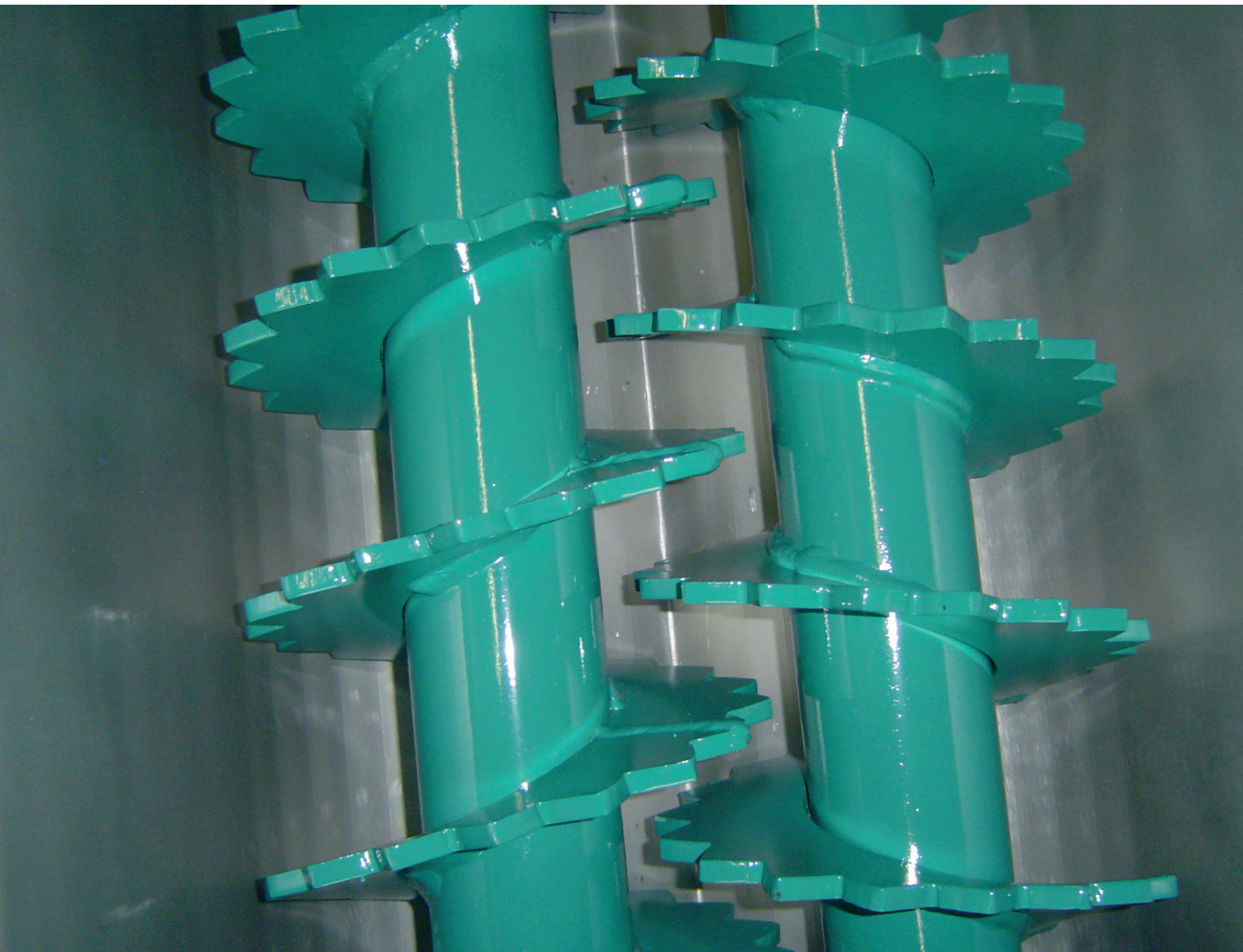
