

Leistritz
PUMP TECHNOLOGY

Keeping the chemicals flowing

Screw pumps for the chemical industry



Made in
Germany



We understand chemicals.

Leistritz screw pumps and systems have a spotless track record in all sectors of the chemical industry. They are used for **safe, highly efficient and reliable pumping** of both low and high viscosity products. Thanks to the wide range of control, Leistritz pumps are ideal for the respective needs and process engineering requirements, e.g. when **conveying, dosing, recirculation in a process or in cleaning cycles such as CIP (Cleaning in Place)**.

What makes us unique is the world's largest range of screw pumps that master just about **any pumping task** for you. Powerful, flexible and highly efficient pump solutions in combination with our **broad process engineering expertise**, make Leistritz the right partner for your challenges.

Sophisticated pump solutions

Low- or high-viscosity media, media with toxic, flammable, water-polluting, chemically aggressive properties, or **high pressures**: We have efficient screw pump solutions for all these requirements - **from raw materials and intermediate products all the way to finished products**.

These include media such as:

- ↗ **Isocyanates**
- ↗ **Polyoles**
- ↗ **Varnishes**
- ↗ **Resins**
- ↗ **Silicones**
- ↗ **Elastomer solutions**
- ↗ **Polymers**

Our screw pumps cover the following range specifications:

VISCOSITY
<1 – 1,000,000 mPas

FLOW RANGE
0.1 – 5,000 m³/h

DIFFERENTIAL PRESSURE
0 – 250 bar

TEMPERATURE
-55 – +350°C

This is what we stand for:

Quality and efficiency

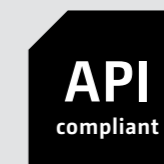
Our innovative and highly efficient pump solutions are based on a wealth of experience and in-depth know-how.

Reliability

Made in Germany! We supply robust, in-house manufactured pump solutions.

Safety

Leistritz pumps carry international equipment certifications and approvals for occupational health, safety and environmental standards.



Experience. Know-How.

Leistritz offers screw pumps tailored to the specific application. Our process specialists are renowned for creating sophisticated technical answers way beyond "off the shelf" offerings.

