

Schenck Process industrial air filters – the smart dust collection solution



Over 40 years of industrial air filtration experience and extensive process systems knowledge

Schenck Process Group – your partner worldwide

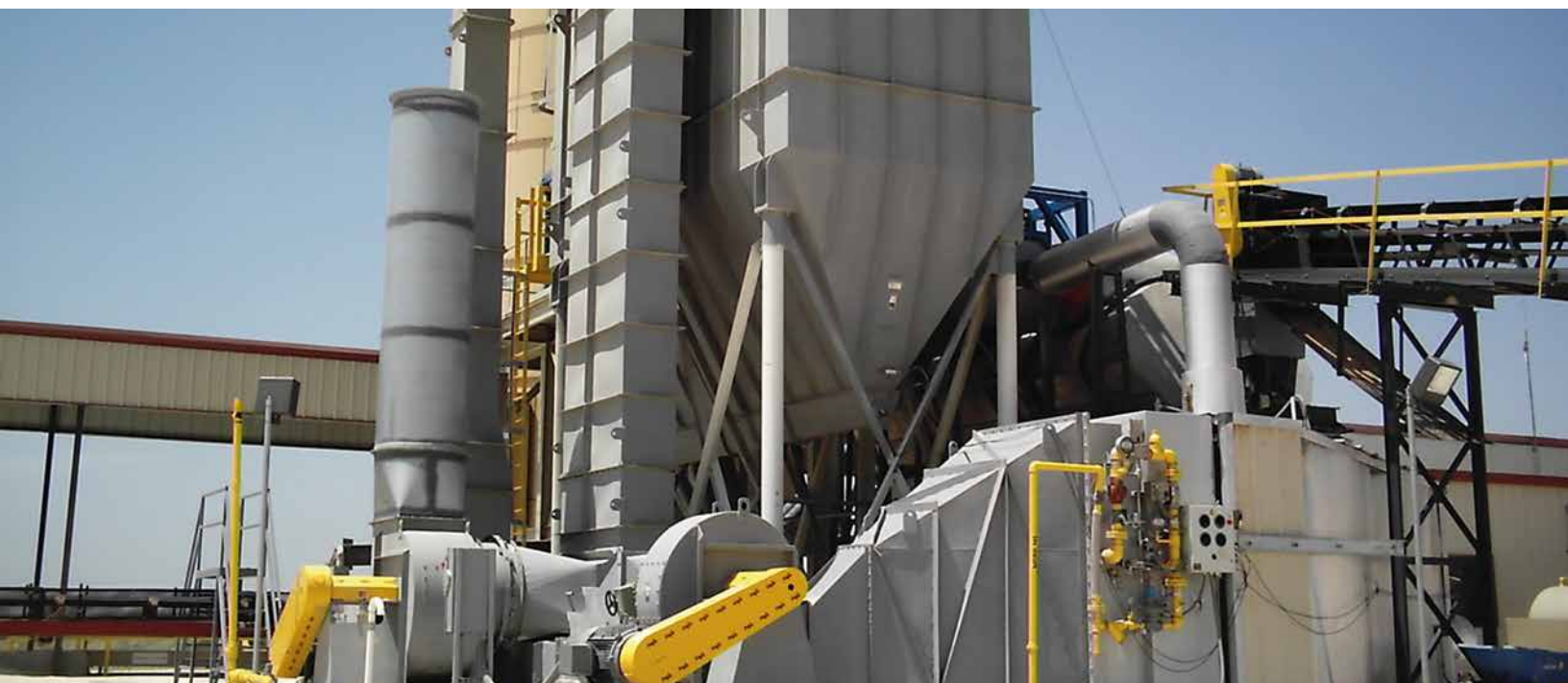


Acting locally to support your needs the Schenck Process Group is working where you are.

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

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

Extensive industrial air filtration expertise with process systems knowledge



Schenck Process offers a portfolio of industrial air filtration products that have been designed specifically for European technical and process requirements. Based on the Mac Process dust collectors, which have been successfully cleaning the air in the USA for over 40 years, the extensive range includes bag and cartridge filtration products suitable for a large range of air flows and applications.

