

May 25, 2022 | 2000-EN-SI-0011

# SALES INFORMATION

# **GEA SlopeScreen<sup>™</sup>**

Available to order beginning June 6<sup>th</sup>, 2022



Image 1. SlopeScreen<sup>™</sup> 96XP

# New all stainless steel modular design adapted to the needs of today's customers

### Performance, reliability, and simplicity.

The reimagined GEA ProManure SlopeScreen<sup>™</sup> has all the historic performance, reliability, and simplicity customers depend on, with the added benefits of improved functionality and increased performance. Digitally verified flow improvements, user-friendly accessibility, enhanced manure containment and adaptable to the ever-changing farm landscape. GEA's SlopeScreen<sup>™</sup> is engineered for sustainable manure management, it is engineered for a better world.





# GEA SlopeScreen™

Since its introduction, the sloped screen has been a staple in manure separation. The screen is engineered to create a gathering effect on the front. This allows manure solids to bind together and slow down as they transition towards the bottom. As these solid bundles grow, they are retained in place longer allowing further moisture reduction. The GEA specific slope design holds these solids with gravity longer than competitive brands. The wedge wire screen is built to GEA specifications, with manure separation in mind.



Image 2. Wedge wire screen built to GEA specifications

The all-stainless steel cabinet is built for longevity. Previous versions were known to work trouble-free for over ten years, and the redesigned version will extend those numbers. The modular design increases manufacturing efficiency allows for more precise construction and creates an easier ordering and stocking process for dealers. This modular design also allows existing customers to upgrade their screen as their needs grow. Using fluid dynamics, the machine inlet and outlet was redesigned for optimal flow performance. The GEA model is the only one on the market with removable screen sections. Our hinged system has been favored in the market. The redesign makes removal and installation even easier. The independent top section is now replaceable with an additional replaceable wear plate at the inlet, making it more user-friendly and extending the service life.



# Markets and Target Groups

### Market trends

- Sustainability The trend of sustainability on dairy and hog farms continues to grow. With circular
  farming crops are grown and harvested, fed to animals for meat and milk production, the manure is
  collected and returned to the soil to provide nutrients for the following year's crop production.
- Recycling Recycling is ever present in agriculture. The GEA SlopeScreen<sup>™</sup> allows the fiber to be
  recycled as soil amendment to aid in water retention. The screen also allows water recycling by cleaning
  up the water. The water can then be used to transport manure from the barn to the collection point. The
  SlopeScreen<sup>™</sup> is also vital to a sand bedding recycling process.
- *Green practices* Separated fiber can be utilized as a source for bedding replacing sawdust, straw, or sand.
- Water Conservation Water is a natural resource that is very difficult to recycle. Water is used on farms for animal consumption, crop growth, and manure collection. The SlopeScreen<sup>™</sup> allows water reuse for manure collection multiple times, and then can be used as a moisture source for growing crops.
- Carbon reduction US agriculture has committed to a 50% reduction in Carbon emissions by 2050. The GEA SlopeScreen<sup>™</sup> can help make this a reality. By removing and reusing water from manure the amount of manure to be transported to the field is greatly reduced. This will result in less fossil fuel consumption.



Image 3. Sand bedding recycling process



Image 4. Fiber bedding for dairy farms

### Target Groups

- Dairy farmers customers needing reliability, affordability, performance, longevity, and professional expertise. Customers that are interested in manure volume reduction and additional separation.
- Other livestock producers operators that need innovative and efficient ways to separate manure and are interested in reducing manure volume and additional separation.
- Commercial animal slaughterhouses and municipal lagoon systems.



# **Customer Benefits**

When separating for water quality the GEA SlopeScreen<sup>™</sup> can remove up to 55% of total solids. This provides additional storage room (estimated to be between 5 and 15%), in the lagoon with minimal effect on the nutrient value of the liquid. Water in the lagoon can then be irrigated or transported to the field for application. The SlopeScreen<sup>™</sup> is well suited for flush systems and scraped farms with a power flume. When used in conjunction with a sand lane, customers can expect to reduce the required water addition to effectively separate sand with limited payback times.

When separating for solids, capturing the solids from the primary separation can be easily managed by an integrated XPress<sup>™</sup> system. The GEA SlopeScreen<sup>™</sup> brings the level of moisture in fiber down to approximately 80%. This is based on performance in optimum conditions. Be aware that performance may vary according to operating conditions, manure type, composition, and other external equipment factors.



Image 5. Manure solid and liquid separation



Image 6. Water in the lagoon can be irrigated to the field

### We offer reliability

A simple design with no moving parts on the SlopeScreen<sup>™</sup> and minimal moving parts on the SlopeScreen<sup>™</sup> XP for easy maintenance which results in reduced TCO. The GEA SlopeScreen<sup>™</sup> will provide consistent material day in and day out, keeping your separation system performing for you.

