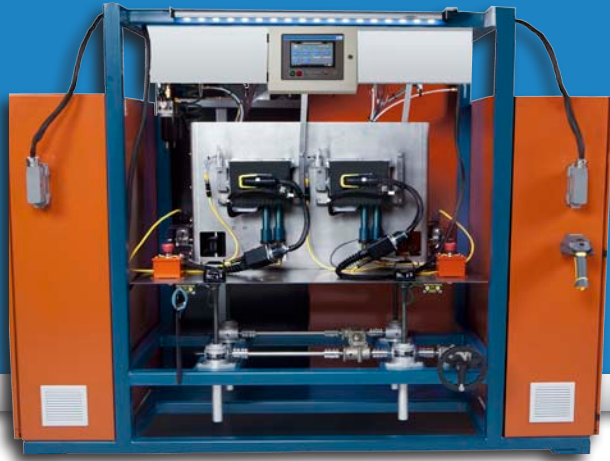**CTS**
CINCINNATI TEST SYSTEMS

SENTINEL
Blackbelt Pro™

Advanced
Multi-Part Test
Instrument for
Industrial and
Medical
Applications

Providing world-class leak test and assembly verification solutions to industries around the globe.

The Benchmark for ALL Multi-Port Instruments to Follow...

Blackbelt Pro Benchtop Instrument for Medical Industry Applications

Blackbelt Pro Wall Mount Instrument for Industrial Applications

The Sentinel Blackbelt Pro™ is our Next Generation of multi-test, multi-port, multi-channel test instrumentation. It manages and simultaneously executes 4 part tests, at different stations, and all under the control of one Blackbelt Pro instrument.
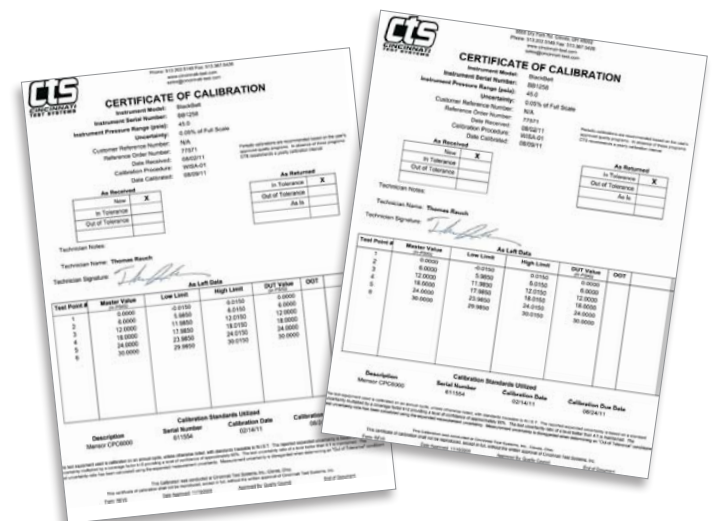
The Blackbelt Pro sets the bar for productivity, flexibility, and communication. It provides leak, flow, pressure, and vacuum testing in one instrument with simultaneous or sequential test capabilities.

Spotlight Features

- Available in Benchtop and Wall Mount units
- Up to 4 test ports
- 1, 2, 3, or 4 independent tests
- Synchronous and asynchronous testing
- Sequential and conditional testing
- 999 programs
- 200,000 linked tests (50 tests/part)
- 1 million test results storage onboard
- SmartKey™ technology for 21CFR Part 11 compliance
- Digital I/O: 18 inputs /18 outputs with programmable Tooling Control
- 40 million cycle valve manifolds

Certified Performance

Cincinnati Test Systems supplies each standard instrument with a N.I.S.T. traceable Certificate of Calibration identifying multiple pressure and flow measurement points for its full range of operation.

Cincinnati Tests Systems is the unmatched leader in test solutions. Blackbelt Pro instrument introduces our newest patented technologies not available from any other manufacturers. Our reputation is supported by our customers, over 30-years of proven leak test experience, and over 25,000 applications running the toughest and most unique test applications installed around the globe.

SENTINEL

Blackbelt Pro™

Pressure and Vacuum Leak and Flow Testing in One Integrated Unit

Wall Mount Unit

The Blackbelt Pro Wall Mount is our newest industrial test instrument designed for pressure and vacuum leak and flow testing. The small footprint cabinet provides room for multi-station hardware, wiring, and connections designed for easy installation and maintenance.

Easy access manual pressure regulators are located on the bottom of each cabinet for its 1 to 4 independent test ports. As option, the instrument can be equipped with electronic pressure regulators for programmable pressure control.
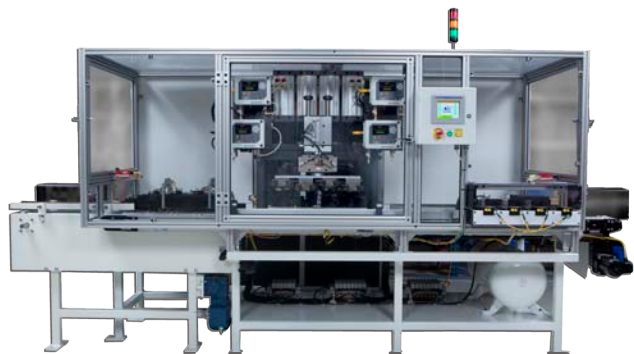
The communications panel for the Wall Mount instrument is located on the left side of the instrument and provides connectivity to power, I/O, RS232, Ethernet, and USB.

