

**SPECIFICATION
FOR
TABLES, COMPUTER, CLASSROOM**

(This specification is released for procurement purposes until revised or rescinded)

I. SCOPE

The intent of this specification is to define the product requirements and the subsequent procedures for obtaining a Qualified Products Listing (QPL). After the products have been approved, the model or series number will be shown on a separate document QPL-7110-13 (latest revision) which will be used as the sole approval source for products covered by the Invitation for Bid (IFB).

This specification establishes requirements for Economy tables that can be used for computer terminal placement in school and college classrooms, and institutions. These tables meet the need for a economical simple, clean work surface with limited wire containment.

These products are not considered part of a modular workstation group that is typically used in an office environment. No peripheral matching components are covered. For modular computer workstation requirements see term contract number 408 or specification number 7105-3 (latest revision).

There are three basic types of table configurations covered in this specification.

1. Pedestal Base
2. Leg base with apron and leg brace
3. Panel Base

II. APPLICABLE SPECIFICATIONS AND STANDARDS

Reference to specifications, standards, test methods, and other documents shall be to the issues in effect on the date of the IFB. Copies of the referenced documents may be obtained from the issuing organizations. The following documents and / or publications form a part of this specification to the extent specified herein:

NEMA (NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION)

LD-3 - High Pressure Laminate.

ANSI

1. ANSI A208.1 - Particleboard.
2. ANSI/HPMA HP - Hardwood and Decorative Plywood.
3. ANSI A208.2 – Medium Density Fiberboard (MDF)

III. CLASSIFICATION

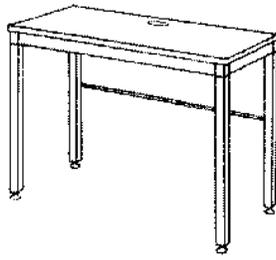
- A. General purpose tables covered by this specification shall be classified as follows:

Type I DOUBLE PEDESTAL, FIXED HEIGHT, WITH GROMMETS IN TOP
Type Ia DOUBLE PEDESTAL, FIXED HEIGHT, WITH FLIPPER LID
Type II APRON & CORNER BRACED, WITH GROMMETS IN TOP
Type IIa APRON & CORNER BRACED, WITH FLIPPER LID
Type III PANEL END, FIXED HEIGHT, WITH GROMMETS IN TOP

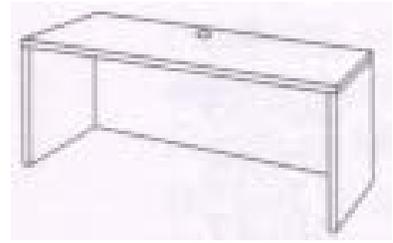
Type IIIa PANEL END, FIXED HEIGHT, WITH FLIPPER LID



Type I



Type II



Type III

- B. A type may be approved, placed on the QPL, and identified by a Series Number when the basic table design and construction is the same, with the variation being the size and shape of the top. Vendor to specify sizes of the table top available within the Series designation. If a manufacturer's Series Number includes other furniture than tables as described herein, those "other" items are not included in this listing. Approval of the tables within a series does not indicate that the other furniture is also approved or listed. If a Series number is not available each item part number shall be listed. The actual sizes required are to be specified in the IFB.
- C. The tables defined in this document are intended to cover the need for an economy table, with built in cable tray, for computer placement in classrooms. The defined product requirements herein are not intended to include all varieties of the commodity as indicated by the title of this document, or which may be commercially available, but is intended to cover only those commonly used by state agencies and the public schools. Listing of a product is not intended to and does not connote endorsement of the product by the state.
- D. All tables offered shall be new and the latest production model as represented in the Manufacturer's current published literature intended for the general public. The specific configuration, construction and materials must be represented in such literature. The basic table offered must meet all of the requirements of this specification without the addition of any manufacturer's published optional "add-ons". Tables that fail to meet these requirements will be rejected.

