

STRAIGHTFORWARD, SIMPLE SCREENING



PAGE 4 **HISTORY:**
EBM Manufacturing

PAGE 4 **GENTLE ROLL™:**
The Good Stuff

PAGE 11 **PLUS:**
Gentle Roll™, Life in Pictures

Gentle Roll™



EBM Manufacturing

877.370.4948

402.370.4949

Fax: 402.371.9117

sales@ebmmanufacturing.com

www.gentleroll.com

www.ebmmanufacturing.com

Tiffany Palmer

Sales & Marketing Director

c: 402.649.8146

tiffany@ebmmanufacturing.com

Scott Sanne

Sales

c: 402.649.6229

scott@ebmmanufacturing.com





Contents

EBM Manufacturing History	4
Gentle Roll™ Overview	4
Gentle Roll™ Options & Accessories	5
Gentle Roll™ Drum Design	6
Gentle Roll™ Capacity	7
Gentle Roll™ Screen Configurations	8
Aspirator	9
Sidewinder	10
Gentle Roll™ Portfolio	11
Test Lab	19



Gentle Roll™ MOBILE SCREENER



The Gentle Roll™ mobile screener has all of the qualities and options of the standard Gentle Roll™ screener, but its mobility allows for use at multiple locations. The Gentle Roll™ mobile screener is most commonly used to separate mixed grains, but can be used to clean grain as well.



(877) 370-4948 | www.gentleroll.com

Successful Applications

Aquatic feed

Barley

Beet pulp pellets

Bird food

Cracked corn

Crumbles

Edible beans

Feed pellets

Fertilizer

Minerals

Peas

Pet food

Popcorn

Range cubes

Rubber

Salt

Soybeans

Textured feed

Whole corn

Wood pellets

Gentle Roll™ STRAIGHTFORWARD, SIMPLE SCREENING



www.gentleroll.com

Norfolk, Nebraska

(877) 370-4948



EBM Manufacturing History

EBM Corporation can trace its beginning to 1976 when Clayton Ellsworth founded the company in Tilden, Nebraska. His son, Guy Ellsworth, joined him in the early 1980's and they moved the company to Norfolk, Nebraska. In 2012, Andrew Ellsworth followed in his grandfather and father's footsteps and started working full-time at EBM Manufacturing.

Our dedication and expertise has propelled us to be one of the most successful and respected companies in the screening industry.



The Gentle Roll™

The Gentle Roll™ screener is known for its quality, efficiency, and reliability. Unlike other cleaners, the Gentle Roll™ uses a gentle rolling action to move the product through a non-vibrating, rotary drum assembly.

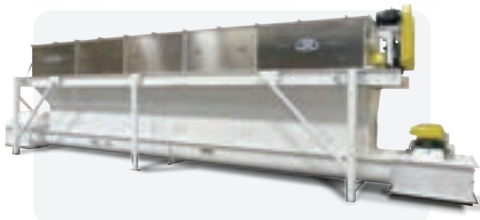
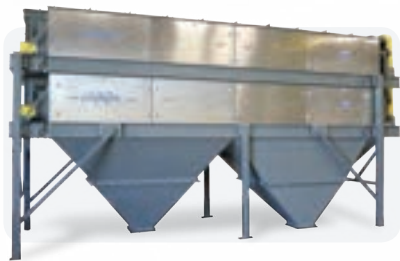
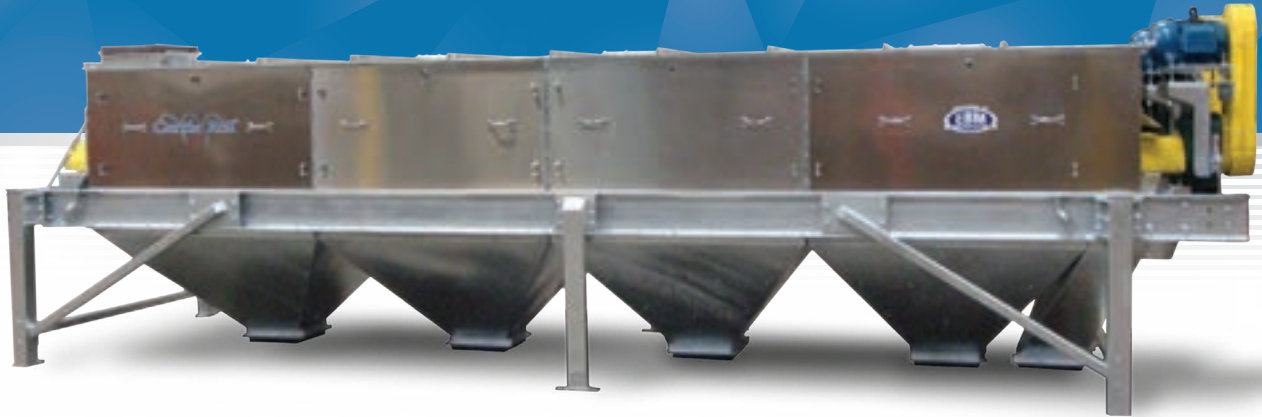
The demand for high-quality products continues to grow. In today's expanding markets, it is essential to have the right

