

General Specification for  
Furniture Systems

Scope. This description covers office furniture systems designed to interconnect to provide comprehensive office furniture environments through the ability to form a variety of workstation configurations and generally includes interconnecting, structural panels as central integrating elements or may employ rail, beam, frame, structural upright, core or freestanding based elements. Panels/privacy screens, worksurfaces, overhead storage, pedestals, filing, task management systems, lighting, electrical and wire management comprises furniture systems. Floor to ceiling demountable walls, partial height architectural type walls, and spine walls which accommodate system furniture components are acceptable as part of a furniture systems product line or when offered in conjunction with a furniture systems product line. "Systems" consisting of traditional conventional furniture such as desks, returns, carrels, credenzas, etc. are not acceptable.

Salient characteristics. The requirements contained herein are the minimum required features to be accepted under this contract. The manufacturer may offer additional products, which are designed to enhance the function of the furniture system. Acceptance of products not specified herein is at the contracting officer's option.

General. All products furnished under this description shall be of a design and materials to withstand hard daily use with a minimum of maintenance and repair.

Panels, face panels, face units, panel inserts.

Flammability. All panels, face panels, face units, and panel inserts offered shall have a maximum smoke development rating of 450 and a maximum flame spread rating of 25 and shall be rated as Class A (0-25 flame spread rating), Class B (26-75 flame spread) or Class C (76-200 flame spread) when tested as specified herein. All product lines offered for GSA contract must include class A rated products and may include Class B and Class C rated products.

Acoustics. Acoustical panels must have a minimum noise reduction coefficient (NRC) of 0.65 when tested as specified herein. Face panels, face units, and panel inserts if classified as acoustical must have a minimum noise reduction coefficient of 0.65.

Dimensions. Panels for panel-based systems shall be available in a variety of heights and widths. Furniture systems not based on structural panels must allow for varying sizes of components and workstation configurations.

Raceway. Raceways, which are an integral part of the system, shall be available. Raceways shall be designed to provide distribution of electrical and communication cables and shall provide

capacity for a minimum of six 25-pair cables and the electrical system. Powered raceways shall provide access points for placement of receptacles. Raceway covers shall be replaceable without disassembly of the panel.

Connections. Furniture systems shall be capable of connecting in a variety of configurations. Panel based systems shall allow for the connection of panels of differing heights and the connection of two, three or four panels from a single point.

Component mounting. Panel based systems shall provide for the mounting of components at varying heights on both sides of the panel. Furniture systems not based on structural panels must allow for the support of overhead cabinets, shelves, worksurfaces, task lighting, and paper management.

Leveling and alignment. The system shall provide precise alignment of adjacent panels and/or components and shall include leveling glides to compensate for uneven floors. A minimum 20-mm adjustment range is required. When placed on a level surface with the glides fully retracted the maximum distance between the panel and the floor shall be 25 mm.

#### Worksurfaces.

Types. The furniture system shall include worksurfaces, which are panel/system supported and/or freestanding. When panel/system supported and freestanding surfaces are offered, they shall be of similar construction and appearance and shall allow the integration of both types within a workstation. Panel/system supported surfaces may include cantilever, rail, bracket and end supported. Freestanding surfaces may include open base (C- or T-leg) and full-panel end and shall be designed for use with freestanding and/or mobile pedestals

Construction. Top surfaces shall be laminate or wood veneer. Surfaces shall be balanced to resist warping, and undersides shall be smoothly finished. Edges shall be post formed, solid wood, vinyl T molding or self-edge. When self-edging is used, the corners shall be eased.

Dimensions. The system shall include worksurface depths between 455 mm and 760 mm and widths between 760 mm and 1525 mm. Dimensions outside these ranges are also acceptable.

#### Drawer pedestals and drawers.

Types. The furniture system shall include drawer pedestals or individual drawer units. Pedestal types may include surface mounted, freestanding and mobile pedestals. Freestanding and mobile pedestals shall be designed to allow use beneath a worksurface and shall not exceed 760 mm in height.

Drawers. Drawer types shall include pencil or personal drawers, box drawers and file drawers.

Locks. Pedestals and drawers shall be available with locks or locking devices

Shelves and cabinets. The furniture systems shall include shelves and cabinets in various widths. Cabinets shall be provided with a receding door or may be formed from a shelf and separate top and door assembly. Cabinet locks shall be available.

Freestanding storage, casegoods, desk products, and tables, that are part of the product line offered, are acceptable as furniture systems subject to the contracting officer's approval. These items must meet applicable ANSI/BIFMA requirements that apply to the product offered.

