



# Test Report: 4790865985.1 Rev.1

This report cancels and replaces the previous N° 4790865985.1 issued on 29/8/2023

## APPLICANT

**Name:** Pineapple Contracts Unlimited

**Address:** Westmead  
Aylesford, ME20 6XJ  
United Kingdom

**Product:** ANSI/BIFMA X5.4 - RYNO  
Dining Chair



## DATE

Sample in:	11/7/2023	(dd/mm/yyyy)
Tests start:	13/7/2023	(dd/mm/yyyy)
Tests end:	28/8/2023	(dd/mm/yyyy)
Report issue:	23/9/2023	(dd/mm/yyyy)

## OVERALL DIMENSIONS:

Measured:	Depth:	610 mm;	Height:	890 mm;
	Width:	465 mm;	Weight:	12,1 kg;
Nominal	Depth:	ND;	Height:	ND;
	Width:	ND;	Weight:	ND;

Sample number 6112649      Order number: 14817769

## REFERENCE STANDARD

**ANSI/BIFMA X5.4:2020 Public and Lounge Seating.**

NOTE: clauses considered as not applicable to the product are not listed in this report.

Example of products covered by the standard: common/shared spaces such as waiting, reception, visitor seating in patient rooms\*, restaurant/dining/cafeteria\*\* settings and other gathering areas.

**Sample defects before the test: NO VISIBLE DEFECTS**

Tests have been performed at a temperature of  $20 \pm 6$  °C

The tests have been performed on 1 sample as requested by the customer

The sample is classified as single seat of class C

Technician  
Rodolfo Sala

Laboratory Manager  
Matteo Longoni

*Note: any copy, even partial, of this report, and any change or alteration to it are strictly forbidden.  
The test results listed in this report are relevant only for the tested sample. Sampling performed by the customer.*

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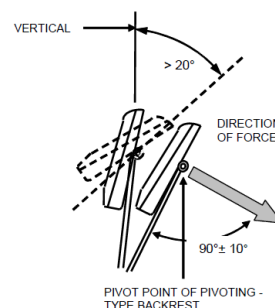
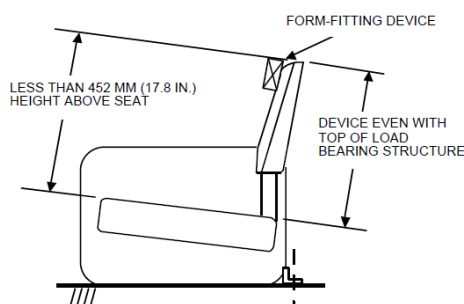
**Issued on: 29/8/2023**

Seating properties		
Length of the seat [mm]	Number of seating positions (nearest whole number to length divided by 771)	Single seat length (mm)
460	1	460

**Note:**

**Tested backrest is of PIVOT type: No**

**ANSI/BIFMA X5.4:2020 Par. 5 Backrest Strength Test - Horizontal - Static**



**Test has been performed pushing the backrest backwards**

**Backrest height: 480 mm**

**Backrest inclination: 80 °**

**Loading pad height measured from the seat: 406 mm**

Functional Load			
Backrest load (N)	Time of application (sec)	Cycles	Rating
667	60	1	P

**Note:** Test performed as 1<sup>st</sup> test on this sample.

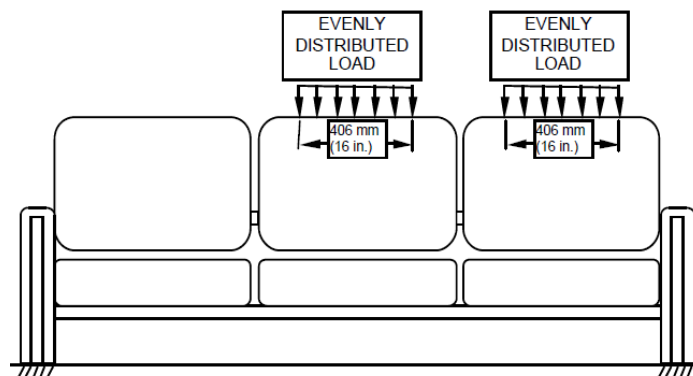
Proof Load			
Backrest load (N)	Time of application (sec)	Cycles	Rating
1.112	10	1	P

**Note:** Test performed as 2<sup>nd</sup> test on this sample.

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**ANSI/BIFMA X5.4:2020 Par. 6 Backrest Strength Test - Vertical - Static**



Functional Load			
Backrest load (N)	Time of application (sec)	Cycles	Rating
890	60	1	NA

**Note:** Test not applicable as the backrest is less than 50 mm thickness.

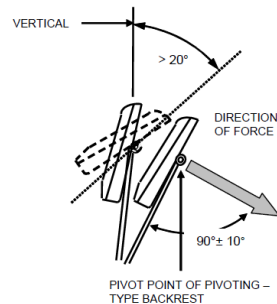
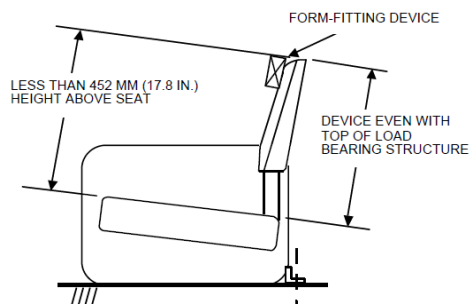
Proof Load			
Backrest load (N)	Time of application (sec)	Cycles	Rating
1.334	10	1	NA

