

Operation manual

StuffNix V15

Code No. 99-94-0412 GB

Edition: 03/22

Overview of changes / updates

Name of chapter	Type of change / update	Product information / Code of the person in charge	Date of edition	Page
Product name, manual title	Product name and manual title changed	AMa	03/2022	
1 "About this manual"	Replaces chapter "Basic instructions"	AMa	03/2022	1
2 "Safety"	Replaces chapter "Basic instructions"	AMa	03/2022	4
3 "System description"	Chapter completely revised	AMa	03/2022	10
4 "Scope of delivery, spare parts"	Replaces chapter "Spare parts"	AMa	03/2022	17
5 "Transport and storage"	New chapter inserted	AMa	03/2022	19
6 "Assembly"	Chapter completely revised	AMa	03/2022	20
8 "Maintenance and cleaning"	Steps added	AMa	03/2022	32
8.1 "Cleaning instructions"	New chapter inserted	AMa	03/2022	33
9 "Dismantling and disposal"	Replaces chapter "Waste disposal"	AMa	03/2022	34

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1 About this manual

Observe the instructions in this manual to ensure correct and safe use of the system.

Keep this manual safe for future use.

All persons assembling, operating, cleaning and servicing this system must be familiar with the contents of this manual.

These persons must always have access to the manual. Keep this manual in the immediate vicinity of the system for this reason.

Observe the comprised safety instructions!

If this manual is damaged or lost, request a new copy from **Big Dutchman**.

This manual is protected by copyright. The information and drawings included in this manual may not be copied without the manufacturer's consent, nor may they be misused or disclosed to third parties.

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1.1 Notes for use

We reserve the right to modify the construction and technical data for reasons of further development.

Therefore, no claims can be derived from the information, pictures, drawings and descriptions. Errors and omissions excepted.

Inform yourself about mounting, adjusting, operating and maintaining before taking the system into operation.

Apart from the safety-relevant instructions in this manual and the safety precautions valid in the country of use, also observe the generally acknowledged technical regulations (safe and appropriate working according to UVV, VBG, VDE etc.).

1.2 Structure of the safety instructions

DANGER!

This indicates risks that will lead to personal injury resulting in death or to serious injuries.

WARNING!

This indicates risks that could lead to personal injury resulting in death or to serious injuries.

CAUTION!

This indicates risks or insecure procedures that could lead to moderate or minor injuries.

NOTICE!

This indicates notes preventing property damage and leading to an effective, economic and environmentally-conscious handling of the system.

1.3 Supplier's documentation

The supplier's documentation includes all instructions for components that are supplied by **Big Dutchman** but not manufactured by **Big Dutchman**, for example motors. These instructions are usually supplied with the respective component. If this is not the case or if the language of the corresponding country is not included, please request this documentation from **Big Dutchman** .

It is essential to observe the instructions in the supplier's documentation!

2 Safety

2.1 General safety regulations

Only work with suitable tools and observe the local accident prevention regulations.

WARNING!

Live parts may be bare when performing different types of tasks. Touching live parts can lead to injuries caused by electric shock and short circuits.

- ▶ Set the main switch to "Off" before starting any repair or maintenance tasks.
- ▶ Secure the system against reactivation.
- ▶ Attach a fixed sign to indicate that maintenance and repair tasks are in process!
- ▶ Never touch bare electrical components.
- ▶ Equipment with bare electrical components must not be used by the operating staff.

Check safety and function control devices to ensure safe and accurate operation after carrying out any tasks.

Observe the regulations of local water distribution and power supply companies.

WARNING!

Defective or disassembled safety devices can lead to serious injuries or to death!

- ▶ It is strictly forbidden to remove or put out of operation any safety device.
- ▶ If safety devices are damaged, immediately put the system out of operation. Lock the main switch in zero position and eliminate any damage.
- ▶ Make sure that all safety devices are properly mounted and function after work on the system has been completed and before putting the system into operation (again).

⚠ WARNING!

- ▶ Parts lying about on the system and in its vicinity can cause persons to stumble and / or fall and thus risk injuring themselves by contact with system components.
- ▶ Parts lying about in or on the components can lead to serious damage of the system.
- ▶ Never deposit objects (e.g. spare parts, replaced parts, tools, cleaning tools etc.) in the accessible areas of the system or in the surrounding areas after having worked on the system!
- ▶ **Before** putting the system into operation again, assure yourself that all loose or replaced parts have been removed from the system components!

