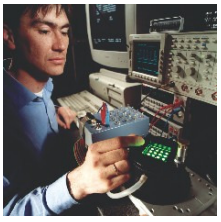


PRODUCT OVERVIEW



IMTECH INDUSTRY INTERNATIONAL B.V.


Analyser Systems / Metering Systems /
Sampling Systems / Pilot Plants / Analyser Products



Imtech


ANALYSER HOUSE PROTECTED
BY FORCED VENTILATION

History

Business unit Imtech Analyser Systems, part of Imtech Industry International division, is internationally well known as a supplier of pre-fabricated systems and products, like analyser systems, metering systems, pilot plants and sampling systems.

Imtech Analyser Systems is founded in 1974 under the name Westinghouse at location Zaandam.

After take-over of the Westinghouse branches by the Dutch company Van Rietschoten & Houwens (part of Internatio-Müller) name has been changed to Van Rietschoten & Houwens (R&H) Noord West B.V. Analyser systems.

Since the year 2000 corporate name Imtech has been used and our business unit is part of the Imtech division Industry International.

Our track record spans several decades in supplying integrated systems to key players in numerous industries in countries around the world. Operating from the company's base in the Netherlands, our organisation is geared for projects worldwide.

Typical industries involved are petrochemical and chemical industries, gas production industries, refineries, steel mills, cement mills, power plants, transport lines and offshore.

We serve these industries worldwide for the following applications:

Systems

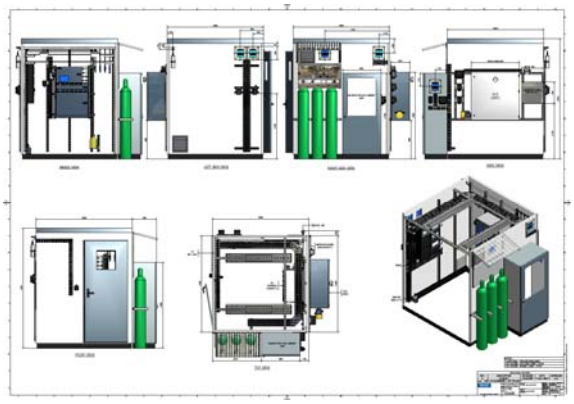
- Analyser Systems
- Metering Systems
- HC sampling Systems
- LNG sampling Systems
- Pilot Plants
- Sample Recovery Systems

Products

- RHADOX Fast Wobbe Index analyser
- Pyrolysis sampler
- Flow computers
- Analyser representative for various manufacturers
- System components

Services

- Supervision
- Commissioning / Start-up - Systems and/or products
- Site Acceptance Testing - Systems and/or products
- Services for (preventive) maintenance products
- Training
- Provision of spare parts
- Rental of analysers



Pre-fabricated Analyser Systems

Imtech is able to design and supply pre-fabricated analyser systems, complete with all required equipment for installation at site.

Scope typically includes the following main components:

- Analysers
- Sample take-off probes
- Sample (pre-) conditioning systems
- Analyser housing for installation of multiple analyser systems
- Electrical equipment
- Safeguarding equipment
- Fire Shut-off assemblies
- Fire Detection assemblies
- HV / HVAC units
- Gas bottle facilities
- Sample Recovery System(s)
- Communication hardware/software for analyser systems (Analyser Management)
- Marshalling cabinets

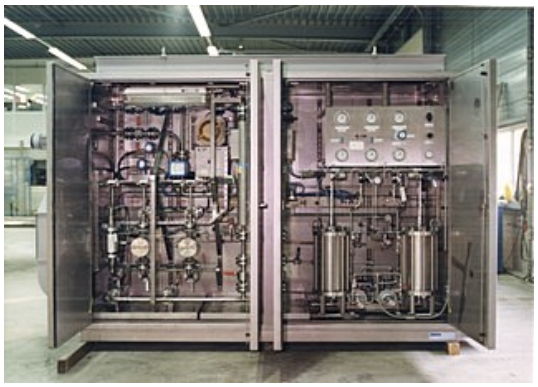
Our analyser packages are flexible enough to accommodate virtually any combination of analytical equipment.

Analyser packages can be used for a diversified range of applications and is delivered to jobsite as a completely "piped and wired" package.

The only on-site work that is required is building the foundations and connecting the piping and wiring.