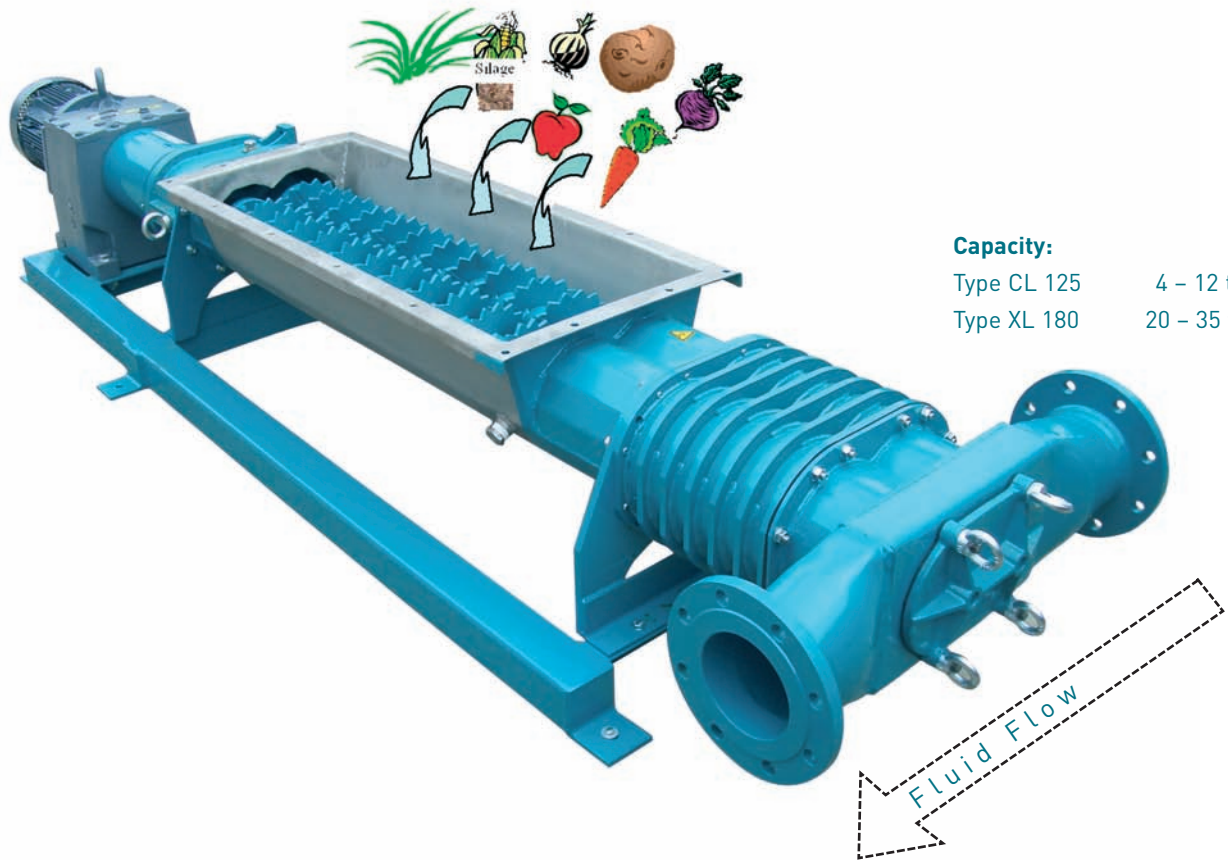


