

Foam Compression Fixture

Catalog Numbers 2810-097*, 2810-130, 2810-191



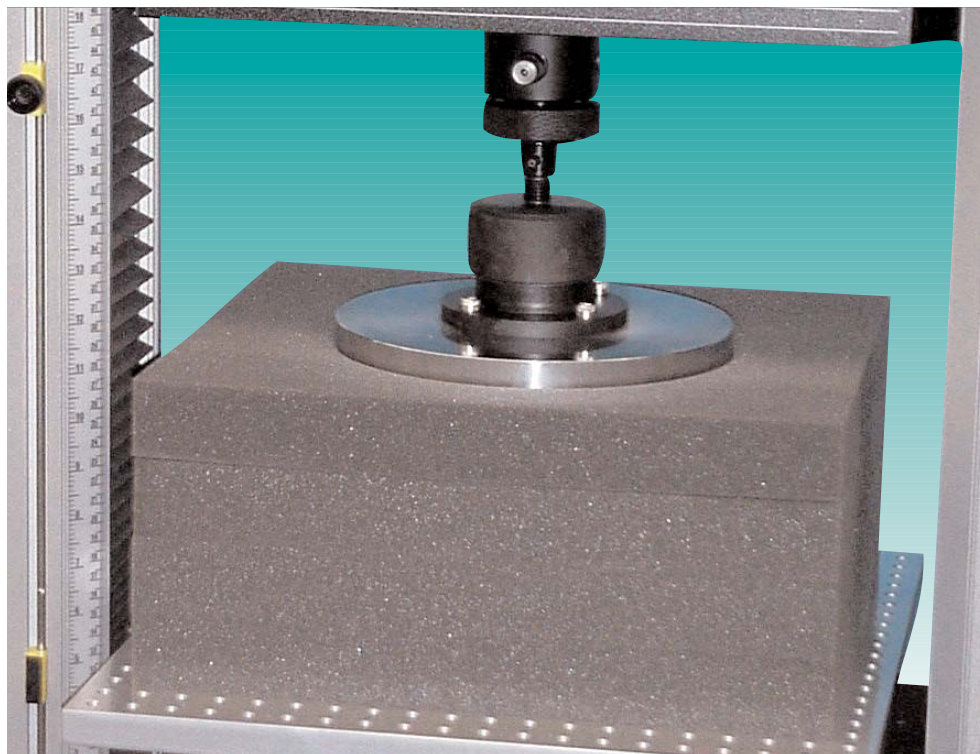
Features

- Mounts to most standard Instron® universal material testing instruments and can be adapted to most other universal testing instruments
- Perforated table
- Swivel mounted indenter/ anvil (not available on 2810-097)
- Meets the ASTM D 3574 and ASTM D 5672 standards*
- Meets the EN ISO 2439:2000 standard
- Two capacities available, 10 kN (1,000 kgf, 2,250 lbf) and 100 kN (10,000 kgf, 22,500 lbf)

Description

The foam compression fixtures are designed for indentation and compression testing of expanded cellular materials. Standards that require this style of fixture include ASTM D 3574, ASTM D 5672, ISO 2439 and ISO 3386.

The major items of the fixture include a perforated loading table and a circular indenter/ anvil. The 203 mm (7.992 in) diameter upper anvil incorporates a swivel joint. The base table is perforated with 6.5 mm (0.256 in) holes spaced on 20 mm (0.787 in) centers and is elevated from the mounting surface to allow for rapid air escape from the specimen.



▲ 2810-130 foam compression fixture in use on an Instron load frame

Principle of Operation

The specimen is placed on the perforated table that is attached to the instrument base. The indenter is brought down in contact with the specimen to establish a reference height. This is followed by a series of preconditioning loading segments and a test loading sequence. Data is captured during the test loading sequence which generally includes a dwell time. Results are then calculated which commonly include loads at defined percentage indentations or deflections.

Application Range

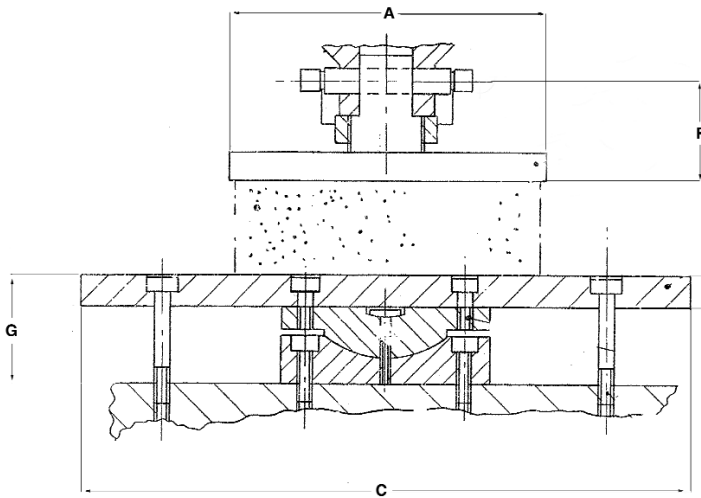
- IFD (indentation load deflection) and CFD (compression load deflection) of expanded cellular materials
- Suitable for an entire product or cut specimen
- Suitable for specimens with or without skins

