

# **Mechanical Testing**

- Tensile
- Compression
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**CONTAINERS** 

IN CONFIDENCE TO THE CLIENT

**REPORT NO:** 

MT-08/183-D

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

CLIENT: **DANIEL MOLONEY SLAT ACCESSORIES PTY LTD 55 DOUBLE JUMP ROAD REDLAND BAY OLD 4165** 

 $MAY\,7^{\text{th}}\,2008$ DATE OF TEST:

JUNE 18<sup>th</sup> 2008 DATE OF REPORT:

#### **TEST SYNOPSIS:**

An assortment of CRATEBOX<sup>TM</sup> storage containers (see Fig.1) and a section of 500mm 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 CRATEBOX<sup>TM</sup> containers when attached to a slatwall.

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



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FIG.1. TEST ITEMS

Description	Code	Length (mm)	Width (mm)	Height (mm)
Cratebox <sup>TM</sup> Standard	01-310	160	145	83
Cratebox <sup>™</sup> Long	01-320	220	145	85
Cratebox <sup>™</sup> Tray	01-330	344	280	90
Cratebox <sup>™</sup> Jumbo	01-340	344	565	90
Cratebox <sup>™</sup> Tilt Medium-Unihook	06-MP3	295	285	175
Cratebox <sup>™</sup> Tilt Big-Unihook	06-MP4	400	290	175

#### **TEST PROCEDURE:**

The CRATEBOX<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 CRATEBOX<sup>TM</sup> (See Fig.2). Test load was applied continuously until the onset of failure of the CRATEBOX<sup>TM</sup> container occurred. Throughout testing the applied force and corresponding deflection was recorded. For each type of CRATEBOX<sup>TM</sup>, two (2) repeat tests were conducted.

The tests reported herein have been performed in accordance with approved Melbourne Testing Services procedures. This document shall not be reproduced except in full.

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

The CRATEBOX<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 CRATEBOX<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 CRATEBOX<sup>TM</sup> container is provided in Table 1.

Load vs displacement curves are provided in Appendix A.

Description	Code	Peak Load (kg)	Average Load (kg)
Cratebox <sup>™</sup> Standard	01-310	100 102	101
Cratebox <sup>™</sup> Long	01-320	59 58	58
Cratebox <sup>™</sup> Tray	01-330	60 61	60
Cratebox <sup>™</sup> Jumbo	01-340	66 63	65
Cratebox <sup>™</sup> Tilt Medium-Unihook	06-MP3	66 73	69
Cratebox <sup>™</sup> Tilt Big-Unihook	06-MP4	39 38	39



**FIG.2. TEST SET-UP** 

## TABLE 1 CRATEBOX<sup>TM</sup> TEST DATA

NOTES:

- 1) 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 2)
- 3) walls of buildings.
- 4)
- 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 5) the load capacity of slatwall panels as provided by the client for testing purposes.

RODNEY WILKIE **AUTHORISED SIGNATORY** 

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### APPENDIX A.



