

novus®
CLEAN AIR TECHNOLOGY



AIRTOWER

The Plug & Play filter tower for production hall air extraction
using the layered ventilation principle

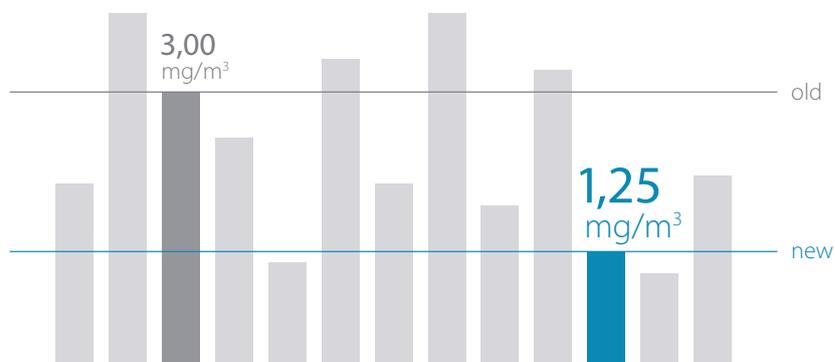


Clean air, healthy staff, successful business

Extract emissions where they occur – The air in a welding shop is often filled with undesired by-products such as fumes and finest dust particles. It goes without saying that breathing such substances, which in some cases are carcinogenic, is not an option, because a healthy skilled workforce is a valuable resource. Employers are obliged to protect their staff against health risks from hazardous substances. This is stated in the German Ordinance on Hazardous Substances (Gefahrstoffverordnung GefStoffV) and in regulations of the German Social Accident Insurance Institution (Berufsgenossenschaft).

Filter tower without pipelines – If the concentration of hazardous welding fumes exceeds the workplace exposure limit, something must be done. Opening a window and briefly airing out can hardly be an acceptable solution. Aside from the high heating costs, this method is not very efficient and does not fulfil the requirements stipulated by the local authorities. Extraction and filtering systems have proven to be useful, but they cannot always be placed where the emissions occur.

This is where the NOVUS Airtower delivers with its impressive room air treatment technology. It boasts an unbeatable advantage: In contrast to conventional extraction solutions, the flexible Airtower does not require any pipework.



Reduced limits for respirable dust:
Is your workforce at risk?



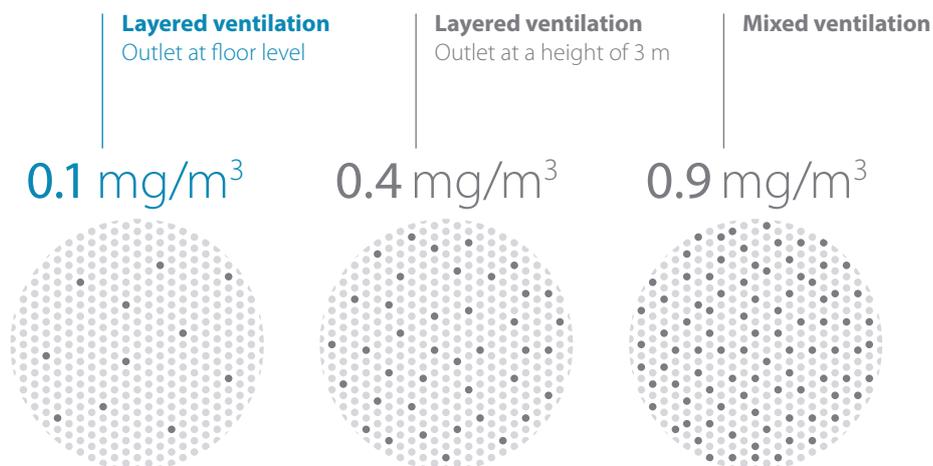
novus[®]
AIRTOWER

novus[®]

The dual-principle wizard: Layered ventilation combined with Plug & Play

The Plug & Play principle – Welding work is rarely done at one and the same work place or always at the same working height. This is why the equipment must be flexible to ensure efficient extraction. The Airtower has been specially developed for variable welding workstations. Our extraction wizard comes without pipelines and uses the plug & play principle so that it is ready to use immediately: set up, connect power and compressed air, start extraction. Thanks to its forklift slots and lifting eyes, the Airtower can be put in place almost anywhere quickly and easily.

