



Touch and Test.

LEAK TEST  
AND FLOW TEST  
EQUIPMENT

■ ■ ■ ■  
FORTEST

# Testing Technology. Together.

## Touch the partnership.

We don't sell products, but solutions built in collaboration with our customers. Our equipment is designed for a wide range of applications, in-process and post-process, to guarantee excellent performance even in the most difficult conditions. We develop abroad through networking with local companies.

## Touch the testing technology.

The innovative technologies on our leak testing equipment aim to obtain the most stable, precise and repetitive measurements currently on the market.

## Touch smart.

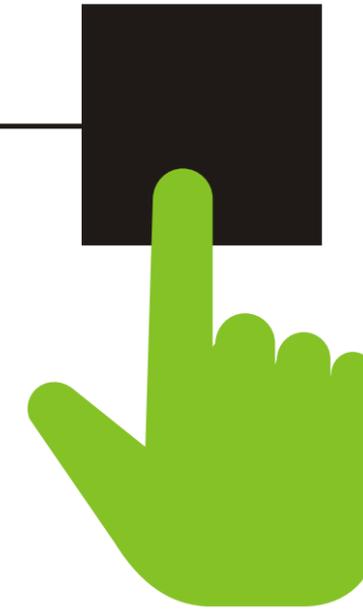
Our equipment are supported by the most modern IT systems, to always provide the best response to your test problems.

## Touch fast.

Testing has never been so fast thanks to the incredible pneumatic and measurement performance.

## Touch easy.

The extremely easy use gives our equipment that competitive edge, also thanks to the new intuitive touch screen keyboard, ensuring fast implementation and without any technical training. Install, use, test.



# Touch and Test.

Fortest designs and manufactures its leak testing and flow testing equipment with care. They are modern, fast, reliable and traceable.

The new "T" range brings leak testing to a whole new level. Not only are our equipment the most modern on the market, but our entire approach is innovative as we establish synergy with our clients to provide them with turnkey solutions designed around their needs.

### OUR SERVICES

- Free of vision equipment
- Test bench consultancy
- Component testing
- Pre-sales consultancy
- Technical support
- Periodic calibration
- System installation
- Legislative support
- Training courses



FORTEST



## The new T Series (a touch of innovation). Touch and Test.

The new T series came about through the natural evolution of the previous M series.

The new "ForTest MMI" video controller brought higher level human-machine interaction, thanks to the innovative capacitive panel in tempered glass around, 3.5", 6.2" and 7" colour displays.

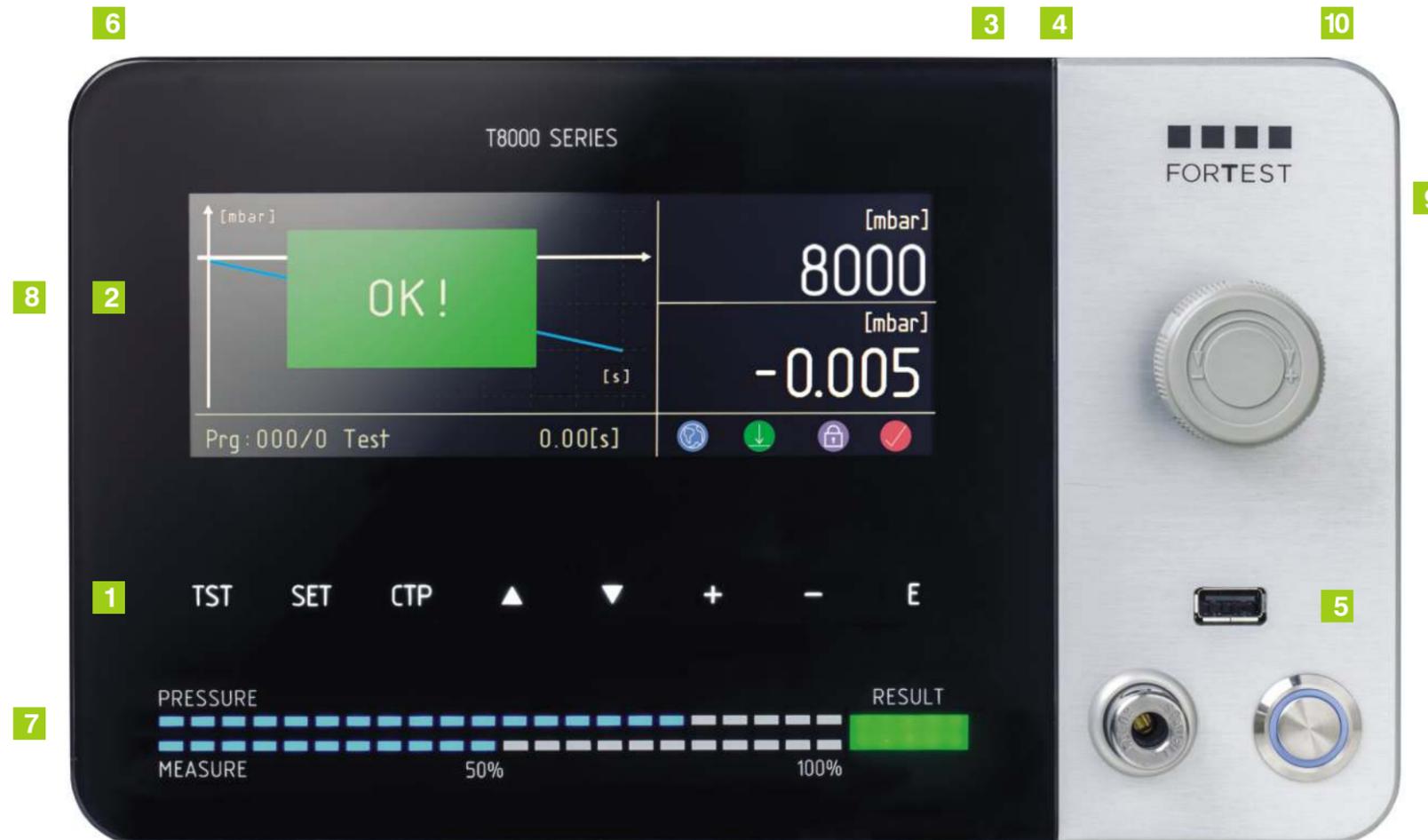
Parameter programming is much faster thanks to the new numerical keyboard integrated in the menu, and the big display makes viewing even clearer of the test cycle.

