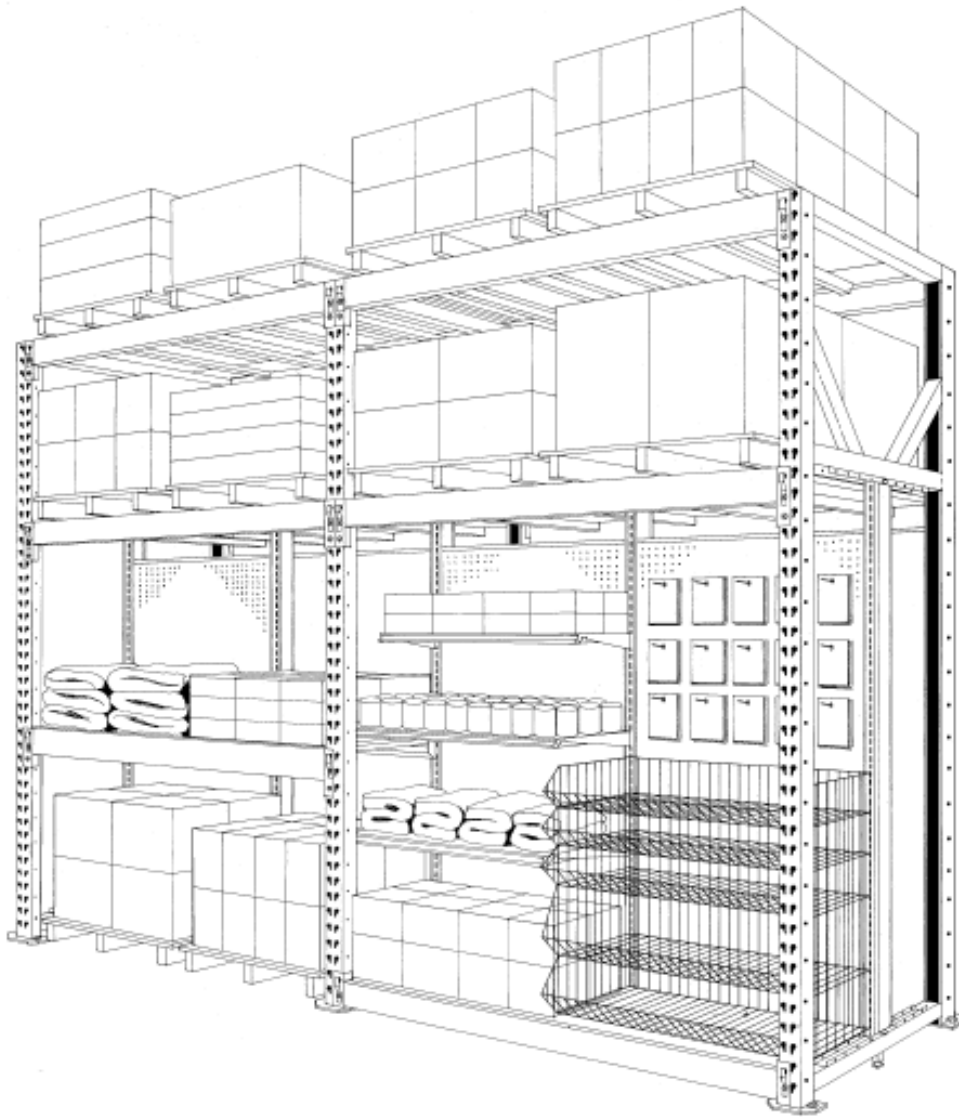


INSTALLATION INSTRUCTION ASY-130



**ALL CARTONS
CONTAINING
OMEGA PARTS
ARE LABELED**

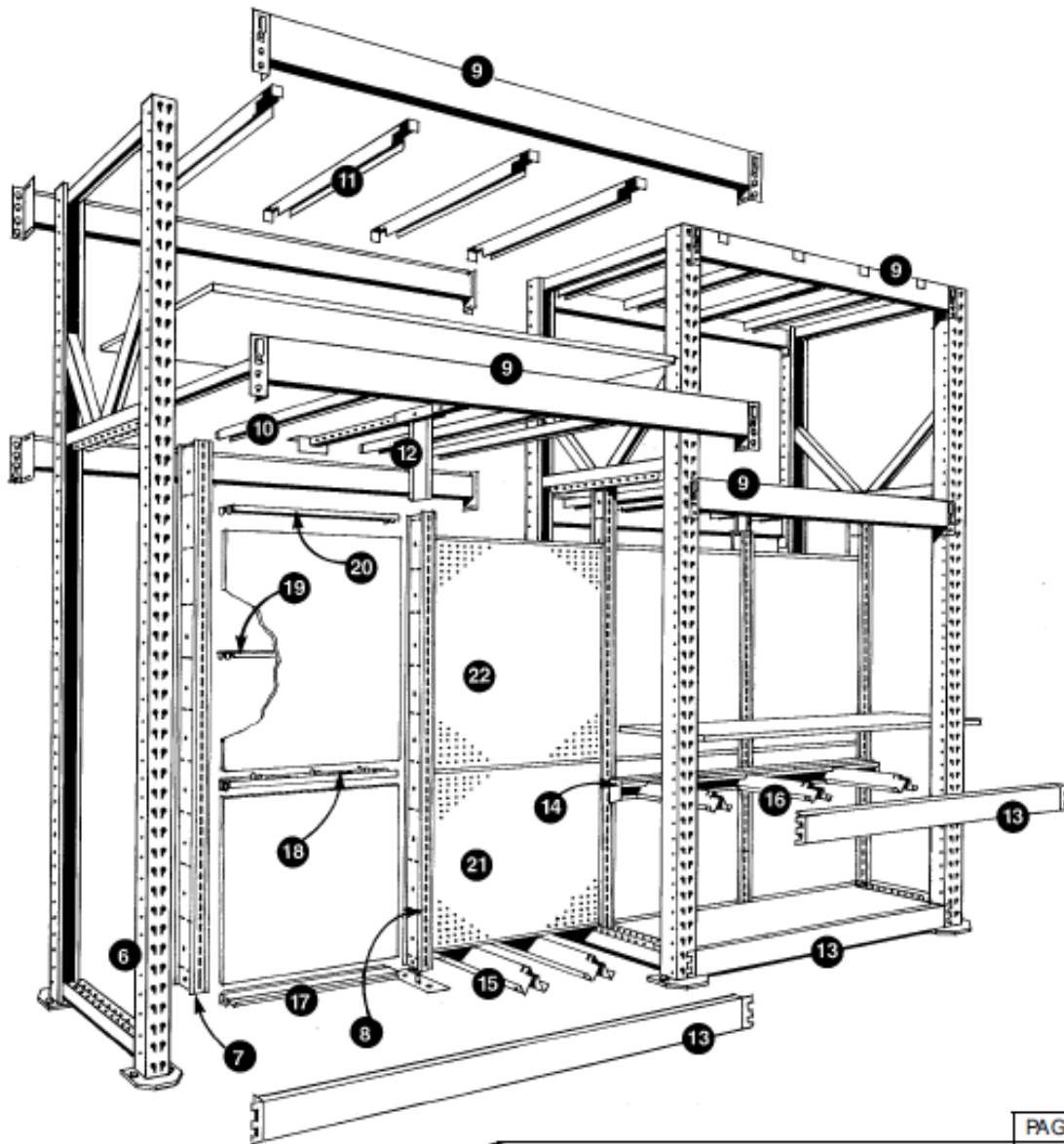
◆
**OPEN
7
SEVENTH**

NOTE!

This publication is intended to be a generic installation instruction for Madix Omega rack, and may possibly be subject to change as required by local building codes ...consult the building inspection department at job site.

