

## Simplicity is Simply Better

#### motralec

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Rotary Lobe Pump with double acting mechanical seal

# Special pumps for special applications



Börger Rotary Lobe Pumps with single acting mechanical seals are established in all industrial markets where solids laden, viscous or shear sensitive fluids are present. Though the Börger single acting mechanical seal is quenched, there are limits for this kind of seal design. For toxic or explosive fluids, which need to be sealed off to the atmosphere, for extremely abrasive applications or for coagulating fluids like latex, that can build up layers on seal faces, double acting mechanical seals are required. A main characteristic of this seal arrangement is a clean buffer fluid, which is pressurized above the pump discharge pressure. Therefore the double acting mechanical seals reliably prohibit product leakage into the atmosphere. Additionally, the pressurized buffer fluid prevents that pumped fluid penetrates between the seal faces. A customized timing gear construction leads to sufficient space and optimized shaft design for Börger double acting mechanical seals. All other components of the DPL pumps are common with established Börger pump series, ensuring highest technical availability of shapes and materials for the wet end construction of the Börger DPL pumps.

### DPL: Double Acting, double secure – und double superb

#### Excerpt of applications and pump fluids:

- Toxic acids and caustics
  Ammonia water
- Urethane
- Paint and coatings
- · Latex and latex based fluids
- · Enamel mud
- Glycol
- · Nitroglycerin
- Adhesives

- Resins
- $\cdot$  Fluorides
- Chlorides
- $\cdot$  Cyanide
- $\cdot$  Sodium silicate
- Urea
- Etc



Maintenance in Place:

The Börger MIP-Design: The unrivalled advantage to minimize downtime and maintenance. MIP (Maintenance in Place) allows the quick and convenient replacement of all fluid wetted parts without removal of pipes, drives or other components of the pump unit by your own staff. Quick – Uncomplicated – Inexpensive. The quick release cover allows simple access to the inner parts of the pump.



#### **Thermo Siphon System** For the pressurization of the double acting mechanical seal is a Thermo Siphon System recommended.



## **BÖRGER**



In the production process of liquid sugar, Börger Pumps are utilized for crystalline mash and Isomaltulose applications. Because very small crystals (micron dimension) are present in the fluid, a Börger pump with double acting mechanical seals was the obvious choice.

Pump	DPL 100	DPL 100
Flow Rate	2-8 m³/h	12 usgpm
Pressure	2-3 bar	29-44 psi
Power	4.0 kW	5 HP



Abrasive floor adhesives with viscosities of 84,000 mPas needed to be transferred in an industrial company. The Premium rotor from stainless steel provides the best longevity in this application, perfectly designed for abrasive pigments in highly viscous fluids.

	TECHNICAL SPECIFICATION		
	Pump	DPL 200	DPL 200
	Flow Rate	9 m³/h	40 usgpm
	Pressure	4 bar	58 psi
	Power	7.5 kW	10 HP

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TECHNICAL	SPECIFICATION
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DPL 100 DPL 100 Pump Flow Rate 5 m<sup>3</sup>/h 22 usgpm Pressure 5-6 bar 72-87 psi Power 4.0 kW 5 HP

TECHNICAL SPECIFICATION

Flow Rate 10-20 m<sup>3</sup>/h 44-88 usgpm

7.5 kW

DPL 200 DPL 200

44 psi

10 HP



Reduced longevity and high spare parts cost were a concern in a progressive pump application for highly viscous adhesives. Börger delivered a DPL rotary lobe pump. The comparably smaller starting torque and the reduced adhesive build up on the stainless steel Premium Rotors made all the difference. The pump unit is ATEX conform, since the pump unit is located in a hazardous zone requiring explosion protection.

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Pressure 3 bar

Pump

Power

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