

ANNEX A-1

SPECIFICATIONS FOR WORK SPACES

		Freestanding Systems			Interconnecting Panels		ANSI/BIFMA X5.3
		CAN/CGSB 44.227	ANSI/BIFMA X5.5	ANSI/BIFMA X5.9	CAN/CGSB 44.229	ANSI/BIFMA X5.6	
1	SCOPE						
1.1	This specification details the technical requirements, which apply to the furniture for work spaces purchased by the federal government.						
1.2	This specification must be read in conjunction with, and meet, the publications and testing requirements in article 2.0 of this annex with the exemption of CAN/CGSB-44.227-2008 Free-standing Office Desk Products and Components paragraph 6.5.3 - Usable Space and of CAN/CGSB-44.229-2008 Interconnecting Panel Systems and Supported Components paragraph 6.6.3 - Usable Space.	Exemption of section 6.5.3 (usable space)			Exemption of section 6.6.3 (usable space)		
2.2	Testing Requirements						
The Product offering must meet all the test requirements listed in this section.							
2.2.1	All interconnecting panels and supported components must be tested and meet the acceptance levels as described in ANSI/BIFMA X5.6 – Panel Systems and CAN/CGSB.44.229 Interconnecting Panel System and Supported Components.				Required	Required	
2.2.2	The complete electrical system and all components must comply with CSA C22.2 No 203- Modular Wiring System for Office Furniture.				Same as 6.1.9		
2.2.3	All panel frames with glazing materials must meet the requirements of UL 1286-2011, Section 35.				Same as 6.1.5		
2.2.4	All freestanding office desk products and components must be tested and meet the acceptance levels as described in ANSI/BIFMA X5.5 – Desk/Table Products and CAN/CGSB.44.227 Freestanding Office Desk Products and Components.	Required	Required				
2.2.5	All storage products must be tested and meet the acceptance levels as described in ANSI/BIFMA X5.9 - Storage.			Required			
2.2.6	All vertical filing products must be tested and meet the acceptance levels as described in ANSI/BIFMA X5.3 – Vertical Files.						Required
2.2.7	Ancillary products must be tested and meet ANSI/BIFMA X5.5 and we will also accept X5.6 for Keyboard Support and Input Device Support Adjustment.		Required for Ancillary products			Test 10.8 is accepted for keyboards adjustment	
2.2.8	The keyboard support surfaces must be tested and meet CAN/CGSB-44.229.				Required for Keyboard supports		
2.2.9	Requirements for Category 1, Benching must have been tested and meet the acceptance levels in accordance with the standards cited by ANSI/BIFMA X5.5 Desk/Table Products and CAN/CGSB-44.227 Freestanding Office Desk Products and Components.	Required for Benching systems	Required for Benching systems				
2.2.10.	Test reports must not be more than five years old from the date the test was performed	New requirement			New requirement		
5	GENERAL REQUIREMENTS						
Category 1							
5.1	Interchangeability: Each component must have the capability of being assembled, disassembled, and reconfigured without damage or loss of serviceability when changes are required. Parts must be capable of being replaced.	More Specific Requirement			More Specific Requirement		
Categories 1, 2 and 4							
5.2	Work surfaces must be of a similar construction and appearance and must allow the integration of work surfaces within a workspace.	More Specific Requirement			More Specific Requirement		
5.3	When wire management openings pass through a work surface, a meeting table surface, a support or a modesty panel the openings must be provided with a grommet. Reusable covers must be provided for each grommet to conceal the openings when not in use.	Same as 4.9			Same as 4.8		
5.3.1	If a grommet is used, all work surfaces measuring 1219mm (48”) wide and less must have one grommet as part of the work surface. All work surfaces greater than 1219mm (48”) wide must have two grommets incorporated into the work surfaces.	More Specific Requirement			More Specific Requirement		
Categories 1, 3 and 4							
5.4	Resilient bumpers must be provided on all doors-and drawers assemblies to minimize impact noise when closing doors and drawers. An alternate means to minimize impact noise is acceptable.	Used to apply to drawers only (6.5.4), now applies to doors too			Used to apply to drawers only (6.6.4), now applies to doors too		
5.5	All drawers and doors must be lockable.	Used to be optional (6.9)			Used to be optional (6.10)		
5.5.1	All locks within a single workstation must be keyed alike.	More Specific Requirement			More Specific Requirement		
5.5.2	A minimum of four (3) sets of keyed alike keys per workstation must be supplied.	Used to be 2 keys (6.9)			Used to be 2 keys (6.10)		

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Categories 1, 2 and 4							
5.6	All work surfaces and meeting table surfaces with electrical and data cabling must provide wire management for routing and concealing electrical and data cabling.	Same as 4.9			Same as 4.8		
5.6.1	The wire management system must be a grommet or a gap where the work surface meets a perpendicular panel or upper storage when specified.	More Specific Requirement			More Specific Requirement		
5.6.2	The method of wire management must not cause the face of a pedestal to protrude beyond the front edge of the work surface when the pedestal is placed beneath the work surface.	More Specific Requirement			More Specific Requirement		
5.6.3	When grommets are located over a work surface supported pedestal the resultant wires must not interfere with the operation of the drawers.	More Specific Requirement			More Specific Requirement		
Categories 3 and 5							
5.7	Workmanship: The finished product must be uniform in quality, style, material and workmanship and must be clean and free from any defects that may affect appearance, serviceability or safety.	Same as 4.2			Same as 4.2		
5.7.1	All edges and corners with which the user is intended to come in contact must be eased or radius.	Same as 4.2			Same as 4.2		
