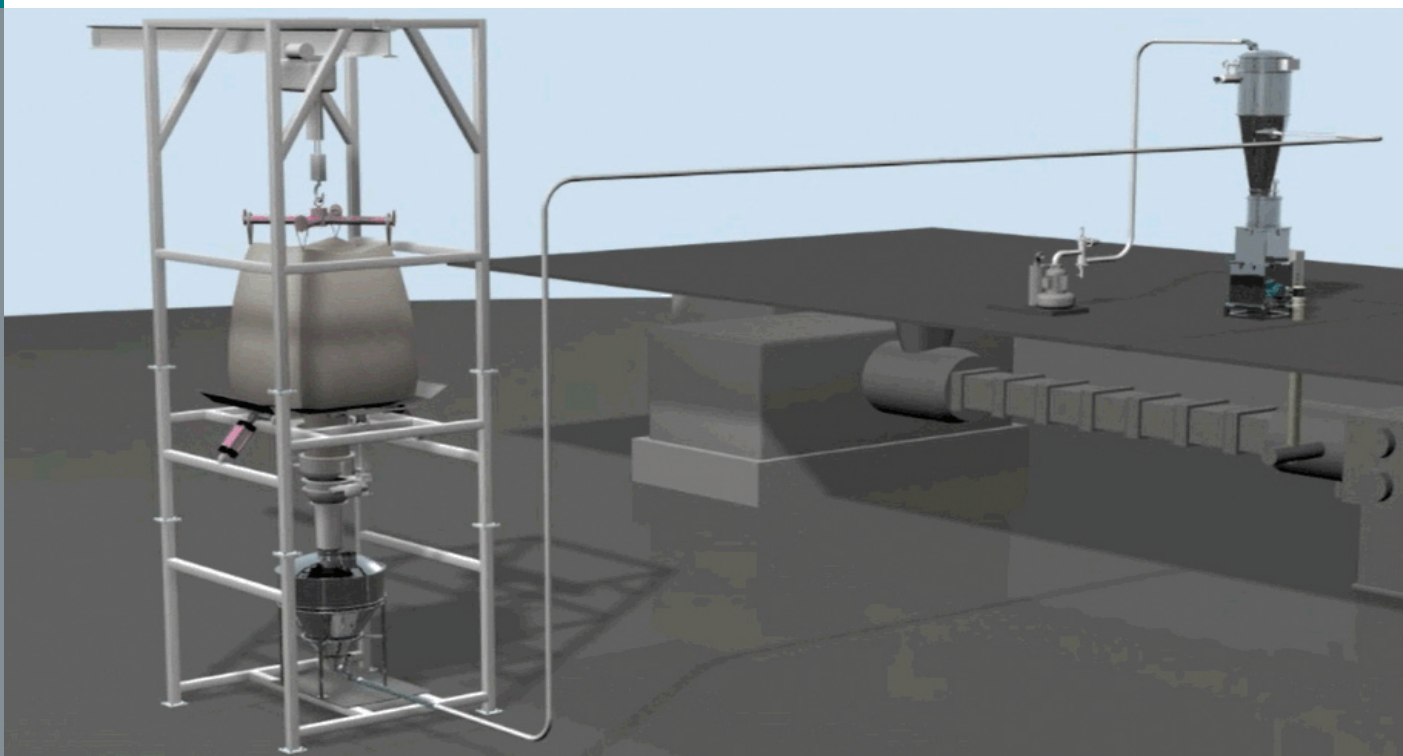


MoveMaster[®] Vac Vacuum Conveying Systems



Negative Pressure Pneumatic Conveyors for Process Loading and Refilling

Schenck Process Group - Your Partner Worldwide



Acting locally to support your needs the Schenck Process Group is working where you are.

With a global network of sites and competent partners, the name Schenck Process is synonymous throughout the world with process expertise and well-engineered measuring technology for industrial weighing, feeding, conveying, screening, automation and air filtration technology.

Our key skills include planning processes, feeding bulk materials, controlling flows of material, recording flows of goods, weighing goods and automating transport processes.

