

SELECTIVE PALLET RACK ASSEMBLY INSTRUCTIONS



Step 1 - Check the Material

Check to make certain that all materials have been received. Check the material received against the Bill of Lading and packing lists. Notify the shipper immediately of any shortages or product damage.

Step 2 - Check the Area

Once the rack material is unloaded, clear the area where the rack system is to be located. Check the area for all obstructions, such as building columns, lights, heat ducts, pipes, etc., to insure a clear area for rack installation.

Step 3 - Lay Out Floor

Establish the rack layout, determining aisle dimensions and the positioning of the rack. Snap chalk lines to locate a start line, as well as faces of frames on the aisle. (See sketch.)

Step 4 - Assemble Interlock Frames (if required)

For assembly of Interlock frames, refer to the drawings and bill of material that accompanied the shipment. Also see the Interlock Installation Support area on Interlake's website (www.interlake.com).
NOTE: Please see the bolt tightening specification at the end of these instructions.

Step 5 - Erect the First Bay

Each bay requires two frames. Determine and mark the beam elevations on the upright frames, then stand the first upright frame vertically. Attach the beam as follows:

Roll-formed Frame - Engage the beams into the upright by inserting the beam studs into the keyholes on the frame column. An integral locking device is provided on roll-formed beams for attaching to roll-formed frames to protect from accidental beam disengagement. Refer to INS-00007 for instructions. Infinitely adjustable endplates should be pressed firmly against the side of the column while tightening. For instructions, refer to INS-00289 and 00325 for Interlock frames, and 00001 and 00145 for welded frames.

Structural Frame - Bolt the beam to the upright frame using the hardware provided. The bolt is inserted through the rear of the frame column so that the nut shows on the face of the column when assembled

NOTE: Please see the bolt tightening specification at the end of these instructions.

Stand the second upright frame vertically, attaching the load beams as above. Install subsequent beam levels from the lowest level to the highest level.

Step 6 - Plumb, Level and Anchor the First Bay

The first bay of each row must be anchored to the floor to insure proper placement of the rack to the floor layout. Make sure that the bay is square and plumb before anchoring. (See sketch.) Use shims as required. They are available in 1/8 and 1/16 inch thicknesses. Each upright frame has 2 footplates, each with 2 anchor holes for floor anchoring. Under normal circumstances, only 1 anchor is required for each footplate.



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NOTE: Check with your distributor or the manufacturer for the suggested type, size, and specification of anchor to be used, which will depend on the height and width of frames, as well as the application of pallet rack.

Step 7 - Install Remaining Bays

Follow the same procedure as Step 5 using common upright frames for each bay.

Step 8 - Accessories

When row spacers and wall fixes are required, each component must have 2 nuts and bolts per connection.

NOTE: We suggest the nuts and bolts for these accessories are not fully tightened until ensuring that the rack is plumb and level. Please see the bolt tightening specification at the end of these instructions.

Step 9 - Tighten Accessories

Tighten all accessory nuts and bolts (row spacer, wall fixes) and double-check anchor connections to complete the installation process.

NOTE: Please see the bolt tightening specification at the end of these instructions.

Bolt Tightening

Structural Rack:

The connections on Interlake structural frames are bearing/shear type connections. These connections are not subject to tension loads. The AISC states that "Snug-tightened joints simplify design, installation and inspection and should be specified whenever pre-tensioned and slip-critical joints are not required." It further states that "All bolt holes shall be aligned to permit insertion of the bolts without undue damage to the threads. Bolts shall be placed in all holes with washers positioned as required in section 6.1 and nuts threaded to complete the assembly. Compacting the joint to the snug-tight condition shall progress systematically from the most rigid part of the joint. The snug-tightened condition is the tightness that is attained with a few impacts of an impact wrench or the full effort of an ironworker using an ordinary spud wrench to bring the plies into full contact." (Steel Construction Manual, Thirteenth Edition, 2005, pages 7-4 and 16.2-46)

Therefore all bolted connections in Interlake structural rack are to be tightened to the snug-tight condition as given above.

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Roll-Formed Rack (welded frames):

Most bolted connections in Interlake roll-formed rack are also bearing/shear connections. These should be tightened to the snug-tight condition as described above.

