Accurate Feeding and Conveying. Vital ingredients to any recipe.

Schenck Process – weighing, feeding, pneumatic conveying and air filtration solutions: Innovation, quality and process knowledge.
**Excellence in food technology**

*Weighing, feeding, pneumatic conveying and air filtration for the food industry from Schenck Process.*

You have the perfect recipe – we have the right weighing, feeding, pneumatic conveying and air filtration solution for even your most challenging food processing applications.

The combination of knowledge, field proven technology and many years of experience enables Schenck Process to offer customers within the food industry tailor-made solutions in sanitary design.

**Embracing international standards:**
- USDA (3-A USDA)
- FDA
- EHEDG Recommendations
- DIN-EN Standards
- EU Machinery Directive
- NFPA
- UL
No matter what materials you work with, chances are we have tested them. That’s because we have tested more than 4,000 bulk materials in more than 40,000 tests conducted in our labs throughout the world.

And, if your particular product hasn’t been tested yet, then the right tests in our TestCenter will provide you with comprehensive answers. Proven bulk materials technology from Schenck Process. Tested and approved so you can be certain that our feeders, dust collectors or pneumatic conveying systems are perfectly compatible with your material.

Which feeder is best for which bulk material? What needs to be considered for pneumatic conveying and dust collection? Schenck Process operates TestCenters around the globe which are tailored to your individual requirements. Two of these centers are located in Darmstadt, Germany. Additional test facilities can be found at our locations in the UK, Austria, the Czech Republic and the USA.

Our TestCenters are equipped to simulate loss-in-weight feeding, refilling, weighing, dilute and dense phase conveying and filtration to help confirm the configured design meets the most efficient, economical method of processing your material ahead of time.
Whether we are conveying 300,000 lbs. of sugar or feeding small amounts of food additives, our experienced staff will work with you to select the most appropriate, cost-effective and energy efficient technology for your product. We deliver all types of pneumatic conveying technologies and have a complete selection of air filtration, weighing and feeding solutions to solve your toughest bulk material handling challenges.

Schenck Process delivers custom-designed and engineered solutions for the food industry that span the following:

- Truck or railcar loading, unloading and bulk storage systems
- In-plant transfer for major, minor and micro ingredients

**Application example:**

**Cereal bar manufacture**

Legend:
- Process step covered by the Schenck Process Group

![Diagram of cereal bar manufacture process](image)
- Minor and micro ingredient scaling systems
- Low pressure continuous dense and dilute phase handling systems
- Plant controls systems
- Dust collection
- Sifting, storage and mixer transfer systems
- Ingredient unloading, cleaning and storage systems
- Liquid storage, scaling and transfer systems

- Closed loop \( N_2 \) and \( CO_2 \) systems
- Ingredient dry convey systems
- Trim and reclaim transfer systems
- Batch and continuous feeding systems
At Schenck Process, everything we do is centered on customer satisfaction. We follow a customer focused eight step process that allows our experienced project managers and their teams of engineers to design the most efficient, cost effective system to meet your operational requirements on budget and on time.

**Understanding Needs**

Every project begins with your operation, your conditions, your application and your unique needs. We seek to understand the issues and problems that you are facing.

**Application example:**

**Sugar**

Legend:

Process step covered by the Schenck Process Group
**Testing/Research**

Our TestCenters allow us to develop the most innovative solution that will solve any conveying, air filtration, weighing or feeding challenge. In addition to our TestCenters, our database containing thousands of test records allows us to cross reference previously handled materials enabling quick identification of proven pneumatic conveying, air filtration, weighing and feeding solutions.
Solution
During this stage, we discuss the testing and research analysis with you. Using that information, a systems quote is prepared to meet your exact needs.

Legend:
Process step covered by the Schenck Process Group

Design
We discuss the proposal in greater detail with you in terms of initial and ongoing costs, energy consumption, delivery dates, project timetables and deadlines before agreeing and proceeding to the next step.

Application example:
**Snack coating**
**Build/Deliver Solution**

No matter where you are located in the world, our global network allows us to engineer, project manage and deliver a solution.
First Time Start-up
Our rapid start-ups with onsite engineers enable you to quickly get your system up and running.

