SECTION 10 51 13
METAL LOCKERS

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Standard Duty Knocked Down Lockers.

1.02 REFERENCES

A. ADAAG - Americans with Disabilities Act, Accessibility Guidelines.

1.03 SUBMITTALS

A. Submit under provisions of Section 01 33 23.

B. Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

C. Shop Drawings: Show the following:
   1. Dimensioned drawings including plans, elevations, and sections to show locker locations and interfaces with adjacent substrates.
   2. Details of assembly, erection, anchorage and clearance requirements.

D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and finishes.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Protect locker finish and adjacent surfaces from damage.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturer: Penco Products, Inc., which is located at: 1820 Stonehenge Drive, Greenville, NC 27858; Tel: 800-562-1000; Fax: 800-248-1555; Email: General@PencoProducts.com; Web: www.pencoproducts.com

B. Provide only metal lockers fabricated in the United States by a single domestic manufacturer.

2.02 MATERIALS

A. Steel: Prime grade mild cold-rolled sheet steel free from surface imperfection, capable of taking a high-grade enamel finish and in compliance with ASTM A1008.

B. Steel: Sheet steel components shall be fabricated using zinc-coated steel free from surface imperfection, capable of taking a high-grade enamel finish and in compliance with ASTM A879.

C. Hooks: Zinc plated forged steel, ball ends.

D. Bolts and Nuts: Zinc plated truss fin head bolts and hex nuts.

2.03 STANDARD DUTY LOCKERS

A. Standard Duty Lockers:
1. Acceptable Product: Penco Guardian, knock-down lockers.
2. Tops, Bottoms, Backs, Sides, and Shelves: 24 gauge sheet steel.
3. Doors over 12 inches (305 mm) wide or 20 inches (760 mm) high: 16 gauge sheet steel.
4. Doors less than 12 inches (305 mm) wide: 18 gauge sheet steel.
5. Legs: 6 inches (150 mm) high (standard).

B. Locker Body: Steel specially formed for added strength and rigidity and to ensure tight joints at fastening points.
1. Tops and bottoms with three sides formed 90 degrees, the front offset formed to be flush with horizontal frame member.
2. Shelves with four sides formed to 90 degrees, front edge having a second bend.
3. Hole spacing in locker body construction: Not exceeding 9 inches (225 mm).
4. Form door frame members to a channel shape, not less than 16 gauge steel.
5. Provide vertical door frame members with additional 3/8 inch (9.5 mm) flange as a continuous door strike.
6. Mortise and tenon intermembering parts; electrically weld together in a rigid assembly capable of resisting strains.
7. Securely weld cross frame members of channel shapes to vertical framing members to ensure rigidity, including intermediate cross frame on double and triple tier lockers.
8. Optional factory assembly of locker bodies using rivets.
9. Center partitions: 24 gauge steel vertical partitions, full depth between bottom and shelf.

C. Locker Doors: One piece sheet steel.
1. Multi-Point Latch Doors: Full channel formation of adequate depth to fully conceal lock bar on lock side, channel formation on hinge side, right angle formations across top and bottom, with holes for attaching number plates.

2. Single Point Latch Doors: 14 gauge door reinforced by a full height 3-1/2 inch (89 mm) wide, 18 gauge vertical pan welded to the top, bottom and hinge side flanges and rear of door skin on 12 inch (305 mm), 15 inch (381 mm) and 18 inch (457 mm) wide doors. Provide a horizontal pan for doors wider than 18 inches (457 mm).
3. Single Point Latch Doors: 14 gauge door reinforced by a full 18 gauge inner pan welded to outer door skin on all four sides.
   a. Solid outer door, solid inner pan
   b. Diamond perforated outer, offset diamond perforated inner pan.
   c. 3 inch or 6 inch louvered outer door, mini louvered inner pan.
   d. Mini louvered outer, mini louvered inner pan.
4. Provide holes for attaching number plates.
5. Doors over 15 inches (380 mm) wide by 60 inches (1.524 m) or 72 inches (1.828 m) high: 3 inch (75 mm) wide 20 gauge full height reinforcing pan welded to inside face of door at 6 inch (150 mm) centers.
6. Ventilation: Flush door front with no exposed louvers and air flow slots located in top and bottom flanges of door.

D. Hinges:
1. Two inch high, 0.074 inch (1.88 mm) thick sheet steel, double spun, full loop, tight pin, projection welded to door frame and securely fastened to the door with two steel rivets.
   a. Doors over 48 inches (1.066 m) high: Three 2 inch (51 mm) high five-knuckle hinges.
   b. Doors over 24 inches (1.066 m) wide: Four 2 inch (51 mm) high five-knuckle hinges.
   c. All other doors: Two 2 inch (51 mm) high five-knuckle hinges.
2. 16 gauge, 0.0625 inch (1.58 mm) thick sheet steel, continuous type hinge riveted to the frame and welded to the door.

