

Description and Technical Specification of Each Heavy Duty Racking system for use in Depot of DY.CMM/WRS/KOTA.

**Description of Item:- HEAVY DUTY RACKING SYSTEM
(With Decking Panels at G+01 Level Only)**

**Specification Offered by firm
(to be filled by tenderers)**

**Deviation if any (to be
filled by tenderers)**

Each Rack Size :- 4000(H) X 1000(D) X 2700(L)mm.
Total Level - G0+03 Nos.
Load - 2000 Kgs UDL Load / level.
Load Per Module - 6000 Kgs UDL.
Minimum Factor of safety 1.65 as per design standard IS 800/IS 801.
Allowable deflection should be limited to span / 325.

Drawing No.: CT-16 Alt-01 (Annex-A & Part Drg. Annex-B)
Each Rack Consists of following accessories and fasteners:-
1. MAIN MODULE (With Decking Panels at G+01 Level Only):-

S. No.	Specification	Qty.
1	Bolted Frame Section	2
2	Beam (Horizontal)	6
3	Decking Panel	18
4	Coloum Guard	2
5	Safety Bolts	12
6	Anchor Bolts	8
7	Base Plate	4

2. ADD ON MODULE (With Decking Panels at G+1 Level Only):-

S. No.	Specification	Qty.
1	Bolted Frame Section	1
2	Beam (Horizontal)	6
3	Decking Panel	18
4	Coloum Guard	1
5	Safety Bolts	12
6	Anchor Bolts	4
7	Base Plate	2

3. SAFETY ITEMS (With Decking Panels at G+1 Level Only):-

S. No.	Specification	Qty.
1	Back to Back / Wall Connector	Lump Sum
2	Row Guard	Lump Sum

Detail Description and Specification:-

Bolted Frame Section:-
Dimension - 4000(H) X 1000(D) mm. Each Bolted Frame section consists of 2 Posts (Upright) of dimension 100mmx70mmx2.0mm (thick). Material of the Bolted frame section is High quality Hot/Cold rolled steel as per IS 1079/ IS 10748/IS 513 D/ IS 5986 in single piece slotted (trapezoidal Hole) section with minimum 10 to 12 bends with suitable foundation shoe base plate at the bottom to distribute the load of Upright. Uprights are to be bolted by diagonal bracing (G.I. make) to form an integral bolted frame after assembly. The wedge type slot/ trapezoidal hole pitch shall be 50 mm for level adjustability to cater future requirements. This frame (except bracings) should be powder coated in NBS Blue Colour. The uprights are bolted by Galvanized Diagonal Bracing Size - 25mm x 25mm x 8 mm x 1.2 mm C - section - 8 Nos. Per Frame/ Horizontal Bracing Size - 25mm x 25mm x 8 mm x 1.2 mm C - section - 2 Nos. Per Frame (All Bracings are G.I. make without painted)

[Handwritten Signature]

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Bolted Frame Section (Beams):- The horizontal beams are to be Box type construction made with two lipped - C sections. Each lipped C section has to be 6 (six) bends and manufactured by crimping technology to offer maximum resistance to torsion failure, so that no welding is required throughout the length of the beams and only the lip connectors have to be welded to the beams. It should be compatible with the upright section such that the beams can be moved up and down to cater future requirements. Material of the Beams are High quality Hot/Cold rolled steel as per IS 2062/IS 1079/ IS 10748/IS 513 D/ IS 5986. Beam Should be powder coated in deep orange colour. Overall dimension of the beams 2700 mm (L) x 100mm (W).x 40 mm (D) x 2 mm (thick)		
Decking Panel:- Dimension - 150 mm x 35 mm x 12 mm x 1.6 mm (thick) Material of the Decking Panel are High quality Hot/Cold rolled steel as per IS 1079/ IS 10748/IS 513 D/ IS 5986. Decking Panel Should be powder coated in NBS Blue colour.		
Coloum Guard:- Dimension - 50 mm x 120 mm x 3.0 mm (thick) Material of the Coloum Guard are High quality Hot/Cold rolled steel as per IS 1079/ IS 10748/IS 513 D/ IS 5986. Coloum Guard Should be powder coated in Deep Yellow colour.		
Locking Device (Bolts - Safety Bolts & Anchor Bolts):- Beams and Frames are to be securely locked by means of safety locking bolts (Galvanized type of reputed make confirming to IS: 3655) to avoid dislodgment under load through mishandling.		
Base Plate:- Suitable size base plate should be bolted to the upright at the bottom; the base plate should be grouted to the floor during commissioning by means of Anchor Bolts. Base plate is fully galvanized made by prime Galvanized sheet; same will be bolted to be Upright at the bottom. Base Plate without painted G.I. make only.		
Row Guard:- Dimension Row Guard - 1000 mm x 400 mm I/I Ø75, one Row consist one Row Guard for protect the row of rack. The base of Row Guard should be grouted to the floor during commissioning by means of Anchor Bolts. Row Guard Should be powder coated in Deep Yellow colour.		
Process of Welding:- All welding done by MIG (CO2)/ Electric arc welding with copper coated wires as per IS 823 & IS 816.		
Pre - Treatment & Powder Coating Process:- All items to be supplied should be Powder Coated of standard color after 7 tank process of pre- treatment like passivation, Rinsing, Phosphating & Degreasing is carried out. (All Material Powder Coated Except GI Bracing & Foot Plate)		
Inspection Clause:- Inspection should be conducted by the nominated agency/representative of consignee. If necessary stage inspection may be conducted.		

