

# Durability Testing: SofaWallBeds



Unit Tested: Inova Sofa-WallBed

Tests Performed: FNAE-80-214A "Upholstered Furniture Test Method", Heavy Duty, dated 1 September, 1998

Performed by: SGS U.S. Testing Company, Inc.

Results: Tests taken to Heavy Duty Load Levels; No Failure



Sidethrust Load on Arms Test (#7.3); 150lbs



Front to Back Load Test on Legs (#7.5); 300lbs



Sidethrust Load Test (#7.4); 350lbs



Backrest Frame Test (#7.2.3.2); 150lbs



Backrest Foundation Test (#7.2.3.1); 150lbs



Seat Load Test (#7.1); 275lbs @ Back, 137.5 lbs. at Front

# Durability Testing: TableBeds



To qualify as a U.S. Government supplier, Inova submitted the TableBed for GSA Wallbed Cycle Test #3FNE99-583.

The bed was raised and lowered 10,000 times with no stopping, oiling, or tightening of bolts or screws permitted.

That's once a minute for over a week.

That's the equivalent of over **27 years of daily use.**

**Our TableBed passed easily.**

We're merciless when it comes to testing, so we had them leave their machinery on for another 5,000 cycles--the equivalent of **41 years of daily use.**

**Our TableBed passed that, too.**

**Results: The TableBed mechanism operated smoothly and quietly without increased effort after completing 10,000 and 15,000 cycles. No impaired operation of the bed mechanism, binding or damage of components was evident as a result of the bed mechanism test.**

SGS U.S. Testing Company Inc. Report No.: 170345 Date: September 16, 2002

291 Fairfield Avenue • Fairfield, NJ 07004 • Tel: 973-575-5252 • Fax: 973-575-8271

CLIENT: Inova, LLC  
685 West End Avenue  
New York, New York 10025

The following sample was submitted by the Client as:  
Table Bed, Broadway/Symphony Model

DATE OF RECEIPT: August 7, 2002

TESTING PERIOD: September 5, 2002 to September 16, 2002

AUTHORIZATION: Pre-payment via credit card.

TESTS REQUESTED: 3FNE99-583 - "Test Requirements for Wall Beds" - Bed Mechanism Cycle Test.

CONCLUSION: The submitted table bed complied with the requirements of the bed mechanism cycle test per the above referenced specification.

PREPARED BY: Piyush Shah, Manager Products Evaluation

SIGNED FOR AND ON BEHALF OF SGS U.S. TESTING COMPANY INC. Gabriel Falls, Vice President Operations

Page 1 of 4

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SGS U.S. Testing Company Inc. Report No.: 170345 DATE: September 16, 2002 PAGE 2 OF 4

CLIENT: Inova, LLC

**TEST PROCEDURE AND RESULTS:**

The following test program was conducted in a laboratory environment maintained at 70°F and 50% Relative Humidity. Each sample was individually tested after conditioning in the test environment for at least 48 hours prior to conducting the test.

The complete detailed procedures may be found in the referenced specification and are only summarized herein. The results obtained for each of the applicable tests are presented in their respective section describing the procedure below:

**Bed Mechanism Cycle Test:**

**Procedure:**

This test was performed on a queen size bed. The bed was assembled by the Client prior to it being set up for the cyclic testing.

Using a reversible motor, pulleys, timers, relays and sensors the table bed was cycled for a total of 15,000 cycles. Each cycle consisted of lifting and lowering the table bed from a use or horizontal position to stored or vertical position at a rate of 52 seconds per cycle.

At the conclusion of 10,000 cycles, the table bed was manually tested by lifting and lowering the bed while inspecting for any impaired operation of the bed mechanism, binding or damage of components. The bed was subjected to additional 5,000 cycles of testing after manual testing and evaluation.

At the completion of 15,000 cycles, the table bed was once again tested manually by lifting and lowering the bed while inspecting for any impaired operation of the bed mechanism, binding or damage of components.

**Results:**

The table bed mechanism operated smoothly and quietly without increased effort after completing 10,000 cycles and 15,000 cycles. No impaired operation of the bed mechanism, binding or damage of components was evident as a result of the bed mechanism cycle test.

SGS U.S. Testing Company Inc. Report No.: 170345 DATE: September 16, 2002 PAGE 3 OF 4

CLIENT: Inova, LLC

**WALL BED TEST REPORT FORM**

Test Report #: 170345 Date tests completed: September 16, 2002

Name of wall bed manufacturer: Inova, LLC

Style/model of wall bed tested: Queen Size Table Bed, Broadway/Symphony Model

Name of furniture line to which the bed belongs: Inova Table Bed

Type of wall bed: Not fastened to the floor-pivots off of the headboard

- Fastens to the floor-operates independently of cabinets or walls around it, or
- Not fastened to the floor-pivots off of cabinets on either side of the bed.

Distance from the bed pivot point to headboard end of the bed frame: 24 1/2"

- "0" if pivot point is behind the bed frame
- "x mm" if space exists between bed pivot point and the headboard end of the headboard.

**RESULTS:**

A. Bed Mechanism Cycle Test: Pass  Fail   
Number of cycles performed: 15,000 cycles

B. Stability Test: Pass  Fail  N/A

Name of person who performed the tests (printed): Nick Kitov / Piyush Shah

Signature: *Nick Kitov* / *Piyush Shah*

Name and address of test facility: SGS U.S. TESTING COMPANY INC.  
291 Fairfield Avenue, Fairfield, New Jersey 07004

Phone number (for questions): 973-575-5252