

FIVE ENGLISH SIZE FASTENER PULL-THROUGH TEST FIXTURE - PROCEDURE B (CS)



Specimen:	Width	Up to 4.5"
	Thickness	Up to .5"
	Length	Up to 4.5"
Fixture:	Construction	High strength steel with protective finish
	Temperature	-120 to 250°F (-85 to 122°C)
	Mounting	1/2"-20 coupling top, 1"-14 coupling bottom
	Capacity	10,000 lbs (44.4 kN)
	Weight	33 lbs
	Dimensions	6" x 5" x 5"
	Standard	Manufactured in accordance with ASTM D7332

Model No. ASTM.D7332.22 - Five English Size Fastener Pull Through Test Fixture (Tensile Mode)

The test fixture supplies a tensile force through the yoke and onto the fastener. The fixture includes a common base plate with 1" -14 threaded coupling for mounting purposes, a set of yoke assemblies and a restraining plate with clearance holes for each shank size: 5/32", 3/16", 1/4", 5/16", and 3/8" diameter. Each yoke and pin assembly has a 1/2" -20 threaded loading coupling. Each replaceable restraining plate bolts to the common base plate and can be easily exchanged. Accommodates a specimen with max dimensions of 4.5" x 4.5" x 1/2" thick. Constructed of high strength steel with a protective black oxide finish in accordance with ASTM D7332, Procedure B.

MODEL NO. ASTM.D7332.22

ASTM, FASTENER, PULL THROUGH,

ACCESSORIES

Upper fixture attachment is supplied with 1/2" -20 female coupling (Common adapter sizes include:)

Model No. M01S21 - 1/2" Male Clevis (Type B) to 1/2" -20 Threaded Stud
Model No. M02S21 - 5/8" Male Clevis (Type C) to 1/2" -20 Threaded Stud
Model No. M03S21 - 1.25" Male Clevis (Type D) to 1/2" -20 Threaded Stud
Model No. M12S21 - 12mm Male Clevis (Type O) to 1/2" -20 Threaded Stud
Model No. S36S21 - 1" -14 to 1/2" -20 Threaded Step Stud
Model No. LN21 - 1/2" -20 Threaded Locking Nut with Knurled OD

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

Contact us for spare or replacement parts

REFERENCE DOCUMENT AND TEST METHOD SCOPE:

<http://www.astm.org/Standards/D7332.htm>

ASTM D7332 / D7332M - 15a

Standard Test Method for Measuring the Fastener Pull-Through Resistance of a Fiber-Reinforced Polymer Matrix Composite

1.1 This test method determines the fastener pull-through resistance of multidirectional polymer matrix composites reinforced by high-modulus fibers. Fastener pull-through resistance is characterized by the force-versus-displacement response exhibited when a mechanical fastener is pulled through a composite plate, with the force applied perpendicular to the plane of the plate. The composite material forms are limited to continuous-fiber or discontinuous-fiber (tape or fabric, or both) reinforced composites for which the laminate is symmetric and balanced with respect to the test direction. The range of acceptable test laminates and thicknesses is defined in 8.2.

1.2 Two test procedures and configurations are provided. The first, Procedure A, is suitable for screening and fastener development purposes. The second, Procedure B, is configuration-dependent and is suitable for establishing design values. Both procedures can be used to perform comparative evaluations of candidate fasteners/fastener system designs.

1.3 The specimens described herein may not be representative of actual joints which may contain one or more free edges adjacent to the fastener, or may contain multiple fasteners that can change the actual boundary conditions.

1.4 This test method is consistent with the recommendations of CMH-17, which describes the desirable attributes of a fastener pull-through test method.

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 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.

1.5.1 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.

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