Application examples

Pump in reactor loop for producing polymers

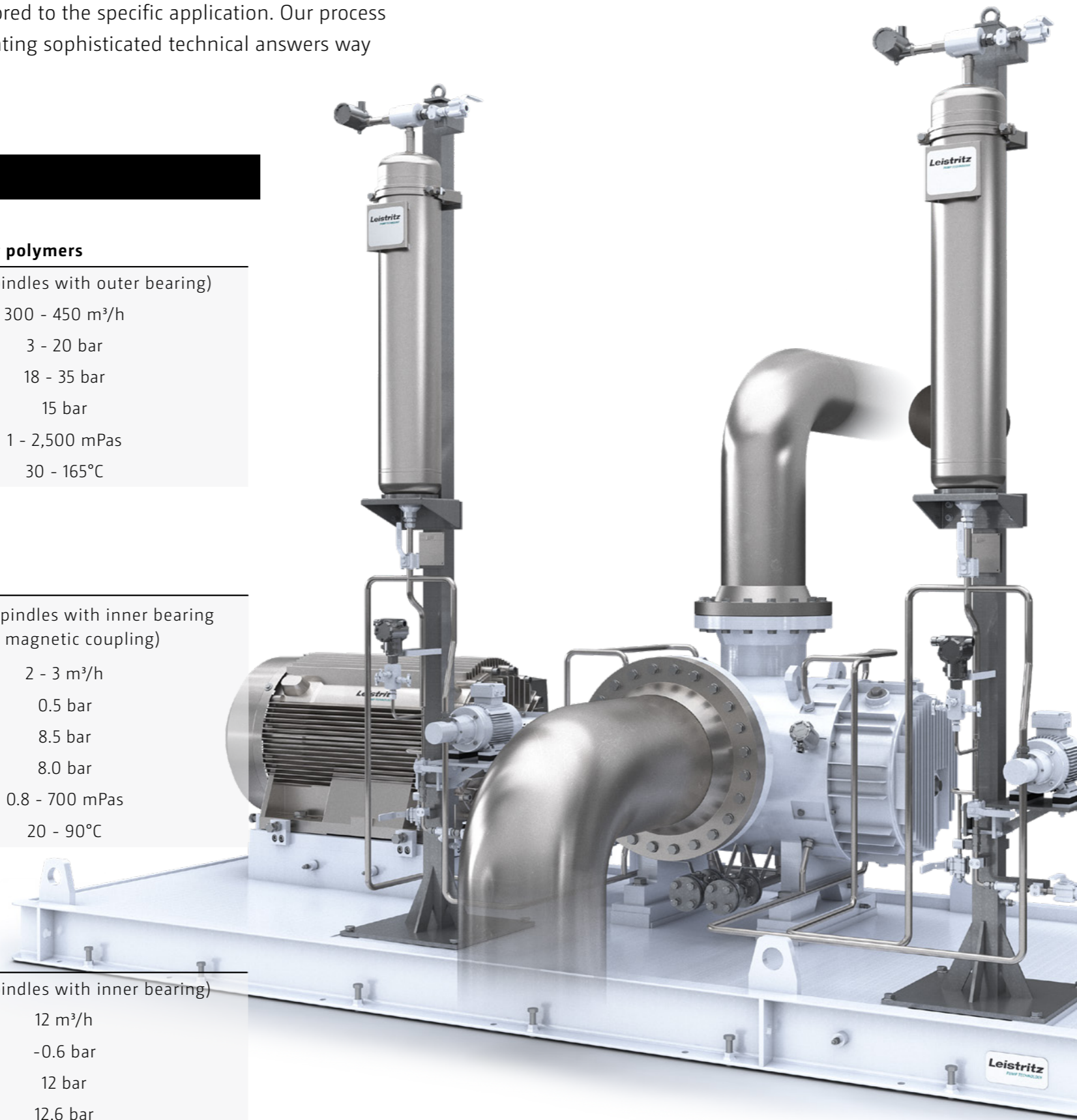
Pump type	L4 (two spindles with outer bearing)
Flow rate	300 - 450 m ³ /h
Pressure (suction side)	3 - 20 bar
Pressure (pressure side)	18 - 35 bar
Differential pressure	15 bar
Viscosity range	1 - 2,500 mPas
Temperature range	30 - 165°C

Dosing pump for isocyanates

Pump type	L3 (three spindles with inner bearing and magnetic coupling)
Flow rate	2 - 3 m ³ /h
Pressure (suction side)	0.5 bar
Pressure (pressure side)	8.5 bar
Differential pressure	8.0 bar
Viscosity range	0.8 - 700 mPas
Temperature range	20 - 90°C

Dosing pump for resins

Pump type	L2 (two spindles with inner bearing)
Flow rate	12 m ³ /h
Pressure (suction side)	-0.6 bar
Pressure (pressure side)	12 bar
Differential pressure	12.6 bar
Viscosity range	10,000 - 20,000 mPas
Temperature range	70 - 120°C



Our engineering excellence covers the entire spectrum: from the pump to the complete system.

Application examples

Process pump for elastomer solutions in hexane

Pump type	L4 (two spindles with outer bearing)
Flow rate	270 m ³ /h
Pressure (suction side)	1 bar
Pressure (pressure side)	12 bar
Differential pressure	11 bar
Viscosity range	0.3 - 2,000 mPas
Temperature range	30 - 85°C

Circulation pump for polyol

Pump type	L3 (three spindles with inner bearing)
Flow rate	30 m ³ /h
Pressure (suction side)	-0.5 bar
Pressure (pressure side)	15 bar
Differential pressure	15.5 bar
Viscosity range	500 - 3,700 mPas
Temperature range	20 - 60°C