⚠ DANGER!

Persons may be electrocuted or suffer serious electrical injuries if water from leaking hoses, seals and pipes reaches live parts.

- ▶ Disconnect the main power supply.
- ▶ Interrupt the main water supply.
- ▶ Only now may you enter the part of the house where large quantities of water have escaped.

i NOTICE!

Leaking hoses, seals and pipes can cause structural damage or destroy electrical systems by short circuits.

- ▶ Check regularly whether large quantities of water are escaping and eliminate the leaks as soon as possible.

⚠ WARNING!

Children must not access the system. The safety distances for the system are not designed for children. A risk of injury cannot be excluded, even for supervised children.

2.2 Operator's responsibility

The operator is subject to the legal obligations regarding occupational safety and is responsible for the staff's safety. All safety, accident prevention and environmental protection regulations applicable for the area of use of the system must be observed. The following is especially important:

The operator must clearly specify responsibilities for operation, maintenance and cleaning.

The operator must provide the staff with the necessary personal protective equipment.

The operator is responsible for

- using the system in compliance with the designated use;
- ensuring that the system is only operated in an excellent state from the technical point of view and that maintenance intervals are observed;
- ensuring that his staff is trained to use the system;
- ensuring that operation instructions are prepared for the system.

2.3 System-specific safety regulations

The system is designed according to the state of technology and meets current safety requirements. Nevertheless, there are residual risks, which can be prevented as follows.

DANGER!

Dust in poultry houses is flammable, i.e. danger of explosions when dust is raised! Avoid ignition sources in the area of the filter. This is especially important for electrical systems provided by the customer near the filter (e.g. illumination).

- ▶ If vacuum cleaners are used for cleaning, they must have the necessary explosion protection rating.

WARNING!

Dust in poultry houses contains germs and bacteria as well as a large amount of respirable fine dust, which can cause allergies and pulmonary diseases ("farmer's lung").

- ▶ Wear suitable respiratory protection when working at the filter. Raise as little dust as possible when working.

2.4 Staff qualifications

Staff must consist of qualified persons who can be expected to perform their tasks reliably. Persons whose ability to respond is impaired, e.g. by alcohol, drugs or medication, must not work on the system. The operator is responsible for which persons he employs. **Big Dutchman** does not assume any liability for personal injury and property damage caused by insufficiently qualified staff.

2.5 Personal protective equipment

WARNING!

The following instructions apply to any task carried out on the system.

- ▶ Wear **close-fitting protective clothing** and **protective footwear**.
- ▶ Use **protective gloves** where there is a risk of hand injuries and **safety goggles** where there is a risk of eye injuries.
- ▶ Do not wear **any rings, necklaces, watches, scarves, ties or other items** which could get caught in parts of the system.
- ▶ Make sure that **long hair is always tied back**. Hair can get caught in driven or rotating working units or parts of the system, resulting in serious injuries.
- ▶ When working underneath the system **always** wear a **hard hat!**

2.6 Designated use

StuffNix V15 is a dry filter system that removes dust particles from the exhaust air from livestock facilities.

Any deviating use is considered non-designated use. The manufacturer shall not be liable for any damage resulting from such non-designated use. The user alone bears the risk. The designated use also includes the exact compliance with operating, maintenance and assembly requirements of the manufacturer.

For correct functioning, the reference values listed in the technical data (see chapter 3.2 "Technical data", page 11) must be met.

2.7 Dangers resulting from non-compliance with the safety instructions

Non-observance of these instructions can cause severe danger for life and health of people or can lead to material or environmental damages and to the forfeiture of any claim for damages. To be precise, the non-observance of these instructions can lead to:

- Failure of vital functions of the system
- Failure of prescribed maintenance methods
- Dangers for people owing to electrical and mechanical influences.

2.8 Ordering of spare parts

CAUTION!

For your own safety, use original **Big Dutchman** spare parts only. For third-party products that have not been released or recommended and for modifications (e.g. software, control units), judging whether there is a safety risk in connection with **Big Dutchman** systems is not possible.

NOTICE!

The exact description of the spare parts to be ordered can be found by means of the position number in the spare parts list.

Indicate the following when ordering spare parts:

- the code number and description of the spare part;
- the customer number or order number;
- the current supply, e.g. 230 / 400 V – 3 Ph – 50 / 60 Hz.

