**EM400 Insulation Blowing Machine**

- High-performance insulation blowing machine
- Precise controlling options
- Dust-free filling with vacuum connection
- All blowing injection methods possible
- Compatible with all insulation blowing materials
- Mobile or stationary use possible

Air generation with high-powered radial compressor and/or turbine
The cellular wheel transports the material in the lower part of the airlock. The high-powered turbine’s air flow accelerates the material and transports it to the airlock outlet in the conveyor line.

The insulation bales are laid onto the sack support, opened and pushed through the strip curtains into the filling hopper.

Four rotating crusher shafts break the material into smaller pieces and transport the material to the airlock intake.

The electrical airlock feed gate (A) doses the material volume into the shredder (B) which ensures the material’s fine conditioning.

The electrical airlock feed gate (A) enables an accurate material dosing. The airlock feed gate can be controlled with the remote control during or between the blowing injection processes.

Airlock Ventilation
Increases significantly the airlock’s efficiency and prevents actively from dust turbulences in the filling hopper.
**Filling Hopper**

The filling hopper has a hopper volume of 1000 litres which is sufficient for approx. 5-6 bags of insulation material. A foldable support for bags enables an easy positioning, opening and filling. The transparent strip curtain reduces the dust emissions. The dust extraction connector on the side enables an active dust extraction. The cover plate can be removed for filling the machine from the top.

**Machine Control**

- Robust casing, clear LED indicator and simple controls
- Toggle function for conveying with and without material
- Material- and air volume regulation
- Activation of pressure control programs
- Warning signals

**Maintenance**

The machine can be easily opened and enables access for all maintenance jobs. With low vehicles, the filling hopper must be taken off before.

**Electrical Switchboard**

Clear, simple and easy to understand controls as well as high-quality components.

**Incoming Air Filter**

Fast removable suction hood with snap-fit closing and easy cleanable air filter insert.

**Airlock Outlet**

The EM400 series is available with an NW75 (3") or an NW90 (3 ½") airlock outlet. A direct reduction to NW63 (2½") or NW50 (2") is optionally available. The EM440 comes with an additional outlet connection NW63 (2½") for the integrated amplifier unit.
EM400: Powerful All-Rounder

Mobility
The EM400 can be used mobile on a vehicle, on a trailer or stationary. It’s easy to move with its heavy duty wheels with low rolling resistance.

Dust Extraction
The dust extraction connector at the filling attachment enables an active dust extraction. For this purpose, an external amplifier station or the EM440’s amplifier unit and a suction drum is required.

Configuration Options

EM440 with 230 V or 400 V Power Supply
The EM440 is optionally available with a 400 V or 230 V power supply. This way, an alternative machine with 230 V is available even in the high-performance range. See technical data last page…

Integrated Amplifier Unit
The EM440 is comes with two additional radial compressors for increasing the air power (see characteristic curves rear page). The additional compressors are necessary for processing heavy or long fibre insulation materials.

Prod. no. 6253 (230 V) / 4662 (400 V)

Pressure Relief Valve
Component parts can be damaged if the blowing injection pressure is too high or the permitted installation density is exceeded. With different weight plates you can adjust the pressure at which the unit de-aerates. This happens in a split second.

Prod. no. 4038

FFB2000-Pro
The radio remote control FFB2000-Pro in a robust casing increases the free moving space. It has bidirectional radio technology with a high transmission reliability and four radio channels. When required, it can also be used with a cable connection.

Prod. no. 5154

DS Add-on: Remote Controlled Airlock Rotational Speed
This additional option enables the remote controlled adjustment of the airlock rotor’s and the shredder’s speed. In combination with a remote controlled airlock feed gate’s position, the optimal material flow volume can be choosen directly from the injection point.

Prod. no. 5060

EM440-10,8kW
With this version, the additional air feet unit can still provide air up to a counter-pressure of approx. 360mbar in addition to the 5-stage turbine’s air. This can be an advantage especially in situations where a dry injection through relatively small diameters is necessary.

Prod. no. 8126
**Cleaning**
The EM400 enables a cleaning of the workspace in combination with a suction drum as collection container. The suction drum will be connected at the EM400’s suction hood.

**Stationary Use**
The EM400’s full potential can be experienced during a stationary filling. In conjunction with the GBF1050 bale conditioning system or other systems, the EM400 becomes part of a production line for off-site construction.

