

## **SECTION 105113 – METAL LOCKERS**

### **PART ONE GENERAL**

#### **1.01 DESCRIPTION**

- A. Provide metal lockers indicated.
  - 1. Standard metal lockers.
  - 2. Benches.

#### **1.02 SUBMITTALS**

- A. Product Data- Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of metal locker
- B. Shop Drawings – Include plans, elevations, sections, details, and attachments to other work.
  - 1. Show base, sloping tops, filler panels, recess trim, and other accessories.
  - 2. Include locker identification system.
- C. Qualification Data – For Installer.
- D. Maintenance Data – For adjusting, repairing, and replacing locker doors and latching mechanisms.
- E. Warranty – Special warranty specified in this Section.

#### **1.03 QUALITY ASSURANCE**

- A. Installer Qualifications – An authorized representative of metal locker manufacturer for installation and maintenance of units required for this Project.
- B. Source Limitations – Obtain metal lockers and accessories through one source from a single manufacturer.
- C. Product Options – Drawings indicate size, profiles, and dimensional requirements of metal lockers and are based on the specific system indicated. See INSTRUCTIONS TO BIDDERS paragraph “Substitutions”.
  - 1. Do not modify intended aesthetic effects, except with DMVA’s approval. If modifications are proposed, submit comprehensive explanatory data to DMVA Designer for review.

#### **1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Do not deliver metal lockers until spaces to receive them are clean, dry, and ready for metal locker installation.

#### **1.05 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.
  - 3. Established Dimensions – Where field measurements cannot be made without delaying the Work, establish recessed opening dimensions and proceed with fabricating metal lockers without field

measurements. Coordinate wall and floor construction to ensure that actual recessed opening dimensions correspond to established dimensions.

## 1.06 COORDINATION

- A. Coordinate size and location of concrete bases for metal lockers.
- B. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that metal lockers can be supported and installed as indicated.

## 1.07 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 Knocked-Down Metal Lockers – Two years from date of Acceptance.

## PART TWO - PRODUCTS

### 2.01 MATERIALS

- A. Cold-rolled Steel Sheet – ASTM A 1008, Commercial Steel (CS) Type B, suitable for exposed applications.
- B. Expanded Metal – ASTM F 1267, Type II (flattened), Class I, ¾” steel mesh, with at least 70% open area.
- C. Fasteners – Zinc- or nickel-plated steel, slotless-type exposed bolt heads, and self-locking nuts or lock washers for nuts on moving parts.
- D. 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.

### 2.02 KNOCKED-DOWN STANDARD METAL LOCKERS

- A. Basis-of-Design Product – **Republic Storage System Company; Lockers** or a comparable product of one of the following:
- B. Available Products:
  - 1. Lyon Workspace Products; Standard Lockers.
  - 2. Penco Products Inc., subsidiary of Vesper Corp.
  - 3. Republic Storage Systems Company; Standard Lockers.
- C. Locker Arrangement – **Single tier, 12”w x 18”d x 60” h, As indicated on Drawings.**
- D. Body – Assembled by riveting or bolting body components together. Fabricate from unperforated, cold-rolled steel sheet with thickness as follows:
  - 1. Tops, Bottoms, and Intermediate Dividers – 0.0209”, with single bend at sides.
  - 2. Backs and Sides – 0.0209” thick, with full-height, double-flanged connections.

3. Shelves – 0.0209” thick, with double bend at front and single bend at sides and back.
- E. Frames – Channel formed; fabricated from 0.0528” 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.
  1. Cross Frames between Tiers – Channel formed and fabricated from same material as main frames; welded to vertical frame members.
- F. Doors – One-piece; fabricated from 0.0528” 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” wide; welded to inner face of doors.
  2. Stiffeners – Manufacturer’s standard full-height stiffener fabricated from 0.0428” thick, cold-rolled steel sheet; welded to inner face of doors.
  3. Door Style – Vented panel; louvered vents, not less than three louver openings at top and bottom for double-tier lockers.
  4. Knuckle Hinges: Steel, full loop, five or seven knuckles, tight pin; minimum 2 inches high.
- G. Projecting Door Handle and Latch – Manufacturer’s standard, finger-lift latch control designed for use with padlocks; positive automatic, prelocking, pry resistant; chromium-plated, vandal-resistant, lift-up handle.
  1. Latch Hooks – Equip door 48” and higher with 3 latch hooks and door less than 48” with 2 latch hooks; fabricated from minimum 0.0966” thick steel; welded or riveted to full-height door strikes; with resilient silencer on each latch hook.
  2. Latching Mechanism – Manufacturer’s standard rattle-free latching mechanism and moving components isolated to prevent metal-to-metal contact, and incorporating a prelocking device that allows locker door to be locked while door is open and then closed without unlocking or damaging lock or latching mechanism.
- H. Equipment – Equip each metal locker with identification plate and the following, unless otherwise indicated:
  1. One double-prong ceiling hook, and three single-prong wall hooks.
- I. Accessories
  1. Continuous Base – Fabricated from cold-rolled steel sheet, manufacturer’s standard thickness, but not less than 0.0528” thick.
    - a. Height – 4”.
  2. Individual Sloping tops – Fabricated from cold-rolled steel sheet, manufacturer’s standard thickness, but not less than 0.0329” thick.
    - a. Closures – Vertical-end type.
    - b. Sloped top corner fillers, mitered.
  3. Filler Panels – Fabricated from cold-rolled steel sheet, manufacturer’s standard thickness, but not less than 0.0329” thick.
  4. Finished End Panels – Fabricated from 0.0209” thick, cold-rolled steel sheet.
- J. Finish – Baked enamel or powder coat.
  1. Color – As selected by DMVA from manufacturer’s full range.

