

# **Terminals & Warehouses**

## Seaports, Rivers, Inland, and Transload.







Since 1897 Sackett-Waconia has been on the cutting edge of the Fertilizer Industry, and always a leader in technology and innovation. With over 200 patents, equipment on 6 continents and in over 60 countries, 4 manufacturing plants, and joint ventures in Brazil and South Africa, we continue to provide state of the art technology and support throughout the world.

### **Engineering & Design**

Listening to and understanding our customer's needs is a basic operation at Sackett-Waconia.

No matter the size of the project, we strive to:

- Take the time to assess every customer's needs
- Make sure we design the system that is the best fit for them
- Ensure the systems will meet their needs, and have the longest service life possible.

We understand that each business is an individual and we will take the time engineer the best solution for <u>your</u> needs. Our experience was built over a long history and comes from engineering the smallest retails plants and the largest hub plants.



At Sackett-Waconia, we see our customers as partners and are committed to the goal of providing them with high-quality continuing service. Our service to you doesn't end with the sale or commissioning, it lasts a lifetime.

## Safety

If there is one underlying principle to our engineering and fabrication, it's to <u>NEVER</u> compromise safety. All Sackett-Waconia equipment meets or exceeds OSHA regulations, and we will work with you to ensure any site or company specific requirements or concerns are met and addressed. Safety is a primary feature of every Sackett-Waconia System.





# **Terminals & Warehouses**

In recent years, and average of 19 million short tons of fertilizer were moved by rail in the US, with a nearly identical amount via barge. To handle this amount of product, the transportation sector of the Fertilizer Industry requires equipment that operates reliably in adverse environments and has a long service life. At Sackett-Waconia we use our 120 years of

experience to design, engineer, and build both systems and equipment to do just that.

Our systems are designed to limit complexity in order to reduce the amount of equipment to be installed and maintained, limit the amount of motors used (and thereby power requirements), and streamline material flow to its most efficient state - gaining efficiency through simplicity. Sackett-Waconia systems designed and engineered based on your

requirements, and begin with an effort to ensure that they meet your business needs now and

From Simple rail to truck systems that can be located along any siding to large scale river or marine receiving, to de-dusting and coating - Sackett-Waconia offers a full line of equipment to complete any terminal operation for bulk materials. We work closely with our customers to

**Terminals and Warehouses** 





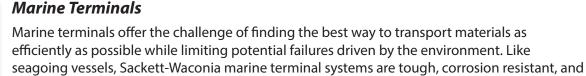




### determine their present and future needs, as this is key to achieving a well-engineered project that features both efficiency and longevity.

in the future.











### **River Terminals**

Facing many of the same challenges as marine terminals, Sackett-Waconia river terminals are designed to hold up in harsh conditions that range from hot and humid to freezing. Both River an marine terminals share the same basic equipment, but can differ in operation and capacity. Systems can include receiving, warehouse distribution, loadout, and direct transload. All standard systems feature 304 stainless construction, weather covers, and easy maintenance access. Material de-lumping and dust mitigation is also available, as is truss work and controls.

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#### **Inland Terminals & Hub Plants**

Sackett-Waconia offers a full line of high capacity equipment for Bulk Fertilizer Terminals. Receiving systems range up 1200 tons per hour (or more), and can have the ability to unload without re-indexing. High-Speed loadout systems operate up to 800+ tph, and offer the ability to fill outbound traffic without the need to re-index. All standard systems feature 304 stainless construction, weather covers, and easy maintenance access. Material de-lumping and dust mitigation is also available, as is truss work and controls.



## Reliability and High Capacity in any Environment



#### **High Speed Loadout**

Sackett-Waconia High-Speed loadout systems operate up to 800+ tph, and offer the ability to fill outbound traffic without the need to re-index. Using garner-style tower systems and high capacity shuttle conveyors to eliminate truck or rail car indexing allows these systems to combine legal for trade scales with high speed for maximum it efficiency.



