



CRANE PUMPS & SYSTEMS

Blade Grinder Pumps

Backed by the dependability and longevity of the Barnes reputation in submersible pumping, BLADE grinder pumps are the newest Barnes solution to high head waste water grinding applications in commercial and municipal environments. BLADE XGV grinder pumps are available in 3-, 5-, 7.5-, 10-, and 15-horsepower explosion proof models with 2-, 2.5-, and 3-inch discharge sizes. BLADE XGV grinder pumps have valuable features including plug-n-play "quick connect" cords, rugged mechanical seals and oversized lifting bails.



R+W AMERICA

LPZ Short Spacer Disc Coupling

In its effort to fill in and complete its flexible disc coupling offering, R+W has added a standard coupling adapter that provides customers with more configuration and connection options when selecting couplings for industrial applications. The LPZ spacer accompanies a quickly expanding product line and offers lateral misalignment capabilities in a very small package. It is available in six sizes ranging from 500 Nm to 12,000 Nm and is able to mate with any LP coupling hub R+W has to offer within the corresponding size. For more information, visit www.rw-america.com.

QED ENVIRONMENTAL SYSTEMS

LANDTEC GEM5000

The popular GEM5000 is designed specifically for monitoring landfill gas collection and control systems (GCCS). With the ability to sample and analyze the methane, carbon dioxide, and oxygen content of landfill gas (LFG), users only need to take one instrument to the landfill site. GEM landfill gas analyzers and QED calibration procedures and standards meet all applicable quality assurance and quality control requirements for Method 3A and Method 2, Section 10.3 as listed in the U.S. Environmental Protection Agency's updated New Source Performance Standards (NSPS), Emission Guidelines (EG). For more information, call 734.995.2547 or email info@qedenv.com.



YASKAWA

U1000 iQpump Low Harmonic Intelligent Pump Drive

Unlike conventional drives, Yaskawa's matrix technology employs a system of nine bi-directional switches that are arranged in a matrix to convert a three-phase AC input voltage directly into a three phase AC output voltage. It eliminates the need for a rectifying circuit and a DC bus that are used in traditional AC inverters. Matrix technology reduces total harmonic distortion levels to less than the IEEE compliance standard of 5 percent, without the need for reactors and filters. The result is a smoother current waveform that reduces stress on the system power supply and infrastructure. Additionally, the U1000 iQpump improves true power factor to near unity at full load, reducing energy costs. For more information, contact Tom Kutcher, manager, marketing communications, at 847.887.7318 or tom_kutcher@yaskawa.com, or visit www.yaskawa.com.

AUTOMATIONDIRECT

ProSense® EPS Digital Pressure Sensors

The compact and robust design and construction of the ProSense EPS series withstands extreme shock and vibration, provides high accuracy and reliability, and incorporates the best combination of overpressure, burst pressure and long-term stability for each measuring range. With no moving parts such as pistons or springs that can stick or break, two solid state switch outputs provide a reliable alternative to mechanical pressure switches; on certain models, the second output can be configured as a scalable analog signal turning the unit into a combination pressure switch and transmitter. For more information, visit www.automationdirect.com/pressure-sensors.



ALL-FLO PUMP CO.

¼-inch Polypropylene/Geolast® Air Diaphragm Pump

All-Flo is a leading manufacturer of rugged, lube-free, non-stall/freeze air diaphragm pumps. Serving a variety of industries, including oil and petroleum, petrochemical, food and beverage, mining, and construction, All-Flo works with a global network of distributors to ensure local availability and service. All-Flo offers a versatile range of durable and reliable pump solutions that can be customized for any application. All of All-Flo's products are made in America.

This year, All-Flo Pump Co. introduced a revolutionary new ¼-inch plastic Air Diaphragm Pump. Its innovative design offers superior performance characteristics; flow rates exceeding 5 gallons per minute and dry lift capabilities in excess of 14ft-H₂O. The pump is manufactured from a variety of plastic materials and thus is suitable for a wide range of chemical transfer applications. Solenoid control and cycle counter options allow the pump to be employed in metering or dispensing systems.

For more information, visit www.all-flo.com.



