### Biogreenline

# A NEW ROL



About Biogreenline

# We close the natural and economic cycle of food.

Organic waste is unavoidable in our modern world. That also applies to packaging material that is associated with organic waste. Our mission is to make both usable again in an efficient manner. That's because every gram of this waste contains energy that we can return to the economic and natural cycle. Adding value to your company. And our environment.

# Fight food waste with a system.

The key to effective value creation lies in the most efficient separation of packaging and content. Over the last ten years we've worked closely with our customers and developed a ground-breaking, patented separation technique that sets new standards worldwide. How do you benefit: a minimum of synthetic residual materials combined with maximum sustainability and profitability.

Efficient separation makes it possible for the majority of packaged organic waste to be reused. This is our contribution to a clean and sustainable world.

#### HOW IT WORKS 1

2

3

mechanically into organic and synthetic materials.

Food waste of all kinds is separated

- Synthetic materials such as plastic are separated with minimal biomass residues.
- Organic waste is mechanically processed into organic substrate without residues from plastic and other environmentally hazardous substances.
- Depending on the composition of the synthetic substances, they can be recycled.
- What remains is also converted into energy in 4 incinerators.
- 850 kWh of clean energy per tonne of organic substrate.

Biogas power plants generate up to

The fermented substrate from the biogas system makes an excellent and plastic-free fertiliser for agriculture.

Packaging waste is reduced to a fraction of its previous volume. Biogas and biofertilizers generate new income. This results in significantly lower disposal costs.

The cost savings mean our customers achieve an excellent return on investment, with a service life of more than 10 years.

#### SUSTAINABLE

90% of the waste volume recycled 1,000 kg food waste = 900 kg biogas / biofertilizer / recycling = 100 kg packaging and residual materials

#### **GOOD VALUE**

75 % lower disposal costs CHF 120 per tonne of conventional waste disposal CHF 30 per tonne with disposal using the Biogreenline system

#### COST-EFFECTIVE

400 % ROI across entire life cycle 2 – 3 years Ø Time until break even



Holistic solutions

## We don't just build machines. We build sustainable solutions.

Sustainable solutions mean more than just getting the right machine. That is why we can plan your Waste Management System together from the start – from the requirement analysis and planning through system integration all the way up launch and maintenance. That way, you will have full access to the expertise we have gathered along the way from over 70 implemented projects around the globe.

### CONSULTATION & PLANNING

Requirement assessment Strategy Regional waste planning support Regulation Project planning Operating concept Financing Training Integration into biogas plants

## OVERALL SYSTEMS & SYSTEM INTEGRATION

- Project management Component procurement Engineering
- System integration

## SPARE PARTS & MAINTENANCE

- Original spare parts Spare parts management
- Installation
- Launch
- Repair and maintenance
- Remote support through diagnostics

## Our separator technology at a glance.

With their vertical construction the new VS series' separators are designed for separating large quantities of packaging and foodstuffs. They open and shred the packaging without generating any harmful microplastics. What remains as an end product is clean with a > 99% degree of purity. This enables an economical and sustainable return of raw materials to the natural cycle.

A powerful electric motor provides a throughput of up to 24 m<sup>3</sup> per hour



What remains in the end is > 99%pure bio substrate with a controllable water content for optimal use in biogas plants

#### Packaging is torn up by rotating paddles

Heavier organic contents are separated from the lighter packaging by centrifugal and gravitational force

Models and information

VERTICAL SEPARATOR VS400 Output Up to 10 m<sup>3</sup>/h Screen diameter 480 mm Height 2,700 mm Weight 1,500 kg

VERTICAL SEPARATOR VS600 Output Up to 15 m<sup>3</sup>/h Screen diameter 680 mm Height 3,300 mm Weight 1,850 kg

VERTICAL SEPARATOR VS900 Output Up to 24 m<sup>3</sup>/h Screen diameter 880 mm Height 3,900 mm Weight 3,000 kg

