SECTION 105113
DeBourgh VOLTA- METAL SMART LOCKERS

The fields in YELLOW indicate optional requirements that should be edited to ensure that they meet the specific needs of each individual project.

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 specifications apply to this section.

1.02 SUMMARY

A. This Section includes the following
  1. Welded Smart Lockers, which may including the following:
  2. Radio-frequency identification (RFID) locks.
  3. Controllers.
  4. Information Terminals.
  5. Lock management software.
  6. Digital Pin Pads
  7. Provide fasteners and anchorage devices to install lockers provided under this section.
  8. Provide metal filler panel to fill be0.tween banks of lockers and adjacent construction.

1.03 SUBMITTALS

A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of locker and bench.

B. Shop Drawings: Show lockers in detail, method of installation, fillers, trim, base, and accessories. Include locker numbering sequence information.

C. Samples for verification: Submit one full-size locker sample for evaluation. Adherence to the specification is required. Locker submitted must meet specification regardless of manufacturer's standard product. Submit manufacturer's technical data and installation instructions for metal locker units.
  1. If a Job specific full size sample is required, please note that DeBourgh will need a min of 3 weeks lead time to build the special locker.
  2. All info required to build the job specific sample must be provided to DeBourgh before we can start fabrication.

D. Maintenance Data: For adjusting, repairing and replacing locker doors and latching mechanisms to include in maintenance manuals specified in Division 01.

1.04 QUALITY ASSURANCE

A. Uniformity and Single Manufacturer Requirements: Provide each type of metal locker as produced by a single manufacturer, including necessary mounting accessories, fittings, and fastenings.

B. All of the sheet metal parts and all major metal components used to manufacture this product to be produced in the United States of America. No exceptions will be allowed.

C. Installer/Supplier Qualifications: Installer/Suppliers, verifiably authorized and in good standing with the primary product manufacturers, with a minimum [**3**] years' experience supplying integrated access control systems similar in material, design, and scope to that indicated for this

project and whose work has resulted in construction with a proven record of successful in-service performance. Qualifications include, but are not necessarily limited, to the following:

1.05 COORDINATION

1. Access Control System & Electrical Coordination: Coordinate the layout and installation of scheduled electrified door hardware, and related access control equipment, with required connections to source power junction boxes, power supplies, detection and monitoring hardware and fire alarm system if required by the system.

   a. Access Control Hardware Sets: The hardware sets listed represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Packing and Shipping: Do not deliver metal lockers until building is enclosed and ready for locker installation.

B. Storage and Protection: Protect materials from damage during delivery, handling, storage and installation.

1.07 WARRANTY

A. Locker manufacturer shall warrant the lockers (excluding locks) for the lifetime use of the original purchaser from date of shipment. Warranty shall include all defects in material and workmanship, excluding finish, vandalism and improper installation.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturers: Subject to compliance with requirements of the Contract Documents, acceptable manufacturers are as follows.

1. DeBourgh Manufacturing Company

2.02 FABRICATION

A. Locker Construction

1. Lockers to be welded unibody construction with exposed welds sanded smooth.

2. No bolts, screws or rivets used in assembly of locker units.

3. Ship lockers set-up, ready to be anchored in place in accordance with manufacturer's instructions.

B. Body of Lockers

1. Sides and Intermediate Partitions: Exterior sides constructed of 16 gauge domestic cold rolled sheet steel for maximum durability with 18 gauge intermediate partitions. Intermediate partitions to be diamond perforated for maximum ventilation.

2. Backs: Solid sheet of 18 gauge cold rolled sheet steel welded to frames of sides and intermediate partitions.

3. Shelves and Tier Dividers: Constructed of 18 gauge cold rolled sheet steel welded to sides and intermediate partition construction. Shelves provided in lockers 60-inches and taller, located to provide a minimum of 12-inches clearance.
4. Concealed & Secure Wiring Chases: For hardwired smart lockers, provide secure chases in the body of the locker for wiring. Wiring should not be accessible by the user of the locker with the door opened or closed.

C. Continuous Door Strike
1. Tier dividers, tops and bottoms constructed to provide four-sided, continuous door strike for a secure, sanitary and intrusion-free locker while door is in closed position.

