



Bid Number/बोली क्रमांक (बिड संख्या)<sup>:</sup> GEM/2024/B/4808954 Dated/दिनांक : 15-04-2024

# Bid Document/ बिड दस्तावेज़

Bid Details/बिड विवरण		
Bid End Date/Time/बिड बंद होने की तारीख/समय	13-05-2024 12:00:00	
Bid Opening Date/Time/बिङ खुलने की तारीख/समय	13-05-2024 12:30:00	
Bid Offer Validity (From End Date)/बिड पेशकश वैधता (बंद होने की तारीख से)	180 (Days) Ministry Of Defence	
Ministry/State Name/मंत्रालय/राज्य का नाम		
Department Name/विभाग का नाम	Department Of Defence Production	
Organisation Name/संगठन का नाम	Mazagon Dock Shipbuilders Limited	
Office Name/कार्यालय का नाम	******	
Total Quantity/कुल मात्रा	98	
ltem Category/मद केटेगरी	MULTITIER RACK - A , MULTITIER RACK -B , MULTITIER RACK -BH , MEZZANINE , Goods Lift , AUTOMATED INVENTORY MANAGEMENT SYSTEM 1 , AUTOMATED INVENTORY MANAGEMENT SYSTEM 2 , CANTILEVER BLOCK M , ALIED CIVIL WORK 1 , ALIED CIVIL WORK 2 Design Manufacture Supply Installation and Commissioning of 2 Automated Inventory Management System	
BOQ Title/बीओक्यू शीर्षक		
MSE Exemption for Years of Experience and Turnover/ अनुभव के वर्षों से एमएसई छूट	Νο	
Startup Exemption for Years of Experience and Turnover/ अनुभव के वर्षों से स्टार्टअप छूट	Νο	
Document required from seller/विक्रेता से मांगे गए दस्तावेज़	Experience Criteria,Bidder Turnover,Certificate (Requested in ATC),Additional Doc 1 (Requested in ATC) *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer	
Bid to RA enabled/बिड से रिवर्स नीलामी सक्रिय किया	Νο	
ITC available to buyer/क्रेता के लिए उपलब्ध आईटीसी	Yes	
Type of Bid/बिड का प्रकार	Two Packet Bid	
Primary product category	AUTOMATED INVENTORY MANAGEMENT SYSTEM 1	

Bid Details/बिड विवरण	
Time allowed for Technical Clarifications during technical evaluation/तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय	3 Days
Inspection Required (By Empanelled Inspection Authority / Agencies pre- registered with GeM)	Νο
Payment Timelines	Payments shall be made to the Seller within <b>15</b> days of issue of consignee receipt-cum-acceptance certificate (CRAC) and on-line submission of bills (This is in supersession of 10 days time as provided in clause 12 of GeM GTC)
Evaluation Method/मूल्यांकन पद्धति	Total value wise evaluation

### EMD Detail/ईएमडी विवरण

Advisory Bank/एडवाईजरी बैंक	State Bank of India
EMD Amount/ईएमडी राशि	600000

### ePBG Detail/ईपीबीजी विवरण

Advisory Bank/एडवाइजरी बैंक	State Bank of India
ePBG Percentage(%)/ईपीबीजी प्रतिशत (%)	5.00
Duration of ePBG required (Months)/ईपीबीजी की अपेक्षित अवधि (महीने).	32

(a). EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy./जेम की शतौं के अनुसार ईएमडी छूट के इच्छुक बिडर को संबंधित केटेगरी के लिए बिड के साथ वैध समर्थित दस्तावेज़ प्रस्तुत करने है। एमएसई केटेगरी के अंतर्गत केवल वस्तुओं के लिए बिनिर्माता तथा सेवाओं के लिए सेवा प्रदाता ईएमडी से छूट के पात्र हैं। व्यापारियों को इस नीति के दायरे से बाहर रखा गया है।

(b). EMD & Performance security should be in favour of Beneficiary, wherever it is applicable./ईएमडी और संपादन जमानत राशि, जहां यह लागू होती है, लाभार्थी के पक्ष में होनी चाहिए।

### Beneficiary/लाभार्थी :

Ministry of Defence

Mumbai, Department of Defence Production, Mazagon Dock Shipbuilders Limited, Ministry of Defence (Mazagon Dock Shipbuilders Limited)

# Splitting/विभाजन

Bid splitting not applied/बोली विभाजन लागू नहीं किया गया.

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MII Purchase Preference/एमआईआई खरीद वरीयता		
MII Purchase Preference/एमआईआई खरीद वरीयता	Yes	
MSE Purchase Preference/एमएसई खरीद वरीयता		
MSE Purchase Preference/एमएसई खरीद वरीयता	Yes	
as defined in public procurement (Preference to Masubsequent Orders/Notifications issued by concern local content to qualify as a Class 1 local supplier i Purchase preference, the bidder must upload a cer- content and the details of locations at which the lo- no purchase preference shall be granted. In case to to percentage of local content shall be certified by and by a practicing cost accountant or a chartered Procurement (preference to Make-in -India) order 2 as per MII order dated 4.6.2020 will be eligible to to not eligible to participate. However, eligible micro- buyers are advised to refer the OM No.F.1/4/2021- OM_No.1_4_2021_PPD_dated 18.05.2023 for comp for Micro and Small Enterprises Order, 2012 and Pu 2. Purchase preference to Micro and Small Enterpri- defined in Public Procurement Policy for Micro and by Ministry of Micro, Small and Medium Enterprises Ministry. If the bidder wants to avail the Purchase product in case of bid for supply of goods. Traders Micro and Small Enterprises. In respect of bid for S Service. Relevant documentary evidence in this re offered product or service. If L-1 is not an MSE and (Selected by Buyer)of margin of purchase preferer given opportunity to match L-1 price and contract total QUANTITY.The buyers are advised to refer the OM_No.1_4_2021_PPD_dated 18.05.2023 for comp for Micro and Small Enterprises Order, 2012 and Pu 3. Estimated Bid Value indicated above is being de for determining the Eligibility Criteria related to Tu This has no relevance or bearing on the price to be impact on bid participation. Also this is not going t	bliance of Concurrent application of Public Procurement Policy ublic Procurement (Preference to Make in India) Order, 2017. rises (MSEs): Purchase preference will be given to MSEs as Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued s and its subsequent Orders/Notifications issued by concerned preference, the bidder must be the manufacturer of the offered are excluded from the purview of Public Procurement Policy for Services, the bidder must be the Service provider of the offered agard shall be uploaded along with the bid in respect of the MSE Seller (s) has/have quoted price within L-1+ 15% nce /price band defined in relevant policy, such Seller shall be will be awarded for 100%(selected by Buyer) percentage of e OM No.F.1/4/2021-PPD dated 18.05.2023 Diance of Concurrent application of Public Procurement Policy ublic Procurement (Preference to Make in India) Order, 2017. eclared solely for the purpose of guidance on EMD amount and urn Over, Past Performance and Project / Past Experience etc. e quoted by the bidders and is also not going to have any to be used as a criteria in determining reasonableness of ouyer based on its own assessment of reasonableness and	

