

ALL-OPTIFLOW® :

UNIVERSAL PROGRESSING CAVITY PUMP
WITH THE HIGHEST SAVINGS IN OPERATION

MAINTENANCE COSTS REDUCED

UP TO

15 %

ENERGY COSTS REDUCED

UP TO

15 %



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ALL-OPTIFLOW®: THE UNIVERSAL PROGRESSING CAVITY PUMP

UNSURPASSED PERFORMANCE WITH LOW TOTAL COSTS OF OWNERSHIP

CIRCOR is redefining what's possible in fluid handling for industrial applications, by partnering with engineers and facility owners like you. As your partner in design, development, and maintenance, CIRCOR offers you more than just off-the-shelf products for your biggest challenges. We offer you the best solution for each application.

By choosing CIRCOR, you get 150 years of application experience and access to technologies whose reliability is proven on a daily basis in numerous industrial systems around the world.

To help you address these challenges, CIRCOR developed ALL-OPTIFLOW®, a pump that suits nearly all applications. Based on experiences from a wide range of industrial utilizations liquid flow, distribution of forces, and lubrication have all been optimized to ensure a long service life and the highest possible efficiency.

As your single-source global supplier, we call this "Total Savings of Ownership", reducing the overall cost of your operation, improving reliability and increasing your profitability.

ALL-OPTIFLOW®: SAVINGS THAT ADD UP

OPTIMIZED BASED ON DECADES OF EXPERIENCE

ALL-OPTIFLOW® not only provides numerous design details that boost efficiency but lowers operating and maintenance cost.

High power density due to new 1/2-screw pumping elements can move twice as much of any liquid at the same speed compared to commonly used pumps in the market including fibrous and solid components, at up to 6 bar (87 psi).

In addition to above mentioned standard features CIRCOR has unique options to even improve your MTBF further and bring it to a different level in regard to lifetime and Operating savings.

Up to five times longer service life can be achieved with stators made of ALLDUR® material.

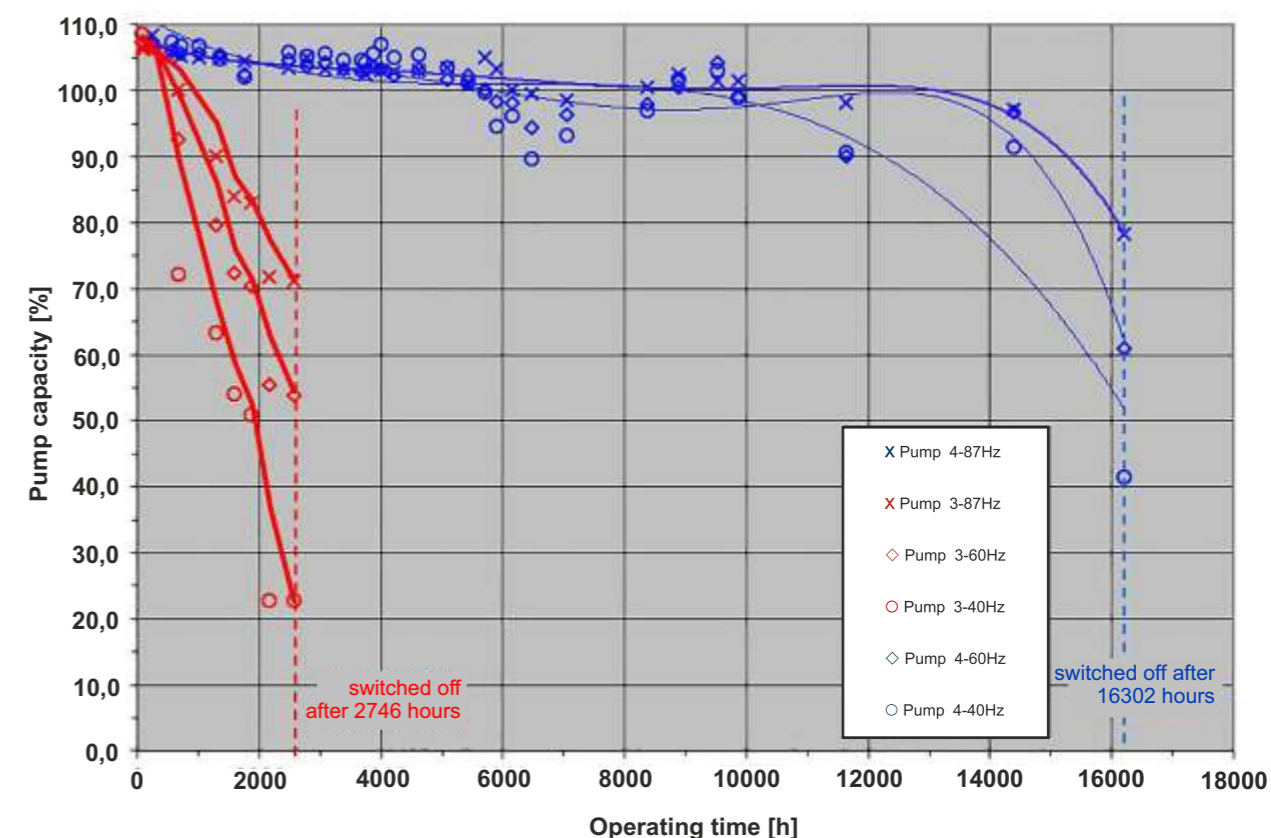
CIRCOR offers different kinds of rotor coating that can be applied and show an incremental enhancement for your operations.

