

# Energy Management Solutions For Compressed Air & Gases







#### WHO WE ARE?

#### **PROFILE**

Pneumsys Advance Energy Solution represents VP Instruments, Plant Scan, Drain Matic & LMS Nordic which are World's Leading Manufacturers & Service Company for Energy Solution

We also are supplying products and solutions for machine automation and allied applications where different types of fluid media are required to run a process. High quality pneumatic products have ensured reliability of performance and a strong after sales service is what we stand for.

#### FROM THE DIRECTOR DESK



The piping sector is growing at fast pace in this country. It requires continuous modification and adaptation in order to move in tandem with the growing piping industry. At Pneumsys, we enjoy this opportunity, as it highlights our unique ability, striving to offer our valued customers with our best efforts at all times. We are encouraged to remain a pioneering market leader, surpassing our customers' expectations, and motivating the communities in which we operate.

Pneumsys has played a key role over the years in supporting to aid such developments. Apart from this, we are growing in advance piping technologies and leaving a great impact on businesses and energy savings.

Rajiev Luthra (Director)



# INDEX

# **CONTENTS**

# PAGE NO.

1.	Digital Flow Meter for Compressed Air & Gases	3 - 14
	VPFlowScope M	4 - 5
	VPFlowScope Probe	6 - 7
	VPFlowScope dP	8 - 9
	VPFlowScope® in-line	10 - 11
	VPFlowTerminal	12
	VPVision	13 - 14
2.	Drain Matic	15 - 18
	Drainage Management System	16
	Zero Air Loss Auto Drain Valve	17
	Oil-Water Separator	18
3.	Leak Detector	19 - 21
	PS-I & PS-I hd Kit	20
	PSX-GN Kit	21
4.	Leakage Management Solution	22 - 27
	LEAQS System	23
	LEAQS Optimization, Measuring & Surveillance	24 - 25
	Compressed Air Training	26
	How LEAQS Report Looks Like?	27



# Digital Flow Meter for Compressed Air









#### **VPFlowScope M**

The VPFlowScope M is a three-in-one insertion flow meter for compressed air and technical gases. It can be installed under pressure and measures flow , pressure and temperature simultaneously. With the introduction of the

VPFlowScope M, recalibration becomes history. Unlike traditional flow meters, the VPFlowScope M does not require traditional recalibration, where you have to ship the unit back. Instead, the VPFlowScope M consists of a transmitter and the patented VPSensorCartridge® which reduces recalibration to a simple exchange.



#### Features:-

- Ethernet (Modbus/ TCP)
- Rs485 (Modbus RTU)
- 4 ... 20 mA linearized, alarm or pulse output
- USB interface for configuration and downloading of data log files
- Optional TFT color display
- Optional data logger with more than 6 months @ 1 second interval + cyclic recording
- Optional Wi-Fi interface (Web server for configuration, Modbus / TCP)

#### Applications:-

- Compressed air audits
- Nitrogen and technical gas flow measurement
- Cost allocation
- Leak detection
- Pipe network optimization
- Permanent monitoring







