

# **AFT Quarterly** 4/2021



## Hygienic fluid handling - Alfa Laval combines high performance with product safety in pumps

Alfa Laval is presenting a new circumferential piston pump for applications in the food and beverage industry. Thanks to its design, DuraCirc combines high performance, hygiene, product safety and ease of maintenance. A total of 13 models enable a broad range of flow rates and pressures. The stainless steel design ensures reliable long-term operation.



In order to maximise process yield, the DuraCirc circumferential piston pump has been designed with a small clearance. (Photo: © Alva Laval)

#### **EHEDG** and 3-A conformity

Food and beverage industry processes demand performance, hygienic design and ease of maintenance from circumferential piston pumps. The DuraCirc aims to establish a new industry standard in this regard, because it combines high volumetric efficiency, EHEDG and 3-A conformity as well as quick and easy maintenance. Consisting of 13 models, the range enables a configuration for delivery rates of up to 150 cubic metres per hour and pressures of up to 40

The pump has been designed with a small clearance to maximise volumetric efficiency and process yield. An innovative connection and pump head geometry reduces the risk of cavitation to protect the pump and medium while increasing process flexibility in demanding applications. Stable bearings support the rigid shafts in the gear housing to ensure minimum contact between the pump and head. A modular seal design enables easy conversion without re-machining or an additional flushing housing if a process application changes.



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### Hygiene-safe and easy to maintain

The elastomers that come into contact with the product are an additional DuraCirc design feature. These are profiled and FDA-compliant, and have a defined compression that prevents crevices and dead zones. Minimised contact between the pump and head reduces the risk of product contamination. The seal faces, which are fully immersed in the pumped medium, ensure increased cleaning efficiency.

Maintenance work can be carried out quickly and easily. The front-loaded and self-adjusting mechanical seal enables the seal to be exchanged without removing the pump. The rotors and the rotor case can also be exchanged without a great deal of effort. The fine adjustment facility is positioned outside of the gear unit for easy access, and all replacement parts can be exchanged in full. An FDA-approved gear lubricant increases the replacement interval to 3,000 hours.

#### **Further information and contact**

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