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Serving the Water, Wastewater, Desalination & Energy Sectors in the MENA - Since 1977
تخدم قطاعات المياه والصرف الصحي وتوليفة المياه والطاقة في الشرق الأوسط وشمال أفريقيا - منذ ١٩٧٧



Hybrid Desalination
Prospects for Installations
across the MENA (P.20)

PIPES & VALVES
Prevention of Odor Formation
and Corrosion in Sewers (P.24)

Photo by: Victaulic

ARGAL Presents the SATURN Range of Centrifugal Pumps



SATURN from **ARGAL** is a single-stage centrifugal pump conforming to ANSI/ASME B73.1 regulations. The pump casing is made of FRP (thermosetting resins reinforced with fiberglass), which provides the casing with a considerable mechanical resistance comparable to metal alloy.

The resin basic formula (epoxy vinyl ester) gives the pump casing a resistance to all corrosive and abrasive acids. The combination of Chemical & Mechanical Resistance added to a manufacturing low cost leads the SATURN range to be an important reference in different application fields as seawater (sanitization treatments, desalination, etc.), domestic & industrial wastewater treatment, fume scrubbers, and all industrial plants handling chemical liquids.

The SATURN series comes in two versions:

- ZGS *normalized (long-coupled)* with its pedestal, which includes the ball bearing housing and shaft which gives the pump more strength by flexible coupling to the electric motor for pumping the most difficult liquids for a continuous use. This solution and the "back pull out" eases the disassembling of the pump from the electric motor for an easy and fast maintenance without disconnecting the pipes from one side and the electric motor on the other side.
- ZMS *close-coupled* version can be supplied up to 37 kW motor. The pump coupling flange to the electric motor has been engineered with a

thrust ball bearing which supports the radial burden and reduces the shaft's jolts and consequently the burden on the electric motor ball bearings. This solution gives the unit the possibility to stand the heaviest applications easily.

Base Plate entirely made of fiberglass to resist all corrosive liquids, and

provide stability and solidity. The overall dimensions respect ANSI/ASME regulations, accepting both NEMA and IEC motors.

The SATURN series can be supplied with various brands of mechanical seals, either manufactured by ARGAL or by any other leading manufacturer. ■

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GORMAN-RUPP engine-driven trash pumps are the perfect solution for sewage bypass operations, construction site dewatering and for the toughest pumping jobs.

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Griswold™ Pump Company Earns ATEX Certification for 811 Series ANSI Centrifugal Pumps

Griswold™ Pump Company, a leading manufacturer of centrifugal pumps, is proud to announce that the standard and low-flow models of its 811 Series ANSI Centrifugal Pumps are now ATEX-compliant. ATEX is the common name for European Union Directive 94/9/EC, which is the European safety standard for all equipment intended for use in potentially explosive atmospheres. With this certification, Griswold's 811 ANSI pumps are now available for use in places where explosive atmospheres may arise through the mixture of air and flammable materials such as gases, vapors, mists, and dusts. These conditions most commonly exist in chemical plants, refineries, liquid-storage terminals, and latex plants.

All of the Griswold 811 ANSI pumps that meet the ATEX directive will

now be designated by an "A" at the beginning of the model number, while a tag that contains the ATEX equipment group, category, zones, and temperature class will also be added to the pump body. These pump models will also feature the "CE" mark, which makes them compliant with the European Union's Machinery Directive 2006/42/EC and available for importation into the EU; the ATEX-compliant models are the only Griswold pumps that feature the "CE" mark.

Griswold's 811 Series ANSI Centrifugal Pumps are ideal for a wide range of applications in potentially explosive atmospheres because they have been designed with an open-impeller that minimizes concentrated wear; self-tightening impellers that reduce leaks and



failures; the ability to externally adjust the clearance so that peak efficiency is ensured even after wear-area loss; back pump-out vanes that reduce pressure on the shaft seal and bearings; and investment-cast impellers that are ultra-smooth to guarantee hydraulic and mechanical balance, as well as maximized seal and bearing life. ■

seepex Meets the Challenge

seepex GmbH, headquartered in Bottrop, Germany, develops, manufactures, and globally markets progressive cavity pumps for delivering low to highly-viscous, aggressive, and abrasive media.

seepex UK were presented with a challenge by one of the ten regulated water and sewerage companies in the UK. Following a review of their energy policy a decision was taken to reduce reliance on energy intensive thermal drying of sludge at three plants in South Wales in favor of advanced anaerobic digestion and power generation.

The key challenge for the new Thermal Hydrolysis Process (THP) plants was to build them within the existing boundaries of the two sites that are being converted to regional sludge centers. The existing imported sludge reception handling systems included

reception bunkers and either piston pumps or twin auger progressive cavity pumps to move the 26% ds dewatered sludge for onward processing. Capacities at both plants had to be increased due to the higher volumes of sludge to be processed.

After reviewing the installation, seepex proposed modifications to the existing silo discharge system and specified a pump design that allowed easy removal of the pump motor. seepex UK received an order for eight of THE130-24 pumps and associated accessories like a new silo discharge screw, boundary layer injection system to reduce friction losses, pneumatic slide valves, intermediate hoppers, and control equipment.

The design criteria was to transport the highest volume and % ds content as possible to the new Thermal Hydrolysis feed silo but keeping the



discharge pressures within the design scope. In order to fulfill this, seepex supplied an automated boundary layer injection system to maintain the friction losses and % ds content within the design remit. Due to the space restrictions seepex design scope included a split stator for ease of maintenance, thereby eliminating the need to remove the complete pump for maintenance. ■