

SECTION 12315

MANUFACTURED TABLE SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes factory-assembled metal table units.
- B. Related Sections include the following:
 - 1. Division 11 Section "Laboratory Fume Hoods" for manufactured laboratory fume hoods.
 - 2. Division 12 Section "Painted Steel Laboratory Casework" for manufactured laboratory casework and countertops.
 - 3. Division 12 Section "Stainless Steel Laboratory Casework" for manufactured laboratory casework and countertops.
 - 4. Division 12 Section "Manufactured Wood Casework" for manufactured wood casework and countertops.
 - 5. Division 12 Section "Manufactured Plastic Laminate Casework" for manufactured plastic laminate casework and countertops.

1.2 PERFORMANCE REQUIREMENTS

- A. Static Load Performance of Table Units: Design table units to withstand the maximum static loads indicated without causing deformation or tipping of the table.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Selection: Manufacturer's color charts showing the full range of colors, textures, and patterns available for each type of material exposed to view.
 - 1. Color chart for table finish, casework finish and edge treatments.
 - 2. Plastic laminate for countertops and shelving, 2 by 3 inches (50 by 75 mm).
 - 3. One unit of each type of exposed hardware.
- C. Maintenance Data: For countertops and finishes to include in maintenance manuals specified in Division 1.
- D. Warranties: Special warranties specified in this Section.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm experienced in manufacturing table units similar to those indicated for this Project and with a record of successful in-service performance.

- B. Source Limitations for Cabinets: Obtain tables through one source from a single manufacturer.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver tables until painting and similar operations that could damage, soil, or deteriorate units have been completed in installation areas.
- B. Protect finished surfaces from soiling and damage during handling and installation. Keep covered with polyethylene film or other protective covering.
- C. Deliver factory-assembled units.

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install table systems until building is enclosed, wet-work is complete, and HVAC system is operating and will maintain temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Field Measurements: Where laboratory casework is indicated to fit to existing construction, verify dimensions of existing construction by field measurements before fabrication and indicate measurements on Shop Drawings.

1.7 WARRANTY

- A. General Warranty: Special warranty specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Special Warranty: Written warranty, executed by manufacturer agreeing to repair or replace components of table systems that fail in materials or workmanship within specified warranty period.
 - 1. One year from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by the following:
 - 1. Cambridge Series by New England Laboratory Casework Co., Inc. 781-932-9980. www.newenglandlab.com email info@newenglandlab.com
 - 2.

2.2 TABLE SYSTEMS

- A. Style 100 Standard Standing Height Workstation: 36 inch high units as follows:
 - 1. Construction: All-welded construction of 16 gage apron and 2 inch square tubing creating a full perimeter frame capable of supporting an evenly distributed 1,000 pound load.
 - 2. Legs: 16 gage, 2 inch square tubing with adjustable levelers.
 - 3. Intermediate Hanging Rail: 16 gage steel for suspended cabinet installation.
 - 4. Lower Cross Members: 16 gage, 1-1/2 inch square steel tubing.
 - a. Cross Rail Location: [Rear.] [Center.] [Specify]
 - 5. Work Surface: [Plastic Laminate.] [Epoxy Resin.] [Phenolic Resin.] [Stainless Steel.] [Maple.]

- B. Style 110: Standard Sitting Height Workstation: 30 inch high units as follows:
 - 1. Construction: All-welded construction of 16 gage apron and 2 inch square tubing creating a full perimeter frame capable of supporting an evenly distributed 1,000 pound load.
 - 2. Legs: 16 gage, 2 inch square tubing with adjustable levelers.
 - 3. Intermediate Hanging Rail: 16 gage steel for suspended cabinet installation.
 - 4. Lower Cross Members: 16 gage, 1-1/2 inch square steel tubing.
 - a. Cross Rail Location: [Rear.] [Center.] [Specify]
 - 5. Work Surface: [Plastic Laminate.] [Epoxy Resin.] [Phenolic Resin.] [Stainless Steel.] [Maple.]

