

Test Report No. 7191053127-MEC13/03-CSL
dated 20 May 2013

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SUBJECT:

Testing of Office Desking submitted by Jemaramas Jaya Sdn Bhd on 24 Apr 2013.

TESTED FOR:

Jemaramas Jaya Sdn Bhd
Lot 6119, Jalan Haji Salleh,
Batu 5 ½ Off Jalan Meru,
41050 Klang, Selangor Darul Ehsan,
Malaysia.

Attn: Ryonn Leong

DATE OF TEST:

24 Apr 2013 to 17 May 2013

DESCRIPTION OF SAMPLE:

One complete set of Office Desking as shown in the photograph was received. The following descriptions were given by the client:

Model	:	SOLO
Product Type	:	System Series
Dimensions	:	3050 mm (W) x 1500 mm (D) x 1150 mm (H)
Unit Weight	:	134 kg
Country of Origin	:	Malaysia

METHOD OF TEST:

As requested by the client, the tests were conducted in accordance with the following standard:

ANSI/BIFMA X5.5-2008 "Desk/Tables Products – Tests"



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RESULTS:

Table 1: Stability Tests

Clause	Test	Parameters	Results	Requirement
4.2	Stability with Extendible Elements Open Test	Functional Load =	N/A	- The unit shall not tip over.
4.3	Stability Under Vertical Load Test	Load = 57 kg	Passed	
4.4	Horizontal Stability Test for Desk/Tables with Casters	Load = Horizontal Force =	N/A	
4.5	Force Stability Test for Tall Desk/Table Products	Horizontal Force = 177 N	Passed	- The unit shall not tip over, and there shall be no loss of serviceability. - Assembled desk/table products shall not disengage.

Table 2: Unit Strength Tests

Clause	Test	Parameters	Results	Requirement
5.2	Concentrated Functional Load Test	Load = 2 × 91 kg Duration = 60 min	Passed	- There shall be no loss of serviceability.
5.3	Distributed Functional Load Test	Loading = 0.027 kg/mm Load = 243 kg Duration = 60 min	Passed	- The extendible member shall meet the pull force requirements.
5.4	Concentrated Proof Load Test	Load = 2 × 136 kg Duration = 15 min	Passed	- There shall be no sudden and major change in the structural integrity of the product.
5.5	Distributed Proof Load Test	Loading = 0.041 kg/mm Load = 369 kg Duration = 15 min	Passed	- Loss of serviceability is acceptable.
5.6	Transaction Surface Torsion Load Test	Load = Duration =	N/A	There shall be no loss of serviceability.

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Table 2 (cont'd): Unit Strength Tests

Clause	Test	Parameters	Results	Requirement
5.7.2	Extendible Element Functional Load Test	Extendible element loading = Duration =	N/A	- There shall be no loss of serviceability. - The extendible member shall meet the pull force requirements.
5.7.3	Extendible Element Proof Load Test	Extendible element loading = Duration =	N/A	- There shall be no sudden and major change in the structural integrity of the product. - Loss of serviceability is acceptable.

Table 3: Top Load Ease Cycle & Desk / Table Unit Drop Tests

Clause	Test	Parameters	Results	Requirement
6	Top Load Ease Cycle Test	Load = 91 kg Cycles = 10,000	Passed	- No loss of serviceability. - The extendible member shall meet the pull force requirements.
7	Desk / Table Unit Drop Test	Weight of unloaded unit = Height =	N/A	- The extendible member shall meet the pull force requirements.

Table 4: Leg Strength Test

Clause	Test	Parameters	Results	Requirement
8.3	Functional Load Test	Category I: "A" = 445 N "B" = 0.5 x (445) = 223 N	Passed	- No loss of serviceability. - Each extendible element in a leg-attached desk pedestal shall meet the pull force requirements.
8.5	Proof Load Test	"A" = 668 N "B" = 1.5 x (223) = 335 N	Passed	- No sudden and major change in structural integrity. - Loss of serviceability is acceptable.

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Table 5: Disengagement Tests for Tall Desk/Table Products

Clause	Test	Parameters	Results	Requirement
9	Disengagement Tests for Tall Desk/Table Products	Weight = 136 kg Sandbag = 22 kg	Passed	The tested unit or its components shall not become disengaged from the desk/table unit.

Table 6: Extendible Element Cycle Test

Clause	Test	Parameters	Results	Requirement
10.2	Cycle Test for Extendible Elements Deeper Than Wide	Extendible element loading = Cycles = Rate =	N/A	- No loss of serviceability - Before and after the cycle test, extendible member(s) shall meet pull force requirements of Section 19.
10.3	Cycle Test for Extendible Elements Wider Than Deep	Extendible element loading = Cycles = Rate =	N/A	- If applicable, extendible member(s) shall meet interlock requirements of clause 13.
10.4	Cycle Test for Center/Pencil Drawers	Load = Cycles = Rate =	N/A	- No loss of serviceability - Before and after the cycle test, center/pencil drawer shall meet pull force requirements of Section 19.

Table 7: Miscellaneous Tests On Extendible Element

Clause	Test	Parameters	Results	Requirement
11	Extendible Element Retention Impact and Durability Test	Extendible element loading = Min weight = Total weight = Cycles = Rate =	N/A	- There shall be no loss of serviceability or disengagement of the extendible element from the unit. - The extendible element shall meet the Pull force requirements of Section 19.