DIMENSION

- Air Inlet ¼-inch
- Liquid Inlet ¼-inch internal (NPT/BSP), ¾-inch external (NPT)
- Liquid Outlet ¼-inch internal (NPT/BSP), ¾-inch external (NPT)
- Weight 2.6 pounds

PERFORMANCE

- Maximum Flow 5.7 gpm (21.6 lpm)
- Maximum Air Pressure 120 psi (8.3 bar)
- Maximum Solids ¼¹⁶-inch (1.6 mm)
- Max Suction Lift Dry 15 feet (5.0 m)
- Max Suction Lift Wet 28 feet (8.5 m)
- Max Temperature 150 degrees Fahrenheit (66 degrees Celsius)
- Avg. Displacement Per Stroke 0.0101 gal (0.0397 l)



XYLEM
Flygt Concertor™

Xylem's Flygt Concertor is the world's first wastewater pumping system with integrated intelligence that offers a unique synergy between software functions and state-of-the-art hardware. Concertor's system design works in harmony to reduce your total cost of ownership while delivering the highest quality and reliability. This new wastewater pumping system senses the operating conditions of its environment and adapts its performance in real time to provide feedback to station operators. With high operational flexibility, Concertor takes wastewater pumping to a whole new level. Concertor combines a fully integrated control system with IE4 motor efficiency, the state-of-the-art N-hydraulic and intelligent functionalities—all based on sixty years of Flygt wastewater pumping experience.

BLACKMER®
SGLWD Series Pumps

Featuring a unique sliding vane design, SGLWD Series pumps deliver reliable, highly efficient performance over a wide range of temperatures and differential pressures while eliminating many of the problems experienced by gear pumps by providing increased pump life, improved offloading times, and line stripping capabilities. These pumps feature ductile iron construction with an internal relief valve, excellent self-priming and dry run capabilities, replaceable wear resistant, hardened casing liners and end discs that allow for easy rebuilding of the pumping chamber to like-new condition, and a symmetrical bearing support that assures even loading and wear for long pump life. For more information, visit www.blackmer.com.



AESSEAL
CAPI

The AESSEAL® CAPI range is primarily utilized to suit the requirements of the oil, gas and petrochemical industries. The CAPI Type A, B and C seal range offers the user an unprecedented range of API engineered sealing solutions to suit all application requirements. The category 1, 2, and 3 seals are qualification tested to API 682. Modular design allows the users to select the right solution for their application, with the modular design ensuring simplicity of purchase and fast delivery.



MILTON ROY
Proteus™: The Intelligent Chemical Metering Pump

Proteus™ intelligent chemical metering pumps are engineered to meet today's most demanding standards for accuracy, reliability, and process control flexibility. These pumps feature enhanced performance and process control capabilities built on a universal technology platform with the ability to adapt as technology evolves. Proteus pumps offer a new level of intelligence and control. They can communicate with digital or analog devices to administer a variety of control schemes and remote connectivity enables control and feedback in real time. A newly designed backlit color display allows for convenient navigation in five languages: English, French, Spanish, Portuguese, and Chinese. Contact your local representative to find out more about Proteus™—the intelligent chemical metering pump—at info@miltonroy.com or by visiting www.miltonroy.com.



PRUFTECHNIK
ROTALIGN Touch

The ROTALIGN touch's newly developed user interface makes the alignment process an integral part of asset management. Its tablet-like touchscreen with 3D display enables a fully intuitive and visual work sequence with onboard prompt or help line on every screen. Additionally, the device includes a 5 Megapixel camera, RFID system, and a Cloud-based alignment structure. The RFID reader allows unique identification of each machine and facilitates retrieval of its last alignment file stored on the ROTALIGN touch computer. The built-in camera lets users customize reports with photos and enhance visual documentation. The onboard WiFi and Bluetooth feature enables devices to send measurement results back from any location directly via the Cloud without access to PC connection. For more information, visit www.pruftechnik.com.



GEMÜ

Plastic Diaphragm Valves

GEMÜ plastic diaphragm valves are available with a variety of high-quality plastic body materials and connections. The plastic diaphragm valves support a large range of industries and applications including chemical, environmental systems, power generation, water and waste water treatment, solar, semiconductor, microelectronics, food and beverage, and processing just to name a few. Many of the plastic diaphragm valves are supported by an extensive line of pneumatic operators that can be fully integrated into automated systems allowing industries to save time and money on their operations, while increasing accuracy and efficiency in their performance.

The structure and function of the diaphragm valve is that of a completely enclosed connection with a weir and short intercepting shaft that accommodates the operation of a flexible seal identified as the diaphragm or membrane. This diaphragm is the essential part of the valve that controls the movement of media through the system the valve is integrated into. The diaphragm valve operates by compressing the diaphragm tightly against the weir, making a fluid tight seal restricting movement of media flow. Alternatively, the diaphragm is lifted away from the weir to allow partial to full media flow. Operation of a diaphragm valve is very simple as it accommodates various stages of full or restricted media flow.