The layered ventilation principle – If complete local extraction of the hazardous substances is not possible at the source of emission, the filter tower offers itself as a brilliant air-cleaning solution. The contaminated air is aspirated, filtered and then discharged as clean, breathable air at ground level with no air drafts. Exactly where employees breathe. And this through an extended 270-degree range. Here, the Airtower works on the basis of the layered ventilation principle, which is recommended by the German Social Accident Insurance Institution and is seen as the best form of air recirculation.



*Highest cleaning performance
thanks to layered ventilation*

VERY LOW-NOISE OPERATION
Optimised noise insulation.

SIDE PANELS

Made of high-performance polycarbonate.
Impact-resistant. Scratch-resistant.
Heat-resistant.

LIFTING EYES

For easy re-positioning.

NOVUS LOGOLIGHT

All important data at a glance.



OPTIMUM FILTER MEDIA
For all application areas.

ROUND DESIGN
270° air distribution,
draught-free backflow.

CONTROLLER

With intelligent filter media cleaning.

SEPARATELY REMOVABLE DRAWER

For coarse and fine particulate matter.

FORKLIFT SLOTS

For variable positioning.

- + *Advanced functionality meets attractive design*
- + *Fully automated operation*
- + *270° draught-free, filtered clean air in the breathing zone*
- + *Market leader for low-noise and energy-efficient operation*

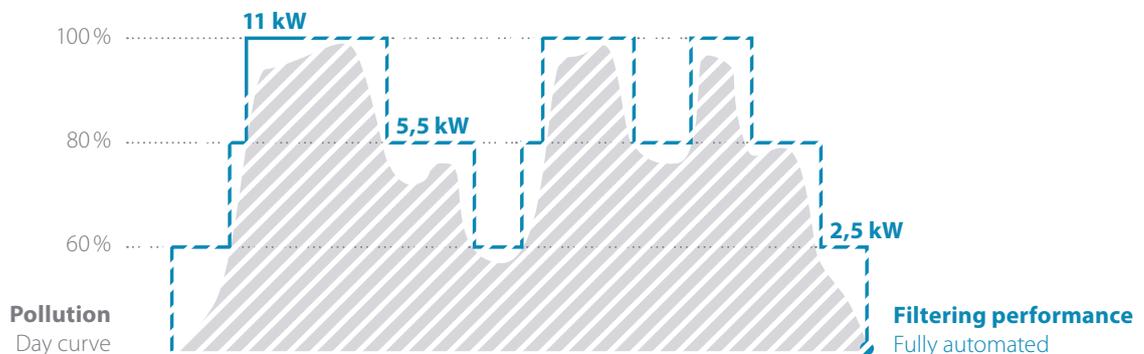
Your employees will love it: Looks good on the outside – delivers a powerful package on the inside

The outer shell satisfies highest demands:

- + Lightweight side panelling made of high-performance polycarbonate
- + Resistant to impacts and scratches
- + Heat-resistant
- + Easy-to-operate control panel with colour display
- + Round design for 270° air distribution
- + Optional Installation and commissioning service
- + Different colours available on customer request
- + Draft-free backflow at less than 1.5 m/s

What matters is what is inside:

- + Extremely flexible and individual in its applications
- + No complex pipework installation or assembly work necessary
- + Up to 70% savings in heating costs
- + Market leader for low-noise and energy-efficient operation
- + Adaptable capacity increase
- + Fully automated operation, thus great acceptance among employees
- + Optimised air flow
- + Cleaning of 5,000–20,000 m³/h air volume
- + Maximum service life of the filter cartridges thanks to energy-optimised control

