Your Global Partner for Integrated Skids & Pre-packaged Stations
Meeting the Demands of Custody Transfer Applications

Honeywell has been serving industrial customers with instrumentation, control systems and advanced application solutions for more than 100 years. With extensive experience executing large automation projects, and a portfolio of products and services acquired through Honeywell Enraf and RMG by Honeywell — leaders in their respective regulation and measurement technologies — we are a trusted global partner for integrated skids and pre-packaged stations for the oil and gas industry.

Honeywell offers complete solutions for liquid and gas measurement in custody transfer applications as well as for gas regulation from a single source.

Honeywell is also a recognized industry leader when it comes to integrated pipeline and terminal automation projects.

Honeywell’s skid building facilities are located in Germany, Turkey, UK, USA, India and Malaysia. HSE and quality are the primary focus at these facilities, as well as during delivery of projects.

Honeywell’s Integrated Metering Solution

Every day, and during every transaction, petroleum producers need to know the exact amount of product going into a pipeline, truck, barge or ship. However, many oil & gas processors, refiners and petrochemical plants use disparate systems for such measurements. The original equipment for existing metering systems may also be facing obsolescence.

The control and supervisory management functions of a metering solution are key to capturing the maximum value of custody transfer. MeterSuite is Honeywell’s standalone or integrated metering solution, which measures and calculates volume flow rate, mass flow rate, energy rate, flow density, and flow total with the highest accuracy.

Integrated with Honeywell’s Experion® Process Knowledge System (PKS), MeterSuite offers the benefits of a centralized metering solution, including monitoring, management and reporting processes to supply accurate data for the entire operation. MeterSuite integrates the metering function with the control system architecture—improving cost-effectiveness from installation and configuration, to support over the long-term.

All capabilities of the Experion platform are easily integrated to manage the metering function:
- Flexible reporting
- Web-based access
- Integration with wireless transmitters
- Integration with fieldbus transmitters
- Single point of configuration
- Advanced trending
- Seamless connection to Honeywell systems

MeterSuite offers many benefits for the typical oil & gas operation. Since there are fewer systems to maintain, less training is required. With more functions inside the control system, there are no external components or custom interfaces. This eliminates a separate database, configuration and graphics building effort.

In addition, MeterSuite’s standard human-machine interface (HMI) encourages users to observe its operation more closely. Web access to metering information is available across the enterprise or between businesses for authorized users.

Liquid Metering Systems

Honeywell is a proven leader in custody transfer metering for liquids in terminals and tank farms. Our metering systems can be integrated with a tank farm management system or terminal automation system, thus providing greater value for customers. Furthermore, our engineering and design team delivers highly accurate solutions worldwide in compliance with the latest industry standards.

Honeywell’s precision liquid metering systems are supported by the PKS Advantage Program, which offers best-in-class products from companies like Krohne, FMC, Endress+Hauser, General Electric, IDEX, and Brodie. These systems are available with turbine, Coriolis, ultrasonic, magnetic, vortex and PD flowmeters.

We also provide integrated metering and proving solutions incorporating sampling systems and analytical measurement instruments.

This includes:
- Analytical devices (e.g., water-cut and viscosity meters)
- Proven Experion integration with various flow computers
- Master, bi-directional and compact flow provers

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Complete Solutions for Liquid & Gas Measurement

Gas Control and Metering Systems
RMG by Honeywell, a division of Honeywell Process Solutions, has been in the gas business since 1843. It's a trusted partner wherever gas needs to be moved, measured or stored. With a strong global presence including more than 1,100 employees worldwide and a commitment to customer satisfaction and quality, RMG by Honeywell is an ideal single-source supplier to meet the gas metering and regulation needs of the natural gas industry and the industrial market.

Gas Pressure Regulating Stations
RMG by Honeywell has successfully engineered gas pressure reduction stations for over 50 years. This includes skid-mounted, pre-packaged pressure reducing solutions for above and below ground applications. The stations range from domestic regulator skids to high-pressure gas transmission stations, and typically include filter, regulators and isolation valves. If necessary, they are also available with slam-shut and safety relief valves.

RMG by Honeywell’s pressure regulating stations can be designed and built according to individual customer specifications. They utilize modern practices in the control of gases and incorporate features to ensure high integrity. Factory-built units are pre-tested to meet strict quality assurance standards, while simplifying on-site installation/commissioning and reducing manpower requirements.

Gas Metering Systems
RMG by Honeywell solution encompasses volume-measuring instruments such as rotary displacement, turbine and ultrasonic meters, as well as devices for calculating the quantity of gas via the measured values of pressure and temperature or density (volume correctors) and gas analysis systems. In combination, these devices provide all data needed for the billing of natural gas or industrial gases.

Honeywell’s equipment is available individually or as a complete measuring system for gas metering stations. This includes all measuring, evaluation and data logging units in ready-wired electrical cabinets providing remote data transfer. The measuring instrument line is supplemented by different software packages for data acquisition and evaluation.

Station Automation and Control Systems
RMG by Honeywell designs and builds station automation and control systems according to customers’ requests. Natural gas cools down at relaxation of pressure. Low temperatures may cause icing, separation of condensate as well as hydrate formation with a potential effect of malfunction on pressure and flow control. By use of intelligent automation systems temperature control can be managed and operating costs can be reduced.