**Note:** Test not applicable as the backrest is less than 50 mm thickness.

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**ANSI/BIFMA X5.4:2020 Par. 7 Backrest Durability Test - Horizontal - Cyclic**



**Test has been performed pushing the backrest backwards**

**Backrest height: 480 mm**

**Backrest inclination: 80 °**

**Loading pad height measured from the seat: 406 mm**

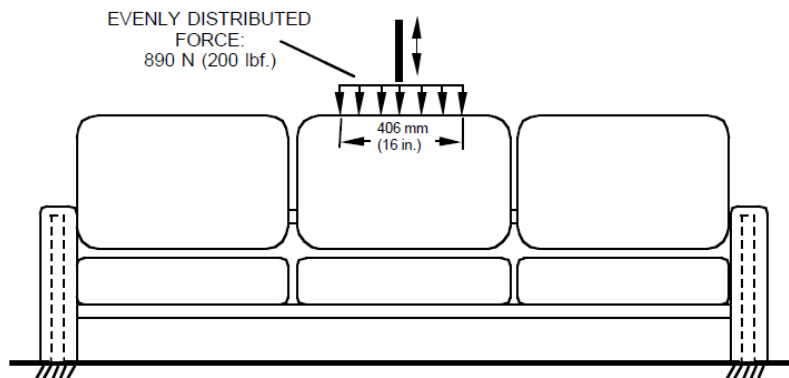
Seat load (kg)	Backrest load(N)	Frequency (cycles per minute)	Cycles	Rating
109	334	10	120.000	P

**Note:** Test performed as 3<sup>rd</sup> test on this sample.

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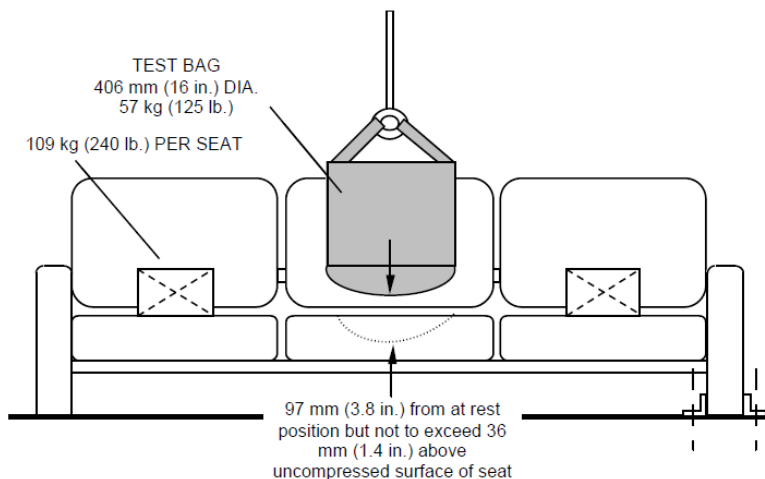
**ANSI/BIFMA X5.4:2020 Par. 8 Backrest Durability Test - Vertical - Cyclic**



Backrest load (N)	Frequency (cycles per minute)	Cycles	Rating
890	10	10.000	NA

**Note:** Test not applicable as the backrest is less than 50 mm thickness.

ANSI/BIFMA X5.4:2020 Par. 14 Seating Durability Tests - Cyclic



**Minimum thickness of cushiony materials of seat:** 0 mm

**Thickness of additional foam:** 50 mm (IFD al 25% di 200 N  $\pm$  22 N)

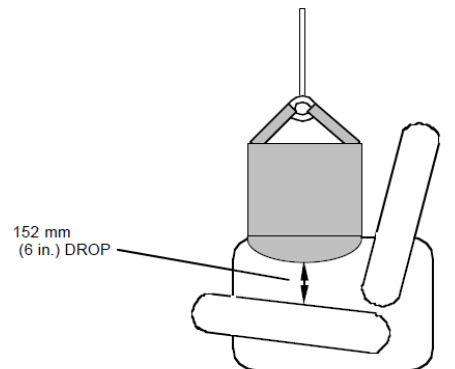
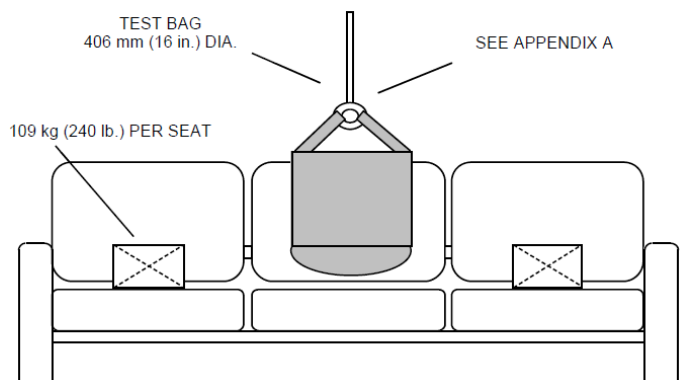
**Distance between the bag and the backrest:** 13 mm

**Vertical distance between the bottom of the bag in its “at rest” position and the uncompressed surface on the seat:** 36 mm (The free fall shall begin after lifting the test bag 97 mm (3.8 in.) above its “at rest” position, but not to exceed 36 mm (1.4 in.) above the uncompressed surface on the seat - as measured at the center of the seat)

Weight of bag (kg)	Height of fall from “at rest” position (mm)	Cycles	Frequency (cycles / minute)	Rating
57	36	100.000	10	P

**Note:** Test performed as 4<sup>th</sup> test on this sample.

**ANSI/BIFMA X5.4:2020 Par. 15 Drop Test - Dynamic**



**Functional load**

Applied load to sitting places not under tested (kg)	Number of sitting places tested	Drop height above uncompressed seat (mm)	Impact mass (kg)	Cycles	Rating
102	1	152	102	1	P

**Note:** Test performed as 5<sup>th</sup> test on this sample. The test has been performed on each sitting position in sequence.