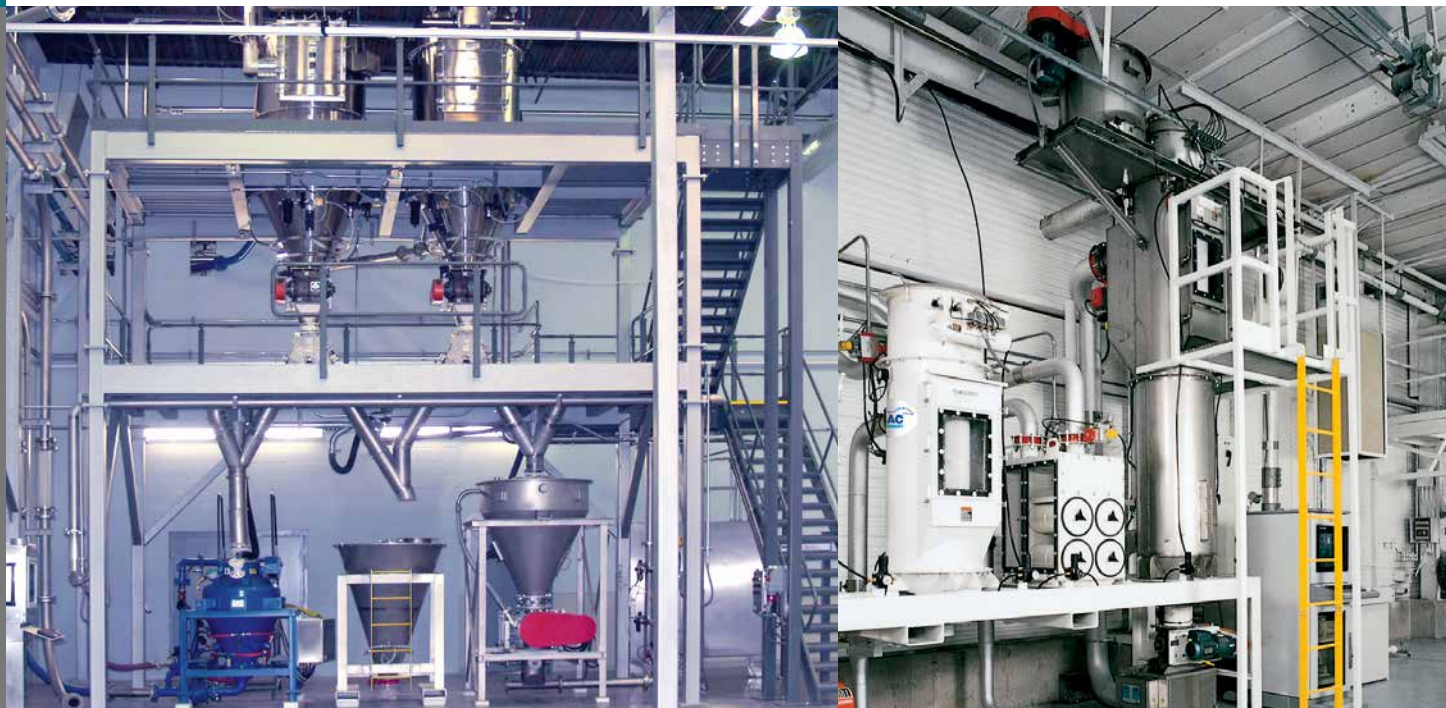
The range has been designed to offer the customer unrivaled flexibility. Filters can be accessed for media changing via the top or the side to suit process or site requirements, and most of the products within the range are available in four formats:

- ❖ Clean air plenum only
- ❖ Clean air plenum and filter body
- ❖ Clean air plenum, filter body and bottom hopper
- ❖ Clean air plenum, filter body and bottom product receiver hopper for conveying applications

Schenck Process has considerable experience of controlling dust in process areas which reduces the potential risk of explosion. When handling explosive dusts the range of filters is ATEX compliant and can be fitted with a variety of explosion prevention technologies such as explosion venting, flameless venting or suppression to suit specific site or material requirements.

TestCenter

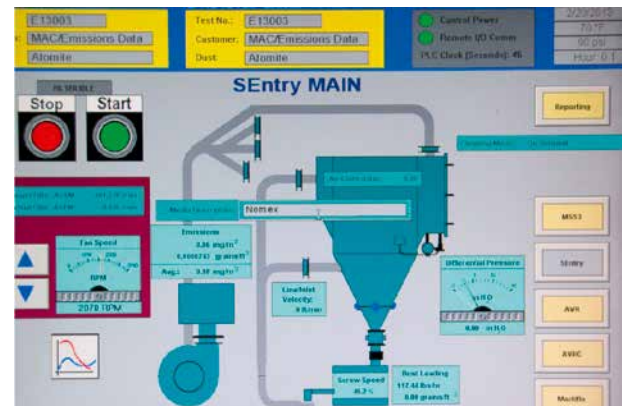
Perfect reliability through extensive tests on more than 600 different types of material at the Schenck Process TestCenters.