2.04 DOOR HANDLES AND LATCHING

A. Two Person Lockers, Multi-point latching:
1. Classic III Multi-point latching with recessed handles:
   a. Recess finger-lift control handle in door.
   b. Pocket: 22 gauge brushed stainless steel securely fastened to door with two tabs and a positive tamper-resistant decorative fastener; of depth sufficient to prevent a combination padlock, built-in combination lock, or key lock from protruding beyond door face.
   c. Provide lock hole cover plate for use with padlocks.
   d. Attach 14 gauge formed steel lifting piece to latching channel with one concealed retaining lug and one rivet, assuring a positive two-point connection.
   e. Handle finger lift: Molded, sound-deadening, attached with rivet; padlock eye for use with 9/32 inch (7.1 mm) diameter padlock shackle.
   f. Latch Clip: Glass-filled nylon engaging the door frame and holding the door shut.

1) Doors 60 inches (1.524 m) and 72 inches (1.828 m) high: Three points.
2) Doors 20 inches (0.508 m) to 48 inches (1.22 m) high: Two points.

g. Locking Device: Positive, automatic type, whereby locker may be locked when open, then closed without unlocking.

h. Firmly secure one rubber silencer in frame at each latch hook.

2.05 INTERIOR EQUIPMENT

A. ADA-Compliant Lockers (Recessed Handles with Multi-Point Latch):
1. Single Tier Lockers: Hat shelf 48 inches (1.219 m) maximum off the floor.
2. Locker Bottom: Minimum of 9 inches (230 mm) off the floor, or an extra shelf placed 9 inches (230 mm) off the floor for side access or minimum of 15 inches (381 mm) off the floor for front access.
3. Handicapped symbol attached to door.
4. Hooks and rods as specified for other lockers.

2.06 ACCESSORIES

A. Number Plates: Provide each locker with a polished aluminum number plate, 2-1/4 inches (57 mm) wide by 1 inch (25 mm) high, with black numerals not less than 3/8 inch (9.5 mm) high; attach to face of door with two aluminum rivets.

B. Closed Bases: 18 gauge closed metal front and end bases, finished to match lockers.

C. Locks: Built-in flat key locks; control-key to same series.

D. Locks: Built-in grooved key locks (pin tumbler); control-key to same series.

E. Locks: Built-in three-number dialing combination locks capable of at least five different combinations changes; provide control key, combination change key, and combination control charts.
1. Horizontal bolt
2. Wrap around/rotary bolt

F. Padlocks: Control-keyed, three-number dialing combination type padlocks; provide control key. Mechanism must be resistant to “shimming”.

G. Unit Slope Tops for Standard Duty Lockers: 24 gauge steel, slope rise equal to 1/3 of the locker depth, finish to match lockers.

H. Finished End Panels: Minimum 16 gauge steel formed to match locker depth and height, 1 inch (25 mm) edge dimension; finish to match lockers; install with concealed fasteners.

I. Front Fillers: 20 gauge steel formed in an angle shape, with 20 gauge slip joint angles formed in an angle shape with double bend on one leg forming a pocket to provide adjustable mating with angle filler.
   1. Attachment by means of concealed fasteners.
   2. Finish to match lockers.

J. Zee Bases for Knock-Down Lockers without legs: 14 gauge, steel flanged outward at top for support of lockers, flanged inward at bottom for anchoring to floor.
   1. Height: 6 inches (150 mm).

2.07 FABRICATION

A. Fabricate Lockers Square, rigid, without warp, with metal faces flat and free of distortion.

B. Knock-Down Lockers: Fabricate lockers on the unit principle, each locker with individual door and frame, individual top, bottom, back, and shelves, with common intermediate divisions separating compartments. Verify dimensions and arrangement before fabrication.

C. Finish: Enamel powder coat paint finish electrostatically applied and properly cured to manufacturer's specifications for optimum performance. Finishes containing volatile organic compounds and subject to out-gassing are not acceptable. Locker exterior and interior shall be painted the same color.
   1. Powder Coat - Dry Thickness: 1 to 1.2 mils (0.025 to 0.03 mm).
   2. Powder Coat Plus - Dry Thickness: 2 to 2.2 mils (0.05 to 0.055 mm).
   3. Color: As selected from manufacturer's standard colors.
   4. Special Finish
      a. Custom color – 715 Lake Blue or as approved by Architect.
      b. Anti-Graffiti
      c. Anti-Microbial
      d. TGIC
      e. Ultra-Weatherable

PART 3 – EXECUTION

3.01 EXAMINATION

A. Do not begin installation until substrates and bases have been properly prepared.

B. If substrate and bases are the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 INSTALLATION

A. Install metal lockers and accessories at locations shown in accordance with manufacturer's instructions.

B. Install lockers plumb, level, and square.

C. Anchor lockers to floor and wall at 48 inches (1.219 m) or less, as recommended by the manufacturer. Provide Blocking in wall per details on drawings.

D. Bolt adjoining locker units together to provide rigid installation.

E. Install sloping tops and metal fillers using concealed fasteners. Provide flush hairline joints against adjacent surfaces.

F. Install front bases between legs without overlap or exposed fasteners. Provide end bases on exposed ends.

G. Install benches by fastening bench tops to pedestals and securely anchoring to the floor using appropriate anchors for the floor material.

3.03 ADJUSTING AND CLEANING

A. Adjust doors and latches to operate without binding. Verify that latches are operating satisfactorily.

B. Adjust built-in locks to prevent binding of dial or key and ensure smooth operation prior to substantial completion.

C. Touch-up with factory-supplied paint and repair or replace damaged products before substantial completion.

3.04 PROTECTION

A. Protect installed products until completion of project.

END OF SECTION