The exception to the snug-tight condition is the infinitely adjustable end plate, which is a slip-critical connection. The bolts for this connection must be tightened to a torque of 110 ft-lbs.

Roll-Formed Rack (Interlock frames):

In addition to the requirements for roll-formed rack listed above, the following comments apply to Interlock frames.

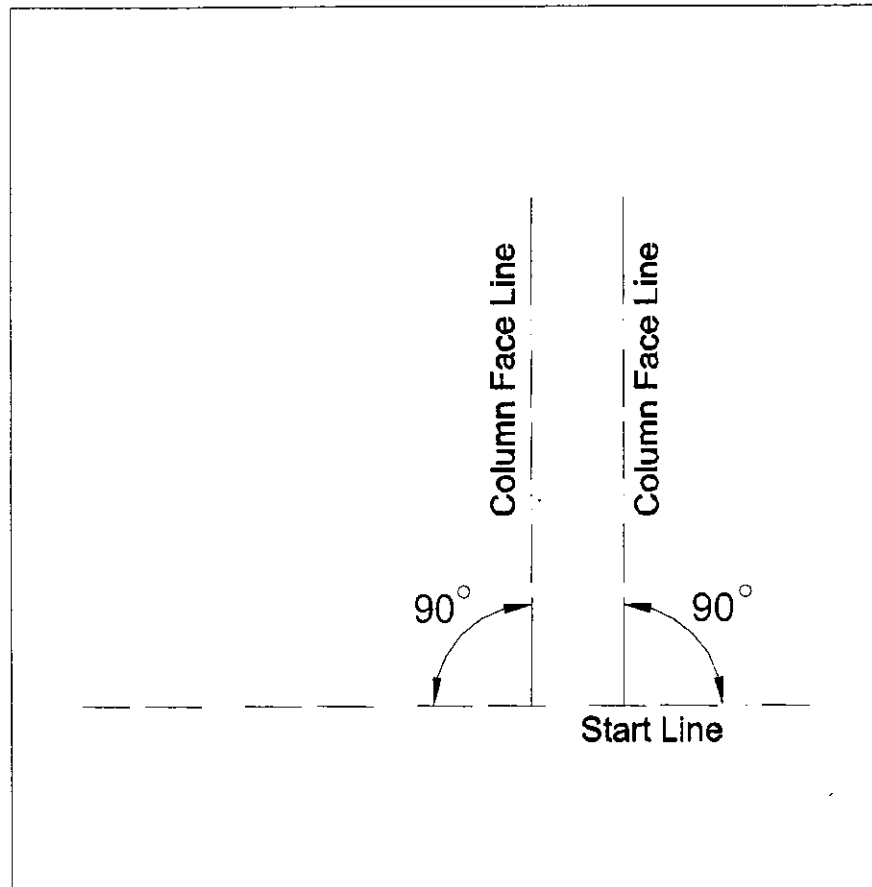
- The amount of bolt stick-through will vary with the gauge of the column. The maximum stick-through will be approximately 3/8" with 14 gauge columns and the minimum will be 0" with 11 gauge columns.
- It is very important that the column is "square" and that the back portion of the column is not deformed by over-tightening the nut and bolt combination. After the nut is tightened, the opening at the back of the column should not be less than 1-7/8" nor should it be greater than 2".
- Therefore a properly tightened connection will have to meet **all of the following criteria:**
 1. Tighten nuts to the snug-tight condition given above.
 2. Make certain that the bolt is at least flush with the nut after tightening.
 3. The opening at the back of the column should be between 1-7/8" and 2".

Your Interlake selective pallet rack is now ready for loading of product.

If you have any further questions, contact your local Interlake representative for assistance.

