

THE  
BIOSELECT BS  
Easyframe version



# EFFECTIVE THICKENING

## THE BÖRGER BIOSELECT BS

*The Bioselect BS has been specially designed for the effective thickening of liquid manure and digestate. In a completely closed system, the separator thickens the inlet substrate to form a solid phase with a dry solids content of 5 to 22 %. The thickening degree is infinitely variable.*

Model	Flow rate:
Bioselect BS 40	up to 40 m <sup>3</sup> /h *
Bioselect BS 75	up to 75 m <sup>3</sup> /h *
Bioselect BS 150	up to 150 m <sup>3</sup> /h *

\* the exact flow rate depends on the DS content in the inlet substrate

The thickened phase has a very high energy concentration and is ideally suited to be fed into a biogas plant. In addition, it contains a high nutrient concentration which simplifies the nutrient management. As an alternative, the Bioselect BS can be used to regulate the DS content in the fermenter.

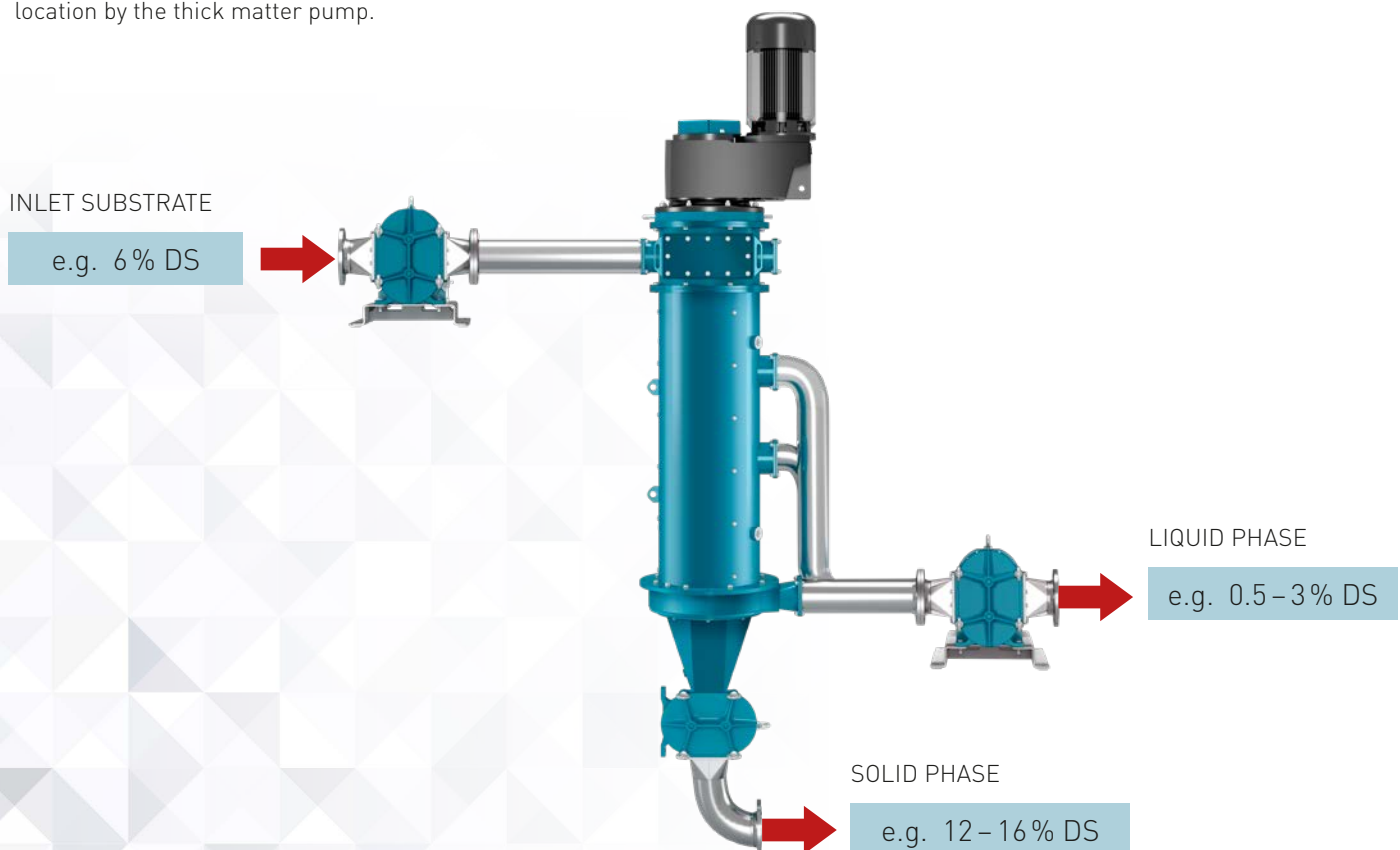
To be able to provide the appropriate separation unit for each company size, Börger offers the Easyframe version of the Bioselect BS in three sizes with flow rates of 40, 75 or 150 cubic meters per hour.