#### TITIER RACK ·A

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

Technical Specifications/तकनीकी विशिष्टियाँ

Specification Document	View File
BOQ Detail Document	View File

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

### Input Tax Credit(ITC)/इनपुट कर क्रेडिट(आईटीसी) and/ तथा Reverse Charge(RCM)/रिवर्स प्रभार (आरसीएम) Details

ITC on GST/जीएसटी पर इनपुट कर क्रेडिट	ITC on GST Cess/जीएसटी उपकर कर क्रेडिट	
100%	100%	

### Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	*****	*********Mumbai	63	471

# **MULTITIER RACK -B**

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

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ITC on GST/जीएसटी पर इनपुट कर क्रेडिट	ITC on GST Cess/जीएसटी उपकर कर क्रेडिट	
100%	100%	

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	*****	*********Mumbai	19	351

# **MULTITIER RACK -BH**

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

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ITC on GST/जीएसटी पर इनपुट कर क्रेडिट	ITC on GST Cess/जीएसटी उपकर कर क्रेडिट
100%	100%

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	****	*********Mumbai	4	351

# MEZZANINE

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

Technical Specifications/तकनीकी विशिष्टियाँ

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ITC on GST/जीएसटी पर इनपुट कर क्रेडिट	ITC on GST Cess/जीएसटी उपकर कर क्रेडिट
100%	100%

### Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	****	*********Mumbai	1	561

# **Goods Lift**

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

Technical Specifications/तकनीकी विशिष्टियाँ

Specification Document	View File
BOQ Detail Document	View File

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Input Tax Credit(ITC)/इनपुट कर क्रेडिट(आईटीसी) and/ तथा Reverse Charge(RCM)/रिवर्स प्रभार (आरसीएम) Details

	100%		100%		
onsignee	s/Reporting Officer/प	रेषिती/रिपोर्टिंग अधिकारी	ा and/ तथा Qu	uantity/मात्रा	
S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/	पता	Quantity/मात्रा	Delivery Days/डिलीवरी वे दिन
1	****	*********Mumbai		1	351
Specification Document					
BOQ Deta	tion Document ail Document ease refer attached BOG	Q document for deta	iled consigne		i <u>ew File</u> i <u>ew File</u> y period.
BOQ Deta	ail Document			e list and deliver	i <u>ew File</u> y period.
BOQ Deta	ail Document	र्गडेट(आईटीसी) and/ तश्	य Reverse C	e list and deliver	i <u>ew File</u> y period.
BOQ Deta	ail Document ease refer attached BOO Credit(ITC)/इनपुट कर क्रे	र्गडेट(आईटीसी) and/ तश्	य Reverse C	e list and deliver	iew File y period. गर्स प्रभार (आरसीएम) Details एसटी उपकर कर क्रेडिट
BOQ Deta	ail Document ease refer attached BOC Credit(ITC)/इनपुट कर क्रे C on GST/जीएसटी पर इन 100% s/Reporting Officer/प Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग	ग्डिट(आईटीसी) and/ तश पुट कर क्रेडिट	म Reverse C ITC and/ तथा Qu	e list and deliver harge(RCM)/रिব on GST Cess/जी 100	iew File y period. गर्स प्रभार (आरसीएम) Details एसटी उपकर कर क्रेडिट
BOQ Deta BOQ Deta dvisory-Pla nput Tax IT Consignee S.No./m.	ail Document ease refer attached BOG Credit(ITC)/इनपुट कर क्रे C on GST/जीएसटी पर इन 100% s/Reporting Officer/प Consignee Reporting/Officer/	ग्डिट(आईटीसी) and/ तथ पुट कर क्रेडिट रेषिती/रिपोर्टिंग अधिकारी	म Reverse C ITC and/ तथा Qu	e list and deliver Charge(RCM)/रिव on GST Cess/जी 100	iew File y period. गर्स प्रभार (आरसीएम) Details एसटी उपकर कर क्रेडिट % Delivery Days/डिलीवरी वे

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

Technical Specifications/तकनीकी विशिष्टियाँ

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ITC on GST/जीएसटी पर इनपुट कर क्रेडिट	ITC on GST Cess/जीएसटी उपकर कर क्रेडिट
100%	100%

# Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती / रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	****	*********Mumbai	1	231

# **CANTILEVER BLOCK M**

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

Technical Specifications/तकनीकी विशिष्टियाँ

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ITC on GST/जीएसटी पर इनपुट कर क्रेडिट	ITC on GST Cess/जीएसटी उपकर कर क्रेडिट
100%	100%

### Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	****	*********Mumbai	6	141

# **ALIED CIVIL WORK 1**

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

Technical Specifications/तकनीकी विशिष्टियाँ

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Input Tax Credit(ITC)/इनपुट कर क्रेडिट(आईटीसी) and/ तथा Reverse Charge(RCM)/रिवर्स प्रभार (आरसीएम) Details

ITC on GST/जीएसटी पर इनपुट कर क्रेडिट	ITC on GST Cess/जीएसटी उपकर कर क्रेडिट
100%	100%

### Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं. सं. अधिकारी		Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	*****	*********Mumbai	1	141

# **ALIED CIVIL WORK 2**

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

### Technical Specifications/तकनीकी विशिष्टियाँ

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### Input Tax Credit(ITC)/इनपुट कर क्रेडिट(आईटीसी) and/ तथा Reverse Charge(RCM)/रिवर्स प्रभार (आरसीएम) Details

ITC on GST/जीएसटी पर इनपुट कर क्रेडिट	ITC on GST Cess/जीएसटी उपकर कर क्रेडिट
100%	100%

### Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	****	*********Mumbai	1	561

# Buyer Added Bid Specific Terms and Conditions/क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें

### 1. Generic

Bidder shall submit the following documents along with their bid for Vendor Code Creation:

- a. Copy of PAN Card.
- b. Copy of GSTIN.
- c. Copy of Cancelled Cheque.
- d. Copy of EFT Mandate duly certified by Bank.

### 2. Generic

OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up

to 50 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity by up to 50% of the contracted quantity during the currency of the contract at the contracted rates. Bidders are bound to accept the orders accordingly.

### 3. Generic

Scope of supply includes Training: Number of employees to be trained

5 , Place for Training For each Phase at Mazagon Dock Shipbuilders Limited and Duration of training 3 days.

### 4. Scope of Supply

Scope of supply (Bid price to include all cost components) : Supply Installation Testing Commissioning of Goods and Training of operators and providing Statutory Clearances required (if any)

### 5. Turnover

Bidder Turn Over Criteria: The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.

### 6. Service & Support

Dedicated /toll Free Telephone No. for Service Support : BIDDER/OEM must have Dedicated/toll Free Telephone No. for Service Support.