5.7.2	Doors and drawers must fit squarely and evenly on all sides, when closed.	More Specific Requirement			More Specific Requirement		
5.7.3	Welds: All welds must be structurally sound, free from cracks and surface voids. They must be clean, smooth and uniform in appearance and free from scale, flux, trapped foreign matter or any other inclusions that may be detrimental to the application of the primer or final finish.	Same as 4.4			Same as 4.4		
5.7.4	Finish: All exposed aluminum components must be anodized, painted or otherwise treated to prevent oxidation.	Same as 4.3			Same as 4.3		
5.7.5	Safety: Fixed, movable or adjustable parts must be constructed so that they cannot unintentionally become loose, dislodged or cause personal injury.	Same as 4.5			Same as 4.5		
5.7.6	The keyboard and mouse support surface must not interfere with leg clearance.	New requirement			New requirement		
5.7.7	The location of the top of the keyboard and mouse support surface (in particular, the home row of the keyboard) must allow the user to maintain neutral shoulder, elbow and wrist postures.	New requirement			New requirement		
Category 4							
5.8	Workmanship: Wood and wood veneer surfaces and edges must be smoothly sanded and free of blemishes or defects such as tool or machine marks, sanding marks, surplus glue, raised grain, de-lamination or watermarks.	Similar to 4.2, more specific requirements			Similar to 4.2, more specific requirements		
5.8.1	Face veneers must be tightly joined, properly matched and similar in grain pattern or colour throughout any given area. The natural characteristics of wood and veneer are acceptable.	More Specific Requirement			More Specific Requirement		
Categories 1, 3 and 4							
5.9	Cushion seats –must be upholstered on all sides, top and bottom and must not slide off the top surface and must be capable of being removed, except for mobile pedestal with seated surface.	More Specific Requirement			New requirement		
ALL Categories							
5.10	All brackets and hardware must be supplied in order to complete the installation.	More Specific Requirement			More Specific Requirement		
5.11	Parts must be capable of being replaced.	More Specific Requirement			More Specific Requirement		
5.12	Categories 1, 3 and 4 Pedestals must be 610mm (24 in.) and 762mm (30 in.) deep with a tolerance of -50.8mm (2 in.).	More Specific Requirement			More Specific Requirement		

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6 DETAILED REQUIREMENTS – Category 1 (Interconnecting Panels and Freestanding Systems)							
Panels							
6.1	The overall panel height, including any panel mounted component must not exceed 1.37 m (54 in.). Panels must be stackable.				New requirement		
6.2	Stackable Panels must increase from Base Panel Height to Work Surface Privacy Height and from Work Surface Privacy Height to Seated Privacy Height and decrease in height from Seated Privacy Height or Work Surface Privacy Height to a Base Panel Height. Stackable Panels must provide hang-on capability to the work surface.				More Specific Requirement		
6.2.1	Base Panel Height: provides no privacy to the end-user.				More Specific Requirement		
6.2.2	Work Surface Privacy Panel Height: provides work surface privacy to the end-user and provides access to power and data at the work surface and above the work surface and accessory capabilities.				More Specific Requirement		
6.2.3	Seated Privacy Panel Height: provides seated privacy to the end-user and provides access to power and data above the work surface and accessory capabilities				More Specific Requirement		
6.3	All Base Panels must provide access to power and data below the work surface.				More Specific Requirement		
6.4	All work surface privacy and seated privacy panels must provide face mounted power data modules at the work surface, or above the work surface or below the work surface. The duplex power outlets and voice and data outlets must be offered at predetermined locations when specified.				More Specific Requirement		
6.5	The tolerance for all panel widths listed in the "Government of Canada Product Catalogue" (GoC PC) is +/- 25.4mm (1 in.)				More Specific Requirement		
6.6	Panel widths must allow for the enclosure of freestanding desk/table and storage product system components with panels on three sides, while maintaining a 90-degree corner.				More Specific Requirement		
6.7	Panels must be offered in upholstered fabric and/or plastic laminate and/or wood veneer and/or metal air-flow for Base Panel Height.				More Specific Requirement		
6.8	All panel frames with glazing must have a height of no more than 610mm (24in).				More Specific Requirement		
6.9	When the interior structural support frame is fabricated from metal it must be anodized, painted or otherwise treated to prevent oxidization.				Same as 4.3		
6.10	Panel add-on modules must be offered in upholstered fabric and/or tack-able surfaces and/or accessory rails, and/or whiteboard and/or glazing and/or any combination.				More Specific Requirement		
6.11	A panel-to-panel connectors must allow a panel to be installed perpendicular at any location along the width of the panel.				More Specific Requirement		
Cable Pathway							
6.12	All powered and non-powered panels must have concealed cable pathways to accommodate the electrical, voice and data cables.				More Specific Requirement		
6.12.1	The cable pathway must provide sufficient space to allow for a bend radius of at least 76mm (3 in.) for the installation of communication cables both horizontally and vertically.				More Specific Requirement		
6.12.2	The cable pathway must accommodate at least three (3) eight-wire circuits as well as nine (9) 5mm (0.20 in.) diameter communication cables with no more than a 60% fill capacity.				More Specific Requirement		
