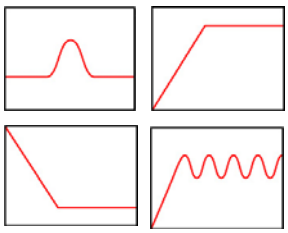
R Series PC Controlled Test System

Flexibility & Power
Control and measurement of load, strain, stroke channels
Calculated Analyses & Custom Test Reports
Force ratings to 1500 lb (6.6 kN)

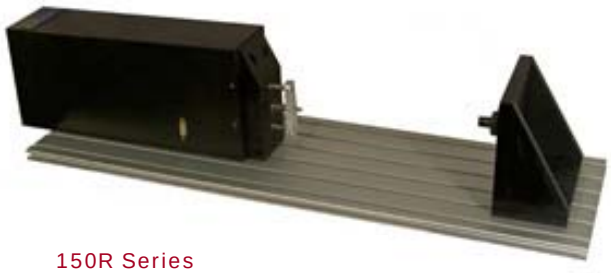
100R Series
Single Column Frame
Biomedical Bath



800R Series
Dual Smooth
Column Frame

Choices & Options

- **Load Frame Style** - single or dual column, or horizontal test tables
- **Actuator Performance** – force rating, speed range and stroke
- **Load Cell** – many to choose from - full scale rating
- **Testing Accessories** – grips, fixtures, chambers and engineered solutions



150R Series
Horizontal Test Tables

120R Series
Dual Column
Frame

TestResources Inc – 680 Industrial Circle South – Shakopee MN USA 55379
800.430.6536 952.944.6534 Fax 952.233.3682
www.testresources.com

Modular Systems Approach

TestResources test systems are configured to serve each customers test requirements. Each P Series system consists of a load frame or horizontal test table, an actuator, load and position transducer, test controller, and software. Due to a modular product structure, system modules can be swapped or re-configured during as requirements change.

R Controller Overview

- **Complete Total Solution**
- **Straightforward Intuitive Design**
- **High Performance Hardware**
- **Customizable Test Protocols**
- **Standardized Tests**
- **Common Analyses**
- **All Applications included**

The R Controller Package is a complete solution to the needs of operators performing static and dynamic tests on materials and products. The highly integrated hardware and software enables test users to create, maintain, and execute virtually any mechanical test protocol and is an ideal solution to the needs for precise machine control and measurement. This servocontrolled high performance package can perform static or dynamic tension, compression, stress-strain, stress relaxation, creep, tear, peel, adhesive and even sophisticated cyclic tests. Perform almost any mechanical test, collect the data, analyze results, and produce a customer test report.

Each controller features a load, position and auxiliary channel with the option to add additional strain channels for extensometers. The operator can configure the machine to match special requirements, collect data from all sensors, plot a stress strain curve in real time, and even perform multiple tests in sequence – with reports to match. Each test procedure may be saved and rerun as desired.

The controller can produce sinusoidal load and position controlled tests including customized tests assembled by segmented control profiles and blocks of repeated profiles – e.g. ramp, hold, sinewave cyclic, hold, sawtooth cyclic profile under the control mode of choice.

R test systems are easy to learn and use and well suited for labs where operators or tests change day to day and new tests are common. PC based controls improve test data quality and efficiency because test setups and test data are saved, built upon or available for re-analysis. The R is a good fit for high throughput test labs and research labs where flexibility is needed.

Create, save and recall your special test methods. Protect different set up modes with a password as desired. The R package also includes many calculated routines for established test analyses and procedures. Produce full single test reports or reports covering multiple tests. Generate load - deflection (XY) plots to match ASTM, JIS, SAE, TAPPI, Euro Norm and other standard requirements. Data and plots can be presented in a single test report or a group of like tests can be combined to generate a statistical summary for each analysis result. The multiple test report stores a group of tests to the same file and provides a statistical summary for each analysis parameter. A plot with multiple XY curves overlaid on the same set of graph axes is optional. Store test data and results to hard disk in ASCII delimited format for easy import into popular spreadsheet and database programs.

Large easy-to-read numeric displays present friendly live, peak and rate readings. Up to 5 channels of sensors are available to collect data or provide control of load, encoder position, LVDT, strain, or auxiliary use (10V DC). R hardware uses proven noise reduction techniques to lower the noise floor to effective resolution of one part in a million.

