

Tender No: HCSL/PUR/TEN/2026/005

Dated: 07.01.2026

TENDER NOTICE

Competitive tenders are invited on behalf of Hooghly Cochin Shipyard Limited (HOOGHLY CSL) from experienced vendors for the under mentioned work, so as to reach the undersigned on or before the date and time mentioned below. Please refer Scope of Work, General Terms and Conditions and Special Terms attached.

Tender No. & date	HCSL/PUR/TEN/2026/005, Dated: 07.01.2026
Scope of work	Design, Manufacturing, Supply and Commissioning of complete CO2 Fixed Fire Extinguishing System as a package in Cargo Hold, Engine Room and Emergency DG Room of 2200T MPV at Hooghly Cochin Shipyard Limited, Nazirgunge Unit, Howrah. (Detailed specification is enclosed separately).
Type of Tender	Two Bid (Email Tender)
Earnest money deposit (EMD)	Nil
Last date & time of receipt of tender	14.01.2026, 15:00 hrs.
Date & time of opening of technical bid	14.01.2026, 15:30 hrs.
Tenure of contract	Clause 15 of Annexure-3 (GTC)
Officer - in - Charge	<p>Name: Saikat Kumar Biswas Designation: Manager (Materials) Email: saikat.biswas@hooghlycsl.com Phone No: 8250792208</p> <p>Name: Sreerag .G Designation Manager (Materials) Email sreerag.g@hooghlycsl.com Phone No 9482608957</p>

Tender to be submitted by Email only. Tender reference should be clearly indicated on the subject of the Mail.

Tenders should be submitted in two separate files as **PART-I "TECHNO-COMMERCIAL" & PART-II "PRICE" (Password Protected)** indicating the tender number, due date of the tender in the Mail and addressed to The Assistant General Manager (Planning & Procurement), Hooghly Cochin Shipyard Limited, Nazirgunge Unit, Howrah.

Signature and Seal of the Bidder(s)

For Hooghly Cochin Shipyard Limited



Tender Administration:

Tender procedure/administration/evaluation including correspondences and awarding of contract will be done by M/s. Hooghly Cochin Shipyard Limited, Howrah, West Bengal.

Officer - in - Charge for the above work:

Name: Saikat Kumar Biswas
Designation: Manager (Materials)
Email: saikat.biswas@hooghlycsl.com
Phone No: 8250792208

Name: Sreerag .G
Designation: Manager (Materials)
Email: sreerag.g@hooghlycsl.com
Phone No: 9482608957

For any technical queries:

For technical query(Please contact the below person)

Name : Rakesh Kumar Sagar
Designation : Manager (Naval Architecture)
Email : rakeshkr.sagar@hooghlycsl.com
Phone No : +91 9508921575

For Hooghly Cochin Shipyard Limited



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Signature and Seal of the Bidder(s)

PRE-QUALIFICATION CRITERIA

Minimum qualification criteria for participating in the tender will be as follows:

- i. Successful experience as material supplier in the successful completion of similar material supply of nature and complexity comparable to the proposed material within the last 5 years, ending last day of month previous to one in which applications are invited.

Similar Supply means:

Design, Manufacturing, Supply and Commissioning of Class approved (any IACS member) CO2 Fire Extinguishing system for (State/Central Govt./Private) Shipyards within the last 5 years, ending last day of month previous to one in which applications are invited (Copy of PO along with the delivery challan/Invoice/Class approval certificate is required).

- ii. Audited Balance sheets showing turnover, Profit & Loss account of the firm for the preceding 03 years (Financial year: 2022-23, 2023-24, 2024-25) should be submitted along with the application for prequalification.

- iii. The Tenderer should enclose copy of MSME Certificate in relevant Field, PAN, GST registration certificate, Income tax returns for last three FY (2022-23, 2023-24, 2024-25).

- iv. Offers from joint ventures/consortium will not be accepted.

- v. Net worth of the bidder must be positive as per the latest balance sheet. (MSME/NSIC will get exemptions)



SCOPE OF WORK AND TECHNICAL SPECIFICATION

Design, Manufacturing, Supply and Commissioning of complete CO2 Fixed Fire Extinguishing System as a package in Cargo Hold, Engine Room and Emergency DG Room of 2200T MPV at Hooghly Cochin Shipyard Limited, Nazirgunge Unit, Howrah.

Ref. Enclosure-1 (Consisting 12 no. of pages)



PRICE BID FORMATTender Enquiry No: **HCSL/PUR/TEN/2026/005** Dated: **07.01.2026**

Sl. No.	Description	Quantity	UOM	Unit Rate (Rs.)	Total Amount excluding GST (Rs.)
		A		B	C=AXB
1.	Design, Manufacturing, Supply and Commissioning of complete CO2 Fixed Fire Extinguishing System as a package in Cargo Hold, Engine Room and Emergency DG Room of 2200T MPV at Hooghly Cochin Shipyard Limited, Nazirgunge Unit, Howrah.	01	SET		
2.	Total Amount excluding GST (Rs.)				
3.	HSN Code				
4.	Total GST Amount (Rs.)				
5.	Total Amount including GST (Rs.)				
6.	Total Amount including GST (Rs.) (In words)				

Note:

1. The L1 shall be determined based on overall quoted amount excluding GST.
2. Bidder has to submit the price bid as mentioned in the format only, otherwise bid will be rejected.

3. Quotation for all line items is mandatory. Partially quoting for few line items shall result in rejection of the bid.
4. Bidder should quote in consideration with all clauses of Section A & B of Annexure-1 (Purchase technical specification for IRS Class approved CO2 Fire Extinguishing system).
5. Cost should be inclusive of all charges including all spare parts, tools, class inspection charges, commissioning etc. as per requirement of PTS (Annexure-1).
6. A cost break up as per Annexure-2A, has to submit along with the “Price Bid”.
7. Un-priced price bid format (which is an exact replica of the Price bid except that Price is blanked) as per **Annexure-2** to be submitted along with techno-commercial bid with details like percentage of taxes & duties applicable and stating “**Quoted**” or “**Not Quoted**” or “**Not Applicable**” to be mentioned for each line item.

Seal & Sign. of the Bidder

PRICE BREAKUP SHEET FORMATTender Enquiry No: **HCSL/PUR/TEN/2026/005** Dated: **07.01.2026**

Sl. No.	Description	Total Quantity	UOM	Unit Rate (Rs.)	Total Amount excluding GST (Rs.)
		A	B	C=AXB	
1.	Cylinder cost with CO ₂ gas filled. (Refer: Purchase Technical Specification, Annexure-1)	<i>To be filled up by the bidder</i>	Nos.		
2.	Arrangement cost in consideration with all clauses of Section A & B of Purchase Technical Specification, Annexure-1.	01	SET		
3.	Total Amount excluding GST (Rs.)				
4.	Total Amount excluding GST (Rs.)(In words)				

Note:

- Annexure-2A is only to be considered as price breakup of the quoted price in Annexure-2 (Price Bid). The total amount excluding GST shall be identical as quoted in Annexure-2 (Price Bid).
- Un-priced price breakup sheet format (which is an exact replica of the Price breakup sheet except that Price is blanked) as per Annexure-2A to be submitted along with techno-commercial bid with details like stating “Quoted” or “Not Quoted” or “Not Applicable” to be mentioned for each line item.

Seal & Sign. of the Bidder

General Terms & Conditions

Sl. No.	Description	Compliance by Supplier (YES/NO) In case of non compliance, please provide remarks.
1.	Bidders are required to carefully go through the terms and conditions and the technical specification of the items for which offers are called for. Tenderers have to adhere to above and supply full technical scope of items along with compliance of commercial conditions. HOOGHLY CSL have full right upon deviations, if any, including rejecting the partial scope/ complied offers.	
2.	Offers are to be furnished in duplicate and should be free from overwriting. Corrections and additions, if any, must be attested. The offers shall be submitted only through email. Incomplete/ambiguous/conditional offers are likely to be rejected.	
3.	Technical checklist, if applicable and general terms & conditions of enquiry duly filled and signed and technical specifications of items offered (refer clause5), should be submitted alongwith part-1 techno-commercial bid in the case of two-bid tenders. Non receipt of the document may lead to rejection of offers. In the case of e-tender filling up of GTC check list in the portal itself is sufficient.	
4.	Bidders can contact Officer-in-charge of the work which is indicated in the Tender Notice for any clarification before submitting the offer. If clarifications/details are not obtained before the offer is submitted, no claim on this account will be admitted.	
5.	<p>Spare/Tool requirements to be confirmed, if applicable</p> <p>i) Installation and commissioning spares, Manufacturer's standard recommended consumable spares, special jigs and tools for maintenance of the machinery/equipment and Classification society required Spares are to be included in Scope and costs.</p> <p>ii) The same shall be included in offered costs and shall be a part of L1 evaluation. List of Spares to be submitted along with the offer.</p>	
[Refer: Purchase Technical Specification at Annexure-1]		
6.	Please note that the Class test and approval charges, if any are to be included in the equipment pricing.	
7.	<p>SPECIFICATIONS: -</p> <p>a) Manufacturer's name, their trade mark and brand, if any, should invariably be mentioned and illustrative leaflets giving technical particulars (technical details of items offered including technical literature) etc., should be attached to the offer. Spare/Tool required as per PTS to be included in scope along with cost .</p> <p>b) Materials offered shall be new and unused and conform to HOOGHLY CSL specifications and drawings.</p>	

	c) Samples are to be supplied free of cost in the event of requirement by HOOGHLY CSL. The detailed working drawing, if called for, is also to be furnished for approval before commencement of manufacture. [Refer: Purchase Technical Specification at Annexure-1]	
8.	Packing materials should be eco friendly. Products supplied shall be non toxic and harmless to health. In case of toxic materials, Materials Safety Data Sheet may be furnished along with the material.	
9.	Supplier should follow the statutory requirements of product offered. [Refer: Purchase Technical Specification at Annexure-1]	
10.	SHIPMENT a) Supplier shall intimate Hooghly CSL the readiness of the Equipment/ Machinery/ Components and Parts prior to fourteen days of shipment. b) A minimum 14 days free detention period is to be granted for clearance of the goods at Kolkata Seaport/Airport, as applicable for full containers.	
11.	COMMISSIONING: -Scope and cost of offer also to include availability of competent service engineer as required by HOOGHLY CSL for commissioning / test and for official trials. b) Cost considered to include travel tickets, lodging, boarding and local transport costs.	
12.	For Foreign vendor d) Applicable taxes in India shall be borne by the Supplier (As per Income tax act,1961 for Indian suppliers and Income Tax Act, 1961 and DTAAs agreements in the case of foreign vendors). e) Income tax liability of non resident service engineer based on his period of stay in India shall not be borne by HOOGHLY CSL f). The non resident vendor/service provider shall provide such documents that are necessitated by the Indian income tax laws so as to enable HOOGHLY CSL to comply with the provisions of Indian statute and for payments of income tax in India. Following documents shall be sought by HOOGHLY CSL in this regard (i) Certificate under 10 (F) (ii) Tax residency certificate (iii) The certification regarding the existence/non existence of business connection or permanent establishment in India. (The above is only an indicative list)	
13.	Taxes and duties, if any, payable extra are to be indicated in the techno commercial part and price part.	
14.	For indigenous vendor MSEs, Startups and Make in India a) Local Suppliers (Make In India), MSME firms and Startups will be eligible for various Relaxations in pre-qualification criteria and other Benefits as per the orders promulgated by Government of India. Bidders are advised to refer the details of various Benefits and Relaxation in pre-qualification criteria as published at HOOGHLY CSL website (www.hooghlycsl.com/www.cochinshipyard.in) under the Tenders tab for further reference.	



