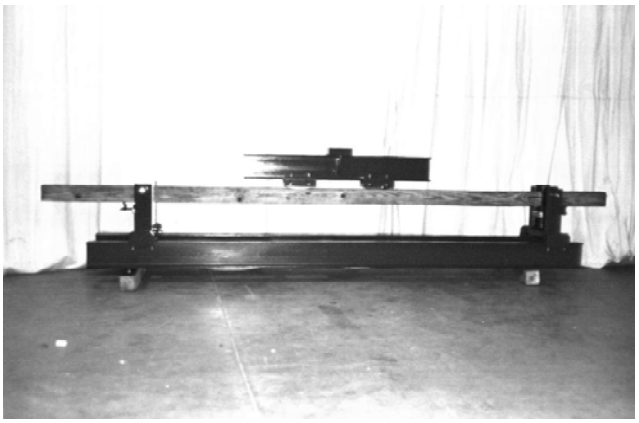
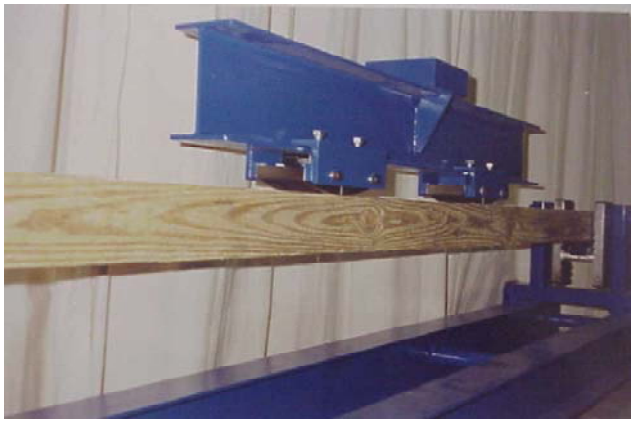
MODEL NO. ASTM.D3043.12

ASTM, FLEXURE, BEND, COMPRESSION, WOOD,

120” STATIC BEND FIXTURE FOR WOOD SUBSTRATES





Specimen:	Width:	Up to 4.0”
	Thickness:	Up to 8.0”
	Length:	Up to 120”
Fixture:	Construction	High strength steel and steel with painted surfaces
	Temperature	-120 to 250°F (-85 to 122°C)
	Mounting	Top: 1.5”-12 threaded coupling
		Bottom: platen (platen not included)
	Capacity	20,000 lbs (90kN)
	Weight	200 lbs approximately
	Dimensions	Assembled - 130” x 10” x 24”
	Standard	Manufactured in accordance with ASTM D3043

Model No. ASTM.D3043.12 - 120” Static Bend Fixture for Wood Substrates. 120” (3,048mm) Static Bending Flexure Test Fixture for Timbers and other materials. The fixture is constructed of high strength steel. Standard specimen geometry 4”(101mm) wide by 8”(203mm). The fixture has adjustable specimen supports for different spans from 12”(304mm) to 120.0”(3,048mm). The specimen is supported on roller platens which are laterally adjustable for twist in the specimen. A mid-span displacement gauge (0.001 graduations, 1.0” capacity) with alignment bracket is supplied with the fixture. The fixture is supplied with 1.5” -12 top loading coupling, while the base of the fixture sits on a platen (not included). The loading head is made of hard maple with a radius nose according to ASTM D3043.

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

MODEL NO. ASTM.D3043.12

ASTM, FLEXURE, BEND, COMPRESSION, WOOD,

ACCESSORIES

ACC.D3043.1001 - Optional 1.0” Displacement gage assembly

SPARE PARTS

Contact us for spare or replacement parts

REFERENCE DOCUMENT AND TEST METHOD SCOPE:

http://www.astm.org/Standards/D3043.htm
ASTM D3043-00(2011)
Standard Test Methods for Structural Panels in Flexure
1.1 These test methods determine the flexural properties of strips cut from structural panels or panels up to 4 by 8 ft in size. Structural panels in use include plywood, waferboard, oriented strand board, and composites of veneer and of wood-based layers. Four methods of tests are included: Sections:Method ACenter-Point Flexure Test(5), Method BTwo-Point Flexure Test(6), Method CPure Moment Test(7), Method DFlexure Test for Quality Assurance(8)
The choice of method will be dictated by the purpose of the test, type of material, and equipment availability. All methods are applicable to material that is relative uniform in strength and stiffness properties. Only Method C should be used to test material suspected of having strength or stiffness variations within a panel caused by density variations, knots, knot-holes, areas of distorted grain, fungal attack, or wide growth variations. However, Method B may be used to evaluate certain features such as core gaps and veneer joints in plywood panels where effects are readily projected to full panels. Method C generally is preferred where size of test material permits. Moments applied to fail specimens tested by Method A, B or D in which large deflections occur can be considerably larger than nominal. An approximate correction can be made.
1.2 Method A, Center-Point Flexure Test—This method is applicable to material that is uniform with respect to elastic and strength properties. Total deflection, and modulus of elasticity computed from it, include a relatively constant component attributable to shear deformation. It is well suited to investigations of many variables that influence properties uniformly throughout the panel in controlled studies and to test small, defect-free control specimens cut from large panels containing defects tested by the large-specimen method.
1.3 Method B, Two-Point Flexure Test—This method, like Method A, is suited to the investigation of factors that influence strength and elastic properties uniformly throughout the panel, in controlled studies, and to testing small, defect free control specimens cut from large specimens tested by Method C. However, it may be used to determine the effects of finger joints, veneer joints and gaps, and other features which can be placed entirely between the load points and whose effects can be projected readily to full panel width. Deflection and modulus of elasticity obtained from this method are related to flexural stress only and do not contain a shear component. Significant errors in modulus of rupture can occur when nominal moment is used (see Appendix X1).
1.4 Method C, Pure Moment Test—This method is ideally suited for evaluating effects of knots, knot-holes, areas of sloping grain, and patches for their effect on standard full-size panels. It is equally well suited for testing uniform or clear material whenever specimen size is adequate. Measured deformation and elastic constants are free of shear deformation effects; and panels can be bent to large deflections without incurring errors from horizontal force components occurring in other methods. Specimen size and span above certain minimums are quite flexible. It is preferred when equipment is available.
1.5 Method D, Flexure Test for Quality Assurance—This method, like Method A, is well suited to the investigation of factors that influence bending