# VPFlowScope M

# Specification :-

# VPFlowScope M

Measuring principle	Thermabridge™ Thermal Mass Flow sensor
Flow Range	0 (0.5) 150 mn/sec   0 500 sfps
Bi-directional Flow	Model VPM.R150.351.PN10 only
Accuracy	2% of reading under calibration conditions; Please refer to the user manual for details Recommended pipe diameter: 25 mm (1") and up.
Reference conditions	0 °C, 1013.25 mbar   32 °F, 14.65 psi
Gases	Compressed air, Nitrogen and inert, non condensing gases
Gas temperature range	0 +60 °C   0 +140 °F
Pressure sensor	
Pressure sensor range	0 10 bar   0 145 psi gage
Accuracy	+/- 1% FSS (total error band)
	Temperature compensated
Temperature sensor	
Tamparatura canaca ranga	0 +60 °C   32 +140 °F
Temperature sensor range	0 III 100 C   32 III 1 40 T
Accuracy	> 10 m/sec: +/- 1 °C   1.8 °F
	·
	> 10 m/sec: +/- 1 °C   1.8 °F
Accuracy	> 10 m/sec: +/- 1 °C   1.8 °F
Accuracy  Mechanical & environmental	> 10 m/sec: +/- 1 °C   1.8 °F < 10 m/sec: + 5 °C   9 °F
Mechanical & environmental Probe lengths	> 10 m/sec: +/- 1 °C   1.8 °F < 10 m/sec: +5 °C   9 °F 340 mm   13.4"
Mechanical & environmental Probe lengths Weight	> 10 m/sec: +/- 1 °C   1.8 °F < 10 m/sec: +5 °C   9 °F 340 mm   13.4" 200 grams   7.05 ounces
Mechanical & environmental Probe lengths Weight Process connection	> 10 m/sec: +/- 1 °C   1.8 °F < 10 m/sec: +5 °C   9 °F 340 mm   13.4" 200 grams   7.05 ounces Compression fitting, 1/2" NPT, Tapered
Mechanical & environmental Probe lengths Weight Process connection Pressure rating	> 10 m/sec: +/- 1 °C   1.8 °F < 10 m/sec: +5 °C   9 °F 340 mm   13.4" 200 grams   7.05 ounces Compression fitting, 1/2" NPT, Tapered PN 10
Mechanical & environmental Probe lengths Weight Process connection Pressure rating Protection grade	> 10 m/sec: +/- 1 °C   1.8 °F < 10 m/sec: +5 °C   9 °F   340 mm   13.4"  200 grams   7.05 ounces  Compression fitting, 1/2" NPT, Tapered  PN 10  Ip65   NEMA 4 when mated to transmitter
Mechanical & environmental Probe lengths Weight Process connection Pressure rating Protection grade Ambient temperature range	> 10 m/sec: +/- 1 °C   1.8 °F < 10 m/sec: +5 °C   9 °F  340 mm   13.4"  200 grams   7.05 ounces  Compression fitting, 1/2" NPT, Tapered  PN 10  Ip65   NEMA 4 when mated to transmitter  0 +60 °C   32 140 °F. Avoid direct sunlight or radiant heat
Mechanical & environmental Probe lengths Weight Process connection Pressure rating Protection grade Ambient temperature range Wetted materials	> 10 m/sec: +/- 1 °C   1.8 °F < 10 m/sec: +5 °C   9 °F   340 mm   13.4"  200 grams   7.05 ounces  Compression fitting, 1/2" NPT, Tapered  PN 10  Ip65   NEMA 4 when mated to transmitter  0 +60 °C   32 140 °F. Avoid direct sunlight or radiant heat  Anodized Aluminum, Stainless steel 316, Glass, Epoxy
Mechanical & environmental Probe lengths Weight Process connection Pressure rating Protection grade Ambient temperature range Wetted materials Corrosion resistance	> 10 m/sec: +/- 1 °C   1.8 °F < 10 m/sec: +5 °C   9 °F   340 mm   13.4"  200 grams   7.05 ounces  Compression fitting, 1/2" NPT, Tapered  PN 10  Ip65   NEMA 4 when mated to transmitter  0 +60 °C   32 140 °F. Avoid direct sunlight or radiant heat  Anodized Aluminum, Stainless steel 316, Glass, Epoxy
Mechanical & environmental Probe lengths Weight Process connection Pressure rating Protection grade Ambient temperature range Wetted materials Corrosion resistance  Electrical	> 10 m/sec: +/- 1 °C   1.8 °F < 10 m/sec: +5 °C   9 °F   340 mm   13.4"  200 grams   7.05 ounces  Compression fitting, 1/2" NPT, Tapered  PN 10  Ip65   NEMA 4 when mated to transmitter  0 +60 °C   32 140 °F. Avoid direct sunlight or radiant heat  Anodized Aluminum, Stainless steel 316, Glass, Epoxy  Highly corrosive or acid environments should be avoided
Mechanical & environmental Probe lengths Weight Process connection Pressure rating Protection grade Ambient temperature range Wetted materials Corrosion resistance  Electrical Connection Type	> 10 m/sec: +/- 1 °C   1.8 °F < 10 m/sec: +5 °C   9 °F   340 mm   13.4"  200 grams   7.05 ounces  Compression fitting, 1/2" NPT, Tapered  PN 10  Ip65   NEMA 4 when mated to transmitter  0 +60 °C   32 140 °F. Avoid direct sunlight or radiant heat  Anodized Aluminum, Stainless steel 316, Glass, Epoxy  Highly corrosive or acid environments should be avoided  VPS ensorCartridge® proprietary





#### VPFlowScope® Probe

The VPFlowScope® Probe is the number one measurement tool for compressed air audits and fixed installations. You can combine the probe with two display module types or a connector cap without display. With the VPFlowScope Probe you can measure virtually any compressed air system using a single instrument .



#### Features:-

- Thermabridge™ technology
- High dynamic range
- Three sensors in one instrument
- Standard Modbus and 4 20 mA
- Bi-directional
- Quick return on investment

#### Applications:-

- Air audits
- Demand side monitoring
- Sub metering of compressed air
- Ring networks (bi-directional)







