



# Separation systems

Sloped-Screen Separators  
Screw-Press Separators  
Solids Conveyors



# Professional quality systems for farm and industrial

**Clean alleys and quality bedding  
are fundamental to animal  
health and productivity.**

At Valmetal we are focused on optimizing the quality of farm processes, whether recovering sand or organic bedding, or producing the cleanest flush water for alley or holding pen cleaning. With many decades of experience on the world's largest dairy farms, the quality, reliability, and efficiency of our equipment gets the job done right!





# Processing with payback

The **waste management system is a critical component** of dairy farms, hog farms, food processors and many other facilities. Our range of separators covers every need, whether your focus is simple dewatering, production of clean process water, or fiber bedding recovery.

## Our separation systems solve many problems:

- Recycle water to reduce water usage
- Produce manure fiber bedding
- Clean process water for sand separation
- Scrub wastewater for irrigation system
- Pre-thicken wastes to optimize digester performance
- Concentrate solids to reduce storage volume
- Produce fertilizer / soil stabilizer solids

## Innovation and quality are built right in.

All products are designed and built in our facility in Tulare, California.

Our planners will engineer the complete system to meet our customer's demands. Ensuring that our clients receive the highest quality product has made us the **#1 supplier of dairy waste equipment.**

## Separation systems



Sloped-Screen Separator



Hopper Feed Screw Press



Direct Feed Screw Press

# Sloped-screen separator

The first step in any wastewater processing application is the separator system. Our sloped screen separator is the **best on the market**, the unique curved profile matches the product condition and speed for optimum efficiency. The 100% stainless steel construction is built to last in highly demanding and corrosive environments. That's quality you can trust.

## Features

304 stainless steel construction

Curved wedge-wire screen

Several sizes from 5' x 6' (1,5 m x 1,8 m) to 8' x 12' (2,4 m x 3,7 m)

Vibrator (option)

Fully automatic pressure washer system (option)

## Benefits

- ✓ Produces very clean process water.
- ✓ Simple & reliable.
- ✓ No moving parts, extremely low maintenance cost.
- ✓ Low energy, extremely low operating cost.



### Sand bedding separation

Select fine screens to produce high quality process water for sand separation.



### Manure separation

Select coarse or medium screens for fast dewatering of manure fibers for bedding.





### Modular systems for every need

The appropriate size is selected based on the type of waste being separated and the required processing rate; we will find the perfect combination to process your wastewater and manure efficiently and economically. Our modular system combines multiple units to achieve desired capacity.



### Secondary screening

Secondary screening produces exceptionally clean water by removing very fine particles. The left side is the first stage system to remove most solids, while the right side is a second stage separator equipped with a very fine screen.



### Vibrator system

The vibrator option is recommended for most applications, providing additional dewatering while also keeping thicker solids moving quickly off the screen, thereby giving additional capacity. The vibrations keep the screen cleaner and allow processing of more viscous materials.



### Automatic pressure washer system

Regular and thorough washing of the screen is required to maintain peak performance and to extend the life of the screen. Our fully automatic washing system ensures that this tedious job is performed perfectly and on schedule every time, without taking any of your valuable time.

## Screen choices

We can mix and match the screen choices in the upper or lower zones to optimize performance in every application.

Flush sand bedding screens	Flush manure screens	Second stage screens
0.030" / 750 $\mu$	0.030" / 750 $\mu$	0.015" / 380 $\mu$
0.025" / 630 $\mu$	0.025" / 630 $\mu$	0.010" / 250 $\mu$
0.020" / 500 $\mu$	0.020" / 500 $\mu$	
	0.015" / 380 $\mu$	

# HOPPER FEED Screw press

Situated directly under our sloped screen separator, the high-capacity hopper-feed screw press is the perfect match to provide maximum dry matter without sacrificing processing volume.

The automatic air-pressure systems keeps the output moisture consistent, allowing you to produce drier solids for cow bedding or compost.

## Features

Hard-faced screw for wear resistance

Full stainless steel construction

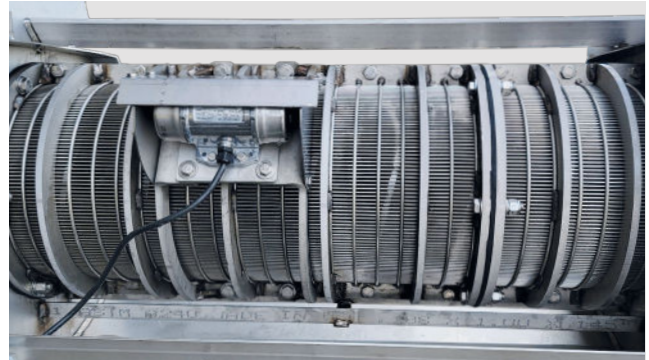
Synthetic oil filled gearbox

Perforated dewatering trough and wedge-wire tunnel press

Pneumatic door control kit to manage the moisture of solid content

## Benefits

- ✓ High-precision screw and screen for optimum efficiency.
- ✓ Easy maintenance with removable sides and all-bolted assembly.
- ✓ Available in inclined hopper mount and horizontal mount configurations.



Our on-board vibrator increases capacity and helps keep screens clean.





# DIRECT FEED Screw press

The cost and availability of bedding is a problem on many farms today. The Xtra-Press direct-feed screw press is a simple, cost-effective solution that can produce unlimited volumes of soft, fluffy, and odorless bedding from the undigested fibers in manure.

You can provide plenty of bedding to improve animal comfort without significant costs and without increasing the manure volume to handle.

