

**SATA**

German Engineering

# Breathing Protection

Your Health is our Concern





# Breathing protection is health protection

SATA breathing protection equipment - whether it be full face respirator or half mask - provides maximum protection, enhanced lifetime and increased wearer comfort to preserve your health without restricting your mobility, thus ensuring perfect results.

**Two basic types of breathing protection equipment are available:**

- ambient air **independent** systems
- ambient air **dependent** systems

Breathing systems which are **independent from ambient air** provide clean breathing air via a compressed air hose from an area outside of the workplace. Usually, this air is additionally cleaned via a filter system.

In the case of **ambient air-dependent systems**, on the other hand, the air is supplied from the working environment, which is contaminated with particles and vapors. The filters to clean the breathing air are integrated in the mask.

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# SATA air vision 5000

Safe.  
Comfortable.  
Practical.





The SATA air vision 5000 puts the focus on effective health protection and lets you experience a whole new and comfortable way of breathing, due to a completely re-designed breathing air supply system. With its modern, ergonomic design, the hood can be adapted to fit almost any head shape, allowing the individual adjustment of its effective circumference, height and position.

## SAFETY

150 NI/min of technically clean compressed air, e.g. supplied from a SATA filter 584, ensure the slight positive pressure inside the hood, in order to securely prevent overspray and contaminants from penetrating. When the air volume falls below the required minimum threshold, an acoustic warning signal will be activated.

## COMFORT

The new method of breathing air distribution inside the hood reduces the air consumption as well as the noise level to 64 dB(A). This way, working with personal protection equipment becomes exceptionally comfortable. An optionally available plug-in diffuser allows an alternative air flow inside the hood and the large, low-reflection visor shield offers a very generous field of vision. To ensure perfect wearer comfort, the hood can be adapted in circumference, height and position to fit almost any head shape. The comfort band cushioning the forehead can be mounted in just a few seconds – and a second one, if required, on the upper head area, keeping the hood hygienically clean and comfortable at all times.

## PRACTICAL

The modular design allows the adaptation and upgrade of the new belt unit according to the job requirements. Users, for instance, have now the choice to mount the air regulation unit either on the right or on the left of the belt unit. The same applies to the second available belt option, the activated charcoal adsorber incl. regulation. Useful accessories, such as the new SATA air warmer/cooler can be easily connected to the belt unit according to individual needs. Additionally, the SATA air warmer carbon has been developed as an option especially for the SATA air carbon regulator.

## BENEFITS

- High breathing air quality: The air supply independent of the ambient air eliminates all potential risks for the painter possibly arising from saturated filter cartridges
- Low inhalation resistance, very comfortable breathing
- High protection level (protects up to 100 times the TRK-value\*)
- Non-reflecting view due to solvent-resistant special foil
- Low operating costs, quick pay-off of purchase costs
- Soft-stream flow-optimised air distribution in the hood
- Rigid skull cover for safer work conditions
- The SATA CCS Disks (Color Code System) allow to personalise hood, SATA air regulator and SATA air carbon regulator

\* TRK = Technical Reference Concentration (TRC)