GEMÜ leaves nothing to chance in the development and manufacture of plastic diaphragm valves. The plastic diaphragm valve is engineered and designed with the challenges of friction, turbulence, debris and trapped air in mind. The GEMÜ plastic diaphragm valve is flow-optimized by incorporating a smooth media transition structure which allows low friction, low



turbulence of media and leaves no offsets that cause the collection of air pockets and debris in the system.

Additionally, GEMÜ plastic diaphragm valves utilize highly durable, low maintenance pneumatic diaphragm style actuators that give precise flow control in high cycle operation.

The GEMÜ Plastic Diaphragm Valves are available with additional considerations to industry needs that include having the same mounting height planes over multiple nominal sizes, compact plant design, reduced control air consumption needs for the pneumatically operated valves and a variety of optional accessories for measurement and control.

For more information, visit www.gemu-group.com.



**LOVATO ELECTRIC
ADXL Series Soft Starters**

Soft starters are the best performing solution among reduced stator voltage starting devices. LOVATO Electric's new 30 A to 320 A ADXL series performs two-phase control and provides advanced features for motor starting, stopping, monitoring, and protection. The current transformers (CTs) in ADXL devices constantly monitor the current and their control algorithm keeps the currents on the individual phases well balanced during starting and stopping. The ADXL series, with the two-phase control technology, is a compact and competitive solution that ensures high performance in all applications. For more information, visit www.lovatoelectric.com.



**NETZSCH PUMPS AND SYSTEMS
NOTOS Multiple Screw Pumps**

NOTOS Multiple Screw Pumps are the most efficient screw pump in the world, resulting in the most energy efficient option for asphalt applications. The design allows users to reduce the tank asphalt temperature by 20 degrees Fahrenheit (-7 degrees Celsius) or more, saving thousands of dollars per year in energy costs and minimizing life cycle costs. The robust design of the NOTOS further drives down the overall cost of ownership by reducing maintenance costs compared to gear pumps and sliding vane pumps. For more information, visit www.netzsch.com.

**ENDRESS+HAUSER
Liquiline CA80TP Phosphorus Analyzer**

The Liquiline CA80TP analyzer measures total phosphorus on-line, dramatically reducing time to obtain results compared to lab methods. The CA80TP measures phosphorus in ranges of 0.05 to 10 mg/l or 0.5 to 50 mg/l. It has two 4-20mA outputs with the option for additional outputs including Modbus RS485, Modbus TCP and EtherNet/IP. The 4-20mA outputs transmit the phosphorus measurement value. The other outputs can be used to transmit the process variable, plus status and diagnostic information. The analyzer can be equipped with an energy-efficient cooling system to maintain reagent quality and increase lifespan. For more information, visit www.us.endress.com/CA80TP.



**SEEPEX
BRAVO Chemical Metering Systems**

BRAVO incorporates NSF/ANSI 61 certified SEEPEX progressive cavity (PC) Intelligent Metering Pumps for superior chemical metering capabilities. The unique design of a PC pump offers several advantages compared to traditional chemical metering pumps due to pumping characteristics that allow for consistent, precise, repeatable metering with low shear, minimal pulsations, and no vapor lock. Pulsation dampeners can be eliminated, and there is no need to over or underfeed chemical to compensate for unplanned variances in analytics. Slip is minimized even when fluid temperature, viscosity, or discharge pressure fluctuates. These pumps also wear predictably, so there is no risk for catastrophic failure. For more information, visit www.seepex.com.

**NATIONAL OILWELL VARCO
EZstrip™ TR Muncher™**

Commonly used in the primary treatment of raw sewage solids, the EZstrip™ TR Muncher™ from NOV has been macerating solids in pump and lift stations across the country. To minimize the time and cost involved when maintaining a conventional grinder/macerator, the EZstrip™ TR Muncher™ can easily be maintained in place without disconnecting or removing any pipework. Other grinders available today require removal from the site and can take up to two days to inspect and replace the cutting elements. With the EZstrip TR Muncher, the complete cutter stack can be inspected and replaced within two and a half hours. For more information, visit www.nov.com/pft/grinders.



BLACOH FLUID CONTROL

Hybrid Valve

By combining the dampener and back pressure valve into a single engineered unit, Blacoh has eliminated the most common issues with installation for a more efficient, simplified system.

