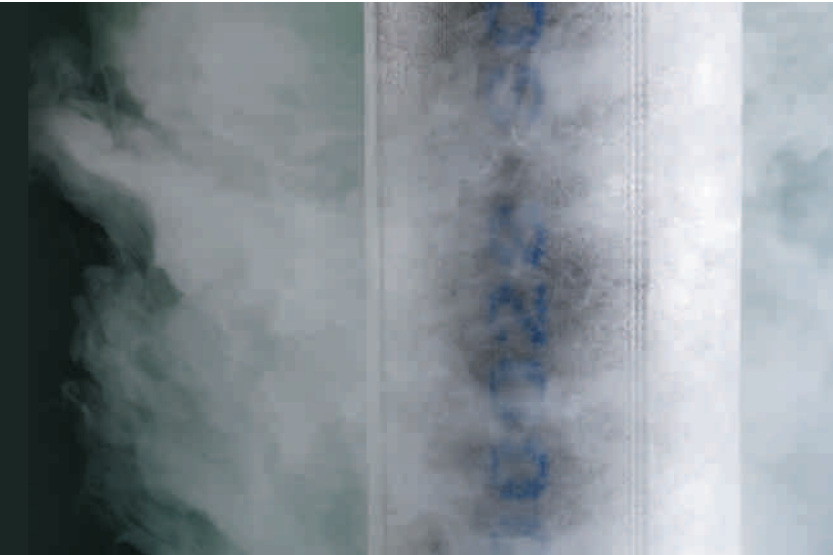


# Filter technology

It is the details that make the difference





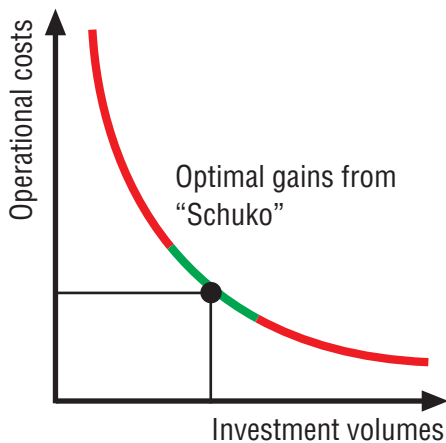
## Planning and implementation – all from one hand

Schuko is your specialist for extraction and filter systems. Advice, planning, manufacturing, delivery, installation, startup, maintenance and operators' training, everything is in our hands. This is what we understand to be service.

With a strength potential of 150 specialized staff members distributed over five factories, Schuko, managed by its owner, has been producing for more than forty years extracting and filtering units as are used in wood, paper and plastics processing as well as in recycling. The company's range of customers reaches from simple craftsmen through medium-sized factories up to large-scale industries.

