

The difference is measurable<sup>®</sup>

# 6800 SERIES

# Safety without Sacrificing Throughput



In materials testing labs across the world, safety is becoming more important than ever. Safety accidents can result in injuries, costly medical and repair bills, and significant downtime. Oftentimes, however, safety controls can result in slower throughput and efficiency, resulting in operators bypassing these measures to get their jobs done faster.

With the all-new 6800 Series, Instron invested in ways to make materials testing equipment safer than ever before to help protect operators, equipment, and specimens without sacrificing throughput. The 6800 Series builds on a suite of features which were present in previous generation Instron equipment and adds all new features to bring safety to the next level.

#### **OPERATOR SAFETY**



#### Operator Protect

The 6800 Series is built on Instron's patent-pending Operator Protect architecture. An intelligent workflow keeps equipment and operators safer by controlling system status from setup to test completion.



#### Built-in Safety Coaching

The 6800 Series provides clear visual feedback regarding system status at all times. Users will easily understand when the system is in a safe set up mode, and clearly reminded to exit the test space once these safety limits are removed.



#### Virtual Interlock

With Instron's patent-pending system architecture, the machine's movement is restricted to prevent unintended motion of the crosshead.



#### Smart-Close Air Kit

Finger-pinch hazards from pneumatic grips are reduced through lower grip-closing pressure and restricted speed during the set up phase of your test. High pressure is automatically applied when the test is started.



### Emergency Stop

Placed conveniently for the operator to quickly shut down the instrument in an emergency. The load will be relieved, and the pneumatic grips will open if equipped with the Smart-Close Air Kit.









#### **EQUIPMENT AND SPECIMEN PROTECTION**



#### Collision Mitigation

Reduce damage to equipment and specimens by stopping the crosshead if force is detected upon return or during a jog.



## Auto-Load Cell Detect

The 6800 Series will not allow the operator to start a test if the instrument's load cell is disconnected.



## Load Cell Overload Protection

The 6800 series systems automatically stop when the load cell reaches maximum capacity to prevent damage to the load cell, system, and accessories.



#### Workflow

Users can be guided through the entire testing process with step-by-step instructions, ensuring that their tests remain repeatable, simple, and error-free. The prompts can be easily customized with your own text and images.



#### Specimen Protect

Prevents unwanted forces from being applied to the specimen by automatically making fine adjustments to the crosshead, protecting your valuable specimen from damage.



#### **Dual Level Limit Switches**

Limits the travel of the crosshead to protect the operator, instrument, and test fixtures. First level limit stops the crosshead in a normal state. Second level limit stops the crosshead in the unlikely event of a catastrophic failure.



# Software Limits for Load, Extension, Transducers

Set the limits on load and extension, etc. to ensure that the crosshead stops or unloads when if a limit point is reached. Limits can prevent damage to the frame and transducer.

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