

Universal Triaxial Cell

Accessories

ADVANCED PAVEMENTS TESTING SYSTEMS



Designed and manufactured to IPC Global's high precision and quality, the Universal Triaxial Cell provides a versatile, user friendly and accurate device for testing applications where triaxial confinement of the specimen is necessary. This triaxial cell is suitable for a range of materials including asphalt, soils and unbound granular materials.

The cell incorporates low friction linear ball bushing for the loading shaft, facilitates two LVDTs and mountings for direct shaft position measurement for resilient modulus on unbound road-bases; up to three in-cell on-specimen transducers for asphalt dynamic modulus; and up to three radial transducers for poisons ratio.

Specifications

Features

- Low friction linear ball bushing (AASHTO T307 Thompson) on loading shaft
- Facilitates mounting system for external axial shaft movement strain transducer (AASHTO T307)
- Three electrical "feed through" connectors for on-specimen strain measurement (AASHTO T378/TP79 and T342/TP62) as standard (option for up to five).
- Facilitates up to three "through the wall" radial strain transducers
- Optional internal temperature measurement
- Limited acrylic (see through) area for safety
- Fitted with pressure relief valve for safety
- Anchor points for triaxial cell, to facilitate direct tension testing
- Special Geotechnical version available with pore & back pressure ports.

Test Standards

- AASHTO T307 – Resilient Modulus
- AASHTO T378 (TP79) – Dynamic Modulus
- AASHTO T342 (TP62) – Dynamic Modulus
- AASHTO – Flow Number
- EN 12697-25B – Permanent Deformation

Specimen Dimensions

Max. Working Pressure	700kPa (water) 400kPa (air)
Max. Specimen Size	150 x 300mm (Dia. x H)
Loading Shaft Travel	160mm

Dimensions and Weight

Dimensions	300 x 600mm (Dia. x H) 330 x 667mm (Dia. x H)
Weight	40kg approx.

Ordering information is available upon request.

How It Works

The cell's innovative modular design allows you to perform tests on a variety of specimen sizes (up to 300mm high) whilst still maintaining good visibility of the specimen during the test and keeping the three through-the-wall ports for on specimen radial strain transducers positioned at the centre of the specimen.

Use water or air for confinement to achieve pressures up to 700kPa or 400kPa respectively. The cell also incorporates provision for internal temperature measurement and is fitted with three (optionally up to five) electrical connections for on-specimen transducers.

A range of top and bottom platens is available to accommodate various specimen sizes.

By combining the Universal Triaxial Cell with an IPC Universal Testing Machine, IMACS digital controller and IPC Global's UTS software gives you a flexible, powerful and user friendly system that meets international test standards.



Universal Triaxial Cell



Large and Standard Size Universal Triaxial Cell Side by Side



Alignment Coupler & Adaptor Shaft
AASHTO TP79 (Flow Number & Flow Time)

► 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.

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