	<p>Delivery Schedule:</p> <p>Within 60days from the date of issuance of PO/LOI.</p> <p>Delivery schedule specified in this tender shall apply irrespective of the time required for preparation and submission of drawing, obtaining approvals (including class or statutory approval), manufacturing, transportation etc.</p>	
15.	<p>Bidders are requested to clearly indicate the delivery lead time in the technical bid. <u>Hooghly CSL reserves the full right to accept/reject any offer based on the delivery period.</u></p> <p>Delivery shall mean, delivery of materials along with all requisite documents (MTC, FAT, Class certificate, Warranty/Guarantee etc.) as per the tender requirement. Delivery of materials without complete documents shall not be treated as delivery for the purpose of inspection or acceptance and LD, if applicable, shall be calculated up to the date of complete delivery i.e., receipt of both materials and all requisite documents.</p>	
16.	<p>Hooghly CSL, may increase or decrease the quantity or may change in scope of work at its own discretion.</p>	
17.	<p><u>PAYMENT TERMS:</u></p> <p>a) Stage-1: 90% on receipt and acceptance of complete set of material at Hooghly CSL stores after inspection. Payment shall be released against invoice certified by store officer/executing officer and other mandatory documents, as per Purchase Order Technical Specification.</p> <p>b) Stage-2: Balance 10% will be released after satisfactory commissioning or 6 months from date of supply of materials at Hooghly CSL yard, whichever is earlier.</p> <p>c) Payment shall be made as per actual quantity of supply and at the accepted rates.</p> <p>d) Supplied material to be verified defect free, and to be accepted.</p> <p>e) Payment towards all on account bills shall be normally paid within 45 working days from the date of receipt of error free certified bill by the Officer of Hooghly CSL as far as possible.</p> <p>f) To avoid non-acceptance, ensure to indicate P.O.NO, ITEM NO, PART NO. AND VENDOR CODE in the Delivery Challan accompanying the material.</p> <p>g) i) The invoice shall be compliant with GST Law. (ii) GST liability is to be discharged and ensure filing of outward supply details on GSTN</p>	



	<p>portal within timeline prescribed. (Covered under GST Terms and Condition at (B)) (iii) Any debit note/supplementary invoice if any, is to be raised within September month following the respective Financial year or filing of annual return by Hooghly CSL, whichever is earlier. (iv) Any loss of tax credit due to the reason attributable to supplier shall be recovered from supplier along with Applicable interest and penalty.</p> <p>h) Payment mode shall be Electronic Clearing System (ECS)/cheque /NEFT/LC/CAD/TT-as mutually agreed in line with above standard payment terms. Variations from standard terms, if any, shall be appropriately loaded for tender comparison purposes for arriving the lowest bid.</p> <p>i) For deviation in Payments terms from Hooghly CSL standard, if any, aforesaid interest will be loaded on quoted item basic prices, for tender comparison purposes.</p>	
For vendor	Foreign	j) Bank charges (including LC charges, if any) inside India will be to HOOGHLY CSL account and outside India to supplier's account (In the case of import shipments). The charges for LC amendment, if any, shall be borne by the parties by whom the same is attributed/ necessitated.
18.	Earnest Money Deposit (EMD): Nil	
19.	Security Deposit/ Warrante Bank Guarantee:	<p>a.i) The successful bidder shall remit a security deposit of 3% of the total order value (excluding taxes, duties) in the form of demand draft drawn in favor of "Hooghly Cochin Shipyard Ltd" towards the satisfactory performance of the contract, if an order is placed on them. Alternatively, a Bank Guarantee equivalent to above % of the total order value (excluding taxes, duties) as per HOOGHLY CSL format from an International Bank as per approved list of banks available in CSL website (for overseas supplier) & Scheduled Indian bank for Indian supplier is to be submitted, if an order is placed towards satisfactory performance of the contract.</p> <p>a.ii) The supplier shall also agree for 3% of total order value (excluding taxes and duties) as Bank guarantee towards the Guarantee clause.</p> <p>a.iii) The Bank Guarantee /DD as above should be initially valid till 90 days after completion of supplies in terms of SD and later revalidated (within the validity of initial BG) to cover the guarantee period mutually agreed plus 90 days.</p> <p>Fixed Deposit Receipt (for equivalent amount of Security Deposit/WBG required as per tender) in lieu of bank guarantee is also acceptable. Fixed Deposit Receipt shall be in the name of supplier with lien marked in favour of Hooghly Cochin Shipyard Limited, Howrah.</p> <p>The above SD/WBG is required or applicable only when the total order value (excluding taxes and duties) is Rs.20lakhs and above.</p>



	b) If the bidder is not agreeable to submission of SD/ warrantee bank guarantee as per Hooghly CSL general terms and conditions of enquiry, Hooghly CSL reserves the right to reject the offer at their discretion or 3% of total order value (excluding taxes and duties) will be added to the quoted price for tender comparison/ evaluation purpose on case-to-case basis for arriving the lowest bid. However, in cases where total quoted value is less than 20 lakhs, (ie split order etc) and the order value of entire tendered items is more than Rs 20.0 lakhs, the aforesaid loading will be applied on individual items in following cases. <ul style="list-style-type: none"> • The bidder has not quoted for entire tendered quantity. • Hooghly CSL has technically / commercially rejected a few items in the tender. c) SD to be submitted within 2 weeks of receipt of order from yard. d) Format of bank guarantee along with enquiry to be agreed.	
	For Foreign vendor	e) Mode of receipt of bank guarantee is strictly through SWIFT mode from supplier bank to HOOGHLY CSL designated bank (for overseas bidders)
20.	<u>Risk Purchase:</u> If the supplier fails to supply the items ordered in good quality as per contract specification and fails to deliver within the delivery date or violate any of the terms and conditions of the purchase order, Hooghly CSL shall have the following rights. a. To cancel the order partially or full with 15 days' notice and to forfeit the security deposit, if any. b. To impose tender holiday for the vendor for an appropriate period as decided by Hooghly CSL. c. To initiate alternate procurement action at the risk and cost of the supplier. This Risk Purchase clause is applicable only in the case of total order/contract value (excluding taxes and duties) is Rs.20 lakhs and above (or equivalent foreign currency). Cases of value less than 20 lakhs will be addressed by serving appropriate caution/ warning notice to the firm	
21.	<u>Liquidated Damage:</u> In case of delay in supply of ordered materials beyond the stipulated delivery period, which is not attributable to Hooghly CSL, supplier is to pay Liquidated Damages (and not by way of penalty) a sum equivalent to $\frac{1}{2}\%$ (half percent) per week or part of the week of the total basic price of materials delayed per subject to a maximum of 10% of the total basic price of the materials delayed per shipset (Total basic price is the order value excluding freight, taxes, other charges etc.). However, LD applicability is without prejudice to Hooghly CSL right to terminate contract for delayed delivery or other actions as per Risk Purchase clause.	

22. Warranty/ Guarantee: <ul style="list-style-type: none"> a) The Items supplied shall be guaranteed for rated performance and against damage or failure due to faulty design, defective materials and bad workmanship for a period of 12 months from the date of delivery of the ship to owner or 24 months from delivery of items to Yard, whichever is earlier. Should such damage/ failure occur within the Guarantee period, supplier should immediately rectify the failure by repair/replacement of any such part found to be under performing/ defective, at supplier's own expenses. b) Further, replaced/repaired items shall be guaranteed for 12 months from date of repair/replacement. c) Replacements during guarantee period to be sent on Duty and all taxes paid basis to location as required by yard/vessel owner with all expenses to supplier account. 	
23. Jurisdiction: All questions, disputes or difference arising under, out of, or in connection with contracts shall be subject to the exclusive jurisdiction of the Courts at Kolkata, West Bengal, India. Alternate dispute resolution mechanism can also be considered.	
24. Arbitration: <ul style="list-style-type: none"> (a) Any disputes arising during the period of the contract shall, in the first instance be settled by mutual discussions and negotiations. (b) If any dispute, disagreement or question arising out of or relating to or in consequence of the contract, or to its fulfillment, or the validity of enforcement thereof, cannot be settled mutually or the settlement of which is not herein specifically provided for, then the dispute shall within thirty days from the date either party informs the other in writing that such disputes, disagreement exists, be referred to arbitration. The arbitrators shall be appointed and the arbitration proceedings shall be conducted in accordance with and subject to the Arbitration and Conciliation Act, 1996 (No. 26 of 1996) as amended from time to time and the decision of the Arbitrators shall be final and binding on the parties hereto. The arbitration will be done by a Board comprising one arbitrators nominated by each party, and a mutually agreed Umpire. Each party shall bear its own cost of preparing and presenting its case. The cost of arbitration shall be shared equally by the parties unless the award provides otherwise. Performance under this Contract shall however, continue during arbitration proceedings and no payment due or payable by the parties hereto shall be withheld unless any such payment is or forms a part of the subject matter of arbitration proceedings. (c) Seat & Venue of Arbitration: The seat & venue of arbitration shall be at Kolkata. (d) Language of Arbitration: The Language of arbitration shall be English. Governing Law: The contract shall be governed by Indian Law. (e) In case of disputes, the same will be subjected to the jurisdiction of courts at Kolkata, West Bengal. 	