Lighting. The furniture system shall include task lighting. As a minimum, task lights shall be capable of mounting beneath a shelf or cabinet. All lights offered shall be Underwriters' Laboratories (UL) approved or approved by other independent testing laboratories using recognized industry standards. Task lights shall have individual on/off switches and shall be equipped with a diffusion lens to provide glare free light. Lights shall be shielded to prevent direct viewing of the lamp or bulb at eye level from a seated position.

Electrical system. The furniture system shall have an electrical system capable of distributing electrical service to several workstations from a central feed point. The electrical system shall have a minimum capacity for three 20-amp circuits. The system shall provide access to electrical power through receptacles located in the panel raceway. The system may include desk height or desk mounted receptacles. All electrical components shall be UL listed and labeled or tested and labeled by other independent testing laboratories using recognized industry standards.

**Test Requirements.** The furniture system shall be tested in accordance with the requirements listed below. Representative sample, i.e., worst case testing, is not acceptable for flammability or acoustics.

Flammability. The fire test shall be conducted in accordance with American Society for Testing and Materials (ASTM) Standard E-84, Standard Method of Test for Surface Burning Characteristics of Building Materials, by an independent laboratory, the vendors ISO Guide 25 self certified testing facility, or the vendors ISO 9001 registered facility. The test report shall be not more than one year old at the time set for receipt of offers, and during the term of the contract new testing shall be conducted every three years if the panel construction has not changed. If panel construction is changed new fire tests are required. The test report must state the panel series tested and must state in detail the construction of the panel tested. The test shall be conducted on the entire assembled panel (the complete core, adhesive, decorative fabric, frame and joining components). The test must be conducted on each different fabric, and interior construction. However, additional fabrics may be offered for inclusion under the contract without additional ASTM E-84 testing provided the following conditions are met: (1) An ASTM E-84 test was conducted on the complete panel, which is acceptable to GSA. (2) The fabric on the panel tested under E-84 was tested and complies with National Fire Protection Association (NFPA) Standard No. 701. (3) The additional fabrics offered were tested and comply with NFPA No. 701. (4) There are no other changes in the panel construction.

Alternatively, testing may be conducted in accordance with Underwriters Laboratories (UL) Standard No. 723 or National Fire Protection Association (NFPA) Standard No. 255.

Panel acoustics. The acoustical test for the NRC shall be conducted, by an independent laboratory, the vendors ISO Guide 25 self certified testing facility, or the vendors ISO 9001 registered facility, in accordance with ASTM Standard C 423-02a, “Standard test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method”.

The test report shall be not more than three years old at the time set for receipt of offers, and during the term of the contract new testing shall be conducted every five years if the panel construction has not changed. If panel construction is changed a new acoustical test is required. The test report must state the panel series tested and must state in detail the construction of the panel tested. The test shall be conducted on the entire assembled panel, full-face area (the complete core, adhesive, decorative fabric, frame, raceway and joining components). NRC shall utilize an average measurement over the four standard octave intervals, 250, 500, 1000 and 2000 Hz. Both sides of the panel shall be tested. The test must be conducted on each different interior construction offered as an acoustical panel.

Electrical system. The electrical system shall meet the requirements of UL Standard 1286, as applicable.

Panels, panel components, panel mounted components, overhead storage units, and keyboard surfaces. Unless otherwise noted, panels, panel components, panel mounted components, and keyboard surface shall be tested in accordance with the applicable requirements of American National Standard ANSI/BIFMA X5.6-2003. Representative items shall be selected for testing based on worst-case conditions.

Freestanding worksurfaces, tables, and computer support furniture. Freestanding worksurfaces, tables, and computer support furniture shall be tested in accordance with the requirements of American National Standard ANSI/BIFMA X5.5-1998.

Freestanding/stationary and mobile pedestals. Drawer pedestals shall be tested in accordance with the applicable sections of ANSI/BIFMA X5.5-1998. Any devices used to maintain the stability of the unit, such as counterweights, shall be included in all product furnished under the contract.

#### Notes.

ANSI/BIFMA. Standards are available from the American National Standards Institute, 11 West 42nd Street, New York, NY 10036. (212) 642-4900

ASTM. Standards are available from the American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2925. (610) 832-9585

NFPA. Standards are available from the National Fire Protection Association, 11 Tracy Drive, Avon, MA 02322. (800) 344-3555

UL. Standards are available from Underwriters Laboratories, Inc., 333 Pfingston Rd., Northbrook, IL 60062-2096. (708) 272-8800