D. Doors
1. Doors are 16 gauge CRS formed outer panel with double bends on both sides and a single bend on top and bottom with 18 gauge steel formed stiffener panel.
2. Door stiffener runs top to bottom on hinge side of door and is securely welded to outer door to form a reinforced channel for additional torque-free strength and sound reduction when closing door. (Inner panel not available on 9-inch wide or box locker 12-inches high or less).

E. Door Ventilation
1. Diamond Perforated with ½-inch by 1-3/8-inch diamond perforations providing 37% ventilation per square inch.
2. Secur-N-Vent doors with three-dimensional vertical vents formed on fronts and backs of door providing 21% ventilation per square inch.
3. Solid (no ventilation).
4. Louvers at top and bottom of door, 7% ventilation.
5. OptiVent hole perforated pattern with optional contrasting color back plate.

F. Latching
1. Smart Single-Point Latching system
    a. Latching hardware is dependent on the lock type selected.

G. Locks
1. Loqit Smart Lock – Phone or RFID Access & optional PIN unlock, Hardwired, Cloud-Hosted, Software Required

H. Controllers
1. Provide controllers for the lock system specified. Controllers and/or subcontrollers are connected to the locks with CAT 5/6 cables and daisy chained in the locker runs. Controllers to be housed in accessible and protected areas built into the locker bank.

I. Terminal
1. Provide terminals for the lock system specified. Client to provide necessary power and data connections for the terminal. Provide adequate number of terminals for the site requirements. Terminal to be integrated into the locker bank.

J. Locker Management Software
1. Loqit – Locker Management System Cloud Software

K. Hinges
1. 16 gauge continuous piano hinge on the right side of the opening.
2. Hinges welded to door and riveted to locker frame.

L. Slope Tops

1. Provide 18 gauge all welded slope top with 25 degree pitch, attached at factory with concealed fasteners. Slope top to be in addition to standard 16 gauge flat top.

M. Closed Base

1. Provide 4-inch high, 14 gauge welded steel base enclosed on all four sides securely welded to locker bottom.

N. Reinforced Bottom

1. Provide 16 gauge spacer channel welded to locker bottom from front to back for a more secure installation Spacer channel to have full height ½-inch ID tube welded over anchor holes to eliminate deflection upon locker installation. Spacer channel meets all California installation seismic requirements. (When closed bases are not used).

O. Filler Panels: Manufacturer's standard fabricated from 18 gauge solid steel finished to match lockers.

P. Finish

1. Complete locker unit to be thoroughly cleaned, phosphatized and sealed.
2. Finish to be baked powder coat with a minimum 2-3 mil thickness.
3. Color of lockers shall be chosen from manufacturer's 27 standard colors.

2.03 LOCKER ACCESSORIES

A. Hooks

1. Hooks to be heavy duty forged steel with ball ends and zinc plated.
2. Provide two single ceiling hooks and one double ceiling hook in each locker opening 20-inches or taller.

B. Numbering

1. Furnish each locker with black anodized laser-etched aluminum number plate.
2. Locate number plate near center of each door.
3. Owner to furnish numbering sequence.

C. Lock Accessories

1. Contactless RFID Media: Cards, wristbands, key fobs, and other NFC connected devices.
2. Self-adhesive labels, with or without graphic symbols or numbers.

PART 3 – EXECUTION

3.01 INSTALLATION

A. Wall Installation

1. Securely anchor every locker to wall and/or floor before use.
2. Anchoring to be determined by conditions at time of installation.
3. The adjacent locker units by bolting at four points, two at top and two at bottom, using ¼-inch cadmium plated bolts.
4. Install each Gantner access control locking device in accordance with the manufacturer's instructions and recommendations.

B. Lock Installation

1. Install locking devices in accordance with manufacturer's written instructions.

2. Do not remove or replace the protective covers of products and materials.

3. Coordinate position of locking device to locker body to ensure latching mechanism works properly.

3.02 ADJUSTING

A. General Requirements: Upon completion of installation, inspect lockers and adjust for proper door and locking mechanism operation.

3.03 CLEANING

A. General Requirements

1. Clean interior and exposed exterior surfaces, removing debris, dust, dirt, and foreign door and locking mechanism operation.

2. Touch up scratches and abrasions to match original finish.

3. Polish stainless and non-ferrous metal surfaces.

4. Replace locker units that cannot be restored to factory-finished appearance.

5. Use only materials and procedures recommended or furnished by locker manufacturer.