

Simplicity

is Simply Better



Rotary Lobe Pumps



motralec

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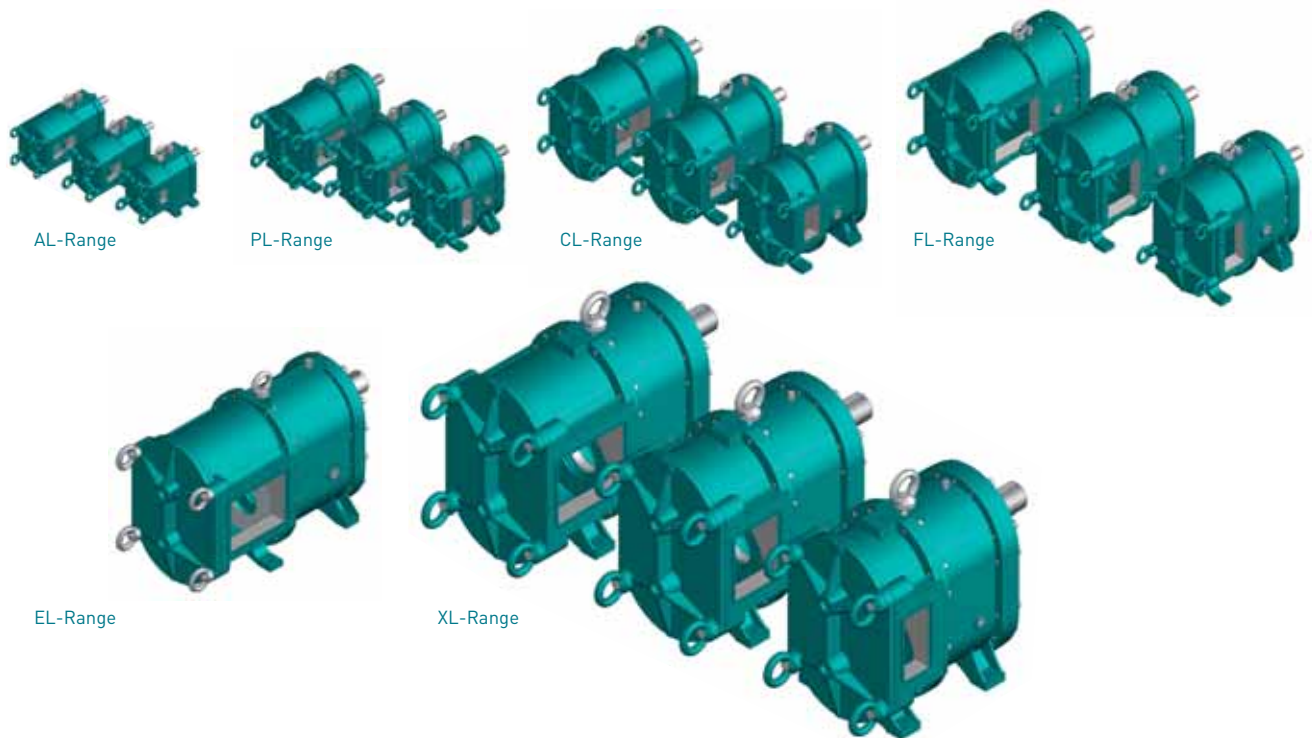
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www.motralec.com

So simple, yet so diverse.

Please add.

Six ranges with 16 sizes.



All pump models are manufactured using single piece construction. That won't be copied easily. The AL, PL, CL, FL, EL and XL series allow for a flow range between 1 – 1000 m³ (4 - 4,400 usgpm). Whatever pump size is right for you depends on its intended purpose, installation location and the characteristics of the pumped fluid. Whatever you need, we'll give you thorough technical advice.

