

Stationary Dedusters



VACOMAT N 1000



More filter area
with less space requirements



Vacomat N-1000 with a filtering surface of 50 m²

The stationary Schuko dust extractor **Vacomat N-1000** combines the advantages of a large filter system in a compact, space-saving and highly efficient small filter.

Areas of application include small and medium-sized companies with an air requirement (nominal volume flow) of max. 8,000 m³/h, but also large companies, e.g. to supplement an existing central extraction system.

These series are particularly recommended when a large filter area is required due to the high volume of dust and chips.

The distinguishing feature for operation is the design. The Vacomat N-1000 dust extractor meets the requirements of DIN EN 16770 and is approved for indoor installation.

With a dry extinguishing line, explosion venting surface and other necessary features, the dust extractor becomes a small filter system that is suitable for outdoor installation in accordance with DIN EN 12779.

Stationary dedusting technology in the smallest of space

Convincing arguments at a glance:

✓ **Modular principle**

Thanks to an intelligent modular system, a wide range of variations are available as standard, which are otherwise only manufactured in expensive special design.

Determination of the ideal installation location as well as equipment according to associated safety regulations for indoor or outdoor installation.

Individual and performance-related selection of components in terms of fan power, filter area and required overall height.

Design as vacuum or overpressure system (only as filter)

Demand-dependent installation of the extraction socket

✓ **Tested safety and quality**

as dust extractor for indoor installation manufactured according to DIN EN 16770.

✓ **Tested filter material**

With a residual dust content of <0.1 mg/m³ in the return air, compliance with the prescribed limit values is ensured.

✓ **Space-saving design**

Only a small footprint is required for installation.

✓ **High safety**

due to shock pressure resistant housing up to 200 mbar (according to dust explosion class ST1).

✓ **Energy-saving return air operation**

also possible for outdoor installation

✓ **Individual disposal**

of chip discharge via various disposal systems

✓ **Volume flow control**

✓ **Filter dedusting**

The patented pneumatic/mechanical shaking mechanism is standard. For continuous operation or particularly fine dust particles, we recommend shock pressure cleaning (indoor installation can only be triggered offline).

✓ **Expandability**

In case of changed tasks, the extraction system can be subsequently adapted to the new requirements. The broader expansion of the dust extractor with a larger filter area (62 m²) is possible.

1 High-performance fan variants

Vacuum exhaust fans of the VacoVent series are available for different performance ranges (volume flow and pressure) and in different performance classes. The sound-insulated fans are extremely quiet and ensure “silence” during operation with 70 to 76 dB (A).

Fan type	Art. no.	Power consumption kW	L x W x H mm	Sound pressure dB (A)	Volume flow m³/h	Related vacuum Pa	Weight kg*
for N-1000							
VacoVent 400	826 100	4,0	1,230 x 840 x 905	70	3,416	3,136	141
VacoVent 550	826 200	5,5	1,230 x 840 x 905	71	5,315	3,365	150
VacoVent 750	826 300	7,5	1,230 x 840 x 905	72	6,180	3,440	155
VacoVent 1100	826 400	11,0	1,230 x 1.000 x 905	76	7,697	3,875	176

* incl. return air bend

1a Sound insulation capsule for centrifugal fans

2 The patented automatic extinguishing system

prevents property damage and consequences, such as environmental pollution and operational downtime, by shutting down the system in the event of a fire.

Art. no. 635 400

For all combinations (filter assembly unit with substructure) below 2.3 m³ raw gas volume.

An **ignition protection system** consisting of spark detector, alarm module, automatic extinguishing system, extinguishing nozzle, nozzle holder, flow monitor and dirt trap is additionally required for a raw gas volume between 2.3 m³ and 3.5 m³.

Art. no. 636 350

3 The chip blow-in expansion box

with back pressure flap and additional sound insulation ensures a calm and filter-friendly material inlet and quiet operation. The blow-in expansion box can be positioned on all four sides of the N-1000 and can be rotated to allow connection from the right or left side with standard aperture to the expansion area (750 x 250 mm).