Obtain Benefits
With quick start-up you realize maximum productivity with minimal disruption at the time of implementation.

Application example:
Coffee
Customer Support
Our knowledgeable Service Center personnel are available 24/7 to assist you with ongoing support after equipment installation.
**MechaTron®**
Volumetric and gravimetric feeders

- Perfect for feeding cereals, flour, starch, salt, mustard seeds, spice, milk powder and many others.
- Complete disassembly from the non-process side speeds cleaning and maintenance
- 3-A sanitary and industrial models available
- Gravimetric accuracies of ±1/4% to 1% of feed rate setpoint at two sigma
- Feed rates up to 1,100 ft³ (32,000 l) per hour are achievable.

**AccuRate® Series**
Volumetric feeding systems

- Proven volumetric feeding technology with installations throughout the world
- Food grade and industrial vinyl hoppers available
- Quick disassembly for cleaning or material change
- Paddle agitation to the vinyl hopper gently massages materials into the feeding screw
- Feed rates from .000017 to 280 ft³ (.0005 to 7,928 l) per hour

**ProFlex® F**
Loss-in-weight feeder in sanitary design

- Designed specifically for the precise feeding of dry materials in food processing applications.
- Low maintenance, easy to clean and highly versatile
- Meets DIN EN ISO 14159 and DIN EN 1672-2 sanitary standards for feeding dry materials
- Material discharge positions can be exchanged accommodating cluster feeding applications for up to 8 feeders
- Disassembly can be done quickly and easily without the need for special tools
**PureFeed®**
Feeder in sanitary design

- **PureFeed® A**
  - Perfect for accurate low feed rate food processing applications
  - Easy disassembly for cleaning and maintenance
  - Crack and crevice free contact surfaces
  - Flexible FDA compliant EPDM feed hopper that is disposable and recyclable
  - Feed rates from 0.5 to 150 kg per hour

- **PureFeed® D**
  - GMP compliant design
  - Gravimetric operational mode
  - Meets high containment requirements
  - Low vertical accelerations

**MULTIDOS® L**
Weighing and feeding

- Weighbelt for measuring, totalizing, batching and feeding
- Quick and easy clean-out
- Belt change is done without tools
- Stainless steel contact parts
- Feed rates up to 6,000 ft³ (169 m³) per hour

**MULTIDOS® F**
Open frame design weighbelt

- Open frame design for sanitary washdown applications
- Excellent for weighing and feeding easily damaged materials
- Tool-less belt removal for quick cleaning and maintenance
- Operates as a weight controlled feeder, weight indicator and totalizer or for batching
**MULTICOR® S**
Mass flow meter
- Continuous mass flow measurement based on the Coriolis principle
- Direct weighing technology eliminates outside forces on measuring and feeding accuracy
- Compact design is perfect for applications with limited space
- Highly accurate measuring principle
- Dust tight housing reduces the risk of airborne materials

**SacMaster**
Bulk bag discharge system
- Posi-flow agitation to eliminate material bridging and promote full bag emptying
- Two agitation and two pivoting paddles for full bag support
- Modular design for easy system customization and compatibility
- Preprogrammed control minimizes set up time
- Easily integrated with a dry material feeder

**Train Weighing**
Scales for in-motion weighing
- Dynamic railway scale for all railcar types
- Legal-for-trade accuracy
- No foundation
- No rail gap
- Fully automatic operation
- Quick installation
- Static/dynamic platform weighbridges also available
**GCA Global Clean Airlock**

- Demountable rotor with tool-free disassembly facilitates cleaning and inspection
- Oversized rotor shaft creates a naturally radiused rotor pocket for more complete product release
- Product contact manufactured with stainless steel and FDA-approved seals and bearing lubricants
- Available design for NFPA 69 blocking valve requirements
- CE & ATEX variants (optional)

**E-finity®**

Dense phase conveying system

- The blower air source, designed for less than 15 psig (1 bar), can be located nearly anywhere in the plant
- Multiple E-finity systems can be operated from a single blower air source
- Various systems can be turned on and off as needed, and air delivery from the PD blower compensates automatically
- Mid range pressure pumps can also be used to achieve pressures up to 30 psig (2 bar)