Mixing plant for solvent- or water-based varnishes

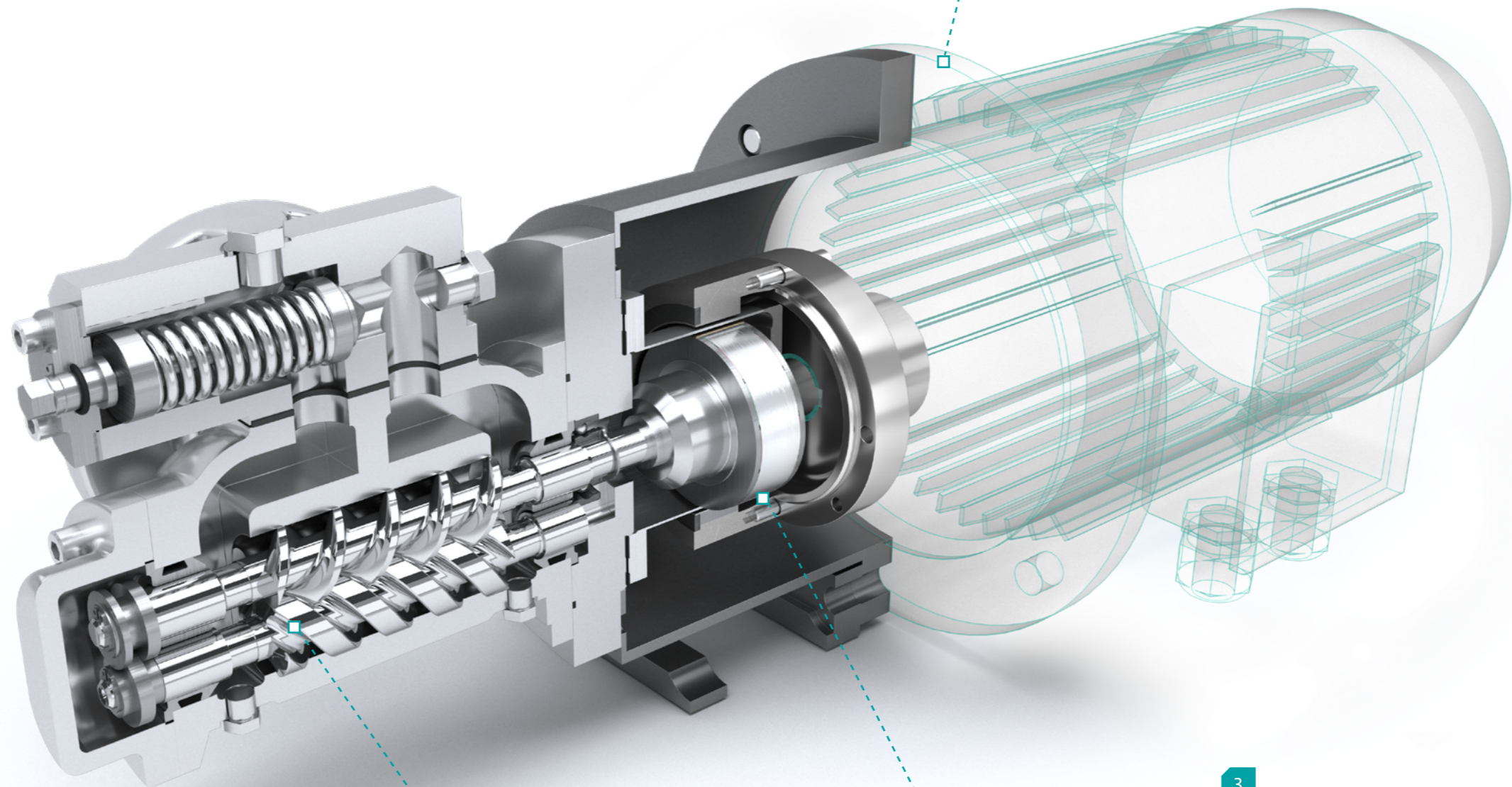
Pump type	L2 (two spindles with inner bearing)
Flow rate	15 - 30 m ³ /h
Pressure (suction side)	-0.4 bar
Pressure (pressure side)	8 bar
Differential pressure	8.4 bar
Viscosity range	1 - 5,000 mPas
Temperature range	20 - 90°C

The Leistritz solution.