25.	<p>Force Majeure condition:</p> <p>Should failure in performance of the contract or part thereof arise from war insurrection, restrain imposed by Government, Act of Legislature or other Statutory Authority or illegal strike, riot, legal lock-out, flood, fire, explosion, act of God or any inevitable or unforeseen event beyond human control which may be construed as reasonable ground for an extension of time, HOOGLY CSL may allow such additional time as is mutually agreed, to be justified by the circumstances of the case. The occurrence/cessation of force majeure situation is to be informed with documentary evidence within 15 days from the date of occurrence/ cessation.</p>		
26.	<p>For Foreign vendor</p>	<p>Indian Agent:</p> <p>a) Hooghly Cochin Shipyard Ltd, prefers to deal directly with the supplier. However, if the supplier appoints an Indian Agent to deal with Hooghly Cochin Shipyard Ltd., the Agency commission payable by the supplier to such an agency shall be intimated.</p> <p>b) If manufacturers effect the supply through Agents only, authorization in writing from manufacturers in favour of the Agent for supply to HOOGLY CSL shall be furnished.</p> <p>c) In case where an Agent participates a tender on behalf of a Foreign manufacturer Indian agent should submit specific authorization from the authorized person of foreign manufacturer.</p> <p>d) In a tender, either the Indian agent on behalf of the Principal/ OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/ product in the same tender. If an agent submits bid on behalf of principal/OEM, the same agent shall not submit a bid on behalf of another principal/OEM in the same tender for the same item/product. Indian agents cannot represent more than one firm or quote on their behalf for any particular tender.</p> <p>e) Clarifications, either technical or commercial, should be submitted to points specially asked for only. The opportunity so given should not be used for correcting/ changing/ amending the data/ conditions already submitted with the tender</p>	
<p>27.</p> <p>PRICING: Bidders should quote prices for delivery of materials on FOR Hooghly CSL stores basis.</p>			
		<p>For indigenous vendors</p> <p>b. Bidders should quote prices for delivery of materials FOR HOOGLY CSL stores.</p>	
		<p>Address: Hooghly Cochin Shipyard Ltd (HOOGLY CSL), Satyen Bose Road, Danesh Sk. Lane (PO), Nazirgunge, Howrah, West Bengal, PIN -711109.</p>	
		<p>c. Indigenous Firms shall quote in INR only. Exchange rate variation will not be applicable and the prices shall be</p>	



	<p>fixed for an order within validity period in the case of indigenous orders.</p> <p>d. Bidders may also quote on High Sea Sales basis, and necessary clearance of items will be done by HOOGHLY CSL after execution of HSS agreement.</p>	
For Foreign vendor	<p>e. Foreign Bidders should quote prices CIF Kolkata port, India basis.</p> <p>f. Offer to be submitted generally in USD/EUR/INR currency and to be mentioned in price bid. Exchange rate variation will not be applicable and the prices shall be fixed for an order within validity period in the case of indigenous/import orders.</p> <p>g. Comparison of prices will be in INR only. All foreign currencies will be converted to INR for comparison and Exchange rate as on date of price bid opening shall be considered for arriving lowest bid</p>	
e. Validity:	The offer should be valid for a minimum period of 120 Days from the date of Techno-Commercial Bid opening.	
f.	Inspection charges, if any required, shall also be separately included in the quote.	
g.	No enhancement of rate for whatsoever cause will be allowed once the offer is accepted and an order is placed. Withdrawal of the quotation after it is accepted or failure to make the supply within the stipulated delivery period, will entail cancellation of the order and forfeiture of Earnest Money Deposit/Security deposit, if any and/or risk purchase, without prejudice to other penal actions, including tender holiday after serving show cause notices, as deemed fit.	
h.	Conditional discounts, if any, will not be reckoned for tender evaluation/comparison purpose. However, if the bidder becomes L1 at original offer, conditional discount shall also be considered.	
i.	Un-priced bid (price bid without price) duly signed is to be submitted alongwith techno-commercial offer in the price format, provided. Price should be quoted separately for each item shown in the format. In the event price bid is different from the unpriced format already submitted, yard reserves the right to reject the offer at our discretion without any further discussions. Details of optional items, if any, should be indicated under separate heading in the Techno commercial bid and the respective price details should also be given in the price bid. Combining of figures against more than one item and ambiguous clauses will lead to rejection of the bid.	
j.	If, in the price structure quoted for the required material/ item, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected. If there is a discrepancy between words and figures, amount in words of respective figures shall prevail. If the bidder does not agree to the observation of the HOOGHLY CSL, the tender is liable to be rejected and the same shall be intimated.	



	<p>k. After submission of quotation/price offer no unsolicited correspondence will be entertained.</p> <p>l. Hooghly Cochin Shipyard Limited does not bind itself to accept the lowest or any tender but reserves to itself the right to reject any or all or a part of any tender at its discretion.</p>	
28.	<p>L1 computation shall be based overall quoted amount excluding GST (Rs.)</p> <p>For all import consignments directly imported in Hooghly CSL's name/or on High Seas Sale agreement, at present customs duty is not applicable at import clearance for HOOGLY CSL. Customs clearance at Kolkata port and transport till HOOGLY CSL stores shall be to HOOGLY CSL account.</p>	
29.	<p>Integrity Paet:</p> <p>As per Government of India (Central Vigilance Department), Hooghly CSL and the SUPPLIER have to sign an Integrity Paet for the high value contracts, for ensuring transparency, equity and competitiveness in public procurement. The Tenderer has to sign Pre Contract Integrity Paet as per format enclosed at Annex 10 and to submit along with your offer.</p> <p>The above is applicable when the total basic price is above INR. 100.0 lakhs. (present limit)</p>	
30.	<p>SUB CONTRACTING AND ASSIGNMENT:</p> <p>Supplier shall not contract with any subcontractor and/or vendor without the prior written consent of HOOGLY CSL. Such consent shall not relieve the Supplier from any of his responsibilities and liabilities under the Purchase Order. In addition, Supplier shall ensure that the terms and conditions of any such contract shall comply with and correspond to the terms and conditions of the Purchase Order.</p>	
31.	<p>General:</p> <p>a. Prior to price bid opening, HOOGLY CSL is at liberty to take the credit rating of bidders at our cost on case to case basis, and to include the same during the evaluation of the tender.</p> <p>b. Deviations, if any in the techno-commercial offer from that of the tender enquiry in any form should be clearly furnished in a separate document titled as "List of Deviations", failing which it will be presumed that all the terms and conditions are acceptable.</p> <p>c. The techno-commercial part alone will be opened initially on the due date of tender. The price part will be opened only after evaluation of the Techno commercial part. Date of opening of the price part will be intimated to those firms whose Techno- commercial bids would be acceptable after the evaluation.</p> <p>Suppliers shall not depute their representative to HOOGLY CSL.</p>	
32.	<p>Purchase Order:-</p> <p>a. In the event supplier's offer leads to an agreement to effect supplies, a formal purchase order shall be issued by HOOGLY CSL on the basis of agreed terms and conditions of tender.</p> <p>b. Upon placement of order (by post or mail) the supplier shall submit the acknowledgement (ie: signed and stamped original/ scanned soft copy by mail) as a token of acceptance of order within 15 days from receipt of Purchase Order. In case order acknowledgement is not received within 15 days, it will be deemed as accepted.</p>	



33.	<p><u>SUPPLY:</u> -</p> <p>a) HOOGLY CSL reserve the right to inspect the goods after receipt at HOOGLY CSL store / prior to dispatch (by HOOGLY CSL or HOOGLY CSL authorized agency at yard cost). Short supply / Mismatch / Replacement of Defective items / those not meeting agreed / contractual specification/ Items failing during commissioning shall be sent on air freight/ DDP basis courier freight prepaid/delivered at HOOGLY CSL store.</p>	
	<p>The customs clearance charges of above (If any) shall be to supplier account.</p> <p>b) In case HOOGLY CSL deputes its personnel / Third Party Inspectors to inspect items in the supplier premises prior dispatch, in such cases supplier shall provide all necessary facilities for inspection, testing and performance checks at his works on case to case to basis. The accepted items samples shall be identified with stamps/ permanent marks and reference of the same shall be given in the inspection report. Location of stamping shall be mentioned in the inspection report.</p>	
	<p>c) Replacements during guarantee period to be sent on Duty and all taxes paid basis to location as required by yard/vessel owner with all expenses to supplier account.</p>	
	<p>d) Defective items, if any, after receipt shall be sent back on cost, carriage, handling and insurance prepaid basis including re-export (wherever desired by supplier) to be arranged by supplier. Defective items shall be returned after receipt of replacement item. Supplier, shall replace all/ part of items as applicable, in case of rejection, within 4 weeks of reporting the defect, without any additional cost to HOOGLY CSL. In case the defective materials are not taken back within the said period, HOOGLY CSL reserves the right to dispose the same without further intimation.</p>	
	<p>(e) The supplier shall compensate HOOGLY CSL for loss on account of shortage in quantity and number of pieces received than that indicated in the bill of lading provided the HOOGLY CSL's claim is rejected by the insurance due to any fault of supplier. Such claims, if any, shall be supported by recognized surveyors report. The supplier shall also compensate for losses, if any sustained by the HOOGLY CSL due to defective packing and/or marking of the goods not in accordance with the terms of contract. The time limits for filing claims under clauses above shall be generally 180 days from the date of complete discharge of goods.</p>	
34.	<p>HOOGLY CSL reserves the right to alter, modify the scope of supply at its discretion and in consistent with the policy of the Government of India and statutory bodies under them as applicable to the contract from time to time.</p> <p>The quantities in each item to be purchased may vary according to actual requirement at the time of placing orders as per extant regulations.</p>	
35.	<p>HOOGLY CSL reserves the right to commercially reject the offer if compliance is not issued to General Terms and Condition without any further clarification / notice / communication in this regard from M/s. Hooghly Cochin Shipyard Ltd., even though the offer is technically acceptable.</p>	

