Concrete Pipe Testing Machines

Concrete Pipe Testing Machine

UTSP-0200

The UTSP-0200 Concrete Pipe Testing Machine has been designed to complete crushing tests on sewer and drain pipes, concrete pipes, fittings, cones. The machine can be used for pipes with a length of up to 3000 mm.

The machine consists of a frame and a hydraulic power pack. The frames are made from a sturdy, 2 column construction consisting of a superior axial and lateral stiffness which are precision aligned. Integrated in the crosshead is a double acting actuator in servo-quality. The actuator has anti-rotation system to prevent the natural tendency of the actuator to rotate. The stroke of the double acting actuator is300 mm. Load cell is used for precise load measurement and closed loop control.

The top bearer is rectangular and can be detatched from the actuator and the bottom bearer is V-shaped with an angle of 150°. During pipe loading, the system allows the top bearer to rotate 360 degrees at a horizontal plane, and allows it to move at vertical plane of a minimum value of ±8°. As an option, 3- and 4-point bending accessories are available. Upper crosshead height adjustment is done with electric motor drive for easy and precise test set up and manual through locking pins are used to fix the upper crosshead.

The frame does not include carrying chassis for the machine. The frame must be anchored to the concrete base, and all parts that are required to do so are supplied. The frame is supplied with V shaped bottom bearers which can be anchored to concrete base.

There are also 2 options are available for power pack. The machine can be supplied with standard automatic power pack, dual stage, controlled by BC 100 or Advanced Automatic Power Pack with Proportional Valve.

Concrete Pipe Testing Machines

Concrete Pipe Watertightness Testing Machine

UTSP-0250

The UTSP-0250 can test pipes with diameters from 500mm to 1700 mm and lengths from 1000mm to 3200mm. Loads up to 100 kN can be applied on pipes from top, with double ended hydraulic piston which is mounted on upper crosshead of the machine. The position of the piston can be set manually and several distance pieces are supplied for different diameter of pipes. The load measurement is done by a load cell and load value can be seen from the digital read out unit on the control system.

Each pipe is located on a carrying car with one end with mechanical lifting system to give an angle up to 5. degrees to the junction end of the pipes. The lifting system is controlled by handheld system. Both cars are seated on a moving platform can move outside and inside of the machine for easy placing of pipes. This movement is done by 3 motorized gear box unit controlled by handheld system.

Both open ends of pipes is closed with circular cover that can be used for pipes diameter from 500mm to 1700mm. Water inlets for different size of pipe are located on those covers (All diameters should be giving at the time of order). There is a hydraulic piston used to generate the pressure on each end of pipes closed with cover. The maximum load of this piston is 800kN. The load is measured by a transducer and can be seen from digital readout on control panel. The piston is fitted on middle column of the machine. This column and the covers is equipped with motorized gearbox for easy test set up. Each motor is controlled by handheld.

There is a water pressure system fitted to the machine. The maximum pressure is 1,5 bars. There is a digital pressure gauge to see the pressure inside of the pipes. The machine is supplied with complete frame, accessories, hydraulic power pack and digital read out systems. A small container should be supplied by customer.

About PCTE

PCTE have over 30 years' experience in the measurement and testing of construction materials. PCTE can provide more than just the equipment, they can provide expert training. PCTE have a service centre in Sydney in which they can provide calibration, repairs and warranty repairs.

Other Equipment

PCTE supply three main ranges: NDT, Lab and Geotech Instrumentation.

NDT includes: Rebound Hammers, Covermeters, Ultrasonics, GPR, Corrosion Testing, Coating Testing and Foundation Testing

Lab includes equipment for: Concrete, Cement, Aggregate, Soil, Asphalt and Metal

Geotech Instrumentation includes: Strain Gauges, Piezometers, Inclinometers, Extensometers, Tiltmeters, Load Cells and Dataloggers