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Erection of Racks:- Erection of Racks should be done by the supplier within 60 days of receiving of the material as per guidance of consignee. All the work related to erection of Racks (like preparation of foundation/surface etc) is to be carried out by the supplier only and supplier should quote rates inclusive of this. Before quoting supplier may visit site for this purpose.		
Guaranty:- Guaranty should be as per IRS Conditions of Contract for any manufacturing defects.		

Special Note:

The quotation should include specific answers strictly with respect to our tendered specifications and specific deviation if any should be highlighted with clarifications. The supplier should furnish the quantitative values with respect to specified values in the technical specification of the quote clearly.



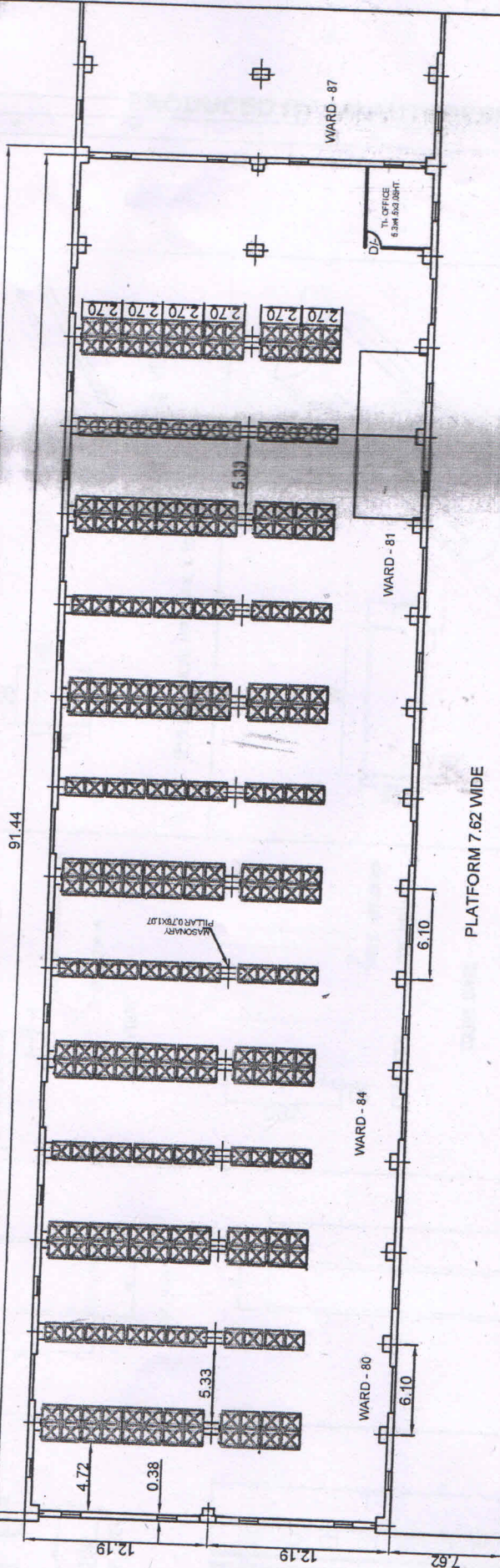
Annex

PLATFORM 12.19 WIDE

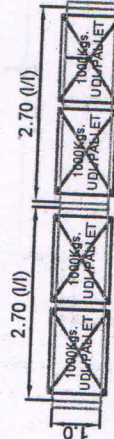
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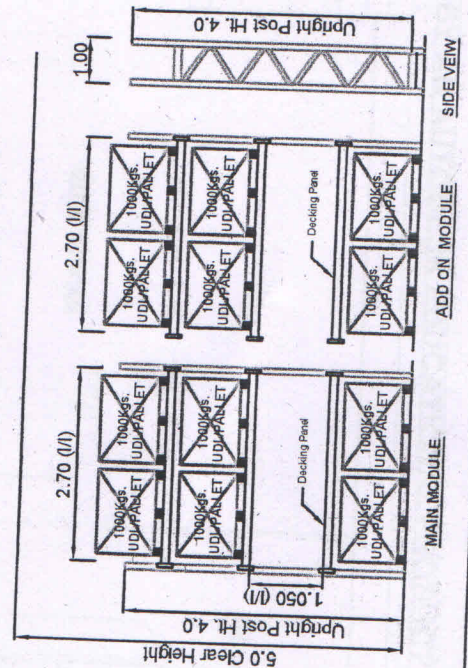
ENCLOSER



