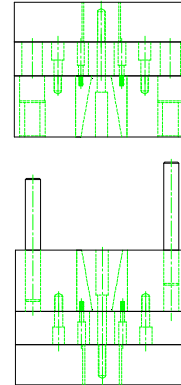


## IITRI COMPRESSION LOADING FIXTURE - UP TO 2" WIDE AND UP TO 0.75" THICK SPECIMENS



|           |              |  |
|-----------|--------------|--|
| Specimen: | Width        | 2"   |
|           | Thickness    | Up to 0.75"                                |
| Fixture:  | Construction | Stainless steel                            |
|           | Temperature  | -240 to 600° (-152 to 318°C)               |
|           | Mounting     | M48-2 threaded couplings                   |
|           | Capacity     | 60,000 lbs                                 |
|           | Weight       | 120 lbs approximately                      |
|           | Dimensions   | Assembled 6" x 7" x 18"                    |
|           | Standard     | Manufactured in accordance with ASTM D3410 |

Model No. ASTM.D3410.25 - IITRI Compression Loading Test Fixture - Up To 2" Wide And Up to 0.75" Thick Specimens. Accommodates specimens up to 0.75" in thickness and 2.00" in width with replaceable wedges. Supplied with one set of replaceable loading wedges for specimen thickness from 0.2" to 0.4" and specimen widths up to 2.00" wide. Temperature range: -240 to 600° (-152 to 318°C). Capacity: 60,000 lbs. Constructed of stainless steel in accordance with ASTM D3410.

**Upper & Lower Bolster** - Constructed from stainless steel. 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. M48 -2 couplings for mounting purposes.

**IITRI Compression Loading Grips Wedges** - Constructed from stainless steel. 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. 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 coating. Each fixture comes with an alignment jig for proper assembly of the specimen grip assembly. The jig consists of a tapered with vertical side and a 1/2" gage length spacer.

# **MODEL NO. ASTM.D3410.25**

## **ASTM, MODIFIED, COMPRESSION, COMPOSITE,**

### **ACCESSORIES**

SFF.D3410.9910 - Composite Compression Specimen Fabrication Fixture (Video)

ACC.D3410.2501 - Replaceable loading wedges for specimen thickness from 0 to 0.2" and widths up to 2.00"

ACC.D3410.2502 - Replaceable loading wedges for specimen thickness from 0.4 to 0.6" and widths up to 2.00"

### **SPARE PARTS**

SPA.D3410.2501 - replaceable loading wedges for specimen thickness from 0.2" to 0.4" and widths up to 2.00"

### **REFERENCE DOCUMENT AND TEST METHOD SCOPE:**

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

ASTM D3410 / D3410M - 16

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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