

## PRECISION SPECIMEN LOADER FOR THIN FILMS

The Precision Specimen Loader for Thin Films provides a safer, more ergonomic, accurate, and more convenient way to load thin film and foil specimens into Instron 2712-052 grips. Thin film specimens are small and delicate, making them a challenge to align within the grips. These specimens are often damaged due to operators repeatedly inserting and removing them from the grips in order to achieve correct alignment. This affects throughput and repeatability and increases safety risks to operators who need to spend additional time working inside the test space.

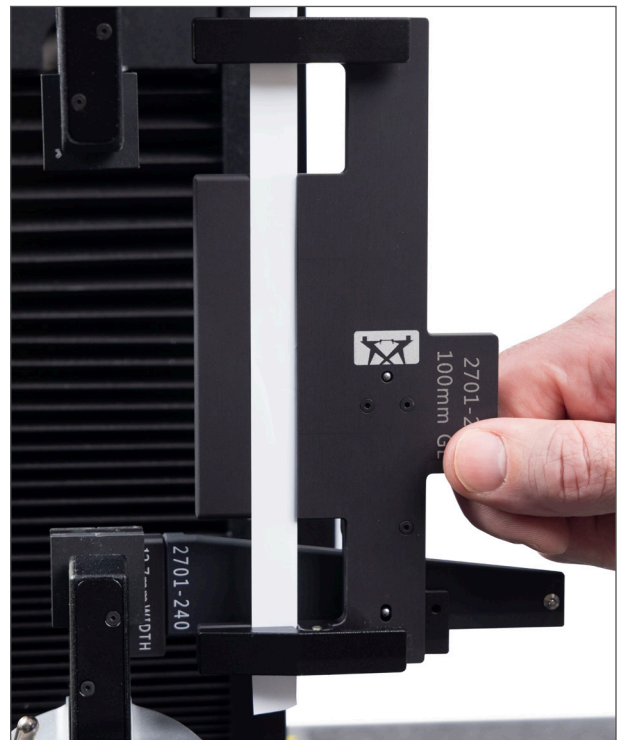
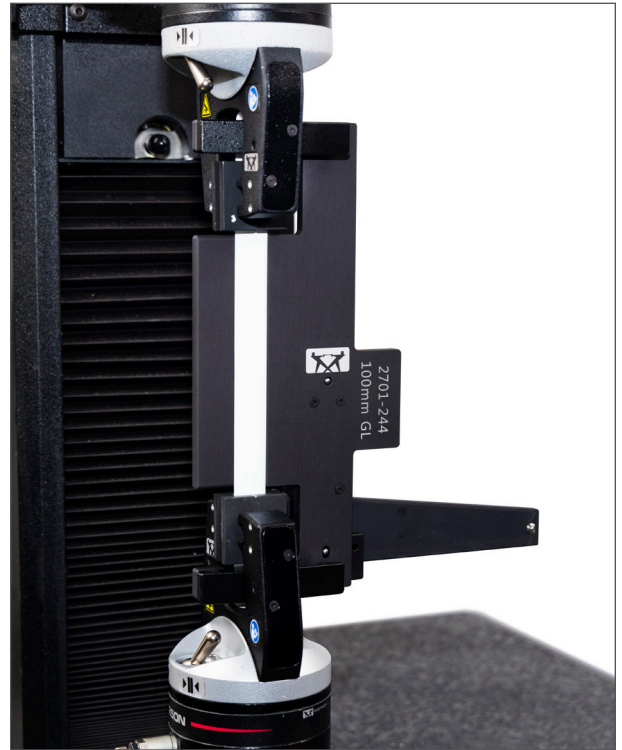
The Precision Specimen Loader for Thin Films improves the process of specimen loading by allowing operators to load specimens into an alignment clip on a tabletop surface outside of the test space. The entire clip is then attached to an insertion slide which introduces it into the test space. Once the slide is fully forward, the operator closes the pneumatic grips, releases the clips on top and bottom of the specimen, and retracts the slide. At this point the test can begin and the operator can load the next specimen into the alignment clip while the test is running.