**Proof load**

Applied load to sitting places not under tested (kg)	Number of sitting places tested	Drop height above uncompressed seat (mm)	Impact mass (kg)	Cycles	Rating
136	1	152	136	1	P

**Note:** Test performed as 6<sup>th</sup> test on this sample. The test has been performed on each sitting position in sequence.

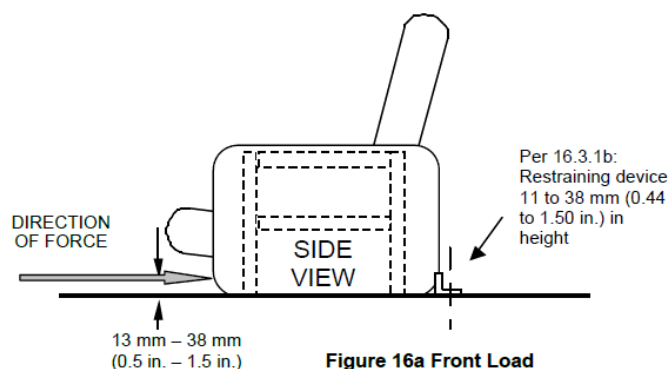
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**ANSI/BIFMA X5.4:2020 Par. 16 Leg Strength Test - Front and Side**

This test shall be performed on all units without pedestal bases (e.g. with legs or feet)

**ANSI/BIFMA X5.4:2020 Par. 16.3 Front Load Test**



Functional load			
Horizontal force (N)	Time of application (sec)	Cycles	Rating
334	60	1	NA

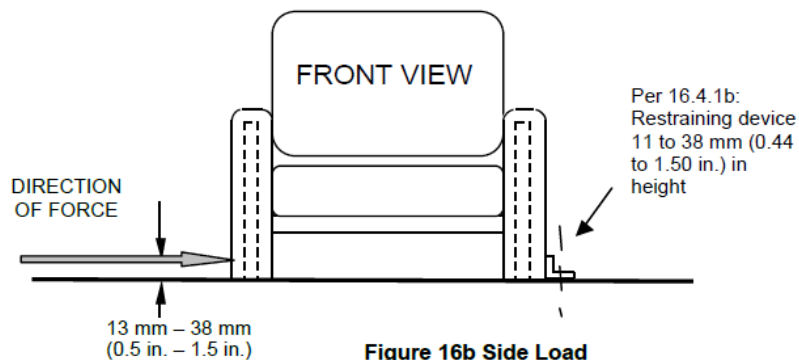
**Note:** Not applicable to pedestal base products; product considered as pedestal base.

Proof load			
Horizontal force (N)	Time of application (sec)	Cycles	Rating
503	60	1	NA

**Note:** Not applicable to pedestal base products; product considered as pedestal base.



ANSI/BIFMA X5.4:2020 Par. 16.4 Side Load Test



Functional load			
Horizontal force (N)	Time of application (sec)	Cycles	Rating
334	60	1	NA

**Note:** Not applicable to pedestal base products; product considered as pedestal base.

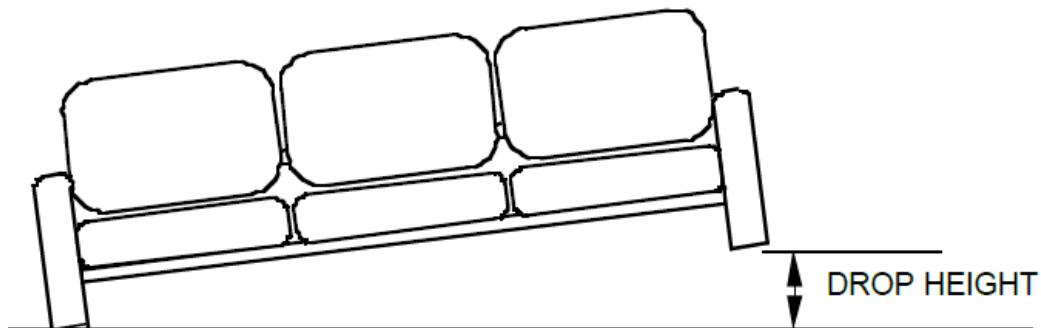
Proof load			
Horizontal force (N)	Time of application (sec)	Cycles	Rating
503	60	1	NA

**Note:** Not applicable to pedestal base products; product considered as pedestal base.

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ANSI/BIFMA X5.4:2020 Par. 17 Unit Drop Test - Dynamic



Sample weight (kg)	Drop height (mm)	Cycles	Side	Rating
< 45	180	1	Left	P
		1	Right	P
45 - 90	120	1	Left	NA
		1	Right	NA
> 90 – 136	60	1	Left	NA
		1	Right	NA
> 136	Non applicabile	-	-	NA