When we select a rotary lobe pump model for you, we consider the large variety of different pump sizes and materials available, including the best suited shaft seal and drive selection, so that your customized pump is built for its intended use. The pump housing is constructed using cast iron as standard. It is given either an abrasive-resistant coating or is finished entirely in stainless or duplex steel for corrosive applications.

All elastomers can be supplied in an almost unlimited material range with various characteristics. Our performance driven, reliable and robust pumps benefit not only from the Maintenance in Place Feature (MIP) but also from high efficiencies resulting in low energy consumption, reducing the life cycle costs to a minimum.

And now multiply.

Worldwide unique: the significant rotor variety.



Optimum Rotor*

Dual-lobe, screw

- large sealing area with effective scraping edge
- for abrasive und aggressive fluids
- with low pulsation and high pressure stability



Premium Rotor*

Dual-lobe, linear

- large sealing area and pressure stabile
- for high viscose, abrasive products
- from hard metal / stainless steel or plastics



Rotor

Dual-lobe, linear

- The Allrounder
- entirely elastomer coated
- for aggressive und abrasive fluids



Rotor*

Dual-lobe, re-adjustable

- entirely elastomer coated
- for abrasive conveying products
- threefold longer service life



Rotor*

Tri-lobe, screw

- with replaceable rotor tips
- for solids and debris containing fluids
- with low pulsation



Rotor*

Tri-lobe, linear

- with replaceable rotor tips
- with long-living sealing line
- for solids and debris containing fluids



Rotor

Tri-lobe, screw

- entirely elastomer coated
- with non-wetted core
- with low pulsation



Rotor

Tri-lobe, linear

- PTFE or Plastics coated
- for chemically problematic fluids
- solvents-resistant