Pre-fabricated analyser systems sharply reduce labour and material costs on job site.

Total System Approach for Analyser Systems



Automatic grab sampling controls product quality

Grab Sampling Systems

The main purpose of our sampling systems is to grab and store that amount of sample gas or liquid which is required to obtain a true representation of the actual flow through a process line over a given period (e.g. day, week or month).

Imtech is able to provide systems to prepare, withdraw and store your sample, based upon proven design and techniques and in accordance to various local / authority standards.

HC Sampling Systems

Being a System Integrator we know how to design a sampling system, keeping them simple but functional within the normal levels of costing, operability and maintainability; all in line with your / the client's requirements.

Next to that, Imtech is an authorized representative for Welker Engineering Co.

Imtech is representing this company for many years so their specific product knowledge and capabilities can be utilized into your system.

LNG Sampling Systems

Imtech Analyser Systems has a long history in building LNG samplers and, with the experience gathered in this method of sampling over the years, has designed an improved method of collecting retained sample conform ISO 8943 & ISO 10715.

Pilot Plants save time and money

Pilot Plants

Pilot plants and bench-scale units are designed and build on laboratory scale and operate under simulated plant process conditions.

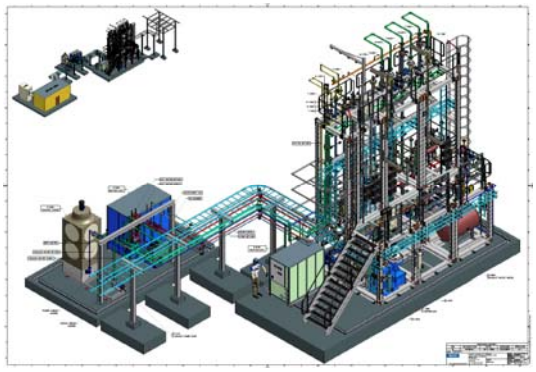
They offer customers a very cost effective method of studying, testing and improving plant performance. This equipment is particularly useful for research and development, for improving processes and for testing catalysts.

Since 1980 Imtech has designed and fabricated custom-designed bench-scale units and pilot plants for research institutes and commercial organisations across the world.

The units and plants supplied cover almost the full spectrum of types from continuous, semi-continuous and batch, dedicated and multi-purpose, fixed-bed and fluidised-bed, liquid, gas and multi-phase reactors.

Besides expertise in bench-scale units and pilot plants, the company specialises in sampling devices, sample conditioning, analytical equipment and computer control systems. With this competence in house Imtech can offer customers turnkey units with the highest standards of safety and reliability, yet practical and cost-efficient. Naturally, clients receive the most detailed consultation on all issues of importance.

Further, Albemarle Catalysts developed several test methods for Fluid Cracking Catalysts (FCC), which are commercialised by Sotelem and Imtech worldwide on basis of an exclusive license agreement with Albemarle Catalysts.



Metering Systems

Imtech has a proven track record in gas and liquid metering systems. We have comprehensive in-house expertise in metering, instrumentation, analyser systems, validation / application software, electrical and mechanical engineering and project management for metering systems for the oil and gas industry.

Combined expertise for analyser and sampling systems will be used for metering packages as well.

All types of gas metering instrumentation can be supplied based on different principles such as orifice, Venturi, sonic nozzle, turbine, coriolis and ultrasonic. We will gladly advise on the most appropriate instrumentation for your purposes.

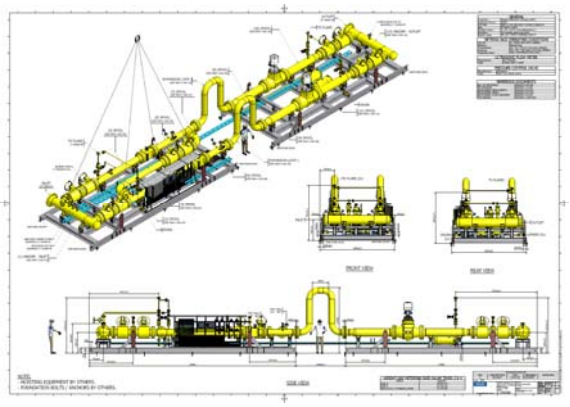
Scope of supply includes gas and liquid custody transfer metering and wet gas metering, including:

- Flow meters
- Piping / Instrumentation / Skids
- Validation systems (automatic / manual)
- Prover systems
- Supervisory flow computer software and hardware
- Analyser packages
- Grab sampling systems

All systems are tailor-made to specific customer requirements from components carefully selected from different manufacturers to ensure consistent high quality performance. The selection is based on one criterion – the best performance / price ratio.

