Technical Documentation
The application of paint and other hazardous material requires health protection through air supplied breathing protection equipment. However, full face breathing masks are often seen as an unwelcome necessity, due to undesirable secondary effects of modern compressed air systems and refrigerant dryers: The compressed air reaching the breathing mask is too dry and cold. As a result, painters feel uncomfortable and are unhappy wearing full face masks. Furthermore, the mucous membranes in mouth and nose dry out, leading to respiratory issues.

The breathing air humidifier and air warmer SATA AB1 helps prevent these problems. It provides comfortable breathing conditions inside the mask and significantly increases their acceptance.

**Product Benefits**

- Breathing air humidification to approx. 22 - 25 % relative air humidity
- Warming of the breathing air (when heating is switched on) to approx. 20 - 25° C
- Allows the operation of up to five breathing protection masks simultaneously
- Increased user acceptance of breathing protection, significantly improved health protection
**Features**

- The SATA AB1 first filters, then humidifies and warms compressed air while it streams through hot water. The temperature can be infinitely variably regulated between 20° C and 25° C.
- 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.

**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.

**Field of Application**
Industrial workplaces where several breathing protection masks are simultaneously used in continuous operation.
Technical Details

<table>
<thead>
<tr>
<th>Dimensions (b x h x d)</th>
<th>900 mm x 600 mm x 350 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>approx. 50 kg</td>
</tr>
<tr>
<td>Relative breathing air humidity* (approx.)</td>
<td>22 - 25%</td>
</tr>
<tr>
<td>Breathing air temperature** (approx.)</td>
<td>20 - 25° C</td>
</tr>
<tr>
<td>Min. inlet pressure</td>
<td>6.5 bar</td>
</tr>
<tr>
<td>Max. inlet pressure</td>
<td>8.0 bar</td>
</tr>
<tr>
<td>Recommended operating pressure</td>
<td>4.0 - 5.5 bar</td>
</tr>
<tr>
<td>Max. allowed operating pressure after AB1 regulation valve</td>
<td>6.0 bar</td>
</tr>
<tr>
<td>Max. air flow</td>
<td>1900 Nl/min</td>
</tr>
<tr>
<td>Water filling quantity</td>
<td>max. 10 l</td>
</tr>
<tr>
<td>Electrical connection</td>
<td>230 V~</td>
</tr>
<tr>
<td>Heating power</td>
<td>800 W</td>
</tr>
</tbody>
</table>

* Depending on air inlet pressure and heating temperature
** With heating switched on (depending on insulation/length of tubes and heating temperature)

SATA® AB1™ - Wall Mounted Breathing Air Humidifier and Air Warmer

Supplies up to five breathing protection hoods.
We recommend breathing protection equipment with belt unit without additional filter element when using the SATA AB1.
Art. No. 46 250

Accessories:

**SATA® vision 2000™**
A full face breathing protection mask to protect respiratory tracts, face, hair and neck - for daily use.
Art. No. 52 662

**SATA® Industrial belt unit**
Belt unit for the use of SATA vision 2000 or SATA air star C with activated charcoal filter elements or with SATA AB1.
Art. No. 58 941

**Safety compressed air hose**
To supply breathing protection equipment, crush- and kink-proof, 6m length, 9.5 mm.
Art. No. 49 080

**Safety compressed air hose**
To supply breathing protection equipment, crush- and kink-proof, 6m length, 9.5 mm.
Art. No. 49 080

**SATA® top air™**
Portable breathing air humidifier for single workplaces where the installation of the SATA AB1 would not make sense.
Art. No. 89 086

Additional practical accessories like air hoses, respirators, compressed air filters etc. are available from your SATA dealer.