Economic and flexible.

In chemical process engineering, screw pumps (as positive displacement pumps for the entire viscosity range) are indispensable thanks to their reliable hydraulic properties. Particularly in chemical applications, the **high suction force and gentle handling** of the pumped media are the outstanding features of this type of pump technology:

- ↗ **Low pulsation**
- ↗ **Gentle handling**
- ↗ **High efficiency**
- ↗ **Silent operation**
- ↗ **Dry run capability**
- ↗ **Extensive sensor monitoring as an option**



1

High speed range

Leistritz pumps can be adapted to a **variety of process conditions** thanks to a wide speed range. This variability also allows **CIP cleaning processes** to be run - a unique technical feature for the screw pump.

2

Pumping of demanding media

The material of a pump represents a key function for pumping chemically demanding and/or hazardous media. We cover the whole range from **standard materials to high-alloy special steels**.

3

Magnetically coupled

Leistritz has been using screw pumps with a **magnetic coupling** in very demanding applications for decades. Not only is the operation of this hermetically sealed version much safer than conventional technology, it also offers important additional advantages: **no emissions, easy installation, significantly reduced monitoring costs and reduced life cycle costs** compared to the operation with a double mechanical seal¹⁾.

SAFE FOR SURE

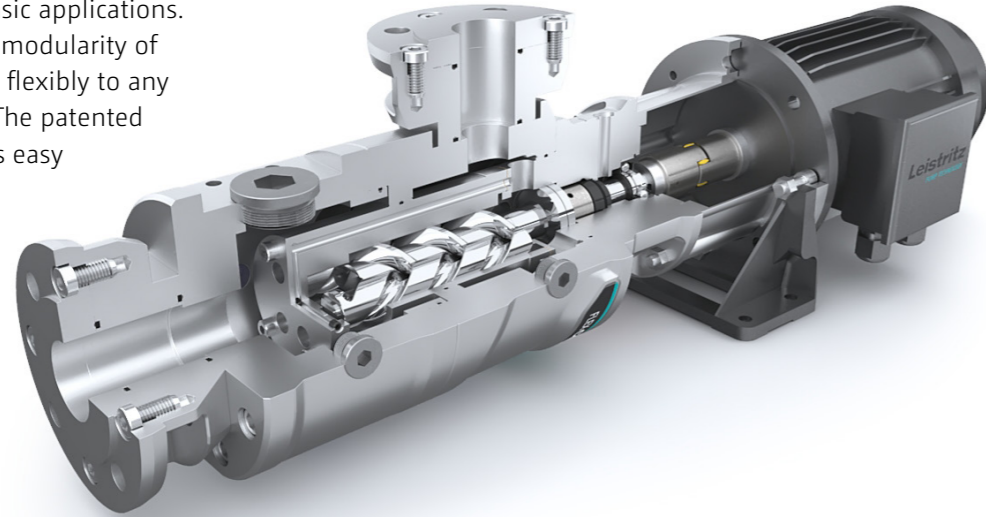
Handling demanding media calls for highest standards in safe operation. Conformity with **ATEX directives and TA-Luft conformity** (Technical Instructions on Air Quality) are part of our daily business.

¹⁾We also offer pump solutions including mechanical seal(s).

The accurate pump. For every application.