36.	<p><u>Termination Clause:</u></p> <p>(a) This purchase order may be terminated upon the occurrence of any of the following events</p> <ul style="list-style-type: none"> (i) By agreement in writing of the parties hereto; (ii) By the non-defaulting party, upon default by the other party, of any clause of this contract, if not remedied within thirty (30) days, or such longer time as may be agreed upon by the parties, after receipt of notice thereof in writing from the non-defaulting party; (iii) By the other party, upon either parties; <ul style="list-style-type: none"> • Making the assignment for the benefit of creditors, being adjudged bankrupt or becoming insolvent; or • Having a reasonable petition filed seeking its "dissolution or liquidation, not stayed or dismissed within sixty (60) days; or • Ceasing to do business for any reason. (iv) In cases where maximum limit of LD is reached and still the items are not delivered. (v) For fraud and corruption or other unacceptable practices. <p>(b) Upon expiry or termination of this Contract, neither party shall be discharged from any antecedent obligations or liabilities to the other party under this Contract unless otherwise agreed in writing.</p> <p>(c) HOOGHLY CSL may by notice in writing to supplier terminate the order after issuing due notice i.e. 15 days notice period. HOOGHLY CSL shall be entitled to compensation for the loss limited to the order value.</p> <p>(d) Liability maximum that can be claimed by the supplier shall be limited to what is due to be and has been paid by HOOGHLY CSL for the material delivered/work done as per the payment milestones</p>	
37.	<p><u>Limitations of Liability:</u></p> <p>Neither party shall be liable to the other party for any indirect and consequential damages. Neither party shall be liable to the other party for any loss of profits or loss of production</p>	
38.	<p><u>Indemnity clause:</u></p> <p>Supplier will indemnify HOOGHLY CSL and its affiliates, directors, officers, and employees against all liabilities, damages, losses, costs, fees (including legal fees), and expenses relating to any allegation or third-party legal proceeding (including action by a government authority) to the extent arising from an allegation that use, possession, or sale of the products or services violates or infringes a third party's rights, including intellectual property rights; or an allegation that any personnel are entitled to employee compensation, benefits, or other rights or transfer law rights, except to the extent caused by HOOGHLY CSL's unlawful acts or omissions.</p>	
39.	<p><u>Malicious Code:</u></p> <p>The Bidder will be overall responsible for all cyber/information security related aspects pertaining to the Systems Projects & ICT goods and services and will be the single point of contact for addressing all Cyber/information security related issues for the goods and services supplied by the Bidder as part of the contract. It will be responsibility of the Bidder to enter into such agreements/contracts with the OEMs as may be necessary to ensure that all cyber/information security aspects are addressed holistically and comprehensively. The Bidder will provide list of tests conducted by OEM or an accredited certification agency along with</p>	

	list of such test reports for the Systems Projects & ICT goods and services provided as part of contract.	
40.	<p><u>Packaging:</u></p> <p>(a) Material to be wrapped with protective covers like VCI/ Environmental friendly Polythene (as per Govt. of India guidelines)/ Tarpauline.</p> <p>(b) To the extent possible, material needs to be packed in standard pallet/ box size of 1 X 1 meter.</p> <p>(c) If multiple components needed to be accommodated in the boxes, separator to be provided inside.</p> <p>(d) Packaging should withstand at least 2 Years life without degradation</p> <p>(e) Material should be with proper preservation for the prevention of rust, Transit damage etc.</p> <p>(f) Boxes should be accessible with forklift, Stacker & Hydraulic Trolley.</p> <p>(g) Proper Identification details should be provided on each box. The below details are required as minimum: Purchase Order Number, Material code, Description, Quantity, Supplier details, Tag Numbers & Serial number list (for applicable parts), Batch details, Shelf life.</p> <p>(h) Packing to be done in such a way to enable adequate preservation for long period, with no transit damage, easy to identify and count.</p> <p>(i) Asbestos should not be part of any material / packing material supplied to HOOGHLY CSL.</p> <p>(j) Transporter's Vehicles are to have all statutory documentation including valid PUC certificate.</p>	
41.	<p>For indigenous vendors</p> <p><u>Goods & Service Tax:</u></p> <p>(a) Please note the HOOGHLY CSL GST registered number as 19AAECH3640L1ZD. GST registration is prerequisite for entering into the business with HOOGHLY CSL. Your firms GST registration shall be indicated. Offers received from GST unregistered suppliers / service providers are liable for rejection.</p> <p>(b) Indicate the applicable rate of GST for services in line with GOI published rate scheduled for services along with SAC.</p> <p>(c) Tax inclusive invoices from the registered service providers are not acceptable. Any corrections / rectifications in the invoice shall be made good through Debit note / Credit note.</p> <p>(d) Bidders are advised to check applicable GST on their own before quoting. Buyer will not take any responsibility in this regards. GST reimbursement will be as per actuals or as per applicable rates (whichever is lower), subject to the maximum of quoted GST %.</p>	
42.	<p>For indigenous vendors</p> <p><u>Input Tax Credit:</u></p> <p>(a) Bidders shall ensure timely delivery of services and submit the tax invoices to HOOGHLY CSL as per the GST law. In case, GST input tax credit is delayed / denied to HOOGHLY CSL due to non / delayed receipt of services and / or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or owing to the bidder not paying the taxes to the Government within prescribed time as per the law or any other reasons not attributable to HOOGHLY CSL and solely attributable to the bidder, the GST amount charged to HOOGHLY CSL, shall be recoverable from the bidder along</p>	

with interest levied / liveable and any other penalties on HOOGHLY CSL and the vendor shall indemnify against all costs to HOOGHLY CSL, and consequences therefrom.

(b) In case bidder delays declaring particulars in respect of any invoice in the GST return required to be filed by such bidder, and GST credit availed by HOOGHLY CSL is denied or reversed subsequently as per GST law, GST amount paid by HOOGHLY CSL towards such ITC reversal as per GST law shall be recoverable from vendor / bidder along with interest levied / liveable on HOOGHLY CSL and any other penalties on HOOGHLY CSL and the bidder shall hold HOOGHLY CSL indemnified against all cost and consequences there from.

(c) Bidders shall submit the invoices as per the provisions of GST law. The bidders invoice shall contain the HSN code / SAC and GSTIN number of the bidder and HOOGHLY CSL as well along with other particulars. The GST charged (IGST / CGST + SGST / UTGST) shall be clearly indicated in the invoice.

(d) In case any credit, refund or other benefit is denied or delayed to HOOGHLY CSL due to any non-compliance of GST legislation such as failure to pay GST to the government (includes late filing of GST return) or due to non-furnishing or furnishing of incorrect or incomplete documents/ information by the bidder or service provider, the bidder or service provider would reimburse the loss to HOOGHLY CSL or HOOGHLY CSL may recover the same, but not limited to, the tax loss, interest and penalty. The Bidders should submit the copy of Latest GST Return filed statement/ form in GSTR-3B

Specify Yes / No



Tender conditions for Restriction of bidders sharing land border with India vide Office memorandum dt 23.7.2020 Order - Public Procurement no 1 dt 23.7.2020, Order no 2 dt 23.7.2020 and Order no 3 dt 24.7.2020

A	Requirement of registration
1	Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with competent authority as per C below. In works contracts, including turkey contracts, contractors shall not be allowed to sub contract works to any contractor from a country which shares a land border with India unless such contractor is registered with Competent authority. Relevant certificate to be submitted by bidder from a country which shares land border with India except for bidders to which Govt of India has extended lines of Credit or in which Govt of India has development projects, alongwith the offer as proof of registration with competent authority, failing which the offer will not be considered. A certificate is to be submitted by the bidder for compliance with the order referred above along with tender documents for consideration of offer (Wordings are as per Clause below). If such certificate given by a bidder whose bid is accepted is found to be false, this would be a ground for immediate termination and further legal action in accordance with law.
2	Wordings of certificate to be submitted along with tender documents
	I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I hereby certify that this bidder is not from such a country or, if from such a country, has been registered with the competent authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. (Evidence of valid registration by the competent authority shall be attached wherever applicable).
2	Wordings of certificate to be submitted along with tender documents for Works involving possibility of sub contracting
	I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub contracting to contractors from such countries. I certify that this bidder is not from such a country or if from such a country has been registered with the competent authority and will not subcontract any work to a contractor from such countries unless such contractor is registered with the competent authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered(Evidence of valid registration by the competent authority shall be attached wherever applicable)
B	Validity of registration
1	Registration should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder is validly registered at the time of acceptance /order placement, registration shall not be a relevant consideration during contract execution.
C	Competent authority and Procedure for registration

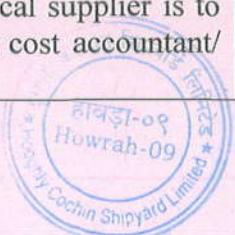


1	<p>The competent authority for the purpose of registration under the order shall be Registration committee constituted by the Department of Promotion of Industry and Internal Trade (DPIIT). Details of the committee and procedure for registration and restrictions shall be as per Ann I of the Order - Public Procurement no 1 dt 23.7.2020 issued by Ministry of Finance , department of Expenditure.</p>
D	<p>Definition of Bidder and Bidder from a country sharing land border with India</p>
1	<p>Bidder is defined as any person or firm or company including any, member of a consortium or joint venture, every artificial, juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.</p>
2	<p>"Bidder from a country which shares a land border with India" for the purpose of this Order means:-</p> <ul style="list-style-type: none"> a) An entity incorporated, established or registered in such a country; or b) A subsidiary of an entity incorporated, established or registered in such a country; or c) An entity substantially controlled through entities incorporated, established or registered in such a country; or d) An entity whose beneficial owner is situated in such a country; or e) An Indian (or other) agent of such an entity; or f) A natural person who is a citizen of such a country; or g) A constitution or joint venture where any member of the consortium or joint venture falls under any of the above.
3	<p>Type of business entity (Private Limited Company/ Public Limited Company/ Sole Proprietorship/ One Person Company/ Partnership/ Limited Liability Partnership/ Joint Venture/ Trust/ NGO) In case of incorporated entity - to attach certificate of incorporation</p>
	<p>Beneficial Owners - as defined in the Department of Expenditure Order (Public Procurement No.1) issued vide No. F.No.6/18/2019-PPD dated 23rd July, 2020. Details of all beneficial owners having entitlement of more than 01% of shares or capital or profit to be given, in the format as given in Annexure-I duly certified by practicing Chartered Account in India.</p>

