

Haida Testing Machine Corresponded to BIFMA X5.1 2011

BIFMA X 5.1 Standard Clause	Haida Applied Machine
5 Backrest Strength Test-Static-Type I	HD-F739 Chair Universal Tester
6 Backrest Strength Test-Static-Type II and III	HD-F739 Chair Universal Tester
7 Base Test-Static	HD-F733 Chair Base Tester
8 Drop Test-Dynamic	HD-F736 Chair Drop Tester
9 Swivel Test-Cyclic	HD-F731 Chair Swivel Tester
10 Tilt Mechanism Test-Cyclic	HD-F739 Chair Universal Tester
11 Seating Durability Tests-Cyclic	HD-F736 Chair Drop Tester
12 Stability Test	HD-F739 Chair Universal Tester
13 Arm Strength Test-Vertical-Static	HD-F739 Chair Universal Tester
14 Arm Strength Test-Horizontal-Static	HD-F739 Chair Universal Tester
15 Backrest Durability Test-Cyclic-Type I	HD-F739 Chair Universal Tester
16 Backrest Durability Test-Cyclic-Type II and Type III	HD-F739 Chair Universal Tester
17 Castor/Chair Base Durability Test-Cyclic	HD-F732 Chair Castor Durability Tester
18 Leg strength Test-Front and Side Application	HD-F735 Chair Arm and Leg Tester
19 Footrest Static Load Test-Vertical	HD-F739 Chair Universal Tester
20 Footrest Durability Test-Vertical-Cyclic	Not Applied
21 Arm Durability Test-Cyclic	HD-F735 Chair Arm and Leg Tester
22 Out Stop Tests for Chairs with Manually Adjustable Seat Depth	HD-F739 Chair Universal Tester
23 Tablet Arm Chair Static Load Test	HD-F739 Chair Universal Tester
24 Tablet Arm Chair Load Ease Test-Cyclic	HD-F739 Chair Universal Tester



EQUIPMENT DETAILS

HD-F735 Chair Arm and Leg Tester

Product Image



(for reference only)



Air cylinder

Product description:

The machine is designed to evaluate the ability of the chair to withstand stresses that occur as a result of repetitive loading that can be imposed on the armrest structure. Loading of this type is the result of using the armrests as a support when getting into or out of the chair.

Tester Introduction:

Test rig for chair leg strength test according to BIFMA X 5.1 clause 18 and arm strength & durability test according to BIFMA X 5.1 clause 13.14&21.

Technical Parameters:

1. Test rate: 10 to 30 times / min
2. Armrest height adjustment range: 550mm ~ 950mm
3. Adjustable applied force and adjustable force holding time
4. Power: one phase, AC 220V, 50Hz
5. Dimension: w*d*h (188*103*230cm)





Test Procedure:

BIFMA X 5.1 clause 18 (Front Load Test/ Side Load Test)