equipment with first-rate capabilities in order to meet high-quality standards.

You can gain a competitive edge by making your product quality stand out. The time-proven reliability and quality of the Gentle Roll™ make it the perfect solution for all your screening needs.

Gentle Roll™ Advantages

- Non-Vibrating
- Low Maintenance
- Easy Screen Inspection and Replacement
- Fully Enclosed
- Multiple Level Design
- Gentle Product Handling
- Excellent Dust Control
- Wide Range of Capacities
- Time-Proven Screening Efficiency, Capacity and Reliability



Gentle Roll™ Options & Accessories

Combined or Customized Discharges

- Combined discharges - reduces spouting/conveying needs
- Offset or customized hopper discharges for a better fit

Rotary Brushes

Rotary Brushes counter rotate against the screen, to keep the screens from blinding.

Valve Gates

A two-way valve assembly, consisting of a valve under each screen and mounted under the Gentle Roll™ frame. Diverts product to the right or left of the opening, and is directly connected to either one EBM Sidewinder™ conveyor or two separate conveyors. Air operated or manual gates available.

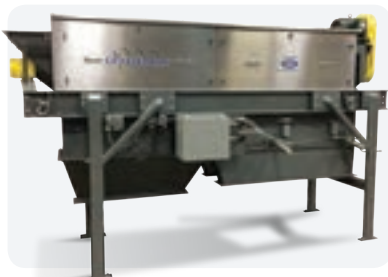
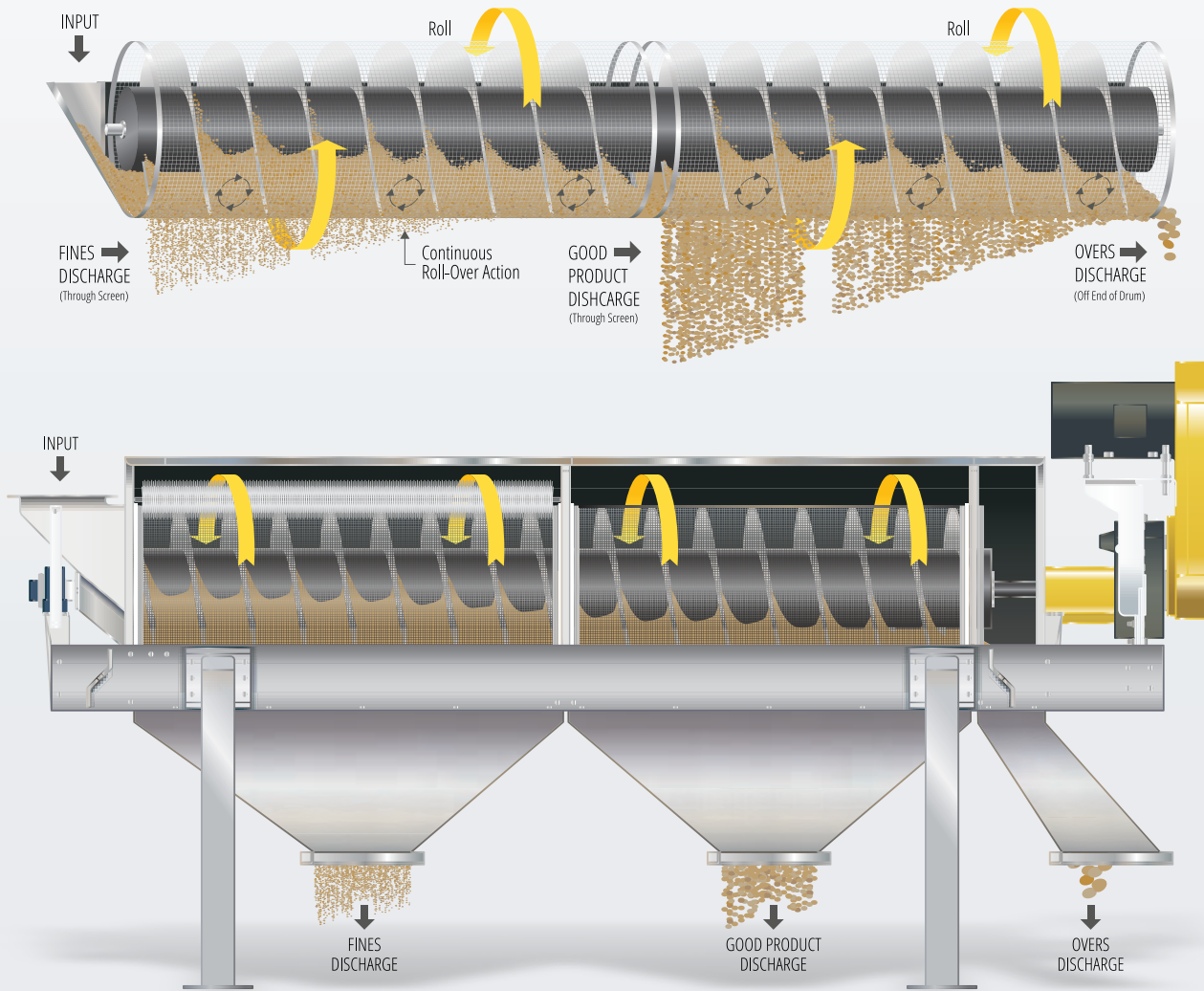
Sidewinder™ Belt Conveyor

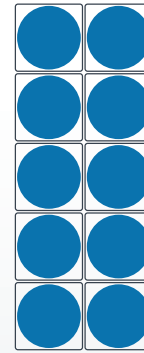
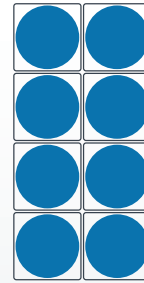
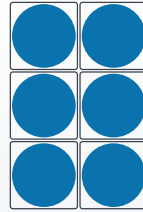
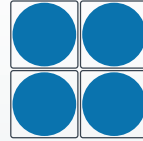
A belt drag conveyor that conveys product in two directions at the same time.

- Used in conjunction with the valve assembly
- Great for fragile products
- Round or flat bottom
- Flexible design
- Reduces the number of discharges to (2)

Drum Design

The Gentle Roll™ uses simple gravity and mild centrifugal force to screen product. The flights extend to the edge of the screen. The drum and screen rotate together as one assembly to prevent the drum from grinding the product. Screening efficiency is maximized at 25 sq ft of screening area per section.





DRUMS	1	2	4	6	8	10
Bu/Hr	1,500	3,000	6,000	9,000	12,000	15,000
Cu Ft/Hr	1,900	3,800	7,600	11,400	15,200	19,000
M ³ /Hr	53	106	212	318	424	530
Tons/Hr	43	86	171	256	324	428
Mtons/Hr	39	78	156	234	312	390

Based on dry, free-flowing product, with a bulk density of 45lbs/ft³ or 720 kg/m³ at 1900 cuft/hr per drum.

