

# LIBRARY SHELVING Specifications

**SCOPE:** This specification covers delivery and installation of Steel Library Shelving of the bracket type. Heights, depths and accessories shall be as indicated on the plans and/or Schedule of Equipment.

**MATERIALS:** Only the finest quality of materials and workmanship will be considered. Sheet steel is to be cold rolled, Class I steel. Gauges are U.S. standard.

All shelving shall be carefully installed and leveled to the floor and/or walls at the most inconspicuous locations by factory trained specialists.

**TYPE OF BOOKSTACK:** Steel Bookstacks shall be cantilever, with each unit having a welded frame assembly as manufactured by MJ Industries, Inc. of Georgetown, Mass. Welded frames every other unit or starter and adder combinations will not be considered. Commercial or case-type shelving will not be acceptable. The modular construction shall be such that all components of a section may be removed without effecting the adjacent unit. This will allow any section or range to be divided or rearranged without the necessity of purchasing additional components. Sway bracing which prevents insertion of oversized material (past the center line) on any base or adjustable shelf is not acceptable.

**STANDARD COMPONENTS ARE AS FOLLOWS:**

1) **WELDED FRAME:** Upright columns of welded frame shall be formed of not less than #16 gauge steel into channel shape with no less than  $\frac{1}{2}$ " stiffening flanges measuring 2" in the web and  $1\frac{1}{4}$ " at front and rear. Uprights are to be slotted with a series of  $\frac{3}{16}$ "x%" slots spaced 1" on centers. Every sixth slot shall be shaped differently to ease visual leveling of shelves.

Bottom spreader of welded frame shall be formed of #16 gauge steel channel shape measuring at least 1"x $1\frac{3}{4}$ " in cross section and be equipped with two adjustable plastic covered levelers to provide protection to floor surface and to prevent the stack units from "walking". The outer end will receive pre-drilled weld nuts to receive floor levelers. Bottom spreader to be welded to uprights with open portion facing upward.

Top spreader of welded frame will consist of #16 gauge tubular steel shape measuring at least 1"x $2\frac{1}{2}$ " in cross section. Top spreader to be welded to uprights at concealed locations.

2) **CLOSED BASE SHELF:** Base shelves shall be one-piece construction formed of not less than #18 gauge steel designed to fit around the welded frame uprights and snap into the base brackets without the need for fasteners. Front height of base shelf shall be 3" and sides shall have stiffening flanges.

3) **BASE BRACKET:** Base brackets shall be one-piece and shall fit snugly around the welded frame uprights. Brackets shall be formed of #16 gauge steel and shall have a flange which will rest on the floor. Bracket shall provide a positive leveling capability. Top and front edge of bracket shall be flanged outward  $\frac{1}{4}$ " and profile of base bracket shall be sloped 15 degrees to match the shelf end brackets. Base bracket shall have an impression with a hole in it for attaching adjoining base bracket fasteners contained within the impression.

4) **ADJUSTABLE SHELF:** All shelves shall be capable of supporting book loads of 50 pounds per square foot without deflection in excess of  $\frac{3}{16}$ ". Nominal shelf sizes shall be 8", 9", 10" and 12" formed of #18 gauge steel, Actual dimension of shelf shall be 1" less than the nominal dimension. Front and rear edges of shelf shall be box formed  $\frac{3}{4}$ " high, capable of receiving wire book supports and snap-on label holders. Sides of shelf to be flanged downward to allow locking into end bracket grips. Each shelf shall measure at least  $35\frac{3}{8}$ " clear between end brackets.

5) **SHELF END BRACKET:** Shelf end brackets shall be formed of #16 gauge steel with a 15 degree sloped front edge. Top, bottom and front edge are to be flanged outward  $\frac{1}{4}$ ". Rear edge shall have two crimped hooks at top and a positioning tab at the bottom for engaging into frame slots. Two grips are to be provided for engaging side flanges of shelves. Brackets shall extend at least 6" and have an impression to prevent brackets from overlapping.