### 2.03 LOCKER BENCHES

- A. General – Provide locker benches fabricated by same manufacturer as metal lockers.
- B. Bench Tops – Manufacturer’s standard 1-piece units, of the following material, minimum 12” wide by 1 ¼” thick, with rounded corners and edges.

1. Laminated clear hardwood with one coat of clear sealer on all surfaces, and one coat of clear lacquer on top and sides.
- C. Fixed Pedestals: Manufacturer's standard tubular steel supports, with predrilled fastener holes for attaching bench top and anchoring to floor, complete with fasteners and anchors.
1. Color: As selected by DMVA from manufacturer's full range.

## 2.04 FABRICATION

- A. General – Fabricate metal 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.
1. Form body panels, doors, shelves, and accessories from one-piece steel sheet, unless otherwise indicated.
  2. Provide fasteners, filler plates, supports, clips, and closures as required for a complete installation.
- B. Unit Principle – Fabricate each metal locker with an individual door and frame; individual top, bottom, and back; and common intermediate uprights separating compartments.
- C. Knocked-Down Construction – Fabricate metal lockers for nominal assembly at Project site using nuts, bolts, screws, or rivets. Factory weld frame members together to form a rigid, one piece assembly.
- D. Hooks – Manufacturer's standard ball-pointed, aluminum or steel; zinc plated.
- E. Identification Plates – Manufacturer's standard etched, embossed, or stamped aluminum or plastic plates; with numbers and letters at least 3/8" high.
- F. Continuous Base – Formed into channel or Z profile for stiffness, and fabricated in lengths as long as practicable to enclose base and base ends of metal lockers; finished to match lockers.
- G. Continuous Sloping Tops – Fabricated in lengths as long as practicable, without visible fasteners at splice locations; finished to match lockers.
1. Sloped top corner fillers, mitered.
- H. Filler Panels – Fabricated in an unequal leg angle shape; finished to match lockers. Provide slip joint filler angle formed to receive filler panel.
- I. Finished End Panels – Designed for concealing unused penetrations and fasteners, except for perimeter fasteners, at exposed ends of nonrecessed metal lockers; finished to match lockers.
1. Provide one-piece panels for double-row (back-to-back) locker ends.

## 2.05 STEEL SHEET FINISHES

- A. General – Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Factory finish steel surfaces and accessories except stainless-steel and chrome-plated surfaces.
- C. Surface Preparation – Clean surfaces of dirt, oil, grease, mill scale, rust, and other contaminants that could impair paint bond. Use manufacturer's standard methods.
- D. Baked-Enamel Finish – Immediately after cleaning, pretreating, and phosphatizing, apply manufacturer's standard thermosetting baked-enamel finish. Comply with paint manufacturer's written instructions for application, baking, and minimum dry film thickness.

- E. Powder-Coat Finish – Immediately after cleaning and pretreating, electrostatically apply manufacturer’s standard baked-polymer thermosetting powder finish. Comply with resin manufacturer’s written instructions for application, baking, and minimum dry film thickness.

## **PART THREE - EXECUTION**

### **3.01 EXAMINATION**

- A. Examine walls, floors, and support bases, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### **3.02 INSTALLATION**

- A. General – Install level, plumb, and true; shim as required, using concealed shims.
  - 1. Anchor locker runs at ends and at intervals recommended by manufacturer, but not more than 36” o.c. Install anchors through backup reinforcing plates, channels, or blocking as required to prevent metal distortion, using concealed fasteners.
  - 2. Anchor single rows of metal lockers to walls near top and bottom of lockers or top of lockers and to floor.
  - 3. Anchor back-to-back metal lockers to floor.
- B. Knocked-Down Metal Lockers – Assemble knocked-down metal lockers with standard fasteners, with no exposed fasteners on door faces or face frames.
- C. All-Welded metal Lockers – Connect groups of all-welded metal lockers together with standard fasteners, with no exposed fasteners on face frames.
- D. Equipment and Accessories – Fit exposed connections of trim, fillers, and closures accurately together to form tight, hairline joints, with concealed fasteners and splice plates.
  - 1. Attach hooks with at least two fasteners.
  - 2. Attach door locks on doors using security fasteners.
  - 3. Identification Plates – Identify metal lockers with identification indicated on Drawings.
    - a. Attach plates to each locker door, near top, centered, with at least two aluminum rivets.
  - 4. Attach recess trim to recessed metal lockers with concealed clips.
  - 5. Attach filler panels with concealed fasteners. Locate filler panels where indicated on Drawings.
  - 6. Attach sloping top units to metal lockers, with closures at exposed ends.
  - 7. Attach finished end panels with fasteners only at perimeter to conceal exposed ends of nonrecessed metal lockers.
- E. Fixed Locker Benches – Provide not less than 2 supports for each bench, uniformly spaced not more than 24” apart. Provide Blocking in walls for wall hung supports.

### **3.03 CLEANING**

- A. Clean, lubricate, and adjust hardware. Adjust doors and latches to operate easily without binding.
- B. Protect metal lockers from damage, abuse, dust, dirt, stain, or paint. Do not permit metal locker use during construction.
- C. Touch up marred finishes, or replace metal lockers that cannot be restored to factory-finished appearance. Use only material and procedures recommended or furnished by metal locker manufacturer.

**END OF SECTION 105113**

**METAL LOCKERS**

**105113 - 5**