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Paraffin wax and asphaltene modifier

Nuritech 508MM claims to modify paraffin wax by liquefaction at room temperature. It allows heavy petroleum paraffin waxes and asphaltenes to stay dissolved in hydrocarbon diluents (cutter stocks) without heat. The product is added in concentrations ranging from 100 ppm (0.01%) to 5,000 ppm (0.5%) depending on the application.

The chemical formulation is completely hydrocarbon soluble. It has a flash point greater than 200°C, is non-toxic, easy-to-handle and has a long shelf life. Nuritech 508MM converts petroleum and petrochemical paraffin wax from a crystalline to an amorphous material. It functions as a demulsifier, cloud point and wax appearance depressant, pour-point depressant, viscosity reducer for heavy asphaltenic crude oils, defoamer for heavy oils and coker feedstocks, and viscosity reducer for coker feedstocks and antifoulant. **Nuritech, LLC**

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High-flow air separation modules

An enhanced line of industrial air separation permeators is said to provide 15% to 50% improvements in product flow while retaining high operating efficiency. These improvements, resulting from refined membrane productivity and module fabrication, allow for more compact and lighter-weight membrane systems. The products' hollow-fiber membrane is now more permeable, enabling more air to be processed. Many modules also allow more available membrane area in the same-sized device.

With these modules, users can design more compact and efficient overall systems. They are more productive and can be operated at lower pressures to decrease associated feed-compressor power costs. Alternatively, users can operate with fewer modules at lower capital costs. **Generon IGS**

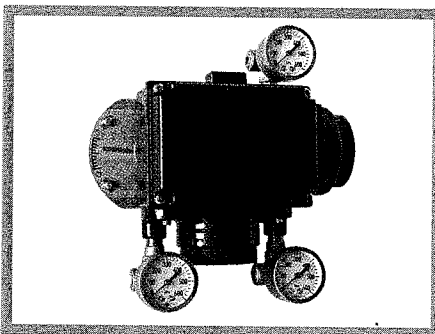
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Mass spectrometer for heavy petroleum analysis

Heavy crude oil is a complex mixture of hydrocarbons containing heteroaromatic rings in its polar fraction. Reportedly for the first time, routine, direct electrospray ionization analysis of such compounds in heavy petro-

leum is possible using the Finnigan LTQ FT hybrid ion trap mass spectrometer. It offers ultra-high resolving power to separate isobaric species, and measures masses accurately and reproducibly with external mass calibration.

Identification of more than 3,000 nitrogen-containing compounds in a single experiment is possible. For this reason, Fourier Transform Ion Cyclotron Resonance mass spectrometry has reportedly emerged as one of the most rigorous techniques available for direct analysis of heavy crude oil. **Thermo Electron Corp.**

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Positioner actuation technology

CCI's new Smart Valve Positioner is said to be easy to install and use. It receives a DC current signal from control devices and controls pneumatic valves. With remote communication capabilities, an automatic configuration program and self-diagnostic functions, it claims to increase productivity and efficiency of plant operation.

Calibration, configuration and self-diagnostics can be performed by using a HART communicator or computer via a HART modem. For optimum flexibility, a single CCI smart positioner model can be utilized for multiple specifications. **CCI-Control Components Inc.**

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Enhanced asset management software

Plant Resource Manager (PRM) 2.10 software reportedly integrates and manages maintenance information from field instruments, monitors online conditions and records historical data. Users can remotely access devices featuring field communication capability—such as FOUNDATION fieldbus and HART-enabled devices—as well as perform centralized management of the param-

eters of those devices. Names of flowmeters, valves and other field instruments, parameter settings, inspection records and instruction manuals are stored in a database that operators can easily access as necessary.

Version 2.10's additional maintenance alarm functions include: message acquisition, device patrol, filtering function, device navigator and audit trail message window. **Yokogawa Corp. of America**

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Control valve sizing and selection tool

Performance! 9.3.0 control valve sizing and selection software is said to be the most complete, accurate and easy-to-use tool of its kind available on the market today. It uses industry-standard ISA sizing equations, among other measures, to specify Flowserve control valves and similar competing valve products.

Version 9.3.0 offers additions to the program's product and options database. Improvements to the software engine increase its speed and ease-of-use. The enhanced valve-noise calculations function calculates noise based on the latest IEC standard. Complete valve-sizing data includes flow, pressure, cavitation and documentation requirements. Valve specification information covers materials, accessories, actuators, positioners and other options. **Flowserve Corp.**

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Actuators offer optimized torque in small package

SKF rotary actuators reportedly provide precise positioning, accuracy and repeatability in heavy-duty industrial applications. These include high-power switching, gas turbines and assembly operations. The compact, self-contained actuators are delivered ready-to-mount for easy plug-in operation (AC/DC supply). The modular construction enables cost-effective customization. Specialized internal and external components, modifications to output shafts, various controls and multiple motor options are available to satisfy the most demanding application requirements.

The actuators are lubricated for life, require no maintenance and incorporate few moving parts to promote trouble-free operation and longer service life. **SKF Actuation Systems**

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