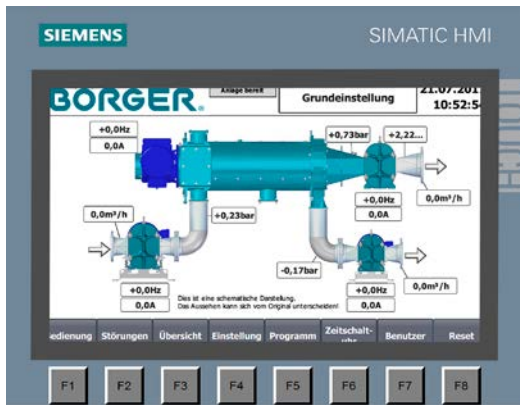
Together with the Börger control technology and the thick matter pump, the Easyframe version of the Bioselect BS is installed on a functional frame with minimum space requirement.

### THE OPERATING PRINCIPLE

The feed pump conveys the inlet substrate into the Bioselect. Here, the solid phase is separated from the liquid phase. The auger transports the solid phase to the thick matter pump. The liquid phase pump conveys the liquid phase to where it is used next.

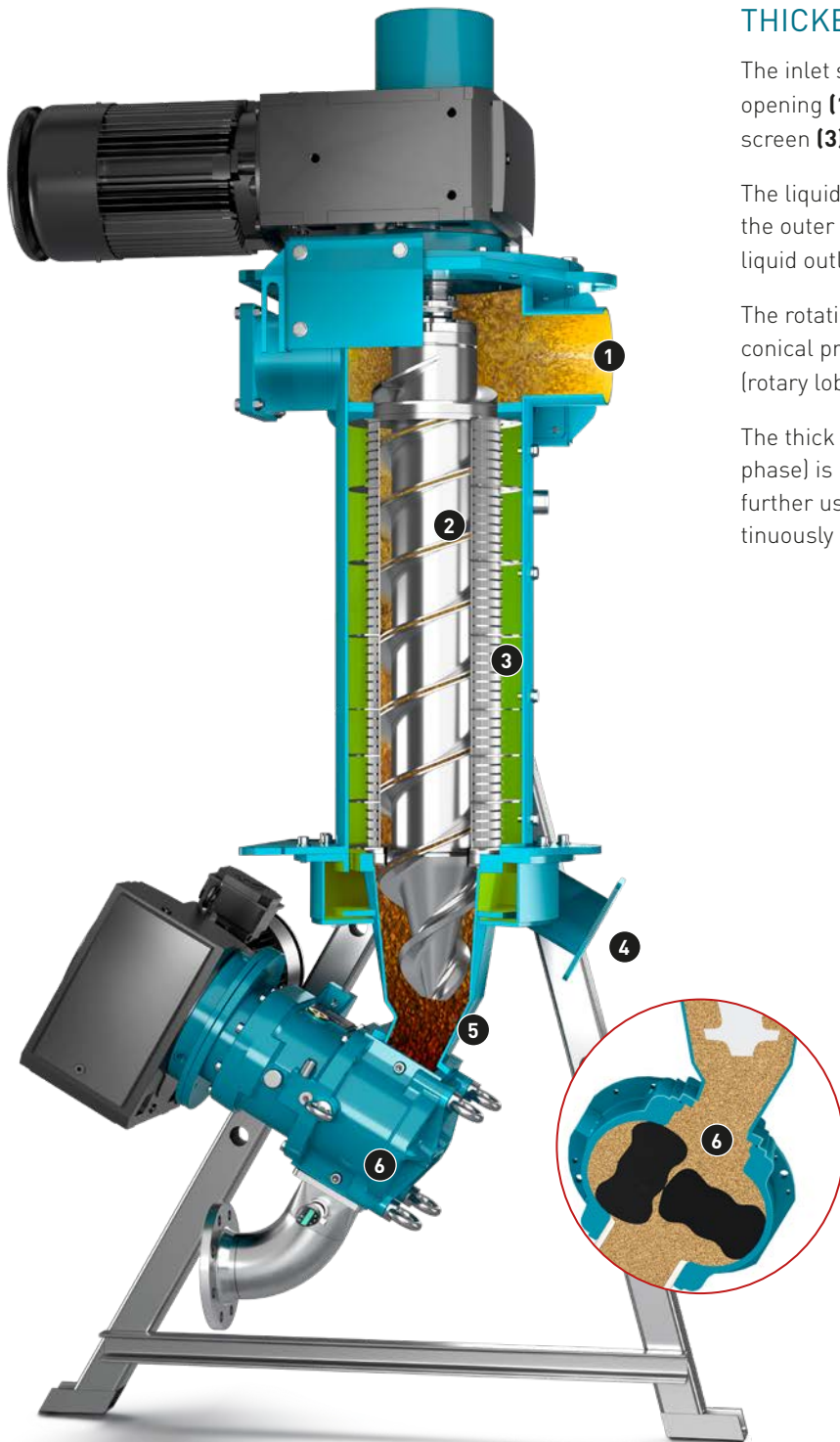
By varying the flow rate of the pumps, the dry solids content (DS content) in the thick phase can be adjusted. The solid phase can still be pumped and is conveyed to the requested storage location by the thick matter pump.





## THE CONTROL TECHNOLOGY

The Börger control technology perfectly coordinates the operation of the feed pump, the thick matter pump, the liquid phase pump and the Bioselect BS. It ensures that the Bioselect is always operated at optimal capacity and runs fully automatically. All parameters can be set and controlled via the clearly structured touch display.



