FILTERS AND SEPARATORS

PRODUCT PROGRAMME

DEDICATED TO **CLEAN AIR**

04.02.2015

Sales, delivery and payment terms

1. Applicability:
These sales, delivery and payment terms (hereinafter "the Terms") apply to all offers, orders and deliveries supplied by JKF Industri A/S, CVR no. 17085204 (hereinafter "JKF Industri") to any customer (hereinafter "the Buyer") (hereinafter collectively referred to as "the Parties"), unless expressly agreed otherwise.

JKF Industri cannot be bound by terms applied by the Buyer, including purchasing terms, even if JKF Industri has not objected to such terms.

2. Offers
All offers are made subject to the goods being unsold. If JKF Industri makes an offer that does not stipulate a specific time for acceptance, the offer will expire if not accepted by the Buyer within 30 days of the date of the offer.

3. Prices
All prices are stated in DKK excluding VAT, customs duties, taxes, transport costs and all other costs which are the responsibility of the Buyer arising from the contractual EXW clause (see below). Prices are stated in EUR exclusive of the aforementioned costs for Buyers located in countries, which are members of the European Economic and Monetary Union (the Euro).

4. Sales and delivery terms
Payment terms are current month + 20 days net calculated from the date of invoice unless otherwise agreed in writing.

If payment is made after the due date and the delay is no fault of JKF Industri, JKF Industri is entitled to charge interest on the sum outstanding as from the due date, at a rate equivalent to 1.5 % per month or part thereof.

The Buyer is not entitled to offset any counterclaims against JKF Industri unless expressly agreed in writing by JKF Industri, and does not have the right to withhold any of the purchase sums by reason of counterclaims of any kind.

5. Retention of title
For Buyers in the United Kingdom:
The goods shall remain the property (i.e. title) of JKF Industri until: (ii) the full price for them is paid; and (ii) all sums for any other goods or services then properly due and payable from the Buyer are paid to JKF Industri. JKF Industri may at any time attribute any money received by it from the Buyer in any order as JKF Industri may decide. Until such payment, the Buyer shall hold the goods on a fiduciary basis as the bailee or depository of JKF Industri, and shall not dispose of them. However, subject to JKF Industri's prior written consent, the Buyer may on the Buyer's own account sell the goods to any customers but shall not do so after any step is taken or made for any composition or arrangement with creditors generally, liquidation, winding-up, dissolution, administration, receivership or bankruptcy of the Buyer. If any such step occurs, or JKF Industri reasonably expects that such a step is soon to occur, or any payment due to JKF Industri from the Buyer becomes overdue, JKF Industri may by written notice terminate the Buyer's right (if any) to sell the goods and JKF Industri may then recover such goods and for that purpose enter any premises, subject to the Buyer's continued liability to pay the price for the goods. If the item has been sold with a view to later being built into or joined to other objects, the item sold is not covered by the right of retention once such installation or joining has taken place.

JKF Industri reserves the right within the limitations of mandatory laws to retention of title to the item sold until payment for the entire purchase sum, plus any costs incurred, has been made to JKF Industri. If the item has been sold with a view to later being built into or joined to other objects, the item sold is not covered by the right of retention once such installation or joining has taken place.

For Buyers outside the United Kingdom:
JKF Industri reserves the right within the limitations of mandatory laws to retention of title to the item sold until payment for the entire purchase sum, plus any costs incurred, has been made to JKF Industri. If the item has been sold with a view to later being built into or joined to other objects, the item sold is not covered by the right of retention once such installation or joining has taken place.

6. Delivery
Unless otherwise agreed in writing between the Parties, the delivery dates stated are EXW JKF Industri's address, with a proviso for possible schedule overruns (see below). The use of EXW means that the goods are deemed to have been delivered and the order fulfilled from the moment they are made available for collection by the Buyer from JKF Industri's address.

Unless otherwise agreed in writing between the Parties, JKF Industri is authorised to order transport on the usual terms on behalf of the Buyer. The Buyer, will continue to bear the risk for arranging transport, and if it cannot be arranged, the goods will be deemed to be delivered from the time at which JKF Industri states the purchaser can collect them. Regardless of which of the Parties has ordered it, shipping will always be at the risk and expense of the Buyer. Transport insurance (if any) will be the responsibility of the Buyer. The delivery clause (EXW) agreed between the Parties is to be interpreted in accordance with the INCOTERMS current at the time of signing the agreement (currently INCOTERMS 2010).

The delivery date is set by JKF Industri according to the best judgement, and if this cannot be kept to, the Buyer will be informed accordingly, with when, as far as possible, delivery can be expected to take place. Any delay does not give the Buyer the right to cancel the sale and/or claim any form of financial compensation from JKF Industri.

7. Packaging
Packaging may only be returned by prior written agreement. Return of packaging is at the Buyer's own expense and risk. The Buyer's packaging will be credited after reception and approval by JKF Industri.

8. Product information and confidentiality
All illustrations, technical drawings and brochures issued by JKF Industri before or after the contract have been entered into remain the property of JKF Industri and must be returned to JKF Industri on request. Such materials must be treated with strict confidentiality and cannot be used, copied or passed on without written agreement, or abused in any other manner.

The Buyer undertakes to generally observe confidentiality concerning all aspects of JKF Industri known to the Buyer as a result of the information the Parties have exchanged in the course of their dealings.

Breach of this provision by the Buyer shall incur a fine payable to JKF Industri of DKK 75,000. The fine shall be payable for each breach of the provision, and if the breach consists of continuation of a previous breach, the fine shall be payable for each 14 day period of continuation or part thereof. Payment of a fine shall not relieve the Buyer of the above obligations, nor prevent or constrain JKF Industri from claiming compensation for any loss JKF Industri may have incurred arising from the breach, in that payment of the fine by the Buyer shall not be included in calculation of JKF Industri's loss. In addition to the above, JKF Industri is entitled to take out an injunction.

9. Liability for defects and deficiencies and warranty claims
Upon receipt of the goods sold at the Buyer's address, the Buyer shall immediately perform a thorough examination of the goods, including quantity and specifications.

Should the Buyer wish to claim for any defects or deficiencies, including with regard to the quantity or specifications delivered, which the Buyer has or should have discovered in the course of thorough examination of the goods, a written claim shall be submitted to JKF Industri without undue delay and within 14 days of receipt of the goods at the Buyer's address. JKF Industri is entitled to reject any claims received after the expiry of the period stated above.

JKF Industri warrants performing redelivery/remedy of goods which are defective or deficient due to material or manufacturing error for goods which the Buyer has not nor should have discovered by thorough examination for a period of 12 consecutive months after delivery. However, the Buyer shall submit a claim to JKF Industri immediately if discovering such defects or deficiencies.

Defective or deficient goods will either be remedied or replaced within a reasonable period of time at JKF Industri's discretion. Modification/interference with the goods without JKF Industri's written consent releases JKF Industri from any obligation.

Remedy/redelivery by JKF Industri of elements of a delivery shall be on the same terms and conditions as for the original delivery, including those stated in item 6. JKF Industri's obligation to remedy or redeliver does not, however, apply to any part of an order more than 1 year after delivery to the Buyer.

Once liability for the order has been transferred to the Buyer, JKF Industri bears no responsibility for any defects over and above the obligations specified in this provision.

10. Force majeure
The following circumstances are intended as examples of events resulting in exemption from liability should they prevent fulfilment of the contract:

Industrial disputes, strikes, lockout or any other circumstances beyond the control of the parties, such as fire, war, mobilisation, unforeseen military call-up, acts of sabotage, requisitioning, confiscation, currency restrictions, import ban, export ban, riots, unrest, fuel shortage, general scarcity of goods, restrictions in power supplies and defects in deliveries from sub-suppliers or delays with such deliveries as a result of any of the aforementioned circumstances.

It should be specifically noted that the above is not an exhaustive list of examples, and there may be other examples that come under limitation of liability. If delivery is temporarily delayed by one or more of the aforementioned circumstances, the delivery date will be correspondingly postponed. If delivery is prevented for more than 12 weeks, JKF Industri is entitled to cancel the relevant contract without liability.

11. Returns
Items sold can only be returned by prior written agreement, and upon obtaining a returned goods order number. Return will be at the Buyer's expense and risk and should include JKF Industri's invoice number and the date of the original delivery.

Returned goods will be credited once they have been inspected and approved, normally to the value of 85% of invoice price (unless otherwise agreed in writing), less any costs incurred by JKF Industri for inspection, preparation or repair. Custom made goods will not be credited. If JKF Industri is charged for shipping costs etc., JKF Industri is also entitled to demand these be refunded by the Buyer and to offset these against any claims by the Buyer against JKF Industri.

12. Product liability
JKF Industri is not liable for damage to property or effects that occur while the item is in the possession of the Buyer. Neither is JKF Industri liable for damage to products manufactured by the Buyer or to products of which these form a part. JKF Industri is not liable for any operating loss, lost earnings or other indirect loss.

To the extent that product liability may be imposed on JKF Industri with regard to third parties, the Buyer is obliged to compensate JKF Industri to the same extent that JKF Industri's liability is limited as per the above. These limitations to JKF Industri's liability do not apply if JKF Industri is guilty of gross negligence. If a third party puts forward a claim against one of the Parties for compensation with reference to this point, that party must immediately inform the other party. The Buyer can be sued at the same court that handles any claims for compensation against JKF Industri, in consequence of damage alleged to have been caused by one of JKF Industri's deliveries. JKF Industri's product liability can never exceed the cover JKF Industri has for product liability insurance.

13. Compensation
Notwithstanding the above, JKF Industri cannot be held liable for any indirect loss such as operating loss, consequential loss, loss of profit etc., which a defect or deficiency could cause the Buyer or a third party, including indirect loss etc., arising as a result of delayed delivery or defects/deficiencies in the goods sold.

Any compensation claim against JKF Industri cannot exceed the invoice value for the goods sold.

14. Invalidity
Should one or more of the provisions in these terms be deemed invalid, illegal or non-applicable, the validity, legality or applicability of all other provisions shall not be affected or lessened as a result thereof.

15. Jurisdiction and court of venue
All disputes between the parties shall be settled under Danish Law including the Danish Sale of Goods Act, but with the exception of Danish jurisdiction rules. The International Sale of Goods Act (CISG) shall neither be wholly nor partially applied.

Any dispute regulated by the terms shall be resolved by arbitration at the Danish Institute of Arbitration, according to the institute's rules, which apply when an arbitration case is brought with the amendments stated below.

However, the Parties agree that the arbitral tribunal shall consist of 3 members, of whom each party will appoint one member, and the Danish Institute of Arbitration will appoint the tribunal chairman. If a party fails to appoint a member within 14 days of being requested to do so by the Danish Institute of Arbitration, the institute will appoint a member on behalf of that party.

The tribunal shall sit in Hadsund.

The original version of this document is in Danish. In the event of discrepancies between the Danish and English versions, the Danish version will take preference.

27.02.2015

General 00

Filters 01

Modular filters 02

Accessories 03

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JKF filters

Filters

JKF Industri has an extensive range of bag and cartridge filters, ranging from extraction from a single machine using a portable vacuum cleaner to traditional modular filter solutions and advanced round, welded and SuperBlower filters.

As such, JKF filters are particularly effective at filtering practically any form of dry material for any form of production facilities with the right filter media.

The filter range includes:

- SuperBlower filters
- Blower filters
- DustStorm® filters
- SuperJet filters
- MMBF filters
- Modular filters
- Intake filters
- Point filters
- Movable dust filters

Surface treatment

JKF's painted filters fulfil corrosion class C3, cf. ISO 12944.

JKF has the latest powder-coating equipment - a 3 zone, high-tech, computer-controlled and fully automatic installation which ensures high and uniform quality for all painted items, for painting small items (W1.0×H2.0×D0.5 m) such as filter panels, fittings etc. Powder is applied by robot with coat thicknesses of 100 - 120 my.

A powder coating plant for larger items (W2.5×H2.5×D4.0 m), such as filter casings etc., is used with integrated sandblasting facility. Powder application is manual.

Prior to the paint application, the item is sand-blasted to SA2.5 using steel balls. The items are blown thoroughly clean and their surfaces sanded to ensure maximum adhesion.

Powder coating has a number of benefits:

- High quality, impact and scratch-resistant surface
- High material usage – no evaporation
- Less impact on the environment, no solvents.

If a higher corrosion class is required, please specify when ordering. JKF can supply products which fulfil up to corrosion class C4, cf. ISO 12944.

Filters in galvanised sheet metal are made of Dogal 350, Dogal 280 or Ragal 220 with material thickness of 1.25 – 2 mm. Surface treatment is class Z 275 - i.e. zinc coating of min. 275 g/m² double-sided.

Quality

JKF believes strongly in quality management of all aspects from product development to production and order management. Our quality management system is certified according to DS/EN ISO 9001:2008.

Working environment

JKF is certified according to DS/EN ISO 18001 and continuously strives to improve health and safety at work.

The environment

JKF constantly strives to develop methods and products which save energy and protect the environment. The company's environment management system is certified according to DS/EN ISO 14001.

JKF filters

JKF filters in general

A filter basically consists of an inlet element, the filter, a cleaning system and a discharge element.

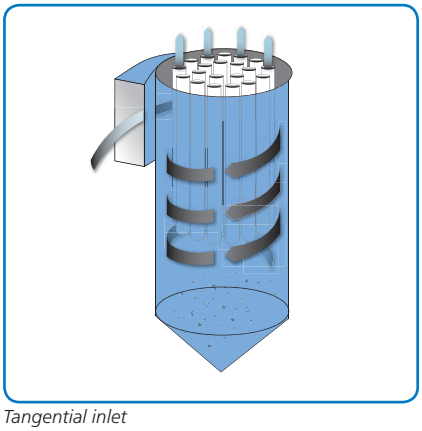
Inlet

Depending on type, filters can be supplied with 3 different inlet elements, each with their own characteristics, benefits and areas of use.

- Tangential inlet
- Air supply chamber
- Side inlet, settling chamber
- Side inlet, partial downflow

Tangential inlet

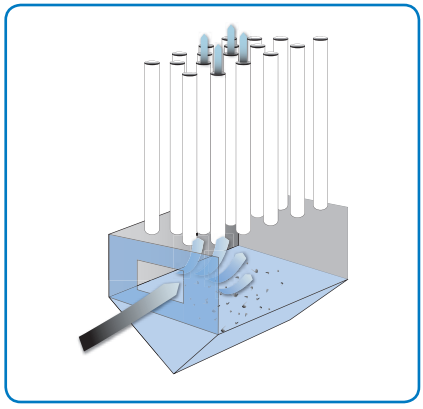
Tangential inlet is the most common type. Contaminated air is passed tangentially to the cylindrical filter body. Particles will be thrown outwards towards the outside of the shell by centrifugal force and accelerated, pressing them together. They will then drop to the bottom of the filter.



Tangential inlet

Air supply chamber

The air supply chamber passes contaminated air into a settling chamber, which in principle is a widening of the conduit diameter - possibly with baffles and guide plates fitted. The velocity of the contaminated air is reduced due to the increase in the volume of the chamber, whereupon the particles drop to the bottom of the filter gravimetrically.



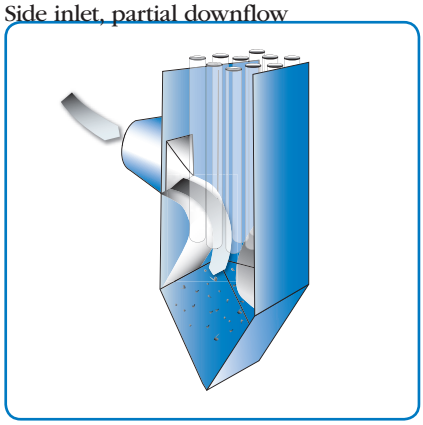
Air supply chamber

Side inlet settling chamber

The patented Coanda side inlet in some JKF filters uses curved plates to dictate the direction and speed of the air flow. The Coanda inlet reduces pressure loss over the filter by up to 25% in relation to traditional tangential inlet.

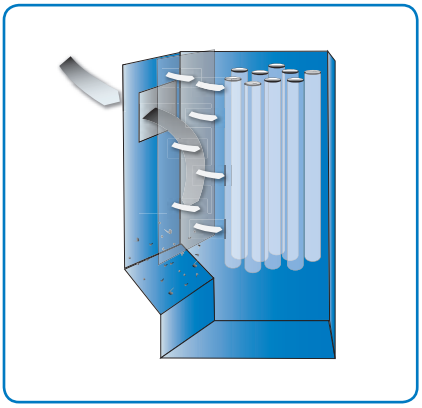
The filter inlet is fitted with curved plates which first increase the air flow velocity and then brake and deflect it. The large, accelerated air particles cannot follow the air flow deflection and fall to the bottom of the filter. Consequently, there are fewer particles in the air which passes through the filter bags, and the regulated air flow means even pressure distribution on the filter surface. The result is longer periods between and less energy for filter bag cleaning.

Side inlet, partial downflow



Coanda side inlet

The contaminated air is passed into the filter where it hits a perforated plate. This separates out most of the particles, which bounce off and fall to the filter bottom. Consequently, there are fewer particles in the air which passes through the filter bags, and the regulated air flow means even pressure distribution on the filter surface. The result is longer periods between and less energy for filter bag cleaning.



Partial downflow

Side inlet is suitable for material with hard and sharp surfaces.

- More filter inlets and very large filters are possible
- Extremely low pressure loss
- Extended service life
- More effective filtering
- Low noise level
- Extended cleaning intervals
- More flexible planning
- Lower energy consumption
- Lower operating costs

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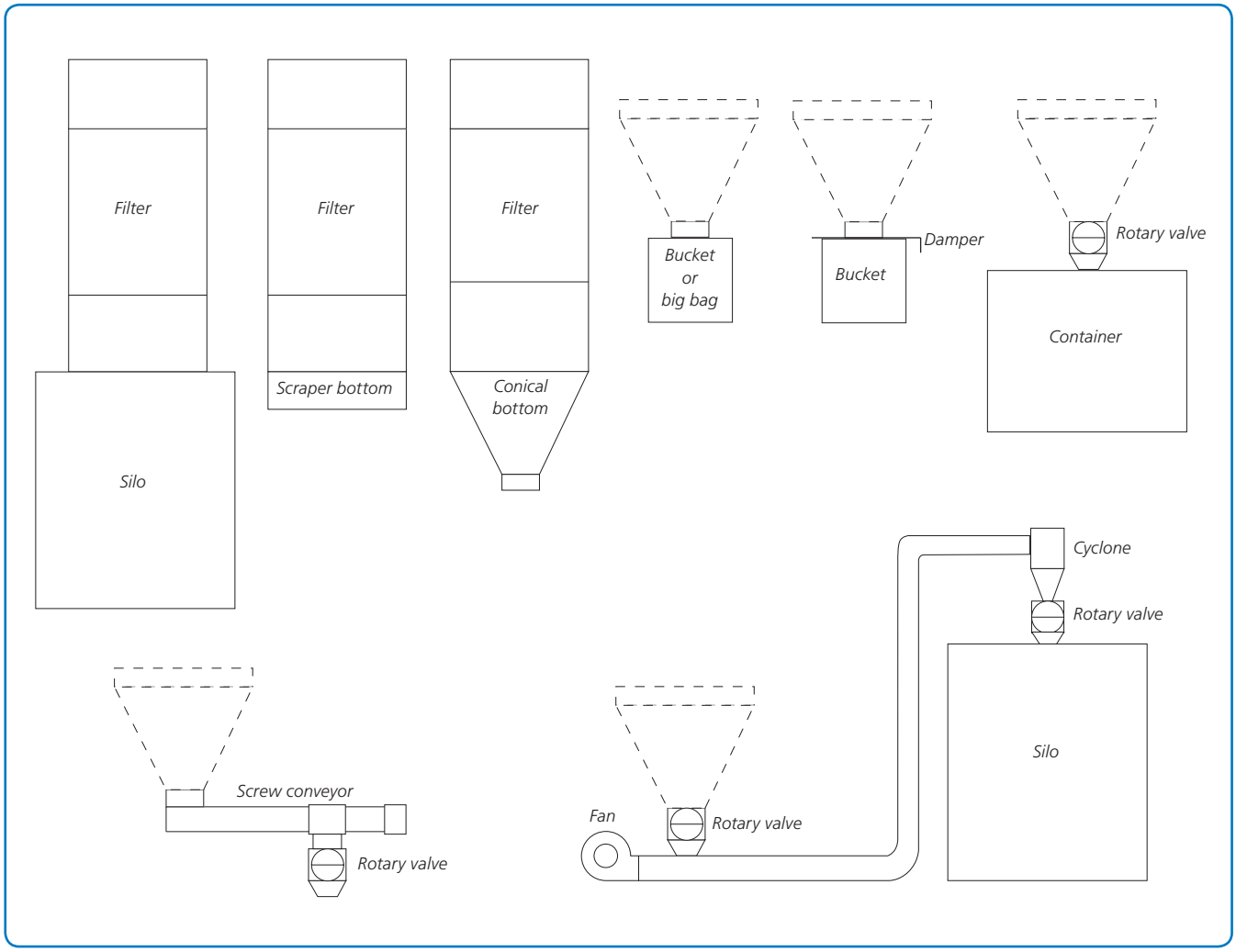
Discharge systems

Filter discharge is adapted and selected according to type and volume of material. See diagram below for discharge systems (according to filter type).

Other discharge systems

MMBF and older modular filter types have other discharge systems, such as screw conveyor or chain-mounted conveyors. These systems are described under the respective filter types.

Different discharge systems



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Cleaning systems

Various systems are used to clean the filter units, depending on filter type.

- PowerPulse® cleaning
- Blower cleaning
- Jet cleaning
- HPBS cleaning
- EC cleaning
- Regenerating blower
- Shaking mechanism

PowerPulse®cleaning

The PowerPulse®cleaning system cleans filter bags using compressed air. The cleaning arm on which the system's jet valves are mounted, moves accurately from bag to bag, dosing precisely and automatically the correct air pressure by measuring air velocity through the filter unit. One filter bag at a time is cleaned.

The PowerPulse® system gives optimum cleaning with lower energy consumption than any other compressed air-based system. PowerPulse® is available for Blower, SuperBlower, DustStorm® and SuperJet filters. These can all be upgraded with PowerPulse®, mounted on the existing filter top.

The PowerPulse® system's low jet pressure of 1.5–3 bar means very low energy consumption, uniform filter cleaning and minimal wear on the filter medium.

The system is available with or without a compressor. The ATEX-approved version is configured for external air pressure. The 2.2 kW maintenance-free dry compressor has a capacity of 350 litres per minute.

PowerPulse® for BF and DS is supplied with ECOTROL® control system. The SuperJet filter is supplied with ECO-PowerPulse®. Both control systems are CPU-based. The communications protocol works with most PCs and PLCs. The ECOTROL® control system monitors all components in the cleaning system, and faults can be displayed on either the main control panel or the control unit.

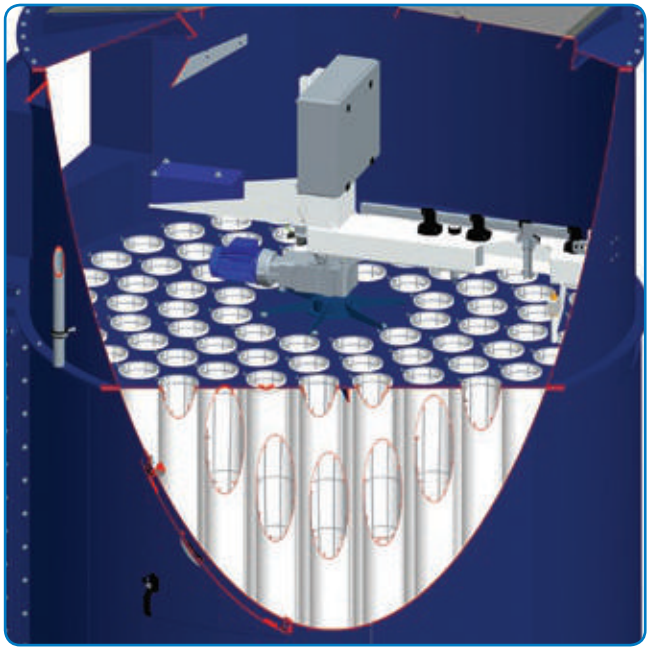
Blower cleaning

Cleaning is achieved by creating a contraflow air flow in the filter bags. A high pressure blower passes cleaning air through special nozzles to the filter bags.

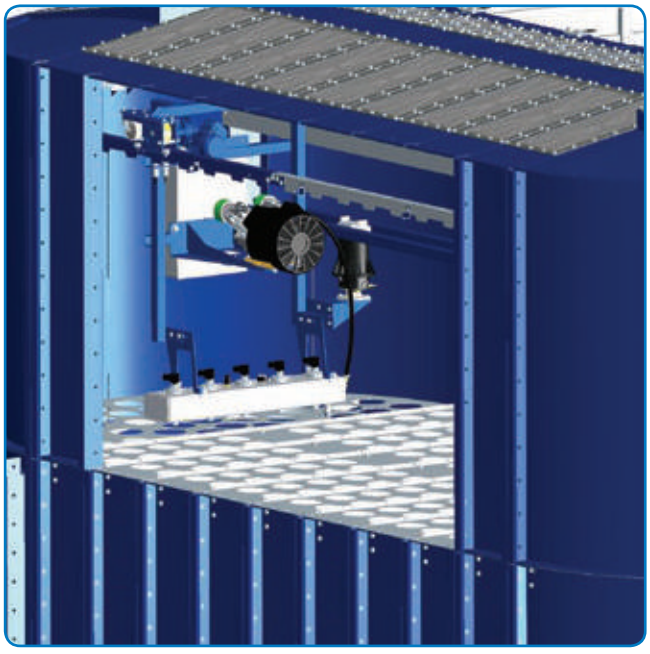
Cleaning is performed as revolver cleaning of a given number of bags at a time, depending on filter model.

HPBS cleaning

A side channel blower passes cleaning air through special nozzles to the filter bags.



PowerPulse® cleaning in BF



PowerPulse® cleaning in SBF

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Cleaning systems

To ensure optimal filter cleaning, the cleaning carriage stops opposite each row of filter bags and cleans according to programmable timer setting. Five filter bags at a time are cleaned. Cleaning can be controlled by a pressure switch which measures pressure difference continuously or using a time relay. The filter only needs to be connected to electricity.

EC cleaning with MTS control system

EC cleaning cleans filter units using compressed air. 4 filter elements are cleaned at a time by a single jet valve. The pipes are fitted with specially-designed jet nozzles located precisely above each filter element. The jet nozzles provide optimal filter element cleaning.

Benefits:

- Manual setting of pulse and pause times
- Can be controlled either by an external pressure valve or PLC control system
- Total cleaning using a predetermined series of discharges
- One or more cycle "final cleaning" for each shut-down to remove residual dust from the filter. "Final cleaning" starts whenever the fan stops.

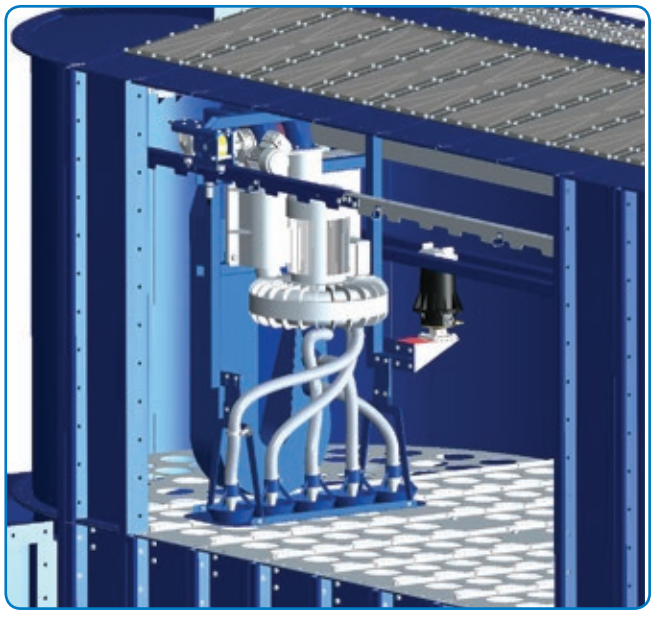
Regenerating blower

The regenerating blower is used for cleaning modular filters. One module at a time is regenerated, as there are partition walls between the modules. The regenerating fan cycle is regulated depending on filter load and dust volume. Cleaning is achieved by reversing the air flow and passing it down through the filter bags, causing dust on the inside of the bags to fall down to the bottom section. The regenerating fan is an axial fan designed to generate high pressure during operation and low flow resistance when idle.

Shaking mechanism

The shaking mechanism only operates during pauses when the filter is not in operation. The mechanism shakes the filter bags, causing dust on the inside of the bags to fall down to the filter bottom.

EC cleaning



HPBS cleaning in SBF

Regenerating blower

Dust is often very explosive. The requirements for explosion relief are formulated in the ATEX directive, and are intended to prevent uncontrolled explosive pressure in the event of a dust explosion.

An industrial filter consists of a dust-filled part on the inlet side of the filter bags and a clean air part on the output side. Dust explosions occur in the dust-filled chamber and according to the ATEX directive must either be suppressed or released under control into the surrounding environment. Normal explosion membranes are used for the latter.

According to applicable norms VDI3-673 and VDI2-263, explosion membranes must be located in the dust-filled chamber, unless sufficient explosion relief can be demonstrated. The majority of all industrial filters on the market have the dust-filled chamber at the bottom of the filter. Placing them there means a dust explosion will usually occur as shown in the illustration. By opening the explosion membrane, the explosion pressure is released horizontally. Flames and burning dust particles will be thrown out of the dust-filled chamber and non-ignited dust thrown out can be ignited outside the chamber in a secondary explosion.

The risk of damage to buildings and injury to personnel therefore makes locating the filter in this manner a problem.

VFV® explosion relief venting

JKF has increased safety by venting an explosion vertically into the clean air chamber, as shown in illustration 2. Explosion membranes are placed in the top of the filter. This ensures that explosion dust is kept in the filter bags and only the shock wave has to be vented to the surrounding environment. This eliminates the risk of a secondary explosion, and anyone near the filter at the time will not be exposed to the shock wave.

Optional extras/accessories

Explosion sensors are available for monitoring an installation. The sensor detects if an explosion membrane opens and sends a signal to shut-off other components – e.g. fans.

Explosion sensors can easily be retro-fitted to existing plants.

Explosion conduits are available for filters located outside production facilities. If an explosion occurs, it will be channelled outside via the conduit.

VFV® explosion relief venting has been explosion tested and approved by the German FSA test institute on several of our filters.

1. Explosion relief venting in the filter body

2. VFV® explosion relief venting

01.01.2011

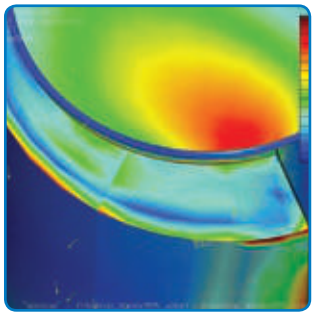
ATEX explosion relief

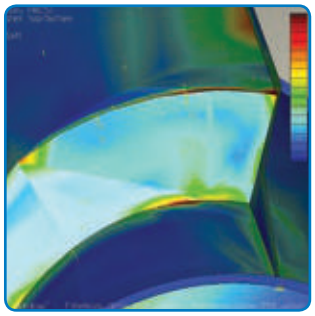
Explosion calculation according to VDI 3673, part 1 2002 and European Standard EN 14491:2002 (draft). Calculations performed using WinVent 3.1 E software.

