



# Looped Logic Cabinet Specification

## MATERIALS

- A.) All steel used in the manufacture of cabinets to be high quality cold rolled mild steel, free of scales, buckles, or other defects, conforming to ASTM Specification No. A36672. All gauges shall be U. S. Standard as follows:
- 1.) Interior door panels, drawer bodies, filler panels, scribe strips, shelves and security panels are 20 gauge minimum.
  - 2.) Door fronts, drawer fronts, cabinet sides, cabinet bottoms, strikes, vertical posts and access panels are 18 gauge minimum.
  - 3.) Horizontal rails, intermediate rails and apron housings are 16 gauge minimum.
  - 4.) Leveling gusset plates, hinge reinforcement plates, drawer runners and table legs are 14 gauge minimum.

## 2.01 GENERAL CONSTRUCTION

A.)

Casework shall be manufactured in accordance with the latest edition of SEFA "Metal Laboratory Furniture" and other applicable standards. Each casework unit shall have a completely welded shell assembly which shall be rigid and self supporting for interchangeable use in a group of cases or for single unit use. Each unit shall be complete for relocation at any time without the addition of finished ends or other parts.

All drawers and doors shall be in one plane. All rails and stiles shall be on the same plane. Flush face construction will be furnished with all exposed joints on the fascia to be flush welded. All joints to be ground smooth and polished. Any overlap construction on the fascia area is not acceptable.

All sectional units shall be fully and securely welded at all points. They shall have within each cabinet die pierced slots necessary for receiving drawer runners, shelf supports, door hinges, rabbets, channels and required hardware. The slots required for the installation of hardware shall be within the inside shell of the cabinet and then boxed in with a channel section at the rear. This

is necessary to close off any openings through the back or sides which might permit dust or dirt to enter the cabinet.

The cabinet interiors shall be flush with the interior bottom covered on each side for ease of cleaning. All cabinet bottoms shall be formed and fitted and provide a 4" high by 3" deep toespace.

The cabinet shall incorporate channel reinforcements at front and rear corners. Cabinets 35" and longer shall also have front and rear center posts with channel reinforcements. Center posts shall be welded in place. Non-welded center posts not acceptable. Front center posts shall be welded, ground flat and polished prior to applying the painted finish.

B.) Base Cabinet Construction

- 1.) All sectionalized units shall have double wall drawer and door fronts incorporated into the construction of the cabinet. All members and parts shall be of the gauge specified in paragraph 2.01 Materials.
- 2.) The exposed sections of corner posts, rails and stiles shall not be less than 1-1/4" wide.
- 3.) All doors and drawers shall close against neoprene rubber bumpers and these shall be installed so that doors and drawers fit flush with the cabinet face. Removable channel door strikes shall be attached to the sides of upright posts. Doors shall close against these rabbets.
- 4.) There shall be minimum clearance allowed between doors, drawers and other parts on the face of the cabinets.
- 5.) Removable backs shall engage in an offset in the cabinet body and shall be held in place without hardware and be readily removable without the use of any device or tools. The removable back shall be flanged to ensure rigidity. Removable backs shall allow full access through the back of the cabinet. Removable back shall be no less than 80% of the full front face opening. Cabinets providing access of less than 80% are not acceptable.
- 6.) Cabinet bottoms shall be fitted with four corner gusset plates welded in place and provided with leveling bolts. Gusset plates are die formed. Leveling bolts shall ensure easy handling when moving during installation as well as for adjustment. The bottom of the cabinet shall have a 1" hole above each leveling bolt, for accessibility with a screwdriver

for adjustment during installation. The hole shall be fitted with a chrome plated button type closure cover.

C.) Door Construction

- 1.) All doors shall be of double wall construction and shall be hung on a pair of institutional type hinges.

Interior of door pans shall be painted for protection from corrosion prior to assembly. Outer door pan shall be formed into a channel shape on all four sides. Inner door pan shall have an offset at pull side and hinge side with a flange at top and bottom. All panels are to be installable with fasteners. Permanent welding of panels to hinges are not acceptable. Sound deadening shall be provided prior to assembly of doors.