# VPFlowScope® Probe

# Specification :-

# VPFlowScope Probe

Measuring principle	Thermabridge™ Thermal Mass flow sensor			
Flow Range	0.5 150 mn/sec   1.7 490 sfps			
	Bi-directional measurement (option)			
Accuracy	2% of reading under calibration conditions. Recommended pipe diameter: 40 mm (1.5 ) and up.			
Reference conditions	0 °C, 1013.25 mbar 32 °F, 14.65 psi - DIN 1343			
Gases	Compressed air, nitrogen and inert, non-condensing gases, 95% non-condensing gas			
Gas temperature range	0 60°C 0 140°F			
Pressure sensor				
Pressure sensor range	0 16 bar   0 250 psi gage			
Accuracy	+/- 1.5% FSS (0 60 °C)   (32 140 °F) Temperature compensated			
Temperature sensor				
Temperature sensor range	0 60 °C   32 140 °F			
Accuracy	> 10 mn/sec: +/- 1 °C   1.8 °F < 10 mn/sec: + 5 °C   1.8 °F			
Data outputs	Det OF MODDIUS DTU graph and			
Digital Analog	Rs485, MODBUS RTU protocol  4 20 mA single analog / pulse output, selectable via VPStudio software			
Display/ data logger Technology	Liquid Crystel (LCD)			
Back light	Blue, with auto power save			
Data logger	500,000 points			
Mechanical & environmental				
Probe lengths	400 mm   15 (300 mm or 600 mm on request)			
Weight	200 grams   7.05 ounces			
Process connection	Compression fitting, 0.5 NPT thread			
Pressure rating	Pn16 (PN35 on request)			
	lp52   NEMA 12 when mated to display module, avoid upside down installation IP63   NEMA 4 when mated to connector cap, avoid upside down installation			
	IP63   NEMA 42 when mated to display module, avoid upside down installation			
	IP63   NEMA 4 when mated to display module, avoid upside down installation  0 60 °C   32 140 °F. Avoid direct sunlight or radiant heat			
Ambient temperature range	IP63   NEMA 4 when mated to connector cap, avoid upside down installation			
Ambient temperature range Wetted materials	IP63   NEMA 4 when mated to connector cap, avoid upside down installation  0 60 °C   32 140 °F. Avoid direct sunlight or radiant heat			
Ambient temperature range  Wetted materials  Corrosion resistance	IP63   NEMA 4 when mated to connector cap, avoid upside down installation 0 60 °C   32 140 °F. Avoid direct sunlight or radiant heat Anodized aluminum, stainless steel 316, glass and epoxy			
Ambient temperature range  Wetted materials  Corrosion resistance  Electrical	IP63   NEMA 4 when mated to connector cap, avoid upside down installation 0 60 °C   32 140 °F. Avoid direct sunlight or radiant heat Anodized aluminum, stainless steel 316, glass and epoxy			
Ambient temperature range  Wetted materials Corrosion resistance  Electrical Connection Type	IP63   NEMA 4 when mated to connector cap, avoid upside down installation  0 60 °C   32 140 °F. Avoid direct sunlight or radiant heat  Anodized aluminum, stainless steel 316, glass and epoxy  Highly corrosive or acid environments should be avoided			
Protection grade  Ambient temperature range  Wetted materials Corrosion resistance  Electrical Connection Type Power consumption	IP63   NEMA 4 when mated to connector cap, avoid upside down installation  0 60 °C   32 140 °F. Avoid direct sunlight or radiant heat  Anodized aluminum, stainless steel 316, glass and epoxy  Highly corrosive or acid environments should be avoided  M12, 5-pin connector, female  3.6 Watt (no flow) 4.8 Watt (full flow) +/- 10%			





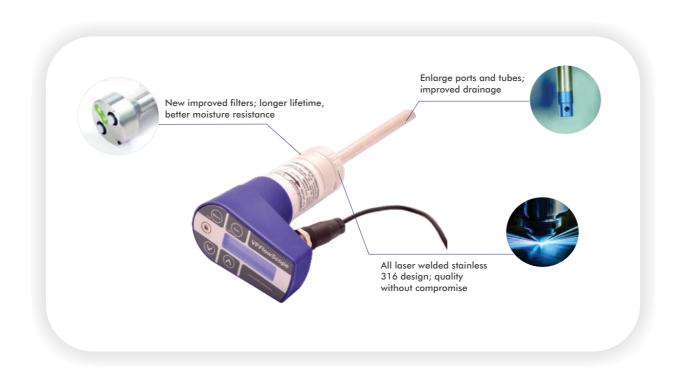
## VPFlowScope dP

The patented VPFlowScope® DP is the ultimate measurement tool for wet compressed air flow measurements. The unique design enables you to take measurements in the discharge pipe of a compressor under 100% saturated conditions. You can combine the probe with two display module types or with a connector cap without display. And now it is even better!



#### Applications:-

- Air audits
- Compressor efficiency monitoring
- Air treatment equipment (drier/filter) monitoring







# VPFlowScope dP

# Specification:-

# VPFlowScope dP

Measuring principle	Differential pressure			
Flow Range	20 200 m₁ /sec   65 650 sfps			
	Bi-directional measurement			
Accuracy	2% of reading over 1:10 range, under calibration conditions; Please refer to the user manual for details.Recommended pipe diameter: 50 mm (2") and up.			
Reference conditions	0 °C, 1013.25 mbar   32 °F, 14.65 psi			
Gases	Wet compressed air, Dry compressed air, Nitrogen and Inert gases.			
Pressure sensor				
Pressure sensor range	0 16 bar   0 232 psi gage			
Accuracy	+/- 1.5% FSS Temperature compensated			
Temperature sensor				
Temperature sensor range	-40 +150°C   -40 +302 °F. Icing should be avoided			
Accuracy	+/-1 °C   1.8 °F			
Data outputs				
Digital	RS485,MODBUS RTU protocol			
Analog	4 20 mA output, selectable via software to indicate flow, pressure or temperature			
Display/ data logger				
Technology	Liquid Crystel (LCD)			
Back light	Blue, with auto power save			
Data logger	500,000 points			
Mechanical & environmental				
Probe lengths	400 mm   15 " (other lengths on request)			
Process connection	Compression fitting, 0.5"			
Pressure rating	Pn20, higher pressure on request			
Protection grade	lp52   NEMA 12 when mated to display module			
<b>6</b>	lp63   NEMA 4 when mated to connector cap- do not mount upside down			
Ambient temperature range	-10 +50 °C   14 122 °F. Avoid direct sunlight or radiant heat			
	Higher ambient temperatures : consult factory			
Wetted materials	Anodized Aluminum, Stainless steel 316, Epoxy			
Corrosion resistance	Highly corrosive or acid environments should be avoided			
Electrical				
Connection Type	M12, 5 pin connector,female			
Power supply	12 24 VDC +/ - 10% Class 2 (UL)			
Power consumption	1 Watt +/- 10%			
	50mA +/- 10% @24VDC, constant over the entire flow range			
UL/ CUL	14 AZ, Industrial Control Equipment			





#### VPFlowScope® in-line

The VPFlowScope® in-line is your best choice to move forward with creating better efficiency levels in your compressed air and technical gas systems. Now you have an instrument that provides you with flow, pressure and temperature measurement in one single device, for point of use applications.

