

Lyon's Steel Shelving, and Storage Racks conform to MHI, ISMA, RMI and SMA standards.



## Materials

**Roll-formed "T" uprights**-hot-rolled steel, gauges specified. **Shelf clips**-hot-rolled steel, gauges specified. **Other sheet steel**-cold-rolled and hot-rolled, gauges specified.

## Uprights

**"T" Uprights** - all posts punched on 1 1/2" centers with pairs of parallel slots 1 1/16" long, and 1 slot keyhole-shaped for bolting cross braces and accessories to uprights.

**Open Uprights** - consist of 2 16-gauge, hot-rolled, formed steel "T"s 1 1/2" x 2 1/8" x 1/8" with 1 pair of 1" x 12-gauge band cross braces on uprights less than 120" high. Uprights 120" and higher - 2 or more pairs of 1" x 12-gauge band cross braces as required.

**Closed Uprights** - 2 16-gauge, hot-rolled, formed steel "T"s 1 1/2" x 2 1/8" x 1/8" with 24-gauge side sheet spot-welded on 6" centers to the 1/2" extension of the "T".

**Offset Angle Uprights** - all uprights shall be punched on 1 1/2" centers with pairs of parallel slots 1 3/16" long with 1 slot to have an 1 1/32" diameter hole in center for the attachment of cross braces, bolting shelving and other accessories. The end of each slot is embossed to ensure perfect clip fit-up.

**Open uprights** - two 13-gauge, hot-rolled, formed steel "offset angles" 1" x 2 3/8" with 1 pair of 1" x 12-gauge band cross braces on uprights less than 96" high. Uprights 96" and higher shall have 2 or more pairs of 1" x 12-gauge band cross braces as required.

**Closed uprights** - two 13-gauge, hot-rolled, formed steel "offset angles" 1" x 2 3/8" with 24-gauge side sheet. Side sheets are punched with holes for bolting to uprights.

**"Box Post" Uprights** - all posts shall be punched on 1 1/2" centers to accept either clip attachment or bolt attachment. Each upright shall consist of (2) 14-gauge, hot-rolled, formed steel "box posts" 1 3/4" x 1 13/16" with (2) 4 1/16" x 12-gauge ladder braces on uprights of 96" or less. 120" and 144" uprights require three ladder braces.

**Shelf Clips** - 12 gauge, hot-rolled, 1-piece construction. Four shelf clips used with each shelf.

**NOTE:** "Box post" uprights require the use of the 65160 integration clip.

## Shelves

**Medium Duty (M) Industrial Shelves** - 22-gauge with front and rear "Box W" formation. The front and rear "Box W" formation is not less than 1 1/16" x 2 7/32" x 1 1/8" with a 9/16" return flange spot-welded to bottom surface of the shelf. The 27/32" portion of the "Box W" formation shall have a 10-degree bend in the center for additional strength and rigidity. The front and rear flanges of the shelf shall be punched to accept bin fronts, label holders and other accessories. Ends are to be flanged not less than 1 1/16" with a 90-degree return flange of not less than 5/8". All corners lapped and welded. All shelves punched on 3" centers for divider attachment. The front and rear flanges of the shelf are to be embossed with "22 GA." Shelves also punched at 4 corners for bolting to uprights.

**Traditional Industrial Shelves** - 18-gauge with front and rear flanged down not less than 1 1/16" with return flange of not less than 3/8" at approximately 10 degrees, and punched to accommodate label holder and accessories. Ends are to be flanged not less than 1 1/16" with a 90-degree return flange of not less than 5/8". All corners lapped and welded. All shelves punched on 3" centers for divider attachment. The front and rear flanges of the shelf are to be embossed with "18 GA." Must request punching for bolting to uprights for 12", 18", 24" and 36".