### We offer low power consumption

The SlopeScreen<sup>™</sup> requires no electrical horsepower. The SlopeScreen<sup>™</sup> XP requires a 1.5hp (1.1kw) motor. The agriculture industry has committed to reducing carbon emissions. Electrical production is one source. Choosing a separation system that consumes little to no horsepower is part of this commitment.



Reducing Carbon Emissions



### We offer longevity

Made entirely of stainless steel and built to last in highly demanding and corrosive environments. In many installations, the GEA SlopeScreen<sup>™</sup> is installed inside a building. In this environment, there are corrosive gases present constantly. The redesigned separator incorporates 304 stainless steel components to maximize equipment life in this environment.



# **Components**

Engineering broke down the construction of the unit into a base section, mid-sections, and a separate top. Users can now select from an 8'X8', 8'X12', and a new 8'X4' version. Dealers can stock the individual pieces and make the unit according to customer specifications at the time of sale, reducing equipment lead times. Because of the design, customers can also adapt their screens to farm changes by upgrading as needed.

### **Redesigned Base Section**

The base of the SlopeScreen<sup>™</sup> has been redesigned for better flow, modularity, and safety. The drain has been redesigned to optimize the flow of the liquid fraction. The unit is now manufactured with all 304 stainless steel, except for the base and rear supports.

The base is constructed for structural integrity and longevity with steel components complete with an isolator between the steel and stainless steel components. This will also allow dealers to position the product safely and easily in its mounting location. Dealer stocking and on-site upgrades are possible due to the unified base. It can be configured with or without the second stage XPress<sup>™</sup> separator.





The new model also features an airbag pressure system. This has been used on the XPress<sup>™</sup> separators for over 10 years and is a customer favorite.

- Safety shields have been integrated into the roller to protect users from the rolling action of the press.
- It also features an owner's manual holder to put the information at the user's fingertips.

The motor mounts were designed to be mounted on either side of the machine depending on user preference. The motor and speed reducer now have a poly shield to protect them from the environment and protect users. The motor mount is constructed of stainless steel for corrosion resistance.

In addition, remote grease lines with longer hoses have been installed. Dealers can place the grease access points at a convenient location to allow easier maintenance.







# GEA SlopeScreen<sup>™</sup>

### Middle section(s)

The middle section of the screen is also constructed with 304 stainless steel. The middle sections can be added to the machine to increase separation performance and capacity. The assembly and removal of the screens were also improved by creating a new screen positioning system. This system eliminates the need for steel rods and makes positioning simple.

We have also removed the rear access doors and placed side access doors to allow visual inspection and cleaning if needed.





### **Top Section**

The top section of the SlopeScreen<sup>™</sup> is now an individual piece. This allows complete replacement of the inlet if necessary. Included with this improvement are the air exhaust and screen positioning lock handles.



Air exhaust on both sides



C

Screen positioning lock handles on both sides of the screen top section



Manure inlet



A wear plate was also added at the inlet. Even when sand bedding is not present there is still mineral and grit in manure. The inlet of the machine can wear down when there is a lot of abrasives in the manure. Adding an easily replaceable wear plate, increases overall machine life and TCO decreases.



This sensor provides accurate readings of the level of solids in the hopper. Unlike mechanical level measurement devices, the laser level sensor is installed away from the slurry to avoid manure accumulation.

Laser level measurement is independent of pressure or temperature variations. Consequently, the speed of light passing through any gaseous medium does not vary. As a result, laser level transmitters offer accurate results with no calibration issues.

Simple to install, it provides quick and accurate responses compared to other alternatives. In addition, the laser allows the rollers to run at a lower RPM during normal operation. When the level of solids is high the speed of the roller will increase for a short time and then return to the lower speed. In case of extreme solids build up the laser will stop the feed pump reducing the risk of overflow.









# **Function**

The GEA SlopeScreen<sup>™</sup> is constructed of all stainless steel. It separates fibrous material from the liquid fraction with outstanding efficiency.

The GEA SlopeScreen<sup>™</sup> is modular. The separation surface can be adapted for different flow rates and animal numbers in the following sizes: 32, 64, and 96 sq ft. (2.97, 5.94, and 8.91 sq m). It can be configured with the screen only or as an XP with the addition of an XPress<sup>™</sup> for additional water capture and drier solids. The unit also allows an on-site configurable drive with left- or right-hand choices.