6.12.3	Cable pathways located at the base must have knockouts to receive back-to-back electrical outlets.				More Specific Requirement		
6.12.4	Cable pathway covers must open and close firmly without the use of proprietary tools.				More Specific Requirement		
6.12.5	Communication and electrical cabling may be placed in the same cable pathway as long as metal separation is provided.				More Specific Requirement		
6.12.6	Non-powered cable pathways must provide field conversion to powered cable pathways without requiring the workstation to be dismantled.				More Specific Requirement		
6.12.7	Unused knockouts/access points, which are visible, must be covered to prevent unsightly holes.				More Specific Requirement		
6.13	Vertical Wire Management System: must conceal wires running from the base cable pathway up to desk height and above or from desk height cable pathways to above.				More Specific Requirement		

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Electrical Wiring System							
6.14	The electrical wiring system must be made of components which are modular and provide power at predetermined locations .When electrical wiring alterations or disassembly are required, the workstation must not be dismantled. The system must provide for ceiling access, floor access and power from the wall. Ceiling access top feeds must accommodate a ceiling height of at least 2743mm (9 ft.).				More Specific Requirement		
6.14.1	The electrical system must provide electrical distributing service to nine (9) workstations from one central feed point.				More Specific Requirement		
6.14.2	The electrical system must provide as a minimum, a seven (7) wire, three (3)-circuit per feed capability.				More Specific Requirement		
6.14.3	An electrical system rated with at least a 115 volt, 15 or 20 amps consisting of at least 2 circuits must be available for older buildings when specified.				More Specific Requirement		
6.14.4	Each station must be provided with a maximum of six (6) receptacles in combination of either three (3) duplex power outlets or two (2) triplex power outlets. Each workstation must have one (1) voice / data outlet.				More Specific Requirement		
6.14.5	Receptacles: Must be interchangeable within the manufacturer predetermined locations and accessible at, below and above work surface height.				More Specific Requirement		
6.14.6	The complete electrical system and all components must comply with CSA C22.2 No 203-M91 (R2010) Modular Wiring System for Office Furniture.				Same as 6.1.9		
6.14.7	All powered panels and add-on with a width of 457mm (18 in.) to 610mm (24 in.) requires up to three receptacles power outlets and for a width of 762mm (30 in.) to 1524mm (60 in.) requires up to four receptacles power outlets.				More Specific Requirement		
Panel-Mounted Work Surfaces							
6.15	The tolerance for all work surface widths listed in GoC PC is +/- 25.4mm (1 in.). The tolerance for all work surface depths listed in GoC PC is +/- 13mm (0.5 in.).				More Specific Requirement		
6.16	Work surfaces must be panel mounted and/or floor supported and/or combination of panel mounted and floor supported. Floor supported is non-panel dependent.				More Specific Requirement		
6.17	Off module capability must allow a panel mounted work surface to be installed at any location along the panel width.				More Specific Requirement		
Panel-Mounted Transaction Surfaces							
6.18	The panel mounted transaction surface must be provided in widths ranging from 457mm (18 in.) to 1520mm (60 in.) and depths ranging from 305 mm (12 in.) to 432 mm (17 in.).				More Specific Requirement		
Component System Accessories							
6.19	Panel-mounted accessories must be integrated into the panel frame or attached to the panels separately. Panel-mounted accessory widths must correspond with panel widths.				More Specific Requirement		
6.2	Accessory Rails, tackable surfaces and white boards must be installed above the work surface height and be of heights that correspond with the panels at Work Surface Privacy Panel Height and Seated Privacy Panel Height.				More Specific Requirement		
6.21	Accessories mounted on the accessory rails must be made of metal or rigid plastic. As a minimum the component system must provide; a paper sorter, a tray, a bin and a telephone holder.				More Specific Requirement		
6.22	Tackable surfaces must be made of upholstered fabric.				More Specific Requirement		
6.23	Privacy screens must attach to the top of panels.				More Specific Requirement		
6.23.1	The attachment hardware for the privacy screens must not damage the panels when removed.				More Specific Requirement		
6.23.2	The screens must be secured to the top of the panel.				More Specific Requirement		
6.23.3	Hardware to secure the privacy screens to the panel do not need to be concealed.				More Specific Requirement		

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6.24	Panel mounted overhead storage units and shelves						
6.24.1	Shelves, open and closed panel mounted overhead storage units must be capable of being mounted on a panel, on a wall and in an upmount location to the panel.				More Specific Requirement		
6.24.2	When the back of the panel mounted overhead storage unit or shelf is not completely closed, provision to prevent articles from falling out of the unit must be provided.				More Specific Requirement		
6.24.3	The type of doors for closed panel mounted overhead storage units must be provided as sliding and/or horizontal receding above the top of the storage unit.				More Specific Requirement		
6.24.4	Panel mounted overhead storage units and shelves must accommodate task lighting mounted on the underside of the shelf.				Same as 6.7.3		
7	DETAILED REQUIREMENTS – Categories 1 and 4 - Freestanding Fixed Height Desk/Table and Storage Products System – laminate, painted metal and wood veneer.)						
