

SOPAN	SMOF/SOPAN/IWBH/21-22/98	Date: 12.01.2021
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TECHNICAL PROPOSAL

To, SOPAN O & M PVT.LTD	
Kind Attn:	Mr. Sudip Patil
Subject:	Quotation for Water Bath Heater Package
Reference:	<ul style="list-style-type: none"> - Inquiry via Email: "ONGC Kasomarigaon - 21007 – A firm requirement for Water Bath Heater Package" dated 01ST Nov 2021. - Subsequent Communication along with TQ-1 and TQ-2 Response

REVISION TABLE					
REV. NO.	DATE	DESCRIPTION	PREP BY	CHK BY	RWD BY
00	01.11.2021	Technical Proposal	PP	MS	KB
01	17.11.2021	Technical Proposal	PP	MS	KB
02	25.11.2021	Techno-Commercial Proposal	PP	MS	KB
03	30.11.2021	Techno-Commercial Proposal	PP	MS	KB
04	12.01.2022	Techno-Commercial Proposal	PP	MS	KB





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INQUIRY CHECKLIST					
Product	Vessels				
S. MARK SCOPE					
Scope		Remarks	Scope		Remarks
Material	✓		Gratings	X	
Fabrication	✓		E & I	✓	As per Annexure I
Structure	✓		E & I Labor	✓	As per Annexure I
DOCUMENTS					
Documents	Received or not received		Remarks		
SOW	X				
Datasheet	✓		Process Datasheet for Bath Heater_9655-01-DS-E-01		
PDS	✓				
GAD	X				
Piping BOM	X				
Structure GAD	X				
Structure BOM	X				
P & ID	✓		Piping & Instrumentation Diagram for Bath Heater_9655-00-01-A1-1112		
PFD	✓		Process Flow Diagram -00-01-A3-1002		
ALL	X		ONGC AVL LIST		
QAP/ITP	X				



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SCOPE MATRIX (Annexure – I)			
Sr. No.	Description	Scope	
		SOPAN	S. Mark
Design and Engineering			
01	Supply of Bath Heater as per specs		✓
02	Fabrication of Vessels as pre-attached specs		✓
03	Design of Vessels	✓	✓
04	Mechanical design including Pressure loss calculation or any other type of calculations	NA	NA
05	Process design calculation including Stress analysis or any other type of analysis	NA	NA
Vessels			
06	Supply of Vessels material along with Burner and Management System (As per Piping & Instrumentation Diagram for Bath Heater_9655-00-01-A1-1112)		✓
07	Fabrication of Vessels as per good engineering practice		✓
08	Blasting and painting of Vessels as per good engineering practice		✓
09	Supply of Testing Blinds and hydro-testing gasket		✓
10	Supply of insulating gasket (if required) / Insulation	NA	NA
11	Supply and fabrication of RF pad		✓
Structure			
12	Supply and fabrication of structure (for Vessels only)		✓
13	Supply and fabrication of equipment support for Vessels		✓
14	Supply of gratings.	NA	NA
15	Supply of Tag Plates for Vessels		✓
16	Supply of Junction box stands, instrument supports, etc.	NA	NA
17	Supply of earthing bosses (SS) and lifting lugs. (IS 2062)		✓
Electrical & Instrumentation			
18	Supply of instrument gauges, and mechanical valves		Note*



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19	Supply of differential pressure & temperature transmitters, temperature Thermo wells, meters & flow conditioners. JB and cables etc.		Note*
20	Supply of Electrical accessories		Note*
21	Supply of Instrumentation tube fitting (if applicable)		Note*
22	Supply of Cable & electrical and instrumentation cabling accessories		Note*
Testing			
23	RT, UT, PT, MPI & other non-destructive examination of welds for Vessels (If required by standards/codes)		✓
24	Charpy Test	NA	NA
25	Hydrostatic test.		✓
26	System leak test.	NA	NA
27	PMI Testing (if applicable as per code)	NA	NA
28	Calibration of equipment	NA	NA
29	Calibration wet test and additional equipment required for wet calibration test	NA	NA
30	Material Certification EN 10204 3.1 (Pressure Parts) 2.2 for non-pressure parts		✓
31	Material Certification EN 10204 3.2	NA	NA
32	TPI (if applicable)	✓	
33	Factory acceptance test		✓
34	Site acceptance test	✓	
Documentation			
35	Standard WPS		✓
36	Inspection report		✓
37	Calibration reports	NA	NA
38	SAT documentation (as per provided list)	NA	NA
39	Inspection test plan or Quality control plan	✓	✓
40	Document dossier	✓	✓
General			
41	PWHT	NA	NA



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42	Sunshades	NA	NA
43	Guarantee on the functioning of instruments and other equipment	NA	NA
44	Grouting	NA	NA
45	Packing (Plastic Wrapping)		✓
46	Sea-worthy packing	NA	NA
47	Insulation	NA	NA
48	Any kind of civil work	✓	
49	Painting		✓

Note*: As per attached P & ID

Burner Management System: Force Draft system along with below technical specification.

