



# SENTINEL Blackbelt™

Precision Benchtop  
Leak and Flow Test  
Instrument Designed for  
Maximum Performance  
and Minimal Space.



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

# SENTINEL Blackbelt™

**Cincinnati Test Systems is a world leader in the design and manufacture of standard and custom test solutions.**

The Sentinel Blackbelt utilizes pressure and/or vacuum for precision testing. The benchtop design conducts testing with advanced algorithms derived from over 30 years of leak test experience to produce fast and accurate results in minimal space.

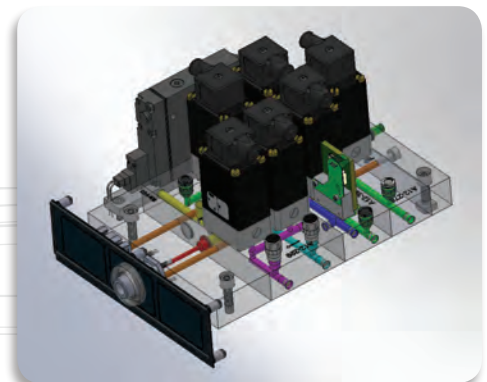


## Flexible Design

The Sentinel Blackbelt instrument offers many testing capabilities in a compact, benchtop design. The instrument can be ordered with multiple test options; the test options may operate as independently conducted tests or as a complete testing sequence. The Blackbelt may be ordered with one, two, three, or four test ports.

## Modular Manifold Design

The Blackbelt manifold is specially engineered for flexibility in a small footprint. Its modular design allows for future functionality changes. The machining process to manufacture each manifold supplies precise replication of internal volumes (critical in pressure loss over time tests). Valves matched with the manifold supplies millions of worry free cycles.



## 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.



**CERTIFICATE OF CALIBRATION**

Instrument Model: 881258  
Instrument Serial Number: 881258  
Instrument Pressure Range (psia): 45.3  
Customer Reference Number: 77371  
Reference Date Number: 080211  
Calibration Procedure: 080211  
Date Calibrated: 080211

As Received: ☒ New ☒ X  
In Tolerance ☒ Out of Tolerance ☒ X

Technician Name: Thomas Rowch  
Technician Signature: [Signature]

Test Point #	Master Value	Low Limit	High Limit
1	0.0000	-0.0150	0.0150
2	6.0000	5.9850	6.0150
3	12.0000	11.9850	12.0150
4	18.0000	17.9850	18.0150
5	24.0000	23.9850	24.0150
6	30.0000	29.9850	30.0150

Description: Master CPG000  
Serial Number: 811004

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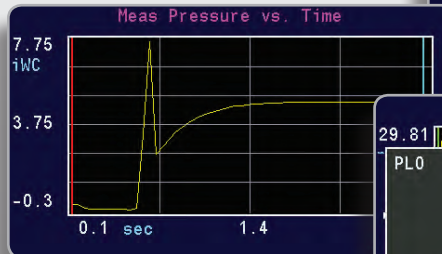
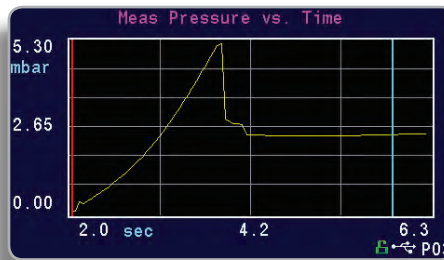
Description: Master CPG000  
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## Testing Options

Pressure and/or Vacuum Testing Types

- Calibrated Pressure Decay
- Pressure Decay
- Rate of Pressure Loss
- Occlusion/Blockage
- Burst
- Proof
- Test to Event
- Mass Flow
- Controlled Flow



Custom Blackbelt installation

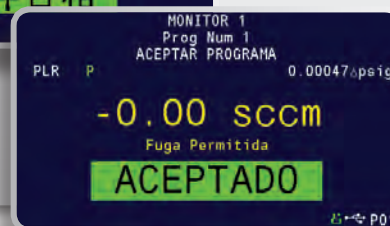
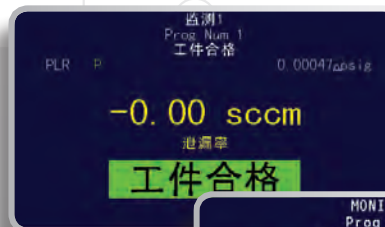


## Performance Features

- Manually or electronically set regulators
- Sequential testing
- Self Test
- Patented Auto Set-up
- Digital Pressure Correction
- Onboard data storage for 12,000 results
- Built-in powered digital Input & Output signals
- Adjustable Audible Alarm
- Available with an Internal Vacuum Generator
- Program Calibration utilizing an optional internal or external NIST Leak Standard

## Communication Capabilities

- Ethernet/Telnet communication
- RS232 serial connection
- Bar code upload
- Download, backup, and data storage via USB



A simple menu selection allows instant changing between languages; English, Spanish, Chinese, Korean, or Portuguese.

## Fast, Friendly Service and Support

### No Charge Phone Support

Call (513) 202-5108 weekdays 8am - 5pm EST.

Call (513) 202-5174 weekday evenings, weekends, holidays, and after hour emergencies, 5pm - 8am EST.

CTS can also schedule on-site service, start-up, installation, training, and troubleshooting.



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## 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 those of the C20WE. The C28-DP is supplied with differential pressure decay testing for test pressures up to 200 psig.



### Specialized Instrumentation

The Sentinel Blackbelt's testing capabilities are expandable beyond a standard package. 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 reliability.



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