submitted in two parts online at <https://bheleps.buyjunction.in> as follows:
Part-I: TECHNO-COMMERCIAL BID (along with un-priced copy of Annexure-I)
Part-II: PRICE BID (along with priced copy of Annexure-I)
- For detailed instructions, please see clause no. 2 of "Instructions to Bidders" of GCC, Rev. 06.
- No Technical & Commercial deviations are acceptable.
- Standard pre-printed terms & conditions of the tenderers shall not be considered valid.
- Bidder to submit complete tender in all respects duly signed & stamped on each and every page by the authorized signatory of the bidder as a token of acceptance of all the terms and conditions of tender.
- Unsolicited fresh/ revised price bids shall not be entertained.
- Tender will be opened at **03.00 PM on 18/04/2017**.
- Purchaser shall be under no obligation to accept the lowest or any other tender and shall be entitled to accept or reject any/ all tender(s) in part or full without assigning any reason whatsoever.

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9. Purchaser reserves the right to split up the scope of the tender enquiry and place the orders for different scope/ items with different bidders and also increase or decrease the quantity.
10. **BHEL reserves the right to go for Reverse Auction (RA)** (Guidelines as available on www.bhel.com) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. Bidders to give their acceptance with the offer for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.
- Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit 'Process compliance form' (to the designated service provider) as well as 'Online sealed bid' in the Reverse Auction. Non-submission of 'Process compliance form' or 'Online sealed bid' by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com).

The bidders have to necessarily submit online sealed bid less than or equal to their envelope sealed price bid already submitted to BHEL along with the offer. **The envelope sealed price bid of successful L1 bidder in RA, if conducted, shall also be opened after RA and the order will be placed on lower of the two bids (RA closing price & envelope sealed price) thus obtained. The bidder having submitted this offer specifically agrees to this condition and undertakes to execute the contract on thus awarded rates.**

If it is found that L1 bidder has quoted higher in online sealed bid in comparison to envelope sealed bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender in the unit, it will be considered as fraud and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com)."

As a reminder to the bidders, system will flash following message (in RED Color) during the course of 'online sealed bid':

"Bidders to submit online sealed bid less than or equal to their e-procurement sealed bid already submitted to BHEL"

Detailed guidelines of **reverse auction 2016** are available in "information section" of www.bhelpem.com, same are applicable for subject tender.

The Bidders has to quote the Single Price (i.e. Total Cost to BHEL) in Reverse Auction i.e. Price mentioned in Sl. no-A.4, column -8 (refer Annex-I, Price Format) for indigenous bidders with loading/de loading (if any). Price are to be inclusive of Packing & Forwarding charges, all the routine & type tests as per tender scope, ED + cess, CST against C-form/VAT, Freight as applicable, including loading (if any). De-loading (if any) shall be done in line with NIT terms.

Various Conditions, arrived after Reverse Auction, shall be treated as follows:

Case-I (Taxes & duties and freight are identical in Reverse Auction & Conventional Price Bid)

Resolution: - Ordering shall be done on lower of the two bids (RA closing price & Conventional Price Bid). After successful completion of reverse auction L1 bidder shall be asked to submit break up in line with taxes & duties, freight quoted in their Conventional Price Bid.

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Case-II (In case Bidder has quoted 'CST' in Conventional Price Bid and applicable Tax is 'VAT')

Resolution: - "Total Cost to BHEL shall be maintained by reducing proportion amount in Ex-works quoted by Bidder".

Case-III (In case Bidder has quoted 'VAT' in Conventional Price Bid and applicable Tax is 'CST')

Resolution: - Conventional Bid/RA quoted Prices shall be reduced and CST will be allowed.

Statutory variation shall be applicable. Any new tax structure (like Goods & Services Tax) as and when implemented by the Government shall become applicable in addition to or in lieu of existing tax structure.

Note: - Applicable taxes & duties shall be determined as per location of works of bidder.

11. **Tenders should be submitted ONLINE via e-Procurement System only**, however, all correspondence thereof, shall be addressed to the undersigned by name & designation and sent at the following address :

Mr. N.C Sharma, Sr.ENGR/MM e-mail : ncsharma@bhelpem.co.in Ph. No. 0120- 4213591	Mr. I P Singh, Sr. Mgr./ CMM e-mail: INDRA@bhelpem.co.in Ph. No. 0120-4368749
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However, for **Technical clarifications**, following persons may be contacted:

Mr. SHIV BAHADUR VERMA, Sr. ENGR./MPL e-mail: gauravdixit@bhelpem.co.in Ph. No.0120- 4283590	Ms RASHMI PRASAD, MGR/MPL e-mail : rashmiprasad@bhelpem.co.in Ph. No.0120- 4368943
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12. If any bidder uploads price bid in the unpriced section (techno-commercial attachment page) of the tender in e-procurement, in that case bidder(s) shall only be responsible for such mistake and any consequences thereof. Hence all bidders are requested to be more careful at the time of uploading the Unpriced and Price Bid for Part-I and Part-II respectively to avoid mismatch.
13. Any taxes and duties applicable on the date of bid but not quoted by the bidders shall be to the bidder account.
14. Delivery terms for dispatches shall be FOR Dispatch Station.
15. CIF is not available for this package.
16. Bidders to submit their offers strictly in line with the enclosed Price Format (Annexure-I).
17. This enquiry is subject to Conditions/ limits if any imposed in PMD / Vendor registration.
18. Procurement of the subject package shall be done through e-procurement.
19. All corrigenda, addenda, amendments, time extensions, clarifications etc. to the tender will be hosted on EPS website (<https://bheleps.buyjunction.in>), BHEL website (www.bhel.com), BHEL-PEM website (www.bhelpem.com) & CPP Portal. Bidders should regularly visit websites to keep themselves updated.
20. Foreign and indigenous bidders participating through open tender will necessarily have to buy class III DSCs issued by the certifying authorities in India for future tenders. Basic procedure

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/checklist has been uploaded on www.bhel.com for participating in tender enquires through e-procurement.