The VPFlowScope® in-line shows you when, where and how much you can save. The advanced features of the VPFlowScope® in-line complete the product family and it is just as easily integratable as the VPFlowScope® probe.



With the three in one VPFlowScope® in-line, VPInstruments sets the new standard for compressed air measurement. Flow, Pressure and Temperature measured at the same time, at the same point with a single instrument makes measuring child's play. All key performance indicators of your compressed air system are finally measured together, the way they should be. It's time to reveal and unleash the real savings potential of your factory.

#### **Applications:-**

- Point of use measurement
- Cost allocation
- Sub metering of compressed air
- Ring networks (bi-directional)
- Leakage monitoring
- Consumption metering of Nitrogen, Carbon Dioxide, Argon, Helium or any other dry, non-corrosive and inert gases.







# VPFlowScope® in-line

# Specification :-

# VPFlowScope® in-line

Thermabridge mass flow se	nsor			
Flow (SI)	Flow (IM)	Size		
0.2 80 (m³ "/hr)	0.1 45 SCFM	0.5 inch		
0.9 250 (m³ "/hr)	0.5 145 SCFM	1 inch		
3.6 1000 (m³ "/hr)	2.2 580 SCFM	2 inch		
0° C, 1013.25 mbar   32° F, 1	4.65 psi			
Compressed air, Nitrogen, o	any other inert, non conder	nsing gases		
Range (SI)	Range (IM)			
Thermabridge mass flow se	nsor			
		ions with air		
0 16 bar gauge	0 250 psi gauge			
0 35 bar gauge	0 500 psi gauge			
± 1.5% FSS (0 60°C)	± 1.5% FSS (32 14	0°F)		
0 60° C	32 140° F			
± 1° (from 10 mn/sec and up	) (At zero flow conditions, to	emperature		
reading increases due to sel	reading increases due to self-heating by the flow sensor)			
Features				
LCD, 3 line display				
2 million points data logger				
4 20 mA or pulse, selectab	e via installation software			
Modbus RTU				
Mini USB interface for config	guration (display version onl	y)		
Size		Weight		
135 mm x 49 mm x 85 mm	5.31" x 1.93" x 3.35"	0.7 Kg   1.54 lbs		
135 mm x 54 mm x 91 mm	5.31" x 2.12" x 3.58"	0.7 Kg   1.54 lbs		
150 mm x 88 mm x 124 mm	5.9" x 3.46" x 4.88"	1.6 Kg   3.53 lbs		
IP65   NEMA 4 when mated to connector, at room temperature; direct rain				
and sunlight should be avoided. Extreme temperature fluctuations may				
affect the IP grade over time	<u>)</u> .			
0 60° C   32 140° F				
Length		Pipe weight		
304 mm   12"		0.3 Kg   0.66 lbs		
501 mm   19.7"		1.0 Kg   2.20 lbs		
750 mm   29.5"		3.2 Kg   7.04 lbs		
M12. 5 pin connector, female	and optional USB mini con	nector		
· · · · · · · · · · · · · · · · · · ·	,			
2,4 Watt (no flow) 4,8 Watt (	full flow) +/- 10%			
100 mA (no flow). 200 mA (fo				
	Flow (SI)  0.2 80 (m³ /hr)  0.9 250 (m³ /hr)  3.6 1000 (m³ /hr)  0° C, 1013.25 mbar   32° F, 1  Compressed air, Nitrogen, or  Range (SI)  Thermabridge mass flow set 0,5% FSS with calibration rep 5% FSS without calibration rep 5% FSS (0 60° C)  0 16 bar gauge  0 35 bar gauge  ± 1.5% FSS (0 60° C)  0 60° C  ± 1° (from 10 mn/sec and up reading increases due to sel Features  LCD, 3 line display  2 million points data logger  4 20 mA or pulse, selectable Modbus RTU  Mini USB interface for configuration with the selectable Modbus RTU  Mini USB interface for configuration with the selectable may be selec	0.2 80 (m³,/hr) 0.1 45 SCFM 0.9 250 (m³,/hr) 0.5 145 SCFM 3.6 1000 (m³,/hr) 2.2 580 SCFM 0° C, 1013.25 mbar   32° F, 14.65 psi Compressed air, Nitrogen, or any other inert, non conder Range (SI) Range (IM) Thermabridge mass flow sensor 0,5% FSS with calibration report under calibration condit 5% FSS without calibration report 0 16 bar gauge 0 250 psi gauge 0 35 bar gauge 0 500 psi gauge ± 1.5% FSS (0 60°C) ± 1.5% FSS (32 140° F ± 1° (from 10 mn/sec and up) (At zero flow conditions, to reading increases due to self-heating by the flow sensor  Features LCD, 3 line display 2 million points data logger  4 20 mA or pulse, selectable via installation software Modbus RTU Mini USB interface for configuration (display version onlessive mass and mass a		





#### **VPFlowTerminal**

The VPFlowTerminal is a plug & play wall mount display with built-in powersupply and 2 million point data logger. The VPFlowTerminal has five sensor inputs: one input for a VPFlowMate or VPFlowScope mass flow meter, and four generic analog inputs and can record up to 8 channels. This makes the collection and analysis of your compressed air data easier and quicker!