The main screen also enables interaction with shortcut functions, such as test program change, "smart" test archive menu and locking/unlocking using a password.

The test cycle was further accelerated thanks to processor and coprocessor interaction, maintaining the reliability that has always made ForTest unique.

# The new T Series (a touch of innovation).

- APPLICATIONS**
- Automotive
  - Medical
  - Oleodynamics
  - Pneumatics
  - Household appliances
  - Gas
  - Mechanical
  - Packaging
  - Heating
  - Alternative energies
  - Aerospace



**1** Capacitive touch screen keyboard in glass

**2** Big coloured display

**3** New measurement algorithms

**4** Completely redesigned electronics and firmware

**5** Front usb port to save tests, backup/restore programs and upgrade firmware

**6** Advanced connectivity (usb for direct connection to the PC, RS232, RS485, 24V digital signals, Ethernet)

**7** Easy use and programming

**8** Built and tested to last in all environments

**9** Powered Help me text

**10** ForTest and Modbus communication protocol

**(3)**  
years warranty

Testing Technology. Together.



# T Series.

## Leak test.

This is the most innovative and rich range of equipment for industrial leak testing, obtained by the combination of three different product categories (T6000, T8000 and T9000 series) and four different kinds of measurement: absolute pressure decay (Txx9x), differential pressure decay (Txx6x), compliance interception measurement (Txx8x) and continuous measurement of leak rates (Txx7x).

- Txx9x: Absolute pressure decay: this kind of measurement is based on the principle of «pressure decay». By pressurizing the part under test, the equipment detects a certain pressure drop.
- Txx6x: Differential pressure decay: this kind of equipment detects the presence of a leak by comparing the part under test with a master part, which is surely airtight.
- Txx8x: Compliance interception measurement: it allows to measure leak rates outside the part, which was previously put into an airtight bell.
- Txx7x: Continuous measurement of leak rates: this system is ideal for testing gas/electric household appliances since it enables continuous leak testing, allowing for the analysis or reparation of the part under test (e.g. kitchen gas stoves).

### Entry level leak test equipment.



- T6990: Entry level absolute pressure decay leak tester
- M6993: Low cost absolute pressure decay leak tester
- T6960: Entry level remote differential leak tester for small volumes
- Applications: Valves | Packaging | Medical | Mechanical | Hydraulics |

### Standard leak test equipment.



- T8990: Standard absolute pressure decay leak tester
- T8960: Standard differential pressure decay leak tester
- T8970: Standard continuous leak test equipment
- T8980: Standard compliance-interception leak tester
- T8890: Standard double-channel leak tester
- Applications: Automotive | Valves | Oleodynamic | Packaging | Medical | Mechanical | Gas | Pneumatics | Heating | Alternative Energies | Cylinders | Hydraulics | Household Appliances | Electronics |

### High Level leak test equipment.



- T9960: High level differential pressure decay leak tester
- T9980: High level compliance-interception leak tester
- Applications: Automotive | Valves | Oleodynamic | Packaging | Medical | Mechanical | Gas | Pneumatics | Nuclear | Heating | Alternative Energies | Aerospace | Hydraulics | Household Appliances | Electronics | Cylinders | Brake Calipers | Foundry |

## Flow test.

Our flow testers as well have taken advantages from the modularity of our new “T” series: thanks to four different kinds of measurement, our flow testers can meet any customer's requirement.