Members of the Schenck Process Group are:

schcnkprocess 

stock 
schcnkprocess group

fairfield 
schcnkprocess group

clydeprocess 
schcnkprocess group

pentec 
schcnkprocess group

schcnkAccuRate 

redler 
schcnkprocess group

screenex 
schcnkprocess group

macprocess 
schcnkprocess group

Schenck Process Does It All. From onsite surveys to design, build and installation

Our key benefits

- ❖ Significant increase in productivity
- ❖ Environmental sustainability of the processes
- ❖ High system availability, reliability, and performance
- ❖ Low operating costs and maintenance
- ❖ Greater process control
- ❖ Cleaner and dust free working environment
- ❖ Cost savings through process efficiencies
- ❖ Flexibility to integrate with existing and emerging technologies
- ❖ Comprehensive aftercare service and spares availability
- ❖ A wealth of experience to form close working relationships



Vacuum conveying systems offer a cleaner operating environment for a wide range of applications from small to large installations as part of an integrated production process.

Schenck Process systems incorporates the world leading technology of Clyde Process pneumatic conveying together with downstream measuring and feeding equipment to provide a highly accurate and controlled process flow of materials.

The comprehensive knowledge and understanding of production processes makes Schenck Process a unique provider of the complete range of equipment utilising vacuum conveying technology.

MoveMaster® Vac

Vacuum Conveying Applications

- ❖ Dilute Phase, Continuous & Batch Conveying
- ❖ Specialised Conveying for Direct Loss in Weight Feeder Refill
- ❖ Integrated Volumetric Feeding & Conveying
- ❖ Low Velocity Vacuum Dense Phase Conveying for Fragile Premixed Materials

MoveMaster® Vac

Vacuum Conveying Systems

Part of the Overall Solution

Schenck Process offers a broad range of proven process technology and proprietary equipment, all designed to maximise operating efficiency and minimise cost in use:

- ❖ Pneumatic Conveying (dense phase positive and negative pressure systems)
- ❖ Dynamic Weighing Equipment including Loss in Weight Feeders
- ❖ Air Filtration Equipment and Systems
- ❖ Industrial Vacuum Cleaning (centralised, fixed and mobile systems)
- ❖ Valves for Controlling the Flow of Bulk Materials



Schenck Process Vacuum Conveying technology is used throughout the Food, Pharmaceutical, Chemicals, Minerals and Plastics industries to handle both raw materials and finished products.

The key components in a Schenck Process vacuum system are the pick up and reception points which are based on a modular construction with patented dust proof seals and quick release clamps to simplify cleaning or autoclaving. Complete units can be stripped down in minutes.

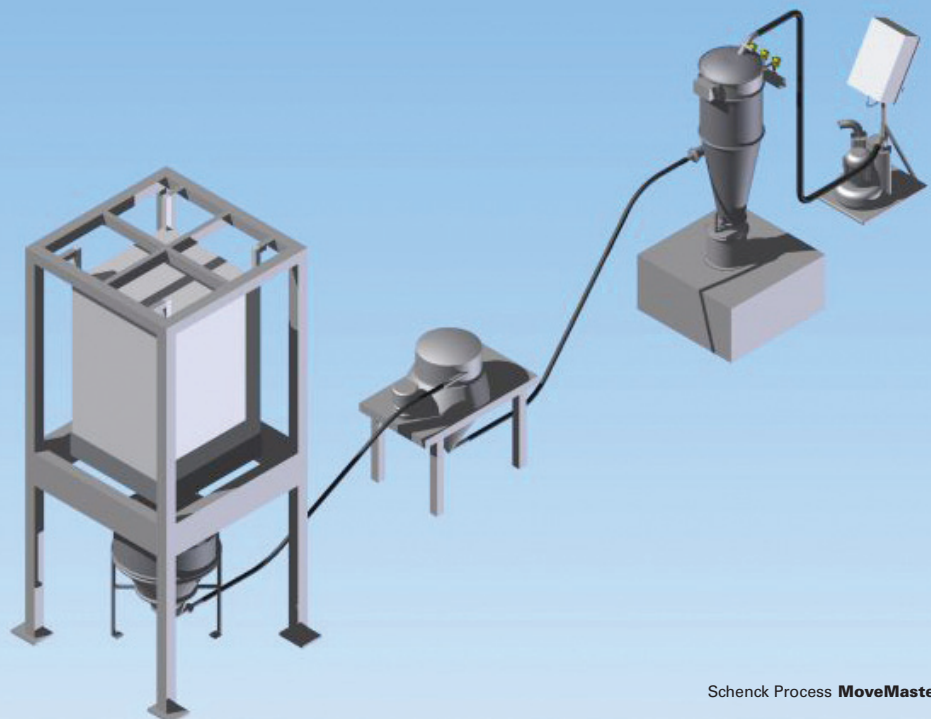
Modular construction also means changing process needs can be readily accommodated by simply replacing the relevant standard components from the wide range available.