**No-Ledge Coupling**

Smooth interior for reducing fines

- Self-aligned connection points deliver ledge-free joints to protect fragile products
- Easy cleaning and inspection
- Tool-free assembly speeds installation
- Recessed o-ring gasket clear of product stream
Process Controls
Systems for product consistency

- Weighing, feeding and pneumatic conveying controls for process systems
- In-house designed, programmed and built by our personnel
- Fully documented program files are provided to you for long-term maintenance
- Controls can be integrated into your plant-wide computer systems
- Custom solutions for your specific standards and specifications are available

Cleanable Side Entry Receiver (CSER)
Air filtration

- Simple design with minimal internal structure enables thorough clean-down
- Single point access to both clean and dirty volumes of the filter
- Ideally suited for low headroom applications under pressure or vacuum
- Side entry and tool-free cartridge removal speeds maintenance with no confined space entry
- Operates as a filter receiver at the end of a pneumatic conveying system

MCF PowerSaver
Industrial air filtration

- Operates with medium-pressure cleaning air (7-9 psig)
- Total filter area available exceeds 23,000 ft² (7,000 m²)
- Cleaning capacities over 250,000 CFM
- Timing mechanism non-electrical – safe in dusty, explosive atmosphere
- Good for use in high temperatures 500˚ F (260˚ C) and higher
CONTROLLING

DISCONT® Tersus
Weighing and feeding electronics

- For control of multiple continuous weighing and feeding applications
- In field or control cabinet installation
- Communication with PLC by fieldbus technology (Profibus, Modbus, DeviceNet, etc.)
- Commissioning and diagnostics supported by graphics
- Wireless access for service

Fill level measuring devices and container trolleys

- Compact unit consisting of a load cell and mount for simple integration into the bin support
- Weighing is recorded outside the bin eliminating product contact
- High weighing accuracy, even for large dead loads
- Provides precise weight and measurements for materials in silos, bins, mixers or reactors

Platform and pallet scales
For universal use

- Robust, maintenance free and available in stainless steel and designed for most static weighing applications
- Can be erected, installed in the ground or equipped with a foundation frame
- Legal-for-trade designs available
- Weighing capacities up to 6,600 lbs. (3,000 kg)
The Schenck Process world of food industries.

