# Eligibility criteria for suppliers to participate in the Inquiry for Drive in Pallet Racking System at our warehouse in Tejpur & Hydrabad.

1	Vendor should have in-house facility for manufacturing of racking system/components.	4	Supplier should have in-house testing facility for quality control.
2	Vendor must have successfully executed similar nature & size of work in last 3 years.	5	Supplier should have minimum Three years' experience in the field of supplying racking system.
3	Vendor should have minimum turnover of Rs. 50 Cr in Last three financial year.	6	Preferably certified with ISO-9001

Supplier who are meeting above mentioned eligibility criteria are only allowed to participate in the reverse auction.

# Last Date for Submission of Bid: 11.09.2024 before 4.00 PM

Location : Tejpur - Need Racking System for Min. 3000 Pallets Hydrabad - Need Racking System for Min. 3000 Pallets Bidder to visit the above warehouse before submitting their offer.

# EMD (Earnest Money Deposit): Rs. 1 Lac

# Procedure to participate in above RA:

- 1) Interested bidders have to register their firm in our Purchase portal/DOF portal by following below link:
  - a. Website for our portal is as >>>: http://gcmmfpurchase.amul.in
- 2) All the interested bidders have to participate in the RA through our Reverse Auction portal after registering their firm as a new vendor (Vendor who have already registered their firm in our portal and meeting above eligibility criteria are requested to put mail on <u>palak.shah@amul.coop</u> to link their firm for RA).
- 3) On successful registration in our Portal, we invite vendor to submit their techno-commercial offer on our portal.

Only Registered vendors on our Purchase/DOF portal, meeting above mentioned eligibility criteria are allowed to participate in the Schedule Reverse Auction.

Annexure-1: Terms and Conditions Annexure-2: Specification

#### TERMS AND CONDITIONS FOR THE INQUIRY

1.0 Detailed specifications are given in the enclosed sheet. All supplies meeting above eligibility criteria shall be strictly as per the enclosed specifications only.

#### 2.0 <u>QUANTITY</u>:

- 2.1 The destination wise quantity mentioned at enclosed sheet is only an estimate.
- 2.2 The quantity which we may buy from you will depend upon your rates as well as your past performance.
- 2.3 The quantity for which we may approve your rates shall be subject to +/- 10% variation to take care of changes in normal consumption. This quantity variation will be allowed on approved rates only.
- 2.4 In case our member unions/our Branch/GCMMF (MU) need additional quantity, you shall supply the same. <u>If additional material is supplied without our concurrence, it may lead to the cancellation of the contract, which may please be noted</u>. You will supply the material to our warehouse/branch, to which allocation of quantity is mentioned in the PO/RAL.
- 3.0 <u>RATES</u>:
- 3.1 Rates to be entered through Purchase Portal only.

In case there is any increase/decrease in Government taxes or levies on finished product, the same will be made effective immediately from the date prescribed by the Government subject to provision of supporting documents.

- 3.2 In case of variation in tax rates due to change at the supplier's end (e.g. turnover of the supplier, constitution of supplier, etc) landed price shall remain constant and basic price shall vary accordingly.
- 3.3 Products attracting Goods & Service tax (GST) will be charged with appropriate GST rate as and when applicable. Supplier shall provide the necessary supporting documents for HSN code of the material supplied as well as documents determining GST rate on the same.
- 3.4 GCMMF or its Branch shall not be liable for reimbursing any tax liability of the supplier, once the payment against the supply has been made in full.
- 3.5 GCMMF or its Branch reserves its right to hold the payment of GST component of the invoice subject to verification of the GST return filing by the supplier.
- 4.0 <u>TAXES:</u>
- 4.1 Please specify the percentage of duty and/or taxes that will be applicable on your supplies and amount.
- 4.2 In case you have any specific exemption on taxes, please do specify.

#### 5.0 <u>CAPACITY</u>:

- 5.1 While submitting your offer, please mention your yearly production capacity and maximum quantity that you are in a position to supply on monthly basis.
- 5.2 Please also mention list of lab. Equipment that you have for testing raw materials and finished products.