Depending on the desired level of separation GEA offers the following models and ancillary equipment:

- 8FT X 4FT SlopeScreen<sup>™</sup> 32 or 8FT X 4FT SlopeScreen<sup>™</sup> 32XP with an attached 8FT XPress<sup>™</sup>
- 8FT X 8FT SlopeScreen<sup>™</sup> 64 or 8FT X 8FT SlopeScreen<sup>™</sup> 64XP with an attached 8FT Xpress<sup>™</sup>
- 8 FT X 12FT SlopeScreen<sup>™</sup> 96 or 8FT X 12FT SlopeScreen<sup>™</sup> 96XP with an attached 8FT XPress<sup>™</sup>
- GEA XPress<sup>™</sup> 6 and 8





SlopeScreen<sup>™</sup> 32

SlopeScreen<sup>™</sup> 64

SlopeScreen<sup>™</sup> 96



SlopeScreen<sup>™</sup> 32XP



SlopeScreen<sup>™</sup> 64XP



SlopeScreen<sup>™</sup> 96XP



XPress<sup>™</sup> 6

**Specifics** 

# 6 XPress<sup>™</sup> 8

- 1.5 HP motor (XP) right- or left-hand drive
- Laser level sensor to control roll speed and stop the system in the event of fiber build up
- Automatic washing system (GEA OptiClean<sup>™</sup>) with foaming chemical application system and high-pressure rinse
- Control panel for SlopeScreen<sup>™</sup> XP separators
- Control panel for GEA OptiClean<sup>™</sup>
- Appropriate feed and discharge hardware and plumbing
- Y adapter for the intake

- Electromix agitator to homogenize the material being separated
- An assortment of feeding pumps dependent on the application and required feed rate
- Reception pit monitoring equipment
- Control panels related to the pumps and agitators
- OptiClean<sup>™</sup> payback calculator



# Ordering

Order intake starts on June 6<sup>th</sup>, 2022. That delay allows the dealers to look at the orders already in the pipeline and adjust to the new GEA SlopeScreen<sup>™</sup> model if wished.

### Price List

GEA SlopeScreen™			
GEA SlopeScreen™			
2019-8000-040	SlopeScreen™ 96 12" drain with normalized flange and anchor plates to be welded by customer included. The SlopeScreen™ 96 can process the manure from a maximum of 1200 to 2000 cows daily.		
2019-8000-030	SlopeScreen™ 64 12" drain with normalized flange and anchor plates to be welded by customer. The SlopeScreen™ 64 can process the manure from a maximum of 1200 to 1500 cows daily.		
2019-8000-020	SlopeScreen™ 32 12" drain with normalized flange and anchor plates to be welded by customer. The SlopeScreen™ 32 can process the manure from a maximum of 800 to 1200 cows daily.		
	GEA SlopeScreen™ XP		
2019-8000-070	SlopeScreen <sup>™</sup> 96XP 1 rubber roller, 1 stainless steel roller, SlopeScreen <sup>™</sup> , 12" drain with normalized flange & anchor plates to be welded on customer structure included - 1½ HP motor not included. The SlopeScreen <sup>™</sup> 96XP can process the manure from a maximum of 1200 to 2000 cows daily.		
2019-8000-060	SlopeScreen <sup>™</sup> 64XP 1 rubber roller, 1 stainless steel roller, SlopeScreen <sup>™</sup> , 12" drain with normalized flange & anchor plates to be welded on customer structure included - 1½ HP motor not included. The SlopeScreen <sup>™</sup> 64XP can process the manure from a maximum of 1200 to 1500 cows daily.		
2019-8000-050	SlopeScreen <sup>™</sup> 32XP 1 rubber roller, 1 stainless steel roller, SlopeScreen <sup>™</sup> , 12" drain with normalized flange & anchor plates to be welded on customer structure included - 1½ HP motor not included. The SlopeScreen <sup>™</sup> 32XP can process the manure from a maximum of 800 to 1200cows daily.		
	Accessories and options		
2019-7602-270	Laser sensor 2 levels with guard (Option for the SlopeScreen™ XP) First level controls the roller press speed-Second level stops the system to prevent fiber buildup.		
2019-7602-290	Y adapter intake for a 8" notched disc and stone drain valve with 6" hose adapter for SlopeScreen™ 96 & 64		
2019-7602-280	Y adapter intake for a 8" notched disc and stone drain valve with 6" hose adapter for SlopeScreen™ 32		
2019-8000-080	OptiClean - not compatible with a SlopeScreen™ 32		
	Control Panels for the OptiClean™ (requires a control & starter panel)		
2019-2904-050	Control Panel for the OptiClean™		
2019-2903-050	Starter panel - 3/4 HP - 220/240V AC - 1 phase 50/60Hz		
2019-2904-070	Starter panel - 3/4 HP - 200/208V AC - 3 phases 50/60Hz		
2019-2903-140	Starter panel - 3/4 HP - 220/240V AC - 3 phases 50/60Hz		
2019-2911-400	Starter panel - 3/4 HP - 380/415V AC - 3 phases 50/60Hz		
2019-2903-270	Starter panel - 3/4 HP - 460/480V AC - 3 phases 60Hz		
2019-2903-420	Starter panel - 3/4 HP - 550/600V AC - 3 phases 60Hz		