3 System description

StuffNix V15 is a dry filter system that removes dust particles from the exhaust air from livestock facilities.

3.1 Functional principle

StuffNix V15 operates using the principle of centrifugal force. This principle has been successfully employed for industrial use for a long time. Big Dutchman has further developed the procedure to clean air from livestock houses.

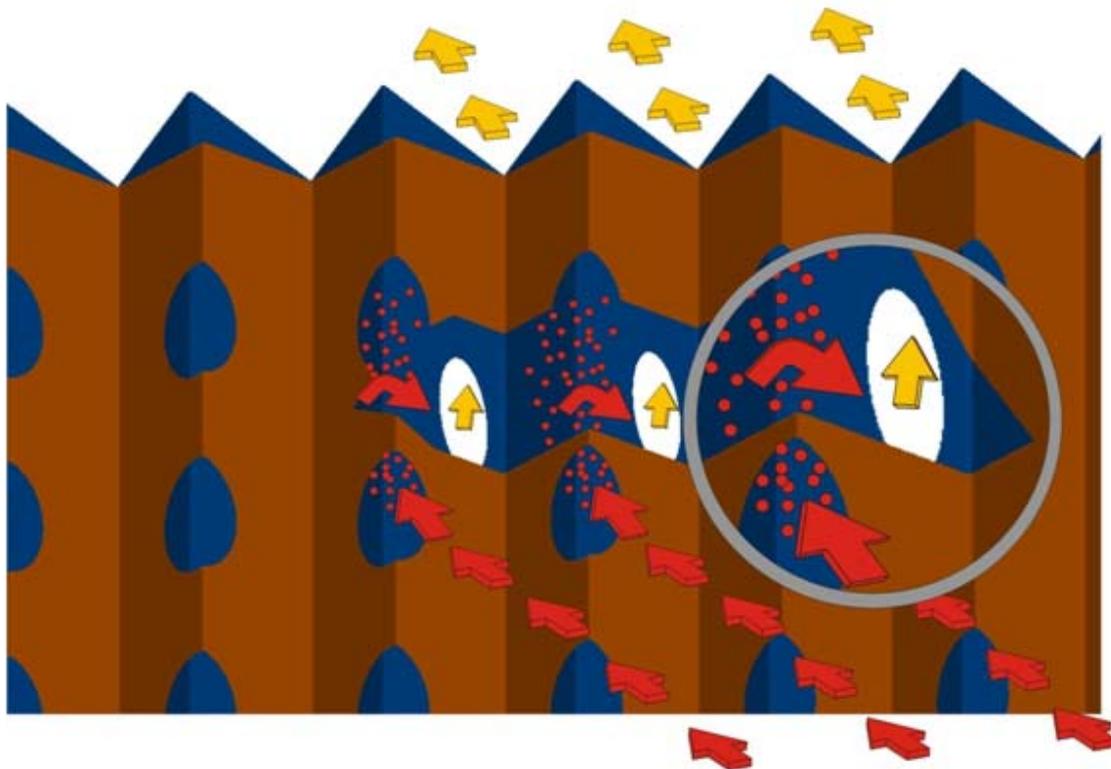


Figure 3-1: How StuffNix V15 works

The offset air inlets and outlets force the air to change direction very quickly and with small radiuses. Due to centrifugal force and mass inertia, a large percentage of the dust can be separated from the exhaust air.

The ideal centrifugal force is achieved at a flow velocity of 0.7 m/s. At this velocity, StuffNix V15 has an additional pressure increase of 30 Pa, which must be considered when selecting the fans during planning. Due to the large diameter in the filter bank holes and dry operation, StuffNix V15 is not susceptible to clogging. Clogging only occurs when maintenance is neglected or when humidity in the house is extremely high. Despite this, the total pressure in the system must be checked once per week with the supplied pressure gauge.

3.2 Technical data

To achieve the planned dust separation rates, StuffNix V15 must be operated with a flow velocity of 0.7 m/s. This velocity results in an air flow rate of 20,000 m³/h (StuffNix V15 short version: 10,000 m³/h) at a differential pressure of 30 Pa for each StuffNix V15 unit.

The differential pressure of 30 Pa includes the differential pressure of a new filter and an adequate addition for soiling.

NOTICE!

