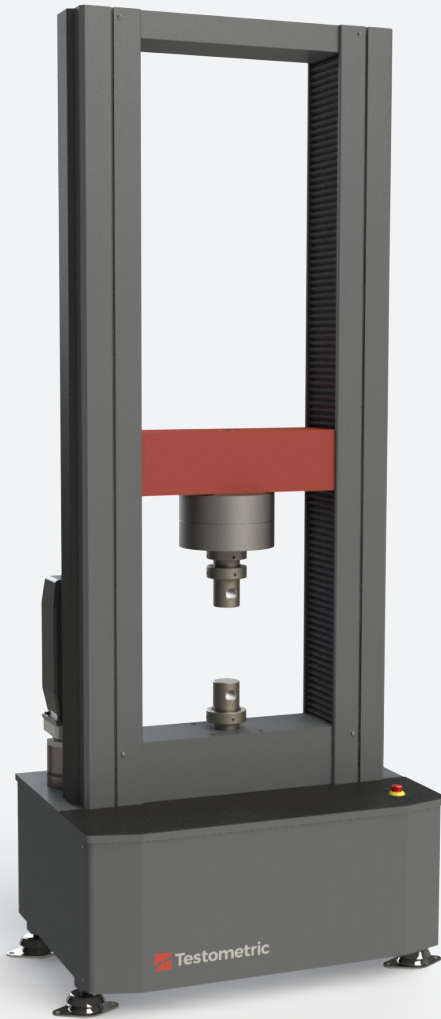


## XFS RANGE



Heavy duty, twin column floor-standing Universal Testing Machine with full computer control and precision AC servo drive system. High rigidity load frame with precise crosshead guidance system for the most demanding test applications up to 1000kN.



	XFS100	XFS150	XFS300	XFS500	XFS600	XFS1000
Force Capacity kN	100	150	300	500	600	1000
Accuracy	Better than +/- 0.5% of reading down to 1/1000th of load cell capacity					
Crosshead travel mm*	1100	1100	1300	1300	1300	1300
Vertical space mm*	1400	1400	1600	1600	1600	1600
Position Control Resolution mm	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Distance between columns mm*	480	480	620	620	620	620
Minimum Speed mm/min	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Maximum Speed mm/min	600	600	600	500	500	500
Speed Accuracy	+/- 0.1% under stable conditions					
Max force at full speed kN	100	150	300	500	600	1000
Max speed at full load mm/min	600	600	600	500	500	500
Data Acquisition Rate (at PC)	500Hz as standard (optional 1000Hz)					
PC Connection	Ethernet (or USB via adaptor)					
Machine Configuration	Twin-column, floor-standing with diagonally opposed ball screws and guide rods					
Frame Stiffness kN/mm	500	500	900	1000	1000	2000
Weight kg	940	975	1840	2000	4000	4500
Operating Temperature °C	0 to +55					
Operating Humidity	90% relative humidity or less					
Electrical Supply	3 Phase 380/400V					
Power kW	2.2	2.2	4.5	4.5	4.5	4.5

\* Extended travel and wide-frame versions available on request.

## Made to measure



Fully digital testing system with high precision control and accuracy, includes automated computer control of test methods giving simplicity of operation.

High resolution load cells with accuracies better than +/-0.5% down to 1/1000th of the load cell capacity.

Automatic recognition of load cells and extensometers, with instant calibration check facility.

800% overload capability of load cells without damage.

High efficiency pre-loaded self cleaning ballscrews for fast, quiet testing. Fitted with sealed for life lubricated end bearings.

Crosshead guidance system providing precise alignment and smooth running.

Precision crosshead control via digital AC servo drive and brushless servo motor giving maintenance free operation and 23-Bit positional control.

High speed data collection systems for up to 4 synchronous channels.

Integral load cell cable routing in machine column to eliminate snagging and prevent cable damage.

6 I/O channels for additional devices such as extensometers, micrometers, calipers, balances etc.

High stiffness loading frames with precision ground 50mm diameter steel guide rods and rigid extruded support columns with T-slots for accessory mounting.