Fixed Height Work Surfaces							
7.1	Fixed height work surfaces must be freestanding and integrated with the storage products system and be of similar construction and appearance, as well as being supported by the storage products or to fit over a low storage/credenza unit with no interruption to wire management or power and data	More Specific Requirement					
7.1.1	The tolerance for all work surface widths listed in the GoC PC is +/- 25.4mm (1 in.).	More Specific Requirement					
7.1.2	The tolerance for all work surface depths listed in the GoC PC is +/- 13mm (0.5 in.).	More Specific Requirement					
7.2	Fixed height work surfaces with a modesty panel.						
7.2.1	The modesty panel must not prevent access to wall outlets, or interfere with work surface supports and power/data access.	More Specific Requirement					
7.2.2	The modesty panel width must correspond with the work surface width.	More Specific Requirement					
7.2.3	The modesty panel must be in heights that allows for floor clearance and allows wire access from wall power/data to the equipment.	More Specific Requirement					
7.2.4	The modesty panel must be installed flush with the work surface back edge or recessed within the work surface back edge.	Same as 6.11					
Storage Products							
7.3	Storage products consist of pedestals, low storage/credenza units, high storage or hutches, two drawer lateral file units, wardrobes and personal storage towers.						
7.3.1	Cushion seats must be provided for mobile pedestals, low storage /credenza units and two (2) drawer lateral files.	New requirement					
7.3.2	All storage products must be finished on the top and all sides with the exception of work surface supporting pedestals, which do not require a top.	More Specific Requirement					
7.3.3	All closed compartments within a storage unit must be lockable.	More Specific Requirement					
7.3.4	Low storage/credenza units and high storage or hutches must be single sided and/or double sided (shared). Double sided is to be accomplished by add-on units.	More Specific Requirement					
7.3.5	Two (2) or more storage units must be capable of being secured together in a group, side to side, rear to rear or a combination.	More Specific Requirement					
7.3.6	Storage products must be in laminate and/or painted metal and/or wood veneer and/or a combination of finishes.	More Specific Requirement					
7.3.7	All storage units without casters must have a leveling mechanism with a vertical adjustment of at least 19mm (0.75 in.).	More Specific Requirement					
7.3.8	Powered low storage/credenza and high storage units must provide ceiling access, floor access and wall access for the electrical system and provide a cable pathway to route cables from the building to the storage products. Non powered units must allow to be retrofitted for future power requirements	New requirement					
Pedestals							
7.4	Pedestals must be freestanding, and/or work surface supporting and/or mobile and/or mobile with seated surface.	Same as 6.4.1					
7.4.1	The top box drawer must have a movable pencil tray that spans the full interior width of the drawer.	Same as 6.4.2					
7.4.2	All pedestals must have at least one bottom file drawer and one top drawer or two file drawers.	More Specific Requirement					
7.4.3	The file drawer must have at least two removable file dividers or a hanging file rail.	Included in 6.5.1.1					
7.4.4	Mobile Pedestals:						
7.4.4.1	Casters must be provided for carpet and hard surface floor covering.	Included in 6.4.2					
7.4.4.2	Mobile pedestals must have lockable casters.	Included in 6.4.2					

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Low Storage/Credenza Units							
7.5	The low storage/credenza units must have open compartments, closed compartments or various combinations of closed and open compartments. Closed compartments must have drawers or doors or another method of closure.	More Specific Requirement					
7.6	The low storage/credenza units must be capable of being located beneath a fixed height work surface when partially supporting a work surface and when a seat cushion is not required.	More Specific Requirement					
7.6.1	The height of the low storage/credenza units must not exceed 797mm (31 in.)	More Specific Requirement					
7.6.2	The low storage/credenza units must be in a depth within the range from 381mm (15 in.) to 610mm (24 in.)	More Specific Requirement					
7.6.3	The low storage/credenza units must be non powered (no data capability) or powered with data capability	More Specific Requirement					
7.6.4	Power kit : all the component(s) required to convert a non powered to a powered for the low storage/credenza unit. The Power kit must be equipped with a complete plug and play capability and include as a minimum one duplex outlet.	More Specific Requirement					
High Storage Units or Hutches							
7.7	High Storage Units with closed compartments must have drawers or doors or another method of closure.	More Specific Requirement					