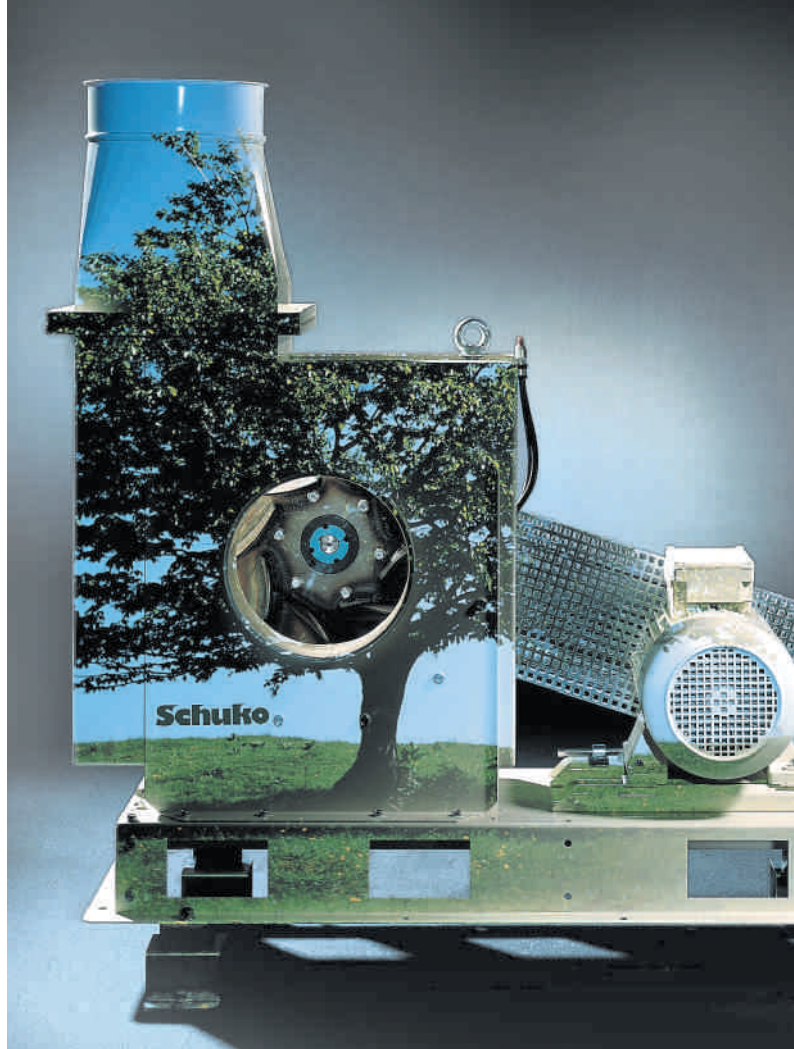
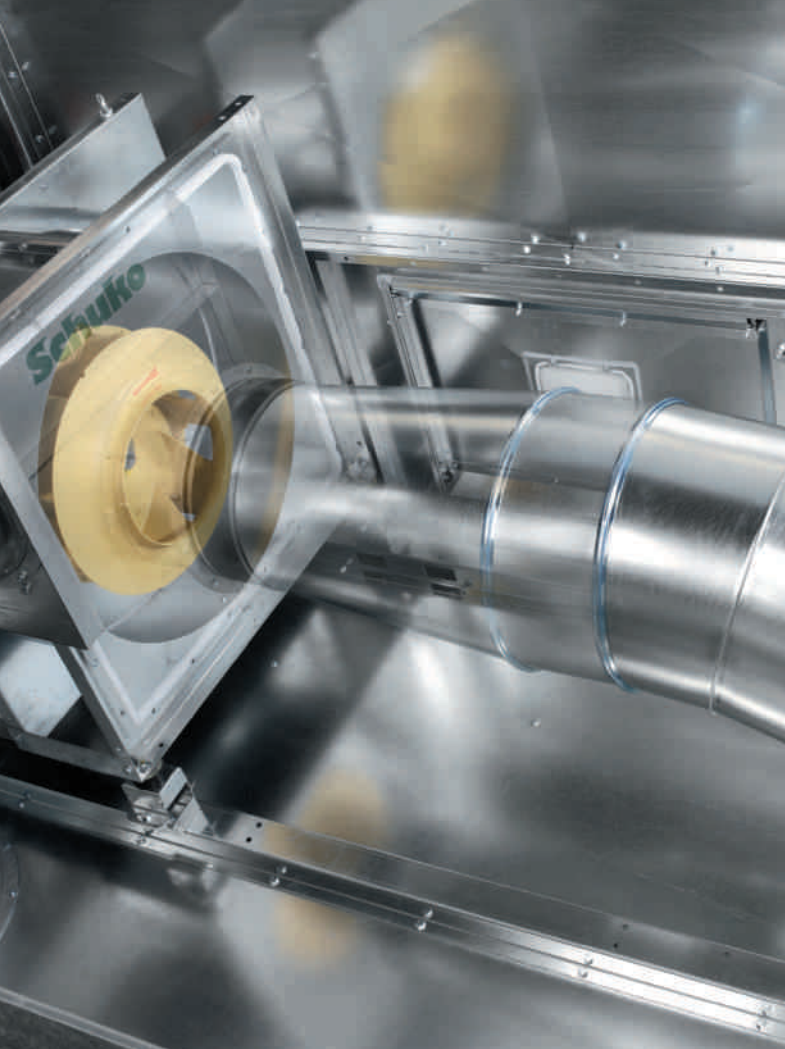
As a member of the VDMA (Verband Deutscher Maschinen- und Anlagenbauer e. V. = Association of German Engineering Companies), Schuko attaches great importance to plant safety according to the state of the art and to the applicable standards. A great deal of the company's products have been tested and approved by the responsible employers' liability insurances (such as the Holz-BG). Such products bear the GS and "Tested for Dust" Marks. Schuko stands for high performance and quality. Just take us at our word and convince yourselves.

