

The Instron® Syringe Test Fixture is designed to investigate the forces necessary to collect force versus time data in an effort to evaluate the performance of syringes and syringe/needle combinations. It determines breakaway forces at the beginning of injections as well as sustaining forces throughout the injection process. The key feature of the fixture are plastic inserts that offers a wide range of flexibility to accommodate a variety of syringe sizes and volumes to meet your testing needs. The fixture can be positioned downwards to perform a needle cap pull-off test (lower grip to perform needle pull-off is not included).

## Features

- Allows for ejection of medications and fluids from syringe or needle devices
- Accommodates a variety of syringe diameters
- Maximum syringe diameter 20 mm (0.78 in)
- Includes two threaded holes for optional drip tray
- Mounts to all Instron single- or dual-column testing system, as well as most non-Instron universal testing systems

## Application Range

- Compression tests of syringes
- Ease of plunger movement test per ISO 7886-1 section F.6.6
- Needle cap pull-off test (requires lower grip)

## Principle of Operation

The fixture can be used with Instron testing systems and consists of three components:

- Top compression platen 50 mm diameter
- Bottom syringe holder
- Plastic inserts to hold a variety of syringes sizes and diameters

Data is produced as the crosshead moves down to expel the fluid from the syringe in a compressive test mode. The test control and results are provided by Instron Bluehill® Materials Testing Software. Initial forces, mean forces, maximum forces, and minimum forces can be calculated, reported or 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. Instron ComplianceBuilder™ Software, an add-on compliance solution that can be integrated with Bluehill Software, meets the regulatory guidelines found in FDA 21 CFR Part 11. Reports can be printed, emailed or saved for future viewing.



# Specifications

## Syringe Fixture

Catalog Number	Maximum Load			Lower End Fitting clevis pin (Type Om)		Temperature Range
	N	kg	lb	mm	in	
2870-001	500	50	112	6	0.24	Ambient temperature only

## Syringe Holder

Height		Width		Depth	
mm	in	mm	in	mm	in
289	11.38	110	4.33	37	1.45

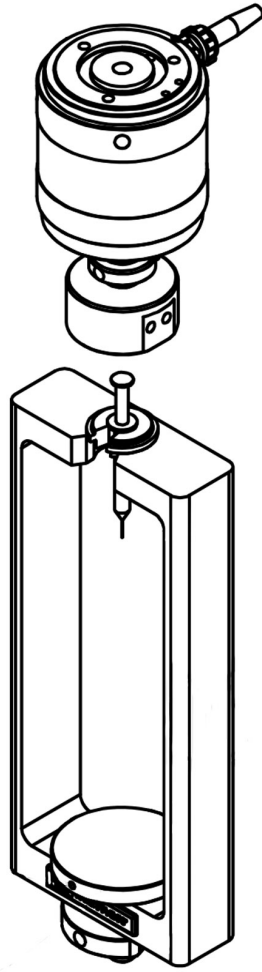
## Compression Platen

Diameter		Upper End Fitting clevis pin (Type Om)	
mm	in	mm	in
50	2	6	0.24

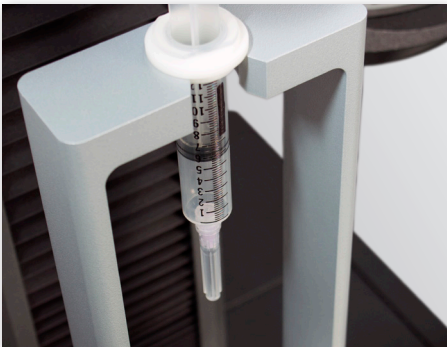
## Syringe Adapters

Catalog Number	Description	Maximum Syringe Diameter
2870-002	Blank Adapters (includes 4)	Up to 20 mm

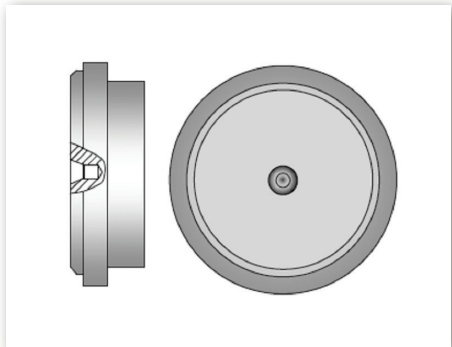
- Notes:
1. Syringe adapters should be purchased separately
  2. 2870-002 should be drilled by the customer
  3. Custom drilled adapters available upon request



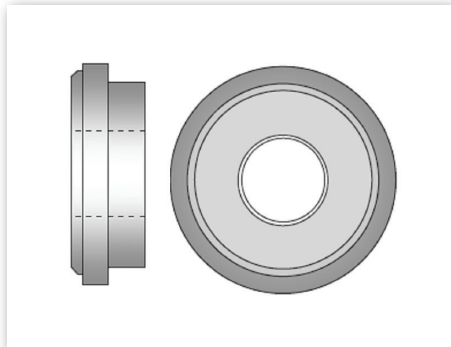
Syringe Fixture (2870-001)



Syringe Fixture (2870-001)



Blank Adapters (2870-002)



Custom Drilled Adapters

[www.instron.com/accessories](http://www.instron.com/accessories)



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