### 7. Warranty

Warranty period of the supplied products shall be 1 years from the date of final acceptance of goods or after completion of installation, commissioning & testing of goods (if included in the scope of supply), at consignee location. OEM Warranty certificates must be submitted by Successful Bidder at the time of delivery of Goods. The seller should guarantee the rectification of goods in case of any break down during the guarantee period. Seller should have well established Installation, Commissioning, Training, Troubleshooting and Maintenance Service group in INDIA for attending the after sales service. Details of Service Centres near consignee destinations are to be uploaded along with the bid.

### 8. Buyer Added Bid Specific ATC

Buyer Added text based ATC clauses

# A) Pre-Qualification Criteria

Bidders should upload a scanned pdf of following documents along with annexure -1 & 3 as given in 'Buyer added specific ATC ' in bidding, falling which their bids will be liabl e to reject.

1. Bidder shall have experience of successful completed **<u>similar work\*</u>** during last Seven Years en ding 30 Nov 2023 should be either of the following:

a) Three Contract/ Order of similar completed work each of not less then Rs. 160 lakhs

b) Two Contract/ Order of similar completed work each of not less then Rs. 200 lakhs

OR

c) One Contract/ Order of similar completed work each of not less then Rs. 320 lakhs

**\*Similar** Completed works shall involve Supply and Installation of Heavy duty racking system al ong with Mezzanine system and Cantilever racking system.

- 2. For above experience bidder shall submit documentary evidence Viz. order copies, Work Compl etion certificate, BOQ etc. MDL has right to ask further document necessary for technical scruti ny if required.
- 3. The Average annual financial turnover of the bidder during the last three (3) years, ending 31st March of the previous financial years excluding the calendar year of tendering should be at 90 I akhs INR as per the annual report (audited balance sheet and profit and loss account) of the rel evant period, duly authenticated by a chartered accountant /cost accountant in India or equival ent in relevant countries.
- 4. Bidders shop establishment registration certificate or registration certificate from register of fir ms or certificate of incorporation from Registrar of companies (Not required for permanent regi stered vendors with MDL)
- B) It is mandatory for bidders to visit the site & understand entire scope of work & sign the site visit report. Site visit report should be uploaded during bidding else bidding shall be liable to reject.
  - I. The Bidder is advised to visit and examine the installation site and its surroundings and o btain for itself on its own responsibility all information that may be necessary for preparing the bid. The costs of visiting the site shall be borne by the bidder.
  - II. The bidder representative shall be allowed entry upon consignee premises for such visits, only upon the express conditions that the bidder will release and indemnify the buyer and consignee against all liabilities arising out of such visit including death or injury, loss or da mage to property and any other loss, damage, costs and expenses incurred as a result of such visit.
  - III. The bidder shall not be entitled to hold any claim against buyer for noncompliance due to lack of any kind of pre-requisite information as it is the sole responsibility of the Bidder to obtain all the necessary information with regard to site, surrounding, working conditions, weather etc. on its own before submission of the bid.
- **C) Exemption from Submission of EMD:** Following bidders shall be only exempt from submissi on of EMD:
  - i. State & Central Government of India departments, Public Sector Undertakings.
  - ii. Firms Permanent registered with Mazagon Dock Shipbuilders Limited (MDL). To qualify for E MD exemption, firms should necessarily submit valid copy of the registration certificate issue d by MDL.

**Note:** Firms in the process of obtaining MDL registration will not be considered for EMD exempt ion.

iii. All Micro and small Enterprises subject to their submission of valid registration Certificate fr om competent authority regarding their Micro/Small Industry status.

# D) Contact Details for any queries:

In case of any clarification regarding tender condition/specification, bidders are requested to contact following executives before tender closing.

# **Technical query:**

Mr. Amrendra Kumar +91 22 2376 3058 Mobile : 9969064198 Mail-id : amrendrakumar@mazdoc k.com

2. A.K.Shukla CM (GRS & Stores) 022-23763235

mail id - akshukla@mazdock.com

### **Commercial Query:**

- +91 22 2376 3254 Mail -id : skushwaha@mazdock.com
- b. Shri S.K.Dhiman DGM (M) Extn- 022-23763246

# E) Integrity Pact: -

This Pact essentially envisages the agreement between prospective bidders/vendors and buyers c ommitting the person/officials of both the parties not to exercise any corrupt influence on any asp ect of the contra ct. Only those bidders/vendors who enter into such an integrity pact with the buy er would be considered competent to participate in the bid. Non-acceptance of same or any deviat ion to its terms/format will lead to rejection of their bid. The name of "Independent External monit or (IEM)" for this is as under: -

a) Shri PV Rao, IRS (Retd.) F 108, IT Colony, Road No. 10, Banjara Hills, Hyderabad-500038 Pin Code - 500038

Bidders to upload scanned image of Integrity pact on company's letterhead pad with duly signed and stamped (each page) of Integrity Pact (at Annexure-3), by duly filling the details required in it.

Each page of Integrity Pact shall be duly signed by the bidder. In case of non-submission of Integri ty pact by the bidders, duly signed on each page with part-I of the bid, shall render the bid liable f or rejection.

# Original of that Integrity pact shall be send to following address within 7 days of tende r closing date.

Sunil Kushwaha, 2nd floor Mugul House , Mazagon Dock Shipbuilders Limited, Dockyard Road , Mu mbai -10.

# F) Pre-Dispatch Inspection:

Pre-dispatch inspection will be carried out by MDL prior to dispatch of material. Contractor shall off er MDL one-week prior for inspection after readiness of his material. The contractor shall dispatch his material only after clearance of material by MDL vide Pre-dispatch inspection report (for detail pls refer Scope of work)

# G) Bid liable for Rejection Criteria:

**a.** Bids received without EMD and without uploading scanned images of EMD in the form of either direct electronic transfer/NEFT/BG/SWIFT message or EMD exemption certificate.

b. Bidders not agreeing to provide assistance for installation, Testing, Commissioning & other such

technical activities carried out by them.

c. if date of issue of EMD ( Direct electronic transfer/NEFT/BG/SWIFT) is later than the tender closin g date.

d. Bidder's failure to furnish sufficient or complete details for evaluation of the bids within the give n period. Incomplete/misleading/ambiguous bids in the considered opinion of TNC. Bids with techn ical requirements and or terms not acceptable to MDL /customer/External agency nominated as ap plicable.

e. Bids without uploading pre-qualification documents where required as per the tender. Bids not meeting the pre-qualification parameters stipulated in the tender enquiry

f. Validity period indicated by bidders is shorter than that specified in the tender enquiry

g. Unreasonably longer delivery period quoted by the firm

h. High seas sales/ sales in transit

i. Bidders not agreeing to supply spares / post sale product support / post work completion support.

j. Bidders not agreeing to furnish required Security Deposit / Required Contract Performance Guar antee till completion of the supplies / services as per contract.

k. Bidders not agreeing to furnish Performance Bank Guarantees for equipment supplied / services rendered or not agreeing for retention of equivalent amount by MDL up to the period till completio n of contractual and guarantee / warranty obligations.

