SECTION 10 51 13 - METAL STUDENT LOCKERS

PART 1 GENERAL

1.1 SECTION INCLUDES

1. DESCRIPTION: Furnish and install Magnum Student Corridor Metal Lockers with MAX Body Option, complete, as shown and specified per contract documents.

1.2 RELATED WORK SPECIFIED ELSEWHERE:

A. Concrete: Section 03 10 00

B. Rough Carpentry: Section 06 10 00

C. Finish Carpentry: Section 06 20 00

1.3 SUBMITTALS

A. GENERAL: Refer to Section 01 30 00 ADMINISTRATIVE REQUIREMENTS - SUBMITTALS

B. SHOP DRAWINGS: Submit drawings showing locker types, sizes, quantities, including all necessary details relating to anchoring, trim installation and relationship to adjacent surfaces.

C. COLOR CHARTS: Provide color charts showing manufacturer's available colors (minimum 24). Provide metal samples if requested.

D. NUMBERING: Locker numbering sequence will be provided by the approving authority and noted on approved shop drawings returned to the locker contractor.

1.4 QUALITY ASSURANCE

A. MANUFACTURING STANDARD: Provide metal lockers that are standard products of a single manufacturer, with interchangeable like parts. Include necessary mounting accessories, fittings, and fastenings.

B. FABRICATOR QUALIFICATIONS: Firm experience (minimum 5 years) in successfully producing the type of metal lockers indicated for this project, with sufficient production capacity to produce required units without causing delay in the work.

C. INSTALLER QUALIFICATIONS: Engage an experienced (minimum 2 years) installer who has successfully completed installation of the type of metal lockers and extent to that indicated for this project.

1.5 PRODUCT HANDLING

A. GENERAL: All work shall be fabricated in ample time so as to not delay construction process.

B. DELIVERY: All materials shall be delivered to the site at such a time as required for proper coordination of the work. Materials are to be received in the manufacturer's original, unopened packages and shall bear the manufacturer's label.

C. STORAGE: Store all materials in a dry and well ventilated place adequately protected from the elements.

1.6 WARRANTY

A. Knock-Down Lockers are covered against all defects in materials and workmanship excluding finish, damage resulting from deliberate destruction and vandalism under this section for a period of 2 years.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. AVAILABLE MANUFACTURERS: Subject to compliance with the design, material, method of fabrication and installation as required in this specification section or modified as shown on drawings. Manufacturers offering products which may be incorporated in the work include the following: Art Metal Products (Basis of Design)

2.2 LOCKER TYPES

A. General: Lockers shall be "AMP MAGNUM STUDENT KD Lockers with MAX BODY OPTION" as manufactured by Art Metal Products or approved equal.

1. Type: - Tier

2. Size: - wide x - deep x - high

B. MAGNUM STUDENT KD Lockers:

1. Wardrobe Doors: 14 gauge solid sheet steel with recessed handle and single-point latching

2. Sides: 16 gauge solid sheet steel.

3. Tops, Bottoms, Shelves: 16 gauge solid sheet steel

4. Backs: 18 gauge solid sheet steel

2.3 FABRICATION

A. MATERIALS:

1. Steel Sheet: All sheet steel used in fabrication shall be prime grade free from scale and imperfections and capable of taking a heavy coat of custom blend powder coat.

2. Fasteners: Cadmium, zinc or nickel plated steel; bolt heads, slotless type; self-locking nuts or lock washers.

3. Hardware: Hooks and hang rods of cadmium plated or zinc plated steel or cast aluminum.

4. Handle: Seamless drawn 304 stainless steel recessed handle.

5. Number Plates: To be polished aluminum with not less that 3/8" high etched numbers attached to door with two aluminum rivets.

B. CONSTRUCTION: Lockers shall be "AMP Magnum Student KD Corridor Lockers with MAX BODY OPTION" as manufactured by Art Metal Products or approved equal. Fabricate lockers square, rigid and without warp, with metal faces flat and free from dents or distortion. Make all exposed metal edges safe to touch. Weld frame members together to form a rigid, one-piece structure. Weld, bolt or rivet other joints and connections as is standard with manufacturer. Grind exposed welds flush. Do not expose bolts or rivet heads on front of locker doors or frames except for fastening of number plates and recessed handle.

1. FRAME: Fabricate of 16 gauge (minimum) channels, with integral continuous door stop/strike formed on both latch and hinge side vertical members. Cross frame members of 16 gauge channel shapes, including intermediate cross frame members on double and triple tier (frames with doors over 18" high) lockers shall be securely welded to the vertical framing members to ensure rigidity. Rubber bumpers shall be provided for wardrobe doors to cushion door closing.

