

**BÖRGER**<sup>®</sup>  
*Innovation*

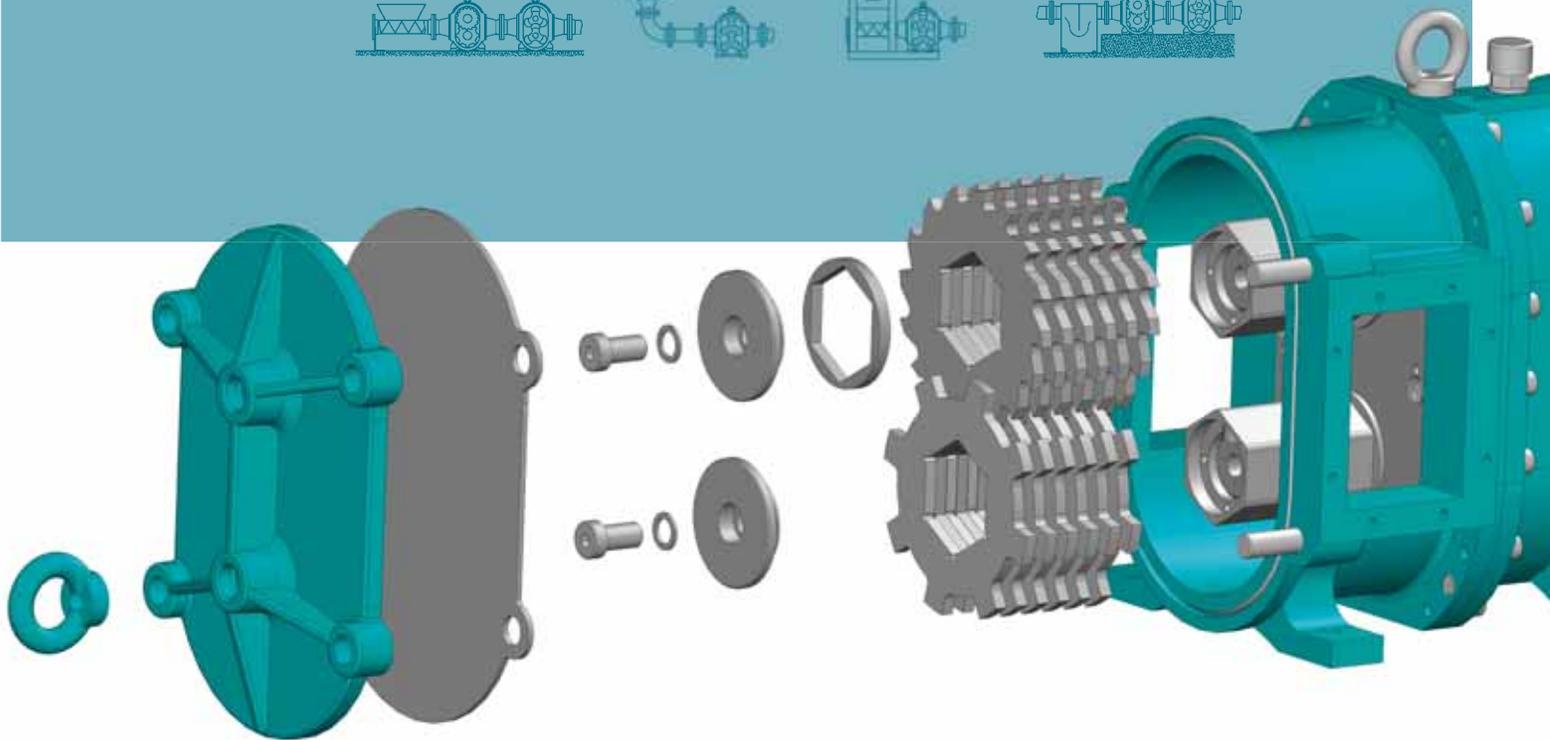
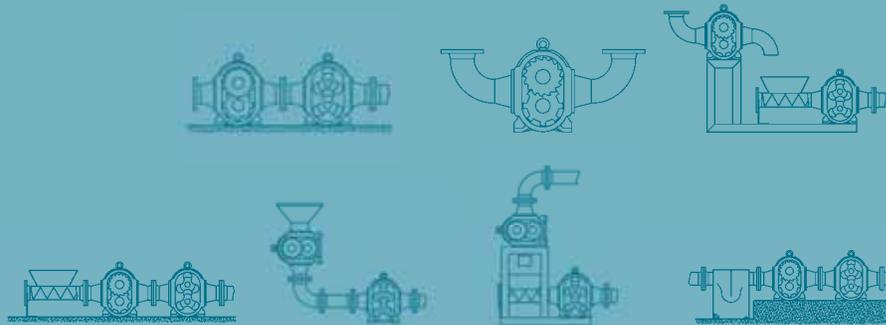
# Simplicity

**is Simply Better**



**Multicrusher**

# Construction, Drive and Assembly



The Multicrusher incorporates the same unique advantages of the Börger MIP-Design as the Rotary Lobe Pumps: 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 macerating unit by your own staff. The unrivalled maintenance friendliness guarantees low life cycle costs and minimized downtime!

