
DGUV Test

HM 213009

H3 residual wood dust content measured at 0,1 mg/m³

dguv.de/pruefzeichen

# Vacumobil 350

Dust extractor

11 kW Efficiency drive
H3 certified

HÖCKER® POLYTECHNIK

*Always one idea ahead*

# Vacumobil 350.
# Flexible dedusting with maximum performance.

**The Vacumobil 350 is the most powerful model of the popular Vacumobil series. This powerful dust extractor is perfectly suited for dust extraction from CNC-processing machines or several production machines.**

It features impressive performance and compact design, an easily configurable modular system, performance and many flexible applications.The jet cleaning process in combination with the discharge systems collecting container, briquetting press or rotary valve allow the realisation of tailor-made solutions.

The drive of the Vacumobil 350 is fitted as standard with efficiency control system (IE3), thus guarantees an extremely environmentally friendly and energy-saving operation. Only BG-certified filter material is used.
In the field of process safety, the innovative dust extractors feature a fire suppression system and an integrated explosion-proof non-return flap. (1

(1 approved for organic dusts of dust explosion class St1 with a minimum ignition energy >10 mJ and a lower explosion limit of at least 30 g/m³


Vacumobil JZ350
with jet cleaning and rotary valve

Two Vacumobiles combined to a powerful dust extraction solution.
A transport fan takes the dust to the silo.


Two Vacumobil JZ 350 dedusters in outdoor installation.
The filtered air is returned to production hall to avoid head loss


Vacumobil JP350
with jet cleaning and briquetting press


Vacumobil JT350
with jet cleaning and bins

# Vacumobil Dedusters. Powerful. Safe. Flexible.

- Installation in the work area allowed (depending on type of dust)
- Low residual dust content <0.1 mg/m³ (H3) acc. to TRGS 553
- 100% utilization of heat energy through air return
- Large filling capacity of 4 tons
- Online-cleaning available (supplementary charge)
- Height <2.6 m
- PLC-control system with automatic switch on
- Drive Efficiency Class IE3 / IE5 (optional)
- Automatic filter cleaning
- Integrated automatic fire suppression system
- Tested blowback protection integrated
- Pressure relief not required for St1 dusts
- BG-approved filter material (filtration efficiency 99.95%)
- Low energy consumption and high suction performance

## The safe deduster

The Vacumobil is supplied ready for connection with phase change plug and can be installed in the work area without further fire protection measures thanks to the integrated fire suppression system. An FSA-tested blowback protection is integrated in the dust laden inlet, which prevents dust from escaping and ensures explosion separation.

The rotary valves of the Vacumobil JZ are pressure shock resistant and flameproof (Dekra-EXAM tested).

## Well combined

**They are compact, powerful and flexible - Vacumobils are forming the optimal basis for many projects.**

If there is a mix of material to be extracted or space constraint - the Höcker Polytechnik project consultants develop functional and cost sensitive solutions for special tasks with the Vacumobil dedusters. Talk to us!


PLC control with text display, robust membrane keyboard and integrated automatic fire suppression system

# Cleaning by compressed air

## Vacumobil Jx 350

For jet or compressed air pulse cleaning, a nozzle is positioned above each filter hose. A short burst of compressed air briefly inflates the filter hoses so the filter cake is loosened. The filter material is regenerated periodically or depending on the differential pressure (according to the degree of contamination of the filters).

**Properties:**

- low energy requirement
- suitable for almost all materials
- constant high suction power due to low filter contamination
- cleaning can be carried out time-dependently or differential pressure-dependently
- very long service life and durability of the filter hoses
- continuous/online cleaning of the filter material without production breaks (optional)

# Accessories for more productivity and safety

The laser light sensor monitors the filling level of the dust collection bin

## Full detector for dust collection bin

Accessories and options allow you to adapt your Vacumobil deduster perfectly to your requirements. For example, users of a Vacumobil JT model with optional full detector know in good time when the dustbin should be emptied.

**Properties:**

- Laser light sensor in plastic housing for monitoring the fill level of a bin or a chip collection container.
- Avoids unnecessary production downtimes due to overfilling
- Increases cleanliness in the working environment
- Can be coupled with a flashing light as a warning device (optional) Installation in one of several barrels/containers in order to representatively to monitor the fill level
- Can also be retrofitted to existing dedusters

# Vacumobil. Tested pressure shock resistance

Test passed. In 2010, the accredited specialist institute for explosion tests „Dekra-EXAM“ certified the pressure shock resistance of our Vacumobil dust collectors.

All relevant laws and standards (ATEX, DIN EN 16770, industrial safety regulations, VDI guidelines, regulations and rules of the employers‘ liability insurance association) can be easily and safely complied with.

Shock resistance test of the Vacumobil 350 in 2010.