- C. Style 200: Cantilevered Standing Height Workstation: 36 inch high units as follows:
 - 1. Construction: All-welded construction of 16 gage apron and 2 inch square tubing creating a cantilevered frame capable of supporting an evenly distributed 500 pound load. Provide 14 gage, 2 inch square bottom frame with adjustable levelers.
 - 2. Intermediate Hanging Rail: 16 gage steel for suspended cabinet installation.
 - 3. Work Surface: [Plastic Laminate.] [Epoxy Resin.] [Phenolic Resin.] [Stainless Steel.] [Maple.]

- D. Style 210: Cantilever Sitting Height Workstation: 30 inch high units as follows:
 - 1. Construction: All-welded construction of 16 gage apron and 2 inch square tubing creating a cantilevered frame capable of supporting an evenly distributed 500 pound load. Provide 14 gage, 2 inch square bottom frame with adjustable levelers.
 - 2. Intermediate Hanging Rail: 16 gage steel for suspended cabinet installation.
 - 3. Work Surface: [Plastic Laminate.] [Epoxy Resin.] [Phenolic Resin.] [Stainless Steel.] [Maple.]

- E. Style 400: Hydraulic Workstation H Frame:
 - 1. Construction: All-welded construction of 16 gage apron and 2 inch square tubing creating a full perimeter frame capable of supporting an evenly distributed 1,000 pound load.
 - 2. Legs: 2 inch square tubing with hand-crank, hydraulic leveling mechanism and elastomer floor contacts. Provide height adjustment from 30 to 42 inches.
 - 3. Intermediate Hanging Rail: 16 gage steel for suspended cabinet installation.
 - 4. Cross Members: 16 gage, 1-1/2 inch square steel tubing.
 - a. Cross Rail Location: [Rear.] [Center.] [Specify]
 - 5. Work Surface: [Plastic Laminate.] [Epoxy Resin.] [Phenolic Resin.] [Stainless Steel.] [Maple.]

- F. Style 450: Hydraulic Workstation C Frame:

1. Construction: All-welded construction of 16 gage apron and 2 inch square tubing creating a cantilevered frame capable of supporting an evenly distributed 500 pound load.
 2. Legs: 2 inch square tubing with hand-crank, hydraulic leveling mechanism and elastomer floor contacts. Provide height adjustment from 30 to 42 inches.
 3. Intermediate Hanging Rail: 16 gage steel for suspended cabinet installation.
 4. Cross Members: 16 gage, 1-1/2 inch square steel tubing.
 - a. Cross Rail Location: [Rear.] [Center.] [Specify]
 5. Work Surface: [Plastic Laminate.] [Epoxy Resin.] [Phenolic Resin.] [Stainless Steel.] [Maple.]
- G. Style 500: Adjustable Height Workstation:
1. Construction: All-welded construction of 16 gage apron and 2 inch square tubing creating a full perimeter frame capable of supporting and evenly distributed 1,000 pound load.
 2. Legs: 16 gage, 2 inch square exterior tubing with interior sliding tubing, [perforated] [threaded] at 1 inch increments for [pushpin] [bolt] height adjustment. Provide adjustable levelers on bottom of legs. Provide 12 inch height adjustment from 30 to 42 inches.
 3. Intermediate Hanging Rail: 16 gage steel for suspended cabinet installation.
 4. Lower Cross Members: 16 gage, 1-1/2 inch square steel tubing.
 - a. Cross Rail Location: [Rear.] [Center.] [Specify]
 - b. Cross members welded to exterior steel tubing.
 5. Work Surface: [Plastic Laminate.] [Epoxy Resin.] [Phenolic Resin.] [Stainless Steel.] [Maple.]
- H. Style 550: Adjustable Height Workstation:
1. Construction: All-welded construction of 16 gage apron and 2 inch square tubing creating a cantilevered frame capable of supporting and evenly distributed 500 pound load.
 2. Legs: 16 gage, 2 inch square exterior tubing with interior sliding tubing, [perforated] [threaded] at 1 inch increments for [pushpin] [bolt] height adjustment. Provide adjustable levelers on bottom of legs. Provide 12 inch height adjustment from 30 to 42 inches.
 3. Intermediate Hanging Rail: 16 gage steel for suspended cabinet installation.
 4. Lower Cross Members: 16 gage, 1-1/2 inch square steel tubing.
 - a. Cross Rail Location: [Rear.] [Center.] [Specify]
 - b. Cross members welded to exterior steel tubing.
 5. Work Surface: [Plastic Laminate.] [Epoxy Resin.] [Phenolic Resin.] [Stainless Steel.] [Maple.]
- I. Style 500 TOD (quickship table): Adjustable Height Workstation:
1. Construction: All-welded construction of 16 gage apron and 2 inch square tubing creating a full perimeter frame capable of supporting and evenly distributed 1,000 pound load.
 2. Legs: 16 gage, 2 inch square exterior tubing with interior sliding tubing, threaded at 1 inch increments for dual bolt height adjustment. Threaded insert for interchangeable casters and levelers shall be welded to the bottom of the table legs.
 3. Provide adjustment that allows for 30 to 37 inch table heights while on casters or levelers. Casters and levelers shall be interchangeable without affecting table height adjustment range.