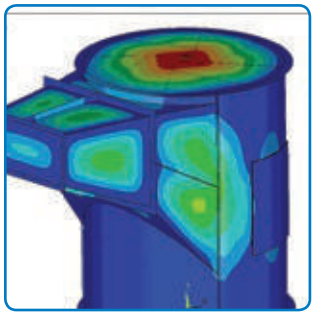
Pressure-resistant up to:	Pred, max. = 25 [kPa]
The membranes have an opening pressure of:	Pstat = 10 [kPa]
Pressure rise constant set to:	Kst = 200 bar × m/s

Calculations apply to wood dust at 20°C.

Apart from testing at FSA, JKF uses FEM calculation to determine pressure shock-resistance.







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Ladders and gangways

Ladder and gangway solutions for JKF filters are designed according to ISO/EN/DIN 14122.

JKF has a wide range of different ladders and gangways, so that a solution can be adapted to a given installation using standard parts.

Ladder with gangway SBF

The ladder is mounted close to the filter body with sideways exit onto the gangway. Additional gangways can be attached along the length of the ladder. This provides access to several gangways via a single ladder. Single or double gangways are available. The width of a single gangway corresponds to that of the door section.

Ladder with gangway, side-mounted SBF

The ladder is at right angles to the filter. Access to the gangway is via the ladder's side rails. Supplied with single and double gangway.

Ladder with gangway, front-mounted on SBF and BF

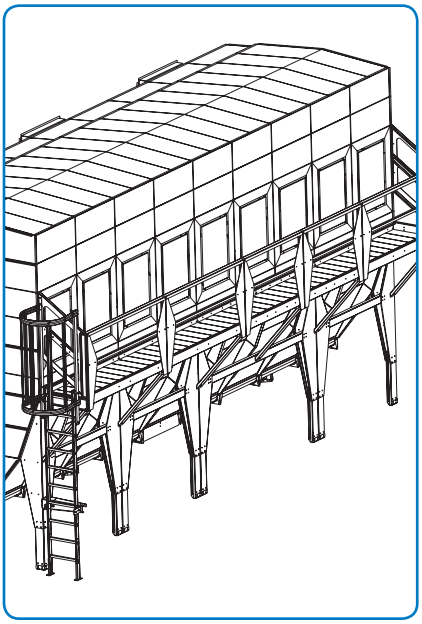
The ladder is offset from the filter, making room for pipes run between ladder and filter. Access to the gangway is via the ladder's side rails. Supplied with single gangway only.

Benefits

A modular ladder system means easier adaptation to and expansion of a given installation.

Fewer components simplify installation and overview.

Self-closing hatches on the gangway prevent falls.



Ladder with gangway SBF

Ladder with gangway, side-mounted SBF

Ladder with gangway, front-mounted SBF

Ladder with gangway DS

Ladder with extra double gangway BF

Ladder with gangway, front-mounted BF

01.01.2011

Filter selection

Extraction from industrial premises is usually intended to:

- remove undesirable contaminants such as particles, dust, smells, smoke or gases from process and/or working zones before they spread.
- create balance between the volume flow blown-in and extracted

Extraction in an industrial ventilation scenario is often in the form of point extraction located as close to the source of pollution as possible, and designed for optimal efficiency. Room extraction is also recommended.

Dust separators

Common for many industrial processes is that dust is generated. Pollution sources are multiple, and just about all particle sizes are represented. Air purification can therefore be divided into groups:

- dynamic separators in the form of cyclones and separators
- bag filters, possibly combined with cyclones
- bag filters with integrated tangential inlet

Separation of particles by filtering depends primarily on physical and mechanical effects. Common to all purification methods is that separation efficiency depends on particle size, where the degree of separation rises with rising particle size.

In health terms, particles – of less than 1µm – are by far the most dangerous, as they can reach the respiratory passages via inhalation.

Filters

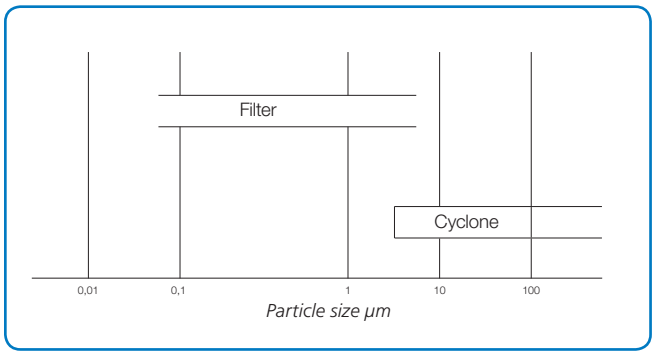
Filters for material separation are intended to purify exhaust air with strong dust concentrations. Air is purified in the filters by passing through a filter medium, and the degree of separation depends primarily on the density of the medium, particle size and load.

Furthermore, electrostatic forces can help trap and retain particles on the fibres to a certain degree. Filter media are made of synthetic fibre, glass or natural fibres, and come in different thicknesses and degrees of density. JKF uses only approved filter media which are certified.

It is important that air resistance in the filter is kept as low as possible, so that the air flow is not reduced, and energy consumption is kept as low as possible.

Dynamic separators

Dynamic separators are used for the separation of larger particles. As such, they can reduce the amount of dust in the air purified by the filter, ensuring more efficient operation and lower energy consumption. The separator's configuration ensures low pressure loss and material separation with minimal discharge of air.



Cyclones consist of a simple cone-shaped and cylindrical chamber, which reaches a point at the bottom. The contaminated air is passed tangentially in to the top of the cyclone to form a screw-shaped cyclone in the chamber. Centrifugal force throws the particles outwards towards the chamber walls, and they fall to the bottom of the cyclone into a collection box before being passed into a sluice. The purified air is passed through a centrally located discharge at the top of the chamber.

The cyclone principle is mainly suited to the separation of coarse particles. The degree of separation is typically 70-80% for particles around 5 mm in diameter. The degree of separation in a cyclone increases with rising air velocity inlet and narrower diameter.

Cyclones can also be used as separators in combination with another form of air purification.

Mechanical separation of particles takes place in a separator. Dust-filled air is passed into a chamber, where a rotor runs against a perforated plate. The rotor directs larger particles (over 3 mm) towards a discharge in the bottom of the chamber, whilst the air and smaller particles diffuse through the perforated plate and on to a filter.

Dynamic separation means that the separator can be more compact than a settling chamber.

Filtration degrees

JKF's filters are intended for the purification of exhaust air with heavy dust concentrations, and can be in the form of cartridge or bag filters. Air is purified in the filters by passing through a textile filter medium, and the degree of separation depends primarily on the density of the medium. Separation efficiency is up to 99.98%.

31.01.2014

Filter selection

Filter type		SBF	BF	BF-EC	BF-ET	DS	DS7/12 EC	SJF	MMBF	Modular filter	Intake filter	Point filter
ATEX approved		×		×	×	×	×	×	×			
Overpressure		×	×	×	×	×	×	×	×	×		
Underpressure		×	×	×	×	×	×	×	×		×	×
Inlet	Tangential inlet	×	×	×	×	×	×					
	Air supply chamber								×	×	×	
	Side inlet, settling chamber	×								×		
	Side inlet, partial downflow					×		×				
Discharge	Conical bottom	×	×	×	×	×	×		×	×		
	Screw	×							×	×		
	Rotary valve	×	×	×	×	×	×	×	×	×		
	Scraper bottom	×	×	× *)	×	×		×				
	Bucket	×	×	×	×	×	×		×	×		
	Bag								×	×		
Filter cleaning	Blower cleaning		×									
	Jet cleaning			×							×	×
	PowerPulse® cleaning	×			×	×		×				
	HPBS cleaning	×										
	Regenerating blower								×	×		
	EC cleaning			×			×					
	Shaking mechanism									×		

List of JKF filter types
**) Only BF-20 EC*

01.01.2011

SuperBlower filter

The SuperBlower filter is an under- and over-pressure filter designed to run in constant operation.

Constructed as a self-supporting sheet metal construction in high tensile steel modules. Process air is passed into a filter chamber, where the larger particles settle to the bottom of the filter, from where the air is passed through filter bags which retain the residual particles.

The modular SuperBlower filter is a flexible design which can be adapted to any given task in terms of capacity and function. In terms of capacity, dimensioning of filter height and the number of filter bags; in terms of function, the choice between different types of inlet, cleaning systems and discharge systems.

Surface
Powder coated to corrosion class C3 cf. ISO 12944.

Inlet
The SuperBlower filter is available with 180° tangential inlet, standard 706 x 1806 mm or large 1006 x 2106 mm. Inlets can be fitted at both ends of the filter. Alternatively, one or more Coanda side inlets can be supplied.

Cleaning system
Two different cleaning systems are available: HPBS cleaning or PowerPulse®.

Discharge system
Conical bottom with screw and rotary valve or scraper bottom with rotary valve or bucket/container.

ATEX
SuperBlower filter with PowerPulse® cleaning and external compressed air is ATEX approved and fitted with approved explosion membranes. Choose between side venting or JKF's specially developed VFV® explosion relief venting (vertical explosion relief venting through the filter top). Fulfils pressure shock-resistance according to VDI 2263. Venting according to VDI 3673.

Operating range

Pressure:	+/- 5000 Pa (available up to +20 kPa / -10 kPa)
Filter area:	203-1383 m²
Max. operating temperature:	70°C
Min. operating temperature:	-20°C (available down to -40°C)

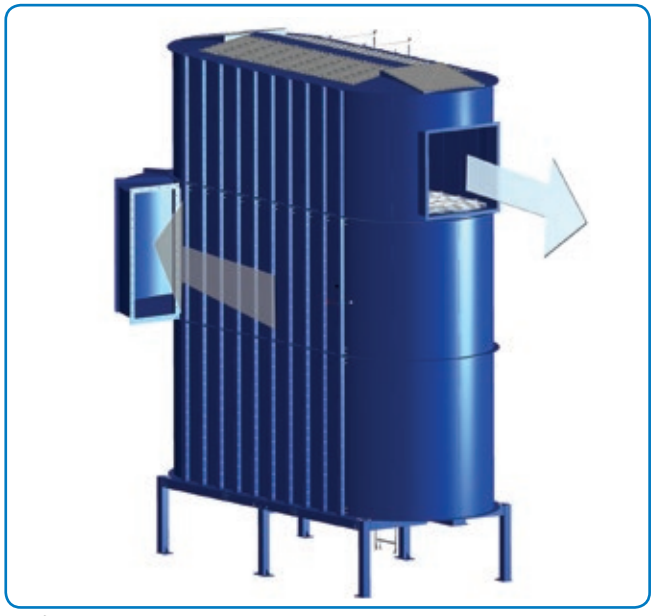
Connection
HPBS side channel blower:
7.5 kW, 3 x 400 V, 50 Hz, 15 A

HPBS filter control system:
0.5 kW, 1 x 230 V, 50 Hz, 1.8 A

Gear motor cleaning carriage:
0.18 kW, 20.0 min^{-1}, 3 x 230 V, 50 Hz, 0.9 A

Gear motor scraper bottom:
2 x 0.75 kW, 17.5 min^{-1}, 3 x 400 V, 50 Hz, 2 x 2.2 A

Inductive sensor, scraper bottom:
24 VDC



SBF filter with scraper bottom and tangential inlet.
Shown here with VFV® explosion relief venting in filter top.

SBF filter with conical bottom and tangential inlet.
Shown here with VFV® explosion relief venting in filter top.

SuperBlower filter

Screw:

SBF-120 – SBF-380

0.75 kW, 43.0 min^{-1}, 3 x 400 V, 50 Hz, 2.2 A

SBF 400 – SBF 640

2 x 0.75 kW, 43.0 min^{-1}, 3 x 400 V, 50 Hz, 2 x 2.2 A

PowerPulse® filter control system:

0.6 kW, 1 x 230 V, 50 Hz, 1.9 A

External compressed air - PowerPulse®:

5 bar, min. 350 Nl/min.

Air quality according to ISO 8573-1: Quality class (5. 4. 4)

External connection: ¼" internal thread.

Internal compressor - PowerPulse®:

2.2 kW, 3 x 400 V, 50 Hz, 5.9 A

Capacity: 350 Nl/min.

Noise

Noise level during cleaning measured 5 m above the ground:

External compressed air PowerPulse®:	69.8 dBA
Internal compressor PowerPulse®:	74.6 dBA
HPBS:	76.5 dBA

Accessories

Ladder/gangway:

Ladder/gangway designed according to ISO/EN/DIN 14122.3/4 and available in several configurations. See page 11.

Ladder with gangway, front-mounted

Ladder with gangway, side-mounted

Ladder with gangway, front-mounted

Ladder with double gangway, side-mounted

Monitoring apparatus for explosion membrane

Door contacts:

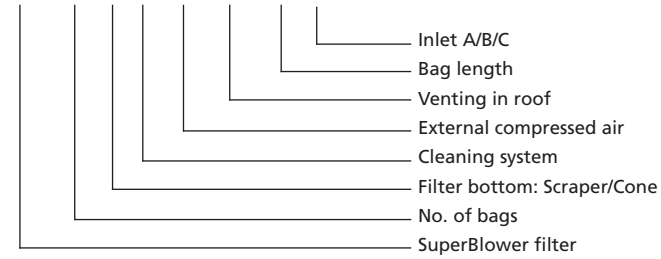
2.3 (close-before-switch-contact) in accordance with EN50047, IP67 NC contact.

Type designations

Filters are type-designated using a combination of letters and numbers separated by hyphens and spaces.

Designation SBF-300 K 5.0-2C thus describes a SuperBlower filter with 300 filter bags, conical bottom, 5 m filter bags and 2 side inlets.

SBF-300 K ET EX VFV 5,0-A



Inlet: A = Tangential inlet 706 mm × 1806 mm

B = Tangential inlet 1006 mm × 2106 mm

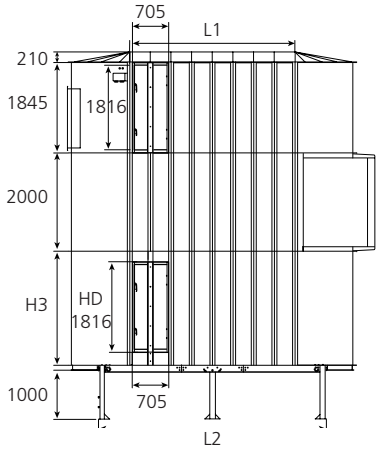
C = Side inlet

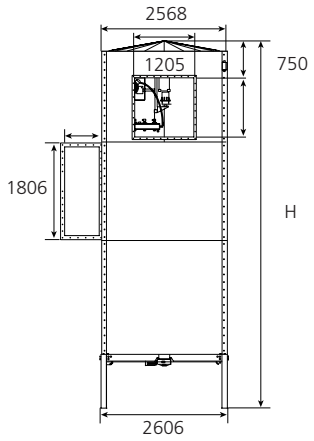
SBF filter with scraper bottom and side inlet.
Shown here with VFV® explosion relief venting in filter top.
With ladder and platform mounted.

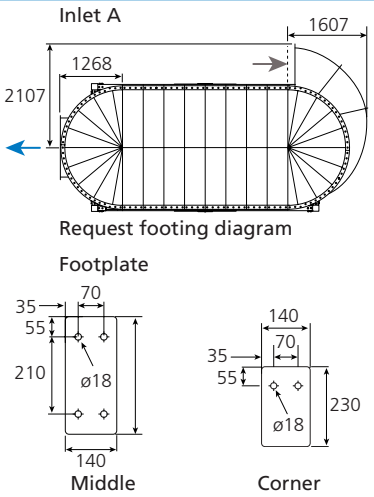
SBF filter with conical bottom and side inlet.
Cross-section shows Coanda plates, used to accelerate and compress particles so that they settle to the bottom.

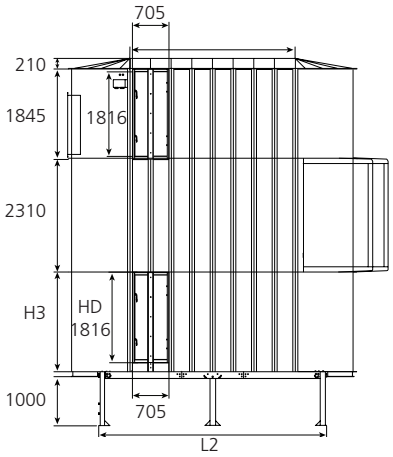
01.01.2011

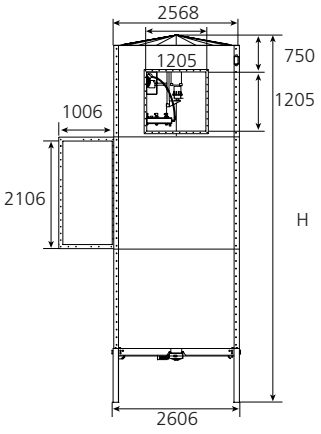
SuperBlower filter

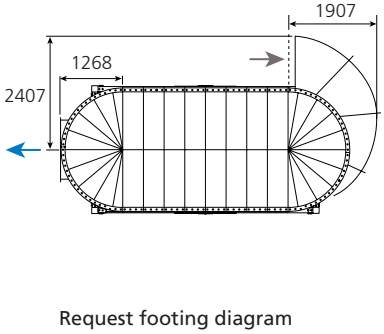


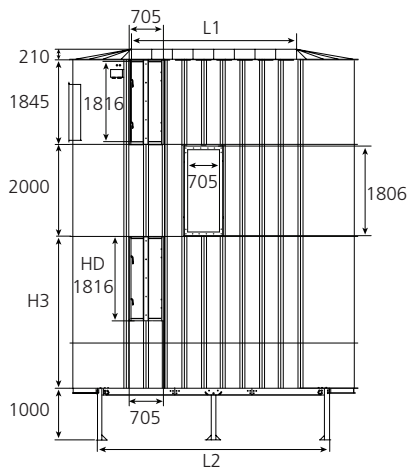


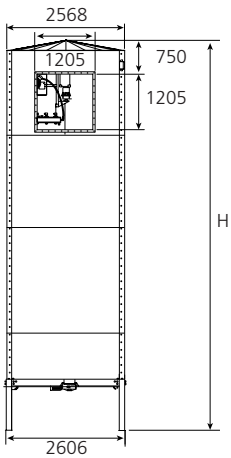


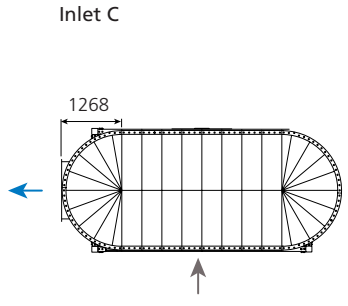












18.02.2015

SuperBlower filter

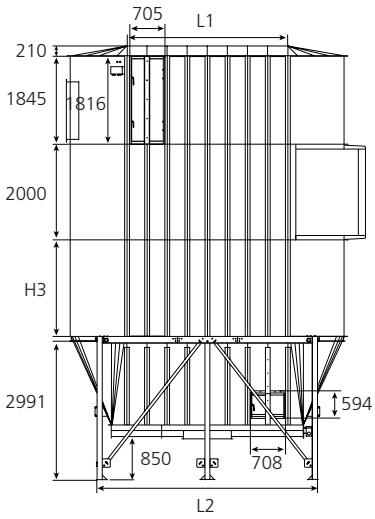
				Bag length 3.5 m				Bag len	
	L1 mm	L2 mm	No. of legs	Filter area m²	H mm	H3 mm	Weight kg	Filter area m²	H mm
SBF-120 S-1A	840	2113	4	202.5	7006	1845	3404	221.5	7471
SBF-140 S-1A	1260	2533	4	235.7	7006	1845	3713	257.8	7471
SBF-160 S-1A	1680	2953	4	268.9	7006	1845	4049	294.1	7471
SBF-180 S-1A	2100	3373	4	302.1	7006	1845	4343	330.4	7471
SBF-200 S-1A	2520	3793	6	335.3	7006	1845	4740	366.7	7471
SBF-220 S-1A	2940	4213	6	368.5	7006	1845	5113	403.0	7471
SBF-240 S-2A	3360	4633	6	401.7	7006	1845	5469	439.3	7471
SBF-260 S-2A	3780	5053	6	434.9	7006	1845	5972	475.6	7471
SBF-280 S-2A	4200	5473	8	468.1	7006	1845	6380	512.0	7471
SBF-300 S-2A	4620	5893	8	501.3	7006	1845	6717	548.3	7471
SBF-320 S-2A	5040	6313	8	534.5	7006	1845	7042	584.6	7471
SBF-340 S-2A	5460	6733	10	567.7	7006	1845	7448	620.9	7471
SBF-360 S-2A	5880	7153	10	600.9	7006	1845	7781	657.2	7471
SBF-380 S-2A	6300	7573	10	634.1	7006	1845	8104	693.5	7471
SBF-400 S-2A	6720	7993	10	667.3	7006	1845	8428	729.8	7471
SBF-120 S-1B	840	2113	4	202.5	6971	1500*	3706	221.5	7326
SBF-140 S-1B	1260	2533	4	235.7	6971	1500*	4086	257.8	7326
SBF-160 S-1B	1680	2953	4	268.9	6971	1500*	4491	294.1	7326
SBF-180 S-1B	2100	3373	4	302.1	6971	1500*	4855	330.4	7326
SBF-200 S-1B	2520	3793	6	335.3	6971	1500*	5322	366.7	7326
SBF-220 S-1B	2940	4213	6	368.5	6971	1500*	5765	403.0	7326
SBF-240 S-1B	3360	4633	6	401.7	6971	1500*	6355	439.3	7326
SBF-260 S-2B	3780	5053	6	434.9	6971	1500*	6926	475.6	7326
SBF-280 S-2B	4200	5473	8	468.1	6971	1500*	7381	512.0	7326
SBF-300 S-2B	4620	5893	8	501.3	6971	1500*	7812	548.3	7326
SBF-320 S-2B	5040	6313	8	534.5	6971	1500*	8207	584.6	7326
SBF-340 S-2B	5460	6733	10	567.7	6971	1500*	8687	620.9	7326
SBF-360 S-2B	5880	7153	10	600.9	6971	1500*	9044	657.2	7326
SBF-380 S-2B	6300	7573	10	634.1	6971	1500*	9452	693.5	7326
SBF-400 S-2B	6720	7993	10	667.3	6971	1500*	9842	729.8	7326
SBF-120 S-1C	1680	2953	4					221.5	8471
SBF-140 S-1C	2100	3373	4					257.8	8471
SBF-160 S-1C	2520	3793	6					294.1	8471
SBF-180 S-1C	2940	4213	6					330.4	8471
SBF-200 S-1C	3360	4633	6					366.7	8471
SBF-220 S-2C	4620	5893	8					403.0	8471
SBF-240 S-2C	5040	6313	8					439.3	8471
SBF-260 S-2C	5460	6733	10					475.6	8471
SBF-280 S-2C	5880	7153	10					512.0	8471
SBF-300 S-2C	6300	7573	10					548.3	8471
SBF-320 S-2C	6720	7993	10					584.6	8471

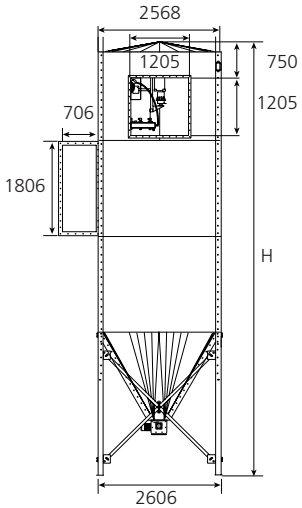
** Door height, HD=1471*

18.02.2015

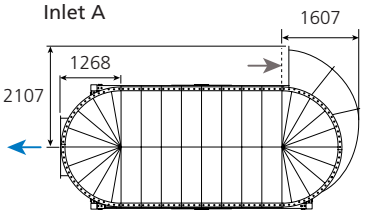
ngth 4.0 m		Bag length 4.5 m				Bag length 5.0 m			
H3 mm	Weight kg	Filter area m²	H mm	H3 mm	Weight kg	Filter area m²	H mm	H3 mm	Weight kg
2310	3633	251.1	8006	2845	3718	271.2	8471	3310	3881
2310	4057	292.3	8006	2845	4155	315.7	8471	3310	4226
2310	4507	333.4	8006	2845	4617	360.1	8471	3310	4719
2310	4916	374.6	8006	2845	5039	404.6	8471	3310	5170
2310	5427	415.7	8006	2845	5562	449.1	8471	3310	5724
2310	5915	456.9	8006	2845	6062	493.5	8471	3310	6254
2310	6386	498.1	8006	2845	6546	538.0	8471	3310	6768
2310	7003	539.2	8006	2845	7175	582.4	8471	3310	7428
2310	7526	580.4	8006	2845	7710	626.9	8471	3310	7993
2310	7978	621.6	8006	2845	8175	671.4	8471	3310	8488
2310	8417	662.7	8006	2845	8626	715.8	8471	3310	8969
2310	8938	703.9	8006	2845	9159	760.3	8471	3310	9533
2310	9386	745.0	8006	2845	9620	804.8	8471	3310	10024
2310	9823	786.2	8006	2845	10069	849.2	8471	3310	10503
2310	10262	827.4	8006	2845	10520	893.7	8471	3310	10985
1845	3795	251.1	7971	2500	3864	271.2	8471	3000	3922
1845	4219	292.3	7971	2500	4292	315.7	8471	3000	4388
1845	4669	333.4	7971	2500	4746	360.1	8471	3000	4881
1845	5078	374.6	7971	2500	5294	404.6	8471	3000	5332
1845	5589	415.7	7971	2500	5876	449.1	8471	3000	5886
1845	6077	456.9	7971	2500	6436	493.5	8471	3000	6416
1845	6712	498.1	7971	2500	7143	538.0	8471	3000	7094
1845	7327	539.2	7971	2500	7829	582.4	8471	3000	7752
1845	7827	580.4	7971	2500	8401	626.9	8471	3000	8294
1845	8302	621.6	7971	2500	8947	671.4	8471	3000	8812
1845	8742	662.7	7971	2500	9459	715.8	8471	3000	9294
1845	9267	703.9	7971	2500	10055	760.3	8471	3000	9862
1845	9668	745.0	7971	2500	10528	804.8	8471	3000	10306
1845	10121	786.2	7971	2500	11052	849.2	8471	3000	10801
1845	10556	827.4	7971	2500	11559	893.7	8471	3000	11279
2310	4706	251.1	9471	3310	5013	271.2	9471	3310	5013
2310	5115	292.3	9471	3310	5455	315.7	9471	3310	5455
2310	5626	333.4	9471	3310	5998	360.1	9471	3310	5998
2310	6114	374.6	9471	3310	6519	404.6	9471	3310	6519
2310	6585	415.7	9471	3310	7022	449.1	9471	3310	7022
2310	8376	456.9	9471	3310	8944	493.5	9471	3310	8944
2310	8815	498.1	9471	3310	9415	538.0	9471	3310	9415
2310	9336	539.2	9471	3310	9969	582.4	9471	3310	9969
2310	9784	580.4	9471	3310	10450	626.9	9471	3310	10450
2310	10221	621.6	9471	3310	10919	671.4	9471	3310	10919
2310	10660	662.7	9471	3310	11391	715.8	9471	3310	11391

