



Bulk Material Processing



Our delivery program contains a broad spectrum of Powder Handling Equipment for all kind of industries.

We can be your partner for components and projects for a variety of applications.





*“Man never made any material as
resilient as the human spirit.”*

Bern Williams

Sieving & Milling



VIBRO ENERGY SIEVES

There are occasions where you need to make sure that there are no impurities in your material and other occasions where you need to classify your product into different fractions. We have a full range of Vibrating Energy Separators and rotating inline security screeners.

Technical details:

Capacities from 1 kg/h to 50 t/h.



INLINE MILLING

Milling of wet or dry ingredients and products is possible to do in a contained way, minimizing dust and product exposure by using our in-line cone mills.

Technical details:

The mills can be connected with split valves or placed directly in-line for active transport through the equipment with vacuum transport systems. Capacities from 1kg/h to 100 t/h.



INLINE SIEVING

The feed product falls into a sifting chamber where impurities are separated by centrifugal acceleration. Used for inline police-screening or to remove lumps.

Technical details:

Wide variety of options available, 360° discharge, user friendly design and easy to clean. Capacities up to 100 t/h are possible.



JET MILLS

The powder is fed into a milling chamber through a venture system and accelerates in a spiral movement. The micronizing effect takes place by the collision between the slower incoming particles and those which are already accelerated.

Technical details:

Particle sizes below 15 micron with a capacity from 0,3 g to 3000 kg in batch sizes are possible.



HAMMER MILLS

Typical applications are: coarse grinding and chopping of dry material, de-lumping of agglomerated wet or dry material, pulverizing, solid blending, granulating compacted materials. Size reduction for median PSD range 50 -150 microns.

Technical details:

Capacities from 50 g to 100 t/h. A wide range of blades and screens is available. cGMP, CIP/WIP, ATEX and product containment system design available.

Mixing & Drying



DEHUMIDIFYING AND HOT AIR DRYERS

Dual tower Dehumidifying Dryers with a high efficiency centrifugal blower for powders and Hot Air Dryers for non-hygroscopic resins.

Technical details:

Dehumidifying Dryers with a capacity from 22-1800kg/h with a guaranteed process air of 4° dew point. Hot Air Dryers with heat to 204 degree.



GRAVIMETRIC CONTINUOUS BLENDERS

Gravimetric blenders consist of one to eight ingredient feeders and a microprocessor-based controller. They are designed to continuously meter raw materials accurately into a central station hopper.

Technical Details:

One to eight ingredient feeders, from 9 kg/h to 13.607 kg/h.



PNEUMATIC BATCH MIXER

The Batchmixer provides the ultimate in speed and flexibility, reducing overall process time compared to traditional systems, enabling the operator to mix powders with different characteristics in a contained environment.

Technical details:

With applications from 2 to 5000 l, the system also allows the operator to vary product volumes from 10-100%.



FLUID BED DRYERS

Fluid Bed Dryers can be used to process all kinds of granular products with a wide range of grain sizes and are used for example drying, cooling, baking, pasteurizing and much more (food, minerals, chemicals, etc.)

Technical details:

The particles can be dried to > 90% dry solids (DS), the exhaust gas flow is extremely low (approximately 100-200 m3/h).



BELL DRYERS

The Krauss-Maffei helix dryer achieves efficient mixing and drying of friable bulk goods by using the helix mixer, a top-driven, central mixer.

Technical Details:

Materials of construction are Stainless steel, Nickel-based alloys or special materials and standard sizes range between 2 and 4500 l in both mobile and stationary design.

Charging & Emptying



BIG BAG & SMALL SACK STATIONS

Stations are used to automatically empty Big Bags and small sacks in a dust-free and safe way. Filling Stations are used to automatically fill Big Bags.

Technical details:

Stations in different materials, for different demands and different designs (hygienic version) for tailor made solutions are available.



VOLUMETRIC FEEDERS

Volumetric feeding for accurate metering of bulk solids is achieved using a spiral helix, rotary valve, rotating agitator, vibrating tray or cylindrical stator.

Technical details:

Feed Rates up to 45 m³.

Robust, easy cleaning, high feed accuracy and low maintenance costs are some advantages.



GRAVIMETRIC FEEDERS

Gravimetric feeders using load cells for a high and safe feeding accuracy. They are used for powders, granules, fibres, flavours, pigments and liquids.

Technical details:

Feed rates from 0,2 dm³.

Robust, easy cleaning, high feed accuracy and low maintenance costs are some advantages.

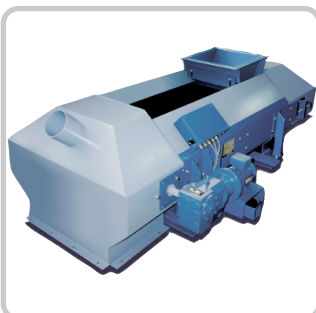


DRUMS & SACKS

Using simple sack emptying stations to reduce dust during emptying or drum emptying in a contained and save way.

Technical details:

Half automatic or automatic drum emptying and sack emptying stations in different designs and materials for all kind of applications.



BELT FEEDER

The Belt Feeder is excellent for very gentle conveying of different products for applications like flakes, agglomerated or free flowing products.

Technical details:

Throughput from 0,01-80 m³/h.

Transport / Processing / Service



VACUUM CONVEYING TECHNOLOGY

Simple and modular package vacuum conveying systems for dust free conveying of powders, granules and most bulk solids.

Technical details:

Throughputs up to 6800 kg/h, cleaning in place are possible.



PRESSURE CONVEYING TECHNOLOGY

A continuous product conveying technology for all kind of different powders with low investments costs, simple design and easily extending possibilities.

Technical details:

2-200 kW blowers available.



ROLLER COMPACTORS

Roll compaction equipment increases powder densities and produces free-flowing granules for high speed tableting and encapsulation. They are mainly used both for primary and secondary processing and improve dispersion and solution times in both intermediate and final products.

Technical details:

Capacities from 50 g/h up to 5 t/h. Product containment and Inert Atmosphere System for toxic and hazardous products (ATEX), cGMP and WIP designs. Available even compliant to GAMP 5.0 and 21 CFR part 11.



COMPONENTS

All kinds of rotary, discharge, split butterfly and diverter valves plus slide gates are available.

Technical details:

Different materials and special valves (hygienic, heavy duty and blowing valves).



TEST UNITS

When making the decision on what powder processing equipment to use, we always recommend to perform tests to evaluate the technology as well as to find out capacities and needs for conceptual changes in the system. Therefore we have at Thurne Teknik several rental machines for making trials on your site. Contact our offices for more information about rental proposals and schedules.

TEST FACILITIES

All our main suppliers offer professional test centres where the customer has the possibility to send a sample or even join the test for all kinds of products and demands.



SUPPLIERS

Bulk Material Processing



Some equipment may not be available from Thurne Teknik in certain geographical areas.

SOLUTIONS WITH PROCESS UNDERSTANDING.

As we are continuously improving our product program, we can today offer an enlarged delivery program suiting all different kinds of applications within Powder Transport for the Food-, Mineral- and Chemical Industry. In addition to the fundamental processes of feeding, mixing and conveying, our product range covers storage, discharge, size reduction, sieving, conditioning, de-dusting, sack tipping and filling.

All equipment is designed for the various applications in the different industries and all our partners within this field are dedicated to the customers' high demands on quality.

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We are proud to present our partners below:



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