# We do not even neglect the smallest detail



Schuko designs, manufactures and assembles highly efficient extraction and filter systems. The installations are set up according to economically viable points of view, and their individual components are designed for safe operation over a long lifetime. It is the details that make the difference between our installations and those of other suppliers. Schuko is well-known for its refinements in plant construction. Even in the production of the sheet metal used, utmost importance is attached to rust prevention, stability, tightness and compression strength.

Special fans, piping systems with optimum flow characteristics, optimized material separators, effective filter systems and perfected control units form the basis of any installation and guarantee trouble-free operation. Our specialist knowledge gained over more than forty years of experience and the cooperation with strong partners are a guarantor for cost-effective plant operation and for your production success.



## The fan as the heart of the extraction system

The fan as the performance centre and heart of an extraction system determines the effectiveness and the operational costs of the latter. Schuko radial fans are manufactured as welded industrial constructions and are designed for many years of operation. Highly efficient impellers form the basis for optimum energy utilization. Their design complies with the requirements of DIN 24166 “Technical Delivery Conditions for Fans”.

These fans are especially suitable for the pneumatic conveyance of dust and chippings as are produced in woodworking as well as in wood and plastics processing. By the selection of different impellers, the fans can also be used for operation at the clean-air side. For paper processing, Schuko offers a range of specific fans.

To reduce sound emission at workplaces and to solve sound insulation questions concerning the neighbourhood of installations, Schuko can supply high-grade sound proofing systems. Housing insulation, sound insulation cabins and absorption silencers will be sized and optimized to your needs.

## The filter as a part of the disposal concept



The filter installations from Schuko are unrivalled in their versatility and performance capabilities. They can be used both in the overpressure sector and for vacuum operations. The discharge system can be matched to your respective application.

In addition to material discharge into a container through a closed circular pipeline (refer to the upper left picture), alternative discharging into two containers (see upper middle picture) or direct discharge into one container (upper right picture), the filling of chip collecting bins is also possible.

By their versatility and orientation towards the future, the filter installations from Schuko stand for the state of the art in filtering and are a decisive contribution to product quality and labour safety.



## We do not leave you in the dust

From heavy-duty dedusting down to detailed solutions, Schuko designs, manufactures and installs highly efficient dust extraction and filtering systems for any applications in various industries. Whether woodworking and wood processing, paper and printing industries, die making and model construction or recycling, Schuko always offers innovative solutions with the highest economic effects for the separation of dust and chippings. The economic efficiency is a guarantor of the future of any company.

The specially developed automatic cleaning technology from Schuko increases the cleaning effect by up to 40 % compared with conventional systems. Thus, production can run without any interruptions. So your company will benefit from such continuous extraction from all processing machines, minimize operating costs and, at the same time, will gain additional production capacity. Optimized components of maximum material quality, from the fan over the piping up to the filter systems together with perfected controls are the basis of long operational lifetime for each installation.

A properly designed filter installation and the careful choice of the filter cloth is not only mandatory for the protection of persons and of the environment. The consequences of poor or incorrectly designed filter installations are insufficient suction performance, increasing electric power consumption, excessive filter wear, unclean outlet air and even deleterious return air. We shall show you new ways of avoiding such problems.

# Looking after the customer is Schuko's philosophy



It is our concept to be available for you around the clock. Our service staff will attend the installation of your plant and will be locally available for your maintenance work. The operating personnel of your company will be professionally trained by our service team. We shall analyze and instantly rectify any trouble that might occur.

We recommend you to perform preventive maintenance as lack of maintenance can cause consequential damage which can cost you dear in terms of down-time and increased repair expenses. It goes without saying that our after-sales service includes reminders given in good time regarding your maintenance intervals and due filter changing.