Significant deviations from these values lead to different dust separation rates and possibly higher pressure losses.

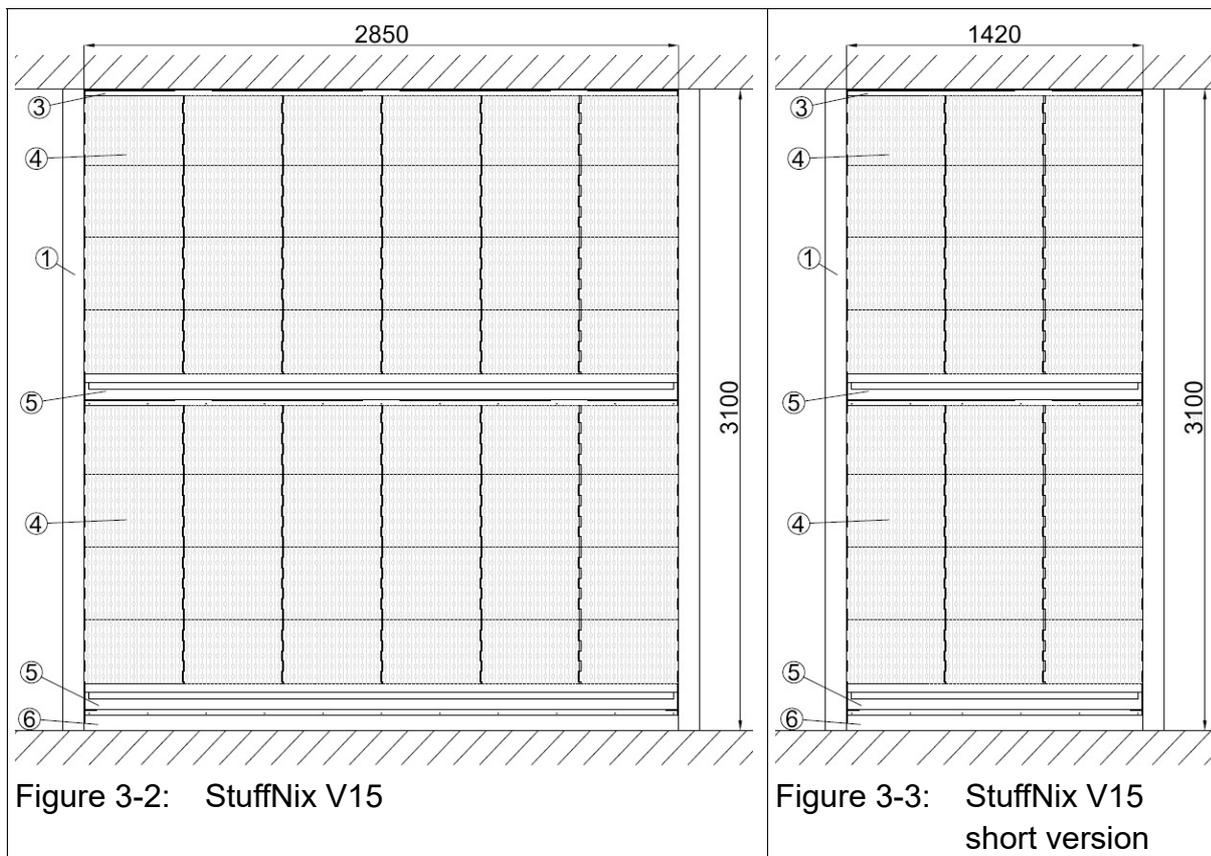
Table 3-1: Separation rates of StuffNix V15 at 0.7 m/s

Separation rates	
Total dust	up to 50 %
Fine dust PM10	up to 30 %

NOTICE!

The indicated reference values must be met for StuffNix V15 to work correctly.

