

CATALOGUE

PROCESS

*Monitoring for Powder,
Dust & Gas*

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WHAT WE DO

ENVEA has over 70 years experience in designing and manufacturing a wide range of instrumentation to support industries in better understanding and controlling their processes.

We employ innovative technologies and solutions for the monitoring of powders, dust and gases, helping not only to enhance the manufacturing process but also to reduce lost production time, reduce maintenance and reduce other associated costs. Our instruments provide a window into the manufacturing process, providing data to optimize plant efficiency and product quality.

The ENVEA Process instruments are supported by a global sales and service subsidiary network as well as distributors in over 70 countries. Our experience in the process industry is allied to over 40 years in the environmental compliance sector, for whom we manufacture class leading particulate and gas CEMS together with mercury, flow and air quality analysis systems.

Innovative monitoring solutions




PROCESS



EMISSIONS



AMBIENT

A low-angle, upward-looking photograph of an industrial facility. A large, dark, insulated pipe runs diagonally from the top left towards the center right. To the left, a tall, white cylindrical storage tank with a metal walkway is visible. To the right, a tall, silver-colored metal structure, possibly a distillation column, rises vertically. In the bottom right, a large, weathered cylindrical tank is partially visible. The background is a bright blue sky with scattered white clouds. A semi-transparent white horizontal band across the middle of the image contains the text.

OUR EXPERIENCE IS BASED ON THOUSANDS OF
INSTALLATIONS WORLDWIDE, HELPING TO IMPROVE
YOUR PROCESSES

INDUSTRIES

WHERE WE WORK

Our extensive experience in process applications in a wide range of industrial markets has provided us with an unrivaled knowledge and understanding of differing applications and the potential cost reductions and process enhancements that our instruments and services can bring.

Working closely with many of the world's leading manufacturers has given us an in-depth understanding of their needs which has always been an important driver in the development of our instrumentation. Often installed in harsh working environments, our sensors have been designed to provide rugged, reliable monitoring often with built-in self-checks to assure optimum instrument functionality.

Working in a wide range of applications from heavy industries such as power, minerals and steel to complex processes in the chemical and food industries, our instrumentation for the monitoring of powder, dust and gas help to make processes more reliable and more cost efficient.



MINERALS

- Cement
- Lime
- Gravel
- Asphalt
- Quartz
- Gypsum
- Brick
- Ceramics
- Salt
- Mining
- Coal / Coke
- Glass
- Asbestos
- China clay
- Fiberglass
- Lead glass
- Refractory
- Quarrying
- Vermiculite

METALS

- Steel
- Galvanizing
- Foundry
- Aluminum recycling
- Aluminum smelting
- Copper recycling
- Copper smelting
- Ferrous foundry
- Lead recycling
- Lead smelting
- Nickel smelting
- Precious smelting
- Zinc recycling
- Zinc smelting



CHEMICALS

- Plastic
- Refinery
- Painting
- Pharma
- Fertilizer
- Rubber
- Cosmetics
- Carbon black
- Pesticides
- Ink
- Tyres
- Detergents
- Pigments
- TiO_2
- Coating



ENERGY

- Coal
- Biomass
- Gas
- Bio fuels
- Oil

INCINERATION

- Clinical
- Chemical
- Crematoria
- Municipal



FOOD

- Coffee
- Milk powder
- Sugar
- Animal / pet food
- Cereals
- Pectin
- Grain
- Tobacco
- Beverages
- Flour
- Starch



WOOD

- Insulations
- Floors
- Chipboards
- Pulp & paper
- Celluloses
- Fibers and additives
- Particleboards
- Timber products

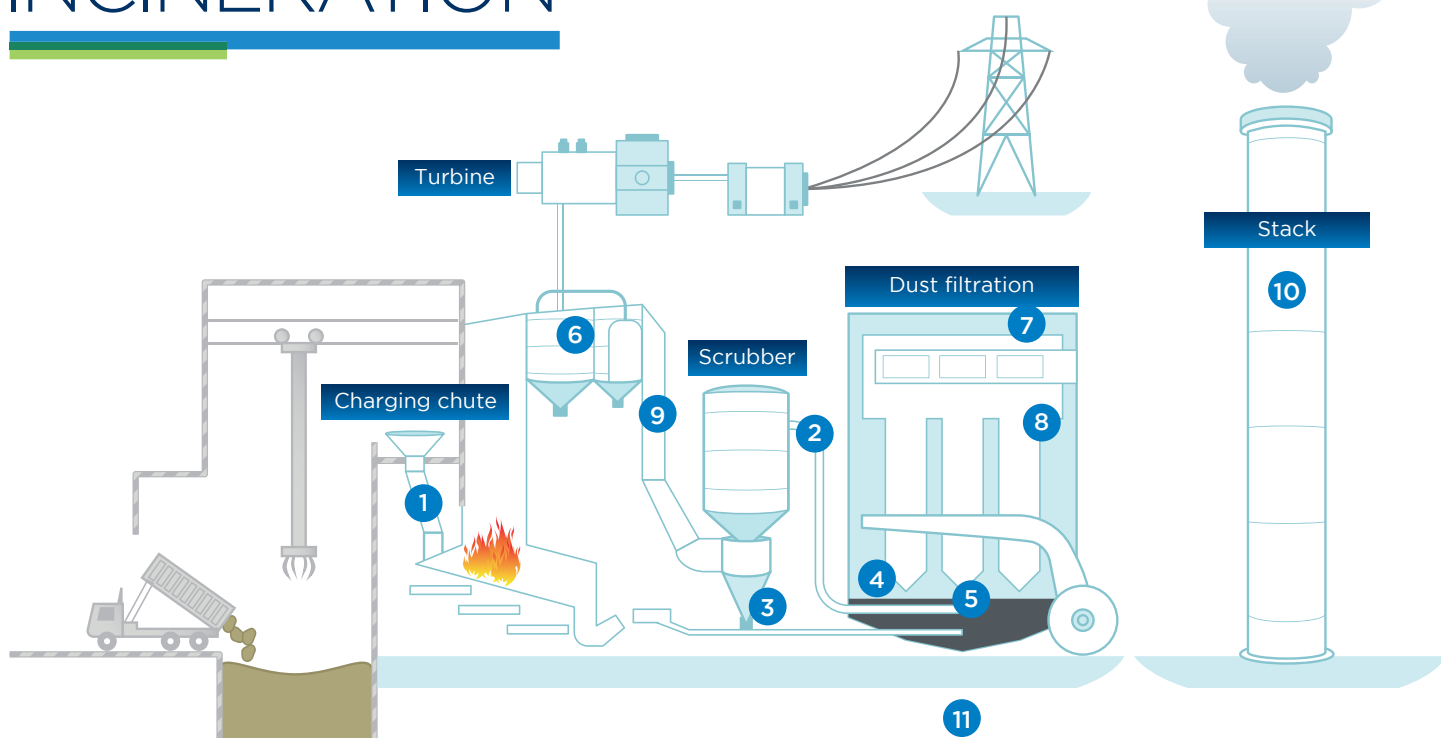
and many more...

WHATEVER INDUSTRY, WE WORK IN

Our installations are driven by:

- Providing our users with increased automation for energy and raw material efficiency
- Increasing the potential for on-line real time quality control and trending
- Providing real time sensor feed-back information for more flexible and highly effective production
- Meeting new regulatory demands and developments for environmental protection whilst driving operating costs down