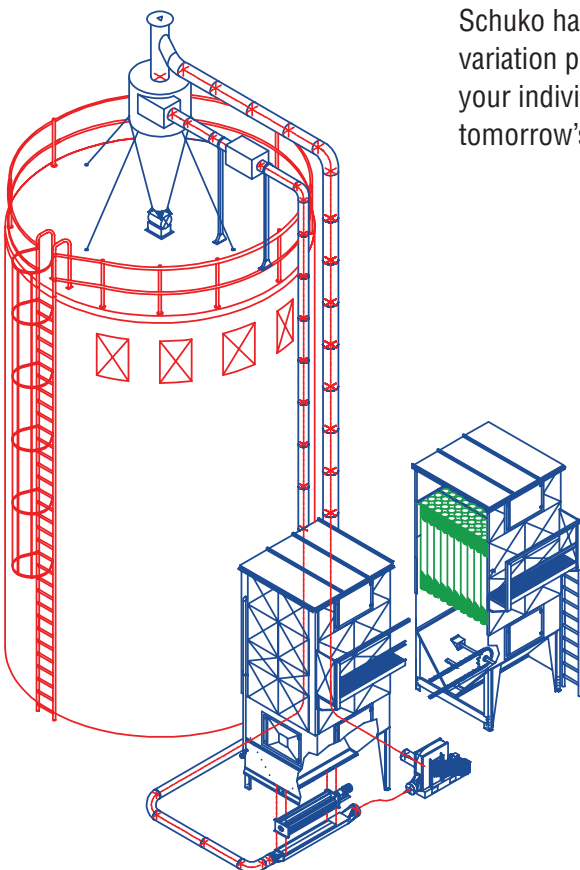


## The Schuko modular system - extendable any time!

Schuko has developed a modular system which holds an enormous variation potential. Exhaust-air cleaning can be optimized with respect to your individual range of applications. In this connection, you can attain tomorrow's emission figures already today.

For our products, the proven elements from the "Schuko-ZF" intermediate filter series already well-known for tens of years and some newly developed designs are combined in such a way as to obtain a filtering system of utmost efficiency. This system especially stands out for the fact that the filter can be supplied as both an individual element and as an add-on system which can be extended any time (see opposite sketch).

Such modular system offers an enormous variation potential and safety for the future of your company.





# Schuko filter specifications

## Schuko EcoVar 04, production series 2020 (refer to page 8)

Filter hose diameter: 160 mm; Surface area: 2,000 x 2,000 mm

Solo	Filter surface area [m <sup>2</sup> ]	Filter hose length [mm]	Minimum height* [mm]	Maximum height* [mm]
S-160-2020/20/100	100	2,000	5,295	6,995
S-160-2020-25/125	125	2,500	5,695	7,395
S-160-2020/30/150	150	3,000	6,095	7,795
<b>Drive element</b>				
A-160-2020/20/100	100	2,000	5,295	6,995
A-160-2020/25/125	125	2,500	5,695	7,395
A-160-2020/30/150	150	3,000	6,095	7,795
<b>Intermediate element</b>				
Z-160-2020/20/100	100	2,000	5,295	6,995
Z-160-2020/25/125	125	2,500	5,695	7,395
Z-160-2020/30/150	150	3,000	6,095	7,795
<b>End element</b>				
E-160-2020/20/100	100	2,000	5,295	6,995
E-160-2020/25/125	125	2,500	5,695	7,395
E-160-2020/30/150	150	3,000	6,095	7,795
<b>Combination element with blowing-in section</b>				
K-160-2020/20/60	60	2,000	5,295	6,995
K-160-2020/25/75	75	2,500	5,695	7,395
K-160-2020/30/90	90	3,000	6,095	7,795

\* The installation height depends upon the filter hose length and the waste disposal sub-construction.

\* Other dimensions on enquiry

## Schuko EcoVar 04, production series 2030 (refer to page 8)

Filter hose diameter: 160 mm; Surface area: 2,000 x 3,000 mm

Solo	Filter surface area [m <sup>2</sup> ]	Filter hose length [mm]	Minimum height* [mm]	Maximum height* [mm]
S-160-2030/20/150	150	2,000	5,395	7,095
S-160-2030-25/188	188	2,500	5,795	7,495
S-160-2030/30/226	226	3,000	6,195	7,895
<b>Drive element</b>				
A-160-2030/20/150	150	2,000	5,395	7,095
A-160-2030/25/188	188	2,500	5,795	7,495
A-160-2030/30/226	226	3,000	6,195	7,895
<b>Intermediate element</b>				
Z-160-2030/20/150	150	2,000	5,395	7,095
Z-160-2030/25/188	188	2,500	5,795	7,495
Z-160-2030/30/226	226	3,000	6,195	7,895
<b>End element</b>				
E-160-2030/20/150	150	2,000	5,395	7,095
E-160-2030/25/188	188	2,500	5,795	7,495
E-160-2030/30/226	226	3,000	6,195	7,895
<b>Combination element with blowing-in section</b>				
K-160-2030/20/90	90	2,000	5,395	7,095
K-160-2030/25/113	113	2,500	5,795	7,495
K-160-2030/30/135	135	3,000	6,195	7,895

\* The installation height depends upon the filter hose length and the waste disposal sub-construction.

