Instron® Model 3366 Compared to TestResources 311Q

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
Instron 3366	$$	20 ipm	10 kN (2250 lb)	BlueHill Light
TestResources 311Q	$	20 ipm	10 kN (2250 lb)	XYLive

TestResources has pioneered a new approach to test machine design. We cleverly call it SMART DESIGN. Our design 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 Q/XYLive 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 311Q to Instron Tabletop 3366

Manufacturer		Instron®	TestResources
Model		3366	311Q
Price Comparison		$$	$
Load Frame Specifications			
Load Capacity	kN	10	10
	lbf	2250	2250
Maximum Speed	mm/min	500	500
	in/ min	20	20
Minimum Speed	mm/min	0.01	0.01
	in/ min	0.004	0.004
Maximum Force at Max Speed	kN	10	10
	lbf	2250	2250
Maximum Speed at Max Load	mm/min	500	500
	in/min	20	20
Crosshead Return Speed	mm/min	600	600
	in/min	24	24
Position Control Resolution	um	Unpublished	0.03
	uin	Unpublished	1.18
Frame Axial Stiffness	kn/mm	Unpublished	15
	lb/in	Unpublished	55000
Vertical Test Space	mm	1193	1090
	in	47	43
Total Crosshead Travel	mm	1122	900
	in	44.2	35.4
Column Spacing	mm	420	426
	in	16.5	16.8
Total Height	mm	1582	1440
	in	62.3	56.7
Total Width	mm	756	852
	in	29.8	33.5
Total Depth	mm	707	572
	in	27.8	22.5
Weight	kg	110	137
	lbf	242	300

Maximum Power	VA	300	400
Extra Height Option	mm	Optional	Optional
Extra Width Option	in	Optional	Optional
Controller Specifications			
Model		Bluehill® Lite	XYLIve
Computer Required		Yes	No (optional)
Controller Technology		PID Servocontrol	
Test Rate Control Modes		Constant Speed or Load Rate	
Data Acquisition Rate		1000 Samples/Sec	
Transducer ID		Automatic	
Strain Channel		Optional (2)	Optional (1)
ASTM E83, ISO 9513		Meets or surpasses	
Calculated Analyses		Included	
Test Report Template		Included	
Stress Strain Plotting		Live Data	
Load Measurement Accuracy:		±0.5% of reading to 1/100 of cell rating	
ASTM E4, ISO 7500-1		Meets or surpasses	
Accessories & Options			
Furnaces		Available	Available
Hot/Cold Temperature Chambers		Available	Available
Biomedical Bathes		Available	Available
Wedge Grips		Available	Available
Bending Fixtures		Available	Available
Compression Platens		Available	Available
Pneumatic Grips		Available	Available
Safety Screens		Available	Available
Wider Frame Column Clearance		Available	Available
Increased Frame Daylight		Available	Available
Extensometers		Available	Available
Customer Technical Support			
Warranty Period		12 months	12 months
Installation Services		Included	Included
Remote Login Support via Internet		Optional	***Included***
Technical phone and E-mail support		Included	Included
Field Service Support		Available	Available

Notes

1. Extra high or wide load frames and extra high or low speed drive systems are available.

2. Specifications for TestResources products are subject to change without notice.
3. Specifications for Instron products are estimated using a variety of sources. NOTICE - check with Instron for data confirmation.

4. TestResources offers multiple alternative models - Contact an applications engineer for the best one for your applications.

5. Instron® and Bluehill® are registered trademarks of Instron.

6. Data last updated December 2014

TestResources Inc – 701 Canterbury Road – Shakopee MN USA 55379
800.430.6536 952.944.6534 Fax 952.233.3682
www.testresources.com