

SYRINGE TEST FIXTURE FOR ISO-7886-1

Catalog Number 2870-003

The Instron® Syringe Test Fixture is designed to meet the test requirements of ISO 7886-1:2017 Annex E and ISO 7886-1:1993 Annex G for sterile, single-use hypodermic syringes. This includes any plastic syringe used for the injection or aspiration of fluids, but excludes insulin syringes, glass syringes, syringes with permanent needles, syringes with power-driven pumps, pre-filled syringes, or injection kit syringes.

The fixture offers flexibility to accommodate a variety of syringe sizes and volumes. According to ISO 7886-1, the syringes must be tested at 100 mm/min and operational forces are measured as a function of three different volumes:

- Less than 2 ml
- Between 2 ml and 50 ml
- Greater than 50 ml

FEATURES

- Meets ISO 7886-1:2017 Annex E; ISO 7886-1:1993 Annex G
- Allows for precise friction measurement for syringe plungers
- Allows for force measurements to eject medications from syringe or syringe/needle devices
- Accommodates a variety of syringe diameters
- Mounts to all Instron single- or dual-column testing systems, as well as most non-Instron universal testing systems

PRINCIPLE OF OPERATION

The fixture consists of three components, including a Plunger Holder, a Barrel Holder, and a Reservoir Table. However, it does not include syringes, connecting tubings, or reservoirs to hold water or other fluids.

Data is produced as the crosshead moves down to expel the fluid from the syringe into the reservoir. Test control and results are provided by Instron Bluehill® Materials Testing Software, and initial forces, mean forces, maximum forces, and minimum forces can be calculated, reported, and stored in industry standard formats for further examination.

Instron provides load verification and IQ/OQ services that can be incorporated to simplify your internal validation processes. Bluehill Universal's Traceability Module enables users to comply with the regulatory guidelines found in FDA 21 CFR Part 11. Reports can be printed, emailed, and saved for future viewing.

*CP131164 is required to perform liquid leakage test per Annex D.



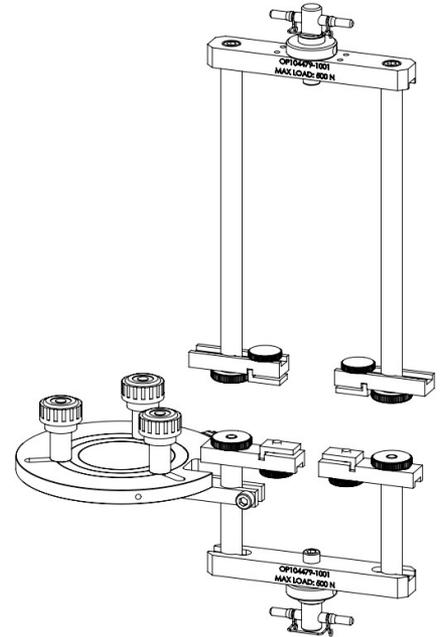
SPECIFICATIONS

SYRINGE FIXTURE

Catalog Number	Maximum Load			Upper and Lower Fitting Clevis Pin (Type Om)		Temperature Range
	N	kg	lb	mm	in	
2870-003	500	50	112	6	0.24	Ambient temperature only

DIMENSIONS: BARREL HOLDER

Catalog Number	Effective Height		Width		Depth	
	mm	in	mm	in	mm	in
2870-003	229.25	9.03	149.6	5.89	22.3	0.88



Syringe Fixture (2870-003)

DIMENSIONS: PLUNGER HOLDER

Catalog Number	Effective Height		Width		Width with Reservoir Table		Depth		Reservoir Table Diameter	
	mm	in	mm	in	mm	in	mm	in	mm	in
2870-003	120.25	4.02	149.6	5.89	227.2	8.94	22.3	0.88	63.5	2.5

SPECIMEN SIZE

Syringe Diameter		Finger Grip and Plunger Tab Thickness		Finger Grip Length		Plunger Tab Length	
mm	in	mm	in	mm	in	mm	in
5 - 35	0.19 - 1.37	1 - 4	0.04 - 0.16	10	0.39	12	0.47

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