



## Design and production of Energy Management Solutions

VPInstruments delivers Energy Management Solutions for compressed air and industrial gases, developed by experienced, involved experts, based in Delft, the Netherlands.

We believe that industrial energy monitoring should be easy and effortless to enable insight, savings and optimization. We show you where, when and how much you can save using our innovative and reliable products.

Our solutions cover both the supply and

demand side. We promise fast, reliable and easy to use products. How? We determine the entire process from design to realization and we control the entire production and calibration process.



"VPInstruments offers industrial customers worldwide easy insight into energy flows."

## What is in it for our customers?

Measuring and monitoring your air and gas systems saves you money, improves efficiency and ensures a worry-free night's sleep. By monitoring, you can anticipate problems and ensure that the compressed air system is always available for your business needed. When using our products, you will experience just how reliable, energy-saving, easy-to-use and ready for the future our products are.

VPInstruments is one of the most innovative companies in its industry. Our award-winning products and solutions are unique in the market, sustainably produced, and designed with two eyes for detail. We hold various patents for sensor technology and

measurement software. Air and gas audits and permanent monitoring are the pillars for our product range. And there is no need to depressurize your system to install our insertion flow meters when using the hot tap drill and hot tap saddles.

We deliver the complete package!

#### **Our specialties**

- > Air audits
- > Permanent Monitoring

We measure and monitor:

- > Compressed air systems
- > Pneumatic equipment
- > Industrial gases



"The best flow meter money can buy!"

Frank Moskowitz - Draw Professional Services

## How?

Our R&D department works continuously on improving our product portfolio. With a multidisciplinary team we work on new product innovations and we strive to improve existing products. Furthermore, we focus on improving our production processes to keep up our high standards and quick delivery while increasing capacity.

In order to guarantee quality and the innovative character of our solutions, we are closely connected to Delft University of Technology and other technical institutes. We hire interns and graduates to keep our company fresh, dynamic, self-critical and focused.

In Production we work efficiently and fast in a dynamic, small team that strives to deliver our products faster than our competitors. Before shipment, we check each product to assure the high quality. We deliver what we promise!

Thanks to our experienced Sales team consisting of dedicated regional account managers, we are readily able to translate requests into ideal solutions. How? Because we both develop and produce our products in-house and continuously take into account customer feedback.

#### ISO 9001:2015 certified

Our Quality Management System is certified to ISO 9001:2015. We take quality and traceability very seriously. Our calibration systems are traceable to the National Standards at NMi (Dutch Institute of Standards and Metrology).



# The principle: Measure, Discover and Save (the world)!

Energy is expensive and a hot topic nowadays. For example, compressed air is a notorious expensive utility as it is 8 times more expensive than electricity, and up to 50% is being spilled. Pneumatic machines wear. Systems are often oversized, taking more energy than required.

Research has shown that successful energy management programs start with measurement. Discover large consumers, leakages, incompetent use and overdue maintenance. Use actual data to justify improvement investments and maintenance management.

Our product range allows complete insight into your consumption and inefficiencies from supply to demand side. Our products show where, when and how much you can save. Understand your system, save energy and operate your production more efficiently. With our products you are industry 4.0 ready and our VPVision software supports your ISO 50001 energy management system.

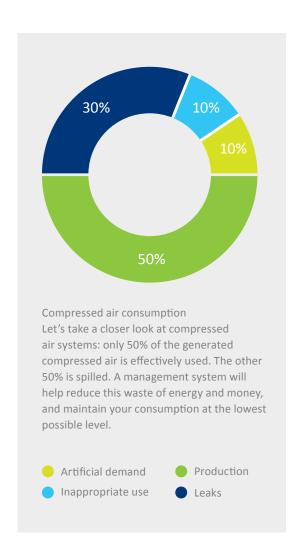
### Detect and prevent production problems

Lower your equipment downtime and maintenance costs by measuring and monitoring your compressed air and gas systems. Find the root cause of major problems and monitor your system permanently to detect and prevent problems. Determine, for instance, when filters get clogged so you can exchange them to prevent huge pressure losses that might result in

machines breaking down, or needing to scrap your valuable products. Learn your consumption profile and adjust compressor controls to prolong their lifetime. You can locate in which areas of your factory you have large leakages, saving you time to find and fix them. So, rest assured in the knowledge that your production system is being monitored.