#### 6.0 <u>DELIVERY</u>:

- 6.1 You shall supply goods as per the delivery schedule given by GCMMF or their Branch alongwith the purchase orders which they shall place on you against our Rate Approval Letter. Quantity received at Branch Warehouse shall be considered as final.
- 6.2 The responsibility of any type of damage / rusting / loss during transit from your works to our destination lies with the supplier only. You may therefore consider covering the transit insurance at your cost accordingly.
- 7.0 APPROVAL OF SAMPLE/Drawing: Prior to commencing Manufacturing, you are requested to get a drawing approved initially by individual concerned Branch/GCMMF.
- 8.0 **TEST REPORTS**: Copy of the test reports conducted at your end should accompany each and every invoice to enable branches to release payments. Copy of the same should be forwarded to GCMMF also for our information and records.
- 9.0 **INVOICING & DESPATCH ADVICE**: Invoices should be prepared in the name of respective Branch or GCMMF directly for payment. The invoice should carry Branches/GCMMF's' purchase order Nos. be clearly mentioned on the invoice. Please ensure that the invoices are prepared in the approved price break up only, specifying GST.

#### 10.0 **QUALITY:**

- 10.1 "SUPPLIER IS TO ENSURE THAT ANY INPUT MATERIAL USED IN MANUFACTURE OF ORDERED MATERIAL IS <u>COMPLETELY as per the given specification and as per the latest</u> <u>available IS standard ONLY</u>. THEY WILL BE ALSO REQUIRED TO ENSURE TO PROVIDE AN AUTHENTICATED CERTIFICATE CONFIRMING THE ABOVE.
- 10.2 The material must conform to our specifications in all respects. The supplies not conforming to our specifications will be rejected at your cost and risk.
- 10.3 We reserve the right to get your material tested from any authentic independent laboratory, the result of which would be binding to both of us. In case of any non-specified/nonstandard material being used in your material and **not meeting desired specification**, we reserve the right to cancel contract, take legal action and forfeit your security deposit and suspend the business with you once and for all.
- 10.4 Suppliers shall have to ensure sourcing best quality of input raw material used in Manufacture of final material. Wherever our product carries BIS / ISI mark, they must ensure sourcing such raw materials so as to ensure meeting BIS / ISI standards of final material.

#### 11.0 **REJECTION**:

11.1 Kindly note that if any of your supplies are found substandard with respect to any aspects of specification laid down, <u>such supplies may not be accepted at a Rebate / discount and shall</u> <u>be liable to rejection summarily</u> and we may cancel our orders placed and rate approval at any

time on this account, during the contract. In such cases, your security deposit may also be forfeited.

- 11.2 In case materials are found substandard at unions' stores, on receipt of the same we reserve our right to reject the material out-rightly. Labour charges if any will also be recovered from you.
- 11.3 In case of rejection, we may also forfeit your security deposit, which may please be noted.

# 12.0 PAYMENT: Payment will be released within 30 days by RTGS/<u>Cheque/DD</u> from the date of receipt of goods or invoice whichever is later and if material is found acceptable as per our specification.

PENALTY: In case of your failure to supply the materials as per the contract, you shall compensate the loss that our member unions may sustain by way of procuring the material from other sources at higher prices in addition to forfeiting your Security Deposit.

#### 13. EARNEST MONEY DEPOSIT (EMD):

- 14.1 You will have to deposit Rs. 100000/- by **at par cheque** in favour of **Gujarat Co-operative Milk Marketing Federation Ltd., Anand** towards EMD and the same must be submitted 1 day before Due date of Inquiry. In case your quotation is not accepted the deposit will be refunded within a fortnight from the date of finalization. EMD will carry no interest.
- 14.2 Without submission of EMD before due date of Inquiry, Bid of respective vendor will not be considered and summarily rejected.
- 14.3 In case we find that you have given any misleading information with regard to your machinery infrastructure as mentioned in your Data on Firm form (through our Purchase Portal), we may forfeit your EMD / SD and also delete your name from our list of approved suppliers.
- 14.4 Please note that last year's EMD is not transferable against your current year EMD, therefore, please send fresh EMD.
- 15.0 **SECURITY DEPOSIT**: You are required to pay Rs.10 Lac towards security deposit against this contract by online transfer in provided bank details of GUJARAT COOP. MILK MARKETING FEDERATION LTD. Anand. Please ensure that online transfer of required amount is accompanied with duplicate of PO/RAL without fail. This SD shall bear no interest till it is retained with us as per the terms of contract.