## THICKENING IN A CLOSED SYSTEM

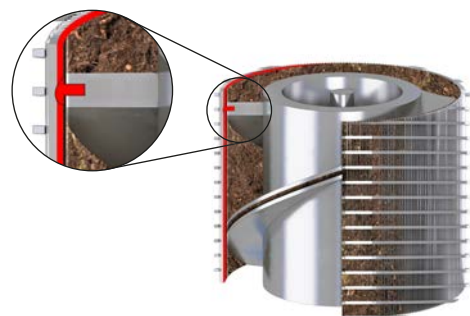
The inlet substrate is fed into the Bioselect BS through the inlet opening **(1)**. An auger **(2)** which is surrounded by a wedge wire screen **(3)** rotates inside the Bioselect.

The liquid components flow through the wedge wire screen into the outer vessel area. The liquid phase is drained through the liquid outlet **(4)**.

The rotating auger unit conveys the solid components into the conical press channel **(5)** which ends in a thick matter pump (rotary lobe pump) **(6)**.

The thick matter pump ensures that the thickened matter (solid phase) is reliably sealed and at the same time transfers it for further use. The thickening degree can be adapted by continuously adjusting the pump speed.

## THE AUGER WITH PROFILE GROOVE



Fibers are caught in the patented profile groove of the auger, where they function as a brush. Metallic rubbing between the auger and the wedge wire screen is avoided by this brush.

This unique technology increases the service life of the wedge wire screen and the auger many times over.

