

## Instron® Model 3365 Compared to TestResources 310Q

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 3365</b>	\$\$	40 ipm	5 kN (1125 lb)	BlueHill Light
<b>TestResources 310Q</b>	\$	40 ipm	5 kN (1125 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 310Q to Instron Tabletop 3365

Manufacturer		Instron®	TestResources
Model		3365	310Q
Price Comparison		\$\$	\$
<b>Load Frame Specifications</b>			
Load Capacity	kN	5	5
	lbf	1125	1125
Maximum Speed	mm/min	1000	1000
	in/ min	40	40
Minimum Speed	mm/min	0.01	0.01
	in/ min	0.004	0.004
Maximum Force at Max Speed	kN	5	5
	lbf	1125	1125
Maximum Speed at Max Load	mm/min	1000	1000
	in/min	40	40
Crosshead Return Speed	mm/min	1200	1125
	in/min	48	45
Position Control Resolution	um	NA	0.03
	uin	NA	1.18
Frame Axial Stiffness	kn/mm	NA	15
	lb/in	NA	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
Extra Height Option	mm	Available	Available
Extra Width Option	in	Available	Available
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

## Controller Specifications

Model	Bluehill® Lite	XYLlive
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	<b>Included</b>
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