INCINERATION

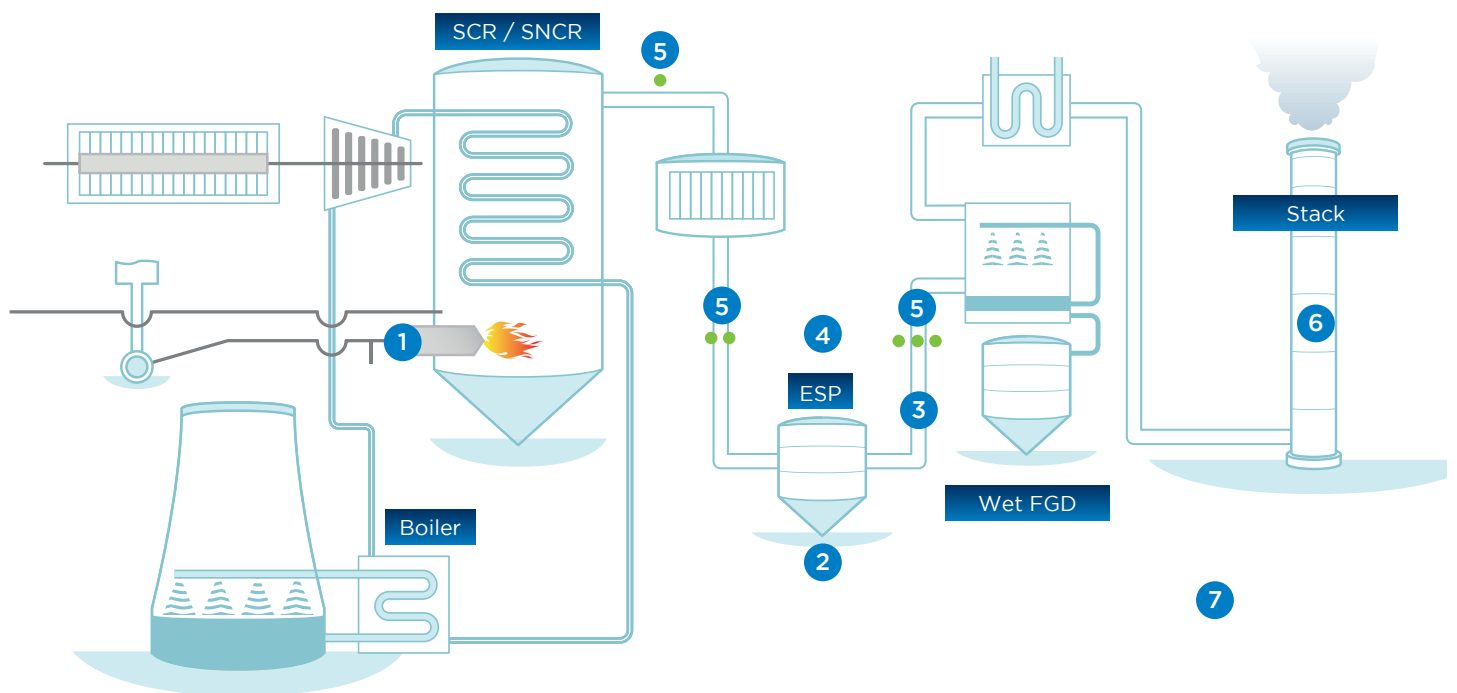


- | | |
|---|---|
| <ul style="list-style-type: none"> 1 Point level detection in charging chute 2 Mass flow measurement of absorbent 3 Flow/NoFlow detection at cyclone outlet 4 Ash level detection at filter outlets 5 Flow detection at ash transportation system 6 Continuous level measurement in storage silos | <ul style="list-style-type: none"> 7 Individual chamber baghouse performance monitoring 8 Predictive bag filter row monitoring 9 Process gas monitoring: O₂, NH₃, Hg, CO, NO_x, SO₂, HCl, H₂O 10 Stack compliance measurement: NH₃, HCl, HF, NO_x, SO₂, CO, CO₂, O₂, H₂O, Hg, TOC, PCDD/F, dust and flow 11 Process leakage detection: CO, CO₂, VOC, NO₂, H₂S, SO₂, TRS, particulates |
|---|---|





POWER GENERATION



1 Flow rate measurement for pulverized fuel

2 Ash level detection at filter outlets

3 Filter efficiency monitoring

4 Predictive bag filter row monitoring

5 Process gas monitoring:

- CO, O₂, NO_x
- NO_x, NH₃
- SO₂, O₂

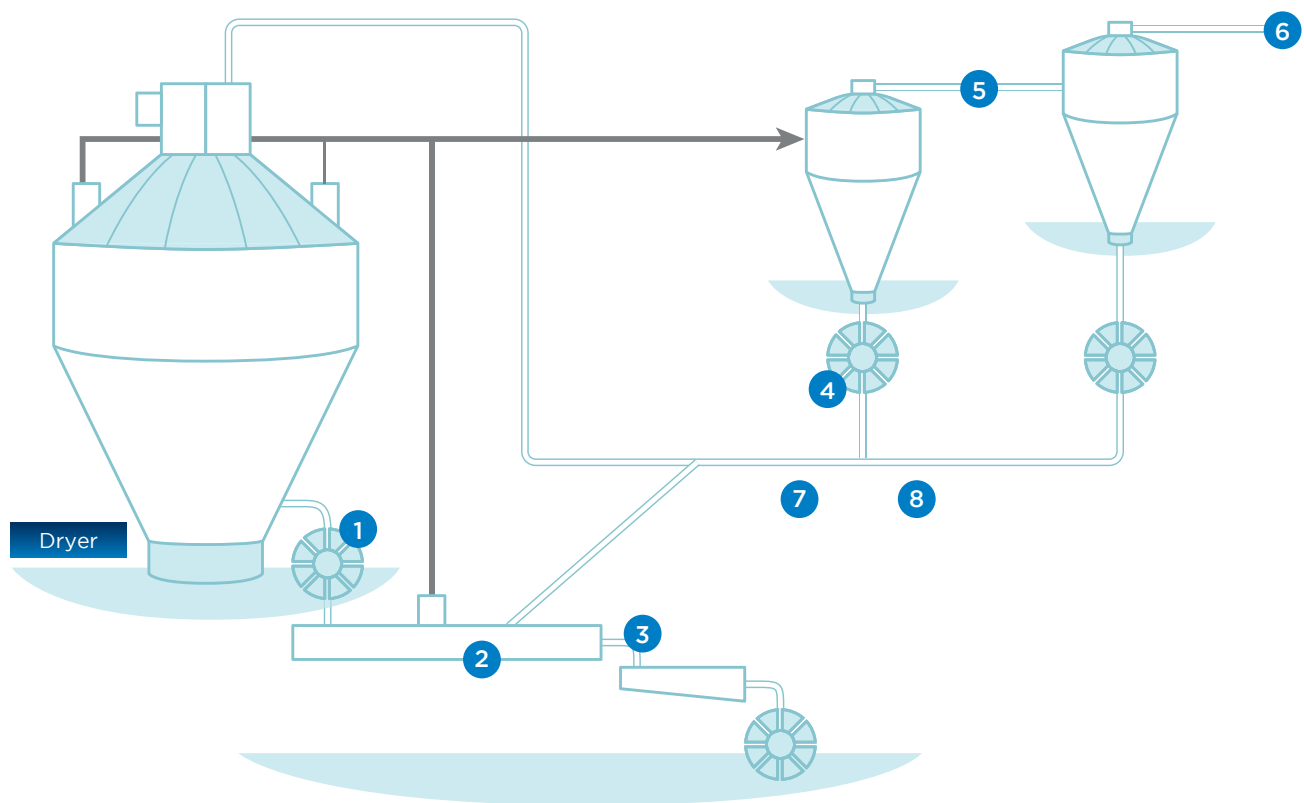
6 Stack compliance measurement:
NO_x, SO₂, CO, CO₂, O₂, NH₃, HCl, HF, H₂O, Hg, TOC,
PCDD/F, dust and flow