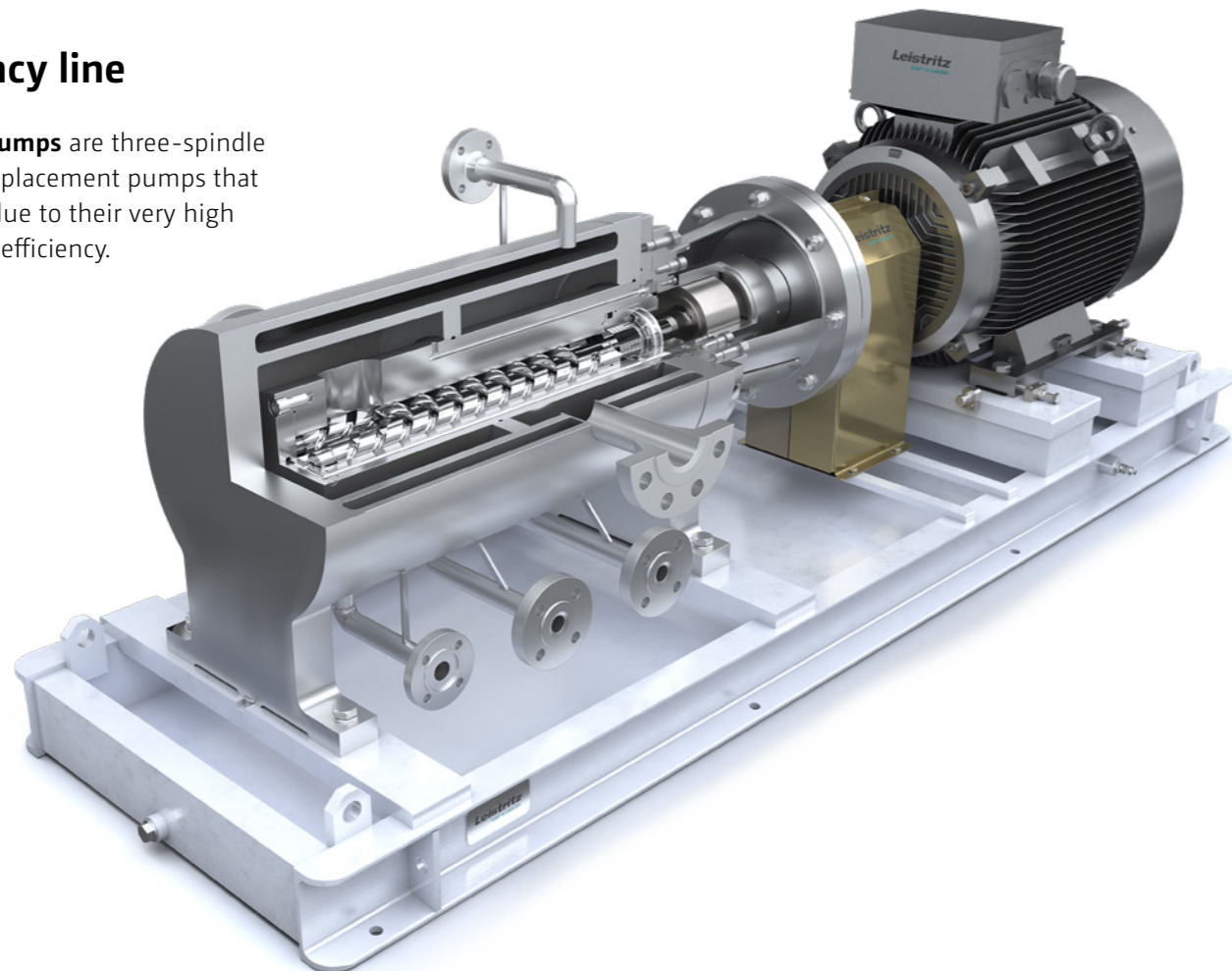
Compact line

FLEXCORE is the perfect screw pump for a wide range of basic applications. Thanks to the unique modularity of the housing, it adapts flexibly to any installation position. The patented pump insert facilitates easy and quick exchanges.