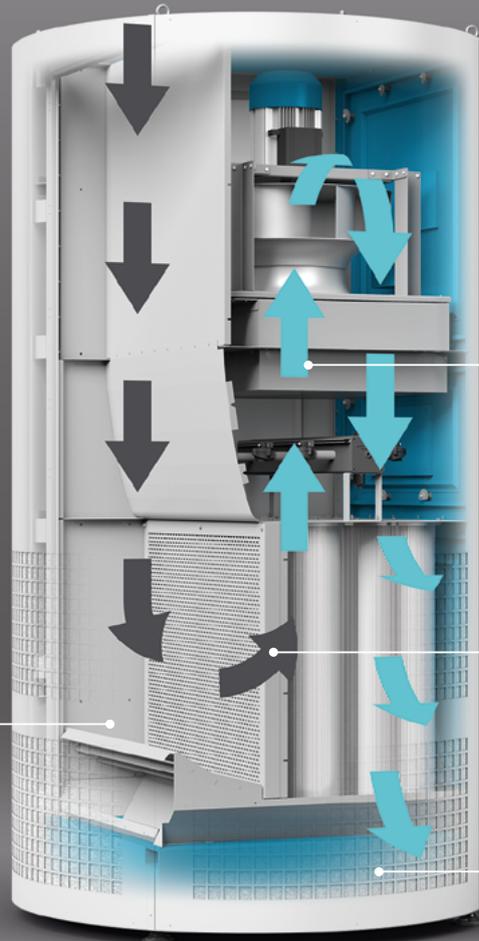


*Fully automated operation with
maximum energy saving*

01
EXTRACTION
FROM TOP



02
SEPARATION OF
COARSE PARTICLES



04
FINE PARTICULATE
FILTER TO CONTROL THE
CLEAN AIR QUALITY
(FOR WELDING FUMES)

03
MAIN FILTER WITH A
FILTRATION LEVEL OF > 99 %
AND FULLY AUTOMATED
FILTER CLEANING

05
DRAUGHT-FREE AIR OUTLET
AND 270° AIR DISTRIBUTION

AIRTOWER EFFICIENCY PACKAGE

As an option, we replace the standard fan with between one and four EC blue fans with integrated controllers. This reduces the power consumption by up to 60%. The noise level is reduced by 5 – 10 dB(A), and the performance is also increased noticeably. This makes the Airtower one of the most low-noise and energy-efficient filter towers.

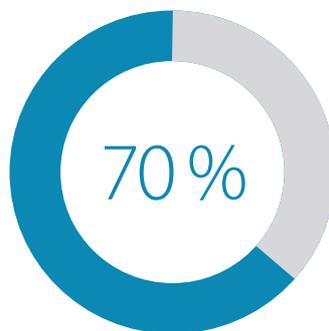


*Highly reliable:
More than 99.5 % of the contamination
particles are removed.*

Thermal flows support the layered ventilation

During welding, thermal flows occur that are used by the Airtower to clean the air through layered ventilation. The contaminated air is aspirated at the top of the unit, passes through the upper intake duct and is directed towards the filter cartridges. Here, the air is then evenly distributed – like being trickled through a sieve – across the filter cartridges.

Once more than 99.5% of the particles have been filtered out of the contaminated air, the purified air escapes from the upper side of the filter cartridge. A fan transports it to the air outlets at ground level, through which the filtered air is then discharged back into the room without creating any draughts. For good measure there is a further fine particulate air filter upstream of the fan.



*Layered ventilation minimises the
percentage of outside air
and reduces heating costs by up to 70 %.*

