

POWERFEED TWIN  
FOR  
LIQUID FEEDING

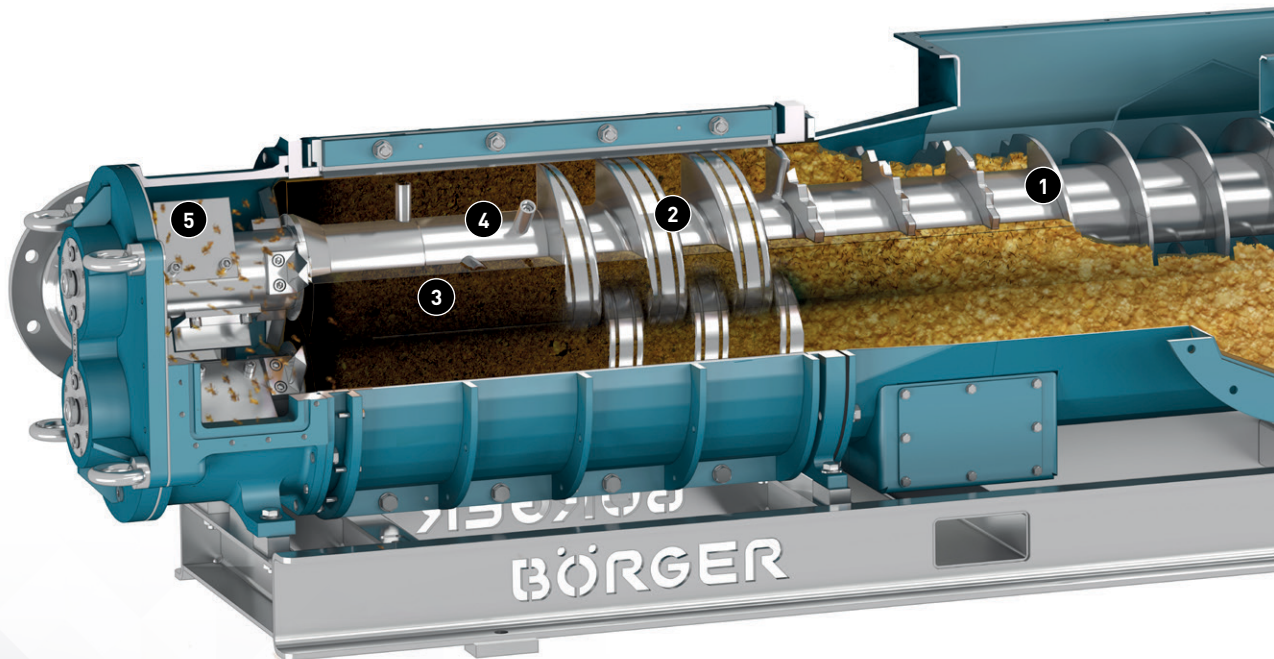


# POWERFEED TWIN

## TWO FUNCTIONS IN ONE DEVICE

*The Powerfeed twin feeds large quantities of varying biomass in an enclosed system, safely and without odours, into your biogas plant. The liquid feeding technology is equipped with an integrated macerating unit and thus ensures a higher energy availability of the biomass and, at the same time, less agitating required in the tank.*

The Powerfeed twin technology was developed to be able to feed any kind of biomass. Moreover, in the Powerfeed the biomass is pre-shredded and defibred in a compressed state. The benefits are obvious. Not only the acquisition, installation and integration costs but also the current energy costs of a separate macerator are eliminated. In addition to that, integrating a macerating function into the feeding technology makes daily operation a lot easier.



### OPERATING PRINCIPLE

The biomass introduced is collected by augers **(1)** and fed to the compactor unit **(2)**. The screw spindle unit **(2)** which seals in every position conveys the biomass into the press channel **(3)**. A replaceable narrowing is attached to the outlet side of the press channel. Combined with the screw spindle unit, strong compression is achieved in the press channel. The forming plug serves as a seal and offers additional protection. The structure of the biomass is changed by the friction generated by the pressing procedure. Material disintegration can be increased if the optional macerating tools **(4)** are screwed onto the rotating shafts. The press channel leads to the induction unit **(5)** where rotating blades scrape solid particles from the plug. The solid particles are fed into the recirculate by means of rotating agitator blades.