	60Hz "Baldor" electric motor for a SlopeScreen™XP	
2005-2900-740	1½ HP - 1 phase - 115/208/230V	
2005-2900-470	$1\frac{1}{2}$ HP - 3 phases - 230/460V (Manufacturer specifies that the motor can also be connected to 208V)	
2005-2905-090	1½ HP - 3 phases - 575V	
	Control Panels with frequency drive for the SlopeScreen™ XP	
2019-2901-180	Control Panel - 220V@240V - 1 phase - 50/60Hz	
2019-2901-190	Control Panel - 200V@208V - 3 phases - 50/60Hz	
2019-2901-200	Control Panel - 220V@240V - 3 phases - 50/60Hz	
2019-2901-210	Control Panel - 380V@415V - 3 phases - 50/60Hz	
2019-2901-220	Control Panel - 460V@480V - 3 phases - 60Hz	
2019-2901-170	Control Panel - 550V@600V - 3 phases - 60Hz	
	GEA SlopeScreen™+ XPress™	
	GEA SlopeScreen™	
2019-8000-040	SlopeScreen <sup>™</sup> 96 12" drain with normalized flange and anchor plates to be welded by customer included. The SlopeScreen <sup>™</sup> 96 can process the manure from a maximum of 1200 to 2000 cows daily.	
2019-8000-030	SlopeScreen™ 64 12" drain with normalized flange and anchor plates to be welded by customer. The SlopeScreen™ 64 can process the manure from a maximum of 1200 to 1500 cows daily.	
2019-8000-020	SlopeScreen™ 32 12" drain with normalized flange and anchor plates to be welded by customer. The SlopeScreen™ 32 can process the manure from a maximum of 800 to 1200 cows daily.	
	GEA SlopeScreen™ XP	
2019-8000-070	SlopeScreen <sup>™</sup> 96XP 1 rubber roller, 1 stainless steel roller, SlopeScreen <sup>™</sup> , 12" drain with normalized flange & anchor plates to be welded on customer structure included - 1½ HP motor not included. The SlopeScreen <sup>™</sup> 96XP can process the manure from a maximum of 1200 to 2000 cows daily.	
2019-8000-060	SlopeScreen™ 64XP 1 rubber roller, 1 stainless steel roller, SlopeScreen™, 12" drain with normalized flange & anchor plates to be welded on customer structure included - 1½ HP motor not included. The SlopeScreen™ 64XP can process the manure from a maximum of 1200 to 1500 cows daily.	
2019-8000-050	SlopeScreen <sup>™</sup> 32XP 1 rubber roller, 1 stainless steel roller, SlopeScreen <sup>™</sup> , 12" drain with normalized flange & anchor plates to be welded on customer structure included - 1½ HP motor not included. The SlopeScreen <sup>™</sup> 32XP can process the manure from a maximum of 800 to 1200 cows daily.	
	Accessories and options	
2019-7602-270	Laser sensor 2 levels with guard for the SlopeScreen™ XP First level controls the roller press speed-Second level stops the system to prevent fiber buildup	
2019-7602-290	Y adapter intake for a 8" notched disc and stone drain valve with 6" hose adapter for SlopeScreen™ 96 & 64	
2019-7602-280	Y adapter intake for a 8" notched disc and stone drain valve with 6" hose adapter for SlopeScreen™ 32	
2019-8000-080	GEA OptiClean™ - not compatible with a SlopeScreen™ 32	



	Control Panels for the OptiClean™ (requires a control & starter panel)
2019-2904-050	Control Panel for the OptiClean™
2019-2903-050	Starter panel - 3/4 HP - 220/240V AC - 1 phase 50/60Hz
2019-2904-070	Starter panel - 3/4 HP - 200/208V AC - 3 phases 50/60Hz
2019-2903-140	Starter panel - 3/4 HP - 220/240V AC - 3 phases 50/60Hz
2019-2911-400	Starter panel - 3/4 HP - 380/415V AC - 3 phases 50/60Hz
2019-2903-270	Starter panel - 3/4 HP - 460/480V AC - 3 phases 60Hz
2019-2903-420	Starter panel - 3/4 HP - 550/600V AC - 3 phases 60Hz
	Control Panels with frequency drive for the SlopeScreen™ XP
2019-2902-090	Control Panel - 220V@240V - 1 phase - 50/60Hz
2019-2902-100	Control Panel - 200V@208V - 3 phases - 50/60Hz
2019-2902-110	Control Panel - 220V@240V - 3 phases - 50/60Hz
2019-2902-120	Control Panel - 380V@415V - 3 phases - 50/60Hz
2019-2902-130	Control Panel - 460V@480V - 3 phases - 60Hz
2019-2902-140	Control Panel - 550V@600V - 3 phases - 60Hz
	GEA XPress™and accesories
2019-8000-000	XPress™ 6 (secondary) - straight adapter 6" circle lock to 6" hose, 1½ HP electric motor not included
2019-7602-060	72" stainless steel chute with spray bar - required with the XPress™ 6
2019-8000-010	XPress™ 8 (secondary) - straight adapter 6" circle lock to 6" hose, 1½ HP electric motor not included
2019-7602-250	96" stainless steel chute with spray bar - required with the XPress™ 8
2019-7602-260	Stand for GEA SlopeScreen™ combined with an XPress™ 6 or 8
2019-8079-010	Laser sensor 2 levels First level controls the roller press speed-Second level stops the system to prevent fiber buildup.
	60Hz "Baldor" electric motor for the SlopeScreen™ XP and XPress™
2005-2900-740	1½ HP - 1 phase - 115/208/230V
2005-2900-470	$1\frac{1}{2}$ HP - 3 phases - 230/460V (Manufacturer specifies that the motor can also be connected to 208V)
2005-2905-090	1½ HP - 3 phases - 575V
	Control Panels with frequency drive for XPress™
2019-2901-160	Control Panel - 220V@240V - 1 phase - 50/60Hz
2019-2901-150	Control Panel - 200V@208V - 3 phases - 50/60Hz
2019-2902-000	Control Panel - 220V@240V - 3 phases - 50/60Hz
2019-2902-010	Control Panel - 380V@415V - 3 phases - 50/60Hz
2019-2902-020	Control Panel - 460V@480V - 3 phases - 60Hz
2019-2902-030	Control Panel - 550V@600V - 3 phases - 60Hz





