

EVERY PEEL COUNTS

APPLICATION DETAILS

- Processing fruit and vegetable waste directly in the production hall
- Storage in an underground tank

KEY SPECIFICATIONS

- Combination of a twin shaft grinder and a progressive cavity pump
- Robust stainless steel construction
- Closed design to reduce odors

BACKGROUND

A medium-sized vegetable processor with extensive experience handles around 2,000–4,000 kg of fruits and vegetables daily. Each year, it produces around 1,000 metric tons of high-quality fresh and convenience products for food service and key accounts, including salads, portioned vegetables and fruit along with juices.

TASK

During processing, around 20–30% of the raw material becomes organic waste, equal to approximately 750 kg per day or 225 metric tons per year. Until now, this waste had to be collected in organic waste containers and picked up daily, which caused hygiene, odor, pest and space issues.

The food processor's main challenges were the inefficient and unhygienic handling of food waste:

- Storage in a refrigerated room of 15 to 20 m³, requiring daily pickup
- High cleaning and labor requirements
- Limited production space

In addition, the different types of waste created specific requirements: fibrous pineapples, hard avocado pits, large melons or accidentally introduced foreign objects such as wood and metal. The system had to process these reliably without blockages or damage.

A regional food processor supplies food service customers and key accounts with fresh fruit and vegetables daily.



FROM WASTE TO EFFICIENCY

COST SAVINGS

**REDUCED
DISPOSAL COSTS**

**FEWER LABOR
REQUIREMENTS**

**LESS CLEANING
EFFORT**

**SAVINGS IN STORAGE
AND SPACE COSTS**

SEEPEX PRODUCTS

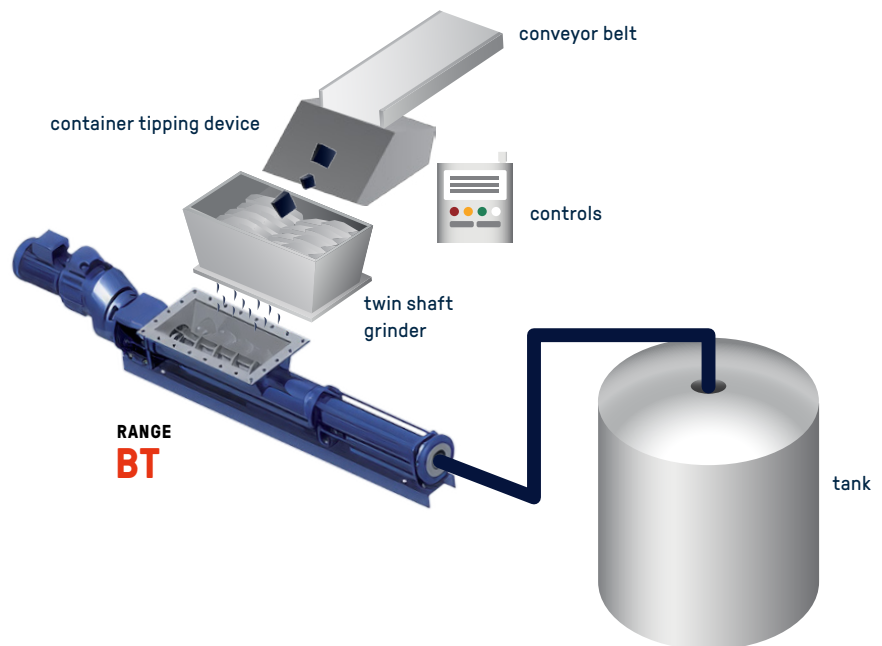
- Twin shaft grinder with snail geometry (DW 650)
- BT 17-12VOM open hopper pump

SOLUTION

SEEPEX FlowShred is an integrated solids conditioning system consisting of a twin shaft grinder and a progressive cavity pump. It turns heterogeneous food waste into a uniformly ground medium that can be pumped and transported cleanly and reliably.

The system consists of:

- Feeding station with worktable, hopper, container tipping device, conveyor belt and safety control system
- Twin shaft grinder with snail geometry for homogeneous grinding of a wide range of waste materials
- BT 17-12 hopper pump with mobile base
- Pipework and underground storage tank



Thanks to the perfectly coordinated interaction of the twin shaft grinder and progressive cavity pump, even large, hard or fibrous waste materials can be processed without difficulty, including whole heads of cabbage, pumpkins or root vegetables. The system allows material to be fed via crates or a conveyor belt.

The robust stainless steel construction, closed design and easy cleaning ensure maximum cleanliness in the production hall. SEEPEX FlowShred adapts flexibly to different waste types and production batches while reducing disruptions caused by accidentally introduced foreign objects.



TECHNICAL INNOVATIONS

- Snail geometry of the cutters optimizes intake and offers continuous grinding
- Integrated system consisting of a twin shaft grinder and progressive cavity pump for seamless transfer
- Closed design for clean and safe handling of waste

BENEFITS

By using SEEPEX FlowShred, the food processing company made their waste processes significantly more efficient, cleaner and more sustainable.

- Available production space increased through underground waste storage
- Higher cleanliness due to direct disposal during production without manual handling of organic waste containers
- Reduced labor requirements for waste management, handling and cleaning
- Lower disposal and operating costs because of longer pickup intervals every 2 days instead of daily
- Reduced CO₂ emissions due to lower transport frequency
- Continuous and stable operation, even with heterogeneous or challenging waste materials

The food processing company not only streamlined their waste processing with FlowShred but also optimized production space and operating costs.