7 Process leakage detection:
CO, CO₂, VOCs, SO₂, TRS, particulates



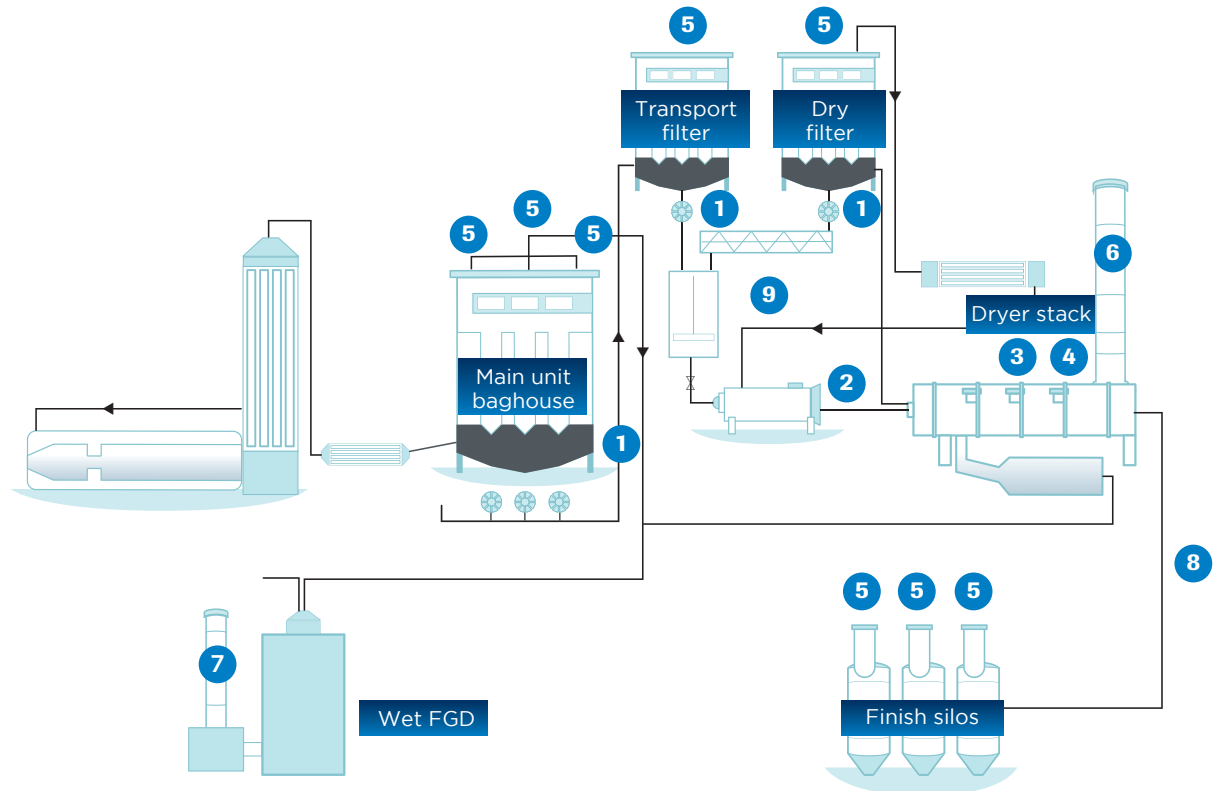
FOOD AND PHARMA

(SPRAY DRYING)



- 1 Mass flow measurement out of spray dryer
- 2 Continuous moisture measurement in fluidized-bed dryer
- 3 Mass flow measurement for inline blending
- 4 Flow/NoFlow detection in return powder lines
- 5 Primary filter performance monitoring
- 6 Compliance dust measurement trending
- 7 Dust monitoring in ambient air
- 8 Process leakage detection:
CO, CO₂, VOC, NO₂, H₂S, SO₂, TRS, dust

CARBON BLACK

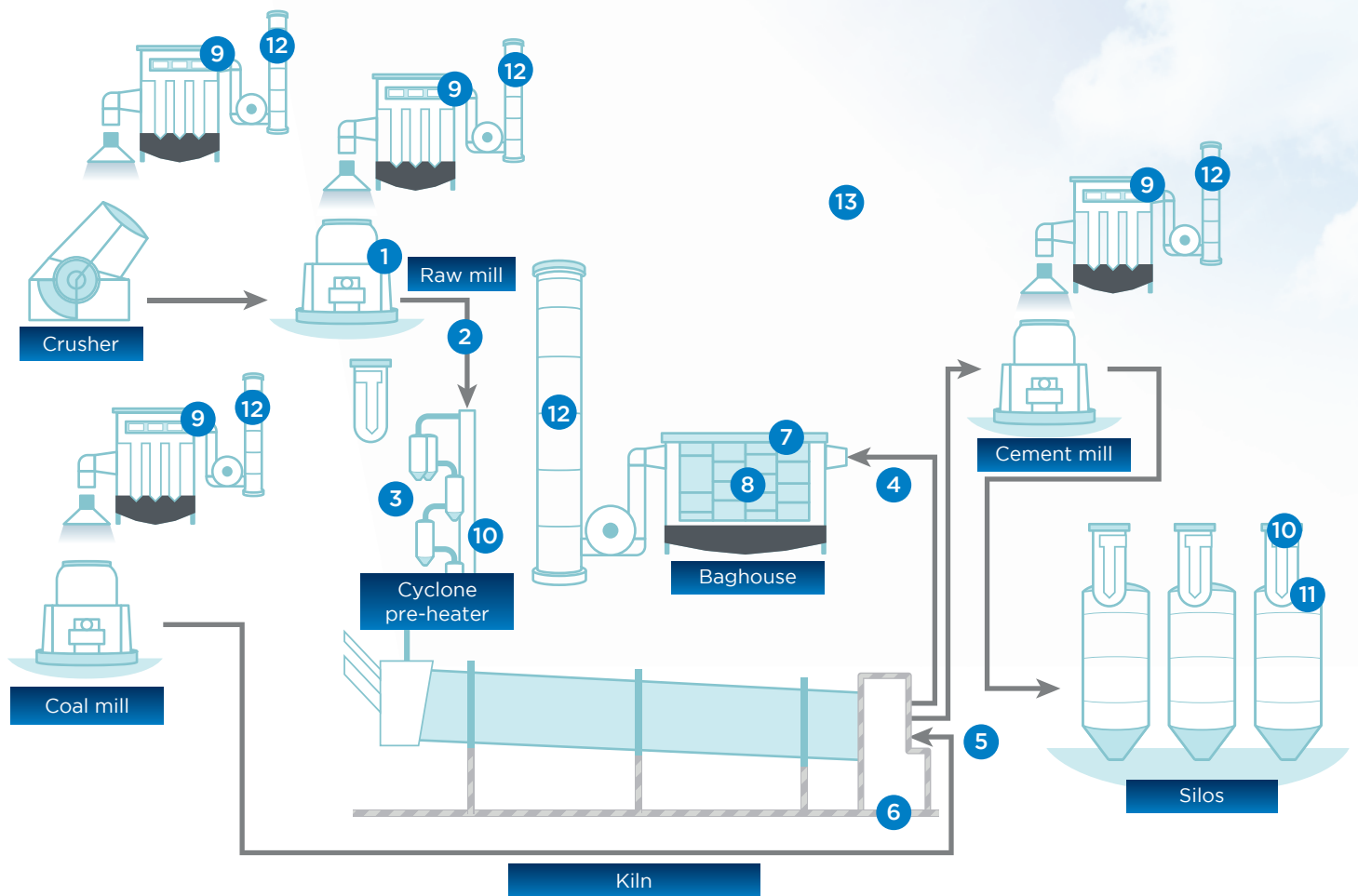


- | | |
|---|---|
| <ul style="list-style-type: none"> 1 Flow/NoFlow detection at filter outlets 2 Flow measurement after pelletizer 3 Continuous moisture measurement after dryer 4 Process gas monitoring: CO, O₂ 5 Predictive monitoring of bag row failure | <ul style="list-style-type: none"> 6 Final stack emissions compliance monitoring: CO, SO₂, NOx, H₂O, NH₃, CO₂, O₂, CH₄, VOC, dust, flow 7 Wet FGD stack dust emissions measurements 8 Mass flow measurement of carbon black to silos 9 Process leakage detection: CO, CO₂, NH₃, SO₂, VOC, particulates |
|---|---|





