

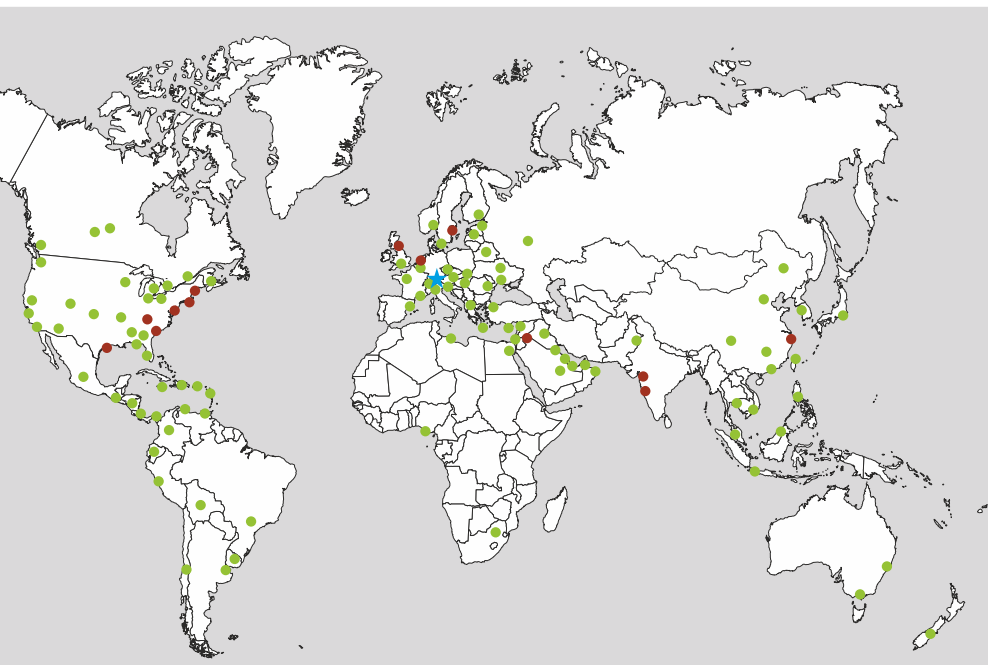


AT THE HEART OF EVERY OPERATION: THE BEST FLUID-MANAGEMENT SYSTEM

When it comes to pumping liquids, pumps and systems from CIRCOR are among the most trusted solutions in the world.

The team at CIRCOR is committed to developing the best solutions for your specific requirements. We refer to this as Total Savings of Ownership (TSO), which aims to minimize total operating costs. At CIRCOR, savings begin with fair prices. But Total Savings of Ownership also means having the knowledge of what it takes to optimize the profitability of an industrial system throughout its entire service life.

Our extensive know-how, technical experience, and application competence give us the ability to optimize system performance and ensure that your employees receive the application experience and training they need. We have a global presence, coupled with the right tools for simplifying your engineering and technical processes. This gives us the unique ability to ensure that you receive what you need – precisely when you need it. CIRCOR is committed to your success. We redefine what is possible for you and your customers.



REDEFINING WHAT'S 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

CIRCOR

ALLWEILER GmbH
Allweilerstr. 1
78315 Radolfzell
Germany

Tel. +49 7732 86 0

1710 Airport Road
Monroe, NC 28110
USA

Tel. +1 704 289 65 11

Unit 1803, 18/F
Clifford Centre
778 Cheung Sha Wan Road
Lai Chi Kok, Kowloon
Hong Kong

Tel. +852 3473 2700

Unit 804,
Venture International Park
Building B
No. 2679 Hechuan Road
Shanghai 201103
China