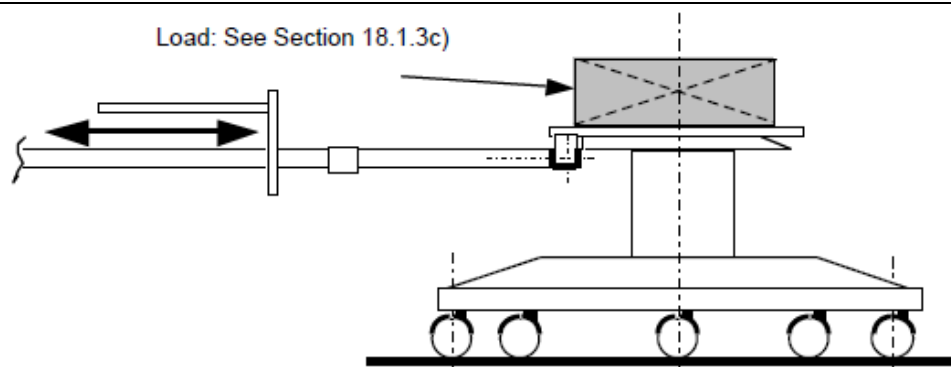
**Note:** Test performed as 7<sup>th</sup> test on this sample.

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**ANSI/BIFMA X5.4:2020 Par. 18 Caster/Chair Base Durability Test – Cyclic**

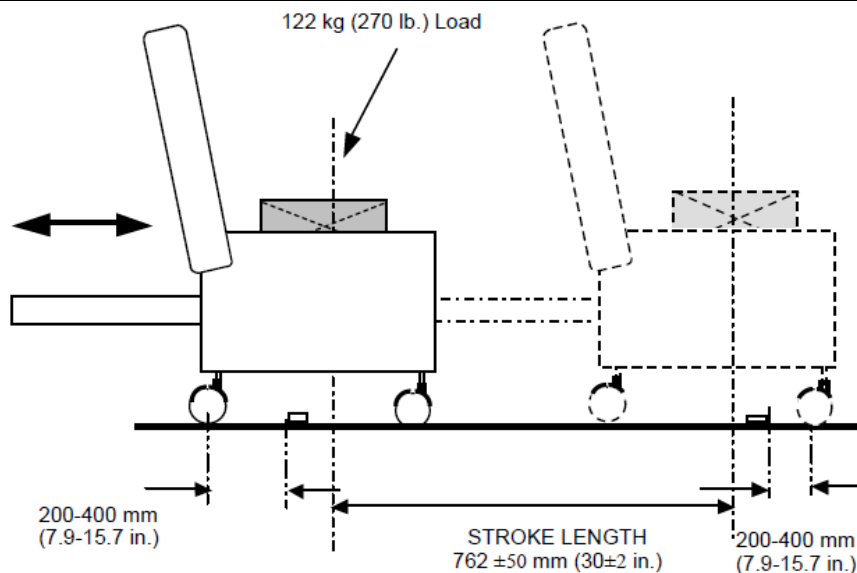
**ANSI/BIFMA X5.4:2020 Par. 18.1 Caster/Chair Base Durability Test for Pedestal Base Chairs**



Step	Load (kg)	Frequency (cycles / minute)	Cycles	Extraction force applied to the wheels (N)	Rating
With obstacles	113	10	500	22	NA
Without obstacles		10	25.000		

**Note:** Sample without casters.

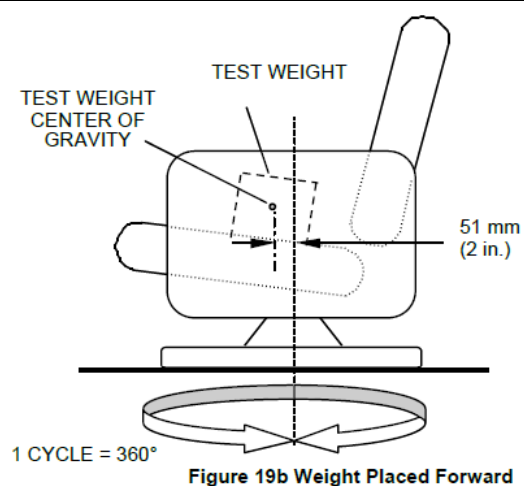
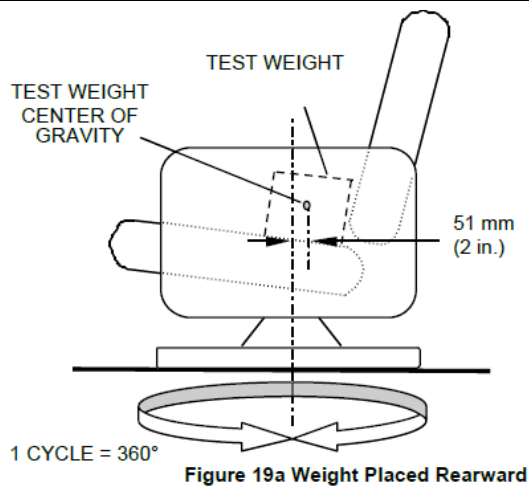
ANSI/BIFMA X5.4:2020 Par. 18.2 Caster/Chair Frame Durability Test for Chairs with Legs



Step	Load (kg)	Frequency (cycles / minute)	Cycles	Extraction force applied to the wheels (N)	Rating
With obstacles	122	10	500	22	NA
Without obstacles		10	25.000		