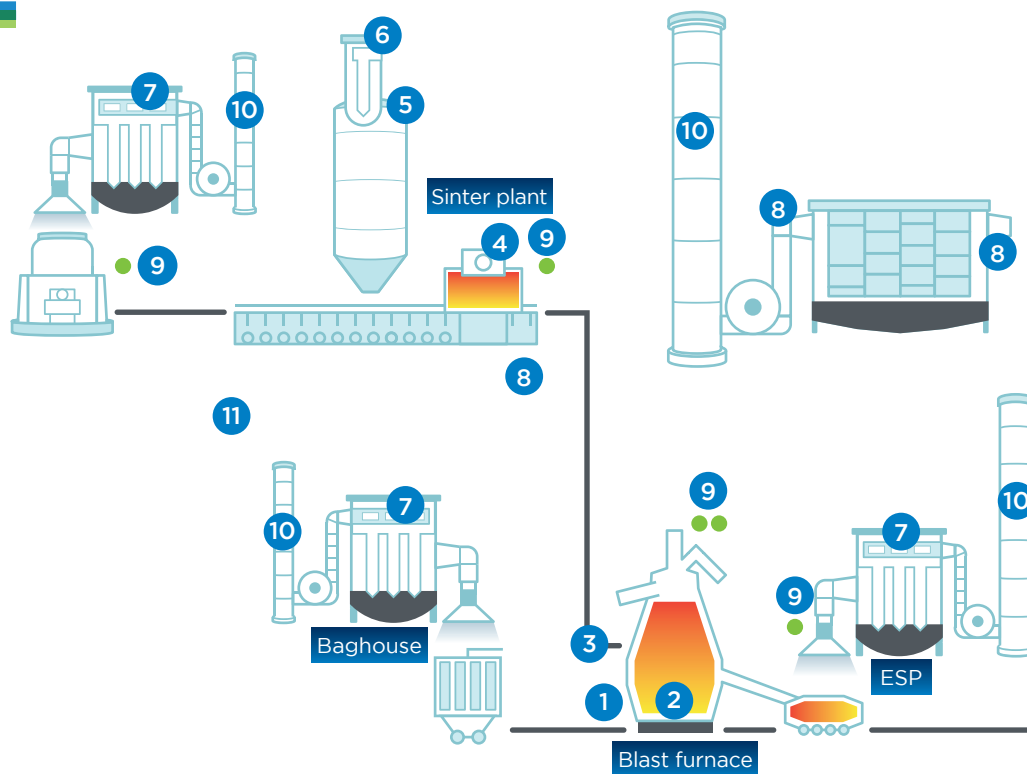
CEMENT



- | | |
|---|--|
| 1 Continuous mass flow measurement of mill reject | 9 Filter performance monitoring |
| 2 Flow trending in air slide | 10 Silo baghouse performance monitoring |
| 3 Flow/NoFlow detection on cyclones | 11 Continuous level measurement in storage silos |
| 4 Process gas monitoring: NO _x , CO, O ₂ , Hg | 12 Stack emissions compliance: HCl, SO ₂ , CO, CO ₂ , NO _x , H ₂ O, O ₂ , VOC, PCDD/F, Hg, flow, dust |
| 5 Mass flow and velocity measurement of coal into kiln | 13 Process leakage detection: SO ₂ , VOC, particulates |
| 6 Continuous moisture measurement of secondary fuel | |
| 7 Baghouse chamber performance monitoring | |
| 8 Predictive bag filter row monitoring | |

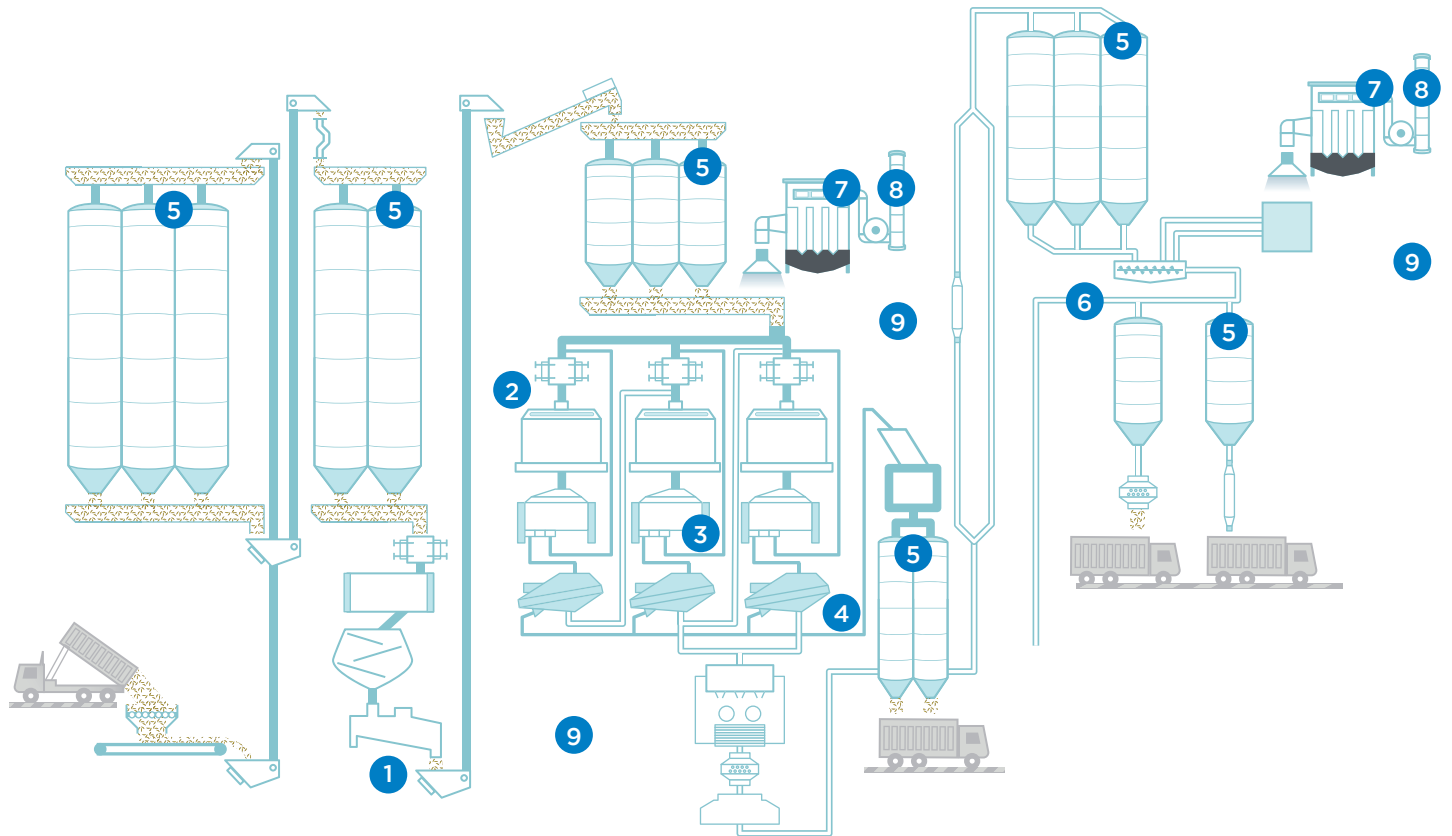


STEEL



- | | |
|---|---|
| <ul style="list-style-type: none"> 1 Mass flow measurement of pulverized coal into blast-furnace 2 Flow/NoFlow detection in single coal lance 3 Continuous moisture measurement of coal 4 Continuous flow measurement of sinter dust 5 Level detection in storage silos 6 Silo baghouse performance monitoring 7 Individual chamber baghouse performance | <ul style="list-style-type: none"> 8 Electro-filter efficiency monitoring 9 Process gas monitoring: <ul style="list-style-type: none"> ● CO, O₂ ●● NH₃ (si SCR) 10 Stack emissions compliance monitoring: CO, SO₂, NO_x, H₂O, NH₃, CO₂, O₂, CH₄, VOC, dust, flow, temperature, velocity 11 Process leakage detection: VOC, CO, CO₂, HF, HCl, NH₃, SO₂, particulates |
|---|---|

GRAIN



- | | | | |
|---|--|---|---|
| 1 | Flow measurement after intake and cleaning | 6 | Silo baghouse performance monitoring |
| 2 | Flow/NoFlow detection of flow into roller mills | 7 | Baghouse chamber performance monitoring |
| 3 | Continuous moisture measurement after conditioning | 8 | Compliance emission measurement: CO ₂ , NH ₃ , SO ₂ , dust |
| 4 | Particle size monitoring | 9 | Process leakage detection: CO ₂ , NH ₃ , SO ₂ , CH ₄ , particulates |
| 5 | Continuous level measurement in storage silos | | |



POWDERS

ENVEA manufacture an unrivaled range of monitors for powder, granulates and dust to meet the continued demands of industrial processes. Our instruments help you to better understand and control your process to increase efficiency and product quality.

With almost 25 years of experience, ENVEA has achieved extensive knowledge in use of sensors for the measurement of flow, level, moisture, concentration, velocity and particle size. We employ the latest ground-breaking microwave and electromagnetic technologies.



FLOW MEASUREMENT AT LOW AIR/SOLID RATIOS

PicoFlow

Electrodynamic flow sensor for measurement of low flow rates from 0-100 kg/h.

For pipe diameters up to 1 m.

Ideally used in leanphase conveying.