4. Provide Casters: 4 by 1-1/4 inch polyurethane wheels with dual locking mechanism for locking both swivel and wheel. Provide caster with 250 pound load capacity per caster.
5. Provide 4 adjustable levelers loose for installation by owner.
6. Intermediate Hanging Rail: 16 gage steel for suspended cabinet installation.
7. Lower Cross Members: 16 gage, 1-1/2 inch square steel tubing.
 - a. Cross Rail Location: [Rear.] [Center.] [Specify]
 - b. Cross members welded to exterior steel tubing.
8. Work Surface: [Plastic Laminate.] [Epoxy Resin.] [Phenolic Resin.] [Stainless Steel.] [Maple.]

2.3 WORK SURFACES

- A. Plastic Laminate Work Surface: 1-1/8 inch thick medium density particleboard core with .050 inch thick high-pressure laminate on top surface, phenolic backer sheet, and [T-mold] [self edge] [3 mm PVC] [90 degree bullnose] [180 degree bullnose] edge treatment. Laminate color as selected by the Architect from manufacturer's standard options.
- B. Epoxy Resin Work Surface: 1 inch thick, [black onyx,] [grey,] [alpine white,] [tan,] [steel blue,] [forest green,] [graphite,] [pacific blue,] [khaki,] [Palo Duro Durastone,] [Table Rock Durastone,] factory molded of DURCON modified epoxy-resin formulation, uniform mixture throughout full thickness with smooth, non-glare finish. Finish edges with a [1/8 inch bevel] [3/16 inch radius] and drip groove. [Provide Greenstone epoxy with recycled content]
- C. Phenolic Work Surface: [3/4 inch] [1 inch] thick phenolic resin sheet. Monolithic panel made from kraft paper saturated in phenolic resin that is heated, compressed and finished on both side. Color as selected by Architect from manufacturer's standard options.
 1. Polished black edges finished with a [bullnose.] [1/8 inch bevel.] [3/16 inch radius.]
- D. Stainless Steel Work Surface: Type 304 stainless steel tops and working surfaces with #4 finish, unless otherwise specified. Provide 16 gauge stainless steel on all exposed surfaces, reinforced on the underside by 16 gauge galvanized steel channels, so spaced as to prevent twisting, oil-canning or buckling. Form exposed edges of tops into a 1 1/4" thick channel shape. After fabrication and polishing, give the surfaces of the tops a strippable protective coating to protect the tops during shipment and installation. Coat the underside of tops with a sound deadener.
- E. Butcher Block Work Surface: Rock-hard, edge grained laminated maple, electronically bonded together utilizing controlled pressure and resin adhesives.
 1. Thickness: [1-3/4 inch.] [2-1-4 inch.] [3 inch.]
 2. Edge Style: [Straight.] [Radius edge.] [Bullnose edge.]
 3. Finish: Dura Kryl 102, acrylic wear-resistant wood finish.