**Note:** Pedestal base sample without casters.

ANSI/BIFMA X5.4:2020 Par. 19 Swivel Test - Cyclic



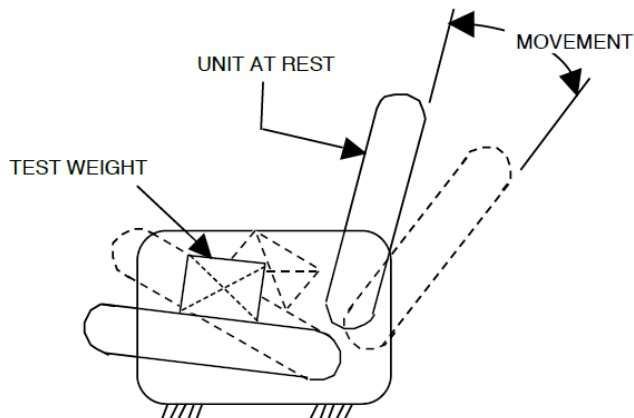
Load (kg)	Frequency (cycles / minute)	Cycles	Rating
122	10	120.000	NA

**Note:** Non swivel product.

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ANSI/BIFMA X5.4:2020 Par. 20 Tilt/rocker/glider Mechanism Test - Cyclic

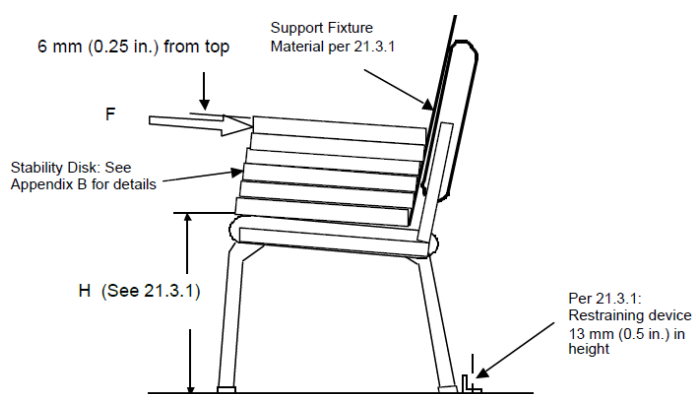
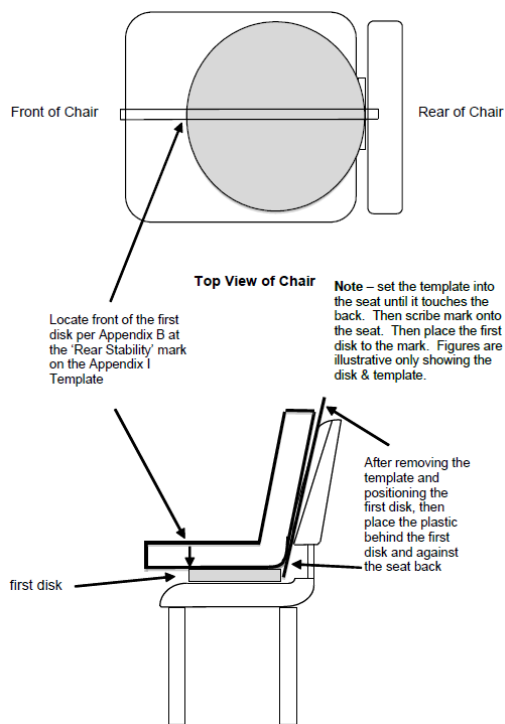


Load on the seat (kg)	Cycles	Frequency (cycles / minute)	Rating
109	200.000	10	NA

**Note;** Non tilting unit.

ANSI/BIFMA X5.4:2020 Par. 21 Stability Tests

ANSI/BIFMA X5.4:2020 Par. 21.3 Rear Stability for Non-tilting Units



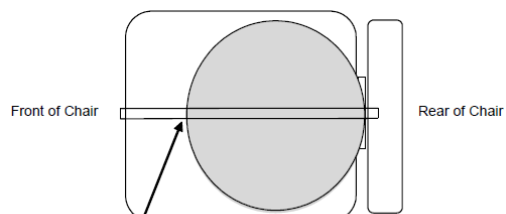
Force has been applied : On top of disks

Applied discs on seat	Horizontal force (N)	Loading point	Rating
6	150	On top of disks	P

**Note:** The horizontal force was determined by the following formula:  $F = 0,1964 (1195 - H)$ , when H found is: 430 mm.

Test performed as 8<sup>th</sup> test on this sample.

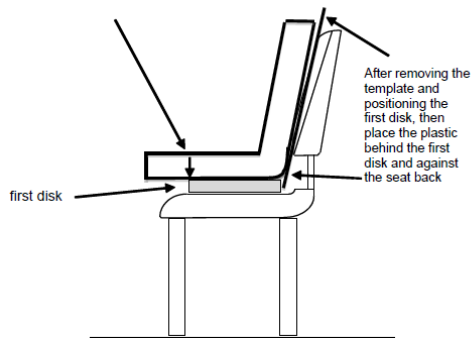
ANSI/BIFMA X5.4:2020 Par. 21.4 Rear Stability for Tilting Units



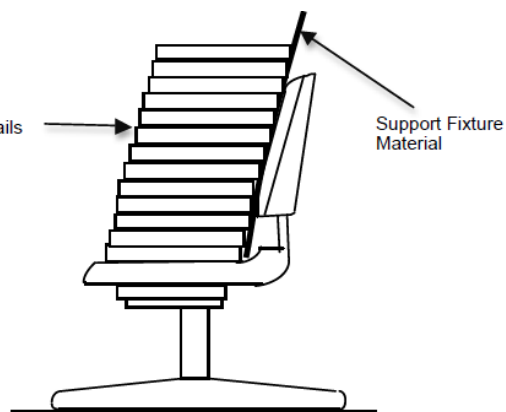
Top View of Chair

Locate front of the first disk per Appendix B at the 'Rear Stability' mark on the Appendix I Template

Note – set the template into the seat until it touches the back. Then scribe mark onto the seat. Then place the first disk to the mark. Figures are illustrative only showing the disk & template.



