

novus®



from



AIRLINE

The stationary extraction and filtration system for dry separation
of industrial dusts and fumes



DIE AIRLINE

The ideal stationary solution for workstation and machine extraction of process-related emissions

+ Plasma dust

+ Metal dust

+ Welding fumes

+ Laser fumes

+ Soldering fumes

+ Grinding dust

Are your emissions not listed? Contact us, we're sure to have an AIRLINE solution for your needs. info@novusair.com

Your situation determines the solution – Pipeline vs. Plug & Play

Pipeline or Plug & Play – Extraction of harmful emissions in local machining processes is legally mandated. However, it is how the framework conditions and individual requirements that determine the type of extraction system.

If local factors or the process require collection close to the source of emissions, a stationary extraction unit is ideal. This type of system also makes sense if appropriate machine connections are already available. If local collection is impossible or is to be supplemented, the NOVUS Airtower can be deployed as a plug & play solution.

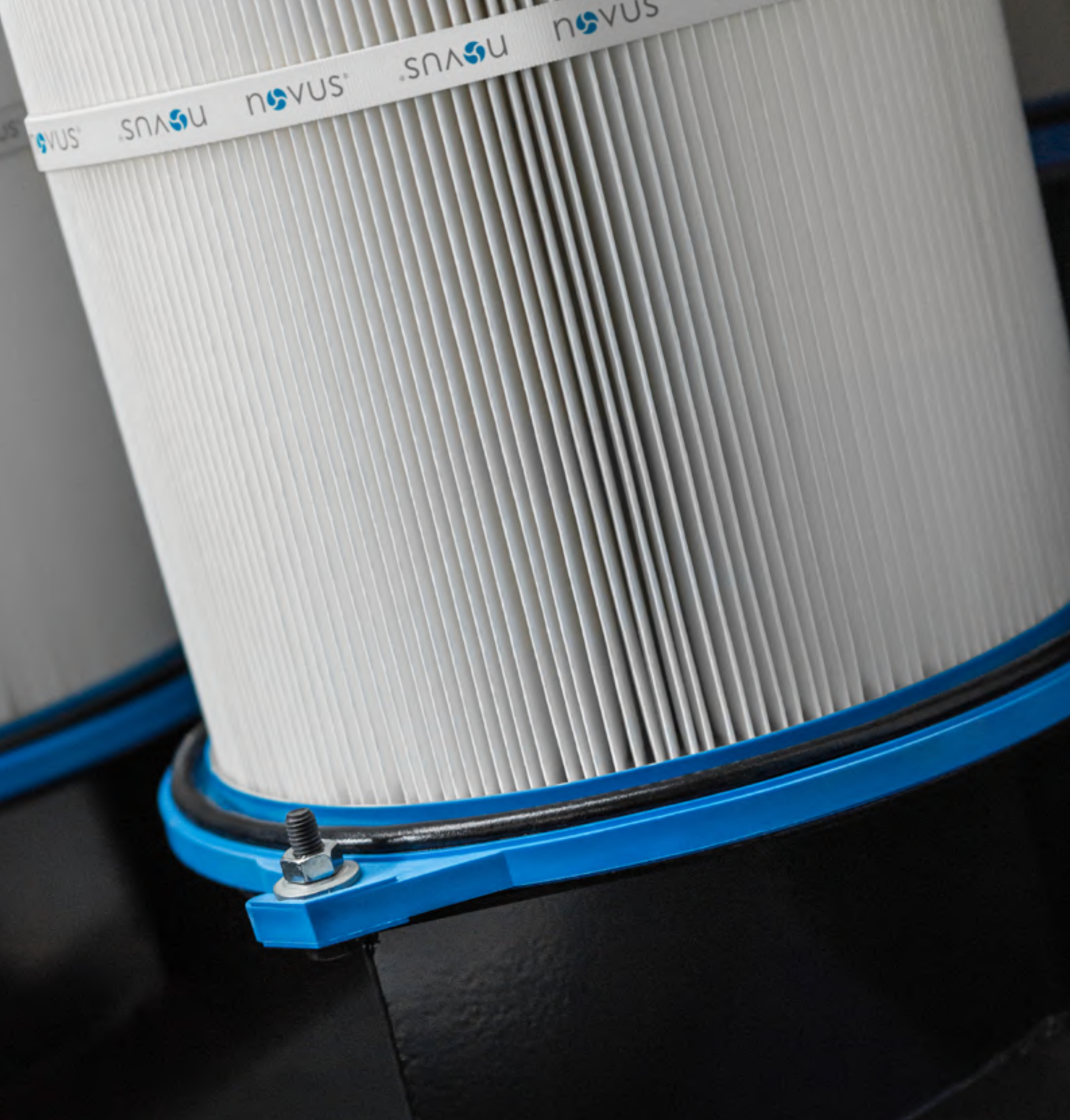
An extensive system of lines in a stationary system provides efficient extraction, as it is a pinpoint solution. That allows it to be used easily at workstations, machines or even in difficult to access environments like robot cells, or wherever hazardous emissions are released. While it is recommended to install the system immediately beside the source of emissions, it is not absolutely essential. They can just as well be positioned in other rooms or outdoors.

