

PUMP RETROFIT MODERNIZE WITH ZERO SYSTEM DISRUPTIONS

► FOR CENTRIFUGAL & POSITIVE DISPLACEMENT PUMPS

APPLYING TECHNOLOGICAL INNOVATIONS

Old and worn out pumps in your system lead to ever more frequent downtimes, ever greater efficiency losses and the need to buy spare parts, which are very expensive or in the worst case impossible to purchase. The installation of a new pump is challenging, because modification of existing pipework could cause massive expenses both in handling and in administrative overhead generated for new calculations and approvals required.

A pump retrofit, however, is a strategic investment that brings economic, environmental and operational benefits, making it the favorable choice for operators seeking to optimize their existing plants. Within a retrofit, Klaus Union offers to replace existing pumps without modifying your system.

TECHNICAL IMPLEMENTATION

- The dimensions are either taken from the general arrangement drawing or the existing pump can be measured on site or in our workshop using a high-precision 3D laser scan.
- The pump is then redesigned using a 3D CAD tool according to the hydraulic and geometric requirements and within the limits of the existing system.
- The new pump fits into the existing system (piping, baseplate and drive), which can remain.

WHAT ARE THE SPECIFIC ADVANTAGES?

A tailor made retrofit can be installed with minimized down-time, while the state of the art pump components - incorporating latest technical innovations - improve the overall performance, reliability and efficiency of the system:

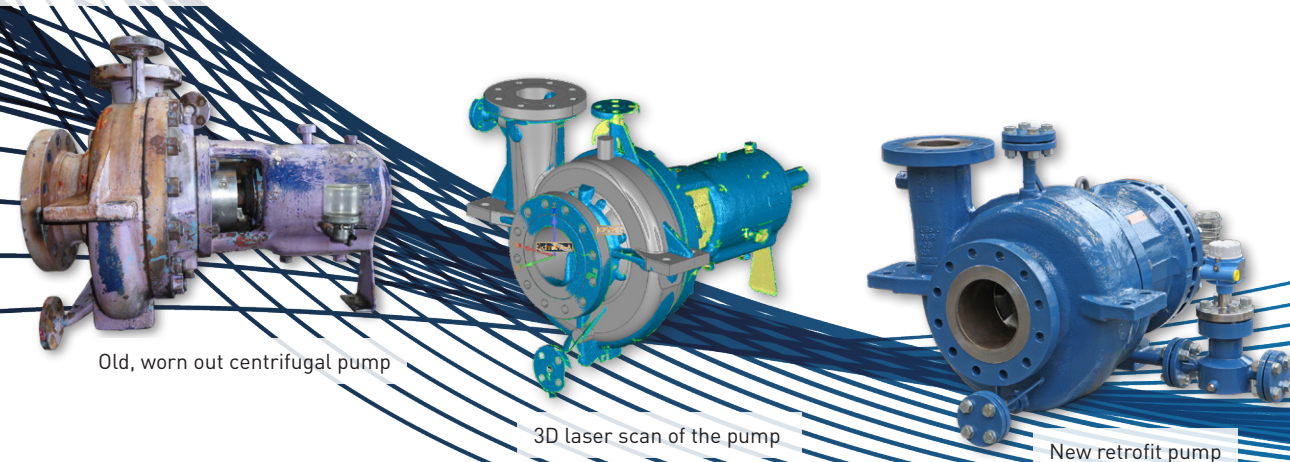
ENERGY SAVINGS / ENVIRONMENTAL IMPACT

Faced with rising energy costs and a growing awareness of environmental impacts, optimizing energy efficiency becomes a top priority. Pumps constitute significant energy consumers, making the upgrade of their technology a key aspect in reducing your overall energy consumption and CO₂ footprint.

Magnetic drive pumps with non-metallic containment shells are highly efficient, contributing to energy savings and reducing your carbon footprint significantly.

- Non-metallic containment shells made of technical ceramics are not electrically conductive. Due to this characteristic there are no eddy current losses impacting the pump performance. The energy consumption can thus be reduced by 10 to 15 %, compared to metallic containment shells.

- Learn more about our magnetic drive:



APPLYING TECHNOLOGICAL INNOVATIONS



RETROFIT OF MECHANICALLY SEALED PUMPS

For existing pumps with mechanical seals or packing glands which are often identified as bad actors Klaus Union particularly recommends replacing them with magnetic drive pumps. Leakage is eliminated and supply systems become obsolete leading to pumps that are maintenance-free by design. In the case of non-metallic containment shells, efficiencies comparable to pumps with shaft seals can be achieved as technical ceramics eliminate any eddy current losses.

Pumps can be executed in accordance with DIN EN ISO, API or ASME, depending on your requirements.

Feel free to contact us if you have any further questions:
info@klaus-union.com

EXTENDED LIFESPAN / MTBF

As retrofitting allows for the replacement of worn or outdated pumps, it enhances the long-term reliability through advanced design and the use of higher-grade materials, thereby considerably increasing the MTBF of your system.

ADAPTABILITY

Retrofitting not only provides the opportunity to integrate new technologies and features, but also to convert non-compliant pump systems into state-of-the-art installations in accordance with relevant EU directives (Machinery Directive and ATEX).

COST SAVINGS

A retrofit of pumps is more cost-effective than investing in completely new pump skids. As it optimizes the pump systems in many respects, it leads to extensive cost savings:

- By upgrading only the pump instead of a complete system overhaul, the costs for new piping, baseplates and drives are avoided.
- Adapting a new pump-to-fit means less downtime for you and avoids costly production interruptions.
- Replacing worn pump extends the expected lifespan of your system and significantly reduces maintenance costs.
- Fast delivery of affordable spare parts with very high availability.
- Retrofitting introduces energy efficient technologies and thus reduces your overall energy consumption.