### **SalesPlus**

GEA SlopeScreen<sup>™</sup> is available in sales plus as a whole good. After logging in and starting a new equipment quote, enter the part number in the search engine field to begin the quotation. When ordering by parts, the person ordering must understand the possible configurations and order the parts necessary to complete the desired configuration. Refer to the price list.

Home Logoff Settings Legal documents Imprint & Cookies Help User: Quotations Customer Dealer Calendar Order Status Parts/Info System Maintenance	GEA	GEA Farm Technologies
Search         Express         LTL         General Transport         Pièce en attente           Select Dealer		
Product Catalog Search	Detail search	
Stats       Instatation Systems         Iodine Teat Dips others       Iodine Teat Dips others         Farm Equipment       Barn Supplies Floor Coverings others         Global/unspecific Parts       Spare Parts Milting Equipment         Spare Parts Farm Equipment       Spare Parts Farm Equipment         Services       Tools/Marketing (for Dealers/Subsidiaries)         Elements which can not be assigned       Iodina Parts Part		

### Order Forms

GEA SlopeScreen<sup>™</sup> can also be ordered using the Order Form available from the dealer web site.

PA-19240-EN -GEA SlopeSceen.pdf



# FAQ's

### What size of screen should I order?

The size of screen is dependent of the number of cows, the amount of water added to the system and the process time. Consult the price list for cow numbers.

### Why do I need to remove the screen sections?

Over time screens can build up with soil, even with manual cleaning. By removing the screens and cleaning the back side the operator can keep the SlopeScreen<sup>™</sup> performing at optimum rates. An automated wash system will reduce the need for this maintenance step. If the material to be separated changes the user can change the screen sections to match the material. If there are a lot of abrasives going through the system, the user can replace the screens as needed.

### Why was the motor and drive mount system changed on the machine?

Depending on the application users can prefer a right- or left-hand drive. In the past this was a preplanning step. By redesigning the motor mount, the user can adapt the machine on site. The motor is also now shielded from debris and in a position for easier maintenance.

### Why is the SlopeScreen<sup>™</sup> designed in segments?

By modularizing the SlopeScreen<sup>™</sup>, users can now adapt to changing cow numbers, conditions on-site, and changing needs. The SlopeScreen<sup>™</sup> can grow with the farm.

### What kind of stainless steel is the SlopeScreen™ made of?

GEA screens have always had stainless components. However, to extend the life of the SlopeScreen<sup>™</sup> in harsh environments we have made it entirely 304 stainless. The only parts that are made in regular steel are the base frame and the rear supports and the SlopeScreen<sup>™</sup> has been equipped with isolators for these parts. The configuration of these materials is not available in stainless.

### What kind of maintenance should I expect with a SlopeScreen™?

Screens work in harsh environments. In manure and the associated gasses material can build-up and the water used can contain minerals. To keep the SlopeScreen<sup>™</sup> functioning at full capacity it needs to washed daily with high pressure. Users can also use chemicals to aid in the removal of the build-up. GEA offers the OptiClean<sup>™</sup> system to remove the labor portion of this maintenance.

### Why was the SlopeScreen<sup>™</sup> converted to an airbag pressure system?

The original design of the sloped screen used lever pressure to obtain the desired dry matter. After the introduction of the airbag system on the GEA XPress<sup>™</sup> dealers requested that the SlopeScreen<sup>™</sup> be upgraded to this style of compression. This conversion also contributes to the modularity of the unit.



### How do I determine the maintenance schedule required?

For any maintenance or service questions the user should consult the owner's manual.

### How many cows can a SlopeScreen<sup>™</sup> handle?

This answer will change regionally. In areas where there is colder temperatures and minimal water addition GEA recommends a maximum of 1200 cows. In areas with milder temperatures and maximum water addition this number may be increased.

### How many gallons per minute can the SlopeScreen<sup>™</sup> process?

This answer will also vary regionally and relies heavily on the amount of fresh water added. For an accurate estimate of the flow, dealers should consult with their sales specialists or sales support person.

