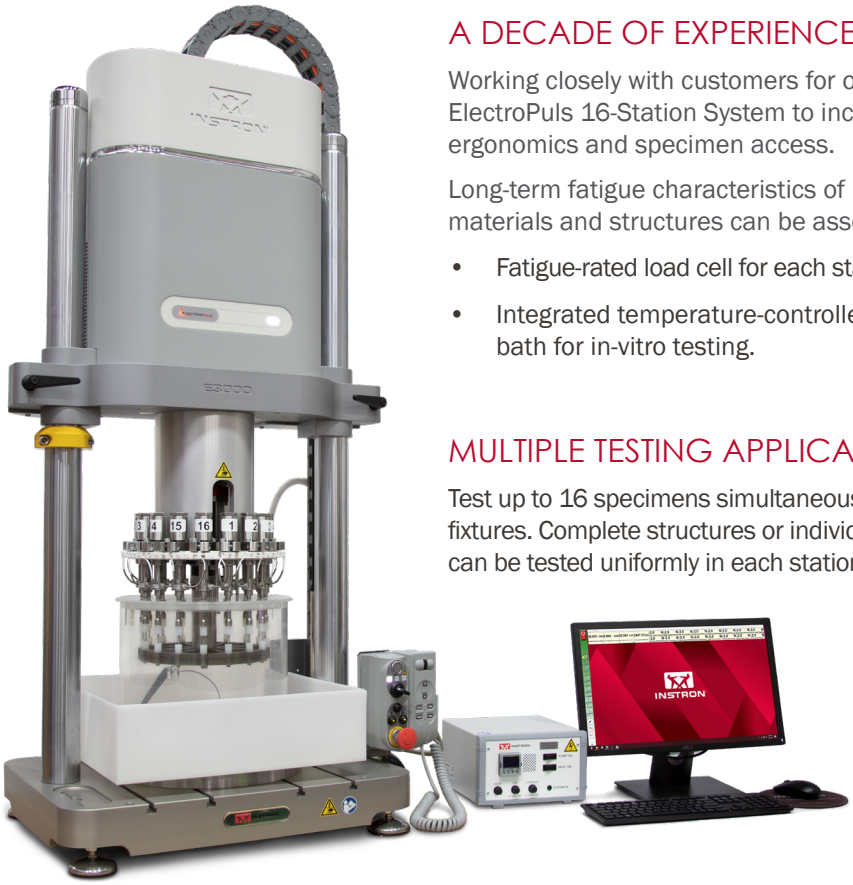
ELECTROPULS® 16-STATION TESTING SYSTEM

ElectroPuls 16-station fatigue fixture allows the simultaneous testing of up to 16 specimens to drastically reduce total test times and help deliver products to market sooner. Medical devices, such as coronary stents, require multiple successful results over hundreds of millions of cycles in order to ensure decades of safe operation and gain FDA approval.



A DECADE OF EXPERIENCE

Working closely with customers for over a decade, Instron has optimised its ElectroPuls 16-Station System to increase the number of stations whilst improving ergonomics and specimen access.

Long-term fatigue characteristics of nickel-titanium (Nitinol), stainless-steel and other materials and structures can be assessed with the following:

- Fatigue-rated load cell for each station.
- Integrated temperature-controlled bath for in-vitro testing.
- Precision station alignment and dedicated grips.
- WaveMatrix™3 dynamic test software for test control and analysis.

MULTIPLE TESTING APPLICATIONS

Test up to 16 specimens simultaneously in tension, compression or flexure with a range of fixtures. Complete structures or individual components, such as NiTi single-diamond struts, can be tested uniformly in each station with easy setup and simple pre-load adjustment.

> Effective, high quality testing is critical to the success of our medical device consultancy business and we have chosen Instron ElectroPuls systems time and time again as our laboratory has expanded.
>
> Since we started our company, we have grown to a total capacity of nine Instron systems. We have tried other systems but our laboratory engineers have always preferred the Instron interface and feel more confident and productive using the ElectroPuls systems.
>
> We have enjoyed working closely with Instron over the years to develop sophisticated solutions to help advance the medical device industry.
>
> **Sean M. Pelton, Laboratory Manager at G.RAU Inc.**