18.02.2015



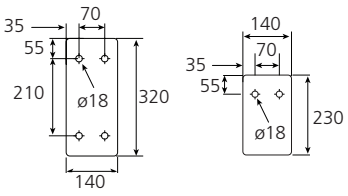


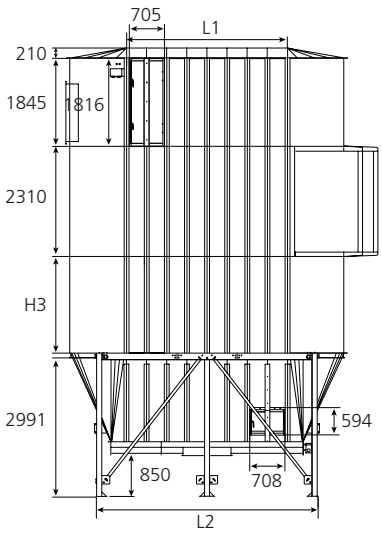
Inlet A

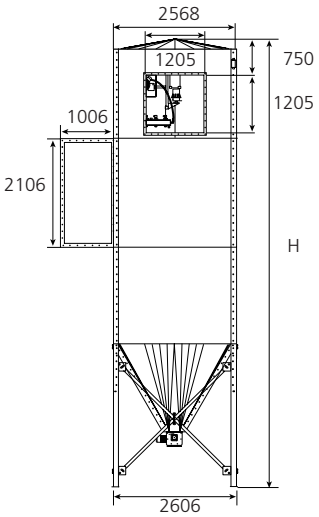


Request footing diagram

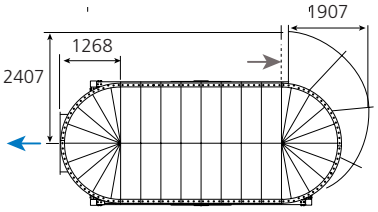
Footplate



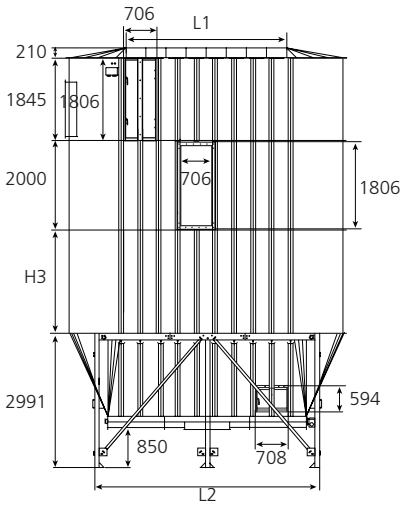


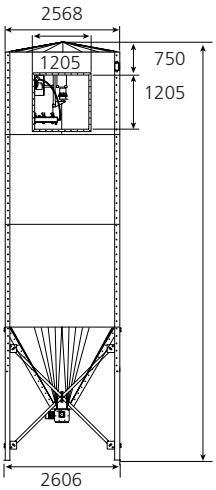


Inlet B

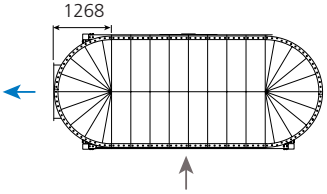


Request footing diagram





Inlet C



Request footing diagram

18.02.2015

				Bag length 3.5 m				Bag length 4.0 m		
	L1 mm	L2 mm	No. of legs	Filter area m²	H mm	H3 mm	Weight kg	Filter area m²	H mm	H3 mm
SBF-120 K-1A	840	2113	4	202.5	8549	1500	3670	221.5	9049	2000
SBF-140 K-1A	1260	2533	4	235.7	8549	1500	3988	257.8	9049	2000
SBF-160 K-1A	1680	2953	4	268.9	8549	1500	4341	294.1	9049	2000
SBF-180 K-1A	2100	3373	6	302.1	8549	1500	4692	330.4	9049	2000
SBF-200 K-1A	2520	3793	6	335.3	8549	1500	5229	366.7	9049	2000
SBF-220 K-1A	2940	4213	6	368.5	8549	1500	5585	403.0	9049	2000
SBF-240 K-2A	3360	4633	6	401.7	8549	1500	6120	439.3	9049	2000
SBF-260 K-2A	3780	5053	6	434.9	8549	1500	6504	475.6	9049	2000
SBF-280 K-2A	4200	5473	8	468.1	8549	1500	6999	512.0	9049	2000
SBF-300 K-2A	4620	5893	8	501.3	8549	1500	7370	548.3	9049	2000
SBF-320 K-2A	5040	6313	8	534.5	8549	1500	7717	584.6	9049	2000
SBF-340 K-2A	5460	6733	10	567.7	8549	1500	8251	620.9	9049	2000
SBF-360 K-2A	5880	7153	10	600.9	8549	1500	8622	657.2	9049	2000
SBF-380 K-2A	6300	7573	10	634.1	8549	1500	9000	693.5	9049	2000
SBF-400 K-2A	6720	7993	10	667.3	8549	1500	9352	729.8	9049	2000
SBF-420 K-2A	7140	8413	10	700.5	8549	1500	10719	766.1	9049	2000
SBF-440 K-2A	7560	8833	10	733.7	8549	1500	11235	802.4	9049	2000
SBF-460 K-2A	7980	9253	12	766.9	8549	1500	11905	838.7	9049	2000
SBF-480 K-2A	8400	9673	12	800.1	8549	1500	12303	875.0	9049	2000
SBF-500 K-2A	8820	10093	12	833.3	8549	1500	12725	911.4	9049	2000
SBF-120 K-1B	840	2113	4	202.5	8649	1500	3803	221.5	9359	2000
SBF-140 K-1B	1260	2533	4	235.7	8459	1500	4502	257.8	9359	2000
SBF-160 K-1B	1680	2953	4	268.9	8459	1500	4911	294.1	9359	2000
SBF-180 K-1B	2100	3373	6	302.1	8459	1500	5317	330.4	9359	2000
SBF-200 K-1B	2520	3793	6	335.3	8459	1500	5909	366.7	9359	2000
SBF-220 K-1B	2940	4213	6	368.5	8459	1500	6321	403.0	9359	2000
SBF-240 K-1B	3360	4633	6	401.7	8459	1500	6726	439.3	9359	2000
SBF-260 K-2B	3780	5053	6	434.9	8459	1500	7025	475.6	9359	2000
SBF-280 K-2B	4200	5473	8	468.1	8459	1500	7576	512.0	9359	2000
SBF-300 K-2B	4620	5893	8	501.3	8459	1500	8002	548.3	9359	2000
SBF-320 K-2B	5040	6313	8	534.5	8459	1500	8490	584.6	9359	2000
SBF-340 K-2B	5460	6733	10	567.7	8459	1500	9094	620.9	9359	2000
SBF-360 K-2B	5880	7153	10	600.9	8459	1500	9535	657.2	9359	2000
SBF-380 K-2B	6300	7573	10	634.1	8459	1500	9983	693.5	9359	2000
SBF-400 K-2B	6720	7993	10	667.3	8459	1500	10405	729.8	9359	2000
SBF-420 K-2B	7140	8413	10	700.5	8459	1500	10843	766.1	9359	2000
SBF-440 K-2B	7560	8833	10	733.7	8459	1500	11374	802.4	9359	2000
SBF-460 K-2B	7980	9253	12	766.9	8459	1500	12058	838.7	9359	2000
SBF-480 K-2B	8400	9673	12	800.1	8459	1500	12471	875.0	9359	2000
SBF-500 K-2B	8820	10093	12	833.3	8459	1500	12908	911.4	9359	2000
SBF-520 K-2B	9240	10513	12	866.5	8459	1500	13345	947.7	9359	2000
SBF-540 K-2B	9660	10933	12	899.7	8459	1500	13782	984.0	9359	2000
SBF-560 K-2B	10080	11353	12	932.9	8459	1500	14219	1020.3	9359	2000
SBF-580 K-2B	10500	11773	14	966.1	8459	1500	14656	1056.6	9359	2000
SBF-600 K-2B	10920	12193	14	999.3	8459	1500	15093	1092.9	9359	2000
SBF-620 K-2B	11340	12613	14	1032.5	8459	1500	14702	1129.2	9359	2000
SBF-120 K-1C	1680	2953	4					221.5	9359	2310
SBF-140 K-1C	2100	3373	4					257.8	9359	2310
SBF-160 K-1C	2520	3793	6					294.1	9359	2310
SBF-180 K-1C	2940	4213	6					330.4	9359	2310
SBF-200 K-1C	3360	4633	6					366.7	9359	2310
SBF-220 K-2C	4620	5893	8					403.0	9359	2310
SBF-240 K-2C	5040	6313	8					439.3	9359	2310
SBF-260 K-2C	5460	6733	10					475.6	9359	2310
SBF-280 K-2C	5880	7153	10					512.0	9359	2310
SBF-300 K-2C	6300	7573	10					548.3	9359	2310
SBF-320 K-2C	6720	7993	10					584.6	9359	2310
SBF-340 K-2C	7140	8413	10					620.9	9359	2310
SBF-360 K-2C	7560	8833	10					657.2	9359	2310
SBF-380 K-2C	7980	9253	12					693.5	9359	2310
SBF-400 K-2C	8400	9673	12					729.8	9359	2310
SBF-420 K-2C	8820	10093	12					766.1	9359	2310
SBF-440 K-3C	10080	11353	12					802.4	9359	2310
SBF-460 K-3C	10500	11773	14					838.7	9359	2310
SBF-480 K-3C	10920	12193	14					875.0	9359	2310
SBF-500 K-3C	11340	12613	14					911.4	9359	2310

18.02.2015

	Bag length 4.5 m				Bag length 5.0 m			
Weight kg	Filter area m²	H mm	H3 mm	Weight kg	Filter area m²	H mm	H3 mm	Weight kg
3870	251.1	9359	2310	3894	271.2	9859	2810	4116
4288	292.3	9359	2310	4316	315.7	9859	2810	4577
4741	333.4	9359	2310	4773	360.1	9859	2810	5072
5192	374.6	9359	2310	5228	404.6	9859	2810	5566
5829	415.7	9359	2310	5869	449.1	9859	2810	6245
6285	456.9	9359	2310	6329	493.5	9859	2810	6744
6920	498.1	9359	2310	6968	538.0	9859	2810	7422
7405	539.2	9359	2310	7457	582.4	9859	2810	7949
8000	580.4	9359	2310	8056	626.9	9859	2810	8587
8471	621.6	9359	2310	8531	671.4	9859	2810	9100
8918	662.7	9359	2310	8982	715.8	9859	2810	9590
9552	703.9	9359	2310	9620	760.3	9859	2810	10267
10023	745.0	9359	2310	10095	804.8	9859	2810	10780
10501	786.2	9359	2310	10577	849.2	9859	2810	11301
10953	827.4	9359	2310	11033	893.7	9859	2810	11795
11421	868.5	9359	2310	11505	938.1	9859	2810	12306
11982	909.7	9359	2310	12070	982.6	9859	2810	12909
12696	950.9	9359	2310	12788	1027.1	9859	2810	13666
13139	992.0	9359	2310	13235	1071.5	9859	2810	14152
13606	1033.2	9359	2310	13706	1116.0	9859	2810	14661
3870	251.1	9359	2000	3894	271.2	9979	2620	4084
4614	292.3	9359	2000	4642	315.7	9979	2620	4870
5067	333.4	9359	2000	5099	360.1	9979	2620	5366
5518	374.6	9359	2000	5554	404.6	9979	2620	5859
6155	415.7	9359	2000	6195	449.1	9979	2620	6539
6611	456.9	9359	2000	6655	493.5	9979	2620	7037
7061	498.1	9359	2000	7109	538.0	9979	2620	7530
7405	539.2	9359	2000	7457	582.4	9979	2620	7917
8000	580.4	9359	2000	8056	626.9	9979	2620	8554
8471	621.6	9359	2000	8531	671.4	9979	2620	9068
8918	662.7	9359	2000	8982	715.8	9979	2620	9557
9552	703.9	9359	2000	9620	760.3	9979	2620	10234
10023	745.0	9359	2000	10095	804.8	9979	2620	10748
10501	786.2	9359	2000	10577	849.2	9979	2620	11268
10953	827.4	9359	2000	11033	893.7	9979	2620	11763
11421	868.5	9359	2000	11505	938.1	9979	2620	12273
11982	909.7	9359	2000	12070	982.6	9979	2620	12877
12696	950.9	9359	2000	12788	1027.1	9979	2620	13633
13139	992.0	9359	2000	13235	1071.5	9979	2620	14119
13606	1033.2	9359	2000	13706	1116.0	9979	2620	14629
14073	1074.3	9359	2000	14177	1160.4	9979	2620	15138
14540	1115.5	9359	2000	14648	1204.9	9979	2620	15648
15007	1156.7	9359	2000	15119	1249.4	9979	2620	16157
15474	1197.8	9359	2000	15590	1293.8	9979	2620	16667
15941	1239.0	9359	2000	16061	1338.3	9979	2620	17177
16408	1280.2	9359	2000	16532	1382.7	9979	2620	17686
4940	251.1	9359	2310	4940	271.2	10359	3310	5247
5391	292.3	9359	2310	5391	315.7	10359	3310	5731
6028	333.4	9359	2310	6028	360.1	10359	3310	6400
6484	374.6	9359	2310	6484	404.6	10359	3310	6889
7119	415.7	9359	2310	7119	449.1	10359	3310	7556
8869	456.9	9359	2310	8869	493.5	10359	3310	9437
9316	498.1	9359	2310	9316	538.0	10359	3310	9916
9950	539.2	9359	2310	9950	582.4	10359	3310	10583
10421	580.4	9359	2310	10421	626.9	10359	3310	11087
10899	621.6	9359	2310	10899	671.4	10359	3310	11597
11351	662.7	9359	2310	11351	715.8	10359	3310	12082
11819	703.9	9359	2310	11819	760.3	10359	3310	12582
12380	745.0	9359	2310	12380	804.8	10359	3310	13176
13094	786.2	9359	2310	13094	849.2	10359	3310	13922
13537	827.4	9359	2310	13537	893.7	10359	3310	14398
14004	868.5	9359	2310	14004	938.1	10359	3310	14898
15115	909.7	9359	2310	15115	982.6	10359	3310	16074
15582	950.9	9359	2310	15582	1027.1	10359	3310	16573
16049	992.0	9359	2310	16049	1071.5	10359	3310	17073
16516	1033.2	9359	2310	16516	1116.0	10359	3310	17573

31.01.2014

Blower and EC-filters

The blower and EC-filter is an under- and over-pressure filter, designed for continuous operation.Constructed as a self-supporting sheet metal construction. The round design ensures great strength combined with low weight.

Surface
Powder coated to corrosion class C3 cf. ISO 12944.

Inlet
The Blower and Jet filters are fitted with 180° tangential inlets to ensure effective sorting of heavy materials before the process air passes through the filter medium.

BF-36, 60 and 84/90-filters are also available with total separators. Standard height is 1000 mm, with the inlet at 90°C. This type of inlet is used in plants in which the process air contains heavy and sharp articles to prevent them coming into contact with the filter medium.

Cleaning system
BF-36, 60 and 84/90-ET filters are available with PowerPulse® or Blower cleaning. BF-8/12/20-filters are supplied with EC-cleaning.

Discharge system
Conical or scraper bottoms are available for the discharge system, but silo filter is also available.

ATEX
BF-36, 60 and 84/90-ET with PowerPulse® cleaning, external compressed air or internal compressor are equipped with approved explosion membranes. Choose between side venting or JKF's specially developed VFV® explosion relief venting, which vents explosion pressure vertically through the filter top. The filters fulfil pressure shock-resistance according to VDI 2263. Venting according to VDI 3673.

Operating range
Pressure: +/- 5000 Pa (available up to +20 kPa to -10 kPa)
Filter area: 5.8-200 m²
Max. operating temperature: 70°C
Min. operating temperature: -20°C (available for: -40 °C)

Connection
Gear motor Blower-cleaning:
Type 36: 0.25 kW, 20 min^{-1}, 3 x 400 V, 50 Hz, 1.1 A
Type 60, 84 and 90: 0.25 kW, 6.3 min^{-1}, 3 x 400 V, 50 Hz, 0.82 A

Cleaning fan
Type 36: 5.5 kW, 2860 min^{-1}, 3 x 400 V, 50 Hz, 11 A
Type 60: 7.5 kW, 2880 min^{-1}, 3 x 400 V, 50 Hz, 14.5 A
Type 84 and 90: 11.0 kW, 2900 min^{-1}, 3 x 400 V, 50 Hz, 20 A

Connection EC filter control system BF-8/12/20:
0,2 kW, 1 x 230 V, 50 Hz, 0,8 A

Inductive sensor, Blower-cleaning:
24 VDC

Gear motor PowerPulse® cleaning system:
0.12 kW, 15.6 min^{-1}, 3 x 230 V, 50 Hz, 0.7 A

Gear motor scraper bottom:
Type 20: 0.25 kW, 15.7 min^{-1}, 3 x 400 V, 50 Hz, 1.1 A
Type 36: 0.55 kW, 11.0 min^{-1}, 3 x 400 V, 50 Hz, 1.7 A
Type 60, 84 and 90: 0.75 kW, 11.0 min^{-1}, 3 x 400 V, 50 Hz, 2.2 A

Inductive sensor, scraper bottom:
24 VDC

BF-filter with scraper bottom and tangential inlet.
Shown with explosion relief venting in side.
With ladder and platform mounted.

BF-filter with scraper bottom and tangential inlet.
Shown with VFV® explosion relief venting in the filter top.
Fitted with ladder and platform.

31.01.2014

Blower- and EC-filtre

PowerPulse-® ECOTROL® filter control system, BF-CT-ET:
0.6 kW, 1 x 230 V, 50 Hz, 1.9 A

External compressed air - PowerPulse®:
5 bar, min. 350 Nl/min.
Air quality according to ISO 8573-1: Quality class (5. 4. 4)
External connection: ¼" internal thread.

Internal compressor - PowerPulse®:
2.2 kW, 3 x 400 V, 50 Hz, 5.9 A
Capacity: 350 Nl/min.

Noise

Noise level during cleaning measured 5 m above the ground:

EC:	70.0 dBA
PowerPulse®:	70.4 dBA
Blower:	78.8 dBA

Accessories

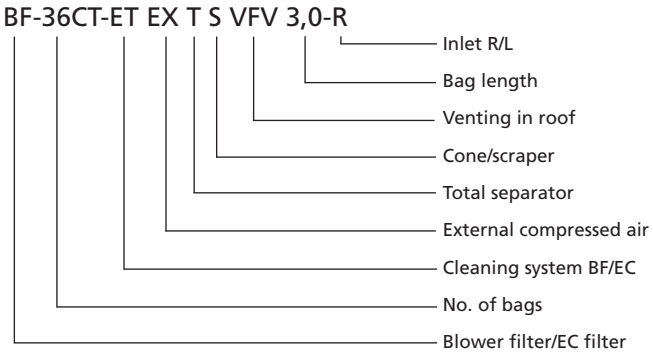
Ladder/gangway:
Ladder/gangway designed according to ISO/EN/DIN 14122.3/4 and available in several configurations.

Ladder with gangway, front-mounted
ladder with double gangway, front-mounted
monitoring equipment for explosion membrane

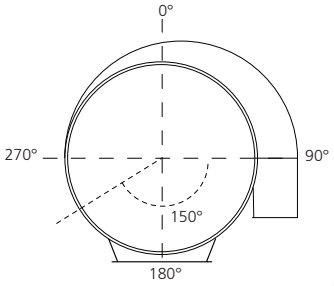
Door contacts:
2.3 (close-before-switch-contact) in accordance with EN50047, IP67 NC contact.

Type designations

Filters are type-designated using a combination of letters and numbers separated by hyphens and spaces. Designation BF-36CT-ET S VFV 3.0-R therefore describes a Blower filter with 36 filter bags, PowerPulse® cleaning system with ET, scraper bottom, vertical explosion relief venting, 3 m filter bag and right inlet.



Please state location of inlet and discharge including angle degrees when ordering. The explosion membrane for side venting is always located 150SDgr from the inlet



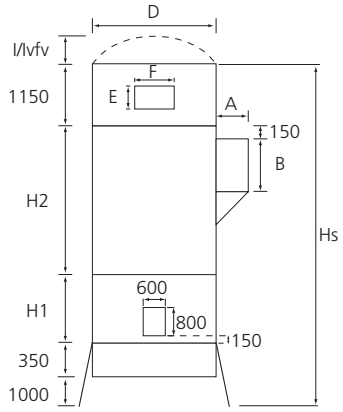
Blower-filter with scraper bottom and tangential inlet. Cross-section shows the PowerPulse® cleaning system.

Blower-filter with conical bottom and tangential inlet.

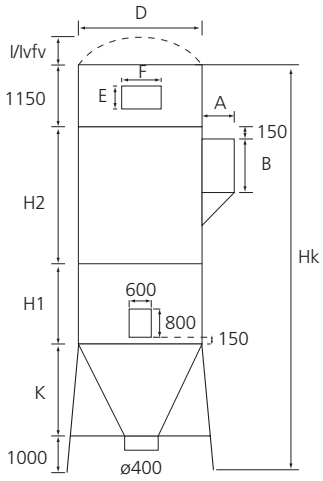
Blower-filter with conical bottom and total separator.

26.09.2013

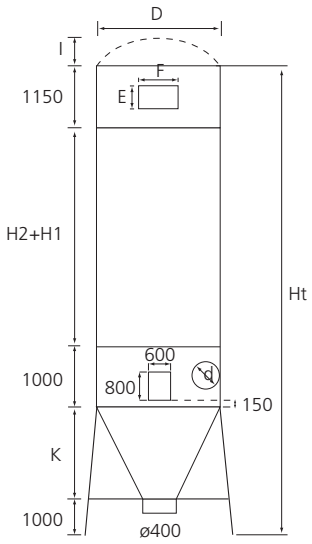
Blower and EC-filters



BF - scraper bottom



BF - conical bottom

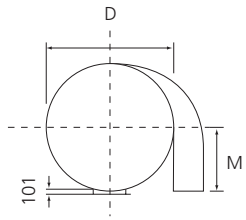


BF - total separator

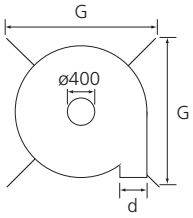
	Filter area m²	D mm	Hs mm	H1 mm	H2 mm	Hk mm	K mm	Ht mm	d mm	I mm
BF-36 – 2,0	34,3	1500	4503	-	2000	5338	1185	6338	400	210
BF-36 – 2,5	42,8	1500	5503	1000	2000	6338	1185	7338	400	210
BF-36 – 3,0	51,3	1500	5503	1000	2000	6338	1185	7338	400	210
BF-36 – 3,5	59,8	1500	6503	2000	2000	7338	1185	8338	400	210
BF-36 – 4,0	65,4	1500	6503	2000	2000	7338	1185	8338	400	210
BF-36 – 4,5	74,1	1500	7503	3000	2000	8338	1185	9338	400	210
BF-36 – 5,0	80,0	1500	7503	3000	2000	8338	1185	9338	400	210
BF-60 – 2,0	57,2	1900	4507	-	2000	5767	1610	6767	600	260
BF-60 – 2,5	71,3	1900	5507	1000	2000	6767	1610	7767	600	260
BF-60 – 3,0	85,5	1900	5507	1000	2000	6767	1610	7767	600	260
BF-60 – 3,5	99,6	1900	6007	1000	2500	7267	1610	8767	600	260
BF-60 – 4,0	108,9	1900	6507	1500	2500	7767	1610	8767	600	260
BF-60 – 4,5	123,5	1900	7007	2000	2500	8267	1610	9767	600	260
BF-60 – 5,0	133,4	1900	7507	2500	2500	8767	1610	9767	600	260
BF-84 – 3,0	119,6	2350	5500	-	3000	7240	2084	8240	800	350
BF-84 – 3,5	139,4	2350	6500	1000	3000	8240	2084	9240	800	350
BF-84 – 4,0	152,5	2350	6500	1000	3000	8240	2084	9240	800	350
BF-84 – 4,5	172,9	2350	7500	2000	3000	9240	2084	10240	800	350
BF-84 – 5,0	186,7	2350	7500	2000	3000	9240	2084	10240	800	350
BF-90 – 3,0	128,2	2350	5500	-	3000	7240	2084	8240	800	350
BF-90 – 3,5	149,4	2350	6500	1000	3000	8240	2084	9240	800	350
BF-90 – 4,0	163,4	2350	6500	1000	3000	8240	2084	9240	800	350
BF-90 – 4,5	185,2	2350	7500	2000	3000	9240	2084	10240	800	350
BF-90 – 5,0	200,1	2350	7500	2000	3000	9240	2084	10240	800	350

BF-36-60, 84/90 has one filter door in the top section and one in the filter top (600×800 mm).

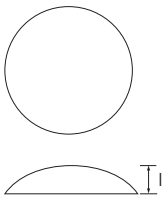
26.09.2013



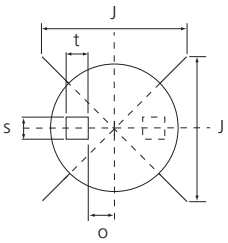
Top, conical and scraper



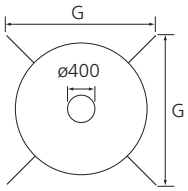
Bottom, total separator



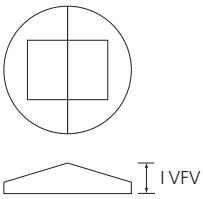
Std. top



Bottom, scraper

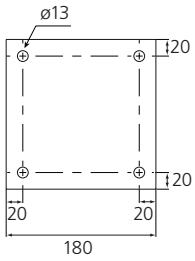


Bottom, conical

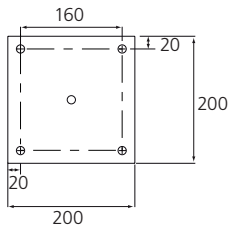


VFV top

Footplate 36-60



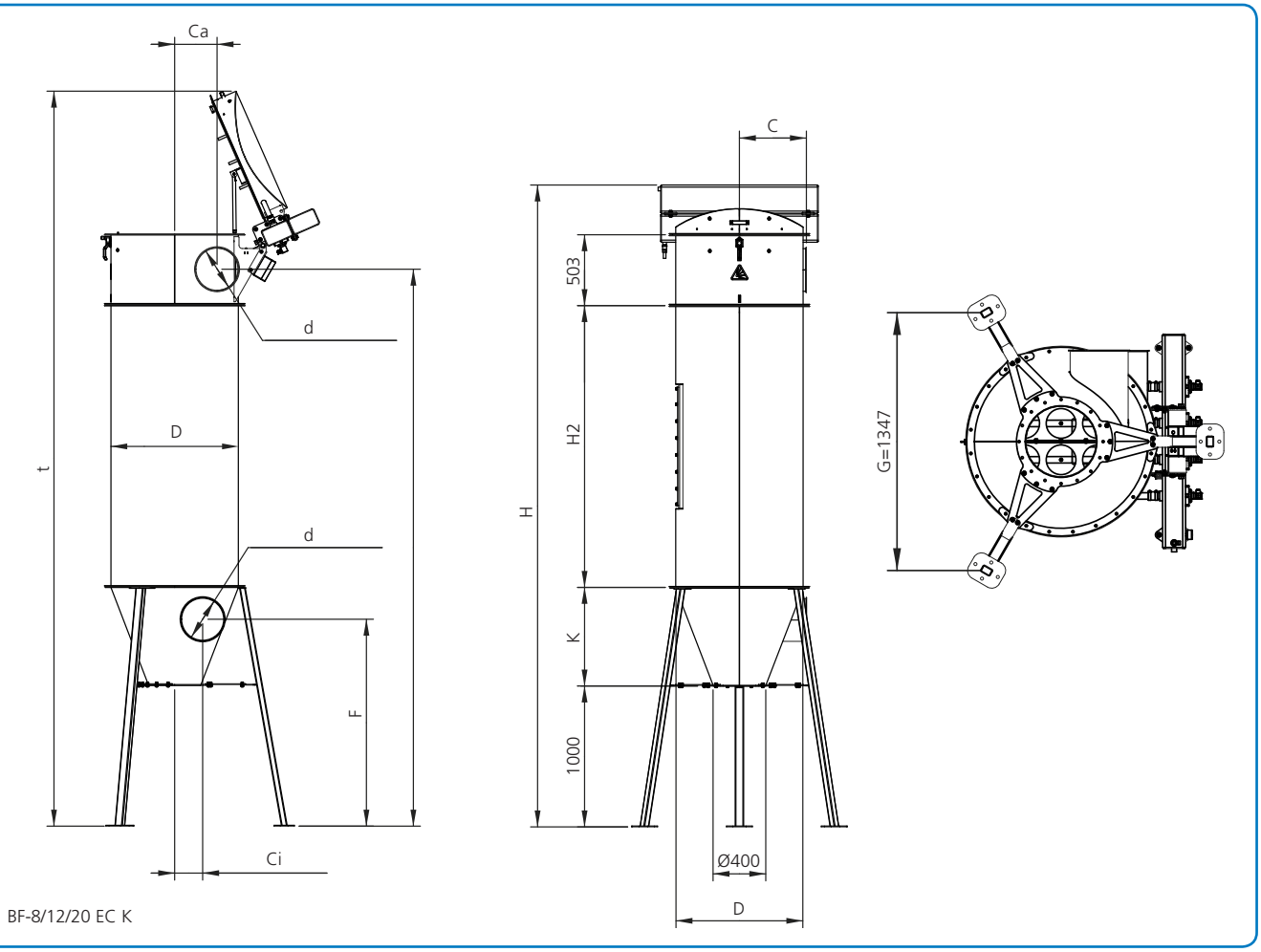
Footplate 84-90



I VFV mm	A×B mm	E×F mm	G mm	J mm	O mm	S×T mm	M mm	Weight with conical bottom kg	Weight with scraper bottom kg	Weight with total separator kg
290	300×600	600×600	1878	1672	455	220×500	400	966	982	975
290	300×600	600×600	1878	1672	455	220×500	400	1071	1086	1085
290	300×800	600×600	1878	1672	455	220×500	400	1086	1101	1086
290	300×800	600×600	1878	1672	455	220×500	400	1096	1185	1183
290	300×800	600×600	1878	1672	455	220×500	400	1181	1123	1192
290	300×800	600×600	1878	1672	455	220×500	400	1281	1297	1294
290	300×800	600×600	1878	1672	455	220×500	400	1292	1308	1305
360	400×700	600×800	2375	1974	655	220×500	600	1455	1441	1360
360	400×700	600×800	2375	1974	655	220×500	600	1549	1532	1650
360	400×700	600×800	2375	1974	655	220×500	600	1620	1607	1663
360	400×900	600×800	2375	1974	655	220×500	600	1714	1700	1821
360	400×900	600×800	2375	1974	655	220×500	600	1806	1792	1850
360	400×900	600×800	2375	1974	655	220×500	600	1919	1905	1987
360	400×900	600×800	2375	1974	655	220×500	600	1971	1957	2005
290	500×1100	600×1200	2875	2292	880	220×500	800	2198	2111	2258
290	500×1100	600×1200	2875	2292	880	220×500	800	2391	2304	2495
290	500×1750	600×1200	2875	2292	880	220×500	800	2456	2369	2520
290	500×1750	600×1200	2875	2292	880	220×500	800	2683	2596	2708
290	500×1750	600×1200	2875	2292	880	220×500	800	2708	2621	2733
290	500×1750	600×1200	2875	2292	880	220×500	800	2224	2137	2284
290	500×1750	600×1200	2875	2292	880	220×500	800	2458	2371	2522
290	500×1750	600×1200	2875	2292	880	220×500	800	2485	2398	2549
290	500×1750	600×1200	2875	2292	880	220×500	800	2713	2626	2738
290	500×1750	600×1200	2875	2292	880	220×500	800	2740	2653	2765

26.09.2013

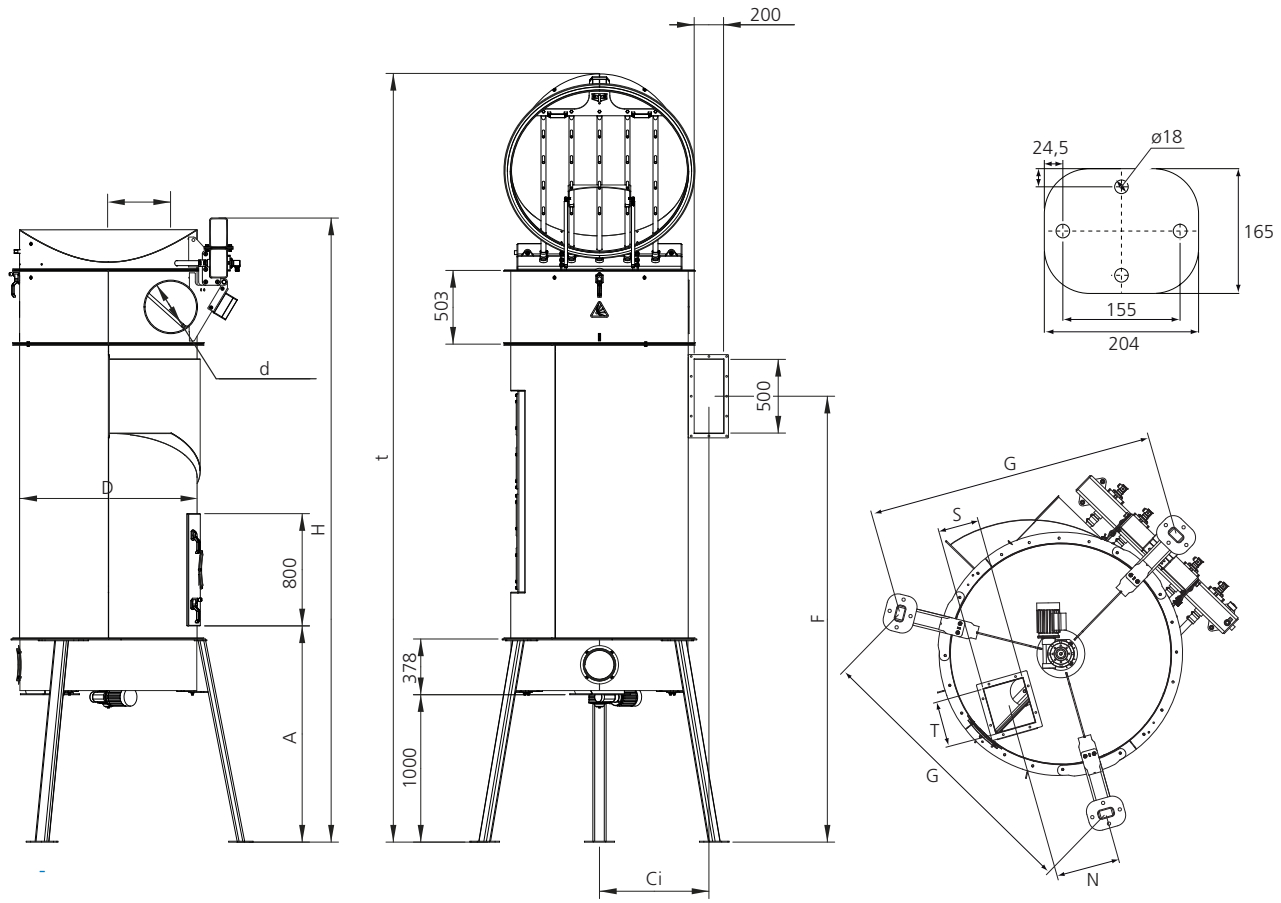
Blower and EC filters



BF-8/12/20 EC K

Type	Filter area m²	H mm	t mm	H2 mm	F mm	V mm	Ci mm	Ca mm
BF-8-1,5-KT	5,8	3850	4574	1500	1506	3453	202	263
BF-8-2,0-KT	7,7	4302	5025	2000	1506	3905	202	263
BF-12-1,5-KT	8,7	4056	4716	1500	1469	3453	199	300
BF-12-2,0-KT	11,5	4508	5167	2000	1469	3905	199	300
BF-12-2,5-KT	14,3	5508	6167	3000	1469	4905	199	300
BF-12-3,0-KT	17,2	5508	6167	3000	1469	4905	199	300
BF-20-2,0-KT	19,2	4956	5933	2000	1850	4353	424	424
BF-20-2,5-KT	23,9	5956	6933	3000	1850	5353	424	424
BF-20-3,0-KT	28,6	5956	6933	3000	1850	5353	424	424
BF-20-2,0-K	19,2	4456	5433	2000	3247	3853	424	424
BF-20-2,5-K	23,9	5456	6433	3000	4247	4853	424	424
BF-20-3,0-K	28,6	5456	6433	3000	4247	4853	424	424
BF-20-2,0-S	19,2	4234	5212	2000	3025	3631	743	424
BF-20-2,5-S	23,9	5234	6212	3000	4025	4631	743	424
BF-20-3,0-S	28,6	5234	6212	3000	4025	4631	743	424

26.09.2013



BF-20-S

C mm	d mm	D mm	K mm	A mm	N mm	S x T mm	G mm	Weight kg	Weight incl. bags kg
397	225	750	700				1213	240	256
397	225	750	700				1213	259	280
476	300	900	700				1347	314	339
476	300	900	700				1347	343	375
476	300	900	700				1347	398	436
476	300	900	700				1347	398	443
607	350	1200	600				1486	489	542
607	350	1200	600				1486	554	617
607	350	1200	600				1486	554	628
607	350	1200	600				1486	462	515
607	350	1200	600				1486	527	590
607	350	1200	600				1486	527	601
607	350	1200		1467	341	220x250	1558	522	575
607	350	1200		1497	341	220x250	1558	588	651
607	350	1200		1497	341	220x250	1558	588	662

01.07.2014

DustStorm® filter

The DustStorm® filter is an under- and over-pressure filter, designed for continuous operation.