- Tx71x: continuous micro flow: this is particularly suitable for big leak rates measurement and for those tests where leak rate measurement is independent from the part volume (oleo-dynamics, packaging, motors).
- Tx72x: differential micro flow: it is a good alternative to absolute pressure decay leak testing. Especially useful for big volumes testing at low pressure (tanks, canisters, lighting, etc...).
- Tx73x: continuous flow: this FORTEST's classical flow measurement based on our historical measurement of mass flows and on the patents we registered. This range of testers boasts the most innovative systems for loss of charge elimination (openings, filters, etc...).
- Tx74x: RFO continuous flow: Real Flow Output is the exclusive FORTEST system (copied but never evened) for the automatic and real time adjustment of pressure according to loss of charge. This is the only solution available on market today to make flow tests at ultra stable pressures by variable and big flows (tractor cabins, panels, boxes, windows, chimneys).

### Digital flow calibrators.



- M2710 (with flow rates up to 0.2 l/min) and M2730 (with flow rates from 1 to 20 l/min) are the new “M series” portable digital calibrators by FORTEST. Enclosed in an anodised aluminium box provided of a shatter-proof Plexiglass front panel, we find brand-new mother board and mass flow sensor for the direct measurement of leakage. Supplied with a micrometer nozzle, it is aimed at simulating the desired leak rate, as to make the tester set up and verification easier.

- Applications: Industry | Metrology | Lab |

### Standard flow test equipment.



- T8710: Standard flow tester for micro flows
- T8720: Standard differential flow tester
- T8730: Standard continuous flow tester
- T8760: Differential mass leak tester
- Applications: Automotive | Valves | Oleodynamic | Packaging | Medical | Mechanical | Gas | Pneumatics | Heating | Alternative Energies | Cylinders | Hydraulics | Household Appliances | Electronics |

### High Level flow test equipment.



- T9710: High level micro flow tester
- T9720: High level differential flow tester
- T9730: High level continuous flow tester
- T9740: High level RFO continuous flow tester
- Applications: Automotive | Valves | Oleodynamic | Packaging | Medical | Mechanical | Gas | Pneumatics | Nuclear | Heating | Alternative Energies | Aerospace | Hydraulics | Household Appliances | Electronics | Cylinders | Brake Calipers | Foundry |

# Equipment configuration

Thanks to our revolutionary modular configuration technology, it will be possible to surf through the richest range of accessories as well as through the largest selection of scales available today on market, in order to create the ideal solution for any testing problem.