In free fall conditions with at least 2 m/s drop speed.

- suitable for very low concentrations
- ceramic coating prevents sensor wear



MICROWAVE FLOW MEASUREMENT

SolidFlow 2.0

Microwave sensor for on-line mass flow measurement of solids up to 20 t/h.

Used in pneumatic leanphase conveying or vertical freefall after mechanical feeders.

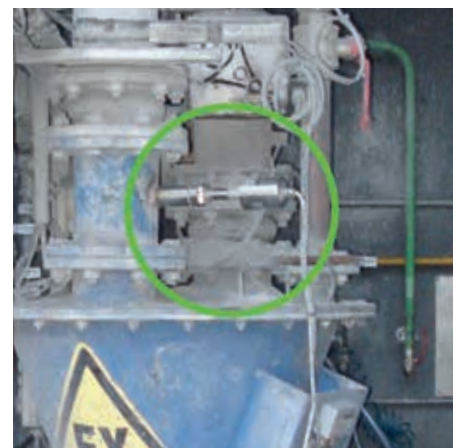
- easy assembly via weld-on socket
- for almost all types of dust, powders and granules
- latest technology with active roping compensation
- suitable for nearly all pipe diameters

Measurement of low flow rates from 0 - 100 kg/h



IDEALLY USED IN LEANPHASE CONVEYING

Measurement for flow rates up to 20 t/h



MOUNTED ON A VERTICAL FREEFALL AFTER FEEDER



ELECTROMAGNETIC FLOW MEASUREMENT

MaxxFlow HTC

Electromagnetic flowmeter, designed to measure bulk material flows from up to 300 t/h.

The meter has no mechanical parts in the flow, is 100% dustproof and erosion free because of ceramic inner pipe.

- arbitrary mounting position (inclined/free fall)
- low headroom required
- easy to calibrate



FLOW MEASUREMENT FOR DENSEPHASE CONVEYING

DensFlow

Designed to measure solid flows during pneumatic densephase transport. The sensor measures density and speed.

- no wear because of ceramic inner pipe
- standard version up to 25 bar

DensFlow HP



Also available as a high pressure version up to 110 bar.



FLOW MONITORING IN AIR SLIDES

SlideControl 2.0

Microwave sensor for contactless monitoring of material flow in air slides.

- easy to install
- easy to retrofit
- gives trending information by 4 - 20 mA output
- immediate alarm when flow is interrupted

Flow measurement
up to 300 t/h

Flow measurement in dense-
phase conveying lines

Trending flow in air slides



MEASUREMENT AFTER ME-
CHANICAL FEEDING SYSTEMS



INSTALLATION IN PIPE DIAME-
TERS UP TO 150 MM



EASY TO RETROFIT ON EXIST-
ING AIR SLIDES

FLOW/NOFLOW DETECTION



FLOW/NOFLOW DETECTION

FlowJam & FlowJam S

Microwave detector for contactless monitoring of material flow (Flow/NoFlow).

Reliable sensor insensitive to deposits or build-up of material.

- with adapters suitable up to 1000 °C and 20 bar pressure
- as compact version or with separate electronics
- FlowJam S with 4 - 20 mA output



BLOCKAGE DETECTION

FlowJam Plus

This microwave sensor is an advanced version of the FlowJam already well known and used in thousands of applications.

Besides Flow or NoFlow, the FlowJam Plus in case of a NoFlow situation indicates if it is ...

- caused by blockage
- or empty pipe caused by a stop of material supply



FLOW DETECTION ON FLEXIBLE HOSES

FlowJam A

Microwave-based detector for monitoring the flow of solids conveyed by hose lines.

The system can be installed on electrically non-conductive hoses, such as plastic or rubber, with an outside diameter between 2 to 10 mm.

- easy to retrofit
- 4 - 20 mA output via converter

Fast and reliable Flow or NoFlow detection



INSTALLATION ON PNEUMATIC OR GRAVITY CONVEYING LINES

Detection of blockages as a Plus



INSTALLATION ON A FREEFALL CHUTE

Flow/NoFlow detection on flexible hoses



CLAMP-ON SENSOR MOUNTING

LEVEL DETECTION



POINT LEVEL DETECTION

ProGap 2.0

Microwave barrier for contactless detection of dry bulk solids in containers or chutes. Reliable fill level and limit level detection.

- with adapters suitable up to 1000 °C and 20 bar pressure
- 25 m measuring range



POINT LEVEL WITH COMBINED FILL FLOW DETECTION

ProGap 2.0-BS

Microwave barrier for contactless detection of dry bulk solids in containers or chutes. Reliable fill level and limit level detection.

- Advanced version of the ProGap 2.0
- with filling signal recognition
 - indicates level and material flow
 - separated version enables installation in positions difficult to access



CONTINUOUS LEVEL MEASUREMENT

Nico 120

80 GHz-Radar sensor for measuring the level of material in silos and containers.

Available for silos up to 120 m high. Can be used with a wide variety of materials, regardless of the particle size or composition of the material.

- maintenance-free operation through non-contact measuring principles
- reliable measurement independent of vapour, dust and noise

Detection of Max and Min level



INSTALLATION ON A CHUTE
FOR MIN LEVEL DETECTION

*Detection of Max and Min level
plus flow*



INSTALLATION ON
A CONTAINER

*Continuous level measurement
with excellent precision*



INSTALLATION FOR LEVEL
MEASUREMENT IN SILOS



CONTINUOUS MOISTURE MEASUREMENT

M-Sens 3 & M-Sens WR

Sensors for continuous moisture measurement on conveyor belts, screw feeders or hoppers.

Two types of sensor technology to cover a wide range of applications. Both sensors penetrate the product for most reliable measurements. Microwave based sensor for high resolution and accuracy.

- up to 120 °C, respectively 190 °C
- highly resistant to abrasion
- integrated temperature reading
- flow detection function

Reliable moisture measurement with high resolution



MEASUREMENT ON A SCREW FEEDER



CONTINUOUS VELOCITY MEASUREMENT

SpeedFlow 2.0

Especially designed for continuous measurement of velocity of solids and particles such as granulates, powders and dusts, which are transported in free fall or in pneumatic transport. Uses triboelectric correlation technology.

- plug-in sensor for easy retrofit
- no calibration required

Speedflow 2.0 - Pipe
Spool piece version



- measures full cross-section
- no calibration required

Accurate velocity measurement



INSTALLATION ON PNEUMATIC OR GRAVITY CONVEYING LINES



PARTICLE SIZE MONITORING

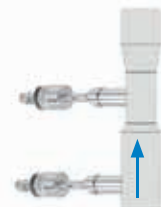
Paddy

Paddy has been developed to supply trending information on material granulation.

Measures changes in particles, for instance, to detect screen breaks.

Not sensitive to contamination and works without the need for a bypass.

Can be used in pneumatic conveying by use of a venturi section or in vertical freefall conditions.



Continuous trending of granulation



IN PNEUMATIC CONVEYING LINES OR FREEFALL



UNDERSTANDING YOUR PROCESS
AND HELPING YOU TO IMPROVE

BROKEN BAG DETECTION

DUST

ENVEA manufacture an unrivalled range of particulate monitors to meet the broad needs of particulate emitting industries worldwide and the requirements of national and international regulations. Based on this ground-breaking range of approved particulate monitors, ENVEA's instruments allow end users to improve emissions to the atmosphere also better understand and measure their particulate emissions to achieve cost savings (in terms of reduced filter maintenance) and reduce production downtime.

GROSS FILTER FAILURE DETECTOR

Dusty

Dusty provides a simple solution to identifying catastrophic failure of a fabric filter bag houses, cartridge filters or cyclones.

Ideally suited to applications from $<1 \text{ mg/m}^3$ Dusty provides an immediate user configurable alarm in the case of filter failure.

GROSS FILTER FAILURE DETECTOR WITH TRENDING

Dusty C

This standalone sensor in addition to its configurable alarm features a 4 - 20 mA output to allow the remote observation of filter trends when connected to the sites Digital Acquisition System.

Easy commissioning
(Plug & Play)

Also available for
high temperatures



SIMPLE BROKEN BAG DETECTION



COMPACT SENSOR FOR BROKEN BAG DETECTION

LEAK MONITORS



CONTROLLER BASED GROSS FILTER FAILURE INSTRUMENT

DUST ALARM 40

This two-piece controller based system features an Icon Driven colour display to facilitate the easy setup of the remote sensor and observation of filter trends and alarms.

