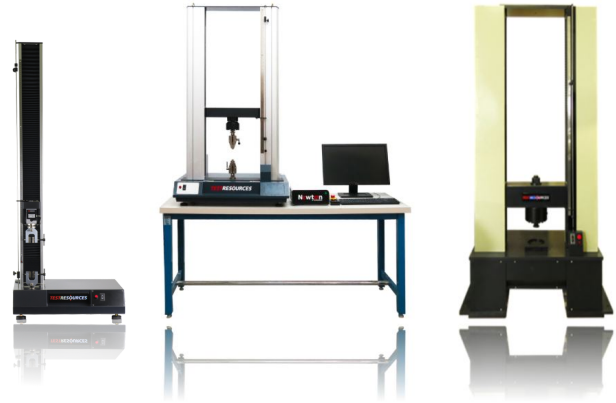


## Instron® Model 3366 Compared to TestResources 311

### Overview

Electromechanical test machines have been around for almost 70 years but it wasn't until the developments in materials and manufacturing technology and software development that has made them truly affordable while retaining their inherent flexible nature as 'universal' test machines.

Instron 3300 Series universal test machines have also evolved to become positioned as the Instron product line of 'most affordable' test machines. It is true that the 3300 series is affordable compared to the more expensive 5900 Series.



TestResources manufactures a wide selection of standard electromechanical test machines with over 500 test accessories for tension and compression test applications. When it comes to specific comparisons between Instron and TestResources, TestResources solution is less expensive and truly affordable, typically costing approximately HALF PRICE of a comparable Instron.

Beginning in the late 1990's, TestResources products, including almost 100 test machines and over 500 test fixtures and accessories, were made to be much more affordable because of our new Smart Design approach to manufacturing. The key to our Smart Design philosophy was to design products for their most common applications, not for out-lyer or marginal applications that push requirements and manufacturing costs higher and higher. We were able to meet the vast majority of customers needs by delivering a pragmatic mainstream solution.

In our experience, first time test machine buyers need to perform a few known and relatively standard test applications and so they need an affordable turnkey solution so that they can economically justify the purchase of a machine. Generally speaking, for these users, the test machine must perform your tests efficiently, accurately and inexpensively.

Contact us now to confirm your application is served by our Smartly Designed 200 or 300 Series line of universal test machines.

### TestResources **the best choice** for Electromechanical Test Machines

	Price	Max Speed	Force	Software
<b>Instron 33366</b>	\$\$	20 ipm	10 kN (2250 lbf)	BlueHill Light
<b>TestResources 311</b>	\$	20 ipm	10 kN (2250 lbf)	Depends on your test requirements

TestResources took a new approach to test machine design. We cleverly call it SMART DESIGN. Our process begins by gathering test applications information to identify the machine design requirements for each universal test machine. Typically each machine performs over 1000 ASTM, ISO, EN, DIN and JEDEC industry standard test methods. These requirements became our baseline expectations for test machine performance.

Our design team followed the 95/50 RULE which means that TestResources Electromechanical Test machines target 95% of the full range of applications served by Instron's 3300 Series at 50% of the price or cost of a

comparable Instron. Our business strategy has been to deliver machines optimized to common static test applications, including the vast majority of industry standard tests. With our controller, we can even perform cyclic tests. The 5% that are not covered tend to be associated with tests that require more than two segments of machine control. Those applications are served by our 300R Series test machines that are slightly higher in price.

### Compare TestResources 311 to Instron Tabletop 3366

Manufacturer	Instron®	TestResources
Model Reference	3366	<b>311</b>
Baseline Price Comparison	\$\$	<b>\$</b>

### Load Frame Specifications

Load Capacity	10 kN (2250 lbf)	<b>10 kN (2250 lbf)</b>
Maximum Speed	500 mm/min (20 in/min)	<b>500 mm/min (20 in/min)</b>
Minimum Speed	0.01 mm/min (0.004 in/min)	<b>0.01 mm/min (0.004 in/min)</b>
Maximum Force at Max Speed	10 kN (2250 lbf)	<b>10 kN (2250 lbf)</b>
Maximum Speed at Max Load	500 mm/min (20 in/min)	<b>500 mm/min (20 in/min)</b>
Crosshead Return Speed	600 mm/min (24 in)	<b>600 mm/min (24 in)</b>
Position Control Resolution	Unpublished	<b>0.03 um (1.18 uin)</b>
Frame Axial Stiffness	Unpublished	<b>15 kN/mm (55000 lbf/in)</b>
Vertical Test Space	1193 mm (47 in)	<b>1090 mm (43 in)</b>
Total Crosshead Travel	1122 mm (44.2 in)	<b>900 mm (35.4 in)</b>
Column Spacing	420 mm (16.5 in)	<b>426 mm (16.8 in)</b>
Total Height	1582 mm (62.3 in)	<b>1440 mm (56.7 in)</b>
Extra Height Option	Available	<b>Available</b>
Extra Width Option	Available	<b>Available</b>
Total Width	756 mm (29.8 in)	<b>852 mm (33.5 in)</b>
Total Depth	707 mm (27.8 in)	<b>572 mm (22.5 in)</b>
Weight	110 kg (242 lbf)	<b>137 kg (300 lbf)</b>
Maximum Power	300 VA	<b>400 VA</b>

## Controller Specifications

Contact us to determine which controller set up is right for your application.

Software Model	Bluehill® Lite	Contact us
Standalone Mode	No (PC is required)	Contact us
Controller Technology	PID Servocontrol	Contact us
Machine Control	Constant Speed or Load Rate	Contact us
Data Acquisition Rate	1000 Samples/Sec	Contact us
Transducer ID	Automatic	Contact us
Strain Channel	Optional (2)	Contact us
ASTM E83, ISO 9513	Meets or surpasses	Contact us
Calculated Analyses	Included	Contact us
Test Report Template	Included	Contact us
Stress Strain Plotting	Live	Contact us
Load Measurement Accuracy	±0.5% of reading to 1/100 of load cell rating	Contact us
ASTM E4,ISO 7500-1	Meets or surpasses	Contact us

## Accessories & Options

Furnaces	Available	<b>Available</b>
Hot/Cold Temperature Chambers	Available	<b>Available</b>
Biomedical Bathes	Available	<b>Available</b>
Wedge Grips	Available	<b>Available</b>
Bending Fixtures	Available	<b>Available</b>
Compression Platens	Available	<b>Available</b>
Pneumatic Grips	Available	<b>Available</b>
Safety Screens	Available	<b>Available</b>
Wider Frame Column Clearance	Available	<b>Available</b>
Increased Frame Daylight	Available	<b>Available</b>
Extensometers	Available	<b>Available</b>

## Customer Technical Support

Warranty Period	12 months	<b>12 months</b>
Installation Services	Included	<b>Optional</b>
Remote Login Support via Internet	Optional	<b>Included</b>
Technical phone and E-mail support	Included	<b>Included</b>
Field Service Support	Available	<b>Available</b>

### Notes

1. Extra high or wide load frames and extra high or low speed drive systems are available.
2. Specifications for TestResources products were developed in accordance with TestResources procedures and are subject to change without notice.
3. Specifications for Instron products were estimates developed from a variety of sources. They are estimates only - check with Instron for confirmation.
4. TestResources offers multiple alternative models that compete with the Instron models listed. Contact an applications engineer to select the best one for your applications.
5. Instron® and Bluehill® are registered trademarks of Instron.
6. Data last updated December 2014

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Contact an application engineer to configure a solution to your application requirements.