

# **BenchPro**

## **(Chair Test Report)**

**BIFMA INTERNATIONAL**  
*General-Purpose Office Chairs – Test*  
*American National Standard for Office Furniture*

**CHAIR TEST NAME:** 9.-Swivel Test-Cyclic

**START DATE:** JUNE-19-2013    **START HOUR:** 12:00

**END DATE:** JUNE -27-2013    **END HOUR:** 13:00

### **Chair tests:**

- |  |  |
|--|--|
| <input type="checkbox"/> Backrest Strength Test – Static<br>(Type I)       | <input type="checkbox"/> Backrest Durability Test – Cyclic<br>(Type I)                   |
| <input type="checkbox"/> Backrest Strength Test – Static<br>(Type II, III) | <input type="checkbox"/> Backrest Durability Test – Cyclic<br>(Type II, III)             |
| <input type="checkbox"/> Base Test – Static                                | <input type="checkbox"/> Caster/Chair Base Durability<br>Test - Cyclic                   |
| <input type="checkbox"/> Drop Test – Dynamic                               | <input type="checkbox"/> Leg Straight Test – Front and<br>Side Application               |
| <input checked="" type="checkbox"/> Swivel Test – Cyclic                   | <input type="checkbox"/> Footrest Durability Test –<br>Vertical - Cyclic                 |
| <input type="checkbox"/> Tilt Mechanism Test – Cyclic                      | <input type="checkbox"/> Arm Durability Test - Cyclic                                    |
| <input type="checkbox"/> Seating Durability Test – Cyclic                  | <input type="checkbox"/> Out Stop Test for chairs with<br>Manually Adjustable Seat Depth |
| <input type="checkbox"/> Stability tests                                   | <input type="checkbox"/> Tablet Arm Static Load Test                                     |
| <input type="checkbox"/> Arm Strength Test – Vertical – Static             | <input type="checkbox"/> Tablet Arm Load Ease Test<br>Cyclic                             |
| <input type="checkbox"/> Arm Strength Test – Horizontal – Static           |  |

### **Type chair:**

- ☒ Type I - Tilting Chair
- ☒ Type II – Fixed seat angle, tilting backrest
- ☐ Type III – Fixed seat angle, fixed backrest

**Applicability:** This test applies to all chairs types with a swivel seat.

**Purpose of the test:** The purpose of this test is to evaluate the ability of the chair to withstand stresses and wear caused by repeated swiveling .

**Test Setup:**

a).The chair shall be restrained on a platform. Either the seat or the platform shall be restrained from rotation.

b). If the seat height is adjustable, seat it to the maximum seat height position. Set all other adjustable features to the normal use condition.

c). A 102 kg. (225 lb) load shall be placed on the seat such that the center of gravity of the load is 51 to 64 mm ( 2 to 2.5 in. ) forward of the centerline of the spindle.

d). The cycling device shall be adjusted to rotate the lesser of the following :

the available range of rotation or 360 +/- 10 grades. If the available range of rotation is less than 360 grades, the rotation of the test machine shall be adjusted such that the swivel mechanism touches but does not override the stops. The rotation may be either bi-directional (alternating) or unidirectional.

e). For chairs that swivel 360 grades, a cycle is one full rotation. For chairs that swivel less than 360\*, one cycles is rotating from one stop to the other stop.

**Test Procedures:**

a). The seat or platform shall rotate for 60,000 cycles at an appropriate rate between 5 and 15 rotations per minute.

b). If the seat height is adjustable set the height to its lowest position.

c) For all chairs, continue the rest for an additional 60,000 cycles to a total of 120,000 cycles.

d) Record finding.

**Acceptance Level:** There shall be no loss of serviceability

**Conclusion:** The test exceeded the acceptance levels straight that requires proof .by 60,000 cycles , we made the swivel test Cyclic rotating 80,000 cycles in two directions, to complete a total of 160,000 cycles; after that we reviewed all the components of chair and there were not damage, and are in functional conditions.

**Test :** PASS

**Video:** DONE