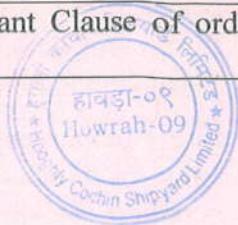


Tender condition- Preference to Make in India

<p>A Purchase preference in accordance with Public procurement (Preference to Make in India Order – 2017) Order from Department of Promotion of Industry and Internal Trade P-45021/2/2017/-B.E-II dt, 4.6.2020 and as amended from time to time shall be applicable as per below</p>	
1	In the procurement of all goods/services/works in respect of which there is sufficient local capacity /local competition, only Class I Local suppliers shall be eligible to bid irrespective of purchase value
2	In the procurement of all goods/services /works which are not covered as above and with estimated value of purchase less than Rs 200.0 Crores, only Class I local Suppliers along with Class II local suppliers shall be eligible to bid.
<p>Purchase preferences for Class I local suppliers</p>	
<p>In the procurement of goods/works covered under 2 above and which are divisible in nature, Class I local supplier shall be eligible for Purchase preference over Class II / Non local supplier as per following</p>	
1	If L1 bid is not a Class I local supplier, 50% of the order quantity shall be awarded to L1. Thereafter the lowest bidder among Class I local supplier will be invited to match the L1 price for the remaining 50% quantity subject to Class I local supplier quoted price falling within 20% margin. Contract for that quantity shall be awarded to such Class I local supplier subject to matching L1 price. In case such lowest eligible Class I local supplier fails to match L1 price or accept less than offered quantity, next higher Class I local supplier within 20% margin shall be invited to match the L1 price for the remaining qty and so on. If some quantity is left uncovered on Class I local supplier, such balance quantity shall be ordered on L1 bidder.
2	For procurements that are not divisible in nature and in procurement of services evaluated on price alone, Class I local supplier shall get purchase preference over Class II/Non local supplier as per below
3	If L1 is not a Class I local supplier, lowest bidder among Class I local supplier will be invited to match L1 price subject to Class I local supplier quoted price falling within 20% of L1 price and contract will be awarded to such Class I local supplier, subject to matching L1 price. In case such lowest eligible Class I local supplier fails to match L1 price, procedure same as para 3 above will be opted. In case none of Class I local suppliers within 20% margin matches L1 price, contract shall be awarded to L1 bidder. The purchase preference as above will be only for Class I local supplier and Class II local supplier will not be eligible for any Purchase preference
C	Local content requirement to categories a supplier as Class I/Class II/Non local supplier shall be as per below. Definition of local content shall be as per order dt 4.6.2020 i.e amount of value added in India which shall be the total value of the item procured (excluding net domestic indirect taxes) minus the value of import content in the item (including all customs duties) as a proportion of total value in percentage.
1	Class I–Local content equal to or greater than 50%
2	Class II–Local content greater than 20%, less than 50%
3	Non local–Local content less than 20%
D	Declaration of local content
1	Class I local supplier /Class II local supplier at the time of tender shall indicate % of local content and provide self-certification that offered item shall meet the local content requirement for Class I/Class II as applicable including details of locations at which local value addition is made.
2	In case of procurement for a value in excess of Rs 10.0 Crores Class I/Class II local supplier is to provide a certificate from statutory auditor/cost auditor(for companies) /practicing cost accountant/ Chartered accountant (suppliers other than companies) indicating % of local content



3	Verification of the Certificates issued by the bidder shall be carried out by HOOGLY CSL on random basis. False declarations will attract actions as stipulated in the order referred, including other actions as permissible by law.
4	Exemption is applicable from provisions of order for purchases with estimated values less than Rs 5.0 lakhs
5	Notwithstanding above, exemptions for meeting local content as per relevant Clause of order dt 4.6.2020 and as amended from time to time shall apply.



SPECIAL INSTRUCTION TO BIDDER

1. MODE OF SUBMISSION OF TENDERS

Tenders should be submitted in two separate files as **PART-I"TECHNO-COMMERCIAL" & PART-II "PRICE"** (Password Protected) indicating the tender number, due date of the tender in the subject of the Mail and addressed to The Assistant General Manager (Planning & Procurement).

2. TECHNO-COMMERCIAL PART SHOULD CONTAIN FOLLOWING DETAILS: -

- I. Scope of Work & Technical Specification including documents specified in cl.no. 9.1 (Annexure-1)
- II. Unquoted Price bid (Annexure-2)
- III. Unquoted Price breakup sheet format (Annexure-2A)
- IV. General Terms and Conditions (Annexure-3)
- V. Special Instruction to Bidder (Annexure-4)
- VI. Techno-Commercial Check List along with requisite documents (Annexure-5)
- VII. Vendor Details (Annexure-6)
- VIII. NEFT Mandate Form (Annexure-7)
- IX. Deviation List (Annexure-8), if any.
- X. SD/Bank guarantee format.(Annexure-9)
- XI. Self-declaration by bidder (Annexure-10)
- XII. Declaration of Pending Legal Cases (Annexure-11)
- XIII. Tender Declaration (Annexure-12)
- XIV. Product Specification, detail list of supplied items including brand name and accessories etc., to be provided for verification.

3. PRICE PART SHOULD CONTAIN FOLLOWING DETAILS: -

- a. Price against item as per Annexure-2.
- b. Price breakup sheet as per Annexure-2A.
- c. Taxes & duties as applicable shall be indicated.

Note:

- i. Modification or alteration of the price bid format attached is strictly prohibited.
Otherwise Bid will be liable for rejection.
- ii. In case Price bid is placed inadvertently in the Techno-Commercial Part or in case Price bid is not password protected, Bid will be straightway rejected.
4. While submitting the bid, bidders are requested to note that the e-mail ID starting with following words may probable be treated as spam, not always necessary-
info, support, admin, sales, customer support, helpdesk, mail, mailadmin, billing, hello, careers.



Bidders are requested to submit the bid by e-mail (Price part password protected) only to both the following email address clearly mention the tender reference in the subject line for easy identification.

saikat.biswas@hooghlycsl.com
sreerag.g@hooghlycsl.com

5. The Techno-commercial part alone will be opened initially on the due date and time of tender. The price part will be opened only after evaluation of the Techno commercial part. Bidders will be intimated the date of opening of the price part, whose techno-commercial bids are acceptable in due course.

6. Deviations, if any, in the offer submitted from that of the tender enquiry in any form, should be clearly furnished in a separate document titled as "List of Deviations", failing which it will be presumed that all the terms and conditions are acceptable.

7. After submission of quotation / price bid opening, no unsolicited correspondence will be entertained.

8. Clarifications, either technical or commercial, should be submitted to points specially asked for only. The opportunity so given should not be used for correcting/changing amending the data/conditions already submitted with the tender.

9. Offers should be clear and unambiguous. Incomplete/ambiguous offers are likely to be rejected.

10. The bidder shall submit a signed & sealed copy of the tender document including Annexures and Enclosures along with their bid as token of acceptance of terms & Conditions.

For Hooghly Cochin Shipyard Limited



TECHNO-COMMERCIAL CHECK LIST

SL. NO.	DESCRIPTION	COMPLIANCE		REMARKS
		YES	NO	
1.	Submission of Tender in two parts –Techno-commercial& Price (Password Protected)			
2.	Delivery date confirmation to yards delivery schedule(Ref: Clause 15 of Annexure-3)			
3.	Validity of offer – 120 Days from the date of Techno-Commercial Bid opening.			
4.	Payment Terms - confirm your offered mode of payment			
5.	The Prices offered should remain firm till the completion of delivery, in case the purchase order is placed with you.			
6.	Have you quoted the rates on FOR HOOGHLY CSL Stores basis.			
7.	Have you considered Taxes, duties, levies, packing & forwarding etc., if any, in the offer?			
8.	Have you submitted Price break up (Annexure-2A) along with Price Bid (Annexure-2) duly password protected?			
9.	L.D. payable as per relevant Clause in the General terms of enquiry.			
10.	Disputes in connection with contract subject to jurisdiction of courts at Kolkata India.			
11.	Termination of contract/Risk purchase as per relevant clause in the General terms of enquiry.			
12.	Supplier Should furnish all the requisite certificates as per Annexure-1 (Purchase technical specification)			
13.	Vendor details to be submitted as per Annexure-6			
14.	PAN & GST registration certificate			
15.	NEFT Mandate form to be submitted as per Annexure-7			
16.	List of deviations to be submitted as per Annexure-8			
17.	Bank Guarantee Format to be submitted as per Annexure-9			
18.	Confirm all other terms and conditions of enquiry are acceptable.			

VENDOR DETAILS (to be submitted along with TECHNICAL BID)

1	Name of Bidder/Firm	
2	Registered office Address of Company/firm in Kolkata/Howrah: Local office address at Kolkata/Howrah (if held):	
3	Telephone No./Fax No./Mobile No:	
4	E-mail address:	
5	Names of the contact person & Designation:	1) 2) 3)
6	Type of Entity-Pro praetorship/Partnership firm/company/NSIC/MSME Category etc. (Please attach registration certificate of Firm/Partnership agreement/proprietorship documents)	
7	Cost of Tender Details (DD No. Name of Bank)	N/A
8	EMD Details (DD No. Name of Bank)	N/A
9	PAN Card Number (Self-attested copy of PAN card has to be Submitted)	
	GST Registration No. (Self-attested copy has to be Submitted)	
10	Whether the agency has been blacklisted/de barred or given tender holiday or contract terminated before expiry of the contract period by any govt. autonomous bodies/organizations where bidder has provided services earlier due to deficiencies in service or misconduct etc.	Yes/No (Please tick as applicable) If yes, please furnish details on a separate sheet

- Certified that the above information is true to the best of our belief and information.

Place:

Date:

Signature of Supplier/Authorized signature of firm/agency:

Name of Supplier or authorized signatory of firm/agency:

Designation:

We hereby declare that the particulars given above are correct and complete. If the transaction is delayed or lost because of incomplete or incorrect information, we would not hold the company responsible.

(.....)

Signature of Employee

Bank Certificate

We certify that _____ has an Account
No. _____ with us and we confirm that the details given
above are correct as per our records.

Date:

(.....)
Authorized official of Bank

**BANK GUARANTEE IN LIEU OF SECURITY DEPOSIT/
WARRANTY GUARANTEE**

To
HOOGHLY COCHIN SHIPYARD LTD
(Govt. of India Enterprise,)
Satyen Bose Road,
Danesh SK Lane (PO),
Nazirgunge, Howrah,
West Bengal - 711109.

WHEREAS(Name & Address of Supplier)
(hereinafter called" **the Supplier**") has undertaken , in pursuance of
Contract.....No.....Dated:.....
...to execute(Name of Contract and brief description of
works)(hereinafter called" **the Contract**").

AND WHEREAS it has been stipulated by **HOOGHLYCOCHIN SHIPYARD LTD**
(The Buyer – hereinafter called "**HOOGHLY CSL**") in the said contract that the Supplier
shall furnish **HOOGHLY CSL**with a Bank Guarantee for the sum specified therein as
security for compliance with the Supplier's obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier such a Bank Guarantee.