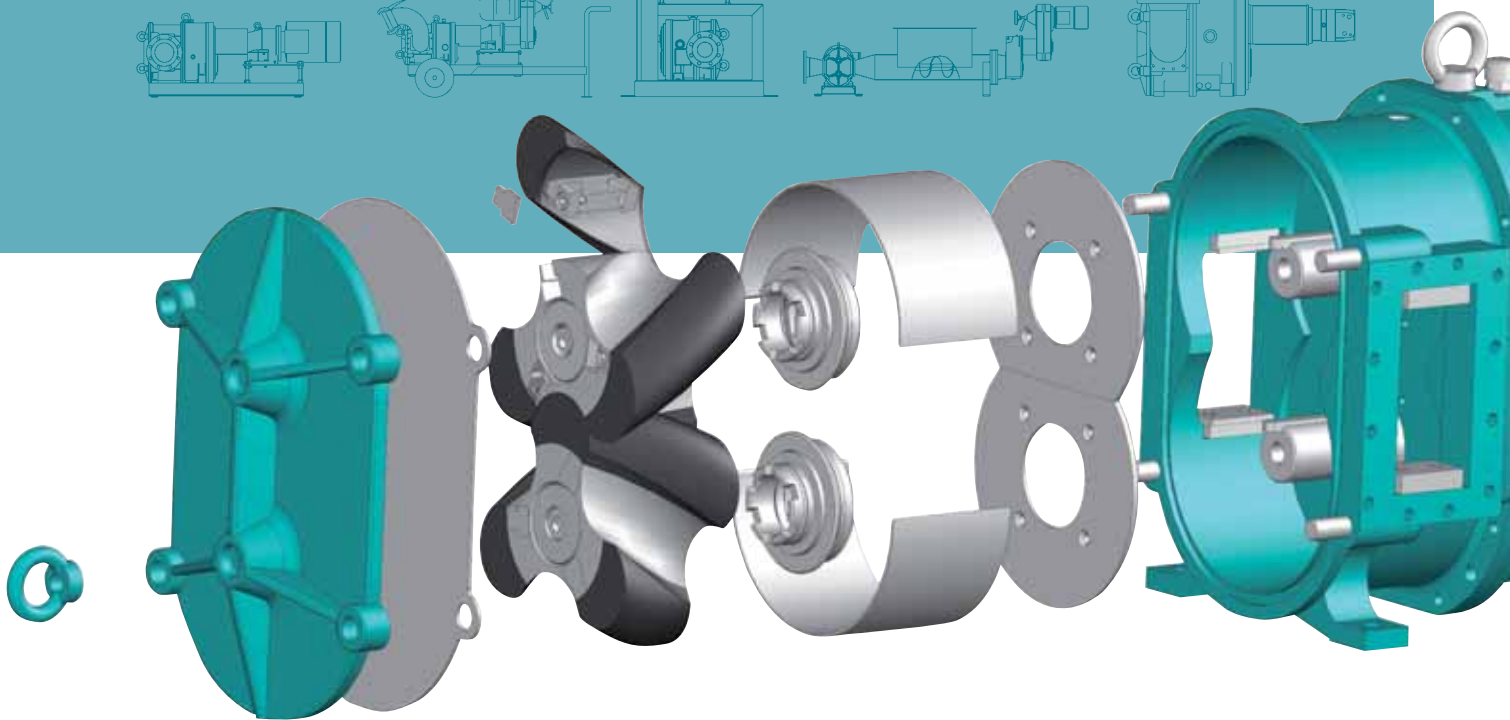
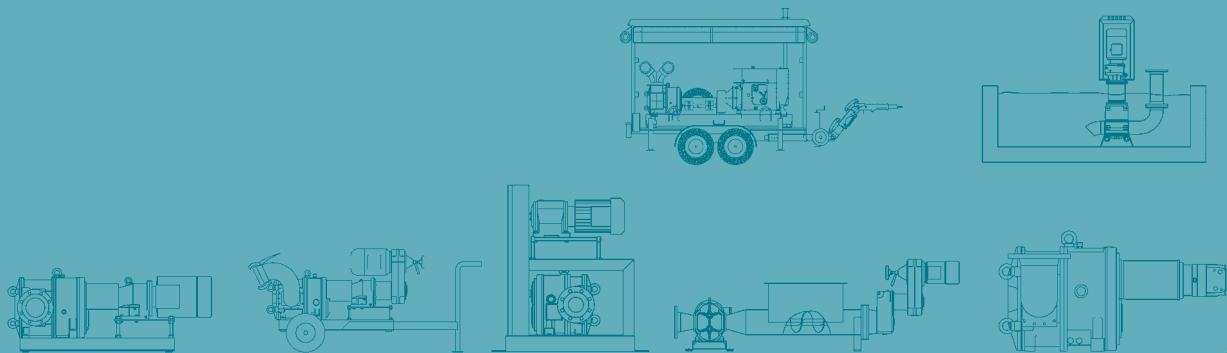
*patented

Different rotary lobe types with various materials of construction such as elastomer, plastic or metal are used depending on the fluid characteristics. Viscous, abrasive and aggressive pumped media can be handled easily with the variable and modular rotor design capabilities.

Thanks to the special, patented construction, the robust rotor core and durable shaft remain non-product-wetted. We consider all factors when determining the selection of the best suited rotor for each individual application, therefore meeting the special demands of our customers.

In case of changing operating conditions, different rotor designs can be fitted into an existing pump unit because of our modular pump design.

Construction, Drive and Assembly



The low number and compact nature of the individual components will astonish anyone that has disassembled a Börger rotary lobe pump. The different sizes of the housings and rotors are manufactured in a single piece construction, quite different from the high number of components normally found in comparable pumps.

The result of course are robust and compact rotary lobe pumps, which are known for quiet, safe and reliable operation, long operational life and for ease of maintenance. The replacement of wear parts can be managed, in-situ, by service personnel in the blink of an eye without the removal of pipe systems or drive units. Simplicity is one of Börger's trademarks.

Börger rotary lobe pumps are universally mountable and are suited for many different types of installation. For example, electric, combustion and hydraulic drives are used. Complete mobile aggregates can be manufactured to customer specification and are finished in our own workshop.

