

## SECTION 10 51 00

### LOCKERS

#### **PART 1 GENERAL No Requirements**

#### **PART 2 PRODUCTS**

##### **2.01 MANUFACTURERS**

- A. DeBourgh Manufacturing Co.
- B. Penco.
- C. List Industries, Inc.
- D. Lyon Metal Products, Inc.
- E. Art Metal Products.

##### **2.02 MATERIALS**

- A. Sheet Steel: ASTM A653, Grade B, galvanized to G90 coating; cold-rolled steel.
- B. Standard Corridor/personell/wardrobe : Locker minimum standards:
  - 1. Body : 16-gauge.
  - 2. Door: 14-gauge. Provide no fewer that six (6) louver openings at top and bottom.
  - 3. Doorframe: 16-gauge.
  - 4. Hinges: 14-gauge five-knuckle: 18-gauge continuous: or nut and bolt connected hinges.
  - 5. Sloping top and trim: 18-gauge with horizontal intermediate bracing at each locker for dimensions more than 6" wide. 1'-6" o.c. in the vertical directions.
  - 6. End panels: 16-gauge.
  - 7. Latch hooks: 12-gauge, form from steel, welded or riveted to doorframes. Projecting surface mounted lift handle and latch: manufacturer's standard three-point tamper guard latch, consisting of two (2) steel rods or bars engaging frame at top and bottom, and center latch engaging strike jamb.
  - 8. Bottom: 18 gauge.
  - 9. Shelf. 18 gauge.
  - 10. Cross frames: 16-gauge.
  - 11. Filler panels: 18-gauge.
  - 12. Surface mounted combination locks.
  - 13. Shelves: Provide hat shelf, fabricated from steel sheet.
- C. P.E. Locker: All welded, locker minimum standards:
  - 1. Body and shelf: 16-gauge steel sheet.
  - 2. Door : 14-gauge with net louvered vent area of no less than 25 percent of gross door surface area with minimum perforations as follows:
    - a) In double tiers, no fewer than three (3) louver openings at top and bottom.
  - 3. Doorframe: 16-gauge or steel sheet channels or steel angles.
  - 4. Bottom: 16-gauge.
  - 5. Hinges: 14 gauge heavy duty steel, full loop, five or seven knuckle; tight pin; minimum 2" high. Weld to inside of doorframe. Provide at least three (3) or more hinges for each door more than 42" high and at least two (2) or more hinges for each door 42" high or less.

