

**Test Report No. 7191053127-MEC13/04-CSL**  
dated 17 Jun 2013



PSB Singapore

Choose certainty.  
Add value.

**Note:** This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the terms set out within this report.

**SUBJECT:**

Testing of Office Desking submitted by Jemaramas Jaya Sdn Bhd on 03 Jun 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:**

06 Jun 2013 to 14 Jun 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	:	LEX
Product Type	:	System Series
Dimensions	:	1500 mm (W) x 1480 mm (D) x 1060 mm (H)
Unit Weight	:	91 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"



Laboratory:  
TÜV SÜD PSB Pte. Ltd.  
No.1 Science Park Drive  
Singapore 118221

Phone : +65-6885 1333  
Fax : +65-6776 8670  
E-mail: testing@tuv-sud-psb.sg  
www.tuv-sud-psb.sg  
Co. Reg : 199002667R

Regional Head Office:  
TÜV SÜD Asia Pacific Pte. Ltd.  
3 Science Park Drive, #04-01/05  
The Franklin, Singapore 118223  
**TUV**<sup>®</sup>



**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 =	N/A	- 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 = 91 kg Duration = 60 min	Passed	- There shall be no loss of serviceability.
5.3	Distributed Functional Load Test	Loading = <u>0.027</u> kg/mm Load = <u>161</u> kg Duration = 60 min	Passed	- The extendible member shall meet the pull force requirements.
5.4	Concentrated Proof Load Test	Load = 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 = <u>0.041</u> kg/mm Load = <u>244</u> 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.

*Signature*



**RESULTS:**

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 & 8.4	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 & 8.6	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.

*Signature*



**RESULTS:**

Table 5: Disengagement Tests for Tall Desk/Table Products

Clause	Test	Parameters	Results	Requirement
9	Disengagement Tests for Tall Desk/Table Products	Weight = Sandbag =	N/A	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.



**RESULTS:**

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

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

*Signature*



**RESULTS:**

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.

*Sen John*



**RESULTS:**

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

*Signature*




**RESULTS:**

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: LEX System Series



*Sen Loh*

**Test Report No. 7191053127-MEC13/04-CSL**  
**dated 17 Jun 2013**



PSB Singapore

Please note that this Report is issued under the following terms :

1. This report applies to the sample of the specific product/equipment given at the time of its testing/calibration. The results are not used to indicate or imply that they are applicable to other similar items. In addition, such results must not be used to indicate or imply that TÜV SÜD PSB approves, recommends or endorses the manufacturer, supplier or user of such product/equipment, or that TÜV SÜD PSB in any way "guarantees" the later performance of the product/equipment. Unless otherwise stated in this report, no tests were conducted to determine long term effects of using the specific product/equipment.
2. The sample/s mentioned in this report is/are submitted/supplied/manufactured by the Client. TÜV SÜD PSB therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture, consignment or any information supplied.
3. Nothing in this report shall be interpreted to mean that TÜV SÜD PSB has verified or ascertained any endorsement or marks from any other testing authority or bodies that may be found on that sample.
4. This report shall not be reproduced wholly or in parts and no reference shall be made by the Client to TÜV SÜD PSB or to the report or results furnished by TÜV SÜD PSB in any advertisements or sales promotion.
5. Unless otherwise stated, the tests were carried out in TÜV SÜD PSB Pte Ltd, No.1 Science Park Drive Singapore 118221.

July 2011