I. No Exemptions towards GST, Custom duty is applicable & hence no exemptions certificates will be is sued. Bidder's not quoting as a single point responsibility for whole scope of work (i.e. right f rom design, supply of system/equipment till commissioning, STW & training at MDL site)

J. Bid received without Integrity Pact duly signed by the bidder on each page.

### **H)** Delivery Instruction:

The delivery is to be made on a working day. The delivery at our premises are through Gate n o. 10 before 16.00 hrs. Being a PSU, the delivery person has to fulfill security clearance through an identity card, contract copy and invoice at GRS section

### Following points to be Noted by bidders:

- I) BG for EMD or PBG shall be on Rs. 500 Stamp paper.
- BG uploaded for EMD during bidding, Original of this BG must be delivered to MDL within
  7 days (bid shall be rejected if original BG not submitted in MDL)
- III) Original PBG should be submitted within 15 days after placement of order.
- IV) Warranty period for each phase shall start on the date of successful completion and handi ng over of respective phase to MDL
- V) Pre-dispatch inspection will be carried out by MDL prior to dispatch of material. Seller/Co ntractor shall offer MDL one-week prior for inspection after readiness of his material. Th e contractor shall dispatch his material only after clearance of material by MDL vide pre -dispatch inspection report.
- VI) Annexure 2 & 4 given in 'Buyer added specific ATC ' shall be submitted along with invoi

ce for payment.

### 9. Generic

Data Sheet of the product(s) offered in the bid, are to be uploaded along with the bid documents. Buyers can match and verify the Data Sheet with the product specifications offered. In case of any unexplained mismatch of technical parameters, the bid is liable for rejection.

### 10. Forms of EMD and PBG

Bidders can also submit the EMD with Payment online through RTGS / internet banking in Beneficiary name

Mazagon Dock Shipbuilders Limited Account No. 10005255246 IFSC Code SBIN0009054 Bank Name State Bank of India Branch address State Bank of India Mazagon Mumbai

Bidder to indicate bid number and name of bidding entity in the transaction details field at the time of online transfer. Bidder has to upload scanned copy / proof of the Online Payment Transfer along with bid.

### 11. Buyer Added Bid Specific ATC

Buyer uploaded ATC document Click here to view the file.

# Disclaimer/अस्वीकरण

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

- 1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
- 2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
- 3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
- 4. Creating BoQ bid for single item.
- 5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
- 6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
- 7. Floating / creation of work contracts as Custom Bids in Services.
- 8. Seeking sample with bid or approval of samples during bid evaluation process. (However, in bids for <u>attached categories</u>, trials are allowed as per approved procurement policy of the buyer nodal Ministries)
- 9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
- 10. Seeking experience from specific organization / department / institute only or from foreign / export experience.

- 11. Creating bid for items from irrelevant categories.
- 12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
- 13. Reference of conditions published on any external site or reference to external documents/clauses.
- 14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

### This Bid is also governed by the General Terms and Conditions/ यह बिड सामान्य शर्तों के अंतर्गत भी शासित है

In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, 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 the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws./जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो।बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्रवाई का आधार होगा।

---Thank You/धन्यवाद---

Item Number Item Title Item Description	Item Quantity Unit of Measure	Consignee ID	Delivery Period (In number of days)
1 MULTITIER Heavy duty multi-	63 pieces	sbk_mdlstores	471
2 MULTITIER Heavy duty multi-	19 pieces	sbk_mdlstores	351
3 MULTITIER Heavy duty multi-	4 pieces	sbk_mdlstores	351
4 MEZZANIN G+2 Mezzanine	1 pieces	sbk_mdlstores	561
5 Goods Lift Electro-	1 pieces	sbk_mdlstores	351
6 AUTOMATIAUTOMATED	1 pieces	sbk_mdlstores	231
7 AUTOMATIAUTOMATED	1 pieces	sbk_mdlstores	231
8 CANTILEVE Steel pipe storage	6 pieces	sbk_mdlstores	141
9 ALIED CIVIL Alied civil work	1 pieces	sbk_mdlstores	141
10 ALIED CIVIL Internal painting	1 pieces	sbk_mdlstores	561

# SCOPE OF WORK FOR NEW AND AUTOMATED STORAGE SYSTEM (COMMON STOCK STORE)

# Mazagon Dock Shipbuilders Ltd. Dockyard Road Mumbai.

# Content

SI No.	Description	Page no.
PART-A	STRUCTURAL-ARCHITECTURAL	
1.0	GENERAL	
2.0	DESIGN AND ENGINEERING	
3.0	DESIGN CODES AND STANDARDS	
4.0	GENERAL CONSTRUCTION OF RACKS	
5.0	COMPONENTS OF HEAVY-DUTY SHELVING SYSTEM	
6.0	COMPONENTS OF MEZZANINE SYSTEM	
7.0	COMPONENTS OF CANTILEVER SYSTEM	
8.0	GOODS LIFT	
9.0	AUTOMATED INVENTORY MANAGEMENT SYSTEM	
10.0	INSTALLATION	
11.0	ALLIED CIVIL WORKS	
12.0	PHASE WISE EXCUTION OF THE WORK	
13.0	SUBMITTALS BY THE VENDOR	
14.0	INSPECTION REQUIRMENTS	
15.0	ASSISTANCE FOR INSTALLATION, TESTING, COMMISSIONING AND OTHER SUCH TECHNICAL ACTIVITIES	
16.0	DELIVERY TERMS & DELEVERY SCHEDULE	
17.0	TRAINING NEEDS	
18.0	WARRANTY	
19.0	BOQ (BILL OF QUANTITY)	
20.0	POLICE VERIFICATION OF CONTRACTOR'S EMPLOYEES	
21.0	EXECUTION OF WORK AND MEASUREMENT	

# 1.0 <u>GENERAL</u>

This specification pertains to supply and installation of storage racking system & automated system for store/ warehouses. Design, detail engineering and installation of storage racking system shall be done by contractor himself.

# 2.0. <u>DESIGN & ENGINEERING STORAGE RACKING SYSTEM & AUTOMATED RACKING</u> <u>SYSTEM</u>

- 1) Storage racking system shall be designed to meet the storage requirement i.e. storage materials, storage quantity, load condition etc. of the stores/ warehouses of the project.
- 2) Storage racking system shall be self-supported and structurally stable system consisting of steel frame work (Assembly of upright, bracing, base plates, beam, decking panels, etc.) Structural members shall be of steel slotted sections.
- Lay-out of racks including number of tiers of racks, spacing's, passageways, clearances, loading/unloading, staircases, ladders etc. shall be finalized on the basis of storage requirement, available space, operational and safety requirements.
- 4) Minimum spacing between racks shall be 1000mm.
- 5) Detailed lay-out of storage Racks shall be prepared by contractor himself & submitted to MDL for approval.
- 6) Contractor shall submit structural stability report of storage racking system from recognized Govt. Institute or Govt. approved Design Engineer.

# 3.0. Design Codes and Standards

Racking system shall be designed in compliance with following codes/ standards/ references.