Constructed as a self-supporting sheet metal construction. The round design ensures great strength combined with low weight.

Surface
Powder coated to corrosion class C3 cf. ISO 12944.

Inlet
Contaminated air passes into the filter through the pressure loss optimised inlet, ensuring optimised separation of the dust particles.

DS-12, 20, 28, 36 and 44 are supplied with side inlet according to the "partial downflow" principle. A diffuser effect which ensures minimum pressure loss with maximum effect. Alternatively, the filters can be fitted with a total separator. DS-7 and 12 are supplied with total separators.

Cleaning system
DS-12, 20, 28, 36, 44 has the PowerPulse® cleaning system with filter control system ECOTROL® or DS total cleaning system. DS-7 EC and DS-12 EC have EC cleaning.

Discharge system
DustStorm® filter is available with conical or scraper bottom. The DS filter is also available as a silo filter. DS-7 is only available with conical bottom.

ATEX
DustStorm® filter is fitted with approved explosion membranes with side relief venting. The filters fulfil pressure shock-resistance according to VDI 2263. Venting according to VDI 3673. The DS filter with external compressed air source is supplied ATEX-approved.

Operating range

Pressure:	+/- 5000 Pa (available up to +20 kPa to -10 kPa)
Filter area:	38-534 m²
Max. operating temperature:	70°C
Min. operating temperature:	-20°C (available down to -40°C)

Connection DS-12 – DS-44
Gear motor PowerPulse® cleaning system:
0.12 kW, 15.6 min^{-1}, 3 x 230 V, 50 Hz, 0.7 A

Gear motor scraper bottom:

DS-12-S:	0.25 kW, 15.7 min^{-1}, 3 x 400 V, 50 Hz, 1.1 A
DS-20-S and DS-28-S:	0.37 kW, 15.7 min^{-1}, 3 x 400 V, 50 Hz, 1.6 A
DS-36-S and DS-44-S:	0.75 kW, 11.0 min^{-1}, 3 x 400 V, 50 Hz, 2.2 A

Inductive sensor scraper bottom:
24 VDC.

DustStorm®-filter with conical bottom and bucket. Fitted with ladder and platform.

DustStorm® filter with scraper bottom.

27.09.2013

DustStorm® filter

PowerPulse® ECOTROL® filter control system:
0.6 kW, 1 x 230 V, 50 Hz, 1.9 A

PowerPulse® DS total filter control system:
0.7 kW, 1 x 230 V, 50 Hz, 2.1 A

External compressed air - PowerPulse®:
DS-36 and DS-44 (for cleaning system and roof opening):
7.5 bar, min. 350 Nl/min.
DS-12 and DS-28 (for cleaning system):
5.0 bar, min. 350 Nl/min.
Air quality according to ISO 8573-1: Quality class (5. 4. 4)
External connection: ¼" internal thread.

Internal compressor - PowerPulse®:
2.2 kW, 3 x 400 V, 50 Hz, 5.9 A
Capacity: 350 Nl/min.

Connection DS-7 EC and DS-12 EC
EC filter control system:
0.2 kW, 1 x 230 V, 50 Hz, 0.8 A

External compressed air – EC cleaning system:
5 bar, min. 400 Nl/min.
Air quality according to ISO 8573-1: Quality class (5. 4. 4)
External connection: ¼" internal thread.

Integrated fan:

DS-7 E EC:	4.0 kW, 3 x 400 V, 50 Hz, 11.0 A (JK-30MTD)
DS-12 E EC:	11.0 kW, 3 x 400 V, 50 Hz, 19.0 A (JK-40MTD)

Accessories
Ladder/gangway:
Ladder/gangway designed according to ISO/EN/DIN 14122.3/4 and available in several configurations.
Monitoring apparatus for explosion membrane.

Door contacts:
2.3 (close-before-switch-contact) in accordance with EN50047, IP67 NC contact.

Noise
Noise level during cleaning measured at 5 m above ground.

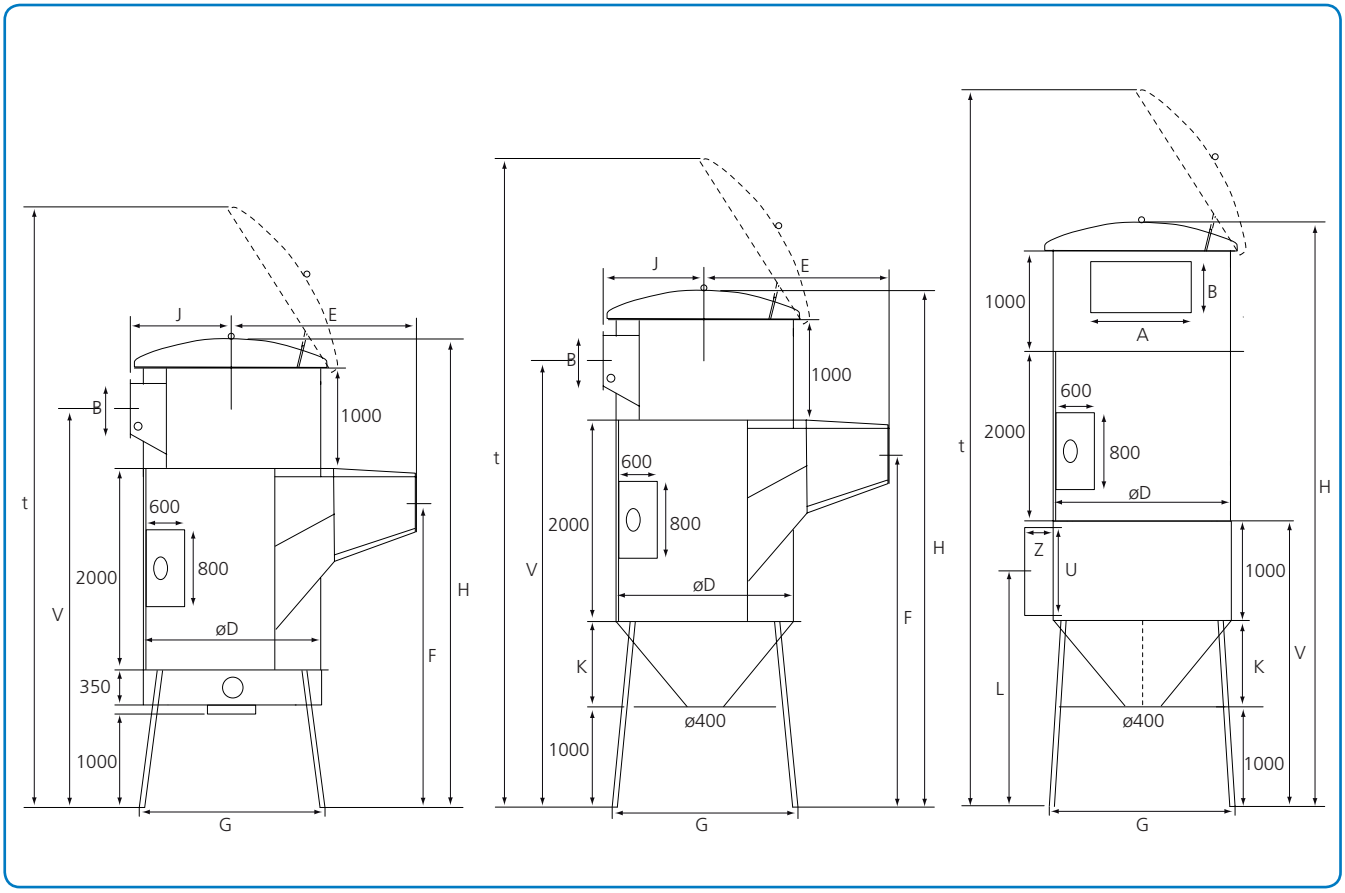
DS-7 EC and DS-12 EC:	70.0 dBA
DS-7 EC E:	71.0 dBA
DS-12 EC E:	75.4 dBA
DS-12 ET EX - DS-44 ET EX:	70.0 dBA
DS-12 ET - DS-44 ET:	72.4 dBA


DS-EC-K E R


DS-EC-S E R

27.09.2013

DustStorm® filter with PowerPulse® cleaning system

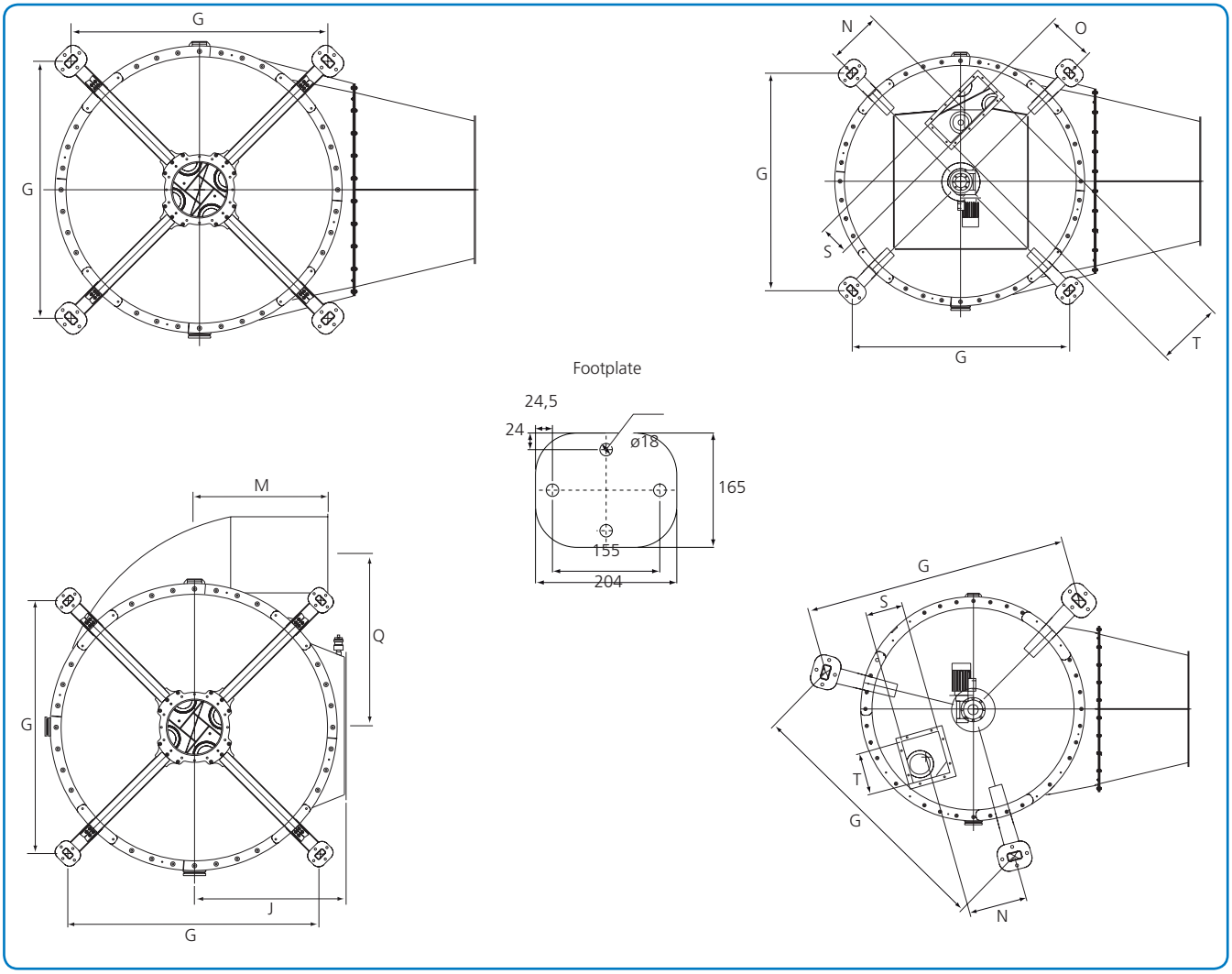


Type	A×B mm	U×Z mm	øD mm	t mm	J mm	E mm	F mm	V mm	H mm	K mm	L mm	G mm	Weight kg
DS-12-K	605×305	-	1200	5695	700	1320	3354	4252	4802	600	-	1486	684
DS-20-K	805×405	-	1570	6293	925	1739	3531	4362	5071	823	-	1868	872
DS-28-K	905×505	-	1770	6651	1024	1831	3662	4594	5280	1007	-	1704	1056
DS-36-K	1105×505	-	2140	7126	1226	2191	3928	4830	5614	1271	-	2019	1376
DS-44-K	1205×605	-	2330	7319	1302	2341	4017	4999	5775	1407	-	2180	1543
DS-12-S	605×305	-	1200	5473	700	1320	3138	4031	4580	-	-	1558	722
DS-20-S	805×405	-	1570	5849	925	1739	3086	3918	4627	-	-	1877	924
DS-28-S	905×505	-	1770	6019	1024	1831	3036	3967	4648	-	-	1648	1126
DS-36-S	1105×505	-	2140	6234	1226	2191	3037	3994	4722	-	-	1911	1431
DS-44-S	1205×605	-	2330	6292	1302	2341	2989	3972	4748	-	-	2045	1628
DS-12-K T	605×305	605×305	1200	6695	700	-	-	5252	5802	600	2100	1486	827
DS-20-K T	805×405	805×405	1570	7293	925	-	-	5362	6071	823	2323	1868	1057
DS-28-K T	905×505	805×605	1770	7651	1024	-	-	5549	6280	1007	2507	1704	1282
DS-36-K T	1105×505	805×605	2140	8126	1226	-	-	5830	6614	1271	2771	2019	1664
DS-44-K T	1205×605	805×605	2330	8319	1302	-	-	5999	6775	1407	2907	2180	1868

Weight excluding filter elements

27.09.2013

DustStorm® filter with PowerPulse® cleaning system

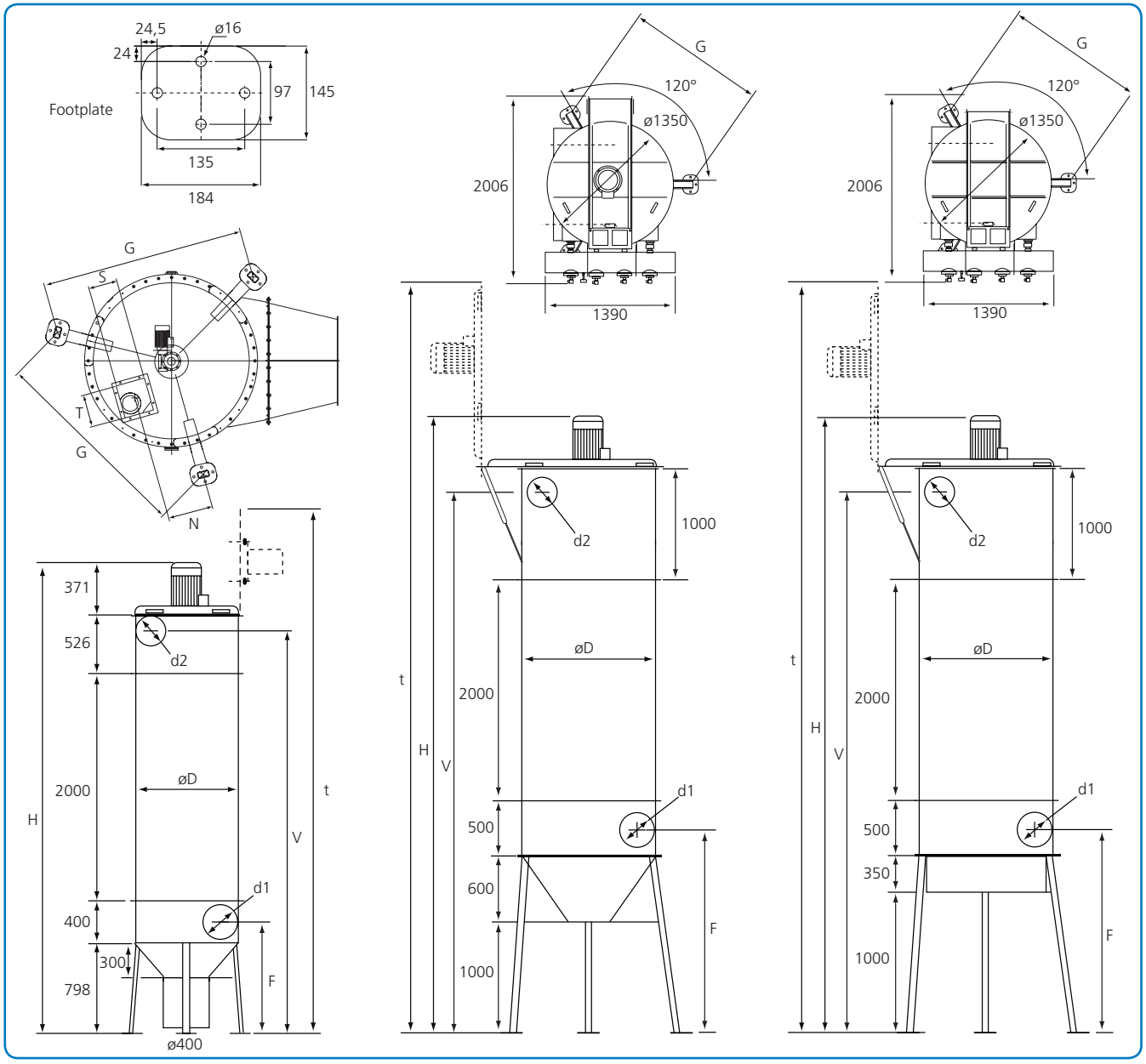


Type	J mm	M mm	Q mm	O mm	N mm	S×T mm	G mm	Weight kg
DS-12-K	700	-	-	-	-	-	1486	684
DS-20-K	925	-	-	-	-	-	1868	872
DS-28-K	1024	-	-	-	-	-	1704	1056
DS-36-K	1226	-	-	-	-	-	2019	1376
DS-44-K	1302	-	-	-	-	-	2180	1543
DS-12-S	700	-	-	346	341	220×250	1558	722
DS-20-S	925	-	-	503	290	220×250	1877	924
DS-28-S	1024	-	-	367	406	220×500	1648	1126
DS-36-S	1226	-	-	367	613	220×500	1911	1431
DS-44-S	1302	-	-	367	728	220×500	2045	1628
DS-12-K T	700	606	664.0	-	-	-	1486	827
DS-20-K T	925	791	982.5	-	-	-	1868	1057
DS-28-K T	1024	893	1041.0	-	-	-	1704	1282
DS-36-K T	1226	1078	1368.0	-	-	-	2019	1664
DS-44-K T	1302	1173	1465.0	-	-	-	2180	1868

Weight excluding filter elements

01.07.2014

DustStorm® filter with EC cleaning system



DS-7 DS-12-K DS-12-S

Type	øD mm	t mm	F mm	V mm	H mm	d1 mm	d2 mm	N mm	S×T mm	G mm	Weight kg
DS-7 EC-K	900	4809	988	3563	3801	300	250	-	-	951	277
DS-7 EC-K E	900	4785	988	3563	4095	300	250	-	-	951	340
DS-12 EC-K	1200	6387	1850	4905	5193	350	350	-	-	1486	534
DS-12 EC-K E	1200	6817	1850	4905	5551	350	350	-	-	1486	656
DS-12 EC-S	1200	6160	1628	4684	4972	350	350	341	220×250	1558	656
DS-12 EC-S E	1200	6400	1628	4684	5330	350	350	290	220×250	1558	778

Weight excluding filter elements

27.09.2013

DustStorm® filter

Type designations

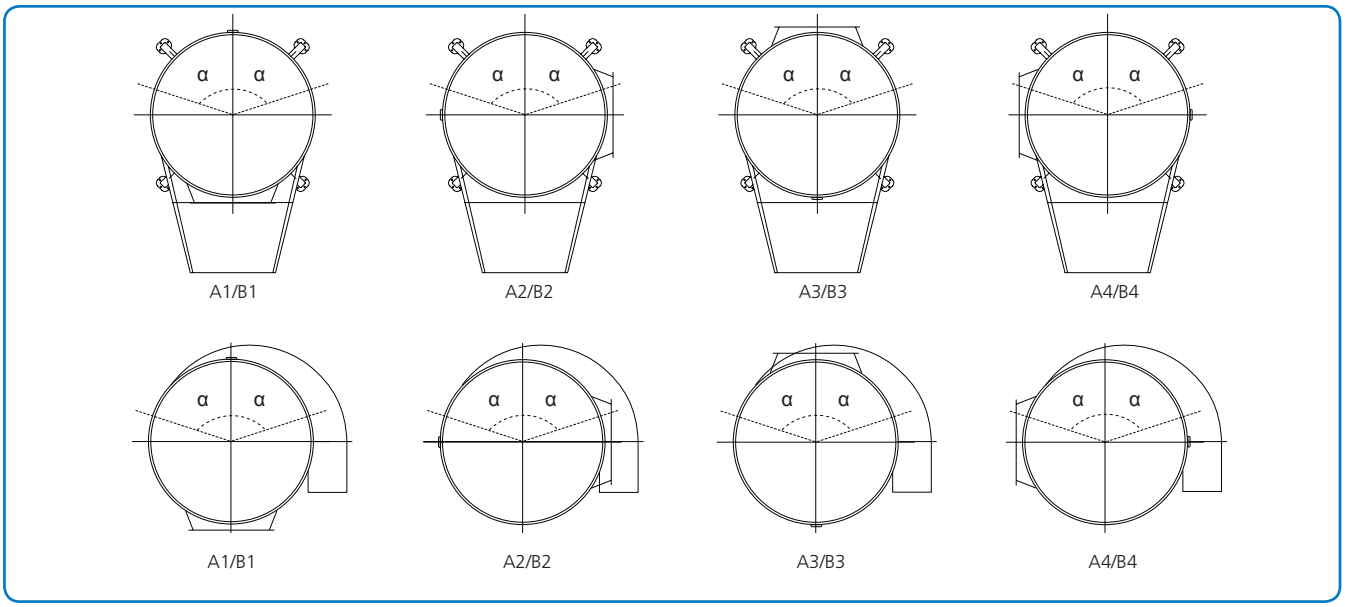
Filters are type-designated using a combination of letters and numbers separated by hyphens and spaces. Designation DS-44-K A2-ET EX T-R thus describes a DustStorm® filter with 44 filter elements, conical bottom, filter door on the left side, outlet to the right, cleaning system ET, external compressed air, right inlet for total separator.

DS-44-K A2-ET EX T-R

- Inlet R/L for total separator
- Total separator
- External compressed air
- Cleaning system ET/DS control system
- Position inlet - outlet 1,2,3,4
- Location of filter door and explosion relief vent A/B according to inlet
- Filter bottom: Scraper/Cone
- No. of filter elements

DS-12 EC-K E-R

- Inlet R/L
- Integrated fan
- Filter bottom: Scraper/Cone
- Cleaning system, EC
- No. of filter elements



Please state location of inlet and discharge when ordering according to illustrations. Angle α *indicates the distance from centre line to door and explosion relief venting respectively.*

A: Filter door located on left side and explosion relief venting on right in relation to inlet.

B: Explosion relief venting located on left side and filter door on right in relation to inlet.

Roof hinging:

DS-36 and DS-44: Hinged opposite outlet.

DS-12 and DS-28: Hinge on right/left 90SDgr in relation to outlet.

Type	Angle: α
DS-12	57.5
DS-20	72.5
DS-28	39.0
DS-36	32.2
DS-44	29.6

Type	Angle: α
DS-20 T	42.5
DS-28 T	39.0
DS-36 T	32.2
DS-44 T	37.0

31.01.2014

SuperJet filters

The SuperJet filters are under- and over-pressure filters designed to run in constant operation. The SuperJet filter is made of high tensile steel to ensure strength combined with low weight. The filter is self-supporting with adjustable legs, and can be erected outdoors or in.

Fast assembly

SuperJet filters are factory-assembled as standard with a top part, filter body and bottom part, which can be quickly assembled and erected - or of course supplied separately. It is assembled using bolts in high tension steel with integrated washers, significantly reducing assembly time and the risk of over-tightening bolt assemblies.

Surface

Galvanised sheet, class Z 275 - zinc plating min. 275 g/m² double-sided.

Inlet

The inlet is designed according to the "partial downflow" principle. Contaminated air is passed into the filter and hits a perforated plate which separates most of the dust particles, which settle downwards through the vertical square conduit. The air diffuses through the perforated plate and through the filter bags.

Cleaning system

PowerPulse® cleaning with ECO-PowerPulse® filter control system.

Discharge system

The SuperJet filter is supplied with scraper bottom with discharge to a single B-500 rotary valve, but can be increased to two discharges, B-500 or B-750. Also available with discharge to JK-50S and JK-75S.

ATEX

The SuperJet filter is approved as a zone 20 filter. The filter is fitted with approved explosion membranes. Choose between side venting or JKF's specially developed VFV® explosion relief venting, which vents explosion pressure vertically through the filter top. The filters fulfil pressure shock-resistance according to VDI 2263. Venting according to VDI 3673.

Operating range

Pressure:	+/- 5000 Pa (available up to +10 kPa to -10 kPa)
Filter area:	172 - 269 m²
Max. operating temperature:	65ºC
Min. operating temperature:	-20ºC (available for -40ºC)

Connection

Gear motor scraper bottom:

0.75 kW, 7.8 min^{-1}, 3x400 V, 50 Hz, 2.7 A

Inductive sensor scraper bottom:

24 VDC

ECO-PowerPulse® filter control system:

0.3 kW, 3×400 V, 50 Hz, 1.1 A (16 A)

External compressed air - PowerPulse®:

6.5 - 8.0 bar, min. 650 Nl/min.

Air quality according to ISO 8573-1: Quality class (5. 4. 4)

External connection: ¼" internal thread.

31.01.2014

SuperJet filters

Noise

Noise level during cleaning measured 5 m above the ground: 69.8 dBA

Accessories

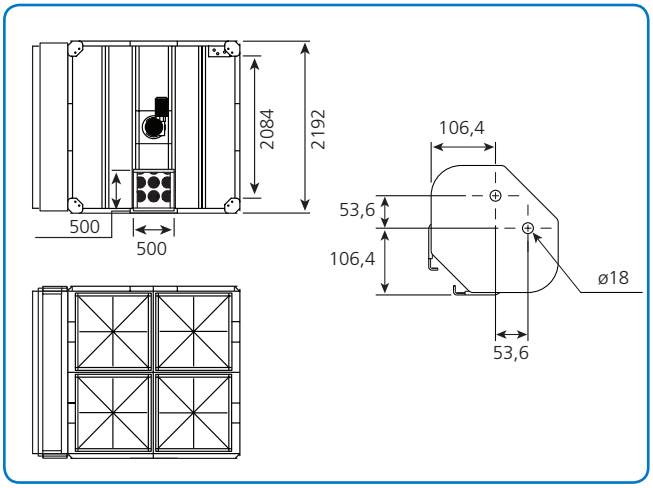
Ladder/gangway:

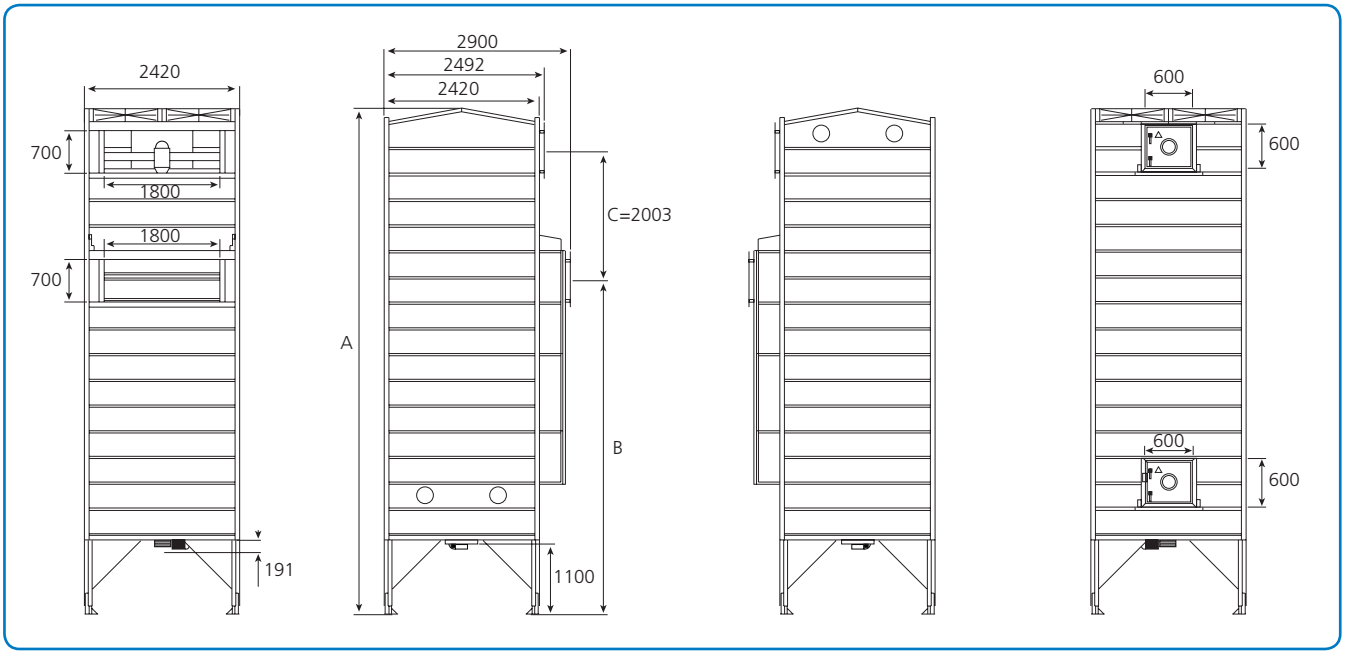
Ladder/gangway designed according to ISO/EN/DIN 14122.3/4 and available in several configurations: Ladder with gangway, side-mounted or ladder with double gangway, side-mounted.