This design eliminates the need for operators to access the sensor, which may often be installed in difficult to reach locations.

Available with twin configurable alarms and a 4 - 20 mA output, the DUST ALARM 40 provides easy remote observation of filter performance.



COMPACT FILTER LEAK MONITORS

LEAK ALERT 73/75/80

The LEAK ALERT range provides a scalable output to enable calibration in mg/m^3 .

Available both as approved Leak and Measurement instruments to BlmSchV 27 Class 2 and 3 (EN 15859) and designed to meet US ASTM D7392-07 for Bag Leak Detectors they come complete with inbuilt sensor health checks, short circuit and drift (zero and span) to assure instrument functionality. The LEAKALERT range provides a rugged and reliable solution to filter performance monitoring.

DUST MONITORS



DUST MEASUREMENT WITH SEPARATE ELECTRONICS

ProSens / VIEW 800

For those who prefer to interrogate and configure their sensor remotely or require explosion-proofed sensors this controller-based monitors provides reliable and robust monitoring of particulate dust levels and leaks from faulty bag media.

The sensor, installed after the bag-house, amplifies and analyses the dust signal and communicates a secure digital signal to the remotely located control unit, where instrument set-up, local graphical display and both digital and 4 - 20 mA output signals are provided.

Stack sizes up to 4 m

Compact sensor with
integrated display

Separate version for continuous
dust measurement



BROKEN BAG DETECTION
WITH EXTERNAL DISPLAY



CALIBRATABLE AND
EN 15859-APPROVED



CALIBRATABLE AND FOR
EXPLOSION-PROOF AREAS

PRASCATTER



DUST MEASUREMENT POST ELECTRO-FILTERS

DM 170 / QAL 260

Compact and stand alone, the DM 170 and QAL 260 utilises Back Scatter technology to provide non-compliance monitoring of particulate after Electrostatic Precipitators (ESP's) and applications that do utilise a filter. Not only found in emission stacks, it may also be used for failure identification between primary (ESP and baghouse) and secondary filters.

*Optical backscattering
dust measurement*



CONTACTLESS
DUST MEASUREMENT



MULTI-CHAMBER FILTER MONITORING

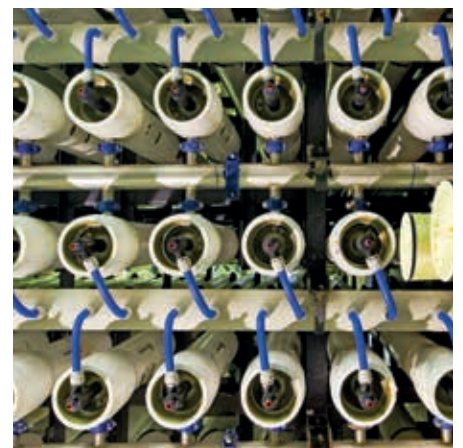
LEAK LOCATE 320

To understand where in the filter wear is happening before breaches in environmental limits are reached. Provides plant operators with a host of benefits.

The LEAK LOCATE 320 monitors up to 32 compartments per controller, allowing each chamber of a large multi-chamber baghouse to be continually monitored to determine any deterioration of the filter elements at both compartment and row level.

These systems allow preventative maintenance procedures to reduce unplanned filter outages and maintenance times.

*Control and localisation of
multi-chamber filter leaks*



DETECTING DETERIORATION
OF FILTER BAGS



QUANTITATIVE NETWORKED MEASUREMENT SYSTEMS

QAL 991

ENVEA's range of networked electrodynamic dust monitors including the QAL1(EN 15267-3) approved QAL 991 which provides an integrated solution for the monitoring of multiple baghouses. Transferring data from and supplying power to the sensors via a single network cable, these calibratable instruments provide remote realtime observation of filter performance and access to logged historical data.

The multi-lingual controller features a large full colour display and is capable of handling up to 32 channels.

EMISSIONS DATA REPORTING AND ANALYZING

netTools

Ease of access to emissions data from sources plant-wide is vitally important. ENVEA's cloud-based software is a powerful and customizable software suite for displaying, analysing and reporting data from both control units and stand alone sensors.

For multi-row and multi-chamber baghouse operators, the Predict software modules allow failing filter elements to be located and replaced before gross filter failure occurs, enabling scheduled preventative maintenance and minimized process downtime.

AMBIENT AIR DUST MONITORING

AirSafe 2

AirSafe 2 is a measuring instrument for monitoring the dust concentration in ambient air, for example in control system areas, silo areas, boiler houses or work stations. It monitors concentrations on the basis of preset limit values.

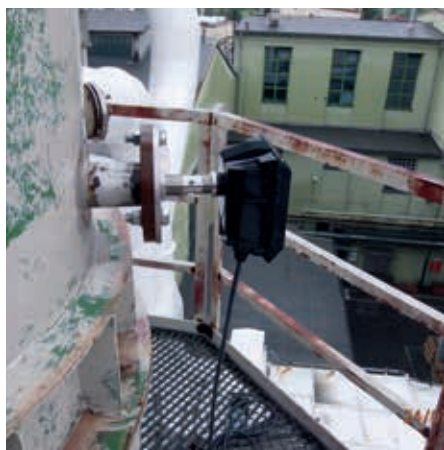
For example, to avoid the accumulation of dust in explosion zones or to detect unnoticed accumulation of dust from processes.

AirSafe2 can be used as early detection for dust which could endanger the workplace.

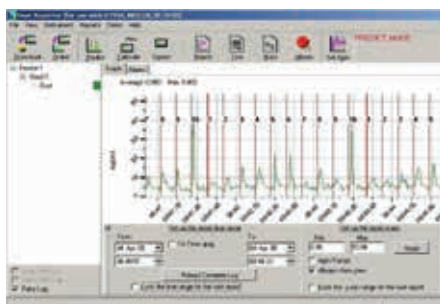
Particulate measurement

Access to data from controller units and stand alone sensors

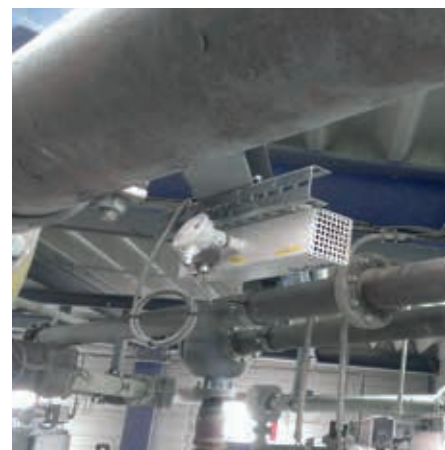
Monitoring offline process conditions



ALSO CERTIFIED FOR RESIDENTIAL AREAS



CUSTOMIZABLE SOFTWARE FOR PLANT-WIDE OPTIMIZATION



AVOIDING EX-ZONES BY AMBIENT DUST MONITORING

GAS

ENVEA operates in almost all stages of industrial processes. In addition to measuring dust and powders, gases are also important to monitor in order to check how the process works at an optimal pace.

ENVEA provide a full range of sampling systems and gas analysis technologies which help you to control and enhance your process through quality measurements for such application as combustion optimization.

GAS CONCENTRATION



NOX AND COT ANALYZER

Topaze 32M / Graphite 52M

Two of the most versatile gas monitoring solutions available.

The Topaze 32M and Graphite 52M can be optimised for any online gas monitoring applications.

Features and benefits:

- using the reference test methods for continuous measurement of NO, NO₂ and NO_x (Topaze 32M) and respectively THC / N_mHC / CH₄ (Graphite 52M)
- "Hot" Extraction technology, with no specific sample treatment
- robust construction for field location analysis

Ideal for wet and corrosive process conditions



MONITORING OF COMBUSTION GASES ON INDUSTRIAL FURNACE



MULTI-GAS NDIR-GFC ANALYZER

MIR 9000 / MIR 9000e

Offers excellent performance for multigas measurements in dry sampling, including HCl, HF, NO, NO₂, N₂O, SO₂, CO, CH₄, TOC, CO₂ and O₂.

Multi-Gas NDIR-GFC analyzer (Non-Dispersive Infrared Gas Filter Correlation) measuring up to ten gases simultaneously, even Hydrogen Chloride (HCl) and Hydrogen Fluoride (HF).