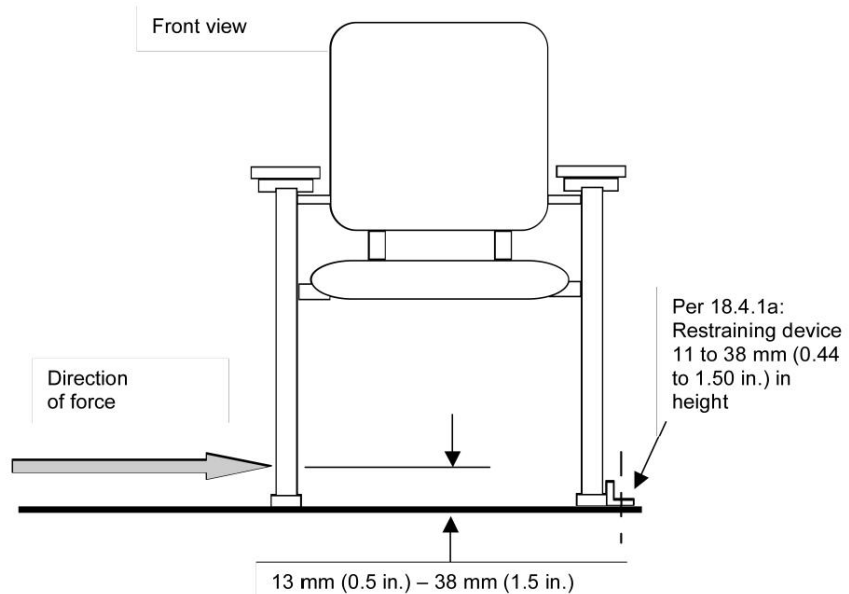
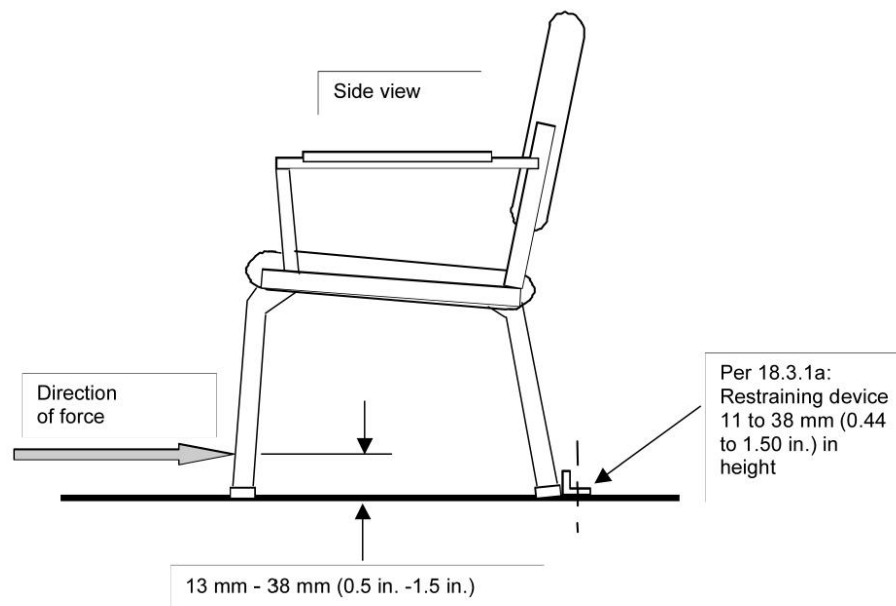
1. Functional Load Test/ Proof Load Test

A force of 334 N (75 lbf.) shall be applied once to each front leg individually for one (1) minute. Remove the force

2. Proof Load Test

Similar with functional load test, but the force is 503 N (113 lbf)

Test images:



BIFMA X 5.1 clause 13 (Arm Strength Test - Vertical - Static)

1. Functional Load

A force of 750 N (169 lbf.) shall be applied for one (1) minute.

Remove the force.

2. Proof Load

A force of 1125 N (253 lbf.) shall be applied for one (1) minute.

Remove the force.

Test images:

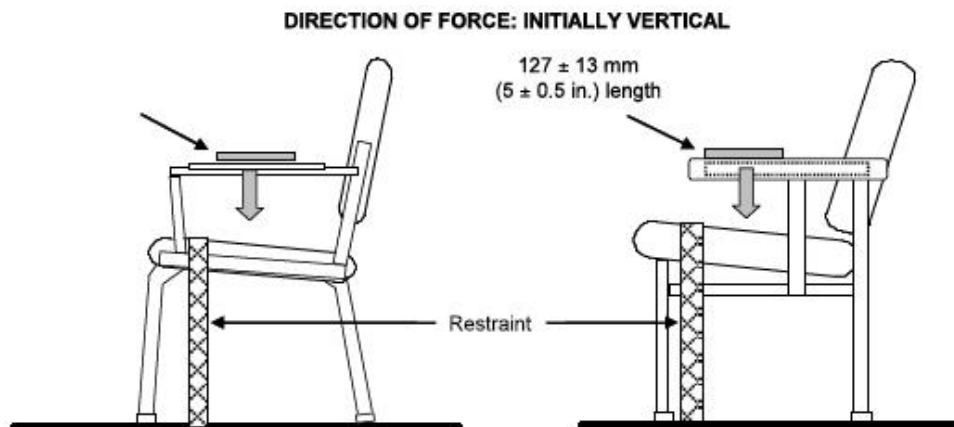
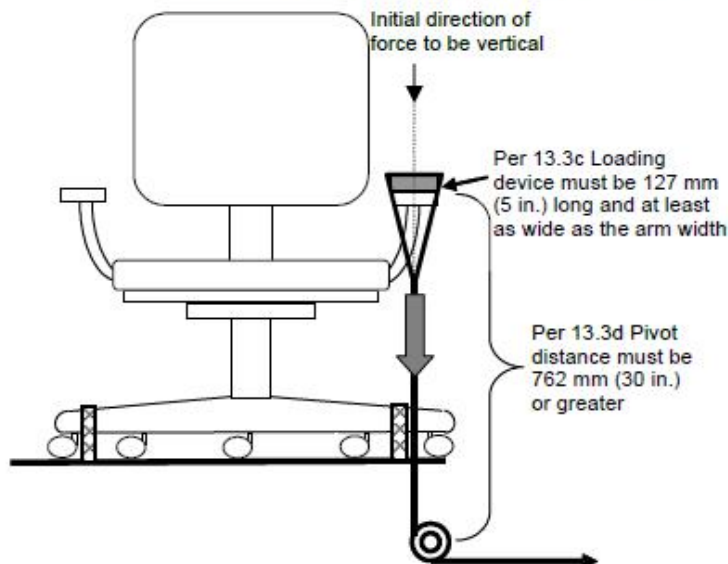