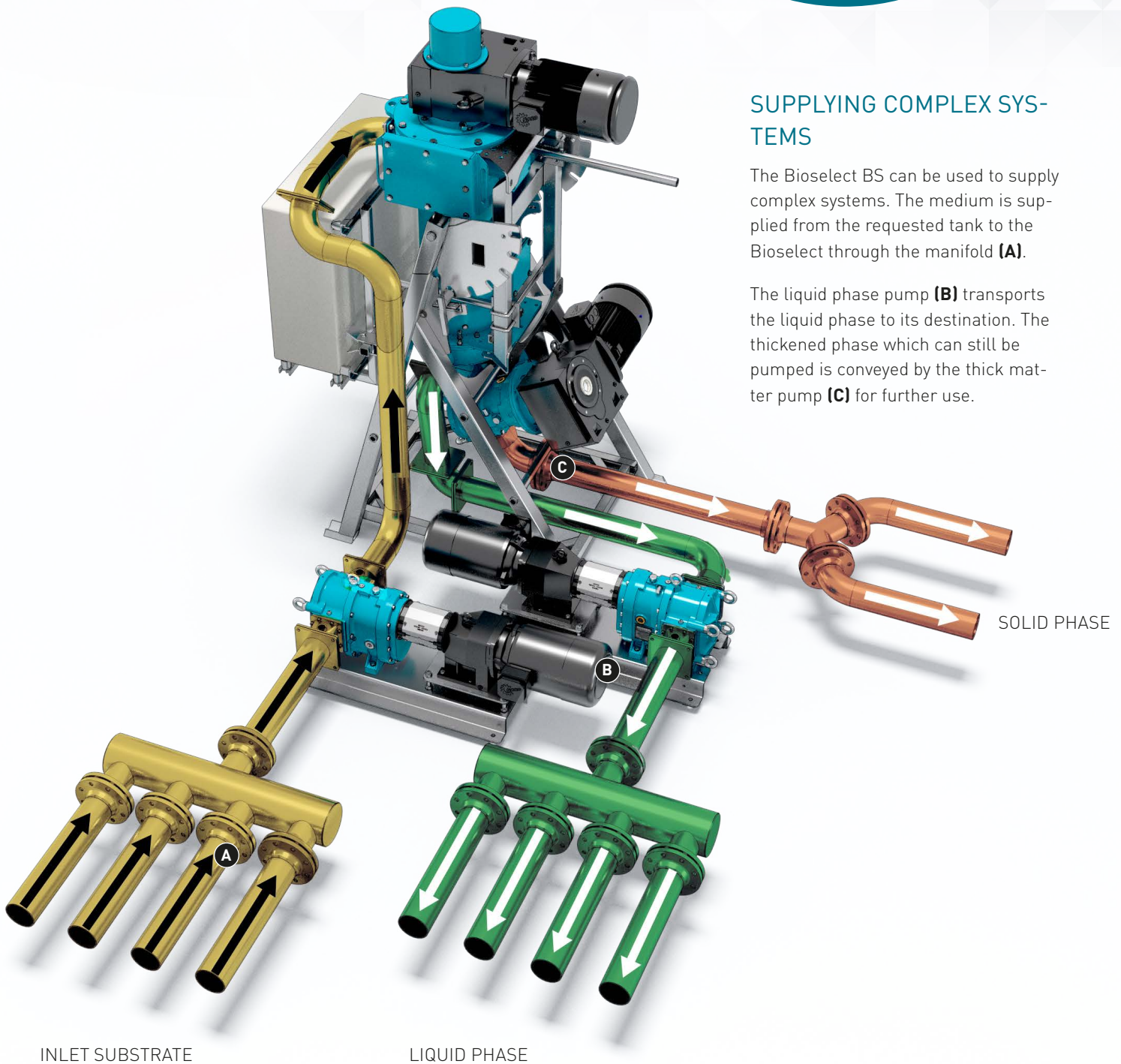
## AT A GLANCE

- + Dry solids content can be adjusted continuously from 5 to 22%
- + The thickening degree can be adjusted during operation
- + Fully odorless operation in a closed system
- + Three sizes with flow rates of 40, 75 and 150 cubic meters per hour
- + Ready-to-connect complete unit

## SUPPLYING COMPLEX SYSTEMS

The Bioselect BS can be used to supply complex systems. The medium is supplied from the requested tank to the Bioselect through the manifold **(A)**.