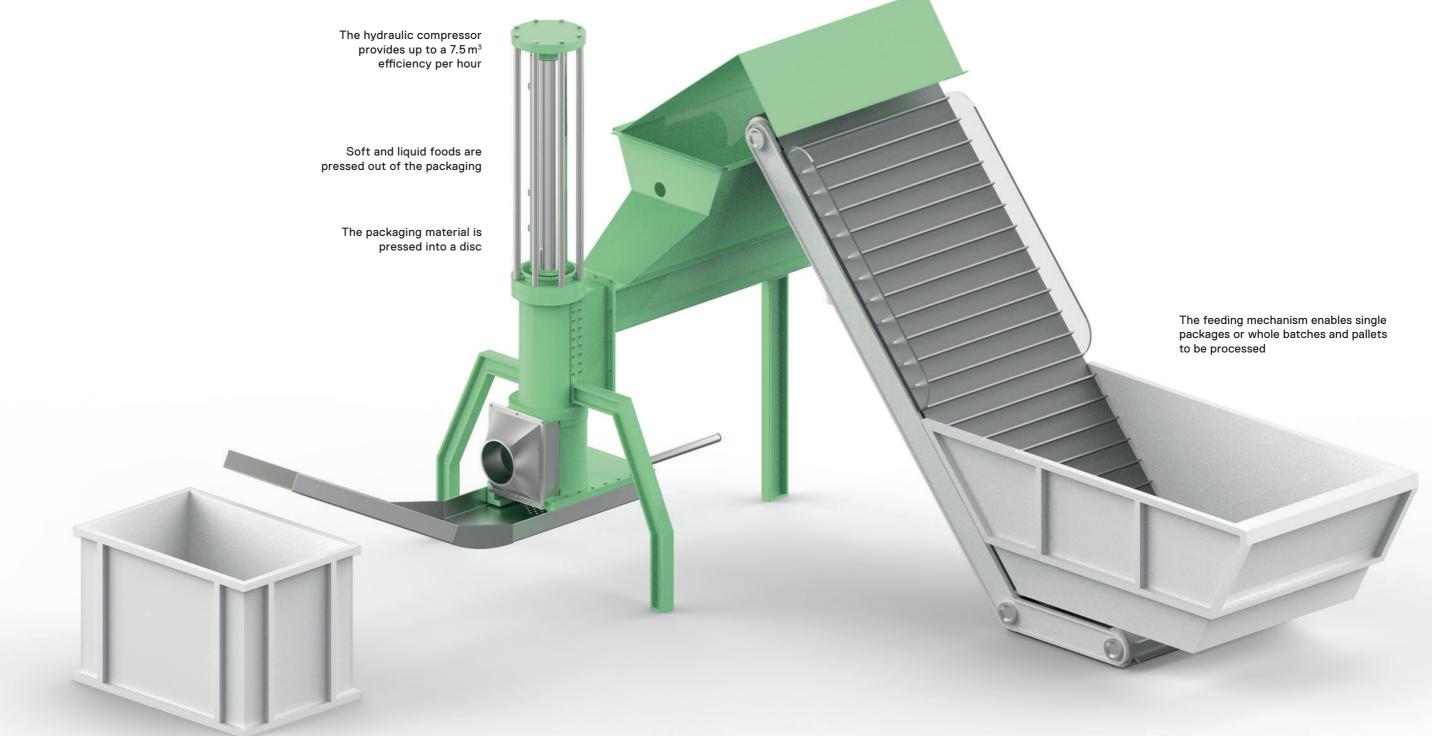
—

Rotation speed 900 – 1,450 rpm Connection values 22 – 55 kW Filter outlets 6 – 20 mm



Unlike our separators, our compactors were constructed specifically for the processing of cans, tins, tubes and robust plastic packaging. They are compressed by high-performance compactors under high pressure so that contents and packaging materials are separated quickly and efficiently. In turn, the content can be returned as an organic substrate into the natural cycle while the compact packaging portion can be recycled accordingly.