PLATFORM 7.62 WIDE

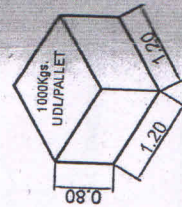


TOP VIEW



Main Module - 40 Nos.
Add On Module - 80 Nos.
Total Module - 120 Nos.
Pallet Holding Capacity - 20x08 = 960 Nos

Heavy Duty Racking System Size (Without Decking Panel)
4000H X 1000D X 2700L mm
Loading Level - G + 03 Nos
First Level Decking Panel
Load Capacity - 2000Kgs UDL/Level
Total Load / Module - 6000 Kgs UDL
Suitable For Pallet Size - 1200L X 1200D X 800H mm
1000Kgs UDL/Pallet



ISOMETRIC PALLET VIEW

NOTE:-
1. ALL DIMENSIONS ARE IN METERS
OTHERWISE IF STATED.

जिग और औजार आरेखन कार्यालय
वेगन स्पेयर शॉप कोटा, प.मध्य रेलवे

CT-116

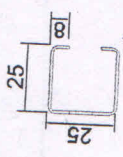
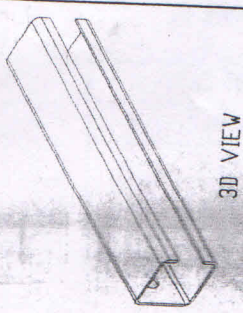
ALT-1

PROPOSED HEAVY DUTY RACKING SYSTEM

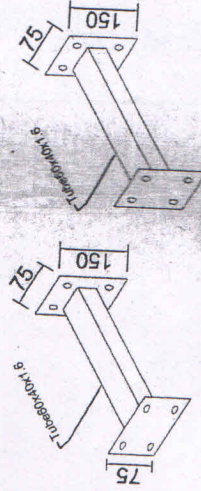
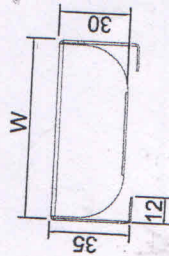
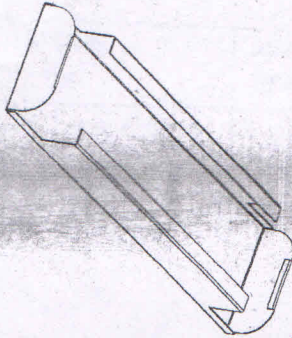
DATE 03-07-15

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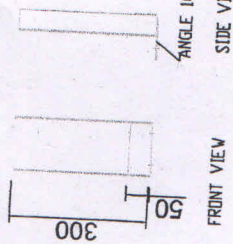
OPEN BOX BRACING HORIZONTAL & DIAGONAL



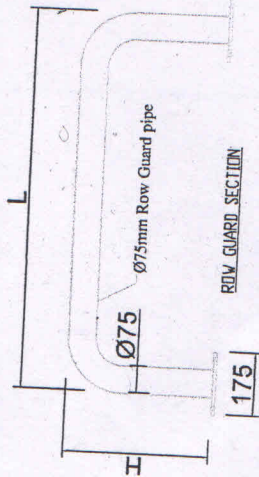
C-CHANNEL 120X50X3MM

ANGLE 100X50 X3MM
Ø14X2 NOS

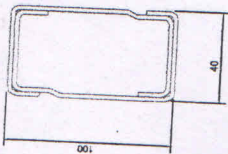
TOP VIEW



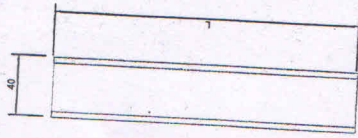
COLUMN GUARD



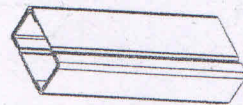
ROW GUARD SECTION



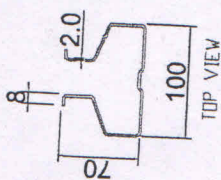
SIDE VIEW



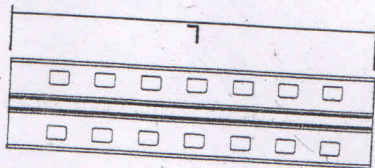
TOP VIEW



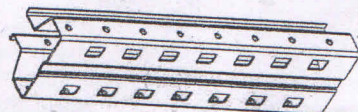
BOX BEAM SECTION



TOP VIEW



FRONT VIEW



UPRIGHT SECTION

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Annexure-II

To be submitted by the firm along with offer-

Tender specification	Specification quoted by the firm	Deviation if any with clarification