Stability Disk: See Appendix B for Details

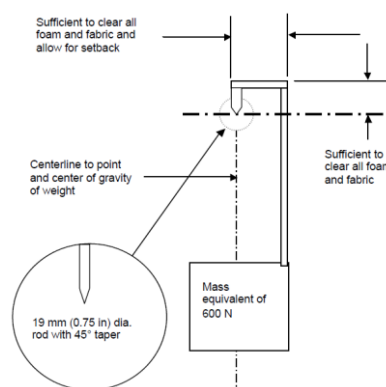
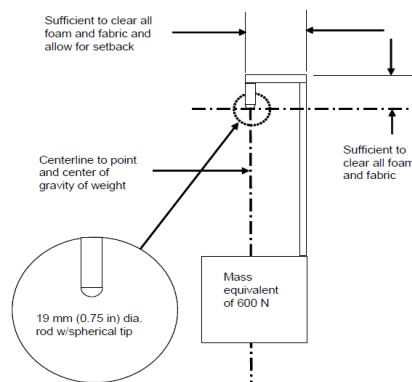
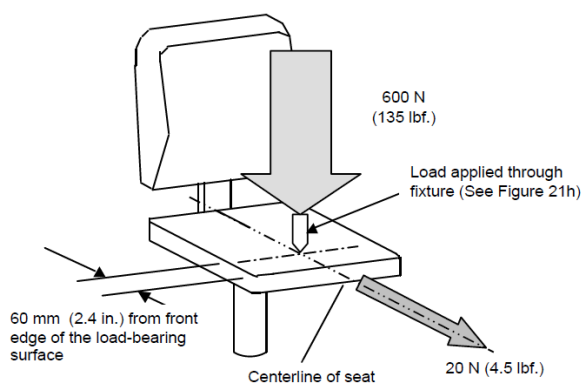
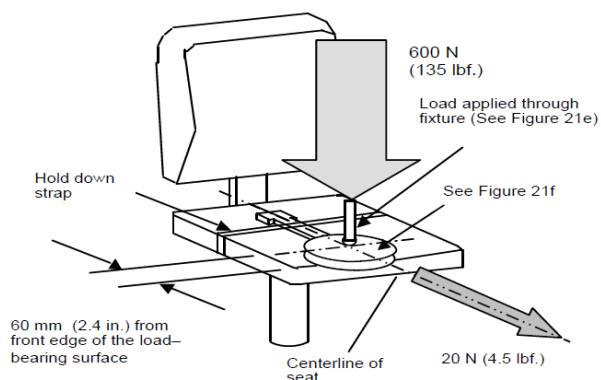


Applied discs on seat	Rating
13	NA

**Note:** Non tilting unit.



**ANSI/BIFMA X5.4:2020 Par. 21.5 Front Stability for Units Less than 36.3 kg (80 lbs.)**



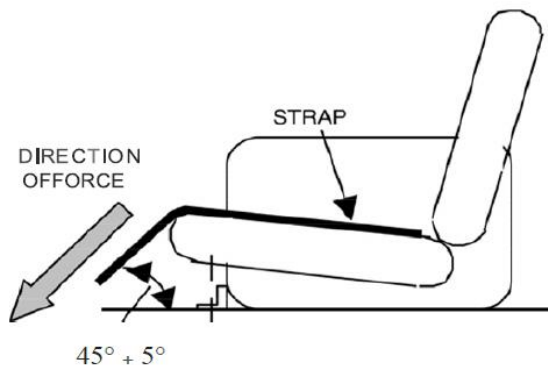
Load seat (kg)	Loading point (mm)	Horizontal force (N)	Rating
60	60 from the front center edge of the loadbearing surface of the chair	20	P

**Note:** Test performed as 9<sup>th</sup> test on this sample.

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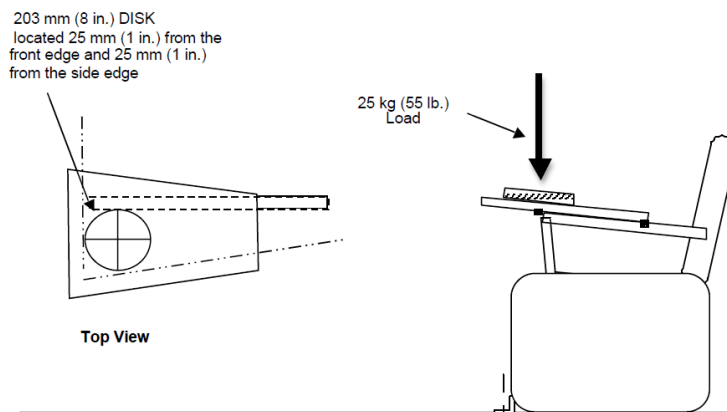
ANSI/BIFMA X5.4:2020 Par. 21.6 Front Stability for Units Greater Than or Equal to 36.3 kg (80 lbs.)



Applied force - Downward (N)	Rating
	NA

Note: Sample weight 12,1 kg.

