



# Compression Test Systems

**Lansmont**  
*Field-to-Lab*<sup>®</sup>





# Squeezer Compression Tester



Severe compressive forces occur when packaged-products are stacked during transit or storage. To evaluate the performance of packages, components, and materials under such loads, Lansmont offers a full line of Compression Testers. Lansmont Compression Testers comply with industry standard package testing specifications including ASTM, ISTA, ISO, and MIL-STD.

## PERFORMANCE SPECIFICATIONS

### Maximum Package Dimensions:

Length 30 in. (76 cm)  
Width 30 in. (76 cm)  
Height 48 in. (122 cm)

Contact Lansmont for larger configurations.

### Verified Force Range:

500 – 5,000 lbs.  
(2.22 – 22.2 kN)

### Positioning Speeds

Platen positioning speed 27.6 in./min.  
(70 cm/min.)

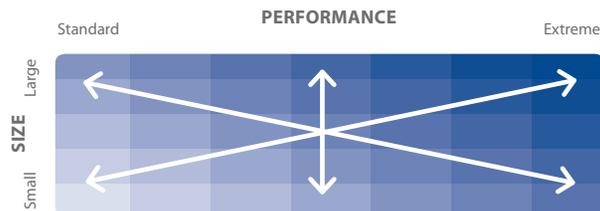
Test speed range 0.1 to 0.51 in./min.  
(1.27 cm/min.)

### Testing Modes:

Constant rate  
Constant load

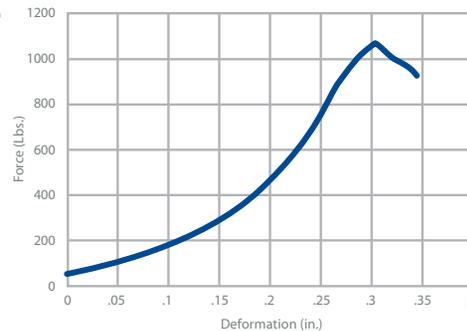
## MADE TO ORDER

Not quite the equipment size or performance level that you need? If we do not already manufacture the test machine ideally suited for your company's testing applications, our engineering team can custom design a test system specific to your needs.

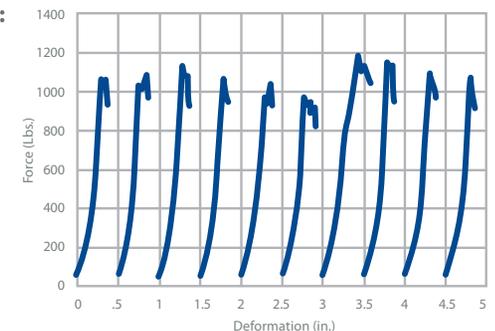


## SQUEEZER READER DATA SCREENS

### Constant rate test data: Force vs. Deformation



### Summary plot: Force vs. Deformation





# Squeezer Compression Tester



## FEATURES



### Touchscreen Controller:

The Squeezer uses a digital control system for all machine control and data acquisition. The controls are operated through a touch screen display located on the front panel of the machine. All machine setup, data collection, and data export functions are handled through this backlit, color LCD touch screen.



### Self-Contained Design:

The self-contained Squeezer design includes a base cabinet that encloses the drive motors, load cell, instrumentation, and control electronics. Electrical power is the only utility needed. Simply plug the machine into an outlet and begin testing!



### Precise Control:

The smooth, accurate motion of the Squeezer during testing is the result of using precision ball screws to apply compression forces. Force is measured using a parallelogram-type load cell. Deflection is measured using a precision shaft encoder.

## OPTIONS



### Fixed/Floating Platen:

The Fixed/Floating platen option gives you increased flexibility in your testing applications. In the floating

orientation, the platen is free to swivel during testing via a "monoball" bearing. In the fixed orientation, adjustable limit stops are used to lock out the lower platen so it is in a fixed orientation during testing.



### Oversized Platen:

To accommodate larger box designs, the Squeezer can be built with an Oversized Platen. This increases the maximum package

footprint dimensions to 30 x 44 in. (76 x 112 cm). An Oversized Fixed/Floating platen option is available as well.



### Machine Test Stands:

Machine Test Stands provide a stable steel surface to position the machine (standard height is 30 inches (76 cm)).