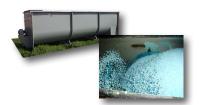
#### **Bulk Weighing Systems**

Bulk weighing systems are highly efficient loadout systems that achieve their high capacity by continuously weighing and discharging bulk materials. Standard systems feature stainless steel hoppers with carbon steel structure. All Sackett-Waconia bulk weighing systems are NTEP certified and available in capacities up to 1000tph or higher.



#### **Conditioning & Transfer**

Sackett-Waconia conditioning and transfer systems gently break down lumpy materials for loadout via dust tight bulk-toters. The systems are payloader fed, feature heavy-duty grizzly bars, stainless steel construction, and come in either fixed or semi-portable options. All units come with dust spouts, clean-out doors, and easy maintenance access.



#### **Coating/De-Dusting**

Coating or adding de-dusting agents are an important part of handling fertilizer. Sackett-Waconia offers a wide array of systems for all parts of the industry, including terminals. Available system formats are tower style (featuring the HIM mixer), rotary, orbital, drum, and continuous mixer. We offer solutions to fit any plant or operational requirement.



## **Conditioning & De-lumping**

Sackett-Waconia has spent years refining both de-lumping and conditioning of bulk materials. Our "Lump Buster" de-lumpers easily break apart lumps at high rates, while conditioners take the process a step further by gently popping lumps apart over a screen. Capacities range up to 600+ tph and they are essential for coating systems.



#### **Conveyors**

Belt conveyors are everywhere in bulk handling. While they greatly vary in construction and use, all Sackett-Waconia belt conveyors feature a formed stainless steel channel frame design, bolt together construction, and capacities up to 1500+tph. We engineer our conveyors, and match idlers, belts, and drives to each project and fabricate supports and trusses as needed.



#### **Elevators**

Sackett-Waconia's standard line of elevators feature heavy 304 stainless steel construction, properly sized pulleys, split bonnets, and industrial drive components. Our elevators are designed for easy maintenance access with doors at key points and easy to reach grease fittings. Boots feature heavy plate construction with easy access clean-outs and stainless steel take ups. Capacities range from 50tph to well over 1000tph, and as with conveyors, each are engineered to fit the application they will service.

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### **Bagging Systems**

Bagging systems can be supplied by Sackett-Waconia as packages through trusted partners. As with any other part of your project, we are more than happy to work with any preferred vendor you may have.

#### **Automation**

To maximize efficiency and performance, Sackett-Waconia offers standard automation packages by application. We work hard to ensure user friendly applications and full operational support. If you currently work with an automation company, have a preferred company in mind, or have any other specific requirements such as accounting or agronomy system interface, we will work with you to ensure the smooth integration of our systems. Whatever your choice, our goal is to make certain that your needs are met and you have on-going support when you need it.



Sackett-Waconia has in-house project management and field/service technicians, as well as installation and service partners, throughout the US and Canada to provide our customers with local support and service. We strive to ensure proper installation of our equipment, and are happy to work with any engineering firm or general contractor you may hire. While it may not be necessary for all systems, we can provide on-site engineering support and start-up/commissioning visits.

## **Partnerships**

Sackett-Waconia has strategic partnerships in Brazil and South Africa to better serve our international customers.

Sackett do Brasil is based in Araxá, Brazil and provides service and support to the Brazilian Market. Our companies specialize in complete system design for bulk blending, bulk terminals, granulation (NPK, SSP, AMS), compaction/granulation, super phosphate and coating (powder, controlled release). To meet today's nutrient needs, and assist greater nutrient use efficiency, we engineer systems designed to maximize accuracy.

www.sackettbrasil.com

Bagtech International is based in Durban, South Africa and has partnered with us on the African Continent. This partnership brings together Sackett-Waconia's equipment and engineering with Bagtech's engineering, broad knowledge, equipment design and supply, plant operating experience, and reputation for excellence in Africa.

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