- A. Racking codes/ standards/ References
  - 1) Publications of "Storage Equipment Manufacturers Association (SEMA)" or
  - 2) Publications of "European Materials Handling Federation (FEM)"
- B. Structural Design Codes
  - 1) IS 1893 Criteria for Earthquake resistant design of structures.
  - 2) BS 5950 Part V Structural use of steelwork in building Part 5 Code of Practice for design of cold-formed thin gauge sections (British) or equivalent IS code.

# 4.0 General Construction of Storage Racking system

# i. <u>Heavy-Duty Shelving System</u>

a. The racks shall be made of steel slotted profiled sections. The vertical members/uprights will be in single piece of 6500mm/4000mm (±50 mm) with no joint. Rack ends shall be suitably braced. The horizontal rack surface shall be made of sectional panels of steel bent/stiffened sections. Requisite side

angles and corner plates shall be provided also adjustable dividers to be provided by selected vendor.

- b. Mesh clad shall be provided in between the back to back racks to prevent the fall of small materials. Same shall also be provided for single racks.
- c. The rack units shall be tiered as required and shall be designed considering maximum load per level as per project requirement.
- d. Accessibility (by equipment and manual) shall be provided to various levels of storage shelves in the racks.
- e. The catwalk surface to be designed considering trolley and HPT movement with load as per project requirement.

# ii. <u>Mezzanine</u>

- a. The columns shall be made of steel tube profile sections. The vertical member/ column will be in single piece of 4600mm (±50 mm) with no joint. The horizontal rack surface or catwalk surface shall be made of sectional panels of Glass Fiber Reinforced Polymer (GFRP) sections.
- b. The catwalk surface to be designed considering trolley and HPT movement with load as per project requirement.
- c. Requisite side angles and corner plates shall be provided wherever necessary.
- d. Accessibility (by equipment and manual) shall be provided at all levels.

# iii. Cantilever Racking

- a. The Cantilever Racks should be design to store pipes/, bars & rods and should have a minimum height of 3 meters.
- b. Columns of the cantilever should have G+5 Arms with each arm having 500 kg UDL as designed load bearing capacity
- c. The arm length should ne considered as 1000mm with stopper provision at the end of the arms

# 5.0. Components of Heavy-Duty Shelving System

Sr no.	Component	Specification	Remarks
1	Frame	Frame shall be load bearing supports consisting of vertical uprights and bracings fixed to floor with base plate.	The racking system shall be completely knock down construction. the racks are grouted on the floor using expansion bolts. no welding will be carried out at site.
2	Upright	Uprights shall be made of roll formed steel having slots @ 50mm for adjustability of beam levels and of single piece without welded joints and shall be finished with powder coating.	Material Quality: Min Ys=355Mpa Mfg Process: Roll Formed Finish : Powder Coated
3	Bracings	Diagonal and horizontal bracings shall be roll formed steel lipped channel sections. These shall be bolted to connect uprights to make frames.	Finishing: Galvanized Profile: Lipped Channel Mfg Process: Roll Formed No of Bend: 4
4	Base plate	Base plates shall be press formed steel construction bolted to upright. They shall be anchored to ground using torque type mechanical anchor bolts. Floor level variation shall be adjusted with shim	Finishing: Powder Coated
5	Stiffeners	Stiffeners shall be of steel channel sections and shall be provided if required to increase load bearing capacity of uprights.	Material: Min Ys=210 Mpa Finishing: Powder Coated / Galvanized
6	Beams	Beams shall be made of hot rolled steel with powder coating finish for connecting two frames that support the decking panels.	Material Quality: Min Ys=210Mpa Mfg Process: Roll Formed Finish : Powder Coated
7	Decking panels	Decking panels shall be bend steel panels interconnected with spacer/ connector/ panel supporting bars. Panel dividers shall be provided for separating items.	Material: Min Ys=210 Mpa Finishing: Powder Coated / Galvanized

8	Mesh cladding	Welded steel Mesh (100mm x 100mm mesh size, powder coated) cladding with framing or Powder coated sheet cladding shall be bolted at rear and side to prevent fall of small items. Type of cladding shall be as specified or approved.	Material: Min Ys=210 Mpa Finishing: Powder Coated
9	Row connector	Row connectors shall be provided to connect back-to back racks	Material: Min Ys=210 Mpa Finishing: Powder Coated
10	Tie Beam	Tie beams shall be provided to connect frames for stability of the system	Material: Min Ys=210 Mpa Finishing: Powder Coated
11	Walkway floor	Walkway floors shall be roll formed perforated type and/or Glass Fiber Reinforced Polymer (GFRP) as required for loading/unloading equipment. Walkway floor to be designed as per project requirement	Material: Min Ys=255 Mpa Finishing: Galvanized (275 GSM) / Powder Coated
12	Staircase	Steel staircase with railing shall be provided for access to various levels	Finishing: Powder Coated
13	Railings	Railings with kick-plate shall be provided for safety having provision for removal required for loading/ unloading.	Finishing: Powder Coated
14	Safety signage	Load warning signage conforming to EN:15635 or equivalent Indian standard shall be provided.	
15	Aisle Packard, Label Holders	Aisle Packard, Label Holders shall be provided for easy identification.	
16	Material lifting equipment	Material lifting equipment such as chutes, lift etc. shall be provided.	
17	Illumination & Ventilation	New LED Lighting & Fans shall be provided for entire shelving area.	

All fasteners used are of grade 8.8. These are with galvanized finish to suit industrial atmosphere.

# 6.0. Components of Mezzanine System

Sr No.	Component	Specification	Remarks
1	Fasteners	All fasteners used are of grade 8.8 or equivalent These are with galvanized finish to suit industrial atmosphere.	grade 8.8. or equivalent
2	Column	Column is formed of steel tube profile sections.	Material: Min Ys=210 Mpa Finishing: Powder Coated
3	Main beam	Main beam is a cold formed "Sigma" section, joined together by bolting two sigma profile back to- back.	Material: Min Ys=210 Mpa Finishing: Powder Coated
4	Inter beam	Inter beam is a cold formed "Sigma" section.	Material: Min Ys=210 Mpa Finishing: Powder Coated
5	Inter inter beam	Inter beam is a cold formed "Sigma" section, joined together by bolting two sigma profile back to- back	Material: Min Ys=210 Mpa Finishing: Powder Coated
6	Railing	It is the ERW pipe provided in overhang catwalks and end of the working aisle for safe walking.	Dia 38 Up-to 6meter length single pipe is provided,
7	Staircase	The staircase unit comprises of fabricated Side channel with railing unit as a single member in LH & RH variety, which is bolted with step panels.	
8	Safety signage	Load warning signage conforming to EN:15635 equivalent Indian standard shall be provided.	
9	Kick plate	It is the 'L' section, provided over the catwalk surface on both sides of aisle. This plate prevents the foot slip through the gap between knee rail and catwalk surface while walking.	Powder coated
10	Lumination & Ventilation	New LED Lighting & Fans shall be provide for entire shelving area.	