Tel. +86 21 6248 1395

www.circorpt.com



www.circorpt.com

COMMERCIAL MARINE

DEFENSE

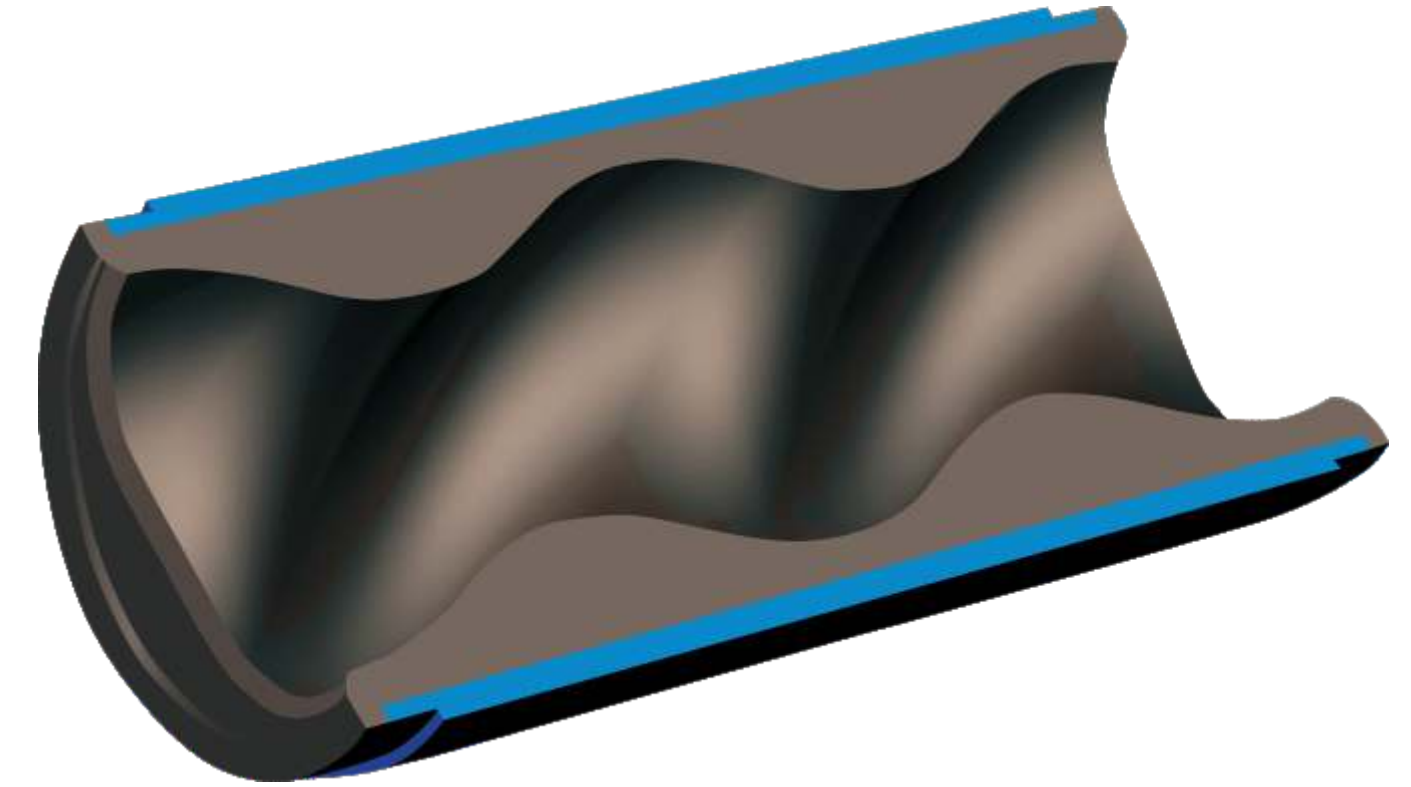
OIL & GAS

POWER & INDUSTRY

RELIABILITY SERVICES

CIRCOR, ALLWEILER, IMO, TUSHACO and WARREN are registered trademarks and HOUTTUIN is a trademark of CIRCOR or its subsidiaries in the U.S. and/or other countries. (c) 2018, CIRCOR. All rights reserved. 226870 - 2018.04

Industrial Solutions ALLDUR®



ALLDUR® : EXTREMELY WEAR-RESISTANT STATORS FOR ALLWEILER® PROGRESSING CAVITY PUMPS

EXTENDED SERVICE LIFE
UP TO
500%





ROTORS AND ALLDUR® STATORS IN ORIGINAL ALLWEILER® TECHNOLOGY

THE DREAM TEAM FOR ACHIEVING EXTREME WEAR RESISTANCE WITH ABRASIVE LIQUIDS

ALLDUR® Stators

A stator's chemical formula determines how long it will provide its original pumping capacity and, therefore, how much you will spend on maintenance and spare parts. This savings, or extra expense, will be a factor over the life of the pump and can significantly impact your operation and your total cost of ownership.

Economical

With this in mind, CIRCOR developed the new ALLDUR® formula specifically to maximize durability and efficiency. With ALLDUR® stators, now you can pump even extremely abrasive liquids economically!

Guaranteed quality

Each elastomer mixture and the entire production process are subject to stringent and continuous quality control. Therefore, as an operator you will experience uniform quality for decades. You can also expect the highest available safety, since ALLDUR® stators utilize cutting edge technology and comply with current regimes and regulations, e. g. Atex and machines directives.

Cutting edge technology

Modern technologies and processes reliably ensure that every stator leaves our plant in flawless condition.

Universal in use

ALLDUR® stators are specially developed for Allweiler progressing cavity pumps. New pumps can be provided with ALLDUR® stators, and existing pumps can be retrofitted at any time.

STATORS MADE OF ALLDUR®

TECHNICAL CHARACTERISTICS AND FINANCIAL BENEFITS

Ready for dynamic loads

High resistance against even dynamic mechanical loads. ALLDUR® stators recover from deformation caused by solids by assuming their original shape and size.

High impact resilience

Solids that impact the elastomer are repelled without causing damage.

Low compression set

Even long periods of downtime will not result in permanent deformation of the stator elastomer at the sealing lines.

Good liquid resistance

No or only marginal swelling, brittleness, contraction, or hardness alteration.

High durability

Extremely good abrasion qualities for pumping liquids with abrasive solids.