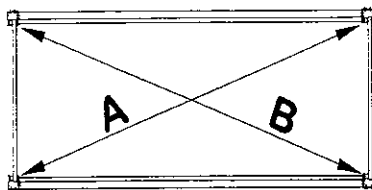
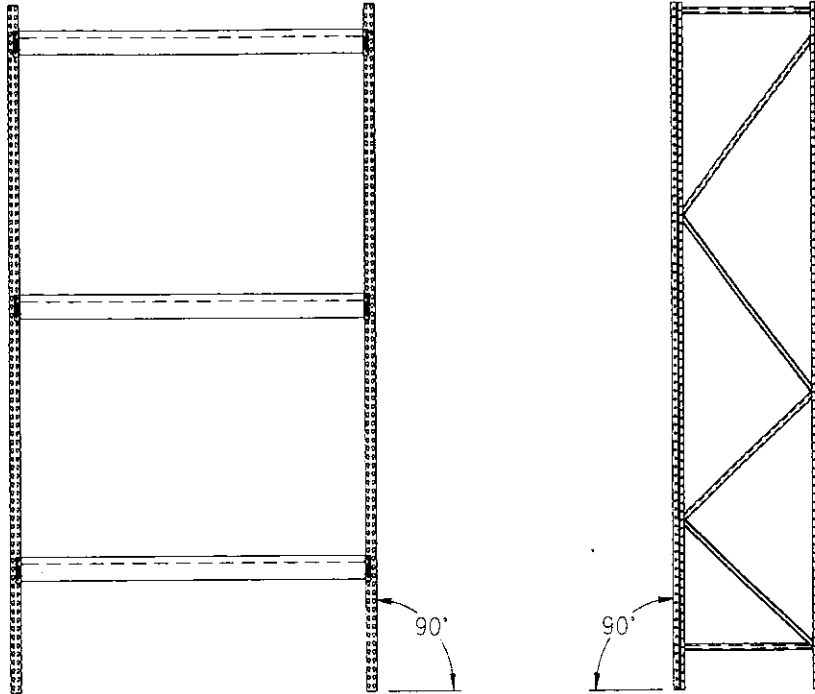
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THE INSTALLATION DETAIL DRAWINGS THAT FOLLOW ARE INTENDED AS BASIC GUIDES TO INSTALLATION OF STANDARD COMPONENTS. DEPENDING UPON THE SPECIFICS OF THE SYSTEM, THERE MAY BE LIMITATIONS REGARDING THE USE OF THESE STANDARD COMPONENTS AND/OR A REQUIREMENT FOR SPECIAL INSTALLATION TECHNIQUES. ADDITIONAL INFORMATION IS FOUND IN INTERLAKE PRICE BOOKS, PUBLISHED TECHNICAL DOCUMENTS, COMPREHENSIVE INSTALLATION DRAWINGS, AND OTHER MATERIALS.



Chalk Line

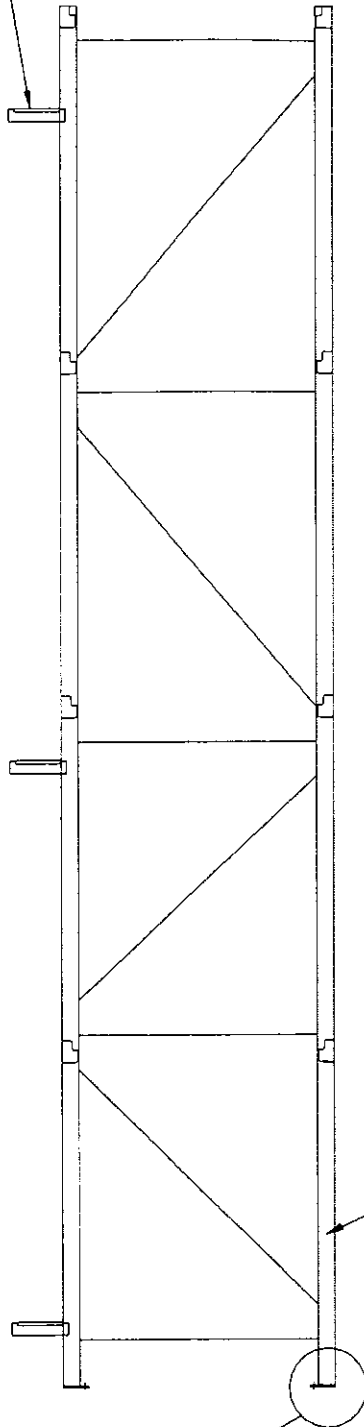
Snap line defining aisle
(Column Faces) and Start Line.



To square a bay
make sure that
dimensions A and B
are equivalent.

