

2501 Series Compression Platens



Features

- Range of different diameter sizes and load rated capacities available
- Conforms to ISO, ASTM, DIN and many other standards
- 150 mm to 300 mm (5.9 in to 11.8 in) diameter platens are etched with concentric rings for accurate specimen placement
- Optional spherical seating for concentric and evenly applied load
- Provision for attachment of optional displacement transducers
- Rugged design for minimum maintenance
- Temperature range: -70 °C to 315 °C (-94 °F to 600 °F)

Description

The compression platens are used to perform compression tests on a wide range of materials and components. This allows a variety of tests to be performed, for determination of compression modulus, compression strength and compression yield strength.

Easy to install, precisely machined flat-plate fixtures designed for even distribution of compression loads during a test. Spherical seating is available for applications that require self-alignment of the compression platens. To aid the operator on larger diameter anvils, etched or grooved circles on the platen faces allows easier centering of the specimen body.

On the edge of the platen is provision for the attachment of optional displacement transducers, allowing you to measure the direct displacement between two equal sized platens during a compression test.

Principle of operation

The compression fixture has been designed to easily provide the capability of compression. Platens are rigidly fixed and are non self-aligning. They have a high stiffness that resists off-centre loads, this retains the parallelism during specimen failure. Universal spherical seating is designed for use with compression anvils to ensure that loading is concentrically and evenly applied to specimens that do not stand perpendicular to the platen surface.



▲ Platens forming compression test on a foam specimen

Application range

- Type of loading: static compression, compression-compression cyclic tests.
- Specimen material: foam, plastic, metals, alloys, packaging, wood, composites, ceramics and other materials.
- Specimen shapes: square or cylindrical cubes, components.

2501 Series Compression Platens

Specifications

Catalog number	2501-114	2501-083	2501-085	2501-089	2501-071	2501-162	2501-163	2501-082	2501-084	2501-116	2501-117
Maximum capacity	100 N	10 kN	10 kN	100 kN	100 kN	100 kN	100 kN	100 kN	100 kN	300 kN	300 kN
	10 kg	1000 kg	1000 kg	10000 kg	10000 kg	10000 kg	10000 kg	10000 kg	10000 kg	30000 kg	30000 kg
	22 lb	2250 lb	2250 lb	22500 lb	22500 lb	22500 lb	22500 lb	22500 lb	22500 lb	67500 lb	67500 lb
Hardness (HRC)	55 - 66	55 - 66	55 - 66	55 - 66	55 - 66	56 - 58	56 - 58	55 - 66	55 - 66	55 - 66	55 - 66
Platen diameters (A)	25 mm	50 mm	150 mm	50 mm	150 mm	50 mm	150 mm	50 mm	150 mm	75 mm	150 mm
	(1 in)	(2 in)	(6 in)	(2 in)	(6 in)	(6 in)	(6 in)	(2 in)	(6 in)	(3 in)	(6 in)
Overall height (B) (effective length)	21 mm	49 mm	49 mm	50 mm	50 mm	75 mm	75 mm	69 mm	69 mm	50 mm	50 mm
	(0.8 in)	(1.9 in)	(1.9 in)	(2 in)	(2 in)	(3 in)	(3 in)	(2.7 in)	(2.7 in)	(2 in)	(2 in)
Concentric engraving	No	No	Etchings	No	Etchings	No	Groved	No	Etchings	No	Etchings
Mechanical connection	2.5 mm	6 mm	6 mm	M30 x 2	M30 x 2	0.5 in	0.5 in	16 mm	16 mm	M48 x 2	M48 x 2
	(Type 00)	(Type 0)	(Type 0)	(Type I)	(Type I)	(Type D)	(Type D)	(Type 1)	(Type 1)	(Type II)	(Type II)
Weight	35 g	410 g	3.4 kg	1 kg	7 kg	1 kg	4.1 kg	1 kg	4.1 kg	5.6 kg	8 kg
	(1.2 oz)	(14.4 oz)	(7.5 lb)	(2.2 lb)	(15.4 lb)	(2.2 lb)	(9 lb)	(2.2 lb)	(9 lb)	(12.3 lb)	(17.6 lb)

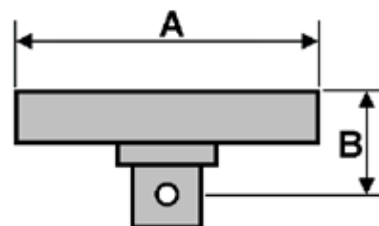
▲ Compression platen - scope of supply - 1 compression platen

Note:

1. Compression platens cover the temperature ranges of -70 °C to +315 °C (-94 °F to +600 °F)

Special platens

Catalog number	Description
2501-185	<p>Set of two 300 mm diameter compression platens. Rated capacity 30 kN (6,7500 lb)</p> <p>Mechanical fitting:</p> <p>Upper platen: 16 mm clevis. Includes spherical seating. Weight: 25 kg (55 lb)</p> <p>Lower platen: 1/2 in clevis. Weight: 18 kg (40 lb)</p> <p>Note: Only to be used with load cells having 16 mm (Type 1) clevis attachment</p>

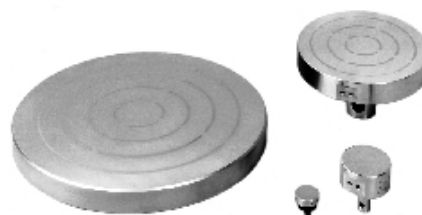


▲ Compression platen dimensions

▲ Special platens - scope of supply - 1 set of compression platens

Accessories

Catalog number	Application
2501-096	<p>Universal Spherical Seating. Rated capacity 100 kN (22,500 lb)</p> <p>Mechanical fitting: M10 x 6 on 100 PCD to M10 x 6 on 100 PCD.</p> <p>Weight: 7 kg (15.4 lb)</p>
2501-118	<p>Universal Spherical Seating. Rated capacity 300 kN (67,500 lb)</p> <p>Mechanical fitting: M10 x 6 on 100 PCD to M48x2 (Type II)</p> <p>Weight: 12 kg (26.5 lb)</p>
2601-071	<p>LVDT Platen displacement fixture, including 100 mm (4 in) and 150 mm (6 in) adjustable targets. Mounts directly on the side of the platen</p>



▲ Compression platens

▲ Accessories - scope of supply - 1 spherical seat

Notes:

1. Compression platens type - 2501 - 082/083/084/085/162/163 include interface holes for the mounting of LVDT bracketry.

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