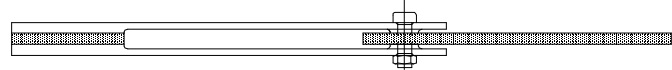


## DOUBLE SHEAR BEARING STRENGTH TEST FIXTURE (CS)



Specimen:	Width	1.42" (36mm)
	Thickness	0.12 - 0.20" (3 - 5mm)
	Length	5.31" (135mm)
Fixture:	Construction	High strength steel with protective finish
	Temperature	-120 to 250°F (-85 to 122°C)
	Mounting	Grips (not included)
	Capacity	1,000 lbs (4.4 kN)
	Weight	5 lbs approximately
	Dimensions	1.5" x 0.6" x 8" approximately
	Standard	Manufactured in accordance with ASTM D6873

### Model No. ASTM.D6873.11- Double Shear Fastener Test Fixture

Used for the determination of bearing strength properties of oriented fiber-resin composites using the single shear, single fastener method. The fixture consists of a "Y" shaped loading yoke with threaded holes used for the pre-loading of the test specimen, two pre-loading collets, two pre-loading nuts and a loading dowel pin. The fixture is constructed from stainless steel in accordance with ASTM D6873.

## **MODEL NO. ASTM.D6873.11**

### **ASTM, BEARING, FATIGUE, POLYMER, MATRIX,**

#### **ACCESSORIES**

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

#### **SPARE PARTS**

SPA.D6873.1101 - Extra 1/4" Diameter Hardened Pin

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

<http://www.astm.org/Standards/D6873.htm>

ASTM D6873 / D6873M - 08(2014)

Standard Practice for Bearing Fatigue Response of Polymer Matrix Composite Laminates

1.1 This practice provides instructions for modifying static bearing test methods to determine the fatigue behavior of composite materials subjected to cyclic bearing forces. The composite material forms are limited to continuous-fiber reinforced polymer matrix composites in which the laminate is both symmetric and balanced with respect to the test direction. The range of acceptable test laminates and thicknesses are described in 8.2.

1.2 This practice supplements Test Method D5961/D5961M with provisions for testing specimens under cyclic loading. Several important test specimen parameters (for example, fastener selection, fastener installation method, and fatigue force/stress ratio) are not mandated by this practice; however, repeatable results require that these parameters be specified and reported.

1.3 This practice is limited to test specimens subjected to constant amplitude uniaxial loading, where the machine is controlled so that the test specimen is subjected to repetitive constant amplitude force (stress) cycles. Either engineering stress or applied force may be used as a constant amplitude fatigue variable. The repetitive loadings may be tensile, compressive, or reversed, depending upon the test specimen and procedure utilized.

1.4 The values stated in either SI units or inch-pound units are to be regarded separately as standard. Within the text the inch-pound 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.

1.5 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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