

# ***TRUSSBILT***

## **GUIDE SPECIFICATIONS FOR DETENTION FURNISHINGS & ACCESSORIES**

**July 2005**

**Member  
Hollow Metal Manufacturers Association  
Division of the  
National Association of Architectural Metal Manufacturers**

**TRUSSBILT ISO 9001:2000 CERTIFIED**

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SECTION 11191  
DETENTION SECURITY FURNITURE/FURNISHINGS

**PART 1 - GENERAL**

**1.01 SUMMARY**

This Section includes detention security furnishings products as scheduled in the contract drawings and as specified herein.

**1.02 PRODUCTS PROVIDED UNDER THIS SECTION**

**A. Materials**

Furniture products shall be constructed from materials that meet or exceed ASTM specifications for Hot Rolled, Galvanized and Stainless steels. All materials shall be free from corrosion, scale or other imperfections that may impair appearance and/or durability of function.

**B. Welding**

All components are welded utilizing inert-gas-shielded fusion or resistance processes. Welding shall be performed by experienced welders certified to AWS D1.3. Exposed welds, as viewed from the exterior of the item, shall extend the full length of the joining edge and shall line up smooth and flush with the adjacent surfaces. Unexposed welds do not require finish grinding but shall have a good uniform appearance

**C. Finishing**

Prior to application of top coat finishes, tool marks and surface imperfections on exposed surfaces shall be dressed smooth by grinding, filling and sanding. All surfaces shall then be cleaned of rust, oil, or other impurities by receiving a multi-stage pre-treatment consisting of degrease and phosphate coating, clear water rinse and non-chromate sealer and RO water rinse, to condition the surface of the metal to inhibit corrosion and promote paint adhesion. Items shall then be prime coated as a standard with a 2 part urethane primer to a dry film thickness of 1 – 1.5 mils. (Prime coating is standard on all Trussbilt furniture.) Powder coating and other top coats are optional.

### 1.03 RELATED SECTIONS

- A. Section 03300 - - - - Cast in Place Concrete: Item(s)
- B. Section 03350 - - - - Concrete Floor Finishing: Item(s)
- C. Section 03400 - - - - Pre-cast Concrete: Item(s)
- D. Section 04200 - - - - Masonry System: Item(s)
- E. Section 09900 - - - - Painting: Item(s)

### 1.04 REFERENCES

- A. ASTM A 1008 / A 1008M-03, Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability
- B. ASTM A 1011 / A 1011M-03, Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability
- C. ASTM A 653/A 653M-02, Specification for Steel Sheet, Zinc-coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot Dipped Process, (Commercial Steel)
- D. ASTM A 666-00, Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate and Flat Bar.
- E. NAAMM HMMA 803-98, Steel Tables

ANSI                      American National Standards Institute, Inc.  
                                    25 W. 43rd Street  
                                    New York, NY 10036  
                                    Telephone: 212-642-4900      [www.ansi.org](http://www.ansi.org)

ASTM                      American Society for Testing and Materials  
                                    *Also known as ASTM International*  
                                    100 Barr Harbor Drive  
                                    West Conshohocken, PA 19428-2959  
                                    Telephone: 610-832-9585      [www.astm.org](http://www.astm.org)

NAAMM                    National Association of Architectural Metal Manufacturers  
                                    8 South Michigan Avenue  
                                    Suite 1000  
                                    Chicago, IL 60603  
                                    Telephone: 312-332-0405      [www.naamm.org](http://www.naamm.org)

## **1.05 TESTING AND PERFORMANCE**

### **A. Furniture Static Load Test**

Furniture products shall be designed to withstand 1500 pound static loads.

### **B. Test Reports**

The manufacturer shall provide test reports and documentation by an independent testing laboratory.