# SATA air vision 5000

## Structure and functional scheme of compressed air-supplied breathing protection



**SATA filter 584**  
Compressed air also suitable for water-borne paints and breathing air



**SATA filter 544**  
Compressed air also suitable for water-borne paints and for breathing air



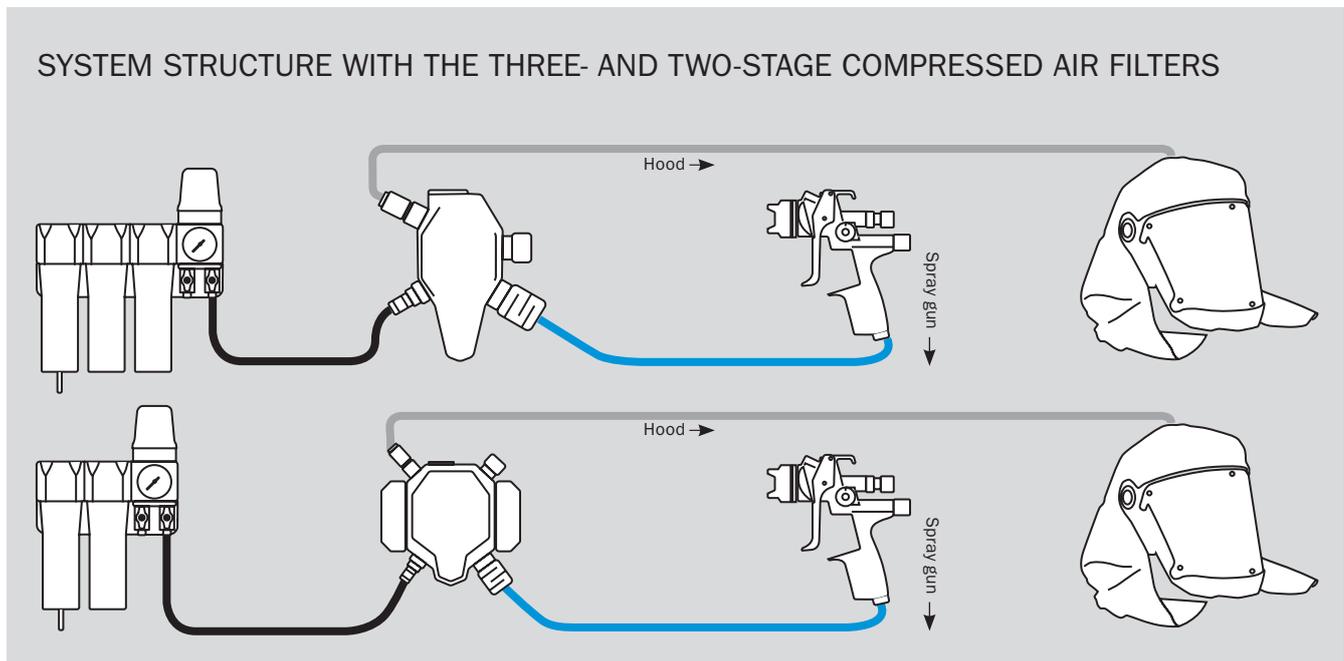
**SATA air regulator belt plus**  
The modular design allows the individual adaptation and upgrade with additional modules according to the job requirements.



**SATA air carbon regulator**  
Perfectly clean breathing air thanks to the integration of the activated charcoal adsorber. Can be adjusted on the belt unit by up to +/- 45°.



**SATA air regulator**  
For an increased wearing comfort, adjustable on the belt unit by up to +/- 45°.





OPTIONAL

**SATA air warmer carbon**

Can be optionally used, depending on the actual demand of supplied air, the breathing air temperature can be adjusted between 4°C up to 20°C.



OPTIONAL

**SATA air warmer**

Heats up the breathing air to a comfortable level. The temperature can be individually adjusted.



OPTIONAL

**SATA air cooler**

Cools down the breathing air to a comfortable level. The temperature can be individually adjusted.



**SATA air vision 5000**

The ergonomic design with a host of options for individual adaptations and flow-optimised air stream provides highest wearer comfort – easy to replace visor foils provide for unrestricted field of vision.



Increased air flow volume creates the required excess pressure inside the hood which prevents overspray intrusion.

# SATA vision 2000

Safe.

Light.

Comfortable.





The SATA vision 2000 offers maximum protection when processing paint materials. The lightweight hood with the simple belt system allows fatigue-free working without endangering the health of the painters. In combination with the optional air warmer or cooler, the air temperature can be adjusted individually.

This full hood is especially designed to meet the requirements of painters and protects the respiratory system, eyes, skin and hair, which is especially important when applying water-based materials. In addition, it offers a high wearing comfort and optimum hygiene.

The respirator hood with silencer, hygienic hood inlay, replaceable sweatband and acousting warning system is available as complete kit containing a belt unit – optionally available with activated charcoal adsorber and air flow control and air volume indicator or a T-piece with regulator.