**Blowing/Aspiration**
In combination with a fibre switch, a quick toggling between aspiration and blowing is possible.

---

**Dimensions**

- **Suction hood amplifier** NW75 (3")
- **Suction hood main blower unit** NW90 (3½")
- **Outlet connector amplifier** NW63 (2½")
- **Airlock outlet main blower unit** NW75 (3") or NW90 (3½")
- **Support for bags 550 mm**
- **Switchboard door**
- **Casing doors**
- **1300 mm**
- **1410 mm**
- **1260 mm**
- **approx. 1710 mm**
- **530 mm**
- **215 mm**
- **557 mm**
- **2212 mm**
Different architectural styles and construction designs require variable methods in the blowing injection processes. We distinguish four different methods. The EM400 is an all-round solution. There are almost no limits when processing loose insulation materials. In the following we show the various blowing injection methods and give an overview of the recommended applications in our comparison matrix.
## Comparison Matrix

### Wood fibre

<table>
<thead>
<tr>
<th>Applications</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Suitability</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

### Wood fibre examples

* Agricell, Airflex, Hoiz, KKS Woodfiber, KKS Woodfiber Granulate, Lignozell, Jasmin, Neptutherm, Steicozell, Thermofibre, Thermocell, Termoträ, Woodycell etc.

### Mineral fibre

<table>
<thead>
<tr>
<th>Applications</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Suitability</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

### Mineral fibre examples


### Mineral granules

<table>
<thead>
<tr>
<th>Applications</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Suitability</strong></td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

### Mineral granules examples

* Bachl Perlit HY, Extraperl, Fillrock KD/RG, Hyperdämm, Hyperlite KD, Lapor F2B/3/4, Perli-Fill F, Perli-Fill, Schacoulite Roof Top, SL520, Thermodämm 5/S40, Thermo-Floor, Thermo-Plan, Thermo-Plan, Thermo-Roof etc.

### EPS granules

<table>
<thead>
<tr>
<th>Applications</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Suitability</strong></td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

### EPS granules examples

* Bodiflock XPS, Dämmperl 035, Duroperl 35, Easy-Fill 034/033, Granulow 033/035, HK35, HK33, H2 Wall, Isolfloc Pearl, Jomaperl, Neopor, Rigibead 035/033, Rathipur KD, Styrodämm 033 etc.

### Legend Suitability

1. Extremely well suited / Best machine choice
2. Well suited
3. Recommended with limitations
4. Not recommended

---

*1) These examples do not lay any claim to being complete. Is your product listed? If not, please contact us.

*2) Amplifier recommended.

### Applications

A: Open/attic blowing · B: Dry injection · C: Dry Injection with ventilation · D: Damp spray/CSO · E: Cavity wall insulation · F: Fire protection
## Technical Data