Unique to the filtration industry, the Schenck Process TestCenter includes a Particle Emissions Test (PET) system that records and graphs air flow and velocity, air-to-cloth ratios, pressure differentials, inlet loading and outlet mass emissions. The system also accurately predicts PM2.5 emissions and provides the necessary information to design the most ideal solution based on the customer's requirements and application.

The key to specifying the correct type and size of filter for a particular application is experience. Schenck Process, utilizing the combined knowledge of group members Mac Process in the USA and Clyde Process in the UK, can call upon over 40 years of test work which has provided detailed sizing information for over 600 dusts.

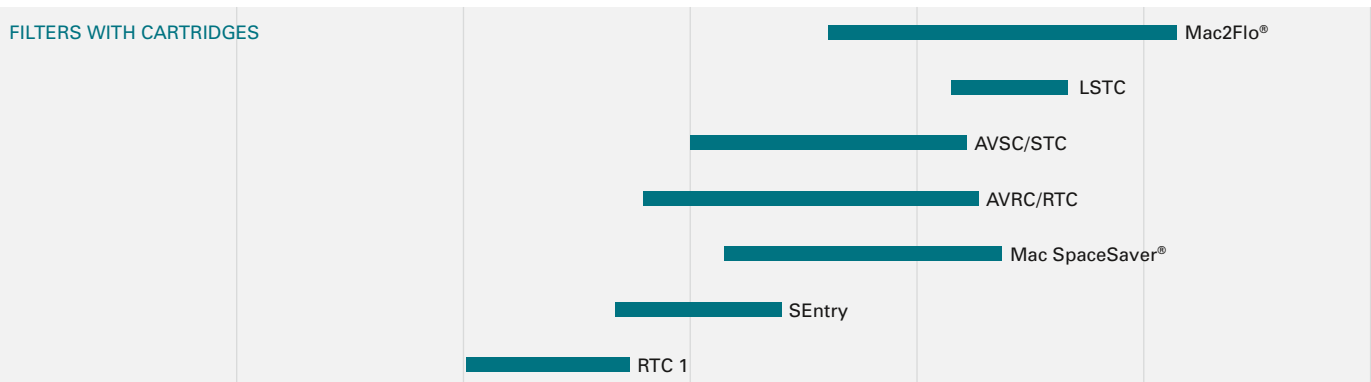
Also, if data for a particular dust is not listed, Schenck Process can test it in the state-the-art filtration TestCenter.



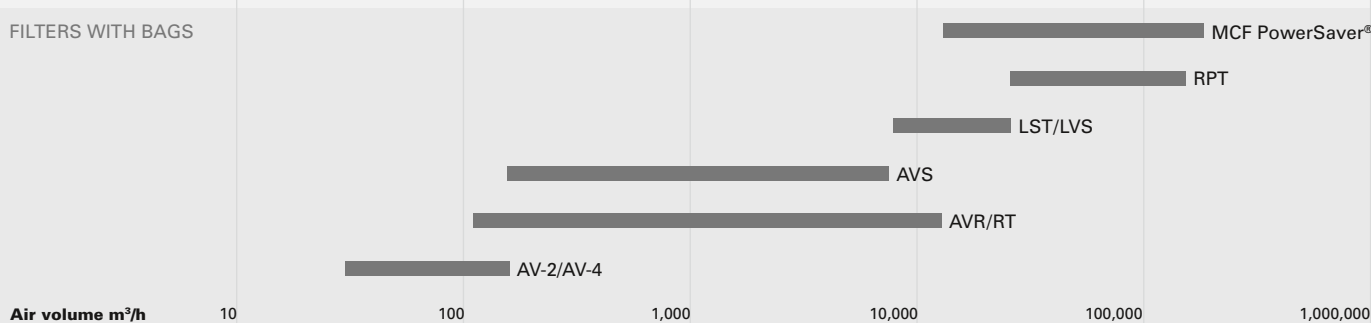
Solutions for all air flows.

The right filter for every application.