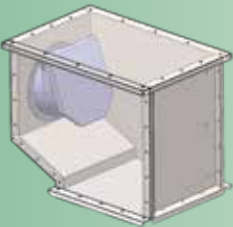
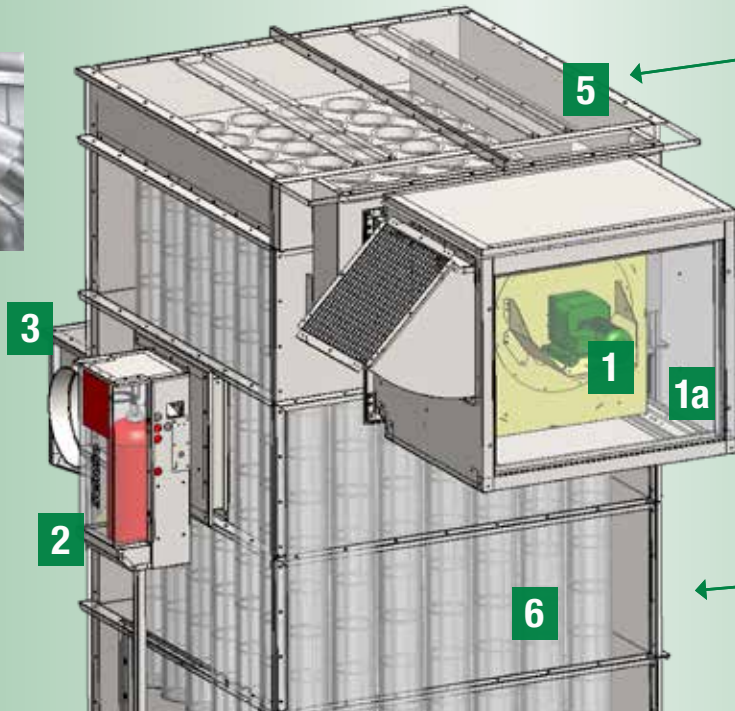
for Vacomat	Dimensions L x W x H mm	Art. no.
N-1000	750 x 480 x 1,160	634 210
N-1000	750 x 480 x 1,480	634 220

4 The control system

The electrical control system of the N-1000 is programmed according to the customer's requirements, thus ensuring energy-saving operation. It is designed in protection class IP 54 according to VDE and CEE. The fan startup can be automatic, as well as the filter regeneration. Options include the control of energy-saving sliders and the discharge system for dust and chip disposal. The pneumatic connection with water separator, pressure reducer and pressure gauge for pneumatic/mechanical filter regeneration is clearly arranged on a separate panel. A volume flow monitoring system checks compliance with the minimum air velocity.

Schuko

VACOMAT N 1000



4

Quality of material
Galvanized sheets guarantee optimal rust protection and thus longevity and security of investment.



Options of disposal
7 a-d 8 a-b 9 a-b

Illustration:
Dust extractor Vacomat N-1000 with substructure for ATEX rotary valve with motor drive and agitator.



5 Filter cleaning

Efficient filter cleaning ensures long service life of the filter bags and operational reliability of the filter system.

A **pneumatic mechanical filter shaker** is installed as standard in the N-1000 to separate a wide variety of dusts and is used for basic cleaning of the filter bags during shutdown.

Pressure shock cleaning

For an effective filter cleaning in case of a high fine dust content or in case pneumatic-mechanical filter shaking cannot be used due to the shape of the chips.

for N-1000 (optional)	Art. no.
• Filter attachment with cartridge filter incl. distribution system, compressed air tank and 49 cleaning dashes	633 550
• Cartridge filter incl. distribution system, compressed air tank and 9 cleaning dashes (Indoor installation can only be triggered offline)	633 650

6 The filter area

High-quality tested filter material (dust class „M“, residual dust content < 0.1 mg/m³) for different dusts guarantee clean and healthy air. Easy cleaning and effective prevention of material bridging are ensured by the filter bags with support baskets, which are loaded from the outside. They are particularly durable and functional for a long time. The respective filter areas are adapted to the fan capacity.