## MAXIMUM PROTECTION

- An audible warning whistle indicates insufficient air supply which is complemented by a cross check indicator on the belt unit for highest possible safety (safety feature)
- Head/chest cloth, which is breathable, solvent-resistant, lint-free, flame retardant and features a velcro closure. Easy to remove and to replace, protects neck and chest.

## HIGH WEARER COMFORT

- Silencer
- Individually adjustable
- Exchangeable sweat band (microfibre velour) ensuring effective sweat absorption and highest hygienic standards
- Removable hygiene inserts to minimise skin contact with contamination

## LARGE FIELD OF VISION

- Unique SATA single visor system
- The tear-off visor foils are simply replaced with new ones ensuring perfect vision without reflections or distortions at any time.

## BENEFITS

- High breathing air quality due to air supply independent of ambient air
- No inhalation resistance, high breathing comfort
- High protection level (protects up to 100 times the TRK-value\*)
- Visor allows one-hand operation
- Non-reflecting view due to solvent-resistant special foil
- Little operating costs, quick pay-off of purchase costs
- Exchangeable hygiene components

\* TRK = Technical Reference Concentration (TRC)



# SATA vision 2000

## Functional scheme

Breathable, solvent-resistant, lint-free, flame retardant head/chest cloth with velcro closure. Easy to remove and to replace, it provides the greatest level of protection, as it completely wraps around neck and chest.

The wide head band and side adjusters ensure maximum comfort and are suitable for spectacle wearers.

Exchangeable sweat band (microfibre velour) ensuring effective sweat absorption and highest hygienic standards

The single visor system is unique to SATA. By opening the black cover, the tear-off visor foils are simply replaced with new ones ensuring perfect vision without reflections or distortions at any time

Head band individually adjustable at the back by fixing knob

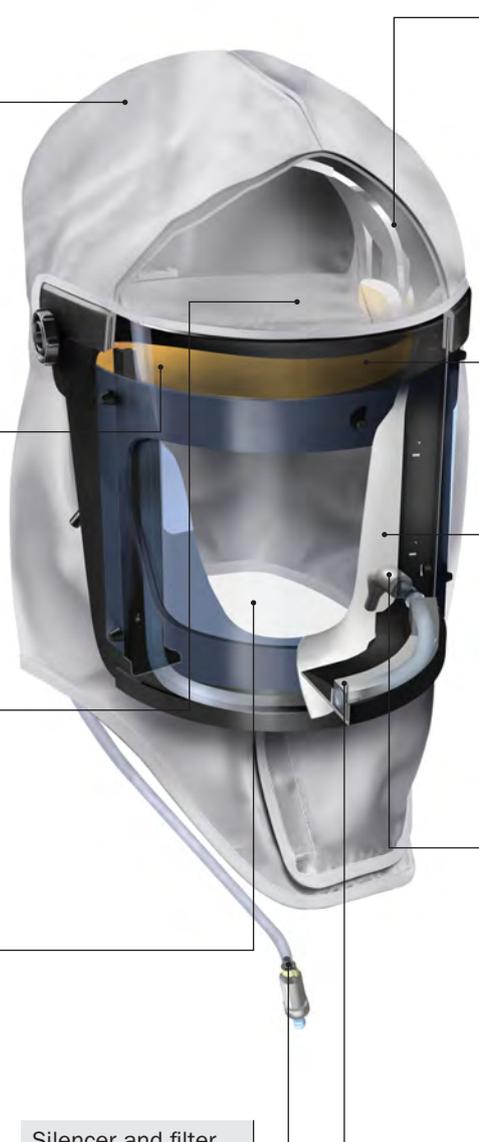
Liftable visor which stays up when lifted

Removable hygiene inserts with position lock on the back to ensure that skin contact with contamination is minimised.