FILTERS WITH CARTRIDGES

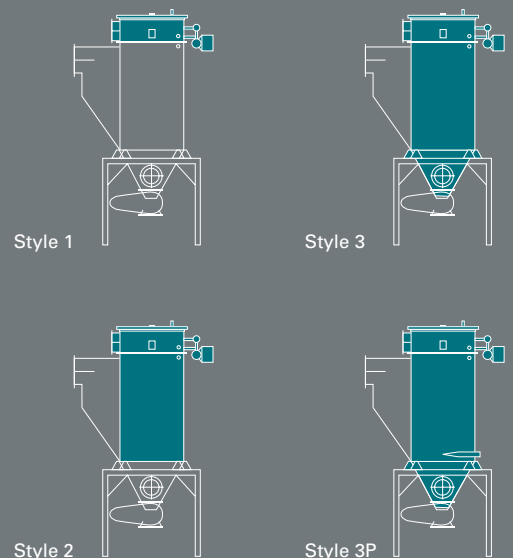


FILTERS WITH BAGS



To accommodate process and application conditions, square, circular or rectangular filter housings can be offered in carbon or stainless steel. Most filters can be supplied with either side- or top-mounted access doors to facilitate removal of filter media for inspection or replacement. The majority of the filters use externally supplied high-pressure compressed air to clean the filter media, with the exception of the MCF PowerSaver® model, which uses an integral medium pressure blower giving the benefit of reduced energy consumption.

The products are available in a number of different styles to suit both customer and installation requirements. The base format is style 1 with a clean air plenum, reverse jet cleaning system and filter media connections. Style 2 also includes the main filter body, and style 3 includes both the filter body and discharge hopper. If the unit is required to function as a product receiver in a conveying system, that option is available as style 3P.



MCF PowerSaver[®] dust filters: the economical solution.

Designed green. Built strong.



As the cost of energy continues to increase, plant managers are continually looking for ways to reduce power consumption. Part of the Schenck Process filter portfolio is the unique MCF PowerSaver[®], a dust collector that can save up to 50% of operational costs by using medium pressure air at only 7 psi for the cleaning cycle. The air is provided by its own blower, therefore no plant compressed air is used, potentially freeing up the expense to produce air for other applications.

- ❖ Heavy duty carbon or stainless steel construction
- ❖ Walk-in clean air plenum with lifting lugs
- ❖ Hinged service door for easy access
- ❖ Direct-drive rotating surge tank, diaphragm valves and distribution arm powered by an explosion-proof motor
- ❖ Mechanically controlled medium pressure air cleaning mechanism consistently discharges air directly over filter bags
- ❖ Topside cage and snap-band bag removal – no tools required
- ❖ Self-contained positive displacement pump supplies all the air that is required for filter cleaning
- ❖ Stainless steel explosion vents are available on request

Mac2Flo® dust collector

High filtration efficiency for the finest dusts.



The Mac2Flo® provides cost-effective filtration of the finest submicron dusts. The unit operates using the downflow principle, which guarantees effective settling of the fine, light dusts with low terminal settling velocities. As each filter cartridge can contain up to 254ft² of media, large filtration potential can be housed within a relatively compact housing.

- ❖ Modular design reduces initial capital cost and makes future expansion easy
- ❖ Tool-free cartridge removal reduces ongoing maintenance costs
- ❖ Reduced setup time lowers installation costs
- ❖ Compact design takes up less floor space

Mac SpaceSaver®

The biggest improvement in dust collection is also the smallest.



The Mac SpaceSaver® is a low profile, compact filter which is ideal for installations where there is a need for high-efficiency dust collection, but limited floor space or headroom is available. It is also suitable for areas that are not easily connected to central dust collection systems.

- ❖ The patented cleaning mechanism thoroughly pulses the cartridges using directed airflow
- ❖ Saves energy with more efficient use of compressed air
- ❖ Cartridge life is also extended to reduce consumable costs
- ❖ Tool-free maintenance for changing the filter cartridge
- ❖ Unique blowpipe configuration speeds up maintenance
- ❖ Quick release handles allow fast, tool-free removal of the entire blowpipe section

Pulse jet filters.

An extensive range of product and application options.



Schenck Process pulse jet filters can be used in a wide variety of air filtration applications. There are nine different products in the pulse jet range for a wide range of air volumes, access positions and air inlet arrangements.

All models incorporate the same compressed air cleaning technology, reliable components and high-quality construction.

As part of the aftermarket service and spares package, Schenck Process is able to supply new and replacement air filtration bags, cartridges and ancillary parts for the full range of filter products. Schenck Process filter media are designed to ensure the most efficient performance of the filter unit, and it is recommended that Schenck Process branded filter media is continually used to maintain this high performance level.