The liquid phase pump **(B)** transports the liquid phase to its destination. The thickened phase which can still be pumped is conveyed by the thick matter pump **(C)** for further use.



INLET SUBSTRATE

LIQUID PHASE

SOLID PHASE

# MORE GAS WITH THE SAME TANK SIZE

## APPLICATION EXAMPLES

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A pump conveys raw liquid manure / digestate into the Bioselect BS. The BS thickens this material. The solid phase is conveyed into the fermenter by a pump.

The liquid phase is transported into a storage tank for further use.

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A pump extracts recirculate from a fermenter. The BS thickens the material and either conveys the solid phase, e.g. with a DS content of 15%, back into the fermenter or into the secondary fermenter. The liquid phase is transported into final storage or to further processing.



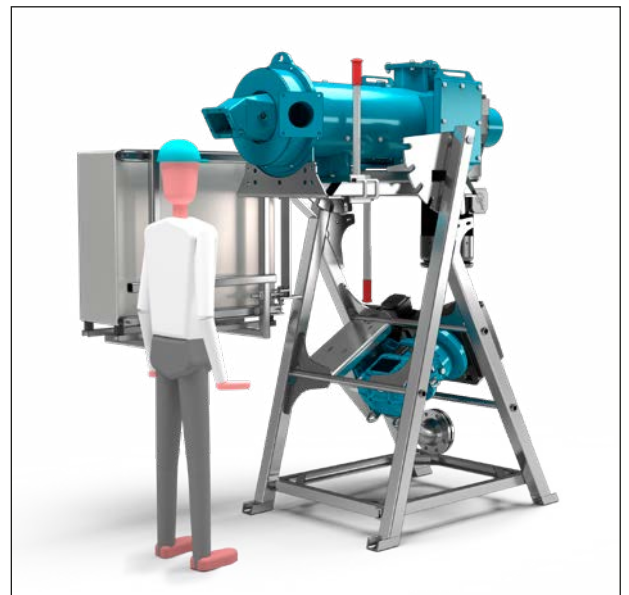
### UNIQUE EASE OF MAINTENANCE



The Bioselect is maintained at its installation site. The control cabinet is simply swung to the side and the Bioselect is moved from the working into its maintenance position.

In the maintenance position, a space-saving replacement of all wear parts is easily possible. The operator themselves can maintain the Bioselect.

**Easy, cost-effective and quick.**





**Börger GmbH**  
Borcken-Weseke, Germany  
Phone +49 2862 9103-0  
[info@boerger.de](mailto:info@boerger.de)

**Börger Benelux**  
Ootmarsum, Netherlands  
[info@boerger.nl](mailto:info@boerger.nl)

**Boerger LLC**  
Chanhassen, MN, USA  
[america@boerger.com](mailto:america@boerger.com)

**Börger France Sarl**  
Wittersheim, France  
[info@borger.fr](mailto:info@borger.fr)

**Boerger Polska Sp. z o.o.**  
Gliwice, Poland  
[info@boerger.pl](mailto:info@boerger.pl)

**Forhandler Danmark**  
Lobe ApS  
Fabriksvej 13 - 15  
6580 Vamdrup

**Börger UK Ltd.**  
Staffordshire, United Kingdom  
[uk@boerger.com](mailto:uk@boerger.com)

**Boerger Pumps Asia Pte Ltd**  
Singapore  
[asia@boerger.com](mailto:asia@boerger.com)

**Boerger Pumps Asia Pte Ltd**  
Gurugram, Haryana, India  
[india@boerger.com](mailto:india@boerger.com)

**Boerger Pumps (Shanghai) Co., Ltd.**  
Pudong, Shanghai, China  
[shanghai@boerger.com](mailto:shanghai@boerger.com)

**Norge**  
Lobe AS  
Billingstadsletta 25  
1396 Billingstad

**Sverige**  
Lobe  
Skeppsbrogatan 55  
392 31 Klalmar