# **Trainings**

The GEA SlopeScreen<sup>™</sup> sales training presentation has been updated according to this new update.

# **Sales Promotion**

GEA SlopeScreen™ brochure - 2019-4815-270

SLOPESCREEN	тм
GEA SlopeScreen <sup>TM</sup> is the key component to effective manure separation. Independently managing the solidis and liquids gives you the flexibility to determine the best way to use them.	
	GEA.com

If you have additional questions, please contact your GEA ProManure Sales Specialist.

#### **GEA North America**

GEA Farm Technologies, Inc. 1385 N. Weber Road, Romeoville, IL 60446 Toll Free: 1.877.WS.DAIRY or 1.877.973.2479 GEA Farm Technologies Canada Inc. 4591 boulevard St-Joseph, Drummondville, QC J2A 0C6 Toll Free: 1.877.WS.DAIRY or 1.877.973.2479

gea.com



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# SALES INFORMATION

# GEA OptiClean<sup>™</sup>

Available to order beginning June 6<sup>th</sup>, 2022



Image 1. SlopeScreen<sup>™</sup> 96XP fitted with GEA OptiClean<sup>™</sup>

# Complete automatic cleaning system for GEA SlopeScreen™

# To get the maximum performance out of the GEA SlopeScreen™

Designed with the user in mind, the OptiClean<sup>™</sup> uses pressurized water to remove fiber and includes an integrated chemical system to remove minerals and soil. Programable for site-specific conditions, the OptiClean<sup>™</sup> allows users to take full advantage of their investment, extends equipment life, and reduces labor.





# Introduction

As part of the ProManure<sup>™</sup> separation family, the sloped screen has been a staple in manure wastewater recycling for over 25 Years. Used throughout the world, this product offers years of fiber removal with minimal maintenance. The sloped screen typically required frequent washing to maintain peak performance. The minerals found in water and manure could create build up that would inhibit its performance. The GEA OptiClean<sup>™</sup> tackles these challenges with autonomous technology.

The OptiClean<sup>™</sup> uses pressurized water to remove fiber and includes an integrated chemical system to remove minerals and soil. Programable for site-specific conditions, the OptiClean<sup>™</sup> allows users to take full advantage of their investment, extends equipment life, and reduces labor. The user can easily adjust the frequency and duration of rinses, washes, and contact times with the included controller. The GEA OptiClean<sup>™</sup> compliments the water treatment system popular on many farms today. It creates minimal water addition to help conserve a natural resource and limit additional costs associated with disposal.





# **Markets and Target Groups**

Water conservation is gaining popularity around the world. Recycling this natural resource is a focus for many of today's agricultural producers. The need and requirements for water recycling and conservation will continue to increase. These requirements will place additional stress on agricultural producers with limited ways to recoup the investment. Dairy, Pig, and Beef producers will continue to focus attention and investment on profitable strategies for recycling water. Focused on Europe, Canada, and the United States currently, global demand for this type of system will grow in the coming years. The GEA SlopeScreen<sup>™</sup> can be used in these applications as a source for primary separation prior to further treatment.

# **Customer Benefits**

By utilizing water recycling technologies, the end-user invests less money in hauling that water, takes full advantage of the recycling process, and helps conserve a valuable resource. History has shown that frequent washing of separators leads to increased functionality, flow, and overall performance. The OptiClean<sup>™</sup> allows the smooth flow of liquid that indicates maximum performance by keeping fiber from accumulating on the wedge-wire screen.

Manure contains many minerals, nutrients, and micronutrients. These components can lead to build-up that reduces the flow and limits the capture rate. Utilizing an acid-based foaming cleaner, the OptiClean<sup>™</sup> allows users to take the utmost advantage of their investment.



Image 2. Frequent washing of a SlopeScreen<sup>™</sup> leads to increased functionality.



Image 3. Utilizing an acid based foaming cleaner to take the utmost advantage of your investment.

GEA Foam Glo SF<sup>™</sup> is a high foaming acid stainless steel cleaner and brightener that can be used to clean GEA SlopeScreen<sup>™</sup>.



The OptiClean<sup>™</sup> can easily be adjusted to each specific installation. When installing on new equipment, chemical use is set to a minimum. If there are heavy minerals present users can easily increase the washing frequency to keep the GEA SlopeScreen<sup>™</sup> performing to the utmost capacity. When installing on existing installations, the washer can be set to remove existing soils. Once the washer has returned the sloped screen to optimum conditions the user can reduce the frequency to those like a new installation. By optimizing the cleanings, chemical use is kept to a minimum. Dealers can schedule inspections after installation to ensure the screen is washing correctly for optimum performance.

In any manure separation system, there are two key components, throughput, and quality. The GEA SlopeScreen<sup>™</sup> already offers best-in-class throughput. The GEA OptiClean<sup>™</sup> ensures that this throughput is optimized throughout the life of the screen.

