

FLATWISE TENSILE STRENGTH FIXTURES

2505-013, 2505-014, 2505-015

Each half of the fixture incorporates a dual yoke to ensure pure axial load is applied. Made from durable 400 series stainless steel, this fixture is ideal for use in ambient testing and testing inside a temperature chamber. The fixture is available in three sizes to fit varying specimen geometries. Each fixture is supplied with five sets of bonding faces to facilitate testing to ASTM C297.

This fixture can be used for a variety of core materials such as open cell honeycomb structures as well as continuous core structures such as foam or balsa wood.

PRINCIPLE OF OPERATION

The sandwich flatwise tension fixture is designed to measure the bond strength between the facing and core of a sandwich construction panel. If the bond is sufficiently strong the strength of the core itself can be determined. The specimen is subjected to tensile loading, in a direction normal to the bond facing, applied through thick loading blocks included with the fixture.

FEATURES

- Applicable to ASTM C297 for sandwich constructions
- Double yoke design provides self-alignment
- Available for 25 mm (1 in) square, 50 mm (2 in) square or 50 mm (2 in) diameter specimens
- Stainless steel construction
- Suitable for use from -150 °C to +315 °C (-240 °F to +600 °F)

APPLICATION RANGE

- Aerospace grade materials
- Honeycomb core constructions
- Continuous core constructions
- Organic or metallic core materials



2505-015 Flatwise tension fixture

SPECIFICATIONS

Catalog Number		2505-013	2505-014	2505-015
Maximum Capacity	kN	9	44	9
	kgf	900	4500	900
	lbf	2000	10000	2000
Upper Mechanical Connection		1/2 in Clevis pin (type Dm)	1/4 in Clevis pin (type Dm)	1/2 in Clevis pin (type Dm)
Lower Mechanical Connection		1/2 in Clevis pin (type Dm)	1/2 in Clevis pin (type Dm)	1/2 in Clevis pin (type Dm)
Effective Length (A)	mm	75	140	101
	in	3	5.5	4
Width	mm	50.8	101	50.8
	in	2.0	4.0	2.0
Weight (Upper) approximately	kg	2.3	10	2.3
	lb	5	22	5
Temperature Range	°C	-150 to +315	-150 to +315	-150 to +315
	°F	-240 to +600	-240 to +600	-240 to +600
Grip Material		Stainless Steel	Stainless Steel	Stainless Steel
Bond Face Material		Steel	Steel	Steel
Bond Face Size	mm	50.8 dia.	50.8 × 50.8	25.4 × 25.4
	in	2.0 dia.	2.0 × 2.0	1.0 × 1.0

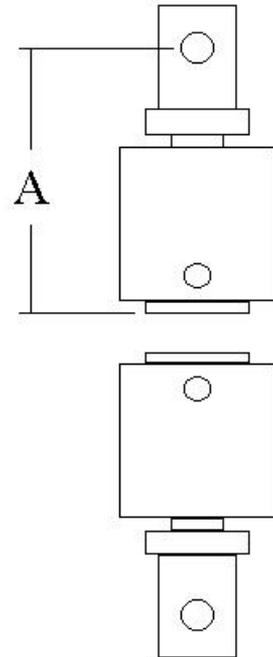
Note: Each fixture is supplied with five sets of steel bonding faces

STEEL BONDING FACES

Catalog Number	Description
2505-131	Extra set of 50.8 mm (2.00 in) diameter bond faces for 2505-013
2505-141	Extra set of 50.8 × 50.8 mm (2.000 × 2.000 in) bond faces for 2505-014
2505-151	Extra set of 25.4 × 25.4 mm (1.000 × 1.000 in)



Catalog number 2505-013



Line drawing for flatwise tensile strength fixtures



Catalog number 2505-015



Catalog number 2505-014

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