Tailored for your needs – The NOVUS Airline can be supplemented with modules in accordance with your needs and extended with additional performance parameters. Ultimately, the potential solutions are generally at least as diverse as the initial situations. Contact us, we'll find your perfect AIRLINE design together.

Get to know AIRLINE – We wouldn't be NOVUS if we accepted the status quo as unchangeable, no matter how established and accepted it is. Whenever we see potential for optimisation, we want to harness it – this time too, of course.

The new AIRLINE combines our wealth of experience with the latest findings from comprehensive research and extensive testing.

We do that so we can say with confidence that AIRLINE is the new industry benchmark. See for yourself.



- + For the first time in ventilation technology, **the filter cartridges are mounted in a vertical standing position**
- + **No ascend speed** in the raw gas chamber
- + Verifiable effective innovation – **Made by NOVUS**

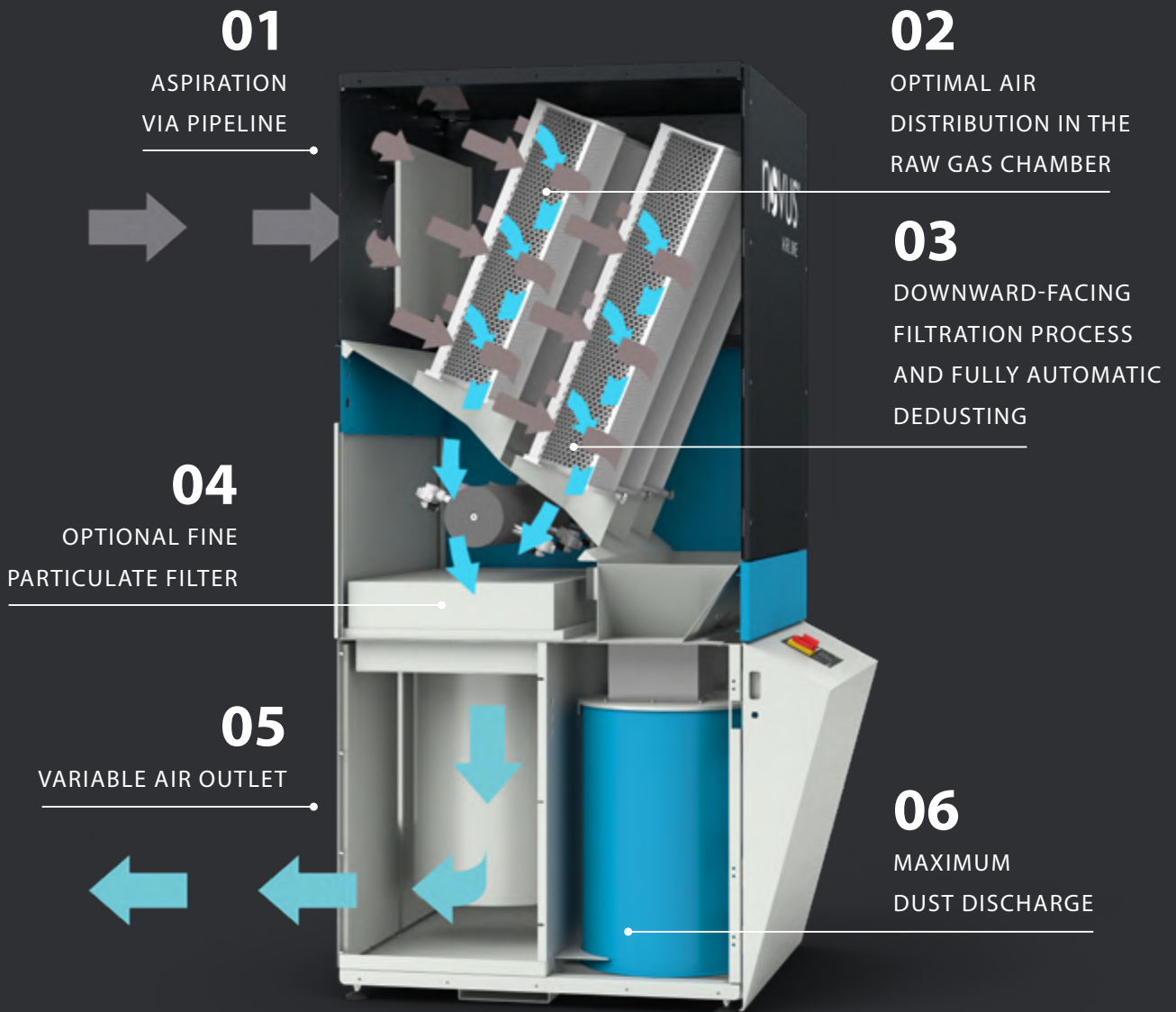
The NOVUS idea, three directions, one line – the 3-1 principle