SERVICE LIFE EXTENDED BY UP TO FIVE TIMES WITH ALLDUR® STATORS

Long-term tests at diverse wastewater treatment plants have shown that stators constructed of ALLDUR® have a service life that is up to five times as long as stators made from conventional elastomers. The chart shows the loss of pump capacity over the course of the service life for three identical pumps with identical liquids and pumping characteristics. While "normal" stators achieved only between 20% and 70% of the original pump capacity after barely 3000 operating hours, pumps equipped with ALLDUR® stators still had more than 90% of their original capacity after 12,000 hours.



Pump capacity = f (operating hours)



ALL-OPTIFLOW® : CUSTOM-MADE FOR INDUSTRIAL PROCESSES

THE PUMP WITH THE HIGHEST SAVINGS IN OPERATION

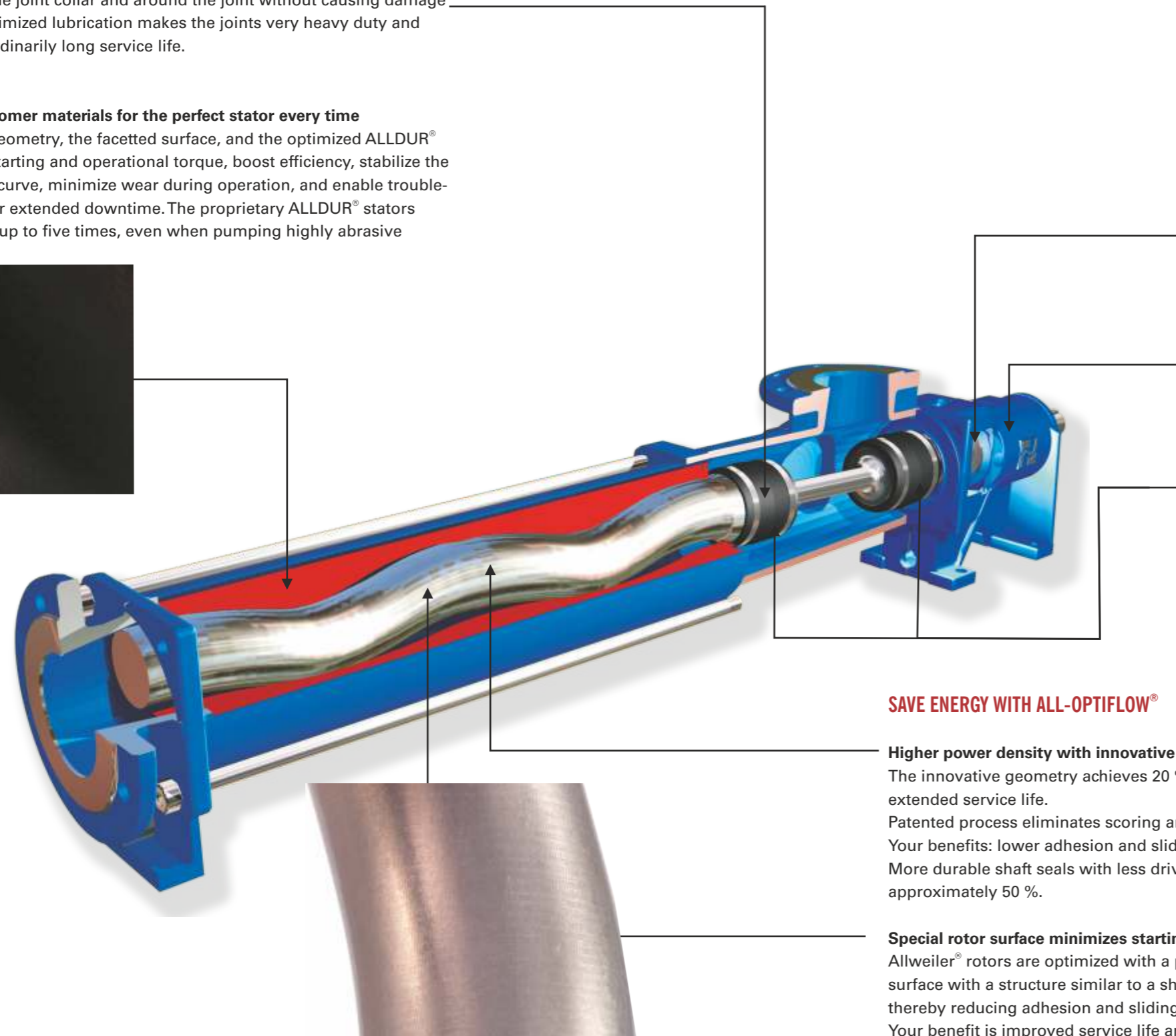
REDUCE SPARE PARTS COSTS WITH ALL-OPTIFLOW®

Lifetime oil-lubricated joint protected from overpressure and solids

As a result, damage to the collar is reliably prevented. Solids are guided over the durable face side of the joint collar and around the joint without causing damage to the joint collar. Optimized lubrication makes the joints very heavy duty and gives them an extraordinarily long service life.

Twenty different elastomer materials for the perfect stator every time

A special elastomer geometry, the faceted surface, and the optimized ALLDUR® elastomer minimize starting and operational torque, boost efficiency, stabilize the pump's performance curve, minimize wear during operation, and enable trouble-free starting even after extended downtime. The proprietary ALLDUR® stators extend service life by up to five times, even when pumping highly abrasive liquids.



REDUCE MAINTENANCE COSTS WITH ALL-OPTIFLOW®

Patented zero-play stub shaft connection

Patented zero-play stub shaft connection in block design, self-sealing, stainless connection between the drive and the pump that is highly insensitive to dirt. It assembles and disassembles easily and quickly. Shaft diameter is approximately 30 % smaller, reducing frictional losses at the shaft seal by up to 50 %.



Removable bearing bracket

The removable bearing bracket in bearing frame design pump can be removed from the drive shaft as a complete unit. The shaft seal is accessible without further disassembly of the pump.

Internal bearing

The internal drive shaft bearings may be relubricated and are protected against spray water.

