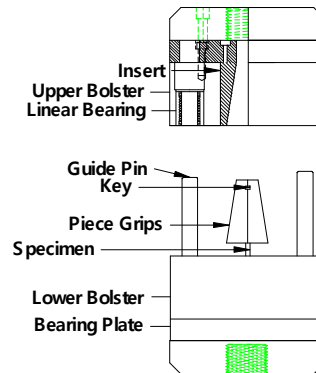


IITRI COMPRESSION LOADING FIXTURE - UP TO 1" WIDE AND UP TO 0.6" THICK SPECIMENS



Specimen:	Width	Up to 1.0"
	Thickness	Up to 0.6" (3 sets of jaws available - see pg 2)
	Jaws	Includes jaws for specimen thickness 0.2" - 0.4"
	Length	5.5"
Fixture:	Construction	Stainless steel
	Temperature	-120 to 250°F (-85 to 122°C)
	Mounting	M30 -2 threaded couplings
	Capacity	60,000 lbs (266.9 kN)
	Weight	80 lbs approximately
	Dimensions	7" x 4" x 14"
	Standard	Manufactured in accordance with ASTM D3410

Model No. ASTM.D3410.20 - IITRI Compression Loading Test Fixture- Up To 1" Wide And Up To 0.6" Thick Specimens. Accepts replaceable loading wedges for specimen thickness up to 0.6" and specimen widths up to 1.0". Supplied with one set of replaceable loading wedges for specimen thickness from 0.2" to 0.4" and specimen widths up to 1.0". Temperature range: -120 to 250°F (-85 to 122°C). Capacity: 60,000 lbs. Constructed from stainless steel in accordance with ASTM D3410.

Upper & Lower Bolster - The lower bolster assembly consists of a main load block, two sets of hardened inserts and two guide rods. The upper bolster assembly consists of a main load block, two sets of hardened inserts and two liner bearings. The loading blocks are ground flat and parallel. The two vertical alignment rods are at different heights for easy alignment of the upper bolster. Both bolsters includes a M30 -2 threaded coupling.

IITRI Compression Loading Grips - The grip set includes two sets of matched halves. To ensure proper alignment and sometimes used for additional specimen support, keys are provided that fit into the keyways on the lower portion of the grip jaws. The loading surfaces are flame sprayed with a high friction material to reduce slippage.

Specimen Alignment Jig - Constructed from aluminum with a protective black anodized finish. Each fixture comes with an alignment jig for proper assembly of the specimen grip assembly. The jig consists of a tapered block with vertical sides and a 0.5" gage length spacer.

MODEL NO. ASTM.D3410.20

ASTM, MODIFIED, COMPRESSION, COMPOSITE,

ACCESSORIES

ACC.D3410.2001 - Replaceable loading wedges for specimen thickness from 0 to 0.2" and widths up to 1.0"
ACC.D3410.2002 - Replaceable loading wedges for specimen thickness from 0.4 to 0.6" and widths up to 1.0"
SFF.D3410.9910 - Composite Compression Specimen Fabrication Fixture (Video)

Lower fixture attachment is supplied with 1" -14 female coupling. (Common adapter sizes include:)

Model No. M03S36 - 1.25" Male Clevis (Type D) to 1" -14 Threaded Stud
Model No. S42S36 - 1.25" -12 to 1" -14 Threaded Step Stud
Model No. S48S36 - 1.5" -12 to 1" -14 Threaded Step Stud
Model No. S60S36 - 2" -12 to 1" -14 Threaded Step Stud
Model No. LN36 - 1" -14 Threaded Locking Nut with Knurled OD

SPARE PARTS

SPA.D3410.2001 - Replaceable loading wedges for specimen thickness from 0.2" to 0.4" and widths up to 1.0"

REFERENCE DOCUMENT AND TEST METHOD SCOPE:

<http://www.astm.org/Standards/D3410.htm>

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Standard Test Method for Compressive Properties of Polymer Matrix Composite Materials with Unsupported Gage Section by Shear Loading

1.1 This test method determines the in-plane compressive properties of polymer matrix composite materials reinforced by high-modulus fibers. The composite material forms are limited to continuous-fiber or discontinuous-fiber reinforced composites for which the elastic properties are specially orthotropic with respect to the test direction. This test procedure introduces the compressive force into the specimen through shear at wedge grip interfaces. This type of force transfer differs from the procedure in Test Method D695 where compressive force is transmitted into the specimen by end-loading, Test Method D6641/D6641M where compressive force is transmitted by combined shear and end loading, and Test Method D5467/D5467M where compressive force is transmitted by subjecting a honeycomb core sandwich beam with thin skins to four-point bending.

1.2 This test method is applicable to composites made from unidirectional tape, wet-tow placement, textile (for example, fabric), short fibers, or similar product forms. Some product forms may require deviations from the test method.

1.3 The values stated in either SI units or inch-pound units are to be regarded separately as standard. Within the text the inch-pounds units are shown in brackets. The values stated in each system are not exact equivalents; therefore, each system must be used independently of the other. Combining values from the two systems may result in nonconformance with the standard.

NOTE 1: Additional procedures for determining compressive properties of resin-matrix composites may be found in Test Methods D695, D5467/D5467M, and D6641/D6641M.

1.4 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

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