Monitoring apparatus for explosion membrane.

Door contacts:

2.3 (close-before-switch-contact) in accordance with EN50047, IP67 NC contact.





Type	Bag length m	Filter area m²	A mm	B mm	Weight kg
SuperJet-3	3.0	172	7058	4411	3350
SuperJet-4	4.0	220	7858	5211	3790
SuperJet-5	5.0	269	8658	6011	4110

27.09.2013

MMBF filters

The MMBF filters (Multi Modular Bag Filter) are under- and over-pressure filters designed to run in constant operation. They are modular and can therefore be added to in line with growing capacity requirements and can be adapted to any task. More modules can subsequently be added, or they can be rebuilt to a different height or other material transport system to meet changed extraction needs. The MMBF filter is made of high tensile steel to ensure strength combined with low weight. The filter is self-supporting with adjustable legs, and can be erected outdoors or in.

More efficient operation

The number of filter bags per module is 30. This means large filter area and low riser speed in the filter for a given air volume. The perforated sheet is shaped to avoid chafing the filter bags. The bags are antistatic with a large diameter (220) and fitted with a snap ring fastener, reducing dust particle retention, enabling more efficient bag cleaning. The result is lower pressure loss and reduced risk of blockage. The partition wall between the modules makes continuous cleaning easy during operation.

Fast assembly

MMBF filters are factory-assembled as standard. A top and bottom part are delivered which can quickly be erected and assembled. The filters can also be supplied unassembled. The filter is multi-modular, and can be assembled using bolts in high tension steel with integrated washers, significantly reducing assembly time and the risk of over-tightening bolt assemblies.

Surface

Galvanised sheet, class Z 275 - zinc plating min. 275 g/m² double-sided.

Inlet

The MMBF filter is supplied with the supply air chamber in the conical bottom. Side inlet 300×400 mm is standard, but it can also be supplied with one and two end inlets 400×500 mm. The standard inlet is supplied with contra-flaps, which are open during normal filter operation, but close when the fan is switched off. The flaps prevent the air flow created by the regenerating fan returning into the pipe system.

Outlet

The MMBF filter has a built-in return air conduit. The outlet from the return air conduit is available with an ATEX-approved fire damper. Filter type H outlet is 450×950 mm and filter type E is 600×950 mm.

Cleaning system

The regenerating fan ensures easy, effective filter bag cleaning. One module at a time is regenerated, as there are partition walls between the modules.

Discharge system

Screw, rotary valve or bucket discharge systems are available.

The MMBF screw is available in 2 to 12 modules. The screw is ø180 mm and made of AISI 304 and supplied as standard with 22 min^{-1} or 43 min^{-1}.

The MMBF rotor filter is available with 1 to 4 modules and with JK-50S, JK-100S, JK-150S or JK-200S.

MMBF rotor filter with end inlet

MMBF screw filter with side inlet

27.09.2013

The MMBF bag emptying filter is available with 1 to 4 modules with a dust bucket under each. Buckets are supplied fully assembled direct from JKF, fitted with inspection glass to give a good indication of fill status. Easily mounted, using a clamp with uniform key code.

The filter is fitted with a pressure-equalisation hose to prevent the bag being sucked up during startup at underpressure. Hose can be easily disconnected using a compressed air coupling.

ATEX

The MMBF filter is ATEX-approved and has approved explosion membranes. Choose between side venting in the cone (ERH) 600×600 KER or JKF's specially developed VFV® explosion venting (ERR) 920×920 KER, which vents vertically through the filter top. The filters fulfil pressure shock-resistance according to VDI 2263. Venting according to VDI 3673.

Operating range

Pressure:	+/- 5000 Pa
Filter area:	41.7-612 m²
Max. operating temperature:	70°C
Min. operating temperature:	-20°C (available for: -40°C)

Connection

Motor:

Regenerating fan

H filter ø450: 1.5 kW, 2900 min^{-1}, 3×400 V, 50 Hz, 3.2 A

E filter ø600: 1.5 kW, 1450 min^{-1}, 3×400 V, 50 Hz, 3.2 A

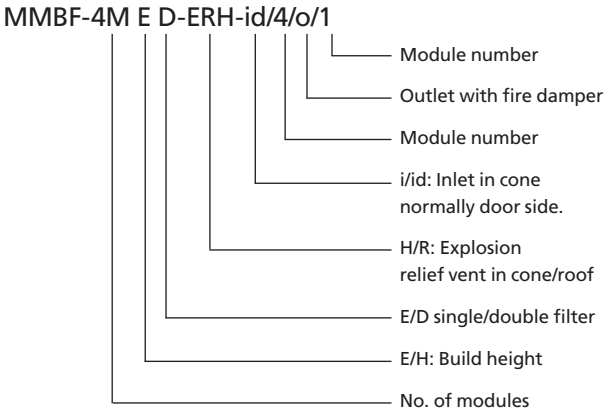
Screw:

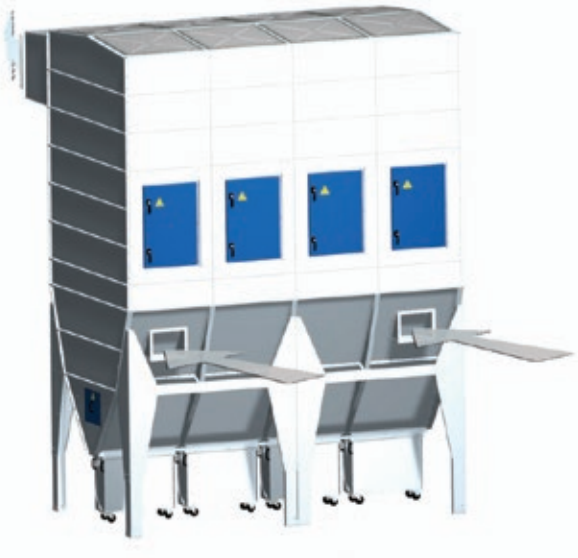
0.55 kW, 22 min^{-1}, 3×400V, 50 Hz, 2.5 A

0.75 kW, 43 min^{-1}, 3×400V, 50 Hz, 3.2 A

Type designations

Filters are type-designated using a combination of letters and numbers separated by hyphens and spaces. Designation MMBF-4M E D-ERH-id/4/o/1 thus describes a MMBF filter with 4 modules, height, double filter, explosion relief venting in the cone, inlet in module 4, outlet with fire damper in module 1.



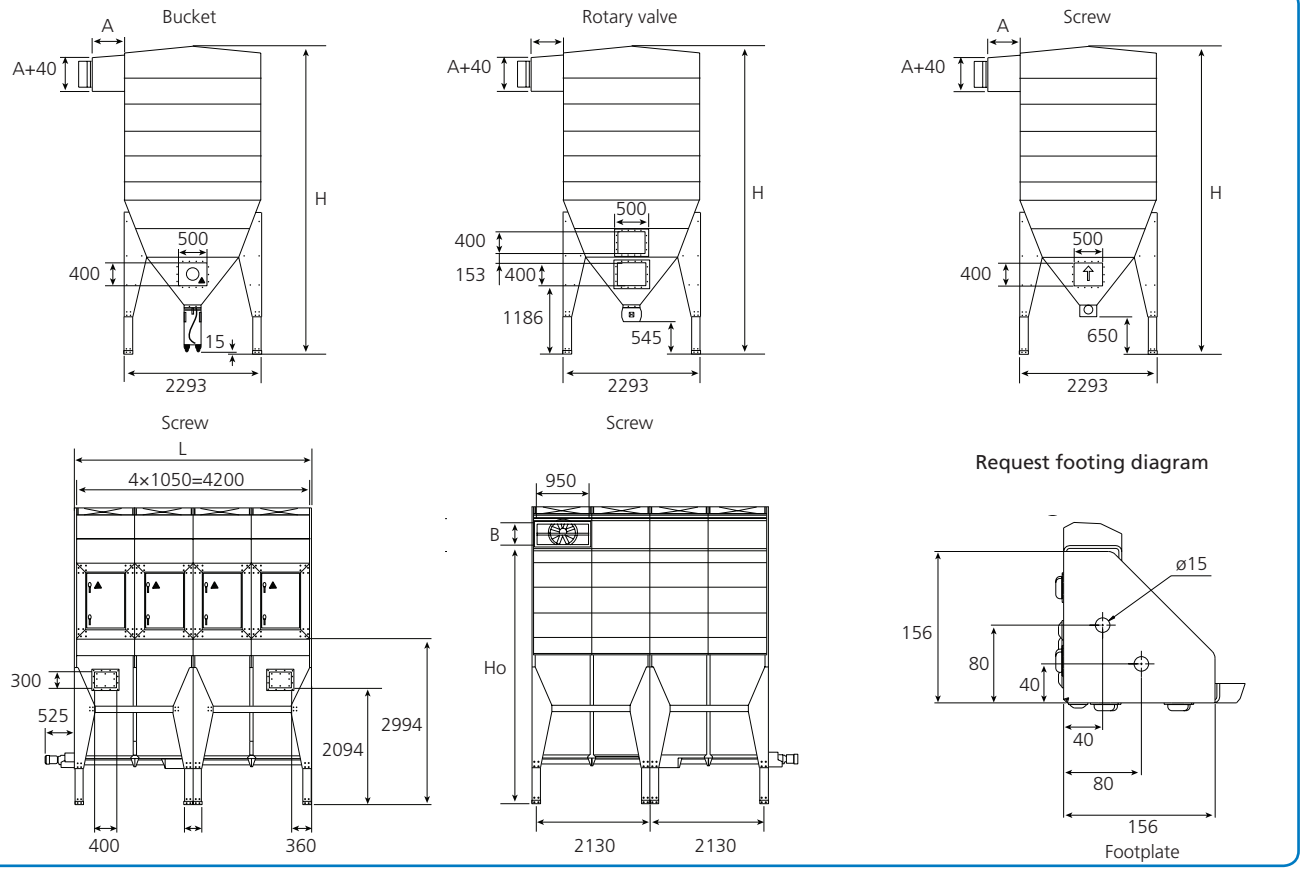


MMBF bag emptying filter with side inlet

MMBF screw filter

27.09.2013

MMBF filters



Discharge			Type				Filter area m²	H mm	Ho mm	L mm	A mm	No. of legs	Bucket kg	Rotary valve kg	Screw kg	B
Bucket	Rotary valve	-	MMBF	1	M HD	ERH/ERR	41.7	5350	4660	1130	550	4	1137	1205	-	400
Bucket	Rotary valve	-	MMBF	1	M ED	ERH/ERR	51.0	5800	4910	1130	750	4	1220	1289	-	600
Bucket	Rotary valve	Screw	MMBF	2	M HD	ERH/ERR	83.4	5350	4660	2130	550	4	1656	1655	1770	400
Bucket	Rotary valve	Screw	MMBF	2	M ED	ERH/ERR	102.0	5800	4910	2130	750	4	1823	1822	1937	600
Bucket	Rotary valve	Screw	MMBF	3	M HD	ERH/ERR	125.1	5350	4660	3180	550	4	2335	2324	2418	400
Bucket	Rotary valve	Screw	MMBF	3	M ED	ERH/ERR	153.0	5800	4910	3180	750	4	2588	2557	2681	600
Bucket	Rotary valve	Screw	MMBF	4	M HD	ERH/ERR	166.8	5350	4660	4280	550	8	3215	3183	3190	400
Bucket	Rotary valve	Screw	MMBF	4	M ED	ERH/ERR	204.0	5800	4910	4280	750	8	3468	3446	3489	600
-	-	Screw	MMBF	5	M HD	ERH/ERR	208.5	5350	4660	5330	550	8	-	-	3890	400
-	-	Screw	MMBF	5	M ED	ERH/ERR	255.0	5800	4910	5330	750	8	-	-	4255	600
-	-	Screw	MMBF	6	M HD	ERH/ERR	250.2	5350	4660	6380	550	12	-	-	4590	400
-	-	Screw	MMBF	6	M ED	ERH/ERR	306.0	5800	4910	6380	750	12	-	-	5021	600
-	-	Screw	MMBF	7	M HD	ERH/ERR	291.9	5350	4660	7430	550	12	-	-	5290	400
-	-	Screw	MMBF	7	M ED	ERH/ERR	357.0	5800	4910	7430	750	12	-	-	5787	600
-	-	Screw	MMBF	8	M HD	ERH/ERR	333.6	5350	4660	8480	550	16	-	-	5990	400
-	-	Screw	MMBF	8	M ED	ERH/ERR	408.0	5800	4910	8480	750	16	-	-	6553	600
-	-	Screw	MMBF	9	M HD	ERH/ERR	375.3	5350	4660	9530	550	16	-	-	6690	400
-	-	Screw	MMBF	9	M ED	ERH/ERR	459.0	5800	4910	9530	750	16	-	-	7319	600
-	-	Screw	MMBF	10	M HD	ERH/ERR	417.0	5350	4660	10580	550	20	-	-	7390	400
-	-	Screw	MMBF	10	M ED	ERH/ERR	510.0	5800	4910	10580	750	20	-	-	8085	600
-	-	Screw	MMBF	11	M HD	ERH/ERR	458.7	5350	4660	11630	550	20	-	-	8090	400
-	-	Screw	MMBF	11	M ED	ERH/ERR	561.0	5800	4910	11630	750	20	-	-	8851	600
-	-	Screw	MMBF	12	M HD	ERH/ERR	500.4	5350	4660	12680	550	24	-	-	8790	400
-	-	Screw	MMBF	12	M ED	ERH/ERR	612.0	5800	4910	12680	750	24	-	-	9617	600

01.01.2011

Modular filters

JKF's modular dust filters are bag filters. Modular filters can have up to 30 single or double modules, and with various discharge systems: silo, blow through, bag emptying, rotary valve, screw or chain.

They are made of 1.25 and 2 mm galvanised sheet metal.

The standard filter medium is PE40/PE25 bags. The filters are available with different bag lengths, depending on requirements.

The fire damper has a 69°C thermal protection fuse and microswitch connected to the plant's main fan.

The number of fire dampers and doors depends on the number of modules. See table.

No. of modules	No. of fire dampers		No. of doors	
	Single	Double	Single	Double
1	1	1	1	1
2	1	1	1	2
3	1	2	2	3
4	2	2	2	4
5	2	3	3	5
6	3	3	3	6
7	3	4	4	7
8	4	4	4	8
9	4	5	5	9
10	5	5	5	10
11	5	6	6	11
12	6	6	6	12

Optional extras

Chain filter type CDF is fitted as standard with a regeneration fan for cleaning filter bags. Other modular filters are available with shaker device or ø450 mm regenerating fan for cleaning the filter bags (ø600 for EX).

Filter height is increased by 150 mm if a shaker device is fitted. The height is increased by 300 mm if a regenerating fan is fitted.

ATEX

Modular filters are not ATEX-approved.

Operating range

Pressure:	+ 2500 Pa
Filter area:	15.5-1740 m²
Max. operating temperature:	70°C
Min. operating temperature:	- 20°C

Connection

Motor:

Regenerating fan

ø450 1.5 kW, 2900 min^{-1}, 3 x 400 V, 50 Hz, 3.2 A

ø600 1.5 kW, 1450 min^{-1}, 3 x 400 V, 50 Hz, 3.2 A

Shaking mechanism

0.75 kW, 121 min^{-1}, 3 x 400 V, 50 Hz, 2.2 A

Screw

0.55 kW, 22 min^{-1}, 3 x 400 V, 50 Hz, 2.5 A

Chain

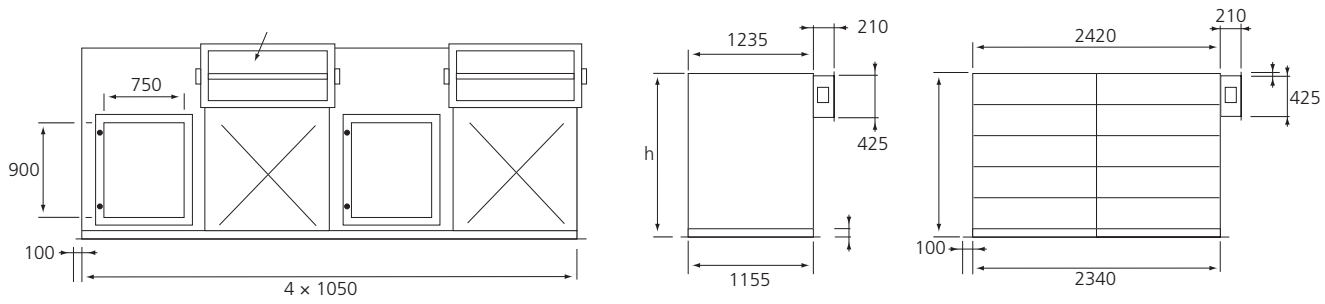
0.75 kW, 17.5 min^{-1}, 3 x 400 V, 50 Hz, 2.2 A

State number of modules, single or double, filter height/bag length, number of fire dampers and doors, location of supply air and any optional extras when ordering.

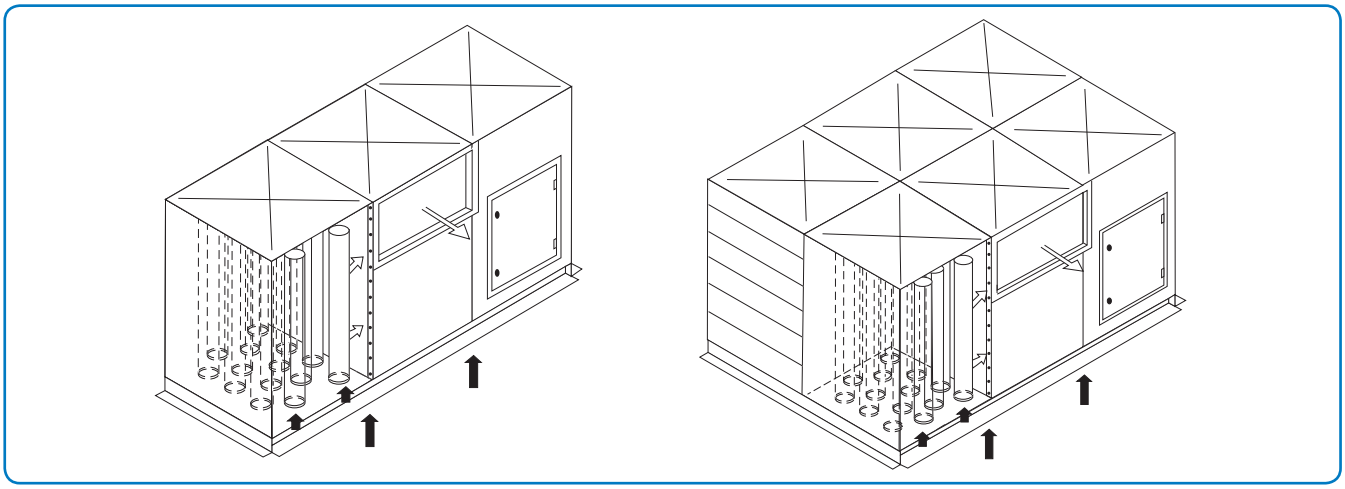
If several fans are used for the same filter, a JKF contra-damper must be used on the inlets.

01.01.2011

Silo filter type PL-PLD



The drawing above shows single and double filters. Measurement specifications are stated in the table at the bottom of the page.



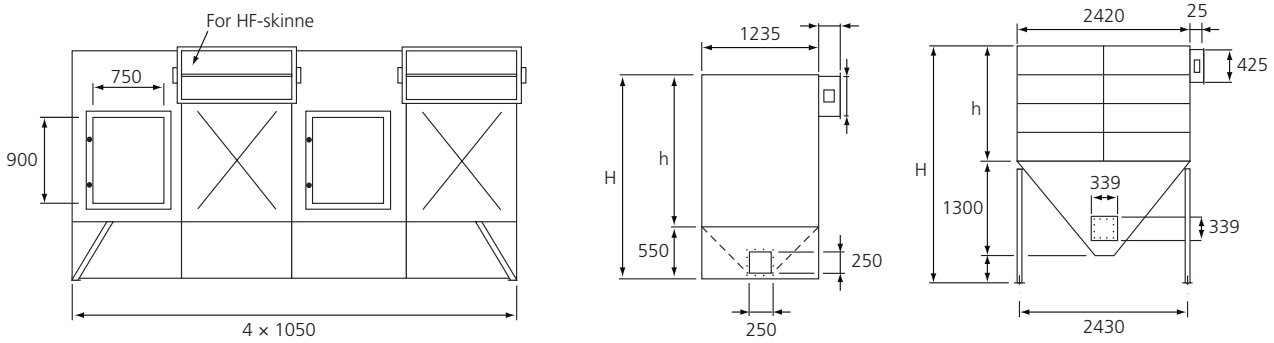
Silo filter type PL and double silo filter type PLD.

Silo filter type PL and PLD is a bag filter. The filter is used on a flat silo top so that the contaminated air flows directly against the underside of the bag bottom and up through the bags for separation.

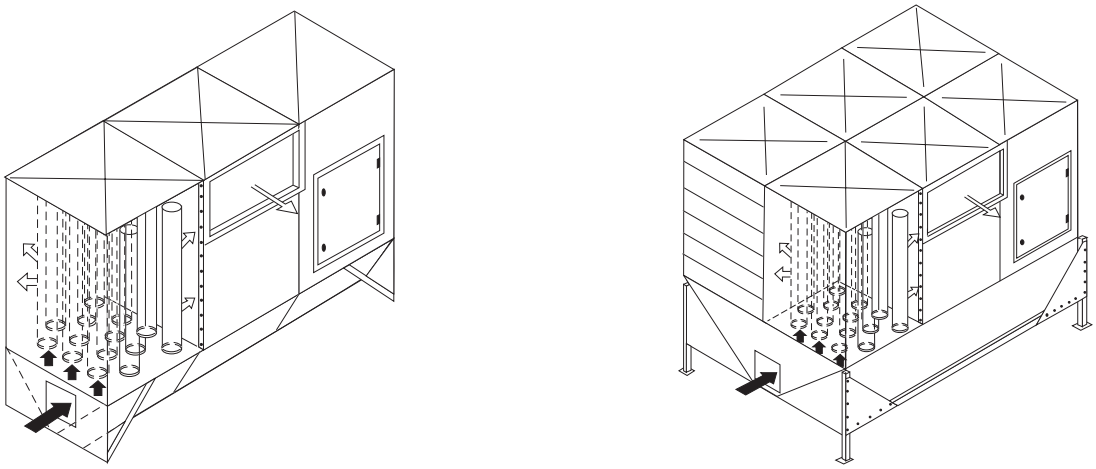
Dimensions				
Type mm	h mm	Bag length mm	Filter area m² per module	Weight per module kg
M - PL	1750	1580	15.5	125
H - PL	2200	2030	20.0	140
E - PL	2650	2480	24.5	155
M - PLD	1750	1580	31.0	215
H - PLD	2200	2030	40.0	240
E - PLD	2650	2480	49.0	265

01.01.2011

Blow through filter type L-LD



The drawing above shows single and double filters. Measurement specifications are stated in the table at the bottom of the page.



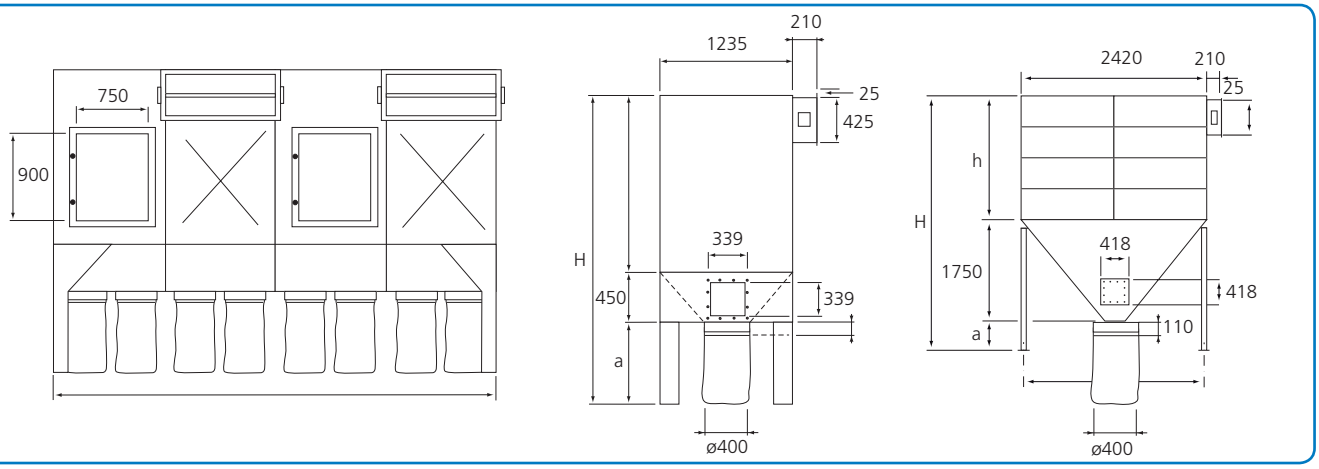
Blow through filter type L and double blow through filter type LD.

Blow through filter types L and LD are bag filters. They are used for extraction from minor applications, max. 4 HDL modules. The filter has automatic emptying. Emptying is achieved using a secondary fan which extracts the material. The secondary fan represents a suction force of approx. 25% of the primary fan's air volume.

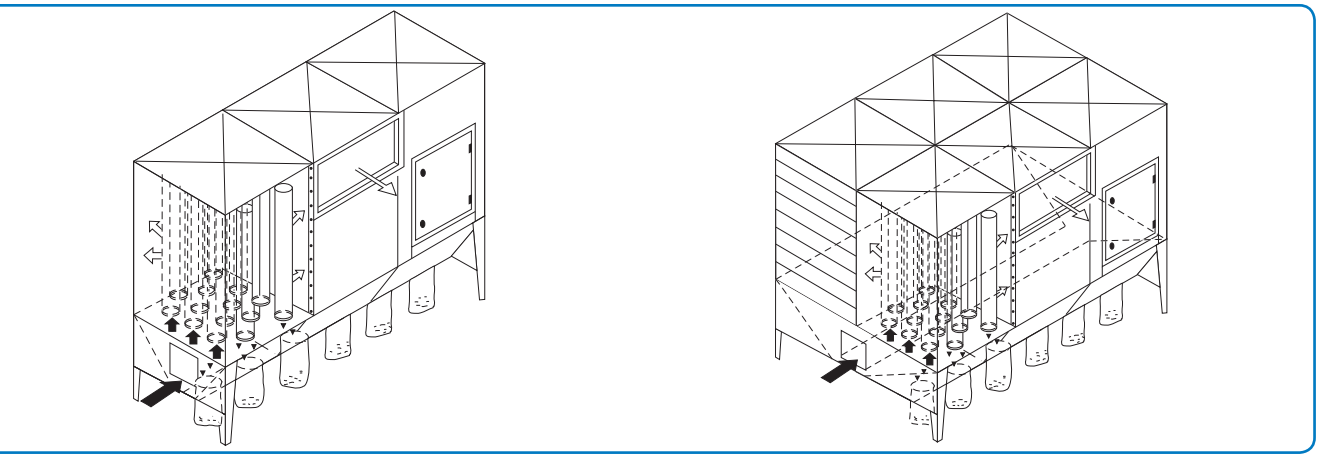
Dimensions					
Type mm	h mm	H mm	Bag length mm	Filter area m² per module	Weight/ modul kg
M - L	1650	2200	1580	15,5	120
H - L	2100	2650	2030	20,0	135
M - LD	1650	3050	1580	31,0	230
H - LD	2100	3500	2030	40,0	260

31.01.2014

Bag emptying filter type LS-LSD



The drawing above shows single and double filters. Measurement specifications are stated in the table at the bottom of the page.



Bag emptying filter type LS and double bag emptying filter type LSD.

Bag emptying filter type LS - LSD is used for minor applications and can be fitted indoors and out.

The filter is emptied manually by removing full plastic sacks or buckets.

The filter is supplied as standard with sacks.

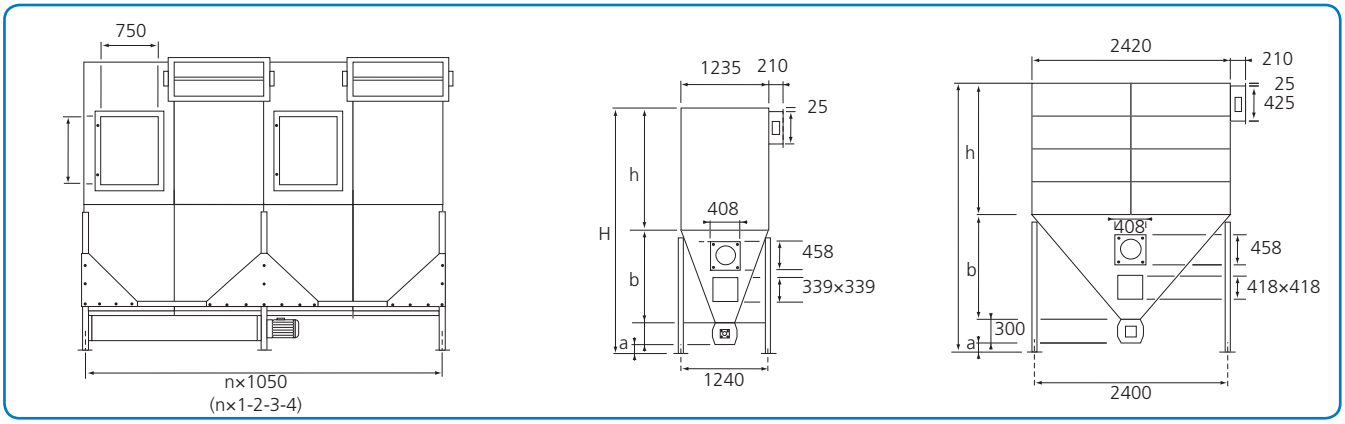
Standard inlet location is at the end of the filter, but it can be located at the side of the bottom.

Double filters are available with air supply chamber the full width of the chamber, 1050 mm.

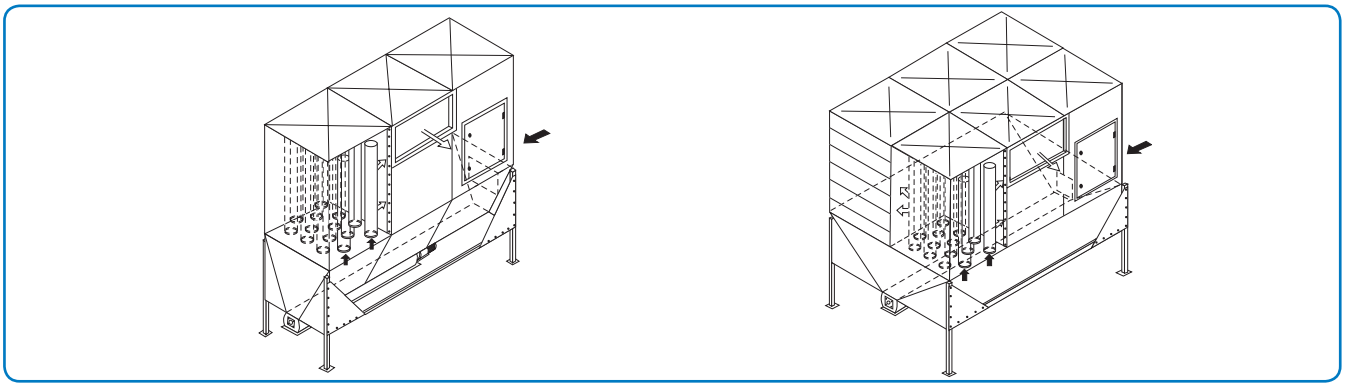
Dimensions						
Type mm	h mm	a mm	H mm	Bag length mm	Filter area m² per module	Weight per module kg
M - LS	1650	780	2880	1580	15,5	125
EM - LS	1650	1200	3300	1580	15,5	135
H - LS	2100	780	3330	2030	20,0	140
EH - LS	2100	1200	3750	2030	20,0	150
E - LS	2550	780	3780	2480	24,5	155
EE - LS	2550	1200	4200	2480	24,5	165
M - LSD	1650	780	4180	1580	31,0	305
EM - LSD	1650	1200	4600	1580	31,0	330
H - LSD	2100	780	4630	2030	40,0	325
EH - LSD	2100	1200	5050	2030	40,0	350
E - LSD	2550	780	5080	2480	49,0	345
EE - LSD	2550	1200	5500	2480	49,0	370

01.01.2011

Rotor filter type HL-HLD



The drawing above shows single and double filters. Measurement specifications are stated in the table at the bottom of the page.