Earlier SD lying at our office, if any, shall be refunded to you after getting necessary no dues certificate from the concerned member union for completing the supplies satisfactory in all respect.

- 15.1 In case we find that you have given any misleading information at any time in your quotation or through other documents we reserve our right to cancel our contract with immediate effect in addition to forfeiting your EMD/SD.
- 15.2 Please note that last year's SD is not transferable against your current year SD therefore please send fresh SD along with your RAL.

#### 16.0 GENERAL TERMS:

16.1 We reserve the right to extend/reduce the contract period by up to 90 days depending on our requirement.

**16.2** In case of any mid year change in design/construction/specifications decided by us, we reserve the right to cancel the contract with you in part or in full. However, in such instance, we shall provide you with adequate notice period.

#### 16.3 **INSPECTION OF GOODS IN PROCESS & YOUR MATERIAL PURCHASE DOCUMENTS**:

We reserve our right to depute either our representatives or representatives of our member unions/branch or of any independent body for inspection of materials while the same are under manufacture. To facilitate inspections as and when necessary, you will be required to give prior intimation as to when you are likely to start manufacturing of materials. In case during such inspection the result is found dissatisfactory, we reserve the right to take whatever action is necessary to protect our interests.

We also reserve our right to inspect the original invoices/Gate pass pertaining to your purchases of raw materials used in manufacturing of materials by you and other records being maintained by you, which are relevant to us.

#### 16.4 MAINTENANING ETHICAL STANDARDS IN BUSINESS:

Since supply of ordered material shall be directly to the ordering Member Unions, based on the strength of this Rate Contract, it is highly necessary for the suppliers to ensure that **business ethics are maintained at the highest degree with GCMMF/Member Unions**. In no case we will be able to tolerate any unethical practice by the supplier by way of offering either cash or in kind or compensation in any form either to get the rejected material accepted or to get higher volume of the business than the approved quantity in this Contract Letter.

By any chance if it comes to our notice that you or any of your employee / representative / agent have tried to initiate such unfair business practices with any of our employee or any of the employee/decision maker of our Member Unions, even with/without any documentary evidences, the same shall be considered as a breach of contract and we reserve our right to terminate/suspend the Contract during any time of the contract period without assigning any reason thereof.

#### 16.6 Winding Up of Business/Suspension of the supplies against RAL/PO:

In case the approved suppliers are in process to either winding up the business once & for all in process to suspend the supplies for the time being for maintenance of M/cs, Breakdown Maintenance because of any other reason, our dairies / GCMMF have to be kept informed well in advance to avoid any inconvenience in the supplies causing loss of production.

<u>Alternate arrangement of supplies</u> has to be made by the concerned supplier <u>strictly as per</u> <u>laid down specification</u> and in line with approved RAL Terms only **in case of sudden** <u>stoppage of supplies because of m/c breakdown</u>.

In case of Winding Up the business, suppliers have to provide min. 120 days lead-time to us / dairies.

In case of the stoppage of supplies for the time being, the min. lead-time of 30 days has to be provided to us / dairies.

Any deviation / failure in meeting the above shall be handled in accordance to Penalty clause of this RAL.

#### 16.7 ISO CERTIFICATION:

AS BEING MENTIONED IN OUR TENDER ENQUIRY, WE HAVE MADE IT COMPULSORY TO DEAL WITH ONLY ISO REGISTERED PARTIES. YOU MAY THEREFORE ARRANGE TO SEND DUPLICATE COPY OF THIS RAL ALONG WITH COPY OF LATEST RENEWED ISO CERTIFICATE WITHOUT FAIL TO HELP GCMMF MAINTAINIG THIS DISCIPLINE.

**16.8** The right of printing AMUL/SAGAR/Federation logo design on packaging material belongs solely to GCMMF / its member unions. If it is found that any manufacturer is occupied or instrumental in printing the AMUL/SAGAR/Federation logo design for other than GCMMF/its member unions, they will be heavily penalized depending on the depth of the grievance and will be liable for legal action.

#### 16.9 PATENT RIGHTS:

GCMMF shall not be responsible in any case against third party claims of infringement of trade mark / patent rights / Licence rights arising from the use of any equipment / Item / services or any part/full thereof. Any Approved Supplier of GCMMF against our rate approval letter shall be sole responsible for any issue arising out of the above.