### Model

<table>
<thead>
<tr>
<th>Model</th>
<th>EM400-400V/7.5kW</th>
<th>EM430-400V/9.5kW</th>
<th>EM440-3×230V/10.0kW</th>
<th>EM440-400V/10.5kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image</td>
<td><img src="EM400-400V.png" alt="Image" /></td>
<td><img src="EM430-400V.png" alt="Image" /></td>
<td><img src="EM440-3%C3%97230V.png" alt="Image" /></td>
<td><img src="EM440-400V.png" alt="Image" /></td>
</tr>
<tr>
<td>Product number</td>
<td>3316</td>
<td>5802</td>
<td>6253</td>
<td>4662</td>
</tr>
<tr>
<td>Power/material processing speed*1)</td>
<td>1400 kg/h</td>
<td>1600 kg/h</td>
<td>1600 kg/h</td>
<td></td>
</tr>
<tr>
<td>Hopper</td>
<td>-</td>
<td>1.0 m³</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Airlock outlet Ø</td>
<td>NW75 (3&quot;) or NW90 (3 ½&quot;)*2)</td>
<td>NW75 (3&quot;) or NW90 (3 ½&quot;)*2)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Outlet amplifier Ø</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dimensions (L×W×H)</td>
<td>1300×1020×1800 mm</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Unladen weight</td>
<td>410 kg</td>
<td>427 kg</td>
<td>390 kg</td>
<td>460 kg</td>
</tr>
<tr>
<td>Filling height</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Airlock ventilation</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dust removal/support for bags</td>
<td>Passive (strip curtains) / active with extraction</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Machine control</td>
<td>KFB2000/FFB2000-Pro</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Material conditioning</td>
<td>4 Crusher shafts and a shredder with 2 shafts</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Shredder</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Airlock material</td>
<td>Steel</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Airlock feed gate</td>
<td>✓ 10 levels (KFB2000)</td>
<td>✓ 10 levels (FFB2000-Pro)</td>
<td>✓ 19 levels (FFB2000-Pro)</td>
<td>✓ manual steplessly</td>
</tr>
<tr>
<td>Adjustable airlock rotational speed (optional)</td>
<td>✓ 10 levels (KFB2000)</td>
<td>✓ 19 levels (FFB2000-Pro)</td>
<td>✓ 19 levels (FFB2000-Pro)</td>
<td>✓ manual steplessly</td>
</tr>
<tr>
<td>Automatic blowing</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pressure relief valve</td>
<td>✓ (Optional)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Air feed unit</td>
<td>5-step high-powered turbine</td>
<td>5 high-powered radial compressor</td>
<td>5-step turbine and 2 high-powered radial compressors</td>
<td>-</td>
</tr>
<tr>
<td>Air feed amplification</td>
<td>External amplifier optional</td>
<td>Integrated</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Air flow volume (nominal/measured)</td>
<td>450/410 m³/h</td>
<td>490/420 m³/h</td>
<td>975/850 m³/h</td>
<td>800/650 m³/h</td>
</tr>
<tr>
<td>Conveying height*3) without/with amplifier</td>
<td>35/50 m</td>
<td>150 m</td>
<td>180 m</td>
<td>180 m</td>
</tr>
<tr>
<td>Hose length max.</td>
<td>150 m</td>
<td>150 m</td>
<td>180 m</td>
<td>180 m</td>
</tr>
<tr>
<td>Adjust. conveying pressure (max.)</td>
<td>520 mbar</td>
<td>520 mbar</td>
<td>2 × 1.8 + 3 × 1.45 kW</td>
<td>5.5 + 2 × 1.45 kW</td>
</tr>
<tr>
<td>Installed air flow power</td>
<td>5.5 kW</td>
<td>7.5 kW</td>
<td>2 × 1.8 + 3 × 1.45 kW</td>
<td>5.5 + 2 × 1.45 kW</td>
</tr>
<tr>
<td>Installed motor power</td>
<td>7.5 kW</td>
<td>9.5 kW</td>
<td>10.0 kW</td>
<td>10.5 kW</td>
</tr>
<tr>
<td>Power rating</td>
<td>7.5 kW</td>
<td>9.5 kW</td>
<td>10.0 kW</td>
<td>10.5 kW</td>
</tr>
<tr>
<td>Power supply</td>
<td>400 V / 50 Hz / 3 × 16 A / N / PE</td>
<td>3 × 230 V~ / 50 Hz / 16 A**3)</td>
<td>400 V / 50 Hz / 3 × 16 A / N / PE</td>
<td>-</td>
</tr>
<tr>
<td>Material packing density</td>
<td>200 kg/m³</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

All values approximate.

*1) Maximal values, pending on insulation material and injection method.
Specifications based on average cellulose insulation material.

*2) Direct reduction from NW75 (3") to NW63 (2 ½") or NW50 (2") possible.

*3) Operation with 2 × 230 V~/50 Hz~/16 A or 1 × 230 V~/50 Hz~/16 A with reduced air power possible.

### Characteristic Curves at 50 Hz

![Characteristic Curves at 50 Hz](characteristic_curves.png)
The FFB2000-Pro combines the possibilities and advantages of modern digital technology for the insulation pro. All important machine settings for the insulation blowing process can be controlled by the radio remote control.

Die FFB2000-Pro is compatible with the insulation blowing machines M99-DS-Pro, M95, EM300, EM400/440 and EM500.

Material flow volume control: Optional airlock rotational speed or electrical airlock feed gate (as from EM300 type possible)

Features:
- High transmission reliability
- Individual adjustments
- Bright adjustment display
- Light but robust remote control
- Air power adjustable in 19 levels (20…100 %)
- Material flow with airlock feed gate adjustable in 19 levels (0…100 %)
- Material flow with airlock speed adjustable in 19 levels (20…100 %)
- Dynamic shutdown and dynamic pressure
- Supplied in a practical suitcase

Contents
- One remote with carrying strap
- One charger
- One receiver with magnet
- Two antennas
- Quick start guide
- Complete foam lined case

Bidirectional digital radio technology
Four radio channels for interferences on building sites
Compatible with X-Floc and other machines
Cable connection possible
Optical and acoustic alarm for overpressure
Standard rechargeable batteries in the remote control
**Technical Data**

- **Transmission frequency**: 434 MHz
- **Operating temperature range**: -20°C to +40°C
- **Voltage supply**: 24 V DC

**Remote**

- **Duration of use**: up to 30 h
- **Range**: > 100 m without interruption
- **Overpressure signal**: LED (optical), Warning tone (acoustic)
- **Function buttons**: 6 (Foil keypad)
- **Parameter levels**: 10
- **Adjustable parameters**:
  - Radio channels: 1 - 4
  - Power-on delay material: 0, 1, 2, ..., 9 s
  - Power-off delay air: 0, 1, 2, ..., 9 s
  - Delay autom. shutdown: 0, 1, 2, ..., 9 s
  - Reaction time dynamic pressure ctrl.: 50, 100, ..., 500 ms
- **IP class**: IP40
- **Connections**: Cable control, Charging jack, Antenna
- **Power supply**: 3× AAA NiMH 800 mAh
- **Weight**: approx. 400 g
- **Dimensions**: approx. 47 × 154 × 47 mm