Imtech has a free hand to select the most cost-effective components because the company operates independently – technically and financially – of any manufacturer or supplier.

Each system is designed, manufactured, assembled, tested and commissioned by highly specialized and experienced engineers and technicians.



RHADOX Fast Wobbe Index / Calorific Value analyser

Rapid and accurate determination of Wobbe Index or Calorific Value

The RHADOX is a fast and accurate analyser for determining the Wobbe Index or Calorific value of an unknown gas mixture by measuring the residual oxygen content after combustion. This enables you to obtain maximum efficiency in energy consumption and to minimise NOx emissions.

Features:

- It was specifically designed for use in the natural gas, steel, petrochemical and chemical industries. Therefore, the analyser can be supplied as a General Purpose type of analyser or as an Explosion proof type analyser according to ATEX , Ex II 2G, EExp II (T_4).
- The RHADOX has a build-in sample compartment, so the need for a complicated and expensive sample conditioning and validation system to condition the sample is no longer required.
- Imtech has developed a special reactor for the combustion of the gas, with low surface temperature to comply T_4 classification. The reactor consists of an inner reaction chamber filled with a special selected catalyst.
- Optionally, a Pressure transmitter and Density analyser can be added to determine the Calorific value of the sample gas as well.
- The RHADOX II analyser electronics are completely modular, containing standard commercially available parts.
- The controller is the user interface of the RHADOX analyser and is used to perform the calibration and validation of the analyser. The validation can be done either manually (via analyser controller), remote (via external validation input) or automatically (by setting a validation timer)
- Analyser measurement can be compensated against non-linear behaviour of certain gasses, by means of specially designed analyser software. This will increase the accuracy and the maximum measuring range of the analyser.

Representations

Imtech is representing several analyser manufacturers for many years, i.e.:

- **Sick**; extractive and in-situ analysers for gas and liquid and ultrasonic flow meters
- **J.U.M. Engineering**; FID Total Hydrocarbon analysers
- **Seres**; water and air analysers

Imtech represents miscellaneous product manufacturers:

- **Welker**; gas and liquid samplers, constant pressure sample cylinders, filters / dryers, instrumentation etc.
- **Eltherm**; heated sample lines
- **Detector**; Gas Detection systems
- **JCT Analysentechnik**; sample coolers, sample conditioning equipment

Pyrolysis Sampler

The Pyrolysis Sampler is designed to solve a critical conditioning problem for gas analysis in hot, wet and contaminated samples for several process applications.

The Pyrolysis Sampler includes the following features:

- On-line sample conditioning
- Self-cleaning and maintenance limited
- Uses vortex chilled air or chilled liquid coolant
- Standard no moving parts on the conditioner
- Provides clean sample to analysers
- Uniform representative sampling
- Suitable for hazardous areas

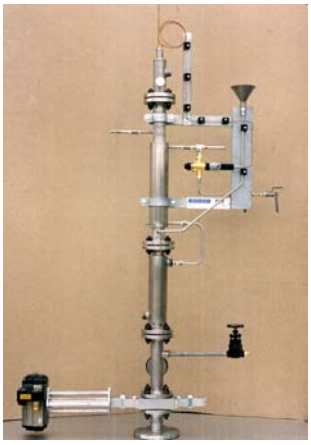
Additional information is available in application note

System components

Several standard system components can be offered, very often used in our pre-fabricated systems:

- Sample coolers
- Filters
- Sample take-off assemblies
- And many more

Various products for your application



Activities

List of activities

To supply a TOTAL PACKAGE SYSTEM we keep ourselves up to date with new developments in the metering field, train our engineers and other staff continuously in metering and instrumentation techniques.

By keeping up with the state of the art we are able to supply our customers with the following services:

Engineering and Design
- Project management
- Engineering
- Design
- Drafting
- Procurement

Manufacturing and testing
- Construction
- Assembly
- Functional Testing
- Training
- Packaging / Shipping

Services at site
- Supervision at site
- Commissioning, Start-up
- Site Acceptance Testing
- Maintenance services

Engineering and Design

Imtech is able to provide all required design and engineering work for assembling various metering systems.