#### Product highlights:-

- 2 Million data points
- VPFlowMate / VPFlowScope input
- 4 analog input channels

#### **Applications:-**

- Efficiency: Monitoring the efficiency of your compressor system. Measure with the VPFlowScope in the main pipe line of your system and measure with 4 power meters the power consumption of each compressor.
- Air audits: The VPFlowTerminal can be used for air audits since you collect all data within one data logger. This makes the data collection, read out and analysis very convenient. Total package: Measure flow together with dew point, pressure and power consumption.

#### Specification:-

### **VPFlowTerminal**

Input voltage	100 240 Vac mains (pre-wired)
Housing type	Painted Aluminium Ip65   NEMA 4
Display	Liquid Crystal (LCD), 3 lines
Back light	Blue with auto power save
Data logger	2.000.000 points
Signal inputs	VPFlowScope + 4 optional 4 20mA sensors (non-isolated, loop powered)
Sensor power supply	24 VDC
Maximum sensor current	4 x 25 mA for analog sensors, 1 x 150 mA for VPFlowScope
Data outputs	USB for configuration and data retrieval
Ethernet interface	Modbus / TCP port
Basic configuration	Via key pad
Flow meter connection	M12, 8 pin
Additional connections	Cable glands for analog inputs, Ethernet connection.
Dimensions	l x b x h = 230 x 130 x 75 mm.   9.1 x 5.1 x 2.95"
Weight	1.6 kG   .53 Lbs







#### **VPVision**

VPVision offers you the complete monitoring solution for compressed air and technical gases. It makes energy savings easy, quick, and rewarding. Using the latest web technology, VPVision enables you to view data anywhere, anytime. VPVision analyzes flow data and makes your savings potential transparent.

VPVision can be expanded to receive and consolidate data such as electric demand (compressor kW) and dew point. VPVision can also be fully integrated into a plant's existing SCADA system and linked to the Internet to allow access by designated company staff from anywhere.

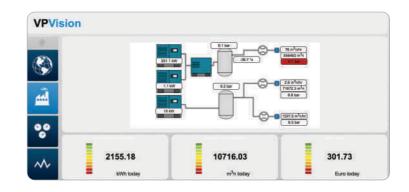


#### Project Approach :-

Although VPVision is a very user friendly software solution, preparation is key to a successful implementation. No compressed air system is the same. Therefore each VPVision system is customized to your needs and goals. Your return on investment can be a matter of months. With our VPVision project form, we can calculate the required investment and ROI. Ask your local distributor or go to our website for details.

#### With VPVision you can :-

- Maintain your efficiency.
- Allocate costs.
- Track and monitor leak level.
- Generate automated reports in PDF.
- Expand and adapt the system.
- Follow your system via IPad®, Smart PH, tablet and web browser.
- Centralize benchmark different plants on different locations.
- Track Maintenance need points.



#### Product Highlights :-

- Web based interface
- Built in report tools
- Early alert on leakage
- Direct insight in costs
- Based on standardized hardware







#### **VPVision**

#### **VPVision Project Examples:-**

- Food Production: In a Kikkoman soy sauce factory, a VPVision system has been installed to monitor the demand side of the compressed air system. All individual cost centers are monitored by flow meters. VPVision logs all data and provides real-time feedback on actual use.
- Cookie Factory: Bolletje, a Dutch manufacturer of cookies and bakery products invested in a VPVision system to allocate costs to various production lines. The system is linked to 3rd party energy monitoring and reporting software. VPVision was part of a compressed air optimization project, which resulted in a cost reduction of 25%.
- Steel Factory: In a large steel plant, VPVision is used to monitor 10 compressor stations. It guards a savings program which exceeds 250,000 Euro per annum, and helps to make the right decision on where to save next.
- Metal Part Production: Astrum, a leading manufacturer of casted steel parts in the UK invested in a VPVision system to monitor the overall compressed air supply and demand. The VPVision system is part of a complete compressed air system re-design, with an ROI of less than 3 years.



Flow data
Pressure data
Temperature data
Power consumption
Other relevant data



# Zero Air Loss Auto Drain Valve &

Oil-Water Seprator











#### **Drainage Management System**

#### ZERO AIR LOSS BALL VALVE TYPE (Operated by Electric Motor) :-

Integrated with latest technologies, the exclusive range of Zero Air Loss Ball Valve Type gives superb control as the operations are all automated with significant economic benefits. Our ball valve type come with wider diameter and is free from any blocking occurrence. Our product is also safer than other ball valve type as we provide them with restoration ability when converted to emergency mode by the user. In addition, the switching time of electric actuate ball valve is short therefore operate ball valve is opened perfectly at operation.

#### Features:-

- Operates under atmospheric pressure state with ease
- Excellent scale discharge
- Good durability
- Corrosion resistant
- Automatic discharge function
- Great design
- Comes with digital counting indicator
- Easy installation and maintenance

#### Applications :-

- Chemical plants
- Oil refineries
- Petro chemical plants



#### ZERO AIR LOSS SOLENOID VALVE TYPE :-

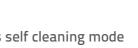
Technologically developed Zero Air Loss Solenoid Valve Type is primarily used for controlling the rate of flow in both fluid and air powered tools, motors and systems. Here, condensate collects in the container housing and valve remains closed and leak proof. As the container is filled to the upper or high level sensor point on the solenoid valve lifts the plunger because of magnetic flux, which is generated by the activated coil.



