



### The SMARTSTATION VD-Series (VD and VDC) VACUUM DECAY LEAK DETECTION SYSTEMS

The **SMARTSTATION VD** employs the 'Vacuum Decay' method for leak detection. The system is PC controlled with a front panel mounted flat display (touch screen optional) and keyboard/mouse arrangement which stores conveniently beneath the cabinet.

The **SMARTSTATION VD** offers Vacuum Decay Testing with fine control over system operating parameters (sequence times), a status screen that shows test progress and prompts the operator as needed, a System Schematic screen that allows test tracking and control, and a real time plot of Pressure vs Time.

The **SMARTSTATION VD** uses a Certified Reference Volume to accurately calculate the volume of the part under test. The system is then able to use the calculated part volume to accurately measure leak rates in terms of atm-cc/sec.

VTI's attention to detail insures optimum performance of valves, pumps and applies the correct filtration needed for continuous operation on the production line. **SMARTSTATION** products also allow for product integration into the 'test network' with sequential test interlocking, or the 'Plant Management System' with product bar code scanning, test result registration and product tracking.



#### Touch Screen:



*This option greatly simplifies system set-up and operation without the need for a separate keyboard and mouse (which are supplied with the unit).*

*A simple operator window provides all the controls needed for daily operation.*

#### Features of the VD-Series Models:

- **INDUSTRIAL CONSTRUCTION:** For continuous operation in the manufacturing environment.
- **WIDE CHOICE OF OPTIONS:** Configure the PD Series for your specific test needs with a wide range of pressure, flow and port options.
- **TEST CYCLE OPTIMIZATION:** Allows 'Supervisor' customization of the test to the task(s) required.
- **SIMPLE TO OPERATE:** Minimal user training, single button operation with on screen operator prompts.
- **ACCESSIBLE DESIGN:** Allows easy servicing /scheduled maintenance for maximum 'up-time'.



**VD -Series Leak Detectors**

Specifications (All VD Series):

- **SYSTEM CONTROL:** PC Data collection and control.
  - **OPERATOR INTERFACE:** PC, Panel Display, Keyboard, Bar Code Scanner.
  - **PRESSURE TRANSDUCERS:** Two absolute capacitance manometer pressure sensors, with pressure ranges of 1 Torr and 1000 Torr, with 0.12% and 0.25% accuracy of reading respectively.
  - **VALVES:** Pneumatically controlled bellows sealed valves - commensurate with Pressure range.
  - **EVACUATION PUMP:** 3 CFM oil-less vacuum mechanical pump with 9 Torr ultimate pressure capability.
  - **CERTIFIED REFERENCE VOLUME:** Approximately equal to manifold plus part, certified to an accuracy of less than +/- 5%.
  - **TEMPERATURE PROBE:** RTD with accuracy of less than +/- 1C of reading from -5 to 45C
  - **DATA-LOGGING SOFTWARE:** the PC, allows product serial numbers and test results to be logged along with operator information and date/time stamp. (Talk to VTI about integration of this product with your Plant Wide Information Management System).
- UTILITIES:** Dry compressed Air for pneumatic control, 115 VAC 50/60Hz (15A) – contact VTI for other voltages.

**ORDERING INFORMATION**

When ordering or requesting a quotation, please provide the Part Number and confirm the Flow Regime requested.

**PART NUMBER BUILD-UP**

The VD-Series Part Numbers are constructed as follows:

**SMST-VD(A)-PC(T)-VVV-YYY-ZZZ-02**

where **VD** = the model (*VD or VDC*) required,  
 where **(A)** = the number of ports (*Currently 1*) required,  
 where **PC** = indicates PC control (std) and adding a **(T)** here selects the touch screen option,  
 where **VVV** = the code for the valves required,  
 where **YYY** = code for high pressure range sensor,  
 and **ZZZ** = the code for the low pressure sensor.  
 all as listed in the table to the right.

<b><u>ORDER CODES APPLICABLE:</u></b>	
<b>Please contact us for other fitting requirements.</b>	
<b>VVV Code:</b>	<b>Valve Type:</b>
41C	Regular Flow / ¼" Valve
81C	High Flow / ½" Valve
<b>YYY Code:</b>	<b>High Pressure Sensor:</b>
01K	1000 Torr Baratron
10K	10,000 Torr Baratron
<b>ZZZ Code:</b>	<b>Low Pressure Sensor:</b>
001	1 Torr Baratron
010	10 Torr Baratron
100	100 Torr Baratron

**MODEL OPTIONS AVAILABLE and EXAMPLE PART NUMBERS**

<i>Model</i> (VD, VDC)	<i>Ports</i> (1) (A)	<i>Touch</i> <i>Screen</i> (T)	<i>Flow</i> <i>Regime</i> (VVV)	<i>High Pres'</i> <i>Sensor</i> (YYY)	<i>Low Pres'</i> <i>Sensor</i> (ZZZ)	<i>Example Part</i> <i>Number</i>
SMST-VD	1	No	Regular	1000Torr	1Torr	SMST-VD1-PC-41C-01K-001-02
SMST-VD	1	Yes	Regular	10000Torr	10Torr	SMST-VD1-PCT-41C-10K-010-02
SMST-VD	1	Yes	High	1000Torr	100Torr	SMST-VD1-PCT-81C-01K-100-02
SMST-VDC	1	Yes	High	10000Torr	10Torr	SMST-VDC1-PCT-81C-10K-010-02

VACUUM TECHNOLOGY INCORPORATED Oak Ridge, Tennessee USA

Toll-Free: 800-704-4774

Fax: 865-481-3788

sales@vacuumtechnology.com

www.vacuumtechnology.com