## **1.06 QUALITY ASSURANCE**

### **A. Manufacturer's Qualifications**

1. Manufacturer shall provide evidence of having personnel and plant equipment capable of fabricating furniture assemblies of the type specified herein. Manufacturer shall provide current documentation of the number of employees, a listing of its production equipment, and a description of its manufacturing facility.
2. Manufacturers shall be ISO 9001:2000 certified and shall be required to present its Certificate of Registration upon request. The manufacturer's registrar shall be nationally recognized and shall provide the manufacturer with periodic factory follow up audits reaffirming the manufacturer's continuing compliance with its written quality program.
3. Manufacturer's production welders shall be qualified under AWS D1.3, and upon request manufacturer shall provide copies of Welders Certifications in accordance with AWS D1.3.
4. Manufacturers shall have a minimum of ten (10) years experience successfully producing detention furnishings of the types and sizes required in the contract documents. Upon request the manufacturer shall provide a list of successfully completed projects and the dates they were completed.
5. Manufacturers shall have written reports of having passed the testing requirements of section 1.05 using its current materials and production processes.

## **1.07 SUBMITTALS**

### **A. Submittal Drawings**

1. Drawings shall show furnishings elevations and sections.
2. Drawings shall list item descriptions including locations, material thicknesses, and anchor means.

### **B. Samples (if required)**

1. All samples submitted shall be of production type and shall represent in all respects the minimum quality of work to be furnished by the manufacturer. No work represented by the samples shall be fabricated until the samples are approved, and any downgrading of quality demonstrated by the samples can be cause for rejection of the work.

### **C. Test Report**

1. Manufacturer shall submit to the architect, ten (10) days prior to bid date, an independent testing laboratory report certifying that furnishings meet the performance requirements of Paragraph 1.05 and are constructed in accordance with Paragraphs 2.01 and 2.03 of these specifications.

### **D. Qualifications**

1. Manufacturer shall submit to the architect, ten (10) days prior to bid date, its qualifications as required by Paragraph 1.06.

## **1.08 WARRANTY**

All furniture items shall be warranted from defects in workmanship and quality for a period of one (1) year from shipment.

## **PART 2 - PRODUCTS**

### **2.01 DETENTION SECURITY FURNISHINGS**

#### **A. Day Room Table with Individual Seats**

1. Trussbilt Model No.
  - a. DRT-4 (4 man) 5'-8" x 5'-8" x 30"
  - b. DRT-6 (6 man) 6'-2" x 6'-2" x 30"
  - c. DRT-8 (8 man) 8' x 4'-2" x 30"
2. Materials
  - a. Tables shall be constructed on a 3/8" base mounting plate, drilled for security fasteners.
  - b. Support columns shall be constructed of 1/4" wall tubing.
  - c. Seat support arms shall be constructed of 3"x3"x3/16" wall tubing.
  - d. Table top reinforcement plate shall be constructed of 1/4" plate steel.
  - e. Table tops shall be constructed of 12 ga. steel sheet (stainless steel optional).
  - f. Seat tops shall be constructed of 14 ga. stainless steel with a 10 ga. mild steel reinforcement. Seat tops shall be formed to have a uniform radius.
3. Construction
  - a. All components are welded utilizing inert-gas-shielded fusion or resistance processes. Welding shall be performed by experienced welders certified to AWS D1.3. Exposed welds, as viewed from the exterior of the item, will extend the full length of the joining edge and line up smooth and flush with adjacent surfaces. Unexposed welds do not require finish grinding, but have a good uniform appearance.
4. Finishing
  - a. Tool marks on exposed surfaces shall be dressed smooth. All surfaces shall be cleaned of rust, oil or other impurities.
  - b. Items shall be covered by one shop coat of primer.
  - c. Stainless steel (optional) shall have random orbital finish as standard.
  - d. Top coat finish and colors shall be supplied by others.