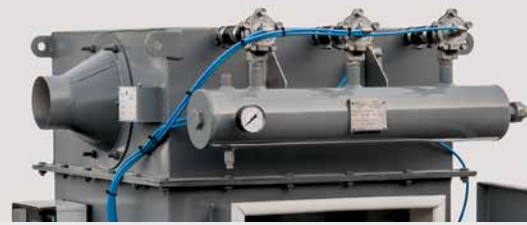
Replacement bags and cartridges for other manufacturer's filters are also available. Contact our aftermarket sales team for details.



SEEntry (side entry)

The SEEntry horizontal cartridge filter is designed for low headroom applications.

- ❖ Easy maintenance and accessibility even in confined spaces
- ❖ Eliminates the need for a ladder and/or safety cage
- ❖ Rectangular envelope-style cartridge design minimizes product retention on the filter cartridge
- ❖ Wide pleat arrangement allows for high air-to-cloth ratios
- ❖ Can be explosion-vented through the roof without increasing the cross-sectional area of the filter unit



AVS/AVSC filters (air vent square)

These are bottom removal (below the tube sheet) filters.

- ❖ Without the hopper (style 2) the filter is ideally suited as a bin vent filter for storage tanks, work bins and surge hoppers.
- ❖ With a 60° hopper (style 3) the filter receives dust through a hopper entry inlet and discharges the collected dust into a bin or through an airlock for dust disposal or recycling.
- ❖ The filter can be customized for higher operating static pressures to meet specific application requirements.
- ❖ AVS filters utilize bag media while the AVSC contains cartridge media.



AVR/AVRC filters (air vent round)

These are bottom removal (below the tube sheet) filters capable of handling heavy dust loads.

- ❖ Style 2 type filters are ideally suited as bin vent filters for storage tanks, work bins and surge hoppers.
- ❖ Style 3 type filters with a 60° hopper can receive the dust into a bin or through a hopper entry inlet and discharge the collected dust through an airlock for dust disposal or recycling.
- ❖ The filter can be configured with a pneumatic receiver section and receive product from a vacuum or pressure conveying system.
- ❖ AVR filters utilize bag media while the AVRC contains cartridge media.



ST/STC filters (square top-removal)

Similar to the AVS filter, but with top removal. The filter media is installed and removed through the clean air plenum of the filter.

- ❖ Hinged top doors allow clean air access to the filter media.
- ❖ ST filters utilize bag media while the STC contains cartridge media.



LST/LSTC filters (large square top-removal)

Similar to the ST filter, but larger. The filter media is installed and removed through the clean air plenum of the filter.

- ❖ The plenum can be designed as a walk-in plenum so the filter media replacement and maintenance can occur in an enclosure.
- ❖ When the option of a walk-in plenum is not selected, hinged doors on top of the plenum provide access to the filter media.
- ❖ LST filters utilize bag media while the LSTC contains cartridge media.



RT/RTC filters (round top-removal)

Similar to the AVR filters, but with top removal. Filter media is installed and removed through the top side or clean air plenum of the filter.

- ❖ Designed for low air volumes, the RT can handle higher pressure or vacuums than a square or rectangular unit.
- ❖ RT filters utilize bag media while the RTC contains cartridge media.



RPT filters (rectangular pulse top-removal)

A rectangular top removal bodied filter unit designed to handle high air volumes.

- ❖ Bags are removed vertically from the top clean section.
- ❖ The plenum can be designed as a walk-in plenum so the filter media replacement and maintenance can occur in an enclosure.



LVS filter (large vent square)

Side removal filters designed to handle medium to high air volumes.

- ❖ The filter is particularly suited for applications where headroom is an issue.
- ❖ Bags can be removed via an access door on the side of the unit.



AV-2 and AV-4 filters

Compact square or rectangular filter designs.