## EFFICIENT DEFIBRATION OF THE BIOMASS

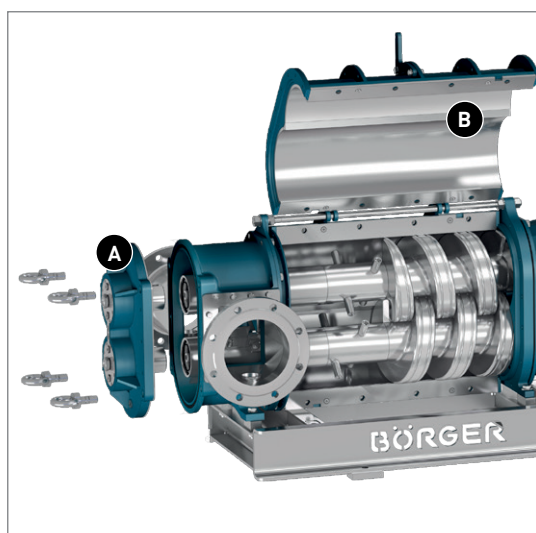
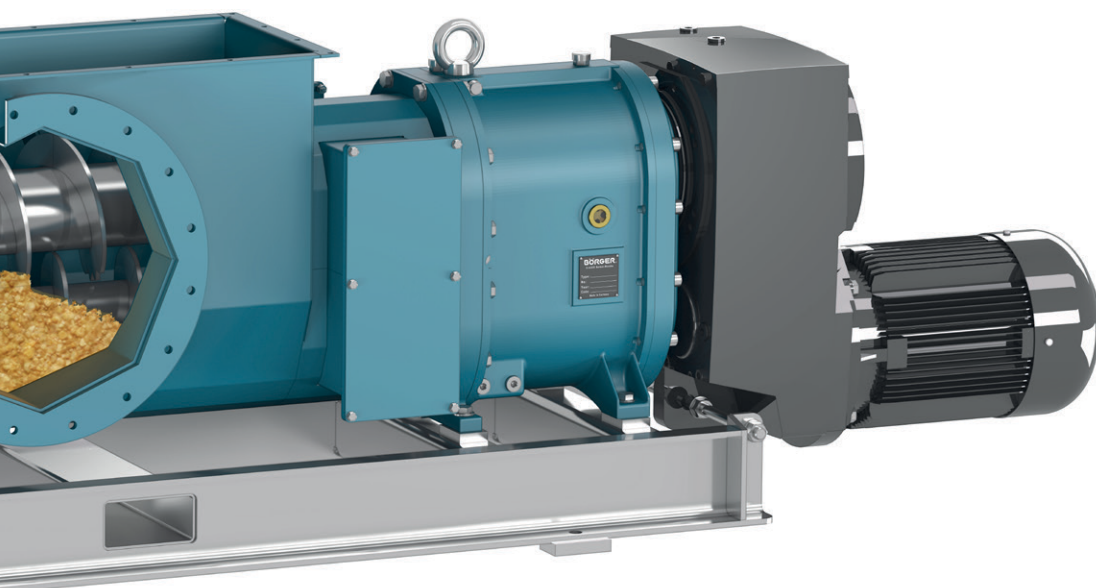
The Powerfeed twin is equipped with an integrated macerating function. In the press channel the biomass is strongly compressed and pushed axially into the direction of the cone-shaped narrowing. In this section, optionally two to six macerating tools can be screwed onto the rotating shafts which defiber the biomass. This results in a higher energy availability. In addition, the compression and defibration minimize the quantity of trapped air. This means less buoyancy, less floating layers and, as a result, less agitating in the fermenter.



before



after



## UNIQUE EASE OF MAINTENANCE

The Powerfeed twin is maintained at the installation site of the feeding technology without the need to remove piping or the drive system.

