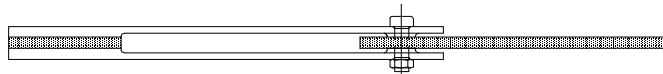


DOUBLE SHEAR FASTENER TEST FIXTURE - PROCEDURE A (SS)



Specimen:	Width	1.42" (36mm)
	Thickness	0.12 - 0.20" (3 - 5mm)
	Length	5.31" (135mm)
Fixture:	Construction	Stainless steel
	Temperature	-240 to 600°F (-152 to 318°C)
	Mounting	Grips (not included)
	Capacity	2,000 lbs (8.9 kN)
	Weight	5 lbs approximately
	Dimensions	1.5" x 0.6" x 8" approximately
	Standard	Manufactured in accordance with ASTM D5961 and D7248

Model No. ASTM.D7248.10 - Double Shear Fastener Test Fixture

The Double Shear Fixture applies a double shear load via two loading plates secured to the test specimen with a close-tolerance, lightly torqued fastener (or pin). The two loading plates are secured in a standard tensile grip set with a spacer (any common test material) between the loading plates to provide proper spacing. The fixture is constructed from stainless steel in accordance with ASTM D7248. Supplied with 0.250" hardened steel pin.

MODEL NO. ASTM.D7248.10

ASTM, BEARING BYPASS, POLYMER, MATRIX,

ACCESSORIES

Model No. Grip.10100.201- (1) 200lbs Screw Action Grip with 1" Square Grip Faces

SPARE PARTS

Model No. SPA.D7248.1001 - Extra 1/4" Diameter Hardened Pin

REFERENCE DOCUMENT AND TEST METHOD SCOPE:

<http://www.astm.org/Standards/D7248.htm>

ASTM D7248 / D7248M - 12

Standard Test Method for Bearing/Bypass Interaction Response of Polymer Matrix Composite Laminates Using 2-Fastener Specimens

1.1 This test method determines the uniaxial bearing/bypass interaction response of multi-directional polymer matrix composite laminates reinforced by high-modulus fibers by either double-shear tensile loading (Procedures A and C) or single-shear tensile or compressive loading (Procedure B) of a two-fastener specimen. The scope of this test method is limited to net section (bypass) failure modes. Standard specimen configurations using fixed values of test parameters are described for each procedure. A number of test parameters may be varied within the scope of the standard, provided that the parameters are fully documented in the test report. The composite material forms are limited to continuous-fiber or discontinuous-fiber (tape or fabric, or both) reinforced composites for which the laminate is balanced and symmetric with respect to the test direction. The range of acceptable test laminates and thicknesses are described in 8.2.1.

1.2 This test method is consistent with the recommendations of MIL-HDBK-17, which describes the desirable attributes of a bearing/bypass interaction response test method.

1.3 The two-fastener test configurations described in this test method are similar to those in Test Method D5961/D5961M as well as those used by industry to investigate the bearing portion of the bearing/bypass interaction response for bolted joints, where the specimen may produce either a bearing failure mode or a bypass failure mode. Should the test specimen fail in a bearing failure mode rather than the desired bypass mode, then the test should be considered to be a bearing dominated bearing/bypass test, and the data reduction and reporting procedures of Test Method D5961/D5961M should be used instead of those given in this standard.

1.4 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.

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

Material Testing Technology

420 Harvester Court - Wheeling, IL. 60090 – Ph: (847) 215-7448 Fax: (847) 215-7449 E-mail: sales@mttusa.net