# sentinel Blackbeit

# Precision Leak Test Instrument

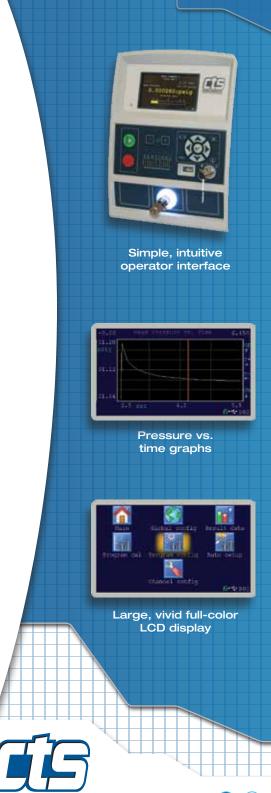


providing world-class leak test and assembly verification solutions



Easy To Use Patented Auto Setup Auto Calibration RS232, USB & Ethernet Vivid Color Graphic Display

#### : Blackbelt Compact Leak Test Instrument



The Blackbelt is a precision benchtop leak test instrument designed for maximum performance and minimal space requirements. Cincinnati Test Systems' Blackbelt instrument utilizes advanced algorithms derived from over 30 years of proven leak test experience to produce the fast and accurate results required by the most demanding customers.

#### **Advanced Standard Features**

Configurable for the most common leak test applications

- Pressure or vacuum decay (leak rate with embedded leak standard)
- Pressure or vacuum change
- Pressure or vacuum rate of change
- Pressure or vacuum occlusion (blockage)
- Pressure or vacuum proof test

Powerful 32-bit processor & 24-bit A/D converter

- Exceptionally fast, high-resolution test processing
- Data resolution to 0.00001% of transducer full scale

Flexible communication formats

- EthernetUSB
- RS232
- Large full-color LCD display with graphing capability
- User-friendly menus
- Vivid pressure vs. time graphs
- Patented Auto Setup feature for easy programming
- One-touch teach
- Can handle up to 99 programs (linkable)
- Auto calibration

  Ensures accurate results
- Easy operation

**Environmental drift correction** 

- Adapts to changing conditions, including temperature
- Quik test
- Reduces test time
- · Analyzes test results in real time
- Last 5,000 tests stored in on-board memory, expandable through USB port
- SPC data tracking for part traceability
- **Optional electronic regulation**
- High precision pressure control
- Allows multiple pressure settings for successive tests
- Self test functions
- Internal leak check
- Program calibration verification
- Transducer calibration
- Absolute pressure transducer
- Absolute transducers are not influenced by environmental conditions.
- **Compact design** 
  - 11.25" high x 9" wide x 15" deep
- standard.



#### : Big Performance in a Small Package



Auto Calibration routine tests master production part with internal calibrated leak standard to automatically establish the pressure-loss-over-time (or flow) to leak rate relationship for the part.





# User-friendly interface and feedback.

Simplified user interface and vivid screen and test port light ring feedback provides the operator with unmistakable test result feedback.

Poka-yoke verification of rejected parts, failed parts are locked in fixture.

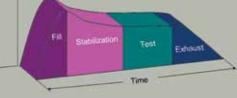


Press

Optional external leak standard port

# Unique, time-saving Auto Setup makes setup a snap.

The patented Blackbelt Auto Setup feature makes program set up quick and easy. Just connect your part and push the Auto Setup button... the Blackbelt does the rest. It requests basic test pressure and leak rate information. It tests the part to analyze its characteristics and optimize the test cycle for the best resolution and test repeatability. This Typical pressure decay test cycle



evaluation determines the pre-fill, fill, stabilization, test and exhaust timing that best suits the part within the desired total cycle time.

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### : technical services



#### Training

CTS has a dedicated training department to meet your company's training needs. Training classes are offered at regional locations for CTS standard products. CTS custom and standard products training can also be scheduled at your site, or at CTS' main facility.



#### **Application Lab Test**

Cincinnati Test Systems offers application and test assistance by our experienced laboratory staff. Lab capabilities include leak testing, function testing, press force monitor testing and data acquisition profiling. Testing customer part samples ensures that our instruments will meet the customer's unique test requirements. Test results are communicated to the customer in a professional test report.



#### On-Site Service

CTS offers expert on-site service. Trained specialists can troubleshoot equipment problems and offer suggestions on improving your daily leak test operations. Give us a call and see what we can do to reduce your downtime.



A TASI Group Company

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## : Sentinel<sup>™</sup> leak test instruments and accessories



#### Sentinel I-24

The Sentinel I-24 is the most technologically advanced single-station leak test instrument configurable for a complete range of pressure and mass flow test types.



#### Sentinel M-24 The Sentinel M-24 is our

advanced pressure decay leak test instrument, featuring expanded capabilities control of up to four independent stations.

#### Sentinel C-28

The Sentinel C-28 offers an unbeatable combination of advanced features, graphic interface and value in a compact, single-station package.



#### Sentinel C-20

The Sentinel C-20 is an economical, highperformance, quality pressure decay leak detection instrument with advanced standard features.





#### CTS Connect<sup>™</sup> Air Actuated & Manual Seal Connectors

CTS offers a complete range of sealing connectors for virtually every part sealing requirement, including specialized medical luer-type connectors.



#### Leak Standards

Cincinnati Test Systems Standards Lab produces the highest quality leak standards in the world. The lab follows strict calibration procedures and is accredited by A2LA to the ISO 17025 standard. Calibration certificates issued are traceable to NIST. Flow and leak standards are sized for each application to specific flow and pressure specifications.