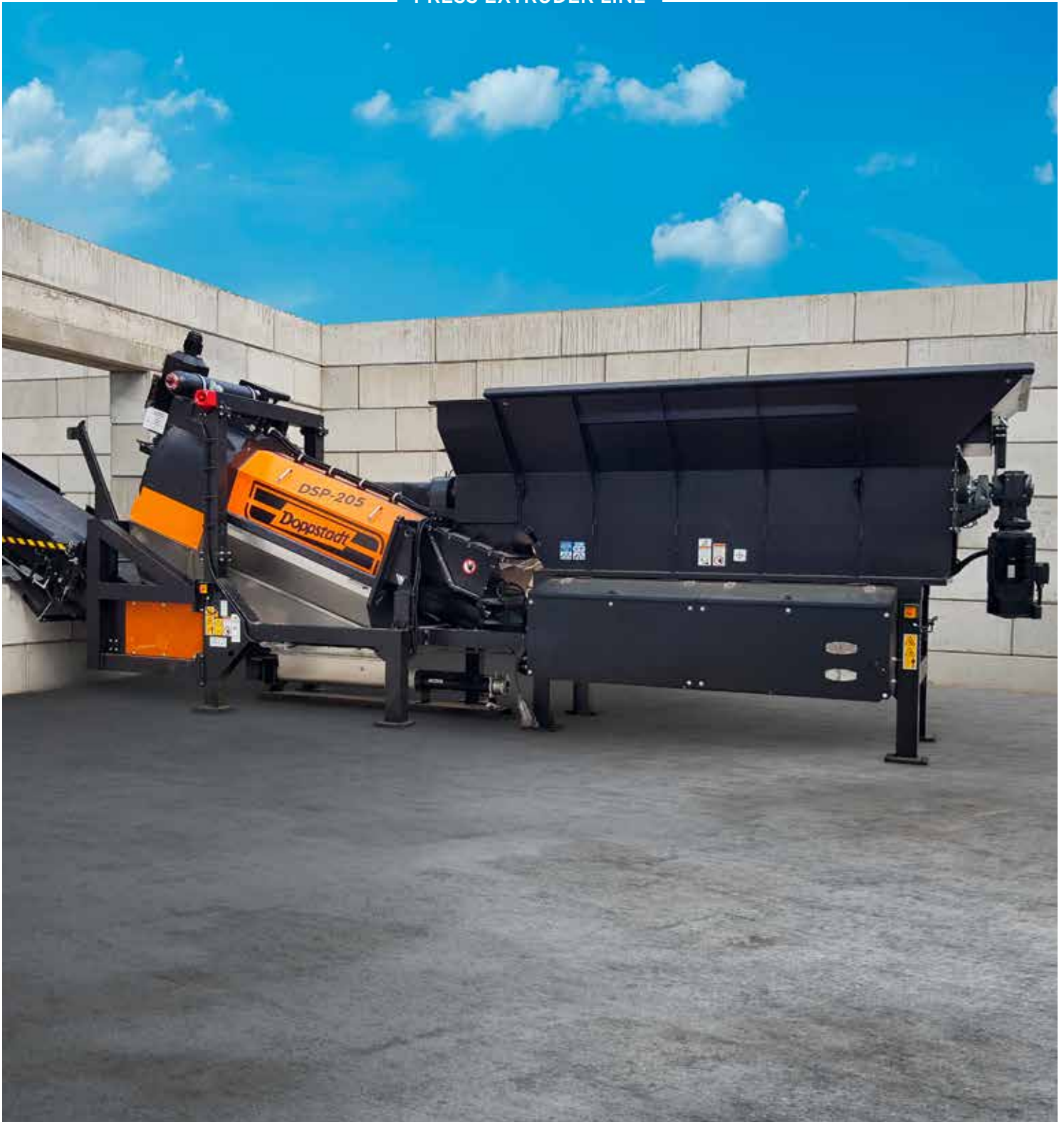


Doppstadt

DSP 205

PRESS EXTRUDER LINE



Best Solution. Smart Recycling.

[doppstadt.com](https://www.doppstadt.com)



SCREW PRESS DSP 205



PRESSING CONE

Due to the cones rotation the annular gap through which the solid phase extrudes is always in motion. That results in a continuous discharge without clogging.