Universal problem – As a rule, filter cartridges are vertically suspended or horizontal. While this is an accepted and established standard, it is not the best possible solution. The familiar, previously unresolved, problem was that the air always flowed in the opposite direction the particles movement direction. This ascend speed makes effective online dedusting of filter cartridges almost or entirely impossible.

Innovation. The AIRLINE 3-1 principle – In the new NOVUS Airline, the filter cartridges are installed in a vertical position. As a result, the flow direction, gravity and the direction of particle dedusting are virtually aligned for the first time. The flow around the entire filter package is optimised. The ascend speed in the raw gas chamber is virtually zero, which makes true 100 percent

effective online dedusting and unrestricted efficient 24/7 operation possible. This innovation makes the AIRLINE an ideal extraction and filter system for deployment at continuously operated machines and in process-dependent production.

Your benefits – Effective dedusting means that the filter cartridges age far more slowly, while increasing the general service life of the filter package considerably. AIRLINE sets entirely new standards in terms of energy savings: In conjunction with the low internal pressure losses, the minimised flow resistances significantly reduce the electricity consumption.



HOW AIRLINE WORKS

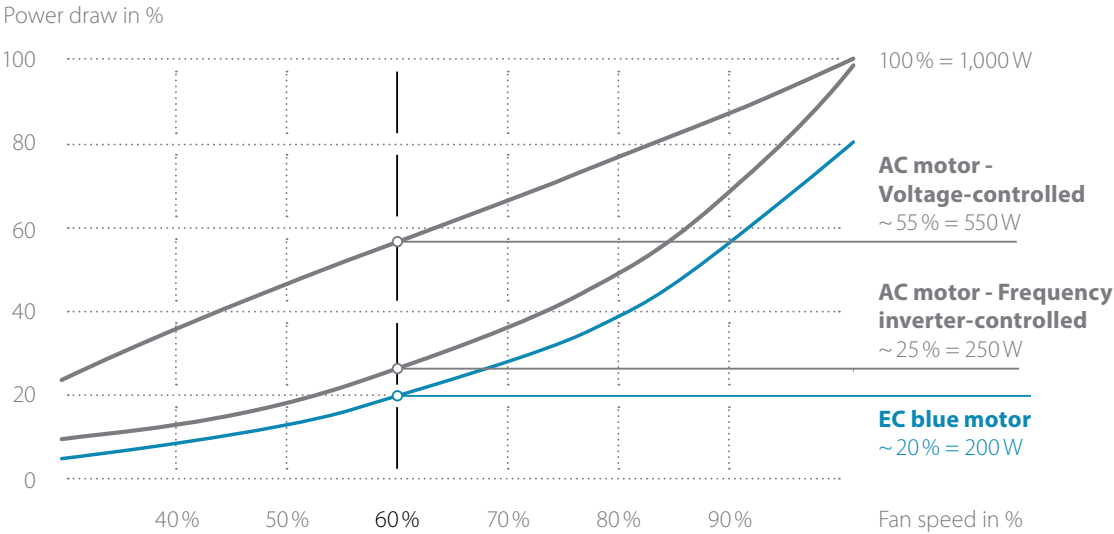
Contaminated air passes through the pipelines into the AIRLINE and is routed towards the filter elements. The air flow is distributed optimally in the raw gas chamber, the 3-1 principle takes effect and the filter cartridges clean the air with a dust reduction efficiency of 99.995 percent.

The purified air is then returned to the room via a diffuse outlet or pipelines. Optionally, another fine particulate filter, rated up to H14, can be installed upstream of the fan unit.

Thoroughly innovative, unrivalled performance – The EC turbo unit

