

DISTRIBUTION OF FRAMEWORK ITEMS ACROSS PROJECTS
ITEM: THREADED ROD
PR NO 1900145983

Annexure-A to Price Bid Format

Sl No	Material No	Material Desc	UOM	PMD No	UWT	KOTHAGUDEM	BHADRADRI	NORTH KARANPURA	BARH-1	BARH-2	MAUDA	BRBCL NABINAGAR	NPGCL NABINAGAR	RAMAGUNDAM	KORBA	NSPCL BILLAI	TUTICORIN	UDANGUDI	SAGARDIGHI	ENNORE	BHUSAWAL	YADADRI	PATRATU	PANKI	CONTINGENCY
1.00	PY9752278027	MS THREADED ROD M10 L=1000	EA	PE.MP.611	1.5	482	482	510	482	482	482	510	510	510	510	482	482	1482	3239				3600	1100	

- 1. The quantities indicated are total quantity with additional 50 % qty variation considered
- 2. The above list of Quantity , project/customer is tentative only. Final details of quantity, Project/ Customer shall be informed at the time of PO
- 3. The Project/ Customer are subject to change based on buisness scenario of BHEL.


FRAMEWORK AGREEMENT FOR FGD FPS PROJECTS
Un-Priced Price Bid Format


Item: THREADED ROD
PR No: 1900145983


SI No	PR No	Material Code	Material Description	UOM	PR Qty (No.s)	Technical Specification	Price Weightage Factor	Bidder Confirmation (Quoted)
1	1900145983	PY9752278027	MS THREADED ROD M10 L=1000	EA	10700	PY52278	1.00000	
Total							1.00000	


NOTES:


- 1) Vendor to Quote Lumpsum Price for the Total Package.
- 2) Line Item Rates of the individual items shall be derived by multiplying the "Price Weightage Factor" with the Lumpsum Price quoted.
- 3) Unit Rates of the Individual items thus arrived, shall be binding on the bidder, for the total period of Framework Agreement.
- 4) Observations / Objections, if any, of the Bidder, to the "Price Weightage Factor" shall be brought to the notice of BHEL, during Pre-Bid Stage.
- 5) No Observations / Objections shall be entertained after the Techno-Commercial Bid is opened.
- 6) Bidder to indicate "Quoted" in the column "Bidder's Confirmation" as a confirmation of their bid to the respective item.
- 7) The Bid Evaluation is on Overall L1 Basis. Each and Every item of the Package shall be quoted by the bidder.
- 8) Partial offers will not be considered for evaluation and the same are liable for rejection.
- 9) The details of the Projects for which Framework Agreement is proposed are given elsewhere in the NIT. The distribution of the line items across the projects is attached as **Annexure-A**.
- 10) The permissible ordering limits specified in NIT are strictly applicable on the Total Framework Value. The same are not applicable at the Individual Project level.
- 11) The Total Lump price quoted shall be INCLUSIVE of Freight, Packing & Forwarding and Testing Charges.
- 12) The Total Lump price quoted shall be EXCLUSIVE of GST, Third party inspection (TPI) & Insurance Charges.

 PROJECT ENGINEERING & SYSTEM DIVISION		STANDARD MANUFACTURING QUALITY PLAN							QP. NO.:PESD/QA/ FASTENER/01/18-19				
		PRODUCT: FASTENER				BHEL SPEC: AS PER P.O			REV NO: 00		DATE: 23-02-2019		
									PAGE 1 OF 3				
SL NO	COMPONENTS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	* D	AGENCY P W V			REMARKS

1.0	BOUGHT OUT ITEMS												
1.1	FASTENERS	Material batch identification, dimensions and GO & NO-GO check	Major	Visual, dimensional, GO & NO-GO check	Sampling plan IS 1367 : Part 17 (AQL=1, LQ10 = 12, sample size = 32, Ac = 1)	BHEL specification or IS Standard IS 1367 : Part 17	BHEL specification or IS Standard IS 1367 : Part 17	MTC and inspection reports	√	2	2	--	Inspection shall be carried out by main supplier.
2.0	FINAL INSPECTION & TESTING												
2.1	FASTENERS	Visual, Dimensions, GO & NO-GO check	Major	Visual, dimensional, GO & NO-GO check	Sampling plan IS 1367 : Part 17 (AQL=0.65, LQ10 = 25, sample size = 8, Ac = 0)	BHEL Specification /BOQ/ IS Standard	BHEL Specification /BOQ/ IS Standard	Inspection reports	√	2	1	--	
2.2		Chemical & Mechanical Properties, Impact test and Heat Treatment (heat treatment if applicable)	Major	TC Review	One sample per Lot			MTC	√	2	--	1	
LEGEND: P: PERFORM, W: WITNESS, V: TC REVIEW. INDICATE 1 FOR BHEL CQS /BHEL NOMINATED INSPECTION AGENCY/END USER & 2 FOR VENDOR/SUB VENDOR AS APPROPRIATE AGAINST EACH COMPONENT /CHARACTERISTIC UNDER P, W & V COLUMNS. * FOR ITEMS MARKED ✓ (TICK) IN COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS.					APPROVED BY <div></div> BHEL QA SIGNATURE & STAMP			APPROVED BY <div>-NA-</div> CUSTOMER'S SIGNATURE & STAMP (if applicable)					