The patent-pending Hybrid Valve™ was engineered to proven principles with state-of-the-art design for maximum efficiency. In a metering pump system, using a back pressure valve alone does nothing to improve fluid flow. When put in series with a pulsation dampener, the flow improves significantly but, according to Blacoh performance tests, results can't match the performance of the single construction Hybrid Valve™ for the steadiest flow. Further, as a single unit, the Hybrid Valve™ takes up less space and has fewer leak points for improved functionality and lower maintenance costs.

Location and proximity are key when installing pulsation dampeners and back pressure valves in any pumping system. A back pressure valve installed in series with a dampener can negate the dampening effect if the valve is opening and closing before the dampener is able to capture a full pulse. This quick-opening effect can also create too much gain within the back pressure valve resulting in inefficiency and chatter.

For more information visit www.blacoh.com/hybridvalve or contact Blacoh at 951.342.3100 or email sales@blacoh.com.

BLACOH HYBRID VALVE™





QUATTROFLOW™ PUMPS
Quaternary Diaphragm Pumps

Quattroflow™, part of PSG®, a Dover company and a leading brand of positive displacement quaternary diaphragm pumps, announces that its quaternary (four-piston) diaphragm pumps provide a variety of design and operational advantages ideal for chromatography applications. Chromatography is the method of choice for processing cell-free and protein-containing supernatants in order to isolate the “target protein” in its highest possible form. It involves passing liquid through a container (axial or radial columns) filled with a matrix that ensures the different contents are properly separated. For more information, visit www.quattroflow.com or www.psgdover.com.



BOERGER, LLC
ONIXline Rotary Lobe Pump

The ONIXline rotary lobe pumps were developed by means of the most advanced flow simulation technology and experience in rotary lobe pump construction from several decades. The pump stands for gentle, practically pulsation-free pumping with maximized efficiency. The ONIXline rotary lobe pump is equipped with a large sealing chamber. Connections for circulation lines are integrated in the pump casing. Börgert offers different types of seals which are selected for the specific application. Know-how gained from several decades of pump and mechanical seal construction has been used to build each Börgert seal. Several supply systems for the seals can be selected.



ELECTRO-CHEMICAL DEVICES
DS80 Intelligent Sensor Series

With their replaceable cartridge sensors, the new DS80 Intelligent Sensors provide multi-parameter analytical measurement that is exceptionally accurate and reliable. They can be customized for a wide range of industrial application-specific measurements in the most rugged environments to perform unique tasks unavailable with off-the-shelf analytical sensors. ECD's intelligent digital Model DS80 Sensors store and identify calibration information. They also communicate via MODBUS RTU with the ability to connect directly to a programmable logic controller (PLC) or a computer with a MODBUS RTU emulator. With their intelligence and communication flexibility, they are ideal for specialized OEM equipment devices or large, complex distributed control systems (DCS). For more information, visit www.ecdi.com.

SKF USA INC.
TKSA 71 Shaft Alignment Tool

The new SKF TKSA 71 shaft alignment tool is uniquely designed in a compact and durable package to deliver precise measurements for a range of alignment tasks in harsh industrial environments. This versatile tool functions quickly and intuitively using six dedicated software apps tailored for different alignment jobs. The tool ultimately achieves superior alignment performance in demanding conditions by providing high measurement accuracy and excellent protection against dust and water. For more information, visit www.skfusa.com.



DANFOSS
Turbocor® TT700 Compressor

Designed for water-cooled chiller applications and built with proven Turbocor® technology, the new TT700 compressors are oil-free, variable-speed, magnetic bearing centrifugal compressors that provide outstanding full- and part-load energy efficiency. The compressors also feature a small footprint, are light weight, and offer low vibration, very low sound, intelligent controls, and soft starting characteristics. For more information, contact Frank Ford, director of product management, at frank.ford@danfoss.com.

GAS CLIP TECHNOLOGIES

Multi Gas Clip Simple 4-Gas Detector

Looking for a simple solution to your gas detection problems? The new ultra-durable portable 4-gas detector from Gas Clip Technologies, Multi Gas Clip Simple, tests for H₂S, CO, O₂, and combustible gases (LEL) even under the harshest of conditions with no charging ever, no sensor or battery replacement, and no calibrating required! The energy-efficient infrared LEL sensor is immune to poisons such as H₂S or silicones and it won't burst when suddenly exposed to high gas levels.

Gas Clip Technologies' continued development and refinement of advanced low-power photometric infrared technology for LEL measurement helps make gas detection simpler than ever in the newest member of their gas detector family—the Multi Gas Clip Simple.



For more information,
call 972.775.7577, email
info@gascliptech.com, or visit
www.gascliptech.com.