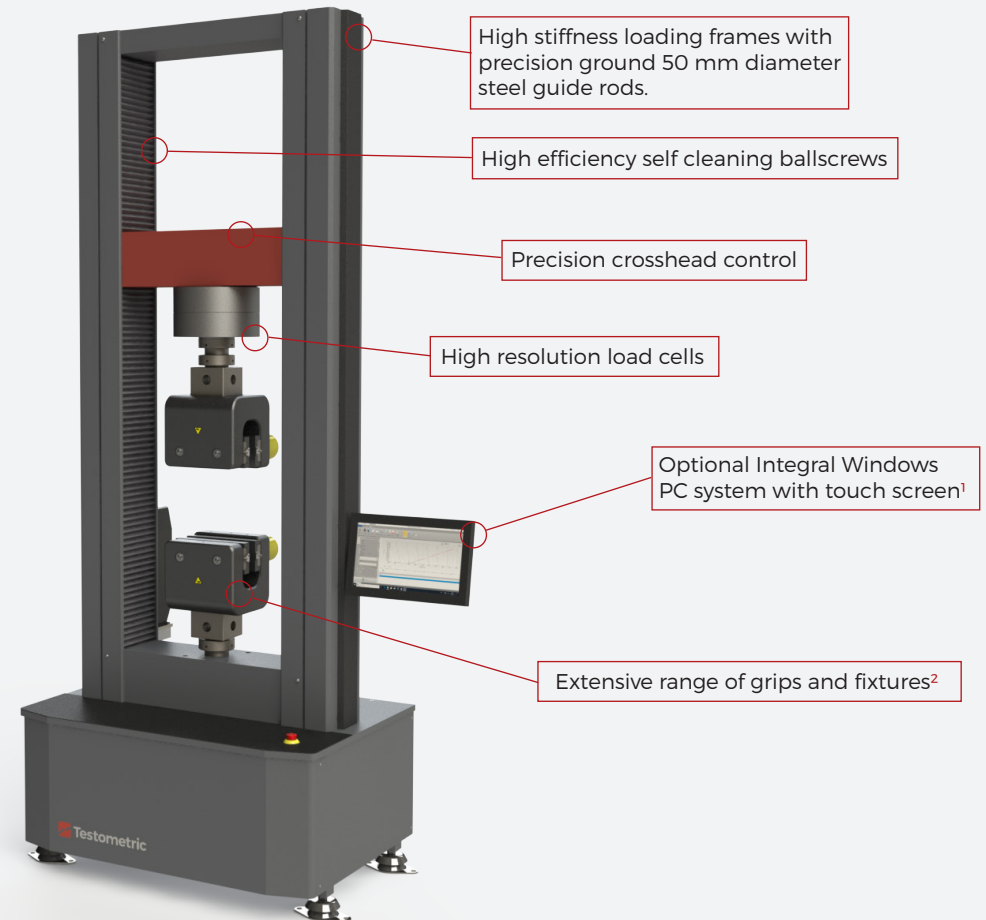
Overload, overtravel and impact protection.

Telescopic covers giving additional protection for ballscrews against dust and testing debris.

Small footprint design, giving economy of floor space.

Extensive range of grips and fixtures for tension, compression, flexural, shear, peel and product testing etc.