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										P	W	V	
2.3		PMI#	Major	PMI test	Random			IR/TC	√	2	1	1	# If applicable 10 sets shall be witnessed randomly by "1"
2.4		Galvanization# (mass of zinc coating Thickness of Coating, embrittlement, adherence, finish ,appearance, etc)	Major	Measure ment	As per specification			IR/TC	√	2	-	1	
2.5		BOM Check	Major	Visual	100%			Inspection reports	√	2	1	--	
3.0	PRESERVATION & PACKING												
3.1	FASTENERS	Packing# and markings	Major	Visual	Random	BHEL Specification	BHEL Specification	Packing List	√	2	--	1	#Seaworth y packing for export orders refer note-5.

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Notes:-

1. This Standard MQP should be read along with specification (Latest revision as per PO), approved drawings & approved datasheet.
2. Drawing/datasheet shall prevail over quality plan for contradiction if any.
3. Any project/customer specific requirements which shall be notified have to be fulfilled by the vendor at the time of execution of order.
4. **NACE requirement:** For items coming under **NACE category**, all tests, reports, MTC and certificates shall be submitted as per **NACE MR0103** requirements.
5. Seaworthy packing shall be **witnessed** BHEL/BHEL nominated inspection agency for overseas project.

Abbreviations:-

MTC	-	Material Test certificate	TC	-	Test Certificate
NDE	-	Non Destructive Examination	CS	-	Carbon Steel
PMI	-	Positive Material Identification			
SS	-	Stainless Steel			
IR	-	Inspection Report			

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			-NA-
			CUSTOMER'S SIGNATURE & STAMP (if applicable)

BULK PROCUREMENT OF GENERIC PIPING ITEMS

Pre-Qualification Criteria (Technical)

Package Name : THREADED ROD
PR No : 1900145983

Manufacturers of **THREADED ROD**, qualified as per the Pre-qualification criteria laid down below, are allowed to bid. Documentary evidence shall be provided by such bidders to establish their claim. **However, offer consideration is subjected to approval from end Customer.**

The bid evaluation shall be on Overall L1 basis. The Bidder shall meet the Pre-Qualification Criteria (listed below.

Non-compliance to any of the criteria listed below will lead to disqualification of bidder for the subject item of the tender.

Qualification Criteria of the Bidder:

- 1.** The bidder should be an established manufacturer of **Threaded rod** and should have successfully completed Manufacture, Supply of **Threaded rod**.
- 2.** The Bidder should have successfully completed supply of **Threaded rod** for similar specification with a total minimum quantity of **2500 No.s** through a single Purchase Order or multiple Purchase Orders in the last 5 years ending on original due date of this tender, with at least one order executed after 01.01.2019.
- 3.** Detailed BOQ of the items supplied, satisfying the criteria laid down above, shall be provided in the format enclosed as Annexure-1, with details like Project & Customer, Description & Quantity of Items supplied, PO details etc. as a minimum for assessing pre-qualification. **PO Copies, Inspection Reports and Dispatch documents shall be enclosed for the references provided.**
- 4.** The bidder should not have been under suspension for business or blacklisted by any of the BHEL units.

Annexure-1 PQC Criteria

Supply References for the Last 5 Years (dispatch date) from the Original due date of this tender

Enquiry Item No & Description: (To be filled by Bidder)

[illegible]

Bulk Procurement of Threaded rod

Price Variation Formula–THREADED ROD

PVC-MS-THRDROD-GALV

$$PO = PA \times \left(\left[0.50 \times \frac{MO}{MA} \right] + \left[0.10 \times \frac{GO}{GA} \right] + \left[0.15 \times \frac{FO}{FA} \right] + \left[0.10 \times \frac{LO}{LA} \right] + 0.15 \right)$$

PO	Purchase Order Value, adjusted in accordance with above Price Variation Formula
PA	Purchase Order Value, as per Original Framework Agreement Price

Escalation for Raw Material:

MO	JPC Retail Market Price of “PIG IRON”, as on the date of respective Project PO Placement, <i>calculated as an Average of the Prices for Kolkata, Delhi, Mumbai, Chennai regions.</i>
MA	JPC Retail Market Price for “PIG IRON”, as on the date of Part-1 bid opening of Framework Agreement Tender, <i>calculated as an Average of the Prices for Kolkata, Delhi, Mumbai, Chennai regions.</i>
As published under the Item “ PIG IRON ” by Joint Plant Committee, Ministry of Steel, Govt of India, in their subscription based bimonthly publication “JPC MARKET PRICE RETAIL”.	