Type: Force draft

Burner operation: Two Stage

Fuel: Natural Gas

Maximum capacity of burner : 400 KW / hr. (10% > heat absorbed conditions)

Flame Proof Temperature Controller Panel with Temperature Controller



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SPECIAL NOTES (ANNEXURE-II)											
SCOPE OF WORK											
<ul style="list-style-type: none"> Supply of Vessels 											
<table border="1"> <thead> <tr> <th>Sr No</th> <th>Description</th> <th>MOC</th> <th>Qty in No.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Indirect Water Bath Heater</td> <td>SA 516 GR 70</td> <td>1</td> </tr> </tbody> </table>				Sr No	Description	MOC	Qty in No.	1	Indirect Water Bath Heater	SA 516 GR 70	1
Sr No	Description	MOC	Qty in No.								
1	Indirect Water Bath Heater	SA 516 GR 70	1								
QA-QC DOCUMENT DOSSIER											
<ol style="list-style-type: none"> Procedure for Handling of Welding Consumables Procedure for Materials traceability & Identification Procedure for Material Handling WPS & PQR Procedure for Welder Qualification Test Procedure for Weld repairs NDT Procedures (UT, MPT, DPT) Procedure for PWHT Procedure for PMI Procedure for Hydro Test Procedure for Pneumatic Test Procedure for Coating & Repair (Painting) Inspection & Test Plans 											
PAINTING											
<ul style="list-style-type: none"> Paint: Berger/Jotun or equivalent make (if another makes required, it will cost extra) Preparation: SA 2 1/2 Primary: 1x layer of paint Epoxy-Zinc-Silicate, 70 microns minimum DFT Intermediate: 1x layer Epoxy high-build with iron-oxide, 100 microns minimum DFT Finish layer: 2x layers 50 microns minimum, polyurethane paint DFT Total DFT: 270 microns 											
STRUCTURE											
<ul style="list-style-type: none"> Structure material IS 2062 Gr. B Structure makes: SAIL, Vizag, Essar, OR Equivalent Indian Make 											
S. MARK CONSIDERED VENDOR LIST – ONGC INDIA											
Flange	Prioritize the vendor selection Criteria <ol style="list-style-type: none"> ONGC / Client Approved Vendor (AVL) EIL approved Supply Experience to similar client 										
Fittings											
Fasteners											
Pipe make											
Gasket											
Structure makes											
Paint											



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Price Schedule (Annexure-III)

S/N	ITEM	UNIT RATE (INR)	QTY (NOS)	TOTAL (INR)
01	Indirect Water Bath Heater	57,48,000	1	57,48,000

TERMS & CONDITIONS	
Offer Validity:	
<ul style="list-style-type: none">The quoted prices will remain firm for 30 days after the date of submission	
Payments Terms:	
<ul style="list-style-type: none">20% Advance against submission of ABG of the equal amount after approval of documents (ABG will be valid up Hydrotest of Coil)80% against submission of IRN before dispatch and submission of PBG (10%)	
Taxes and Duties:	
<ul style="list-style-type: none">Taxes and duties shall be charged additionally at actual prevailing rates at the time of dispatch/invoicing.GST to be considered as actual at the time of invoicing.	
Price Basis:	
<ul style="list-style-type: none">All Prices are quoted in Indian Rupees (INR) net, Ex-works	
Delivery:	
<ul style="list-style-type: none">Ex-works, within 6 months from code-02 approval	
Cancellation :	
<ul style="list-style-type: none">Within 1 week from the date of PO – 5 % of the actual contract value.Within 3 weeks from the date of PO – 10 % of the actual contract value.After 4 weeks from the date of PO – Actual amount of completion including procured material cost	

We thank you for the opportunity to submit our proposal. If you require any further clarification, please do not hesitate to contact us.

Best Regards.

For, **S. Mark Oil Field Engineering Pvt. Ltd**

Bhavin Gole

Proposal – Lead

Mail ID: bdm1@smark.in



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Annexure I– Attachements