

# Virco welcomes ANSI/BIFMA X6.1



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## the new testing standard for educational seating

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ANSI/BIFMA X6.1 (Educational Seating – Tests) was approved on October 22, 2012. More than three years of expert research and consultation, including extensive input from Virco, went into its development.

ANSI/BIFMA X6.1 provides our industry's first commonly accepted testing standard for:

- Fixed-height classroom chairs and stools (all seat heights)
- Tablet-arm and chair desk units
- Adjustable task chairs and lab stools with non-tilting seats/back
- Convertible bench tables

The exacting tests of ANSI/BIFMA X6.1 are designed to evaluate student seating for learning and common-space environments in:

- Pre-school & K-12 settings
- Adult education venues
- Trade schools
- Colleges & universities

ANSI/BIFMA X6.1:

- Describes the means of evaluating Educational Seating, independent of:
  - ▶ construction materials & manufacturing processes
  - ▶ mechanical designs & aesthetic designs

- This standard does not address:
  - ▶ flammability, surface material durability & cushioning materials
  - ▶ product emissions, lead content, or ergonomic considerations
  - ▶ these may be covered by other standards/regulatory documents

The tests in ANSI/BIFMA X6.1:

- Are intended to assess the performance of new products only
- Not intended to assess a product that has been in use

ANSI/BIFMA X6.1 does not apply to:

- Furniture used in dorms and related environments
- Folding chairs or seating anchored to a building's floor or other structures

Other ANSI/BIFMA standards apply to the following products:

- Tables, teacher desks and student desks: ANSI/BIFMA X5.5
- Chairs with tilting seats and/or backs: ANSI/BIFMA X5.1
- Lounge seating: ANSI/BIFMA X5.4



The wording of ANSI/BIFMA X6.1 states that, “tests in this standard were developed considering the weight ranges based on age (not grade level)” for various sizes of covered educational seating. These weights, as noted in the standard, were taken from the CAESAR<sup>1</sup> anthropometric database and/or from the National Health and Nutrition Examination Survey (NHANES<sup>2</sup>), as applicable.

ANSI/BIFMA X6.1 indicates that “chair size (categories) was based on size/weight information from NHANES combined data set years 2005-2008. Where appropriate:

- The CAESAR anthropometric database (2002 report)
  - ▶ which indicates the 95th percentile male weighs 253 pounds,
  - ▶ was used in the development of the tests for size C.
- The standard also considered
  - ▶ the use of the smaller (Category A and B) products by adults.
  - ▶ the tests were developed with an estimated product life of ten years
  - ▶ based on estimates for usage as determined by the manufacturer’s experience and research.”

With regard to testing standards other than those of ANSI/BIFMA, Virco’s MTB Series mobile bench tables and MTS Series mobile stool tables pass testing specified by the UL® 2040 standard for “Folding Rollaway Tables.”



Also please note the following from ANSI/BIFMA X6.1:

“In general, seating was estimated to be used 6.5 to 8 hours/day and 170-180 days per year for learning environments and other common space environments and 2 to 4 hours/day for convertible bench tables. Product life will be affected by user size/weight, daily hours of use, product use, care and maintenance, environment and other factors, and, as such, product compliance to this standard does not necessarily guarantee a ten-year product life. Actual life of the product may be more or less than ten years depending on the aforesaid factors.”

ANSI/BIFMA X6.1 perfectly complements Virco’s 64-year tradition of manufacturing the finest educational furniture for K-12 schools, colleges and universities. Along with our well-earned reputation for product quality, customers will be able to rely on the rigorous criteria of BIFMA X6.1 when assessing the strength, durability and stability of the Virco furniture models covered by this standard.

A list of Virco products that have passed ANSI/BIFMA X6.1 testing to date will be posted on Virco’s soon-to-be-launched new and improved website.

<sup>1</sup>“The CAESAR Product Line (Civilian American and European Surface Anthropometry Resource) was designed to provide you with the most current measurements for today’s body. This product line was developed as a result of a comprehensive research project that brought together representatives from numerous industries including apparel, aerospace, and automotive. CAESAR began as a partnership between government and industry to collect the most extensive sampling of consumer body measurements for comparison. The project collected data on 2,400 U.S. & Canadian and 2,000 European civilians and a database was developed.” See <http://store.sae.org/caesar/index.htm>; another web page (<http://www.sae.org/standardsdev/tsb/cooperative/caesar.htm>) states, “SAE’s Cooperative Research Program was responsible for raising industry funding for CAESAR.”

<sup>2</sup>According to the Centers for Disease Control and Prevention (<http://www.cdc.gov/nchs/nhanes.htm>), “The National Health and Nutrition Examination Survey (NHANES) is a program of studies designed to assess the health and nutritional status of adults and children in the United States. The survey is unique in that it combines interviews and physical examinations.”