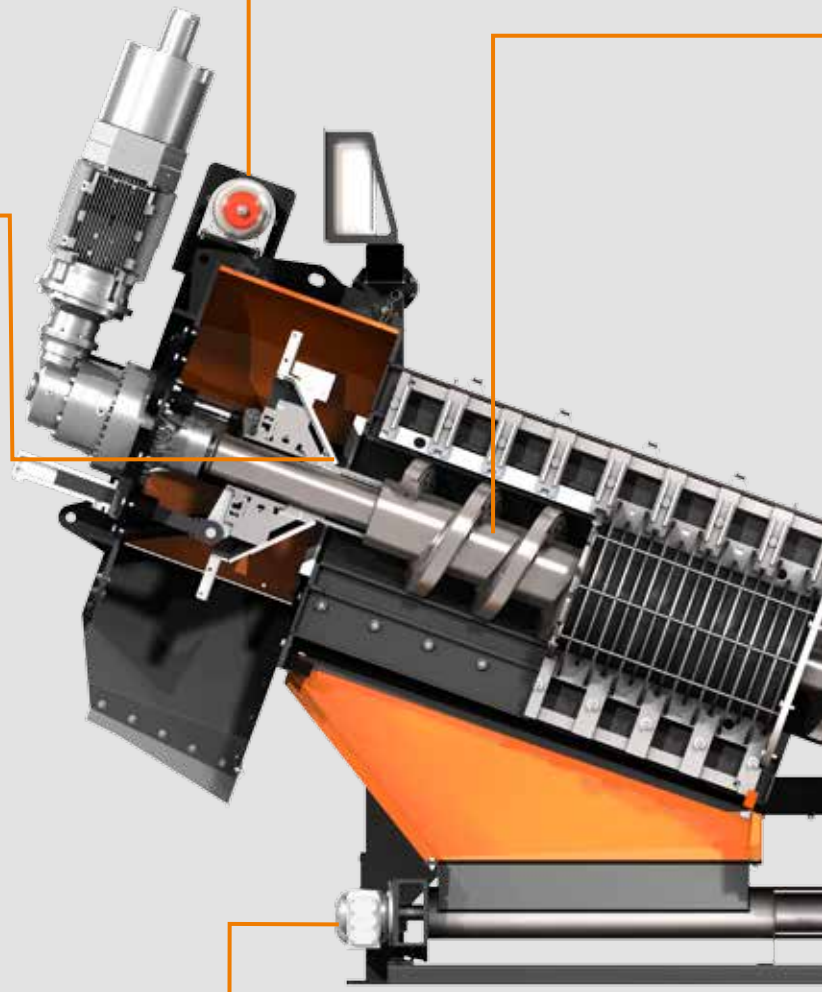
PRESSING SCREEN

The screens surrounding the screw are divided into four parts for precise and easy assembly. Different opening sizes can therefore be combined with one another in longitudinal direction.



SUBSTRATE PUMP

The pump is controlled by means of three level sensors. The rotor speed is automatically reduced in order to increase pump intervals and reduce on-off-frequency.





