

# PROFILER

ADVANCED CONTROL VALVE DIAGNOSTICS

Developed for the end-user, making it one of the easiest and most powerful test systems on the market today.

Ruggedness and portability make it perfect for troubleshooting valves in-line and in harsh environments for valve performance optimization, giving field technicians the ability to repair inline and Process Engineers vital information to immediately improve loop efficiency.



1

## REAL TIME ANALYSIS

No more wasting time and money waiting for your test results to be analyzed by an outside source.

2

## DIGITAL POSITIONER CALIBRATION

While most digital positioners have diagnostic capabilities, those capabilities are limited to the positioner itself.

3

## OPTIONS

New Profiler Test Suite Windows 10 - 64 bit OS software release. Test accessories and additional test features are continually being added to the standard Profiler system.

### Panasonic TOUGHBOOK™ Options MODEL CF-33

8 lbs



12 Hour Battery

Touchscreen

Wireless

### MODEL CF-20

2 lbs



12 Hour Battery

Touchscreen

Wireless

# HARDWARE

## Cabling and USB Interface Box

Profiler uses a color coded cabling system for ease of use and simple setup. Each 6' cable length is associated with a sensor and USB interface box connection of that same color.



Cables are wired the same regardless of whether they are used for pressure or position. This gives our customers built in redundancy, if a cable were damaged or lost testing can still be completed.



Profiler's new interface box uses USB technology for data acquisition, improving accuracy (16 bit) with very little noise. Redesigned with built in redundancy, if a port was damaged the user could continue testing by simply changing the channel in the "Config" screen. Additional box connections have been added to accommodate new test accessories (automated seat leak box, limit switch test cables, laser bubble counting test accessory, etc).

## Pressure and Position Transducers

Profiler comes with 4 pressure Transducers. Operating pressure ranges 0 to 30 psi and 0 to 150 psi 4x for ranges 900 pig, supply voltage 8 to 30 VDC, <2 mA output 1 to 6 VDC (less than 2 mA), zero span +/- 0.1% FS/annum combined, non-linearity, hysteresis and repeatability +/- 0.25% FS BSL maximum. Each sensor is color coded for simple setup with cables and USB interface box. Fastest fittings are attached so the transducer can be inserted easily into 1/8" gauge ports.



Profiler comes standard with 4 position transducer. Mechanical life 5 million-shaft revolutions, min operating temperature -67 degrees to 257 degrees F (-55 degrees to 125 degrees C), resolutions infinite signal (16 bit DAQ card used), independent linearity error +/- 0.5%, max shock 100 g for 6 ms vibration 10 to 2000 Hz at 15 g. Each transducer is color coded for easy setup in "Config" screen. Two 6" transducers are provided for redundancy. 16" and 30" transducers are provided for testing long stroking valves. Each transducer can easily be strapped on the actuator or clamped in position for stable feedback on stems or shafts after the positions feedback.

# ATTACHING TO CONTROL VALVES

## Linear & Rotary

Profilers hardware attachment kit is small and lightweight, it can be attached to all major manufacturers control valves (diaphragm/piston or linear/rotary).



Profiler supports analog (4-20mA and 10-50mA) control valves and positioners, split ranging can also be calibrated and tested.

Positioners, boosters and control valves can be tuned through the calibration screen with digital readings or traditional pressure gauges based on user preference.

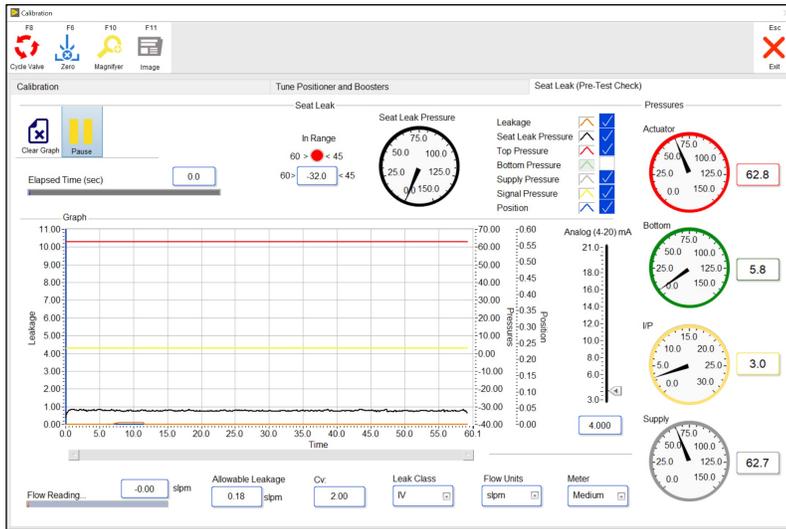
Reports are straightforward and easily generated in a pdf format and saved digitally providing the ability to immediately forward valuable information.