# Technical data and options

| | Vacumobil Jx 350<br>IE3 - Premium High Efficiency | | Vacumobil Jx 350<br>IE5-Efficiency Powerpack<br>25% Efficiency bonus air and electricity |
|---|---|---|---|
| **Power** | | | |
| Motor | 11 kW / 400 V / 50 Hz (IE 3) | | 11 kW / 400 V / 50 Hz (IE5) [5] |
| Frequency control | O | | ● |
| Nom. Volume Flow (V Nom) | 6,927 m³/h at 20 m/s | | 6,927 m³/h at 20 m/s |
| Max. Volume Flow (V Max) | 8,600 m³/h | | 10,000 m³/h |
| Vacuum generated V Nom [2] | ca. 3,100 Pa | | ca. 3,800 Pa |
| Vacuum generated V Vmax [2] | ca. 2,000 Pa | | ca. 2,400 Pa |
| Maximum sound pressure level [1] | ≤ 73 dB(A) | | ≤ 73 dB(A) |
| Suction connection diamenter | 350 mm | | 350 mm |
| **Filter** | | | |
| Cleaning | **Vacumobil Jx 350**<br>Air pulse cleaning (offline) [4]<br>Jet- or air pulse cleaning of the filter material. | | |
| Online cleaning (continuous) [4] | O | | |
| Filter area | ca. 35 m² | | |
| **Discharge** | | | |
| Dust collection bins (JT 350) | 4 bins, ca. 495 litres max. | | |
| Dimensions / weight (JT 350) | 3,930 x 1,030 x 2,560 mm / 1,080 kg | | |
| Rotary valve (JZ 350) | 0.55 kW, pressure shock tested | | |
| Brikettierpresse BriKStar CS 3 (JP 350) | 25...50 kg/h, 3 kW (space-saving integrated) | | |
| Brikettierpresse BrikStar CS 4 | 35...75 kg/h, 4 kW (integrated, chip container 450 x 860 mm) | | |
| **Control** | | | |
| Switch cabinet | ● | PLC control | |
| Automatic switch-on | ● | (6 I-coils connectable) | |
| Laufzeitaddierung | ● | integrated | |
| **Accessories** | | | |
| Suction connection left | ● | Jx 350-L | |
| Suction connection right | O | Jx 350-R | |
| Full detector for dust collection bin | O | for 1 bin in Vacumobil JT, incl. holder | |
| Return air connection hood | O | horizontal/vertical connection for outdoor installation | |
| Blow back flap | ● | type-examined | |
| Automatic fire suppression system | ● | with special extinguishing agent (optional: also for metal fires) | |
| Antistatic filter hoses | O | oil and moisture repellent | |
| Blast gate control L1, L4 | O | for 1, alternatively 4 machines for automatic blast gate | |
| Blast gate control Z8, Z16 | O | for 8, alternatively 16 machines (progr. bypass / min / max volume flow) | |
| Induction coil | O | suitable for L1, L4, Z8, Z16 | |
| Emergency-Stop | O | mounted on the front side of the switch cabinet | |
| Ignition protection | O | up to maximum volume flow 10,000 m³/h | |

● = series equipment, O = option, — = not available

Further configuration options available. Please contact us.

[1] measured according to the EU Machinery Directive subject to free field conditions with 1 m distance of 1.6 m height
[2] in delivery status – non-impinged filter hoses
[3] exposed to test dust acc. to. GS-HM-07
[4] online cleaning optional (for explosive dust-air mixtures only permitted with further protective measures) Attention: Units with online cleaning do NOT have GS and H3 markings
[5] In exchange for the standard IE3 motor

Model names (cleanings and discharges)

JT = Jet-cleaning / collection bins (tons)
JP = Jet-cleaning / briquetting press
JZ = Jet-cleaning / rotary valve

New product!

# The IE5-Efficiency Powerpack

# 25% Efficiency benefit

Vacumobile with IE5 permanent magnet motor offer
**higher air volumes** with **low energy consumption**

## Vacumobile with IE5 efficiency power pack[4]

**The Vacumobil deduster series is characterised by excellent extraction performance with minimum energy consumption. With the newly developed IE5-Efficiency Powerpack for the Vacumobile 350, 300 and 250 the Höcker Polytechnik energy saving professionals make full use of the possibilities of modern permanent magnet technology.**

**Vacumobil deduster with the best possible motor**

With 11 kW motor power, we now achieve the extraction capacity where a 15 kW drive was previously required! A 7.5 kW motor (IE5) can replace an 11 kW motor (IE3), and a 5.5 kW motor (IE5) does the job of a 7.5 kW motor (IE3).
This pays off for you and also for the environment.

**How did we manage to achieve that?**

Our intelligent electronic control utilises a modern frequency inverter with a permanent magnet motor of the highest energy efficiency class IE5. Each of these three components reduces energy consumption, but the decisive step is the control process.
Permanent magnet motors have specific characteristics that require high control intelligence. The control system for the IE5 efficiency power pack was therefore perfectly matched up with this type of motor by our technicians.