#### 16.10 Factory visit:

In case your products are approved for purchase, we reserve the right to inspect your manufacturing unit without prior notice.

- Realistic and earliest completion period should be indicated in offer.
- It will not be binding on us to accept the lowest offer.
- Right to accept/reject any/all offers without assigning reason is reserved by us.
- Offers which are incomplete or not meeting the conditions are liable for rejection.
- Warranty: Warranty should be Minimum-2 Years from commissioning

#### 17 JURISDICTION:

In case of any dispute arising out of this contract, jurisdiction will be the head quarter of ordering unions.

Note: All the Bidders have to submit offer on per Pallet Basis, so if in the future we want to order the same system for our another warehouse, we will consider same rate of per pallets and may issue an order for Pallet Racking System.

# **General Technical Specification for Pallet Racking System**

Drive In systems efficiently store large quantities of similar loads by allowing the forklift driver to enter the rack system and to place the load on the pallet rail. Drive-In systems load and retrieve from the same side inventory retrieval organization.



**Design** : We are using following standards, as applicable for design of its pallet racking system.

IS 801: 1975 - Code of practice for use of cold formed light gauge steel structural members in general building construction.

IS800:1884/2007-Codeofpracticeforgeneralconstructioninsteel

BS:5950(V):1998-Buildingdesignusingcoldformedsteelsections

FEM 10.2.02 – Code of practice for design of steel pallet racking

FEM10.3.01-Adjustable beam pallet racking, tolerances, deformations and

clearances EN: 15512: 2009 - Steel static storage systems - Adjustable pallet

racking

Serviceability and stability criteria for pallet racking are as per SEMA (U.K) guidelines and F.E.M 10.2.02 (Europe) guidelines as applicable

<u>**Raw Material**</u>: Load bearing members of the system are made out of High strength HR steel having properties equivalent to grades specified by IS 5986:2002 / IS 2062:2006

The different types of material used for Load bearing members such as Uprights and Beams are:

Steel Type	Minimum guaranteed Yield Strength	Equivalent International Standard
Equivalent to IS: 5986 / ISH430LA (or) IS:2062 / E 350	355 MPa	JIS 3101: SS 490 EN 10025 : S 355 JR DIN 17100 : St 52
Equivalent to IS: 5986 / ISH410S (or) IS:2062 / E 250	255 MPa	JIS 3101: SS 400 EN 10025 : S 235 JR DIN 17100 : St 42
	255 MPa	ASTM A253

In addition to high strength, the raw material used for structural load bearing members also possesses adequate ductility to ensure toughness. The material also has the necessary impact strength for cold room applications up to -30 deg C.

<u>Fasteners</u> : Fasteners (Except Anchor Bolt) of Grade 8.8 are used for bolting uprights with base plates and bracings. These fasteners are of a galvanized finish to suit industrial atmosphere.

<u>Surface Finish</u> : All components are given a thorough anti-rust treatment to prevent corrosion, thereby increasing the life of the component. Steel components are powder coated for obtaining a smooth, scratch resistant and a lasting attractive, finish. The Dry Film Thickness (DFT) of 65-70 microns is achieved on an average after Powder coating.

All components are subjected to an elaborate 4 step, six zone anti corrosion treatment, viz. Degreasing as per IS 6005:1970, Rinsing, Phospating as per IS 3618:1966 and RO water rinsing.

Furthermore, the testing of paint for various physical and chemical properties is done as per ASTM Standard.

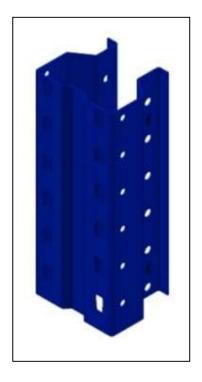
<u>Assembly and Installations</u> : The drive-in system is of complete knock down construction. The racks are grouted on the floor using Expansion bolts. No welding will be carried out at site.

# **Racking component specification** :

<u>Upright</u>: Upright is a roll formed construction made in single piece without welding. Upright has slots at 50mm. It enables the warehouse manager to utilize the rack optimally to suit the changing SKUsizes.