Filter assembly units

The N-1000 dust collector series is available with **different filter systems**, depending on your needs and application:

- The **basic units** of the N-1000 series are available in four different filter areas (25, 37, 50 and 62 m²) depending on the required air volume.
- Alternatively, the N-1000 can also be equipped with the **patented filter system type Schuko-Cone®**. This filter system uses double-walled filter bags. If a compact system with a large filter area is required, this filter variant is the best choice (with 50 m² filter area and a filter bag length of 1,250 mm). Area of application: wood dust.
- For **special industrial applications (grinding stations)**, the N-1000 is available with filter cartridges. Optionally, a filter area of 210 or 270 m² can be installed here. Project planning by Schuko is required.

Filter assembly unit type N-1000	Art. no.	Filter area m ²	Filter medium tube	Dimensions L x W x H mm	Filter regeneration pneumatic/mechanical	Pressure shock cleaning	Compressed air requirement per cycle	Weight ca. kg
10/25	633 150	25	1,000 mm long	1,520x1,520x1,760	standard	optional	Pmax 6 bar, 40 l / 4 bar	360
15/37	633 250	37	1,500 mm long	1,520x1,520x2,260	standard	optional	Pmax 6 bar, 40 l / 4 bar	580
20/50	633 350	50	2,000 mm long	1,520x1,520x2,760	standard	optional	Pmax 6 bar, 40 l / 4 bar	380
25/62	633 360	62	2,500 mm long	1,520x1,520x3,230	standard	optional	Pmax 6 bar, 40 l / 4 bar	420
1.25/50	633 850	50	Schuko-Cone® 1,250 mm long	1,520x1,520x2,000	standard	optional	Pmax 6 bar, 40 l / 4 bar	425
10/210	633 750	210	7 Cartridges 1,000 mm long	1,520x1,520x2,070	no	necessary	Pmax 6 bar, 182 l / 4 bar	387
10/270	633 450	270	9 Cartridges 1,000 mm long	1,520x1,520x2,070	no	necessary	Pmax 6 bar, 182 l / 4 bar	425

The expansion area

6a

The expansion area is the area between the filter bags and the substructure. The filter substructure with the corresponding disposal solution, such as chip collection bags, container charging, transport fan or briquetting press, is attached to it. **An ignition protection system is mandatory from 2.3 m³ raw gas volume!**

Expansion area extension

Height	Art. no.
570 mm	635 700
380 mm	635 750

Options of disposal

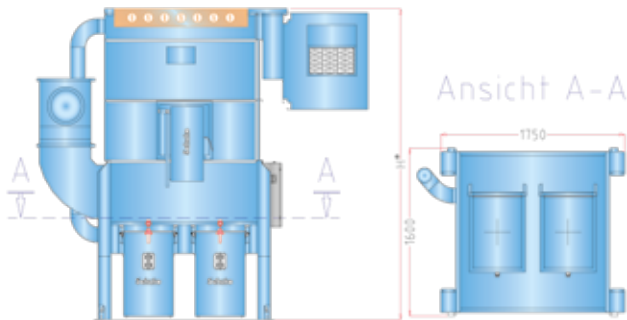


Substructure variants for Vacomat N-1000

Filter substructure variants in stable, self-supporting steel construction made of hot-dip galvanized or sendzimir galvanized sectional steel or sheet steel can be selected with individual chip discharge.

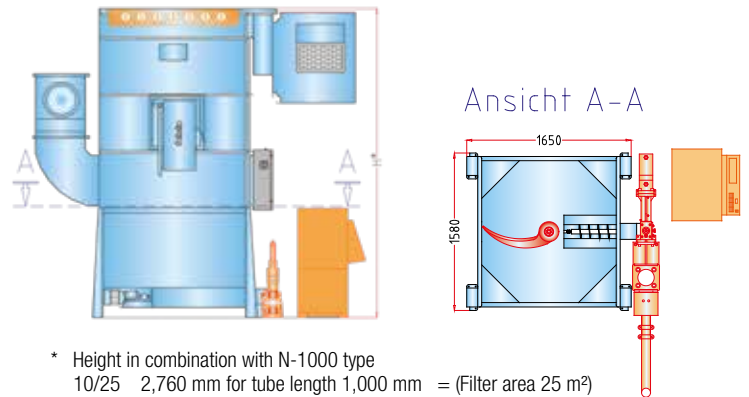
7 a) ... Substruction with two chip collectors (8-sided) size 5, collector height 870 mm, height 1,400 mm **Art. no. 635 355**

b) ... Substruction with screw discharge for the connection to a **Compacto briquetting press**, height 1,000 mm **Art. no. 635 550**