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Table 7 (cont'd): Miscellaneous Tests On Extendible Element

Clause	Test	Parameters	Results	Requirement
12	Extendible Element Rebound Test	Extendible element loading = Opening Force = Cycles = Record rebound position =	N/A	<ul style="list-style-type: none"> - There shall be no loss of serviceability. - The rebound position shall not exceed 38mm from its closed position after each of the five closings.
13	Interlock Strength Test	Extendible element loading = Outward Horizontal Force =	N/A	<ul style="list-style-type: none"> - There shall be no loss of serviceability to the interlock system. - The unopened extendible elements shall not bypass interlock system.

Table 8: Lock Tests

Clause	Test	Parameters	Results	Requirement
14.2	Force Test For Extendible Element Locks	Horizontal Outward Force = Outward and Upward Force =	N/A	<ul style="list-style-type: none"> - Extendible elements shall remain in normal locked position during application of the forces. - There shall be no loss of serviceability of locking mechanism.
14.3	Force Test For Door Locks	Force =	N/A	<ul style="list-style-type: none"> - Doors shall remain in normal locked position during application of forces. - No loss of serviceability of locking mechanism.
14.4	Locking Mechanism Cycle Test	Cycles = Rate =	N/A	There shall be no loss of serviceability of locking mechanism.

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Table 9: Tests On Other Surface Classes

Clause	Test	Parameters	Results	Requirement
15	Work Surface Vertical Adjustment Test	Load = Cycles = Rate =	N/A	- There shall be no loss of serviceability to the unit.
16	Keyboard Support and Input Device Support Adjustment Tests	Keyboard Load = Cycles = Rate =	N/A	- For tables with crank driven height adjustment mechanisms, the operating force on the handle to adjust the table shall not exceed 50 N before or after the test.

Table 10: Door Tests

Clause	Test	Parameters	Results	Requirement
17.2	Strength Test for Vertically Hinged Doors, Bi-fold Doors and Vertically Receding Doors	Load = Cycles =	N/A	There shall be no loss of serviceability to the unit.
17.3	Hinged Override Test for Vertically Hinged Doors	Horizontal Force =	N/A	There shall be no loss of serviceability to the desk/table unit or its components.
17.4	Vertical Receding Doors Strength Test	Horizontal Force = Cycles =	N/A	
17.5	Horizontal Receding Doors Strength Test	Downward Force = Cycles =	N/A	
17.6	Wear And Fatigue Test For Hinged, Horizontally Sliding, and Tambour Doors	Cycles = Rate =	N/A	
17.7	Wear And Fatigue Test for Vertical Receding Door	Cycles = Rate =	N/A	- Before and after the cycle test, the door shall meet the pull force requirements of Section 19.
17.8	Wear And Fatigue Test for Horizontal Receding Door	Cycles = Rate =	N/A	- The door shall have no loss of serviceability.

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Table 10 (cont'd): Door Tests

Clause	Test	Parameters	Results	Requirement
17.9	Vertical and Horizontal Receding Door Out Stop Test – Cyclic Impact and Durability	Combined weight = Cyclic Impact Test = Cyclic Durability Test = Rate =	N/A	- There shall be no loss of serviceability. - Before and after the cycle test, the extendible element shall meet the pull force requirements of Section 19.
17.10	Slam Closed Test for Vertically Hinged and Vertically Receding Doors	Door shelves loading = Load to close the door = Combined load = Cycles =	N/A	There shall be no loss of serviceability.
17.11	Drop Cycle Test for Horizontally Hinged and Horizontally Receding Doors	Cycles = Rate =	N/A	There shall be no loss of serviceability to the desk/table unit or its components.
17.12	Slam Test for Doors Which Fall Open or Closed	Cycles =	N/A	
17.13	Slam Open and Closed Test for Doors That Do Not Free Fall	Recorded force = Weight = Cycles =	N/A	
17.14	Door Latch Test	Cycles = Rate =	N/A	There shall be no loss of serviceability to the door or its latching mechanism

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Table 11: Miscellaneous Tests

Clause	Test	Parameters	Results	Requirement
18	Durability Test for Desks and Tables with Casters	Load primary surface = Loading = Cycles = Rate =	N/A	There shall be no loss of serviceability to a caster or the desk/table.
19	Pull Force Test	Extendible element loading = Cycles =	N/A	The force shall not exceed 50 N.

REMARKS:

1. N/A: Not applicable as features not available.

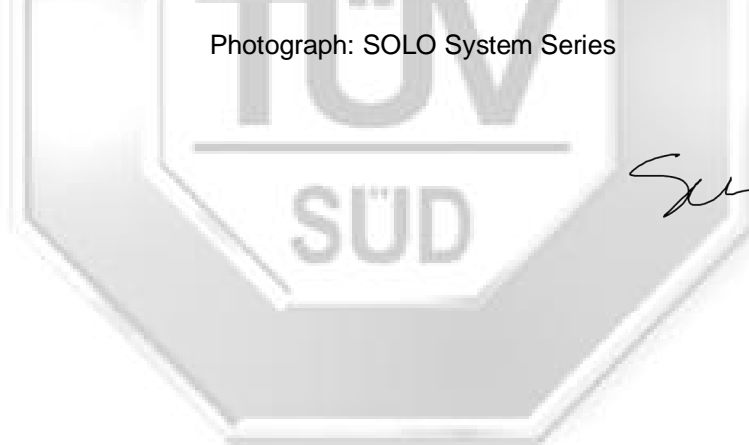

Shareen Chan
Engineer


Wong Bee Hui
Product Manager
Mechanical Centre

APPENDIX:



Photograph: SOLO System Series



Sen Loh

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July 2011