21. Bidder to note that all other terms and condition shall be strictly as per NIT, GCC Rev. 06 & SCC. In the event of any contradiction in the terms and conditions mentioned, the order of preference shall be NIT (this letter) / SCC / GCC Rev. 06.

NOTE: In case you are not making an offer against this enquiry, you are requested to send a regret letter so as to reach us on or before the due date.

Thanking you,
Yours faithfully,
For and on behalf of BHEL

N.C Sharma
Sr.ENGR/ MM

Enclosures:

- a) NIT (this letter itself)
- b) Technical Specification No. PE-TS-020-100-M003
- c) Annexure-I: Price Format
- d) Annexure-II: Special Conditions of Rate Contract (SCC).
- e) Annexure-III: List of prospective projects
- f) Annexure-IV: PQR (Pre-qualifying Requirement)
- g) Cost of Withdrawal sheet (Annexure-II of GCC Rev. 06) & PBG Format

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ANNEXURE-I

PRICE SCHEDULE FORMAT- RATE CONTRACT FOR GUN METAL VALVES

S.No	Description of equipment / item	Quantity (nos./sets)	UNIT PRICE EX-WORKS (DULY PACKED) (Rs)	TOTAL PRICE EX-WORKS (DULY PACKED) (Rs)	ED @ % (including cess) (Rs.)	CST @ % (Rs) against from C and form E	FREIGHT CHARGES @ % of Ex- work (including Service Tax) (Rs.)	TOTAL F.O.R. SITE PRICE (Rs.)	% allocation of ex-works value for each item for total BOQ at col. 2
	1	2	3	4	5	6	7	8	9
A.1	GM HOSE(GLOBE) VALVE-25 NB MANUAL	164	Derived	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	61.12
A.2	GM GLOBE VALVE-25 NB MANUAL	115	Derived	Derived	% TO BE QUOTED	% TO BE QUOTED	% TO BE QUOTED	Derived	38.58
A.3	COMMISSIONING SPARES FOR GM VALVE-25 NB MANUAL	36	Derived	Derived	% TO BE QUOTED	% TO BE QUOTED		Derived	0.30
A.4	Grand Total (sl. A.1 to A.3):			To be quoted	Derived	Derived	Derived	Derived	
Note:	Main valve prices shall BE EXCLUSIVE of cost of Commissioning Spares prices.								
1	Commissioning spares --> One set of Gland Packing								
2	For detailed design parameters & material of construction refer pages 1 & 2 of Datasheet-A of Technical specification.								
3	Bidders are also required to inform full CST & VAT value in case of BHEL is not able to provide forms to avail concessional taxes (it is for future reference only).								
4	Bidder to quote individually against all the items mentioned in the Priced schedule. Offers with incomplete price schedule are liable to get rejected.								
5	Value is to be filled only where "to be quoted" is mentioned and for other columns where "derived" is mentioned same shall be derived by BHEL as per % allocation fixed (refer col. No. 9) against each item.								
6	Bidder to note that total price indicated above at A.4 shall be considered for evaluation and hence should be complete in all respect for the full scope defined and considering all terms and conditions agreed.								
7									
	(Bidder's Seal & Sign)								

Annexure-II- Special Condition of Rate Contract for Gun Metal Valves

1. BHEL/PEM intends to enter into Rate Contract for the tendered qty. of Gun Metal Valves for a period of one year. The Rate Contract shall come into force from the date of issue of Purchase order for Rate Contract. Validity for ordering shall be one year from the purchase order for Rate Contract.
2. The items will be required against respective projects. Exact quantities and Project name shall be intimated while placing order for a specific project based on the Rate Contract.
3. The units rate for each item should be quoted inclusive of ex-works including packing & forwarding (excepted sea worthy packing) for tendered specifications/sizes as per price schedule format. Other elements of prices such as Excise Duty, Sales Tax, and freight charges (Including service tax) % of Ex-works are also to be indicated. Destination may be anywhere in India as per project requirement.
4. The freight charges shall be paid on percentage on ex-works prices or actual freight charges paid to transporter whichever is lower against production of documentary evidence. Vendor to quote freight charges as percentage (%) of ex-works price for destination anywhere in India.
5. Vendor to note that Excise Duty is payable on self manufacturing item only as per clause no 4.1.2 of GCC Rev 06 & hence for their BOI may quote Excise Duty is inclusive or Nil.
6. The prices shall remain firm during the period of one year.
7. Inspection of materials shall be carried out by BHEL / CQA and or by Customer or by an authorized agency at manufacture's works before dispatch, if required. Dispatch of material to be done, only after receipt of BHEL/Customer MDCC. It is responsibility of vendor to for obtain Material Dispatch Clearance Certificate (MDCC) from BHEL or CUSTOMER as required before dispatch of material.
8. Items have to be manufactured as per specification and supplied strictly in accordance with the approved BHEL / Customer's Drawings & Quality Plan. The items/ test certificate of items, which for any reason are not acceptable to BHEL / Customer, shall be required to be retested. No extra charge shall be payable on those account by BHEL.
9. Mode dispatch shall be by road through Schedule Bank/BHEL (PEM) approved transporters.
10. Other terms and conditions shall be as per Standard Technical specification no. PE-TS-020-100-M003, GCC Rev 06 & Enquiry letter.
11. Order shall be placed with CST for respective projects keeping FOR site price same, vendors to quote accordingly.
12. This enquiry is subject to Conditions/ limits if any imposed in PMD/ Vendor registration.
13. Tentative quantity is given in enquiry.
14. Bidders to submit offer for RC of said items ONLINE via e-Procurement System only. Complete tender in all respects duly signed & stamped on each and every page by the authorized signatory of the bidder as a token of acceptance of all the terms and conditions of tender.
15. The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendor/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL web site <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud as soon as it comes to their notice.