* Height in combination with N-1000 type

10/25	3,160 mm for tube length 1,000 mm	= (Filter area 25 m ²)
15/37	3,660 mm for tube length 1,500 mm	= (Filter area 37 m ²)
20/50	4,160 mm for tube length 2,000 mm	= (Filter area 50 m ²)
25/62	4,630 mm for tube length 2,500 mm	= (Filter area 62 m ²)
1,25/50	3,400 mm with Schuko Cone®	= (Filter area 50 m ²)
10/210	3,470 mm 7 Cartridges	= (Filter area 210 m ²)
10/270	3,470 mm 9 Cartridges	= (Filter area 270 m ²)



* Height in combination with N-1000 type

10/25	2,760 mm for tube length 1,000 mm	= (Filter area 25 m ²)
15/37	3,260 mm for tube length 1,500 mm	= (Filter area 37 m ²)
20/50	3,760 mm for tube length 2,000 mm	= (Filter area 50 m ²)
25/62	4,230 mm for tube length 2,500 mm	= (Filter area 62 m ²)
1,25/50	3,000 mm with Schuko Cone®	= (Filter area 50 m ²)
10/210	3,070 mm 7 Cartridges	= (Filter area 210 m ²)
10/270	3,070 mm 9 Cartridges	= (Filter area 270 m ²)

The chip collection bins with inserted chip collection bags (Art. no. 582 500) are automatically connected to the vacuum system of the filter unit via an automatic coupling system without obstructive vacuum tube lines.

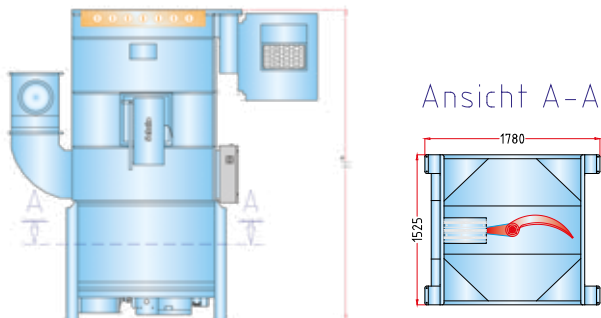
The chips are continuously discharged from the expansion area via a screw conveyor. An agitator with sickle effectively prevents bridging above the screw. The discharge interval is controlled by the Schuko briquetting press.

Screw discharge with agitator: gear motor 1.1 kW, 34 1/ min, 400 volts, 50 Hz, weight: 210 kg

Briquetting press type Compacto are available in different variants.



c) ... Substruction Vacomat N-1000-ZR Art. no. 635 650
 prepared for an **ATEX rotary valve** type **ZRS 10, 430 x 260 mm**
 with engine drive and agitator, height 1,300 mm (Art. no. 635 950)



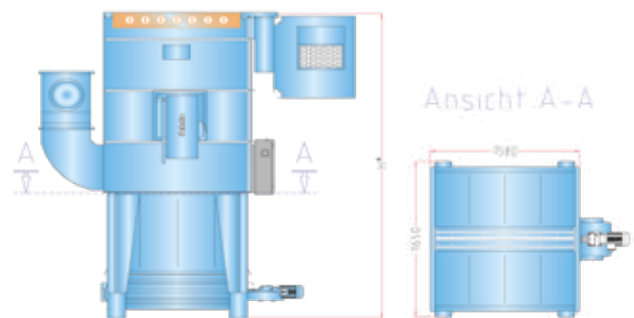
* Height in combination with N-1000 Typ

10/25	3,060 mm for tube length 1,000 mm	= (Filter area 25 m ²)
15/37	3,560 mm for tube length 1,500 mm	= (Filter area 37 m ²)
20/50	4,060 mm for tube length 2,000 mm	= (Filter area 50 m ²)
25/62	4,530 mm for tube length 2,500 mm	= (Filter area 62 m ²)
1,25/50	3,300 mm with Schuko Cone®	= (Filter area 50 m ²)
10/210	3,370 mm 7 Cartridges	= (Filter area 210 m ²)
10/270	3,370 mm 9 Cartridges	= (Filter area 270 m ²)

If an extraction gutter is required, the height dimension must be taken into account (the respective extraction diameter + 100 mm). Pneumatic conveying into a silo or container is possible by using a transport fan.