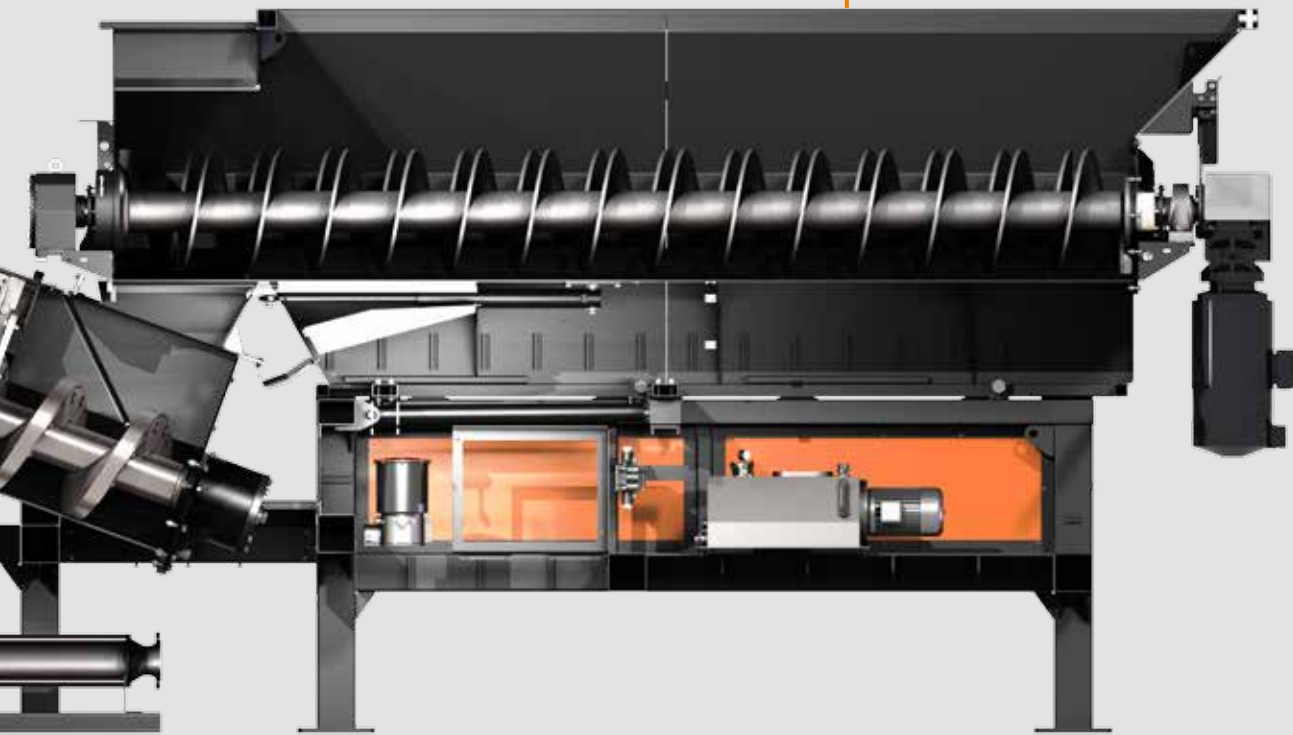
PRESSING SCREW

Cast wear segments on the screw flight can be replaced by bolt connections.



MIXING HOPPER

In the area between the two mixing screws, packaging material is opened by shear stress. The disintegrated material is fed continuously to the press.



Advantages at a glance

The screw press is generously dimensioned in order to ensure that kitchen waste and packaged food stuff can be processed without pre-shredding or pre-sorting and to accept solid bodies of up to 80mm in diameter.

The two mixing screws as well as the pressing screw are designed to prevent wrapping of plastic film or fibrous material.

Disintegration of packaging in the hopper and separation in the press are carried out in a gentle non-destructive way. As a result the filtrate is very low in contamination, especially with regard to deformable plastics.



SCREW PRESS DSP 205

Clean feedstock for biogas production

The Doppstadt Screw Press separates source separated organic waste, overlaid packaged food stuff as well as kitchen and catering waste into a solid and liquid phase. The bioavailable components are concentrated in the liquid phase and can be used as biogas substrate in a wet fermenter. The input is fed into the mixing hopper by wheel loader or other handling equipment. Two counter-rotating mixing

screws gently open up the packaging by shear stress without producing small shreds of plastic. The disintegrated waste is then taken over by the pressing screw which conveys the material against the hydraulically activated pressing cone and thus builds up pressure in the process chamber. If the pressure rises above the pre-set value, the cone opens accordingly and more material gets discharged. Since

the cone rotates with the screw shaft, the circumferential gap is always in motion and clogging is prevented. Due to the careful disintegration and pressing, the liquid biogas substrate does not require any further treatment and already contains less than 0.5% contamination based on dry matter prior to the fermenter. The solid phase mainly consists of packaging material and other solids.

THIS IS DOPPSTADT

Headquartered in Velbert, Germany, the Doppstadt family firm was founded in 1965. While the company has its origins in developing agricultural machinery, Doppstadt today is a leading, globally active solutions and services provider in all areas of recycling/environmental technology and recyclables extraction.