NOWTHEREFORE we.....(Name of the Bank) having its Head Office
at.....(Address of Head Office)and acting through its branch office
at.....(Address of the executing branch)(hereinafter called" the Bank")
hereby affirm that we are the Guarantor and responsible to **HOOGHLY CSL**, on behalf of
the Supplier upto a total of.....(amount of Guarantee) in words).

We, the bank, hereby irrevocably undertake to pay you any amount not exceeding in total
the Guarantee Amount upon receipt by us of your demand in writing accompanied by the
following documents:

1. Your signed statement certifying that the Supplier is in breach of his
obligation(s)under the Contract and the respect in which the Supplier is in breach.
2. Your signed statement certifying that the Supplier has been given a prior written
notice by email from you to make good the aforesaid breach and that the Supplier
still failed to fulfill the Contract within 30 days of such notice. A copy of such
notice given by email to the Supplier shall be attached to the demand for payment.

Any demand for payment should contain your authorized signatures which must be
authorized by your bankers or by a notary public.

We, the Bank, further agree that no change or addition to or other modification of the terms
of the Contract or of the Works to be performed there under or of any of the Contract
documents which may be made between **HOOGHLY CSL**and the Supplier shall in any

way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification. We, the Bank, further agree that any change in the constitution of the said contractor or the said bank shall not discharge our liability hereunder.

Notwithstanding anything contained herein:

1. Our liability under this Bank Guarantee shall not exceed(only).
2. This Bank Guarantee shall be valid upto (date)and
3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and if **HOOGHLY CSL** serve upon us a written claim or demand on or before(validity date).

Any demand for payment under this guarantee must be received by us at this office during working hours on or before the validity date. Should we receive no claim from you by the validity date, our liability to you will cease and the guarantee will definitely become null and void whether returned to us or not.

Yours truly,

Signature and seal of the

guarantor:.....

Name of

Bank:.....

.....

Address:.....

Date:.....

¹¹An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract and denominated in respective Dollars / Indian Rupees/Other Currency.

Annexure-10

Self-Declaration to be given by the bidder in Letter head

Bid's Reference No. & Date:

Bidder's Name & Address:

Person to be contacted:

Designation:

Telephone No.: Fax No.: Email:

1. We do hereby declare that we have not been debarred/black listed by Hooghly CSL or by any of the Public Sector Undertaking or Government department etc.
2. If Hooghly CSL finds that, we have been blacklisted/ debarred by any of the Public Sector Undertaking or Government department, and then Hooghly CSL can reject the offer or terminate the contract at any point of time. In such case, we are aware that, EMD, security deposit, performance guarantee etc will be forfeited by Hooghly CSL. Further we are confirming herewith that, any loss that has happened to Hooghly CSL due to this will be compensated by us.

For and on behalf of the firm

(Firms Name & Address)

(Signature of Authorized Signatory)

Name:

Designation

Phone No.:

Seal:

Date:

Place:.....

Annexure -11*(Sample Format)*

Details of legal cases pending against the firm for the last five years

SL. NO.	ORGANISATION AGAINST WHOM THE LITIGATION IS INVOLVED	BRIEF DETAILS OF DISPUTE	AMOUNTS INVOLVED (Rs.)	PRESENT STATUS	Remarks

SIGNATURE OF BIDDER

TENDER DECLARATION

This is to certify that I have completely read and understood the tender enquiry / number

.....and

we/I,

M/s....., hereby declare that will abide by all the tender conditions. Deviations, if any in the techno-commercial offer from that of the tender enquiry and subsequent corrigendum in any form will be clearly furnished by us in a separate document which will be titled as “List of Deviations”.

If we are not providing any separate document titled as “List of Deviations” then it is to be considered that all the terms and conditions are acceptable to us.

Signature of Supplier/Authorized signature of firm/agency:

Name of Supplier or authorized signatory of firm/agency:

Designation:

Rev. No.	Pages	Description	Date	Sign.
0	07	FIRST ISSUE	26-11-25	Rakesh

 HOOGHLY COCHIN SHIPYARD LIMITED		HOOGHLY COCHIN SHIPYARD LIMITED HOWRAH - 711 109												
YARD NO		00424004	PROJECT: 2200MT MULTIPURPOSE VESSEL											
OWNER		JAK MARITIME & LOGISTICS INDIA PVT. LTD.	PURCHASE TECHNICAL SPECIFICATION FOR CO2 FIXED FIREFIGHTING SYSTEM IN CARGO HOLD, ENGINE ROOM AND EMERGENCY DG ROOM.											
APPROVED		ARAVIND DOSS												
CHECKED		ANENTHU S												
PREPARED		RAKESH SAGAR												
DATE		26-11-2025	SCALE: - NA		Doc. No.: PTS-00424004-015									
ISSUED TO	NO. DEP													

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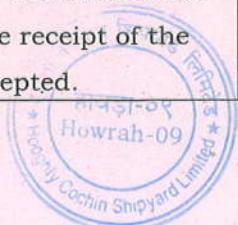


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SECTION A – GENERAL SPECIFICATIONS

1) Introduction

This document indents to offload the design, approval (From IRS), manufacturing, supply and commissioning of complete **CO₂ Fixed Fire Extinguishing System** as a package. Installation of Co₂ system will be carried out by Yard as per recommendation/Guidance from supplier. All required accessories for the above systems also to be included in the scope of supply.

2) Name & Quantity

CO₂ Fixed Fire Extinguishing System : 1 Set.

3) Particulars of the vessel

The principal design characteristics of the vessel shall be as follows:

Length overall	:	abt. 78.00 m
Breadth (moulded)	:	abt. 16.00 m
Depth (moulded)	:	abt. 5.50 m
Draft (Max.)	:	abt. 3.50 m
Gross tonnage	:	~ 2200

4) Class & Flag Rules:

The vessels shall be built under the following flag and classifications:

Flag	:	India
Classification	:	Indian Register of Shipping.
Class notation	:	एसुल, BULK CARRIER(BC-XII), CARGO HOLD STRENGTHENED FOR CARRIAGE OF STEEL COILS (MAXIMUM WEIGHT OF ONE COIL..... (T)), EQUIPPED FOR CARRIAGE OF CONTAINERS एसी

5) Design Conditions

The following ambient conditions shall be considered for the selection of the Vessel's equipment and machinery. Machinery shall be able to deliver its specified output and operate satisfactorily under tropical conditions as mentioned below:

Sea water temperature	:	max. 32° C min. 5° C
Air temperature outside	:	max. 40° C min. 10° C
Relative Humidity	:	max. 90% min. 50%



Engine Room temperature : 35° C

List, rolling, trim and pitch according to limits as per Class.

Above requirements to be considered as minimum, any other requirements which are necessary to meet class/IMO/flag rules/regulations shall be considered for design and operation of the equipment.

Electric Power Supply:

The Electric Power supply available onboard is

415V AC, 50 Hz, 3Φ, 3 wire.

230V AC, 50 Hz, 3Φ, 3 wire / 1Φ, 2wire 24V DC

Any other voltage other than above should be derived by the firm by using necessary built-in arrangement. All type of power supplies requirements with number of feeders and power rating are to be listed out in the offer.

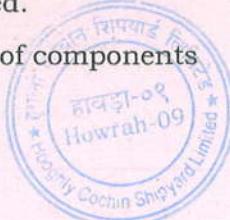
6) Rules and Regulations

The vessel shall be built in compliance with all relevant International Standards as applicable at the time of construction, including (but not limited to) the following. Exemptions on any requirements of these regulations, as deemed necessary considering the operational needs of the vessel are to be obtained from relevant Authorities/Class:

- a) Merchant Shipping Rules 2016
- b) Load Lines, 1966/1988 - International Convention on Load Lines, 1966, as Amended by the Protocol of 1988
- c) International Convention of the Safety of Life at Sea (SOLAS)
- d) COLREGS - International Regulations for Preventing Collisions at Sea
- e) MARPOL - International Convention for the Prevention of Pollution from Ships
- f) Tonnage - International Convention on Tonnage Measurement of Ships, 1969
- g) 2008 IS Code – International Code on Intact Stability, 2008
- h) International Labour Conference – Maritime Labour Convention, 2006
- i) IMO regulations MSC.337 (91) for Noise and Vibration.
- j) International Convention on the Control of Harmful Anti-Fouling Systems on Ships, 2001

7) Certification, Testing and Inspection

- a) All certificates as required by the class, rules& regulation shall be provided.
- b) Manufacturer's shop tests and inspection shall be carried out in accordance with the manufacturer's standard and the requirements of the IRS Rules and Regulations and the test results and certificates shall be supplied.
- c) The following general principle shall be followed for certification of components



and equipment:

- i. For the Components and Equipment requiring Type Approval Certificate as per rules & regulations, (Type Approval Certification from any IACS member is acceptable).
- ii. For Components and Equipment requiring product certification and are produced outside India, certificate from any IACS member is required. IRS will send formal authorization to IACS to conduct inspection and issue certification on behalf of them. However, IRS will retain the option to attend test and trials at manufacturing facility.
- iii. For all Class items manufactured in India, certificate from IRS is required.

d) All necessary documentations/drawings and calculation complying the above rules shall be submitted to & IRS by the firm for approval. Suppliers are requested to consider/include drawing approval from classification society (IRS) under their scope of supply.

e) After installation and commissioning, tests / trials shall be carried out as per manufacturer's standard practice and to the satisfaction of Classification societies / other statutory requirements. Any faults found at this stage, shall be corrected to the satisfaction of all related parties before the delivery of the ship.

f) All certificates required by the Class; Rules & Regulation shall be provided.

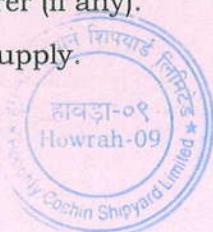
g) Supplier to confirm & clearly mention any deviation with the testing & inspection requirement in the offer.

8) Supply of Documents

All documents shall be in English and in SI unit system and the following documents shall be submitted, where applicable. The drawing approval where required by the Classification Society shall be obtained by the manufacturer.

9.1. Documents to be submitted along with offer

- a. Technical offer containing the list of items required for functioning of the system.
- b. List of items quoted including service during installation & commissioning.
- c. Calculation of cylinder capacity
- d. Technical datasheet for major items of the system.
- e. P&ID of the complete system indicating yard& OEM scope of supply
- f. Dimensional drawing, weight details and C.G of cylinders and other major components of the system.
- g. Preliminary list of alarms and instrumentation.
- h. List of spares / tools as required by class& manufacturer (if any).
- i. List of items if any, not covered in supplier's scope of supply.