The MIR 9000e is the next generation ultra-compact and smart-connected solution to measure gas from different industrial furnaces and process applications.

Designed to measure dry & corrosive samples



ONLINE MONITORING OF MULTIPLE GASES



TUNABLE DIODE LASER (TDL) TRACE ANALYZER RANGE

LAS 300 XD

Ideal for selective measurements of gases such as ammonia NH_3 , acids as HCl, HF and CO , H_2O or even the O_2 when the conditions are too extreme for zirconia sensors.

Features and benefits:

- latest TDL Absorption Spectroscopy Technology
- robust, contactless and highly accurate, unaffected by gas contaminants
- exceptional range from 100 ppb to % level readings depending on the model

Perfectly suited to harsh and corrosive environments.

Inline measurement with ultra fast response time



CROSS DUCT COMBUSTION MONITORING



ADVANCED DIGITAL MULTI-GAS ANALYZER

MIR 9000H

Multi-gas analyzer for measurement in hot and humid sampling of: HCl, HF, NH_3 , NO, NO_2 , N_2O , SO_2 , CO , H_2O , CO_2 and O_2 and H_2O .

It provides up to 4 gas stream measurements.

Features and benefits:

- air ejector sampler embedded to get robustness for harsh flue gas mixtures
- advanced digital communications including Ethernet and ModBus

In compliance with international regulation standards



GAS ABATEMENT MONITORING OF MULTIPLE GASES



MULTI-GAS IR-GFC ANALYZER

MIR 9000 CLD

Standard Reference CLD method for low & ultra low NOx measurement, IR-GFC for CO , CO_2 , SO_2 , N_2O , Nox, HF, HCl, TOC and O_2 in a single analyzer.

Fast and simultaneous measurements of up to 10 gases, available in 2 versions:

- NOx (CLD) and O_2 (paramagnetic) in 19" rack or tight box for low and ultra-low NOx monitoring
- CO , CO_2 , SO_2 , HCl, HF, TOC, N_2O (IR) + NOx (CLD) + O_2 (paramagnetic) in tight box

Fast and simultaneous measurement of various gases



ULTRA LOW NOx MEASUREMENT



IN-SITU CLOSE-COUPLED MULTI-GAS ANALYZER

MIR IS

A complete all in one compact system, for multi-gas measurements, based on the field-proven MIR 9000 analyzer and on-board SEC sampling system.

Fast & simultaneous measurement of up to 10 gases among: HCl, NO, NO₂ (NO_x), SO₂, CO, CO₂, HC, CH₄ (TOC), HF, N₂O, O₂, at the sampling location.

Integrated sample drying & system conditioning; no sample line necessary.



MERCURY ONLINE MONITORING IN GAS

SM-4

Reliable monitoring of mercury in the flue gases, the natural gas, liquids, ambient air or still in laboratory samples, our unique Thermo catalytic technology with the SM-4 range, provides an accurate, highly stable and reliable measurement with low maintenance required: helps to reduce reagent, cartridge replacement, solid reagent and water filling.

Incorporating the latest advances in gaseous mercury sensing technology, our Hg analysers revolutionise ultra trace measurements in industrial processes.



AUTONOMOUS NETWORKS OF SENSOR-BASED MINI-STATIONS

Cairnet & Cairprocess

Real-time standalone and networkable air-monitoring station containing up to four Cairsens® microsenors and cellular communication within a waterproof & solar powered enclosure.

Following in real-time any given pollutant emissions data directly from your office, via your computer, smartphone or tablet? All the data centralized in the Cloud, with minimum operating costs (no maintenance, no visit on site to retrieve the data...)? Cairnet is made for you.

Measurement at place



GAS TREATMENT PROCESS CONTROL

Optimizing reagent injection



MERCURY DETECTION IN FLUE GASES

Data centralization via a secure cloud



FUGITIVE EMISSIONS & GAS DETECTION



ALL-IN-ONE PORTABLE REAL-TIME HG MONITOR

Mercury Tracker-3000 XS

Very small, ultra-light, with on-board GPS, data logger, battery pack and color TFT display for very comfortable and easy mercury monitoring in ambient air and other gases.

Portable mercury monitoring and detection is made easy with the Mercury Tracker-3000 XS.

Lightweight, rugged construction and compact, the instrument is perfect for screening the concentration of mercury in the air.



EXTRACTIVE TDLAS GAS ANALYZER

LAS 300 RK

High precision measurements of selective compounds such as: HF, HCl, NH₃, O₂, NO, CO and H₂O.

Other gases on request.

Ideal for applications which require reliable and specific measurements, this gas monitor is suitable for monitoring ppb and ppm concentrations in emissions, ambient air or process monitoring. It uses rapid laser tuning and direct absorption spectroscopy to achieve very stable results.

Lightweight, small and practical

Suitable for ambient air, process and emissions measurements



MERCURY LEAKAGE
DETECTION IN PLANTS



FAST RESPONSE LEAKAGE
DETECTION

CLOUD-BASED MONITORING & ANALYSIS

IoT and the digitization of plants and plant components is one of the upcoming topics in process automation and the processing of measurement data in general. The ENVEA Group with its systems for data acquisition is pioneering in this field already today. Beside the transmission of measured values to the existing control system we are opening another communication channel, namely the transmission of as much data from IoT-enabled sensors into a cloud. This new communication channel completely bypasses the process DCS/PLS level so that it always remains safe.

To receive real-time sensor measurement data into a cloud is a big step forward for any plant, but with ENVEA you can take the next step and utilise that data to predict, monitor and respond early to issues such as filter leaks and process performance. Plants can use measurement data to be pre-emptive and proactive, performing maintenance not to replace broken filter bags but to avoid broken bags and costly plant shutdown or loss of product.



The basic set up consists of this solution is the ENVEA sensor or measurement device connecting to a controller which in turn connects to the cloud. The software in the cloud then displays the measurements in actionable and reportable formats.

In addition to new ENVEA products, which will have networked and cloud-based functionality, ENVEA can upgrade an existing sensor and controller system to enable cloud-based data acquisition and analysis. Take the next step in utilising your plant measurement data and speak to ENVEA today about how our cloud-based services can help you.