2. HAT SHELVES, INTERMEDIATE SHELVES AND BOTTOMS: Shall be formed with 16 gauge (minimum) solid sheet steel with single return bends at all sides. Bolt top and bottom as well as horizontal tier dividers of wardrobe openings to front horizontal frame members at not less than one place in addition to side panels. Form hat shelves at 60” and 72” high single tier lockers of 16 gauge (minimum) sheet steel with single bends at sides and back and a double bend at front.

3. BACKS: Shall be 18 gauge (minimum) cold rolled sheet steel with double flanged connections extending full height.

4. WARDROBE DOORS: Door to be fabricated from single sheet prime 14 gauge with single bends at top and bottom and double bends at the sides with a 3” (1-1/2” for 9” wide doors) wide 18 gauge full height channel door stiffener MIG welded to the hinge side of the door as well as to the top and bottom door return bends and spot welded to the inside of door face to form a rigid torque-free box reinforcement for the door. Door shall be plain (non-perforated).

5. HANDLE: All locker doors shall have a seamless drawn 304 stainless steel recessed handle shaped to receive a padlock or built-in combination lock. The recess pan shall be deep enough to have the lock be completely flush with the outer door face.

6. LATCHING: The latching mechanism shall be single-point rigid non-moving positive latch by means of a heavy gauge (minimum 11 gauge) latch securely welded to the frame. The latch assembly must be made of a single piece of steel and have a padlock loop that inserts through the recess pan. Locking device shall be designed for use with either built-in combination locks or padlocks. Latch hooks shall be 11 gauge (minimum) with riveted bumpers and shall be MIG welded to vertical frame member

7. DOOR HINGES: All doors shall include a 16 gauge continuous piano hinge welded to the door and riveted to the frame. All doors to be right hand, side hinged.

2.4 LOCKER ACCESSORIES:

A. Locks (If required):

1. Built-In Combination Locks: Built-in combination automatic dead bolt locks with 5 control keys. Locks must be capable of a minimum of five combination changes.

2. Combination Padlocks: Combination padlock, key controlled.

B. Equipment: Furnish each locker with the following items, unless otherwise shown.

1. Single tier lockers: Openings 60” and 72” shall include one hat shelf, one double prong ceiling hook and a minimum of two single prong wall hooks.

2. Double tier lockers: Openings 30” thru 36” high shall include one double prong ceiling hook and a minimum of two single prong wall hooks.

3. Triple tier lockers: Openings 20” thru 24” high shall include one double prong ceiling hook.

4. Finished End Panels (If required): Shall be "Boxed" type formed from 16 gauge cold rolled steel with 1" O.D. double bends on sides and a single bend at top and bottom with no exposed holes or bolts. If lockers have slope tops, end panels must be formed with slope at top to cover the ends of the slope tops. Finished to match lockers. Provide at all exposed ends.

5. Continuous Slope Tops (If required): Not less than 18 gauge sheet steel approximately 18 degrees pitch, in lengths as long as practical but not less than four lockers. To be installed in addition to the locker flat top with end closures for support. Finished to match lockers.

6. Fillers (if required): Provide where indicated, of not less than 16 gauge sheet steel, factory fabricated and finished to match lockers.

C. FINISHING: All locker parts to be cleaned and coated after fabrication with a seven stage hot-spray washing process and coated with a zirconium-based nanotechnology providing a green alternative to traditional iron phosphate followed by a coat of high grade custom blend powder electrostatically sprayed and baked at 350 degrees Fahrenheit for a minimum of 20 minutes to provide a tough durable finish. Color to be selected from manufacturer's standard list of colors. Body components shall be manufacturer’s standard interior neutral color. Two-Tone Color Combination: Shall be at no additional cost with the locker frame and trim chosen from one color and the doors may be one of any other color chosen from manufacturers standard selection.

D. Lockers shall be GREENGUARD GOLD Certified.

PART 3 EXECUTION

3.1 INSTALLATION

A. GENERAL: Installation shall be in strict conformance with referenced standards, the manufacturer's written directions, as shown on the drawings and as herein specified.

B. PLACEMENT: Lockers shall be set in place, plumb, level, rigid, flush and securely attached to the wall (or bolted together if back-to-back) and anchored to the floor or base according to manufacturer's specifications.

C. ANCHORAGE: About 48" O.C., unless otherwise recommended by manufacturer, and apply where necessary to avoid metal distortion, using concealed fasteners. Friction cups are not acceptable.

D. TRIM: Sloping tops, metal fillers and end panels shall be installed using concealed fasteners. Provide flush, hairline joints against adjacent surfaces.

3.2 ADJUSTMENT

A. GENERAL: Upon completion of installation, inspect lockers and adjust as necessary for proper door operation. Touch-up scratches and abrasions to match original finish.

END OF SECTION