Annexure-III

List of Prospective Projects:

1. 2X660MW ENNORE SEZ STPP
2. 1X525 MW TUTICORIN TPS
3. 2X800MW UPPUR STPP

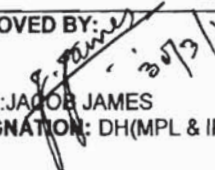
A handwritten signature in black ink, consisting of a stylized 'K' or similar character.

Annex-IV

	PRE - QUALIFYING REQUIREMENTS	DOCUMENT NO: PE-TS-020-100-M051
		REVISION NO: 00 DATE: 30.03.2017
		SHEET: 1 of 2

Standard document No.: PE-TS-999-000-M051

Enquiry No (To be filled by CMM):
Project: Framework Agreement
Package: Gun Metal Valves
<u>CRITERIA FOR EVALUATION (TECHNICAL / FINANCIAL):</u>
1. Technical Pre-Qualifying Requirements: 1.1 The bidder should have designed, in-house manufactured, tested, inspected and supplied valves (as mentioned below) for use in a power plant or for similar application. a. <u>Gun Metal gate/globe/NRV</u> Gun metal gate, globe and NRV of minimum size of 25NB and min. #PN 16.0. <i>Supplier to fulfill the PQR of Gate, Globe and NRV packages individually.</i> 1.2 The item(s) mentioned in point 1.1 should have performed successfully for atleast one year. To establish meeting this requirement, the bidder shall conform to any one of the following clauses: (i) Execution of two purchase orders for different End-users with the item(s) performing successfully for one (1) year from date of commissioning. Different projects of a customer shall be considered as different End-users. (ii) Minimum one (1) repeat contract from two (2) different Purchasers (i.e. 2 Nos of Purchase orders from each purchaser). A contract shall be considered as repeat, when the second contract is given by the same purchaser after lapse of minimum one (1) year from supply completion of first contract. (iii) Execution of one (1) purchase order as per sl. no. (i) above from one End-user and one (1) repeat contract from another Purchaser as per sl. No. (ii) above. (iv) Three (3) repeat contracts from one (1) Purchaser. Second and third repeat contract shall be after lapse of minimum one (1) & two (2) years respectively from supply completion of first contract. 1.3 The bidder to furnish the following documents, as applicable, in support of the above: a) For point 1.2(i): Performance certificates from End-user (duly signed & dated) specifying that the product is performing successfully for one (1) year from date of commissioning along with correlated purchase order(s). b) For point 1.2 (ii) & (iv): Purchase order(s), Material dispatch clearance certificate (MDCC)/ Material receipt certificate (MRC)/Lorry receipt (LR).

PREPARED BY:  NAME: Shiv Bahadur Verma DESIGNATION: Sr. Engr. DEPT.: PS-PEM/ MPL	REVIEWED BY:  NAME: Rashmi Prasad DESIGNATION: Mgr. DEPT.: PS-PEM/ MPL	APPROVED BY:  NAME: JACOB JAMES DESIGNATION: DH(MPL & IPDS)
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PRE - QUALIFYING REQUIREMENTS

DOCUMENT NO: PE-TS-020-100-M051

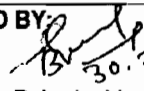
REVISION NO: 00 DATE: 30.03.2017

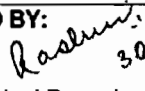
SHEET: 2 of 2

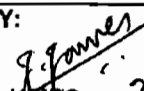
Note: In case vendor has executed contract (s) for BHEL-PEM, internal assessment by BHEL-PEM shall be considered for evaluation for satisfactory performance. For this, vendor to submit a request along-with relevant documents.

1.4 To establish business continuity, bidder is required to submit atleast two (2) Purchase order for any of the item(s) as specified in data sheet-A of technical specification for min size of 15NB in last 3 (three) years prior to the date of bid submission defined by BHEL-PEM.

2. Supplier to also comply with general PQR available at internet site of BHEL-PEM.

PREPARED BY: 
30.3.2017
NAME: Shiv Bahadur Verma
DESIGNATION: Sr. Engr.
DEPT.: PS-PEM/ MPL

REVIEWED BY: 
30.3.17
NAME: Rashmi Prasad
DESIGNATION: Mgr.
DEPT.: PS-PEM/ MPL

APPROVED BY: 
30/3/17
NAME: JACOB JAMES
DESIGNATION: DM (MPL & IPDS)

FRAMEWORK AGREEMENT

TECHNICAL SPECIFICATION FOR GUN METAL VALVES

SPECIFICATION NO. PE-TS-020-100-M003



**BHARAT HEAVY ELECTRICALS LIMITED, POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA, INDIA**

	TECHNICAL SPECIFICATION GUN METAL VALVES FRAMEWORK AGREEMENT	SPECIFICATION NO. PE-TS-020-100-M003	
		SECTION: -	
		REV. NO.: 00	DATE: 23.03.2017
		SHEET 1 OF 1	

CONTENTS

S No.	SECTION	TITLE	NO. OF SHEETS
1.	SECTION-I	SPECIFIC TECHNICAL REQUIREMENTS	4
2.	SECTION-II	i) DATA SHEET-A	2
		ii) QUALITY PLAN	4
		iii) COMPLIANCE SHEET	1

	SPECIFIC TECHNICAL REQUIREMENTS FOR GUN METAL VALVES	SPECIFICATION NO. PE-TS-020-100-M003 SECTION: I REV. NO. 00 DATE. 23.03.2017 SHEET 1 OF 4
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1 GENERAL

- 1.1 The valves shall meet the technical requirements and conform to the requirements of Section-I and Data sheet-A of Section-II. However, in the event of contradictions between Section-I & Section-II/Data Sheet-A, Data Sheet-A will prevail.
- 1.2 The technical requirements for valves shall, in general, be as per the attached Data sheet A of Section-II.