# 7.0. Components of Cantilever System

Sr No.	Component	Specification	Remarks
1	Fasteners	All fasteners used are of grade 8.8 or equivalent These are with galvanized finish to suit industrial atmosphere.	grade 8.8. or equivalent Indian standard.
2	Upright	Uprights shall be made of roll formed steel having slots @ 100mm for adjustability of arms levels and of single piece without welded joints and shall be finished with powder coating	Material: Min Ys=255 Mpa Finishing: Powder Coated
3	Base channel	Base channel is a formed "C" profile & it is connected at the either side of upright.	Material: Min Ys=255 Mpa Finishing: Powder Coated
4	Horizontal bracings	Lipped 'C' sections are used , Horizontal bracings are lipped channel profile	Material: Min Ys=255 Mpa Finishing: Powder Coated
5	Diagonal bracing	Lipped 'C' sections are used ,Diagonal bracing is a angular formed section flatted on both end These are to connect horizontal bracing to make frames.	Material: Min Ys=255 Mpa Finishing: Powder Coated
6	Cantilever arm	Cantilever arm is a formed section has tubular profile capable to take level load. Min No. of bends :-4nos	Material: Min Ys=255 Mpa Finishing: Powder Coated

# 8.0. <u>Goods Lift</u>

Sr. No.	Parameter	Specification
1	Lifting Capacity	1.5 ton
2	Vertical Travel Speed	Around 6.0 mtrs/min
3	Duty	Moderate
4	Floor Area Allocated	-
5	Civil Pit size	Ramp Type
6	Carriage size	1500 W x 1500 D x 1800 H mm
7	Lumination	Proper LED Lights shall be provide

# 9.0 Supply, Install and Commission Automated Storage Systems at CSS.

# 9.1 Introduction:

The Common Stock Store (CSS) houses a variety of materials in large quantities. CSS has taken up an initiative to store and manage the inventory in a space and human effort efficient manner. So, the objective is to utilize the vertical height fully within minimum footprint and use the automated storage and retrieval system technology for minimal human efforts and for highly accurate and reliable operations within CSS. The objective is also to utilize data management tools to ensure higher stock accuracies.

# 9.2 Scope of work for automated inventory management system:

Design, Manufacture, Supply, Install, Commission and Handover 2 Automated Inventory Management System(AIMS) for storage of material in CSS.

# 9.3 Purpose of the Machine (AIMS):

- Handle a variety of materials for storage and picking.
- Fast, Safe, and accurate handling of materials.
- Maintain accurate information about the materials and exchange the information with MDL's ERP system.
- Bring in highly efficient storage and retrieval operations at CSS, both in terms of manpower productivity and cost of operations.

# 9.4 Working Principle:

- The AIMS must offer storage space, both in the front and back side of the AIMS for material stored in trays.
- The AIMS must offer a load handling device for the extraction and insertion of Trays in respective storage slots at any level within the height of the machine.
- The load handling device should handle the tray in a manner to avoid any destabilizing of the material kept in the tray during the entire cycle of tray handling from the storage slot to the access window and without any human intervention.
- The entire AIMS, except for the access window should be enclosed to avoid any unauthorized access to material.
- The AIMS should have options available to call a material, either by the number of the tray where the material is kept or by reference to the material by its name.
- The AIMS should offer the access window at a height of 800-900mm for ergonomic handling of materials by the operator(s)
- The AIMS should be able to detect the actual height of the tallest material kept in the tray and identify subsequently for a suitable storage slot for inserting the tray.
- The AIMS configuration should be done in such a manner that it offers maximum possible capacity, flexibility to accommodate varying heights, and scalability for expansion in terms of AIMS height and number of trays accommodated.

# 9.5 <u>Critical Parameters/Specifications proposed for the AIMS:</u>

# AIMS-1

No.	AIMS Parameter	Value	Remarks
01	Machine Height, mm	7000	Essential
02	Machine Footprint, mm	4500 X 2400	Maximum
03	Machine's overall material load bearing capacity, Kgs	16000	Minimum
04	Tray Size, mm	4000 X 620	Essential
05	Tray wall height, mm	120	Maximum
06	Per Tray load bearing capacity, kgs	500	Essential
07	No. of Trays to accommodate with the machine height	Min. 32 Trays with load height of 300mm	Essential

08	Maximum Load Height allowed per tray, mm	300	Essential
09	Maximum Load on the floor, Kg/Sq. Mtr.	2100	Maximum
10	Height of Access Opening from floor, mm	900	Maximum
11	Number of Access Opening	One	Essential
12	Orientation of Access Opening	Front	Essential
13	Color Combination	White RAL 9002 - Front, Back and Sides Grey RAL7016 - Corners	Preferable
		and Below Opening	
14	Power Supply	3 x 400 V, 50/60 Hz, 16A + N + PE	Essential
15	Operating Console	External, PC Based	Essential
16	Emergency Stop Switch	1-2	Essential
17	Light in the Access Opening	Yes	Essential
18	Tray Exchange Time, Secs	26-40	Essential
19	Permissible Total Load Gross, Kgs	57,000	Minimum
20	Machine Operating System	Control Systems	Essential
21	WMS for ERP Integration provided or NOT	Yes	Essential
22	Retrofitting Possibility for Barcode Scanner	Yes	Essential
23	Safety Features at the Access Opening/Window	Sensors for Human Safety & Height Measurement	Essential
24	Safety Feature for the load handling device(s)	Sensors to ensure balancing of trays and clear path for the load handling device	Essential
25	Powered Shutter Door to prevent unauthorised access	Inner or Outer	Preferable

# 9.6 Critical Parameters/Specifications proposed for the AIMS:

# AIMS-2

No.	AIMS Parameter	Value	Remarks
01	Machine Height, mm	7000	Essential
02	Machine Footprint, mm	4500 X 2400	Maximum
03	Machine's overall material load bearing capacity, Kgs	8000-9000	Minimum
04	Tray Size, mm	4000 X 620	Essential
05	Tray wall height, mm	120	Maximum
06	Per Tray load bearing capacity, kgs	500	Essential
07	No. of Trays to accommodate with the machine height	Min. 16 Trays with load height of 600mm	Essential
08	Maximum Load Height allowed per tray, mm	600	Essential
09	Maximum Load on the floor, Kg/Sq. Mtr.	1300	Maximum
10	Height of Access Opening from floor, mm	900	Maximum
11	Number of Access Opening	One	Essential
12	Orientation of Access Opening	Front	Essential
13	Color Combination	White RAL 9002 - Front, Back and Sides	Preferable
		Grey RAL7016 - Corners and Below Opening	
14	Power Supply	3 x 400 V, 50/60 Hz, 16A + N + PE	Essential
15	Operating Console	External, PC Based	Essential
16	Emergency Stop Switch	1-2	Essential
17	Light in the Access Opening	Yes	Essential

18	Tray Exchange Time, Secs	26-40	Essential
19	Permissible Total Load Gross, Kgs	58,000	Minimum
20	Machine Operating System	Control Systems	Essential
21	WMS for ERP Integration provided or NOT	Yes	Essential
22	Retrofitting Possibility for Barcode Scanner	Yes	Essential
23	Safety Features at the Access Opening/Window	Sensors for Human Safety & Height Measurement	Essential
24	Safety Feature for the load handling device(s)	Sensors to ensure balancing of trays and clear path for the load handling device	Essential
25	Powered Shutter Door to prevent unauthorised access	Inner or Outer	Preferable

# 9.7 Other Features

# i. Controlled Access

- The AIMS control systems/software must allow access to AIMS only using a password.
- The AIMS must have a powered outer shutter door to keep the system closed during nonoperating hours.