**Heavy Duty (H) Industrial Shelves** - 20-gauge with front and rear "Box W" formation. The front and rear "Box W" formation is not less than 1 1/16" x 2 7/32" x 1 1/8" with a 9/16" return flange, spot-welded to the bottom portion of the shelf. The 27/32" portion of the "Box W" formation shall have a 10-degree bend in the center for additional strength and rigidity. The front and rear flanges of the shelf shall be punched to accept bin fronts, label holders and other accessories. Ends are to be flanged not less than 1 1/16" with a 90-degree return flange of not less than 5/8". All corners lapped and welded. All shelves punched on 3" centers for divider attachment. The front and rear flanges of the shelf are to be embossed with "20 GA." Shelves also punched at 4 corners for bolting to uprights.

**Extra Heavy Duty (X) Industrial Shelves** - 18-gauge with front and rear "Box W" formation. The front and rear "Box W" formation is not less than 1 1/16" x 2 7/32" x 1 1/8" with a 9/16" return flange spot-welded to the bottom portion of the shelf. The 27/32" portion of the "Box W" formation shall have a 10-degree bend in the center for additional strength and rigidity. The front and rear flanges of the shelf shall be punched to accept bin fronts, label holders and other accessories. Ends are to be flanged not less than 1 1/16" with a 90-degree return flange of not less than 5/8". All corners lapped and welded. All shelves punched on 3" centers for divider attachment. Shelves also punched at four corners for bolting to uprights. The front and rear flanges of the shelf are to be embossed with "18 GA." Shelves also punched at 4 corners for bolting to uprights.

**Lateral Cross Braces** - 1" x 12-gauge band formed and punched at each end to bolt to upright post. One pair of lateral cross braces - used with every three shelving sections with shelf spacing less than 30". Shelving sections with 30" or greater shelf spacings - two pairs of lateral cross braces with every three shelving sections.

**Backs** - two half panels of heavy gauge steel providing a total of three vertical rows of holes on 1 1/2" centers for attachment to shelves with back to shelf clips optional and with three screws at the top and bottom shelves, two at midpoint.

**Shelf Boxes** - heavy-gauge steel body with divider slots on 1" centers of box sides. Heavy-gauge box fronts have integral handle and card holder and backs have integral "E" stop.

**Label Holders** - 24-gauge steel, friction type with 7/8" inside dimension, and attached to shelves with three spring fasteners.

**Crosswise Dividers** - Front and rear edges - 3/8" O.D. curls. Top and bottom - flanges not less than 3/4" punched for attaching to shelves. All crosswise dividers up to 18" high and 21" deep are heavy-gauge steel. Crosswise dividers over 18" high and 21" deep are heavy-gauge steel.

**Lengthwise Dividers** - Range from 22-gauge to 18-gauge steel depending upon shelf spacings.

**Bin Fronts** - Top and bottom edges - 7/16" O.D. curl. Each end - 1/4" offset to engage upright "T"s. Bin fronts - punched to screw to the front flange of shelves. Label holder tags on 2" centers - provided on 3" bin fronts. 1" bin fronts - heavy gauge steel 3" bin fronts wider than 42" shall be heavy gauge.

**Bases** - channel shaped with ends constructed to engage upright "T"s and lock in place with a spring fastener. 3" high base - heavy gauge steel and 6" high bases shall be heavy gauge.

**Swinging Doors** - heavy-gauge steel with one full-height heavy-gauge pan reinforcement per door. Each pair of double swinging doors has three-point latching with one built-in lock. One pair of double swinging doors covers one full section of 36" wide shelving.

**Counter Tops** - 14-gauge steel with cornice formation at front and rear. 16-gauge end finishing strips attached with bolts.

**Ledges and Ledge Tops** - 14-gauge steel with cornice formation at front. Optional 16-gauge end finishing strips attached with bolts. Ledge shelves - 18-gauge with optional Class 2 front flange reinforcements. Ledge shelves - bolted to front flanges of existing shelves and attached to two front upright "T"s with 12-gauge shelf clips. NOTE: For T-Post upright only.

**Seismic Information** - Lyon is equipped to handle all seismic requirements. Contact your local Lyon factory representative for specific seismic information relating to your area.