Schenck Process provides systems that meet with the most stringent requirements, including:

- ❖ Contamination Free Transfer of Materials
- ❖ Stainless Steel Construction for Equipment/Material Contact Parts
- ❖ Easy Clean Surfaces, Crack & Crevice Free
- ❖ Especially Suitable in Meeting ATEX Legislations
- ❖ Modular Construction - Easy to Dismantle and Reassemble
- ❖ Flexible to Match Process Needs
- ❖ Compliance with EC Regulation No 1935:2004 and CE compliant

Complete material handling processes from big bag or sack deliveries to product manufacture can be supplied.



MoveMaster® Vac

Vacuum Conveying Systems

Main Components of a Vacuum Conveying System

From pick-up device to piping to receivers and vacuum pumps.

Schenck Process offers a wide range of equipment for your pneumatic conveying needs.

Material Pick-up

From simple suction wands for free flowing materials to fully fluidized feed bins, silo pick-up pots or bag dump stations with pre-feeders for powders.

Schenck Process offers a wide variety of equipment to ensure reliable material pick-up into the conveying air.

Conveying Line

Connecting one or multiple material pick up stations to a vacuum receiver. To ensure blockage-free conveying, diverter valves and line clearance valves are available in addition to the piping

Vacuum Receivers

Various models of central and self-contained receivers are available to separate the material from the conveying air stream, alternating between suction and discharge modes of operation.

Sequence & Vent Valves

Sequence & vent valves allow air stream to bypass and vent vacuum receiver during the discharge cycle

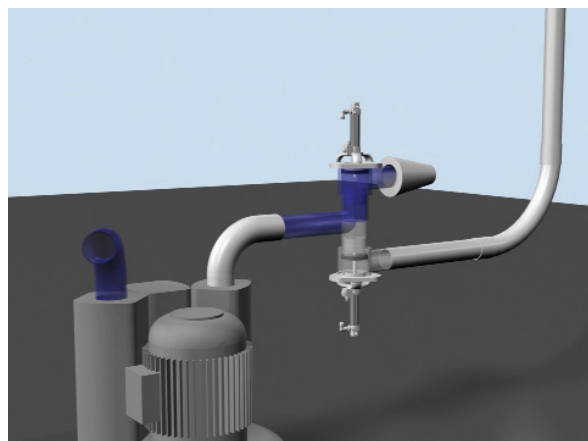
Vacuum Pumps

Motive air conveying can be provided by either compressed air powered venturi devices or mechanical blower packages.

A bypass valve allows the pump to run continuously and a secondary filter is used to protect the vacuum pump from damage by foreign bodies.

Controls

Controlled operator interfaces are available for single central or self-contained units. To control the sequencing of a multi-components system both microprocessor and PLC controls are available.



- ❖ The MoveMaster® Vac Conveying System is available in a range of shapes to suit the varying flow properties of different materials:- Standard unit, Tube hopper, Regular and Mini, in sizes ranging from 2ltr to 150ltr capacity.
- ❖ Unlike most vacuum conveying suppliers, Schenck Process has a range of filter cleaning configurations and filter media to ensure that the most effective filter is chosen for each application.
- ❖ The MoveMaster® Vac Conveying System is completed by adding a vacuum source to provide the motive air.
- ❖ There are options for the vacuum source depending upon application parameters and customer preference.
- ❖ These are electrical powered vacuum exhausters and positive displacement vacuum pumps, or alternatively compressed air driven Venturi units.
- ❖ Electrical powered vacuum sources are the most common and can achieve the highest throughputs and conveying distance in a vacuum system. Their power consumption is generally lower than the compressed air powered versions.
- ❖ The compressed air powered vacuum sources are more compact than the electrical power version which can be an advantage where space is limited. Due to it being compressed air powered it is suitable for operation in hazardous areas.
- ❖ Where required systems can be supplied compliant with ATEX Cat 2D or Cat 3D

Vacuum conveying systems are ideal for most short to medium distance (up to 100m) and low to medium throughput (up to 5,000 kg/hr) applications.

Whilst it is possible to use vacuum conveying for longer distances or higher throughputs Schenck Process are in the enviable position of having other conveying technology that are better suited to these applications.

