

Micom **i**Mpact (issue #1, April 2000)

C/CGSB 44.232-February 2000**

The Canadian General Standards Board CGSB recently sent a standard for ballot (February, 2000, fourth draft). The results of the ballot are not known yet. However, because of the requests we received, we went ahead and prepared a comparison between this draft standard and CAN/CGSB-44.232-97.

Measurements & requirements:

The chair types (1,2,3) from the 97 standard have disappeared in the new draft. The document addresses the chair mechanisms' functionality under a more holistic approach by specifying the ranges of adjustability to be covered as long as the chair mechanism offers that particular adjustment. Some of the measurement requirements changed significantly which might cause some of your chairs that used to qualify, not to qualify anymore. A point-by-point comparison is presented below.

Mechanical testing:

The new CGSB standard still calls up ANSI/BIFMA X5.1 as a performance requirement. However, as you might know, there is a new ANSI/BIFMA X5.1 standard being prepared that should come out towards the end of the year. Our next *Micom Impact* issue will discuss the highlights of the new incoming chair standard, which has changed drastically.

Point by point comparison:

C**/CGSB 44.232 equivalent section	CAN/CGSB 44.232-97 Section #	Major difference(s)
1. Scope	1.Scope	Chair types disappeared
4.2 Workmanship	5.1 Quality	No major change
4.3 Controls	4. Classification	Chair types disappeared
4.4 Arm rests	5.8 Arm rests	No Major change
4.5 Column	5.9 Column	No Major change
4.6 Casters	---	New section, nothing major
4.7 Environmental Considerations	5.10 Environmental Considerations	Same as before
5.1.1 Performance requirements	6.1.1 Performance requirements	Same as before (ANSI/BIFMA X5.1). See comment above about incoming new standard
5.1.2 Chair Dimensions	6.1.2 Chair Dimensions	Same; both require the use of the BIFMA CMD
5.1.3 Cushioning Material	6.1.10 Cushioning Material	All of the requirements are the same; no changes
5.1.4 Upholstery	6.1.11 Upholstery	Both reference the ACT Textiles Performance Guidelines. The new standard is more specific in that it requires the use of heavy-duty rating fabric for abrasion resistance.
5.1.5 Flammability	6.1.18 Flammability	Same as before
5.2.1 Seat depth	4.1.2 Seat depth	Same as before
5.2.2 Seat width	6.1.4 Seat width	The minimum seat width has been increased from 400 to 450 mm.
5.2.3 Column clearance	6.1.6 Column clearance	Same as before
5.2.4 Seat waterfall	6.1.7 Seat waterfall	Same as before
5.2.5 Backrest width	6.1.8 Backrest width	Same as before

C**/CGSB 44.232 equivalent section	CAN/CGSB 44.232-97 Section #	Major difference(s)
5.2.6 Backrest height	6.1.9 Backrest height	The backrest requirement has changed significantly. The previous was only calling for a minimum backrest height. The new standard calls for a window of 450 to 550 mm for regular backrest height and a minimum difference in height of 75 mm between the regular and the high back height.
5.2.7 Armrest height	6.1.12 Armrest height	The fixed armrest height window is wider in the new standard, which makes it easier to qualify.
5.2.8 Armrest length	6.1.13 Armrest length	Same as before
5.2.9 Armrest setback	6.1.14 Armrest setback	Same as before
5.2.10 Clearance between armrests	6.1.15 Width between armrests	No major change
5.2.11 Armrest width	6.1.16 Armrest width	Same as before
5.2.12 Lumbar support	6.2.2; 6.3.4; 6.4.2 Lumbar support	Same as before
5.2.13 Backrest-to seat-angle	6.2; 6.3.2, 6.4.4 Backrest-to seat-angle	For what used to be type 1 chairs there was no Backrest-to seat-angle requirement, the only requirement was implicitly to the vertical and was requiring a minimum range of adjustability within a window. The compliance criteria is now related to what is the b.to.s angle at chair set up. Nothing changed for what used to be type 2 and 3 chairs for that requirement.
5.3.1 Seat height	4.1.3 Seat height	Low seat height; same requirement Standard seat height: all chair mechanisms have to go from 419 to 510 mm. This should not be a problem for qualified products.
5.3.2 Lumbar support	6.2.2 Lumbar support	Same as before

C**/CGSB 44.232 equivalent section	CAN/CGSB 44.232-97 Section #	Major difference(s)
5.3.3 Armrest height adjustment	6.1.12 Armrest height	For height adjustable armrests the new standard has a requirement that is more specific and that could get some chairs to fail; the 97 version required, if you had height adjustable armrests that it had to include part of the fixed height range; now the requirement is that it has to cover at a minimum a window going from 190 to 240 mm.
5.3.4 Lateral adjustment of armrest	---	New requirement for horizontally adjustable armrests.
5.3.5 Horizontally adjustable armrest caps	---	New requirement for horizontally adjustable armrests.
5.3.6 Adjustable seat depth	---	New requirement
5.4.1 Seat Pan angle	6.2.1 Type 1 chairs; Seat pan angle	Covers all types of mechanisms; should not be a big problem for common mechanisms.
5.4.2 Backrest angle to the vertical	6.2.3, 6.3.3, 6.4.1	Covers all types of mechanisms; should not be a big problem for common mechanisms.
5.4.3 Backrest-to-seat angle	6.3.2, 6.4.4	Now covers all mechanisms; new requirement for synchro-tilt mechanisms; should not be difficult to comply to based on past experience with such mechanisms.
5.4.4 Tilt Mechanisms	---	New section in the standard; does not change anything for anybody; generic description of synchro-tilt and knee-tilt mechanisms.
5.4.5 Seat and backrest locks	6.2.4, 6.3.5, 6.4.3 Chair locks	Same as before.