

## Breathe New Life into your Manual Compression System

Upgrade your manually-controlled compression machine to **automatic load control** with our new range of stand-alone automatic control consoles.



## Automated testing, the only way forward

Today's materials testing industry demands total accuracy and strict conformity to International Standards. Our new range of stand-alone consoles will convert any frame, from any brand, into an automatic system that meets the demands of 21<sup>st</sup> century concrete and cement testing.



Stay competitive without a big investment



Run more consistent and accurate tests



Enjoy smart connectivity features



# Future-proof your Lab

## Retrofit and keep pace with today's technology

Our control consoles provide a cost-effective way to retrofit any make of compression testers fitted with old Bourdon gauges or unreliable electronic readout unit and power pumps into one that is automatic and fitted with the latest technology.

Five models are available:

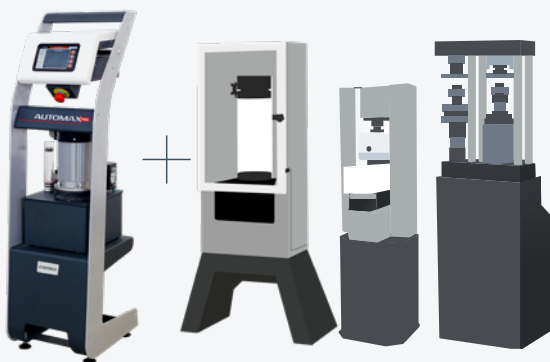
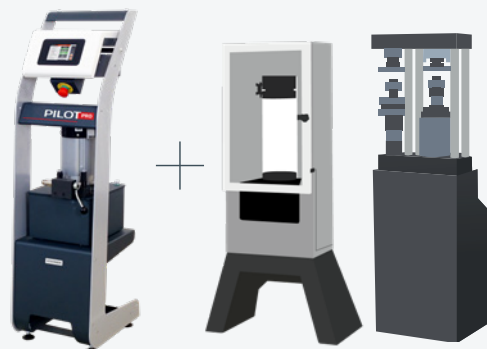
### WIZARD **AUTO**

SMART CHOICE: QC testing performance



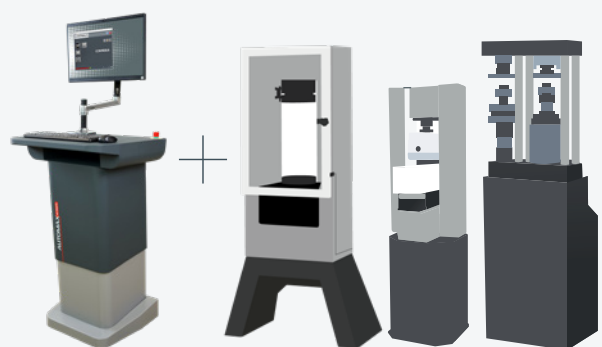
### PILOT **PRO**

HIGH EFFICIENCY: Automatic Quality Control



### AUTOMAX **PRO** **PRO-M**

ADVANCED: Smart, Automated & Connected



### AUTOMAX **ULTIMATE**

COMPLEX: Advanced with Computer Control

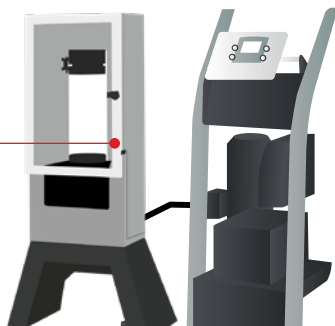
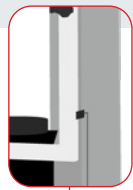
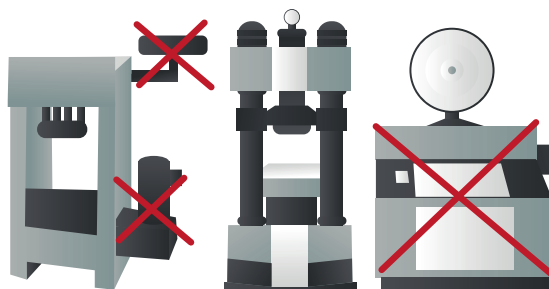
# Automate your Testing

## Retrofit in three easy steps

You can connect our consoles to any testing frames in three easy steps.