2 SCOPE OF SUPPLY

- 2.1 The valves complete with all accessories shall be supplied as per Data sheets A of Section-II. For detail refer the same. Each valve (quantity and other details specified in Data Sheet-A) shall be complete with the following accessories.
 - i) Lifting arrangement provision for handling i.e., lifting lugs, eye bolts etc.
 - ii) Actuators and limit switches as required to make valve complete in all respects.
- 2.2 Commissioning spares, if any.
- 2.3 Set of special tools and tackles if required for the maintenance, erection etc. of the equipment supplied.
- 2.4 Mandatory spares as applicable depending upon the project requirement.
- 2.5 Finish paints for touch-up painting of equipment after erection at site in sealed containers.

3 CODES AND STANDARDS

- 3.1 The design, material, construction features, manufacture, inspection and testing of valves shall conform to the latest applicable codes and standards.
- 3.2 The valves covered under this specification shall have sizes from 15mm NB to 50mm NB and shall be as per the latest editions of IS:778 /BS:5154 and shall be of class2 / PN 16 minimum.
- 3.3 In case of any conflict between the above codes/ standards and this specification, the latter shall prevail and in case of any further conflict in the matter, the interpretation of the specification by the Engineer shall be final and binding.

4 DESIGN REQUIREMENTS

These valves shall be used for non-corrosive media like cooling water service, drain from compressed air piping etc. as specified in Data Sheet- A. All valves shall be suitable for service conditions i.e. flow, temperature and pressure under which they are required to operate and those performing similar duties shall be interchangeable with each other unless otherwise specified.

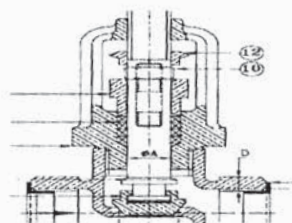
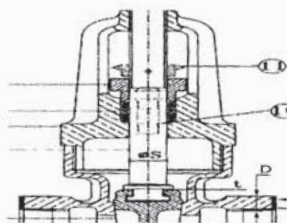
5 MATERIALS

- 5.1 The materials of construction of main parts of the Gate, Globe, and non-return valves shall be as specified in Data Sheet-A.
- 5.2 The materials of construction of the remaining parts shall be as per the relevant standard governing the valves and to suit service conditions. These materials shall be subject to purchaser's approval.

6 CONSTRUCTION FEATURES

- 6.1 The valves covered under this specification shall have screwed ends and shall be provided with female parallel / taper threads. Bonnet shall be screwed in / union yoke type. Valve ends shall be screwed female/ male parallel threads as per IS 554/ ANSI B1.20.1 as specified in Data Sheet-A.
- 6.2 All gate and globe valves shall be provided with yoke type screwed- in bonnet and shall be of rising stem, outside screw as indicated in the sketches below. Joint of bonnet with body shall be metal to metal.

S बी एच ई एल 	SPECIFIC TECHNICAL REQUIREMENTS FOR GUN METAL VALVES	SPECIFICATION NO. PE-TS-020-100-M003	
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- 6.3 The type of non-return valves shall piston lift type designed suitably with disc lift smooth & fully guided. Piston lift non return valves shall also be provided with screwed- in cover. Joint of cover with body shall be metal to metal.
- 6.4 The valves covered under this specification shall have seats as an integral part of the body.
- 6.5 All globe and Non-return valves shall have an arrow indicating the direction of flow cast or embossed on the valve body. The direction of flow for globe valves shall be from under to over the disc.
- 6.6 Discs of globe valves which are detachable or two piece construction shall be of such design that they do not become detached from the spindle while in service. Discs of globe & lift check valves shall be guided to ensure correct alignment.
- 6.7 All Globe valves shall preferably be provided with radiused/ spherical/ angular faced disc seatings. The disc shall be secured with stem with disc nut or with such an arrangement that the disc shall be free to revolve. Disc of compressed air system globe valves shall be provided with renewable synthetic rubber seating ring of hardness $60^{\circ} +5/-0$ Shore A.
- 6.8 All gate and globe valves shall be offered with back seating arrangement for replacement of gland packing when the valves are full opened and while working under full working pressure. Back seats shall be provided on both bonnet and stem.
- 6.9 Gate and globe valves shall be supplied with mechanical position indicator for OPEN and SHUT position.
- 6.10 All gate and globe valves shall be closed by rotating the handwheel in the clockwise direction when looking at the face of the handwheel. The face of each handwheel shall be clearly marked "Open" and "Shut" with arrows indicating the direction of rotation to which they refer.
- 6.11 Each valve hand wheel shall be fitted with a circular nameplate of an approved material indicating the valve Tag No., duty or service condition intended and the function of the valve. For valves of smaller size, a permanent steel tag may be fixed on the valve body indicating the purchaser's valve Tag Number and service. The above are in addition to rating plates and labels being provided by the manufacturer.