- ❖ Available in either a two-bag or four-bag arrangement
- ❖ Ideally suited for cleaning the air vented from rotary airlocks and surge hoppers
- ❖ Suitable for venting small volumes of displaced air

Air filtration solutions for a wide range of industrial sectors



The range of Schenck Process air filtration and dust collection products are designed and manufactured to be installed in a wide variety of industrial processes. Installations throughout the world can be found in the following industries and applications:

- ❖ Chemical plants
- ❖ Pharmaceutical factories
- ❖ Food processing factories
- ❖ Sugar refineries
- ❖ Agricultural and grain processing
- ❖ Pet food manufacture
- ❖ Biofuels and biomass transport and storage systems
- ❖ Wood processing and board manufacture
- ❖ Iron and steel manufacturing industries
- ❖ Cement and gypsum factories
- ❖ Plasterboard manufacturing plants
- ❖ Pulverized and solid coal handling
- ❖ Ash handling
- ❖ Recycling facilities
- ❖ Paper manufacturing and converting
- ❖ Iron ore, copper and gold mine sites



Process
Advanced
Service
System

PASS

Complete solutions for your requirements

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

The framework of our PASS program is designed with you in mind. With the guidance of our experienced aftersales 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!

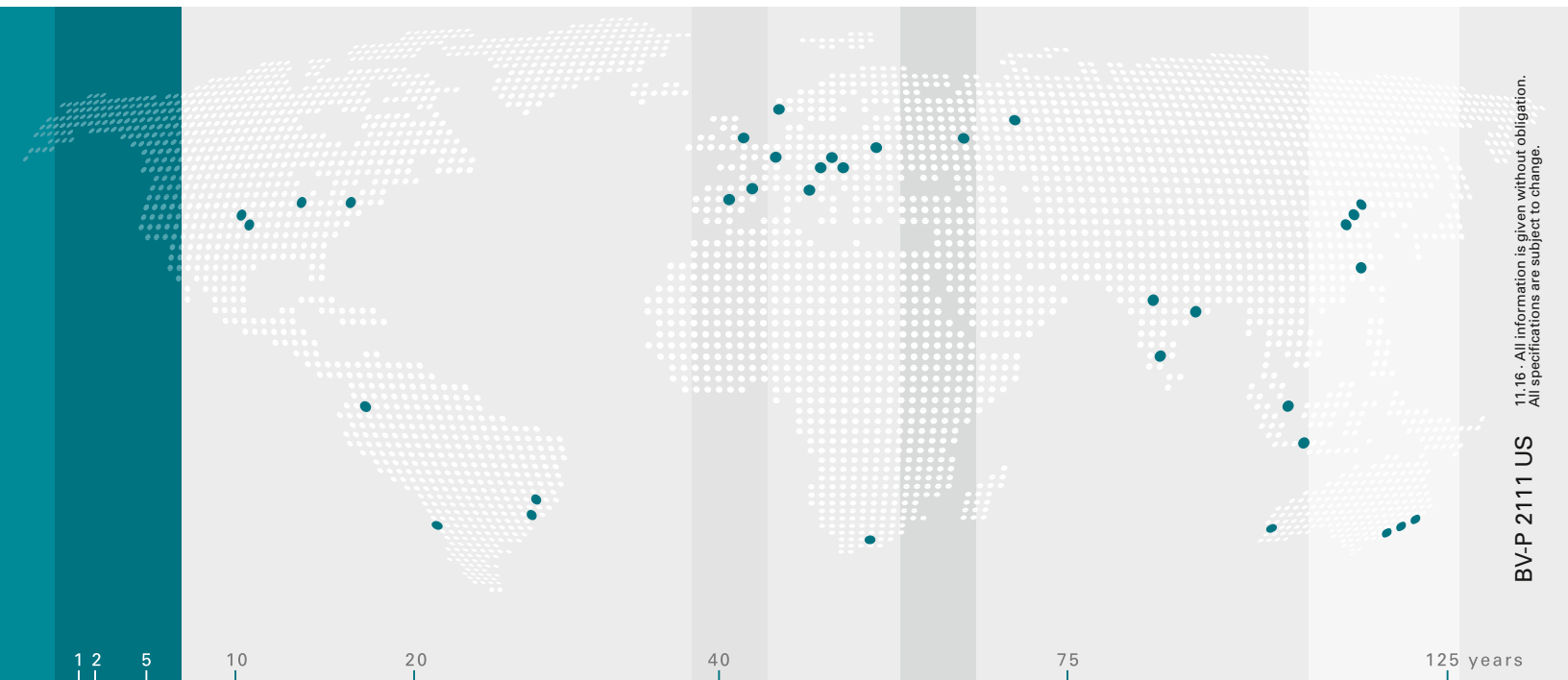
Our PASS service categories

PASS Repair

PASS Inspection

PASS Management

PASS Support



BV-P 2111 US 11.16 - All information is given without obligation. All specifications are subject to change.

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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we make processes work