Test Stands are available in two different widths: 42.5 in. (108cm) or 72.5 in. (184 cm) Large Test Stands also provide a work surface for specimen preparation or staging.



### Temperature/Relative Humidity Sensor:

The optional probe mounts to the back of the Squeezer near to where test specimens sit during testing. The sensor can effectively measure in a 0 – 100°F temperature and 0 – 100% relative humidity range.



# Squeezer Compression Tester



## SPECIFICATIONS

### UTILITIES

#### Power –

Standard voltages: 110 VAC – 1 phase – 60 Hz. (10 amps)  
220 VAC – 1 phase – 50 Hz. (5 amps)

Optional voltage: 220 VAC – 1 phase- 60 Hz. (5 amps)

### OPERATING ENVIRONMENT

60-80°F ( 15.6-26.7°C) 20-60% RH

### MACHINE DIMENSIONS (standard machine)

Height: 67 in. (170 cm)  
Width: 42.5 in. (108 cm)  
Depth: 36.6 in. (93 cm)

### TEST STAND DIMENSIONS

	Small test stand	Large test stand
Height:	30 in. (76 cm)	Height: 30 in. (76 cm)
Width:	42.5 in.(108 cm)	Width: 72.5 in. (184 cm)
Depth:	30 in. (76 cm)	Depth: 30 in. (76 cm)

### CRATE INFORMATION (standard machine, no test stand)

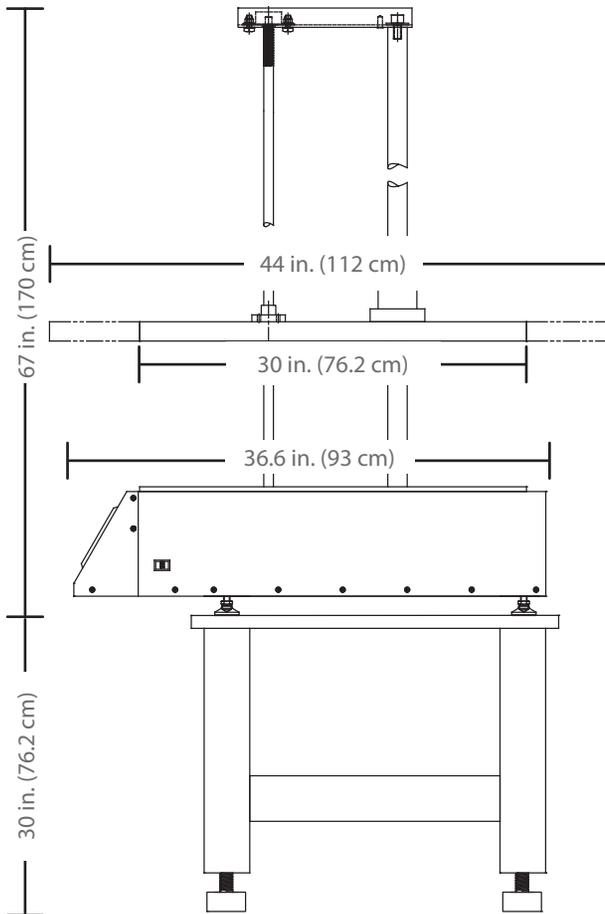
Height: 83 in. (211 cm)  
Width: 55 in. (140 cm)  
Depth: 55 in. (140 cm)