Equipped with EC fans – High performance EC fans provide the powerful drive of the new AIRLINE. Compared to conventional housing fans with AC motors, they are far quieter and incur far lower costs for the same performance. The motors allow demand-oriented and instantaneous power control and do so without an additional frequency inverter. At the same time, the turbo unit minimises the ramp-up and run-down times of AIRLINE, so that the system can reach full power very quickly and be slowed down just as fast.

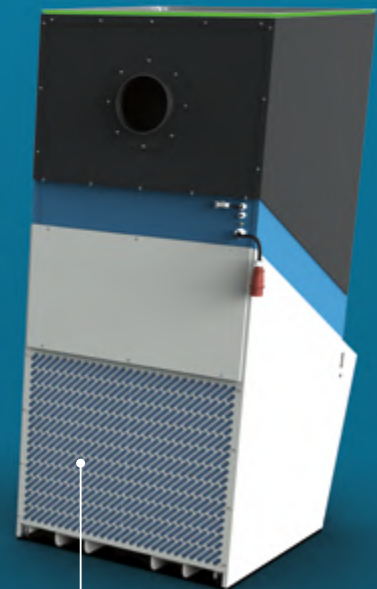
Superlative: The patented EC turbo unit – The innovative and unique NOVUS drive unit combines the potential savings of highly efficient EC fans with the power of a housing fan. At the same time, the EC turbo unit boasts extremely compact dimensions, taking up comparatively little space within the system. That leaves more room for other modules, facilitating a unique dust discharge of up to 400 litres.



By comparison: Fan power draw with speed control

VERY QUIET OPERATION
thanks to optimal sound insulation

LED STRIP
shows the
system status



MAXIMUM DISCHARGE
2x200 litre standard barrels
can be used

EXHAUST AIR RETURN
via a pipeline or diffuse
air outlet

CENTRAL CONTROL UNIT
allows multiple systems
to be controlled in series

CONTROL PANEL
at the optimum working height

- + ***Sophisticated innovation*** meets aesthetics
- + ***24/7 continuous operation*** thanks to effective online dedusting
- + Up to ***400 litres dust discharge*** with just one system
- + Der ***Shootingstar*** unter den stationären Absauganlagen

The most advanced solution on the market – benefiting you at all times

AIRLINE impresses from inside

- + **Maximum filter service** thanks to 3-1 principle
- + **Demand-appropriate design** per system unit from 4,000 to 10,000 m³/h air volume
- + **Silent operation** guarantees concentrated work without disruptions
- + **Intelligent dedusting** cleans the filter cartridges fully automatically
- + **Maximum dust discharge** up to 2 x 200 litres
- + **Tool-free exchange** of standard barrels and simple disposal without reloading