OUR SOLUTIONS ADAPT TO YOUR NEEDS

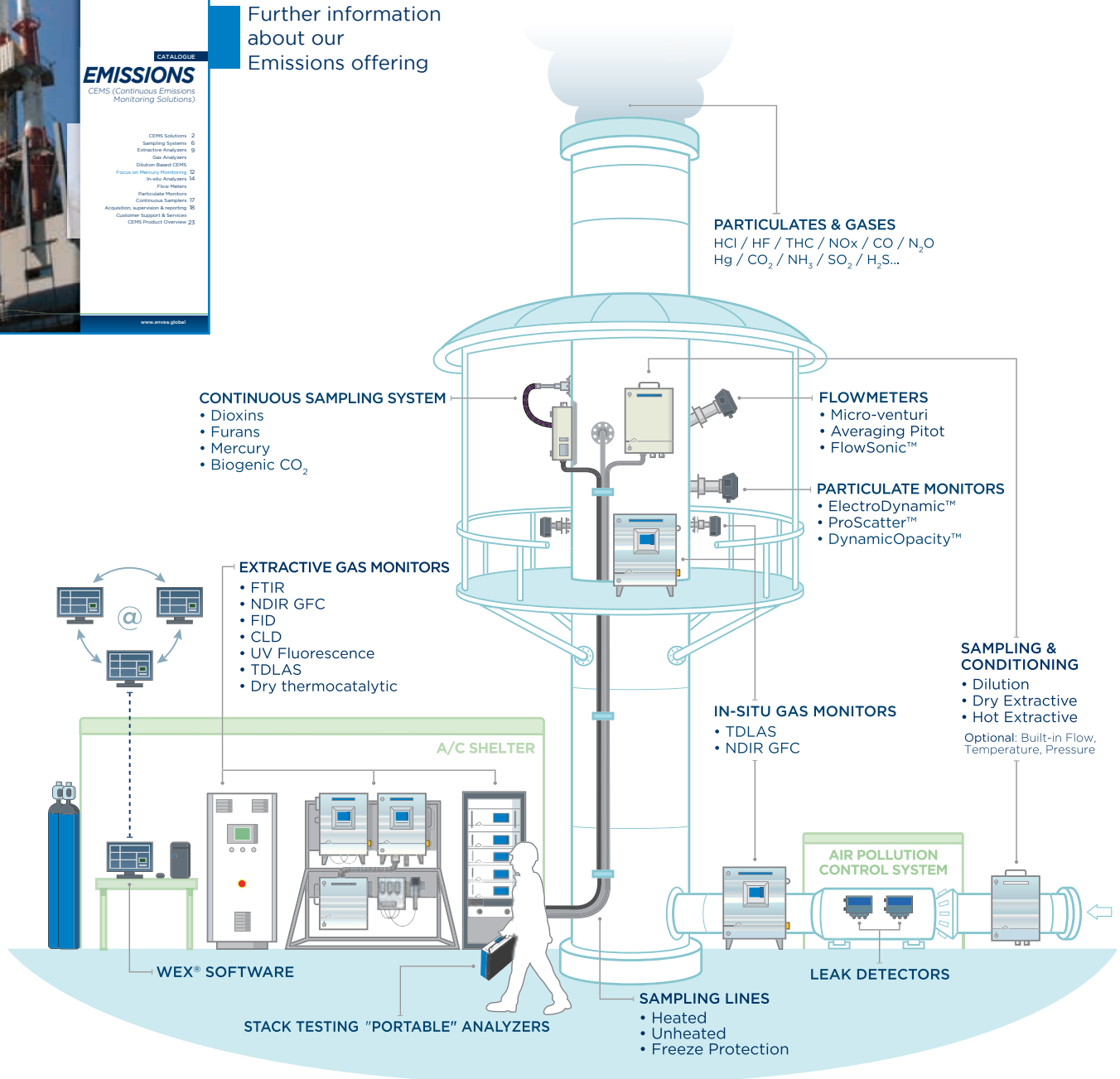


AND FOR YOUR REGULATORY COMPLIANCE...

We design and produce a complete range of state of the art analyzers, sampling systems, data acquisition systems and software for the measurement & reporting of pollutants such as: HCl, SO₂, NO, NO₂, NOx, N₂O, CO, CO₂, CH₄, THC, nmHC, NH₃, HF, H₂S, TRS, O₂, H₂O, temperature, flow, pressure, particulates, mercury, dioxins...



Further information
about our
Emissions offering



With decades of industrial experience, our systems are designed and developed as a **complete turnkey solution**. From sample extraction, through analysis, data acquisition and report management, each system is configured to comply to the normative demands and technical constraints of our clients, no matter the industrial domain:

- Waste-to-energy plants
- Combustion
- Power plants
- Gas turbines
- Biomass
- Glass industry

- Cement plants
- Pulp mills
- DeNOx (SNCR, SCR)
- Boilers & industrial furnaces
- Process control
- Metal, steel, petrochemical, chemical industries...

SUPPORT & SERVICES

Improved plant performance through close partnership

ENVEA's global structure enables a close local approach to our customer relationships. Internal technical training provided by specialists and technical experts is available all over the world and our engineers work to fully understand your process. A close partnership with our clients improves their processes, whatever the location or industry.

The Technical Support Services Team, with its worldwide presence of experts, brings experience from a wide range of applications and industrial sectors ensuring that systems are set-up, operated and maintained to maximize functionality for their intended purpose.



COMMISSIONING

Utilizing our commissioning services allows you to ensure a proper commissioning of your process instrumentation. Especially during start-up of your process this ensures that everything runs smoothly and customers have access to all specific skills needed.

MAINTENANCE

Regular calibration and maintenance of the instruments is essential to get reliable information for controlling your process, especially for quality critical processes. ENVEA has a global network, providing cost effective on site services.

TRAINING

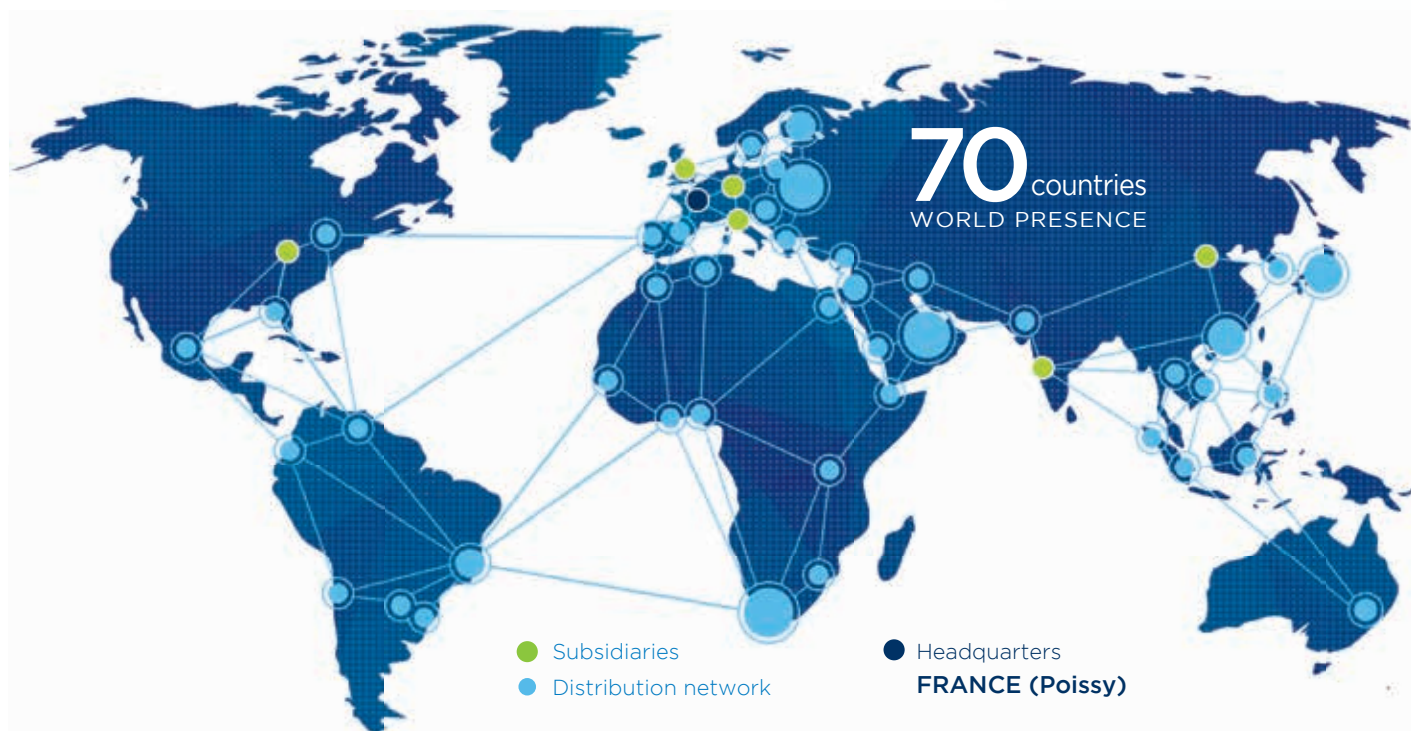
Training programs are customized and will specifically adhere to your company's particular needs, whether you require instruction for one individual or a group. All training options are designed to be conducted in a classroom, on-site or in a factory setting.

We can help you run your installation as efficiently and smoothly as possible.

A STRONG GLOBAL PRESENCE

ENVEA is a leading manufacturer of cutting-edge on-line monitoring solutions for industry, laboratory and local & government institutions.

Faithful to the principles on which it was founded – innovation & quality, ethics & social responsibility, shared values & transparency – the group is committed to providing you with solutions and assistance at the highest standards in order to comply with applicable regulations; as well as the optimization of industrial processes for an improved efficiency, significant savings of raw materials & energy and the reduction of environmental impact.



Our worldwide references guarantee a perfect understanding of your needs and ability to manage a vast range of applications:

More than 37.000 air quality monitors are measuring the pollution of cities worldwide: Barcelona, Seoul, Rio de Janeiro, Istanbul, Mecca, New Delhi, Moscow, Paris, Budapest, Abu Dhabi, Bangkok, Beijing...

Over 28.500 processes & emission sources are monitored worldwide across a broad range of industries such as: chemical, minerals, metal, waste to energy, incineration, food and pharma, engine manufacturers, or wood industry.

Process - Emissions - Ambient
Monitoring solutions