## Make tight packages and lighten environmental issues.



Models and information

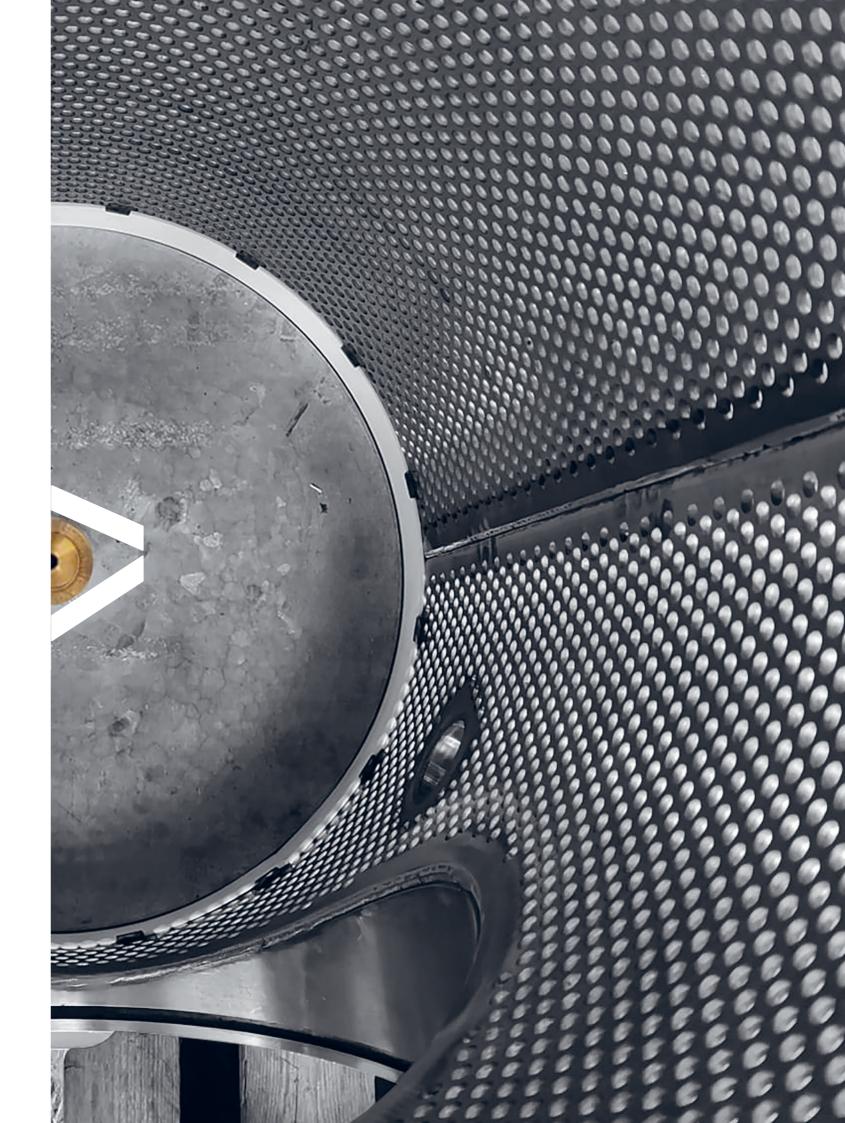
VERTICAL COMPACTOR VC100 Output Up to 4.5 m<sup>3</sup>/h Cycle per minute 2.5 Connection values hydraulic aggregates 10 kW Weight hydraulic aggregates 800 kg

VERTICAL COMPACTOR VC200 Output Up to 6 m<sup>3</sup>/h Cycle per minute 3.5 Connection values hydraulic aggregates 20 kW Weight hydraulic aggregates 1,000 kg

VERTICAL COMPACTOR VC300 Output Up to 7.5 m<sup>3</sup> / h Cycle per minute 5 Connection values hydraulic aggregates 30 kW Weight hydraulic aggregates 1,200 kg

—

Screen diameter 303 mm Inlet opening dimensions 400 mm Outlet opening dimensions substrate DN 100



Do you have any questions? We are happy to assist you personally.

