INSTRON®

The difference is measurable®

BioBox | Solution for 37 °C Medical Device Testing

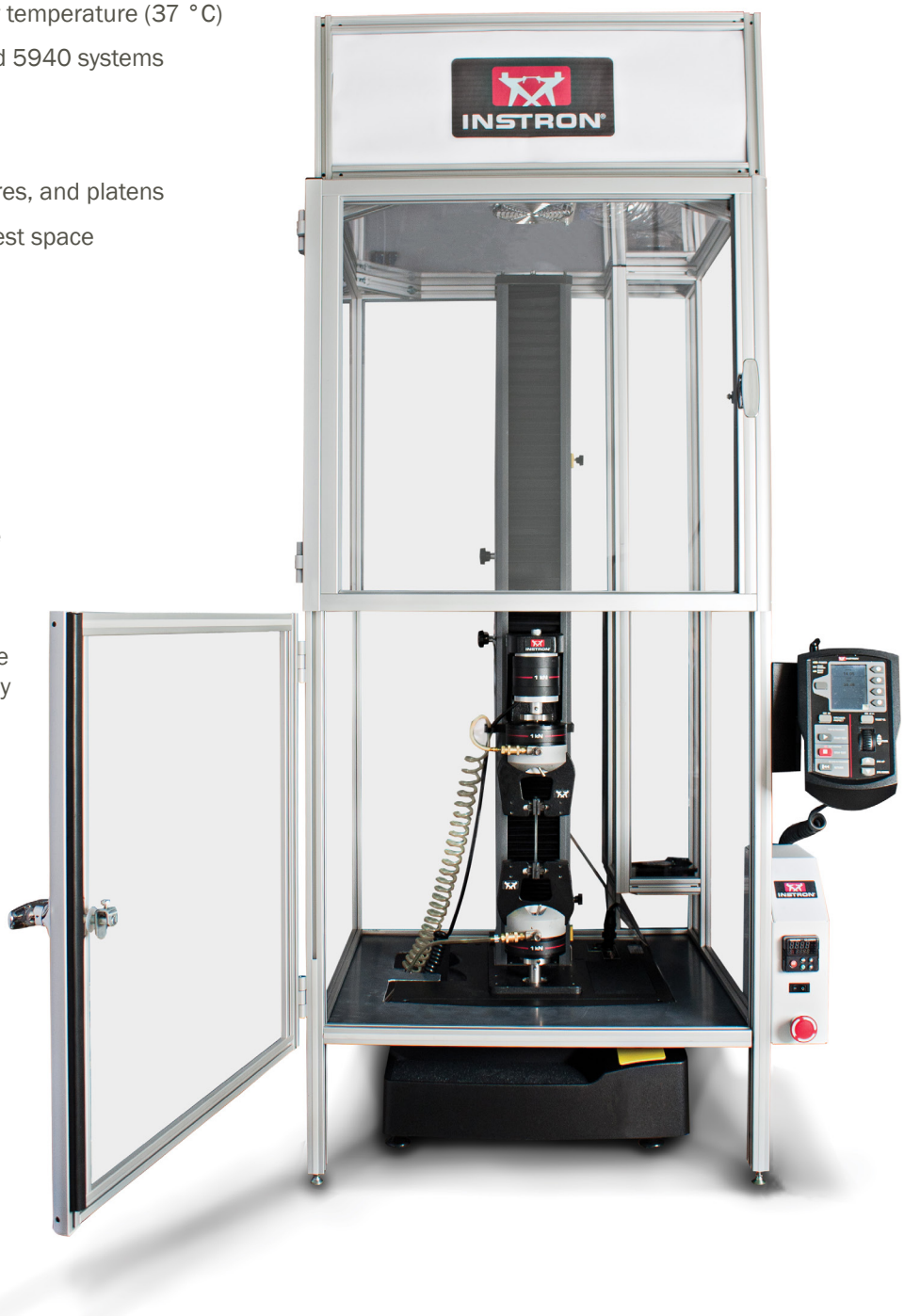
Within the medical device industry, regulatory agencies often test internally-based devices and implants in a physiological state. The Instron® BioBox meets the growing trend of testing actual medical devices and biomaterials at body temperature (37 °C). For large or long devices, testing in a liquid may not be practical. As an alternative, testing inside a controlled air environment at body temperature provides a powerful solution.

The BioBox can be incorporated as a standard item on a new single column frame or in selected models already in operation. This box permits the full travel test of sutures, catheter tubings, latex gloves, and a wide variety of other devices and biomaterials at physiologically relevant temperatures.

Features

- Allows full travel of the test instrument at body temperature (37 °C)
- Allows for testing on Instron 3340*, 5540, and 5940 systems
- Temperature range from ambient to 40 °C
- Temperature control accuracy of +/- 2 °C
- Accommodates most standard test grips, fixtures, and platens
- Spacious door allows for quick access to the test space

*Except 3345 Extra Height



Principle of Operation

The BioBox consists of four polycarbonate side-walls with an internal heating tube that provides the appropriate levels of heat and airflow to perform mechanical tests at 37 °C. The centrally located, high-level air ducts provide consistent air flow for uniform temperature distribution during testing. Although the frame is situated inside the box, the operational panel and emergency stop button are relocated outside the box. Access to the test space is ergonomically designed with a unique dual door panel arrangement.

