

S572x Series Compression Platens | with Integral Spherical Seat

The compression load string comprising an upper platen with integral spherical seat and lower rigid platen is attached to the loading axis of the universal testing machine. If perfect parallelism between platens is required, the spherically seated upper compression platen can be brought into direct contact with the rigid lower compression platen. Upon application of a small preload, the spherically seated platen will become parallel with the rigid platen. The locking screws (available only on platens 100mm dia and above) can then be used to fix the spherical seat in position, thereby ensuring parallelism between platens for all subsequent tests.

Alternatively, with the spherical seat in the unlocked condition, the platen surface can self-align to accommodate non-parallelism between the upper and lower surfaces of a compression specimen. The high hardness of the platen ensures no local deformation of platens should occur at pressures up to their maximum rated load while its polished surface minimizes friction at the interface between the platen and specimen.

The compression platens each have provision for adding an LVDT deflection sensor for high accuracy strain-measurement purposes.

Principle of Operation

During the application of a small preload, the spherical seated compression platen provides the self-alignment required to accommodate compression specimens which have surfaces that are not completely parallel.

The integral spherical seat is designed with the center of curvature of the seat coincident with the center of the surface of the platen. This eliminates any lateral movement between the platen and the specimen during the self-alignment action which could affect test results.

The integral spherical seat eliminates the need for separate spherical seat fixtures, thereby greatly improving the ease of interchanging between compression and tension fixtures. Concentric circles on the surface of the platens aids in centering of the specimen on the compression platens.

Mounting holes on the compression platens allow the addition of an optional LVDT deflection sensor to provide a more accurate measurement of strain.

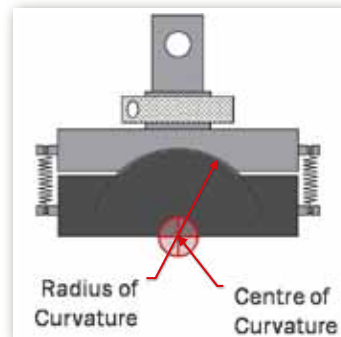


Application Range

- 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



Center of curvature of spherical seat coincides with surface of compression platen

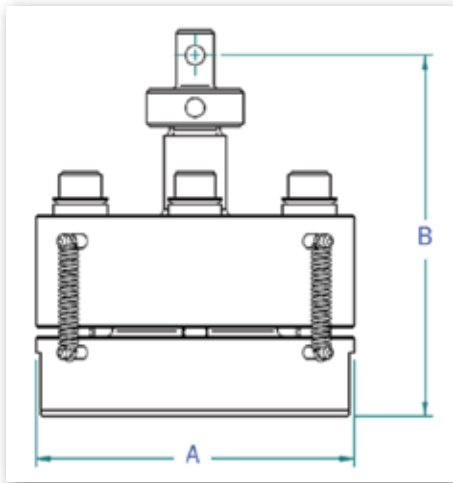
Specifications

		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

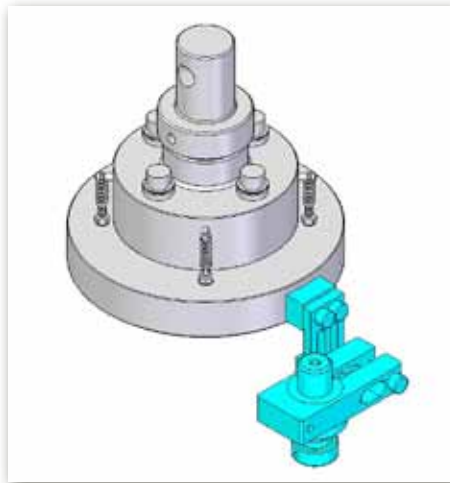
* Spherical seat locking screws are not available on 50 mm diameter spherically seated platens. This feature is available only on spherically seated platens of diameter 100 mm and above.

Accessories

	2601-071	2601-061/-091	2601-062/-092	2601-063/-093	2601-064/-094	2601-065/-095
Description	LVDT platen displacement fixture	LVDT deflection sensor, range ± 0.5 mm (0.02 in)	LVDT deflection sensor, range ± 2.5 mm (0.1 in)	LVDT deflection sensor, range ± 15 mm (0.6 in)	LVDT deflection sensor, range ± 50 mm (2 in)	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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