... and outside with best NOVUS technology

- + **Compact design** takes up relatively little space
- + **Integrated LED strip** shows the system status
- + **Variable exhaust air return** via pipeline or diffuse outlet
- + **Variable pipeline connection** via 360° connectable pipe bend on the rear of the device
- + **Attractive industrial design** where you might not expect it
- + **Ergonomic control panel** at a pleasant and optimised working height

1. Efficiency – Additional energy savings with a higher efficiency factor



2. Innovation – The most advanced technology available on the market

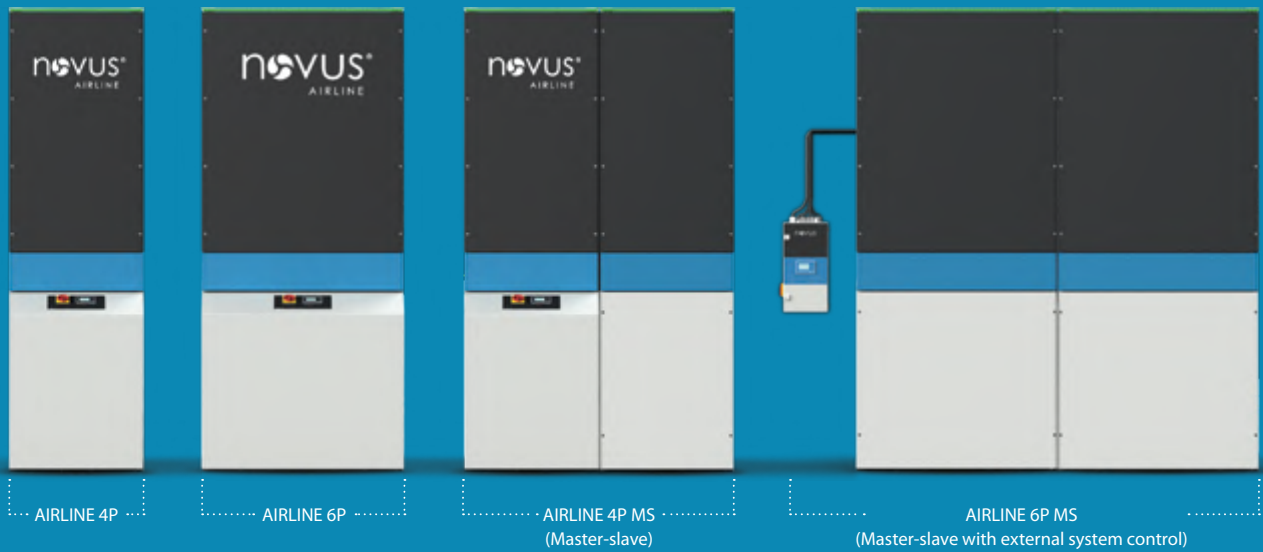


3. Value – Rapid ROI and eligible for BAFA subsidies

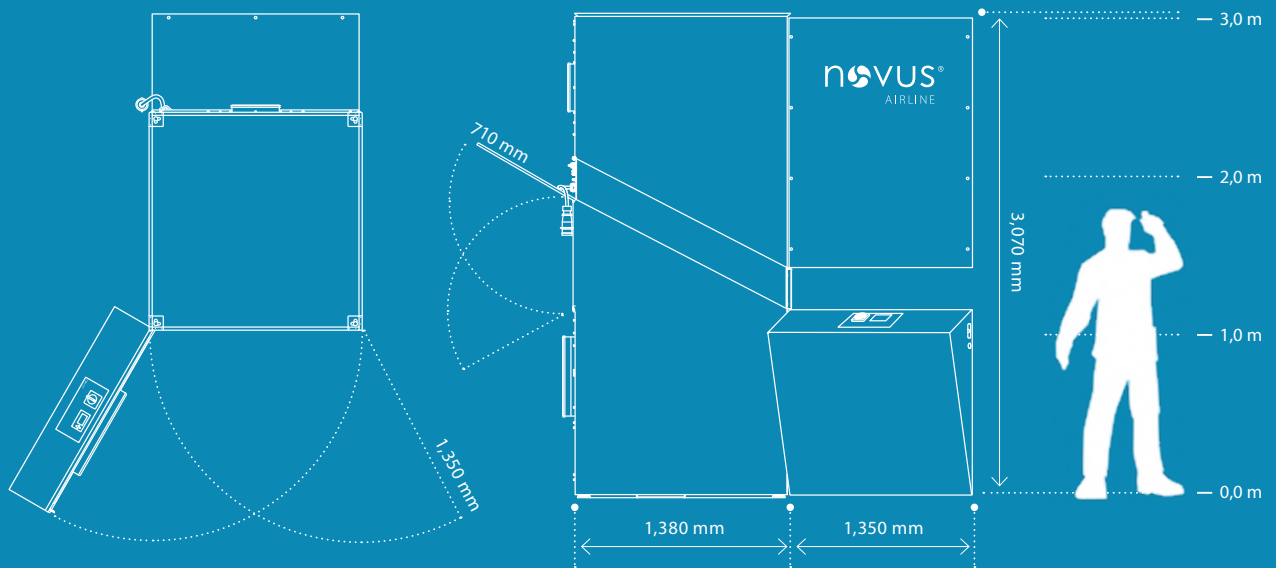


What AIRLINE offers:
Advantages at a glance

SAMPLE DESIGNS – AIRLINE



DIMENSIONS AND SWIVEL RANGE



AIR VOLUME FLOW IN m³/h

AIRLINE 4P



AIRLINE 6P



Various emissions, simple adjustments – Extreme flexibility

Extracting fumes and dust the right way –

AIRLINE allows you to remove a wide range of hazardous fumes and dusts from the production hall and working environment. However, different forms of dust and fumes have different characteristics.

Accordingly, the AIRLINE system design always depends on the specific emission properties. For example, higher volumes of air can be achieved with relatively small dimensions for dry, granulated dusts. A different approach is needed for slightly adhesive emissions.

Various design options – Per module, AIRLINE is available in variants with four or six filter cartridges. While one AIRLINE with four cartridges achieves a nominal capacity of 4,000 m³/h, designs with six filter cartridges reach a nominal capacity of 10,000 m³/h. Every AIRLINE can be supplemented flexibly with more. As a result, volume flows of up to 60,000 m³/h or more can be implemented in this way.

Every AIRLINE can be equipped with an autonomous control unit. However, you can also control all units with just one AIRLINE. Of course, interim solutions are also conceivable. Where necessary, the control and fan unit can even be removed from the AIRLINE and positioned separately.

The system you really need! – With our years of experience, we have an extensive, multi-industry understanding of all aspects of extraction and filter technology.

That makes us your ideal partner, and ensures that we can always find the AIRLINE design that not only matches your requirements but does exactly what you need it to do. No more and never less.