1

Disconnect and remove the hydraulic pump and display or the Bourdon gauge fitted on the machine.



Connect the console with a new hose and transducer, perform load calibration. A safety microswitch on the rigid door ensures enhanced security.\*

2

3

You can start enjoying the benefits of automatic testing...



\* To complete the revamping, we recommend adding a rigid door with a safety microswitch.

### What we need to know

- Machine capacity
- Piston diameter or max working pressure
- Piston travel
- Piston type (single or double effect)
- Presence of necessary fitting or pressure reducers
- Use of a pressure trasducer or load cell





**Link-LAB**  
LABORATORY CONNECTIVITY PACKAGE

## New Lab Connectivity Package

## Smart Connectivity with LinkLab

All CONTROLS' machines (except WIZARD Auto) introduce new features and capabilities that will transform the operations of any progressive construction quality testing laboratories.

Link-LAB is CONTROLS' new proprietary Laboratory Connectivity Package.

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

## Seamless Device Integration

Direct communication provides an efficient operation eliminating the possibility for data transposition errors. Compatible devices include:

- Digital calipers
- Weighing systems
- ID bar-code readers

## Two Models



### Link-LAB Local

Available for systems that operate stand-alone using the controller only without a PC.



### Link-LAB Enterprise

Available for new and existing systems controlled by PC via DATAMANAGER Software.

# WIZARD **AUTO**

## Standard automatic Quality Control machines for compression and flexural testing



ENTRY LEVEL  
with VFD  
technology

VFD inverter technology is now replacing traditional manually-controlled machines for standard tests. Integrate the new SMART-Line Wizard Auto Console with up to two frames and perform all your compression and flexural testing automatically.



### Why you need it

- **Easy to use**, operators with limited experience can be quickly and easily trained on its operation.
- **Affordable VFD Technology** lowers the overall cost of ownership without compromising quality or performance
- **Precise automatic load control** consistently produces accurate testing, improving the accuracy of results, repeatability, and overall efficiency of testing.
- **Calibration**: easy and straightforward six-point calibration procedure.
- **Conforming to Standards**: the machine automatically performs the test at the correct loading rate and conformance to Standards can be easily proven.
- **Two analog channels for load sensors** can control up to two testing frames offering a cost effective testing solution for any laboratory.
- **Efficient dual-stage hydraulic pump system** improves productivity and throughput while eliminating excess oil flow, preventing overheating and reducing costly maintenance.
- **Integrated Printer** can automatically print test results reducing transcription errors by removing hand-written test results.
- **Explore WIZARD Auto online**

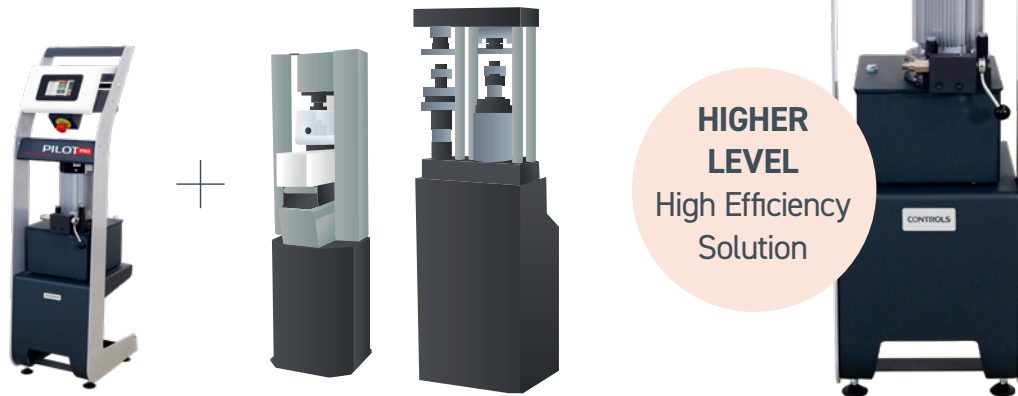


# PILOT PRO

## Versatile automatic compression machines for standard failure tests



The new SMART-Line PILOT Pro Automatic Console when connected to your existing frame can carry out a high throughput of routine failure tests including compression, flexure and indirect tensile tests. The new console can be fitted with our Link-Lab connectivity package allowing your new automatic testing system to take inputs from any number of ancillary measuring systems and devices increasing efficiency and eliminating transposing errors.