7.7.1	High storage units installed onto a low storage/credenza unit must not exceed a combined height of 1372mm (54 in.) with the exception of Category 4 – Wood Veneer – Freestanding Products	New Requirement					
7.7.2	When a hutch is used to make a high storage unit the overall height of the hutch plus the low storage/credenza unit must not exceed 1372mm (54 in.), with the exception of Category 4 – Wood Veneer – Freestanding Products.	New Requirement					
7.7.3	The range of depth of the high storage units must be from 381mm (15 in.) to 610mm (24 in.)	More Specific Requirement					
7.7.4	Doors must be hinged vertically and/or sliding.	More Specific Requirement					
7.7.5	Hutches must be securely but not permanently affixed on the top of the supporting surface so that the hutch, when removed, will not cause any damage to the top of the supporting surface or the storage unit.	Same as 6.6.3.2					
7.7.6	The high storage units must be powered with data capability or non powered without data capability.	More Specific Requirement					
7.7.7	Hutches must be mounted on a desk or low storage/credenza unit.	More Specific Requirement					
7.7.8	Power kit : all the component(s) required to convert a non powered to a powered for the high storage unit. The Power kit must be equipped with a complete plug and play capability and include as a minimum one duplex outlet.	More Specific Requirement					
Two Drawer Lateral File Units							
7.8	Each drawer must have at least two removable dividers, hanging-file bars and legal-to-letter conversion bars.	Included in 6.5.1.1					
7.8.1	Counterweights must meet ANSI/BIFMA X5.9 Storage requirements for stability when the files are not under a work surface.	Included in 6.6.2.2					
7.8.2	The drawers must be with fixed fronts.	More Specific Requirement					
7.8.3	The lateral file units must not exceed 711mm (28 in.) in height and must fit under the work surface, excluding the cushion seat.	More Specific Requirement					
7.8.4	The lateral file units must fit under a 610mm (24 in.) deep work surface.	More Specific Requirement					
7.8.5	When a cushion seat is required it must maintain at least 610mm (24 in.) width suitable for seating.	More Specific Requirement					
Wardrobe							
7.9	The wardrobe must have full-length garment storage for hanging more than one garment.	More Specific Requirement					
7.9.1	Wardrobes must have two doors, a hanging rod and a hat shelf.	More Specific Requirement					

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Personal Storage Tower							
7.10	The personal storage towers must have two (2) file drawers, a storage compartment with or without a door and a wardrobe section with a door.	More Specific Requirement					
7.10.1	The height of the personal storage towers must be 1372mm (54 in.) high and cannot exceed the height of the of the Seated Privacy Height panels with a tolerance of - 76.2 mm(-3 inch.), with the exception of Category 4 – Wood Veneer – Freestanding Products.	New Requirement					
7.10.2	The file drawers must be capable of side-to-side and back-to-back filing.	More Specific Requirement					
7.10.3	The storage compartment must have adjustable shelves.	More Specific Requirement					
7.10.4	The wardrobe section must have a hanging coat rod and one shelf.	More Specific Requirement					
7.10.5	The wardrobe door is to be hinged to open out to the left hand and the storage compartment is to be hinged to open out to the right hand and vice a versa.	More Specific Requirement					
Work Surface Privacy Screens							
7.11	Work surface privacy screens must be attached to the work surfaces.	More Specific Requirement					
7.11.1	Attachment hardware must not damage work surfaces when removed.	Same as 6.10.1					
7.11.2	Hardware to secure a screen, to the work surface does not need to be concealed, but must coexist with the work surface supports.	More Specific Requirement					
7.11.3	Width of privacy screen must correspond to work surface widths.	More Specific Requirement					
7.11.4	The overall height of a privacy screen measuring from the floor to the top of the screen must not exceed 1372mm (54 in.).	New Requirement					
Meeting Tables							
7.12	Meeting tables must be of round or square shapes, and top surfaces must be wood veneer and/or high-pressure laminate.	More Specific Requirement					
7.12.1	The meeting table bases must be offered in metal.	More Specific Requirement					
7.12.2	The meeting table bases must be offered in star/cross base, and /or four post legs and /or flat disc with single center post.	More Specific Requirement					
7.12.3	All bases and legs must have a levelling mechanism with a vertical adjustment of at least 25mm (1 in.)	Same as 6.3					
7.12.4	Four post legs must have lockable casters.	More Specific Requirement					
Benching Products							
7.13	A benching work surface is comprised of a series of work surfaces inter-connected longitudinally to a length greater than 1829mm (72 in.).	New requirement	Definition taken from section 2.4				
