

# E

**Earthquake Zone:** (High Seismic Zone) An area or region with a history of earthquake occurrence. These zones will require specially designed racking and calculations.

ex. Zone 1 - Less Severe

Zone 4 - Most Severe

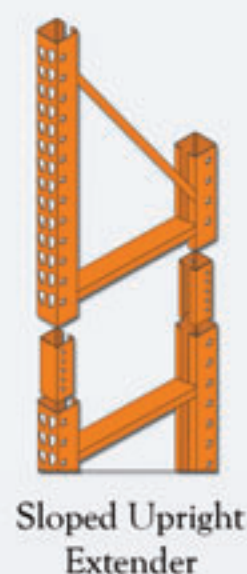
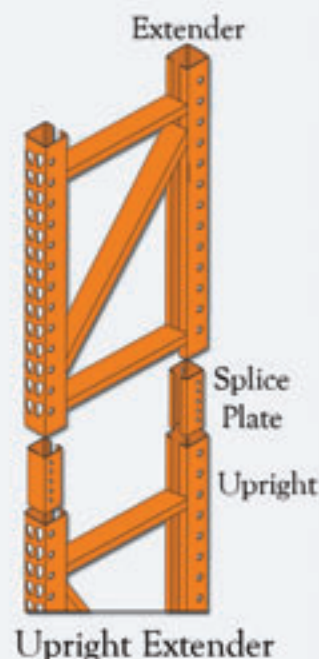
**EDI:** Electronic Data Interchange. The paperless exchange of data including purchase orders and payment information between customer and vendor.

**Embedment:** The depth that an anchor is fixed into the concrete slab.

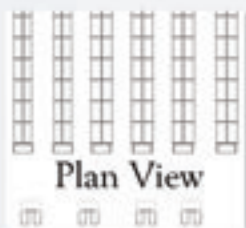
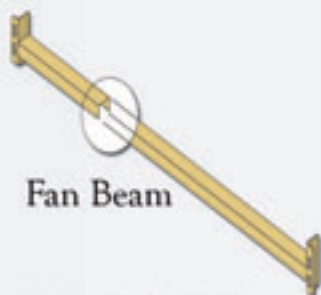
**Engineering:** Department on staff to perform calculations to approximate what rack members will hold and how they should be designed.

**Extenders:** (extensions) A short upright frame with no base plate that is attached with a splice plate to the top of an existing upright to make it taller.

**Extender Sloped:** (sloped extensions) A special extender that has a short front post and a taller rear post designed to insure that pallets remain in their designated bay.



# F



**Fan Beam:** (channel beam) A special beam that attaches on an angle in the fan area and houses the lighting track that is necessary to electrify the fans and light fixtures for display.

**Fan Cloud:** A truss and beam system used to display lighting and fan fixtures overhead.

**Floor Plan:** (plan view) A drawing of the store as if looking down on it.

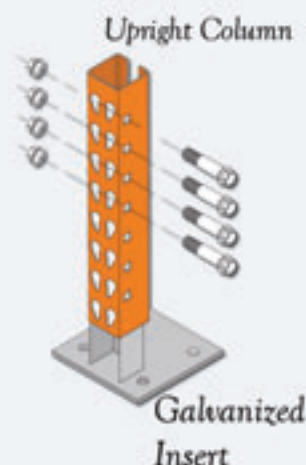
**Flue:** Space between uprights that are installed back to back. Flue space must be maintained for fire safety. Typically the distance between frames in a retail store is 6" minimum.

**Foot Plate:** (base plate) Metal plate at the base of an upright used to attach it to the floor. Different sizes of base plates are required for different seismic areas of the country or for ARU uprights.

**Frame:** (upright) The vertical member of the rack system which beams lock into. Consists of two columns and welded bracing.

# G

**Galvanized Insert:** A special accessory which is inserted and bolted into the bottom of an upright to act as the base plate. It can raise the upright 1" - 6" off the ground and away from water and chemicals which flow along the concrete of outdoor lawn and garden areas. The special galvanized finish helps prolong the life of the upright and can be replaced without having to replace the entire upright.



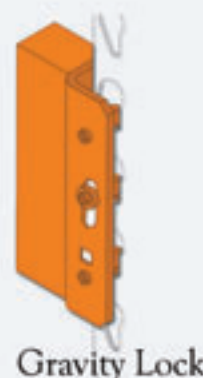
**Galvanizing:** (galv) A process of taking unpainted rack parts and dipping them into a tank of hot zinc (over 800 degrees) to provide a durable zinc coating. Galvanized racking is used in the garden centers and outdoor storage areas because it is weather resistant.

## Gauge Standards

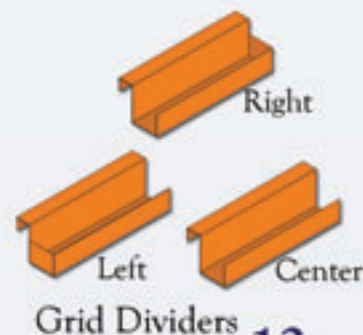
7 gauge:	0.1793
9 gauge:	0.1495
10 gauge:	0.1345
11 gauge:	0.1196
12 gauge:	0.1046
13 gauge:	0.0897
14 gauge:	0.0757
16 gauge:	0.0598

**Gauge:** The standard measurement for steel thickness associated with different decimal equivalents.

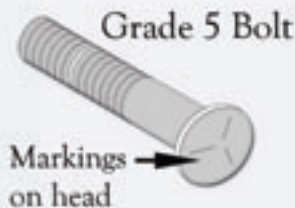
**Gravity Lock:** A patented Unarco locking device which uses a floating pin to secure beams to uprights. When the beam is lifted, the pin stays in the locked position and cannot be dislodged (a result of gravity).