## **B. Day Room Table, Picnic Style with Bench Seats**

1. Trussbilt Model No.
  - a. FMPT-4 (4 man) 4' x 4'-2" x 30"
  - b. FMPT-6 (6 man) 6' x 4'-2" x 30"
  - c. FMPT-8 (8 man) 8' x 4'-2" x 30"
2. Materials
  - a. Tables shall be constructed on 1/2"x2-1/2" base mounting bars, drilled for security fasteners.
  - b. Support columns shall be constructed of 3/16" steel.
  - c. Seat support arms shall be constructed of 3/16" steel.
  - d. Table top reinforcement plate shall be constructed of 3/16" plate steel.
  - e. Table tops shall be constructed of 10 ga. steel sheet (stainless steel optional).
  - f. Seat tops shall be constructed of 10 ga. steel sheet.
3. Construction
  - a. All components shall be welded utilizing inert-gas-shielded fusion or resistance processes. Welding shall be performed by experienced welders certified to AWS D1.3. Exposed welds, as viewed from the exterior of the item, shall extend the full length of the joining edge and line up smooth and flush with adjacent surfaces. Unexposed welds do not require finish grinding, but shall have a good uniform appearance.
4. Finishing
  - a. Tool marks on exposed surfaces shall be dressed smooth. All surfaces shall be cleaned of rust, oil or other impurities.
  - b. Items shall be covered by one shop coat of primer.
  - c. Stainless steel (optional) shall have random orbital finish as standard.
  - d. Top coat finishes and colors shall be supplied by others.

### **C. Floor Mount Bunks (Single)**

1. Trussbilt Model No.
  - a. FMSB-8027 80" X 27"
2. Materials
  - a. Bed Deck shall be constructed of 10 ga. sheet.
  - b. Support legs shall be constructed of 3/16" angles.
  - c. Base mounting feet shall be constructed of 3/16" material.
3. Construction
  - a. Bed deck shall be constructed with longitudinal flange formed and hemmed full length of bunk pan. Ventilation holes (7/8") shall be punched for mattress ventilation.
  - b. Support legs shall be formed and tapered with drilled mounting pads welded for security fasteners (fasteners by others).
  - c. All components shall be welded utilizing inert-gas-shielded fusion or resistance processes. Welding shall be performed by experienced welders certified to AWS D1.3. Exposed welds, as viewed from the exterior of the item, shall extend the full length of the joining edge and line up smooth and flush with adjacent surfaces. Unexposed welds do not require finish grinding, but shall have a good uniform appearance.
4. Finishing
  - a. Tool marks on exposed surfaces shall be dressed smooth. All surfaces shall be cleaned of rust, oil or other impurities.
  - b. Items shall be covered by one shop coat of primer.
  - c. Top coat finishes and colors shall be supplied by others.

#### **D. Floor Mount Bunks (Double)**

1. Trussbilt Model No.
  - a. FMDB-8027 80" X 27"
2. Materials
  - a. Bed Deck shall be constructed of 10 ga. sheet.
  - b. Support legs shall be constructed of 3/16" angles.
  - c. Base mounting feet shall be constructed of 3/16" steel.
3. Construction
  - a. Bed deck shall be constructed with longitudinal flange formed and hemmed full length of bunk pan. Ventilation holes (7/8") shall be punched for mattress ventilation.
  - b. Support legs shall be formed and tapered with drilled mounting pads welded for security fasteners (fasteners by others).
  - c. All components shall be welded utilizing inert-gas-shielded fusion or resistance processes. Welding shall be performed by experienced welders certified to AWS D1.3. Exposed welds, as viewed from the exterior of the item, shall extend the full length of the joining edge and line up smooth and flush with adjacent surfaces. Unexposed welds do not require finish grinding, but shall have a good uniform appearance.
4. Finishing
  - a. Tool marks on exposed surfaces shall be dressed smooth. All surfaces shall be cleaned of rust, oil or other impurities.
  - b. Items shall be covered by one coat shop coat of primer.
  - c. Top coat finishes and colors shall be provided by others.