ANSI/BIFMA X5.4:2020 Par. 22 Tablet Arm Load Ease Test - Cyclic



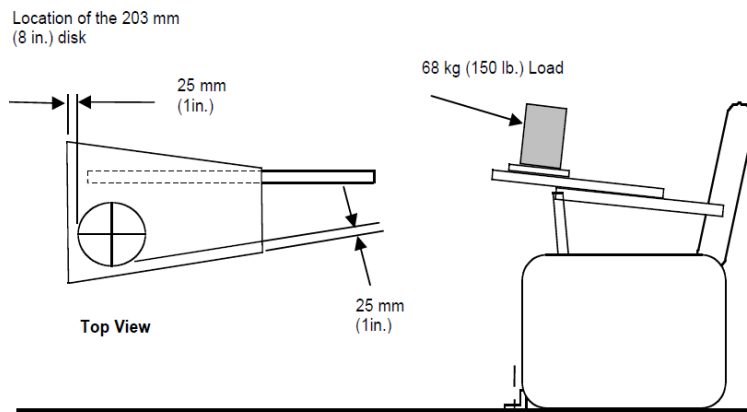
Load (kg)	Cycles	Frequency (cycles / minute)	Rating
25	100.000	10	NA

Note: product without tablet arm.

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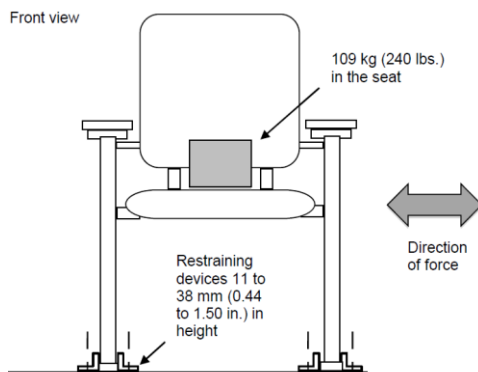
**ANSI/BIFMA X5.4:2020 Par. 23 Tablet Arm Load Ease Test - Cyclic**



Load (kg)	Time of application (sec)	Rating
68	60	NA

**Note:** product without tablet arm.

**ANSI/BIFMA X5.4:2020 Par. 24 Structural Durability Test – Side-to-Side - Cyclic**



Load (kg)	Horizontal force (N)	Cycles	Frequency (cycles per minute)	Rating
109	334	25.000	10	P

**Note:** Test performed as 10<sup>th</sup> test on this sample.



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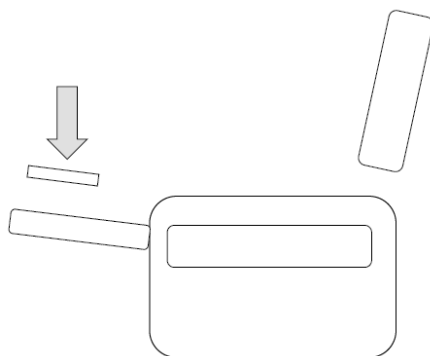
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**ANSI/BIFMA X5.4:2020 Par. 25 Cycle Test for Recliners - Backrest and/or Legrest Mechanism Durability**

Load applied in the center of the backrest (kg)	Load applied in the center of the seat (kg)	Load applied in the center of the legrest (kg)	Cycles	Frequency (cycles per minute)	Rating
56	56	12	25.000	15	NA

**Note:** Non-reclining chair

**ANSI/BIFMA X5.4:2020 Par. 26 Legrest Strength Test – Static Load**



**For units that may remain upright (without reclining the backrest) when extending the legrest**

Seat load (kg)	Legrest load (kg)	Rating
112	13.6	NA

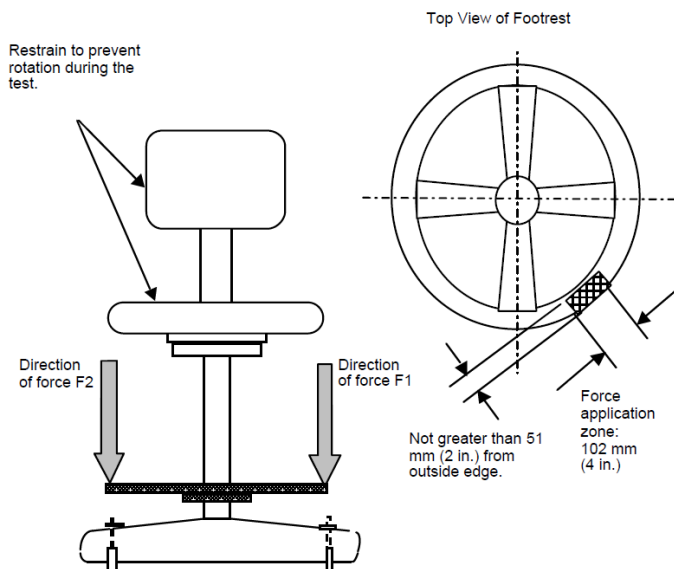
**Note:** Product without legrest.