### FEATURES AND BENEFITS

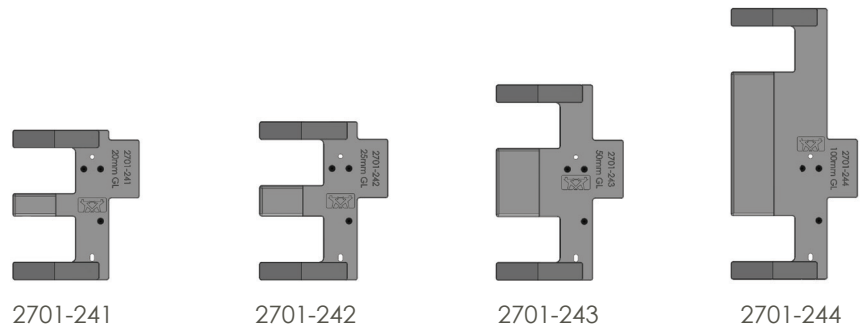
- Compatible with non-contacting extensometry (AVE/SVE 2)
- Raised edge to help visually and physically align specimen
- Inserts specimen into same place in test space each time
- Operator's hands completely removed from gripping area
- Specimen grabbed outside of test space, minimizing loading effects on results
- Rubber pads reduce damage to thin specimens
- Operators can load specimens onto clips anywhere, reducing fatigue from repeatedly bending to inspect specimen in grips
- Independent clips with magnets allow for specimen to be pulled taut without inducing a large pre-load
- Reduces damage to specimens induced by re-gripping before test starts

### PRINCIPLE OF OPERATION

- Static tensile tests of thin plastic films and metal foils
- Specimen geometry: Rectangular strips (not compatible with dogbone specimens)
- For use with 2712-052 Pneumatic side-action grips with jaw faces sized 25×25 mm or smaller
- Temperature range: Ambient testing only
- Applicable standards for films: ASTM D882 and ISO 527-3
- Applicable standards for foils: ASTM E345-16, EN 546-2, and DIN 50154



## SPECIFICATIONS

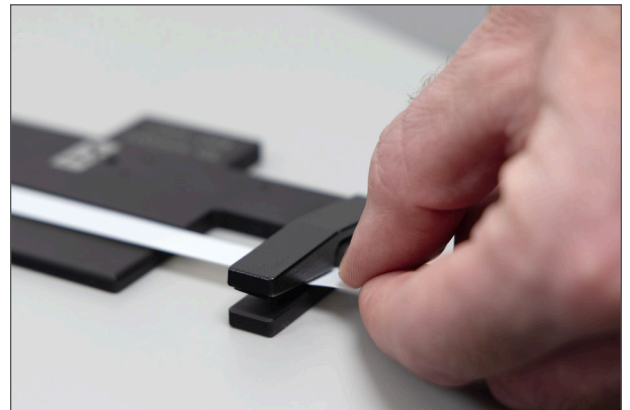


Gauge Length	mm	20	25	50	100
Dimensions (H × W × D)	mm	99.4 × 84.1 × 14	104.4 × 84.1 × 14	129.4 × 84.1 × 14	179.4 × 84.1 × 14
	in	3.93 × 3.31 × 0.55	4.11 × 3.31 × 0.55	5.09 × 3.31 × 0.55	7.06 × 3.31 × 0.55
Minimum Specimen Length*	mm	99.4	104.4	129.4	179.4
	in	3.91	4.11	5.09	7.06
Minimum Specimen Thickness	mm	0.008	0.008	0.008	0.008
	in	0.0003	0.0003	0.0003	0.0003
Maximum Specimen Thickness	mm	0.2	0.2	0.2	0.2
	in	0.007	0.007	0.007	0.007

\*We recommend an extra 12.7 mm (0.5 in) of material on both ends of the specimen over the minimum to avoid holding the specimen inside of its gauge length.



\* Precision Specimen Loaders come with four spacing blocks for 10, 12.7, 15, and 25 mm wide specimens.



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