ALL-IN-ONE SOFTWARE AND DATA ACQUISITION SOLUTION

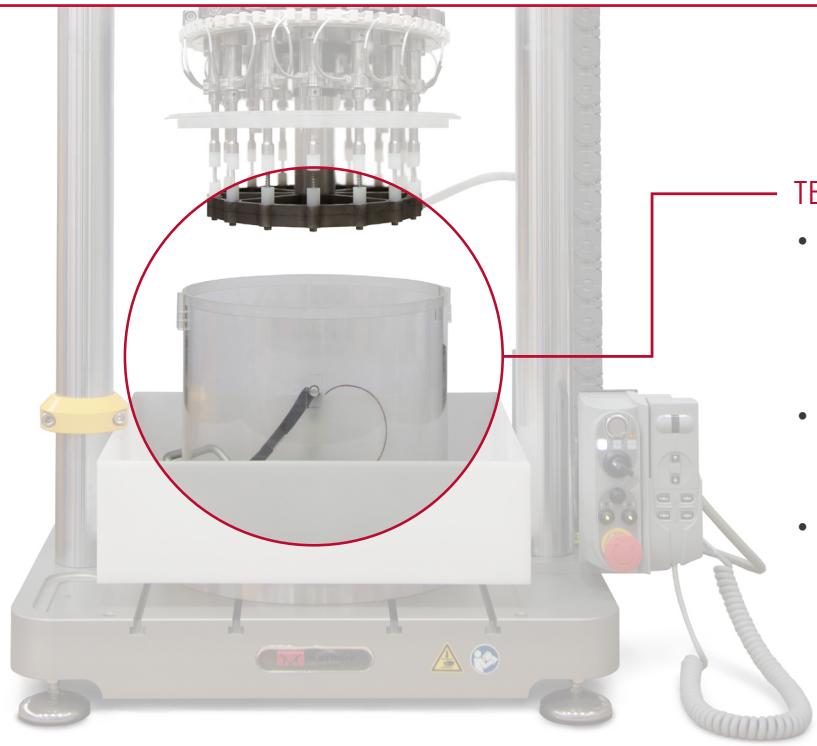
- Utilizing Instron's standard fatigue test software WaveMatrix3 and building on over 10 years of continuous improvement and support.
- 8800MT with WaveMatrix3 software logs data across all 16 stations simultaneously without the need for additional programs, DAQ devices, or a separate PC. Instron provide an all-in-one solution for multi-station testing.
- WaveMatrix3 measures the average load across all 16 load cells and tracks the trend against each individual station for anomalies.

INSTRON®

The difference is measurable®

SIMPLE ACCESS FOR SPECIMEN INSERTION, PRE-LOADING & ADJUSTMENT

- Instron's latest fixture design uses in-line button load cells to provide greater access to the fixture. Unlike beam load cells by using button load cells, there is no misalignment in X or Y direction when the pre-load position is locked.
- Individual pushrods can be adjusted ±5 mm for simplified specimen installation and adjustment, so that anyone can accurately achieve even pre-loads across all 16 stations. No expertise required.



TEMPERATURE-CONTROLLED BATH

- 12 litre capacity with in-bath temperature measurement and closed-loop control allows in-vitro testing at 37°C to simulate the conditions of the human body as required by ASTM F2477.
- Self-circulating water minimises temperature gradients to ensure all specimens experience the same conditions.
- Seamlessly pause and resume WaveMatrix3 test software and lift the fixture from the bath mid-test for visual or physical inspection.

SPECIFICATIONS

Load Cell		Interface WMC Miniature Sealed Button Load Cells
Dynamic Load Capacity	N	±25 or ±50
Number of Stations		16
Typical Fixture Separation* (to include customer grip)	mm ***in***	40 – 100 1.57 – 3.94
Actuator Stroke	mm ***in***	±30 (60 total) ±1.18 (2.36 total)
Bath Temperature Range	°C ***°F***	30 - 45 ±0.5 86 - 113 ±0.9
Frequency	Hz	0 – 100
Dimensions (max) (W x D x H)	mm ***in***	764 x 450 x 1737 30.08 x 17.71 x 68.39

*customizable depending on customer fixturing and requirements

www.instron.com

INSTRON®

Worldwide Headquarters
825 University Ave, Norwood, MA 02062-2643, USA
Tel: +1 800 564 8378 or +1 781 575 5000

European Headquarters
Coronation Road, High Wycombe, Bucks HP12 3SY, UK
Tel: +44 1494 464646