Capacity

The Gentle Roll™ is designed to handle a variety of capacities. Each drum is rated for a specific capacity based on material characteristics (i.e. 1900 cuft/hr for dry-free flowing product to 1300 cuft/hr or less for poorer flowing material). When the application requires a greater capacity, drums are stacked in pairs up to five levels for a total capacity of 19,000 cuft/hr or 15,000 bph. The capability to stack drum units maintains screening efficiency at higher volumes.

Note: When using a multiple drum unit, each drum is powered individually allowing an operator to partially shutdown for maintenance to minimize downtime.



Screen Configurations

The Gentle Roll™ offers a wide range of models and configurations. The flexibility of the design allows you to remove fines, overs, fines & overs, or separate by size. Screen configurations range from one to five screen sections and are determined by the end goal and application.

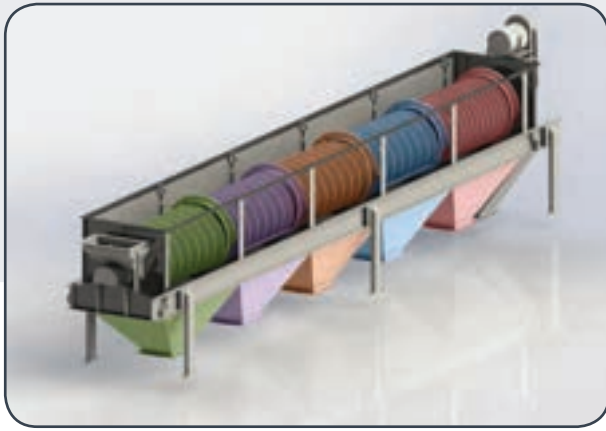
Common screen configurations include:

Fine Particle Removal:
1 - 3 Screens

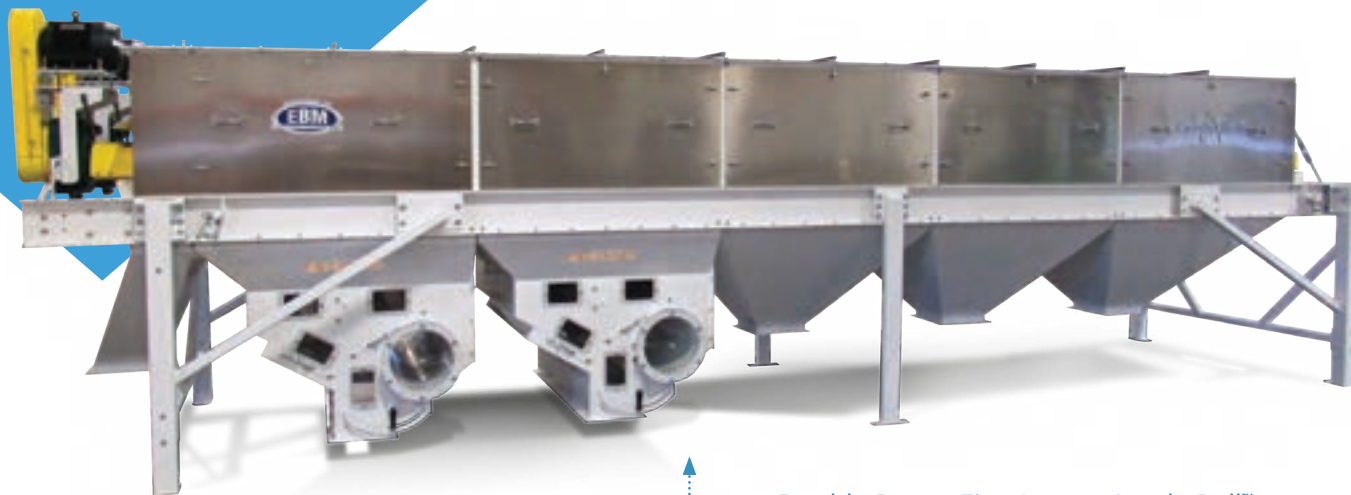
Scalping:
2 Screens

Fine Particle Removal and Scalping:
4 - 5 Screens (2 - 3 to remove fines and 2 to scalp)