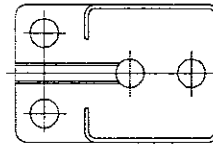
Square Frames

RIGID ROW SPACER
OR WALL FIX AS REQ'D
@ 10'-0" O/C MAX.

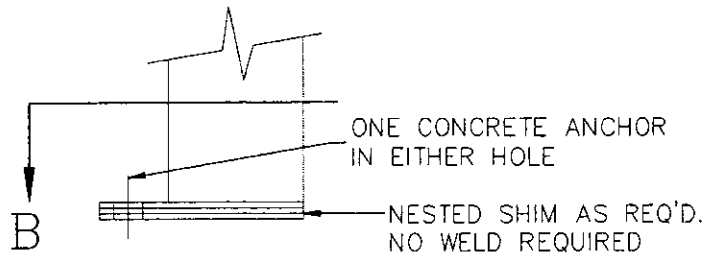


SEE DETAIL A

→ AISLE (FRONT) COLUMN
(NOTE: STRUT ORIENTATION)

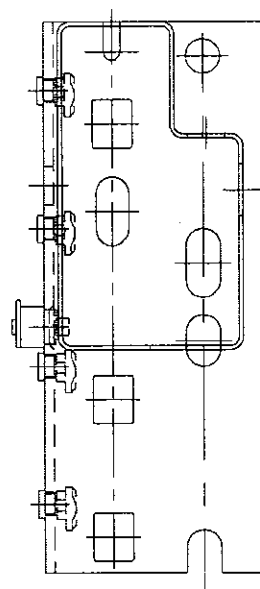
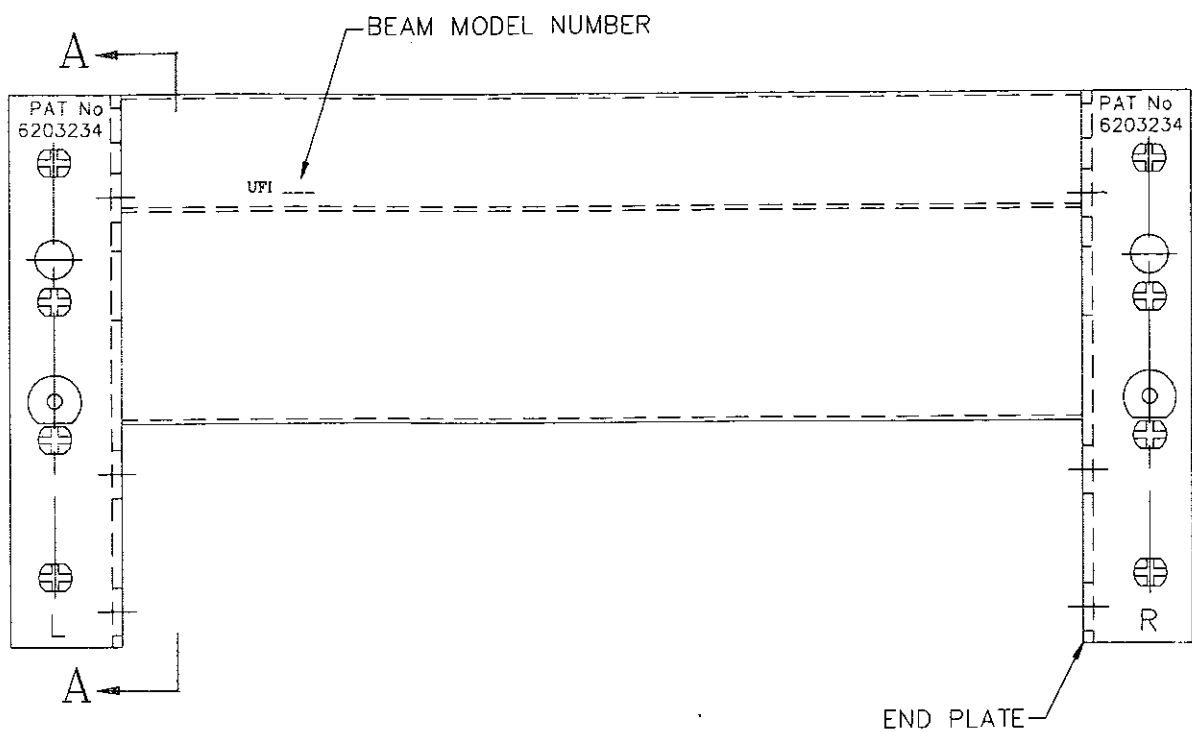