Rotor filter type HL and double rotor filter type HLD.

Rotor filter type HL - HLD is used for installation on silo tops, above containers, or wherever the transport of chips to a refuse depot is required using a ring pipe.

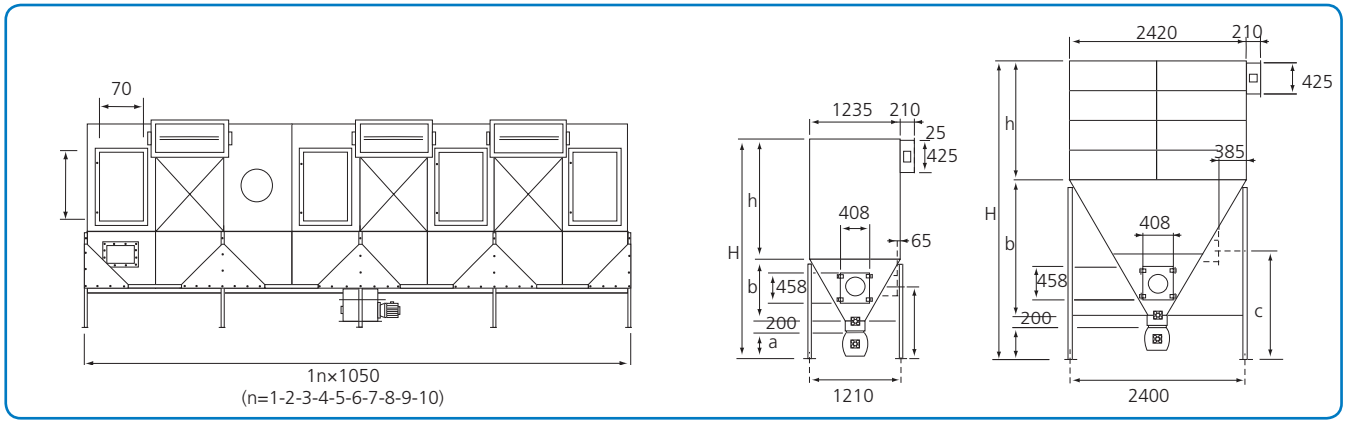
The filter can be emptied using a rotary valve, the size of which is governed by requirement.

Supply air enters at the end of the filter opposite the rotary valve, or in the air supply chamber.

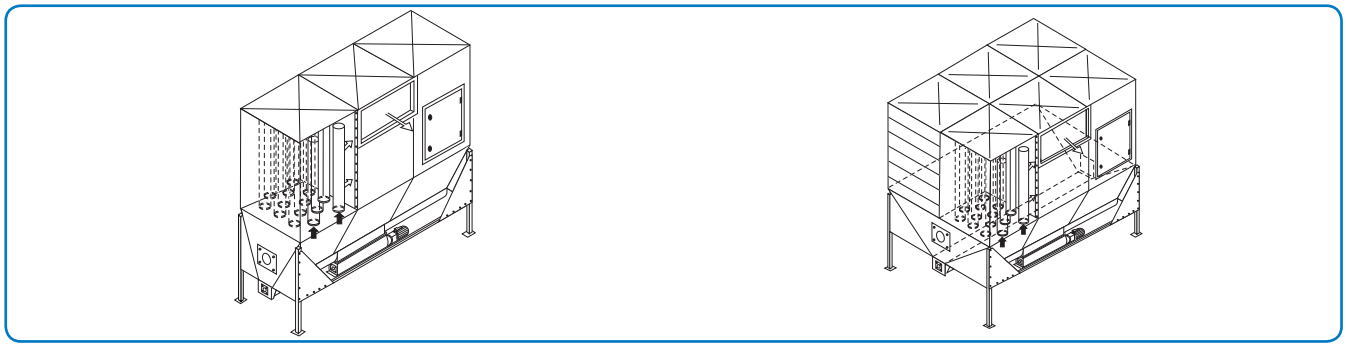
	Dimensions						
Type	**a mm**	**b mm**	**h mm**	**H mm**	**Bag length mm**	**Filter area m² per module**	**Weight per module kg**
M - HL	100	1340	1650	3390	1580	15.5	225
M - HL	350	1340	1650	3640	1580	15.5	230
H - HL	100	1340	2100	3840	2030	20.0	240
H - HL	350	1340	2100	4090	2030	20.0	245
E - HL	100	1340	2550	4290	2480	24.5	255
E - HL	350	1340	2550	4540	2480	24.5	260
M - HLD	100	1860	1650	3910	1580	31.0	305
M - HLD	350	1860	1650	4160	1580	31.0	305
H - HLD	100	1860	2100	4360	2030	40.0	325
H - HLD	350	1860	2100	4610	2030	40.0	325
E - HLD	100	1860	2550	4810	2480	49.0	345
E - HLD	350	1860	2550	5060	2480	49.0	345

01.01.2011

Screw filter type S-SD



The drawing above shows single and double filters. Measurement specifications are stated in the table at the bottom of the page.



Screw filter type S and double screw filter type SD.

The S - SD screw filter can be used for heavy-duty applications involving large volumes of materials and air.

Supply air enters at the side of the bottom or in a separate air supply module, although never over the material discharge.
If several fans are used for the same filter, a JKF nonreturn flap must be used on the inlets.

The filter is emptied using a screw with discharge from either end towards the middle of the filter, or from one end towards the discharge at the opposite end. The discharge can be located where required.

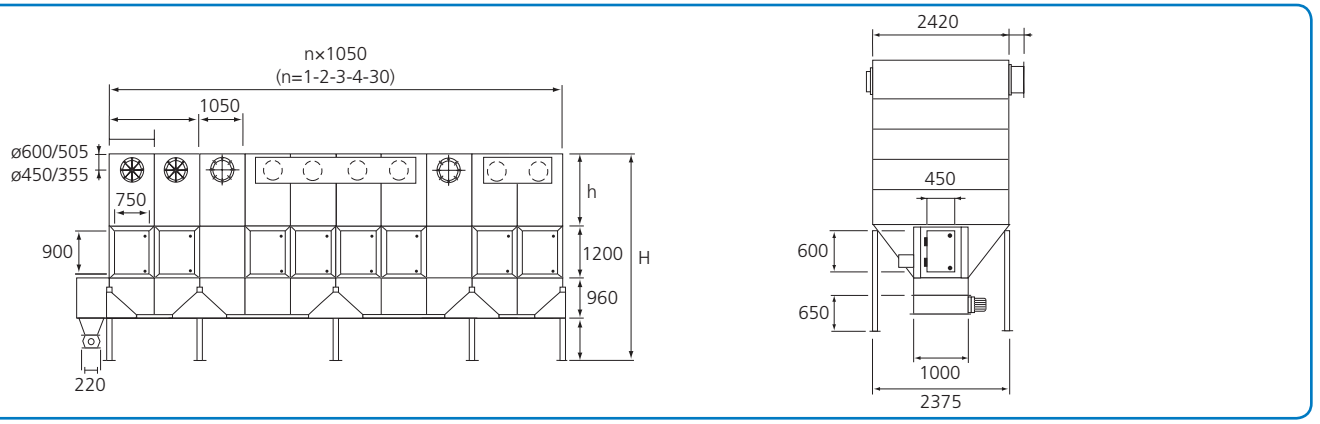
Connection

Screw
Gear motor
0.55 kW, 22 min^{-1}, 3 x 400 V, 50 Hz, 2.5 A

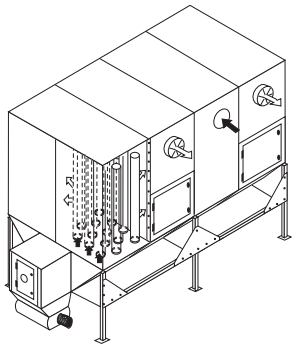
	Dimensions							
Type	a mm	b mm	c mm	h mm	H mm	Bag length mm	Filter area m^2 per module	Weight per module kg
M - S	400	840	1080	1650	3090	1580	15.5	155
M - S	650	840	1330	1650	3340	1580	15.5	160
H - S	400	840	1080	2100	3540	2030	20.0	170
H - S	650	840	1330	2100	3790	2030	20.0	175
E - S	400	840	1080	2550	3990	2480	24.5	185
E - S	650	840	1330	2550	4240	2480	24.5	190
MS - D	400	1860	1545	1650	4110	1580	31.0	310
MS - D	650	1860	1795	1650	4360	1580	31.0	315
HS - D	400	1860	1545	2100	4560	2030	40.0	330
HS - D	650	1860	1795	2100	4810	2030	40.0	335
ES - D	400	1860	1545	2550	5010	2480	49.0	350
ES - D	650	1860	1795	2550	5260	2480	49.0	355
EX - D	650	1860	1795	3000	5710	2890	58.0	375

01.01.2011

Chain filter type CDF



The drawing above shows a double filter. Measurement specifications are stated in the table at the bottom of the page.



Chain filter type CDF.

The CDF chain filter can be used for heavy-duty applications involving large volumes of materials and air.

Air is fed in to one or several separate supply air modules – always min. 2-3 modules away from the material discharge.

The filter can be emptied using a conveyor mounted on a chain which transports the material from the bottom of the filter towards the discharge, placed at one end of the filter.

Connection

Chain

Gear motor

0.75 kW, 17.5 min^{-1}, 3 x 400 V, 50 Hz, 2.2 A

Supplied as standard with 1 x regeneration fan ø450 mm per module or ø600 mm for EX.

Optional extras

Safety control system for emptying material discharge and rotary valve, equipped with impulse sensors to stop discharge in the event of fault or overload.

Dimensions					
Type	H mm	h mm	Bag length mm	Filter area m^2 per module	Weight per module kg
HCDF	4510	1200	1990	40	325
ECDF	4960	1650	2440	49	345
EXCDF	5410	2100	2850	58	365

07.11.2012

Point filter type PKF

The compressed air-cleaned point filter is a miniature bag filter for mounting direct on transport machines (horizontally or vertically).

Dust separated in the filter is fed back into the material flow to avoid mixing different materials.

The point filter has a simple and functional design, making mounting on transport pipes and cup elevators very simple.

Filter bag replacement can be easily executed from the big inspection hatch.

The point filter is manufactured from 2 mm galvanized sheet or in stainless steel and is supplied in 2 versions:

1. With doors for horizontal mounting
2. With doors for vertical mounting

Connections:

Filter control: 220 V, 50 Hz, 2 W
Fan: 3×380 V, 50 Hz, 1.1 kW
Vertical: Inclined bottom

Compressed air:

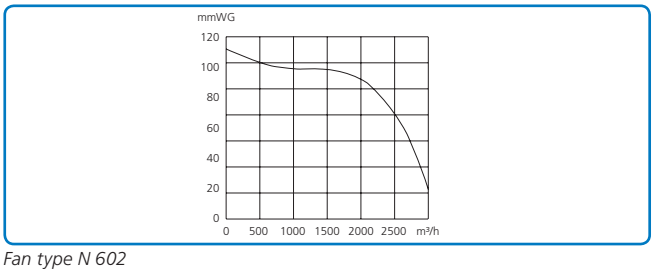
5 bar, min. 350 Nl/min.
Air quality according to ISO 8573-1: Quality class (5. 4. 4)
External connection: ¼" internal thread.

Cleaning system:

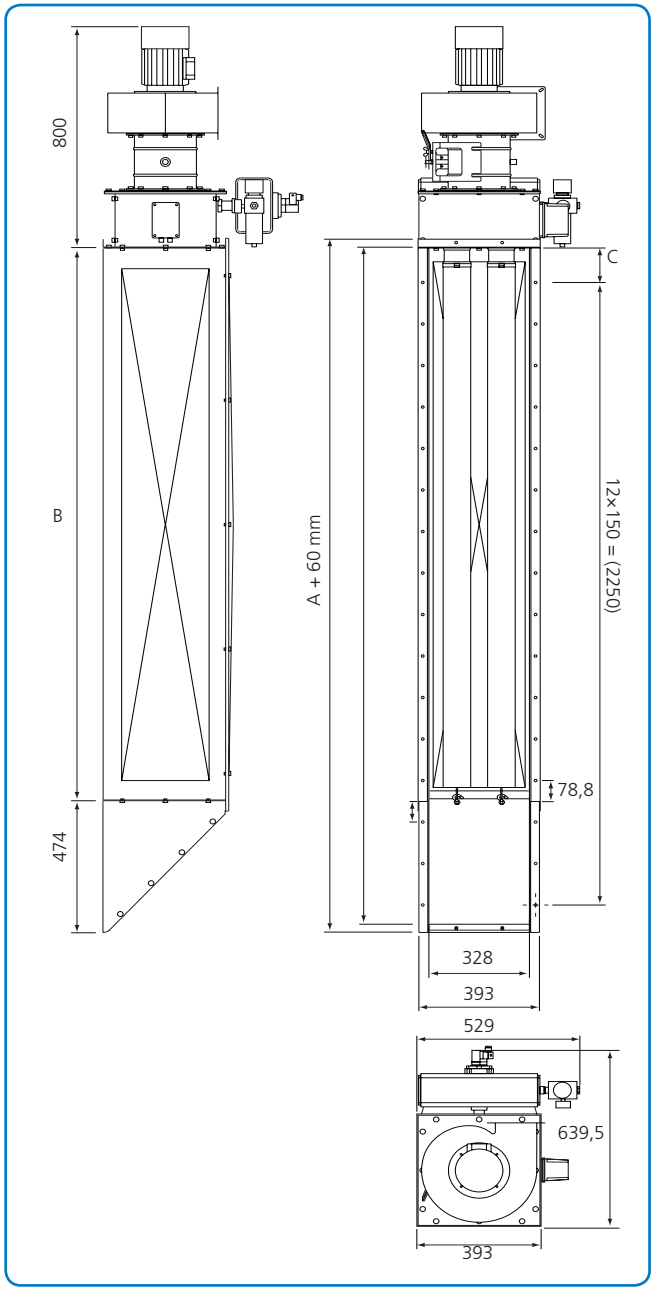
The filter bags are automatically cleaned by means of compressed air through an electronic control with adjustable pulse- and break time.
Sealing class IP 65.

Type	Cleaning pressure [bar]	Pulse time [sec]	Break time [min]
PKF-1,5	3,0	0,5	30
PKF-2,0	3,5	0,5	30
PKF-2,5	4,0	0,5	30
PKF-3,0	5,0	0,5	30

Recommended settings of control of compressed air.



Fan type N 602



Dimensions							
Type	A mm	B mm	C mm	Bag length mm	Air capacity max. m³/h	Filter area m²	Weight kg
PKF-1,5	1943	1500	75	1400	1000	2,1	132
PKF-2,0	2443	2000	125	1900	1500	2,9	155
PKF-2,5	2943	2500	25	2400	2000	3,6	178
PKF-3,0	3333	2900	115	2800	2250	4,2	196

01.01.2011

Intake filter

The intake filter is a bag filter intended for continuous operation.

The filter medium is cleaned by compressed air.

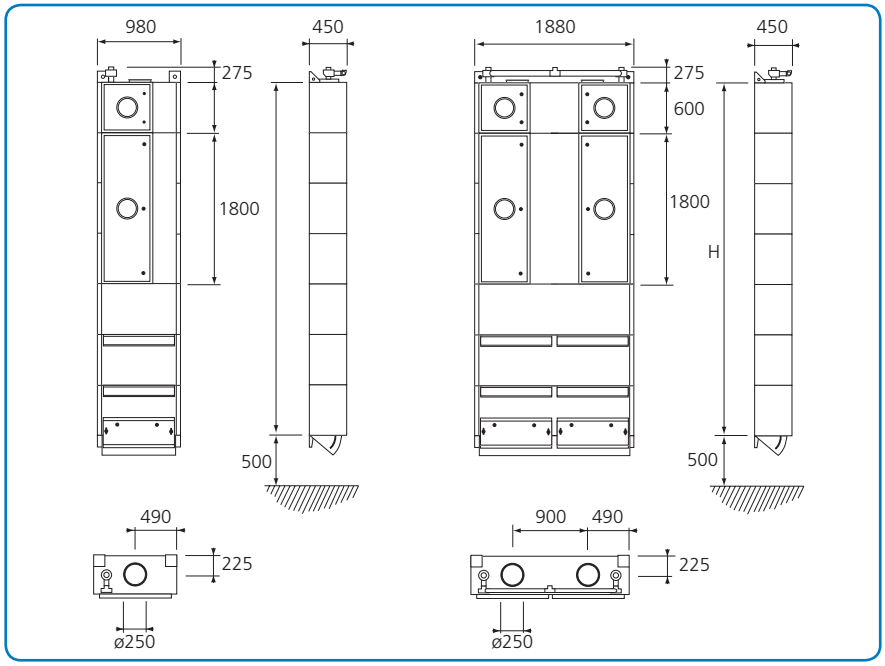
A filter control system to control filter cleaning is available which permits adjustment of the cleaning frequency, reducing the amount of compressed air used and ensuring maximum utilisation of intake filters.

Intake filters consist of 2 mm bolted galvanised panels. This method of assembly makes it easier to replace parts on site.

Bag length can be varied according to requirement from 1.5 m to 3.5 m. Standard filter medium is PE40/PE25, but others are available to order.

Available as wall or floor mounted (the latter on a plinth).

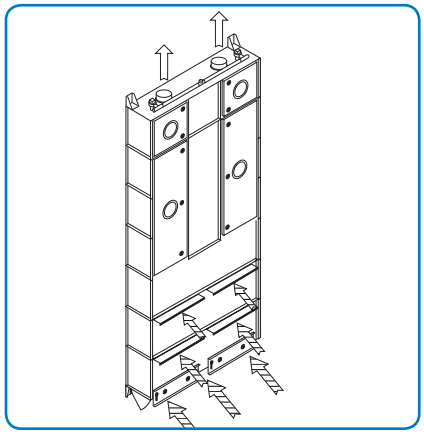
The return air system can be fitted with an automatic shut-off damper connected to the filter control system, to increase cleaning effect.



Specifications for single type P intake filter and double type PD are given below.

Cleaning pressure: 4-5 bar in dry air.

Power supply: 230 V
Noise level: 80 dBA
Operating temperature: Max. 65°C

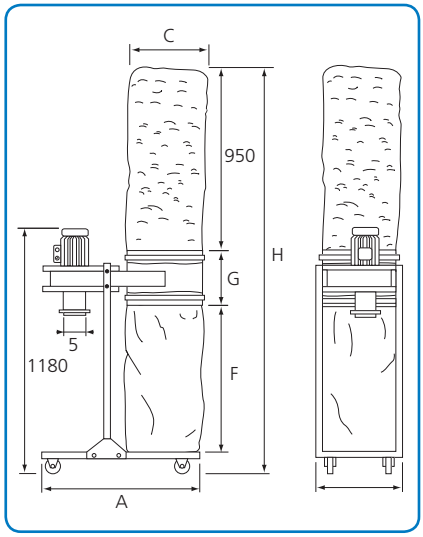


Double intake filter type PD.

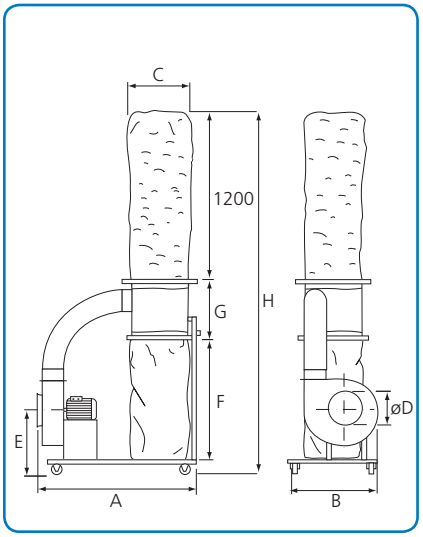
Dimensions					
Type	Bag length m	Filter area m²	H mm	Weight kg	Air consumption NL/MIN
P-1.5	1.5	5.0	3000	195	250
P-2.0	2.0	6.6	3000	200	340
P-2.5	2.5	8.2	3600	230	425
P-3.0	3.0	9.9	3600	235	500
P-3.5	3.5	11.5	4200	260	600
PD-1.5	1.5	9.9	3000	355	500
PD-2.0	2.0	13.2	3000	370	680
PD-2.5	2.5	16.5	3600	420	850
PD-3.0	3.0	19.8	3600	435	1000
PD-3.5	3.5	23.1	4200	470	1200

31.01.2014

Movable dust filter type JK-12 TS, JK-20 TS, JK-22 TS and JK-25 TSD



Type JK-12 TS. Dimensions stated in mm.



Type JK-20 TS and JK-22 TS.

Movable dust filters from 0.75 kW to 4 kW are ideal for small extraction tasks, e.g. from one or two machines.

The filter medium is polyester.

All filters are fitted with removable refuse sacks with self-tightening snap-lock fittings for rapid replacement.

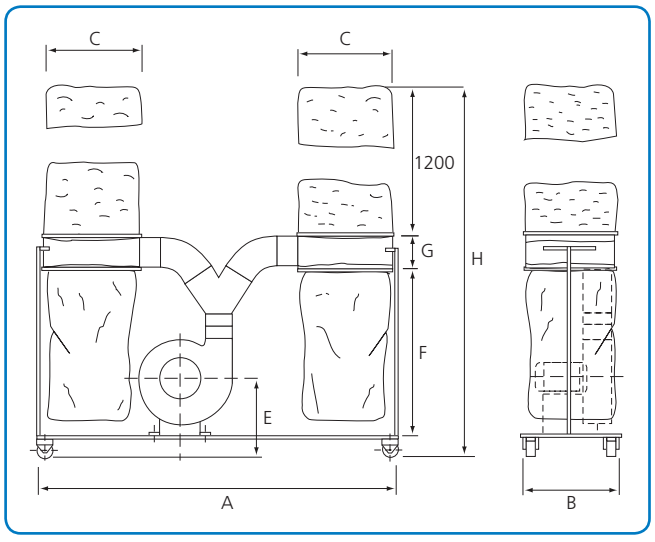
Movable dust filters can be connected to pipes or Vena-Pur flexible hoses.

Type JK-12 TS with a 0.75 kW motor produces 700 m³/h at a pressure of 70 mmVS.

Type JK-20 TS with a 1.1 kW motor produces 1,800 m³/h at a pressure of 120 mmVS.

Type JK-22 TS with a 2.2 kW motor produces 2,500 m³/h at a pressure of 160 mmVS.

Type JK-25 TSD with a 4.0 kW motor produces 3,500 m³/h at a pressure of 190 mmVS.

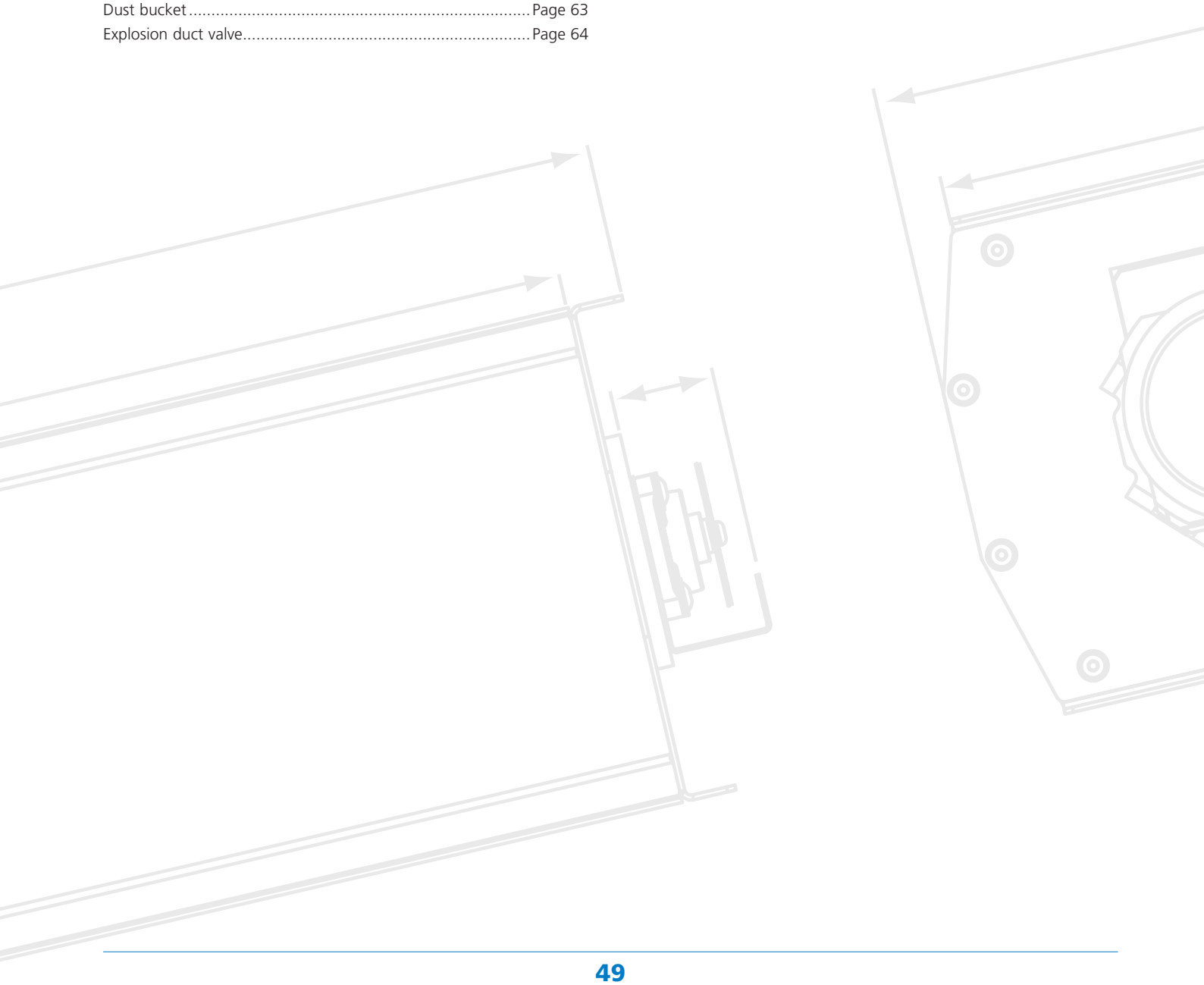


Type JK-25 TSD. Dimensions stated in mm.

Type	Dimensions								
	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Weight kg
JK-12 TS	850	460	400	5"		880	300	2255	78
JK-20 TS	1105	615	400	200	450	800	400	2525	89
JK-22 TS	1280	625	600	225	460	1070	300	2695	98
JK-25 TSD	2470	630	600	250	505	1100	300	2635	182

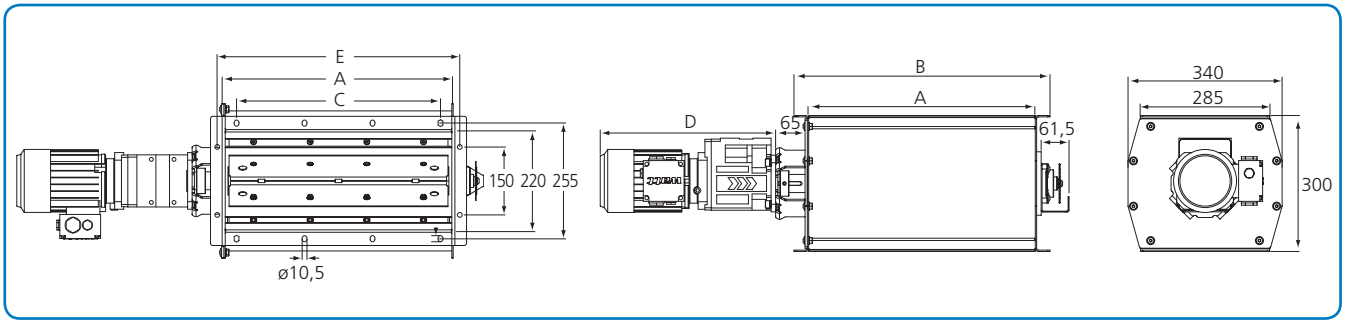
27.02.2015

Accessories



25.02.2014

Rotary valve type JK-S/JK-EXS



Dimensional specifications are given in the table below.

Rotary valves type JK-S/JK-EXS are fitted with a 6-bladed rotor with hard-wearing rubber blades bolted to the rotor shaft plate profiles.

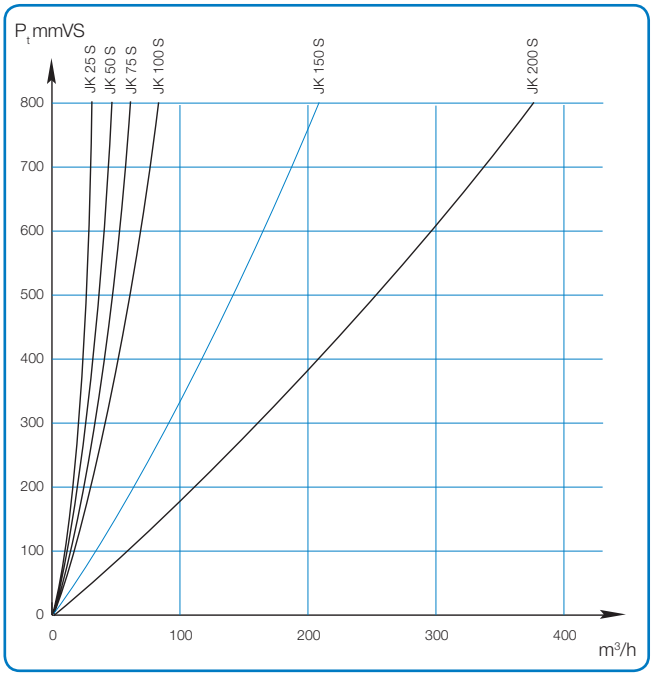


Diagram states loss through rotary valve depending on pressure conditions.

Type	Dimensions A mm	B mm	D mm	E mm	C mm	Weight kg
JK-25S	250	315	387	285	1 × 150	45
JK-50S	500	565	387	535	3 × 150	59
JK-75S	750	815	387	785	4 × 150	73
JK-100S	1000	1065	416	1035	6 × 150	94
JK-150S	1500	1565	416	1535	9 × 150	122
JK-200S	2000	2065	416	2035	13 × 150	165
JK-25EXS	250	315	387	285	1 × 150	47
JK-50EXS	500	565	387	535	3 × 150	60
JK-75EXS	750	815	387	785	4 × 150	73
JK-100EXS	1000	1065	416	1035	6 × 150	92

Rotor diameter = ø300 mm

The rotor is separated from the rotor housing by felt ring. The shaft is suspended on bearings and connected directly to the gear motor. Type JK-200S is also fitted with a safety coupling between rotor and gear motor.