Grade Sizing: 1 - 5 Screens depending upon the application and goal



	One Screen	Two Screen	Three Screen	Four Screen	Five Screen
Single Drum	24S-1	24S-2	24S-3	24S-4	24S-5
Double Drum	24D1-1	24D1-2	24D1-3	24D1-4	24D1-5
Four Drum	24D2-1	24D2-2	24D2-3	24D2-4	24D2-5
Six Drum	24D3-1	24D3-2	24D3-3	24D3-4	24D3-5
Eight Drum	24D4-1	24D4-2	24D4-3	24D4-4	24D4-5
Ten Drum	24D5-1	24D5-2	24D5-3	24D5-4	24D5-5



Double Drum, Five Screen Gentle Roll™ with two EBM aspirators.

EBM Manufacturing ASPIRATOR

The single-pass, closed-circuit EBM Manufacturing Aspirator utilizes air to remove fines, dust, and lightweight material. It is best suited for small grains including, rice, wheat, barley, and oats, but may be applied to a number of different products. The aspirator can be used after the screening process in conjunction with the Gentle Roll™ screener or as a stand-alone.

When foreign material cannot be removed because its size and shape are similar to the product being screened, then using air to separate it by density is an alternate solution.



The EBM aspirator allows air to pass through the product flow at a rate calculated to remove lightweight material — which includes, but is not limited to dust, chaff, hulls and bees wings.

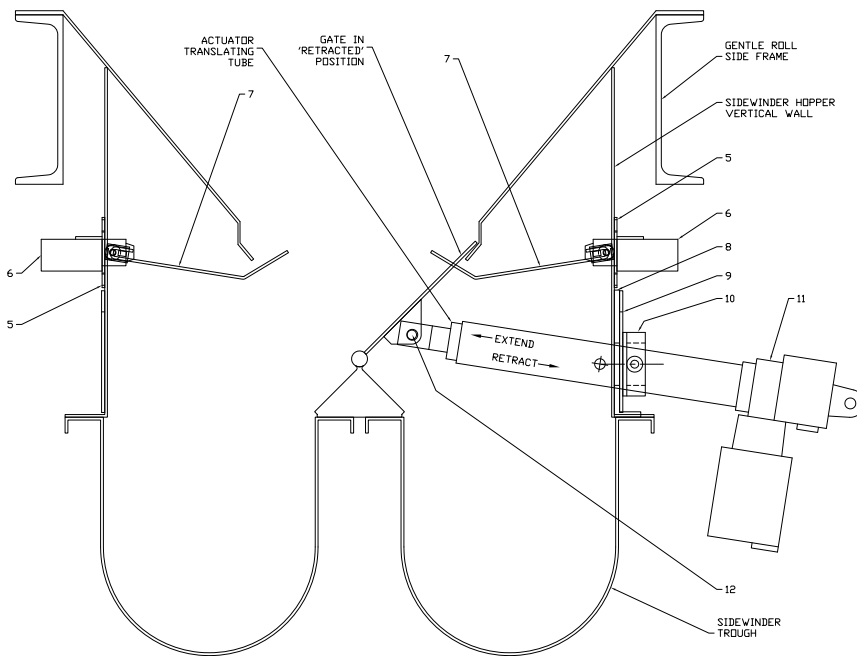
The airflow can be adjusted to accommodate products with different grain characteristics, such as density, size, and shape. Adjustments can be made within the aspirator after the airflow has been set.

As the air and product meet in the air pick-up zone, the air liftings separate and pull into the vortex, exiting to a bag filter or cyclone. The desired grain product is left to discharge out of the hopper.

The aspirator can be incorporated into new or existing air systems. Contact EBM Manufacturing for more information on air requirements and available models.