SECTION B



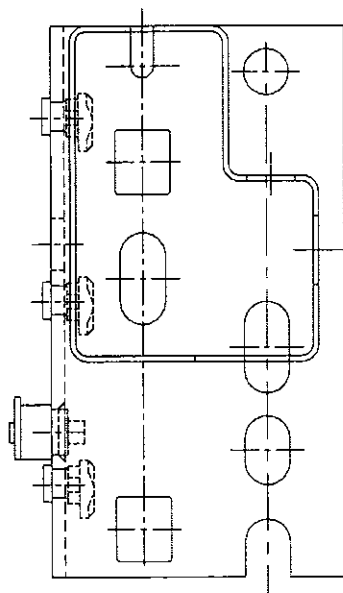
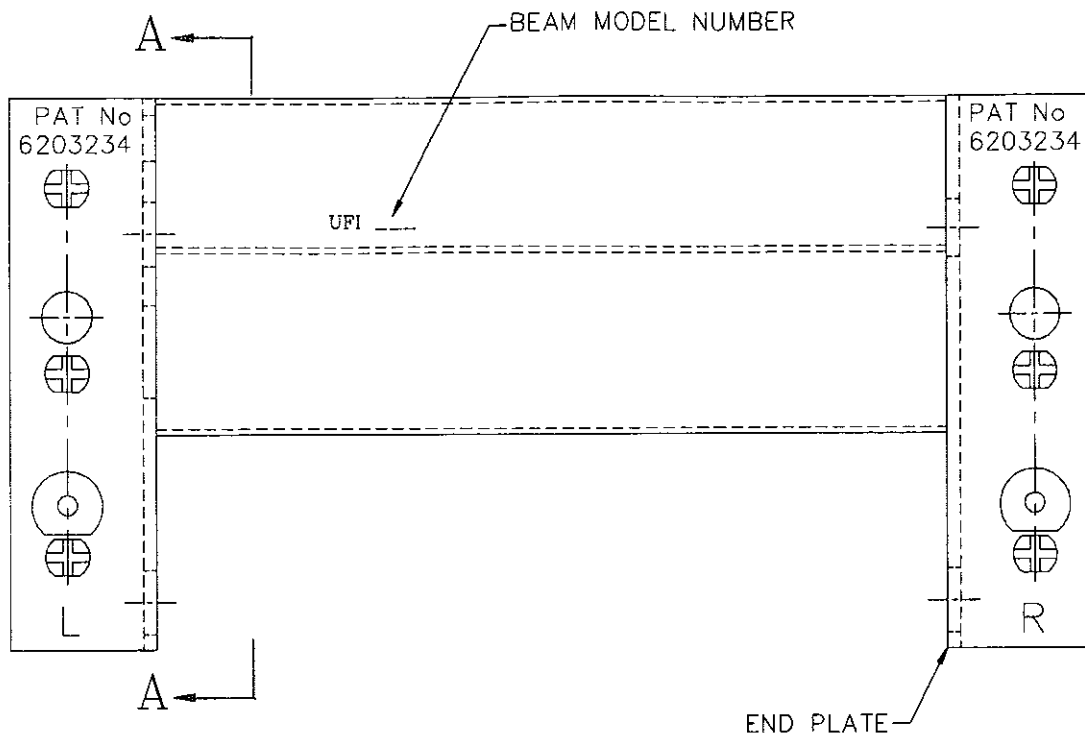
DETAIL A

TYPICAL FRAME INSTALLATION



SECTION A-A

BEAM ASSY W/8" LONG FOUR PIN END PLATES
WITH PISTON LOCKS (ROLL FORMED COLUMNS)



SECTION A-A

BEAM ASSY W/6" LONG
 THREE PIN END PLATES WITH PISTON LOCKS
 (ROLL FORMED & INTERLOCK COLUMNS)