\* Other dimensions on enquiry

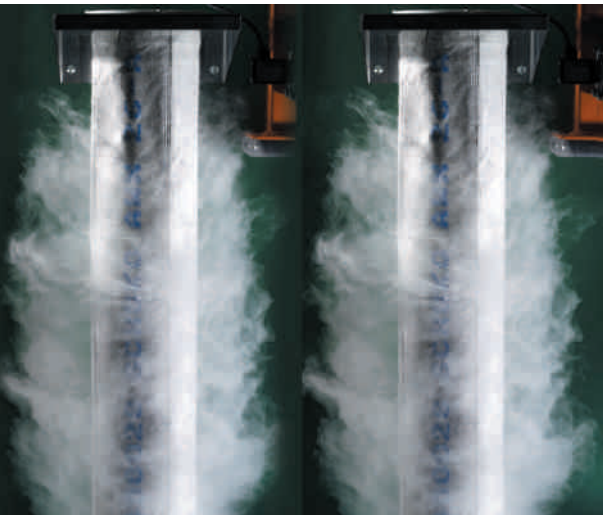
## Schuko Centro 3000 filter installation (refer to page 7 top left)

Filter hose diameter: 160 mm; Surface area: 3,000 x 3,000 mm

Solo	Filter surface area [m <sup>2</sup> ]	Filter hose length [mm]	Minimum height* [mm]	Maximum height* [mm]
3000-20/196	196	2,000	4,000	6,300
3000-25/245	245	2,500	4,600	6,900
3000-30/294	294	3,000	5,200	7,300

\* The installation height depends upon the filter hose length and the waste disposal sub-construction.

\* Other dimensions on enquiry



## Variably adapting to your production

Solo elements with a filter surface of 100 m up to 3,000 m large-size installations will ensure the safe removal of your dust, even if it is of critical nature.

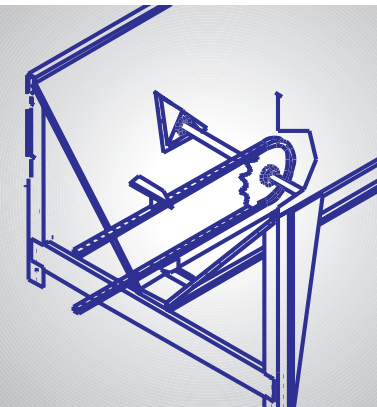
In addition to dusts produced in woodworking and in the processing of solid wood, wooden material panels and boards as well as of medium-density fibre boards (MDF), other dust and chippings resulting from the processing of materials such as plastics, paper, gypsum fibre boards, gypsum plaster boards, cement-bonded materials, insulation materials and fibreglass can be successfully precipitated and filtered out.

Schuko filter installations have been designed so as to enable changing to multi-shift operation any time.

Four different methods of filter regeneration facilitate the use of our filter installations for the removal and filtering of dusts such as can be produced in the processing of various materials:

- Cleaning over air-purge carriages (refer to top left illustration)
- Compressed-air cleaning (refer to top right picture)
- Pneumatic regeneration (refer to page 11, top right)
- Vibration cleaning by electric motor

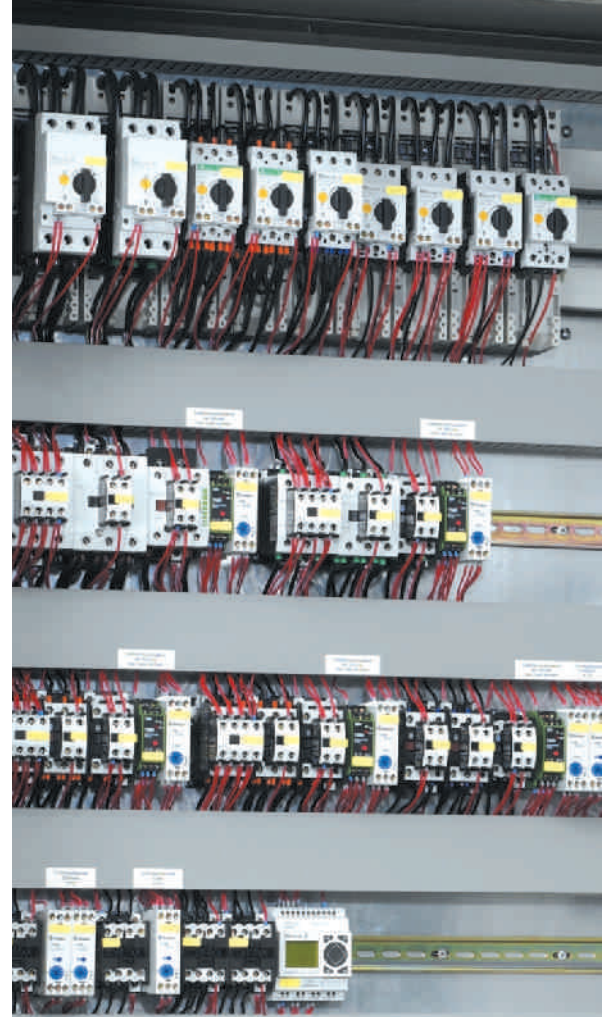
# Long-lasting functioning by solid technology