Figure 13a - Arm Strength Test - Vertical - Static





BIFMA X 5.1 clause 14 (Arm Strength Test - Horizontal - Static)

1. Functional Load

A force of 445 N (100 lbf.) shall be applied for one (1) minute in the outward direction.

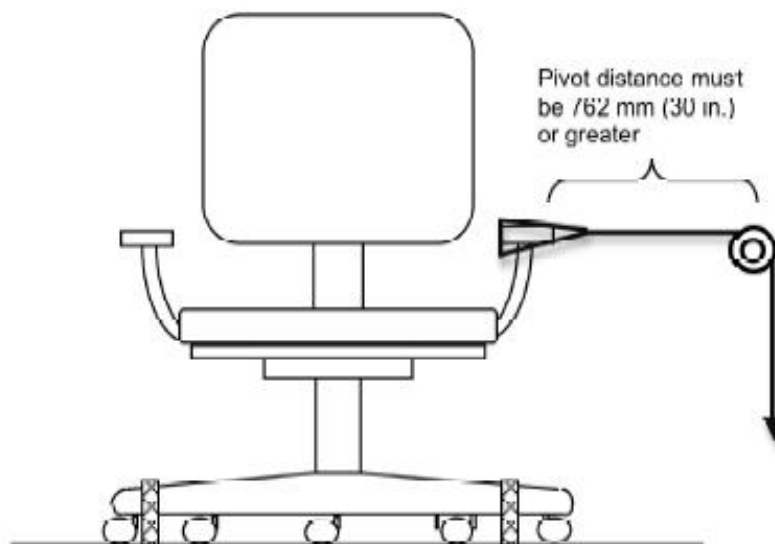
Remove the force.

2. Proof Load

A force of 667 N (150 lbf.) shall be applied for one (1) minute in the outward direction.

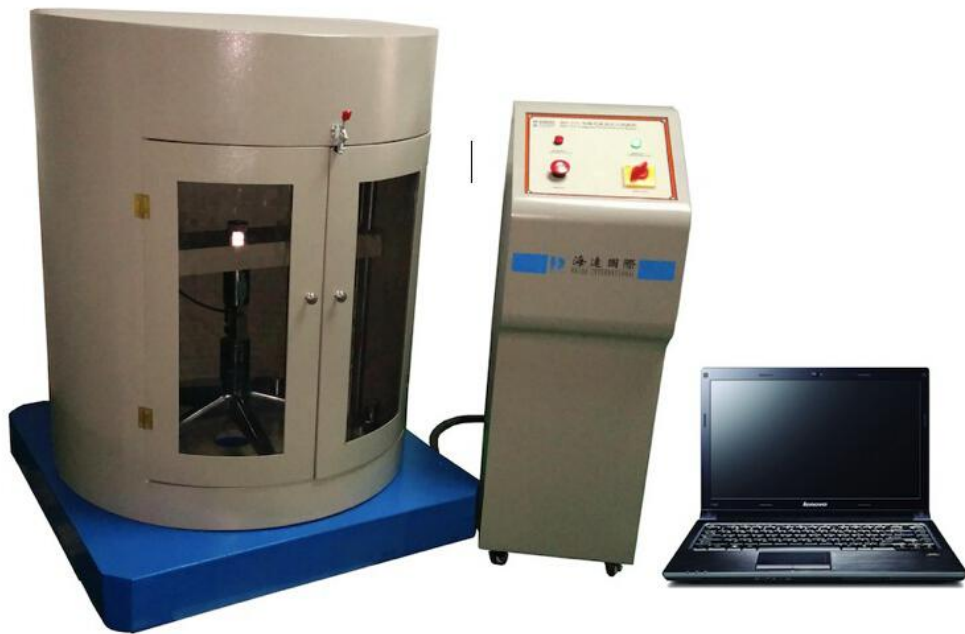
Remove the force.