Pressure balance and spring type (no spring, standard, heavy duty, dual, broken or incorrect spring set) are easily determined by viewing the pressure curve.

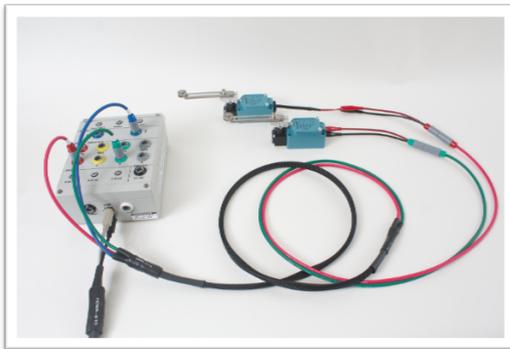


# Seat Leak Box, Limit Switch Cable Software & Connections

Profiler can seat leak any valve up to 200 slam. Our new hardware connects easily to our redesigned USB interface box. The box is small and lightweight which makes it very versatile for use in-house or in the field. Once a test has been completed it is saved to the database for viewing or printing.



Our new limit switch cable accessory easily attached to the USB interface box. Its design provides the ability to set up 2 limit switches at one time, set position or a mA signal change and Profilers software you no longer have to guess where it is set.



## Automated Seat Leak Box



Small, lightweight and portable it easily connects to Profilers USB interface box. This automated system has 3 mass flow meters; .5, 10 and 200 slpm and a 150 psi pressure sensor to read actual pressure while tests are being run.

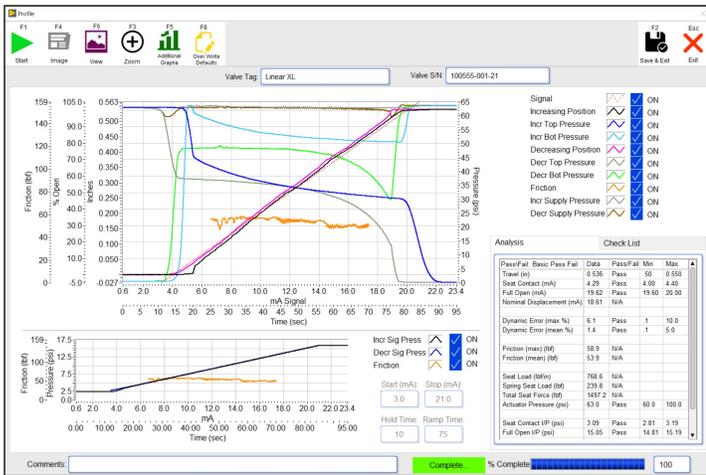


## Inputs/Outputs

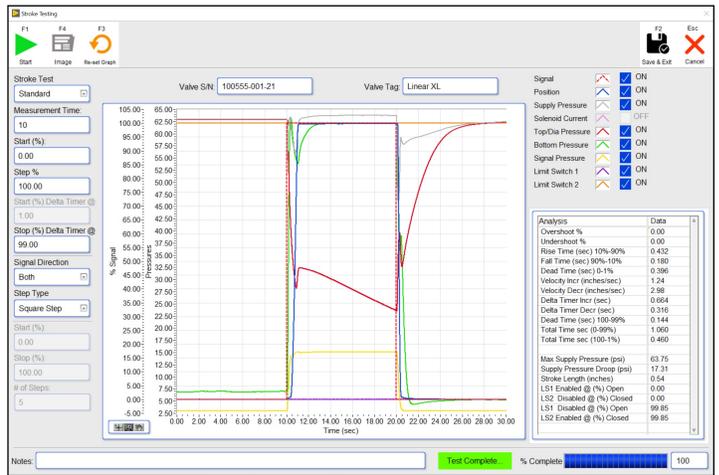
Setup is very simple with Profiler. A blind flange or bench is needed to perform seat leak tests.