7.13.1	The benching work surface must have a depth of at least 610mm (24 in.).	New requirement					
7.13.2	The benching products must provide power and data.	New requirement					
8 DETAILED REQUIREMENTS – Categories 2 and 4 (Freestanding Height Adjustable Desk/Table Products)							
8.1	Freestanding height adjustable desk/tables products must be a depth of at least 610mm (24") and a width ranging from 762mm (30") to 1524mm (60").	More Specific Requirement					
	The tolerance for all work surface widths and depths listed in the GoC PC is -76mm (-3 in.).	More Specific Requirement					
Continuous Height Adjustable Work Surfaces							
8.2	Continuous height adjustable work surfaces must be seated range or sit/stand range.	More Specific Requirement					
8.3	The controls for continuous height adjustable work surfaces must be mechanical crank or counter balance or torsion or gas assisted or electrical.	More Specific Requirement					
8.3.1	The electrical controls must be CSA certified.	More Specific Requirement					
Seated Range							
8.4	Seated range continuous height adjustable work surfaces must comply as defined in CAN/CGSB-44.227-2008.	Included in 6.1					

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Sit/Stand Range							
8.5	The primary surface must be capable of a height adjustment of 710mm to 1040mm (27 to 41 in.).	More Specific Requirement (used to be 6" of travel min. Including height adjustment range of 26 to 29" at sect. 6.1)					
Incremental height adjustable work surfaces							
8.6	The tolerance for all work surface widths and depths listed in the GoC PC is +/- 25.4mm (1 in.)	More Specific Requirement					
9 DETAILED REQUIREMENTS – Category 3 (Metal Filing and Storage Cabinets)							
9.1	Metal filing and storage units must be a lateral filing cabinets, or vertical filing cabinets, or storage cabinets, or pedestals or personal storage towers.	More Specific Requirement					
9.1.1	Glides - All metal filing and storage cabinets must be equipped with four (4) glides with a minimum vertical adjustment of 19 mm (0.75 in.). The glides must be adjustable from the interior of the cabinet.	More Specific Requirement					
9.1.2	Suspension - the suspension on all drawers must allow for the back of the drawer/filing compartment to extend beyond the face of the cabinet.	More Specific Requirement, used to apply to file drawers only					
9.1.3	Cushion seats – When a cushion seat is required it must be upholstered on all sides, top and bottom and must not slide off the top surface, and must be capable of being removed without damaging the cabinet surface.	More Specific Requirement					
Lateral Filing Cabinets							
9.2	Lateral filing cabinets must be two, three, four, or five (2, 3, 4 or 5) file drawers. Each drawer must have at least two removable dividers, hanging-file bars and legal-to-letter conversion bars.	More Specific Requirement					
9.2.1	Counterweights must meet ANSI/BIFMA X5.9 Storage requirements for stability when the files are not under a work surface.	Same as 6.6.2.2					
9.2.2	Safety System - Lateral filing cabinets with two or more extendible members must be equipped with a positive interlock system. The system must prevent any drawer from being opened by more than 51 mm (2 in.) when any other drawer has been extended beyond its fully closed position. No two drawers shall be capable of being opened simultaneously.	More Specific Requirement					
9.2.3	All drawers must be fixed front except for the 5 high lateral top drawers which must be a pull out shelves with receding doors.	More Specific Requirement					
9.2.4	The drawer and/or pullout shelf bottom and back must be slotted to receive dividers.	More Specific Requirement					
9.2.5	The front edge of the pullout shelf bottom must be flanged upwards.	More Specific Requirement					
9.2.6	When a cushion seat is required, it must be provided on a two (2) drawer lateral file.	More Specific Requirement					
Vertical Filing							
9.3	Vertical filing cabinets must be two, three or four (2, 3 or 4) file drawer high.	More Specific Requirement					
Storage Cabinets							
9.4	Storage Cabinet Shelves must be adjustable and shelves within the same cabinet compartment must be interchangeable and extend the full width and depth of the interior cabinet compartment	More Specific Requirement					
Filing and Storage Cabinet Locks							
9.5	Locks for drawers and doors must be keyed operated.	Included in 6.9					
9.5.1	Locks must be pin, tumbler and wafer type, and must have a corrosion resistant finish.	More Specific Requirement					
9.5.2	Locks and cylinders must be designed to allow for easy installation or replacement on site.	More Specific Requirement					

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		Freestanding Systems			Interconnecting Panels		ANSI/BIFMA X5.3
		CAN/CGSB 44.227	ANSI/BIFMA X5.5	ANSI/BIFMA X5.9	CAN/CGSB 44.229	ANSI/BIFMA X5.6	
Pedestals							
9.6	Pedestals must be freestanding, or work surface supporting or mobile or mobile with seated surface.	More Specific Requirement					