7 SPECIAL FEATURES OF VALVES.

- 7.1 Extension spindle/ chain operation to the valves shall be provided wherever required as specified in Data Sheet A.
- 7.2 Where required as specified in Data sheet A, valve yoke/spindles shall be lengthened so that the hand wheel is at a height of approximately one meter above the level of the floor or platform from which the valve is to be operated.
- 7.3 For valves that are to be kept locked in full "Open" or "Close" position, if specified in Data Sheet A, the locking arrangement shall be provided with a non-detachable locking arrangement.
- 7.4 Valves with limit switches (as mentioned in Data sheet- A) shall be required only for indication or for interlocking with some equipment. Valves with such provision shall be offered with required number of limit switches for open/close position of the valve. The limit switches for this application shall

	SPECIFIC TECHNICAL REQUIREMENTS FOR GUN METAL VALVES	SPECIFICATION NO. PE-TS-020-100-M003 SECTION: I REV. NO. 00 DATE. 23.03.2017 SHEET 3 OF 4
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have one normally open and one normally closed contact. The limit switches shall be cutler hammer/Siemens/Honeywell make and limit switch housing shall be weather proof. The limit switches shall also be wired to a terminal box.

8 MANUFACTURE OF VALVES

- 8.1 Valve castings shall be procured from foundries observing strict quality control and approved by reputed customers.
- 8.2 Particular care shall be taken to ensure that all foundry sand and loose material is properly removed from castings by fettling before the valve's manufacture is started.

9 TESTING AND INSPECTION

- 9.1 All valves shall be tested and inspected as per the approved quality plan. The minimum requirements are as indicated in attached quality plan. However, in case of order on the vendor, the QP shall be finalized by vendor with customer without any financial implications to meet customer project technical requirements.
- 9.2 Hydrostatic/Air Tests:
Valves shall be hydraulically tested for shell tightness & seat tightness in accordance with IS 778 and BS 5154 & BS EN 12266-1 (Part-1) (as applicable) before painting of valves.
- 9.3 Gate and Globe valves seats shall also be tested on air at a pressure of 7kg/cm².
- 9.4 No leakage shall be allowed for any size of the valve covered under this specification. Seats of check valves shall also be tested to one-fourth of the maximum cold working pressure.
- 9.5 Blue matching of seats shall be carried out and records shall be maintained for verification by the Purchaser.
- 9.6 Dimensional and functional checks shall be carried out.

10 EXCLUSIONS

Erection & Commissioning of equipment at site is excluded from the bidder's scope.

11 QUALITY ASSURANCE

- 11.1 The Quality Plans enclosed with this specification specify minimum quality control requirement. During contract stage vendor shall furnish these Quality Plans duly signed & stamped for their compliance. Quality plans shall be approved by BHEL and customer (if necessary). All inspection and testing shall be carried out by BHEL and CUSTOMER (if necessary). In case inspection is by both BHEL and CUSTOMER, then the inspection can be carried out jointly or separately, which will be informed later.
- 11.2 The minimum NDT/testing and inspection requirements for valve shall be as per the attached Quality Plan. However, in case of order, final inspection and testing shall be carried out as per the final approved quality plan without any price implications.

12 PAINTING

Valve bodies and other items shall be thoroughly cleaned after final testing. Hand wheel of the valves shall be painted with enamel paint by spray painting. The enamel paint used shall be of reputed companies.

	SPECIFIC TECHNICAL REQUIREMENTS FOR GUN METAL VALVES		SPECIFICATION NO. PE-TS-020-100-M003	
			SECTION: I	
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13 PACKING

- 13.1 Each valve shall be drained, cleaned, prepared and suitably protected in such a way so as to minimize the possibility of damage and deterioration during transit and storage.
- 13.2 The valve shall be dispatched in total assembled form.
- 13.3 Valve ends shall be protected by means of screwed polythene caps/rubber end protectors properly secured to valve ends to avoid any damage to threads at the ends.
- 13.4 Body ends shall be suitably sealed to protect them against damage during transit and storage.
- 13.5 Valve Tag Nos. shall be incorporated in all the dispatch documents.
- 13.6 Proper care shall be taken to avoid damage to the painted surface during transit.
- 13.7 All the valves shall be packed suitably in wooden cases in order to avoid damage during transit and also during storage at site in tropical climate conditions for a period of 15-18 months.

14 SPARES

- a) **Mandatory Spares:** These shall be as per Data Sheet-A.
- b) Order for the spares may be placed simultaneously or otherwise at the option of purchaser.

15 DOCUMENTS TO BE SUBMITTED ALONG WITH OFFER

Bidder shall submit the following documents duly filled, signed and stamped along with the bid:

- a) Compliance sheet
- b) Documents as per the list indicated in the NIT.

The above are the only documents which will be used for technical evaluation unless other documents are asked for during technical clarifications. Any other technical document enclosed with the bid shall be ignored for the purpose of technical evaluation. All other documents attached with the specification are for information of the vendor and no comments shall be marked on these

16 DOCUMENTS TO BE SUBMITTED AFTER AWARD OF RATE CONTRACT:

- 16.1 Complete cross sectional arrangement of the valve.
- 16.2 Binding dimensions, dismantling clearances & weights.
- 16.3 Bill of material incorporating all the materials of construction of various parts and also specifying the IS/BS/ASTM standards to which the materials conform to.
- 16.4 Standard Quality Plan duly signed with bidder's company seal as a token of acceptance by the bidder.

The above drawings/ documents will be considered as reference documents for different projects PO which will be placed later.

