TEST REPORT

Mechanical & Hardgoods Laboratory

Report No.： HL40437A/2015
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Date： JUL. 07, 2015

SUNNINE TECHNOLOGY CO., LTD.
No. 22, Wuchang Rd., North Dist., Taichung City 404, Taiwan

The following merchandise was submitted and identified by the applicant as:

Product Description: Electric adjustable desk

We have tested the submitted sample(s) as requested and the following results were obtained:

Test Requested: For compliance with ANSI/ BIFMA X5.5-2014- American National Standard for Office and Institutional Furnishings - Desk/Table Products – Tests
Clause 4.3 Stability under vertical load test
Clause 4.6 Force Stability Test for Tall Desk/Table Products
Clause 5.2 Concentrated Functional Load Test
Clause 5.3 Distributed Functional Load Test
Clause 5.4 Concentrated Proof Load Tes
Clause 5.5 Distributed Proof Load Test
Clause 6 Top Load Ease Test – Cyclic
Clause 7 Desk/Table Unit Drop Test
Clause 8 Leg Strength Test
Clause 15 Work Surface Vertical Adjustment Test

Test Method & Result: --- See following sheet(s) ---

Date of Receipt: Apr. 27, 2015

Testing period: Apr. 27, 2015 ~ May 25, 2015

Conclusion: The submitted sample **complies with** Clause 4.3, 4.6, 5.2, 5.3, 5.4, 5.5, 6, 7, 8, and 15 of ANSI/ BIFMA X5.5-2014- American National Standard for Office and Institutional Furnishings - Desk/Table Products requirement

Signed for and on behalf of SGS Taiwan Ltd.

Lawrence Yang
Asst. Supervisor

Test Property	Test Method	Test Principle / Requirements	Rating
Full tests of ANSI/BIFMA X5.5			
Stability under vertical load test	ANSI/BIFMA X5.5-2014 Clause 4.3	Place a 305 mm (12 in.) diameter disk so that its center is 178 mm (7 in.) from the edge of the top at the least stable location. Place a 57 kg (125 lb) static load on the desk. If necessary, repeat Step (a) and (b) to verify the least stable position has been evaluated. The unit shall not tip over. If one of more extendible elements opens during the test and prevents the unit from tipping over due to contact with the test platform, the unit does not meet the acceptance criteria.	Pass
Force Stability Test for Tall Desk/Table Products	ANSI/BIFMA X5.5-2014 Clause 4.6	Apply the horizontal forces through the center of a disk that is 203 mm (8 in.) in diameter. If the geometry of the product inhibits the use of the 203 mm (8 in) disk, apply the force through a smaller diameter disk. radually increase the force until 177 N (40 lbf) is reached, the product tilts to 10 degrees, or the horizontal movement at the point of application is 165 mm (6.5 in.) whichever occurs first. The unit shall not tip over, and there shall be no loss of serviceability. Assembled desk/table products shall not disengage.	Pass
Concentrated Functional Load Test	ANSI/BIFMA X5.5-2014 Clause 5.2	Apply two loads of 91 kg concentrated load to the primary surface per Table 1 through a 305 mm (12 in.) diameter area 25 mm (1 in.) from the unit's edge at its apparent weakest point. Loads shall be allowed to remain for 60 minutes. Remove only the concentrated load(s) from the primary surface. Without removing any other loads, perform the Pull Force Test in Section 19 There shall be no loss of serviceability. Upon completion of the test, the extendible member(s) shall meet the pull force requirements	Pass
Distributed Functional Load Test	ANSI/BIFMA X5.5-2014 Clause 5.3	Depending on the desk/table surface classification, apply the specified distributed loads per Table 1. For primary surfaces, loads shall be evenly distributed and centered over a line 203 mm (8 in.) in from the edge along the entire perimeter. Loads shall be allowed to remain for 60 minutes. Close the extendible elements. Without removing any load, perform the Pull Force Test in Section 19. There shall be no loss of serviceability. Upon the completion of the test, the extendible member(s) shall meet the pull force requirements.	Pass
Concentrated Proof Load Test	ANSI/BIFMA X5.5-2014 Clause 5.4	The setup shall be performed per Section 5.2.1 with the appropriate concentrated proof load of 2 loads of 136 kg, except for the extendible elements, which shall remain loaded with the distributed functional loads. Loads shall be allowed to remain for 15 minutes and then removed. There shall be no sudden and major change in the structural integrity of the product. Loss of serviceability is acceptable.	Pass