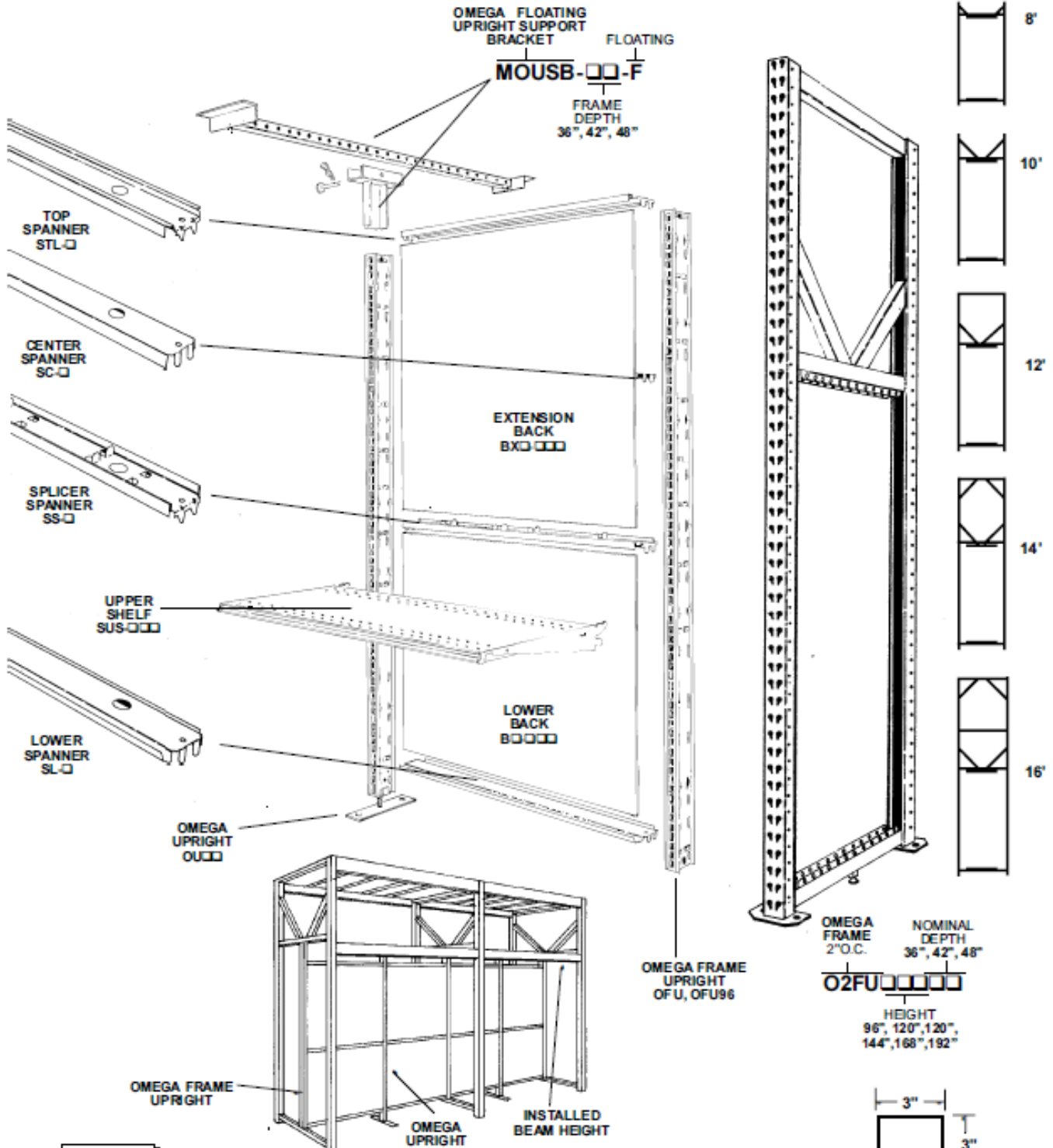
PAGE 2-8.....PARTS IDENTIFICATION
PAGE 9-13.....BASIC INSTALLATION
PAGE 14.....LOAD CAPACITY
PAGE 15.....SAFETY
PAGE 16.....ANCHORING TO FLOOR

PARTS IDENTIFICATION



	PAGE
17 LOWER SPANNER	3
18 SPLICER SPANNER	3
19 CENTER SPANNER	3
20 TOP SPANNER	3
21 LOWER BACK, ONE PIECE	3
22 UPPER BACK, EXTENSION	3

	PAGE
6 OMEGA FRAME	3
7 OMEGA FRAME UPRIGHT	3
8 OMEGA UPRIGHT	3
9 OMEGA BOX BEAM	4
10 OMEGA BOX BEAM TIE BAR	4
11 OMEGA TUBULAR DECK SUPPORT, FLUSH	4
12 OMEGA UPRIGHT SUPPORT BRACKET, FLOATING	3
13 OMEGA DISPLAY BEAM, FRONT	5
14 OMEGA DISPLAY BEAM, REAR	5
15 OMEGA DECK SUPPORT, FRAME	5
16 OMEGA DECK SUPPORT, SHELF	5



Omega frame height	Omega frame upright height	Omega upright height	Installed beam height	Back combinations
8'	OFU96, 83 1/4"	OU78, 78 1/4"	84" - 90"	42" lower, 36" extension
10' and up	OFU, 92 1/4"	OU84, 84 1/4"	90" - 96"	42" lower, 42" extension
	OFU, 92 1/4"	OU90, 90 1/4"	96" - 102"	42" lower, 42" extension

* Actual heights are shown in italic after part number.

OMEGA FRAME
2" O.C.
NOMINAL DEPTH
36", 42", 48"
O2FU
HEIGHT
96", 120", 120",
144", 168", 192"
3" x 3"
OMEGA FRAME
...20,000 lb. load
capacity per frame,
see page 14.

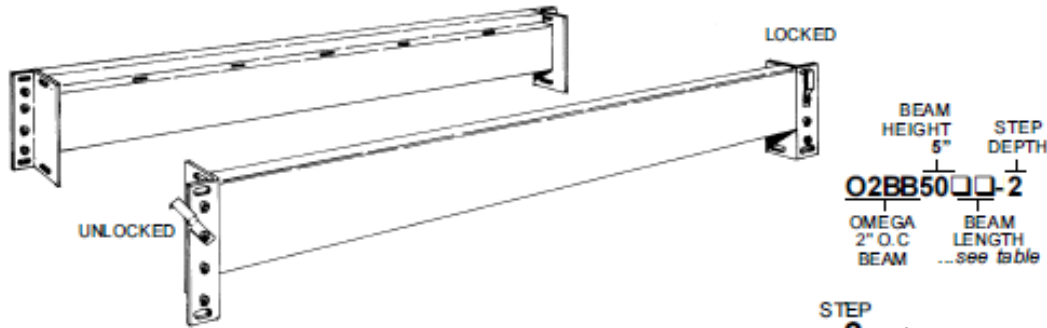


ALABAMA • (800) 633-6282 • (256) 839-6354
TEXAS • (800) 776-2349 • (972) 563-6744

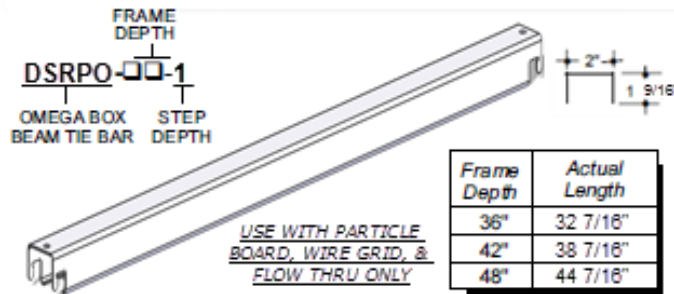
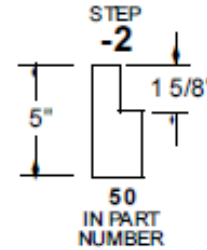
REV
02

PARTS IDENTIFICATION

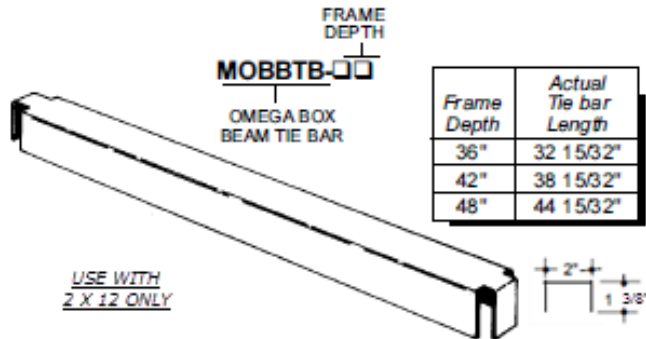
OMEGA BOX BEAMS and TIE BARS



Beam Length x Beam Height	Capacity in pounds / pair	Actual length ...between brackets
36" x 5"	7,600	32 11/16"
48" x 5"	7,600	44 11/16"
72" x 5"	7,600	68 11/16"
84" x 5"	7,600	80 11/16"
96" x 5"	7,600	92 11/16"
108" x 5"	6,150	104 11/16"



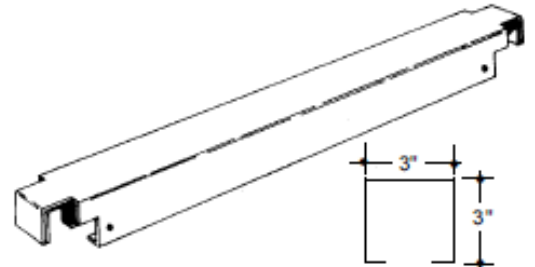
USE WITH PARTICLE BOARD, WIRE GRID, & FLOW THRU ONLY



USE WITH 2 X 12 ONLY

DECK SUPPORTS PER BEAM LENGTH			
Deck Support Type	Deck Type	Beam Length	QTY.
DSRPO	PARTICLE BOARD	36" to 72"	2
		84" to 108"	4
	WIRE GRID, FLOW THROUGH	36" and 48"	2
		60" to 96"	4
		108"	6
MOBBTB	2 x 12	36" to 108"	2

• Waterfall decks do not require deck supports.