IV. REQUIREMENTS

A. General

1. This specification covers Computer Terminal Tables with the top surface shaped primarily rectangular. Other geometric top surface shapes can be provided to enable small satellite table groupings. These tops are supported by 3 types of leg or leg support structures (Type I Double Pedestal, fixed height. Type II Leg base with apron, Type III End panel, fixed height).
2. The height of the table is defined as the distance from the floor to the top surface of the table measured perpendicular to the floor. Fixed height tables shall be not less than 25 inches and not greater than 30 inches. A modesty panel shall be available for all Double Pedestal and Apron and Corner Braced types. Slots or holes (with grommets) machined in the top work surface, or flipper lids, shall be provided as specified in the CLASSIFICATION section for the particular category.
3. The construction shall be the manufacturer's standard and shall not be altered specifically for the State of North Carolina.
4. "Cam-lock" fastening devices are not permitted in the construction of computer tables specified herein.

B. Type I, Double Pedestal

1. The Double Pedestal table is defined as a table supported by two pedestals coupled together with a lateral beam member. Each pedestal has its own base which has horizontal "feet". These "feet" must provide stability, and prevent the table from tipping over with the added weight of Computer equipment. The Pedestals shall be fixed (non adjustable height).

2. The size, sectional modulus and gauge thickness of the metal used in the manufacture of the pedestals, base, feet and attaching interface structure shall be designed to provide a stable, rigid, and non-racking table under normal classroom use. The "feet" shall be welded to the upright member/s. A modesty panel shall be provided.

C. Type II, Leg Base with Apron

1. The Leg base, with apron, table is defined as a table supported by legs constructed from tubular steel with a peripheral sheet metal apron attached to the legs and the under side of the table top.
2. The legs shall be a straight or tapered type, and of fixed height. The size, sectional modulus and gauge thickness of the leg/apron structure shall be designed to provide a stable, rigid, and non-racking table under normal classroom use. A modesty panel shall be provided.

D. Type III, Panel End

1. Support End Panels shall be a minimum of 3/4" in thickness (minimum).
2. The core material of the end panel shall be either: Particle board (minimum density of 45 lb. cu. ft.) or, Multiple ply plywood or, Lumber core, or Fiberboard (minimum density of 45 lb. cu. ft.)
3. End Panel surfaces shall be finished with either: High pressure plastic laminate, minimum NEMA GP28 (0.28" thick), or Low pressure plastic laminate. Both faces of end panels shall be treated as decorative surfaces therefore they shall be laminated with the finish plastic. Banding or edging used on end panel edges shall be flush with the top surface of the table, unless raised end panels are used.
4. Modesty panel shall be 1/2" inch thickness (minimum) manufactured from the same material as the end panels.
5. Exposed core material is not permitted. All bottom edges of the modesty panel and leg panels shall be sealed with appropriate edging material to prevent moisture penetration of the core material.

E. Table Top (Applies to all table types)

1. The table top surface shape shall be rectangular. Optional geometric shapes may be made available. The minimum effective depth shall be 24" (nominal) (Not including flipper lids, when used).
2. The top shall be 1" thickness (minimum) particle board (45 Lb. per cu ft. minimum), or plywood core with high pressure plastic laminate finish.
3. The edges shall be shaped and rounded. The top surface shall resist stains, scratches, burns, and be non-porous.
4. Table tops shall have laminated construction consisting of HPL decorative plastic surface, complying with NEMA GP28 (0.028" thick minimum). Low pressure laminate (LPL) is not acceptable. The underside shall have a backing sheet.
5. The edges of the table shall be protected by a durable edging securely glued in place. If "T" or "Bull Nose" molding is used, the molding shall be pinned or secured in addition to the self locking feature to provide an extra precaution against "pull out". Vulnerable areas such as corners and peripheral joins must be provided with this extra precautionary feature. An acceptable alternative method of protecting the table edge is to postform the high pressure laminate top over a radiused edge. Solid hardwood edge banding is also acceptable.
6. Top deflection shall be kept to a minimum. Rectangular tables, 60 inches or greater in length shall be equipped with a metal stretcher for longitudinal support or an alternate means of preventing worksurface sag. The apron on tables (Type II) can provide this longitudinal support if designed for the application.
7. The table top to leg support structure attachment method shall be so designed to provide a strong solid union that will not loosen under normal classroom use. The hardware (screws) for attaching the leg or support

