

## SECTION 10505 - LOCKERS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Wardrobe lockers, including the following:
    - a. Single-tier.

#### 1.2 DEFINITIONS

- A. Uncoated Steel Sheet Thicknesses: Indicated as the minimum thicknesses.

#### 1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's printed data including materials, accessories, construction, finishes, assembly, and installation instructions for lockers.
- B. Shop Drawings: Submit layout and dimensions of metal lockers. Indicate relationship to adjoining surfaces. Show locker elevations and details, fillers, trim, base, sloping tops, and accessories. Include locker numbering sequence. Indicate installation and anchorage requirements.
- C. Samples: Submit 150 mm square metal samples of color and finish required for metal lockers. COR's review and acceptance of samples shall be for color and texture only. Compliance with all other requirements is the exclusive responsibility of the Contractor.
- D. Quality Assurance: Provide written evidence of qualifications of professional engineer.
- E. Maintenance Instructions: Submit instructions for cleaning lockers and for adjusting, repairing, and replacing locker doors and latching mechanisms.

#### 1.4 QUALITY ASSURANCE

- A. Single-Source Responsibility: Obtain locker units and accessories from one manufacturer.
- B. Engineer Responsibility: A professional engineer shall design the seismic restraints for lockers. Engineer shall have experience in design of seismic restraints for similar projects using similar locker equipment and installation design. Manufacturer may submit evidence that seismic restraints systems and installation requirements have been written and reviewed by an engineer on staff.
- C. Regulatory Requirements: Where metal lockers are indicated to comply with accessibility requirements, comply with provisions of the ADA and ABA Accessibility Guidelines for Buildings and Facilities that was published in the Federal Register in July 2004.
  - 1. Provide not less than 1 shelf located no higher than 1219 mm (48 inches) above the floor for forward reach.

2. Provide 1 shelf located at bottom of locker no lower than 381 mm (15 inches) above the floor for forward reach.
3. Provide hardware that does not require tight grasping, pinching, or twisting of the wrist, and that operates with a force of not more than 22.2 N (5 lbf).

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver lockers until spaces to receive them are clean, dry, and ready for locker installation. Protect lockers from damage during delivery, handling, storage, and installation.

#### 1.6 PROJECT CONDITIONS

- A. Field Measurements: Verify the following by field measurements before fabrication and indicate measurements on Shop Drawings:
  1. Concealed framing, blocking, and reinforcements that support metal lockers before they are enclosed.
  2. Recessed openings.

#### 1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal lockers that fail in materials or workmanship, excluding finish, within specified warranty period.
  1. Failures include, but are not limited to, the following:
    - a. Structural failures.
    - b. Faulty operation of latches and other door hardware.
  2. Damage from deliberate destruction and vandalism is excluded.
  3. Warranty Period for All-Welded Metal Lockers: 10 years from date of Substantial Completion.

#### 1.8 EXTRA MATERIALS

- A. Furnish extra materials described below, before construction begins, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  1. Full-size units of the following metal locker hardware items equal to 10 percent of amount installed for each type and finish installed, but no fewer than 3 units:
    - a. Locks.
    - b. Identification plates.
    - c. Hooks.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS, METAL LOCKERS

- A. Cold-Rolled Steel Sheet: ASTM A 1008, Commercial Steel (CS) Type B, suitable for exposed applications.
- B. Fasteners: Zinc- or nickel-plated steel; slotless-type exposed bolt heads; self-locking nuts or lock washers for nuts on moving parts.

- C. Anchors: Select material, type, size, and finish required for secure anchorage to each substrate.
  - 1. Provide nonferrous-metal or hot-dip galvanized anchors and inserts on inside face of exterior walls and elsewhere as required for corrosion resistance.
  - 2. Provide toothed-steel or lead expansion sleeves for drilled-in-place anchors.

## 2.2 ALL-WELDED, METAL LOCKERS

- A. Locker Arrangement: Single and Double tier.
  - 1. Basis of Design: Penco
- B. Body: Assembled by welding body components together. Fabricate from unperforated, cold-rolled steel sheet with thicknesses as follows:
  - 1. Tops, Bottoms, and Sides: 0.0528 inch 1.35 mm thick.
  - 2. Backs: 0.0428 inch 1.1 mm thick.
  - 3. Shelves: 0.0528 inch 1.35 mm thick, with double bend at front and single bend at sides and back.
- C. Frames: Channel formed; fabricated from 0.0528-inch- 1.35-mm- thick, cold-rolled steel sheet; lapped and factory welded at corners; with top and bottom main frames factory welded into vertical main frames. Form continuous, integral door strike full height on vertical main frames.
- D. Locker Base: Structural channels, formed from 0.0528-inch- 1.35-mm- thick, cold-rolled steel sheet; welded to front and rear of side-panel frames.
- E. Doors: One-piece; fabricated from 0.0677-inch- 1.7-mm- thick, cold-rolled steel sheet; formed into channel shape with double bend at vertical edges, and with right-angle single bend at horizontal edges.
  - 1. Reinforcement: Manufacturer's standard reinforcing angles, channels, or stiffeners for doors more than 15 inches 381 mm wide; welded to inner face of doors.
  - 2. Door Style: Solid and vented panel as follows:
    - a. Perforated Vents: Manufacturer's standard shape and configuration.
- F. Hinges: Self-closing; welded to door and attached to door frame with not less than 2 factory-installed rivets per hinge that are completely concealed and tamper resistant when door is closed; fabricated to swing 180 degrees.
  - 1. Hinges: Manufacturer's standard, steel continuous or knuckle type.
- G. Recessed Door Handle and Latch: Stainless-steel cup with integral door pull, recessed so locking device does not protrude beyond face of door; pry resistant.
  - 1. Multipoint Latching: Finger-lift latch control designed for use with built-in combination locks or padlocks; positive automatic and prelocking.
    - a. Latch Hooks: Equip doors 48 inches 1219 mm and higher with 3 latch hooks and doors less than 48 inches 1219 mm high with 2 latch hooks; fabricated from minimum 0.1116-inch- 2.8-mm- thick steel; welded to full-height door strikes; with resilient silencer on each latch hook.