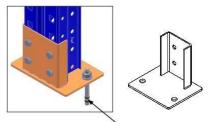
Uprights are multi bend profiles, designed to offer maximum load bearing capacity with optimum surface utilization ensuring high standards of stability and safety. Uprights are bolted with Base Plates to transfer the load to ground.

The manufacturing process of punching and forming is in one flow and a synchronized operation, thereby providing dimensional accuracy and contour uniformity consistently.

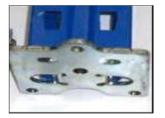


Upright type	
Profile	Omega
Profile width	110mm
Profile depth	75mm
Number of bend	12
Beam adjustability	50mm
Material Quality	Min Ys= 355 Mpa
Mfg process	Roll forming
Finish	Powder coated/Galvanized
Colour	Oxford Blue

**<u>Base Plate</u>** : It is welded construction bolted to upright. They are anchored to ground using M12 x 100 Torque type mechanical anchor bolts. Floor level variation shall be adjusted with shims.

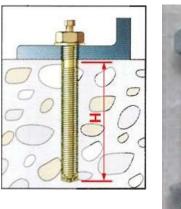


Mechanical anchor bolts



Width	180 mm
Depth	125 mm
No of grouting bolts	2 nos. of FWA M12x100 bolts
No of fasteners to connect Upright	4 nos. of M10x25 Hex bolts, M10 Hex nuts and M10 plain washers
Connectivity	Grouting
Mfg Process	Welding & press forming
Finish	Powder coated
Colour	Orange

# Anchor Fasteners :

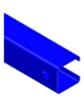


		3	
1	E	à	l.
18	and a		8
8	MIN		
k	AHM.		5
	1111		
	TR.	8	2
1	R	2	2
1	1	1	
8	1	10	8
	AB		1

Material	Carbon steel
Grade	5.8
Finish	Galvanized
Diameter	M12
Anchor depth	100mm
Minimum Drill Depth	125mm
Grade of Concrete	M20
Grade of Concrete	(Minimum)

**Bracing :** Diagonal and horizontal bracings are lipped channel sections. These are used to connect uprights to make frames. These bracing channels are also made through roll forming technology.





Bracing



Bracing spacer



Type of profile	Lipped channel
Profile section	30 x 30 x 6mm
Mfg process	Roll forming
No of bend	4nos
Connectivity	Bolted
No of fasteners	2 no of M10x75/M10x80
Surface finish	Galvanized
Colour	Oxford Blue

**Bracing cleat** : Bracing cleat is used to connect the horizontal bracing directly to the upright front face. In this case we can avoid the no. of frames.



Type of profile	Channel
Mfg process	Welding & press forming
No of bend	2nos
Connectivity	Bolted
No of fasteners	4nos. of M10 x 25 Hex Bolts, M10 Hex Nuts and M10 plain washers Each.
Surface finish	Powder coated
Colour	Oxford Blue

**Gap bracing channel** : Row connectors are to connect back to back frames. They ensure the stability of the system.



Type of profile	Lipped channel with Rectangular plates at end.
Profile section	30x30x6mm
No of bend	4nos
Mfg process	Roll forming & Welded
Connectivity	Bolted
	4 nos. of M10x25 Hex bolts, M10
Fasteners	Hex nuts and M10 Plain washers each
Surface Finish Powder coated	
Colour	Oxford Blue/Red

<u>Support bracket</u> : Support Bracket is a formed section transferring load from the pallet rail to the upright. The bracket is hooked onto the upright in 2 slots and bolted at one location. The lanced portion prevents rotation of the arm and a small lance prevents the uplift of the arm due to pallet hits.

Height	To match with our requirement
No of Bend	To match with our requirement
Connectivity	Bolting & Hooking
Fasteners	1 no. of M10x25 Hex Bolt, M10 Hex nut and M10 plain washer
Mfg process	Press forming
Surface Finish	Powder Coated
Colour	Oxford Blue

**Pallet Rail** : Pallet Rail is a formed section, capable to take pallet load. The plain surface of 84mm width provides larger seating area for the pallet. The inclined face of the pallet rail will help the MHE operator to position the pallet easily within the specified width and to place the pallet exactly on the resting surface.