The BioBox is equipped with a temperature controller, which provides fast ramp to temperature, as well as accurate temperature control. Almost all Instron® grips, fixtures, and platens can be operated within the temperature ranges of the box. The modular design allows for an easy installation of the BioBox. Access ports on the side of the BioBox provide excellent electrical cord management.

Instron Professional Services can provide temperature verification services to conform to internal validation processes often required by regulatory agencies.

Specifications

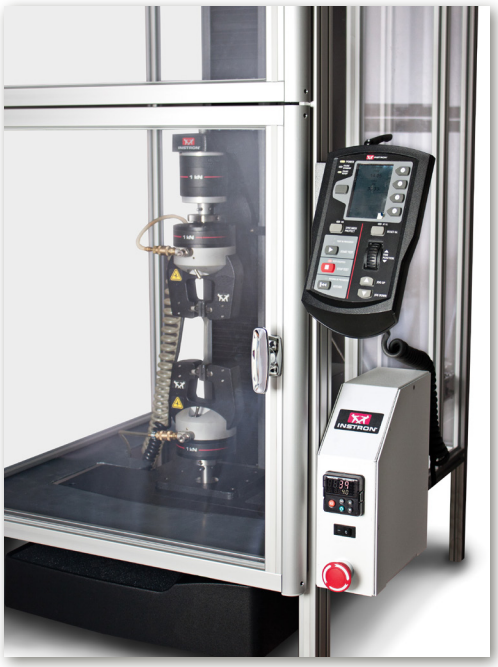
Catalog Number		CP110010	CP110013	CP110012	CP110015	CP110011	CP110014
Electrical Power	V	120	240	120	240	120	240
Compatible Systems	-	334x	334x	594x	594x	554x	554x
Temperature Range	°C	Ambient to 40					
	°F	Ambient to 104					
Temperature Control Accuracy	°C	+/- 2					
	°F	+/- 3.6					
Time to Temperature	mins	5+ load cell compensation time (15)					
Dimensions (W[1] × D × H[2])	in	26.7 × 31.3 × 66.8					
	mm	678.2 × 795.0 × 1696.7					
Weight	lbs	80					
	kg	36					
Power Requirement	Watts	800					

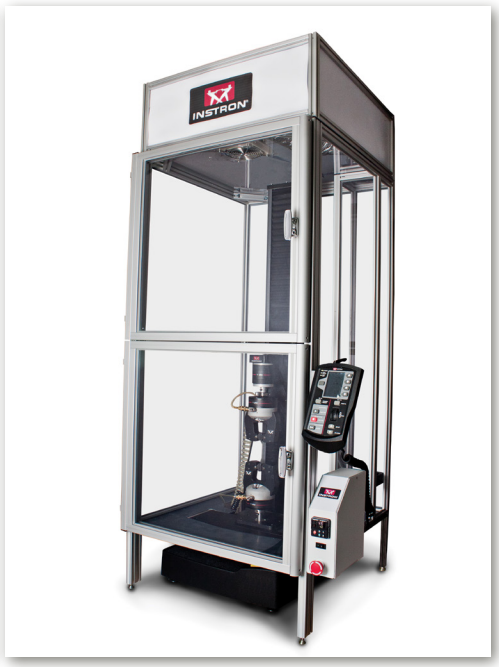
Frame

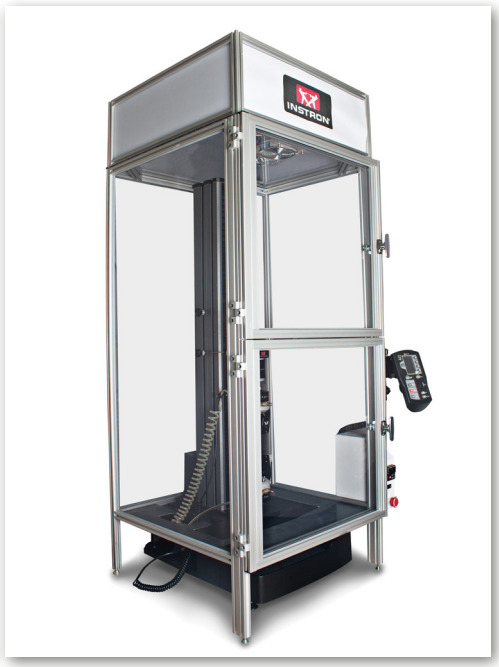
334X	mm	30.0
554X	mm	27.0
594X	mm	62.0

[1] +200mm for 5900 handset
[2] The height of the BioBox is adjustable based on the frame type. Please add the below length to the height specified in the table above.

BioBox is not compatible with the following fixtures:
AVE/SVE, 90° and Variable Angle Peel Fixtures, COF Fixture, Extra Long XL Extensometer







Dual doors allow for flexible access and reduced heat loss

www.instron.com

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