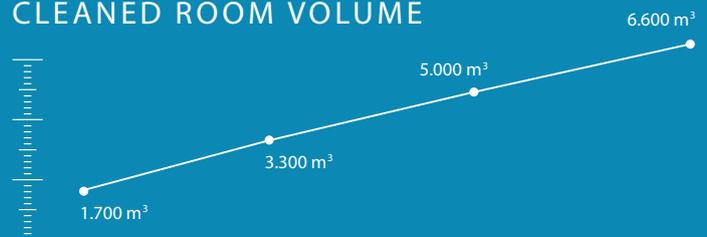
POWER LEVELS – AIRTOWER F



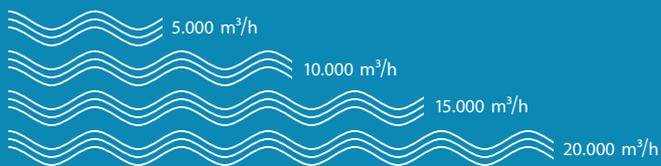
APPLICATIONS



CLEANED ROOM VOLUME



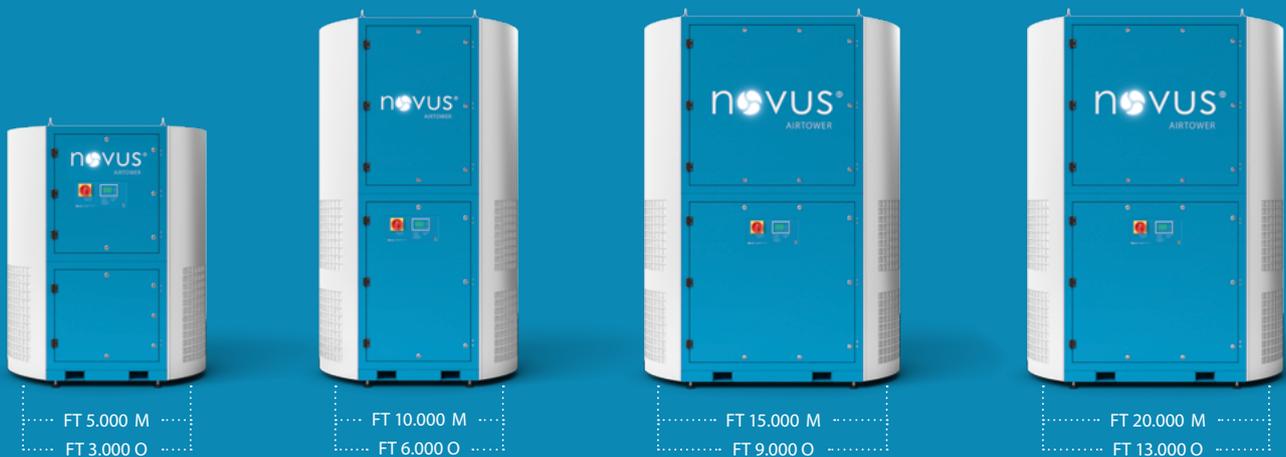
AIR FLOW RATE



IFA W3 CERTIFICATE

This document certifies that the device has the required filtration efficiency. Use of the device in recirculation mode is thus also permitted. Individual acceptance tests in accordance with §10 GefStoffV (Ordinance on Hazardous Substances) are not required.

POWER LEVELS – AIRTOWER M, AIRTOWER O



Four power levels, three applications, one "miracle solution"

Applications – The Airtower can be used for a large range of emissions in various technical processing steps, including fumes, aerosols and gaseous air pollutants. A separate model has been developed and fine-tuned for the specific requirements of each of these three applications.
Airtower F – for welding fumes
Airtower M – for oil mists and emulsion mists
Airtower O – for odours

Power levels – The Airtower is suitable for use in halls of all orders of magnitude. Every model is available in four different power levels that are optimised for the particular air flow rates. This means that we have perfect designs to suit every size of hall.
Airtower F – 5.000, 10.000, 15.000, 20.000
Airtower M – 5.000, 10.000, 15.000, 20.000
Airtower O – 3.000, 6.000, 9.000, 13.000

Optional features

- + IFA W3 tested Airtower F model
- + Filter mats impregnated with activated carbon for gas purification and odour reduction
- + For use as an indoor air temperature control device with integrated heat exchangers for heating or cooling
- + Power control with room air quality sensor (wired or wireless)
- + Wireless remote control
- + Fully automated operation with programmable on-time

Option packages

- + *Airtower efficiency package*
Energy saving and noise reduction
- + *Airtower nano filter cartridge package*
Reduced operational expenses thanks to filter cartridges with nano fibres
- + *Airtower remote maintenance package*
For fastest service
- + *Airtower safety packages*
For flying sparks and risk of fire



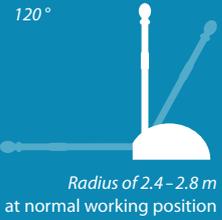
*The Airtower is a worthwhile investment for you.
 Contact us for your
 individual amortisation calculation.*

www.novusair.com

POWER LEVEL – AIRTOWER DOUBLE CLEANER



EXTRACTOR ARMS



GREAT BENEFITS

ENERGY EFFICIENT
AND QUICK TO
INSTALL

AIRTOWER REMOTE MAINTENANCE PACKAGE

Get all important information on your smartphone. Status messages, faults or upcoming maintenance activities – the operating company or service partner will be notified via text message. You can even switch the system on and off via text messages.

POWER LEVELS – AIRTOWER PIPE



Aspirating welding fumes locally with the individualists of the Airtower family

Two special models have been designed particularly for localised aspiration of welding fumes.