### WEIGHTS

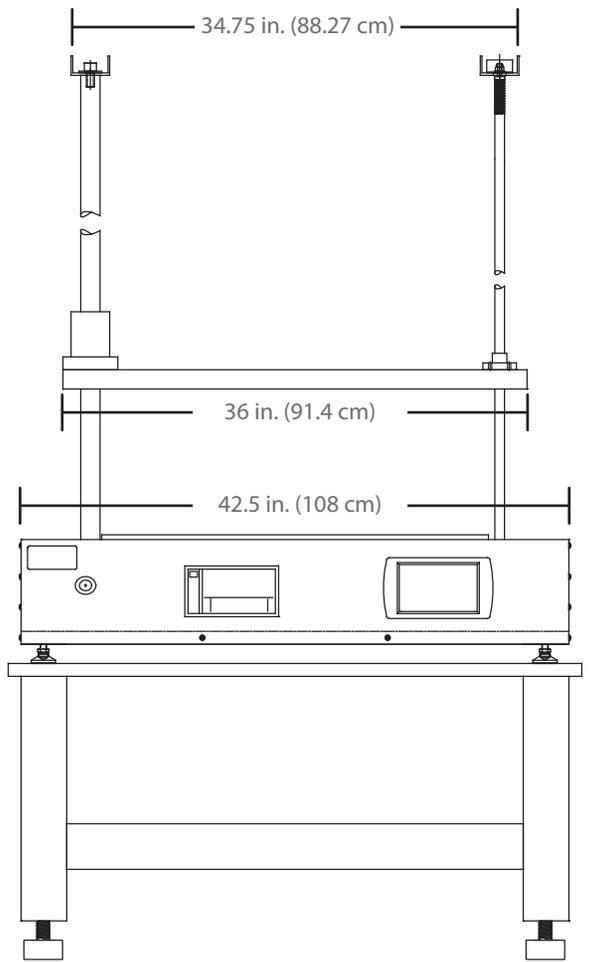
Gross weight: 1300 lbs. (590 kg)  
Net weight: 725 lbs. (329 kg)

## SYSTEM DRAWINGS – STANDARD CONFIGURATION

### SIDE VIEW



### FRONT VIEW





# 122-15 Compression Tester



Severe compressive forces occur when packaged-products are stacked during transit or storage. To evaluate the performance of packages, components, and materials under such loads, Lansmont offers a full line of Compression Testers. Lansmont Compression Testers comply with industry standard package testing specifications including ASTM, ISTA, ISO, and MIL-STD.

## PERFORMANCE SPECIFICATIONS

### Maximum Package Dimensions:

Length 48 in. (122 cm)  
Width 48 in. (122 cm)  
Height 78 in. (198 cm)

Contact Lansmont for larger configurations.

### Verified Force Range:

1,500 - 15,000 lbs.  
(6.67 - 66.7 kN)

Contact Lansmont for extended range options.

### Positioning Speeds:

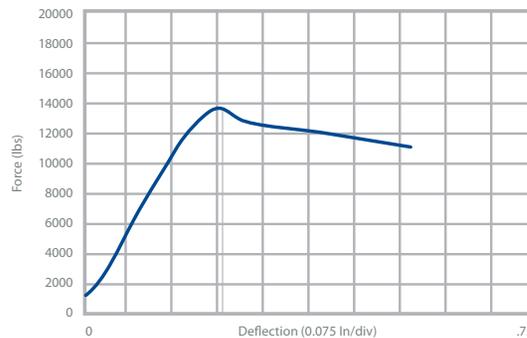
Cross-head 16 ft./min.  
(4.88 m/min.)  
Test speed 0.5 in./min.  
(1.27 cm/min.)

### Testing Modes:

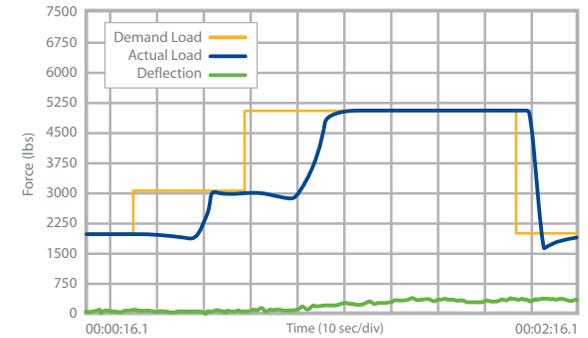
Constant deflection rate  
Ramp to load and release  
Load profile simulation  
Deflection profile simulation

## TEST PROFILES

Constant rate test profile



Constant load test profile





# 122-15 Compression Tester



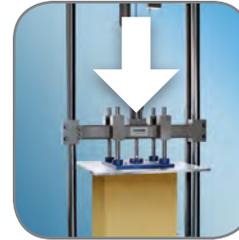
## FEATURES



### TouchTest Compression 3 Controller:

The intuitive TTC3™ control software integrates the machine control functions with the data capture, analysis, and reporting features. TTC3™ allows users to export test data to Windows™ applications. Networking features allow quick and easy transmission of

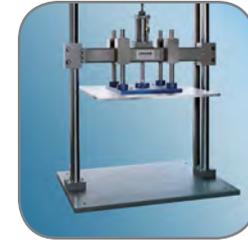
test results via e-mail. TTC3™ has a full range of testing capabilities including Constant Deflection Rate, Ramp to Load and Release, Stacking Simulation, and Deflection profile compression tests.