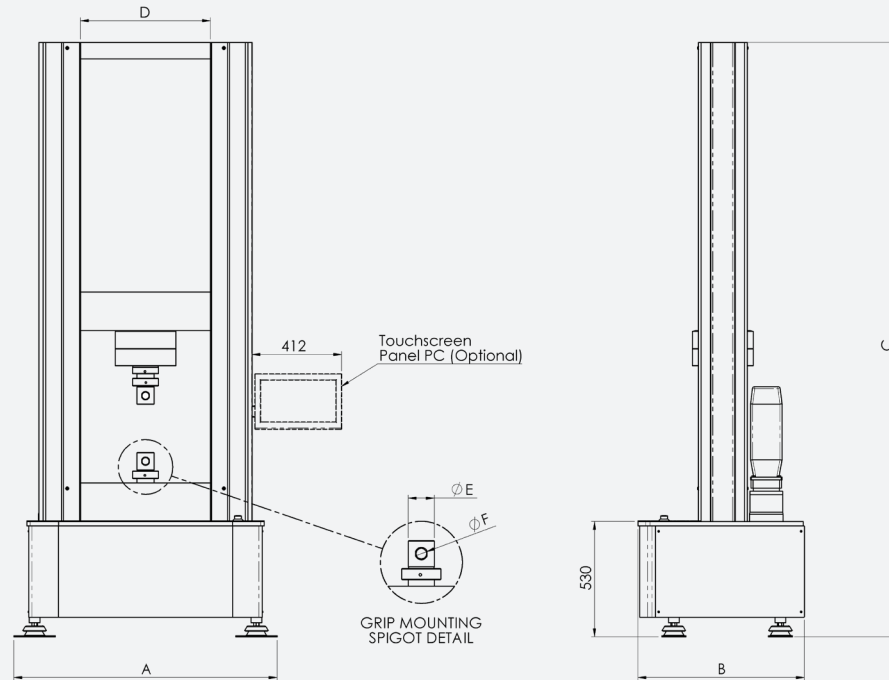
A wide range of contacting and non-contacting extensometers is available including laser and video models.



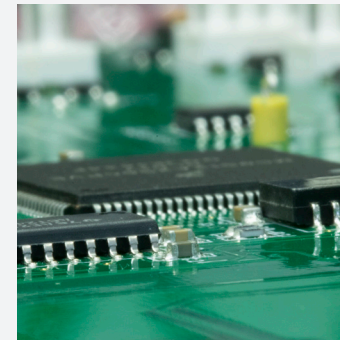
1. Available at additional cost. Machine can alternatively be controlled using a standard PC or laptop (not supplied).  
 2. Machine shown with HG300 heavy duty hydraulic grips (available separately).

# XFS Dimensions

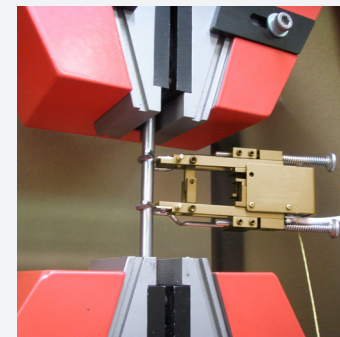
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Large range of grips and fixtures available



High-speed modular electronics



Comprehensive range of extensometry

	XFS100	XFS150	XFS300	XFS500	XFS600	XFS1000
Overall Width 'A' (excluding touchscreen)	1070	1070	1210	1210	1210	1210
Depth 'B'	765	765	765	765	850	850
Overall Height 'C'	2300	2300	2800	2800	3000	3000
Distance between columns 'D'	480	480	620	620	620	620
Spigot $\phi E$	40	50	80	110	110	110
Spigot Pin $\phi F$	16	20	32	50	50	50

Notes: All dimensions in mm  
Dimensions based on standard models, extended/wide-frame versions available on request.

## Built for precision

### Force Measurement

Universally Calibrated, better than Grade 0.5 EN 7500-1, DIN 51221 ASTM E-4, AFNOR A03-501. Range 0.4% to 100% minimum. Automatic identification of load cell. Resolution 1 part in 500000. Electronic load cell protection.

### Extension Measurement

Full frame length to a maximum resolution of 0.000001mm (selectable). Accuracy +/- 0.01mm. Absolute, relative and auxiliary modes in mm, inch and percent.

### Speed Control

Class-leading low speed performance with speeds down to 0.00001mm/min. Drive system temperature and current protection.

### Load Frame

Rigid frame, using precision ground steel guide rods and rigid extruded support column. Frame stiffness up to 2000kN/mm plus K factor facility built-in. Re-circulating ball screw with bellows. Electronic limit trips, total travel trips and customer programmable safety stops.

### Electronics System

Modular electronics system offers fast data transfer to the PC (up to 1000Hz) via high-speed Ethernet connection. Extensive input options allow the connection of a wide range of extensometers and accessories via simple plug-in interface modules.

