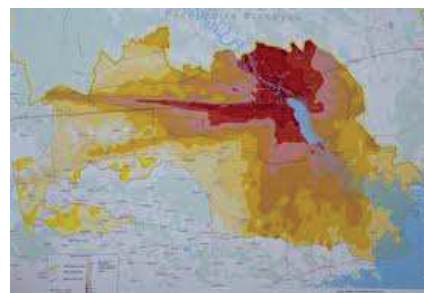## Software

Designed to monitor one or more sources or more industrial site(s), the WT 2 measurement network provides you with real-time key information for efficient management of chemicals and olfactory pollution.

DISPERSION PLUME

■ O.U. (ODOR UNITE)　■ H2S　■ NH3

Off line dispersion plume
• Dynamic 3D mapping of dispersion plumes
• Calculations of concentrations in the vicinity of the site(s)
• Dispersion reports

On line alerts and source identification
• Configurable alert threshold
• Process control (Bio filters, scrubbers, ventilation …)
• Pattern matching software (PCA, LDA, PLS)

Real-time alerts
• Configurable alert threshold
• Notification by warning siren, flashing light, SMS, email, etc.

Control of air treatment facilities
• Automatic activation & deactivation based on emissions levels
• Amount of additives adjusted to the odor concentration

Cloud SAS Based Hosting

The central monitoring station is hosted on a secure cloud based server allowing remote access via any internet based computer. The access is restricted and the data is encrypted for maximum security. Users are given a password and user name which will define their permission level. Operator access can simply view the results and create reports while administrator access can reconfigure the system and set all parameters.

Technical specifications

• 4 Micro sensors for fence line monitoring plus H2S and NH3
• Up to 6 Detected gases (with use of optional sensors) plus PID for VOC
• H2S, Mecaptans, Amines, NH2, SO2, CO2, CO, CL, C2HO4, H, HCl, HCN, NH3, O3, NO2, PH3, H2S, O2, SO2, CH4, NO, and VOC
• Particle size (PM 1, PM 2.5, PM 10)
• 48 h Data logger in case of loss of communication
• Wireless communication via LORA (1 to 2 km) or GPRS
• Software access anywhere via Secured servers
• Installation time 2 to 4 H
• Temperature, Relative Humidity
• Operating temperature range -30 to 60°C
• Additional parameters Temperature, Relative Humidity, GPS position
• Operating temperature range with optional HVA-30 to 60°C
• 220 V / 110 V

Graphic Emission Representation and Reporting

The monitoring system continuously provides real-time readings of all sensors in the grid plus has the capability to show data for any defined instance in time. Furthermore reports such as specified period mean, high, low and variance for each sensor can be shown. Other reporting options such as sensor ranking in highest average reading and highest variation can also be requested.

RUBIX Senses & Instrumentation

WATCHTOWER II

Odors　Air Quality　Gas　Particles

Our Health depends also on the Air Quality

Autonomous & Wireless
Fence line monitoring of Voc, Odors & Air pollutants
Network of field-based Gas & Odors analyzers

• Monitor Gas & VOC emissions 24/7
• Predict odor nuisance
• Identify odor sources

• Fence Line monitoring
• Monitor Particles sizes
• Receive real-time alerts
• Control processes

RUBIX Senses & Instrumentation

WT 2 : Monitor emissions and assess their impact in real-time

Watchtower 2 provides on line indoor and outside air emission monitoring station based on various gas sensors arrays (H2S, NH3, SO2 ...). Those on line Instruments provides the monitoring of plant emissions, and the process control capability with automatic triggering and sampling devices.

Watchtower 2 is equipped with PID for VOC, with EC for up to 6 simultaneous specific gas sensors (out of our choice of 12 various possibilities). Particle size monitoring can be added as an optional modules from 0,4 to 15 Qm. Correlation with OU can be provided via automatic on line sampling and dynamic olfactometry or field olfactometry and a simple correlation model building. The instrument provides on line (PC, Tablets, and phone) automatic reading of gas concentration, automatic alarms. Cutting Edge data processing provides on line correlation with gas and sensory perception and allows impact and plume prediction.