## **E. Wall Mount Bunks**

1. Trussbilt Model No.
  - a. WMB-8027 80" X 27"
2. Materials
  - a. Bed Deck shall be constructed of 10 ga. sheet.
  - b. End Plates shall be constructed of 3/16" steel.
3. Construction
  - a. Bed deck shall be constructed with longitudinal flange formed and hemmed full length of bunk pan. Ventilation holes (7/8") shall be punched for mattress ventilation. Pan shall be securely welded to end brackets.
  - b. End plates shall be mitered and formed with wall flange for mounting.
  - c. All components shall be welded utilizing inert-gas-shielded fusion or resistance processes. Welding shall be performed by experienced welders certified to AWS D1.3. Exposed welds, as viewed from the exterior of the item, shall extend the full length of the joining edge and line up smooth and flush with adjacent surfaces. Unexposed welds do not require finish grinding, but shall have a good uniform appearance.
4. Finishing
  - a. Tool marks on exposed surfaces shall be dressed smooth. All surfaces shall be cleaned of rust, oil or other impurities.
  - b. Items shall be covered by one shop coat of primer.
  - c. Top coat and colors shall be supplied by others.

## **F. Institutional Desk**

1. Trussbilt Model No.
  - a. FMD-383015
2. Materials
  - a. Desk Top shall be constructed of 10 ga. mild steel (stainless steel optional).
  - b. Desk Body shall be constructed of 12 ga. mild steel.
  - c. Seat tops shall be constructed of 14 ga. stainless steel.
3. Construction
  - a. 38" wide x 15-1/2" deep desk top shall be constructed from 10 ga. steel, flanged front and sides with up-formed back splash at rear. Front edge shall be hemmed for extra strength and safety.
  - b. 12 ga. mild steel shall be used for sides, back and shelf. Front edges of shelf shall be hemmed for extra strength and safety. 2" x 2" mechanical steel tube front legs shall be used.
  - c. Legs shall be flanged and punched for anchoring to floor (anchors by others).
  - d. 1/4" x 2" mild steel towel bar shall be provided.
  - e. 3-1/2" x 3/8" mild steel stool mast with 1/4" reinforcement gussets shall be provided.
  - f. 12" – 14 ga. stainless steel stool seat, reinforced with 10 gauge mild steel plate, 3/8" x 4" steel bar and 3/4" dia. pivot pin shall be provided.
  - g. All components shall be welded utilizing inert-gas-shielded fusion or resistance processes. Welding shall be performed by experienced welders certified to AWS D1.3. Exposed welds, as viewed from the exterior of the item, shall extend the full length of the joining edge and line up smooth and flush with adjacent surfaces. Unexposed welds do not require finish grinding, but shall have a good uniform appearance.

#### 4. Finishing

- a. Tool marks on exposed surfaces shall be dressed smooth. All surfaces shall be cleaned of rust, oil or other impurities.
- b. Items shall be covered by one shop coat of primer
- c. Stainless steel (optional) shall have random orbital finish as standard.
- d. Top coat finishes and colors shall be supplied by others.

#### **G. Wall Mounted Shelf with Collapsible Hooks**

##### 1. Trussbilt Model No.

- a. WMS-240806

##### 2. Materials

- a. Shelf shall be constructed of 10 ga. mild steel.

##### 3. Construction

- a. 24" wide x 6" tall x 8" deep heavy duty welded shelf unit shall be provided. Punched flanged mounting holes shall be provided for field welding to embeds or bolting to the wall (anchors by others).
- b. Shelf unit shall be supplied with collapsible safety hooks, with adjustable torque and non-removable tamper resistant machine screws.
- c. All components shall be welded utilizing inert-gas-shielded fusion or resistance processes. Welding shall be performed by experienced welders certified to AWS D1.3. Exposed welds, as viewed from the exterior of the item, shall extend the full length of the joining edge and line up smooth and flush with adjacent surfaces. Unexposed welds do not require finish grinding, but shall have a good uniform appearance.

##### 4. Finishing:

- a. Tool marks on exposed surfaces shall be dressed smooth. All surfaces cleaned of rust, oil or other impurities.
- b. Items covered by one shop coat of primer
- c. Stainless steel (optional) shall have random orbital finish as standard.
- d. Top coat finishes and colors shall be provided by others.