9.6.1	All pedestals must have a removable pencil tray that span the full interior width.	More Specific Requirement					
9.6.2	All pedestals must have at least one bottom file drawer and one top drawer or two file drawers.	More Specific Requirement					
9.6.3	The file drawer must have at least two (2) removable file dividers or a hanging file rail.	Included in 6.5.1.1					
9.6.4	Casters must be for carpet and hard surface floor covering. Mobile pedestals must have lockable casters.	Included in 6.4.2					
Personal Storage Towers							
9.7	The personal storage towers must have two (2) file drawers, a storage compartment with or without a door and a wardrobe section with a door.	More Specific Requirement					
9.7.1	The file drawers must be side to side and back to back filing	More Specific Requirement					
9.7.2	The storage compartment must have adjustable shelves.	More Specific Requirement					
9.7.3	The wardrobe section must have a hanging coat rod and one shelf	More Specific Requirement					
9.7.4	The wardrobe door and storage compartment door must be hinged right or left.	More Specific Requirement					
9.7.5	The height of the personal storage towers must be 1372mm (54 in.) high and meet the height of the Seated Privacy Height panels and/or must be 1676mm (66 in.) high, both heights have a tolerance of - 76.2 mm(-3 in.).	New requirement					
10 DETAILED REQUIREMENTS – Category 5 - (Ancillary and Lighting Products)							
Ancillary Products							
10.1 Keyboard and Mouse Support Surfaces-							
10.1.1	Must attach to the work surface and be continuously height adjusted by the user through the use of a lever or lever-free, and be locked at any position within a minimum range of 203mm (8"), 127mm (5") below the surface and 50mm (2") above the terminal support surface. Tolerance of +/-19mm (+/-0.75"). Once the keyboard/mouse support surface has been locked in the desired position, the surface must remain stable during the normal keying process.	More Specific Requirement					
10.1.2	The keyboard and mouse support surfaces must be supported by a track hardware and slide under the work surface when not in use.	More Specific Requirement					
10.1.2.1	The track must be provided in at least two lengths, one to fit under a 610mm (24") deep surface and under a 762mm (30") deep surface.	More Specific Requirement					
10.1.3	The keyboard/mouse support surface must be equipped with a palm support featuring a gel-based or polyurethane or foam.	More Specific Requirement					
	The depth of the keyboard surface must accommodate a standard rectangular keyboard device; the keyboard support surface and mouse area must be at least 635mm (25 in.) wide and must be designed to prevent the keyboard and mouse device from slipping off the surface.	More Specific Requirement					
10.1.5	The adjustable mouse support surface must not interfere with the keying action of the end user.	More Specific Requirement					
10.1.6	The keyboard and mouse support surfaces must be equipped with a surface large enough for mousing, be at the right or left or both sides of the keyboard, and must be mounted in order to provide independent horizontal swivel adjustability. The mouse must not slip off the mouse surface.	More Specific Requirement					
10.1.7	For a separate mouse surface, it must have the ability to slide under or rotate 180° to the rear of the work surface when not in use.	More Specific Requirement					
10.1.8	The keyboard and mouse support surfaces must have a rearward tilt of at least -15° and have a horizontal rotation of 360°.	More Specific Requirement					
10.2 Computer Processor Unit (CPU) Support							
10.2.1	Must be under the work surface mounted or stand-alone.	More Specific Requirement					
10.2.2	The under work surface mounted must retract, slide in-and-out and swivel.	More Specific Requirement					
10.2.3	The stand-alone unit must be fixed or mobile.	More Specific Requirement					
10.2.4	The CPU holder must adjust from a minimum of 89mm to 236mm (3.5 in. to 9.3in.) wide and 317.5 mm to 571.5 mm (12.5 in. to 22.5 in.) high to accommodate various sizes of CPU units.	More Specific Requirement					

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10.3	Monitor Arm						
10.3.1	Monitor arms must be a single arm or dual arm.	More Specific Requirement					
10.3.2	The flat screen monitor must be securely attached to the monitor arm, must not dislodge from the structure or work surface.		Tests #22 & 24				
10.3.3	The monitor arm must attach to the work surface edge with a clamp or into a work surface grommet or attached to a rail system.	More Specific Requirement					
10.3.4	Each swivel arm must support the weight of one monitor of at least 9.07kg (20lbs). Tolerance of -.907kg (2-lbs.).	New requirement					
10.3.5	Wires must be contained securely as to not interfere with the movement of the monitor.	More Specific Requirement					
10.3.6	The bracket, which supports the monitors, must adapt to various types and sizes of monitors, and provide the necessary components to ensure a secure mount, to the monitor and to rotate the monitor from portrait to landscape positioning.	More Specific Requirement					