Small Börger Rotary Lobe Pump Glossary



Block construction	Timing gear in a one-piece construction housing with a strong bearing frame and durable gear wheel pairing.
Compact construction	High performance in a compact design.
Interior pump protection	Protection plates and liners available from a selection of hardened steel, stainless steel, plastic or ceramic.
Life cycle costs	For the customer, capital cost, energy consumption, maintenance and downtime as well as replacement part pricing levels compare excellently with all other displacement pumps.
MIP	Maintenance in Place: Replacement of wear parts in the blink of an eye, in-situ by service personnel. The way to go in the reduction of maintenance and downtime.
Pump housing	Made from high-quality cast iron, ductile iron, stainless steel or in duplex quality. Thanks to the MIP construction an almost limitless operational lifetime is achieved.
Quench	The quench and control liquid filled intermediate chamber, between the pump casing and the timing gear, provides a high degree of safety and is supplied by Börger as standard.
Quick release cover	This is the entrance door to the interior of the pump and provides the quickest possible access to all parts in contact with the pumped medium.
Rotary Lobe Pumps	Self-priming, valveless displacement pumps guarantee pulsation-free and smooth flow patterns; reversible flow by switching the rotation direction.
Rotor materials	Coatings to suit intended usage made from elastomers, plastic, all-metal including stainless steel.
Rotors	The patented rotors with quickly exchangeable tips, elastomer coated or adjustable; screw design for pulsation-free pumping.
Shaft seal	Supplied as standard with strong mechanical seal in different constructions and materials, optional with multi-seal or packing. The new DPL size with double-acting mechanical seal is especially designed for pumping difficult and hazardous, often viscous media.
Smooth pumping action	Large bucket geometry and short passage through the pump provide a smooth transfer of the pumped fluid.

MIP = Maintenance in Place

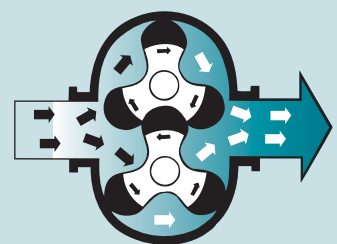


Both, repair- and downtime cost money. Production and process time should not be lost due to maintenance. Following this basic principle, Böhler has been constantly striving to perfect its rotary lobe pumps. The result is an extremely efficient, reliable and easy to maintain pump aggregate that is worldwide unmatched.

All replacement and wear parts are extremely durable, resilient and affordable. You won't be forced into any expensive maintenance contracts with Böhler – simply carry out any maintenance and repairs yourself! The unique MIP property of our pumps makes this possible. MIP or Maintenance in Place means that all replaceable parts can be easily installed and removed by maintenance personnel, in-situ, without having to remove any pipe or drive systems.