SERIES	TYPE	MEASUREMENT	PNEUMATICS	RELEASE	Technical features (see configuration table)	Type: 0=Calibrated Leak / 2=Portable / 4=Micro / 6=Entry level / 8=Standard / 9=High level																						
						Measurement: 2=Comparator / 3=Volume measurement / 7=Flow test / 8=Double-channel leak test / 9=Leak test																						
T	X	X	X	X	-	..	..	..	Pneumatics: 1=Continuous micro flow / 2=Differential micro flow / 3=Continuous flow / 4=RFO / 6=Differential pressure decay / 7=Continuous leak measurement / 8=Compliance interception measurement / 9=Absolute pressure decay																			
										Release: 0=Standard / 1=Modification request / 2=Existing modification / 3=Low cost series																		
Code	Maximum Pressure Scale (Bar)	Maximum Flow Scale (l/min)	Power supply voltage	Test Port hose fittings	Micro Pneumatic	Frontal fitting for calibrated leak	Ultra-Precise mech. regulator	Remote measurement	Electronic Regulator	E.V. autozero pressure	Pressure/under-pressure test	Pre-Filling	E.V. waiting for pressure	Double threshold for bad result	Analogical leak output	I/O Expansion	Bi-Manual	Ethernet	USB on	Wi-Fi connection	Radio remote control	Part volume measurement	Double pressure branch	Triple pressure branch				
T6990	-1...10	-	2	2...4	-	●	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-				
M6993	-1...10	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
T6960	-1...10	-	2	2...3	X	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-				
M4990	-1...10	-	2	3	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
M4890	-1...10	-	2	3	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
M4960	-1...10	-	2	3	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
T8990	-1...50	-	4...5	2...4	●	●	●	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
T8960	-1...10	-	4...5	2...4	●	●	●	●	●	X	-	●	●	●	●	●	●	●	●	●	●	●	●	●				
T8970	0...1	-	4...5	2...4	-	●	●	-	●	●	-	●	-	●	●	●	●	●	●	●	●	X	-	-				
T8980	-1...10	-	4...5	2...4	-	-	●	●	●	●	-	●	X	●	●	●	●	●	●	●	●	X	●	-				
T8890	-1...10	-	4...5	2...4	-	-	●	-	●	-	-	-	-	-	X	-	●	●	●	●	●	-	●	●				
T9960	-1...20	-	4...5	2...4	●	●	●	●	●	X	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
T9980	-1...200	-	4...5	2...4	-	-	●	●	●	●	●	●	X	●	●	●	●	●	●	●	●	X	●	●				
T8710	0...1	1	4...5	3...4	-	●	●	-	●	●	-	-	●	●	●	●	●	●	●	●	●	-	-	-				
T8720	0...0,5	0,02	4...5	3	-	●	●	-	●	●	-	-	●	●	●	●	●	●	●	●	●	-	-	-				
T8730	0...2	20	4...5	3...5	-	●	●	-	●	●	-	-	●	●	●	●	●	●	●	●	●	-	-	-				
T9710	0...15	1	4...5	3...4	-	●	●	-	●	●	-	-	●	●	●	●	●	●	●	●	●	-	-	-				
T9720	0...2	0,02	4...5	3	-	●	●	-	●	●	-	-	●	●	●	●	●	●	●	●	●	-	-	-				
T9730	0...8	200	4...5	3...6	-	●	●	-	●	●	-	-	●	●	●	●	●	●	●	●	●	-	-	-				
T9740	0...1	100	4...5	4...6	-	-	-	-	X	X	-	-	X	●	●	●	●	●	●	●	●	-	-	-				
M2710	0...0,1	0,2	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
M2730	0...1	20	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
T8760	0...10	0,3	4...5	3...5	-	●	●	-	●	●	-	-	●	●	●	●	●	●	●	●	●	-	-	-				
M0710	0...10	0,2	0	3-7...9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
T8260	0...1	-	4...5	4...6	-	-	●	●	●	●	-	-	●	●	●	●	●	●	●	●	●	-	-	-				
T8390	0...1	-	4...5	3...4	-	●	●	-	●	●	-	-	●	●	●	●	●	●	●	●	●	-	-	-				

**CAPTION**

X : standard  
 ● : available  
 - : not available

**Power supply voltage**  
 0: no power  
 1: Rechargeable Lithium Battery  
 2: 24 V DC  
 4: 110 V AC 50/60 Hz  
 5: 230 V AC 50/60 Hz

**Test Port fittings**  
 2: 4 x 2.7 mm pipe  
 3: 6 x 4 mm pipe  
 4: 8 x 6 mm pipe  
 5: 10 x 8 mm pipe  
 6: 12 x 10 mm pipe

7: Stubli® male  
 8: 1/8" GAS male  
 9: 1/4" GAS male

# Micro

M4000 is the new and revolutionary range of micro leak test equipment created for integrators and test benches manufacturers. It is available in 3 versions: single-channel absolute pressure decay leak tester, double-channel absolute decay leak tester and single-channel differential leak tester.

Micro range of leak testers has been designed to test small volumes, up to 100 cc, with ultra-fast test times. It is provided of DIN bar, but can also be used directly on the test station or installed on a panel. Scales are available from -1 to 10 bar. Operators can manage these products by 24 Vdc digital signals for PLC, USB port for PC connection. Once first set up has been completed, it works automatically, an external start pulse is only needed.



## Calibrated leak master



M0710 is the new range of certified ForTest leaks for the automatic verification of testing processes. This is a patented device. Operators need to check if their leak test systems are properly calibrated at any time; M0710 is the ideal instrument to make this verification. If the equipment detects the calibrated leak, then the tester is properly calibrated.

## Connectivity



M Series Manager is an application able to fully manage the operations of one or more M series equipment. It makes possible to setup testers and introduce test parameters by Pc station. It also allows to change test programs and to manage Start and Abort of all testers in its network. This software can display a graph representing real time and on-going tests and allows to save tests results in different formats such as: Access Database (.mdb) Excel database (.xls) and CSV (.csv). All ForTest devices can be connected to a variety of peripherals: bar code or Data Matrix readers, thermal printers or even Wi-Fi networks thanks to a proper suitable optional accessory. Our open-minded engineering team does not put any limit to customer's requirements, allowing to get complex systems for data tracking, batches management and test benches integration.



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