

# Intelligent Chair Testing Machine

This is a four station version of our back durability machine, with many other capabilities. This machine utilizes a length of #40 chain "pinned" to a sprocket. The sprocket is attached to a precision gear reducer, that is driven with a servo motor. The chain is then routed through an OSHA compliant adjustable guard to adapt to a horizontal pull. The end of the chain comes equipped with a load cell for sensing the tension force applied, and thus closing the control loop. The result is a very robust system for performing many different types of tensile durability and strength tests. Adjacent stations of the machine may be "linked" together to perform lounge seating tests.



## Features (each station):

- 22.5 inches of travel to accommodate many different types of chairs. Positioning accuracy -  $\pm 0.10^\circ$ .
- 500 lb load capacity. Equipped with a 500 lb capacity S-beam load cell. Loading accuracy -  $\pm 2\%$  (5lbs max)
- BIFMA Back Durability at up to 40 cycles per minute (depending on travel).
- Quiet servo/planetary gear drive with controlled acceleration and deceleration.
- All load, cycle rate, position and speed adjustments can be made from the computer
- Computer control system comes equipped with data acquisition to track deflection and loads/overloads.
- Easy adjustment of load application sprocket to accommodate many different heights and pull angles.
- The software serves as a real-time operating system. This translates into reliability! Complete control without computer glitches.
- The machine frame adjusts easily to accommodate offset loading.
- The servo controls, computer, and operator interface are extremely energy efficient. This machine will use far less energy than a pneumatic machine.

## BIFMA Tests this machine can perform:

### X5.1-2002 General Purpose Office Chair Tests

- 5, 6 - Back Strength Tests
- 10 - Tilt Mechanism
- 14 - Arm Strength - Horizontal
- 15, 16 - Back Durability Tests - Cyclic
- 18 - Leg Strength (with fixturing)
- 19 - Footrest Durability (with fixturing)

### X5.4-2005 Lounge Seating Tests

\*All tests similar to X5.1 for a single or multiple seat units.

- 11 - Arm Durability Horizontal
- 15 - Structural Durability

### X5.5-2008 Desk Table Tests

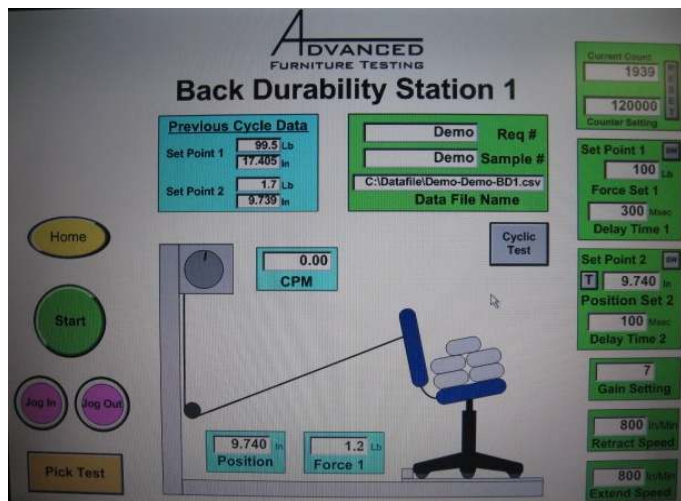
- 8 - Leg Strength Test

\* Many more capabilities for your proprietary tests.

Power Requirements: 200-250VAC 3 Phase. 200-250VAC 1 Phase with reduced maximum speed. Optional 480VAC 3 Phase.

## Pricing

4 Station Machine	Call
Fatigue Rated Load Cell Option	Call
Optional 480 VAC 3 Phase Transformer	Call



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