BÖRGER®

Boerger Technology for
Anaerobic Digestion



**Powerfeed SSR – Solids and Substrate Feeder
Solids Injection into Fluid Stream with Backflow Prevention**



Capacity:
 Type CL 125 4 – 12 tons/hour
 Type XL 180 20 – 35 tons/hour

Dry Material Feed

- no added fluid necessary
- no fluid phase in auger hopper

Closed Loop Digestion System

- fluid recirculation flow / digester is not air exposed with solids feed

Location And Installation Flexibility

- various distances to digester possible
- independent from digester height and type

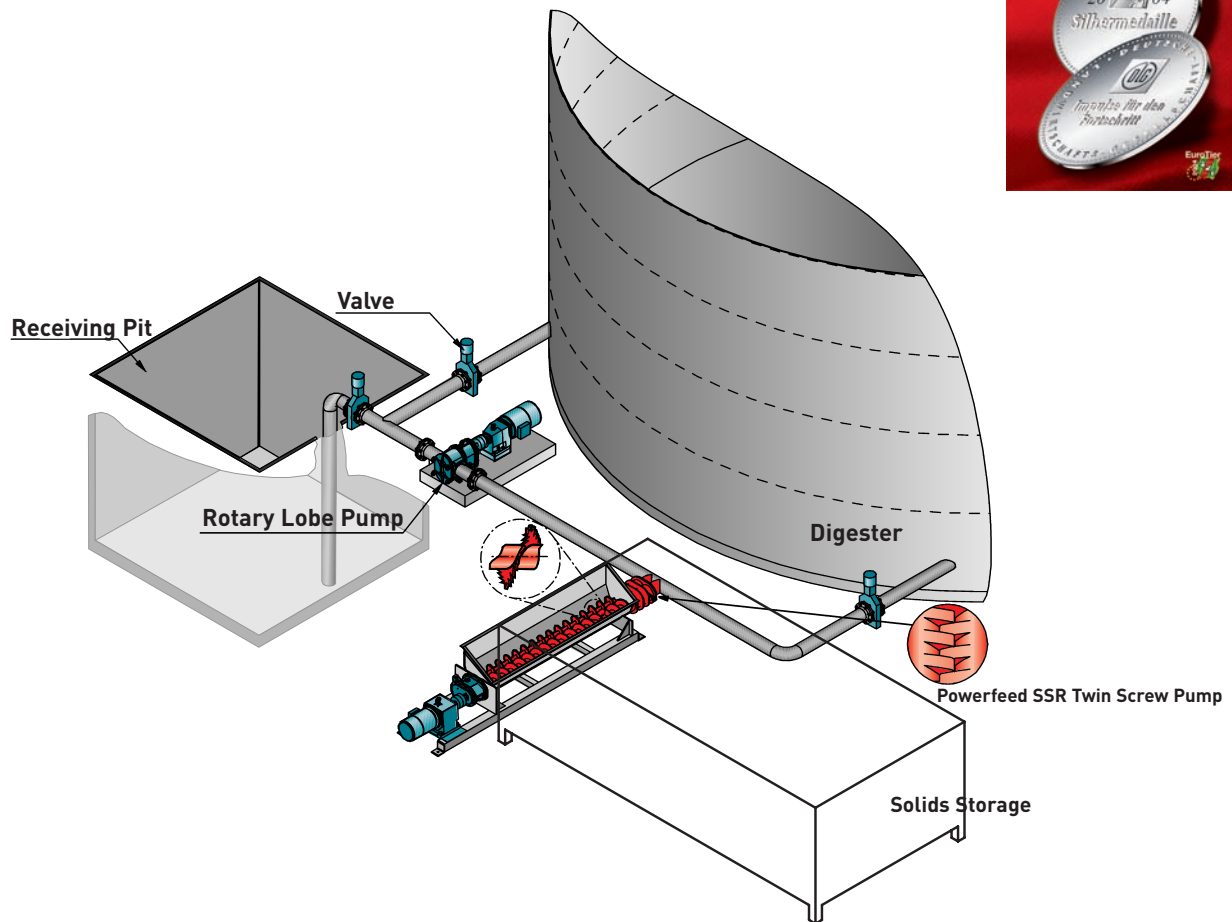
Maceration And Grinding With Twin Screw Auger

- with heavy friction the SSR achieves homogeneous ground material – minimizing floating material in the digester

Simple Control Sequence

- open valve of recirculation line – start up recirculation pump – start up Powerfeed SSR → macerate, pump and solids feed - simple and ingenious





Process Design and Control Sequence with Boerger Powerfeed SSR

Digesters or Receiving Pits are interconnected via recirculation / feed pipe systems equipped with a versatile Rotary Lobe Pump. In a suitable location the Powerfeed SSR is installed. Depending on valve settings, the pump operates in recirculation mode (Closed Loop System) or the pump feeds raw material to the digesters.