	TECHNICAL SPECIFICATION GUN METAL VALVES FRAMEWORK AGREEMENT	SPECIFICATION NO. PE-TS-020-100-M003	
		SECTION: -	
		REV. NO.: 00	DATE: 23.03.2017
		SHEET 1 OF 1	

SECTION-II

- DATA SHEET – A
- QUALITY PLAN
- COMPLIANCE SHEET

DATA SHEET-A GUN METAL VALVES FRAMEWORK AGREEMENT																	SPECIFICATION NO. PE-TS-020-100-M003			
SECTION II																				
REV. NO.: 00 DATE: 23/03/2017																				
SHEET 1 OF 2																				
1	2	3	4	5	6	7	8	9	11	12	13	14		15	17					
SL NO.	PACKAGE	TYPE OF VALVE	SIZE mm (NB)	OPERATION	DESIGN PRESSURE KG/CM2(G)	TEMP (DEG° C)	SERVICE	RATING, DESIGN & TESTING CODE	BODY MATERIAL	TRIM MATERIAL	END CONN	SPECIAL FEATURES	MATCHING PIPE OD X THKN		MAIN VALVES QTY (WITHOUT COMMISSIO NING SPARES) NOS.	COMMISSIONING SPARES GLAND PACKING (SETS)	MANDATORY SPARES SETS,			
													MM	MM						
1	GUN METAL VALVES	HV (GLV)	25	MAN	10	60	SW/PW	PN16 AS PER BS 5154	Gun Metal, IS 318 Gr. LTB 2	Gun Metal, IS 318 Gr. LTB 2	SCREWED AS PER IS 554 PARALLEL FEMALE	----	34.2	4	164	16	NIL			
1	GUN METAL VALVES	GLV	25	MAN	8.5	50	IA & SA	PN16 AS PER BS 5154	Gun Metal, IS 318 Gr. LTB 2	Gun Metal, IS 318 Gr. LTB 2	SCREWED AS PER IS 554 PARALLEL FEMALE	DISC WITH NITRILE RUBBER	34.2	4	115	20	NIL			
													TOTAL		279	36	0			

NOTES:

- Mandatory spare consists of complete valve without commissioning spares
- Mandatory spare consists of complete valve without commissioning spares shall be considered as identical to main valve excluding commissioning spares.
- Commissioning spares --> One set of Gland Packing
- Main valve prices shall BE EXCLUSIVE of cost of Commissioning Spares prices
- LEGENDS: MAN=MANUAL, HV=HOSE VALVE, GLV=GLOBE VALVE

Signature of the bidder with name designation, date and company's seal

	DATA SHEET-A GUN METAL VALVES FRAMEWORK AGREEMENT	SPECIFICATION NO. PE-TS-020-100-M003	
		SECTION-II	
		REV. NO.: 00	DATE: 23.03.2017
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MATERIAL OF CONSTRUCTION

PART NO.	PART NAME	MATERIAL	MATERIAL SPECIFICATION/ STD'
1	BODY	GM	Gun metal as per IS:318 Gr. LTB2/ BSEN 1982 :99 Gr. CC491K/ ASTM B62
2	BONNET/ COVER (PLNRV)	GM	Gun metal as per IS:318 Gr. LTB2/ BSEN 1982 :99 Gr. CC491K/ ASTM B62
3	WEDGE / DISC (GLOBE/ PLNRV)	GM	Gun metal as per IS:318 Gr. LTB2/ BSEN 1982 :99 Gr. CC491K/ ASTM B62
4	DISC CHECK NUT	GM	Gun metal as per IS:318 Gr. LTB2/ BSEN 1982 :99 Gr. CC491K/ ASTM B62
5	GLAND	GM	Gun metal as per IS:318 Gr. LTB2/ BSEN 1982 :99 Gr. CC491K/ ASTM B62
6	NITRILE RUBBER DISC/ DISC 'O' RING (valves for air service)	NITRILE RUBBER	HARDNESS 60 ° +5 /-0 SHORE 'A'
7	STEM	EXTRUDED BRASS	IS :320 GR HT2/ DIN DN 12165:98 CW 721R
8	GLAND PACKING	GRAPHITED ASBESTOS / TEFLON PACKINGS	
9	END CAP (hose valve)	GM	Gun metal as per IS:318 Gr. LTB2/ BSEN 1982 :99 Gr. CC491K/ ASTM B62
10	CAP GASKET (hose valve)	CAF	IS 2712:79
11	END CHAIN (hose valve)	SS	AISI 316
12	INDICATOR	GM	Gun metal as per IS:318 Gr. LTB2/ BSEN 1982 :99 Gr. CC491K/ ASTM B62
13	GLAND STUDS & NUTS	CARBON STEEL	BS 916:53 / ASTM A193 Gr.B7/ A194 Gr.2H
14	HAND WHEEL	MALLEABLE CAST IRON	ASTM A47 Gr 32510
15	WASHER (for hand wheel screw)	CARBON STEEL	GALVANIZED/ AISI 316
16	SCREW (for handwheel)	CARBON STEEL	GALVANIZED/ AISI 316
17	NAME PLATE	SS	AISI 316 FIXED TO VALVE OR FIRMLY TIED TO HAND WHEEL WITH SS WIRE