MoveMaster® Vac systems are the preferred choice for hygienic applications due to the modular easy dismantle and clean features and the lightweight construction.



MoveMaster® Vac

Industry Application

Food Industry

The most common vacuum conveying requirement in the food industry is conveying ingredients from sacks or bulk bags into the various process steps within a food production facility and for the finished products are also transported to filling and packaging machines.

MoveMaster® Vac Conveying System can be provided to meet the hygienic demands (EHEDG, FDA, USDA) of the food processing industry.

The systems are able to handle materials with explosive dust properties and can be provided with appropriate explosion protection systems necessary to meet the requirements of the ATEX Directives.

Pharmaceutical Industry

The pharmaceutical industry has an extremely high demand for cleanliness and as many of the powders and ingredients produced and handled in the pharmaceutical industry are hazardous, or considered to be a safety risk, Schenck Process designed its range of MoveMaster® Vac conveyors to meet these special demands.

Equipment is also ATEX compliant and if necessary, inert gases can be used as the conveying medium.



Food & Pharmaceutical Applications

- ❖ Powder and granular materials transfer
- ❖ Dust-free sack unloading and transfer
- ❖ Flexible bulk bag unloading and transfer
- ❖ Silo discharge and transfer
- ❖ In-line sifting
- ❖ Reactor loading
- ❖ Mixer/blender filling and discharging
- ❖ Gravimetric (Loss-in-Weight) feeder refilling
- ❖ Volumetric feeder refilling
- ❖ Gain-in-weight batch weighing
- ❖ Loss-in-weight batch feeding
- ❖ Handling explosive materials
- ❖ Applications requiring explosion protection
- ❖ Inert gas conveying
- ❖ Hygienic applications
- ❖ Bespoke solutions

Chemical Industry

The chemical industry handles large volumes of aggressive materials that are abrasive, corrosive and sometimes hazardous. MoveMaster® Vac conveyors work with an enclosed vacuum system that ensures the highest level of material containment for the operator whilst at the same time being highly robust and durable to withstand operating conditions.

Conveyors are available to handle materials with explosive dust properties to meet the requirements of the ATEX Directives.

Plastics Industry

The plastics industry includes a wide variety of suitable applications for handling main materials and additives with MoveMaster® Vac conveyors whether it be bulk polymers, micro additives or for the processing of thermoplastics.



Plastics & Chemical Applications

- ❖ Powder and granular materials transfer
- ❖ Dust-free sack unloading and transfer
- ❖ Flexible bulk bag unloading and transfer
- ❖ Silo discharge and transfer
- ❖ Reactor loading
- ❖ Mixer/blender filling and discharging
- ❖ Gravimetric (Loss-in-Weight) feeder refilling
- ❖ Volumetric feeder refilling
- ❖ Gain-in-weight batch weighing
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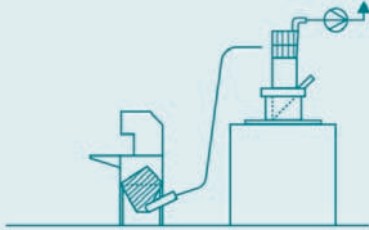
Additives groups

- ❖ Anti Counterfeiting
- ❖ Antimicrobial / Biostabilisers
- ❖ Antioxidant
- ❖ Antistatic Agents
- ❖ Biodegradable Plasticisers
- ❖ Blowing Agents
- ❖ External Lubricants
- ❖ Fillers/Extenders
- ❖ Flame Retardants
- ❖ Fragrances
- ❖ Heat Stabilisers
- ❖ Impact Modifiers
- ❖ Internal Lubricants
- ❖ Light Stabilisers
- ❖ Pigments
- ❖ Plasticisers
- ❖ Process Aids
- ❖ Reinforcements