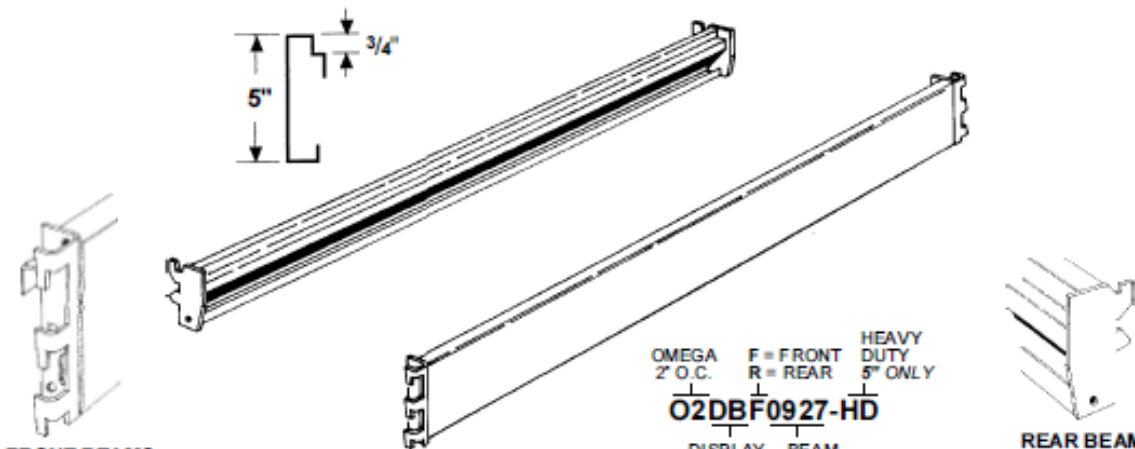


Frame Depth	Actual Length
36"	36 1/2"
42"	42 1/2"
48"	48 1/2"

FRAME DEPTH ...see table
MOTDSF36-2
OMEGA TUBULAR FLUSH DECK SUPPORT
STEP DEPTH

PALLETS ONLY
one pair per pallet...no deck
LOAD CAPACITY...5,000 LBS/PAIR

DISPLAY BEAMS and DECK SUPPORTS



FRONT BEAMS
HEAVY DUTY
5" high

USE A PAIR UNDER DECKS



...see pages 6-8.

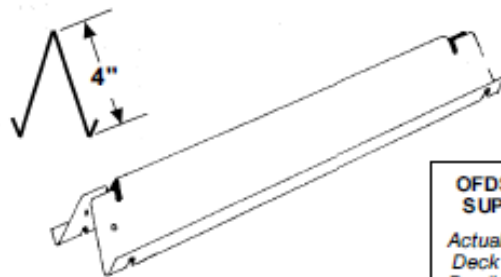
OMEGA 2' O.C. F = FRONT R = REAR HEAVY DUTY 5" ONLY
O2DBF0927-HD
DISPLAY BEAM BEAM LENGTH
0327 = 3'
0447 = 4'
0687 = 6'
0807 = 7'
0927 = 8'
1047 = 9'

REAR BEAMS
HEAVY DUTY
5" high
USE ONE FRONT AND
ONE REAR UNDER DECK



...see pages 6-8.

Beam Length x Beam Height	Capacity in pounds/pair	Actual length ...between brackets
36" x 5"	3,000	32 11/16"
48" x 5"	3,000	44 11/16"
72" x 5"	3,000	68 11/16"
84" x 5"	3,000	80 11/16"
96" x 5"	3,000	92 11/16"
108" x 5"	2,500	104 11/16"



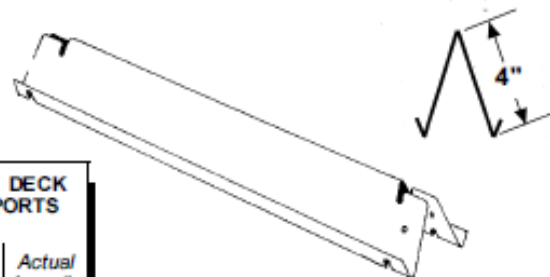
USE UNDER DECKS



...see pages 6-8.

OMEGA DECK SUPPORT, FRAME
OFDS46

ACTUAL DECK DEPTH
...see table



USE UNDER DECK



...see pages 6-8.

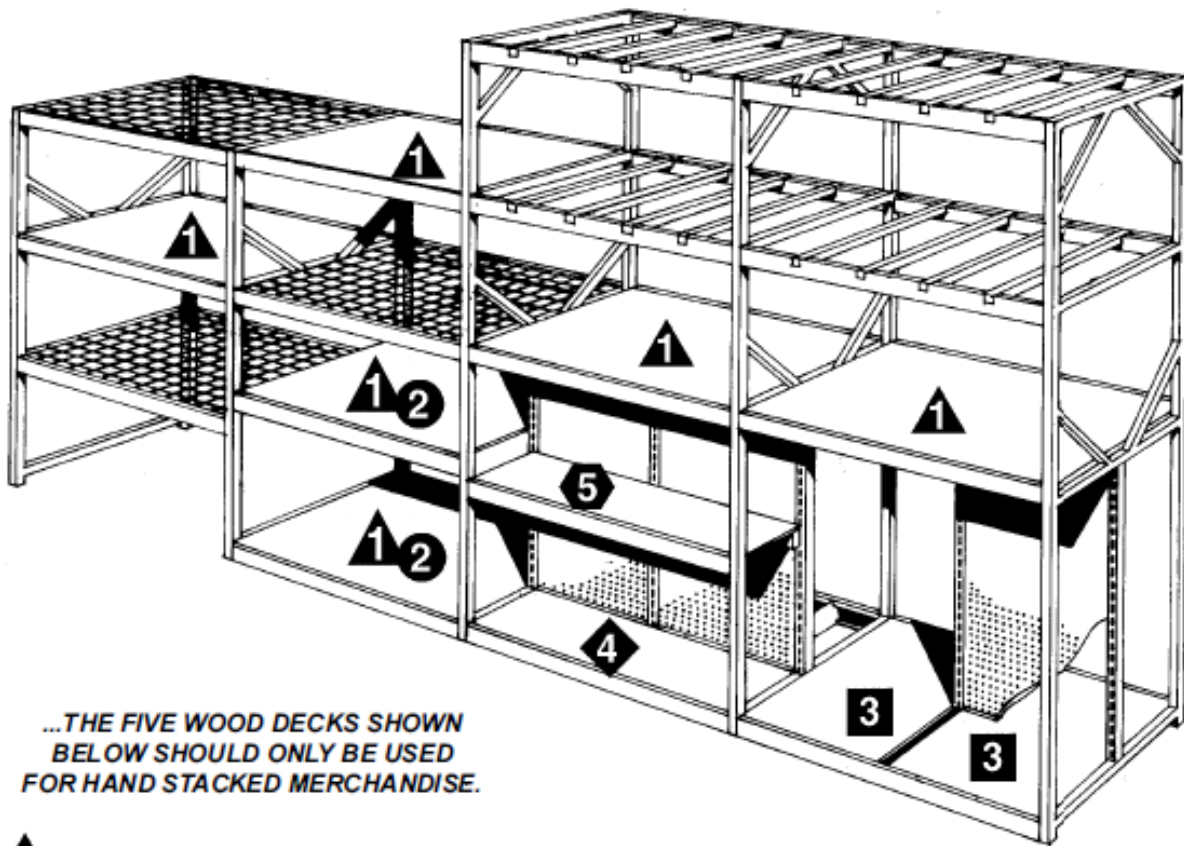
OMEGA DECK SUPPORT, SHELF HEAVY DUTY
OSDS24-HD

ACTUAL DECK DEPTH
...see table

OFDS DECK SUPPORTS		OSDS DECK SUPPORTS	
Actual Deck Depth	Actual Length	Actual Deck Depth	Actual Length
34"	36"	18"	20"
40"	42"	20"	22"
46"	48"	22"	24"
		24"	26"
		26"	28"
		28"	30"
		30"	32"
		32"	34"
		34"	36"

DECK SUPPORTS ...PER BEAM LENGTH		
Deck Type	Beam Length	QTY.
PARTICLE BOARD	36" to 48"	2
	60" to 96"	3
	108"	4
WIRE GRID FLOW-THRU	36" to 48"	2
	60" to 96"	4
	108"	6

PARTS IDENTIFICATION



...THE FIVE WOOD DECKS SHOWN BELOW SHOULD ONLY BE USED FOR HAND STACKED MERCHANDISE.