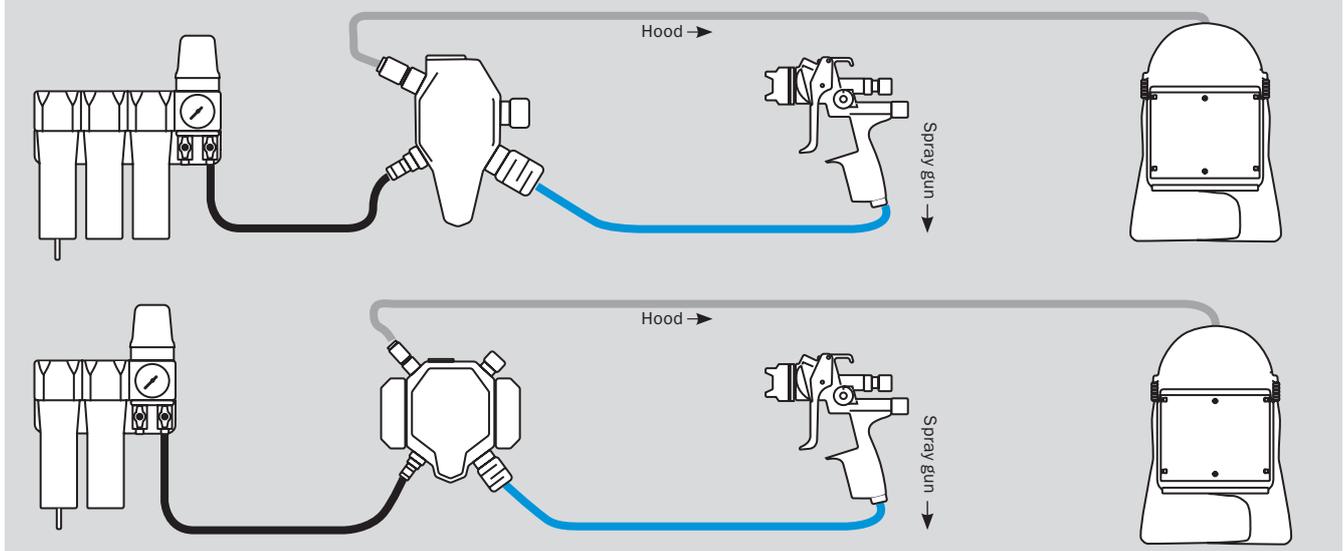
An audible warning whistle indicates insufficient air supply which is complemented by a cross check indicator on the belt unit for highest possible safety (safety feature)

Silencer and filter

Breathing air hose with sound absorber for fresh air supply



## SYSTEM STRUCTURE WITH THE THREE- AND TWO-STAGE COMPRESSED AIR FILTERS



SATA BELT UNIT  
ACTIVATED CARBON ADSORBER

- Compressed air inlet connection at the rear of the belt unit ensuring easy connection and disconnection
- Impact protection cage over the filter bow
- Extra-large charcoal filter element for optimum breathing air quality
- Air-flow-to-mask pressure gauge with red and green indication area to ensure correct pressure is maintained
- Air volume adjuster control to ensure both sufficient and comfortable air supply

# SATA air star F

Light.

Comfortable.

Unrestricted mobility





With this easy-to-wear filter half mask, painters are completely independent of location. A powerful filter system protects the respiratory tract of the painter as much as possible. It is mainly used for preparatory work outside the paint booth or for less extensive painting jobs. The SATA air star F has an anatomically shaped mask body made of skin-friendly TPE which adapts to any face shape.

## MAXIMUM UNRESTRICTED MOBILITY

The double filter system ensures a very good weight distribution and a free vision. The special 4 pointed straps and the cuddly head fixation provide a safe seat of the mask at any time. During work breaks, it can be comfortably worn around the neck which makes it ready for use at any time.

## HYGIENE

The hygiene storage box for wall mounting is the perfect storage place for the SATA air star F. It both protects the mask from damages and the special filters from untimely saturation due to air humidity.

## EASY HANDLING

Quick and easy filter exchange due to useful bayonet fixing.

## PRE-FILTER (A)

\* TRK = Technical Reference Concentration (TRC)

The low-priced pre-filter separates coarse particles, thus extending the lifetime of the special filter. Furthermore, the daily exchange of the pre-filter reduces the inhalation resistance.