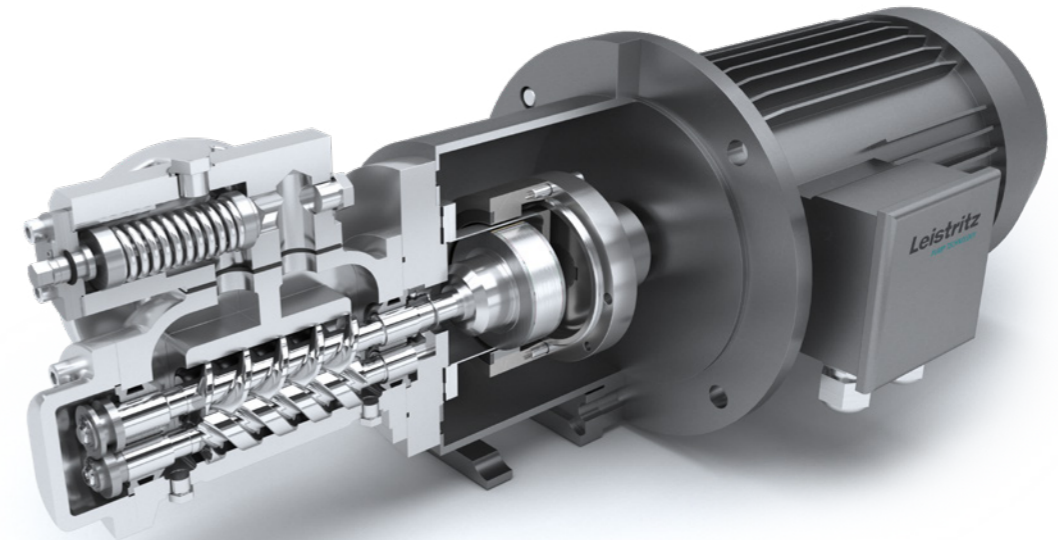
Efficiency line

L3 screw pumps are three-spindle positive displacement pumps that stand out due to their very high volumetric efficiency.