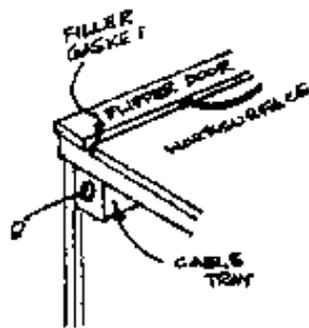
mounting plates to a top constructed from particle board must be of the type specially designed for use with particle board (Wood screws are not permitted). Another acceptable method is threaded metal inserts imbedded into the underside of the table top.

8. The table can be provided with a printer paper feed slot (2" x 17" inches (nominal)) as an option. The slot shall have a rubber or plastic grommet to protect the paper. Option to be specified in the Invitation for Bid.

F. Cable Management

The tables shall be provided with built in Cable Management Trays running the approximate full length of the table. They shall provide a minimum of 15 sq. in. of cable storage (when viewed from the end of the tray). They shall be 5" deep minimum inside dimensions. They must be of sturdy and rugged construction, free from sharp edges. If the trays have closed ends they must have a plastic grommet (in each end) for cable access. If the tray has open ends, the ends must have grommets, or other means, to protect the cables from damage. Cable "pass-thru" grommets are required in end panels of Type III & IIIa tables.

Cables from the computers and their peripherals shall access the cable tray through either, grommets located in the table top or a continuous flipper type hinged lid (Type identified by a suffix "a") built into the worksurface top (See sketch below).



Sketch shown to represent the "Flipper hinged lid" and cable tray arrangement.

On the latter, the slot between the lid and the worksurface shall have a flexible filler gasket to prevent debris from falling into the tray while still allowing cables to pass through. The gasket material shall be rugged, bonded and/or pinned to prevent pullout as experienced in a classroom environment.

All edges of the lid and adjacent table top shall be sealed with the appropriate edging to prevent moisture penetration of the core material. The flipper door hinges shall be hidden. Hinges shall be of the "European", or "Apron" type. A minimum of three (3) hinges are required on tables 60" or greater in length. These tables shall have the capability of being placed side by side (in groups) for "flow-through" cabling to adjacent tables.

The cable tray shall be located under the table top (front). The tray design and finishes shall be compatible with the table design and finish. The cable tray shall be a minimum of 5" deep. Electrical outlets are not required.

G. Glides (Applies to all Table Types)

Glides shall be steel-cushioned, or nylon, or all steel, and or be of the "boot" (ferrule) design. There shall be a minimum of one retaining clip or heavy duty pressure ring holding the booted glide within the leg tubing. Glides shall have a self leveling swivel design. The outside diameter of the glide pad that contacts the floor shall be one (1) inch minimum. Glide inserts shall not be removable without the use of special tools. If glides are inserted into particleboard or fiberboard re-enforcement must be provided to prevent pull out.

H. Finish (Metal Parts)

1. All metal colors and finishes shall be the manufacturer's standard. All metal finishes shall be compatible with the table top colors.

2. All painted surfaces shall be thoroughly cleaned and free of dirt, oil, grease, moisture, or other foreign matter prior to painting. After cleaning, the frame shall be coated with a paint- bond coating and a rust inhibitor compatible with the top or finish coat. The finish coat shall consist of a high temperature enamel applied and baked in accordance with the paint manufacturer's recommendations (or the manufacturer's standard acrylic/epoxy based enamel coating of comparable quality). The enamel shall be the non chipping type. There shall be no indication of rust or decay under the coating. An equivalent thermoset epoxy resin dry powder coating, electrostatically applied, shall also be acceptable.
3. All electroplated chrome finishes shall be in accordance with best industry standards for electrical and chemical cleaning processes. Chrome shall be plated over a Nickel base. The chrome shall be corrosion and chip resistant.