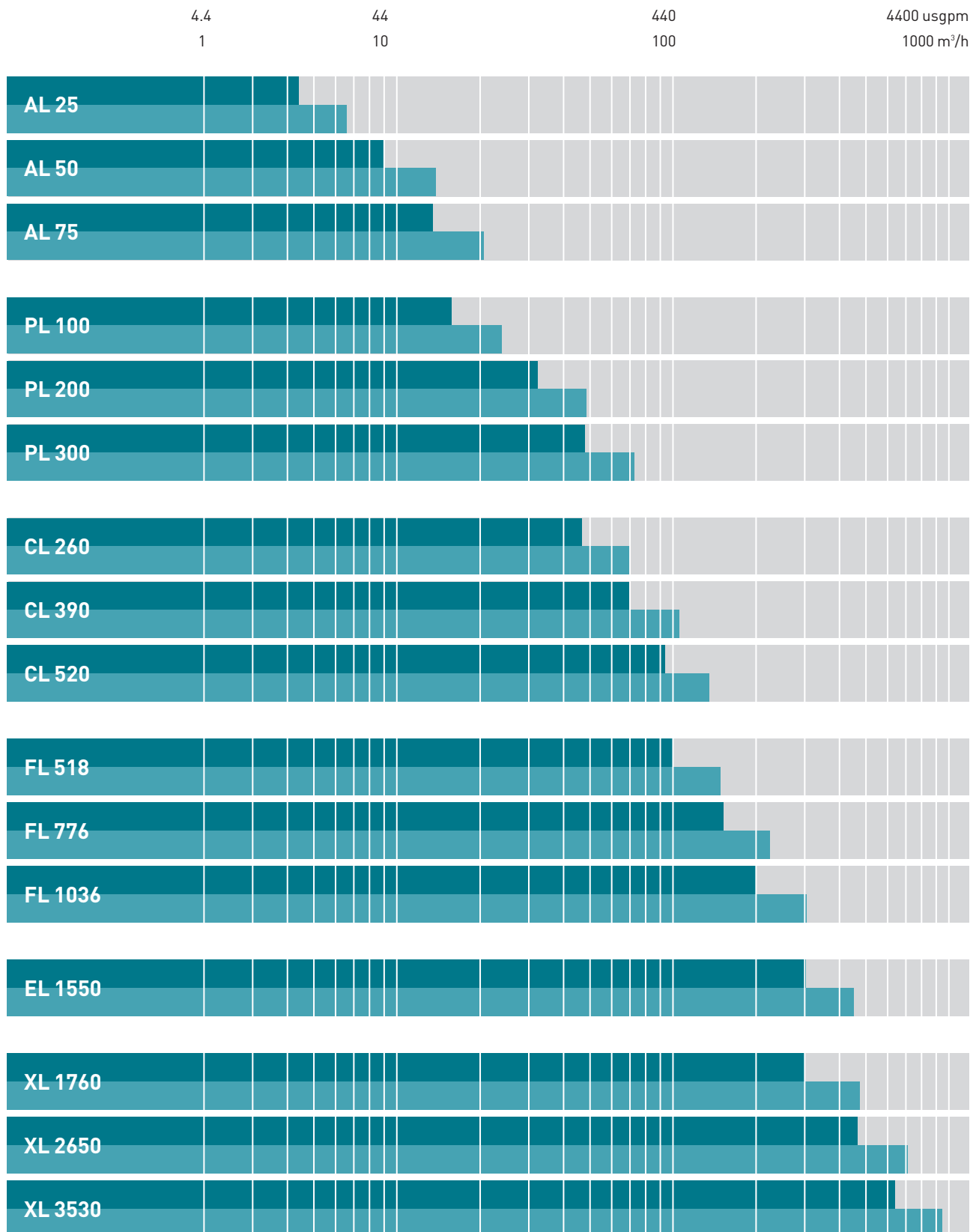
The quick release cover enables easy access to the inner components of the pump. All fluid wetted parts can be quickly maintained and replaced when necessary - without removal of pipe or drive system



Reversible pumping operation

Rotary lobe pumps are self-priming, valveless positive displacement pumps. The screw rotor guarantees pulsation-free, smooth pumping action. The flow can be reversed by switching the rotation direction of the motor. Rotary lobe pumps are therefore suitable for both loading and unloading applications.

Performance Data



n = 300 min⁻¹
 n = 450 min⁻¹
 p = max. 12 bar

Industries, Application and Fluid Ranges

- Wastewater and biosolids processing
- Chemical, ceramic, pharmaceutical and oil industries
- Paints, coatings and synthetic materials
- Fats, oil, grease and soap
- Starch and sugar mills
- Liquid raw materials, i.e. latex
- Pulp and Paper
- Meat and fish processing
- Fruit and vegetable processing
- Renewable energy production
- Clay and lime, aggregate industry
- Marine, Shipyards, and disaster protection



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Innovation

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