**OPTIONAL T-BAR CONSTRUCTION:**

6) **T-BAR LEG BASE,** where specified, shall be constructed of a horizontal member measuring 1"x $2\frac{1}{2}$ "x #16 gauge steel tubing, with welded thereto four 9"x #11 gauge vertical channel members and a #11 gauge pan clip welded at bottom to serve as bearing surface for the welded frame. Extreme ends of tubular members shall have weld nuts pre-drilled to receive floor levelers. Open ends of tubular shape will be closed with a black vinyl cap. T-Bar units shall be starter and adder combinations.

ACCESSORIES:

- 1) FIXED PERIODICAL SHELF: Display shelf shall have 11 " actual height with a 1" flange at the bottom and include brackets which slope at 30 degrees. 12" deep storage shelves supported by inverted brackets shall be provided on an alternating basis.
- 2) HINGED PERIODICAL SHELF: To consist of sloping display shelves hinged to adjustable shelf and base shelf brackets. Display shelves shall have 14" actual height, be hinged to allow a clear storage height of 8" and stand without holding when in an open position. Lower edge of display shelf shall have flange and turned up lip to provide a 1 %" clearance behind lip.
- 3) DIVIDER TYPE SHELF: Shall be of #18 gauge steel with front edge box formed  $\frac{3}{4}$ " high with integral 5" high backstop. Dividers shall be 6" high unless specified otherwise.
- 4) SLIDING REFERENCE SHELF: Shall be of #18 gauge steel which attaches to the underside of book shelves. Shelf shall be the same depth as the shelf it hangs from and shall extend the same depth. They shall operate on ball bearing extension slides and shall be single entry.
- 5) WORK SHELF: Shall be provided of high pressure laminate, over particle board core, self-edged with a backing sheet. Work shelf is supported by #16 gauge inverted brackets.
- 6) STEEL CANOPY TOPS: To be formed of #18 gauge steel with a  $1\frac{1}{2}$ " front edge and supported by #12 gauge brackets which engage in the slots of the frame uprights. Sizes shall extend the full width and depth of the base shelf.
- 7) STEEL END PANELS: Shall consist of one-piece of #18 gauge steel formed into flush profile with  $1\frac{1}{2}$ " square edge and exposed return flanges of not less than 3". Tops and bottoms shall be closed with spot welded closure flanges. *Center of* double faced panels shall be equipped with full height channels for attaching to frame uprights and to eliminate oil canning.
- 8) STEEL BACKS: Shall be #18 gauge one-piece construction which completely fills the space between the uprights from the top channel to the base shelf. Upright fillers shall be provided for attachment.
- 9) BOOK SUPPORTS: To be one of the following types:
  - a) Wire book supports, 6" high of  $\frac{3}{16}$ " steel wire.
  - b) Findable book supports, to be 6" or 9" height as specified. Cork shall be provided on the base.
  - c) Hook-on book supports, to be 6" or 9" height as specified. Bottom flange fits around and hooks onto the edge of the adjustable shelf. Cork shall be provided on the base.
- 10) SHELF LABEL HOLDERS: Shall be plastic to hold  $\frac{5}{8}$ "x6" cards and to clip onto the shelf.
- 11) SHELF BACKSTOPS: Shall be of #20 gauge steel 3" high with stiffening flanges and hooks to engage into frame uprights. Backstops are to be independent of shelves and/or brackets allowing for adjustment of shelves without moving backstops.
- 12) CARD HOLDERS: As specified shall be cast metal, zinc plated or painted to hold 3"x5" cards. One shall be provided for each single faced and two for each double faced end panel.
- 13) RANGE FINDERS: Shall be painted and "V" shaped to hold 3"x5" cards.
- 14) TRANSVERSE TOP STRUT: Where specified shall be #18 gauge steel measuring 1 "x $1\frac{3}{4}$ "x96".
- 15) NEWSPAPER RACKS: Shall be formed of #16 gauge steel to hold six or ten newspaper sticks as specified and to fit properly in a 12" deep unit.
- 16) HPL COUNTER TOPS: Where specified shall be continuous with high pressure laminate on top and edges and a backing sheet on the underside over a particle board core. Support with #12 gauge brackets.
- 17) HPL PLASTIC END PANELS: Where specified shall be fully surfaced over particle board core and shall fully extend the width and height of the unit.

COLOR: To be selected from manufacturer's standard colors, but not necessarily limited thereto.