### Why you need it

- **Automatic test control** — simply press the start button and PILOT Pro will go through the entire process and only stop after failure increasing your testing efficiency.
- **ASTM programmable pause and increased loading rate option** — allows super-high productivity by automating test parameter options.
- **7" Capacitive touch screen color display** — rugged and reliable control panel with nine customizable test templates. No need to change the settings each time you change the test / specimen type. Just pick the test template and press START.
- **Permanent magnet DC motor** — increases life expectancy by eliminating excess oil flow, and preventing overheating and costly maintenance.
- **High performance** — Pilot keeps its high precision even at low loads and low loading rates.
- **Simplified six point calibration** — Produces exceptional accuracy and stability when calibrating. Simply set your load target on Pilot's screen and it will reach it and hold it for you until you want to go to the next step.
- **Up to three control channels** — fully utilize the automatic control operation by connecting multiple frames for different test applications.
- **Optional DATAMANAGER** — the control and reporting software automatically generates Excel or PDF test reports from each test and saves them in a folder of your choice. No manual data entry, no potential for error, test files easily transferable.
- **Optional device connectivity** with Link-LAB package enabling your compression machine to take inputs from ancillary measuring systems and devices increasing efficiency and eliminating transposing errors.
- **Explore PILOT Pro online**



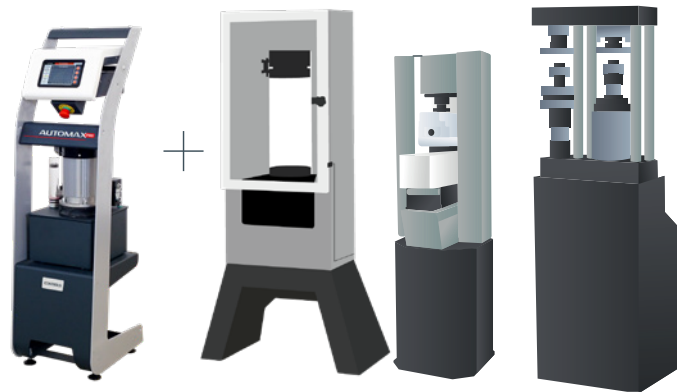
# AUTOMAX **PRO** **PRO-M**

Smart, automatic and connected for standard and advanced failure tests



**ADVANCED**  
Testing  
Solution

The stand-alone AUTOMAX Pro SMART-Line console can perform basic failure tests on concrete and cement. Select the Pro-M model if you need to perform advanced concrete tests such as Modulus of Elasticity (MOE), Poisson's Ratio and Characterizations of Fiber Reinforced Concrete (FRC) under displacement control.



## Why you need it

### AUTOMAX Pro and Pro-M

- **Fully Automatic test control** — simply press the start button and the AUTOMAX Pro will go through the entire test process including returning the platen to its start position.
- **ASTM programmable pause and increased loading rate option** — allows super-high productivity by automating test parameter options.
- **7" Capacitive touch screen color display** — rugged and reliable control panel with nine customizable test templates. No need to change the settings each time you change the test/specimen type. Just pick the test template and press START.
- **Permanent magnet DC motor** — increases life expectancy by eliminating excess oil flow, and preventing overheating and costly maintenance.
- **High performance** — Automax keeps its high precision even at low loads and low loading rates.
- **Simplified six point calibration** — produces exceptional accuracy and stability when calibrating. Simply set your load target on Automax's screen and it will reach it and hold it for you until you want to go to the next step.
- **Active control of up to 4 frames** with selection via display or PC (no manual operation or valve switching required).

- **Optional DATAMANAGER** — the control and reporting software automatically generates Excel or PDF test reports from each test and saves them in a folder of your choice. No manual data entry, no potential for error, test files easily transferable.
- **Optional device connectivity** with Link-LAB package enabling your compression machine to take inputs from ancillary measuring systems and devices increasing efficiency and eliminating transposing errors.

