

Leading manufacturer for custody metering system and analyzer system



Trusted metering and analyzer system solutions



10 years experience

Delivering results in custody transfer metering system and trusted analyzer system for gas and oil.

Valmax was founded in 2002 by a group of engineers with extensive experience in the development of custody transfer metering and process control systems for natural gas, industrial gases and oil products.

With this experience, Valmax offers a wide range of solutions, from consultancy to supplying turnkey systems, from relatively simple standard units to border metering stations and even calibration rigs.

The Problem with Systems Integrators...

Many system integrators and metering consultants are either "captive" or biased, being part of large companies selling the separate instruments and equipment used in metering systems, or having alliances with such companies.

They are often limited to using their own or their partners' products to provide an overall solution. In many cases, this is not in the client's best interest.

Out solution in based on the customer's needs

Valmax is a fully independent system integrator for custody transfer metering and control systems. Our partners have all been selected on their technical merits, and we don't have any financial relationship with vendors or other conflicts of interest that would prevent us from providing optimized solutions for our customers.

Our solutions are based on the needs of our customers. By understanding the issues involved in the design you have in mind for your system, we are able to deliver solutions that really hit the target.



We are located in Korea, one of the leading cities in the Incheon part of Korea.

Known worldwide as a center of the Heavy industry, Incheon is also Asia's the famous seaport and airport for international shipping freight.

The city has excellent cultural and technical resources, and the vibrancy that comes from strong cultural links to many other parts of the world.

And of course, we're only a few kilometers away from Seoul, the heart of the Korea.



Experience Counts

The acceptance over the past few years of new electronic equipment for flow metering and control of oil and gas has made systems more reliable and more accurate while requiring less maintenance. The only downside is that engineers and operators need to be more highly trained than ever before. Countless factors have been taken into consideration when designing a Custody Transfer Metering system, requiring engineers in this field to be multi-disciplinary specialists with that extra and invaluable edge: experience...



Sales or Custody Transfer Metering forms the basis of contractual arrangements between sellers and buyers, producers and transport pipeline owners, governments of neighbouring countries. It affects everyone's bottom line.

Custody Transfer Metering

Real, sustainable performance

The Custody Transfer Metering system at the delivery point where oil or gas is changing hands forms the basis for invoicing. Every cubic meter of product has to be accurately accounted for, its delivery conditions (such as pressure, temperature, contaminants and energy value) closely monitored and recorded.

Metering systems in the oil & gas industry have rapidly evolved in terms of sophistication, accuracy and reliability; countless factors have to be taken into account in the design of a metering system, requiring multidisciplinary specialists with very specific experience and knowledge.

Valmax specialize in the design of custody transfer metering systems for oil, natural gas and industrial gases, using various flow measurement techniques available on the market today.

We have experience in designing systems with ultrasonic, turbine, positive displacement, coriolis, orifice and vortex meters, if required combined with compact provers or loop provers in the case of liquids measurement.

We can deliver flow metering systems for upstream and downstream applications, onshore or offshore, metering stations for pipelines, power plants or heavy industry, oil refineries, ship loading and unloading and much more.

Metering systems can be supplied complete with flow computers, Supervisory & HMI systems and PLC or DCS based control systems, packaged analyzer systems and any other ancillaries that may be required.

Computer & Control Systems

Flow computers, Supervisory & HMI systems and other metering system automation form an integral part of our Metering Solutions.

Custody Transfer Metering systems are generally supplied complete with microprocessor-based flow computers which form the actual "cash register" of the metering system. Valmax has experience with the most widely used brands and latest technologies.

In today's world, all but the simplest systems require at least some degree of electronics for logic control and monitoring. We design, build, test and install these Station Control Systems, usually as an integral part of a turnkey metering system, but also as separate systems to complement existing installations.

These systems can be limited to simple controls and operations performed by the station flow computers, but they may also include extensive PLC or DCS-based process control and PC-based Supervisory & HMI systems for station control, monitoring, automation of verification and calibration, and communication with the main plant control system.

Such systems are designed in-house by Valmax in close partnership with specialist companies supplying the tailor-made software to suit the customer's specific application requirements.



Innovative Designs

Building skids to precise specifications using the highest quality components sometimes isn't enough. Space constrains, extreme process conditions, specific operation and maintenance requirements or other factors often call for designs that are different from standard, straightforward metering runs.

But we are at our best when presented with a challenge.



Custody Transfer Metering doesn't stop at just flow metering. Many systems will need product filtering, preheating, flow or pressure control, quality analysis and other ancillaries. Valmax provides additional peace of mind by delivering the complete package with single-point responsibility

Pressure Control Stations and Analyzer Packages

single-point responsibility



Natural gas is usually highly pressurized as it travels through transport pipelines. But once it reaches the consumers, it needs to be brought up to the contractual specifications for delivery. This often means that solids and liquids have to be filtered out, the pressure has to be reduced, and the gas may need to be preheated to counteract the cooling effect of the pressure reduction. And last but not least, the downstream consumers need to be protected from being exposed to the full transport pipeline pressure.

Valmax designs and supplies complete city gate stations, fuel gas stations for heavy industry, refineries and power plants, incorporating pressure and flow control as well as other ancillaries such as slug catchers, KO drums, filtering systems, gas preheating systems, and station ESD and safety systems.





Package Analyzer Systems

Pre-assembled analyzer systems provide customers with everything they need in a single package.

Valmax engineers gas analyzer systems ranging from just one single gas chromatograph up to a fully developed analysis system that may include moisture measurement, hydrocarbon dew point measurement, H2S and sulphur content analysis, O2 content, specific gravity or density measurement, and much more.

Our analyzer packages can be supplied complete with sample takeoff and conditioning, fully assembled, in prefabricated analyzer shelters with explosion-proof HVAC, fire and gas detection and extinguishing systems, ready for installation on site with only a minimum of field connections to be made.



Project References

Since 2002, Valmax have completed numerous projects for a variety of customers. Covering our areas of expertise and with varying scopes of work and supply.

Manufacturing

Our workshops have all facilities for the fabrication of control panels, analyzer systems, mechanical, piping and steelwork fabrication and system assembly, with specialized companies for professional blast cleaning and coating nearby. And of course, the necessary experienced, trained and certified personnel to get the job done. For some projects where the requirements for Local Content or the logistics demand it, we team up with experienced contractors in the country of destination to handle part of the manufacturing and assembly. Such contractors are carefully selected to meet all the requirements of the Valmax quality management system.



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Engineering and Consultancy
Custody Transfer Metering Systems
Pressure Control Stations
Metering and Pressure station ancillaries
Station Control Systems
Packaged Analyzer Systems