Test Property	Test Method	Test Principle / Requirements	Rating
Distributed Proof Load Test	ANSI/BIFMA X5.5-2014 Clause 5.5	Perform the setup per Section 5.3.1 using the appropriate distributed proof loads per Table 1, except for the extendible elements, which shall remain loaded with the functional loads. Loads shall be allowed to remain for 15 minutes and then removed. There shall be no sudden and major change in the structural integrity of the product. Loss of serviceability is acceptable.	Pass
Top Load Ease Test – Cyclic	ANSI/BIFMA X5.5-2014 Clause 6	For units with a primary surface with a depth greater than or equal to 457 mm (18 in.) deep, a 91 kg (200 lb.) weight applied by means of a 406 mm ± 13 mm (16 in. ± 0.5 in.) diameter bag. The cycling device shall be set to operate at a rate of 14 ± 6 cycles per minute. The bag shall be raised until the entire weight is off the primary surface and then eased (without impact) onto the primary surface for a total of 10,000 cycles. Remove the bag and perform the pull force test in Section 19. There shall be no loss of serviceability to the unit. Before and after the cycling test, the extendible elements shall meet the pull force test requirements in Section 19.	Pass
Desk/Table Unit Drop Test	ANSI/BIFMA X5.5-2014 Clause 7	Raise one end of the long axis of the unloaded unit so that the bottom of the base is above the test platform at the height given in below Table Unit Weight / Drop Height < 45 kg (100 lb.) / 180 mm (7.1 in.) 45 – 90 kg (100 - 200 lb.) / 120 mm (4.7 in.) >90 – 136 kg (200 - 300 lb.) / 60 mm (2.4 in.) > 136 kg (300 lb.) / N/A The end of the unit being tested shall be released and allowed a free fall to the test platform. Repeat steps above for the other end of the desk/table unit. Perform the pull force test in Section 19.	Pass (Sample weight: 52.82 kg)
Leg Strength Test	ANSI/BIFMA X5.5-2014 Clause 8	Based on the desk or table Category, calculate the Functional Force "A" as follows (not to exceed 445 N (100 lbf.)): Category I: "A" = 0.5 x (unit weight, lb.) + 50 lbf. Category II and III: "A" = 0.5 x (unit weight, lb.) + 10 lbf. Calculate the Functional Force "B" as (0.5 x "A") Calculate the Proof Forces "A" (not to exceed 668 N (150 lbf.)) and "B" as follows: Proof Force "A" = 1.5 x (Functional Force "A") Proof Force "B" = 1.5 x (Functional Force "B") Functional Test: No loss of serviceability shall occur as a result of the application of the functional loads. Proof Test: Application of the proof loads shall cause no sudden and major change in the structural integrity of the product. Loss of serviceability is acceptable.	Pass (Sample weight: 52.82 kg)

Test Property	Test Method	Test Principle / Requirements	Rating
Work Surface Vertical Adjustment Test	ANSI/BIFMA X5.5-2014 Clause 15	Apply a test load of 45 kg (100 lb) through a 305 mm (12 in.) diameter disk with the center of the disk on a line 305 mm (12 in) in from the working edge. The unit, including any latches or activation mechanisms, shall be cycled for 1,000 cycles in each quartile of full travel for a total of 4,000 cycles. There shall be no loss of serviceability to the unit. For surfaces with crank-driven height adjustment mechanisms, the operating force on the handle to adjust the table shall not exceed 50 N (11.2 lbf) before or after the test.	Pass

– Picture(s) –

Photo A: Appearance of the sample

--- End of Report ---