→ **Explore AUTOMAX Pro online**



### AUTOMAX Pro-M only

- **Unloading stage control** thanks to the Flow Sharing technology.
- **Automatic performance of Elastic Modulus tests** according to the main International Standards.
- **Runs displacement-controlled tests** on beams, notched beams, round or square slabs when connected to relevant flexure frame and accessories.
- **Rebar tensile tests** — simply attach the stand-alone tensile frame and carry out rebar testing as well as all the compression tests.

→ **Explore AUTOMAX Pro-M online**



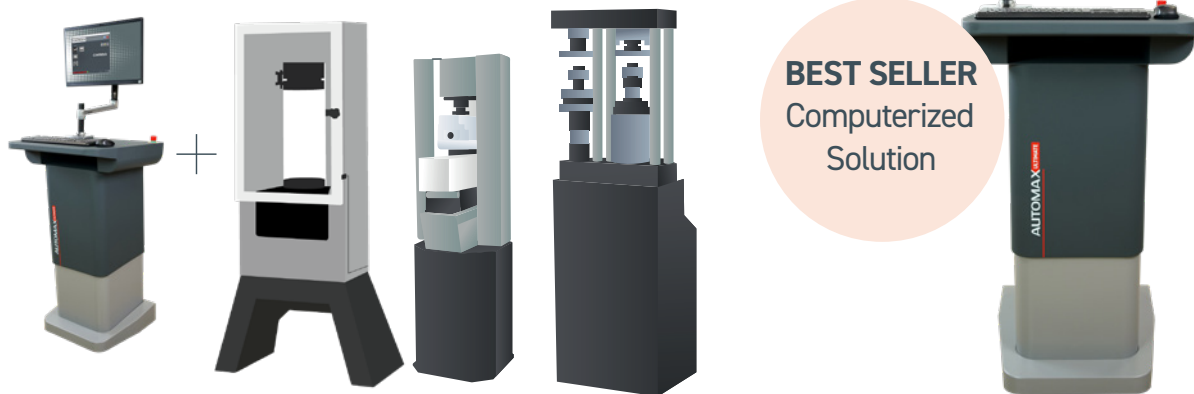


# AUTOMAX **ULTIMATE**

## Automatic stand-alone control console for concrete, cement and steel testing



AUTOMAX Ultimate is our top-of-the-range Automatic Computerized Control Console for all test methods from basic failure (compression, flexure, splitting, tension) through cyclic tests for Elastic Modulus and Poisson's Ratio determination up to advanced displacement controlled tests for FRC Fiber Reinforced Concrete.



### Why you need it

Automax ULTIMATE – All of the features of the Automax Pro/Pro-M *plus*

- **Ultimate automation with integrated PC control** — just press the start button and the Automax Ultimate will go through the entire process of any standard or advanced test and will stop after completion. Flexible arm for PC is optional.
- **Unlimited testing template options** — set up as many testing templates as you need for your laboratory.
- **Simplified 10 point calibration** — produces exceptional accuracy and stability when calibrating. Simply set your load target on the screen and it will reach it and hold it for you until you want to go to the next step.
- **10 strain / displacement channels** — allows the flexibility to run various tests with strain gauges, LVDT's or other types of transducers connected to the various test samples.
- **Full control of unloading on the sample** — allows Modulus of Elasticity tests to be carried out with the full control of the loading and unloading portion of the test.
- **1 kHz high control frequency** for optimum oil flow adjustment during critical tests.