I. Optional Accessories

Book Boxes: Single, double, or triple book boxes may be required. They must be of sturdy metal construction and attached to the underside of the table top with appropriate mechanical fasteners. The book box design and finishes shall be compatible with the table design and finish. This option is to be specified in the IFB.

V. SAMPLING AND INSPECTION

Products furnished under this specification may be inspected by, or at the direction of the Inspection section and/or the ordering State Agency, Institution, college or Public school either at the destination or place of manufacture. Random samples of delivered items may be selected and checked for compliance with this specification. If it is found that the product does not meet the requirements of this specification, the Division of Purchase and Contract may proceed as stipulated in the Terms and Conditions of the bid.

VI. WARRANTY AND SERVICE

All products shall be guaranteed against defects in materials, workmanship, and performance for a minimum of TWO YEARS. The Warranty shall begin on the date of acceptance of the product by the ordering agency. During this Warranty period, the vendor shall repair or replace defective material, components, or units at no cost to the user or his representative (this shall include round trip travel and freight to users site).

The Vendor shall Guarantee that the product will be a standard and item in the manufacturer's product line. The basic product shall be identifiable by regular catalogue numbers in the manufacturer's published literature and price list.

Factory authorized service shall be available statewide within the State of North Carolina. An adequate supply of parts shall be made available to the State for the expected life of the products covered by this specification. Refer to the IFB for any additional requirements.

VII. PACKAGING / SHIPPING

All tables covered by this specification shall be shipped fully assembled and ready for use.

Packaging for shipment shall be in accordance with the best industry practice and in a manner readily accepted by common carriers engaged in interstate commerce. Within the shipping carton, the units shall be packed in a manner designed to eliminate damage during shipment due to rough or improper handling.

VIII. ORDERING DATA (For Purchase & Contract Use Only)

Purchaser should specify the following in the Invitation for Bids:

1. Title, Number, Date of this specification.
2. Classification (type) of the unit desired.
3. Height of table.
4. Table Top sizes.
5. Optional Book Box(s).
6. If legs on types II and IIa are to be fixed, or adjustable height

X. QUALIFICATION

A. General

The previous paragraphs have defined the requirements for the products needed by the State of North Carolina. This Qualification section details the procedures for getting a product listed on the QPL.

An application for adding or changing a product on the QPL shall be initiated by the applicant and made in writing to the Standards Section, Div. of Purchase and Contract, 116 West Jones St. Raleigh, N.C. 27603-8002.

The application shall include, the description the product and model number, the applicable line item that you wish to have your product listed, illustrations and complete specifications of the product. This shall be submitted not less than 120 days prior to the original expiration date of the current Term Contract.

A review of the product sample by an advisory committee must be completed and the product approved prior to the product being listed.

Instructions for furnishing samples will be given after receipt of the application.

B. Detail Check List for Application (QPL)

1. Verify that the design of your product "fits" a Type shown in the Classification section of this document and complies fully with the design requirements. A copy of this document can be obtained, by request, from the Standards Section at the address shown above.
2. Apply in writing stating the product that you wish to have listed in the specific Type classification. In addition include for each item:
 - Description of the product and Model number plus the table top sizes available.
 - Illustrations
 - Specifications

After this is reviewed by the Standards Section the request will be acknowledged in writing.

If "cosmetic" changes to the product are requested the State reserves the right to decide whether a sample evaluation is required. If no structural changes are made a sample may not be required. The requester will be informed after the technical literature has been reviewed.

3. Forward a sample of the product for physical evaluation. (if applicable) The date and address to send the sample, will be provided 4 weeks prior to the evaluation date.
4. If the product meets the requirements herein, and has been accepted by the Classroom Furniture Advisory Committee, the product will be included on the QPL.

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