### Top Load Design:

Our "Top Load" machine design applies the compression force from above during compression testing, providing a more

realistic simulation of the compressive loads that packaging experiences when stacked.



### Low Profile Baseplate:

The compression system baseplate has a low profile for added convenience and safety when loading or unloading

large packages or unitized loads during testing.

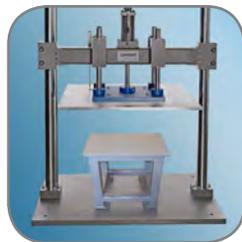
## OPTIONS



### Fixed/Floating Platen:

The Fixed/Floating platen option gives you increased flexibility in your testing applications. In the floating

orientation, the platen is free to swivel during testing via a "monoball" bearing. In the fixed orientation, adjustable limit stops are used to lock out the lower platen so it is in a fixed orientation during testing.



### Package Test Stands:

To make testing single packages on a large compression tester more convenient, we offer package tests stands.

These heavy duty steel tables can be placed on the machine baseplate to make the "base" surface a more convenient height for the user.



### Low Range Load Platform:

For testing applications that utilize the lower end of the force range, we offer Low Range Load Platforms. These

precision recording structures more accurately measure compressive forces on smaller packages.



### Temperature/Relative Humidity Sensor:

The optional probe mounts to the back of the Squeezer near to where test specimens sit during

testing. The sensor can effectively measure in a 0 – 100°F temperature and 0 – 100% relative humidity range.



# 122-15 Compression Tester



## APPLICATIONS

Many variables affect the compression performance of your packaging. How many boxes will be in a unit load and how will we stack them? Will our packages be shipped on pallets? What happens if boxes overhang the pallet? How does the climate influence the stacking performance? These are important questions to consider when designing your packaging. Lansmont Compression Test Systems allow you to evaluate how your packaging designs “stack up” to compressive loads and environmental conditions.



### Testing a Unit Load

Lansmont’s Model 122-15 Compression Tester is specifically designed to efficiently and accurately evaluate the performance of unit loads under compressive forces.



### Testing Individual Packages

For testing smaller items such as individual packages, an optional package test stand can be used with the Model 122-15. A Low Range Load Platform is another useful option for accurately evaluating low level force inputs.

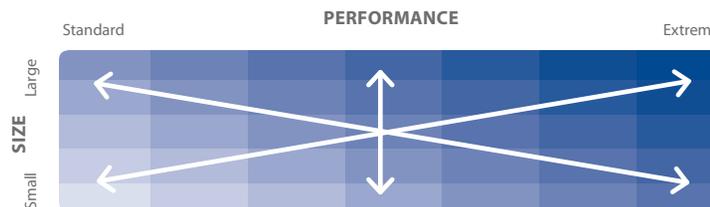


### Climatized Testing

Temperature and relative humidity can greatly impact compression performance of your packaging designs. To replicate these conditions during testing, Lansmont Compression Test Systems can be installed inside a climate-controlled space.

## MADE TO ORDER

Not quite the equipment size or performance level that you need? If we do not already manufacture the test machine ideally suited for your company’s testing applications, our engineering team can custom design a test system specific to your needs.





# 122-15 Compression Tester



## SPECIFICATIONS

### UTILITIES

#### Power -

Standard voltages:	110 VAC - 1 phase - 60 Hz. (20 amps)
	220 VAC - 1 phase - 50 Hz. (10 amps)
Optional Voltage:	220 VAC - 1 phase - 60 Hz. (10 amps)

### MACHINE DIMENSIONS (standard machine)

Height:	125.5 in. (319 cm)
Width:	66 in. (168 cm)
Length:	48 in. (122 cm)

### PACKAGE TEST STAND DIMENSIONS

Sizes (width x length):	24 x 24 in. (61 x 61 cm)
	30 x 30 in. (76 x 76 cm)
	36 x 36 in. (91 x 91 cm)

All test stands are 30 in. (76 cm) tall.