QUALITY PLAN				CUSTOMER:				PROJECT: FRAMEWORK AGREEMENT				SPEC. NO: PE-TS-020-100-M003			
SHEET 1 OF 4				BIDDER/VENDOR:				QP NUMBER: PE-QP-020-100-M051 REV 00				SPEC. TITLE: GUN METAL GATE, GLOBE VALVES			
				SYSTEM: - WATER (SERVICE WATER)				ITEM: GUN METAL GATE / GLOBE/ HOSE VALVES 25 MM NB/ CLASS PN16				SECTION VOLUME			
SL NO (1)	COMPONENT / OPERATION (2)	CHARACT- ERISTICS CHECKED (3)	CATE- GORY (4)	TYPE/METHOD OF CHECK (5)	EXTENT OF CHECK (6)	REFERENCE DOCUMENT (7)	ACCEPTANCE NORMS (8)	FORMAT OF RECORD (9)	P	AGENCY W (10)	V	REMARKS (11)			
GATE/ GLOBE VALVES															
1.0	MATERIALS														
1.1	BODY, BONNET, WEDGE/ DISC, NUT, GLAND, INDICATOR,	1. PHYS & CHEM. PROPERTIES 2.. SURFACE DEFECTS 3. DIMENSIONS	MA	PHYS & CHEM TEST VISUAL MEASUREMENT	ONE/ HEAT 100% 100%	APPD DRG/ TECH SPEC FREE FROM DEFECTS PRODUCTION DRG	APPD DRG/ TECH SPEC FREE FROM DEFECTS PRODUCTION DRG	TEST CERT INSPECTION REPORT --DO--	3/2 2 2	2 2 2	1 1 -	BODY WILL CARRY HEAT MARKS FOR CO-RELATION WITH TEST CERTIFICATES			
1.2	'O' RING (SYNTHETIC RUBBER) FOR AIR SERVICE VALVES	1. SURFACE DEFECTS 2. DIMENSIONS 3. HARDNESS	MA	VISUAL MEASUREMENT HARDNESS TEST	100% 100% 100%	APPD DRG/ TECH SPEC FREE FROM DEFECTS PRODUCTION DRG	APPD DRG/ TECH SPEC FREE FROM DEFECTS PRODUCTION DRG	TEST CERT INSPECTION REPORT --DO--	3/2 2 3/2	2 2 2	1 1 1				
1.3	HANDWHEEL	1. MECH PROPERTIES 2. HARDNESS 3. DIMENSIONS 4. SURFACE DEFECTS	MA	MECH TEST HARDNESS TEST MEASUREMENT VISUAL	ONE/ HEAT 100% 100% 100%	APPD DRG/ TECH SPEC APPD DRG/ TECH SPEC/ RELV STD. APPD DRG FREE FROM DEFECTS	APPD DRG/ TECH SPEC APPD DRG/ TECH SPEC/ RELV STD. APPD DRG FREE FROM DEFECTS	TEST CERT. INSPECTION REPORT --DO-- --DO--	3/2 3/2 2 2	2 2 2 2	1 1 1 -				
1.4	STEM	1. PHYS & CHEM. PROPERTIES 2.. SURFACE DEFECTS 3. DIMENSIONS	MA	PHYS & CHEM TEST VISUAL MEASUREMENT	ONE/ HEAT 100% 100%	APPD DRG/ TECH SPEC FREE FROM DEFECTS PRODUCTION DRG	APPD DRG/ TECH SPEC FREE FROM DEFECTS PRODUCTION DRG	TEST CERT INSPECTION REPORT --DO--	3/2 2 2	2 2 2	1 1 -				
BHEL															
SB VERMA															
SIGNATURE															
23.03.2017															
DATE															
BIDDER'S/VENDOR'S COMPANY SEAL															

QUALITY PLAN				CUSTOMER:		PROJECT: FRAMEWORK AGREEMENT		SPEC. NO: PE-TS-020-100-M003		
SHEET 2 OF 4				BIDDER/VENDOR:		OP NUMBER: PE-QP-020-100-M051 REV 00		SPEC. TITLE: GUN METAL GATE, GLOBE VALVES		
SYSTEM: WATER (SERVICE WATER)				ITEM: GUN METAL GATE / GLOBE/ HOSE VALVES 25 MM NB/ CLASS PN16		SECTION		VOLUME		
SL NO (1)	COMPONENT /OPERATION (2)	CHARACT- ERISTICS CHECKED (3)	CATE- GORY (4)	TYPE/METHOD OF CHECK (5)	EXTENT OF CHECK (6)	REFERENCE DOCUMENT (7)	ACCEPTANCE NORMS (8)	FORMAT OF RECORD (9)	REMARKS (11)	
GATE/GLOBE VALVES										
1.5	STUD & NUT	1. PHYS & CHEM. PROPERTIES 2. SURFACE DEFECTS	MA	PHYS & CHEM TEST VISUAL	100%	APPD DRG/ TECH SPEC. FREE FROM DEFECTS	APPD DRG/ TECH SPEC. FREE FROM DEFECTS	TEST CERT INSPECTION REPORT	3/2 2 2 2 2 3/2	1 - - 1 1 1 1
2.0	ELECTRIC ACTUATORS	NOT APPLICABLE								
3.0	MACHINING									
3.1	BODY, BONNET, WEDGE/ DISC, GLAND, CHECK NUT, INDICATOR	1. DIMENSIONS 2. THREADED ENDS 3. DISC/BODY SEAT RING	MA MA CR	MEASURE MENT THREAD GAUGE BLUE MATCHING	100% 100% 100%	PROD. DRG --DO-- THE SURFACE SHALL BE SMOOTH AND SHALL HAVE 100% CONTACT WITH SEATING SURFACES	PROD. DRG --DO-- LOG BOOK	LOG BOOK --DO-- INSPECTION REPORT	2 2 2 2 2 2	- - 1 1 1 1
3.2	STEM	1. SURFACE DEFECTS 2. DIMENSIONS	MA MA	VISUAL MEASUREMENT	100% 100%	FREE FROM DEFECTS PRODUCTION DRAWING	LOG BOOK LOG BOOK	LOG BOOK LOG BOOK	2 2 2 2	1 1 1 1
3.3	BODY, BONNET STEM, DISC/ WEDGE	SURFACE DEFECTS	CR	PT	100%	ASTME165	ASME B 16.34 APPENDIX-III	INSPECTION REPORT	3/2 2	1 1
BHEL										
SB VERMA										
SIGNATURE										
DATE										
23.03.2017										
BIDDER'S/VENDOR'S COMPANY SEAL										