Due to the particularly stable container construction, operation of the system is possible both in vacuum and in overpressure.

d) ... Substruction for Vacomat N-1000 Art. no. 635 340
 prepared for installation of an **ATEX rotary valve,**
 type **ZRS 10, 1,400 x 260 mm** height 1,400 mm (Art. no. 710 820)



* Height in combination with N-1000 Typ

10/25	3,160 mm for tube length 1,000 mm	= (Filter area 25 m ²)
15/37	3,660 mm for tube length 1,500 mm	= (Filter area 37 m ²)
20/50	4,160 mm for tube length 2,000 mm	= (Filter area 50 m ²)
25/62	4,630 mm for tube length 2,500 mm	= (Filter area 62 m ²)
1,25/50	3,400 mm with Schuko Cone®	= (Filter area 50 m ²)
10/210	3,470 mm 7 Cartridges	= (Filter area 210 m ²)
10/270	3,470 mm 9 Cartridges	= (Filter area 270 m ²)

The chips are continuously discharged from the expansion area via a rotary valve, which can be extended downward with a chute that guides the discharged material into a container or silo.

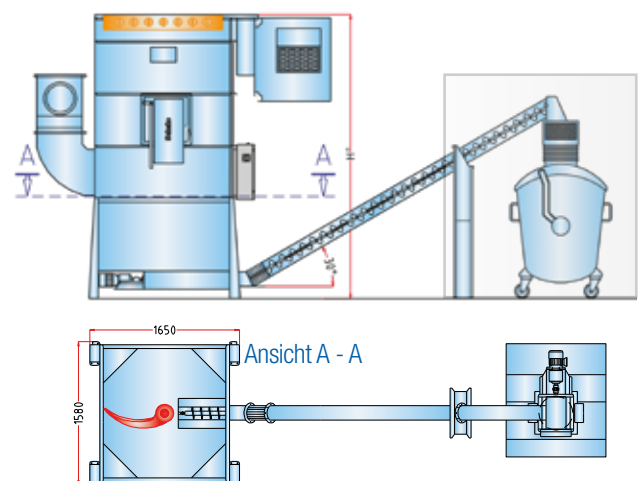
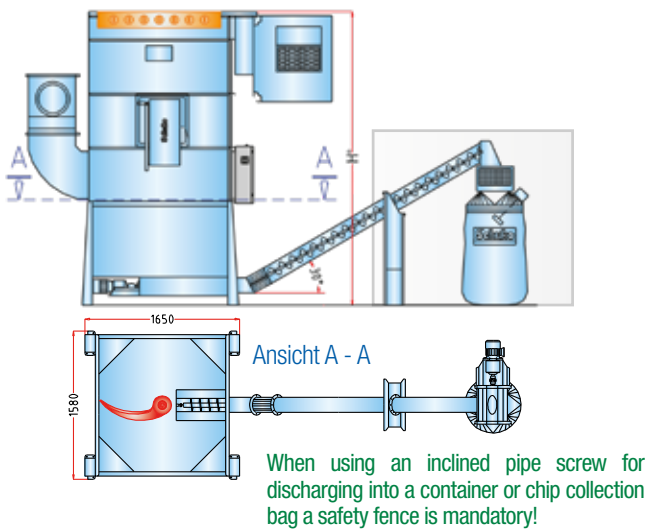
If pneumatic onward transport of the discharged chip material is desired, a suction chute can be mounted under the rotary valve. This is then connected to a pneumatic transport system (transport fan). The transport line can end in a chip container or a silo.