The flexible programming of RMG automation systems realizes fast conversion of complex gas regulative and controllable technical tasks like regulation of outlet pressure, inlet pressure, meter protection and control of standard flow.

Integrated Terminal Automation Solutions
Terminals receive oil and gas directly from fields, via pipelines or from redistribution to tankers, rail, other pipelines or processing plants. The prime responsibility of a terminal management system is to ensure that a terminal operates in a secure, safe and well-documented manner. Efficient management of terminal operations and improved usage of storage facilities are essential to move product throughout the enterprise.

Honeywell’s integrated Terminal Automation Solution (TAS) helps managing the movement of hydrocarbons through the world’s network of pipelines, tankers and terminals, eliminating losses and meeting strict government regulations. Honeywell supplies total automation from field to boardroom to terminals worldwide, with integrated applications for inventory management, oil movement, operations scheduling and industrial security.

Only a truly integrated solution, such as the Honeywell TAS solutions, help to keep the capital and operational expenses of a terminal facility to a minimum, and gives terminal owners, managers, and operators the advantage they need in today’s highly competitive markets.

Meter Provers
Honeywell offers a choice of flowmeter proving skids for liquid metering systems. These range from master meter and bi-directional flow provers, to compact and portable provers for a variety of applications.

The Honeywell Enraf Small Volume Prover meets the most stringent requirements for flowmeter proving. It is designed for use with all modern flow measurement devices, including PD, Turbine, Coriolis and Ultrasonic meters and comes with the new SVP Controller, offering a 3.5”, 6-line, multifunction display that gives users real-time visual monitoring and control of the operation for the first time. This advanced prover is available as a standalone unit, mounted onto a purpose-built trailer, or installed onto a modular metering or loading skid.

It is designed to precisely displace a constant volume of fluid with each cycle. This assures consistent proving results with repeatability equal to or exceeding 0.02%, as defined by API. Superior sealing integrity and fluid compatibility are made possible by PTFE-flanged seals and the unit has a constant displaced volume of 100%, regardless of the meter location.

The prover is ideal for custody transfer meter proving, as well as offshore and stationary applications, due to its small size and wide turndown flow range ratio of 1200:1. The prover’s precision, smoothbore cylinder and measurement piston assembly includes an integral bypass valve in order to minimize disturbance to flow streams. Its external optical switches have a repeatability of 0.0001 of an inch or better. This allows the prover volume to be very small without sacrificing performance or accuracy.
Ensuring Precise Transactions

Loading and Blending Skids

With increasing energy costs and greater concern over environmental issues, the majority of the world’s oil companies are seeking to capitalize on the expansion of blended bio-fuels at loading terminals. The benefits of blending products at the load rack are numerous, and include reduced dependency on multiple storage tanks and greater load rack flexibility by creating variable product load arms.

Honeywell Enraf provides high quality, well-engineered skids for blending of two or more products to a predetermined specification during a standard flow process. Applications run the gamut: from ship feed and storage tank processes, to aircraft and tanker trucker refueling.

The design of Honeywell Enraf’s blending skids simplifies the addition of an ethanol or bio-diesel blending capability to the load rack. The small footprint blender facilitates:

- Accurate specification of static and dynamic seals
- Precise volume measurement of ethanol and bio-diesel
- Volume growth factor when mixing ethanol into petroleum
- Varied communication interfaces into the existing load rack
- Flexibility of varying blend ratios

By using the MicroBlender for single-stream applications, or the Multi-stream Blender for multiple stream/product applications, loading terminals can ensure a smooth installation, accurate blend ratios, and extended equipment life.

Honeywell Enraf’s loading automation system manages and controls loading and unloading in a safe, secure and efficient manner. The system allows compliance with the ever-changing market requirements; enables just-in-time supply and minimized stocks by linking carriers, suppliers and customers; and helps users increase terminal throughput while reducing costs.

The integrated loading automation solution utilizes a powerful load computer and multi-functional Terminal Manager automation software. The Access Terminal is a range of instruments specifically designed to ensure security at tank terminals, and the Securiterre system eliminates the explosion hazard. These elements comprise a total package meeting the demands for reliability, flexibility and safety.

Advanced Technology

Specific Blending Requirements Can Include:
- Ethanol bio-fuel blending
- Diesel bio-fuel blending
- Fuel oil blending
- Mid-grade fuel blending
- Chemical blending
- Fertilizer blending

Honeywell’s Engineering Capabilities Include:
- Mechanical and electrical design
- Purchase of components
- Manufacturing of pipe spool and construction elements
- Mechanical assembly including inspection tests
- Site erection
- Commissioning
- After-sales service

Honeywell offers dedicated skid design as well as engineering and manufacturing centers in numerous locations worldwide, staffed by a team of experienced mechanical, electrical and chemical engineers. Experts in flow measurement and analytical technology are also based in these locations.

We believe a true measurement solution requires more than just supplying instrumentation and systems. Instead, it must be part of a total package that includes consulting, training programs, maintenance, and ongoing customer service. Honeywell has the global resources to support you in all phases of your project.
For More Information
To learn more about Honeywell’s Integrated Skids & Pre-Packaged Stations visit www.honeywellprocess.com or contact your Honeywell account manager.

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