**New waste water pump with efficient hydraulic system**

IFAT 2020 (7 - 11 September 2020) will see the KSB Group present its new submersible motor pump of the Amarex type series as one of its novelties on display. The pumps are employed in applications like waste water and sludge treatment as well as the transport of stormwater. They can handle waste water with long fibres and solid substances, fluids containing gas as well as sludges, service water and grey water and are equipped with either free-flow impellers (F-max) or open two-vane impellers (D-max).

So customers can choose the right impeller type depending on their requirements: low waste water flow rates at high heads and high flow rates at lower heads. Pump variants featuring D-max impellers are optionally available with D-flector which significantly increases resistance to clogging. A multitude of material and mechanical seal variants ensures that the user can transport a wide range of corrosive and abrasive fluids.

The impellers’ non-clogging feature markedly reduces maintenance requirements compared with conventional designs and the pumps’ high levels of hydraulic efficiency combined with high-efficiency IE3 motors make for low energy consumption during operation. The type series has a maximum head of 42 metres and a maximum flow rate of 320 m3/h. When designing Amarex, engineers attached great importance to the pumps achieving a long service life. This is ensured by a generously dimensioned motor, robust rolling element bearings and a corrosion-resistant stainless steel shaft.

An environmentally friendly, non-toxic oil fill provides continuous lubrication of the mechanical seal. As is common practice with this type of pump, installation in the pump sump is effected via a duckfoot bend. A large range of adapter claws also allows the use of duckfoot bends from other manufacturers so that a change of make is possible without requiring a major installation effort. Sealing between duckfoot bend and the pump discharge flange is by a newly developed, absolutely water-tight and durable U-profile ring. Users also have several options when choosing the arrangement for placing the pump on the duckfoot bend: They can opt for guide hoop, guide wire, single guide rail or twin guide rail arrangement.

The pumps are designed for ease of repair. At the end of the pump’s life cycle, most of components can be dismantled and recycled.

Photo: The KSB Group’s new Amarex waste water pump stands out due to its high level of hydraulic efficiency combined with a high-efficiency motor. ©KSB SE & Co. KGaA, Frankenthal