

# **Mechanical Testing**

- Tensile
- Compression
- Bend
- Shear
- Load
- Structures
- Fasteners
- Tensioning & Staying Systems
- Structural Bearings





IN CONFIDENCE TO THE CLIENT

REPORT NO: MT-08/183-C1

# LOAD TESTING OF SLATBOX<sup>TM</sup> STORAGE SYSTEM USING Shelfbox

shelfbox Containers

CLIENT: DANIEL MOLONEY

SLAT ACCESSORIES PTY LTD 55 DOUBLE JUMP ROAD REDLAND BAY QLD 4165

DATE OF TEST: MAY 7<sup>TH</sup> 2008

Date of Report: June 20<sup>TH</sup> 2008

### **TEST SYNOPSIS:**

An assortment of SHELFBOX<sup>TM</sup> storage containers (see Fig.1) and a section of 20" wide aluminium, reinforced, timber slatwall was delivered to the Melbourne Testing Services laboratory for testing.

At the request of the client load testing was to be conducted to determine the ultimate load capacity of SHELFBOX<sup>TM</sup> containers when attached to a slatwall.

The client provided information regarding the SHELFBOX<sup>TM</sup> range as follows:



FIG.1.
TEST ITEMS

Description	Code	Length (inch)	Width (inch)	Height (inch)
Shelfbox <sup>TM</sup> 100	01-08D	5.12	5.51	3.35
Shelfbox <sup>TM</sup> 200	01-05D	8.86	5.51	3.35
Shelfbox <sup>TM</sup> 300	01-06D	12.80	5.51	3.35
Shelfbox <sup>TM</sup> 400	01-07D	16.73	5.51	3.35

### **TEST PROCEDURE:**

The SHELFBOX<sup>TM</sup> test containers were slotted into the slatwall panel which was in-turn mounted to the base-plate of a calibrated universal testing machine. A test load was applied through a central loading platen placed into the bottom of the SHELFBOX<sup>TM</sup> (See Fig.2). Test load was applied continuously until the onset of failure of the SHELFBOX<sup>TM</sup> container occurred. Throughout testing the applied force and corresponding deflection was recorded. For each type of SHELFBOX<sup>TM</sup>, two (2) repeat tests were conducted.

#### **TEST DATA & SUMMARY:**

The SHELFBOX<sup>TM</sup> test containers each performed in an elastic manner until the onset of peak load and ensuing failure. The predominant mode of failure was observed to be deformation of the container's slatwall insert tab. In most cases the SHELFBOX<sup>TM</sup> container rebounded to resemble its original shape however signs of permanent deformation and yielding were observed in each container.

Individual peak loads and the averaged load recorded for each SHELFBOX<sup>TM</sup> container is provided in Table 1.

Load vs displacement curves are provided in Appendix A.

Description	Code	Peak Load (lbs)	Average Load (lbs)
Shelfbox <sup>TM</sup> 100	01-08D	718	767
Sherrook 100	01 00D	816	707
Shelfbox <sup>TM</sup> 200	01-05D	248	245
Shelloox 200		243	
Shelfbox <sup>TM</sup> 300	01-06D	156	157
Shelloox 500		159	
Shelfbox <sup>TM</sup> 400	01-07D	122	121
SHEHOOX 400	01-07D	119	121

TABLE 1 SHELFBOX<sup>TM</sup> TEST DATA



Fig.2. **TEST SET-UP** 

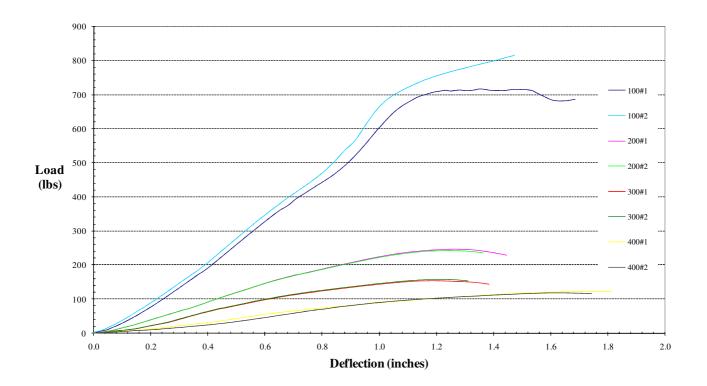
#### NOTES:

- Melbourne Testing Services Pty Ltd shall not be liable for loss, cost, damages or expenses incurred by the client or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Melbourne Testing Services Pty Ltd be liable for consequential damages including, but not limited to, lost profit, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested.
- This report is specific to the Slatbox<sup>TM</sup> storage items attached to the rigid aluminium reinforced timber slatwall panels as detailed, tested and reported herein. MTS shall take no responsibility for the performance of Slatbox<sup>TM</sup> items installed onto slatwalls of any other construction.
- MTS shall take no responsibility for the slatwall installation, rigidity or structural integrity of the slatwall panels when fitted into buildings or walls of buildings.
- MTS shall take no responsibility for the permissible Slatbox<sup>TM</sup> rating as determined by the client or any other party.

  This report is specific to the individual performance of Slatboxes<sup>TM</sup> as reported herein. MTS shall take no responsibility for the performance or the load capacity of slatwall panels as provided by the client for testing purposes.

AUTHORISED SIGNATORY

## APPENDIX A.



SHELFBOX  $^{TM}$  Load vs Deflection Curves Fig A1