

## **Selective Rack**Roll Formed Beams and Frames



#### **GENERAL INFORMATION**

This support guide covers technical information for Selective Roll Formed Beams and Frames. Selective Roll Formed Beams and Frames are a very cost-effective design solution for medium-heavy loads.

#### PRODUCT DESCRIPTION

The tear drop design, in tandem with our patented piston lock end plates, allow for a simple, secure and very quick installation. As beams do not require bolts to connect to uprights, the beam elevations can be modified as product changes - allowing for a very versatile design without the need of reordering material.

#### **CODE COMPLIANCE**

Interlake Mecalux storage systems are designed in compliance with the 2012 edition of the "Specification for the Design, Testing and Utilization of Industrial Steel Storage Rack" published by the Rack Manufacturers Institute (RMI). This specification has been adopted by the American National Standards Institute (ANSI-MH16.1) as a national standard and is referenced by the 2006 International Building Code (IBC). Our designs also comply with the 2007 American Iron and Steel Institute's (AISI) North American Specification for the Design of Cold-Formed Steel Structural Members. In addition, the Mecalux Group follows the standards set forth by IAS (International Accreditation Service), the City of Los Angeles, the City of Phoenix and Clark County.











#### AVAILABILITY AND SHIPPING LOCATIONS

Interlake Mecalux frames and accessories are manufactured and distributed from our plants located at:

701 Interlake Drive Pontiac, IL 61764

1925 Corporate Way Sumter, SC 29154 1600 N. 25th Avenue Melrose Park, IL 60160 Blvd. Bellas Artes 9001 22444 Tijuana, B.C. Mexico Las Rusias 2700, Industrial del Norte Matamoros Tamaulipas, Matamoros 87316

ISO 9001:2000 certified, ISO 9001:2000 certified Matamoros, Mexico 87310 and Tijuana, Mexico 22444.

Commonly ordered products are available from our Interlake Mecalux Quick Ship Program from our distribution centers:

701 Interlake Drive Pontiac, IL 61764

12301 N Stemmons Fwy Suite # 110 Farmers Branch, TX 75234

1925 Corporate Way Sumter, SC 29150 8607 Ave de la Fuente San Diego, CA 92154 1600 N. 25th Avenue Melrose Park, IL 60160

4 3/4"

3" or 4"

## GENERAL DESIGN CONSIDERATIONS

#### **PALLETS**

Pallets are flat transport structures that support goods in a stable fashion while being lifted by a forklift. They supply the structural foundation of the unit load and as such are an important consideration for the design of any warehouse.

Interlake Mecalux products are optimized to the dimensions of the standard pallet used in the U.S., the Grocery Manufacturers' Association or GMA pallet.

# 40"

**GMA Pallet** 

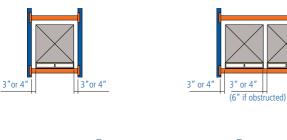
#### **CLEARANCES**

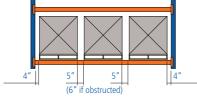
In any design, it is important to consider the vertical clearances required to successfully lift the load and pallet off the rack using a forklift or pallet jack. As an industry standard, the distance from the top of the pallet load overhead is 4" to 6".

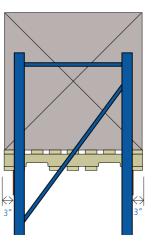
The pallet must extend 3" beyond the frame depth on either side to ensure proper pallet support.

### CLEARANCES BETWEEN PALLETS AND POSTS

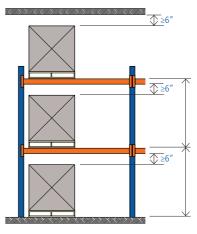
Each pallet should be positioned 3" or 4" from any adjacent post or pallet, unless the bay has a 3 pallet width. In this case, a 5" clearance should be provided between pallets and 4" between post and pallet.







Frame Depth Clearances - Side Elevation



Load Level Clearances – Front Elevation

#### SELECTIVE ROLL FORMED BEAMS AND FRAMES

#### **OVERVIEW**

Selective rack is the most common type of storage solution found across the United States. It is a static system combining beams and frames to provide proper storage for pallets and other large items. Selective rack also comes with a variety of accessories and options, which are detailed in this guide.

Frames are the vertical elements of the racks. They are rectangular in shape and come in a variety of heights, widths and depths depending on the load being stored and the model of frame being used. A standard frame consists of two posts connected by a series of horizontal and diagonal struts and includes a foot plate welded or bolted to the bottom of each post.

Beams are the horizontal elements of the system and are typically orange. Interlake Mecalux offers several different sizes and profiles of beams with varying capacities to fit the needs of the customer and the items being stored. Pallets are placed directly on the beams. Special accessories can be added to help support loads or store specialty loads such as drum coils.

- 1. Frame
- 2. Beam
- 3. Foot plate
- 4. Horizontal strut
- 6. Shim
- 7. Post protector
- 8. End aisle protector
- 9. Shelf panel
- 11. Roll-in pallet support 15. Skid channel
- 12. Double flanged pallet 16. Wall tie support
- 13. Drum/coil bed
- 14. Fork clearance bar

- 17. Drum cradle
- 18. Corner protector