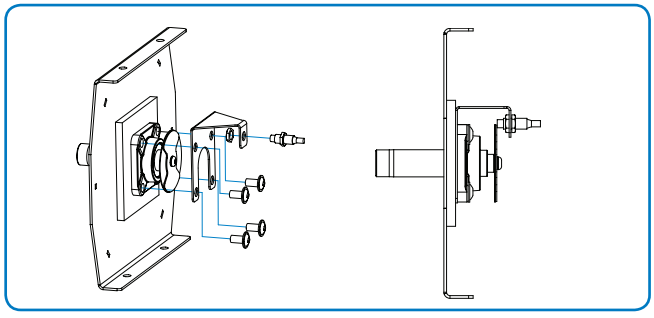
The rotor is made of 2 mm plate and painted with industrial primer. There are two versions:

1. Rotor fitted with neoprene rubber blades for max. temp. 70°C and min. temp. -10°C.
2. Rotor fitted with silicone rubber blades for max. temp. 250°C and min. temp. 60°C.

Rotation sensor

Supplied as standard ready for fitting of rotation sensor.

JK-S rotary valve is ATEX-approved for category 2D. JK-EXS is approved for category 1D safety system, see page 52 ref. EXS control system.

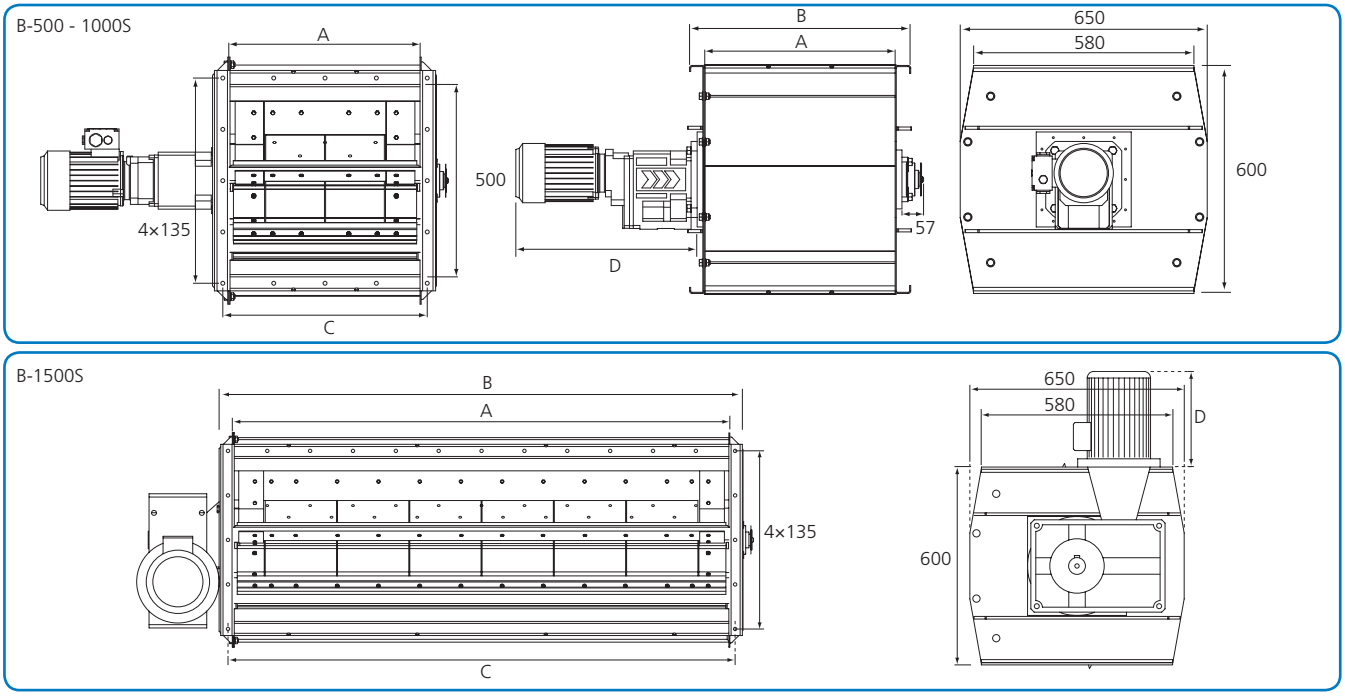


Rotation sensor

Type	Dimensions Motor output kW	Ampere consumption at 400 V	min⁻¹	Capacity 50% full m³/h
JK-25S/EXS	0,37	1,14	20	10
JK-50S/EXS	0,37	1,14	20	20
JK-75S/EXS	0,37	1,14	20	32
JK-100S/EXS	0,55	1,55	20	42
JK-150S	0,55	1,55	20	63
JK-200S	0,55	1,55	20	83

25.02.2014

Rotary valve type B-S/B-EXS



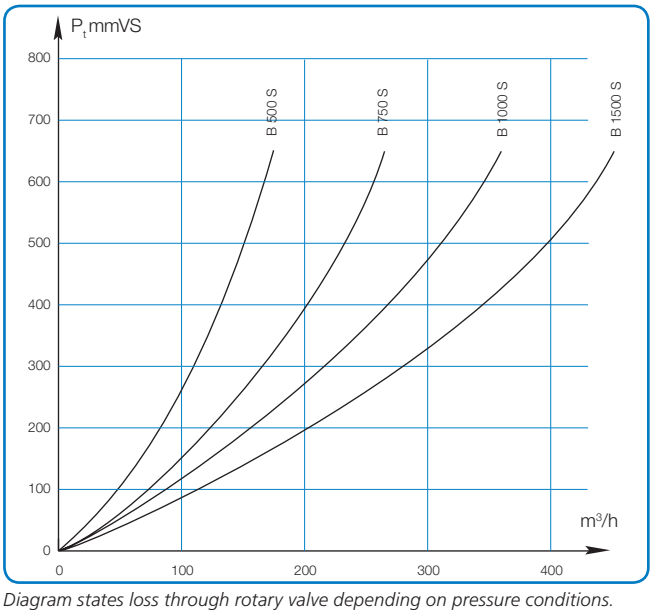


Diagram states loss through rotary valve depending on pressure conditions.

Rotary valves type B-S/B-EXS are fitted with an 8-bladed rotor with hard-wearing rubber blades bolted to the rotor shaft plate profiles.

The rotor is separated from the rotor housing by felt ring. The shaft is suspended on bearings and connected directly to the gear motor.

The rotor is made of 2 mm plate and painted with industrial primer. There are two versions:

1. Rotor fitted with neoprene rubber blades for max. temp. 70°C and min. temp. -10°C.
2. Rotor fitted with silicone rubber blades for max. temp. 250°C and min. temp. 60°C.

Rotation sensor

Supplied as standard ready for fitting of rotation sensor.

B-S rotary valve is ATEX-approved for category 2D.

B-EXS rotary valve is ATEX-approved for category 1D safety system, see page 52 ref. EXS control system.

Type	Dimensions A mm	B mm	D mm	C mm	Weight kg
B-500S	500	580	525	4 × 135	140
B-750S	750	830	525	5 × 158	185
B-1000S	1000	1080	610	8 × 130	260
B-1500S	1500	1580	296	12 × 130	480
B-500EXS	500	580	525	4 × 135	140
B-750EXS	750	830	525	5 × 158	185
B-1000EXS	1000	1080	610	8 × 130	260

Type	Dimensions Motor output kW	Ampere consumption at 400 V	min^{-1}	Capacity 50% full m³/h
B-500S	0,75	1,82	16	60
B-750S	0,75	1,82	16	90
B-1000S	1,10	2,50	16	120
B-1500S	2,20	4,85	16	180

01.01.2011

EXS control system

The EXS control system is a complete ATEX-certified system providing extra safety when combined with JK-EXS or B-EXS rotary valves. The EXS rotary valve with control system is certified as an autonomous safety system in accordance with EU Directive 94/9/EC.

The system is continually monitored using a pressure transmitter. At pressures exceeding 8000 Pa, supply to the rotary valve is cut off, and blocked at under 500 ms (total time). This ensures that flames and red-hot materials cannot be transported through the rotary valve.

The control system is manually reactivated.
A checklist must be filled out if the control system is used.

Connection

Input: 3 x 400 V AC + N + PE, 50 Hz
Start/stop – potential free contact
4 – 20 m A analogue signal from pressure transmitter (0-250 m bar)

Output: 3 x 400 V AC + PE, 50 Hz (supply for gear motor to rotary valve)
Alarm – potential free contact
4 – 20 m A analogue signal from pressure transmitter (0 - 250 m bar) galvanically separated

Operating range

Max. operating temperature: 65°C
Min. operating temperature: -25°C

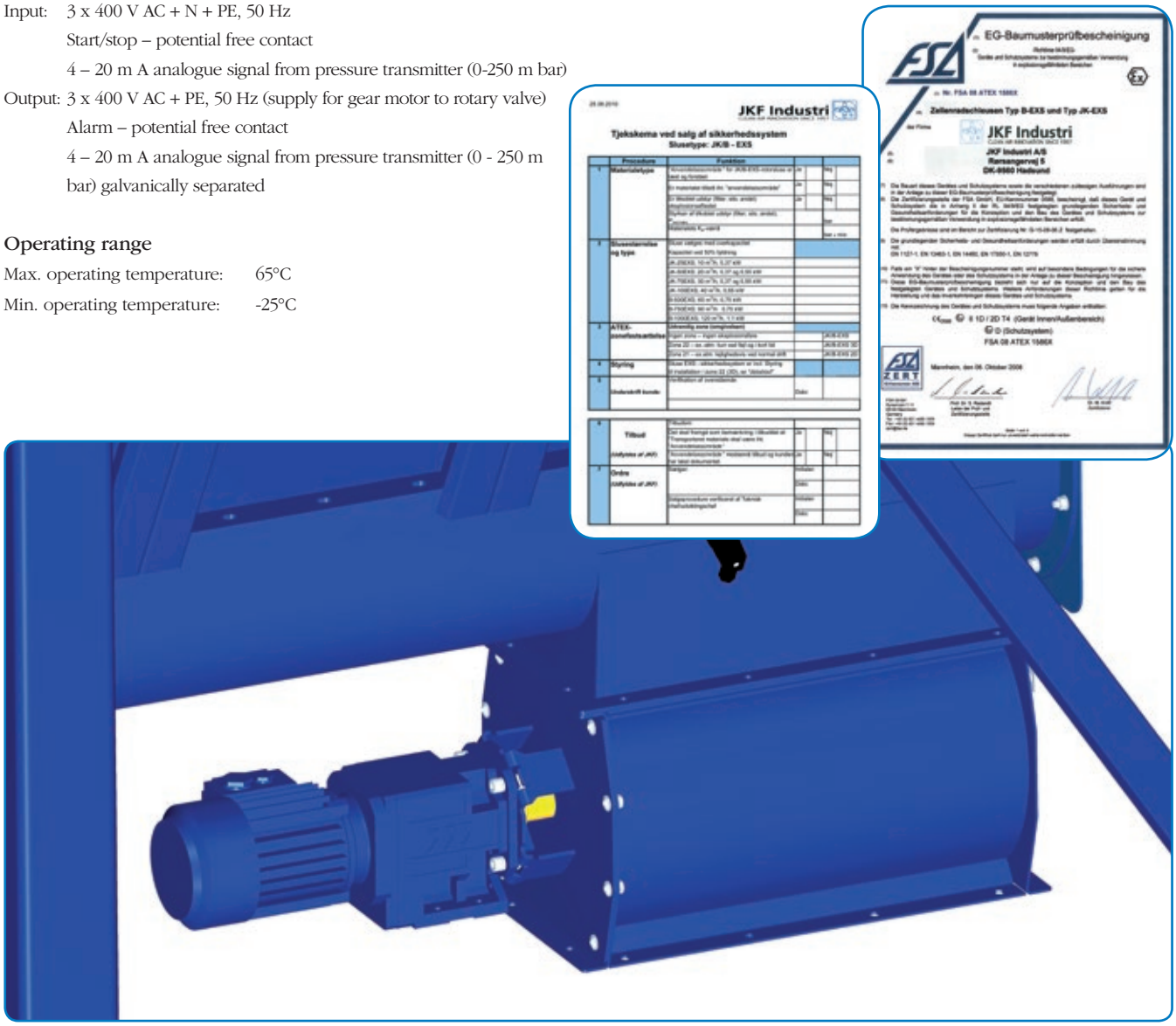
Installation

EXS control system must be installed in zone 22. Pressure transmitter must be installed for measurement in zone 20 cf. ATEX Directive zone definitions. Pressure transmitter must be installed close to the sluice on the side from which flames/pressure are to be prevented. Transmitter is mounted on G1/2" thread.

CE 0588 Ex II 1D/2D T4 (Device Inside/Outside)

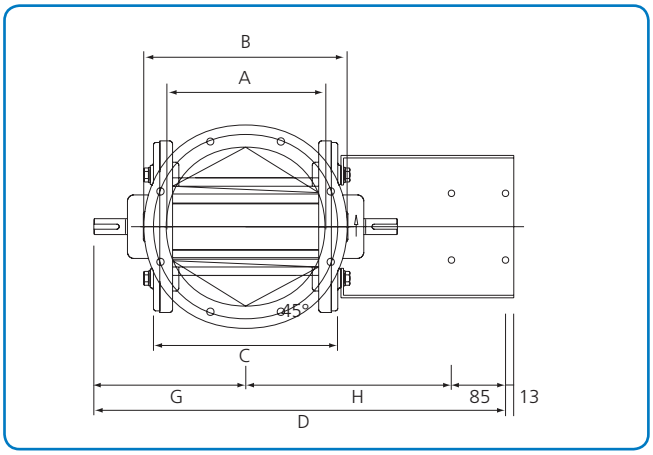
Ex D (Protective system)

FSA 08 ATEX 1586X

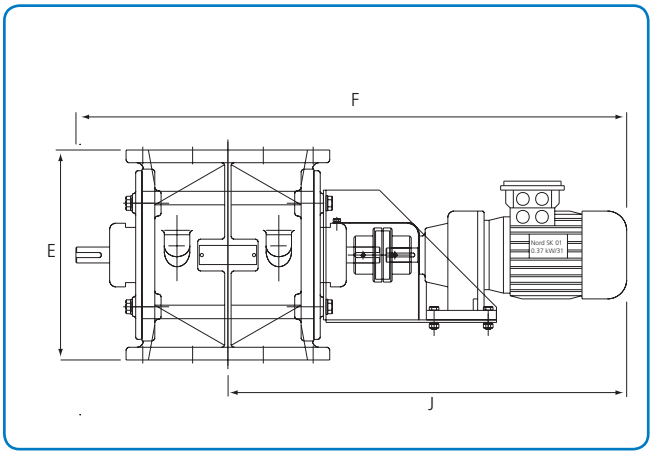


27.09.2013

Cast-iron rotary valve type JK-T



Dimensional specifications are given in the table below.



Dimensional specifications are given in the table below.

Type JK-T cast-iron rotary valves are designed for material emptying under difficult physical conditions. The rotary valves remain sealed up to a pressure of 500 mmVS and can work in temperatures right up to 250°C if equipped with special bearings.

Housing and its end plates are cast-iron, whilst the robust rotor is steel. The rotor is also available in stainless steel.

The JK-T rotary valve is supplied as standard with nylon or vulkolan rotor blades depending on requirement.

Rotary valves are supplied painted as standard. They are also available with chrome plating on the internal surfaces of the housing and covers. This version is ideal for separation of abrasive materials.

Alternatively, the rotary valve range can be fitted with an 8 chamber rotor to achieve better integrity. In this version, they are sealed right up to 4000 mmVS.

JK-T rotary valves are available in a range of different configurations.

Dimensions										
Type	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	Weight kg
JK-T250	250	320	290	661	330	855	239	324	616	120
JK-T350	350	420	390	767	400	963	295	374	668	145

Dimensions					
Type	Motor	Motor output kW	Ampere consumption at 400 V	min^{-1}	Capacity at 50% full m³/h
JK-T250	IP 55	0.37	0.94	32	8.75
JK-T350	IP 55	0.37	0.94	33	27.75

01.01.2011

Separator type JK-PS

Type JK-PS separators are designed to separate solids from carrier air in over- or under-pressure systems.

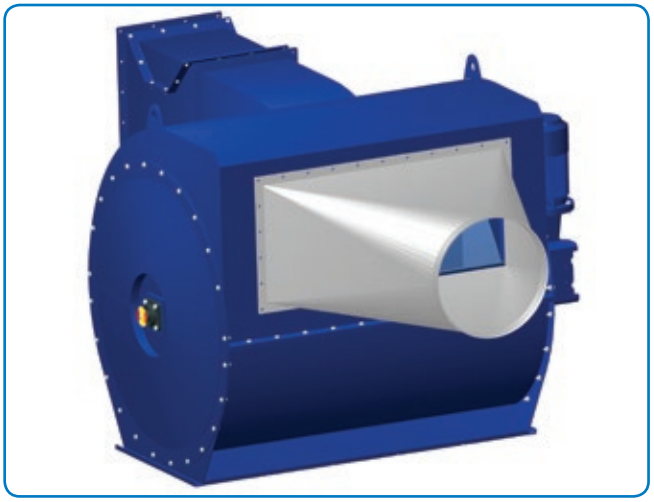
The separator design ensures low pressure loss and unpressurised material separation, making it possible to install the separator directly connected to other equipment, such as compressors and containers.

They are able to separate particles greater than 3 mm, but the max. size is governed by the dimensions of the rotor chamber.

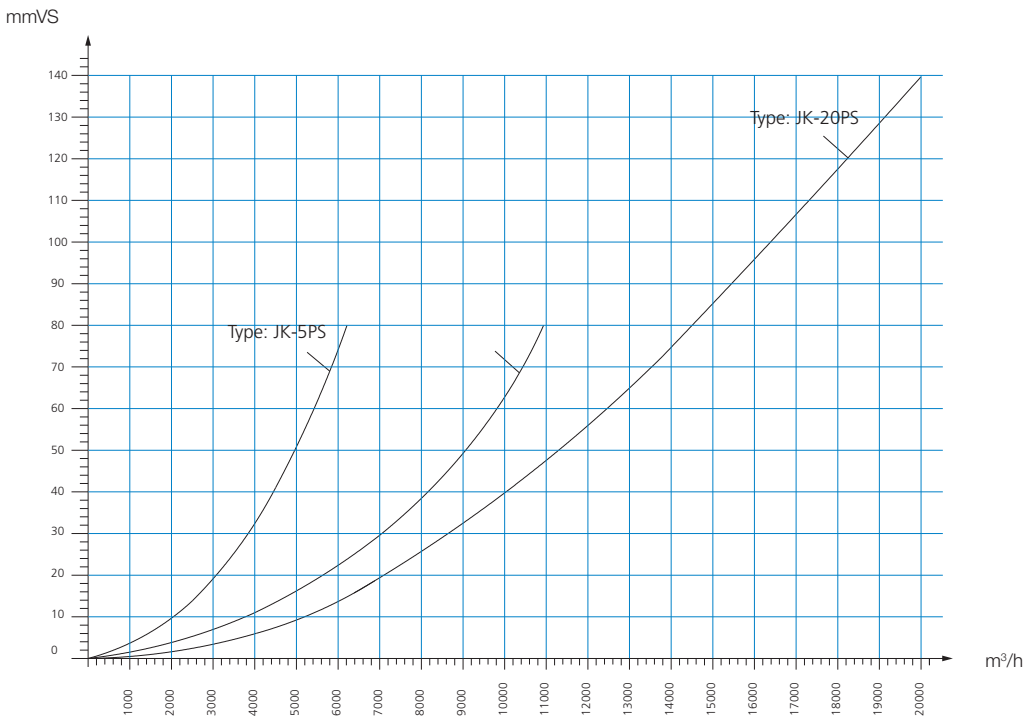
Rotor blades are fitted with vulkolan rubber blades to ensure a seal between rotor and rotor housing.

Operating temperature max. +60°C and min. -10°C

Rotor RPM = 18 min^{-1}
The capacities stated are valves from tests with mixed cardboard, paper and corrugated cardboard weighing 40 kg/m^3.



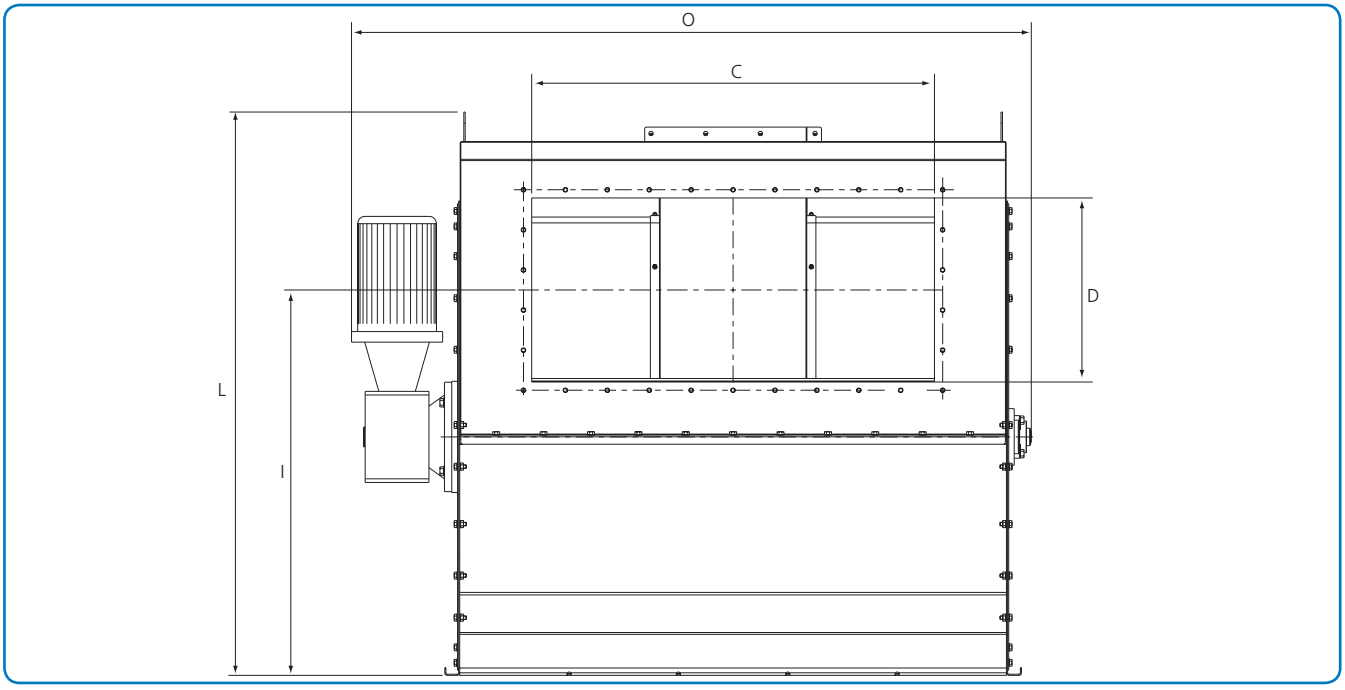
Type	Dimensions						
	Capacity m³/h	Capacity kg/h	min^{-1}	Max. pressure mmVS	kW	Ampere consumption at 400 V	Weight kg
JK-5PS	5000	700	16	800	1.5	3.35	242
JK-10PS	10000	1200	16	800	2.2	4.55	410
JK-20PS	20000	2500	17	650	4.0	8.40	814



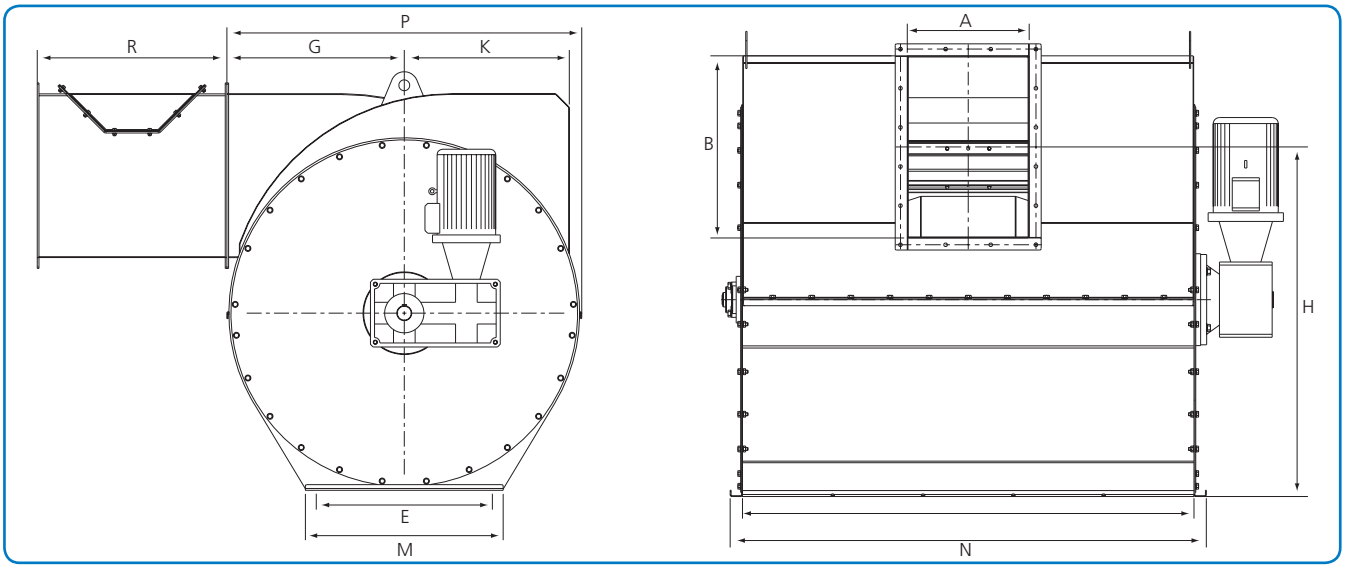
Pressure loss curves depend on air volume.

01.01.2011

Separator



Dimensional specifications for lengths are given in the table below.



Dimensional specifications for lengths are given in the table below.

	Dimensions															
Type	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	L mm	M mm	N mm	O mm	P mm	R mm
JK-5PS	220	320	600	300	500	750	351	665	630	311	875	586	836	1072	712	500
JK-10PS	220	500	750	400	500	1000	457	814	809	411	1120	580	1082	1372	914	600
JK-20PS	400	600	1100	500	650	1500	655	1162	1057	609	1544	730	1582	1884	1310	700

19.09.2013

Cutter

Type JK-2 JC and JK-3 JC cutters are designed for continuous cutting of plastic and paper strips in cut or endless rolls from edge cutters and roller cutter machines.

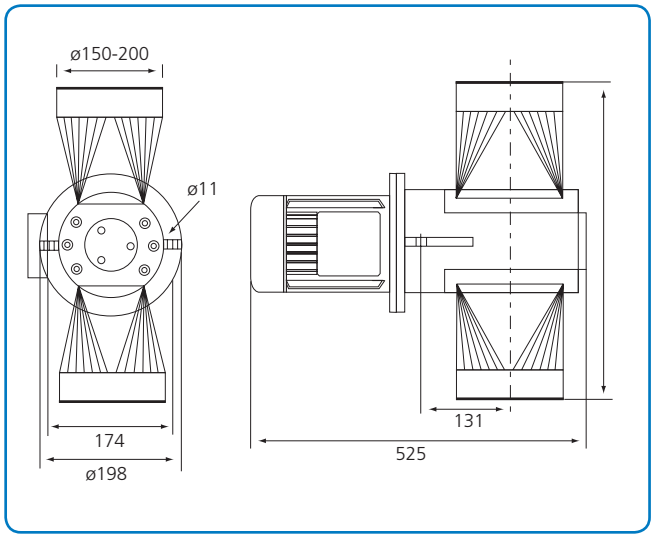
The cutter chops strips into small pieces, which are easier to transport than long strips, ensuring smooth transport to a collection point or processing.

Consists of one fixed and one rotating set of blades driven by a direct drive motor. The blades are made of a specially-hardened steel which is highly durable with very long service life. Apart from adjustment and grinding, the blades require no maintenance.

The cutter is fitted in a pipe system either connected to paper or print machines, extruders or processing machines.

It can be integrated directly into any pipe system between ø150 and ø200 mm.

JKF´s standard assembly methods are used for joining to a pipe system.

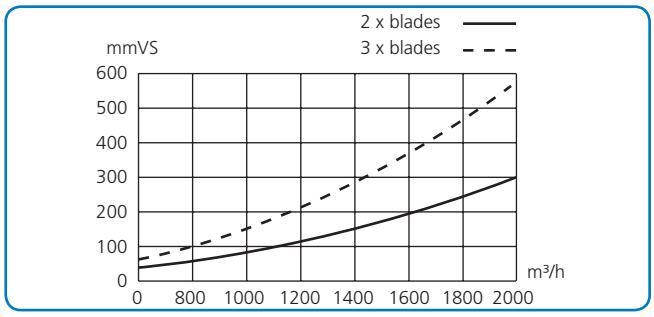


Specifications

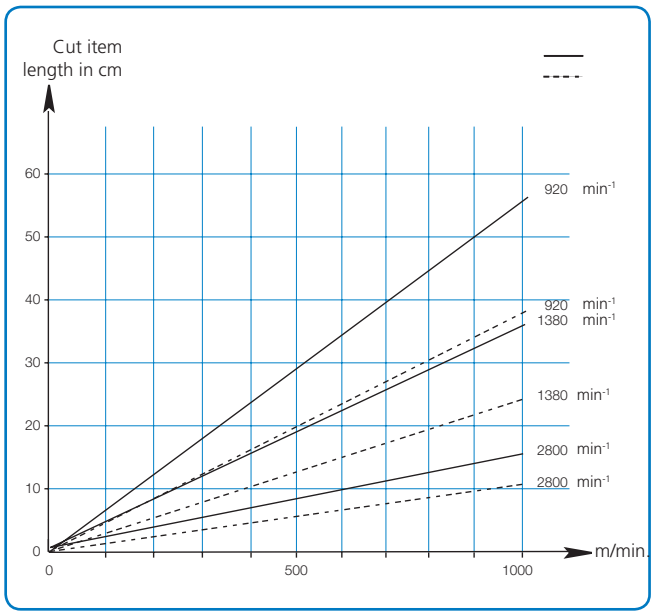
Rotor with angled blades:

Type JK-2 JC: 2 x blades

Type JK-3 JC: 3 x blades



Noise level:	Less than 80 dBA		
Motor type:	KPER 80 K2 B5 IP55	KPER 80 G4 B5 IP55	KPER 80 G6 B5 IP55
Output:	0.75 kW	0.75 kW	0.75 kW
Speed:	2800 min^{-1}	1380 min^{-1}	920 min^{-1}
Weight incl. motor:	30 kg	31 kg	31.8 kg
Nom. amp. consumption:	1.72 A	2.10 A	1.73 A
Power supply:	3 x 400 V, 50 Hz		
Start:	Manual/direct		



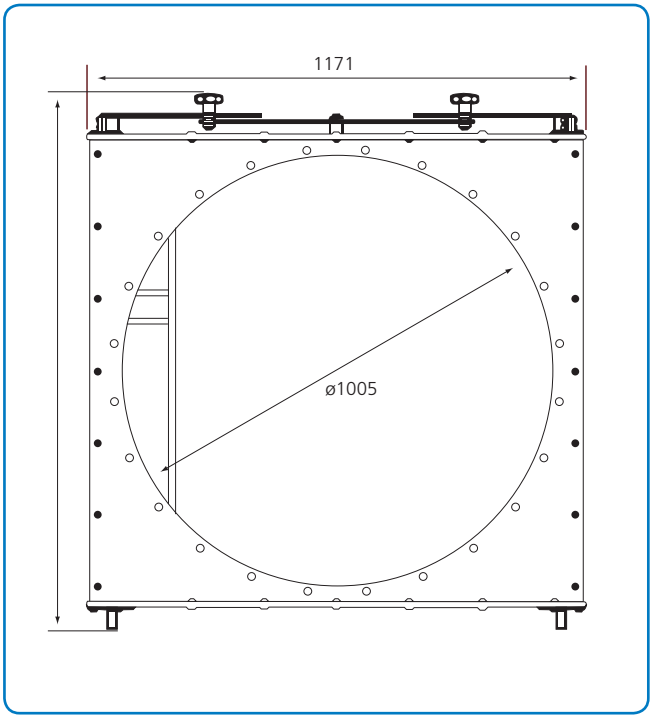
Cut item length is achieved by selection of cutter type with 2 or 3 blades and choice of motor speed. Strip speed must be known. Cut item length can vary. The lengths stated are examples.
Please refer to technical data in the preceding column.