Foam Compression Fixture

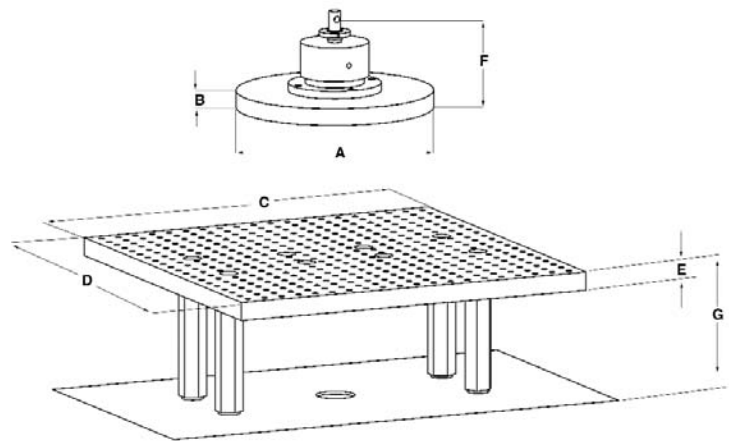
Catalog Numbers 2810-097*, 2810-130, 2810-191

Specifications

Catalog Number	2810-097	2810-130	2810-191
Testing Standard	N/A	ASTM D 3574 and ASTM D 5673	ASTM D 3574 and ASTM D 5674
Capacity	100 kN (10,000 kgf, 22,500 lbf)	10 kN (1,000 kgf, 2,250 lbf)	10 kN (1,000 kgf, 2,250 lbf)
Indenter/ Anvil Diameter (A)	203 mm (8.0 in)	203 mm (8.0 in)	203 mm (8.0 in)
Indenter/ Anvil Thickness (B)	18 mm (0.71 in)	17.5 mm (0.69 in)	17.5 mm (0.69 in)
Perforated Table Dimensions (Cx D)	387 mm (15.25 in) (width) x 387 mm (15.25 in) (depth)	387 mm (15.25 in) (width) x 387 mm (15.25 in) (depth)	387 mm (15.25 in) (width) x 343 mm (13.50 in) (depth)
Perforated Table Thickness (E)	19 mm (0.75 in)	19 mm (0.75 in)	19 mm (0.75 in)
Mechanical Connection Upper	34 mm connection with 16 mm clevis pin (Type 1m)	6 mm clevis pin (Type 0m)	6 mm clevis pin (Type 0m)
Mechanical Connection Lower	Standard base corporate mounting 4 x M10 bolts on a 90 mm x 280 mm pattern	Standard base corporate mounting 4 x M10 bolts on a 90 mm x 280 mm pattern	Standard base corporate mounting 4 x M10 bolts on a 90 mm x 280 mm pattern
Instrument Compatibility	All except 4411, 1130, 4301 and single column	All except 4411, 1130, 4301 and single column	4300 and 1130 table models
Effective Length of Indenter/ Anvil (F)	62 mm (2.44 in)	100 mm (3.94 in)	100 mm (3.94 in)
Effective Length of Table/ Stand-Off or Table/ Spherical Seat (available as additional option) (G) (approx.)	68 mm (2.7 in)	145.5 mm (5.73 in)	145.5 mm (5.73 in)
Temperature Range	Ambient	Ambient	Ambient



▲
2810-097 foam compression fixture



▲
2810-130 foam compression fixture

Note:

1. That the 2501-096 spherical seat pictured must be purchased separately

- A=Upper platen diameter
 F=Upper platen effective length
 C=Table width
 D=Table depth
 G=Table effective length



Corporate Headquarters
 825 University Avenue, Norwood, Massachusetts 02062-2643, USA
 Tel: +1 800 564 8378 or +1 781 575 5000 Fax: +1 781 575 5725

Instron Industrial Products
 900 Liberty Street, Grove City, PA 16127-9969, USA
 Tel: +1 724 458 9610 Fax: +1 724 478 9614

European Headquarters
 Coronation Road, High Wycombe, Bucks HP12 3SY, United Kingdom
 Tel: +44 1494 456815 Fax: +44 1494 456814

www.instron.com

Instron is a registered trademark of Instron Corporation. Other names, logos, icons, and marks identifying Instron products and services referenced herein are trademarks of Instron Corporation and may not be used without the prior written permission of Instron. Other product and company names listed are trademarks or trade names of their respective companies.

Copyright © Instron 2005. All rights reserved.
 All of the specifications shown in this brochure are subject to change without notice.