#### Features :-

- Low operational noise
- Leakage proof
- Fully automated operations
- Varies range of models available
- Maintenance free
- In case of blockage, activates self cleaning mode



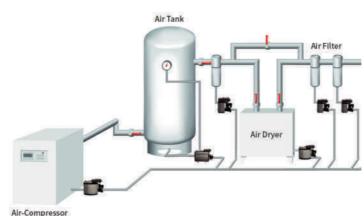


Applications :-

Gas boilers

Hydraulic pumps

Washing machines







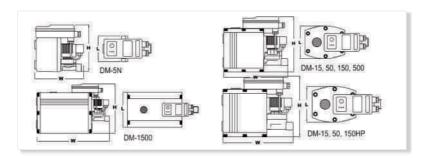
#### Zero Air Loss Auto Drain Valve for Compressed Air

We offer Drainage Management System that is a complete solution to drainage concerns of many industries, such as chemical and oil refinery factories. It is the management system where conventional drainage system is intercepted by a water control structure, which effectively function as an in-line dam, allowing the drainage outlet to be artificially set at levels ranging from the soil surface to the bottom of the drains. We offer two major systems where in first, water level is controlled with structures by adding or removing logs or using float mechanism to control the opening and closing of a flow valve.

#### Advantages:-

- It is Motorized Ball Valve Operated with Zero Choke Function.
- Zero Air Loss (Regulated by Level Sensors.)
- Automated Operation.
- Prevent Energy Loss by discharging Condensate Selectively.
- Variety of Models according to capacity of Compressor.
- Self Cleaning Mode.
- Has Emergency Alarm Mode when Drain Valve not working.





Drain Master S/HP	Climate Zone	Peak Compressor Performance m/min	Peak Dryer Performance m/min	Peak Filter Performance m/min	Operating Pressure min/max (bar)	Temperature min/max (°C)	Application (*)
	Green	8	16	80	0.8/16	+ 1 / 80	А.В
D M - 5 N	Blue	7	14	70			
	Red	5	10	50			
	Green	24	48	240	0.8/16		
DM-15	Blue	21	42	210		+ 1 / 80	А.В
	Red	15	30	150			
	Green	80	160	800	0.8/16	+ 1 / 80	А.В
D M - 50	Blue	70	140	700			
	Red	50	100	500			
	Green	170	340	1700	0.8/16	+ 1 / 80	
DM-150	Blue	150	300	1500			A . B
	R e d	105	210	1050			
	G re e n	570	1140	5700		+ 1 / 80	
DM-500	Blue	500	1000	5000	0.8/16		A . B
	Red	350	700	3500			
	G re e n	1750	3500		0.8/16	+ 1 / 80	А.В
DM-1500	Blue	1500	3000				
	Red	1020	2100				
	Green	24	48	240	1.2/60 + 1	+ 1 / 80	А.В
DM-15HP	Blue	21	42	210			
	<u>R e d</u>	15	30	150			
	Green	80	160	800	1.2/60 + 1 / 80		А.В
DM-50HP	Blue	70	140	700		+ 1 / 80	
	R e d	50	100	500			
	G reen	170	340	1700	1.2/60 + 1 / 80	. ,	
DM-150HP	Blue	150	300	1500		A . B	
	Red	105	210	1050			





#### Oil-Water Separator

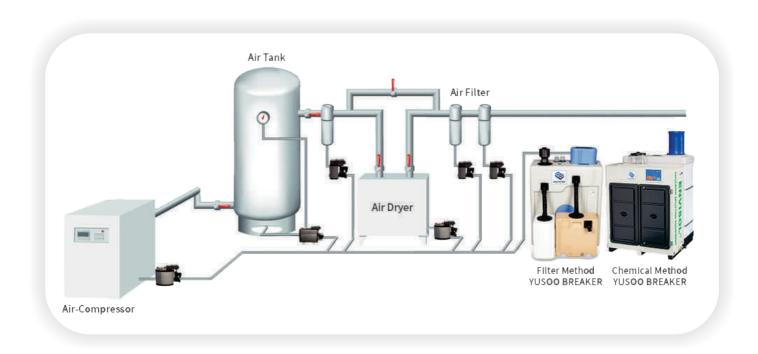
Our innovative oil-water separator meets the needs of customers who want to increase the capacity of a compressor. No need to worry about expansion of the capacity of an oil-water separator. Expansion of a compressor is required when a company increases its facilities. The capacity of an existing oil-water separator is fixed once installed and it needs to be replaced by a new product, which causes high cost and overlapping investments.

YUSOO-BREAKER NEW provides a solution to such problem. Increase the capacity of the system just by replacing the filter. With YUSOO-BREAKER NEW Series, you can handle increased capacity of a compressor without additional costs for replacing an oil-water separator.