D Series * Electromechanical * Screw Driven * Servoactuators

D Series servoactuators include a servomotor, encoder, linear bearings, and integrated limit detection to protect the actuator in case of over travel conditions and well suited for quasistatic (slower) tests common to material and product testing applications. They are available in a variety of speeds, travels and load ratings.

System Configurations and Specifications

100R Series Single Column Systems

Model	Units	100R250	100R500	100R1000	100R1400	100R1020	100R1500
Max Load	lb (kN)	250 (1.1)	500 (2.2)	1000 (4.4)	1400 (6.2)	1000 (4.4)	1500 (6.6)
Max Speed	ipm (mm/m)	25 (625)	7 (625)	2.2 (55)	0.9 (23)	15 (375)	7 (625)
Resolution	micron	0.07	0.02	0.002	0.07	0.06	0.002
Min Speed	micron/min	30	8	2.5	1.5	30	-
Stroke	6” or 12”						
Load Accuracy	+/- 0.5% of reading to 1/500 of load cell --- Meets ASTM E4, BS EN ISO 7500-1: 2004, DIN 51221						
Vertical Space	Manually adjustable 0-31”						
Lateral Space	3.5” (blocks optional for increased space)						
Footprint	12” x 12”						

120R Series Dual Column Systems

Model	Units	120R250	120R500	120R1000	120R1400	120R1020	120R1500
Max Load	lb (kN)	250 (1.1)	500 (2.2)	1000 (4.4)	1400 (6.2)	1000 (4.4)	1500 (6.6)
Max Speed	ipm (mm/m)	25 (625)	7 (625)	2.2 (55)	0.9 (23)	15 (375)	7 (625)
Resolution	micron	0.07	0.02	0.002	0.07	0.06	0.002
Min Speed	micron/min	30	8	2.5	1.5	30	-
Stroke	6” or 12”						
Load Accuracy	+/- 0.5% of reading to 1/500 of load cell --- Meets ASTM E4, BS EN ISO 7500-1: 2004, DIN 51221						
Vertical Space	Designed to requirements						
Lateral Space	Designed to requirements						
Baseplates	Designed to requirements – T Slotted or threads placed as needed – sized to needs						

150R Series Horizontal Test Tables

Model	Units	150R250	150R500	150R1000	150R1400	150R1020	150R1500
Max Load	lb (kN)	250 (1.1)	500 (2.2)	1000 (4.4)	1400 (6.2)	1000 (4.4)	1500 (6.6)
Max Speed	ipm (mm/m)	25 (625)	7 (625)	2.2 (55)	0.9 (23)	15 (375)	7 (625)
Resolution	micron	0.07	0.02	0.002	0.07	0.06	0.002
Min Speed	micron/min	30	8	2.5	1.5	30	-
Stroke	6” or 12”						
Load Accuracy	+/- 0.5% of reading to 1/500 of load cell --- Meets ASTM E4, BS EN ISO 7500-1: 2004, DIN 51221						
Test Space	Adjustable – Length of table made to requirements						
Lateral Space	3.5” (blocks optional for increased space)						
Baseplates	T Slotted or threads placed as needed – sized to needs						

800R Series Dual Smooth Column Systems

Model	Units	R250	R500	R1000	R1400	R1020	R1500
Max Load	lb (kN)	250 (1.1)	500 (2.2)	1000 (4.4)	1400 (6.2)	1000 (4.4)	1500 (6.6)
Max Speed	ipm (mm/m)	25 (625)	7 (625)	2.2 (55)	0.9 (23)	15 (375)	7 (625)
Resolution	micron	0.07	0.02	0.002	0.07	0.06	0.002
Min Speed	micron/min	30	8	2.5	1.5	30	-
Stroke	6” or 12”						
Load Accuracy	+/- 0.5% of reading to 1/500 of load cell --- Meets ASTM E4, BS EN ISO 7500-1: 2004, DIN 51221						

Model	Vertical Space	Lateral Test Space	Footprint
800	33” – optional 45”, 57”	16” Wide	6.5” x 22”
801	33” – optional 45”, 57”	20” Wide	6.5” x 26”
802	33” – optional 45”, 57”	24” Wide	6.5” x 30”
80x	33” – optional 45”, 57”	x” Wide	6.5” x 40”

Request a Demo today!

TestResources Inc – 680 Industrial Circle South – Shakopee MN USA 55379
800.430.6536 952.944.6534 Fax 952.233.3682
www.testresources.com