


Rotary Lobe Pumps | Macerating Technology **BÖRGER.**




**•Rotary Lobe Pumps, Single and Twin Shaft Grinders for:**

- Fats
- Oil
- Grease
- Sludge / Biosolids

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### Böerger Rotary Lobe Pump

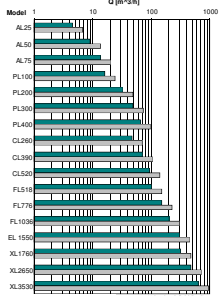


- Self-priming
- Compact
- Gentle, pulsation-free conveying
- For viscous, solids-laden, abrasive, shear-sensitive products
- Reversible operation
- Dry run capable

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### Performance of Böerger Rotary Lobe Pumps



Model	Flow Rate (Q) [m³/h]	Head (H) [m]
AL20	2	7.5
AL50	5	7.5
AL75	7.5	7.5
PL100	10	3
PL200	20	3
PL300	30	3
PL400	40	3
CL250	125	5
CL350	150	5
CL500	200	5
FL518	275	5
FL771	350	5
FL1030	450	5
EL 1500	600	20
XL1700	1000	20
XL2900	1500	20
XL3500	2000	20

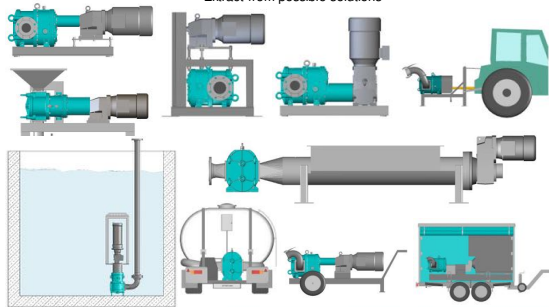
- AL - Series**  
-2 - 75 GPM  
-free solid entry 1 inch
- PL - Series**  
-30 - 300 GPM  
-free solid entry 1.5 inches
- CL - Series**  
-125 - 500 GPM  
-free solid entry 2 inches
- FL - Series**  
-300 - 900 GPM  
-free solid entry 2.75 inches
- EL - Series**  
-600 - 2000 GPM  
-free solid entry 3.25 inches
- XL - Series**  
-1000 - 5000 GPM  
-free solid entry 3.75 inches

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### Construction Methods

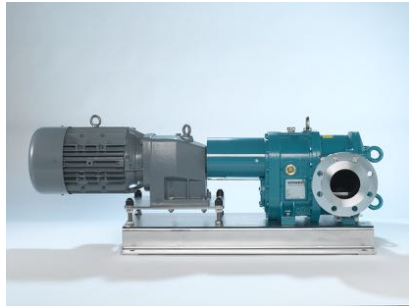
Extract from possible solutions



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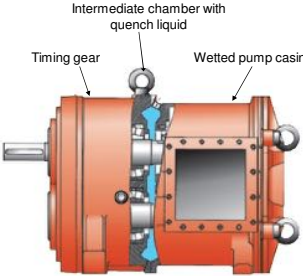
### Geared Motor Setup



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### Intermediate Chamber Oil Quench



Intermediate chamber with quench liquid

Timing gear      Wetted pump casing

**No seal water flush required**

**Seal is safe, even during occasional dry run**

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### Components of the Börger Rotary Lobe Pump

1. Quick Release Cover
2. Rotary Lobes
3. Pump and Timing Gear Casing in Block Design
4. Protection Plates
5. Shaft Seals
6. Non-wetted Pump Shafts
7. Intermediate Chamber

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### Rotary Lobes

Rotor types and materials for best possible compatibility with each individual product

- Quick replaceable rotor tips for heavy duty operation ↑Patent
- Re-adjustable rotors for use with abrasive products ↑Patent
- Entirely elastomer coated rotors with non-wetted core ↑Patent
- Elastomers from NBR, EPDM, CSM, HNBR or FPM/FKM
- Stainless steel, PTFE, PUR etc for your specific application

Additional elastomers, plastics or metals upon request

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### MIP = Maintenance In Place

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### Macerating Technology

#### The Multicrusher

- Based on the principle of the Rotary Lobe Pump using the same basic elements
- As individual machine or in combination with a pump or an auger feed screw system

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### Components of the Börger MultiCrusher

1. Quick Release Cover
2. (a) Knife Blades & (b) Counter Blades
3. Pump Casing in Block Design
4. Protection Plates
5. Hexagonal Shaft Adapters
6. Non-wetted Shafts
7. Intermediate Chamber
8. Bearing & Timing Gear

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### Blade Configurations

Rotation speed and knife combinations (designs of teeth and widths of blades) determine the resulting solids sizes.

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**Macerating Technology  
The Multichopper**



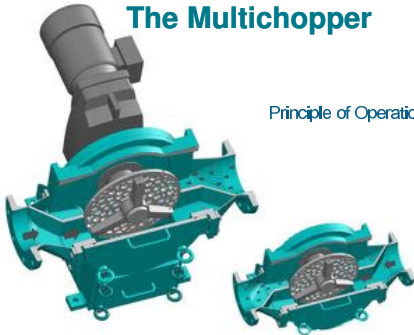
- Single Shaft Grinder
- Integrated Stone Trap
- Simple
- Inexpensive

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**The Multichopper**


Principle of Operation



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**The Multichopper**



Component View - MIP

Blade Tensioning is outside of wetted area.

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Application Pictures

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Receiving Station  
Stone Catcher, Multicrusher, Rotary Lobe Pump



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Receiving Station



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### Receiving Station Heated Pump Setup



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### Hopper Fed Multicrusher to Rotary Lobe Pump



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### Dewatering Feed Pump



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### Boerger Cake Pump up to 25% DS Solid Dewatered Sludge

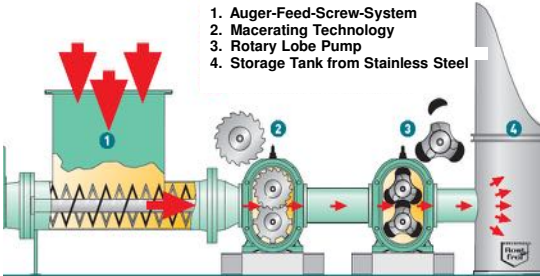


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### Pump / Grinder Combination Possibilities

1. Auger-Feed-Screw-System
2. Macerating Technology
3. Rotary Lobe Pump
4. Storage Tank from Stainless Steel



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### Biomass Waste



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**Pump / Grinder Combination**



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Mobile Application Pictures

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Boerger Pumping Technology: Mobile Applications



**Application:** Transfer Pump  
**Pump Model:** PL 200 with GasEngine  
**Fluid:** Various Sludges

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Truck Pumps



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### Truck Pumps



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### Truck Mounted Lobe Pump up to 2,500 gpm



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Boerger Pumping Technology: 3 Point Hitch





**Pump Model: FL 518**  
**Fluid: Various Sludges**  
**Note: PTO Drive**

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Boerger Pumping Technology: 3 Point Hitch





**Pump Model: FL 776**  
**Fluid: Various Fluids**  
**Note: High Suction Lifts**

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### Pump / Grinder Combination Submersible



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