"Using VPVision we discovered a huge leak on the roof top almost immediately. Costs: 16,000 Euros/year. Without VPVision it would have taken months to discover this energy loss."

Dutch glass factory



### Maximize your ROI

Monitoring and optimizing your compressed air system is very rewarding. We have seen many cases whereby improvements had a return on investment in just a few months! Take a look at customer savings success stories on our website and read how our products have helped many companies save energy year after year.



VPFLOWSCOPE® DP

Flow meter for saturated and hot compressed air



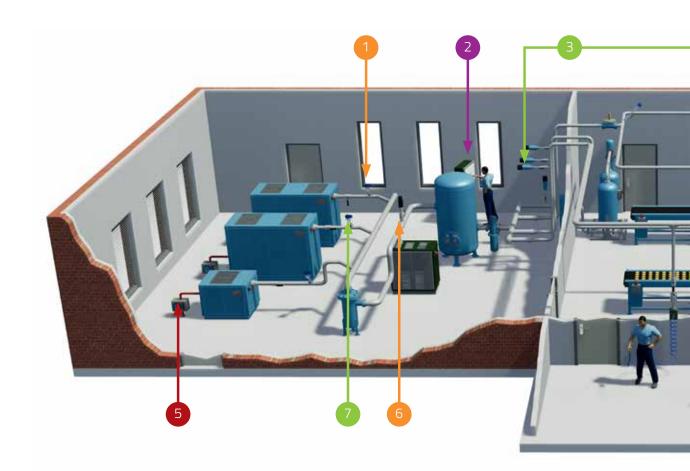
#### 2 VPVISION

Complete energy monitoring solution, cloud ready, VPN, ISO 50001



#### **2** VPVISION MOBILE

Complete energy monitoring solution for plant system audits, once a second logging mode





#### 5 VPLOG-I

Easy snap on power meter for mobile power measurements



#### 5 3 PHASE POWER METER

Highly accurate, true power measurement of all 3 phases



## 6 VP DEW POINT SENSOR

Prevent high maintenance costs and production losses by monitoring your dew point



VPFLOWSCOPE® M

Flow meter with no more recalibration, Ethernet, Industry 4.0, VPSensorCartridge®



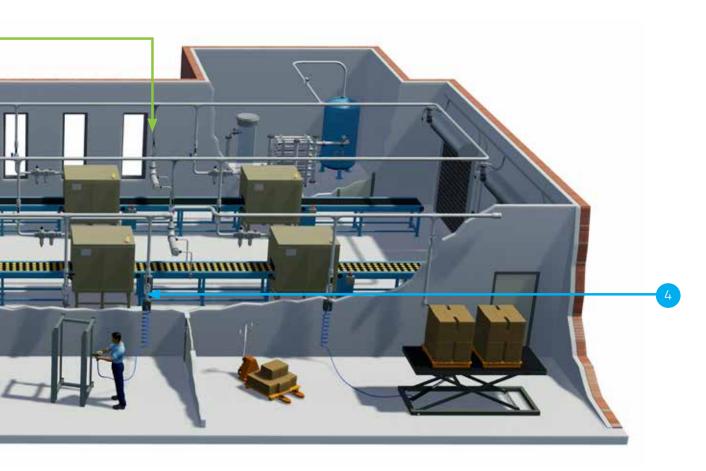
VPFLOWSCOPE® PROBE

Flow meter for dry compressed air



#### VPFLOWSCOPE® IN-LINE

Flow meter for point-of-use measurements





#### INSTALLATION

Create your installation points under pressurized conditions with the VPInstruments hot tap drill and hot tap saddles

### **Industries**

Production plants are common users of compressed air and blower air. E.g. Compressed air is used for packaging machines, offset presses, transport of granulate and food ingredients, cooling of products and tank aeration.