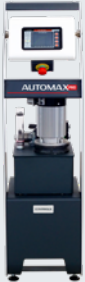


#### APPLICATIONS:

- **Modulus of Elasticity and Poisson's Ratio Determination** fully automated test execution with a truly controlled unloading rate and automatic results calculation and reporting. The completed test is run automatically from start to finish including all calculation and reporting using unique software package.
- **Displacement Control** — runs Displacement-controlled tests on beams, notched beams, round or square slabs with automatic calculation and reporting of test results according to EN and ASTM Standards.
- **Flexural behavior of FRC beams; Energy absorption on slabs; Flexural toughness on round panels**
- **Control of tensile force** — allows advanced tests to be carried out where a tensile force is required.
- **Rebar tensile tests** — simply attach the stand-alone tensile frame and carry out rebar testing as well as all the compression tests.
- **Explore AUTOMAX Ultimate online**








# Our Automatic Range at a Glance

## Helping you select the right model for your needs

	 WIZARD <small>AUTO</small>	 PILOT <small>PRO</small>	 AUTOMAX <small>PRO</small>	 AUTOMAX <small>PRO-M</small>	 AUTOMAX <small>ULTIMATE</small>
Automatic basic failure tests	✓	✓	✓	✓	✓
Elastic Modulus determination	✗	✗	✗	✓ *	✓ *
Displacement-controlled tests	✗	✗	✗	✓ *	✓ *
Steel tensile tests	✗	✗	✗	✓ *	✓ *
Smart device connectivity	✗	✓	✓	✓	✓
HMI	Monochrome graphic display	7" color touchscreen display	7" color touchscreen display	7" color touchscreen display	Included all-in-one PC
Channels	2 for load	3 for load	4 for load	2 for load + 2 for displacement or load + 2 for displacement	4 for load + 10 for strain/displacement
Frame selection	Manual	Manual	By PC / display	By PC / display	By PC
PC Control	✗	✓ OPTIONAL	✓ OPTIONAL	✓* OPTIONAL	✓ INCLUDED**

\* With suitable software/firmware package, dedicated frame and accessories.

\*\* Flexible arm for PC is optional.

	 WIZARD <b>AUTO</b>	 PILOT <b>PRO</b>	 AUTOMAX <b>PRO</b>	 AUTOMAX <b>PRO-M</b>	 AUTOMAX <b>ULTIMATE</b>
COMPRESSION ON CONCRETE ASTM C39 / EN 12390-3	✓	✓	✓	✓	✓
SPLITTING ON CYLINDERS ASTM C496 / EN 12390-6	✓	✓	✓	✓	✓
COMPRESSION ON CEMENT ASTM C109 / EN 196-1	✓	✓	✓	✓	✓
FLEXURE ON BEAMS ASTM C78 / C293 / EN 12390-5	✓	✓	✓	✓	✓
ACV TEST TO BS 812	✗	✓	✓	✓	✓
MOE and PR ASTM C469 / EN 12390-13	✗	✗	✗	✓	✓
FLEXURE ON FRC BEAMS ASTM C1609 / EN 14651	✗	✗	✗	✓	✓
FLEXURE ON FRC PANELS ASTM C1550 / ENERGY ABSORPTION ON SLABS EN 14488-5	✗	✗	✗	✓	✓
TENSILE ON REBARS ASTM A370 / EN 15630-1	✗	✗	✗	✓	✓

## CONTROLS Customer Care

As one of the longest established manufacturing companies in the world of Construction Materials Testing solutions, we are dedicated to supplying high quality, accurate, affordable, easy to use systems.

As a valued customer of CONTROLS, you will receive continuous, expert support and advice for your equipment. Furthermore, we can offer full installation and training in the correct operation of your CONTROLS equipment.

For support from our expert Customer Care Team, contact your local CONTROLS office / distributor or email [customercare@controls-group.com](mailto:customercare@controls-group.com).

For more information, please visit [www.controls-group.com](http://www.controls-group.com).

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## CONTROLS

### Italy (HEAD OFFICE)

t +39 02 92184 1

f +39 02 92103 333

e [sales@controls-group.com](mailto:sales@controls-group.com)

[www.controls-group.com](http://www.controls-group.com)

### France

[info-fr@controls-group.com](mailto:info-fr@controls-group.com)

### Mexico

[info-mx@controls-group.com](mailto:info-mx@controls-group.com)

### Poland

[info-pl@controls-group.com](mailto:info-pl@controls-group.com)

### UK

[info-uk@controls-group.com](mailto:info-uk@controls-group.com)

### USA

[info-usa@controls-group.com](mailto:info-usa@controls-group.com)