Who use the WT 2

- Sewage
- Landfill
- Waste water
- Rendering

- Chemicals
- Petrochemicals
- Pulp & paper
- Food industry

- Aroma & fragrances
- Industrial sites
- Communities
- Engineering consultancies

24/7 measurement of emission concentrations

ODOR,
- odor unit (EN 13725, ASTM E679)

AIR QUALITY STANDARD
- USEPA (40 CFR Part 53)
- EU (2008 /50/EC)

POLLUTANT GASES, in ppm or ppb
- H2S, NH3,, mercaptans, SO2, CO, Ethylene Oxide, O3, Methane, Cl2 ...) up to 6 Electrochemical sensors among a choice of 12 different ones plus PID, and particles
- Modular upgradable arrangement

MODULAR SYSTEM FOR FENCE LINE ANALYTICS

Why use WT 2

- Sources identification with pattern recognition build in software and automatic sampling
- Automatic Plug In installation and Self Configuration (GPS position and central controller for easy reconfiguration and adaptation)
- Multi Gas source monitoring and identification
- Olfactory and chemical monitoring tailored to your industrial sector
- Improved communication with residents and authorities
- Better understanding of the odor problem enabling adjustment of on-site operations
- Optimized operation of odor control facilities leading to drastic cost reduction
- Efficiency of air treatment processes continuously monitored
- Reliable tool for decision making within a continuous improvement approach (iso 14001, iso 9001)
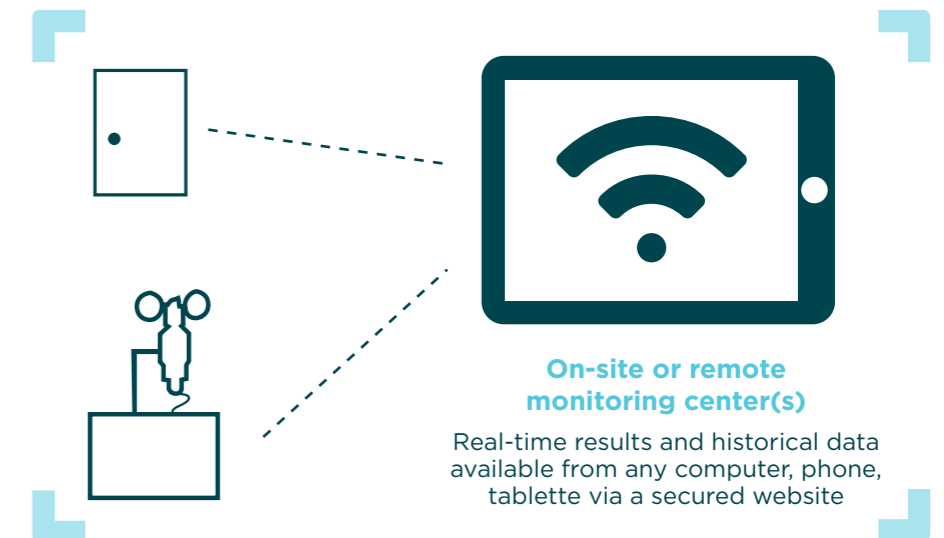
How does this work?

Network of WT 2 analyzers
- Suitable for any type of emission source
- Dedicated sampling system for wet and concentrated air flows (e.g. industrial chimneys)
- Outdoor and indoor air analysis

Field weather station(s)

Real-time measurement of local weather parameters influencing the dispersion of pollutants. (RH, T°, wind speed, wind direction , rain, pyranometer)

On-site or remote monitoring center(s)

Real-time results and historical data available from any computer, phone, tablette via a secured website

A complete range of services
- Odor audit
- Odor diagnosis
- Impact assessment
- Zero state
- Technical support
- Training

Multiple monitoring levels

Modular and scalable, the WT1 monitoring network is sized to your needs. Your results are available source by source, site by site or on a regional scale.

On-line results

With the RUBIX Soft SAS secured web site, use your web browser to access your data, 24/7, anywhere in the world