Over all Height	125mm
Guide surface Height(H)	To match with our requirement
Resting surface	To match with our requirement
Mfg process	Press forming
No of Bend	To match with our requirement
Connectivity	Bolted
Fasteners	1 no. each of M10x25 Hex Bolt, M10 Hex nut and M10 Plain washer& 1 no. each of M8x20 Hex Bolt, M8 Hex nut and M8 Plain washer with each arm
Colour	Galvanized

Over all Height	To match with our requirement
Mfg process	Press forming
No of Bend	To match with our requirement
Connectivity	Bolted
	4 no. each of M10x25 Hex Bolt, M10 Hex nut and M10 Plain washer & 4 no. each of M8x20
Fasteners	Hex Bolt, M8 Hex nut and M8 Plain washer at each joining location
Colour	Galvanized

<u>**Pallet rail jointing piece</u>** : Joining piece for pallet rail is a formed complex shape used to connect the pallet rails of different lengths in a bay.</u>

**Top stability beam assembly**: Top Stability Beam is a HEM beam having 2 nos. 3 -hole lip connector welded to it at the ends and 2 nos. of plates that are welded on the top face of the beam. These beams are fixed to the top of each frame, bolted to the uprights via the lip connectors ensuring system stability by integrating each bay as a single block. The horizontal plates welded to the beam are used to connect the top bracings.

Since the beams are bolted to the upright it ensures that beams are engaged with the uprights precisely and prevent any accidental beam dislodgement due to handling equipments.

Type of Profile	Rectangle
Usage	Stability
Height	100
Width	50
Beam Length	Depends on bay width
No of Lip connector	3
Mfg process	Role Forming & Welding
No of Bend	4
Connectivity	Bolted
Fasteners	6 no of M10x25 Hex bolts, M10 Hex nuts and M10 Plain washer
Surface Finish	Powder Coated
Colour	Orange

**<u>Rear stability beam</u>** : Rear Stability Beam is a HEM beam having 2 nos. 3 -hole lip connector welded to it at the ends and 2 nos. of channels that are welded on the front face of the beam. These beams are fixed at the rear of each frame, bolted to the uprights via the lip connectors ensuring system stability. The channels welded to the beam are used to connect the rear bracings.

Since the beams are bolted to the upright it ensures that beams are engaged with the uprights precisely and prevent any accidental beam dislodgement due to handling equipments.

Type of Profile	Rectangle
Height	100
Width	50
Beam Length	Depends on bay width
No of Lip connector	3
Mfg process	Roll Forming & Welding
No of Bend	4
Connectivity	Bolted
Fasteners	6 nos. of M10x25 Hex bolts, M10 Hex nuts and
	M10 Plain washer
Surface Finish	Powder Coated
Colour	Orange

**Top Rear stability beam** : Top Rear Stability Beam is a HEM beam having 2 nos. 3 -hole lip connector welded to it at the ends, 2 nos. of channels that are welded on the front face of the beam and 2 nos. of top plates welded onto the top face of the beam. These beams are fixed at the top rear end of each frame, bolted to the uprights via the lip connectors ensuring system stability. The channels welded to the beam are used to connect the rear bracings and the top plates for the rear bracings.

Since the beams are bolted to the upright it ensures that beams are engaged with the uprights precisely and prevent any accidental beam dislodgement due to handling equipments.

	Type of Profile	Rectangle
	Height	100
	Width	50
	Beam Length	Depends on bay width
	No of Lip connector	3
	Mfg process	Roll Forming & Welding
	No of Bend	4
	Connectivity	Bolted
	Fasteners	6 nos. of M10x25 Hex bolts,
	rasteriers	M10 Hex nuts and M10 Plain washer
	Surface Finish	Powder Coated
	Colour	Orange

<u>**Pallet Stopper</u>** : A unique stopper added at every level in the rear end acts as a back stopper preventing a pallet over-travel from frame end. This should be provided at all levels.</u>

-

Type of profile	Formed	
 Profile section		164x137
No of Bend		3
Height	Bolted	164mm
Fasteners	Suitable for application	
 Surface Finish	Powder coated	
Colour	Yellow	

<u>Safety signage</u> : These signages are for the safety of warehouse personnel and longer life of the storage system. Quantity of signages will be based on the layout.