D.) Drawer Construction

- 1.) Drawer fronts shall be double wall construction and installed independent of the drawer body. Drawer bodies shall be formed from one piece of sheet metal. This one piece construction shall provide covered intersection between sides and bottom. The top edges of sides and back shall be channel shaped for maximum strength. The drawer pulls shall be attached to the drawer head and held tightly with screws. Drawer runners shall be 14 gauge steel and fully formed with 180 degree roller guide channel and welded to the drawer body. Screws or rivets to attach runners are not acceptable.
- 2.) Drawers shall operate on four 1-1/8" diameter ball bearing rollers with nylon covered wheels. The fixed drawer channels shall be fitted with prong supports that enter the slotted back of the cabinet for easy removal or replacement.
- 3.) Each drawer shall be fitted with two case runners and shall permit a 150 pound weight to be set into it without failure. Radius design of runners is to provide positive self closing of drawer during the last 6" of travel with no side to side movement at any time. A positive stop shall be provided at the rear of the drawer. Drawers may be removed from the cabinet without the use of tools.

E.) Shelf Construction

- 1.) All shelves are fully formed with all four sides flanged for maximum rigidity. All 35" or longer cabinets shall have

additional hat channel support welded in the center of the shelf.

- 2.) All adjustable shelves shall be supported on anodized shelf clip sets. These clips are set into a series of perforations that allow for adjustability on 1/2" centers.

## 2.02 STEEL CABINET FINISH

- A.) Pretreatment: Thoroughly clean surface of grease, dirt and oil in an alkaline solution, rinse, then bathe in a phosphatizing solution. Bake entire unit with organometallic phosphate coating to provide excellent bond for subsequent finish and aid in the prevention of corrosion.
- B.) Finish coat: Apply one coat of environmentally non-hazardous epoxy powder coat finish. This material shall meet the most stringent air quality standards. The final finish shall meet the following test data with no more than slight discoloration but no change of gloss and no loss of adhesion with exposure to the following chemicals:
  - 1.) Sulfuric acid 25%
  - 2.) Phosphoric acid 75%
  - 3.) Ammonia solution
  - 4.) 70% Isopropyl Alcohol
  - 5.) Methyl ethyl ketone
  - 6.) Methylene chloride
  - 7.) Trichlorethylene
  - 8.) Xylene
- C.) Adhesion and flexibility: No peeling, cracking or exposure of metal when painted surface is bent 180 degrees over a 1/4" diameter mandrel.
- D.) Unless otherwise specified, casework colors are to be selected from manufacturers standard color palette and shall be designated by the Architect/Owner.

## 2.03 HARDWARE AND ACCESSORIES

- A.) Provide standard satin finish hardware units and install uniformly and precisely after final finishing is complete. Align and adjust hardware so that moving parts operate freely and contact points

meet accurately. Set hinges snug and flat. Turn screws to a flat seat. Allow for final field adjustment after installation. Any field assembly of units is not acceptable.

- 1.) Hinges: Institutional type, 5 knuckle, 304 stainless steel. Provide one pair for doors less than 4 ft. high and 1-1/2 pairs for doors over 4 ft. high.
- 2.) Drawer and door pulls: Shall be solid die cast aluminum alloy with chrome plated finish. Pulls are to be mounted with two screws on 4" centers and fastened front to back. Provide two pulls for drawers over 24" wide.

Mounting screws are to be installed through outer panels and not exposed after sound deadening and inside panel is assembled.

- 3.) Catches: Shall be friction type spring actuated with nylon rollers manufactured in two parts for assembly with cabinet body and door. Minimum five pound pull for roller and strike plate.
- 4.) Shelf adjustment clips: Shall be nickel plated steel to engage in preformed perforated adjustment shapes.
- 5.) Lazy susan: Single or double shelf, as required, with non ball bearing turn post assembly.
- 6.) Base molding: Extruded vinyl, black, 4" high and shall be provided on exposed sides and fronts of all floor mounted cabinets. Preformed corners shall be provided at exposed corners.
- 7.) Leg shoes: Molded vinyl, black, preformed 2" square unit with open bottom, provided on all table legs.
- 8.) Aerosol touch-up point shall be provided when manufacturers standard colors are specified.