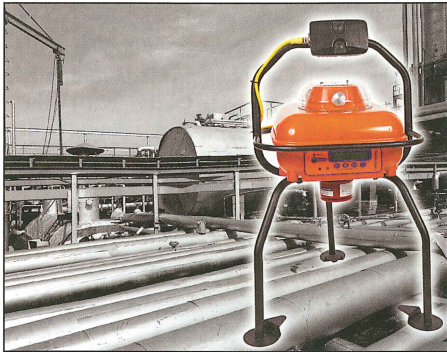


INSTRUMENTATION

Wireless gas detection

Crowcon's new Detective Net wireless module allows up to 25 Detective+ gas detectors to be linked without cables.

The Detective+ is a free-standing, transportable multigas monitor that can be used individually or in groups to monitor up to four gases at once. Detective+ units can be linked wirelessly and positioned as much as 100 m apart. Should wireless connection between two of the detectors weaken, the RICOCHET®



wireless network will 'self-heal' and automatically re-route communications via alternative devices. Over a dozen gas sensor options are available, including infrared sensors for flammable gas that are immune to the poisoning effects which plague standard flammable gas sensors. If a dangerous gas level is detected, the Detective+ unit warns with a wailing 104 dBA siren and flashing, high intensity LED beacons which are visible from all angles. A signal is also sent to all the other units, alerting workers to the danger. In addition Detective Net transmits other fault information such as loss of signal or low battery power.

If the signal is very weak, for example because of thick metal bulkheads, Detective Net can act as a repeater to boost the signal between units. A cable can even be used to extend the reach of an individual Detective+ unit and put it in a position with a stronger wireless signal – this is especially useful in cramped, confined spaces.

www.crowcon.com

ANALYTICS

New compact automatic distillation unit

Anton Paar has launched the new ADU 5 automatic distillation unit – a fully automated, compact stand-alone distillation unit which is operated by touchscreen interface. This makes it the ideal solution for performing high-precision atmospheric distillation tests.

The complete ready-to-go system occupies only a minimum amount of laboratory bench space and masters all standard fuel distillation test measurements. In addition, it comes ready for the determination of biodiesel and ethanol-blended gasoline, and prepared for automatic dry point detection. Testing and results are in full compliance with ASTM D86 (Group 0, 1, 2, 3, 4), D1078, D850, ISO

3405, IP 123, IP 195. ADU 5 meets the highest safety standard in its class and the requirements of the latest version of ASTM D86. It features an automatic fire-extinguishing system that can be connected to N₂ or CO₂ gas. An automatic shut-off and a low-level detection of the cooling liquid prevent overheating of the unit that is equipped with an integrated cooling system.

The excellent heat control of ADU 5 guarantees an optimum standardized distillation rate even for complicated mixtures. ADU 5 guarantees highly accurate results to ensure outstanding repeatability and reproducibility.

www.anton-paar.com

CONDITION MONITORING

New ICP-OES offers cost-effective analysis of wear metals in oils

SPECTRO Analytical Instruments has introduced a condition monitoring system based on its SPECTRO GENESIS inductively coupled plasma optical emission spectrometer (ICP-OES). The system sets new performance and productivity standards for condition monitoring laboratories and oil blenders.

The GENESIS system swiftly, accurately, and cost-effectively assesses component wear trends by analyzing lubricating oils for the presence of metals and contaminants that may accelerate wear. This early detection allows users to prevent equipment failures and

helps optimize maintenance programs. Using the latest detector technology, the system's full-spectrum analysis covers the entire elemental range needed for additive, wear, and trace analysis of lubricating oils. In particular, it offers excellent sensitivity for critical light elements such as Na, Mg, Al, and Si, while offering high sensitivity for wear and trace elements.

It also provides the speed of fully simultaneous analysis, achieving rapid sample cycle times of 90 s or less – independent of how many elements must be analyzed.

www.spectro.com/GENESIS

CONDITION MONITORING

Turning vibration data into knowledge

VIBGUARD Viewer, the software platform for the VIBGUARD family of online condition monitoring systems by PRÜFTECHNIK, now comes fully geared for complex machine diagnosis. Introducing many powerful new features, VIBGUARD Viewer 1.1, the new software update helps unveil machinery's most hidden secrets.

Orbit Analysis enables determining the root-cause of atypical shaft orbit movements, for example on turbomachinery and reciprocating compressors. By simply connecting a VIBGUARD to an existing real-time protection system, VIBGUARD Viewer processes the readings from the already installed displacement sensors into useful information to diagnose the exact cause of a problem.

With the full Modbus (TCP/RTU) Support, VIBGUARD can be seamlessly integrated into production processes. Signals from VIBGUARD can easily flow to the PLC, and process parameters monitored by the PLC can travel to VIBGUARD for in-depth analysis and diagnosis.

www.pruftechnik.com

INSTRUMENTATION

Gauge protectors and gauge snubbers

AS-Schneider provides a reliable and economical solution to protect measuring instruments from the effects of pressure fluctuations.

Gauge protectors are designed for steadily increasing and continuous pressure such as in the thermal expansion of the medium in the pipeline. A shut-off valve is located in the interior which works against a spring. If the pressure in the line is less than the spring force, the valve opens. If the pressure force exceeds the spring force, a piston moves toward the valve seat and closes off access to the pressure gauge. Measuring Instruments are thus protected from damage. If the pressure drops below the set limit, the valve opens again.

Gauge snubbers reduce the pressure spikes that can occur from the rapid closing of a valve. Pressure surges that occur at the gauge snubber inlet are reduced via an adjustable gap between the valve stem and the body seat. Measuring instruments can be read more accurately in this way because pressure fluctuations are smoothed out. Gauge snubbers can also be used as a timing element in a controller. Its body is usually made of brass but other versions in different materials using bar material are also available.

www.as-schneider.com