- 1** OMEGA DECK, RD TOP...page 7.
...use only with Omega box beams, page 4.
...use only with Omega tie bars, page 4.
...deck supports may vary. See page 4 for specifics.
...use at any level.
- 2** OMEGA DECK...page 7.
...use only with Omega display beams, page 5.
...use only with Omega deck support, frame, page 5.
...use only below the 8' level.
- 3** OMEGA DECK, HALF BOTTOM...page 7.
...use only with Omega display beams, page 5.
...use only with Omega deck support, frame, page 5.
...use only at the bottom when back panels are used.
- 4** OMEGA DECK, SHELF BOTTOM...page 7.
...use only with Omega display beams, page 5.
...use only with Omega deck support, frame, page 5.
...use only at the bottom with or without back panels.
- 5** OMEGA DECK, SHELF...page 7.
...use only with Omega display beams, page 5.
...use only with Omega deck support, shelf, page 5.
...use only at intermediate levels when back panels are used.

FOR PALLET USE

...all below may be used anywhere

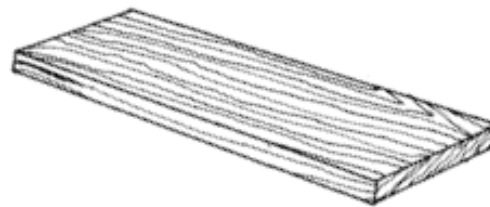
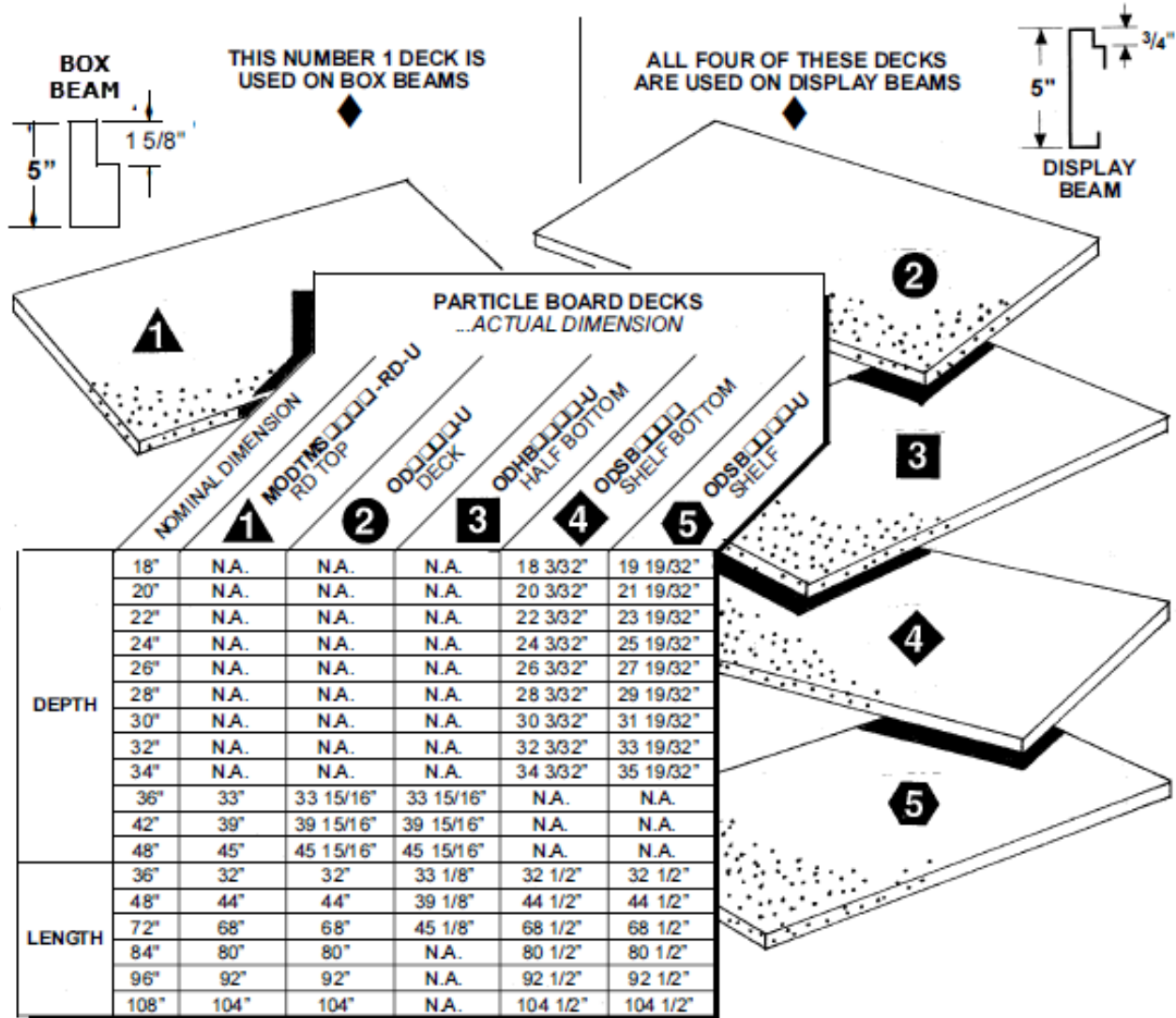


deck locations are permitted... see at left.

- Omega tubular deck support, flush...page 4.
- Dimensional lumber, 2 x 12.....page 7.
- Omega wire grid decks.....page 8.
- Omega flow through decks.....page 8.
- Omega waterfall decks.....page 8.

NOTE!

Deck supports may vary
...see pages for specifics.

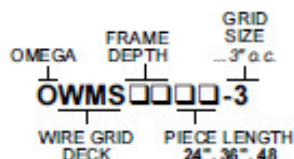
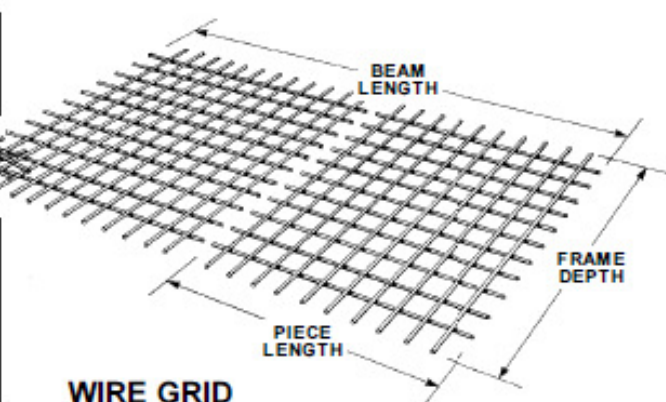
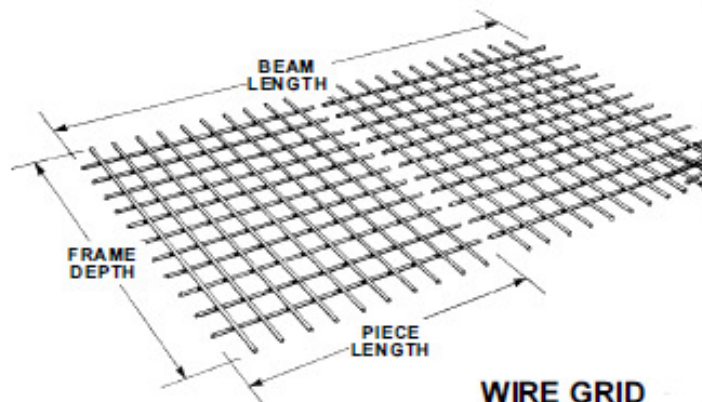


FRAME DEPTH
MPRHHD
PALLET RACK HEAVY DUTY DECK

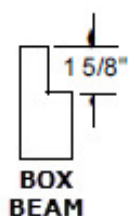
PALLET RACK HEAVY DUTY DECKS
...dimensional 2 x 12

Frame Depth	Actual Length
36"	32 7/8"
42"	38 7/8"
48"	44 7/8"

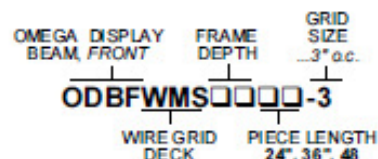
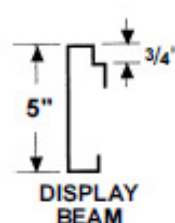
PARTS IDENTIFICATION