"Best Solution. Smart Recycling." – With this as our guiding principle, we combine proven processes to create customised end-to-end solutions characterised by innovative processes, optimum efficiency, and maximum cost-effectiveness. Particularly in the areas of water-based separation systems and wet recycling, we impress

our customers by providing flexible systems to tackle every challenge. With locations in Velbert, Wülfrath, Calbe, and Wilsdruff, Germany, we serve customers in more than 40 countries through our own dealer network and offer comprehensive services for every product in Doppstadt's unique portfolio.



THE PROCESS RESULT

The process-related focus of the Doppstadt Screw Press is not to extract as much biogas potential as possible from the feed material, but rather to provide a clean biogas substrate with a single machine. Neither pre-treatment of the input nor post-treatment of the biogas substrate is necessary. In consequence, residual moisture and bio-available matter within the solid fraction may need to be reduced via biological post-treatment.

The pictures above and below show feed material as well as solid and liquid products in that order from left to right. It is not necessary to add water to the input. But it does reduce the viscosity of the liquid phase and thus ensures better drainage within the process chamber, resulting in a drier solid fraction.



TECHNICAL DATA

DSP 205

Dimensions

Total weight (depending on the equipment)	14,000 kg
Chassis	stationary
Drive	electric
Length	8,129 mm
Width	2,143 mm
Height	3,595 mm
Options	Discharge conveyor, pump for biogas substrate, hopper extension, remote control

Mixing Hopper

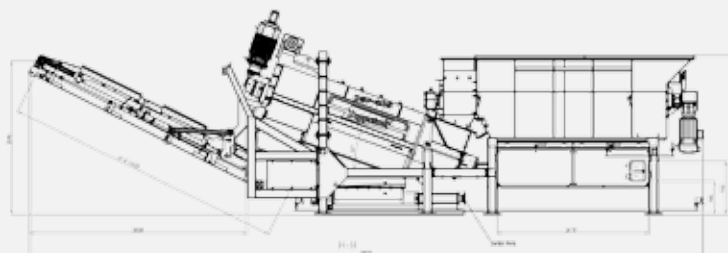
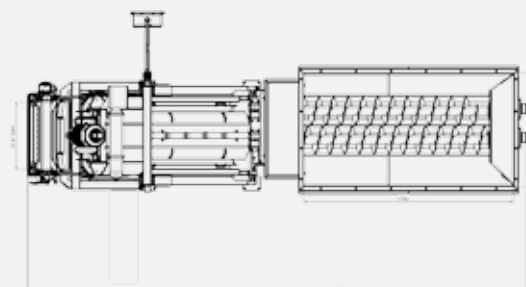
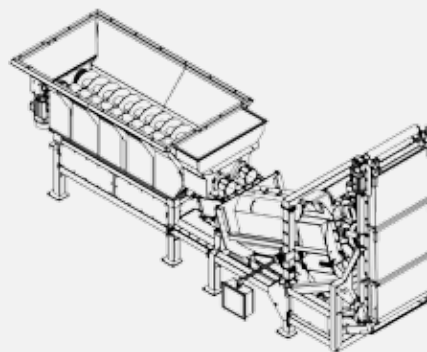
Volume capacity	5 m ³
Number of mixing screws	2
Screw diameter	480 mm
Loading height	2,800 mm
Loading width	3,704 mm
Loading depth	1,983 mm
Nominal power	2 x 15 kW

Press

Screw diameter	500 mm
Screw length	2,600 mm
Nominal power	45 kW
Screen opening size	round holes: 8, 10 and 12 mm, slotted: 2.5 mm
Pressing screens	3 m ²

Process result (depending on material)

Throughput	8 bis 12 t/h
Liquid phase dry matter content	16 bis 23 %
Liquid phase plastic contamination	0.3 % dm



As of April 2020 – subject to technical alterations. All dimensions are in mm (ft/in). The specifications are approximate. Illustrations and descriptions may include options that are not part of the standard equipment.



Doppstadt Umwelttechnik GmbH
Steinbrink 13, D-42555 Velbert
Deutschland

+49 2052 889-0
info@doppstadt.de

doppstadt.com