

SCB Tester – Stand-Alone

Semi-Circular Bend Test System

ADVANCED PAVEMENTS TESTING SYSTEMS



IPC Global's SCB Tester is a complete stand-alone test system which provides users with a reliable and accurate solution to meet the requirements of AASHTO TP124 (Illinois SCB), ASTM D8044 (LSU SCB) and EN 12697-44 SCB tests.

The SCB Tester features a MULTISPEED Compression Testing Machine with load cell, Semi-Circular Bend Jig and auxiliary linear displacement transducer for greater accuracy and full compliance with testing standards.

An optional Environmental Chamber allows you to perform tests at controlled temperatures.

Features

- Complete stand-alone test system
- MULTISPEED Compression Testing Machine with digital control and touchscreen display panel
- Motorized ram for precise and accurate test results
- Rigid two-column loading frame with adjustable crosshead
- Auxiliary linear displacement transducer
- Automatic closed loop control for test speed
- Rapid approach and return function with soft contact (typically 5N)
- Programmable pre-loading phase (typically 45N)
- Programmable actuator travel limits.

Specifications

Test Standards

- AASHTO TP124 (Illinois SCB) – Fracture Potential of Asphalt Mixtures Using the Flexibility Index Test (FIT)
- ASTM D8044 (LSU SCB) – Cracking Resistance Test at Intermediate Temperature
- EN 12697-44 – Crack Propagation

Specimen Dimensions

Max Force Capacity	50kN	
Load Cell	50kN	*Lower capacity load cells are available
Auxiliary Linear Transducer	25mm	
Testing Speed	0.5 to 51 (mm/min)	
Control Type	Crossbeam Displacement Rate	
Fast Approach Speed	25 (mm/min)	
Max Ram Travel	100mm	
Vertical Clearance	730mm	
Horizontal Clearance	270mm	
Number of Channels	4 (2 load, 2 displacement) Effective	
Resolution	16 bit	
Effective Sampling Rate	40Hz	

Dimensions and Weight

Frame Size	1,213 x 392 x 495mm (HxWxD)
Weight	65kg approx.
Electrical	220–240V / 50-60Hz (single phase) 110V / 50-60Hz (single phase)

Ordering Information

- 34-V1172/SCB – SCB Multispeed ACTS 220-240V
- 34-V1174/SCB – SCB Multispeed ACTS 110V
- 79-PV70135 – SCB Jig Base
- 79-PV70131 – Upgrade option for ASTM D8044 (LSU SCB)
- 79-PV70139 – Upgrade option for AASHTO TP124 (Illinois SCB)
- 34-T0104/81 – Adjustable support for electronic transducer
- 82-P0322 – Linear potentiometric disp. transducer
- 79-PV70E02 – Environmental Chamber (-25°C to +60°C)

Additional accessories may be required to create a working testing system. Please contact us for advice.

Testing Made Easy

The Semi-Circular Bend Tester features a rigid two-column load frame with easily adjustable crosshead. The cabinet houses the load jack, motorized actuator and digital control system in one compact system.

Automatic control of the test speed/travel is controlled by the microprocessor controller. Prior to the test, the operator can impose travel limits to automatically end the test. The firmware allows performance of transducer calibrations and setting of up to 10 test profiles and saving data onboard. Real-time test graphs and transducer data are displayed on the touchscreen.

The Semi-Circular Bend Tester has in-built data acquisition with four channels dedicated to two strain gauge load cells and two potentiometric linear transducers; one of each can be used during the test. An important feature is provided by the processing unit that controls the speed in a closed-loop mode, avoiding speed calibrations and tension fluctuation effects.

The user-interface is a large touchscreen graphic display while test data can be stored on a USB pen drive or downloaded through a LAN communication port.

Included in the stand-alone system is the Semi-Circular Bend Jig. Precision engineered the Semi-Circular Bend Kit is specifically designed to determine the crack resistance and/or crack propagation of asphalt specimens to compare the fracture properties of asphalt mixtures with different binder types.

The Semi-Circular Bend Tester is available with the optional high quality Environmental Chamber to enable users to analyse materials' properties at real-life working temperatures (between -25°C and +60°C) for extended periods. The excellent temperature homogeneity is achieved with the internal fan and baffles controlling air circulation, giving greater confidence in your test results.

SCB Jigs for Asphalt Standards Tester, AMPT and UTM Systems also available from IPC Global.



Optional: Environmental Chamber (-25°C to +60°C)

▶ IPC Global Customer Care

At IPC Global we are proud of our products.

We are dedicated to supplying high quality, accurate, affordable, easy-to-use systems for Advanced Testing of asphalt, binders and other pavement materials. As a valued customer of IPC Global you will receive continuous, expert support and advice for your instrument. Furthermore, we offer full installation and training in the correct operation of your IPC Global equipment. For support from our expert Customer Care Team, contact your local IPC Global-Controls office/distributor or email ipcglobalsupport@controls-group.com.

Visit our website for more information www.controls-group.com/ipcglobal.



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