WIRE GRID
...USE ON BOX BEAMS ONLY



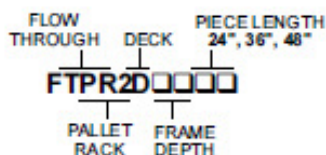
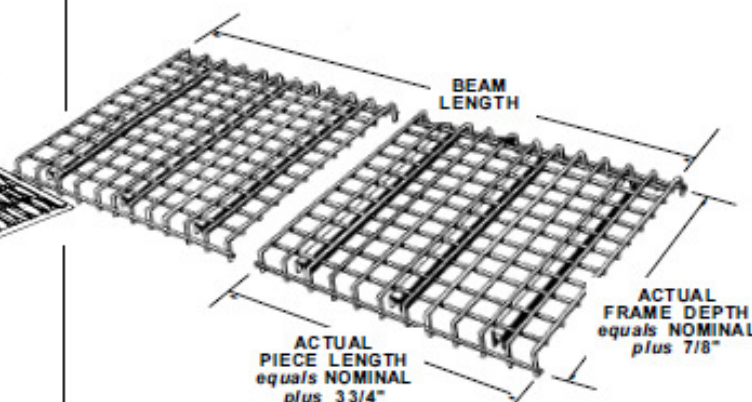
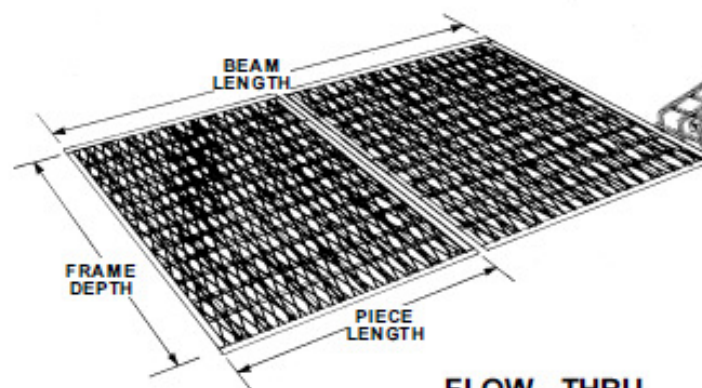
WIRE GRID
...USE ON DISPLAY BEAMS ONLY



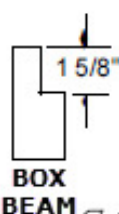
	NOMINAL BEAM LENGTH	...combine these PIECE LENGTHS to equal beam length
SINGLE DECK	36"	36"
	48"	48"
TWO PIECE DECKS	72"	36" plus 36"
	84"	36" plus 48"
	96"	48" plus 48"
	108"	36" plus 36" plus 36"

	DECK DIMENSIONS	
	NOMINAL	ACTUAL
DEPTH	36"	32 1/4"
	42"	38 1/4"
	48"	44 1/4"
PIECE LENGTH	24"	23 3/4"
	36"	35 3/4"
	48"	47 3/4"

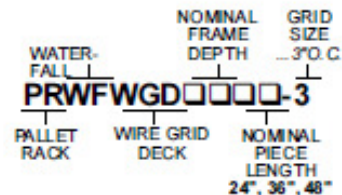
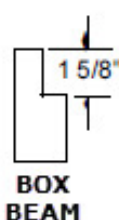
◆ ALL DECKS THIS PAGE ◆

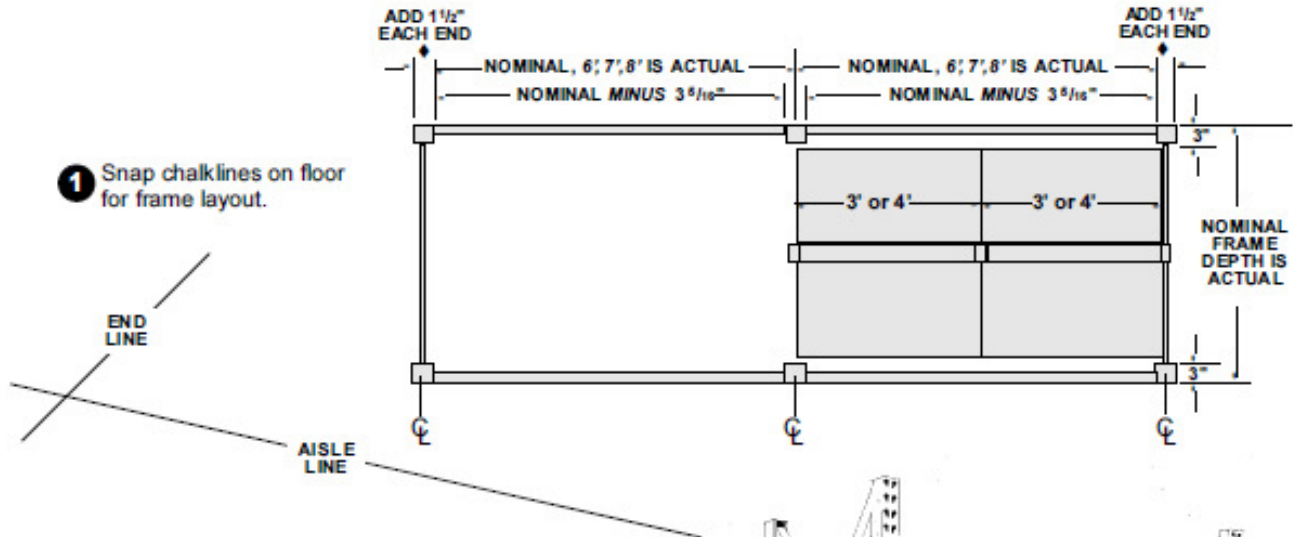


FLOW - THRU
...USE ON BOX BEAMS ONLY



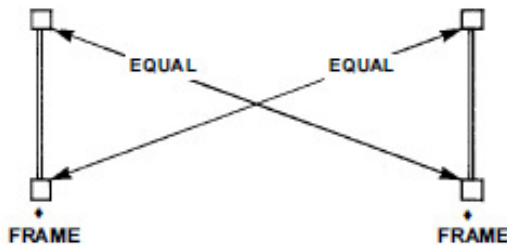
WATER FALL
...USE ON BOX BEAMS ONLY



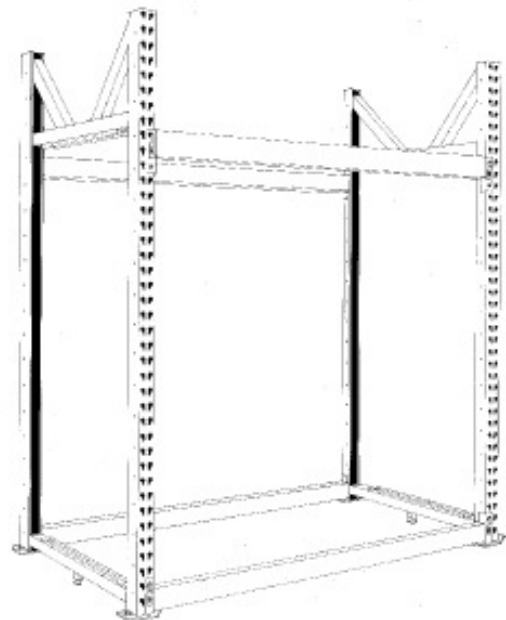


- 1 Snap chalklines on floor for frame layout.

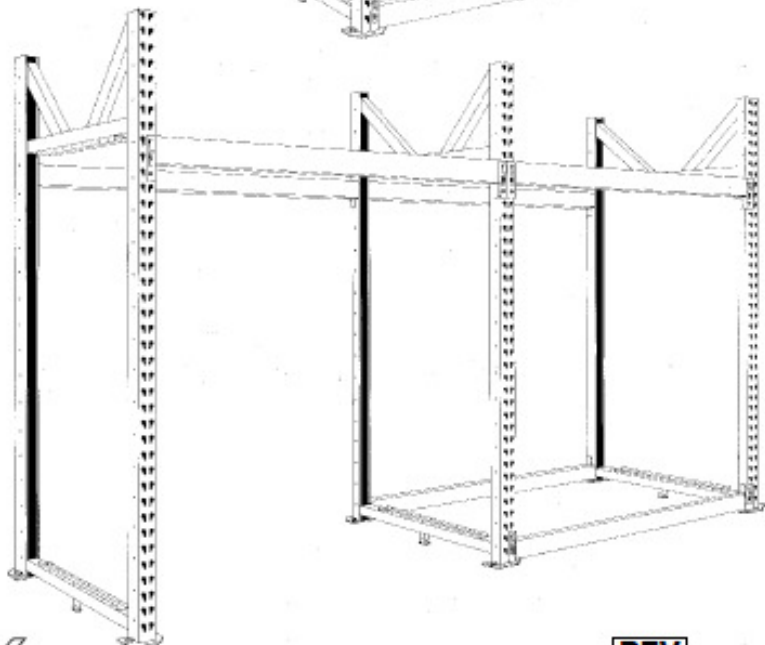
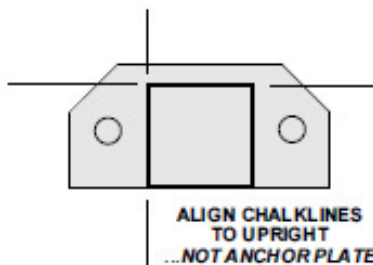
- 2 Raise both frames for the beginning section to vertical. Two pairs of beams are required for frames to stand alone. The upper pair should be installed at the height shown in the table at the bottom of page 3. Install a temporary beam pair slightly above the floor.