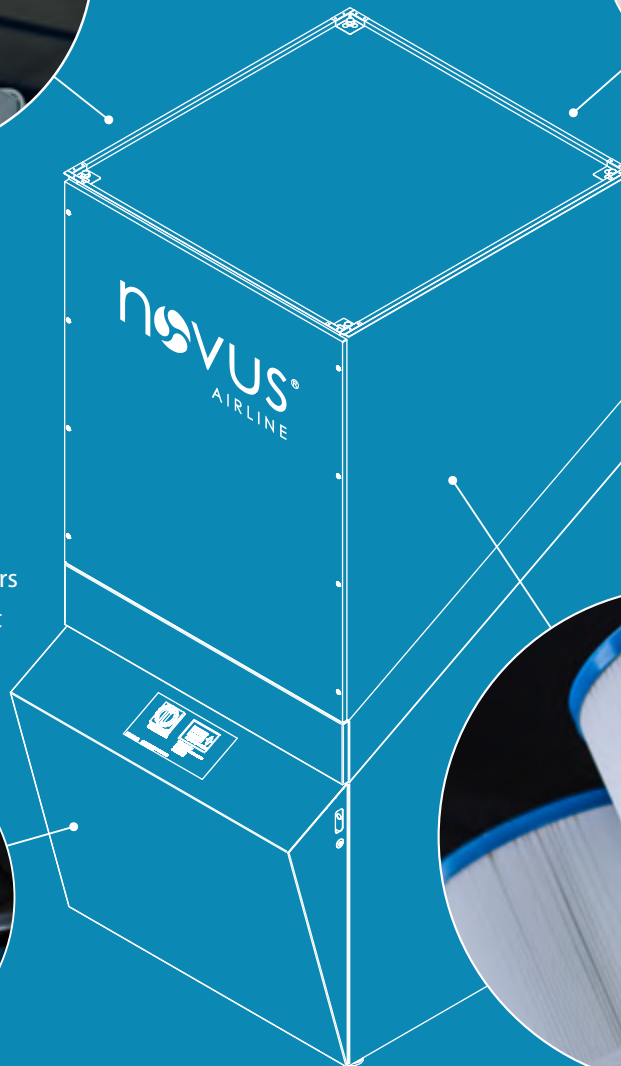
01

NOVUS PARTICLE SENSOR
Collect fine particulate content and adapt system performance automatically



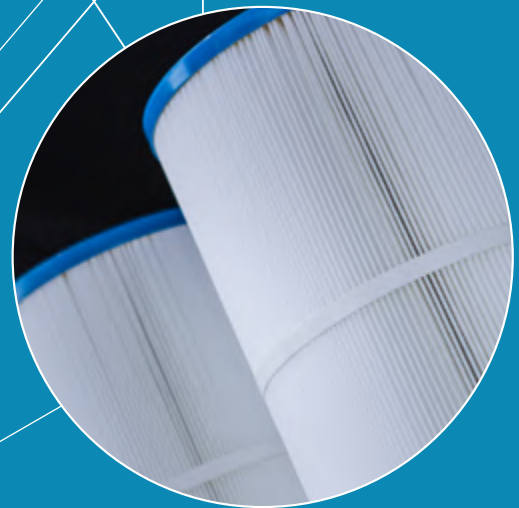
02

NOVUS TORNADO
Spark separator for removal from the raw gas flow



03.1

NOVUS SAFETY PACKAGE
Fume and temperature sensors in the clean gas area and dust discharge



03.2

NOVUS SAFETY PACKAGE
Flame-retardant filter cartridges cause any sparks to extinguish

04

ATEX-COMPLIANT?



We determine whether your AIRLINE needs to be equipped in accordance with the ATEX guidelines in a demand analysis. Ask us! We'll be happy to advise you.

www.novusair.com

Demand-appropriate design, additional possibilities – Even more options

Your individuality is our strength – Implementing various challenges is our strength. That's why our portfolio includes optional add-ons that make it easy for you to tailor your AIRLINE to your needs. We present the most popular options here. For additional accessories, please visit us online at novusair.com

Particle sensor. Best air quality at all times

– The particle sensor tracks the fine particulate content in the air, and sends it to a downstream controller. Adapting the volume flow and therefore also the fan capacity reduces, the AIRLINE's energy consumption. LEDs show the current particle density.

Tornado. Separate sparks & coarse particles

– The Tornado provides effective spark protection for the AIRLINE. It is also suitable to separate coarse or abrasive particles from the raw gas flow.

This virtually rules out filter fires, while also significantly increasing the service life of the filter elements due to the reduced load.

Optional Safety package Lasting protection

– Basically, the NOVUS Airline can be adapted to many complex risk situations. Especially in environments with flammable dust, the filter system must reliably compensate for the potential hazard. To supplement the Tornado, the optional Safety package gives holistic and often sufficient protection against plant fires and costly consequential damage with flame-retardant filter cartridges and smoke and temperature sensors.

Designing the AIRLINE in accordance with the ATEX guideline makes special requirements of the product. Please contact us: We'll be happy to advise you on this subject!



*Are you looking for additional accessories
for the NOVUS Airline? **Visit us online!***

www.aessolutions.com

novus®



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