A long life of filter installations is decisive for any company. We utilize our complete knowledge for this purpose. The materials we use are in conformity with the most important requirements of DIN and EN standards and are factory-certified or are released by Schuko's incoming inspection department for being processed.

For Schuko, it is the details that make the difference, and we attach great importance to precise processing and dimensional accuracy. An example for this is the Schuko chain filter (refer to the sketch on the left) which especially stands out for having a mono-chain. Any jamming in the discharge system is impossible as the chain with its discharge elements guides itself in the funnel-shaped filter body.





## The control unit as the brains of the installation

No machine can function without a controlling unit, and we have directed our special attention to this component. Smooth production run can only be guaranteed by perfect and trouble-free control. We can deliver you everything from one hand, thus supplying you an electric control unit programmed for the workflow of all of your dust extraction and filtering installations.

No experiments! – Schuko only uses proven parts from renowned manufacturers to ensure that the supply of spare parts in case of malfunctioning will be quickly possible any time in order to reduce down-times to a minimum.

The control processes for the installation have been set so as to absolutely comply with all applicable regulations for the prevention of accidents (UVV) and to guarantee trouble-free functioning. The control processes are logical and comprehensible. If any defect should occur in the system, it will be displayed on the control cabinet or transferred to a control room.

The design is in conformity with the applicable regulations of the German Federal Associations, the trade supervisory board, and according to the VDE requirements.

# Safety by competence



For Schuko, safety plays an important role: All filter installations are manufactured or equipped in such a way as to comply with the VDI guidelines, especially VDI 3673 sheet 1, “Pressure venting of dust explosions”.

The Schuko filter installations have undergone several series of explosion proofness tests run by independent institutions (see photographs above).

Schuko filter systems are, for example, designed so as to have a smooth inner surface. This will have a lasting effect on the prevention of any deposits in the filter. The good accessibility to the filter inside guarantees simple maintenance, thus offering high availability of the installation.

Optimized pressure discharge areas and a 180° air deflection prevent the propagation of the pressure wave and the flame front to the factory rooms. All pressure discharge areas are ATEX-tested and have appropriate test certification. The fitting of fire-fighting spray nozzles and dry fire-fighting pipelines is mandatory.

The manufacturing and assembly of installation components is permanently monitored by Schuko’s quality control department. A documentation with conformity declarations and a comprehensive Operating and Maintenance Instructions manual based on CE standards are integral parts of the scope of supplies.



## Quality on an international level

Many years of international experience and inter-industry know-how permanently open up new aspects and approaches. Instead of letting rest the synthesis of proven quality and new aspects, Schuko is bringing it up to new levels.

Our knowledge is a continuous process that enables us to respond to future-oriented requirements and to meet them in any possible optimum way. We deliver long-life, compact and ingenious filter systems in due time and tailored to your needs.

The implementation of international standardized guidelines as well as taking into consideration environmental protection and labour safety aspects are as important elements for Schuko's outstanding quality as is the process-oriented use of its installations.

# Certified for the future



The standards prepared by the European Committee for standards (CEN/TC 142/WG 10) and manufacturers' regulations (Chips and Dust Extraction Systems – CADES) for extraction installations for wood dust and chippings are always complied with in the manufacture of our filter installations. Schuko does not only meet the applicable national standards, it also attaches great importance to European and international regulations in order to prepare you for the future too.

We are always one step ahead. Please convince yourselves and contact us. **We plan for the future not for the past.**





**Optimize your production – cut your overheads!**

**Schuko**

Dust extraction and filtering technology

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