- 3 Align uprights of the first frame with the chalklines and square the section by equal diagonals as shown above.

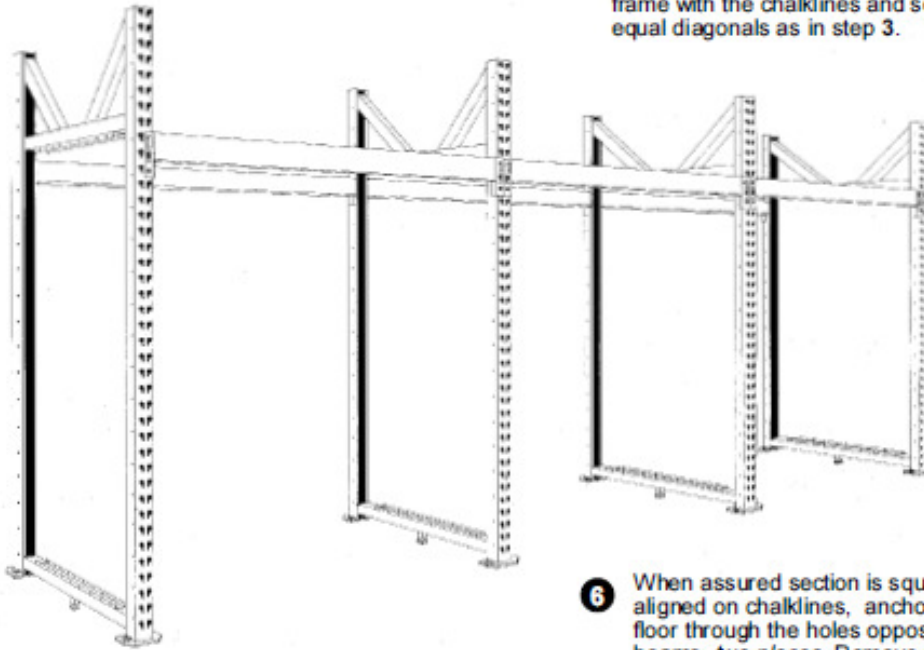


- 4 When assured section is squared and properly aligned on chalklines, anchor the frames to the floor through the anchor plate holes opposite the temporary beams, four places. Remove the temporary beams and anchor at the remaining four anchor plate holes...see page 16 for expansion bolts.



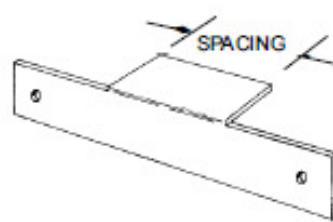
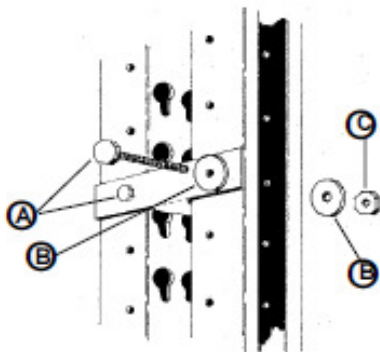
INSTALLATION

- 5 Raise the third frame to vertical and install the beam pairs as in step 2. Align uprights of the third frame with the chalklines and square the section by equal diagonals as in step 3.



- 6 When assured section is squared and properly aligned on chalklines, anchor the frames to the floor through the holes opposite the temporary beams, *two places*. Remove the temporary beams and anchor at the remaining two anchor plate holes.

- 7 Repeat steps 5-6 to the end of the run.



SPACING IN INCHES
PRBBC-□□
BACK TO BACK CONNECTOR

- 8 If adding back to back runs...secure all the back frames to the completed front run with back to back connectors as shown. Be sure connectors do not interfere with any designated beam positions. Use two connectors for all frames up to 96" high, or three connectors on all frames over 96" high.

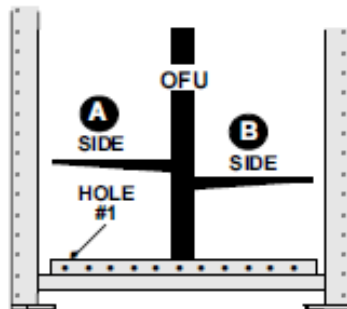
PRBBC HARDWARE PACK #7200-134	
QTY.	ITEM DESCRIPTION
(A) 2	1/4 - 20 x 1/2" Phillips truss head machine screw
(B) 4	1/4" flat washer
(C) 2	1/4-20 hex nut

(A) ...indicates item, where used.

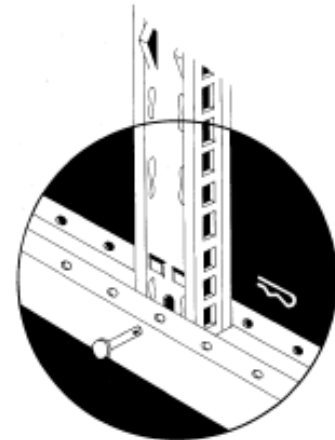
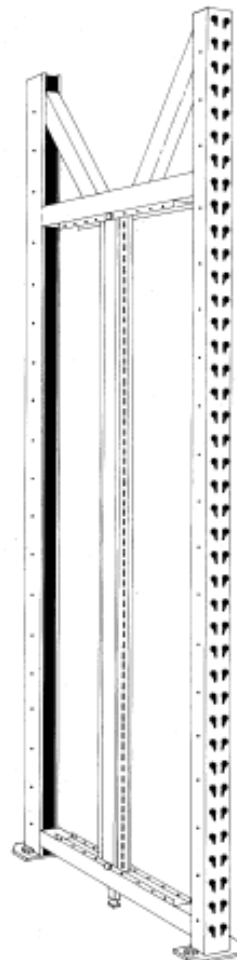
- 9 Install two beam pairs in first section of back run and square section as in step 3. When assured section is squared and properly aligned, anchor the frames to floor.

- 10 Continue adding frames and beams to end of the back run. Check run alignment to the chalkline, then anchor frames to floor.

THIS CHART ONLY APPLIES TO

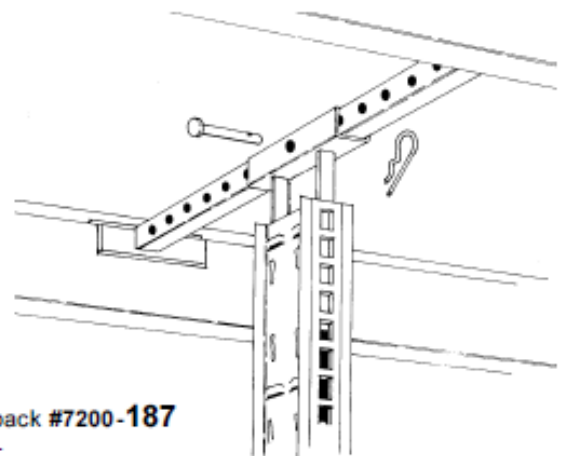


Frame Depth	A SIDE		IF OFU MOUNTS IN HOLE #	B SIDE	
	ODS-ODSB-deck depth is:	SUS-upper shelf depth is:		SUS-upper shelf depth is:	ODS-ODSB-deck depth is:
48" .. 17 holes	20"	18"	#9	18"	20"
	22"	20"	#10	16"	18"
	24"	22"	#11	14"	N.A.
	26"	24"	#12	12"	N.A.
	28"	26"	#13	10"	N.A.
	30"	28"	#14	8"	N.A.
	32"	30"	#15	N.A.	N.A.
	34"	32"	#16	N.A.	N.A.
42" .. 14 holes	N.A.	14"	#7	16"	18"
	18"	16"	#8	14"	N.A.
	20"	18"	#9	12"	N.A.
	22"	20"	#10	10"	N.A.
	24"	22"	#11	8"	N.A.
	26"	24"	#12	N.A.	N.A.
36" .. 11 holes	28"	26"	#13	N.A.	N.A.
	30"	28"	#14	N.A.	N.A.
	N.A.	12"	#6	12"	N.A.
	N.A.	14"	#7	10"	N.A.
	18"	16"	#8	8"	N.A.
	20"	18"	#9	N.A.	N.A.
	22"	20"	#10	N.A.	N.A.
24"	22"	#11	N.A.	N.A.	