### A complete, functional, and adjustable system

The GEA OptiClean<sup>™</sup> performs each wash and rinse of your SlopeScreen<sup>™</sup> with precision. With the integrated panel users can easily adjust the operating parameters according to their farm. By integrating a wash cycle into a high-pressure rinsing system, the OptiClean<sup>™</sup> removes soil from the front and internal compartments of the screen to keep operating capacity to a maximum without sacrificing water quality



Image 4. GEA OptiClean on GEA SlopeScreen

# A full wash system compared to a high-pressure rinse only

Existing systems on the market offer a highpressure rinse only. The GEA OptiClean<sup>™</sup> is a complete washing system like those found in bulk tanks and milking parlors. The screen gets a highpressure rinse, followed by the application of foaming acid, then the OptiClean<sup>™</sup> allows contact time, and finally the screen is rinsed free of debris and soil. Screens are designed for water to flow down, the OptiClean<sup>™</sup> rinses from side to side, this motion ensures optimal soil removal.



Image 5. Back of the screen once cleaned



### Ability to adjust the system according to the soil level

Soil levels can change that's why the GEA OptiClean<sup>™</sup> is designed to change too. Users can easily adjust the frequency and duration of cycles. The system can rinse numerous times daily. It can also be adjusted to apply acid as often as needed.



Image 6. GEA OptiClean™ control

### Variable timing to work on your farm

You, your animals, and your farm are on-duty 24/7. The GEA OptiClean<sup>™</sup> is no different. Ready to work all day, any day, the washer can be adjusted to function at the optimum time. When the milking parlor is down for cleaning the washer can be programmed to perform it's wash concurrently.

### An Integrated, user-friendly control panel

The farm is full of jobs that need done, the GEA OptiClean<sup>™</sup> helps make one of those jobs easier. Let the OptiClean<sup>™</sup> keep your screen clean and performing well. If adjustments are needed the washer can be adapted with a few simple steps, all at the end of your fingertips.

# Stainless steel and other corrosion resistant parts for longevity

The entire body of the OptiClean<sup>™</sup> is made of stainless steel. The moving components are all specialized materials designed to last in corrosive environments, including manure.



Image 7. GEA OptiClean™ works any day,



Image 8. GEA OptiClean™ control panel



Image 9. GEA OptiClean™ is made of stainless steel



### Easily integrated into existing systems

The GEA OptiClean<sup>™</sup> was designed to be added to an existing system. The mounting locations can be found on the redesigned GEA SlopeScreen<sup>™</sup> as well as previous models of the Sloped Screen. If you would like to put the GEA OptiClean<sup>™</sup> to work for you adaptation is simple and quick.

# Added capacity and increased effluent water quality

It's no surprise, manure causes soil build-ups, fiber accumulation, and mineral deposits. It's just plain dirty. When your screen accumulates soil, the capacity is reduced, and water quality suffers. Adding a GEA OptiClean<sup>™</sup> eliminates the need for manual washing and reduces the use of harsh chemicals.

### Reduced Total Cost of Ownership (TCO)

TCO, it's what makes or breaks your business. The redesigned GEA SlopeScreen<sup>™</sup> is built to put up with years of abuse. By adding the GEA OptiClean<sup>™</sup> to the system:

- Maintenance time is reduced
- Water quality is improved
- You avoid the use of harsh cleaners
- Solids are collected more efficiently
- Profits go up, life gets easier



Image 10. GEA OptiClean™ easily integrated into existing system



Image 11. GEA OptiClean™ eliminates the need of manual washing



Image 12. New and existing installations can take advantage of the GEA OptiClean<sup>™</sup>



# **Components**

The GEA OptiClean<sup>™</sup> is an optional piece of equipment that can be added to any GEA screen. Derived from the wastewater industry it is comprised of components meant to withstand the conditions found in waste recycling. Made of durable stainless steel and poly components, the OptiClean<sup>™</sup> is specifically designed to last. The OptiClean<sup>™</sup> has 48 pressurized nozzles designed to remove fiber and 23 foaming nozzles designed to completely cover the screen in cleaning chemical.

The endless movement of the OptiClean<sup>™</sup> requires very few moving parts. The components that do move are time tested in DAF applications. Included with the OptiClean<sup>™</sup> is an adjustable, user-friendly control panel.



Image 12. 48 pressurized nozzles and 23 foaming nozzles

# **Function**

Frequent washing of screens leads to increased functionality, flow, and overall performance. By keeping fiber from accumulating on the wedge-wire screen, the OptiClean<sup>™</sup> allows the smooth flow of liquid that indicates maximum performance.



- At a preset time during the day the OptiClean<sup>™</sup> will shut down the feed pump, make a pass over the screen using the angled nozzles to carry material stuck on the screen to one side.
- The return pass allows the OptiClean™ to move any fiber still on the screen back to the other side.
- During the third pass the foaming nozzles apply an acidic cleaner that works to remove the soil and mineral accumulation. After applying the acid solution, the OptiClean™ rests for a predetermined time, allowing the acid to do its work.
- The OptiClean<sup>™</sup> makes an additional pass to remove the material the acid has loosened. After returning to its starting position, the OptiClean<sup>™</sup> shuts down and restarts the feed pump completing the cycle.