QUALITY PLAN				CUSTOMER:				PROJECT: FRAMEWORK AGREEMENT				SPEC. NO: PE-TS-020-100-M003			
SHEET 3 OF 4				BIDDER/ VENDOR:				OP NUMBER: PE-QP-020-100-M051 REV 00				SPEC. TITLE: GUN METAL GATE , GLOBE VALVES			
				SYSTEM: - WATER (SERVICE WATER)				ITEM: GUN METAL GATE / GLOBE/ HOSE VALVES 25 MM NB/ CLASS PN16				SECTION VOLUME			
SL NO (1)	COMPONENT / OPERATION (2)	CHARACT- ERISTICS CHECKED (3)	CATE- GORY (4)	TYPE/METHOD OF CHECK (5)	EXTENT OF CHECK (6)	REFERENCE DOCUMENT (7)	ACCEPTANCE NORMS (8)	FORMAT OF RECORD (9)	P	AGENCY W (10)	V	REMARKS (11)			
GATE/ GLOBE VALVES															
4.0	ASSEMBLY TESTING														
4.1	BODY	LEAK TIGHTNESS	CR	HYDRAULIC	100%	APPD. DRG/ TECH. SPEC/ DESIGN STD	NO LEAKAGE	INSPECTION REPORT	2	2, 1	--				
4.2	SEAT & BACK SEAT (IF APPLICABLE)	LEAK TIGHTNESS	CR	--DO --	100%	--DO--	-DO-	-DO-	2	2, 1	-				
4.3	SEAT	LEAK TIGHTNESS	CR	PNEUMATIC	100%	APPD.DRG/ DESIGN STD	NO LEAKAGE	INSPECTION REPORT	2	2, 1	-				
5.0	COMPLETE VALVE	OVERALL DIMENSIONS	MA	VISUAL	100%	APPROVED DRG.	APPROVED DRG.	INSPECTION REPORT	2	2, 1	-				
6.0	ASSEMBLY INSPECTION	1. CLEANING & DEBURRING	MA	VISUAL	100%	APPROVED DRG/ TECH SPEC.	APPROVED DRG./ TECH SPEC	-DO-	2	2, 1	-				
		2.END TO END DIMENSIONS	CR	MEASUREMENT	100%	APPROVED DRG.	APPROVED DRG.	-DO-	2	2, 1	-				
		3.OPERATION OF VALVE	CR	MANUAL	100%	TECH. SPEC/ RELV STD.	SMOOTH OPENING & CLOSING OF VALVE	-DO-	2	2, 1	-				
7.0	PAINTING	SURFACE PREPARATION & UNIFORMITY	MA	VISUAL	100%	APPD DRG./ TECH. SPEC.	APPD DRG / TECH. SPEC.	INSPECTION REPORT	2	2	1*	- ONLY FOR HANDWHEEL * CONFIRMATION CERTIFICATE FROM VENDOR			
8.0	PACKING IN WOODEN CASES AND MARKING	AS PER BHEL TECH SPECIFICATION FIXING OF NAMEPLATE FOR VALVE TAG NOS.	MA	VISUAL	100%	TECHNICAL SPEC.	TECHNICAL SPEC.	SOFT COPY OF PHOTOGRAPHS	2	2	1*	PHOTOGRAPHS OF VALVES AFTER PACKAGING TO BE VERIFIED BY BHEL BEFORE ISSUING MDCC.			
BHEL															
SB VERMA															
23.03.2017															
BIDDER/VENDOR															
NAME															
SIGNATURE															
DATE															
BIDDER'S/VENDOR'S COMPANY SEAL															

		QUALITY PLAN		CUSTOMER:		PROJECT: FRAMEWORK AGREEMENT		SPEC. NO: PE-TS-020-100-M003		
				BIDDER/VENDOR:		QP NUMBER: PE-QP-020-100-M051 REV 00 DTD. 23-03-2017		SPEC. TITLE: GUN METAL GATE, GLOBE VALVES		
SHEET 4 OF 4		SYSTEM: - WATER (SERVICE WATER)		ITEM: GUN METAL GATE / GLOBE/ HOSE VALVES 25 MM NB/ CLASS PN16		SECTION		VOLUME		
SL NO (1)	COMPONENT / OPERATION (2)	CHARACT-ERISTICS CHECKED (3)	CATE-GORY (4)	TYPE/METHOD OF CHECK (5)	EXTENT OF CHECK (6)	REFERENCE DOCUMENT (7)	ACCEPTANCE NORMS (8)	FORMAT OF RECORD (9)	AGENCY W V (10)	REMARKS (11)

GATE/ GLOBE VALVES

NOTE: -

CR- CRITICAL ACTIVITY	MA- MAJOR ACTIVITY	PT- PENETRANT TEST
P- PERFORMED BY	W - WITNESSED BY	V - VERIFIED BY
I- CUSTOMER/ BHEL	2- VENDOR	3- VENDOR/SUB VENDOR

WITNESS "W" SHALL BE 10% OR MINIMUM 2 BY BHEL/CUSTOMER AT RANDOM & 100% BY VENDOR FOR EACH TYPE, SIZE & RATING.

BHEL SB VERMA 23.03.2017	PARTICULARS	BIDDER/VENDOR
	NAME	
	SIGNATURE	
	DATE	BIDDER'S/VENDOR'S COMPANY SEAL

	COMPLIANCE SHEET GUN METAL VALVES FRAMEWORK AGREEMENT		SPECIFICATION NO. PE-TS-020-100-M003	
			SECTION : II	
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	Sheet 1 of 1			

I hereby comply/not comply (*) to all the requirements of this technical specification in totality.

* In case the bidder does not comply to the technical specification, the deviations shall be explicitly listed in the technical deviation sheet of GCC. Deviations listed in technical deviation sheet shall only be considered.

Name of Bidder / Authorized Representative :-

Designation :-

Signature :-

Company Seal :-

Date :-

PARTICULARS OF BIDDER / AUTHORISED REPRESENTATIVE				