6. Sloping top and trim: 16-gauge, provide horizontal intermediate bracing at each locker.
  7. End panels: 14-gauge. Provide horizontal intermediate bracing for dimensions more than 6" wide, 16" o.c. in vertical dimensions.
  8. Filler panels: 16-gauge.
  9. Shelves: Provide hat shelf, fabricated from steel sheet.
  10. Provide surface mounted combination locks.
  11. Latch hooks: 12-gauge, form from steel, welded or riveted to doorframes. Projecting surface mounted lift handle and latch: manufacturer's standard three-point tamper guard latch, consisting of two (2) steel rods or bars engaging frame at top and bottom, and center latch engaging strike jamb.
  12. Locks: Built in combination locks with key activated combination change.
- D. Varsity Athletic Locker: All welded locker minimum standards:
1. Body and shelf: 16-gauge steel sheet.
  2. Door: 14-gauge with net vent area of no less than 50 percent of gross door surface area with perforations.
  3. Expanded metal backs- form from expanded metal; welded to steel angle or steel channel frame.
  4. Expanded metal sides and intermediate partitions; form from expanded metal; welded to steel angle or steel channel frame. Provide minimum 50% free area.
  5. Doorframe: 14-gauge steel sheet channels or steel angles.
  6. Hinges: 14-gauge heavy-duty steel, full loop, five or seven knuckle; tight pin; minimum 2" high. Weld to inside of doorframe and to door. Provide at least three (3) hinges for each door more than 42" high and at least two (2) hinges for each door 42" high or less.
  7. Sloping top and trim: 16-gauge.
  8. End panels: 14-gauge w/ horizontal reinforcing at maximum 16" on center.
  9. Filler panels: 14-gauge w/ horizontal reinforcing at maximum 16" on center.
  10. Bottom: 16-gauge.
  11. Shelves: Provide hat shelf in single-tier units, fabricated from steel sheet.
  12. Latch hooks: 12-gauge, form from steel, welded or riveted to doorframes. Projecting surface mounted lift handle and latch; manufacturer's standard three-point tamper guard latch, consisting of two (2) steel rods or bars engaging frame at top and bottom, and center latch engaging strike jamb.
  13. Provide combination padlocks (1 per locker) with master keyed backs for each.
- E. Corridor/Personnel (K/D):
1. Body: Form backs, tops, bottoms, sides, and intermediate partitions from steel sheet; flanged for double thickness at back vertical corners.
  2. Frames: Form channel frames from steel sheet; lapped and welded at corners. Form continuous integral door strike on vertical frame members. Provide resilient bumpers to cushion door closing.
  3. Latch hooks: Form from steel; welded or riveted to doorframes.
  4. Cross frames: Form intermediate channel cross frames between tiers from steel sheet. Weld to vertical frame members.
  5. Doors: One-piece steel sheet, formed into channel shape at vertical edges and flanged at right angles at top and bottom edges. Fabricate to prevent springing when opening or closing, and to swing 180 degrees.
  6. Reinforcement: Brace or reinforce inner face of doors more than 15" wide.
  7. Acoustical treatment: Fabricate lockers for quiet operation with manufacturer's standard rattle-free latching mechanism and moving components isolated to prevent metal-to-metal contact.
  8. Louvered vents: Stamped, louvered vents in door face.

- a) Single-tier lockers: No fewer than six (6) louver openings at top and bottom.
  - b) Double-tier lockers: No fewer than three (3) louver openings at top and bottom.
- F. Alternate:
- 1. See latching specification below for door construction option associated with single-point latching.
- G. Shelves: provide hat shelf in single-tier units.
- H. Hinges:
- 1. Steel, full loop, five or seven knuckle; tight pin; minimum 2" high. Weld to inside of doorframe and attach to door to each hinge with at least two (2) factory-installed fasteners that are completely concealed and tamper-resistant when door is closed.
  - 2. Provide at least three (3) hinges for each door more than 42" high and at least two (2) hinges for each door 42" high or less.
  - 3. Option: Continuous 18-gauge hinge.
- I. Recessed Handle and Latch:
- 1. Manufacturer's standard housing, formed from nickel-plated steel or stainless steel, with integral door pull, recessed for latch lifter and locking devices; non-protruding latch lifter; and automatics, pre-locking, pry-resistant latch.
    - a) Provide minimum three-point latching for each door more than 42" high; minimum two-point latching for each door 42" high or less.
    - b) Three-point Cremona-type latch shall consist of two (2) steel rods or bars engaging frame at top and bottom, and center latch engaging strike jamb.
  - 2. Alternate locker latching mechanisms: provide single-point latching with locker doors that are double-faced with reinforced core.
- J. Locks:
- 1. Locker locks are to be built in combination locks: They must be key-controlled, preferably keyed to a F120, F128 or F148 master key. They must be three number dialing combination locks capable of five combination changes made automatically with a control key.
  - 2. Locks must be ordered from Master Lock Company, product/part #1630 (this specific built-in combination locker lock is to be installed on a lift handle type locker, has an automatic locking function and can only be installed on a right hand hinged door. Proper locker door & frame must be ordered and installed to accommodate this type of lock).
  - 3. Latching mechanism shall permit doors to be latched automatically when in the closed position.
  - 4. No spring loaded, retractable latch or manual deadbolt locking locker lock are permissible.
  - 5. A complete, original set of locker combinations and at least a dozen master keys shall be turned over to DPS or Structural QAQC only.
  - 6. If an addition is being built or lockers are being added to an existing building where lockers are already present the existing master key must be matched and DPS or Structural QAQC must be consulted about the sequence of serial numbers in which to order the locks so that serial numbers/combinations are not duplicated within the building.