<table>
<thead>
<tr>
<th>Industries</th>
<th>Bulk materials handled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baking</td>
<td>Almonds, Ammonium acetate, Animal feed, Apple flakes, Avicel, Baking mix, Barley</td>
</tr>
<tr>
<td></td>
<td>BBQ powder, Beet chips, Beets, Bleaching powder, Blueberries, frozen, Breadcrumbs</td>
</tr>
<tr>
<td></td>
<td>Brewer's yeast, Broccoli, Bruised grain, Calcium lactate, Calcium oxide</td>
</tr>
<tr>
<td></td>
<td>Carrageenan, Carrots, Casein, Cereal flour, Cheese, Chicken paste, Chicken powder</td>
</tr>
<tr>
<td></td>
<td>Chick peas, Chocolate, Chocolate crumbs, Chocolate flakes</td>
</tr>
<tr>
<td></td>
<td>Chocolate liquid, Chocolate masses, Cocoa, Cocoa beans, Cocoa nibs</td>
</tr>
<tr>
<td></td>
<td>Coconut, Coffee, Coffee powder, Cookie crumbs, Cooking salt</td>
</tr>
<tr>
<td></td>
<td>Corn cobs, Corn farina, Corn flakes, Corrn flour, Corn meal, Corn starch</td>
</tr>
<tr>
<td></td>
<td>Corn syrup solids, Cottage cheese, Cracked wheat, Cracker meal, Cream, non dairy</td>
</tr>
<tr>
<td></td>
<td>Croutons, Cucumbers, Delta-lactone, Dextrose, De-icing salt, Dextrose, Dextrose monohydrate</td>
</tr>
<tr>
<td></td>
<td>Dog biscuits, Dried fruit, Dyes, Egg albumen, Egg powder</td>
</tr>
<tr>
<td></td>
<td>Fermenting powder, Flavors, Flour, Fluoride, Forage, Frosting</td>
</tr>
<tr>
<td></td>
<td>Frozen foods, Fructose, Fruit powder, Garlic, Gelatine, Ginger root</td>
</tr>
<tr>
<td></td>
<td>Glucose, Grain, Grain oil, Grain off, Grains &amp; raisins, powdered</td>
</tr>
<tr>
<td></td>
<td>Granola, Granulated sugar, Granules, food, Granules, gravel, Pellets, Green coffee</td>
</tr>
<tr>
<td></td>
<td>Green coffee, Ground and mixed animal feed, Gum base, Hazelnuts</td>
</tr>
<tr>
<td></td>
<td>Herbs, spices, Honey, powdered, Hops, Hops, powdered, Icing sugar</td>
</tr>
<tr>
<td></td>
<td>KCl, NaCl, K2SO4, KCl/MAP, Kelp, Keycel, Lactose, Malt, Maltodextrin</td>
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<tr>
<td></td>
<td>Mannitol, Meal, Meal and grit, Meat, Meat cubes, Meat dough, Meat tenderizer, Melapur</td>
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<tr>
<td></td>
<td>Milk powder, Milk products, Minced meat, Mix of cocoa, meal, oatmeal</td>
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<tr>
<td></td>
<td>Monoglyceride, Mushrooms, dried, Mustard powder, Mustard seed, Mélange</td>
</tr>
<tr>
<td></td>
<td>Na,SO₄, Nuts, Oat flakes, Oil flakes, Oleiferous fruit</td>
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<tr>
<td></td>
<td>Olive residue, Onion, Paprika, Pasta, Pea starch, Pepper, Peppers</td>
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<tr>
<td></td>
<td>Pepper corns, Pet food, Phosphate, Pigments, Pineapple</td>
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<tr>
<td></td>
<td>Polysaccharide, Popcorn, Potato chips, Potato flakes and flour, Potato powder</td>
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<tr>
<td></td>
<td>Potato starch, Powder mixture, Powders, pellets, Proteins, Raisins, Rape</td>
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<td></td>
<td>Rape, Rapheseed, Raw material for animal feed, Raw salt</td>
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<tr>
<td></td>
<td>Refined sugar, Refined sugar crystals, Rice husks, Rice powder, Rye</td>
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<tr>
<td></td>
<td>Salad relish, Salt, Salt (NaCl), Salt residue, Salt spice mixes, Sea salt, Seasame seeds</td>
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<td>Shortening, powdered, Shrimp, Sodium, bicarbonate, Sorbitol, Soup mix</td>
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<td>Soy, Soybean HP meal, Soy bean LP meal, Soy bean meal, Soy beans, Soy flakes, Soy powder</td>
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<td>Soy powder, Soy powder, Soy powder (Soy meal extract), Spice powder, Spices</td>
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<td>Spinach powder, Starch, Starch flour, Starch powder, Sugar beet chips, Sugar beets</td>
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<td>Sugar chips, Sugar crystals, Sunflower seeds, Sweets/chewing gum, Table salt, Tapioca</td>
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<td>Tea, Thiamin, Tobacco, Tobacco leaves, Tobacco powder, Tobacco strips, Toffee, Tomatoes</td>
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Complete solutions for your requirements

Looking for after-sales solutions? Our extensive Process Advanced Service System (PASS) provides you with after-sales services – customized to your specific requirements.

The framework of our PASS program is designed with you in mind. With the guidance of our experienced after-sales team, you can create PASS packages comprised of original spare and wear parts, various services and high quality components to meet your needs.

PASS is based on a modular principle – you can pick and choose any individual PASS product or a combination of products. Four categories help to easily find appropriate PASS products.

We welcome the opportunity to provide you with individual consultation, either as part of a PASS contract or on an individual basis.

Whatever Full Service means to you – let’s create it together!
The Schenck Process Group is a global market leader in weighing and feeding technology /// screening and separation systems for bulk materials /// dust collection and air filtration technology /// pneumatic and mechanical conveying solutions /// automation and diagnostic technology

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