## SPECIAL FILTER A2:P3 R D (B)

The particle stage P3 is the highest possible stage with filter half masks, thus providing protection up to thirty times the TRK-value (AGW)\*. The SATA air star F standard is the protection level A2:P3 R D. Toxic and liquid particles are reliably separated and organic vapours of e.g. solvents with a boiling point > 65°C are ligated.

## BENEFITS

- Unrestricted mobility
- Small investment
- High wearer comfort, free vision (goggles required)
- Easy handling and safe seat
- Pre-filters to extend the lifetime
- Relatively low inhalation resistance



INFO  
[www.sata.com/airstarf](http://www.sata.com/airstarf)

# SATA air star C

Safe.

Comfortable.

For long application intervals





The supplied-air half mask SATA air star C is ideal for the use in body shops as well as for continuous use. Due to the ambient air-independent system, the respiratory tract is maximally protected without inhalation resistance.

The SATA air star C provides maximum vision and far higher breathing protection compared to any other half mask with filter cartridges. The activated charcoal filter, available either as static wall-mounted unit or as a portable unit connected to the belt, provides the required safety for clean breathing air. The optimally purified air is supplied to the user directly into the mask, in a steady stream without any inhalation resistance. The painter also has the option to use an air warmer or an air cooler to achieve maximum breathing comfort.

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## BENEFITS

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- High breathing air quality due to ambient air independent breathing air supply (protects up to 100 times the TRK-value), also outside the spray booth
  - No inhalation resistance, very comfortable breathing
  - Free vision (protective goggles required)
  - No accumulation of heat and humidity inside the mask
  - Excellent fit for any type of facial contours
  - Very light and comfortable
  - 4 pointed straps for easy handling and safe seat
- 



# SATA AB 1

Healthy.

Comfortable.

For long application intervals





Anyone who work with paint materials and other substances hazardous to health needs supplied-air respirator protection. However, the air coming out of compressed air systems and refrigeration dryers is often too dry and too cold, so that the user's mouth and nasal mucous membranes dry out under the respirator hood and the risk of colds increases.

The SATA AB 1 breathing air humidifier and breathing air heater provides a solution for this problem. It ensures **optimum climatic conditions in the respiratory protection hood** and thus significantly increases the acceptance for wearing breathing protection hoods. In accordance with **DIN regulations** and according to physiological and occupational health aspects, the **breathing air at the workplace (IAO)** must have the following characteristics:

- Dust free (DIN 3188)
- Free from harmful gases and vapors
- Odorless
- Temperature from 20° C to 24° C
- Air speed of max. 0.15 m/sec.

To achieve optimum painting results, the compressed air used for spraying is filtered, dried and largely freed of oil residues. **This compressed air, however, does not meet the above requirements and must therefore be further filtered to provide air for the supplied-air respirators.** The **AB 1** humidifier supplied with compressed air (spray air) **provides breathing air that meets all requirements.**

## OPERATING MODE

- The SATA AB1 first filters, then humidifies and warms compressed air while it streams through hot water. The temperature can be infinitely variably regulated.
- A bypass switch allows to top up the SATA AB1 with demineralised water also while in use, to avoid work interruptions.
- The SATA AB1 is designed to supply up to five full face breathing masks, provided the air pipe system has large enough pipes and insulation.

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## BENEFITS

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- Humidification of the breathing air to approx. 22 -25 % relative air humidity
  - Warming up of the breathing air (with the heating switched on) to approx. 20° C - 25° C
  - Allows the operation of up to five breathing protection masks simultaneously
  - Increased user acceptance of breathing protection, significantly improved health protection
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# SATA AB 1

## Technical components



### Main switch

The breathing air is heated up with electrical energy. Therefore, the SATA AB1 has to be installed outside the spray booth (explosion protection).



### Thermostat

The required air temperature is adjusted via a thermostat. The SATA AB1 automatically controls the heating temperature.



### Pressure adjustment

The system is equipped with a pressure reducer allowing the pressure adjustment at the point of use.



### Bypass switch

The manual bypass switch ensures that all connected breathing masks are sufficiently supplied with air even while the liquid container is being filled up again.

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