Test images:





HD-F733 Chair Base Tester
Product Image





Product description:

The machine is designed for the vertical pressure testing, destructive testing and fatigue testing of the office chair ipomoea base (star base),repeated pressure loading in setting force and test cycle as the fatigue test.(All holding pressure time and cycle number of test can be adjusted)

Tester Introduction:

Test rig for chair base test according to BIFMA X5.1 clause 7(Base Test – Static)

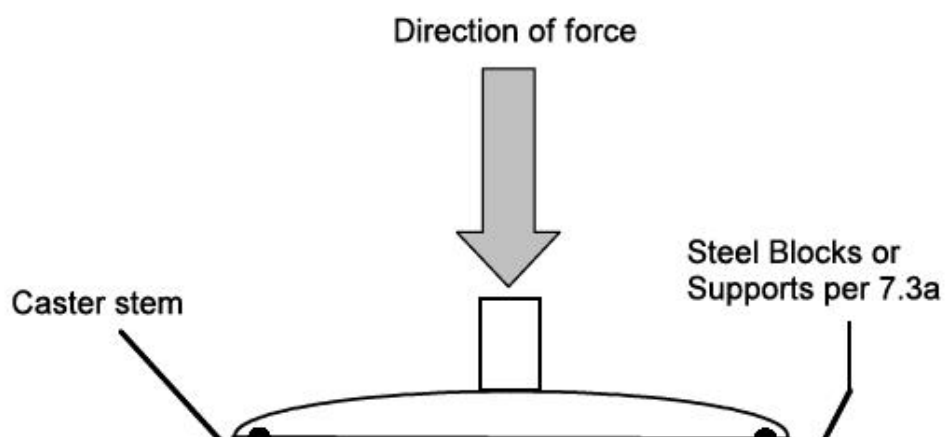
Technical Parameters:

1. Load resolution: 1/250,000
2. Max sample width: 1000mm
3. Power: 1 phase, AC 220V, 10A
4. Dimension: w*d*h (120*120*185 cm)

Test Procedures

1. A force of 11,120 N (2500 lbf.) shall be applied for one (1) minute.
2. Remove the force.
3. Apply a second force of 11,120 N (2500 lbf.) for one (1) minute.
4. Remove the load.

Test images:





HD-F731 Chair Swivel Tester
Product Image





(For reference only)

Product description:

The machine is designed for evaluating all kinds of the office chair with platform to withstand repeated pressure and wear ability in rotation.

Tester Introduction:

Test rig for chair swivel test according to BIFMA X5.1 clause 9. (Swivel Test – Cyclic)

