

Hydra-Cell seal-less, high pressure diaphragm pumps have been available for some time with the fluid end machined from Kynar PVDF, a high temperature engineering fluoropolymer with high purity and outstanding resistance to a wide range of aggressive, corrosive chemicals, notably concentrated sulphuric and hydrochloric acids.

Now, Wanner International is able to offer these pumps with stainless steel DIN flange fittings and Kynar mating surfaces, making Hydra-Cell pumps even easier to incorporate into corrosive fluid systems.

Kynar liquid heads are available for Hydra-Cell G03, G10, G20, G25 pumps covering a range of performance from 3.79l/min to 76l/min at pressures up to 24bar (350psia) and are also available on the Hydra-Cell metering pump range.



Fig. 2. APEX pumps have no expensive wearing components such as seals, valves, membranes, stators, rotors or glands.

Exceeding the performance requirements of API 675 in terms of repeatability, linearity and steady state accuracy, the Hydra-Cell pump's multi-diaphragm configuration generates virtually pulse-less flow, removing the need for dampeners in most applications.

Wilden has released its HX400S high-pressure air-operated double-diaphragm (AODD) pump, designed for use in applications that require the reliable transfer of viscous, solid-laden slurries at high discharge pressures.

What differentiates the HX400S AODD pump from competitive models is that, rather than relying on costly external boosters or amplifiers, one of the pump's liquid chambers is used as an amplification chamber. This allows the pump to generate a 2:1 ratio of discharge fluid pressure to air inlet pressure, resulting in the ability to achieve a discharge fluid pressure of up to 17.2 bar.

Additionally, the HX400S pump, which is available with 1 1/2-in (38 mm) inlet and discharge connections, is outfitted with Wilden's standard-setting Pro-Flo X air distribution system (ADS). The Pro-Flo X ADS features a state-of-the-art efficiency management system, which allows the operator to dial in the actual operational parameters regardless of the application demands or pump size.

The new Bosch DS series COBRA vacuum pump range has a 20 per cent smaller footprint than the previous generation, and has superior powder handling capabilities resulting from their unique screw pump design. These vacuum pumps target high capacity load lock and harsh process vacuum applications in the solar market, as well as flat panel manufacturing applications. Designed to meet industry needs for the rapid cycling of big chamber pump downs and large volumes of hydrogen during solar cell manufacturing processes, the DS series range meets these pumping requirements in a powerful, cost-effective modular system.

The new vacuum pump models also come with options that address specific harsh process issues and energy saving requirements - 30 per cent energy savings are possible. One of the recent additions to the option catalogue opens the door to a cost efficient solution in difficult processes such as zinc oxide chemical vapour deposition, avoiding costly trap technologies.

The new frame design, with its separate booster and screw pump frames, allows for easy installation and maintenance.

Graco's new EP Series hose pump design uses a single, oversized roller that compresses a low friction hose through a full 360° rotation. This innovative design puts 40 per cent less stress on the hose compared to convent oval shoe pumps running at the same flow rate. This results in a longer hose life when pumping corrosive, abrasive or sensitive materials for chemical metering, plating or yeast applications.

The pump also has 50 per cent more fluid flow per revolution than C-shape positive displacement pumps. Other features include a compact footprint for tight spaces. ■

## 33 per cent more continuous flow

**T**he new Verderfer Dura 45 peristaltic hose pumps is the latest addition to the Verderfer Dura family of industrial peristaltic pumps. The pump gives 33 per cent more continuous flow than other pumps in its class, lowering the cost of this technology.

Other new features include operation up to 10 bar, motor supported independently of the gearbox, trim channel protects gearbox in case of a hose burst, shimmable roller shoes for precise control of discharge pressure and optimum hose life, includes anti-burn protection against a stalled

rotor, fully supported rotor shoes, simple flange assembly includes hose change lever, and competitively priced with standard connections, making the latest hi-efficiency motor.

A number of hose materials are available including nitrile rubber and ethylene propylene diene monomer (EPDM) rubber.

By design, the peristaltic pump is ideal for the dependable handling of abrasive, crystalline, viscous, high density and high solid content fluids. It finds its true applications where other types of pumps fail. Water and waste water treatment,

mining and chemical processing are all prime markets for this workhorse. But being equal to the tough demands of these applications is far from its only strength. The peristaltic pump can also be extremely versatile.

Perhaps somewhat overshadowed by its reputation in heavy-duty slurry and sludge handling, is the peristaltic pump's eminent stability for handling sheer sensitive products. It has a smooth, squeezing action that makes it ideal for use with flocculants, sensitive polymers and fragile cell cultures. ■