

# Fertilizer Blending Systems

# Systems and Equipment for Any Need



## Legacy

For over 120 years Sackett-Waconia has been on the leading edge of the Fertilizer Industry. Since in 1897, the company has been 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 industry leading technology and support in the US and throughout the world.

## Engineering & Design

Listening to and understanding our customers' 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 will take the time engineer the best solution for <u>your</u> needs. Our experience was built over a long history and comes from the smallest retail plant as well as the largest hub plants.

# Commitment

We are committed to our customers. At Sackett-Waconia, we see our customers as partners and our goal is to provide them with 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 NEVER 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.

How can we help you?

# **Fertilizer Blending Systems**











### Precision Fertilizer Blending<sup>®</sup> (PFB)

Sackett-Waconia Precision Fertilizer Blending systems feature the HIM mixer - the most efficient mixer for blending and coating available in the industry today. Its superior design allows for rapid blending and equal distribution of advanced liquid and dry additives. PFB Technology uses NTEP certified weigh systems, that weigh each individual ingredient for better accuracy, and a garner-style design to provide both high quality and high speed, without sacrifices to either one. Systems are available in a variety of layouts and configurations to meet your needs. PFB provides the capacity, flexibility, and reliability that are essential in the modern fertilizer industry. PFB systems are in line with 4R Nutrient Stewardship and they are reliable, safe, and easy to use.

#### **Tower Blending Systems**

Sackett-Waconia pioneered tower blending systems in the 1920's with our first "Mixing & Shipping Units". Since then, we have been continuously updating and improving the technology. Several versions are available, with various mixers, depending on the customer's needs. Tower Blending is an effective way to reduce the overall footprint of your blending system, and they can vary in capacity from 90ton Mini Towers to 300+ tons of overhead storage, with our flagship line of towers featuring the HIM mixer and Precision Fertilizer Blending<sup>®</sup> technology.

### Declining Weight (DW) Blending Systems

Declining Weight (DW) Systems by Sackett-Waconia offer superior technology and solutions for blending. Built for flexibility, high tonnage, precision, and reliability, they include heavyduty stainless steel hoppers and structure and feature the original Mesh Chain Feeder for gentle handling of material and accurate dosing. Basic DW systems use an auger to transfer dosed material that features a Mixing Zone for blending. Alternate blending options are available to improve overall blend quality. Our superior coating system is available for adding liquids or nutrient stabilizers. DW Systems can include additional hoppers for granular and powder micronutrients, and typical systems operate at instantaneous speeds up to 300tph.

### **Precision Horizontal Blending Systems**

To meet the needs of markets that require precise blends, but have low overhead space, Sackett-Waconia developed the Precision Horizontal Blending System as an excellent option for existing warehouses. Combining our Declining Weight technology with the blend quality of our HIM Mixer or Orbital Blender yields a highly effective floor based blending system. As with our DW Systems, precision horizontal blending systems can include additional hoppers for granular and powder micronutrients and can include bagging options upon request.

### Water Soluble Fertilizer Blending Systems

Sackett-Waconia soluble blending systems feature the precision and flexibility of the HIM Mixer. They are designed for the stringent requirements of bagged fertilizers, and include removable totes for ease of ingredient loading. Systems include tote loading stations where material is conditioned before tote filling. This gives you the flexibility to load from big or small bags, and keep several totes ready with materials as the day progresses. The HIM offers the flexibility for liquid or powdered additives and dyes, and precise consistent blends. It is proven technology that is reliable and user friendly.

# Blending systems and equipment to fit any need

# **Our Blending Technology**

#### The H.I.M. Mixer



With over 20 years of proven reliability, the HIM Mixer combines the best in speed, accuracy, and dependability into one precision mixer. Its unique design eliminates "dead zones" and its synchronized overlapping paddles ensure that each granule is in motion during mixing. This constant particle motion gives you the most complete coating and homogeneous blending available. Also, this unique blending motion means that, no matter the capacity of the mixer, blend times average 30 seconds. Its bomb-bay style doors provide instantaneous discharge, minimizing material segregation and maximizing speed, making it the most efficient mixer available. The HIM Mixer is the cornerstone of Precision Fertilizer Blending<sup>®</sup>, with its impeccable blend quality providing thorough blends need to support the 4R's.

### **Orbital Blenders**



One of the fertilizer industry's most effective blenders, Sackett-Waconia Orbital Blenders are an ideal solution for high quality blending and bagging operations. The orbital's blending action, via unique internal baffling and a mixing screw, provides a fast, thorough mix of ingredients, and is ideal for coating and impregnation. Orbitals come in a range of capacities and all units feature high quality drive components and stainless steel construction. The orbital blender's design is reliable and simple to operate. Options can include conditioning and impregnation, upon request.



#### Vertical Blenders

Sackett-Waconia Vertical blenders have been a mainstay of the industry for decades. Vertical blenders feature heavy duty stainless construction and can be either top or front fed, based on the application. Our blenders come with an array of options including NTEP certified scale systems, built in conditioners, impregnation, pneumatically or manually operated gates, and various loadout systems. Vertical blenders are ideal for fertilizer but can be used for seed applications, and offer great value no matter the use. With their small footprint and adaptable full-system layouts, vertical blenders are also an excellent choice for plants with limited floor space.



#### **Rotary Blenders**

Rotary Blenders by Sackett-Waconia are tough, well built, machines. Our compact drive system reduces the amount of space needed, and their rugged construction guarantees a long service life. Rotary blenders can be paired with loadout conveyors and NTEP certified weigh hoppers for a complete blending system. Larger units come standard with a direct drive and internal auger for better mixing, and internal augers can be added as an option for smaller capacity machines.



# **Fertilizer Blending Systems**

## **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.

## Site Visits, Installation, and Commissioning

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.

www.bagtechint.com

# Sackett-Waconia

1701 S. Highland Ave • Baltimore, MD 21224 • (410) 276-4466 680 Tacoma Blvd • Norwood Young America, MN 55368 • (952) 442-4450

www.sackettwaconia.com