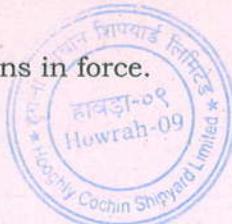


9.2. Documents to be submitted within 10 working days after placement of Order/LOI/As per final agreement

- a. Detailed Bill of Material.
- b. CO₂ Room Arrangement along with dimensions showing maintenance space required around the equipment in Auto CAD/Dxf format.
- c. Mounting arrangement drawing and fasteners details.
- d. Installation and commissioning details.
- e. Technical datasheet of each individual components containing model no., type, capacity, electrical details, power required, material of construction etc.
- f. Hydraulic calculations of pipe routing.
- g. Lifting Arrangements.
- h. Project specific P&D of the complete system.
- i. Weight and CG details of each item in the system.
- j. Compressed air/ other ship's system requirements for the operation of the system if any.
- k. Heat dissipation details.
- l. End connection details indicating standard, size and location of connections.
- m. Electrical schematic system diagrams, internal wiring diagram with terminal numbers marked.
- n. Wiring diagram and connection diagram of whole system including all junction boxes, starter panels, control panel etc with cable details.
- o. Cable included in the scope along with Yard cables to be clearly indicated.
- p. Detailed definition of all terminal points and interfaces.
- q. Operation, Installation, Maintenance and Troubleshooting Manual.
- r. Details of shop tests and inspection for all items.
- s. List of spares / tools as agreed.

9.3. Documents to be submitted along with delivery of Machinery and/or Equipment to the Yard (4 sets / vessel unless otherwise mentioned)

- a. IRS Certificate /Documents.
- b. Type approval certificates for valves, hoses nozzles, cylinders etc., as applicable.
- c. Manufacturers Test certificate as applicable (3 copies/vessel with original)
- d. Test and inspection results of components in the system.
- e. Packing list (with reference to each item of Bill of Materials)
- f. Installation, Operation, Maintenance manuals (3 sets and one soft copy in CD)
- g. Any other certificate required as per international regulations in force.



1. General Remarks

a) Name Plate (s)/Caution Plate (s) and Instrumentation

The name plate(s) and caution plate (s) shall be written in English indicated in SI unit. All major machinery, electrical and equipment shall be provided with identification nameplates made from stainless steel/brass plates as per manufacturer's standard and label plates indicating equipment type, capacity, electric rating etc. shall be fitted as per manufacturer's standard. Instrumentation shall also be indicated in SI unit.

b) Liability

Manufacturer shall bear all responsibilities for the shop trials and the delivery of the machinery or equipment.

c) All parts / components, valves and pipes/fittings necessary for the operation of the system to be included in the scope of supply. Pipes after the manifold will be under yard's scope.

d) Piping Flange

Piping end connection shall be as per EN1092-1 Type 01 PN10/ PN16 Flat Face as applicable. If there is any deviation with the standard mentioned above, then mating flanges shall be supplied for all end connections by the firm.

e) Screw Thread

Screw thread if any, shall be in accordance with ISO standard.

f) Grease Nipple

Pin type grease nipple, where grease is supplied shall be used.

g) Painting

Painting schedule shall be as per manufacturer's standard and the painting scheme shall be specified.

h) Preservation

Recommended method of preservation and names of recommended preservatives shall be indicated. Maximum R.H. (Relative Humidity) at Howrah in West Bengal is around 80% and minimum R.H is at around 60%.

i) Special Tools

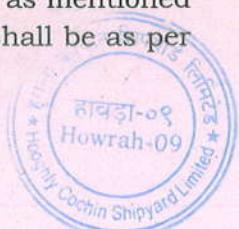
Special tools if any required for installation have to be supplied with the equipment.

j) Instruments

All necessary instruments to be supplied by the firm.

2. Guarantee

The equipment and accessories shall be guaranteed against defective design, material and workmanship and under performance till, for a period as mentioned in commercial terms and conditions. Guarantee of the equipment shall be as per commercial terms and conditions.



SECTION B – TECHNICAL SPECIFICATIONS

1. General Requirements

- a) The system and its accessories must be suitable for marine applications and function smoothly at design and environmental conditions mentioned in section A of this document, without any undue effect.
- b) It should withstand air contamination through oil, salt and other contaminants associated with the marine environment.

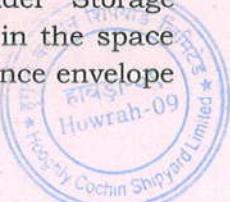
2. Technical Requirements

- a) One set of **IRS Class approved CO₂ Fire Extinguishing system** of the High Pressure, Total Flooding type meeting latest Class/ IMO / SOLAS and protocols including all amendments till date shall be supplied for *ENGINE ROOM, Emergency DG Room and CARGO HOLD*. The maker to develop the complete system as part of the scope. Class approval from IRS for equipment and system to be under the maker's scope.
- b) The quantity of carbon dioxide gas to comply with IRS rule requirements and shall be sufficient to give a minimum required volume of free gas based on volumes of areas mentioned below.

Particulars	Gross Volume (m ³)
Volume of CARGO HOLD	3562.00
Volume of Engine Room (without exhaust / ventilation casing, tank volumes, stairwell casing)	830.00
Volume of Engine Room with Casing	872.00
Volume of Emergency DG Room	30.00

Note: As per understanding and as the CARGO HOLD Volume is 3562.00 m³, the total Co₂ cylinder capacity for the ship would be calculated based on 3562.00 m³ as these cylinders will also be used for Engine room & Emergency DG room in case of emergency (Vendor to advise in case difference in interpretation). The final volume of the compartment shall be finalized prior final order.

- c) The Preliminary arrangement drawing for CO₂ Protected Spaces is attached herewith as Annexure -1 for calculation and arrangement of the compartments. This is to be used for reference only.
- d) The CO₂ cylinders shall be stored at CO₂ Storage Room in Emergency Pump Room (Below Main deck) which is located forward of Engine room and aft of Cargo Hold. The firm should check the fitment of CO₂ cylinders and their controls in the CO₂ Storage Room having limited dimensions(approx.) of L=9800mm; B=1800 mm. Final arrangement of CO₂ Cylinder Storage compartment in the scope of the supplier. In case of any issue in the space requirement for operating the equipment as well as the maintenance envelope



required to carry out maintenance onboard during normal operation, the same shall be indicated in the offer.

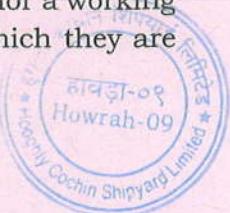
- e) Final CO₂ firefighting system calculation indicating the number of CO₂ Cylinders required onboard acc. to class requirements to be submitted for class review by the supplier.

CO₂ Cylinders& Release Cabinets

- f) CO₂ cylinders should be duly filled with gas complete with all necessary actuators and release valve head assembly as per class rules.
- g) Release of CO₂ gas into the protected space shall be manually carried out with the aid of pneumatic pressure. Ventilation fans at Engine Room and Emergency DG room and Oil Fuel Pumps shall be stopped automatically when CO₂ system is activated.
- h) CO₂ Release cabinet shall be located outside the protected space.
- i) The release cabinet and main control valve should be mounted with limit switches. The require number of limit switches shall be finalized at the time of drawing approval.

Piping & Accessories:

- j) All flexible hoses should be type approved.
- k) The CO₂ manifold should be pressure tested as per IRS class requirements.
- l) The pipe for the distribution of fire-extinguishing medium should be so arranged and discharged nozzles so positioned that a uniform distribution of medium is obtained.
- m) All necessary Check valves, Safety/Relief valves to be provided.
- n) Pipe dimensions, number of nozzles, size of nozzles, gas volume etc. should be determined meeting IRS class rule requirements.
- o) Necessary time delay circuits should be provided before releasing CO₂ to protected space as per IRS class requirements.
- p) All check valves and non-return valves shall be provided with an arrow which indicates the direction of flow, and which is fully visible following installation of the valve.
- q) Manually operated valves shall clearly indicate 'open' and 'shut' positions.
- r) Valve handles shall be installed so that the valve is in 'shut' position with the handle across the direction of the flow. All valves shall be suitable for a working pressure of not less than the Test Pressure of the pipework in which they are fitted.



Alarms& Instrumentation

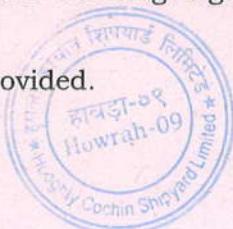
- s) Audible or visual devices listed below to indicate the operation of the system and hazards to personnel to be supplied.
 - i. One Hooter/ Alarm bell with flasher suitable for Wheel House
 - ii. One each visual alarm outside the protected space (main entry& entry through MSB Room)
 - iii. Sufficient number of audio-visual alarms to adequately cover all parts of the protected area. The alarms are to be of flame proof& sufficient decibel rating to be readily heard above the maximum noise level.
- t) A pressure instrumentation shall be provided for monitoring any leakage/ inadvertent discharge into the manifold. The instrumentation shall activate visual and audible alarms in the protected compartment and the leakage/ inadvertent discharge indicators. The instrumentation shall be capable of manual reset.

Electrical Requirements

- u) Necessary CO₂ relay box shall be included in the scope of supply for interfacing power supply external systems and alarms. CO₂ relay box to have the following minimum provisions as per OEM standard/ class requirements.
 - i. Shall be powered form both main and emergency source of power
 - ii. Potential free (open for alarm) contact for power fail and CO₂ release for taking to ship's alarm monitoring system.
 - iii. CO₂ release contacts (volt free-NC) for stopping ventilation fans, ventilation dampers, AC units and fuel oil pumps (approx. number of contacts is 6. The final number of contact shall be finalized during drawing approval stage/ final order.)
 - iv. CO₂ release alarm for Wheel house& Engine Room.
 - v. Automatic change over facility inside relay box
 - vi. Fitted with glands for terminating yard's cables. Also, the gland plate provided for relay box must be of removable type.

Other Accessories

- v) Clamping arrangement for cylinders for mounting vertically on floor to be provided.
- w) Means should be provided for the crew to safely check pressure and quantity of medium within the cylinders.
- x) All necessary instruction plates, caution plates and warning signs to be supplied along with the equipment.
- y) Compressed Air Blow through connection shall be provided.