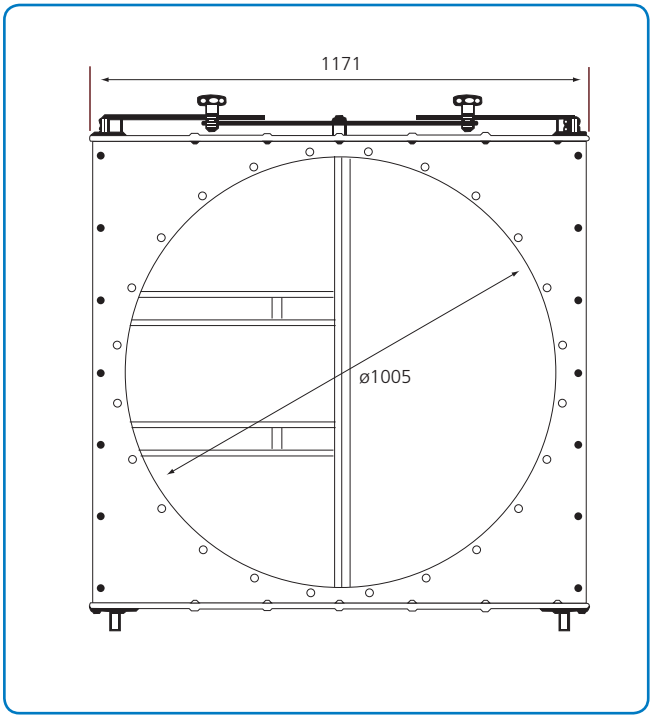
Limitations:

- Max. air volume 1600-1800 m³/h
- Paper, cardboard up to 600g/m²
- Plastic up to 0.6 mm

01.01.2011

Combination valve





Dimensional specifications are given in the table.

Combination valve helps reduce extraction plant energy consumption. The valve is fitted after the filter clean air discharge. Return air from the filter can either be fed back to the production area or outdoors via the combination valve.

NB! Not all countries permit direct return of all extracted air to production areas.

The heavy duty design of the valve ensures stable operation even for the largest air flows. The valve flaps are specially-reinforced for precise and stable operation. The valves are fitted with 2 x 1000 mm diameter 45° bars and bird netting. A special type is available to cover a range from 30,000 to 60,000 m³/h.

ø1000 mm flange connector is standard. Transition sleeves or adapters are required for other pipe dimensions.

Dimensions

Pipe dimension ø mm	Air volume m³/h
710	30,000
800	38,000
900	48,000
1000	55,000
1120	60,000
1250	65,000

Filter media

JKF can supply filters for most industry sectors where manufacturing processes generate dust, chips and dirt to be extracted and filtered. Examples:

- Woodworking
- Iron and metal industries
- Surface treatment
- Sandblasting
- Corn, seed and feeds
- Cement and concrete
- Power generation
- Insulation manufacturing
- Packaging manufacturing
- Recycling industries

Energy-saving and environment-friendly filter element/pleated filter bag

Filter element consists of polyurethane bottom and top, integral polypropylene support pipe embedded at both ends. The pleated filter medium is on the outside.

The external geometry is largely uniform as are the self-locking fixtures.

The filter elements are available in two basic models with different fold heights in integral support pipes:

1. 16 mm fold height int. support pipe ø127/ø117
2. 24 mm fold height, int. support pipe ø110/ø104

The filter medium is cotton or polyester, which can be coated with a range of finishes:
antistatic, PTFE (Teflon-coated), antistatic and PTFE (Teflon-coated), Teflon membrane.

Polyester can be washed up to 4 times.

The filter elements are also available with
- micromelt, which is extremely permeable but with a filtration degree of 99.98%.
  Micromelt is non-washable.

- cellulose-coated paper, NA 138 FH, with large surface area. Non-washable.

Pleated bags, offering the following benefits:

- very low pressure loss thanks to optimal geometry.

- 2-3 times more filter area than conventional filter bags.

- self-locking flange makes replacement easy.

- long service life - pleated bags can be washed up to 4 times.

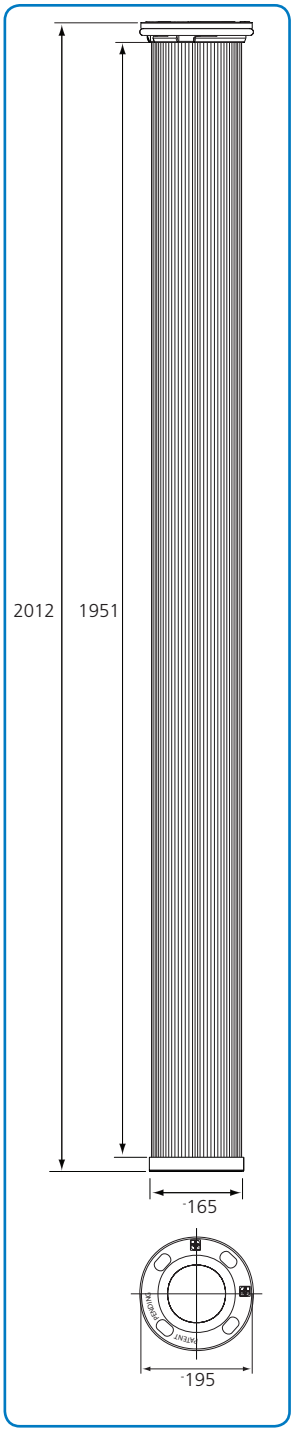
- made of environment-friendly materials.

- used filter elements can be sent for incineration.

Filter bags

Cotton or polyester filter media with a range of coatings.

Standards: cotton DS-72, polyester PE40/PP25 or PE40/PP25 antistatic.



01.01.2011

Designation	Dimensions									
	Area m²	Length mm	Weight kg	Paper	Plastic	Powder coating	Sanded	Sand-blasting	Welding fumes	Plasma/ laser fumes
NA-909	5.81	2000	3.70					×		
NA-909	7.12	2000	3.90					×		
NA-909 Antistatic	5.81	2000	3.70	×	×	×				
NA-909 Antistatic	7.12	2000	3.90	×	×	×				
NA-909 PTFE	5.81	2000	3.70			×	×		×	
NA-909 PTFE	7.12	2000	3.90			×	×		×	
NA-909 Antistatic+PTFE	5.81	2000	3.70			×	×		×	
NA-909 Antistatic+PTFE	7.12	2000	3.90			×	×		×	
NA-800 Membrane	5.81	2000	3.70							×
NA-800 Membrane	7.12	2000	3.90							×
NA-220 Micromelt	3.97	1385	3.20						×	×
NA-220 Micromelt	4.87	1385	3.40						×	×
NA-909	3.87	2000	4.00	×				×		
NA-909	4.74	2000	4.20	×				×		
NA-909 Antistatic	3.87	2000	4.00	×	×	×	×			
NA-909 Antistatic	4.74	2000	4.20	×	×	×	×			
NA-909 PTFE	3.87	2000	4.00			×	×		×	
NA-909 PTFE	4.74	2000	4.20			×	×		×	
NA-909 Antistatic+PTFE	3.87	2000	4.00		×	×	×		×	
NA-909 Antistatic+PTFE	4.74	2000	4.20		×	×	×		×	
NA-800 Membrane	3.87	2000	4.00							×
NA-800 Membrane	4.74	2000	4.20							×
NA-220 Micromelt	2.69	1385	3.20						×	×
NA-220 Micromelt	3.25	1385	3.40						×	×
NA-138FH, Cellulose	12.60	1385	2.40						×	×
NA-138FH, Cellulose	15.20	1385	3.72						×	×

Type	Diameter mm
PE40/PP25	ø150, ø220, ø400, ø600
PE40/PP25 Antistatic	ø150, ø220, ø400, ø600
PE40/PP25 Anti+Antifin	ø150, ø220
PE45/PE15 BIA G	ø150, ø220
PE50/PE16	ø150, ø220, ø400, ø600
PE50/PE16 Antistatic	ø150, ø220, ø400, ø600

01.01.2011

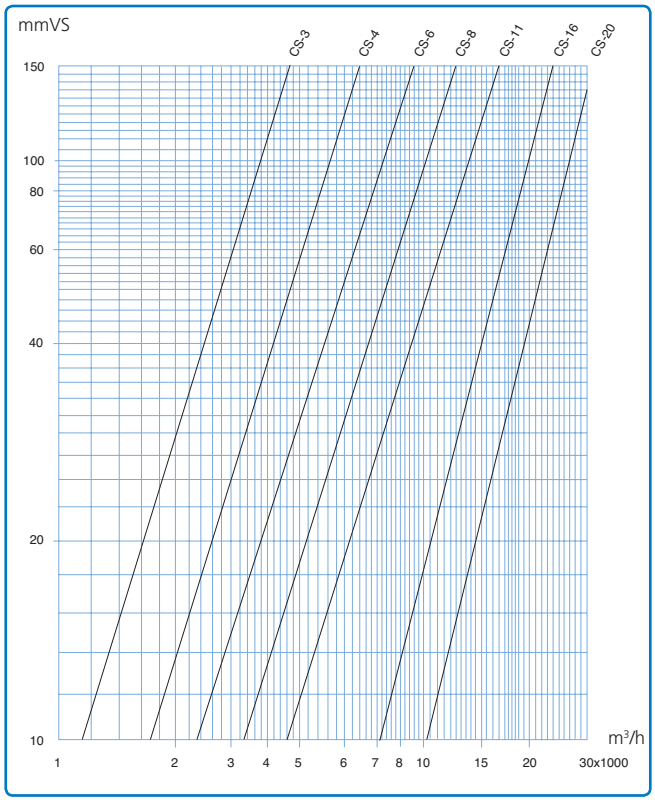
Cyclone type CS

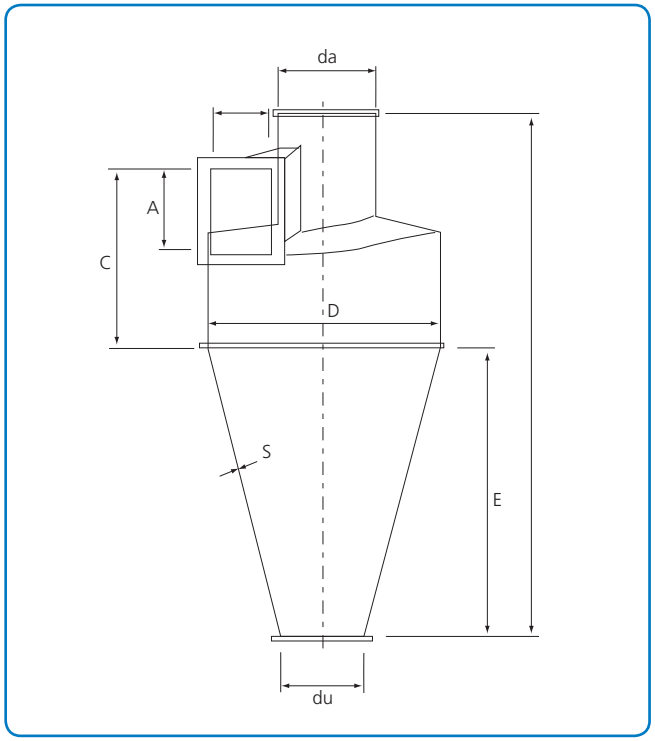
Spiral cyclones type CS are used for air treatment plants in the wood and paper industries and for corn and feed to separate chaff and corn dust in exhaust air from drying and cleaning plants.

They are made of rolled and riveted hot-dip galvanised sheet metal, but can be supplied in welded 2 - 3 mm sheet.

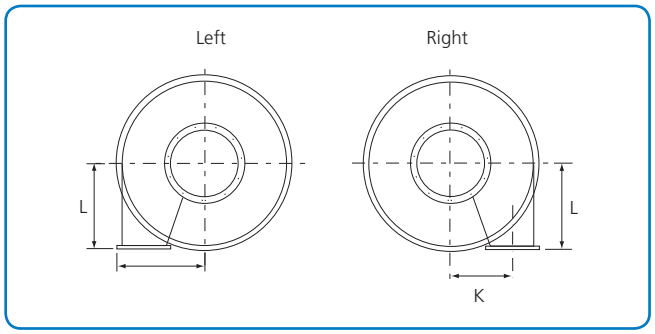
Type CS-20 is painted in RAL 5010.

Cleaning door in cone is an optional extra.





Dimensional specifications for lengths are given in the table below. Cleaning door is optional extra.



Dimensional specifications for lengths are given in the table below.

Dimensions

Type	A mm	B mm	C mm	D mm	da mm	du mm	E mm	H mm	S mm	K mm	L mm	Weight kg
CS-3	300	200	640	800	350	200	1150	1980	1.25	300	420	50
CS-4	350	250	740	950	400	200	1330	2280	1.25	350	500	65
CS-6	400	300	840	1100	450	250	1500	2580	1.25	400	580	80
CS-8	450	350	950	1300	500	250	1700	2930	1.25	475	675	120
CS-11	530	400	1130	1550	600	300	1900	3310	1.25	575	790	170
CS-16	640	480	1350	1850	750	300	1900	3600	1.25	685	970	210
CS-20	800	500	1410	2014	1000	400	1700	3450	2.00	757	980	360

31.01.2014

Cyclone type JA

Cyclone type JA is intended for separation of fine grain particles in transport and dust extraction plants.

Cyclones are designed for high efficiency.

Powder coating corrosion class C3.

Legs are non-standard, but available as optional extras.

Cleaning door in cone is an optional extra.

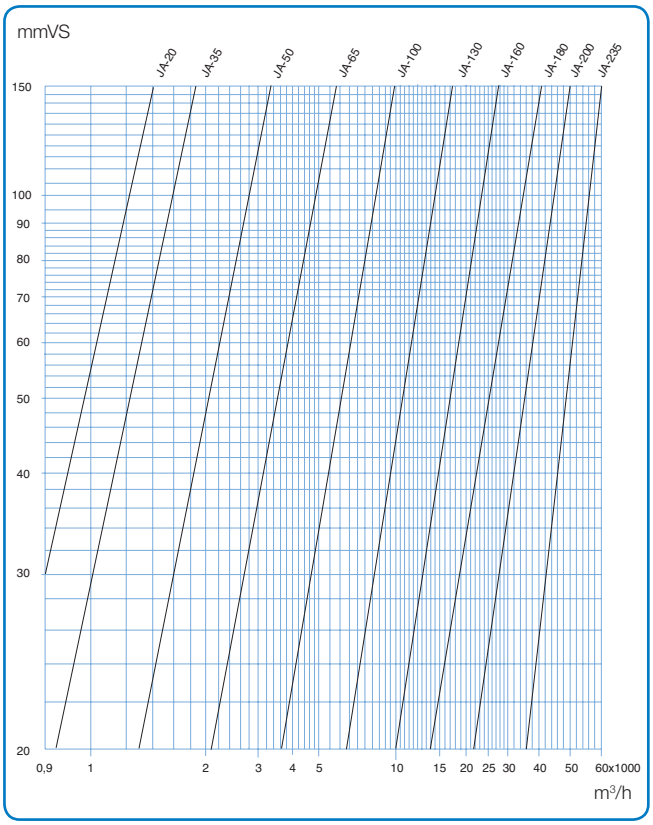
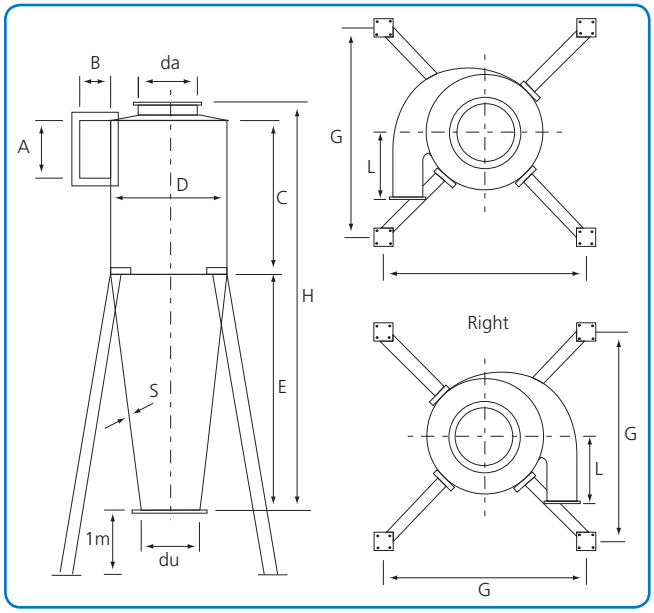
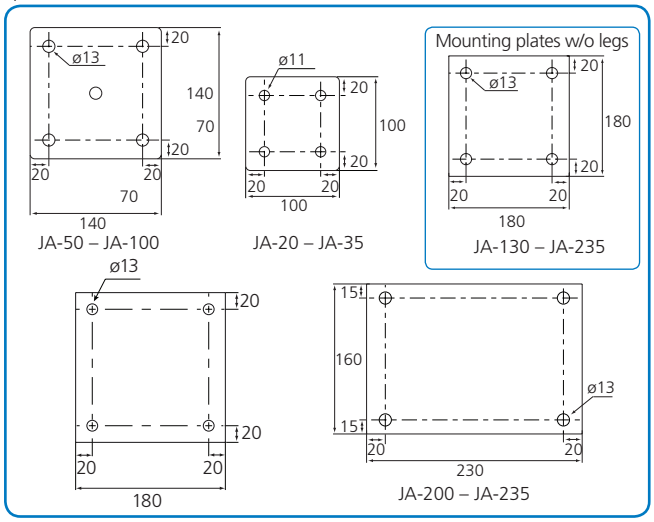


Diagram states pressure loss in cyclone at a given air volume measured in m³/h.



Dimensional specifications for lengths are given in the table below. Legs are optional extras.



Base plate

Dimensions

Type	A mm	B mm	C mm	D mm	da mm	du mm	E mm	G mm	H mm	S mm	K mm	L mm	Weight kg
JA-20	230	100	570	400	225	160	820	1050	1465	2	240	240	25
JA-35	285	125	710	500	250	200	1020	1200	1790	2	297	300	55
JA-50	350	160	710	500	250	200	1020	1200	1790	2	310	300	70
JA-65	445	200	995	700	400	300	1405	1539	2500	2	419	420	115
JA-100	560	300	1500	1000	550	400	2050	1960	3752	2	615	600	270
JA-130	750	400	2000	1280	700	450	2820	2305	5090	3	789	700	565
JA-160	1100	500	2000	1600	800	550	3150	2690	5420	3	1050	900	685
JA-180	1500	500	2500	1800	1000	650	3450	2790	6250	3	1157	950	875
JA-200	1310	700	2800	2000	1250	800	4100	3400	7100	3	1310	1100	1735
JA-235	1850	800	3350	2350	1500	950	4860	3440	8500	3	1440	1200	2322

30.09.2013

Big bag-solution

The big-bag solution is a complete solution with a big-bag rack, rotor valve, screw conveyor and the connection to the individual filters.

It is provided with filling stub with protection against unintended access to rotating parts.

The big bag can either hang freely in the removable beams or be placed on pallets. In this way flexibility is achieved towards the behavior of various materials during filling of the big bag.

The rack can be mounted in 90° interval, at which the access can be tailored to the individual installation.

It is supplied with adjustable feet with anchor ring.

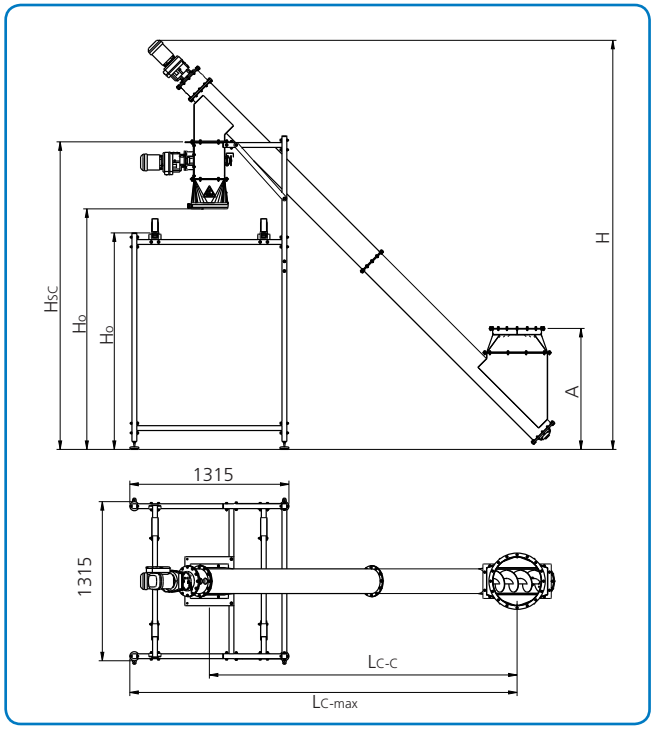
Rotary valve JK-25S/EXS, 0,37 kW, 230/400 V, 20 min^{-1}

I_N=1,14 A

Screw conveyor JK-200SC, 0,55 kW, 230/400 V, 20 min^{-1}

I_N=1,55 A

The rack is intended for a SWL of 1250 kg



Item no.	Filter	H_{sc} [mm]	H_o [mm]	H_b [mm]	H [mm]	A [mm]	L_{C-C} [mm]	L_{C-max} [mm]
2919010	DS-12-20S BF-20S	2332	1879	1679	2983	1000	3229	3886
2919020	DS-7-44K BF-8-90K	2356	1903	1703	3007	1000	3234	3891
2919030	MMBF raised 150 mm	2542	1988	1789	3412	800	2543	3201
2919040	SBF-K	2542	1988	1789	3412	850	2543	3201
2919050	DS-28-44S	2542	1988	1789	3412	1000	2543	3201
2919060	DS-12-44K BF-20-90K	2542	1988	1789	3412	1000	2543	3201
2919070	SBF-S BF-36-90S	2742	2088	1889	3612	1000	2543	3201
2919080	SJF	2742	2088	1889	3612	1100	2543	3201
83500114	Big bag w/stub 91 x 91 x 114 cm; 1000 kg							

27.02.2015

Dust bucket

The dust bucket is suitable for all Blower, EC and DustStorm filters with the exception of DS-7.

The dust bucket is mobile and ergonomic correctly designed. The handle can be locked in 2 positions. When the handle is locked in the upper position, the tank can easily be moved. When the handle is locked in the lower position, the tank is easily turned upside down for emptying.

Mounting of the bag can easily and quickly be carried out and without any risk that the bag subsequently will be lifted due to false air or vacuum inside the filter.

Properties

Available with or without manual sliding damper in galvanised version.

The sliding damper is available with optional extras with an opening of ø300 mm. Without the sliding damper the opening is ø400 mm. A level gauge can be assembled as optional extras on both the solutions.

Volume

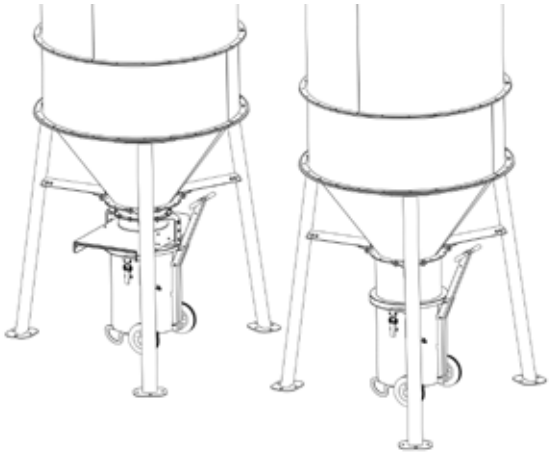
Max. volume pos.	517 mm	65 litre
Volume for level switch pos.	294 mm	*37 litre

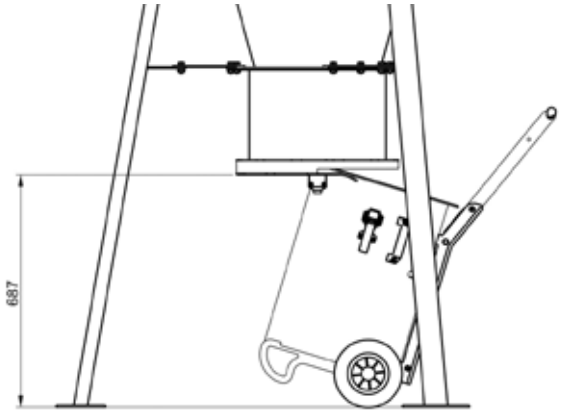
*) The volume and the level of the material can be higher, because the dust can accumulate a top whereas the level switch only detects when it comes into contact with the material.

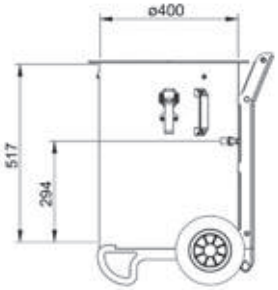
Weight

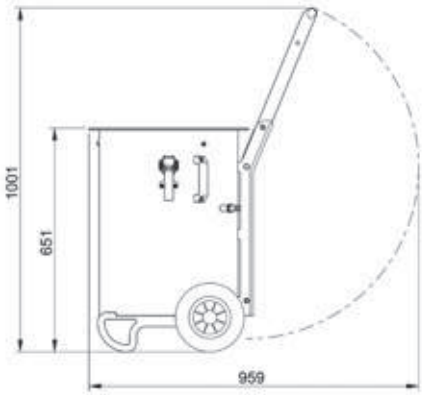
Net weight 26 kg

Gross weight max. 226 kg



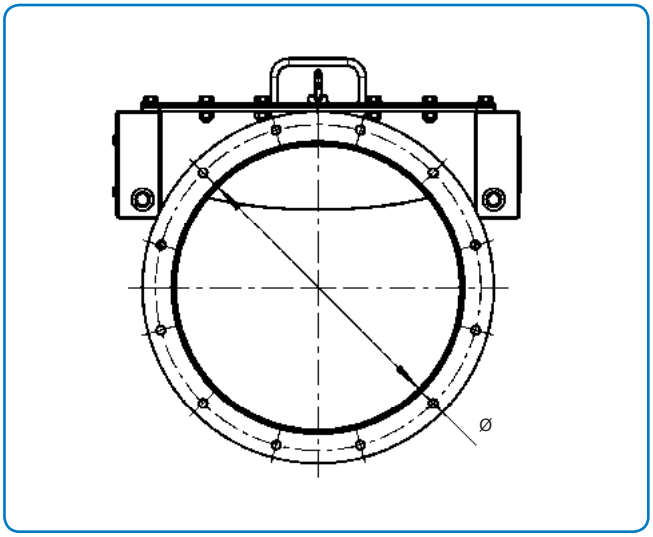


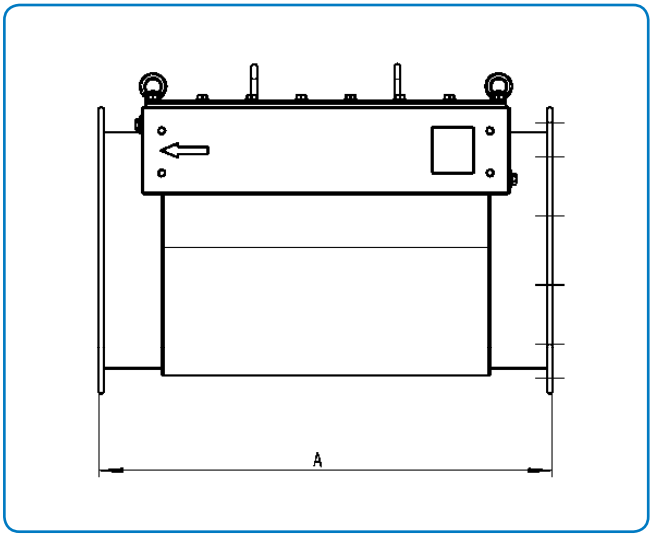




27.02.2015

Explosion duct valve





The explosion duct valve is used in order to prevent that an explosion in the plant will be channelled back to the production premises and machines. The explosion duct valve is mounted on the duct section between the plant and the source of dust. The explosion duct valve stops explosions that occur in the opposite direction of the normal flow. This means that the explosion duct valve is mounted on the inlet side on the dust separator, never on the outlet side. The dust separator covers filters, silos and industrial exhausters which are already protected with explosion relief or explosion suppression system.

The explosion duct valve is made of carbon steel DIN 1,0036.

Supplied with and without position switch. Furthermore, the valve is powder coated to corrosion class C3 cf. ISO 12944 (Colour: RAL 3020). Tested and approved:

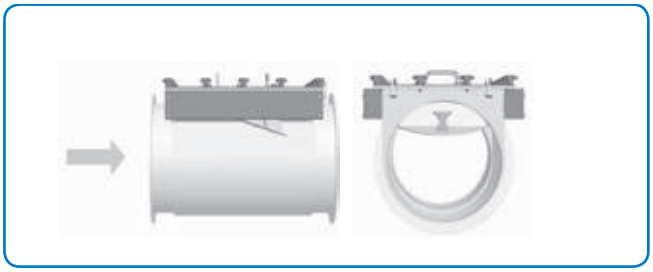
- Dust explosion class St. 1 and St. 2
- ATEX-EC-certificate FTZU 04 ATEX 0051X and quality assurance no. FTZU 02 ATEX Q 022
- Protection systems in accordance with amendment no. 3 Directive 94/9/EF
- EN 15089 – Explosion insulation systems

Quality assurance of protection systems in accordance with Directive 94/9/EF

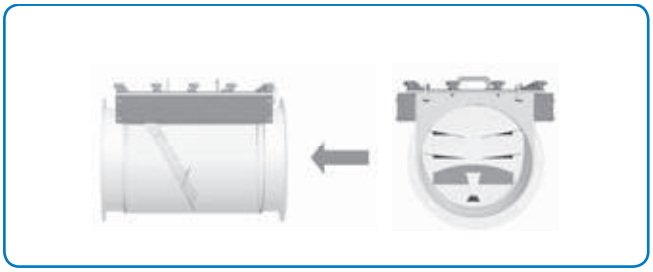
Specifications
Operating temperature range:

Duct dimension ø mm	A mm	Weight kg	Pressure loss Pa a/air pressure = 20 m/s
200	530	25	171
280	680	42	193
400	870	82	218
630	1250	175	236

Open position during operation.



Closed position during explosion.



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