Escalation for Galvanizing:

GO	Wholesale Price Index for “Zinc”, as on the date of respective Project PO Placement
GA	Wholesale Price Index for “Zinc”, as on the date of Part-1 bid opening of Framework Agreement Tender
As published under the Index “ Zinc metal/Zinc blocks ” by Office of the Economic Adviser, Ministry of Commerce and Industry, Govt of India, on their website www.eaindustry.nic.in	

Escalation for Fuel & Power:

FO	Wholesale Price Index for “Fuel & Power”, as on the date of respective Project PO Placement
FA	Wholesale Price Index for “Fuel & Power”, as on the date of Part-1 bid opening of Framework Agreement Tender
As published under the Index “ II Fuel & Power ” by Office of the Economic Adviser, Ministry of Commerce and Industry, Govt of India, on their website www.eaindustry.nic.in	


Escalation for Labour:

LO	All-India Average Consumer Price Index Number for Industrial Workers (Base_2016=100), as on date of respective Project PO Placement
LA	All-India Average Consumer Price Index Number for Industrial Workers (Base_2016=100), as on the date of Part-1 bid opening of Framework Agreement Tender
As published by Labour Bureau, Ministry of Labour and Employment, Govt of India, on their website www.labourbureaunew.gov.in	

Overheads and Margin:

0.15	Constant for Overheads and Margin
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NOTE: Latest Index Values, as published by respective agencies, **Available as on the date** of Part-1 bid opening of FA Tender / date of PO, shall be considered, for all the factors.

Form No:	 PE&SD	BHARAT HEAVY ELECTRICALS LIMITED PROJECT ENGINEERING & SYSTEMS DIVISION	PY 52 278
		TECHNICAL SPECIFICATION	Rev. No. 00
		MS THREADED RODS	Page 1 of 2

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MS THREADED RODS

1.0 INTRODUCTION & SCOPE

- 1.1 The intent of this document is to indicate minimum specification requirements for procurement of **MS threaded Rods** (metric ISO standard thread).
- 1.2 The purpose of these MS Threaded Rods is to support the HVAC ducts/ Pipe supports/ Cable tray supports and other service utilities by screwing into the Flush Anchor fastener.
- 1.3 All the codes/standards mentioned in this specification shall be of latest issue.

2.0 DESIGN & MATERIAL

- 2.1 MS Rods shall be Threaded for full length.
- 2.2 MS Threaded Rod Size & Length shall be as per variant table / BHEL enquiry.
- 2.3 Each MS Threaded Rod shall be supplied along with suitable Hexagonal nuts (3 nos) & Washers (2 nos).
- 2.4 Rods, Washers and Nuts shall be HOT-DIP Galvanized.
- 2.5 Rod material shall be - IS2062, Grade E250 Sub-quality A.
- 2.6 Nut and Washer material shall be - CS 5.8 Grade.
- 2.7 The thread should enable the fixing of rods into the flush anchor of the same size.
- 2.8 No damage should happen to the thread when fastening.

3.0 INSPECTION




Scope of inspection shall be as called for in the data sheets enclosed / specified in the purchase order / approved quality plan. Inspection agency shall be BHEL / BHEL Third Party Inspection agency.


4.0 TEST CERTIFICATES

Three copies of the test certificates covering results of the Chemical analysis and the Mechanical tests as per the material standard, shall be furnished.

5.0 PACKING AND MARKING

- 5.1 All the items shall be packed suitably in closed wooden cases / hard cardboard boxes, enclosed in a moisture resistant wrapping in order to avoid damage, ingress of moisture & corrosion during transit and storage. Suitable supports shall be provided inside the cases in order to avoid internal movement. Each packing case must contain 2 copies of the shipping list giving details of all the contents of the case.
- 5.2 The following marking shall be done on each packing case minimum on two sides and also at the top:
 - Complete address of the consignee and destination as per BHEL Purchase Order.
 - BHEL Purchase Order Number (c) Number of pieces in each packing case
 - Net Weight
 - Gross Weight
 - Packing case number and total number of packing
 - Arrow indicating top of the packing case.

Form No:	LAYOUTS & PIPING ENGINEERING	PREPARED	CHECKED	APPROVED	DATE
	PROJECT ENGINEERING & SYSTEMS DIVISION	 PARAMESH	 V UDAY	 SRIKANTH	02.11.19

Form No:	 PE&SD	BHARAT HEAVY ELECTRICALS LIMITED PROJECT ENGINEERING & SYSTEMS DIVISION	PY 52 278
		TECHNICAL SPECIFICATION FOR	Rev. No. 00
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RECORD OF REVISIONS				
Rev. No.	Date	Revision Details	Revised	Approved
00	02.11.2019	First Issue	--	--