PILOT PRO 500 KN- AUTOMATIC COMPUTER CONTROLLED COMPRESSION TESTING MACHINE

PILOT PRO is the best choice for Quality Control laboratories to carry out a high throughput of routine failure tests including compression, flexure and indirect tensile tests.

PILOT PRO introduces new features and capabilities that will revolutionize the operations of any progressive construction quality testing laboratories.

LinkLAB is CONTROLS' new proprietary Laboratory Connectivity Package.

It allows your PILOT PRO to be a connected part of your laboratory infrastructure by taking inputs from any number of ancillary measuring systems and devices increasing efficiency and eliminating transposing errors.

The machines consist of:

Frame

Rigid welded steel construction. Spherical seat allows free alignment at the initial contact with the specimen.

Compression platens

PILOT PRO, Automatic power and control system

See technical specifications.

Safety features

Includes: Max. Pressure valve to avoid machine overloading; piston travel limit switch; emergency stop button; front and rear transparent flexible fragment guard.

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SPECIFICATION

PILOT PRO AUTOMATIC POWER AND CONTROL SYSTEM

Hydraulics

- Dual-stage pump: centrifugal low pressure for fast approach automatically switches to radial multi piston high pressure for loading DC motor, 720W, 50-60Hz
- Maximum working pressure 700 bar
- Load/unload valve
- Second/third frame selection valve available as option

Hardware

- 524,000 points high-resolution/stability analog channels
- 3 channels for load sensors
- Control frequency 250 Hz
- Sampling frequency 250 Hz
- 5.1”, 800 x 480 pixel, 16 M colors, icon-driven capacitive sensing touchscreen graphic display
- Unlimited storage capacity for test data on internal 16 GB SD card
- USB port for test data storage on external USB memory stick and for firmware upgrade
- Ethernet port for PC / Internet /network communication
- Optional integrated graphic printer including Load-Time plot
- RS 232 port for data downloading in ASCII format

Firmware

- Execution of compression, flexure, indirect tensile, ACV tests in automatic mode with load rate controlled by a closed-loop P.I.D. system
- Execution of loading ramps with the possibility to manually increase or decrease the test speed during the test
- Pause command to maintain steady load can be enabled at a pre-set value before the test or as required while testing
- Simultaneous display of load, specific load, actual load rate, load/time graph
- Saving of the specimen failure type in the test results
- Download data to internal printer (optional) or to PC via RS 232 port or to USB memory stick
- PC / network communication via Ethernet
- Multi-coefficient linearization of the calibration curve for better accuracy at low loads thus avoiding the use of a second pressure transducer
- Recording facility for up to 9 test profiles for each channel including: type of test (e.g. compression, flexural, indirect tensile), specimen size and shape, load rate, test standard and other general information. Each one of the recorded test profiles can be recalled automatically to save time
- Improved PID algorithm and multi PID selection. Up to 3 different PID settings can be tuned for a variety of materials and test methods (e.g ACV, flexure, indirect tensile).
- Compatible with the newly released Datamanager software, tailored for construction material testing laboratories, for real-time data acquisition, display and management
- Peripheral devices integration with Link-LAB
- Automatic load measurement verification procedure, by connecting suitable load cells and our digital readout unit to PC
- Language selection (including Cyrillic and Chinese)
- Unit selection (kN, ton, lbf)
- USB port for firmware upgrade and safe backup of the original configuration data (PID, calibration, etc.), in case of loss and/or data corruption. The restore of the machine to the factory settings is easy avoiding the need of any technical support

FRAME:

Capacity (KN)	500

For cubes up to in mm	100
For cylinder up to in mm	100 x 200
Vertical daylight (mm)	300
Horizontal daylight (mm)	275
Platen (mm)	150 X 150 X 30
Ram Travel (mm)	50
Pressure transducer bar	700
Distance piece	4 x 50x 200 mm, 1 x 35x 200 mm, 2 X 25 x 200mm
Weight (kg)	450 Kg approx

STANDARDS

- IS: 516
- AASHTO T22
- ASTM C39

FEATURES

Smart automatic and connected concrete Power and Control System for standard failure testing.

PILOT PRO is the best choice for quality Control laboratories to carry out a high throughput of routine failure tests including compression, flexure and indirect tensile tests.

- **Huge boost in efficiency and error elimination:** LinK-LAB – Integrated testing station solution for seamless connection and data inputs from many ancillary devices for dimensional measurement, weight, bar code, etc.
- **Automatic – time saving:** test-cycle automation maximizes productivity and ensures tests are performed accurately according to pre-set methods, eliminating operator variables.
- **Highly accurate and energy saving:** Our DC motor technology quietly and efficiently delivers super accurate load control at both lows-peed and low-loads.
- **Intuitive, quick and simple operation:** The integrated control system features an intuitive 5.1” color graphical display, which works like a tablet or smart-phone, and makes PILOT PRO quick and simple to operate.
- **Standards compliant – peace of mind:** Hardware and firmware are in total compliance with all the main international concrete testing standards

Multilingual functionality: The system is available in multiple languages and is fully compatible with non-Latin characters

ORDERING CODE

CT050-PILOT PRO

PILOT Pro: Automatic Compression Testing Machine 500KN

PILOT Automatic Compact-Line compression testing machine confirming to IS, 500KN cap. for cubes up to 100 mm and cylinders up to dia. 100x200 mm.

PILOT PRO
MAIN MENU
TEST RUN
CALIBRATION
OPTIONS
ARCHIVE
INFO