## **H. Wall Mounted Desk**

1. Trussbilt Model No.
  - a. WMD-181806
2. Materials
  - a. Desk shall be constructed of 10 ga. mild steel.
3. Construction
  - a. 18" wide x 18" deep x 6" tall heavy duty welded desk unit shall be provided. Punched flanged mounting holes shall be provided for field welding to embeds or bolting to the wall (anchors by others). One piece construction shall be used to eliminate contraband traps and hiding places.
  - b. All components shall be welded utilizing inert-gas-shielded fusion or resistance processes. Welding shall be performed by experienced welders certified to AWS D1.3. Exposed welds, as viewed from the exterior of the item, shall extend the full length of the joining edge and line up smooth and flush with adjacent surfaces. Unexposed welds do not require finish grinding, but shall have a good uniform appearance.
4. Finishing
  - a. Tool marks on exposed surfaces shall be dressed smooth. All surfaces shall be cleaned of rust, oil or other impurities.
  - b. Items shall be covered by one shop coat of primer
  - c. Stainless steel (optional) shall have random orbital finish as standard.
  - d. Top coat finishes and colors shall be supplied by others.

## **I. Wall Mounted Seat**

1. Trussbilt Model No.
  - a. WMD-181206
2. Materials
  - a. Seat shall be constructed of 10 ga. mild steel.
3. Construction
  - a. 12" wide x 18" deep x 6" tall heavy duty welded seat unit shall be provided. Punched flanged mounting holes shall be provided for field welding to embeds or bolting to the wall (anchors by others). One piece construction shall be used to eliminate contraband traps and hiding places
  - b. All components shall be welded utilizing inert-gas-shielded fusion or resistance processes. Welding shall be performed by experienced welders certified to AWS D1.3. Exposed welds, as viewed from the exterior of the item, shall extend the full length of the joining edge and line up smooth and flush with adjacent surfaces. Unexposed welds do not require finish grinding, but shall have a good uniform appearance.
4. Finishing
  - a. Tool marks on exposed surfaces shall be dressed smooth. All surfaces shall be cleaned of rust, oil or other impurities.
  - b. Items shall be covered by one shop coat of primer
  - c. Stainless steel (optional) shall have random orbital finish as standard.
  - d. Top coat finishes and colors shall be provided by others.

## **J. Mirrors and Embeds**

1. Trussbilt Model No.
  - a. WMM-1711
2. Materials
  - a. Mirror shall be constructed of 18 gauge #430 stainless steel with No. 8 mirror polish finish.
  - b. Embed shall be constructed of 3/16 plate.
3. Construction
  - a. Mirror overall dimensions shall be 17-1/4" high x 11-1/4" wide.
  - b. Mirror viewing area shall be 15-3/4" high x 9-3/4" wide.
  - c. Mirror embed plate shall be drilled and tapped to match mirror bolt holes.
  - d. Chrome plated security screws shall be supplied for bolting mirror to embed plate.
  - e. Embed plate shall be supplied with countersunk holes for anchoring (anchors by others). Optional weld studs shall be available for pre-cast applications.
  - f. All components shall be welded utilizing inert-gas-shielded fusion or resistance processes. Welding shall be performed by experienced welders certified to AWS D1.3. Exposed welds, as viewed from the exterior of the item, shall extend the full length of the joining edge and line up smooth and flush with adjacent surfaces. Unexposed welds do not require finish grinding, but shall have a good uniform appearance.
4. Finishing
  - a. Tool marks on exposed surfaces shall be dressed smooth. All surfaces shall be cleaned of rust, oil or other impurities.
  - b. Embeds shall be covered by one shop coat of primer.