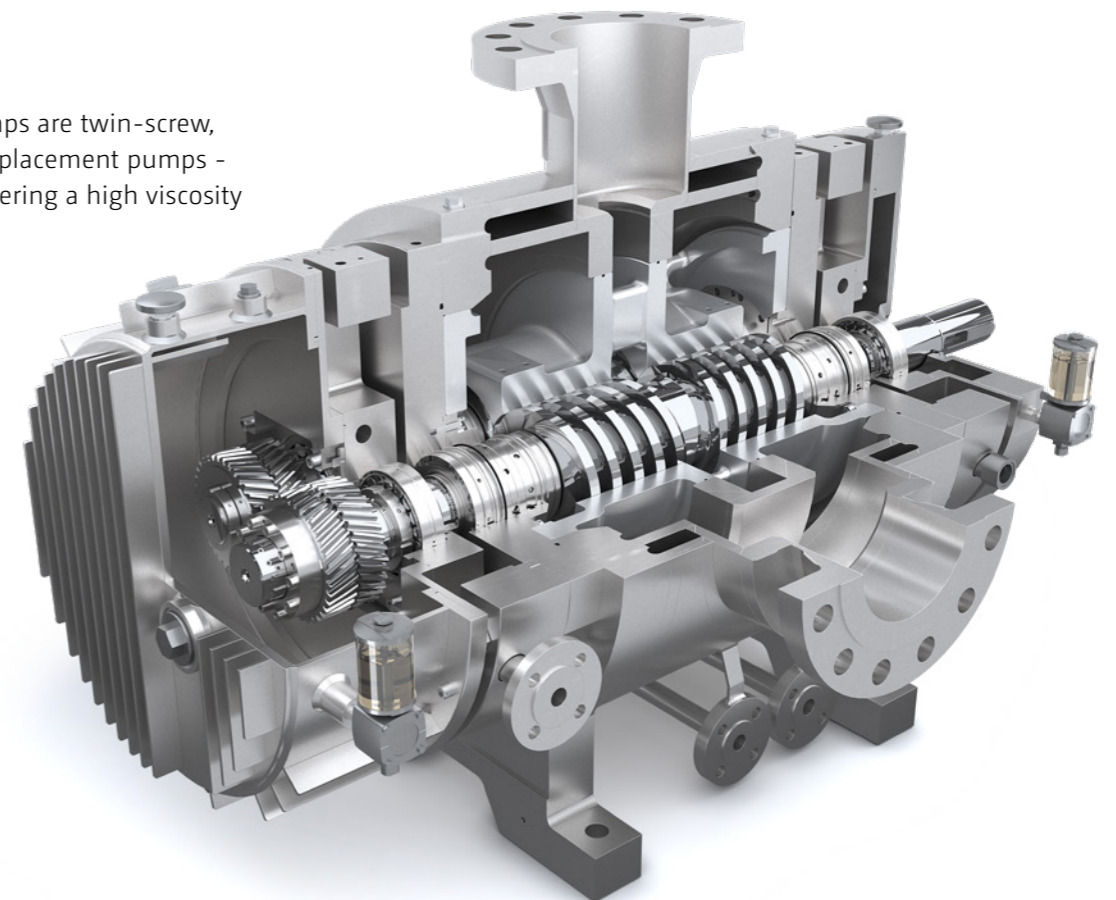
Power line

Screw pumps of the **L2 series** are two-spindle positive displacement pumps - most powerful when pumping non-lubricating or abrasive media.



Agile line

The **L4 series** screw pumps are twin-screw, double-flow positive displacement pumps - ideal process pumps covering a high viscosity and temperature range.



More safety.

An entire pump lifespan.

Smooth operation and high availability are properties that plant operators expect from the screw pumps in use. However, malfunctions are sometimes inevitable due to rough, everyday use. This is where comprehensive services are crucial. Maintenance, repairs, spare parts supply, damage analyses, modifications are part of our scope of supply. Significantly, we go the extra mile and offer you more - with the **Leistriz LifeCycle Service**.



Extended warranty with Leistriz Warranty Plus+:

Protect your pump even after the statutory warranty has expired! Stay on the safe side with our warranty extension and save costs and hassle at the same time!



Plant control with Leistriz LifeCycle PRO:

Prevent downtimes by knowing the exact condition of your pump! With a regular checkup, unplanned repairs are a thing of the past.



Remote maintenance with Leistriz smartGlasses:

You need quick support? You have questions on spare parts installation? No problem, our team will support you on the spot and in real time with the help of data glasses. Simply put on the glasses, get connected and follow the visualized instructions.



➤ Find out more:
<https://pumps.leistriz.com/en/service>

Leistriz PULSE.

Intelligent pump sensor.

Know what's going on! It's easy with the Leistriz Pulse Sensor monitoring tool. It provides the most important operating data at a glance and at any time. This enables you to react immediately to remedy faults and plan maintenance or repairs. With this state-of-the-art sensor technology, you have full control over your pump data.