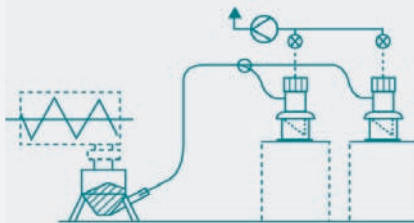
MoveMaster[®] Vac

Typical Application

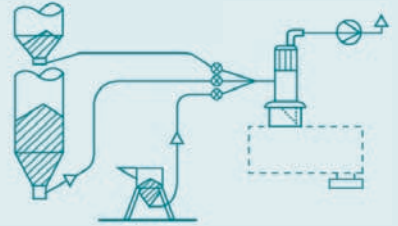
Bag Tip Bin for Dusty Materials



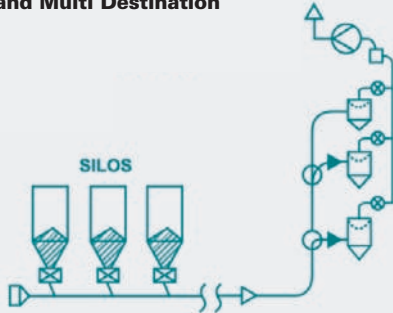
Single Line Pick Up For Multi Destination



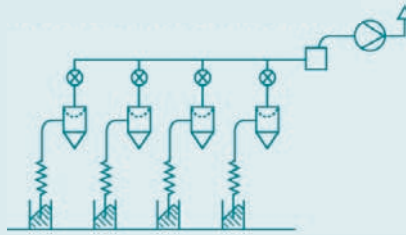
Multi Material Pick Up For Single Destination



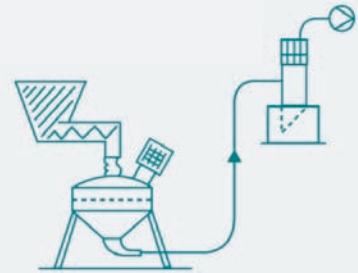
Single Line For Multi Pick Up and Multi Destination



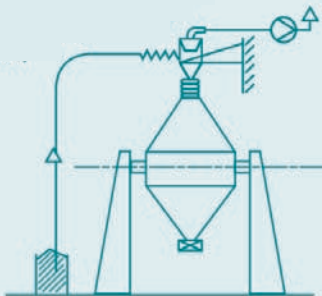
Basic System for Local Pick Up



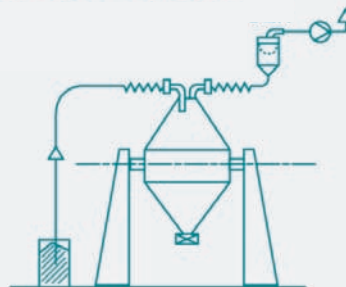
In Line or Vacuum Assisted Sieving



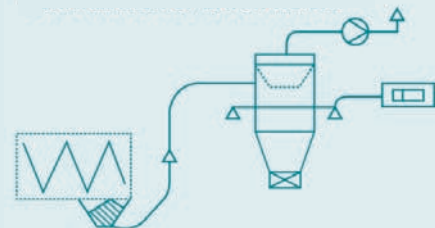
Indirect Blender Load (Blenders Unable to Take Vacuum)



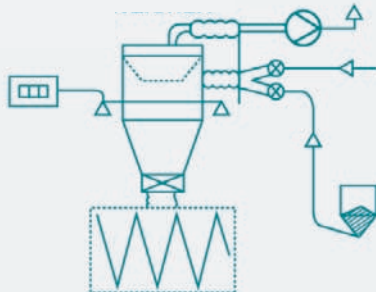
Direct Double Cone Blender Load with Fines Return



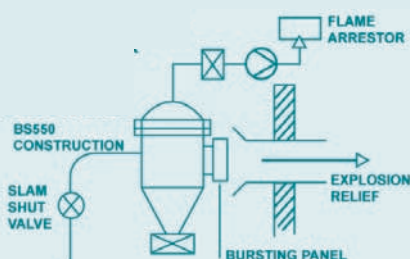
Confirmation of Batch Weight



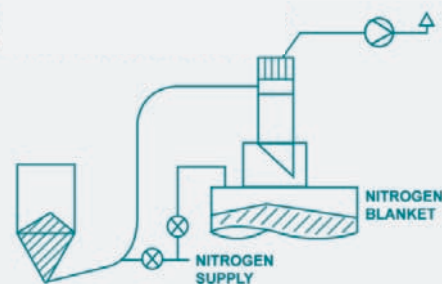
Multi Material Weigher with Totaliser



Explosion Relief Systems for Potentially Hazardous Materials



Inert Gas Conveying for Hazardous Materials





Process
Advanced
Service
System

PASS

Complete solutions for your requirements

Looking for after-sales solutions? Our extensive Process Advanced Service System (PASS) provides you with after sales services - Customised 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 comprising 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 thereof. 4 categories help to easily find appropriate PASS products.

