

S572X SERIES COMPRESSION PLATENS

with Integral Spherical Seat

The compression load assembly consists of an upper platen with an integral spherical seat and a lower rigid platen, mounted along the loading axis of a universal testing machine. This design enables both precise alignment and self-adjustment for a wide range of compression testing scenarios. Each platen includes mounting provisions for an optional LVDT deflection sensor to support high-accuracy strain measurements.

PRINCIPLE OF OPERATION

To achieve precise parallelism between platens, the spherically seated upper platen can be brought into contact with the lower rigid platen. Applying a small preload allows the spherical seat to self-align, ensuring parallel orientation. On platens 100 mm in diameter or larger, locking screws can be used to fix the spherical seat in place, maintaining alignment for subsequent tests. When the spherical seat remains unlocked, the upper platen can self-adjust to accommodate specimens with non-parallel surfaces, promoting uniform load distribution. The spherical seat is engineered so that its center of curvature aligns with the center of the platen surface, eliminating lateral movement during alignment and preserving test accuracy.

This integrated spherical seat design removes the need for separate fixtures, simplifying transitions between compression and tension setups. Concentric circles etched on the platen surface assist with specimen centering, while the high hardness of the platens prevents local deformation under rated loads. A polished surface finish minimizes friction at the specimen interface, further enhancing measurement precision.

APPLICATION RANGE

- Type of loading: static compression
- Specimen material: concrete, metals, plastics, composites, and components
- Specimen shapes: cylinders, cubes, and components



FEATURES

- Axially rigid to prevent deflection during loading
- High hardness ensures no deformation of platens up to their maximum rated load
- Concentric rings aid in proper, centered placement of specimen
- Close tolerance surface flatness allows even load distribution
- High corrosion resistance ensures platens do not corrode under usage conditions
- Spherically seated compression platen self-aligns to the surface it comes into contact with
- Center of curvature spherical seat coincides with surface of compression platen
- Locking screws to fix the position of the spherical seat for platen diameters 100 mm and above
- Compatible with LVDT mounting

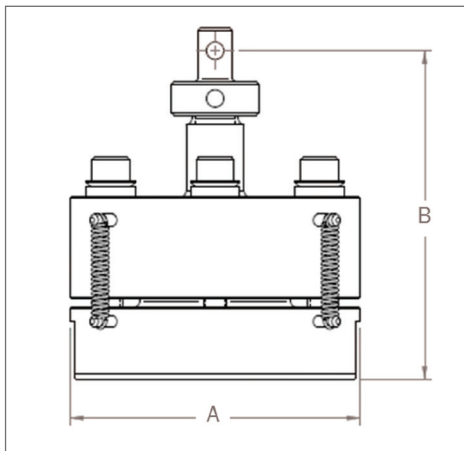
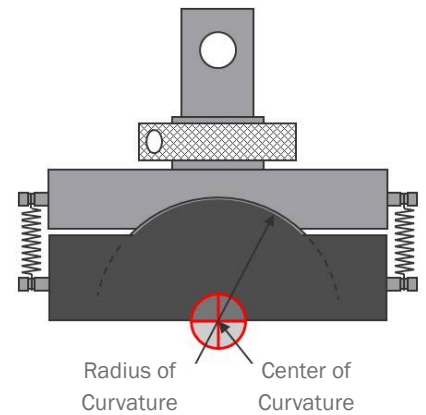
SPECIFICATIONS

		S5722A *	S5724A	S5726A	S5728A	S5722B *	S5724B	S5726B	S5728B
Maximum Load	kN	10	10	10	10	100	100	100	100
	lbf	2,250	2,250	2,250	2,250	22,500	22,500	22,500	22,500
Mechanical Interface		6 mm clevis pin (Type Om)				0.5 in clevis pin (Type Dm)			
Platen Diameter (A)	mm	50	100	150	200	50	100	150	200
	in	2	4	6	8	2	4	6	8
Effective Height (B)	mm	95.5	113.5	113.5	113.5	116.0	129.5	129.5	129.5
	in	3.8	4.5	4.5	4.5	4.6	5.1	5.1	5.1
Weight	kg	0.9	3.9	5.8	8.4	1.4	4.6	6.5	9.1
	lb	2.0	8.6	12.8	18.5	3.1	10.1	14.3	20.1
Operating Temperature	°C	-70 to +350	-70 to +350	-70 to +350	-70 to +350	-70 to +350	-70 to +350	-70 to +350	-70 to +350
	°F	-94 to +662	-94 to +662	-94 to +662	-94 to +662	-94 to +662	-94 to +662	-94 to +662	-94 to +662

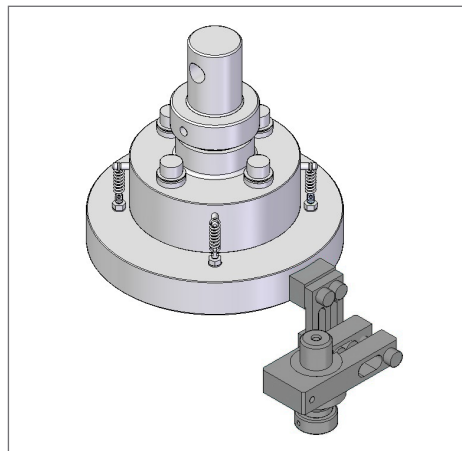
* Spherical seat locking screws are not available on 50 mm diameter spherically seated platens. This feature is available only on spherically seated platens with a diameter of 100 mm or larger

OPTIONAL ITEMS FOR USE WITH S572X SERIES COMPRESSION PLATENS

2601-071	LVDT platen displacement fixture
2601-041	LVDT deflection sensor, range ± 0.5 mm (0.02 in)
2601-042	LVDT deflection sensor, range ± 2.5 mm (0.1 in)
2601-043	LVDT deflection sensor, range ± 15 mm (0.6 in)
2601-044	LVDT deflection sensor, range ± 50 mm (2 in)
2601-045	LVDT deflection sensor, range ± 100 mm (4 in)



Spherically Seated Compression Platen



S5726B Compression Platen with Integral Spherical Seat and 2601-071 Optional LVDT Platen Displacement Fixture



2601 Series Deflection Sensor

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