The project team consists of a dedicated Project Manager, permanently assisted by project engineers and designers.

A typical team includes skilled engineers, designers and drafting personnel. The multidisciplined project team is responsible for design and engineering of all offered equipment and able to guarantee total system responsibility.

The Project Manager is client's single point of contact for all technical and commercial matters.

Experienced project team members support our service department and can be used for consultancy activities and revamp projects.

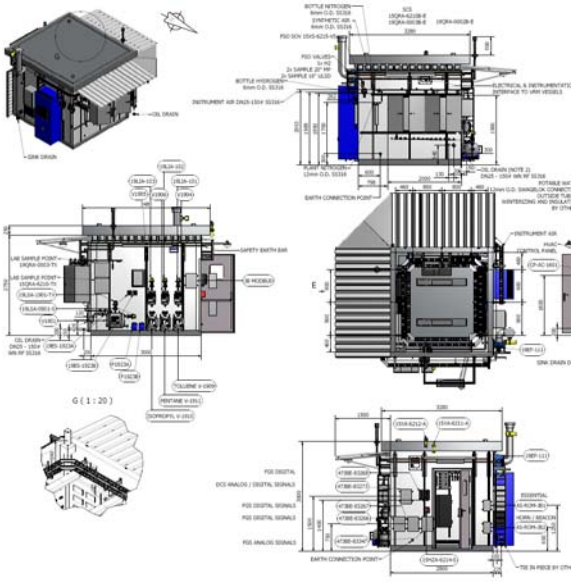
Consultancy services

Typically, most projects do not justify a full-time metering specialist. The advantage of a consultancy contract is that the user gains access to these specialised skills at the exact time they are needed, without high personnel cost.

As we do not manufacture the individual flow meters and instrumentation, our proposals and recommendations are always entirely objective and are based on proven previous experience.

Consult us at the beginning of your project and we can help you define your objectives and work from initial planning right on through to installation, testing and system start-up.

A consultancy engagement may address a well-defined problem or a specific metering requirement.



Manufacturing and Testing

At our production location in Goes we have all the facilities to pre-fabricate skid constructions, buildings, cabinets, systems and associated equipment.

All pre-fabricated equipment will be ready for installation at site.

All interfaces can easily be made and site activities will be limited to a minimum.

All systems will be fully tested prior to shipment to site. Customers and plant owners are encouraged to witness the final testing on their system(s).

Additionally Imtech has extensive experience in obtaining approval for systems by third party bodies (like PTB, Kema, NMi, Lloyds etc.)

Facilities

Packaging and Shipping

Our total system approach includes packaging and shipping to the customer's job site. We pay strict attention to delivery schedules and we are experienced in arranging road, rail and ship transport.

Services on site

Our job does not end when your system is delivered on the job site. Imtech is able to provide all required services prior to completion for operation.

Typical services are (pre-) commissioning, supervision, start-up, site acceptance testing, and maintenance assistance.

Services will be provided by experienced field service engineers and are home supported by our dedicated project team.

Location

We operate from our premises in Goes, The Netherlands. Our works are situated to allow access to the following transport facilities:

- Direct loading facilities to road transport within 1 km of European motorway (A58/E312)
- Within 15 km of facilities for loading at Vlissingen Port, The Netherlands
- Within 40 km of facilities for loading at Antwerp Port, Belgium

Covered Area

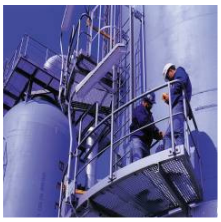
Our works in Goes has a covered and heated shop-floor area of 4.020 m^2, including the construction and machine shop with separate sections for the handling of Carbon and Stainless Steel materials.

Our general office space is 2.000 m^2, including the engineering and drafting office.

Outside Area

Outside we have a paved construction and storage area of 6.500 m^2.

Inside the floor load can be up to 3.500 kg/m^2. On the outside area there is normally no limit on maximum weight or size for packaged systems.



Imtech

Imtech Industry International B.V.
Analyser Systems
Marquesweg 4, 4462 HD Goes
P.O. Box 308, 4460 AS Goes
The Netherlands

☎ +31 113 24 11 00
🗐 +31 113 24 12 00
✉ sales.goes.inl@imtech.nl
www.imtech.eu/analysersystems

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