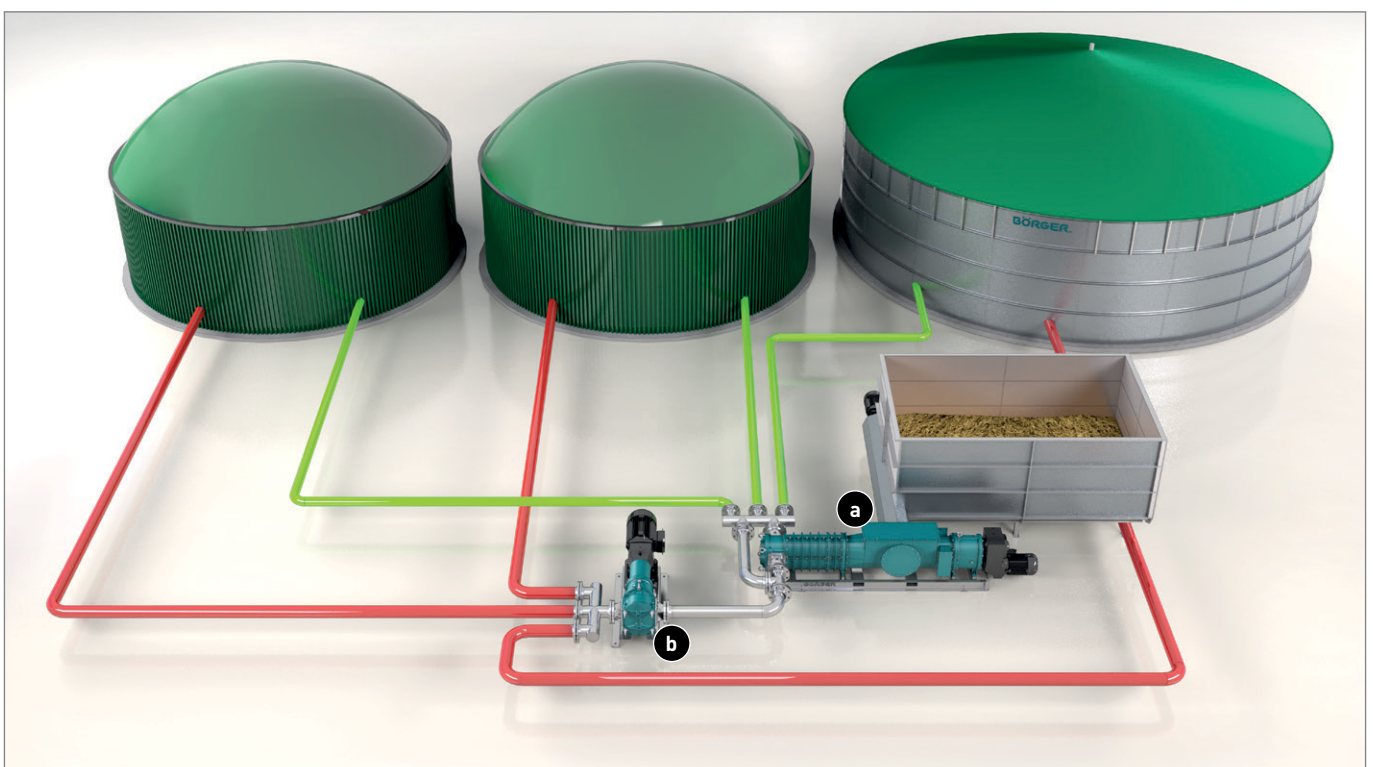
Easy opening of the quick-release cover **(A)** and the lateral maintenance opening **(B)** enable the operator of the Powerfeed twin to carry out the maintenance work himself. Easily and quickly.



- + Partially serrated augers rotating in opposite directions dissolve accumulations and rags of the biomass in the receiving section
- + The screw spindle unit seals in every position and forms a severely compressed sealing plug in the downstream press channel
- + Rotating macerating tools installed in the plug area produce a movement of the compressed mass and defibration of the coarse constituents
- + Defibration results in an improved energy availability, less formation of floating layers, less agitating and less power consumption
- + Feeding and secondary crushing in a completely enclosed system, user-friendly control unit, no gas leakage

## FEEDING CONTAINERS OF ANY NUMBER

The Powerfeed **(a)** and a high-capacity biogas pump **(b)** form the central unit of the liquid feeding technology. The containers of the biogas plant are connected to the pump via a pipe and valve system. The pump sucks recirculate from the requested container. The Powerfeed is installed at an appropriate position in the pipe system. The Börger feeding technology feeds the biomass in doses into the flow pipeline in the fully enclosed system. The recirculate enriched with biomass is conveyed into the requested fermenter. Upon request, Börger control technology coordinates the operation of the pump and the Powerfeed. Easily and reliably.



