



642.01 General-Purpose Bend Fixtures



MTS 642.01 Bend Fixtures are configured to meet a variety of testing requirements. They are well-suited for plastics tests (ASTM D-790 flex test) and composites tests (ASTM D-2344, short beam shear) as well as general-purpose tests of all materials.

These units have a load capacity of 30 kN (6.6 kip) and can be used for testing over a wide range of temperatures. The fixtures have adjustable

spans with easy-to-use, permanently attached scales (one side in English units the other in metric) for equal positioning of the rollers. The span can be set up in a four-point configuration, for a region of constant stress, or in a three-point configuration, to provide a line of maximum stress.

Any of the roller sizes listed below may be specified.

BENEFITS

Versatile

- ▶ You can configure for either three or four-point tests.
- ▶ Adjustable to a variety of span widths.
- ▶ Both English and metric scales provided.

Wide Temperature Range

- ▶ From -130° to +150°C (-200° to +300°F).

OPTIONS

Additional Rollers

- ▶ Made from corrosion-resistant, hardened stainless steel and available in a variety of sizes (see table).

Attachment Kits

- ▶ For mounting on threads different from the 1/2-20 or M12 x 1.25 mounting bolts supplied.
- ▶ Displacement gage mount accommodates a 632.06 extensometer with ±4.0 mm (±0.16 in) travel, ±6.0 mm (±0.25 in) travel, and ±12.5 mm (±0.50 in) travel.

Mounting Adapter

- ▶ Design accommodates both an electromechanical and servo-hydraulic mounting. The electromechanical mounting requires a Type D (1-1/4 in) upper and lower pinned clevis. Servohydraulic mounting is accomplished using the 1/2-20 or M12x1.25 mounting bolts.

SPECIFICATIONS

Model	Force Cap.		Type*	Lower Assembly Span	Lower Assembly Weight	Upper Assembly Span	Upper Assembly Weight	Available Roller Diameters	Part Number
	Static	Dynamic							
642.01A-01	30 kN (6.6 kip)	10 kN (2.2 kip)	3 pt	24 to 152 mm (0.94 to 6 in)	1.8 kg (4 lb)	N/A	.11 kg (0.25 lb)	5, 10 mm (0.125, 0.25, 0.50 in)	51427701
642.01A-02	30 kN (6.6 kip)	10 kN (2.2 kip)	3 & 4 pt	24 to 152 mm (0.94 to 6 in)	1.8 kg (4 lb)	24 to 76 mm (0.94 to 3.0 in)	.11 & 1.13 kg (0.25 & 2.5 lb)	5, 10 mm (0.125, 0.25, 0.50 in)	51427801

*Cap screws (both 1/2"-20 and M12 x 1.25) are provided for mounting. Attachment kits (threaded inserts) for other mounting sizes are available.