#### Features:-

- Enhancing corporate image :
  - Corporate image requires not only for producing good products but also for various things such as social contribution and environmental friendly, etc. Especially, corporate image on environmental friendly is very important part.
- Best processing plan for condensate :
  - Our oil-water separator, YUSOO-BREAKER can dramatically reduce the high cost in processing condensate, and provides satisfied result in improving work efficiency and corporate image with small investment. The YUSOO-BREAKER new series is the best functional product made with our long experience and accumulated technology, and user can enjoy satisfactory convenience and efficiency in our product.
- No Energy Cost & Environmental friendly products.
- Low maintenance & All models series can be equipped with Heating unit for cold weather application.
- Reduce disposal cost
- Simple installation
- High operational reliability





# Ultrasonic Leak Detector









#### PS-I & PS-i HD Leak Detector Kit

#### PS-I HD Ultrasonic Leak Detector Kit

The PS-i-HD is a Heavy Duty version of the popular PS-i. It comes with a heavy duty noise attenuating headset, in a large carrying case that can hold any of our thermometers, the Air Flow meter and other accessories keeping a number of useful instruments in one case. This is an upgrade version of the PS-I Kit.



#### PS-I Ultrasonic Leak Detector Kit

The PS-i is the world's first pocket size Full-Heterodyne Ultrasonic Leak Detector. The PS-i is capable of finding pressure and vacuum leaks in HVAC and compressed air systems, without being affected by wind or leaked refrigerants in confined spaces. The PS-i can test a TXV (Thermal Expansion Valve) in minutes instead of hours.



#### Best for :-

HAVC

#### Kit includes :-

- Base Unit
- Resonator Touch Probe
- Folding Headset with volume control
- Wave Guide
- Small Carrying Case

#### Base Unit :-

- Ultrasonic Leak Detector using Patented Heterodyne Translator
- Audio Output: OHz to 4kHz.
- Visual Output: 10 element bar graph with logarithmic response.
- Capable of detecting a 5 psi leak out of a .005"" (5/1000 inch) hole, 20 to 30 feet away depending on background noise
- Capable of detecting any gas that generates ultrasonic sound during flow including vacuum leaks.
- Capable of detecting FREON (ALL types new and old) leaks equivalent to 3oz/yr. Is not affected by wind or high concentrations of leaked refrigerants in the test area.

#### **Included Accessories:**

- Patented Resonator Touch Probe permits detection of internal leaks and other mechanical problems. It mounts in front of sensor and converts internal, structure borne, sounds to airborne ultrasonic sound to help detect problems such as sticky expansion valves or flow restrictions.
- High quality Walkman style headset with volume control included.
- Hard shell foam padded carrying case compartmentalized and lockable.
- Wave Guide-1/4" (used to access tight inaccessible points)





## PSX-GN Leak Detector Kit with Goose Neck

Dual signal processors. Automatic leak frequency tuning through AFT. Specialized Heterodyne Output. Gooseneck design.

#### Best for:-

- Compressed Air Leak Detection in Noisy Industrial Plants
- Any Gas Leak Detection
- Vacuum Leak Detection
- Air Blower Leak Detection
- Arcing & Corona

#### Kit includes :-

- Base Unit
- 6 Wave Guide
- Noise Attenuating Headset (behind the head)
- Large Carrying Case

#### Base Unit :-

- Multi-patented Ultrasonic Inspection System.
- Sensor is mounted on a GooseNeck permitting the user to reach tight and inaccessible otherwise points in machinery, an Industry FIRST
- Dual Processing Signal Blocks, Heterodyne and AFT.
- Totally sealed hard anodized construction including the sensor, will not be damaged by sprays or splashes.
- "On-the-fly" change of sensitivity-AFT level.
- Frequency Range: Heterodyne: 32kHz to 44kHz AFT: 20kHz to 100kHz
- Audio Output 0Hz to 6.5kHz. Dedicated output from the Heterodyne block.
- Capable of detecting a 5 psi leak out of a .005" (5/1000 inch) hole, 30 to 50 feet away depending on (Ultrasonic) background noise.
- Capable of detecting any gas that generates ultrasonic sound during flow including vacuum leaks.
- Uses a NiMH rechargeable battery.









#### **LEAQS System**



#### The LEAQS System will save you energy and the environment

If you want to achieve verified energy savings in your compressed air system it requires an overall view of all the parameters that affect results. Compressed air is a complex media to manage. Every single action you do in the system affects another. That is why we work to assist our clients by addressing all the issues in order to achieve maximum results.

The LEAQS system is the world's most used system for leakage detection, project management, logistics and repair with close to 8000 fully documented projects. We work with the world's leading corporations in virtually all types of industry.

Contact us for a presentation of how we can reduce your compressed air consumption and CO2 emissions.



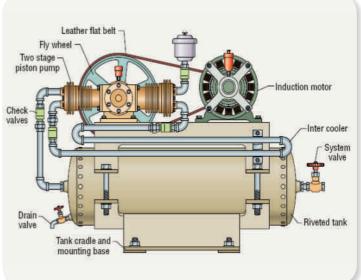






#### Optimisation





Next to leakage detection and managing the leakage management process, optimisation of compressed air applications is the next most energy saving measure you can do in a compressed air system.

LEAQS has vast experience of discovering optimisation opportunities in pneumatics and compressed air applications. A professional control of pressure, dimensioning, blowing applications and general functions usually represent a further 25% of the savings potential. The LEAQS optimisation software allows you to document the measures taken and calculate savings.

Most of which have a pay-back period that is less than 6 months.

