

UTM-130XL

Extra Large Servo-Hydraulic Universal Testing Machine (UTM)

ADVANCED PAVEMENTS TESTING SYSTEMS



Precision-engineered for Civil Engineering laboratories to accomplish your toughest research challenges, UTM-130XL delivers superior reliability and accuracy with proficient performance of tension, compression and dynamic loading analysis on all types of material.

Designed specifically to accommodate the Extra Large Four Point Bend Jig and Extra Large UTM-130 Environmental Chamber this testing system allows you to perform Four Point Bend tests on asphalt specimens, up to 160x200mm (HxW) and a minimum length of 790mm, at non-ambient temperatures.

Features

- Precision-engineered for high stiffness and alignment
- Double acting high precision actuator
- High performance servo-valve allows for sinusoidal, loading frequencies up to 70Hz
- Hydraulic crosshead positioning and clamping for easier test set-up without the requirement for extension rods
- Independent environmental chamber eliminating transfer of mechanical vibration to testing machine.

Specifications

Loading Frame & Actuator

Load Capacity	+/- 130kN Static +/- 100kN Dynamic
Frequency	Up to 70Hz
Load Cell	Low profile/pancake type, +/-130kN capacity
Actuator Type	Double acting high precision tie rod actuator, (optional labyrinth bearing actuator)
Stroke	+/-50mm
In-built Displacement Transducer	100mm
Adjustable Cross-Head	Hydraulic
Crosshead Clamping	Hydraulic
Vertical Space	1,380mm
Space Between Columns	770mm
Size	3,000x1,250x1,000mm (HxWxD)
Weight	920kg (approx.)

Hydraulic Power Supply (HPS)

Flow Rate	18 liters/min
High Pressure	210 Bar
Low Pressure	100 to 210 Bar
Remote Starting	Available
Cooling System	Water/oil heat exchanger, optional water chiller, optional air-cooling
Oil Tank Capacity	220 liters
Mains Power	7.5kW 3 phase, 400V 50Hz, or 220V 60Hz
Size	1,200x1,200x650mm (HxWxD)
Weight	250kg (without oil)

Environmental Chamber

See UTM-130 Environmental Chamber for specifications.

Leading-edge Performance every time

IMACS Control and Data Acquisition

The system uses IPC Global's Integrated Multi-Axis Control System (IMACS) which provides excellent waveform fidelity from integrated acquisition and control functions, at speeds of up to 5kHz simultaneously on all channels, with 4x oversampling for low noise performance and auto-ranging resolution of up to 20-bit.

UTS Software

Developed over 25 years, IPC Global's test and control software (UTS) is known for its simplicity in use, clarity of results and analytical power. UTS allows for real time graphing of results, customizable test templates to streamline the testing process and the ability to save test data in portable binary files for full test review any time in the future.

Hydraulic Power Supply (HPS)

The HPS design is based on variable displacement piston pump technology that assures improved performance, longer life, lower power consumption and noise reduction.

Featuring remote starting and control via virtual pendant, water/air cooling options and indication for low oil, over temperature and dirty filter, the system also provides electronically adjustable oil pressure allowing for greater control and safety. Oil accumulators further improve control accuracy while the high performance filters ensure long-life system protection and reduced maintenance costs.

Environmental Chamber

Our Environmental Chambers use a high quality mechanical refrigeration system and superior insulation technologies that enable users to analyze materials' properties at real-life working temperatures (between -50°C to +100°C) for extended periods without the need for LN2.

High accuracy and total control over temperature ramps and dwells are achieved using the Programmable Digital Controller thus enabling users to easily perform complex tests.

► 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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