**Successful practical and stress test**

This IE5 efficiency power pack can pay for itself in a few months. **From day one you will benefit from low energy costs and stronger suction power.** This product also underwent several months of practical and stress testing at a major furniture manufacturer.
A Vacumobil 350 with IE5 efficiency Powerpack worked 5 days a week in two shifts under full load and production conditions.
**The result: More performance with reduced energy consumption.**

**The permanent magnet motor**

**More range for electric cars as well as more efficiency for your Vacumobil**

IE5 permanent magnet motors are characterised by their very high efficiency of approx. 94 %. In electric cars, this increases the range and boosts the efficiency of our vacuum vehicle dust extractors by up to 25 %.

**Vacumobil. The safe deduster**

The design principle of our Vacumobiles, briquetting presses and rotary valves has been proven 1000 times and has been officially tested.

All relevant laws and standards (ATEX, DIN EN 16770, industrial safety regulations, VDI guidelines, trade association regulations and rules as well as the eco-design guideline) can be complied with easily and safely.


Driven by IE5 Ultra Premium Efficiency

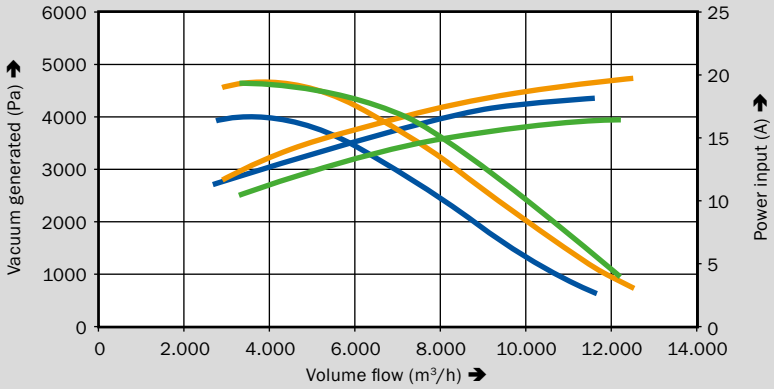
www.hoecker-polytechnik.com

Energy-efficient performance
**Permanent magnet motors**

## Vacumobil with Powerpack

# Up to 30% more vacuum

**In principle quite simple... The frequency converter gently increases the speed of the motor and provides a power boost.**




- Vacumobil JT 350 with Powerpack IE5
- Vacumobil JT 350 with Powerpack IE3
- Vacumobil JT 350 without Powerpack

Example calculation:

- Vacumobil dust collector JP 350 with Powerpack IE5
  Application with a volume flow of 8,000 m³/h
  Productive time: 250 working days @ 8 h per year

Efficiency advantage electricity and air: 25%

**Reduction of electricity costs: 1,200 € / per year**
*Electricity price: 0.24 Euro/kWh (average commercial Germany)*

**It pays off for you.**

## Vacumobil with Powerpack

### The advantages:

- increased negative pressure compared to comparable standard Vacumobil
- Efficiency advantage ensures a worthwhile return on investment
- most modern technology available on the market
- all Vacumobil options available
- supports ISO 50001 energy management systems
- supports sustainability through resource conservation

# Technical data

| | 11 kW IE5 Efficiency Powerpack<br>11 kW permanent magnet motor (IE5), frequency converter, control electronics | 7.5 kW IE5 Efficiency Powerpack<br>7.5 kW permanent magnet motor (IE5), frequency converter, control electronics | 5.5 kW IE5 Efficiency Powerpack<br>5.5 kW permanent magnet motor (IE5), frequency converter, control electronics |
|---|---|---|---|
| **Energy saving option for** | **Vacumobil 350** | **Vacumobil 300** | **Vacumobil 250** |
| Motor power | 11 kW / 400 V / 50 Hz (IE5) [1] | 7,5 kW / 400 V / 50 Hz (IE5) [1] | 5,5 kW / 400 V / 50 Hz (IE5) [1] |
| Motor efficiency | max. 94 % | max. 94 % | max. 94 % |
| Nom. Volume Flow (V Nom) | 6,927 m³/h at 20 m/s | 5,100 m³/h at 20 m/s | 3,535 m³/h at 20 m/s |
| Max. Volume Flow (V Max) | 10,000 m³/h | 9,000 m³/h | 7,500 m³/h |
| Vacuum generated V Nom [2] | ca. 3,800 Pa | ca. 3,400 Pa | ca. 3,600 Pa |
| Vacuum generated V Max [2] | ca. 2,400 Pa | ca. 2,500 Pa | ca. 2,800 Pa |
| Maximum sound pressure level [3] | ≤ 73 dB(A) | ≤ 73 dB(A) | ≤ 73 dB(A) |
| **Options for your Vacumobil** | Configure your energy-efficient Vacumobil as you wish:<br>Choose the optimum filter cleaning jet or vibration and the desired discharge via chip bin, briquetting press or rotary valve.<br><br>Please also refer to the product brochures for the Vacumobil 350, 300 or 250. | | |

[1] In exchange for the standard IE3 motor [2] In delivery status – non-impinged filter hoses [3] measured according to the EU Machinery Directive subject to free field conditions with 1 m distance of 1.6 m height at V Nom

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