Size	600x800
Thickness	5mm
Connectivity	Bolted
Quality	Photo print

**<u>Upright protector</u>** : Upright protectors are fixed in front of all aisle facing uprights. This is to avoid any accidental direct hit on bottom of racks by MHE while handling pallets.



Height	500mm
Connectivity	Clipping
Colour	Yellow

# 1) Warehouse in Tejpur:

Heavy Duty Pallet Rack Driving System	: G + LEVEL
Storage Area Size	: Approx. 325 ft*80ft*25ft (L X BX H)
Plastic Pallet Size	: 1200 X 1000 X 160 MM
Plastic Pallet Weight	: Approx. 16.5 Kg
Load on Pallets	: Approx. 1200 Kg
Pallets Storage Capacity	: Approx Nos.

<u>Note</u>: Please visit premises before quote to exactly understand our requirement. Scope includes material supply + Installation.

#### **Fabrication Guidelines**

- 1. All the basic raw materials must conform to BIS / BS / DIN standard or as specified on drawings, wherever applicable.
- 2. Material should be of TATa/Jindal make.
- 3. MOC shall be as specified in the approved fabrication drawings.
- 4. GCMMF/BRANCH is free to inspect the materials visually. Raw materials shall be tested from Government approved / recognized institute or laboratory. The Chemical and physical test report shall be submitted to GCMMF/BRANCH. However, in case due to shorter delivery period, fabrication shall be taken on priority basis and will not wait for approval, if the purchased materials are from reliable sources.
- 5. Fabrication work shall be carried out by skilled fitters / welders. Only approved welders shall be employed for this job.
- 6. MS sheets cutting shall be through shearing machine, however, higher thickness plates that cannot be managed through shearing machine; PUG gas cutting and profile cutting with laser can be adopted.
- 7. All the holes shall be drilled/ punched/ core cut. Slots shall be punched / milled. Under any circumstances holes / slots shall be not gas cut without prior approval.
- 8. Debarring tools shall be used for holes and slots to remove the burrs from both sides if required.
- 9. All the sharp corners and edges shall be removed, chamfered and smoothened.
- 10. Welding electrodes shall be of ADVANI / Sun Arc / ESAB/equivalent reputed make. Welding rods shall be pre- heated in the oven / heating jackets to maintain the temperature as per manufactures' standards. Please get GCMMF/BRANCH approval for make of welding filler wire to be used.
- 11. Only automatic SAC (submerged arc welding), MIG (Metal Inert Gas) with CO2 welding is acceptable.
- 12. Welding rectifier, Plasma cutting, Gas cutting, Gas torch etc must be in excellent condition.
- 13. Mechanical handling facilities preferably shall be used during lifting / assembly of the components to the extent possible.
- 14. Please arrange required jigs and fixture, wherever applicable.
- 15.Dimensional tolerances and critical functions / interface dimensions shall be maintained.
- 16. Please maintain straightness of all parts after fabrication.
- 17. Please maintain the thickness of weld deposit.
- 18. The welding shall be smooth in horizontal and vertical run and shall not spoil the parent materials.
- 19.All precautions shall be taken to avoid deformation / buckling / twist during fabrication or welding.
- 20. Grinder shall not be used on welded surface except for surface of mating parts.
- 21.Internal inspection report shall be submitted to GCMMF/BRANCH for each lot of materials. Please check each component dimensionally after fabrication. Please

follow GCMMF/BRANCH's standard/ approved format of inspection to maintain the record (format attached).

- 22. Please provide physical dimensional checking instruments during inspection.
- 23. Please carry out the modification / rectification as per the instruction of inspector.
- 24.All the drawings of GCMMF/BRANCH shall be returned after completion of the job.
- 25. Please submit chemical and physical test report for basic raw materials.
- 26.Respective BIS standard code for design and fabrication of steel structures shall be strictly followed.
- 27.Good engineering practice and Good Manufacturing Practice should be followed to have high quality workmanship
- 28. Approval of WPS and PQR as per ASME/ BIS is must.
- 29.All materials should have manufacturers' test report. It should also be got tested from independent test laboratory, stamped and marked for identification.
- 30.Third party inspection as well as inspection by the purchaser shall be there besides all other statutory authorities.
- 31. All works shall be carried out as per the instruction of the Project-in-Charge.