Compressed air is a critical energy source for many industrial applications, providing mechanical motion, cooling, pressurization and other functions for such equipment as air powered hand tools, actuators, and sophisticated pneumatics robotics. Although it is often viewed as an essentially free resource, Compressed air is anything but free. In fact in many industrial plants, air Compressors consumes more energy than any other single end use.

#### LEAQS increases productivity and quality







#### Measuring & Surveillance





#### LEAQS Monitoring & Surveillance creates better cost control

If your biggest compressor breaks down, do you have enough back up capacity to maintain production? This is usually your first question in evaluating the current status in a system. Surprisingly, many companies are not sure and in fact, many do not have sufficient back up to guarantee production in such an event.

It is quite a risk considering that without compressed air your production will simply stop. With that in mind, it is surprising that less than 10% of companies monitor its use. Critical levels and quality of compressed air depend on guesswork on matters that can shut down an entire factory.

Take control of both the production and consumption by monitoring its use and the pressure development. In doing so, you ensure the reliability of the system. It also means that you can verify and visualize the various actions, improvements and the savings you make in the system.

The VP Flow Terminal enables you to measure flow, pressure, temperature with one single VP Flow Scope. In addition, the VP Flow Terminal offers 4 analog input channels, which can be used for logging of any 4..20 mA based sensor. In this example, we will show you how to use the VP Flow Terminal to monitor compressor performance. Please note that this is not intended as an official compressor test, but you can use the data to track changes in performance, or to create a "practical" efficiency curve of the compressor when installed in the field. It is a great tool to get more insight in the real behavior of your system. This application note is also not intended to be a course on how to work with spreadsheet programs, so basic knowledge of a spreadsheet program is recommended.













#### **Compressed Air Training**



Compressed air training is without a doubt the most underestimated and yet the most cost effective measure you can do in an energy saving program. By raising the awareness and know-how of operators and staff that use and come into contact with compressed air on a daily basis.

Leaks are like a wallet with a hole in it. Leaks translate into cold cash. Allowing leaks to exist without leak identification and repair program will add a hidden cost to the products your company produces which can negatively impact the ability of the company to compete and affect profitability. The time to stop them is now. Energy is not going to get less expensive. Not many people know how compressed air is actually produced and what is involved in the delivery of compressed air in a factory. This is the main reason why most people are surprised about how expensive compressed air really is to use.









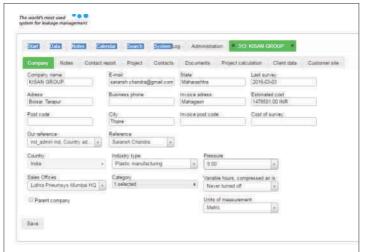


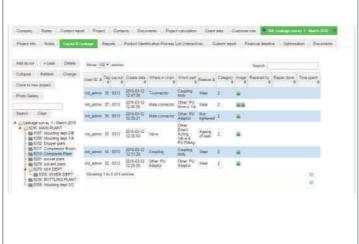


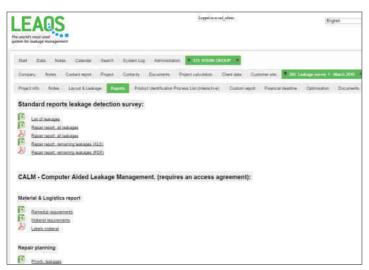


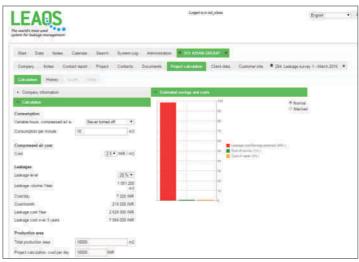


#### How LEAQS Report looks like?

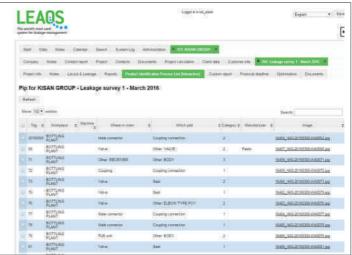
















# Contact Us:

## **EQOfluids PNQUMSYS** Pte Ltd

PNCUMSYS®
ADVANCE ENERGY SOLUTIONS

**SINGAPORE OFFICE**: 2 Shenton Way, #15-01, SGX Centre 1, Singapore 068804

Mob. No. +65 94248456

E-mail ID: rl@eqofluidspneumsys.sg Web.:www.eqofluidspneumsys.sg **UAE OFFICE**: PO Box: 63259,

Mussafah - 5, Sanaya, Abu Dhabi UAE

Mob. No. +971 56 54773969

E-mail ID : rl@uaeindustrialpiping.ae Web. :www.uaeindustrialpiping.ae



MUMBAI OFFICE: 301 & 302 on 3rd Floor, East West Industrial Center, Safed Pool, Andheri Kurla Rd, Andheri (E) Mob. No. +91 99789 75499

E-mail ID : rl@pneumsysenergy.com Web : www.pneumsysenergy.com **BANGALORE OFFICE**: #1108/L, First Floor, 9th 'C' Main, Behind Hampinagar Bus Stand, RPC Layout, Vijaynagar, Bangalore - 560 040

Mob. No. +91 96633 79939 E-mail ID : Vinson@pneumsys.com Web : www.pneumsysenergy.com Factory: 38, Madhu Vrinda, Dhuri Indl. Estate, Waliv Fata, Vasai (E) 401 208, Dist. Thane Mob. No. +91 92235 51772 Web: www.luthrapneumsys.com