**Grid Dividers:** (dividers) A series of three trays which hang over the beam to display ceiling grid and other long pieces of merchandise displayed horizontally.



# G



**Grade 5 Bolt:** A special rating system for hardware. Grade 5 signifies a higher steel hardness than Grade 1.

**Gutless Upright:** An upright with fewer bracing panels to allow displays or pods to run through the upright opening.

Note: Gutless uprights have capacities that are considerably less than standard uprights.

ex. Heavy-Duty Frame Capacity = 37,500 lbs.

Gutless Frame Capacity = 5,000 lbs.



# H

**Hammer Holder:** A bracket which has two round tubular arms welded to the front to hold hammers. One arm is shorter than the other to allow a slot to slide hammers on for display.



Hammer Holder

**Hardware:** Nuts and bolts needed for installation of a beam, upright or accessory.

**Heavy Duty Frame:** Frame consisting of heavy gauge steel columns that are 3" x 3".

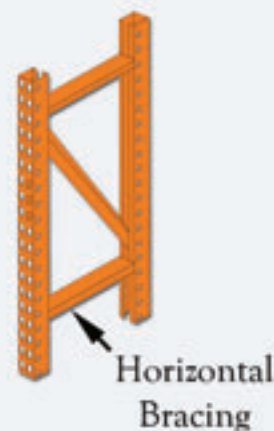
**Hook and Saddle:** An accessory that attaches to the column protector to hold a 2x8 board that keeps bagged goods from spilling into the aisle.



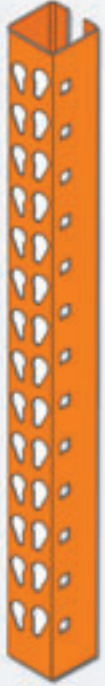
Hook and Saddle Bracket

**Horizontals:** The bracing of an upright that runs from front to back.

**Hot Dipped Galvanized:** (galvanized, galv) A process of taking unpainted rack parts and dipping them into a tank of hot zinc (over 800 degrees) to provide a durable zinc coating. Galvanized racking is used in the garden center and outdoor storage area because it is weather resistant.



# I



Interchangeable  
Rack

**IBC:** *International Building Code.* A newer building code which is being adopted throughout the country to help standardize the safety regulations for the construction industry. IBC in some areas has more stringent guidelines on rack design.

**Interchangeable Rack:** *Style of racking with a typical keyhole pattern that will allow multiple manufacturers to install beams and uprights interchangeably.*

# J

**J-Hook:** A metal locking device shaped in the form of a “J”, placed in holes which align on both the upright and beam. A large head on the end keeps the J-Hook from falling into the upright.

**Junction Box:** (phone box) An electrical box that has studs attached to the rear so that it can be easily hung on the uprights for placement of phone units and electrical components that must be run throughout the racking.



Insert J-hook in front of connector or through the side holes



Junction Box  
4x4

# K



Keyholes

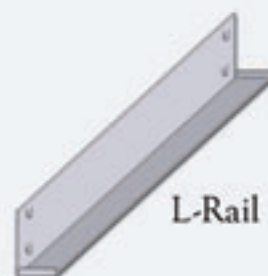
**K-Factor:** A standard set by the Rack Manufacturer's Institute for calculating column design and column slenderness.

**KSI:** A reading of pressure or stress in the testing of steel. PSI rated in 1,000 lbs. per square inch.  
ex. KSI for most rack components is between 50 and 55 KSI. i.e. 50,000 lbs. per square inch.

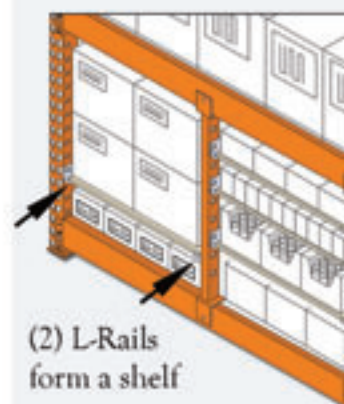
**Keyhole:** The teardrop shaped holes that are punched on the face of interchangeable uprights for beams to attach to.

# L

**L-Rail:** (*versa rail, add-a-shelf*) A metal bracket in the shape of an “L”, which attaches to an upright and an intermediate post (VPD) to segregate a bay with different size shelves. L-rails attach with two tabs at either end and require no hardware. Decking is placed on the L-rails to make a shelf.



**Lumber Cradle:** Structural steel channels welded in the shape of a large “U” to hold loose boards and other items that are broken bundles. Two lumber cradles are required at either end of the lumber.



**LTL:** *Less than Truck Load.* A less expensive method of trucking which combines many orders on one truck and takes product to a terminal for distribution onto another truck.