COST-EFFECTIVE

IOT solution

HIGH VALUE

ATEX Zone 1 certification

UNLIMITED OPERATING TIME

MICROSENSITIVE MEASUREMENT

MACRO VISIBILITY

Remote access to all collected data

FULL SYSTEM CONTROL

Change configurations remotely

USER COMFORT

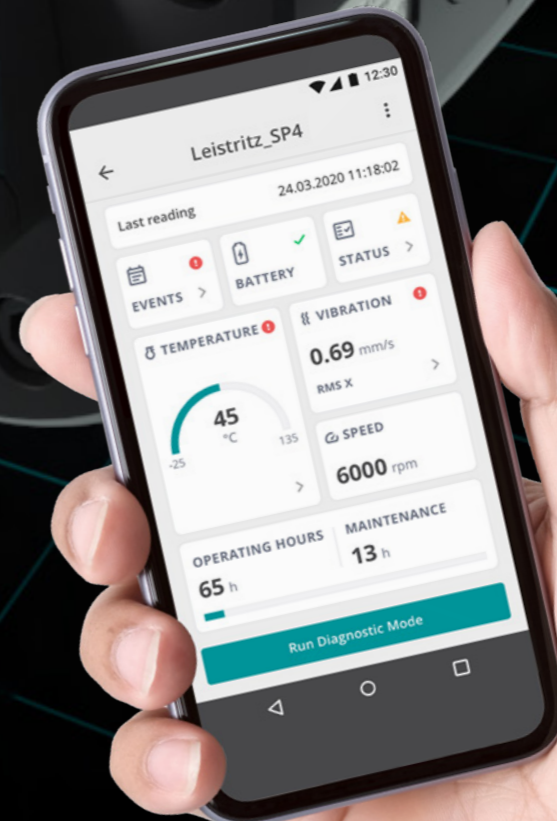
Customizable user access to assets

FULL DATA CONTROL

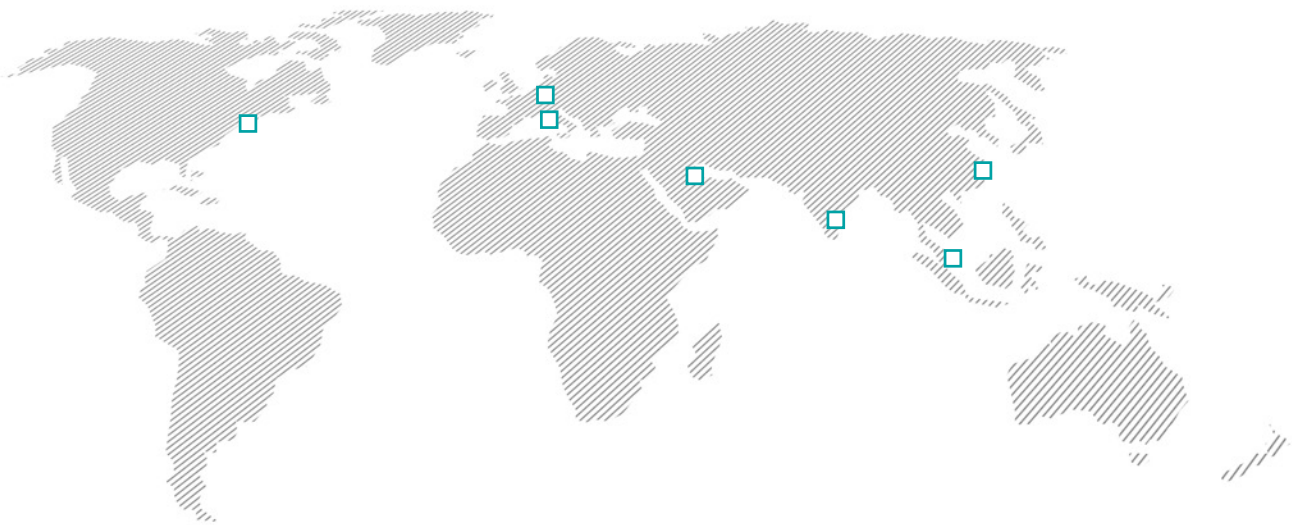
DATA SAFETY

BLACKBOX FEATURE

(Internal data storage) access to offline data



PUMP TECHNOLOGY - AVAILABLE FOR YOU ALL OVER THE WORLD



HEADQUARTERS

Leistritz Pumpen GmbH

Markgrafenstr. 36-39
90459 Nuremberg
Germany

P +49 911 4306-9650

E pumps@leistritz.com

<https://pumps.leistritz.com>

LOCATIONS

Leistritz Italia srl

Italy

Leistritz Advanced Technologies Corp.

USA

Leistritz Machinery (Taicang) Co., Ltd.

China

Leistritz SEA Pte. Ltd.

Singapore

Leistritz India Pte Ltd.

India

Leistritz Middle East (FZE)

UAE