The Powerfeed SSR consists of a Twin Shaft Design with a robust, intermeshing auger pair. The Twin Screw Auger, synchronized and balanced through a heavy duty timing gear, displaces the material smoothly into the backflow preventing SSR Twin Screw Pump. The Twin Screw Pump is housed in a rubber lined casing.

Solids / Substrates enter the Powerfeed SSR through the auger hopper. The Powerfeed SSR displaces the material continuously at the open end of the Twin Screw Pump via flanged pipe connection into the fluid flow downstream of the Rotary Lobe Pump. The homogeneous fluid / solids mixture then enters the selected digester. The Powerfeed SSR seals against the fluid stream during operation and standstill. The valves installed in the pipe system guarantee additional safety and allow flexibility with multiple digesters.

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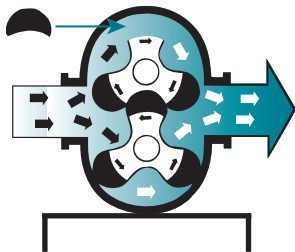
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Börger China	china@boerger-pumps.com

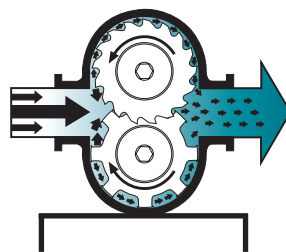
Boerger Components – Technology with Ideas

Pumping and Macerating Technology

Reliable and powerful pumping equipment is key to every manure handling system. The heavy duty Boerger Rotary Lobe Pump is the optimal solution for versatile applications. The self priming rotary lobe pump can be operated on a three point hinge mount with PTO drive or as a stationary, electrically powered unit with reversible pumping capabilities. For installations in pits, channels, barns and lagoons we offer various long shaft and / or submersible manure pumps. Pump selection are based on each individual application.



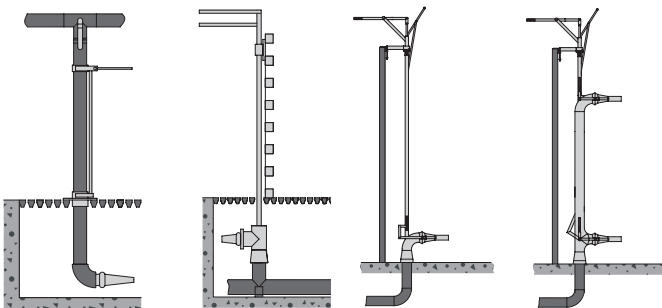
Boerger **Rotary Lobe Pumps** with patented rotor designs. Our MIP-Design (Maintenance In Place) allows the quick and convenient exchange of rotor tips and all other wet end parts onsite. 15 pump models with flow ranges between 1 and 1050 m³/h or 17 - 17,500 tons/hour are available.



The **Multicrusher** is based on the proven Rotary Lobe Pump and is an effective, widely applicable macerating unit with effective "Pull-In Function". Various blade and cutter configurations are easily accessible with our maintenance friendly MIP-Design.



The single shaft **Multichopper** for easy macerating tasks with collection bottom for larger debris. The fluid penetrates through a modifiable screen plate and is macerated at inlet of the plate with a tri-blade. Blade tension is adjustable from the outside.



Channels, pits and tanks often face problems with sedimentation and floatation layers. The reliable, rotatable and height adjustable agitators in stainless steel from Boerger do the job. Installed in manure holding tanks and lagoons, single and twin **agitators** are available with top or bottom feed for exceptional mixing results. Nozzles / agitators from stainless steel, quality with a fair price tag.