3.3 Dimensions



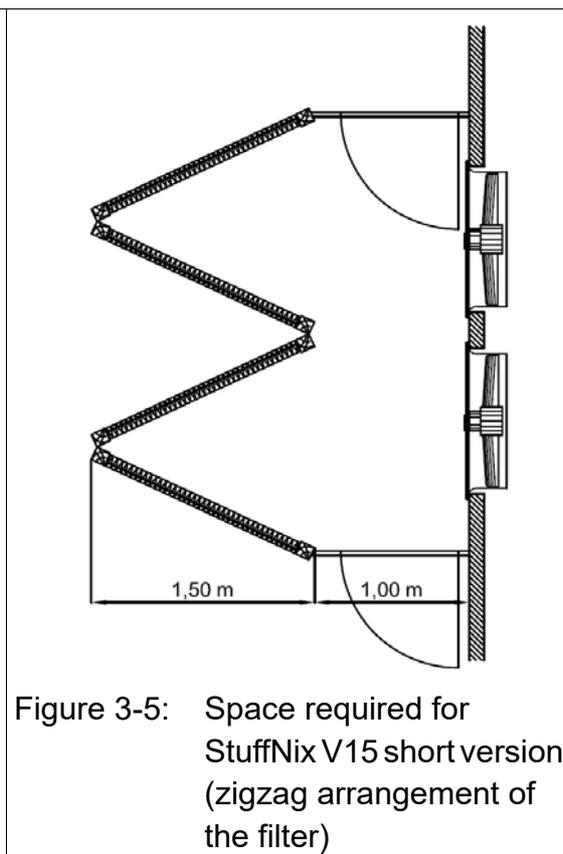
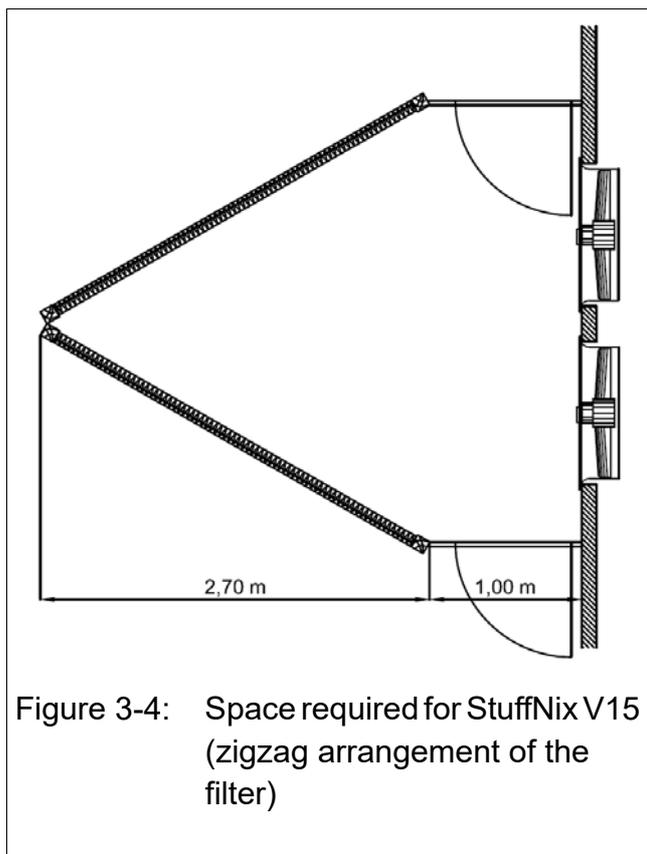
- 1 - Wooden post to fasten the filter (to be provided by the customer)
- 3 - End profile
- 4 - Filter element
- 5 - Fixing profile with cleaning slider and back panel
- 6 - Wooden lath as sealing towards the floor (to be provided by the customer)

3.4 Construction requirements

The following requirements must be met for installation of one StuffNix V15:

- ceiling height of 3.10 m;
- floors, ceiling and walls that are level and easy to clean and can bear loads;
- wooden posts to fasten the filter parts;
- sufficient room for installation;
- sufficient access to clean the front and rear side of StuffNix.

The connection between StuffNix V15 and the building must be airtight on all sides so the air has to flow through the filter.



Especially in layer and breeder houses, large amounts of dust accumulate. Consider suitable tools for cleaning and transport, e.g. wheelbarrows, including when planning the width of the access doors.

3.5 Interaction with the house's ventilation system

The house's ventilation system uses different air flow rates, depending on the number of stock, weather conditions and air quality. To be able to maintain the flow velocity of 0.7 m/s even at low air flow rates, two options are available:

1. The individual StuffNix modules are separated into chambers by airtight partitions. Exhaust air fans with the correct air flow rate are installed in every chamber. When the fans are switched on, the correct flow velocity is reached automatically. The following combinations are possible:
 - 1 StuffNix module* + 1 fan 20,000 m³/h
 - 2 StuffNix modules* + 2 fans 20,000³ each
 - 2 StuffNix modules* + 1 fan 40,000³

* The number of modules must be doubled when using the short version of StuffNix V15.