Options of disposal



Inclined tube screw discharges

- 8** a) **Substruction with a screw discharge** **Art. no. 635 510** for the connection of an **inclined tube screw** (Art. no. 636 100) with closing rotary valve for the **filling of chip collection bags**.
- b) **Substruction with a screw discharge** **Art. no. 635 510** for the connection of an **inclined tube screw** (Art. no. 636 100) with closing rotary valve for the **filling of chip collection containers**.



The chips are continuously discharged from the expansion area via a screw conveyor. An agitator effectively prevents bridging above the screw. The screw conveyor runs in an inclined tube, downstream of which is a bagging device. The agitator and the inclined tube screw are driven by a common geared motor.

The filling level of the chip collecting bag is monitored by a built-in filling level indicator/rotary vane probe (attention, additional price). If the max. filling level of the chip collection bag is reached, the level indicator switches off the discharge and triggers a visual signal. A protective cover is fitted over the chip collection bag. The socket of the collection bag mounting is equipped with a safety switch. As soon as the clamping ring for the chip collection bag is removed, or not present, the discharge screw is electrically switched off at all poles.

The screw conveyor runs in an inclined tube, downstream of which is a container connection. The on-site container is fed via a flexible container connection. If the container is changed, this container connection is lifted and hooked into a holder provided for this purpose. This activates a safety switch which switches off the discharge device (agitator, screw and sluice).

The filling level of the container is monitored by a built-in rotating blade probe (attention, additional price). If the max. filling level of the container is reached, the level detector switches off the discharge at all poles and triggers a visual signal.

Inclined tube screw or transverse screw are extendable if required.

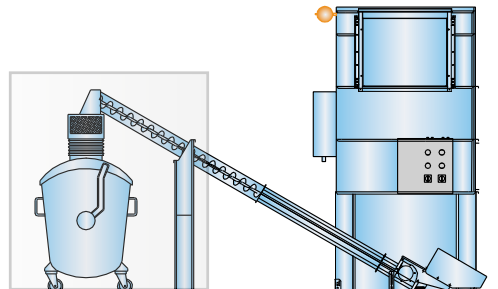
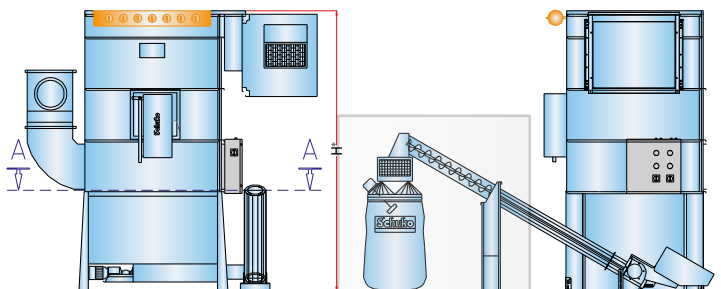


Transverse screw discharges

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a)... Substruction with a screw discharge **Art. no. 635 510** for the connection of a **transverse screw** (Art. no. 636 800) with closing rotary valve for the **filling of chip collection bags**.

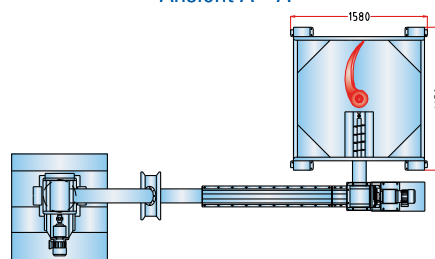
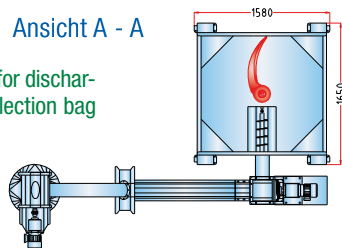
b)... Substruction with a screw discharge **Art. no. 635 510** for the connection of a **transverse screw** (Art. no. 636 800) with closing rotary valve for the **filling of chip collection containers**.



Ansicht A - A

Ansicht A - A

When using a transverse screw for discharging into a container or chip collection bag a safety fence may be required!



Safety fence

Intervention protection N-1000 substructure **Art. no. 804900** consisting of: hot-dip galvanized fence incl. double wing door with handle set and guide rollers, provided for profile cylinder, incl. safety switch for switching off the system according to the specifications of the professional association



That will not happen to you with us!

Schuko

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