We would happily provide you with individual consultation, either as part of a PASS contract or on individual enquiry.

Whatever Full Service means to you - let's create it together!

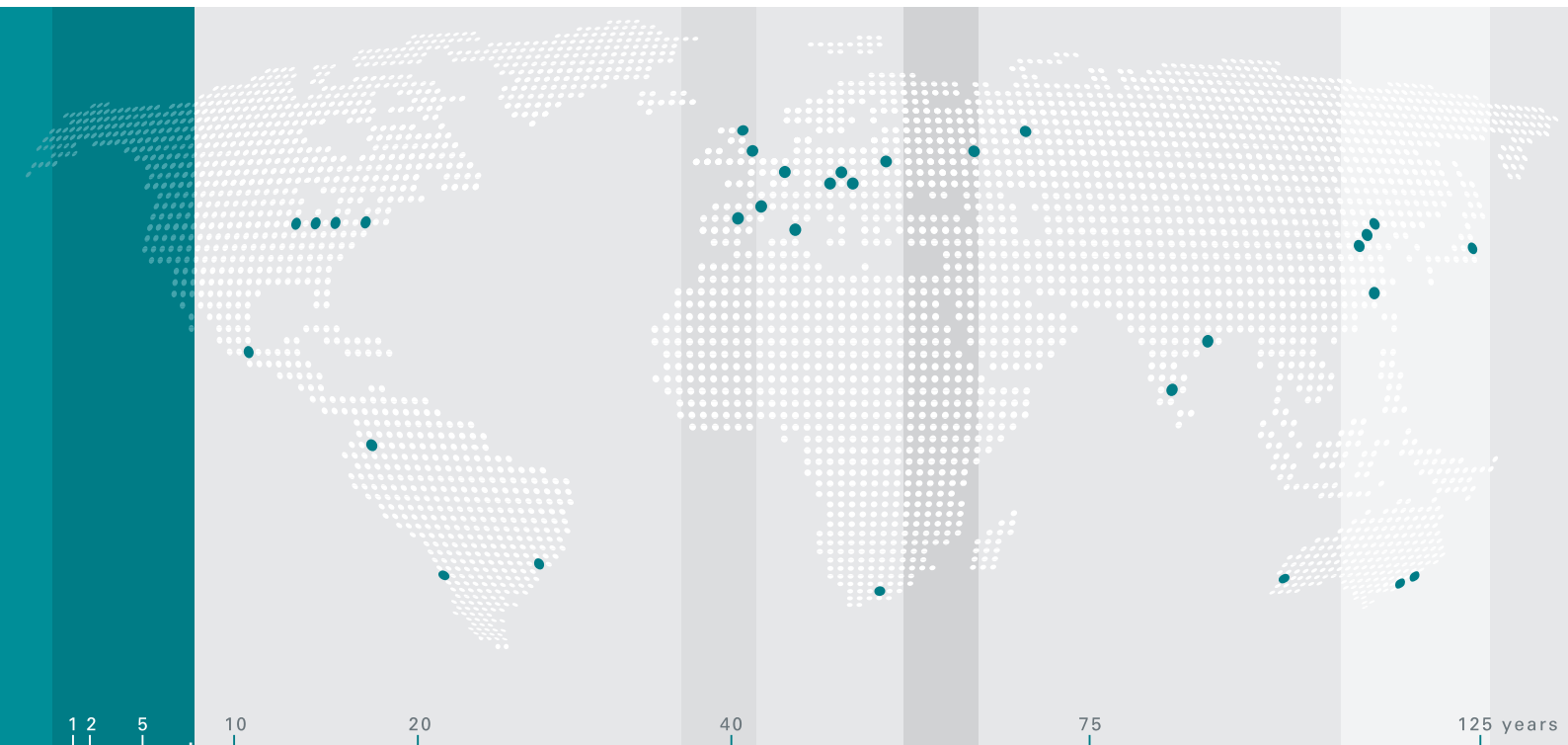
Our PASS service categories

 **Repair**

 **Inspection**

 **Management**

 **Support**



Schenck Process is the global market leader of solutions in measuring and process technologies in industrial weighing, feeding, measuring, conveying and automation.

Schenck Process develops, manufactures and markets a full range of solutions, products and turnkey systems on the basis of combining process engineering expertise, reliable components and field-proven technology.

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we make processes work