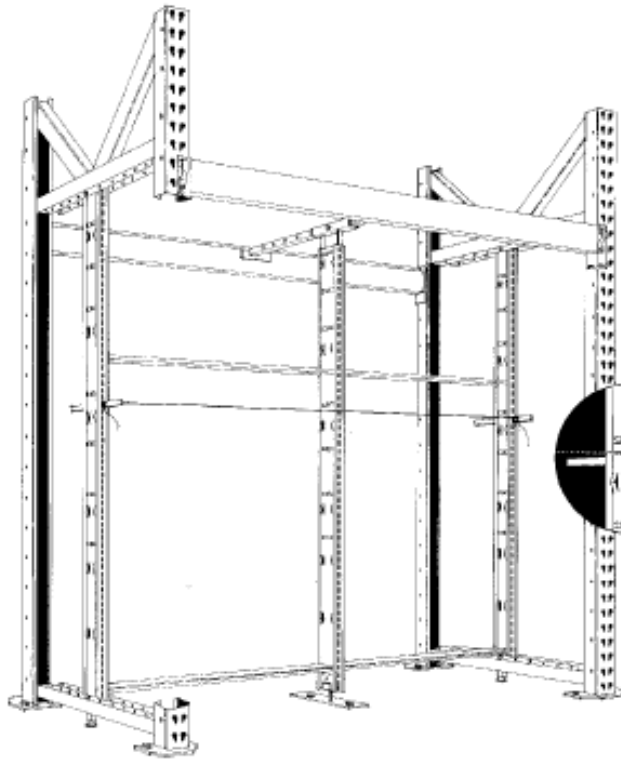


- 11 Determine which sections are to have uprights and back panels. Determine side to side positioning of OFU frame upright in the frame, refer to chart at left. Install the frame uprights in frames with the 5/16" x 3" clevis pin and 5/16" hitch pin clip, included.

- 12 Lay the MOUSB perforated support tube across the upper beam pair at the approximate center. Insert the support bracket into the top of the OU upright. Position this assembly under the perforated support tube and in line with the frame uprights. Raise the support bracket, insert clevis pin through support tube and support bracket. Insert hitch pin through clevis pin.



NOTE! Clevis and hitch pin are in hardware pack #7200-187 and are the same as those in step 11.

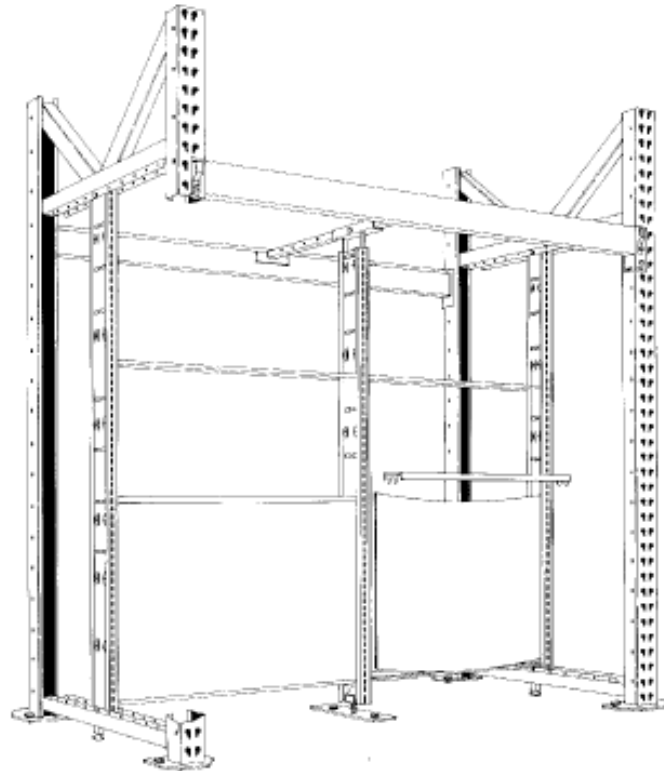


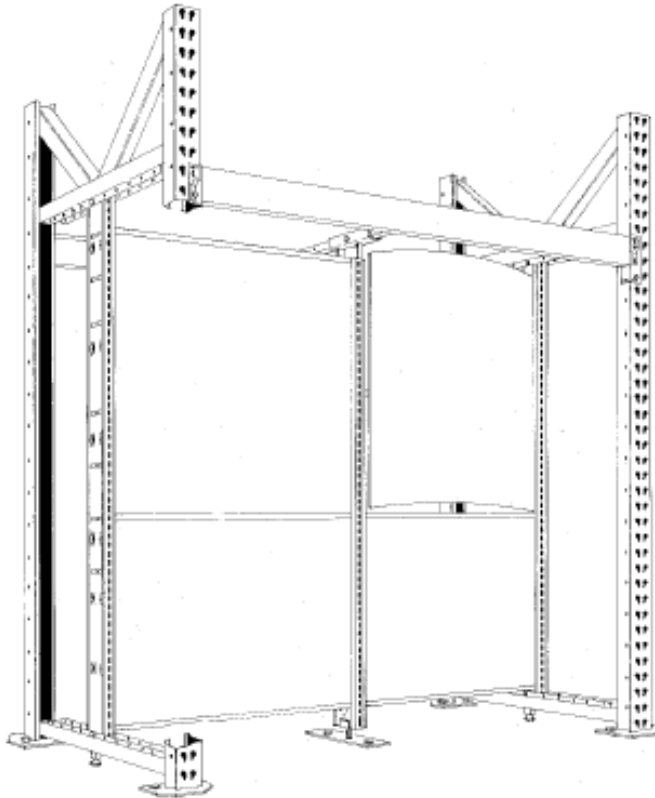
- 13** Install lower spanners between the frame uprights and the Omega upright at 6" above the floor. Install the center spanners temporarily at eye level.

- 14** At eye level, attach stringline at corresponding slots on the frame uprights. Adjust the leveler on the Omega upright to bring the corresponding slot up to match the frame upright slots. *Each Omega beam length section must be stringlined individually.*

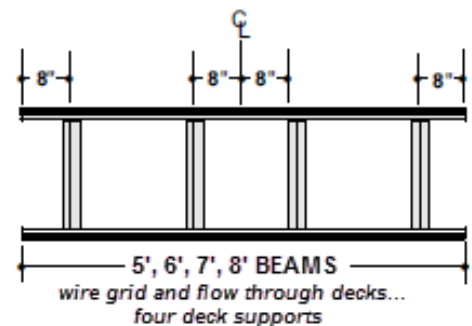
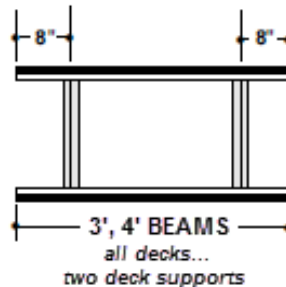
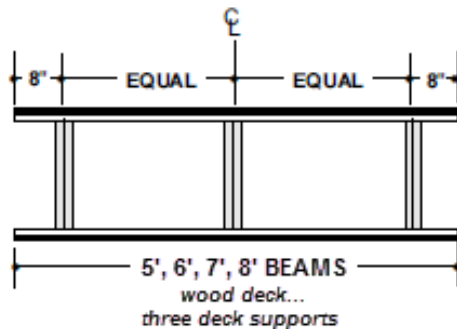
- 14** Repeat steps 11-14 for all sections to have uprights and backs.

- 15** Install the lower backs on both sides, *all backs must be bowed in between the uprights.* Install the splicer spanners above the lower backs.

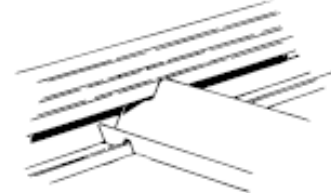
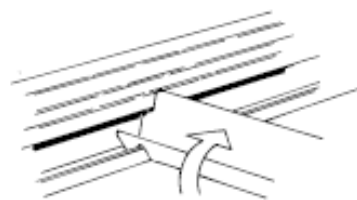
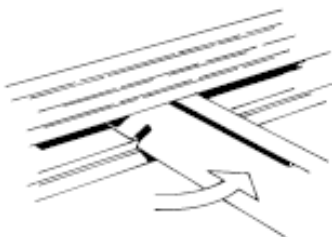




- 16 Bow in the extension back on one side and adjust the center spanner height to the midpoint of the extension back. Bow in the second extension back and the top spanner above the extension backs.
- 17 Plumb the Omega upright with a level. Anchor the upright to the floor.
- 18 Repeat steps 15-17 for all sections to have uprights and backs.
- 19 On the box beam pairs joined by the MOUSB support tubes, install the required combination of decks, tie bars or deck supports. Tie bars insert into slots in the beam step...see page 4 for quantities. Should there be levels above this, install beams and required decks and tie bars.
- 20 For all intermediate or bottom decks, install the required beams. If display beams, insert the deck supports as shown below. Install the particle board decks.



Note: See Page 5 for 9' beam deck support QTY.



