BIOSOLIDS

Dehydris® Twist

Boosted sludge dewatering using piston press technology

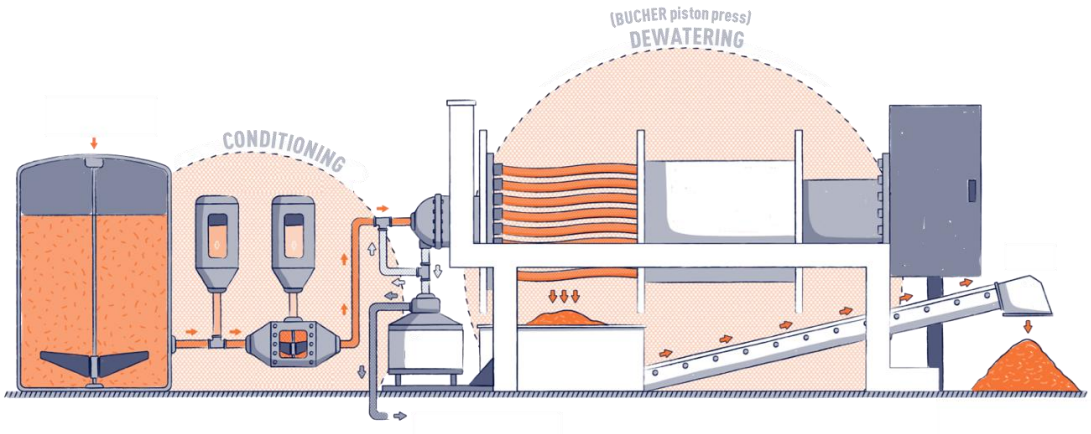
Boost your productivity in sludge dewatering

⇛ **Easy operation and high performance**

Up to 45% dry content through an entirely automated process

⇛ **Compactness**

All dewatering advantages in one solutions: an automated process combining plate filter press efficiency and centrifugal productivity



Up to **30%** **reduction in sludge bulk** compared to conventional dewatering

Based on proven Bucher Unipektin piston press technology (with more than 2,000 food industry references), Dehydris® Twist represents one of the most innovative and efficient systems on the dewatering market.

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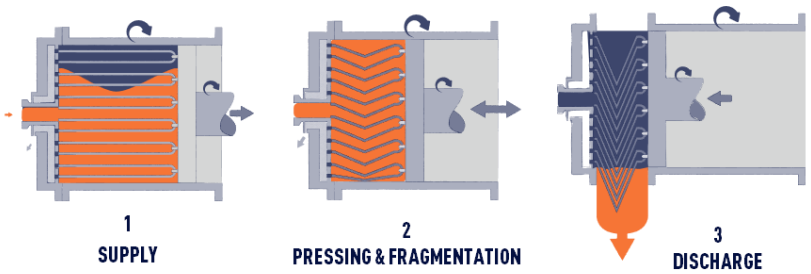
The Dehydris® Twist technology ...

The Dehydris® Twist unit is based on the Bucher Unipektin piston press, which is fed with drinking water sludge or pre-thickened wastewater sludge conditioned with reagents (polymers possibly mixed with mineral reagents).

The press, equipped with semi-solid drainage elements, operates in cycles (from 2 to 3 hours). The length of the cycle depends on the type of sludge and efficiency required (dryness or flow rate). Each cycle is made up of three, entirely automated, main phases.



❶ Supply phase

The cylinder-piston unit is closed and rotation started. The piston moves back and forth; at each return stroke sludge is fed into the unit until the nominal volume in dry matter has been reached. Sludge is automatically introduced into the unit and concentration and flow rate measurements are recorded.

❷ Pressing / filter cake fragmentation phase

The piston continues to go back and forth whilst the entire cylinder-piston unit continues to rotate: granulation of the sludge by the drainage elements during the return stroke allows renewed contact to be made between the sludge and the filtering media, thus facilitating the release of interstitial water trapped during pressing. According to the incoming dry content and the volume of extracted water, this phase is stopped at a precise, automatically calculated value on a return stroke.

❸ Discharge phase

The cylinder casing slides along the machine axis uncovering a part of the pressing chamber. The cylinder/ piston rotation continues while the piston moves forward. The dewatered sludge filter cake is discharged by gravitational force, helped by the drainage elements, which tips during rotation. Emptying is automatically performed in only a few minutes.

. . . what it can do for you

Savings

- **Increased productivity** with a possibility of non-stop operation (24/7) without the need of a staff presence
- **Smaller footprint** than a filter press in continuous operation (up to 20% optimization)

High performance

- **High dry content** obtained without the addition of lime: up to 45% for drinking water sludge and autothermicity achieved for urban wastewater sludge
- **Versatile:** accepts both drinking water and wastewater sludge (mixed sludge, fresh, digested, thickened or primary)

Simple and easy operation

- 100% automatic operation including emptying
- Easy regulation of variable sludge quality with dryness adjustment on demand
- Enclosed and ergonomic industrial process: noise and odor containment

Among our references

Châteaubourg, France
Drinking water
Capacity: 600 m³/h

Béziers, France
Urban wastewater
Capacity: 200,000 PE

Milano San Rocco, Italy
Urban wastewater
Capacity: 1,000,000 PE

Boneo, Australia
Urban wastewater
Capacity: 31,200 m³/d

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