1. Bench Tops: Provide manufacturers standard one piece units fabricated from laminated maple with one coat of clear sealer on all surfaces, and one coat of clear lacquer on top and sides. Provide benches in lengths indicated with a cross sectional size of 241 mm wide x 32 mm thick with rounded corners and edges; benches shall be provided with an overall height of 445 mm.
2. Pedestals: Provide manufacturers standard 32 mm o.d. steel tube pedestal support assemblies complete with 3.4 mm thick steel flanges welded to each end of tube. Pre-drill flanges with fastener holes, and provide each pedestal complete with fasteners and anchors. Furnish a minimum of two pedestals for each bench, with pedestal spacing not more than 1829 mm o.c.
3. Integral Bench Brackets: Provide manufacturers standard integral bench brackets where indicated fabricated of nominal 6 mm thick steel flat bars complete with adjustable front foot attachment. Pre-drill flat bars with fastener holes, and provide each bench bracket and front foot complete with fasteners and anchors. Furnish a minimum of two pedestals for each bench, with pedestal spacing not more than 900 mm o.c.

## 2.4 FABRICATION

- A. Fabricate lockers square, rigid, and without warp, with metal faces flat and free of dents or distortion. Make exposed metal edges free of sharp edges and burrs, and safe to touch. Weld frame members together to form a rigid, 1-piece structure.
  1. Preassemble lockers by welding all joints, seams, and connections. Grind exposed welds flush.
- B. Locker Unit Size: As follows unless otherwise indicated on drawings.
  1. Single-Tier Lockers: 381 mm wide x 610 mm deep x 1,830 mm high.

## 2.5 FINISHES, GENERAL

- A. Comply with NAAMM "Metal Finishes Manual" for recommendations relative to applying and designating finishes.
- B. Finish all steel surfaces and accessories, except prefinished stainless-steel and chrome-plated surfaces.
- C. Protect mechanical finishes on exposed surfaces from damage by applying strippable, temporary protective covering prior to shipment.
- D. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within 1/2 of the range of approved samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved samples and they are assembled or installed to minimize contrast.

## 2.6 STEEL SHEET FINISHES

- A. Surface Preparation: Solvent-clean surfaces complying with SSPC-SP 1 to remove dirt, oil, grease, and other contaminants that could impair paint bond. Remove mill scale and rust, if present, from uncoated steel complying with SSPC-SP 5 (White Metal Blast Cleaning) or SSPC-SP 8 (Pickling), and phosphatize surfaces.

- B. Baked-Enamel Finish: Immediately after cleaning and pretreating, apply manufacturer's standard baked-enamel finish consisting of a thermosetting topcoat. Comply with paint manufacturer's instructions for application and baking to achieve a minimum dry film thickness of 0.028 mm on doors, and frames, and 0.018 mm elsewhere.
  - 1. Color and Gloss: Equivalent to 028 Gray by Penco Lockers.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Install metal lockers complete with accessories according to manufacturer's recommendations. Install plumb, level, rigid, and flush.
- B. Connect together welded locker groups with standard fasteners according to manufacturer's recommendations, with no exposed fasteners on face frames.
- C. Anchor lockers to floors and walls at intervals recommended by manufacturer but no greater than 910 mm. Install anchors through back-up reinforcing plates where necessary to avoid metal distortion, using concealed fasteners.
- D. Install recess trim to recessed lockers using concealed fasteners. Provide hairline joints and concealed splice plates.
- E. Install sloping top units to lockers using concealed fasteners. Provide hairline joints and concealed splice plates.
- F. Securely fasten pedestals, and integral brackets, to bench tops. Anchor pedestals to floor and integral brackets to locker dividers.

### 3.2 ADJUSTING, CLEANING, AND PROTECTION

- A. Adjust doors and latches to operate easily without binding. Verify that integral locking devices are operating properly.
- B. Clean interior and exposed exterior surfaces and polish stainless-steel and nonferrous metal surfaces.
- C. Protect lockers from damage, abuse, dust, dirt, stain, or paint. Do not permit locker use during construction.
- D. Touch up marred finishes, or replace locker units that cannot be restored to factory-finished appearance. Use only materials and procedures recommended or furnished by locker manufacturer.

END OF SECTION 10505