1

3



# **Specifics**

The GEA OptiClean<sup>™</sup> comes ready to install on any GEA screen. It is recommended that the control panel be installed in an environment free of corrosive gas with adequate ventilation. Dealers/Subsidiaries must separately purchase a pressure pump and foam supply pump. Adequate water, electrical, housing, and ventilation must be available.

- GEA OptiClean™
- Available control panel with easy to program HMI
- GEA OptiClean<sup>™</sup> payback calculator
- Electrical and plumbing schedule

# Ordering

Order intake starts on June 6<sup>th</sup>, 2022. This delay allows dealers to look at the GEA SlopeScreen<sup>™</sup> orders in the pipeline and adjust to include GEA OptiClean<sup>™</sup> if desired.

### Price List

The GEA OptiClean™ System is not compatible with SlopeScreen™ 32 and 32XP (screen dimensions of 8' x 4').

GEA SlopeScreen				
2019-8000-080	GEA OptiClean™ System			

### **SalesPlus**

The GEA OptiClean<sup>™</sup> is available in sales plus as a whole good. After logging in and starting a new equipment quote, enter the part number in the search engine field. Refer to the price list.

Home Logoff Settings Legal documents Imprint & Cookies Help User: BEAULEU.MA	GEA					
Quotations Customer Dealer Calendar Order Status Parts/into System Maintenance						
Search Express LTL General Transport Pièce en attente						
Select Dealer 1809999 TEST - SALES PLUS						
Product Catalog Search Search in Gén. / non spécif général/divers V	Detail search					
Start - Equipement de ferme - Equipement de ferme Gén. / non spécif Search - Search						
Search " 2019-8000-080 "						
Equipement de ferme - Nettoyeur d'étable						
2019-8000-080 517.999 LB PC OPTION: OPTICLEAN						
DGR CA5						

Order forms

PA-19240-EN -GEA SlopeSceen.pdf





# FAQ's

What type of chemical should I use in the GEA OptiClean™ system?

The amount and type of soil can vary greatly. From our trials, GEA recommends starting with GEA Foam Glo SF<sup>™</sup>, a mild foaming acid cleaner for stainless steel.

### How much fresh water does the GEA OptiClean<sup>™</sup> add to my manure system?

This question must be answered on a site-by-site basis. On a per cycle basis the washer uses approximately 70 gallons on a wash cycle and 40 gallons on a rinse cycle. Using these amounts and an estimated number of cycles daily, a total annual consumption can be calculated. For example:

 3 rinse cycles and 1 wash cycle daily Hauling cost of \$0.015 per gallon Cost to haul annually = <u>\$1,040.25</u>.

### What is the annual cost of cleaning chemicals?

This question must be answered on a site-by-site basis. On a per cycle basis the GEA OptiClean<sup>™</sup> uses approximately 18 ounces of Foam Glo at an estimated cost of \$0.40/ounce. One wash cycle daily will cost approximately \$7.20.

### Does GEA supply a pressure pump and chemical pump?

At this time, we have chosen to provide specs only within this document as most customers will have suppliers they work with for these products. Sales Specialists will have information on potential suppliers. If customers prefer that GEA provides them with an option, we will adapt to the situation.

### Can I use GEA OptiClean™ on an existing sloped screen?

Yes, the GEA OptiClean<sup>™</sup> was designed to fit pre 2022 screens as well as the 2022 redesigned SlopeScreen<sup>™</sup>. However, the OptiClean<sup>™</sup> only works with GEA screens.

### What results can I expect from the GEA OptiClean™?

Results will vary. It is recommended to thoroughly clean existing Sloped Screens prior to installation. In-field test results have shown impressive abilities of the OptiClean<sup>™</sup> to clean up existing screen installations. Your sales specialist will have access to the photos with complete data. For new installations you should expect the washer to keep the screen performing near factory specifications. Depending on the installation, GEA recommends periodic inspection of the screen and interior. Increasing the frequency of the wash cycle may be required.

### Why should I invest my money in the GEA OptiClean™?

The GEA OptiClean<sup>™</sup> offers tremendous benefits in maintaining the performance of the screen. When proposing an OptiClean<sup>™</sup> to a customer the TCO must be calculated individually. Calculating TCO involves figuring initial investment, operating cost, and chemical costs. Then machine throughput must be analyzed, savings from reduced labor and reduced chemical costs, and machinery lifetime considered.





# **Trainings**

The GEA OptiClean<sup>™</sup> is included in the updated SlopeScreen<sup>™</sup> training presentation.

# **Sales Promotion**

GEA OptiClean is included in the SlopeScreen brochure - 2019-4815-270



If you have additional questions, please contact your GEA ProManure Sales Specialist.

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