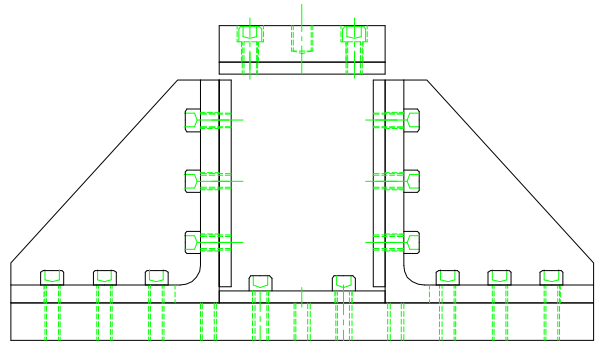
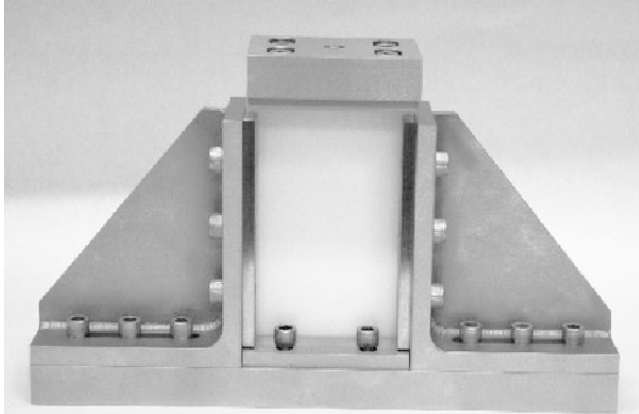


COMPRESSION AFTER IMPACT TEST FIXTURE (SS)



Specimen:	Width	4"
	Thickness	0.125 - 0.5"
	Length	6"
Fixture:	Construction	Stainless steel
	Temperature	-240 to 600°F (-152 to 318°C)
	Mounting	Top: 1/2"- 13 coupling
		Bottom: platen (not included)
	Capacity	50,000 lbs (222 kN)
	Weight	35 lbs
	Dimensions	14" x 3" x 7.8"
	Standard	Manufactured in accordance with ASTM D7137

Model No. ASTM.D7137.10 - Compression After Impact Test Fixture
Accommodates specimens measuring 4" wide by 6" tall and from 0.125-0.5" thick. Supplied with 1/2" -13 threaded coupling for upper attachment to your test machine. Base of fixture sits on a compression platen (platen not included). Temperature range is -240 to 600°F (-152 to 318°C) and the fixture has a capacity of 50,000 lbs. Constructed from stainless steel and manufactured in accordance with ASTM.D7137.

MODEL NO. ASTM.D7137.10

ASTM, COMPRESSIVE, RESIDUAL, DAMAGED,

ACCESSORIES

Model No. ACC.D7137.1001 - Optional Gussets Welded on to Fixture

SPARE PARTS

Contact us for spare or replacement parts

REFERENCE DOCUMENT AND TEST METHOD SCOPE:

<http://www.astm.org/Standards/D7137.htm>

ASTM D7137 / D7137M - 12

Standard Test Method for Compressive Residual Strength Properties of Damaged Polymer Matrix Composite Plates

1.1 This test method covers compression residual strength properties of multidirectional polymer matrix composite laminated plates, which have been subjected to quasi-static indentation per Test Method D6264/D6264M or drop-weight impact per Test Method D7136/D7136M prior to application of compressive force. The composite material forms are limited to continuous-fiber reinforced polymer matrix composites with multidirectional fiber orientations, and which are both symmetric and balanced with respect to the test direction. The range of acceptable test laminates and thicknesses is defined in 8.2.

Note 1—When used to determine the residual strength of drop-weight impacted plates, this test method is commonly referred to as the Compression After Impact, or CAI, method.

1.2 The method utilizes a flat, rectangular composite plate, previously subjected to a damaging event, which is tested under compressive loading using a stabilization fixture.

Note 2—The damage tolerance properties obtained are particular to the type, geometry and location of damage inflicted upon the plate.

1.3 The properties generated by this test method are highly dependent upon several factors, which include specimen geometry, layup, damage type, damage size, damage location, and boundary conditions. Thus, results are generally not scalable to other configurations, and are particular to the combination of geometric and physical conditions tested.

1.4 This test method can be used to test undamaged polymer matrix composite plates, but historically such tests have demonstrated a relatively high incidence of undesirable failure modes (such as end crushing). Test Method D6641/D6641M is recommended for obtaining compressive properties of undamaged polymer matrix composites.

1.5 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.5.1 Within the text the inch-pound units are shown in brackets.

1.6 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.

Extracted, with permission from D7137, Standard Test Method for Compressive Residual Strength Properties of Damaged Polymer Matrix Composite Plates, copyright ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428. A copy of the complete standard may be purchased from ASTM International, www.astm.org.

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