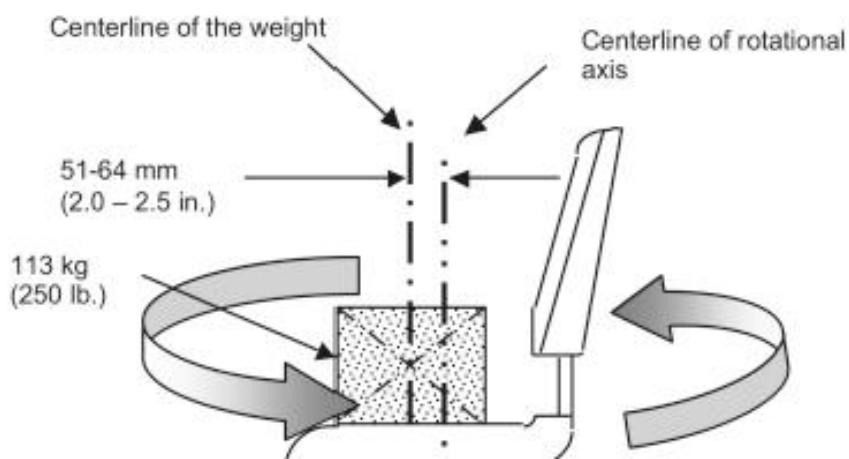
Technical Parameters:

1. maximum seat diameter: 1000 mm
2. Rotational speed : 5 to 20 cycles / minute
3. Times setting: 0 ~ 999,999
4. Power: single phase, AC 220V, 1KW
5. Dimension: W*D*H (120*120*185 cm)

Test Procedures

1. The seat or platform shall rotate for 60,000 cycles at a rate between 5 and 15 rotations per minute.
2. If the seat height is adjustable set the height to its lowest position.
3. For all chairs,

Test images:





HD-F732 Chair Castor Durability Tester

Product image





Product description:

The machine is designed for evaluating the ability of chair base and casters to withstand fatigue stresses and wear caused by moving the chair back and forth.

Tester Introduction:

Test rig for chair swivel test according to BIFMA X5.1 clause 17. (Swivel Test – Cyclic)

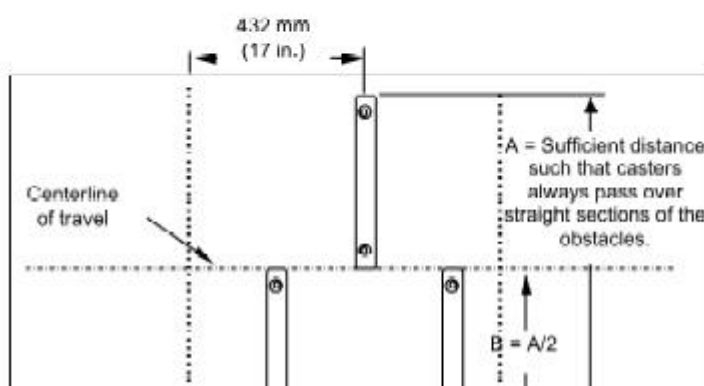
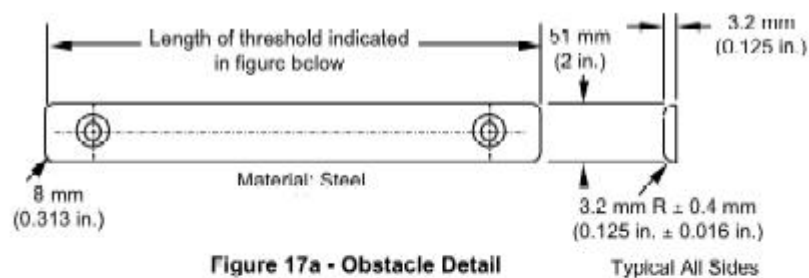
Technical Parameters:

1. Stroke: 762mm (+ 50mm)
2. Test speed: 8 ~ 12 times / min
3. Power: 1 phase, AC 220V, 900W
4. Dimension: W*D*H (140*270*100 cm)

Test Procedures

1. The chair or chair base shall be cycled 2,000 cycles over the obstacles as shown in Figure 17b and then 98,000 cycles on a smooth, hard surface without obstacles.
2. Evaluate the product in accordance with the acceptance level in 17.1.5.1.
3. At the conclusion of cycling, a 22 N (5 lbf.) pull force shall be applied to each caster in line with the caster stem centerline.
4. Evaluate the product in accordance with the acceptance level in 17.1.5.2.

Test images:





Test Procedures

1. The chair or chair base shall be cycled for 2,000 cycles over the obstacles as shown in Figures 17d and 17e and then 98,000 cycles on a smooth hard surface without obstacles.
2. Evaluate the product in accordance with the acceptance level in 17.2.5.1.
3. At the conclusion of cycling, a 22 N (5 lbf.) pull force shall be applied to each caster in line with the caster stem centerline.