### Safety Features

Extensive safety features to ensure highest levels of operator safety, including E-Stop, programmable extension limits and overload/impact detection. Fully compliant with global safety directives:- 2006/42/EU Machinery Directive, 2014/35/EU Low Voltage Directive and 2014/30/EU Electromagnetic Compatibility Directive.

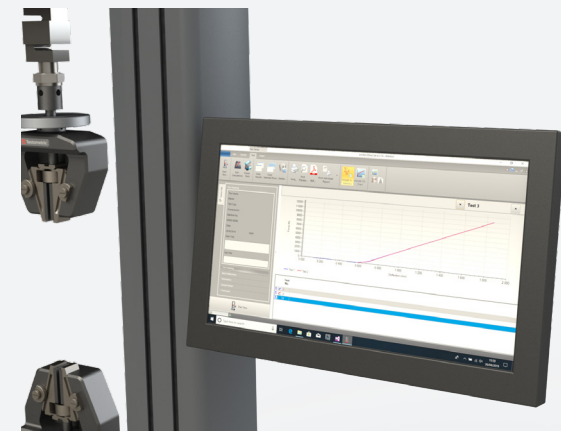
### Optional Touchscreen Panel PC

When paired with the optional IPC3 industrial-grade Panel PC with touchscreen control, the machine becomes a robust standalone system without the need for an external PC or Laptop.

Using the latest Windows 10 operating system and running a full version of Testometric's winTest software the system allows complete control of the test machine and provides storage and access to unlimited test methods and results. The included mounting arm which attaches to the machine column T-Slots is fully adjustable for height, reach and viewing angle allowing the user to find the most ergonomic working position.

#### Specification:-

Display 15.6" 1366x768 panel resistive touch screen with anti-reflective, dirt repellent screen protection.  
QM87 Chipset, 4xUSB3.0, 3xCOM ports [RS232], 2xGigaLAN.  
CPU-i5-4300M Intel Core i5 Processor, 2.6GHz.  
4GB 1600MHz SODIMM DDR3 204-pin  
2.5" 250GB, Solid State Disk (SSD), SATA III 6GB/s



## Tried and tested software

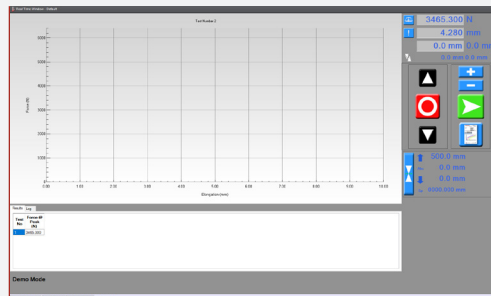


All Testometric models are supplied with our comprehensive winTest Analysis software package.

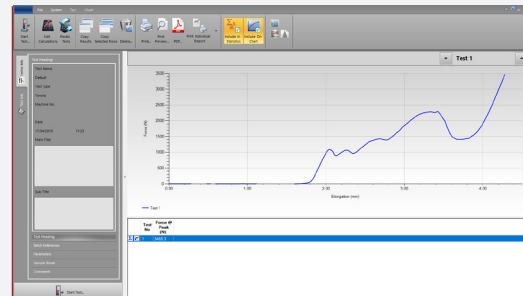
The product of many years of continuous development, winTest Analysis provides a flexible and intuitive software package to suit all types of material testing. With built-in test methods covering tensile, compression, flexural, peel, shear, tear, cyclic, creep and multi-stage tests.

It includes a wide range of industry standard test methods and the facility to create and store an unlimited number of further test methods. There is automated storage of all test data and ease of export to other software packages such as word, excel, access and SPC systems for enhanced report generation.

Please refer to the winTest software datasheet for further information.



Real time test screen



Test analysis screen



## Standing the test of time



Testometric is a private limited company that has been involved in the design and manufacture of testing machines and quality control equipment since its foundation in 1970.

Fifty years of continuing development has resulted in a main product line of universal strength testing machines for tension, compression, flexure, shear and product testing. Testometric machines are used in over 100 countries worldwide and supported by a network of offices and approved agencies.

Testometric is established in all industries and educational sectors and we have an enviable reputation for innovation, product quality and excellent customer support.

[testometric.co.uk](http://testometric.co.uk)