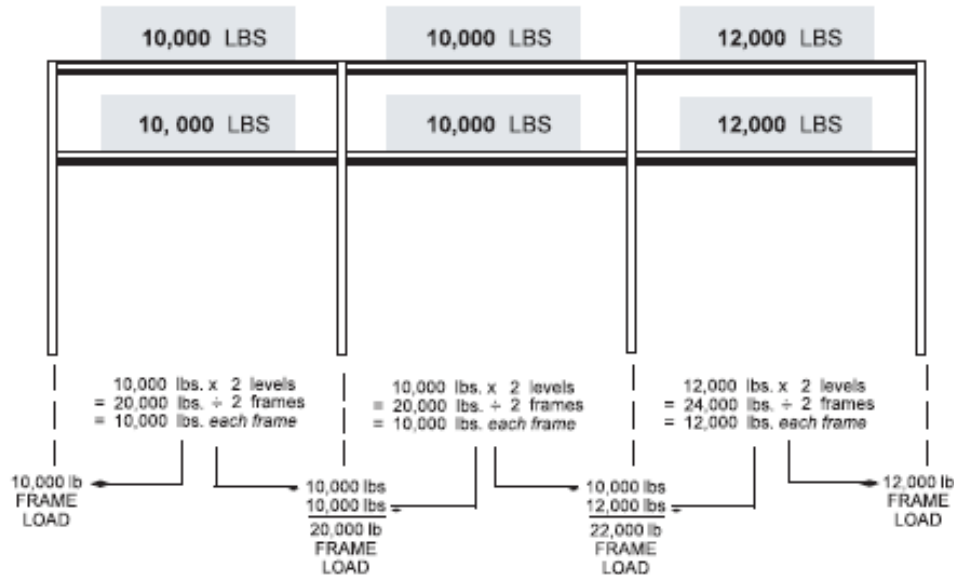
- 21 Holding the deck support at an angle to the beam, squeeze the open side and insert into the beam, then swing the free end around to the opposite beam, squeeze the open side and insert into the beam.
- 22 Squeeze the open side of the deck support at each end just inside the beam and rotate upwards as shown.
- 23 Correct installed position will look like this...see above for quantity of deck supports per beam length. Supports may be slid or tapped into locations shown above.
- 24 Install all upper shelves and accessories as required.

OMEGA LOAD CAPACITIES

COLUMN LOADING

- Column loading is the vertical load, *measured in pounds*, that can be applied on any frame.
- Each frame bears *ONE HALF OF THE LOAD OF EACH BEAM PAIR THAT IT SUPPORTS*.

OMEGA FRAME, 3" x 3", HAS A 20,000 LB. LOAD CAPACITY.



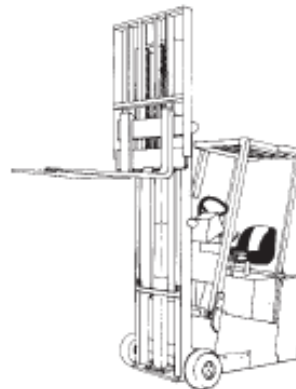
Height to Depth Ratio:

Ratio should not exceed 6 to 1 measuring to the top of top most load. If ratio exceeds 6 to 1 the constraint can be overcome with proper anchoring or external bracing of the rack structure.

CONSULT YOUR STRUCTURAL ENGINEER FOR SOLUTIONS.



OVERLOAD!
20,000 LBS MAXIMUM
ON OMEGA FRAME



BEAM SPACING

Spacing over 48" vertically reduces the column load capacity due to lack of support to channel.

Beam Length x Beam Height	CAPACITY IN POUNDS PER PAIR	
	BOX BEAMS	DISPLAY BEAMS
36" x 5"	7,600	3,000
48" x 5"	7,600	3,000
72" x 5"	7,600	3,000
84" x 5"	7,600	3,000
96" x 5"	7,600	3,000
108" x 5"	6,150	2,500

VERTICAL IMPACT LOAD

Handling of pallets being placed on and removed from Maxispan is responsible for most beam failures. Considering the magnitude of the forces involved, no beam can be designed and guarantee not to fail if a pallet is dropped onto the rack. How the lift truck is operated is the sole responsibility of the owner. The owner must make sure that his drivers are properly trained and responsible, and that no one else can operate the trucks at any time.

ALL LOAD CAPACITIES ARE BASED ON EVEN WEIGHT DISTRIBUTION!

GENERAL

- ② Contact the local building department prior to starting installation to check on any restrictions.
- ③ Only parts and accessories produced or supplied by Madix are covered by Madix warranty.
- ④ Installation sequence must be followed exactly for assembly and leveling.
- ⑤ Under no circumstances should damaged parts be used.
- ⑥ Do not use shelving parts or accessories for any purpose other than originally intended.
- ⑦ Installation instructions with product load ratings are included with each order and must be followed carefully.
- ⑧ Merchandisers must be made aware of possible overloading as specified in load ratings. If you do not receive these, please contact your sales or customer service representative.
- ⑨ Initial installation or relocation of Madix racking and shelving fixtures should be supervised exclusively by qualified personnel.

RACKING...FRAMES/ BEAMS

- ⑩ Observe all prohibitions in the installation instructions on the use of powered lifts.
- ⑪ A minimum of four people are required to erect frames taller than 8'.
- ⑫ Be sure all beams or accessories are completely seated and locked or secured in frame slotting.
- ⑬ Ladders, if used, should be at least frame height.
- ⑭ Never stand on lower beams to install upper beams.
- ⑮ Do not walk on decks, *especially wire grid*.
- ⑯ Never try to move a completed racking run, *especially if merchandised*.

ANCHORING TO THE FLOOR



NOTE!

Due to the height and loading potential, Omega frames must always be anchored to the floor.

EXPANSION BOLTS FOR FLOOR ANCHORS
...4 expansion bolts, 1/2" - 13 x 4 1/2"
POWERS/RAWL Rawl-stud or other
ICBO approved expansion bolts.

PRFAK

See below for other ICBO approved expansion bolts which may be used.

NOTE!

The expansion anchors provided by Madix for floor anchoring at this site have been supplied by one of the firms listed below. All the anchors have been tested and approved as stated by the following ICBO report numbers and all are manufactured in the United States or Canada. If the anchors are not provided by Madix and field substitution other than listed be proven, Madix cannot be held responsible. Should verification be required, call Madix Customer Service at:

800.776.2349

	ICBO #
COBRA ANCHORS CORP., Parawedge concrete anchors.....	ER-2350 S1
DIVERSIFIED FASTENING SYSTEMS, DFS Wedge anchor.....	ER-4194 S1
GUNNEBO FASTENING CORP., Drop-in and Sup-r-stud concrete anchors.....	ER-3219 S1
HILTI, INC., Kwik-bolt-II concrete anchors.....	ER-4627 S1
HILTI, INC., HCKB Kwik-bolt concrete anchors.....	ER-5224 S1
ITW RAMSET/RED HEAD, ITW Ramset stud, Trubolt wedge and multi-set II concrete anchors.....	ER-4285
ISOMETRIC,LTD., Std, sleeve and drop-in anchor.....	ER-3631 S1
MARKSMAN MANUFACTURING CO., Thunderstud wedge anchor.....	ER-2713 S1
POWERS RAWL, Powers Rawl concrete anchors.....	ER-5225 S1
STAR EXPANSION CO., Wedge anchor Type 1.....	ER-2239
WEJ-HT, Wej-it anchor bolt and ANKR-TITE stud anchor.....	ER-1821 S1
YAMASHINA INTERNATIONAL, INC., Con-Lok concrete anchors.....	ER-4378

• Embedment must be minimum 5x bolt diameter.

OTHER ICBO APPROVED ANCHORING MATERIALS
...not furnished by Madix

PNEUMATIC OR POWDER-DRIVEN STEEL STUDS AND NAILS

DEBA INTERNATIONAL, Remington low velocity powder actuated fasteners.....	ER-5087
HILTI, INC., Hilti low velocity powder actuated or pneumatically driven fasteners.....	ER-2388
ITW RAMSET/RED HEAD, Ramset powder actuated and power point fasteners.....	ER-16739

ADHESIVE/ EPOXY ANCHORS

GUNNEBO FASTENER CORP, Liquid roc 300 polyester capsule, pump and twin tube anchors.....	ER-4320
HILTI, INC., HVA adhesive and HIT adhesive anchor systems.....	ER-5193
ITW RAMSET/RED HEAD, ITW Ramset Epcon system Ceramic 6 epoxy anchors.....	ER-4285
U.S. ANCHOR CORP., Solid bond HS-200, HST-200 and Concrecive1420 adhesive fasteners.....	ER-4398 S1
U.S.ANCHOR CORP., Ultra bond QC, At, Et and CA epoxy chemical anchors.....	ER-4996 S1