## **2.03 LOCKER ACCESSORIES**

- A. Interior equipment: Furnish each locker with the following items, unless otherwise indicated.
- 1. Hooks: Manufacturer's standard zinc-plated, ball-pointed steel. Provide one double-prong ceiling hook, and not fewer than two single-prong wall hooks for single, double, and triple-tier units. Attach hooks with at least two (2) fasteners.

2. Number plates: Manufacturer's standard etched, embossed, or stamped aluminum number plates with numerals at least 3/8" high. Number lockers in sequence as coordinated with DPS. Attach plates to each locker door, near top, centered, with at least two (2) aluminum rivets.
3. Integrated or free standing post-mounted, fixed locker bench at P.E. and varsity athletic lockers.
  - a) Wood surface.
  - b) Steel surface matching finish of locker.

#### **2.04 FABRICATION**

- A. Corridor/personell/wardrobe lockers (knocked down construction): Fabricate lockers for nominal assembly at project site.
- B. P.E. and Varsity Athletic Lockers (All-Welded Construction): Pre-assemble lockers by welding all joints, seams, and connections; no bolts, screws, or rivets shall be used in assembly. Grind exposed welds flush. Connection of door to hinges to be securely fastened with a minimum of two (2) factory-installed rivets per hinge.
- C. 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, one-piece assembly.

#### **2.05 FINISHES**

- A. Powder-Coated Finish: Immediately after cleaning and pre-treating, electrostatically apply manufacturer's standard backed polymer finish consisting of thermosetting power topcoat. Comply with paint manufacturer's written instructions for applying and baking to achieve a minimum dry film thickness of 2 mils (0.05").
  1. Select from manufacturer's standard colors. (Maximum of six per school).

### **Part 3 EXECUTION**

#### **3.02 INSTALLATION**

- A. Install metal lockers and accessories level, plumb, rigid, and flush according to manufacturer's written instructions.
- B. Adjust hardware and doors after installation for proper operation.
- C. Anchor lockers to floors and walls at intervals recommended by manufacturer, but not more than 30" on center and at each end. Install anchors through backup reinforcing plates where necessary to avoid metal distortion, using concealed fasteners.
- D. Fit exposed connections of trim, fillers, and closures accurately together to form tight hairline joints to lockers and surrounding construction with concealed fasteners and splice plates.
- E. Provide fasteners appropriate to the substrate and as approved by DPS.
- F. Each anchor must withstand a pull of 200 lbs. of force on all sides and locations.
- G. Coordinated Blocking requirements per Section 06 10 00.
  1. Coordinate locations of fire treated blocking required by locker installation that are attached to walls.

#### **3.03 ADJUSTING, CLEANING, AND PROTECTION**

- A. Adjust doors and latches to operate easily without binding. Verify that integral locking devices operate 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 all damaged finishes to factory level finish, or replace locker units that cannot be restored to factory finish appearance. Use only materials and procedures recommended or furnished by locker manufacturer.

### **3.04 SPARE PARTS**

- A. Provide the following for each type of locker provided:
1. Combination locks: 5% of total, but not less than 10 units.
  2. Full Latch Mechanism: 5% of total, but not less than 10 units.
  3. Door strikes: 5% of total, but not less than 10 units.
  4. Locking bars: 5% of total, but not less than 10 units.
  5. Hinges: 5% of total, but not less than 10 units.
  6. Hooks: 5% of total, but not less than 10 units.
  7. One dozen master keys, delivered to DPS only.

**END OF SECTION 10 51 00**