## **K. Key Cabinet**

1. Trussbilt Model No.
  - a. KC-60 (60 keys)
  - b. KC-180 (180 keys)
  - c. KC-300 (300 keys)
2. Materials
  - a. Cabinet body and door shall be constructed from 10 gauge mild steel.
  - b. Interior key panels shall be constructed from 12 gauge mild steel.
  - c. Key mount brackets shall be constructed from 14 gauge mild steel.
3. Construction
  - a. Heavy duty key cabinet shall be constructed from 10 ga. steel. Size 24”tall x 16-5/8” wide x 7” deep.
  - b. 14 ga. key hook strips on interior of cabinet shall accommodate paracentric and mogul keys.
  - c. 12 ga. hinged interior panels with key hook strips (models KC-180 and KC-300) shall be added for increased key capacity.
  - d. Cabinet door shall be supplied with heavy duty continuous hinge and provision for 10 series lock (lock by others).
  - e. All components shall be welded utilizing inert-gas-shielded fusion or resistance processes. Welding shall be performed by experienced welders certified to AWS D1.3. Exposed welds, as viewed from the exterior of the item, shall extend the full length of the joining edge and line up smooth and flush with adjacent surfaces. Unexposed welds do not require finish grinding, but shall have a good uniform appearance.
4. Finishing
  - a. Tool marks on exposed surfaces shall be dressed smooth. All surfaces shall be cleaned of rust, oil or other impurities.
  - b. Items shall be covered by one shop coat primer.
  - c. Top coat finishes and colors shall be supplied by others.

## **L. Floor Mount Bench**

1. Trussbilt Model No.
  - a. FMB-7212
2. Materials
  - a. Bench top shall be constructed of 10 gauge mild steel (stainless optional).
  - b. Base shall be constructed of 3/8" mild steel.
  - c. Support tubes shall be constructed of 2-1/2" x 3/26" wall tube.
3. Construction
  - a. 72" x 12" bench top press shall be formed to provide rigidity and shall be supplied with 3/16" reinforcement plates for attaching support tubes.
  - b. Support tubes shall be welded to 6" x 6" x 3/8" base plates.
  - c. Base plates shall be supplied with 5/8" anchor bolt holes (anchors by others).
  - d. All components shall be welded utilizing inert-gas-shielded fusion or resistance processes. Welding shall be performed by experienced welders certified to AWS D1.3. Exposed welds, as viewed from the exterior of the item, shall extend the full length of the joining edge and line up smooth and flush with adjacent surfaces. Unexposed welds do not require finish grinding, but shall have a good uniform appearance.
4. Finishing
  - a. Tool marks on exposed surfaces shall be dressed smooth. All surfaces shall be cleaned of rust, oil or other impurities.
  - b. Items shall be covered by one shop coat primer.
  - c. Stainless steel (optional) shall have random orbital finish as standard.
  - d. Top coat finishes and colors shall be supplied by others.

## **M. Floor Mount Stool**

1. Trussbilt Model No.
  - a. FMS-1812
2. Materials
  - a. Stool seat shall be constructed of 14 gauge stainless steel.
  - b. Base shall be constructed of 3/8" mild steel.
  - c. Support tubes shall be constructed of 2-1/2" x 3/26" wall tube.
3. Construction
  - a. 14 ga, stainless steel stool seat shall be drawn to create a uniform radius around the perimeter edge and shall be reinforced with a 10 ga. mild steel plate for mounting to support tube.
  - b. 2-1/2" support tubes shall be welded to 6" x 6" x 3/8" base plates.
  - c. Base plates shall be supplied with 5/8" anchor bolt holes (anchors by others).
  - d. All components shall be welded utilizing inert-gas-shielded fusion or resistance processes. Welding shall be performed by experienced welders certified to AWS D1.3. Exposed welds, as viewed from the exterior of the item, shall extend the full length of the joining edge and line up smooth and flush with adjacent surfaces. Unexposed welds do not require finish grinding, but shall have a good uniform appearance.
4. Finishing
  - a. Tool marks on exposed surfaces shall be dressed smooth. All surfaces shall be cleaned of rust, oil or other impurities.
  - b. Items shall be covered by one shop coat primer.
  - c. Stainless steel (optional) shall have random orbital finish as standard.
  - d. Top coat finishes and colors shall be supplied by others.

END OF SECTION