# ii. Features for Operator Safety & Ergonomics

- The access opening for the operator should be at height of 800-900mm for ergonomic access to the tray and materials.
- Light Curtains at Access Opening to stop the load handling device in case of operator reaching beyond the tray depth while the load handling device is in motion.
- Emergency buttons on either side of the machine for halting the machine during an emergency or against any faulty operation.

# iii. Features for Material Safety

- Each tray should have sufficient wall height, in the range of 100mm to ensure material stability during tray movement.
- The load handling device must have controlled speeds with acceleration and deceleration to ensure smooth transfer of trays and materials between the storage slots and access opening.
- The AIMS offer sensors that detect protruding of materials beyond the width and depth of the tray and provide alarm/warning to the operator.

• In case of power failure, the load handling device shall remain suspended in its position without any free fall, till the time the power resumes.

# iv. Features to ensure storage compliance:

- The AIMS must offer a height measurement tool that ensures that materials taller than the heights permissible for a tray to be taken inside the AIMS.
- The AIMS must offer a weight measurement tool that ensures that NO tray is overloaded beyond the stated capacity of 500kgs.

# v. Features for suiting supply chain convenience

- The AIMS should be scalable for increasing heights and for additional trays in future.
- The AIMS should be easily relocatable to another location, if needed.

# 9.8 Control Systems / AIMS Software:

- The AIMS will have a PC based control system with Visual Display of current operations, load handling device and tray positions.
- The control system should offer capability to switch from Manual to Auto mode.
- The control system must be able to recognize the position of a specific tray and be able to command the load handling device to fetch the same.
- The control system should be able to take commands from AIMS WMS or the MDL SAP system for operating the load handling device in the desired manner and sequence.
- Using the AIMS WMS, the control system should be able to retrieve a material based on item name or code.
- The control system must alert for any material with excess heights, overloading of trays.
- Using the AIMS WMS, the control system should be able to offer various analysis of the operations/transactions.

# 9.9 Quality Assurance and Warranty

- The vendor must submit pre-delivery inspection reports after readiness of AIMS at his production facility. Therefore, MDL Executives shall visit the contractor's site for final pre-dispatch inspection contractor shall deliver the systems only after signing pre-dispatch inspection report by MDL with due clearance for Delivery.
- Warranty should be for a period of 1 year from the date of completion of Installation and Commissioning

# 9.10 Support Services:

- The vendor must execute the desired number of preventive maintenance activities in accordance with the schedule agreed with the user team.
- The vendor must train CSS personnel for troubleshooting and offer 24 X 7 telephone support to CSS.
- Only one-way communication system may be allowed.

# 10.0. INSTALLATION

Installation shall be done by the contractor in accordance with approved design and fabrication drawings.

# 11.0. Allied Civil Works:

Allied Civil Work consist of Construction of 2 rooms viz Changing room & Electrode Cabin (In Brick Work), Roofing for Pipe Cantilever System (Refer Cantilever drawing and wall painting inside Common Stock Store area refer Heavy Duty Shelving drawing). The detail Scope of Work for Allied Civil work is as Under: -

- 1) Providing & laying Plain Cement concrete (PCC) (1:1.5:3) Concrete)/M-20RMC.
- 2) Providing & fixing Steel reinforcement of Thermo-Mechanically Treated Bars Fe-500D.
- 3) Providing and laying mixed design mix M-25 grade cement concrete.
- 4) Structural steel work riveted, bolted or welded in built up sections, trusses...
- 5) Brick work in superstructure above plinth level.
- 6) Providing and fixing chicken mesh of 22 gauge, with about 30cm width at the junction of R.C.C member and brickwork...
- 7) Providing and applying 20mm thick waterproof cement plaster in two coats.....
- 8) Providing and applying 12mm thick internal plaster...
- 9) Providing and applying plaster of paris putty of upto 10mm thickness over plaster.
- 10) Providing and applying first single coat of approved primer and two coats of paint (plastic emulsion) inside.
- 11) Providing and applying Acrylic Smooth exterior paint of required shade.
- 12) Providing and applying Epoxy paint (two or more coats) for structural steel.
- 13) Providing & fixing in position 0.50mm thick corrugated colour coated Galvalume Roofing sheet, (Approximately 250 Sqm)
- 14) Providing & fixing in position 0.50mm thick corrugated colour coated steel Cladding sheet, (Approximately 50 Sqm)
- 15) Providing and fixing pre-coated galvanised steel sheet roofing accessories 0.50 mm– Ridge.
- 16) Providing and fixing 80cm overall trapezoidal 2mm thick Aluminium gutter...
- 17) Providing and fixing granite of 18mm thick for window.
- 18) Centring & shuttering for top beam...
- 19) Providing & fixing aluminium window frame with glass.
- 20) Providing and fixing door shutter with wooden frame....
- 21) Providing and fixing Rain Water down take Pipe of 100mm dia.
- 22) Demolishing RCC work manually/by mechanical means...
- 23) Providing and fixing MS door...
- 24) Removal of corrosion of existing steel reinforcement of RCC Column, Beams, Slabs, etc., providing and applying anticorrosive treatment for internal Structural repair.
- 25) Providing and applying two coats of Rust Preventing coating of IPNET...
- 26) Providing and applying Bonding Coat between concrete members and new coat...
- 27) Providing and applying Polymer Modified Mortar (PMM) to RCC members i.e. Slab, beam, column etc. structural repair work

# 12.0. PHASE WISE EXCUTION OF THE WORK.

# <u>1. It is mandatory for bidders to visit the site & understand entire scope of work & sign</u> <u>the site visit report.</u> \*

**NOTE: \* Most important point** 

- 2.Due to space constrain, entire work will be carried out in phase wise manner as under:
  - Phase I: Preliminary site clearance will be given for outside area of Common stock store where the Cantilever (Block M) and allied civil work (Civil 1) will be carried out. After successfully completion AND handing over of Phase I, clearance will be given for Phase II within 10 days' time frame.
  - ii) <u>Phase II</u>: Consist of Installation of AIMS System.
    After successfully completion AND handing over of Phase II clearance will be given for Phase III within 10 days' time frame.
  - iii) Phase III: Is baring Installation of Heavy duty multi-tier Racking System Type Rack B & Rack – BH and Goods lift.
     After successfully completion of Phase III AND handing over, clearance will be given for Phase IV within 10 days' time frame.
  - iv) **Phase IV:** Installation of Heavy duty multi-tier racking Steel story Racking <u>Type Rack</u> <u>–A</u> will be carried out. After successfully completion of Phase IV AND banding over clearance will be given

After successfully completion of Phase IV AND handing over, clearance will be given for Phase V within 10 days' time frame.