No matter if you integrate the Multicrusher in a pump operated system or you install it as an individual unit: The flexibility is superb! Because of the quick access to the rotating parts of the Multicrusher, blade and cutter combinations, blade geometry and thickness can be customized depending on the application and the particle size to be achieved.

The Multicrusher is a self-sufficient macerating unit with enormous "Pull-In-Function". The aggregate can be installed in line sufficiently flooded or on suction and discharge sides of pumping systems.

# Convincing arguments

## Macerating elements

The individual blades are assembled on a heavy duty, hexagonal shaft sleeve. The blade configuration is positioned in place with one central bolt. Through the quick release cover all product wetted parts can be exchanged in minimal time. Several blade designs are available.

## Shaft seal

The unit is equipped with a robust mechanical seal. The integrated quench and control liquid filled intermediate chamber provides continuous mechanical seal lubrication and prohibits fluid penetration into the gear assembly.

## Block construction

The bolt connected grinder and gear casing are both designed as a compact one-piece construction. The Multicrusher, combined with a geared motor and connected through a flexible coupling on a common base frame, presents a compact macerating aggregate.

## Rotation speeds

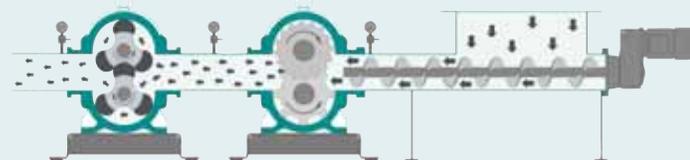
Since the Multicrusher is not constructed with an integrated gear reduction, a wide range of operating speeds and various aggregate designs are available. Low operation speed, low HP units are best suited for water like fluids. Increased solids concentration and/or improved macerating results require higher speeds and torques.

## Bearing frame

The gear assembly represents a cantilevered shaft design. The gear unit is a sealed component with robust gears and bearings.

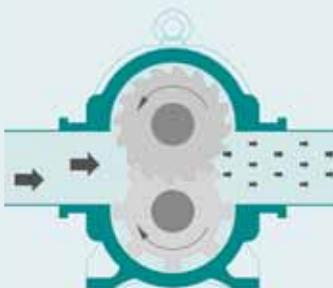
## Special construction

The twin shaft grinder incorporates a strong "Pull-In-Function". Börger develops customized fluid / solids handling solutions with auger feed systems combined with macerating and pumping equipment.



## Börger shows teeth to problem cases.

The macerating results depend on a variety of variables, including the blade / cutter configuration, the blade thickness and teeth design as well as the rotation speeds. 9 blade / cutter configurations are currently available. The relative rotation speed between the two grinder shafts ensures an optimized macerating effect. Hard metal tool steel provides long lasting sharpness and cutting performance.



## Flow direction

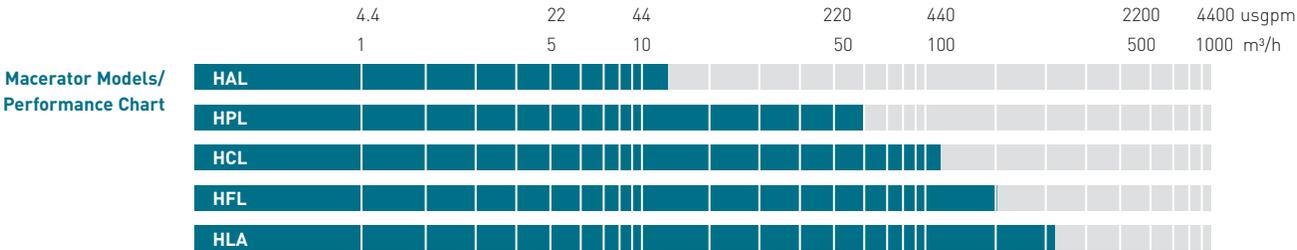
The Börger Multicrusher is a symmetrical, reversible macerating machine. By turning the blades 180 degrees and by changing the rotation direction, the suction and discharge side of the macerating unit can be reversed.

Worldwide unique  
and exclusive from Börger:  
Unrivalled MIP-Design  
reduces life cycle cost and  
downtime.



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**Slaughterhouse Waste** needs to be macerated and transferred. A customized package includes a receiving hopper, a side mounted Multicrusher with increased suction opening and a Rotary Lobe Pump. The system is extremely compact, but still easy to maintain with Börger MIP-Design.



**In Waste Water Treatment Plants**, rags and stringy materials are often a problem for pumps, valves, instruments and controls and other downstream equipment. The Multicrusher with „Pull-In Function” macerates and reduces these troublemakers to unproblematic sizes.



**In plastic recycling** there is a simultaneous demand of washing and macerating. The Multicrusher / Rotary Lobe Pump package ensures reliable particle size reduction and reliable plastic / water transfer.