## Features

- Choice of 10 HP or 15 HP drive
- High-precision stainless steel 4-piece screen
- On-board screen vibrator
- Full stainless steel construction
- Fully automatic operation

## Benefits

- ✓ Produces high-quality, comfortable bedding.
- ✓ High-capacity reduces run time and energy use.
- ✓ Reduces the volume of manure to store and spread.
- ✓ Eliminates the need for long-term bedding storage space.
- ✓ Reduces labor costs.



### Uniform bedding quality

The fully automated Xtra-Press features air-operated exit doors, providing constant pressure to ensure uniform bedding quality for your herd.

# Conveyors

Valmetal makes conveyors to handle the solids of any separation system. Choose from our utility conveyors for most applications, or the heavy-duty stacking conveyor, or the perforated dewatering conveyor. The all stainless steel construction ensures long life and trouble-free operation.

## Benefits

- ✓ Low power requirement
- ✓ Low speed for long life
- ✓ Low maintenance



### Dewatering conveyors

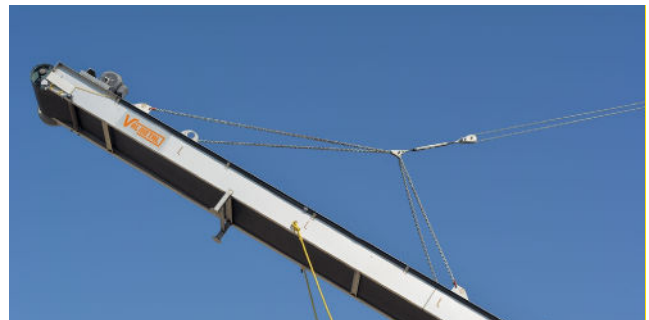
The dewatering conveyor features a perforated top floor that helps drain moisture from the product. The 33" (84 cm) wide chain conveyor includes diverters to mix and tumble the material to promote maximum moisture removal. Available in 30' (9 m), 35' (10,5 m) or 40' (12 m) lengths for stacking.

## Features

Low speed gearmotor drive

100% stainless steel body and frame

Available in different lengths and capacities



### Stacking conveyors

This 24" wide (60 cm), heavy-duty belt conveyor operates quietly and smoothly with minimum maintenance. The rigid frame is suspended to leave a wide-open slab below for loaders to work in. Choose from 30' (9 m), 35' (10,5 m) or for maximum stacking height, choose the 40' (12 m) model.



### Utility conveyors

Valmetal offers stainless steel belt conveyors from 14" to 48" (36 cm to 122 cm) wide for transport, filling holding bays, or distribution of bedding. The wide range of accessories produces a professional installation. Choose with low-speed drive (70-90 ft / minute) or standard speeds (230 - 290 ft / minute).



# Smart controls

Precise coordination of the entire system is easy with Valmetal automation controls. The Valmetal app lets you operate from anywhere.



# Maximize cow comfort



“ **Proper stall maintenance is always important, but maximizing comfort is much easier when you have unlimited amounts of high-quality bedding, produced on your own farm at very low cost.** ”

**The use of bedding made from recycled manure eliminates the need to use traditional bedding such as straw, sand or wood shavings.**

- Reduces the on-farm storage requirements for traditional bedding.
- Reduces the total volume of manure to store, mix and spread each year.
- Provides unlimited volumes of low-cost bedding.



# For healthy and safe bedding

The Valmetal Xpress-PS pasteurizer is a continuous-flow system, constantly producing large volumes of pasteurized bedding, completely automatically.



The compact system fits indoors so can be used in all climates.

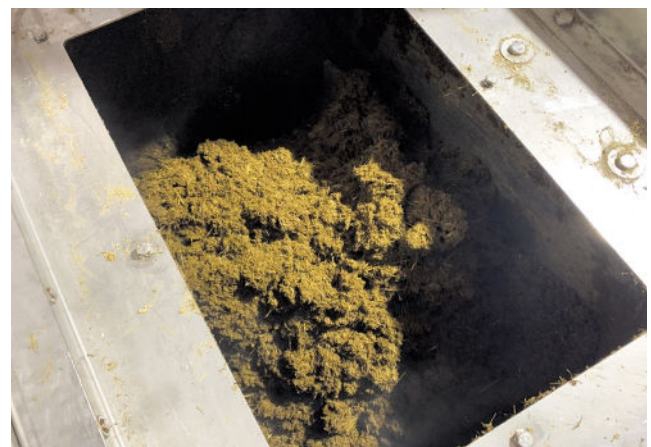
## Pasteurization process

The separated manure solids exiting the separation process are typically at **35% to 38% dry matter**.

The fiber enters the Xpress PS and passes through a carefully controlled aerobic process in which the material is mixed and heated to a temperature of **65°C / 149°F to 70°C / 158°F for at least 60 minutes** to achieve true pasteurization.

In addition to the reduction or elimination of pathogens through pasteurization, the bedding exiting the Xpress PS **is also now drier**.

The precise control of the entire pasteurization process takes all the guesswork out of converting manure wastes into healthy and safe bedding for your herd.





# More about Valmetal manure and wastewater management product line

## Wastewater Systems



### Food industry

Our separation systems clean up process water and convert the waste particles into an easy-to-handle solid for sale or disposal. Our modular systems meet the high demands of seasonal harvests, keeping your plant running at full capacity.

## Industrial-Series Pump Systems



The Valmetal line of vertical pit pumps, agitators, and floating pumps are built for the long running hours found in sand lanes or flushing systems. The modular construction makes service fast and easy, keeping your system up and running.



### Digester systems

Valmetal pumps and separators are at work in digester systems around the world. Whether pre-thickening or recovering fibers, our experienced planners work with your contractor to produce the perfect system for your project.

Specifications, descriptions and illustrative material in this literature are as accurate as known at the time of publication, but are subject to change without prior notice. Illustrations may include optional equipment and accessories, and may not include all standard equipment.



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