**Receiver**

- **Protection type**: IP40
- **Connections**: Control line to the machine, Cable control, Antenna
- **Power supply**: 24 VDC (insulation blowing machine)
- **Weight**: approx. 765 g
- **Dimensions**: approx. 83 × 151 × 50 mm
- **Product number**: 5154

---

**Left:** hand-held control; **Right:** receiver
Some insulation materials require a particularly high amount of air in order to perform the insulation properly. Some isolated installation situations require the overcoming high conveying heights or the use of long conveyor lines. Meanwhile, loose insulation materials have to be occasionally removed again.

By using the X-Floc amplifier-/vacuum station technique, you can easily supplement the existing insulation blowing machine to the amplification system or you can use the machine as part of the suctioning process. The devices available range from mobile amplifiers for on-site use (VS28) to stationary solutions, suitable for factory fillings (VS55). All amplifier-/vacuum stations available can significantly increase the insulation blowing machines’ overall power or, in combination with suitable accessories, can suction small or large amounts of solid materials in a short amount of time. For optimal harmonization, please refer to the notes “Amplification of the insulation blowing machines’ air performances”.

<table>
<thead>
<tr>
<th>Amplifier-/Vacuum station</th>
<th>VS28</th>
<th>VS33</th>
<th>VS40</th>
<th>VS55</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>VS28</td>
<td>VS33</td>
<td>VS40</td>
<td>VS55</td>
</tr>
<tr>
<td>Product number</td>
<td>2711</td>
<td>5855</td>
<td>8336</td>
<td>6348</td>
</tr>
<tr>
<td>Amplification/Cleaning</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>Active dust removal</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Stepless performance regulation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Synchronisation with machine</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Remote Control</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Power</td>
<td>2,8 kW</td>
<td>3,3 kW</td>
<td>4,0 kW</td>
<td>5,5 kW</td>
</tr>
<tr>
<td>Max. overpressure</td>
<td>330 mbar</td>
<td>370 mbar</td>
<td>430 mbar</td>
<td>550 mbar</td>
</tr>
<tr>
<td>Max. negative pressure</td>
<td>300 mbar</td>
<td>340 mbar</td>
<td>380 mbar</td>
<td>500 mbar</td>
</tr>
<tr>
<td>Max. air blow volume</td>
<td>440 / 400 m³/h</td>
<td>620 / 580 m³/h</td>
<td>430 / 390 m³/h</td>
<td>390 / 350 m³/h</td>
</tr>
<tr>
<td>Air feed unit</td>
<td>High-powered radial compressors</td>
<td>High-powered radial compressors</td>
<td>Turbine</td>
<td>Turbine</td>
</tr>
<tr>
<td>Suitability Insulation Blowing Machine*</td>
<td>Outlet pressure ≤ 320 mbar</td>
<td>Outlet pressure ≤ 400 mbar</td>
<td>Outlet pressure ≤ 420 mbar</td>
<td>Outlet pressure ≤ 520 mbar</td>
</tr>
<tr>
<td>Noise pressure level</td>
<td>80 dB(A)</td>
<td>78 dB(A)</td>
<td>90 dB(A)</td>
<td>95 dB(A)</td>
</tr>
<tr>
<td>Outlet connection/intake socket</td>
<td>NW63 (2½&quot;) / NW75 (3&quot;)</td>
<td>NW63 (2½&quot;) / NW75 (3&quot;)</td>
<td>NW63 (2½&quot;) / NW75 (3&quot;)</td>
<td>NW63 (2½&quot;) / NW75 (3&quot;)</td>
</tr>
<tr>
<td>Operating hours meter</td>
<td>O</td>
<td>✓</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Dimensions (L×W×H)</td>
<td>482 × 358 × 418 mm</td>
<td>482 × 358 × 418 mm</td>
<td>600 × 650 × 600 mm</td>
<td>785 × 700 × 580 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>23 kg</td>
<td>23 kg</td>
<td>60 kg</td>
<td>100 kg</td>
</tr>
</tbody>
</table>

* Required minimum outlet pressure at the blowing machine.
O Optional available with operating hours meter.
Trailers, containers and transportation vehicles upon your enquiry

- Customized vehicle construction
- Handcrafted and longlasting products
- Individual planning
- Integration listed equipment as well as foreign systems
- Suitable for long and short distances
- Can be delivered with your adverts

Container

1-axel Box Trailer

2-axel Box Trailer

Tarpaulin Cover

X-Floc partner

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