### CRATE INFORMATION (standard machine)

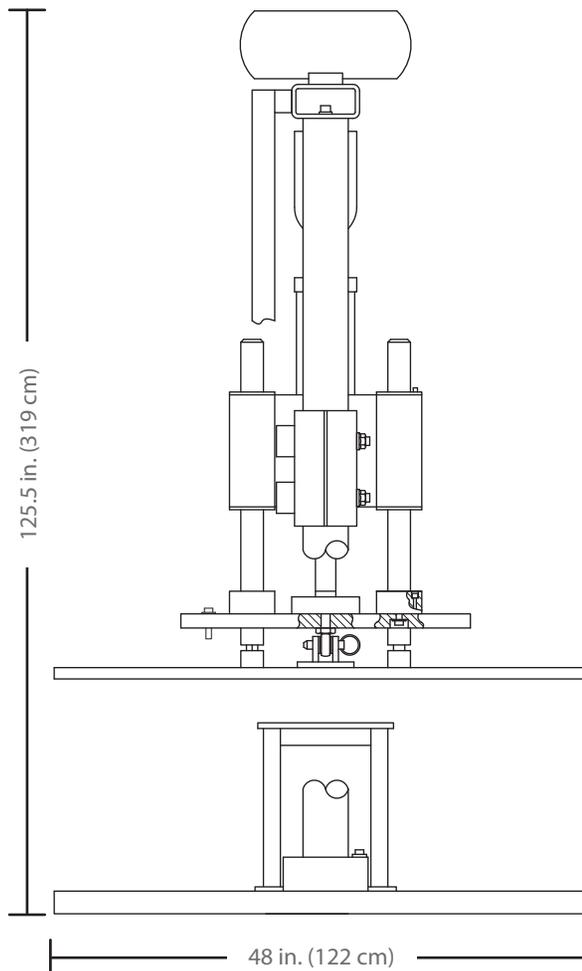
Height:	74 in. (188 cm)
Width:	75 in. (190.5 cm)
Length:	169 in. (429 cm)

### WEIGHTS

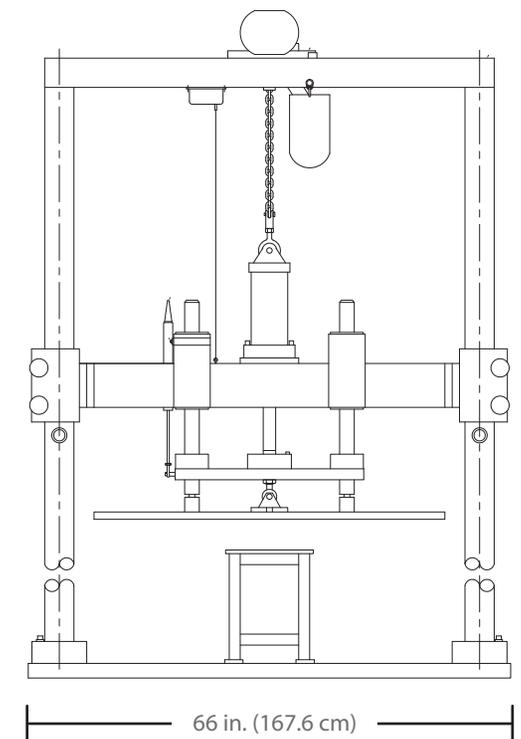
Gross weight	8500 lbs. (3855 kg)
Net weight	6775 lbs. (3073 kg)

## SYSTEM DRAWINGS - STANDARD CONFIGURATION

### SIDE VIEW



### FRONT VIEW





# 152 Compression Tester



Severe compressive forces occur when packaged-products are stacked during transit or storage. To evaluate the performance of packages, components, and materials under such loads, Lansmont offers a full line of Compression Testers. Lansmont Compression Testers comply with industry standard package testing specifications including ASTM, ISTA, ISO, and MIL-STD.

## PERFORMANCE SPECIFICATIONS

### Maximum Package Dimensions:

Length 60 in. (152 cm)  
Width 60 in. (152 cm)  
Height 84 in. (213 cm)

Contact Lansmont for larger configurations.

### Verified Force Range:

**152-30K**      **152-50K**  
3,000 - 30,000 lbs.      5,000 - 50,000 lbs.  
(13.3 - 133 kN)      (22.2 - 222 kN)

Contact Lansmont for extended range options.