NOTE:

- a. The scope of supply must include CO₂ Cylinders, racks with fastening assembly, cylinder clamps, necessary valves, hoses, manifold, release cabinets, relay box, audio-visual alarms, nozzles, pressure gauges& transmitters, instruction& warning plates, weighing device etc.
- b. The supply should include all necessary items that is required for the satisfactory functioning of the system complying the latest class rules.
- c. The CO₂ system manual must contain all detailed information of the fire extinguishing system including the list of components, CO₂ cylinder calculations, P&ID, Electrical wiring diagrams, CO₂ room arrangement, technical drawings & datasheet of each individual component, hydraulic calculations regarding pipe sizing, arrangement, discharge time, pipe flow rates& nozzle orifice determination, installation, operating& maintenance instructions and spare parts list etc.
- d. The CO₂ system manual to be approved by class as applicable and provided to yard.

3. Modes of Activation

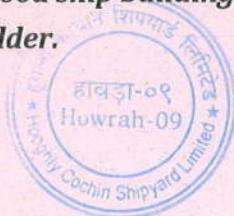
- a. **Remote Manual - Pneumatic:** The system shall be primarily be activated from the release cabinet located outside the protected space (main entry). The release cabinet shall contain the required number of pilot cylinders, valves, instrumentation etc.
- b. **Emergency Manual:** Each cylinder should be fitted with manual release lever/mechanisms for activating the system during emergency.

Note: The activation of alarms, stoppage of ventilation fans, fuel oil pumps and feedback to control system should be provided in each mode of activation. The modes of activation shall meet the requirements of IRS class rules and as per the Co2 compartment arrangement.

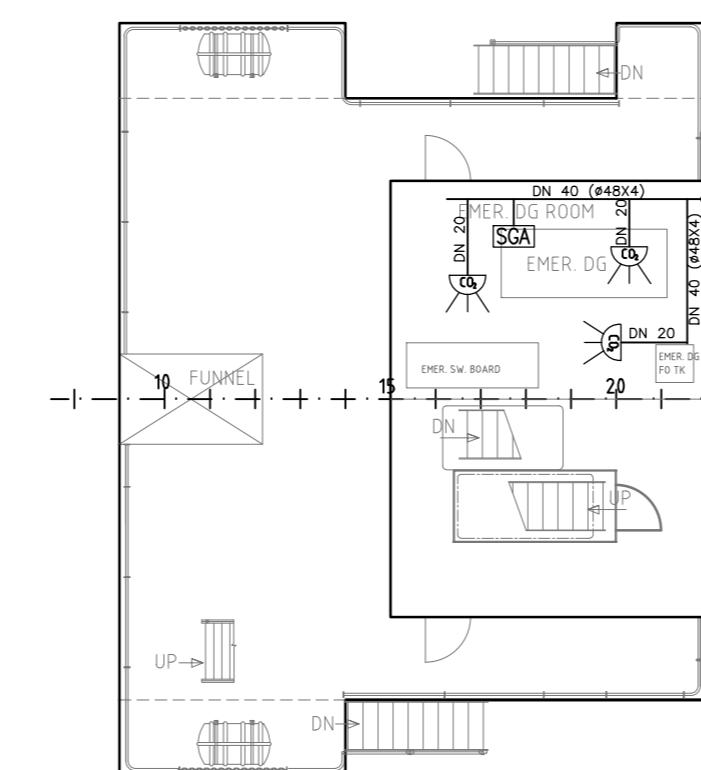
4. Annexures

1. Preliminary Drawing for CO₂ Protected Space Annexure-1 (Final arrangement will be after discussion as per OEM recommendation and Design feasibility.

NOTE: Notwithstanding any omission in this specification, all items/features required as per class rules/statutory regulations, safe working and good ship building practice shall be included in the offer by the bidder.



A

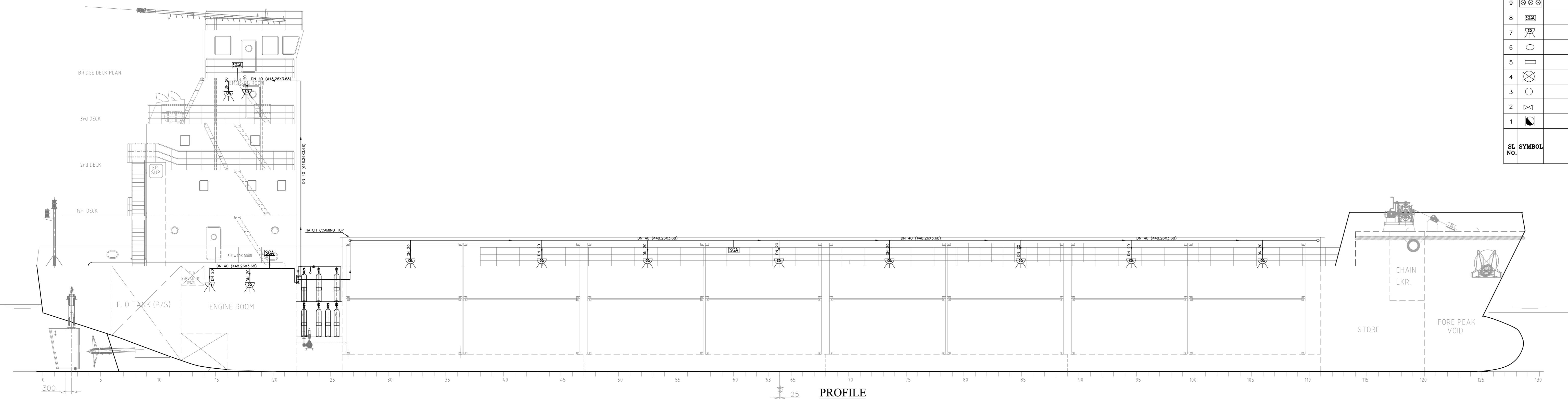


PIPE SPECIFICATION:

PRESSURE GAUGE PIPE	COPPER PIPE			
CO ₂ PIPE	40	SEAMLESS STEEL PIPE	#48.26 X 3.68	M.S. CLASS B, AS PER IS:1239 PART-I
CO ₂ PIPE	20	SEAMLESS STEEL PIPE	#26.67 X 3.91	
CO ₂ NOZLE		SEAMLESS STEEL PIPE		GM TO CC /EQUIV.
PIPE USE	D.N.	MATERIAL	NORM	REMARK

3rd DECK PLAN

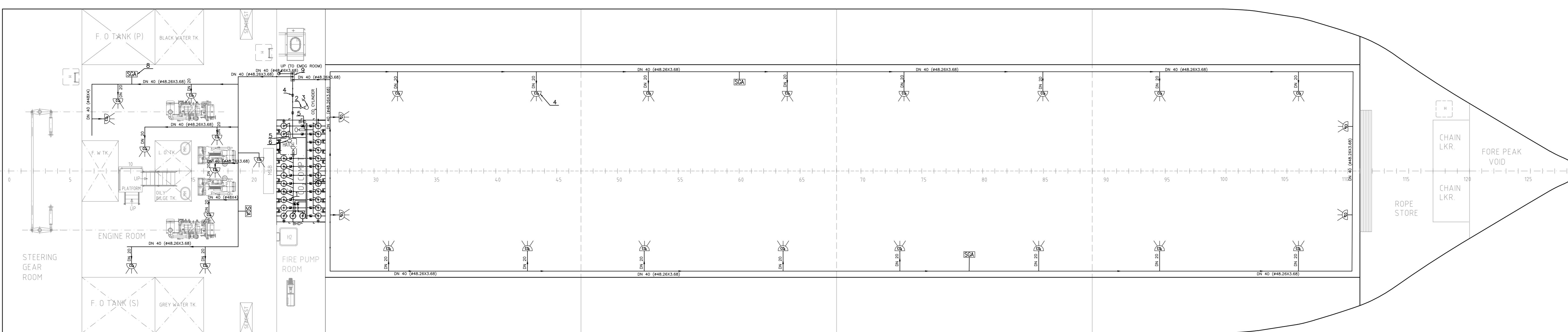
B



FITTINGS LIST

SL. SYMBOL	ITEM NAME	WORKING PRESSURE	D.N.	MATERIAL	NUMBER	REMARKS
9	DISTRIBUTION VALVE BOX	—	—	ASSEMBLY	1	
8	AUTO AUDIBLE ALARM	—	—	ASSEMBLY	5	
7	NOZZLE	—	—	GM TO CC /EQUIV.	33	MANUFACTURER SUPPORTING THE SUPPLY
6	TAB	—	—	—	3	MANUFACTURER SUPPORTING THE SUPPLY
5	GUIDE WHEEL	—	—	—	3	MANUFACTURER SUPPORTING THE SUPPLY
4	RELEASE VALVE	—	40	STEEL	2	MANUFACTURER SUPPORTING THE SUPPLY
3	PRESSURE GAUGE VALVE	—	—	GM TO CC 492K OF IS:EN 16999, BS 1400 0-4 MG	1	
2	PRESSURE GAUGE	—	—	—	1	1692:1999, BS 1400 LG 4C/EQUIV.
1	CHECK VALVE	—	10	STEEL	43	MANUFACTURER SUPPORTING THE SUPPLY

C



UNDER DECK PLAN

CALCULATION FOR CO₂ REQUIREMENT

a) FOR ENGINE ROOM
VOLUME OF ENGINE ROOM = 830 M³
CO₂ REQUIRED = 830X0.4/0.56 = 593 KG

b) FOR ENGINE ROOM WITH CASING
VOLUME OF ENGINE ROOM WITH CASING = 872 M³
CO₂ REQUIRED = 872X0.35/0.56 = 545 KG

c) FOR CARGO HOLD
VOLUME OF CARGO HOLD = 3562 M³
CO₂ REQUIRED = 3562X0.30/0.56 = 1908 KG

d) FOR EMER. DG ROOM
VOLUME OF EMER. DG ROOM = 29.25 M³
CO₂ REQUIRED = 29.25X0.4/0.56 = 20.89 KG
NO OF 45 KG CO₂ CYLINDER PROVIDED = 43 NOS
CO₂ PROVIDED = 43 X 45 = 1935 KG

CONVERSION

REV	MODIFICATION	BY	CHK'D	DATE
PROJECT 2200 TONNE / 128 TEU MULTIPURPOSE VESSEL				
TITLE CO ₂ SYSTEM				
DRAWN BY : MPL	DRG NO : P008-421	SCALE : 1 : 100		
CHECKED BY : PM	SHEET : 01	SIZE : A0		
		DATE : 17/11/2025 REV. : G		
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