# POWERFEED FAMILY

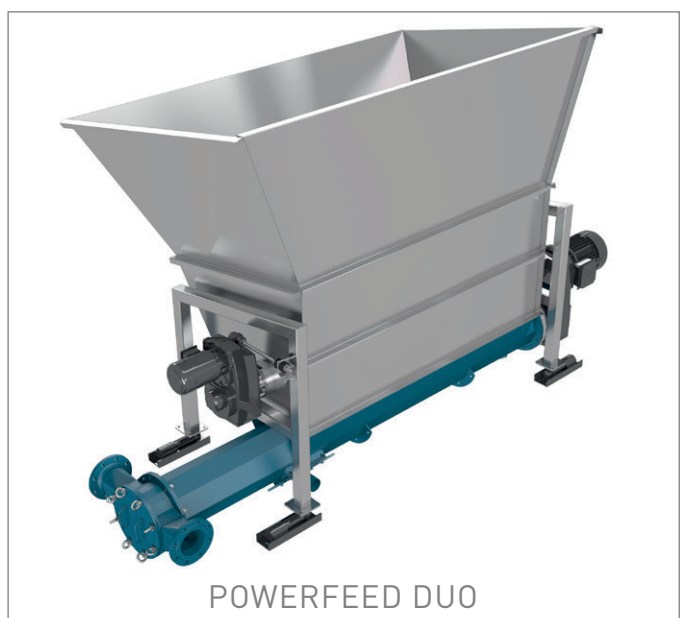
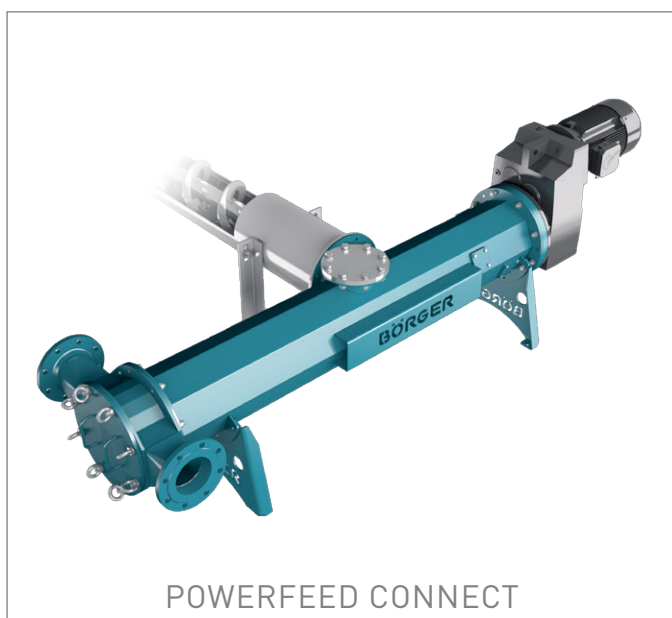
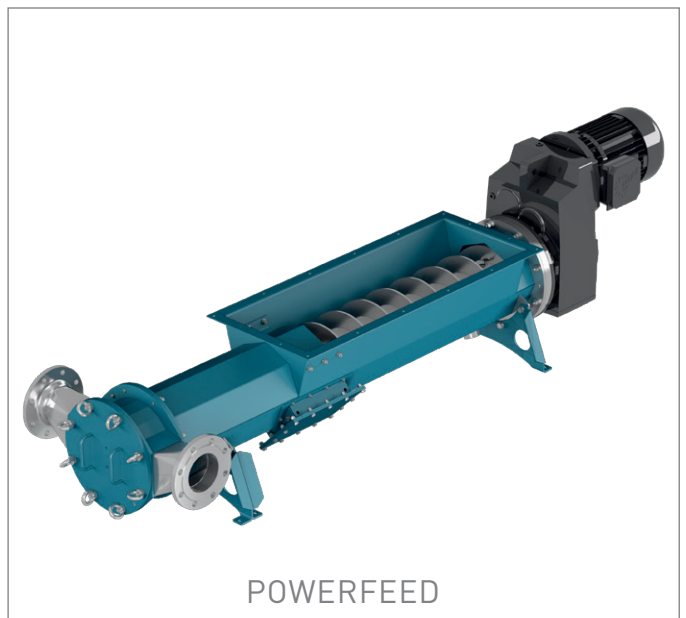
## CUSTOMIZED INSTALLATIONS