### Positioning Speeds:

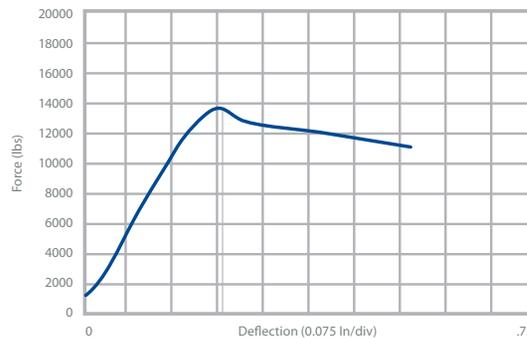
Cross-head 16 ft./min. (4.88 m/min.)  
Test speed 0.5 in./min. (1.27 cm/min.)

### Testing Modes:

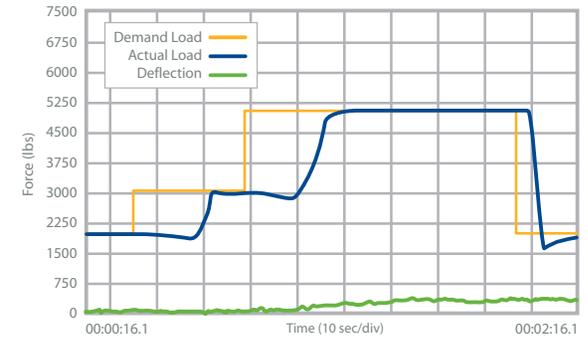
Constant deflection rate  
Ramp to load and release  
Load profile simulation  
Deflection profile simulation

## TEST PROFILES

Constant rate test profile



Constant load test profile





# 152 Compression Tester



## FEATURES



### TouchTest Compression 3 Controller:

The intuitive TTC3™ control software integrates the machine control functions with the data capture, analysis, and reporting features. TTC3™ allows users to export test data to Windows™ applications. Networking features allow quick and easy transmission of

test results via e-mail. TTC3™ has a full range of testing capabilities including Constant Deflection Rate, Ramp to Load and Release, Stacking Simulation, and Deflection profile compression tests.



### Top Load Design:

Our "Top Load" machine design applies the compression force from above during compression testing, providing a more

realistic simulation of the compressive loads that packaging experiences when stacked.



### Low Profile Baseplate:

The compression system baseplate has a low profile for added convenience and safety when loading or unloading

large packages or unitized loads during testing.

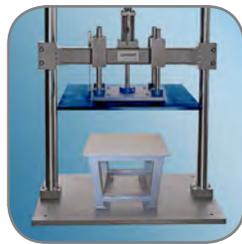
## OPTIONS



### Fixed/Floating Platen:

The Fixed/Floating platen option gives you increased flexibility in your testing applications. In the floating

orientation, the platen is free to swivel during testing via a "monoball" bearing. In the fixed orientation, adjustable limit stops are used to lock out the lower platen so it is in a fixed orientation during testing.



### Package Test Stands:

To make testing single packages on a large compression tester more convenient, we offer package tests stands.

These heavy duty steel tables can be placed on the machine baseplate to make the "base" surface a more convenient height for the user.



### Low Range Load Platform:

For testing applications that utilize the lower end of the force range, we offer Low Range Load Platforms. These

precision recording structures more accurately measure compressive forces on smaller packages.



### Temperature/Relative Humidity Sensor:

The optional probe mounts to the back of the Squeezer near to where test specimens sit during

testing. The sensor can effectively measure in a 0 – 100°F temperature and 0 – 100% relative humidity range.



# 152 Compression Tester



## APPLICATIONS

Many variables affect the compression performance of your packaging. How many boxes will be in a unit load and how will we stack them? Will our packages be shipped on pallets? What happens if boxes overhang the pallet? How does the climate influence the stacking performance? These are important questions to consider when designing your packaging. Lansmont Compression Test Systems allow you to evaluate how your packaging designs “stack up” to compressive loads and environmental conditions.



### Testing a Unit Load

Lansmont’s Model 152 Compression Tester is specifically designed to efficiently and accurately evaluate the performance of unit loads under compressive forces.



### Testing Individual Packages

For testing smaller items such as individual packages, an optional package test stand can be used with the Model 152. A Low Range Load Platform is another useful option for accurately evaluating low level force inputs.