**For units that must be reclined when extending the legrest**

Seat load (kg)	Backrest load (kg)	Legrest load (kg)	Rating
56	56	13.6	NA

**Note:** Product without legrest.

**ANSI/BIFMA X5.4:2020 Par. 27 Footrest Static Load Test – Vertical**



Functional Load				
Vertical force 1 (N)	Vertical force 2 (N)	Time of application (sec)	Cycles	Rating
445	445	60	1	NA
890	-	60	1	NA

**Note:** Product without footrest.

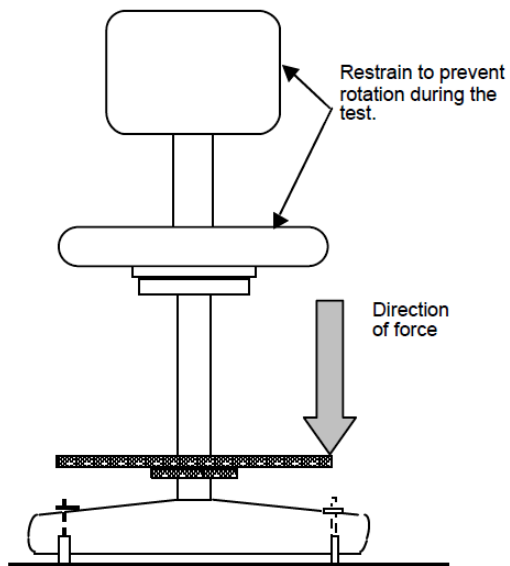
Proof load			
Vertical force (N)	Time of application (sec)	Cycles	Rating
1334	10	1	NA

**Note:** Product without footrest.

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**ANSI/BIFMA X5.4:2020 Par. 28 Footrest Durability Test for Stools - Vertical - Cyclic**



Force applied (N)	Cycles	Frequency (cycles per minute)	Rating
890	50.000	10	NA

**Note:** Product without footrest.



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**ANSI/BIFMA X5.4:2020 Appendix E – Recliner Pinch Point Cautions (Informative)**

	Rating	Note
<b>E.1 General requirement</b>	NA	Non-reclining chair
All parts of the seating with which the user comes into contact during intended use should be designed to ensure that physical injury and damage are avoided. These requirements are met when:	NA	
a) edges of the seat, back rest and arm rests, which are in contact with the user when sitting are rounded or chamfered. All other edges accessible during use should be free from burrs and/or sharp edges	NA	
b) ends of hollow components are closed or capped.	NA	
Movable and adjustable parts should be designed so that injuries and inadvertent operation are avoided.	NA	
Load bearing parts of the seating unit should not come loose unintentionally.	NA	
All parts, which are lubricated to assist sliding, should be designed to protect users from lubricant stains when in normal use.	NA	
<b>E.2 Shear and squeeze points:</b>	NA	
<b>E.2.1 Shear and squeeze points when setting up and folding.</b> Unless E.2.2 or E.2.3 are applicable, shear and squeeze points that are created only during setting up and folding, including tipping seat, are acceptable, because the user can be assumed to be in control of his/her movements and to be able to cease applying the force immediately upon experiencing pain.  The edges of parts moving relative to each other and creating shear and squeeze points should be as specified in E.1.	NA  NA	
<b>E.2.2 Shear and squeeze points under influence of powered mechanisms:</b> With the exception of tipping seats there should be no shear and squeeze points created by parts of the seating under powered mechanisms e.g. springs and gas lifts. <i>Note: Electrically operated seating is covered by EEC Directives for EMC, Machinery, Low Voltage or Medical Devices</i>	NA	
<b>E.2.3 Shear and squeeze points during use.</b> There shall be no shear and squeeze points created by loads applied during normal use.  There should be no shear and squeeze points created by loads applied during normal use.  Shear and squeeze points are not acceptable if a hazard is created by the weight of the user during normal movements and actions, e.g. attempting to move the seating by lifting the seat or by adjusting the backrest. <i>Note: This hazard is best prevented by the use of automatic locking mechanisms</i>	NA  NA  NA	

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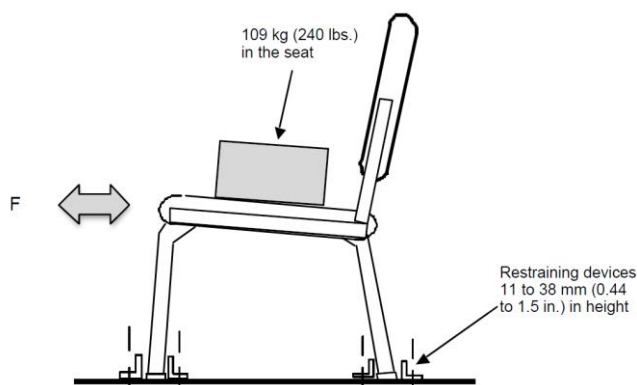
**Issued on: 29/8/2023**

**ANSI/BIFMA X5.4:2020 Appendix G - Recliner Front Stability with Legrest Extended (Informative)**

Legrest load (kg)	Time of application (sec)	Rating
-	60	NA

**Note:** Non-reclining chair

**ANSI/BIFMA X5.4:2020 Appendix M - Structural Durability Test – Front-to-Back - Cyclic (Informative)**



Load (kg)	Horizontal force (N)	Cycles	Frequency (cycles per minute)	Rating
109	334	25.000	10	NA

**Note:** Not applicable to samples weighing more than 10 kg; sample weight: 12,1.

**Key:**

- P** = PASS, the sample MEETS the standard requirement.
- F** = FAIL, the sample DOES NOT MEET the standard requirement.
- NA** = NON APPLICABLE, the requirement/test IS NOT APPLICABLE to the sample.
- NR** = NOT REQUESTED, On Customer request the test is NOT PERFORMED.
- NP** = General note (see details).
- ND** = NOT DECLARED.
- //** = The rating of test CANNOT BE EXPRESSED, see details in test report

**END OF TEST REPORT**