- > Ceramic factories
- > Glass production
- > Cement and construction products
- > Paper
- > Food production, beverage and breweries
- > Pharmaceuticals
- > Automotive
- > Steel production

#### Other markets and applications

Our products are used successfully in various industrial applications, for example:

- > Aeration monitoring in water treatment plants
- > Airflow monitoring in large ducts
- > General test and measurement applications (such as universities)
- > OEM applications
- > Combustion air mixing
- > Technical gas mixing
- > Welding gas, packaging gas monitoring
- > CO<sub>2</sub> consumption metering





## History of Technology

## Thermabridge- leading sensor technology since 1974

Our co-founder Anton van Putten invented the world's first solid state thermal mass flow sensor back in 1974. We are proud to continue the heritage of making cutting edge products based upon this unique and patented sensor technology.

#### **Working principle**

The unique Thermabridge<sup>™</sup> sensors are integrated circuits, just like computer chips. They combine a heater with a Wheatstone bridge. The heater keeps the sensor on a constant temperature. The Wheatstone bridge is used for temperature control and direction measurement.

## Direction sensitivity, invented by VPInstruments

Our flow meters combine an extremely large measurement range with integrated direction sensitivity. This patented feature enables you to measure both in loop networks and in systems with air receivers, which used to be very difficult to assess. With our flow meters, flow direction is no longer a mystery.

#### **Sensing the future**

Since 1974, the founders of VPInstruments have invested over 40 years in R&D. We will continue enhancing our products and technology, to provide the best possible solutions for mass flow measurement of compressed air and industrial gases.

"VPVision is a really powerful tool to keep our compressed air consumption at the lowest possible level. It helps us to prevent leakage and to optimize our compressed air supply."

Kikkoman Europe



### Service

Maintain and guarantee the high-quality standard of your instruments and have confidence in their measurement accuracy with the VPInstruments service programs. Make sure the cornerstones of your daily decisions are in excellent shape.

VPInstruments offers flow meter calibration services at a state-of-the-art calibration facility. Our calibration equipment is maintained under our ISO 9001 Quality

Management System and is traceable to National Standards.



## Proudly serving customers worldwide

Through our distributors and dealers, we serve clients worldwide to save on energy costs. A small selection of end users:

Astrum UK (Steel castings), Bolletje (Food), GSK (Medicines), Kikkoman Foods, Libbey (Glass), Mars (Food), Nedstaal (Steel production), Nestlé (Food), O&I (Glass), Philips (Consumer goods), Rexam (Glass), Toyota (Automotive).









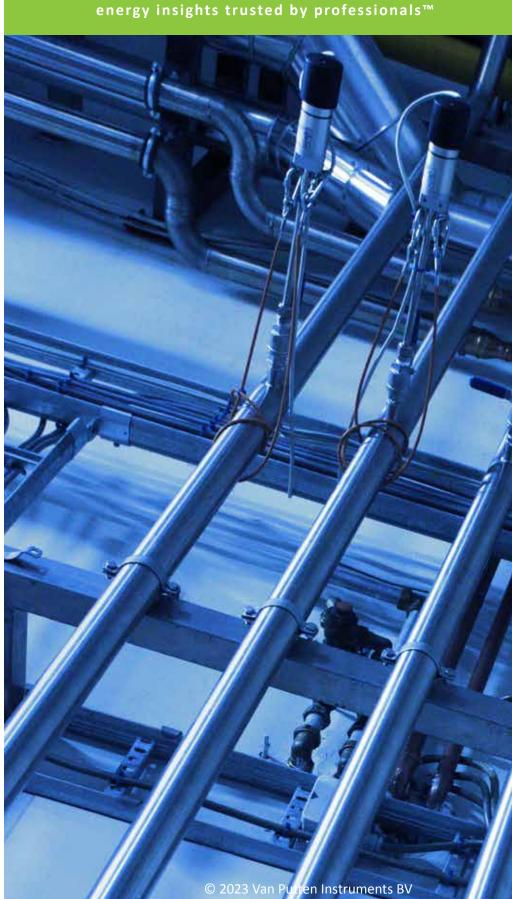












Preliminary. Subject to change without notice

#### Corporate Headquarters

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