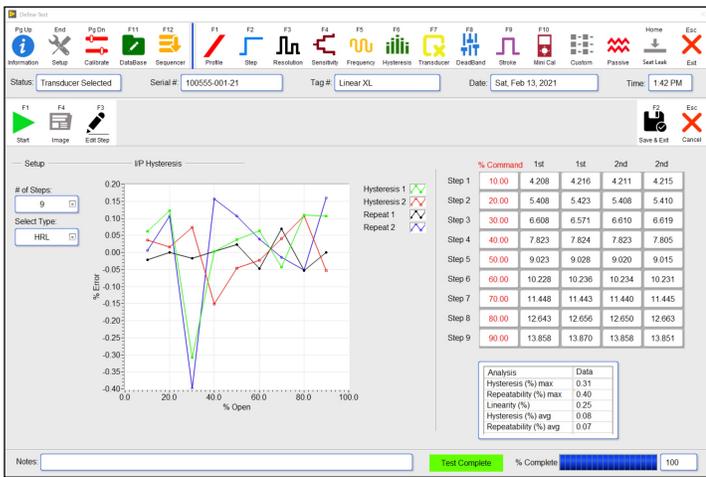
# TEST SCREEN EXAMPLES



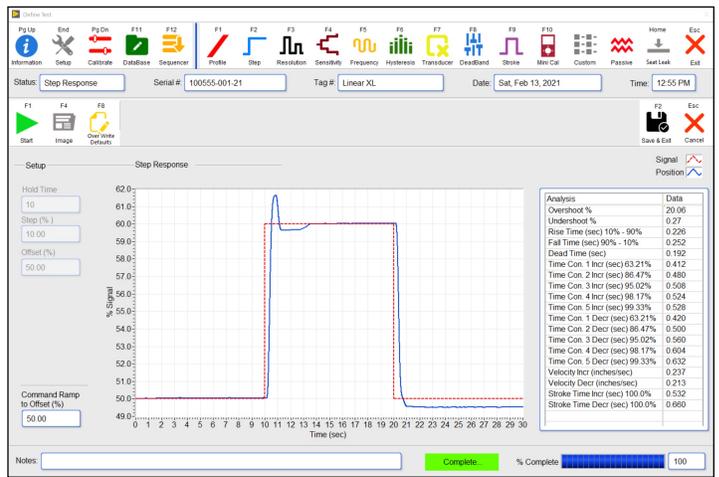
Profile



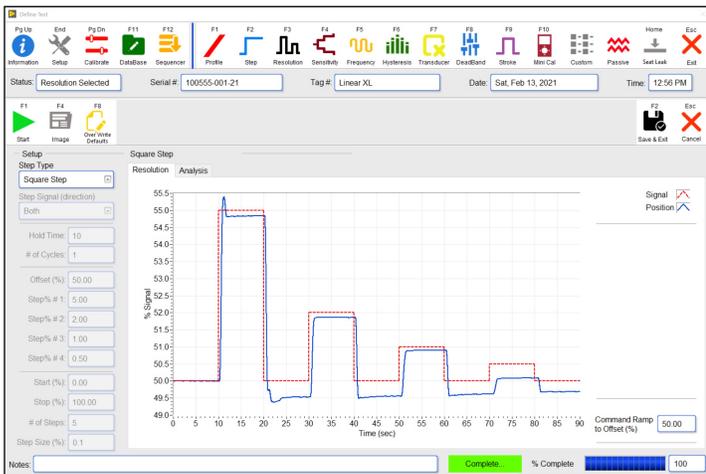
Stroke Speed



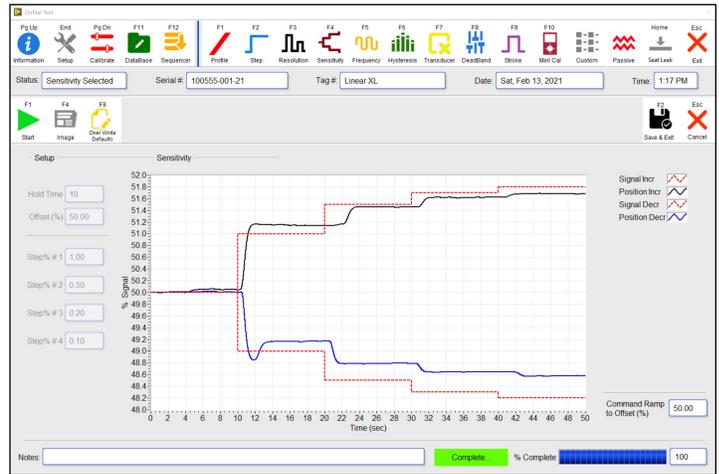
Hysteresis



Step Response



Resolution



Sensitivity

# PROFILER DATA BASE ProView

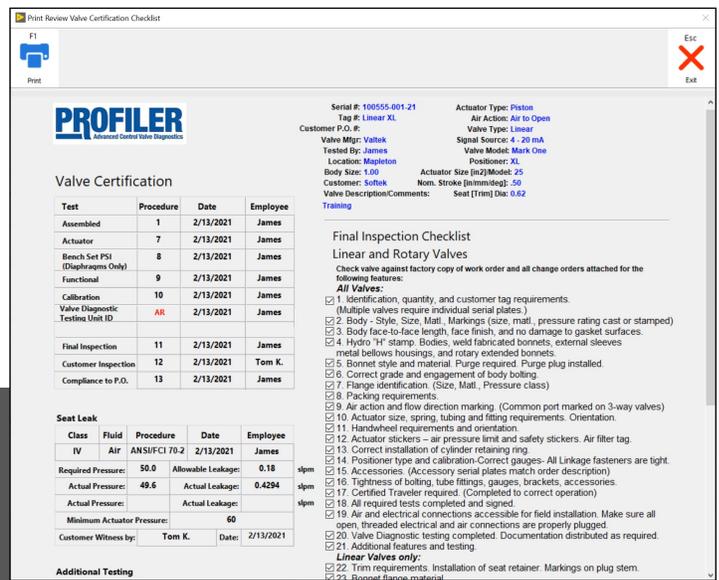
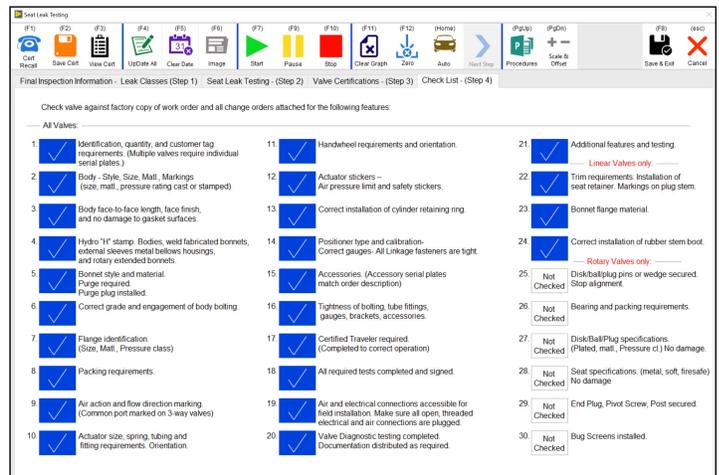
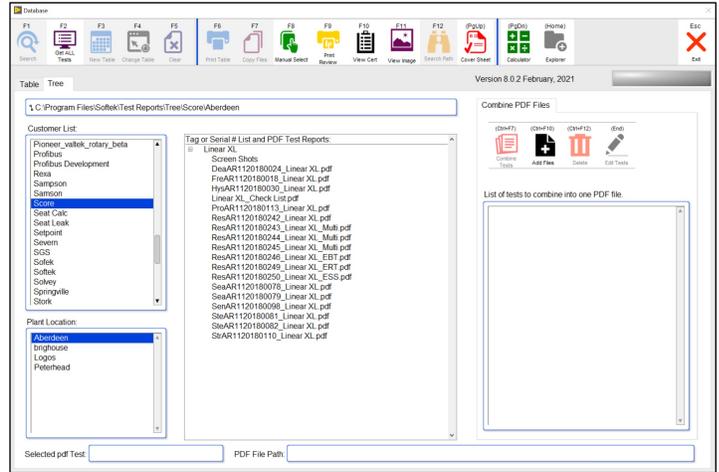
Tracking test data has never been easier. Profiler places all valve test data into one file and allows you to retrieve the data by searching up to 8 different fields at one time. Profiler also gives you the ability to easily create tables for tracking and organizing stored test data.

Our Zoom feature is used to check valve seat contact for problems. You can now detect wear or improper seating that can lead to leakage or premature seat failure before it occurs.

Profiler has a built in checklist for use during assembly and testing. This ensures that the user is following proper procedures, tests are then saved into the database with an accompanying printout.

Passive monitoring capabilities provide a comprehensive look at a valves performance. With up to 12 channels of data being saved to file, Profiler provides valuable information for valve performance optimization and process control improvements.

Each system comes with a *free* copy of ProView, this can also be downloaded from our website for a desktop version of the database. ProView gives you the ability to test and immediately share stored files or print and share test data with customers.



## UPDATES & CALIBRATIONS

Software upgrades and system calibration are provided annually. All calibration records are NIST traceable and maintained. Our calibration primary gauge records are available upon requests providing an unbroken chain of traceability records.

# PROFILER

ADVANCED CONTROL VALVE DIAGNOSTICS



Profiler  
(standard)

Profiler Mini  
(standard)



## Profiler Test Systems:

Profiler (standard)

Profiler Mini

Profiler Online

Profiler SRV

## Profiler (standard) Test Accessories:

Automated Seat Leak Box

Laser Bubble Counting Device

Limit Switch Testing Cable

Hydro Test Accessory

Acoustic Monitoring Device

Profibus Accessory



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