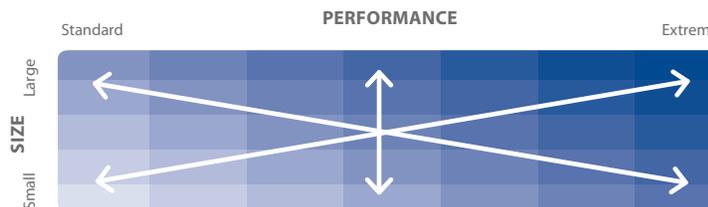


### Climatized Testing

Temperature and relative humidity can greatly impact compression performance of your packaging designs. To replicate these conditions during testing, Lansmont Compression Test Systems can be installed inside a climate-controlled space.

## MADE TO ORDER

Not quite the equipment size or performance level that you need? If we do not already manufacture the test machine ideally suited for your company’s testing applications, our engineering team can custom design a test system specific to your needs.





# 152 Compression Tester



## SPECIFICATIONS

UTILITIES	152-30K	152-50K
<b>Power -</b>		
Standard voltages:	115-220 VAC	115-220 VAC
	1 phase	1 phase
	50-60 Hz.	50-60 Hz.
	15-30 amps	15-30 amps

## MACHINE DIMENSIONS (standard machine)

Height:	146 in. (371 cm)	146 in. (371 cm)
Width:	80 in. (203 cm)	80 in. (203 cm)
Length:	60 in. (152 cm)	60 in. (152 cm)

## PACKAGE TEST STAND DIMENSIONS

Sizes (width x length):	24 x 24 in. (61 x 61 cm)
	30 x 30 in. (76 x 76 cm)
	36 x 36 in. (91 x 91 cm)

All test stands are 30 in. (76 cm) tall.

## CRATE INFORMATION (standard machine)

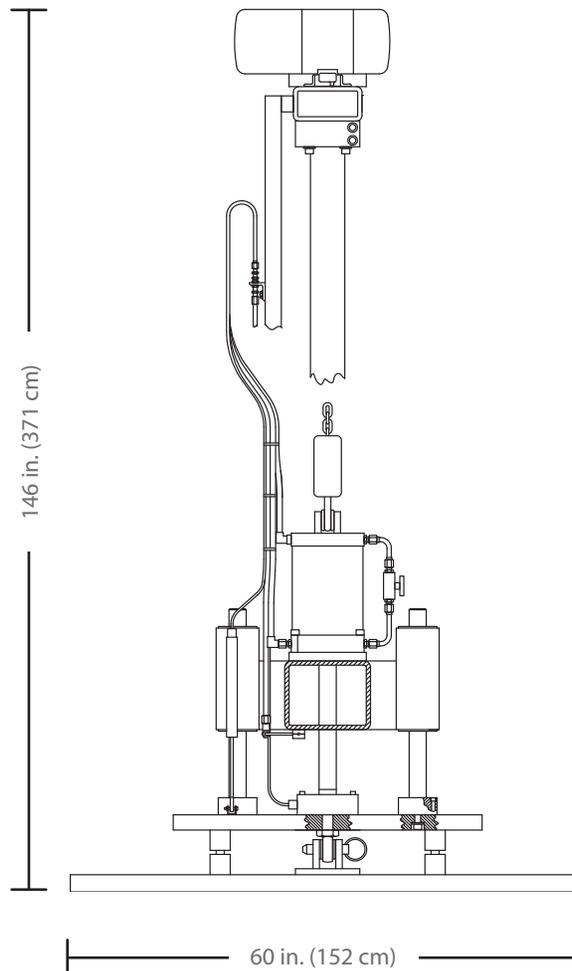
Height:	74 in. (188 cm)	74 in. (188 cm)
Width:	75 in. (190.5 cm)	75 in. (190.5 cm)
Length:	169 in. (429 cm)	169 in. (429 cm)