2.4 ACCESSORIES

- A. Casters: 4 by 1-1/4 inch polyurethane wheels with dual locking mechanism for locking both swivel and wheel. Provide caster with 250 pound load capacity per caster.
- B. Vertical Uprights: Construct of 1-5/8 inch by 1-5/8 inch by 12 gage channel. Bolt to rear legs of workstation to provide infinite adjustment of accessories above the work surface.
- C. Flat Overhead Shelf: Provide shelf consisting of the following:
 - 1. [3/4] [1] [1-1/8] inch thick medium density particleboard core with high-pressure laminate surface and melamine backer sheet with [T-mold] [self edge] [3 mm PVC] edge treatment.
 - 2. [3/4] [1] inch thick, [black onyx,] [grey,] [alpine white,] [tan,] [steel blue,] [forest green,] [graphite,] [pacific blue,] [khaki,] [Palo Duro Durastone,] [Table Rock Durastone,] factory molded of DURCON modified epoxy-resin formulation, uniform mixture throughout full thickness with smooth, non-glare finish. Finish edges with a [1/8 inch bevel.] [3/16 inch radius.] [Provide Greenstone epoxy with recycled content]
 - 3. [3/4 inch] [1 inch] thick phenolic resin sheet. Monolithic panel made from kraft paper saturated in phenolic resin that is heated, compressed and finished on both side. Color as selected by Architect from manufacturer's standard options.
 - a. Polished black edges finished with a [bullnose.] [1/8 inch bevel.] [3/16 inch radius.]
 - 4. [1] [1-1/4] inch thick formed stainless steel.
 - 5. Provide heavy-duty welded steel support frame with infinite adjustment to vertical uprights.
 - a. Welded "I" frame shelf support constructed of 1-1/2 inch, 16 gage, square steel tubing and 1-1/2 by 1-1/2 by 1/8 inch steel angle with 1/4 inch thick attachment plates.
- D. Sloped Overhead Shelf: Provide shelf consisting of the following:
 - 1. [3/4] [1] [1-1/8] inch thick medium density particleboard core with high-pressure laminate surface and melamine backer sheet with [T-mold] [self edge] [3 mm PVC] edge treatment.
 - 2. [3/4] [1] inch thick, [black onyx,] [grey,] [alpine white,] [tan,] [steel blue,] [forest green,] [graphite,] [pacific blue,] [khaki,] [Palo Duro Durastone,] [Table Rock Durastone,] factory molded of DURCON modified epoxy-resin formulation, uniform mixture throughout full thickness with smooth, non-glare finish. Finish edges with a [1/8 inch bevel.] [3/16 inch radius.] [Provide Greenstone epoxy with recycled content]
 - 3. [3/4 inch] [1 inch] thick phenolic resin sheet. Monolithic panel made from kraft paper saturated in phenolic resin that is heated, compressed and finished on both side. Color as selected by Architect from manufacturer's standard options.
 - a. Polished black edges finished with a [bullnose.] [1/8 inch bevel.] [3/16 inch radius.]
 - 4. [1] [1-1/4] inch thick formed stainless steel.
 - 5. Provide heavy-duty welded steel support frame with infinite adjustment to vertical uprights.
 - a. Welded "I" frame shelf support constructed of 1-1/2 inch, 16 gage, square steel tubing and 1-1/2 by 1-1/2 by 1/8 inch steel angle with 1/4 inch thick attachment plates.
- E. Lower Shelf: 12 inch deep shelf consisting of the following:

1. [3/4] [1] [1-1/8] inch thick medium density particleboard core with high-pressure laminate surface and melamine backer sheet with [T-mold] [self edge] [3 mm PVC] edge treatment.
 2. [3/4] [1] inch thick, [black onyx,] [grey,] [alpine white,] [tan,] [steel blue,] [forest green,] [graphite,] [pacific blue,] [khaki,] [Palo Duro Durastone,] [Table Rock Durastone,] factory molded of DURCON modified epoxy-resin formulation, uniform mixture throughout full thickness with smooth, non-glare finish. Finish edges with a [1/8 inch bevel.] [3/16 inch radius.] [Provide Greenstone epoxy with recycled content]
 3. [3/4 inch] [1 inch] thick phenolic resin sheet. Monolithic panel made from kraft paper saturated in phenolic resin that is heated, compressed and finished on both side. Color as selected by Architect from manufacturer's standard options.
 - a. Polished black edges finished with a [bullnose.] [1/8 inch bevel.] [3/16 inch radius.]
 4. [1] [1-1/4] inch thick formed stainless steel.
 5. Provide heavy-duty welded steel support frame with infinite adjustment to vertical uprights.
- F. Full Depth Lower Shelf: Full depth shelf consisting of the following:
1. [3/4] [1] [1-1/8] inch thick medium density particleboard core with high-pressure laminate surface and melamine backer sheet with [T-mold] [self edge] [3 mm PVC] edge treatment.
 2. [3/4] [1] inch thick, [black onyx,] [grey,] [alpine white,] [tan,] [steel blue,] [forest green,] [graphite,] [pacific blue,] [khaki,] [Palo Duro Durastone,] [Table Rock Durastone,] factory molded of DURCON modified epoxy-resin formulation, uniform mixture throughout full thickness with smooth, non-glare finish. Finish edges with a [1/8 inch bevel.] [3/16 inch radius.] [Provide Greenstone epoxy with recycled content]
 3. [3/4 inch] [1 inch] thick phenolic resin sheet. Monolithic panel made from kraft paper saturated in phenolic resin that is heated, compressed and finished on both side. Color as selected by Architect from manufacturer's standard options.
 - a. Polished black edges finished with a [bullnose.] [1/8 inch bevel.] [3/16 inch radius.]
 4. [1] [1-1/4] inch thick formed stainless steel.
 5. Provide heavy-duty welded steel support frame with infinite adjustment to vertical uprights.
- G. Tubular Instrument Shelf: 10 inch deep, shelf consisting of the following:
1. [3/4] [1] [1-1/8] inch thick medium density particleboard core with high-pressure laminate surface and melamine backer sheet with [T-mold] [self edge] [3 mm PVC] edge treatment.
 2. [3/4] [1] inch thick, [black onyx,] [grey,] [alpine white,] [tan,] [steel blue,] [forest green,] [graphite,] [pacific blue,] [khaki,] [Palo Duro Durastone,] [Table Rock Durastone,] factory molded of DURCON modified epoxy-resin formulation, uniform mixture throughout full thickness with smooth, non-glare finish. Finish edges with a [1/8 inch bevel.] [3/16 inch radius.] [Provide Greenstone epoxy with recycled content]
 3. [3/4 inch] [1 inch] thick phenolic resin sheet. Monolithic panel made from kraft paper saturated in phenolic resin that is heated, compressed and finished on both side. Color as selected by Architect from manufacturer's standard options.
 - a. Polished black edges finished with a [bullnose.] [1/8 inch bevel.] [3/16 inch radius.]
 4. [1] [1-1/4] inch thick formed stainless steel.

- 5. Provide 16 gage, 1-1/2 inch square, welded steel support frame with 1-1/2 by 1-1/2 by 1/8 inch angle cross member.
- H. Modesty Panel: 1 inch thick medium density particleboard core with melamine laminate surface each side and T-mold edges. Fasten to rear legs of table unit.
- I. Light Frame Assembly: Dual-bulb light fixture with on/off switch and 9 foot power cord mounted to heavy-duty welded steel support frame with infinite adjustment on vertical uprights.
- J. Task Light: Dual-bulb light fixture with on/off switch and 6 foot power cord. Can be mounted to the underside of any shelf.
- K. Electrical Strip Assembly: 15 amp, 125 volt, electrical strip with on/off switch, circuit breaker, power indicator light and 6 foot power cord. Mount to heavy-duty mounting rail with infinite adjustment on vertical uprights. Color grey.
- L. Book Stop Rail: 16-gage, formed steel mounted to uprights at desired height above shelf.
- M. Shelf Ledger: 16 gage angle mounted to underside of shelf for retaining objects.
- N. Book Ends: 10 inch deep, 13 gage, painted steel fastened to the bottom of shelf.
- O. Monitor Arm: 13 by 13 inch tray with 360 degree swivel rotation and a heavy-duty steel support frame with dual pivot arm assembly mounted to upright capable of supporting 40 pounds.
 - 1. Keyboard Tray: Provide optional clip-on keyboard tray.
- P. Keyboard Tray: Provide pull-out, 23 by 11 inch keyboard platform with 7 inch height adjustment, 360 degree swivel, and +15/-15 degree tilt adjustment.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Install in locations indicated on the drawings.

3.2 ADJUSTING AND CLEANING

- A. Verify that operating parts work freely and fit neatly. Adjust and lubricate hardware and moving parts.
- B. After completing unit installation, including accessories, inspect exposed finish. Remove protective coverings, if any, and clean exterior and interior of units.
- C. Repair or replace damaged parts, dents, buckles, abrasions, and other defects affecting appearance or serviceability so table units are in an acceptable condition at time of Substantial Completion.

END OF SECTION 12315