DSP 205
Screw Press
Solid-liquid separation

Clean fermentation substrate for the biogas production

The Doppstadt Group - well known for its grinders, shredders, screens, etc. - offers a range of innovative solutions for solid-liquid separation as well. The Doppstadt Screw Press DSP 205 is designed for disintegration and separation of packaged biowaste and food waste prior to biogas production.

Applications
• Processing of bio waste (kitchen waste, green waste, out of date food etc.)
• Dewatering of fermentation residue from dry-digestion plants

Technology evolved into solution.
Doppstadt: The full line supplier for your requirements.

DSP 205
TECHNICAL DATA

Dimensions
- Length: 9,606 mm (31' 6"
- Width: 2,257 mm (7' 5"
- Height: 3,652 mm (11' 11"

Standard equipment
- Screw press unit (fully electric main drive)

Additional equipment
- Twin shaft mixing hopper, manure connection or flow nozzles for mixing hopper, filtrate discharge by eccentric screw pump or free outflow, Doppstadt Multicontroller, mounting frame up to a height of 3,000 mm and an angle between 0 and 30°, special paint

Special equipment
- Pump and conveyor technology
- Discharge conveyor

Applications
- Market waste
- Fermentation residue
- Green waste
- Out of date food
- Kitchen & catering waste
- Kitchen waste with high plastic content

Functions
- Number of Screw shafts: one pressing screw, two mixing screws
- Screw diameter: pressing screw: 500 mm (1' 8"), mixing screws: 480 mm (1' 7"

Load capacity
- Loading height: 2,780 mm (9' 1"
- Loading width: 2,247 mm (7' 4"

Press screw
- Drive: frequency-controlled three-phase motor
- Drive power: 45 kW / 61 hp
- Drive speed: 14 – 18 rpm
- Drive torque: 18 – 26 kNm
- Drive gear: planetary gear box with bevel gear input stage
- Drive gear ratio: 97.5

Mixing hopper
- Drive: frequency-controlled three-phase motor
- Drive power: 30 kW / 41 hp
- Drive speed: 53 rpm
- Drive torque: 5.4 kNm
- Drive gear: spur gear
- Drive gear ratio: 27.8

Press basket
- Type: tapered round hole or slit screen
- Opening size: round hole: 8 mm, 10 mm, 12 mm; slit screen: 2.5 mm

Literature
- Literature regarding the content of plastics particles over 2 mm: 0.34 wt% based on dry matter and 0.75 wt% other foreign matter such as glass, sand, and metal

Dimensions
- All dimensions in mm

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Processing of bio & domestic waste in a single pass using Doppstadt’s innovative solution

Doppstadt. The full line supplier for your requirements.

WE CARE

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Biogas production starts with the fermentation substrate

During processing via DSP 205 the bio-available organic fraction of the input material is concentrated in the liquid phase (filtrate). According to the application the solids (retenant) can be recycled or used as RDF. The throughput depends mainly on the input material, the feeding, and further factors. It averages between 8 and 12 t/h with a maximum of up to 20 t/h. In case material jams, the pressing screw reverses automatically and releases large solid bodies by completely retracting the pressing cone and opening of annular gap. This way, solid bodies with diameter of up to 80 mm in the input material can be processed without failure.

Thanks to this innovative and contaminant-resistant system an optimum pressure can be set for a large range of input materials thus achieving the required degree of dewatering. Plastic parts and plastic films are transported through the machine without any risk of wrapping or jamming and are discharged as part of the retentate.

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