Instrument Highlights

- Leak, flow, pressure, and vacuum testing all in one instrument

- Small footprint multi-station instrument; 16.25"W x 13.5"H x 10"D

- Integrated controls and pneumatics

- Concurrent , sequential, and conditional testing

- Test ports and pressure regulators are located on the bottom of the cabinet for easy access

- Standard ranges: -14.5 psig, 0.2-2 psig, 1-30 psig, 1-100 psig, 2-200 psig, 4-400 psig, and 5-500 psig

- Replacement control for our legacy M24 instrument

- Complimentary control to the Sentinel I28

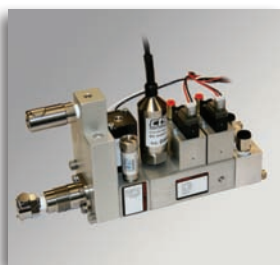# Independent Four Port Integrated Testing

Benchtop Unit

The Benchtop unit is an advanced small packaged design integrated with controls and pneumatics to simultaneously manage and execute up to 4 independent tests; synchronously or asynchronously. The Benchtop is supplied with the test port connections on the front of the unit for easy connection.

Pressure regulators are located on the rear of the unit for manual adjustment, optionally electronic pressure regulators are available. As standard, the Blackbelt Pro Benchtop is equipped with 1, 2, 3, or 4 1/8-inch FNPT test port connections.

The Benchtop's communications panel is located on the rear of the enclosure for connectivity to power, I/O, RS232, Ethernet, USB, and up to 12 pneumatic actuation circuits for sealing actuation.

Instrument Highlights

- Leak, flow, pressure, and vacuum testing all in one instrument

- Small footprint multi-station instrument; 11"W x 12.5"H x 17"D

- Integrated controls and pneumatics

- Test ports on the front with LED operator lights 1, 2, 3, or 4 independent test ports

- Concurrent, sequential, and conditional testing

- Pressure regulators and electrical connections are located on the rear of the unit

- Standard ranges: -14.5 psig, 0.2-2 psig, 1-30 psig, 1-100 psig, 2-200 psig, 4-400 psig, and 5-500 psig

- Complimentary control to the Sentinel Blackbelt, providing enhancements meeting medical industry requirements

CTS control valve manifolds rated for 40 million cycle life

Sentinel Blackbelt®

The Sentinel Blackbelt benchtop instrument is the sister control to the new Blackbelt Pro. It provides up to 4 port sequential part testing in a single instrument. Sentinel instruments are factory calibrated with N.I.S.T. traceable devices and receive a Certificate of Calibration for pressure and flow.

Traditional CTS World-class Features

- Instrument self-test
- Quik test
- Environmental drift control
- Absolute pressure transducers
- Functional test types

- Choice of manifold flow
- Pressure correction
- Calibration leak masters
- Transducer calibration
- Pneumatic inlet connection

- Test port connection fittings
- External leak test port
- Auto calibration to leak std.
- Electronic pressure regulators
- Global language readiness

Blackbelt Pro...
the Next Generation of
Multi-Part Test Instruments

Testing Options

Pressure / Vacuum Testing Types

- Decay with leak standard
- Decay rate of change
- Decay over time
- Occlusion (blockage)
- Pressure verify
- Mass flow
- Mass flow - continuous
- Mass flow with leak standard

Flexible Communications

- Digital I/O: 18 inputs and 18 outputs with Tooling Control
- Program selection: Touchscreen, digital I/O, or RS232 download
- System backup and cloning
- USB - 3 ports
- RS232 - 2 ports
- Ethernet/Telnet
- Email production reporting
- Part identification by bar code

Operator Interface

- Large 9 inch touch screen hi-res 800 x 480 LCD display with graphics to display charts and custom XY graphing capability
- Touchscreen technology
- Menu selection
- Two operation modes: Basic and Advanced
- Language neutral interface
- Selectable languages: English, Spanish, Chinese, Korean, and Portuguese
- Data security:
  - Multi-level password access
  - SmartKey technology

Optional SmartKey™

Providing world-class leak test and assembly verification solutions to industries around the globe.

Other Sentinel Test Instruments and CTS Products

Tracermate CS
The Sentinel TracerMate CS is a precision benchtop or wall mount Tracer Gas, Evacuate and Charge instrument designed for maximum performance and minimal space.

C20WE
The Sentinel C20 World Edition is a low cost, high-performance, pressure decay leak test instrument that integrates easily into production lines for many applications.

I28
The Sentinel I28 is the most advanced multi-function test instrument on the market. The I28 features a standard valve manifold design tested with over 40,000,000 cycles.

C28WE and C28DP
The Sentinel C28 World Edition is designed with additional options, I/O capabilities, and test parameters beyond the C20WE. The C28-DP provides differential pressure decay testing up to 200 psig.

Blackbelt Benchtop
The Sentinel Blackbelt is designed to medical industry standards, providing up to 4 test port, sequential testing, and configurable with a broad range of pressure and vacuum tests.

Specialized Instrumentation
For those special application, CTS offers custom test solutions with capabilities exceeding standard instruments. Call the CTS Products Group to discuss your special testing needs.

CTS Connect®

CTS offers a standard line of pneumatic connectors, manual connectors, and luer connectors, as well as custom seals. Our line of connectors and custom seals are designed for ease of use, longevity, and reilability.

Corporate Office
Cincinnati Test Systems
10100 Progress Way
Harrison, OH 45030
(513) 367-6699
Fax: (513) 367-5426
www.cincinnati-test.com

China
Cincinnati Test Systems
Dongfang Road 3601
Harvest Industrial Park No. 7 Building
Room 403
Pudong, Shanghai, China 200125
+86 +21 58366290
Fax: 96-21-58366290

Korea
Cincinnati Test Systems Korea Inc.
104-1110, Sk Ventium
#522 Dangjeong-d
Gunpo-si, Gyunggi-do, 435-776 Korea
82-707-7501-7743
Fax: 82-31-624-4743

Scan to view our web site

TASi GROUP

Printed in U.S.A.