10.3.7	The monitor arm must be constructed from metal and be finished in paint, which emits low to no volatile organic compounds.	More Specific Requirement					
10.3.8	The monitor arm must adjust vertically from a minimum range of 241mm (9.5in.) and horizontally from a minimum range of 490mm (19.3in.) and a minimum range of 483mm(19 in.) from installation point to full extension toward the user and the monitor must rotate and swivel 360 degrees without using tools. A tolerance of +/- 25.4mm(1 in.) on all adjustments.	New requirement					
10.3.9	The horizontal tolerance for the monitor must be of -25.4mm (-1in.)	More Specific Requirement					
10.3.10	The adjustment mechanism must be gas lift or spring tension or pneumatic.	More Specific Requirement					
10.4	Lighting Products						
10.4.1	Includes task lights, which are freestanding, and panel mounted.	More Specific Requirement					
10.4.2	All lighting products must be CSA certified.	Included in 6.7					
10.4.3	Lighting products must be energy efficient, complete with on/off switch.	More Specific Requirement					
10.4.4	Freestanding and panel mounted lighting products must have a height adjustable arm with pivot capabilities to redirect light and provide at minimum a1829mm (6ft) long power cord.	More Specific Requirement					
10.4.5	All task lights must be equipped with Low Emitting Diode (LED) or Compact Fluorescent Light (CFL) bulb with a minimum lamp life of 35,000 hours.	More Specific Requirement					
10.4.6	Task lights must be mounted by desk base or on a system's slat wall.	More Specific Requirement					
10.4.7	Task lights must have an articulating arm.	Included in 6.7					
11	DETAILED REQUIREMENTS FOR FINISHES AND MATERIALS.						
11.1	All finishes and materials, must meet the performance requirements in Section 2.0 Publication and Testing Requirements. As a minimum the bidder must submit a copy of the manufactures standard finishes for each of the categories being offered at time of award of the Supply Arrangement.	New requirement			New requirement		
11.2	Glazed components must be available clear or frosted or tinted and must be a safety glass or Plexiglas.	More Specific Requirement			More Specific Requirement		
11.2.1	When safety glass is used, it must meet the CAN/CGSB12.1, Type 2 – tempered or ANSI Z97-2009.	New requirement			New requirement		
11.3	Fabric for panels, tack boards and seated cushions must be manufactured from 100% recycled material or from other environmentally appropriate materials.	More Specific Requirement			More Specific Requirement		
11.3.1	All panel fabrics must meet the requirements and acceptance levels cited in the Association for Contract Textile (ACT) Voluntary Performance Guidelines for wrapped panels and upholstered walls.	More Specific Requirement			More Specific Requirement		
11.3.2	All seated cushion fabrics must meet the requirements and acceptance levels cited in the Association for Contract Textile (ACT) Voluntary Performance Guidelines for general contract upholstery.	More Specific Requirement					
11.4	Flammability: The panels must meet a flame spread rating of no more than 150 and a smoke developed classification of no more than 300 when tested to the applicable requirements of the National Building Code of Canada (NBCC) in accordance with CAN/ULC-S102-2010. The test must be conducted on each different fabric composition and interior construction. If panel construction is changed, new flammability tests are required.				More Specific Requirement		
11.4.1	Fabrics that are "identical" in content and weight will be accepted as comparable to the fabric tested on the panel.				More Specific Requirement		
11.5	Particleboard must meet ANSI A208-2008.1, grade M2 or greater when used as substrate.	New requirement			New requirement		
11.6	Hardwood lumber must meet Architectural Woodwork Manufacturers Association of Canada (AWMAC) custom grade.	New requirement					
11.7	Hardwood plywood must meet ANSI/HPVA HP-1, Birch-2008 species, architectural grade.	New requirement					

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12	QUALITY ASSURANCE						
12.1	The Supplier must have a recognized quality management system in place at the manufacturing facility or conformance to ISO 9001:2008.	New requirement					
13	PREPARATION FOR DELIVERY						
13.1	In addition to the marking requirement stated in section 9.0 MARKING of CAN/CGSB-44.227-2008 Freestanding Office Desk Products and Components or CAN/CGSB.44.229-2008 Interconnecting Panel System and Supported Components all Panels, Work surfaces, Storage, electrical components and freestanding units must be permanently and legibly marked with:	More Specific Requirement					
	<ul style="list-style-type: none"> The product code 						
	<ul style="list-style-type: none"> Manufacture's trade mark 						
	<ul style="list-style-type: none"> Traceable order information for warranty purposes. 						