Test images:

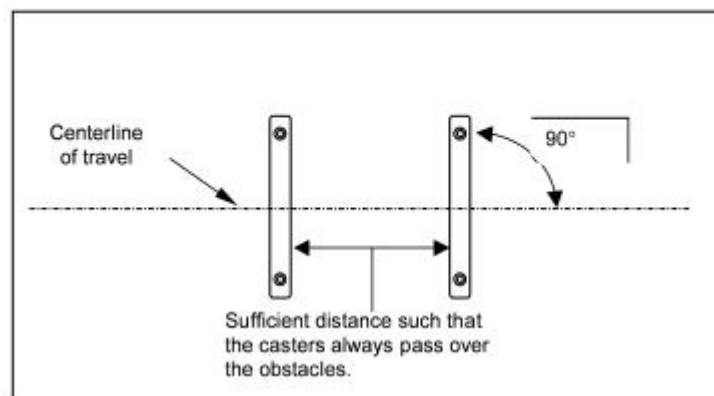
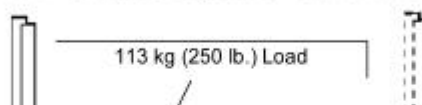
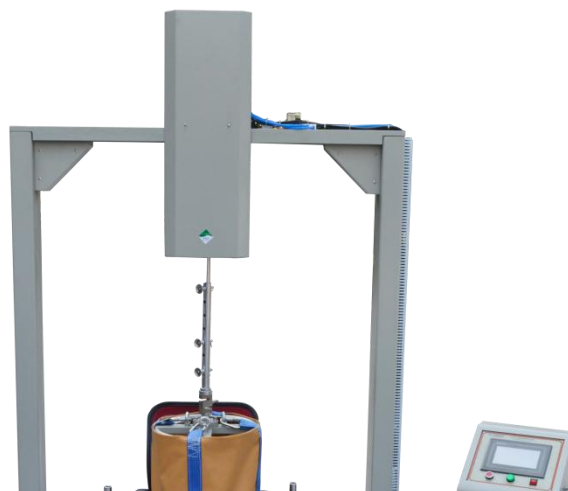


Figure 17d - Obstacle Layout for Chairs with Legs





HD-F736 Chair Drop Tester
Product Image





(For reference only)

Product description:

The machine is designed for performing chair drop impact test and load-ease test

Tester Introduction:

Test rig for chair drop test according to BIFMA X5.1 2001 Clause 8 & Clause 11.3.(Drop Test - Dynamic)

Technical Parameters:

1. 10mm to 180mm Drop Height (adjustable)
- 2.1 TECSIS load cells 2 KN
- 3.1 Electronic fixture to lift bag and then drop it for free
4. PLC and LCD touch screen display
5. Accessories: total test bag weight 136kg (can be divided to 102kg, 57kg)
6. Power: Single phase, AC 220V, 50Hz.
7. Dimension: W*D*H (151*151*235 cm)

Test Procedures:

1. Functional Load Test

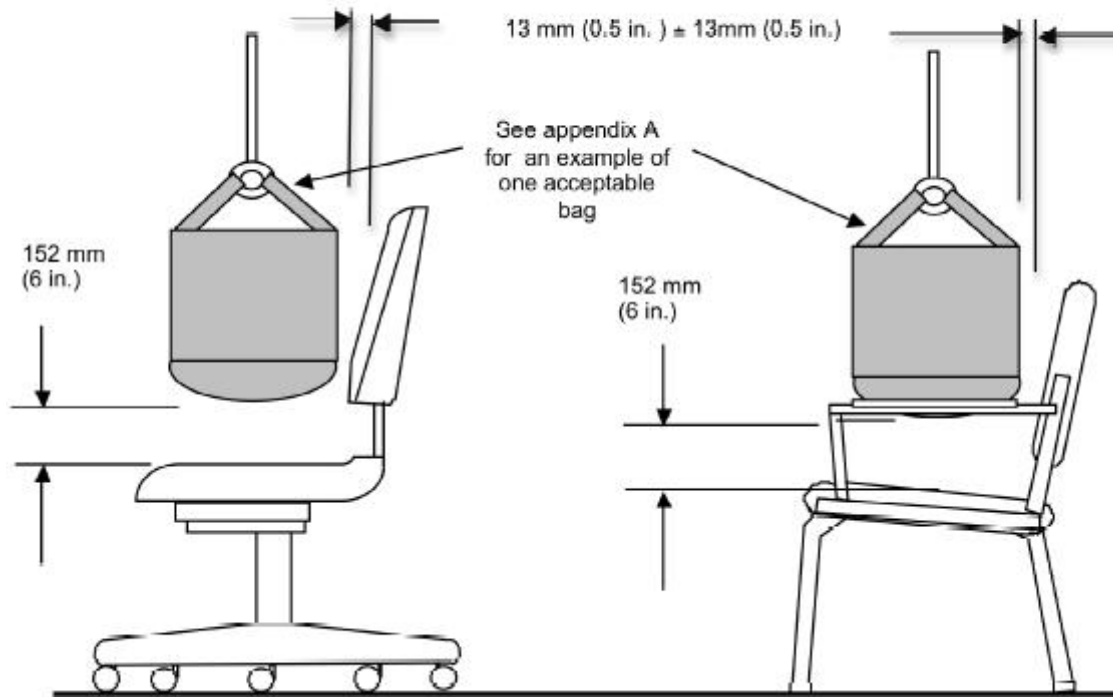
A test bag weighing 102 kg (225 lb.) shall be raised 152 mm (6 in.) above the uncompressed seat and released one time.

Remove the bag.

For chairs with seat height adjustment features, set height to its lowest position and repeat a) and b).

2. Proof Load Test (Similar with Functional Load Test, but the force is 136 kg (300 lb).)

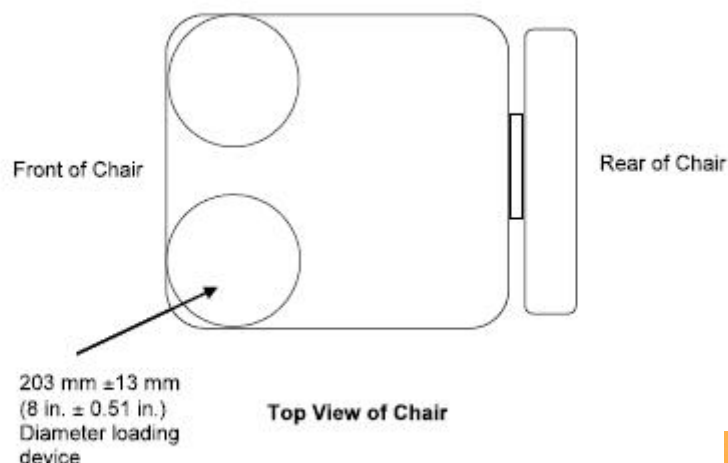




Test I

Raise the loading device from the seat and lower completely, without impact to the seat so that it takes the entire load without any support from the cycling device, at a rate of 10 to 30 cycles per minute. Test for 20,000 cycles. Reposition the load to the other front corner, and perform the test for an additional 20,000 cycles.

Note: Applying the loads in an alternating sequence to attain a total of 40,000 cycles is an acceptable method of performing this test.





BIFMA X 5.1 clause 5, 6

Backrest Strength Test- Static-Type I / Type II & III

BIFMA X 5.1 clause 10

Tilt Mechanism Test- Cyclic

BIFMA X 5.1 clause 12

Stability Test

BIFMA X 5.1 clause 13, 14

Arm Strength Test – Vertical- Static/ Horizontal- Static

BIFMA X 5.1 clause 15, 16

Backrest Durability Test – Cyclic – Type I / Type II and III

BIFMA X 5.1 clause 19

Footrest Static Load Test – Vertical





BIFMA X 5.1 clause 22

Tablet Arm Chair Static Load Test

BIFMA X 5.1 clause 23

Tablet Arm Chair Static Load Test

BIFMA X 5.1 clause 24

Tablet Arm Chair Load Ease Test

HD-F739 Chair Universal Tester

Product Image (reference only)

Product images:





Control Interface





We service for:



We have certificate:



