

SPX 394

## **SPX® introduces digital motors for its Bran + Luebbe® pumps**

SPX is introducing digital motors for its Bran + Luebbe brand pumps and has already supplied its ProCam EHEDG hygienic pumps fitted with digital motors to the food packing industry.



“Digital motors are the way forward as we see it as they have the potential to replace the technology currently used for pumps that are under process control,” says Steve Digby SPX UK Sales Manager.

“The advantage of these motors is that they deliver constant, exact control of the pump speed and allow the user to exercise control to fractions of a revolution. With the digital motor, it becomes possible

to dose highly accurate single shots of liquid at a time.”

SPX metering pumps are generally driven by an induction motor, enabling them to deliver an accurate and continuous flow rate. However, there are many applications which do not require a continuous flowrate, so it is necessary to keep starting and stopping the motor. Not only can this lead to overheating, it is also very difficult to start and stop the motor accurately in order to precisely time its operation with other equipment. Combining the digital motor and drive with the metering pump overcomes these challenges.

Digital motors offer a great many advantages over standard induction motors and are designed to cope with frequent starts and stops. They provide relatively high torque in a compact size and can be run very slowly for extended periods, whilst the inclusion of a position endcoder enables their speed and position to be accurately relayed to the control system. Being extremely flexible drives not only means that they are able to drive to exact set positions, their speed and direction can also be changed rapidly and precisely.

“The flexibility of this type of drive has other implications for our metering pumps,” continues Steve Digby. “The metering pump operates like a piston, firstly drawing liquid into the cylinder through the inlet valve and then forcing it out through the discharge valve. This means that with standard motors the pump only delivers product 50% of the time. With the digital motor, this can be changed to enable the suction stroke and the pumping stroke to be speeded up. Where viscous liquids give problems with net positive suction head (NPSH), it is possible to overcome this by slowing down the suction stroke speed and either run the discharge stroke at normal speed or possibly increase the discharge speed.”

When operated with appropriate controllers, the digital drive can also be set to coordinate with other servo-motors, so they operate at the same time or relative to another drive. This potential of digital motor technology when applied to metering pumps is highly relevant to the packaging industry. When used in filling machine applications, where speed and accuracy is all-important, multiple drives can be employed ensuring that the container is firstly positioned and then filled before exchanging containers.

## *About SPX*

*Based in Charlotte, North Carolina, SPX Corporation (NYSE: SPW) is a global Fortune 500 multi-industry manufacturing leader with nearly \$5 billion in annual revenue, operations in more than 35 countries and approximately 15,500 employees. The company's highly-specialized, engineered products and technologies serve customers in three primary strategic growth markets: infrastructure, process equipment and diagnostic tools. Many of SPX's innovative solutions are playing a role in helping to meet rising global demand, particularly in emerging markets, for electricity, processed foods and beverages and vehicle services. The company's products include thermal heat transfer equipment for power plants; power transformers for utility companies; process equipment for the food & beverage industry; and diagnostic tools and equipment for the vehicle service industry. For more information, please visit [www.spx.com](http://www.spx.com)*

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