THE SIDE WINDER™



The Sidewinder™ belt drag conveyor is one of the most versatile drag conveyors on the market. It conveys in both directions at the same time. The belt lies vertical in the trough and the UHMW paddles are attached.

The most common layout has product discharging at both ends. Round troughs are commonly used for full clean-out.

STRAIGHTFORWARD, SIMPLE SCREENING



Gentle Roll™

SINGLE DRUM ONE SCREEN

Scalps whole corn at 500 BPH



SINGLE DRUM ONE SCREEN

At Kansas State University
Used for research, screening
grains, pellets, cubes, etc.



SINGLE DRUM TWO SCREEN

Removes overs from whole
corn at 40 TPH



**SINGLE DRUM
TWO SCREEN**

Removes fines from feed pellets and cubes at 15 TPH



**SINGLE DRUM
THREE SCREEN**

Removes fines from feed crumbles and pellets at 22 TPH



**SINGLE DRUM
THREE SCREEN**

Removes fines and overs from pet food at 15 TPH



SINGLE DRUM THREE SCREEN

Removes fines from feed pellets and cubes at 15 TPH



SINGLE DRUM FOUR SCREEN

Removes fines from feed pellets and cubes at 30 TPH



SINGLE DRUM FIVE SCREEN

Separates ground rubber at 7,000 lbs/hr



**DOUBLE DRUM
FOUR SCREEN**

Separates mixed grain
at 1,400-1,800 BPH



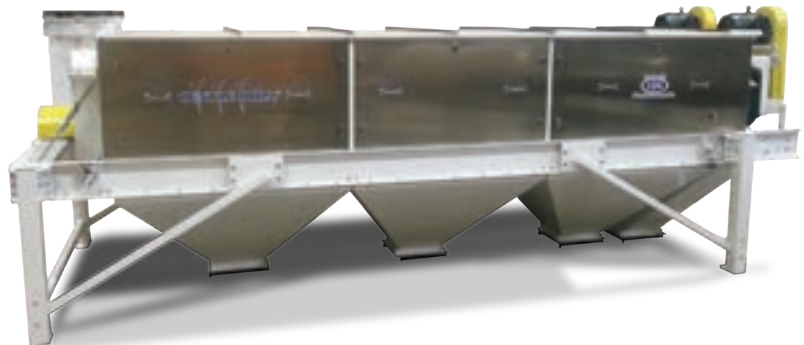
**DOUBLE DRUM
TWO SCREEN**

Removes fines from range
cubes at 48 TPH



**DOUBLE DRUM
THREE SCREEN**

Removes fines from wood
pellets at 70 TPH



**DOUBLE DRUM
FOUR SCREEN**

Removes fines and overs from
edible beans at 3,000 BPH



**DOUBLE DRUM
FOUR SCREEN**

Sifts & scalps corn
at 3,000 BPH



**FOUR DRUM
TWO SCREEN**

Scalps corn at 6,000 BPH



**FOUR DRUM
TWO SCREEN**

Sifts textured feed
at 5,000 BPH



**FOUR DRUM
FOUR SCREEN**

Sifts & scalps edible beans
at 6,000 BPH



**FOUR DRUM
FOUR SCREEN**

Sifts & scalps edible beans
at 6,000 BPH



**FOUR DRUM
NINE SCREEN**

Removes fines and splits from
peas at 3,000 BPH



**EIGHT DRUM
FIVE SCREEN**

Sift & scalps corn
at 12,000 BPH





**FREE
PRODUCT
TESTING**

**Does your company
have a product that
needs to be Screened?**

Not sure about screening efficiency?

Send us a sample of your product and let us test it
FREE for screening efficiency, capacity, or screen sizes.



**Let us prove to you why the Gentle Roll™ is your
screening solution. Call us at 877.370.4948 or email
sales@ebmmanufacturing.com to get started!**

Customer is responsible for freight to and from EBM.



Because of customers like you,
we have grown in ways we never dreamed possible.

So, from the bottom of our hearts we say,

thank you.



We're social:   

www.gentleroll.com
www.ebmmanufacturing.com
Norfolk, Nebraska
877.370.4948