## WEIGHTS

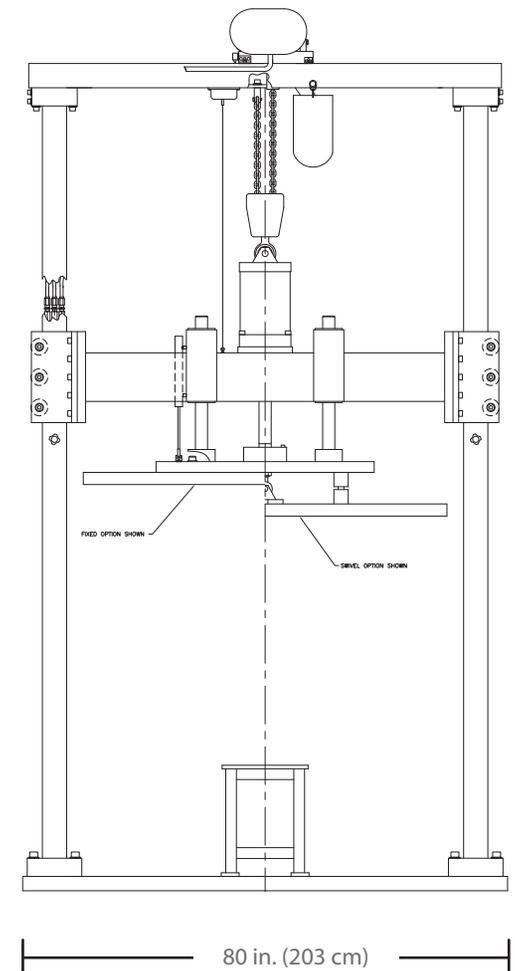
Gross weight	9000 lbs. (4082 kg)	9500 lbs. (4309 kg)
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## SYSTEM DRAWINGS – STANDARD CONFIGURATION

### SIDE VIEW



### FRONT VIEW





# Upgrade Options: Compression



MAIN ASSEMBLY    HYDRAULICS/PNEUMATICS    CONTROLS    ACCESSORIES

## TouchTest™ Compression – TTC3 Control System

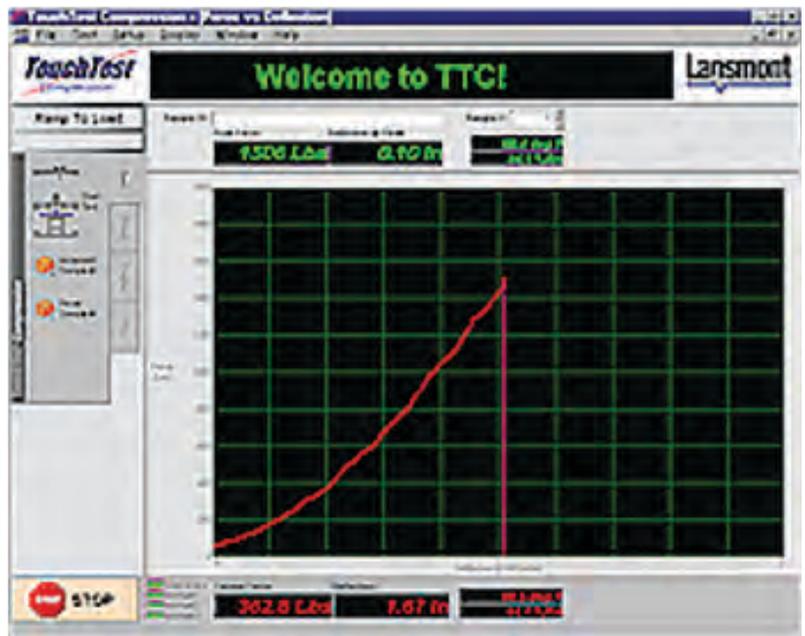
Based on the extremely popular TouchTest Compression control system, TTC3 adds many new and powerful features. Among these features are the ability to integrate compression test results with all of your favorite Windows™ applications, network features that allow quick and easy transmission of test results via e-mail, extremely simple set-up of standard compression tests, and a high level of programmability for creating custom test profiles.

TTC3 comes in a benchtop version, which includes computer, CRT monitor, interface, and all interconnecting cables. You provide the bench or cart for the computer, everything else is the same!

If you currently have an older Lansmont compression test system, the new TTC3 controller has been designed to easily retro-fit your existing machine, enabling you to have the latest state-of-the-art compression tester without the investment of an entirely new compression tester. The upgrade even includes a brand new hydraulic power supply, insuring your machine is better than new.

### Features

- Full range of test capabilities, including Constant Deflection Rate Compression Testing, Ramp to Load and Release Compression Testing, Load Profile - Stacking Simulation Test, and Deflection Profile Test
- Windows™ simplicity
- Network ready
- SystemStation and Bench-Top version
- Easily upgradeable to existing machines



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