 Phase V: Complete Mezzanine work & balance allied civil work like internal painting & structural repair (ref. BOQ 1.12) will be carried out in Phase V.

3. Contractor may carry out internal painting work in phase wise manner or after completion of entire racking system.

1. Contractor shall bring the material in phase manner only as MDL have acute shortage of space. Due to space constraints, contractor may not be allowed to bring other phase material at a time.

# 13.0. SUBMITTALS BY THE CONTRACTOR

i) All design documents along with standards used as build drawings- Before commencement of work

- ii) Third party inspection reports. Submission at the time of PDI
- iii) Material Test Certificates and Powder Coating report- Submission at the time of PDI

# 14.0. INSPECTION REQUIRMENTS

- 1. Supplier to generate Inspection Test Plan (ITP) or Quality Assurance Plan (QAP) for overall systems in line with job specification and submit the same to MDL for approval within 20 days of award of contract.
- 2. Contractor shall include Pre dispatch inspection/Testing charges (including Third Party Inspection Agency (TPIA) charges) are included in their bid. Vendor may engage any authorized Third party inspection before dispatch & charges for the same shall be borne by the contractor.
- 3. Pre-dispatch inspection will be carried out by MDL prior to dispatch of material. Contractor shall offer MDL one-week prior for inspection after readiness of his material. The

contractor shall dispatch his material only after clearance of material by MDL vide Predispatch inspection report.

# 15.0 <u>ASSISTANCE FOR INSTALLATION, TESTING, COMMISSIONING AND OTHER SUCH</u> <u>TECHNICAL ACTIVITIES:</u>

- i. Power:\_Power, if available and required by the Contractor, may be supplied in single phase or three phases, at a single nearby source free of cost. The contractor shall make his own arrangement for electrical fittings, cables/wires, welding transformers, etc. at his own cost.
- ii. Water: Water, if available, and required by the Contractor, may be supplied by MDL free of cost. However, the contractor shall make his own arrangement for connecting lines, storage etc. at his own cost.
- iii. Equipment/Machinery: The contractor shall make his own arrangement for all equipment, machinery, tools and tackles etc.
- iv. Manufacturing Material: All the components required for systems procured by the Contractor shall be of repute make and as approved by MDL. The rate shall be inclusive of transportation, storage, security, handling etc.
- v. Consumables: All the consumables required for the installation including temporary works, allied/ associated job etc shall be procured by the Contractor including transportation, storage, security, handling etc.

# 16.0 DELIVERY TERMS & DELEVERY SCHEDULE

- 1.Completion of Phase I is **\*D**+4 Months.
- 2. Completion of Phase II is **\*D**+7 Months.
- 3. Completion of Phase III is **\*D**+11 Months.
- 4. Completion of Phase IV is **\*D**+15 Months.
- 5. Completion of Phase V is **\*D**+18 Months.

Note: **\*D** is Date of Placement of Order.

Supply, Installation, Testing and Commissioning of New Storage system & Automated Racking System with necessary Construction of Racking System, Allied Civil Work, Electrification & SAP integration is to be completed in 18 months by date of Placement of Order.

# 17.0 TRAINING NEEDS

After Successfully Installation of Storage Racking System & Automated Inventory Management System, Contractor shall provide training on operations, safety measure, material handling etc. Duration of training will be 3 days in each case prior to Handing over of Respective Phase to MDL

# 18.0. <u>WARRANTY</u>

Warranty of minimum 12 months (from the date of completion & handing over of site) shall be provided by contractor for any damage /defect of complete system. Any damage /defect within the warranty period shall be modified by the contractor at his own cost to the satisfaction of Engineer-In-Charge or end user. The warranty period for each phase shall start on the date of successful completion and handing over of respective phase to MDL.

# 19.0 BOQ (BILL OF QUANTITY)

SL. NO.	Item Code	DESCRIPTION OF	QUANTITY	UOM
1.01	MULTITIER RACK-A	Heavy duty multi-tier steel storage racking system 6 levels. Loading capacity of 1000 kg udl/level for 3 levels and 500 kg/udl for 3 levels. Single divider considered at each level	63	Nos
1.02	MULTITIER RACK-B	Heavy duty multi-tier steel storage racking system 9 levels. Loading capacity of 1500 kg udl/level for 3 levels and 1000 kg/udl for 6 levels. Double divider considered at each level	19	Nos
1.03	MULTITIER RACK-BH	Heavy duty multi-tier steel storage racking system 9 levels. Loading capacity of 1000 kg udl/level for 3 levels and 500 kg/udl for 6 levels. Single divider considered at each level	4	Nos

1.04	Mezzanine	G+2 Mezzanine System with Glass Fiber Re- enforced Polymer (GFRP) or equivalent Catwalk Panels with loading bearing capacity of 500kg udl/sqm and 2 Qty material Loading gate. Total Area of Mezzanine 140 sqm for G+2.	1	Nos
1.05	Goods Lift	Electro-Mechanical Goods Lift for G+2. Load bearing capacity of 1.5 ton	1	Nos
1.06	AIMS 1	Automated Inventory Management System 1	1	Nos
1.07	AIMS 2	Automated Inventory Management System 2	1	Nos
1.08	Cantilever Block M	Steel Pipe storage Cantilever system 5 levels of loading capacity (500 kg/arm) with total 445 Arms	6	Nos
1.11	Civil 1	Allied Civil work including Brickwork (rooms), Cantilever Roofing	1	Nos
1.12	Civil 2	Internal painting (plastic emulsion) approx. 7000sqft. Inside common stock store area with minor structural repair work	1	Nos

# 20.0 POLICE VERIFICATION OF CONTRACTOR'S EMPLOYEES:

The Contractor shall have to obtain Police Verification Report (PVR) of their Employees prior to deployment at MDL site for execution of the work. A Detailed procedure for Entry Passes for Contractor's Employees is displayed on MDL's website

# <u>www.mazagondock.in</u> > Procurement > Tenders > SB-Outsourcing > SB-OTS STACS Format

# 21.0 EXECUTION OF WORK AND MEASUREMENT:

**<u>21.1</u>** All works shall be carried out and measured as per specifications and standard Engineering practice and mode of measurements, conforming to the relevant IS code. The Contactor shall ensure that skilled workmen in their respective trades are employed. He shall also employ qualified Engineer(s) / Supervisor(s) experienced in similar type of work, as required, for execution of work efficiently.

**<u>21.2</u>** Request for permission for working on Saturday / Sunday / holidays if required, should be submitted 3 working days prior to the date of holiday, to Personnel department and Security through Technical Services Department.

**<u>21.3</u>** The work is to be carried out in the area where MDL's normal activities are in progress. The Contractor has to plan his work in such a way as not to disturb the normal activities of MDL. The contractor shall not be paid for any compensation for idle period if generated due to any reason whatsoever. Reasonable extension in time, however, may be considered on application in writing along with supporting Documents.