Airtower Pipe – The filter tower can be connected to a stationary pipe system. This model is suitable exclusively for localised extraction of contaminated air from up to 16 welding workstations. Advantages include energy-efficient recirculated air mode in winter and the low cost and effort of installation. The low-noise Airtower Pipe is available in four power levels. *Airtower Pipe* – 5.000, 10.000, 15.000, 20.000

Airtower DoubleCleaner – With its two flexible, easily moving suction arms, the DoubleCleaner is your perfect companion for local extraction of welding fumes combined with room air cleaning. Among other things, it stands out with energy-

efficient recirculated air mode, flexible positioning of its suction arms and ease of installation. The DoubleCleaner is available in the power level 5,000.

Optional features

- + Frequency converter for power control
- + Filter mats impregnated with activated carbon for odour reduction
- + Operation on demand
- + Wireless remote control

Option packages

- + *Airtower nano filter cartridge package*
Reduced operational expenses thanks to filter cartridges with nano fibres
- + *Airtower remote maintenance package*
For fastest service
- + *Airtower safety packages*
For flying sparks and risk of fire

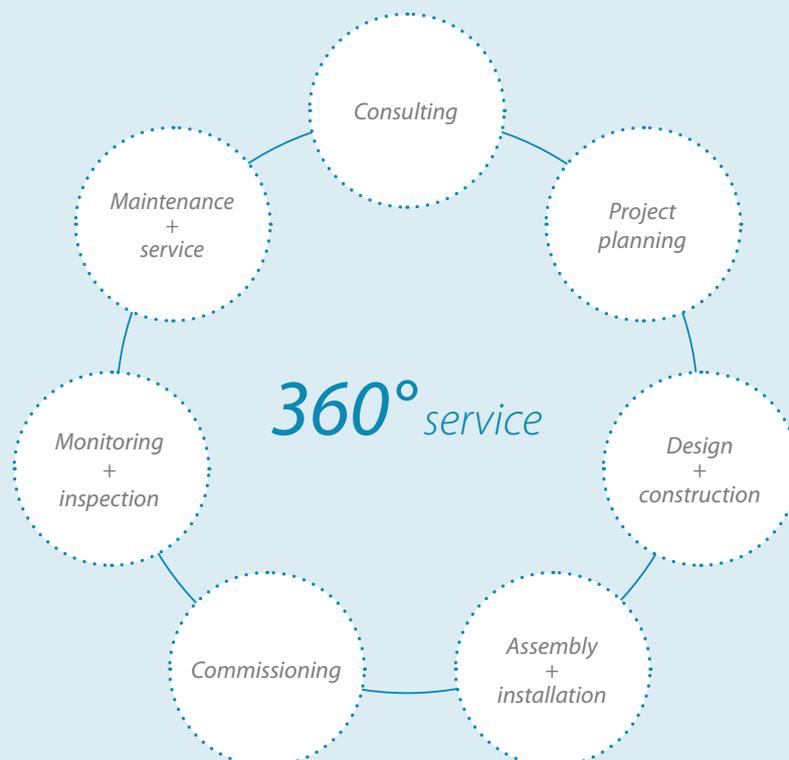


Thanks to its flexible suction arms, the DoubleCleaner is as close as it gets to the welding work.

Best results, satisfied customers: Our comprehensive no-worry service package

One-stop solutions – NOVUS sees eye to eye with its customers. We work together to develop optimised solutions that are tailored to every individual wish and every specific requirement. Our 360° service covers all project areas: Consultancy and planning, design, assembly and commissioning, as well as inspections, maintenance and service.

Filtration technology for every application – Our claim is to develop and build intelligent filtration systems that comply with all current and future emissions limits. We supply exactly the right filtration technology for every application. Our services include optimised system control and sensor systems, energy efficiency (important when it comes to certifying an environmental management system in accordance with DIN EN ISO 14001), amortisation and economic viability calculations and fine particle measurements at the work place.





*Our vision:
Clean air for breathing,
today and tomorrow*

Sustainable air technology – Clean air is always at the heart of our work. This is why, since 2007, NOVUS has focused on sustainable solutions in the field of air handling and dedusting technology, for a world worth living in tomorrow. Our team of experienced developers and process engineers designs and builds products that are tailored to the widest range of customer require-

ments imaginable. In research and development, we closely collaborate with a network of universities and research institutes. Our company sees sustainable technology and its further development as an opportunity for saving energy and preserving raw materials. This not only has a positive impact on the environment, but also reduces costs.

novus®

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