




VPAC II LEAK CALCULATION Total Loss: **\$9,899,800**

LOCATION:

Pressure Difference	Inlet Size	Valve Type	Seat Type	E
PSI	Bar	Ins NB	Type	
27	1.8	27 Ball	Hard	LIQ
99	68.0	33 Ball	Soft	LIQ
118	8.0	9 Other	Hard	LIQ
45	3.1	15 Other	Hard	GAS
77	5.2	30 Ball	Hard	LIQ
65	4.4	13 Ball	Hard	GAS
1234	83.9	11 Ball	Soft	LIQ
1777	120.9	26 Ball	Soft	LIQ
54	3.7	11 Ball	Soft	LIQ
1112	75.6	8 Ball	Hard	GAS



Loss	Cost Per Ton
ons/yr	\$
2.3	\$550.00
0.4	\$6.50
0.2	\$122.00
231.7	\$420.00
114.3	\$420.00
39.4	\$420.00
0.1	\$420.00
0.5	\$420.00
0.3	\$420.00
0.4	\$420.00

VPAC™ II | Acoustic Leak Detection & Quantification for Through Valve Leakage



For over 20 years, the VPAC™ has been the industry standard for through-valve leak detection and quantification. MISTRAS/Physical Acoustics has dedicated the last several years to improving the electronics and software of the VPAC.

The VPAC™ II is available as an intrinsically safe or non intrinsically safe design. The digital AE leak detector includes several improvements that are now possible with new technological advancements.

The user interface is simple and intuitive, and the unit retains all settings even when powered down. The instrument is powered by four AA Nickel Metal Hydride batteries which will last several weeks in typical use. Battery replacement is quick and easy, so downtime is minimized.

CAPABILITIES

The VPAC™ II contains all the features you need to determine if valves are leaking and an

estimation of the leak rate. The features of the VPAC II™ include:

- Low noise electronics to achieve the required dynamic range valve monitoring.
- Storing a reading, as well as an upstream and downstream reading, for up to 100 valves at a time.
- Loading a testing route complete with valve names and physical properties from VPACwin™.
- Leak rate estimations right on the unit itself, assuming valve properties are uploaded.
- Transferring all stored data to VPACwin™ via the Bluetooth interface



See the Video

Visit

www.mistrasgroup.com/VPACII

VPAC™ II FEATURES

On unit:

- Large Custom LCD Display w/ backlight
- Dual Frequency range selection
- Accepts D9203-IS, DS241-IS or VS9203 type sensors
- User replaceable AA batteries
- Small rugged ergonomic package
- Simple, intuitive user interface via a 3x3 large button keypad
- Headset-enabled

VPACwin™ software:

- With few simple mouse clicks, you can connect to your VPAC II™ via Bluetooth and transfer data to and from the unit.
- Automatically loads and formats all data transferred from VPAC™ into user-friendly spreadsheet.
- Leak rates and total monetary loss per valve per year are calculated.
- Route Management features enable the user to load a specific set of valves to be tested onto the unit.
- Entire databases of valves can be created and saved for future use.
- Saved results over time can be used for trending purposes.
- Save, load, print, & modify values in leak rate calculation spreadsheets.
- Firmware upgrades, when available, supported over a Bluetooth interface.

VPAC II™



Your VPAC™ II package includes the following:

- The VPAC™ II unit itself
- D9203-IS sensor (VPAC sensor)
- VS9203 sensor (Valve-Squeak sensor with built in waveguide)
- Wave guide for the D9203-IS sensor
- Carrying case
- Bluetooth USB Mini Adapter
- Four AA batteries (these may be pre-installed)
- User Manual (printed or on CD)
- VPACwin™ software program (on CD)
- The VPAC™ II Optional Kit as above, except:
- TWO (2) D9203-IS sensors (VPAC sensor)
- (1) 6" wave guide for the D9203-IS sensor
- VPACwin™ calculations to include SCFH product loss calculation

VPAC™ II Specifications:

Size: (LxWxH) 7" x 4.75" x 1.4"
Weight:..... 1 lb.
Power Source:..... 4 – AA batteries
Battery Life:..... > 25 days of typical use
High Pass Filters:..... 3rd Order Passive Filters at 20 or 100 kHz
Low Pass Filters: 3rd Order Passive Filters at 60 or 600 kHz
Preamplifier Gain:..... 20 dB
Auto-Ranging Amplification Gain:..... 1 to 55 dB
Total Gain:..... 21 to 75 dB
Dynamic range: > 85 dBAE
Noise: < 14 dBAE /sensor (100 - 600 kHz)
LCD: Transflective LCD on Glass
Alphanumeric LCD: . 7 character 14- segment, 0.5" high
LCD Bar Graph: 20 segment, 0.25" high
Bar Graph Mode: 0-20 dB auto-range in 1 dB steps
Backlight: 6 blue LEDs with diffuser
Wireless Interface Type: Bluetooth Class B
Wireless Interface Range: 50ft
Wireless Interface Data Rate: 38400 baud
Operating Temperature: -15°-158° F (-20°-55° C)
Storage Temperature: -40° - 185° F (-40° - 85°C)
Ingress Protection:..... IP54

Certifications:..... CE, EN 1000-4-2 ESD, EN 1000-4-3 RFI, EN 1000-4-4 EFT, EN 55011 Emissions, EN 61010 Safety

Specifications for Sensors:

D9203-IS

Size: 0.9" x 0.8"
Temperature: -40° - 70° C
Frequency Response: 100 - 600 kHz

D9241-IS

Size: 0.9" x 0.8"
Temperature: -40° - 70° C
Frequency Response: 20 - 60 kHz

VS9203

Size: 0.9" x 0.8"
Temperature: -40° - 70° C
Frequency Response: 100 - 600 kHz

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