High tear-growth resistance

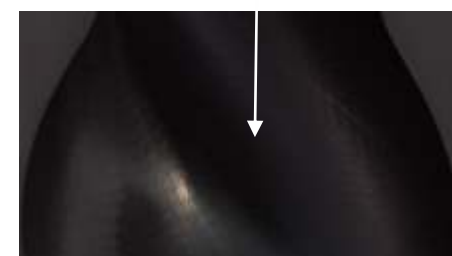
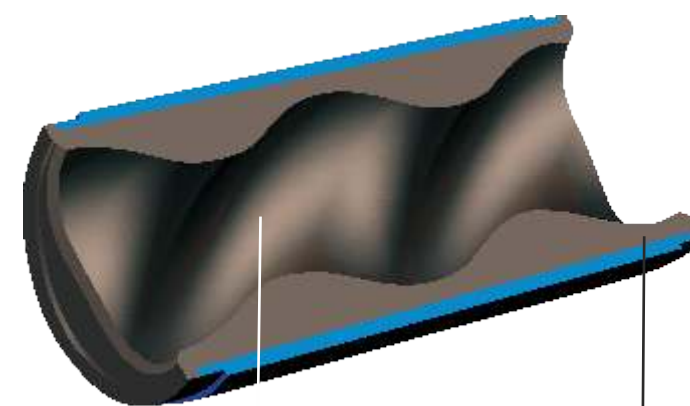
Even stators that receive localized damage can stay in service without the condition worsening.

Wide temperature range

Reliable and economic pumping of liquids from -22°F to +212°F.

High aging resistance

The elastomer can stay in service for years without maintenance or replacement.



"Honeycomb" structure of the stator surface.

ROTORS FROM ALLWEILER®

VERY LONG SERVICE LIFE

Hardened tool steel as the base material prevents penetration of the chrome layer. The ductile hard chrome coating remains intact even when pumping coarse solids.

Particularly on larger sizes, original technology Allweiler® rotors used in progressing cavity pumps are hollow-cast or hollow-bored. This reduces centrifugal forces and extends the service life of the entire pump.



"Shark skin" structure of the rotor surface.

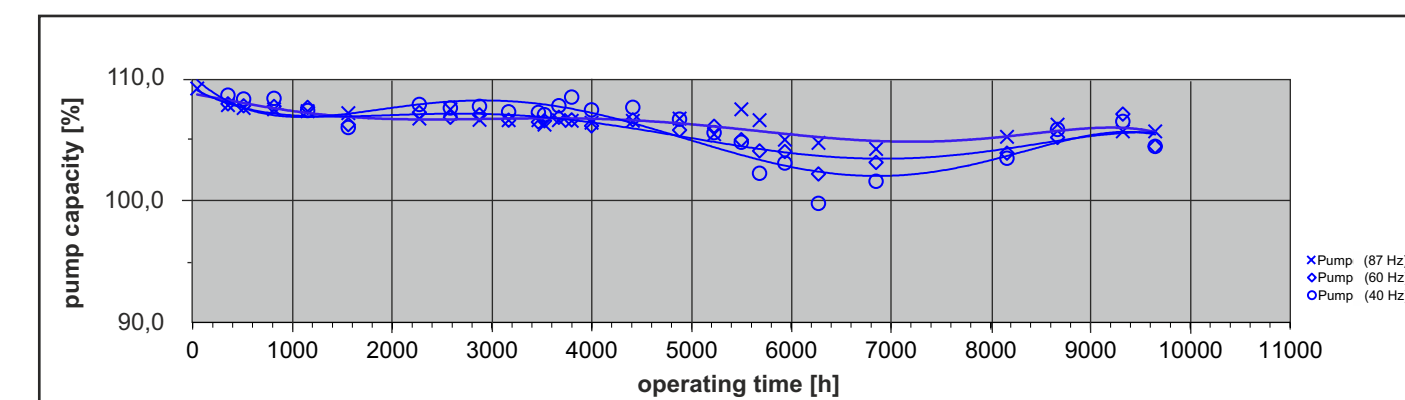
ALLDUR® IN USE

RESULTS OF AN EXPERIMENT AT THE COLOGNE-STAMMHEIM LARGE CLARIFICATION PLANT

The large Cologne-Stammheim sewage plant uses Allweiler® pumps for pumping thick sludge, among other uses. The new stator material has been undergoing long-term durability tests since December of 2012. Two identical pumps – one with a standard stator and another with ALLDUR® – were tested while pumping thick sludge from a thickening machine. Capacity was measured at regular intervals at a variety of pressures and speeds over several thousand hours. The test results confirm the new material's ideal characteristics as a stator material. The pump with a

conventional stator exhibited initial signs of wear after four months and a continual linear loss of capacity.

After an additional three months, pump capacity in the lower speed range was no longer sufficient and it was necessary to replace the stator. Berndt Fritsche, Director of Maintenance: "We were able to extend pump operation by another three months only by increasing its speed. In contrast, the capacity of the pump with the ALLDUR® stator remained constant for more than two years.



With the ALLDUR® stator, capacity had dropped only marginally with a flat reduction of the capacity values. The test pumps conveyed abrasive thick sludge with approximately 6 % dry substance; capacity ranged from 5 to 10 m³/h with a discharge pressure of 8 to 12 bar.