High-quality joint design

Both ends of the ALL-OPTIFLOW® universal high-quality joint shaft end in gas- and liquid sealed encapsulated pin joints that are designed to be very simple and robust and absorb the rotor's eccentric movement without disturbances. The optimized and most compact design on the market has an incomparable long MTBF as force is transferred over exchangeable, hardened bushes and pins that reliably protect the remaining joint parts from wear and enable straightforward replacement.

SAVE ENERGY WITH ALL-OPTIFLOW®

Higher power density with innovative single-screw rotor

The innovative geometry achieves 20 % lower average sliding speed resulting in reduced energy consumption and extended service life.

Patented process eliminates scoring and produces instead a shark-skin structure on the surface.

Your benefits: lower adhesion and sliding friction, thereby reducing drive power and starting torque.

More durable shaft seals with less drive power required, thanks to small-diameter stub shafts which reduce seal friction by approximately 50 %.

Special rotor surface minimizes starting and operating torque

Allweiler® rotors are optimized with a proprietary process eliminating scoring and producing a precision-contoured, smooth surface with a structure similar to a shark skin. This patented process obtains optimized flow and sliding properties and is thereby reducing adhesion and sliding friction.

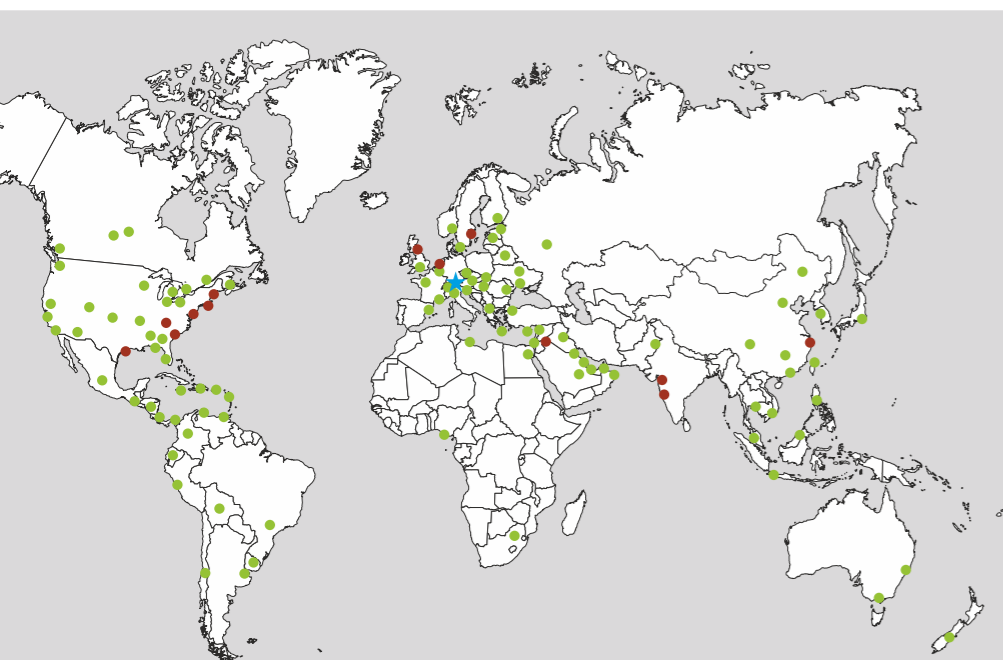
Your benefit is improved service life and reduced starting torque and power consumption.



ALL-OPTIFLOW®: REDEFINING EFFICIENT OPERATION




ALL-OPTIFLOW® combines high engineering knowledge with application expertise that allows us to optimize your system performance.

Our commitment to you also includes unmatched understanding of your business challenges and global responsiveness to your needs. Our global team of experts ensure you have what you need when you need it, we are committed to being a partner in your success by redefining what's possible for you and your customers.



REDEFINING THE POSSIBLE

CIRCOR has a global network of sales, production, and service capabilities to ensure that our customers receive competent and optimal support.

-  Headquarters
-  Regional production and consultation centers
-  Global sales network

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Power & Industry Products & Services

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