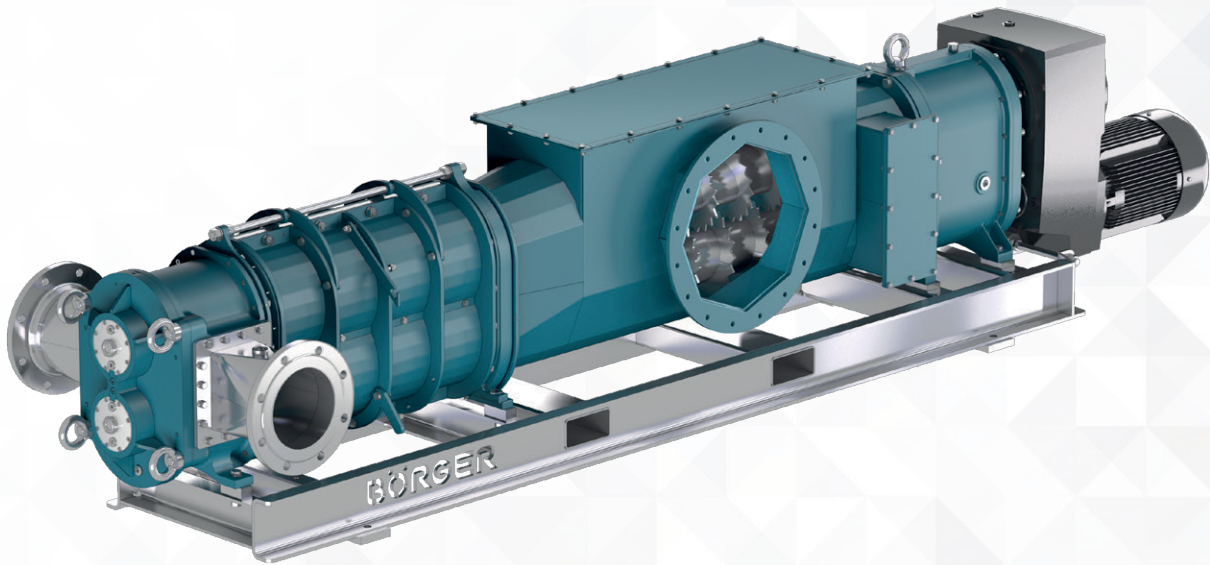
### LARGE NUMBER OF CONFIGURATION OPTIONS

In addition to the Powerfeed twin, Börger liquid feeding technology is also available as a version with one auger shaft. This single-shaft machine is available in two sizes and three versions.

The Powerfeed basic model is fed from above, while the Powerfeed connect is laterally connected to the discharge auger of a mixing dosing feeder or a moving floor.

The Powerfeed duo is the efficient Börger single-shaft feeding technology combined with a stainless steel storage container.

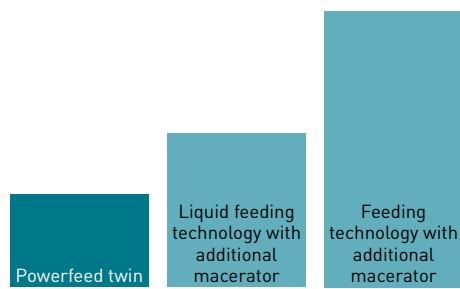




## LOWEST LIFE-CYCLE COSTS

Thanks to the sophisticated technology of the integrated macerating function and the low-maintenance MIP design, the Powerfeed twin saves you a lot of money.

Compared to feeding technology usually in the market, the Powerfeed twin has significantly lower life-cycle costs.



Life-cycle costs feeding technology