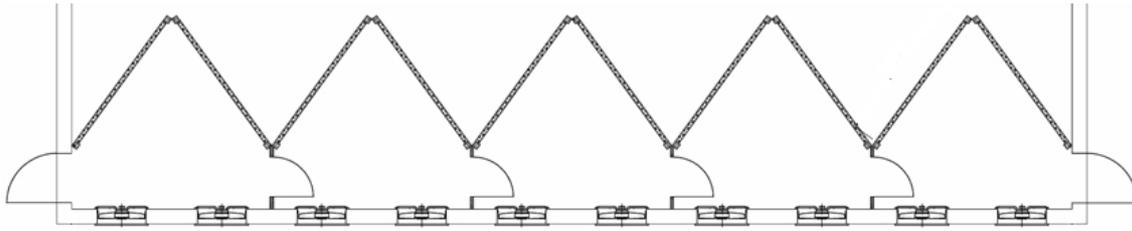


Figure 3-6: Example for a filter-fan combination (2 StuffNix modules + 2 fans, zigzag arrangement of the filter)

This design is especially well-suited for fans with ON/OFF control. For speed-controlled fans, dust separation rates are usually lower when the fan speed is reduced.

When mounting the partitions, make sure access for cleaning and removal of the dust is easily possible. Also plan doors that are sufficiently large.

2. Where partitions are not an option, the front of the filter can be partially covered. This changes the effective filter area to meet the air flow rate. Use automatic systems for this purpose, e.g. electrically operated roller curtains, and upgrade the ventilation control system accordingly.

This design can be used for both ON/OFF fans and for speed-controlled fans, but must be planned individually for every customer. Contact Big Dutchman for more information.

3.6 Arrangement of the filter banks

StuffNix V15 should be placed in direction of the airflow, if possible in front of the fans, so the air is pulled through the filter.

The fans should be placed either in the ceiling (exhaust air chimney) or in the rear wall of the house. Maintain a minimum distance of approx. 2 m between the fan and the filter so the fans cannot suck in the dust from the filter.

Should StuffNix V15 be mounted in direction of the airflow but behind the fan, the minimum distance between fan and StuffNix must be 4 m. If the distance is too small, StuffNix cannot be fully effective and the fans are loaded more than necessary.

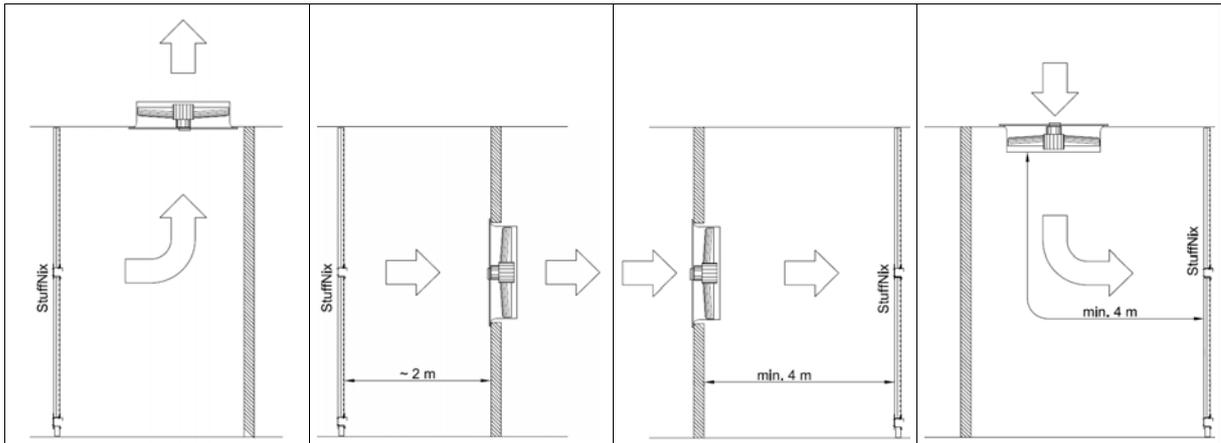


Figure 3-7: Options to arrange StuffNix V15 and the fan

i NOTICE!

Protect StuffNix V15 from heat, for example caused by direct sunlight.

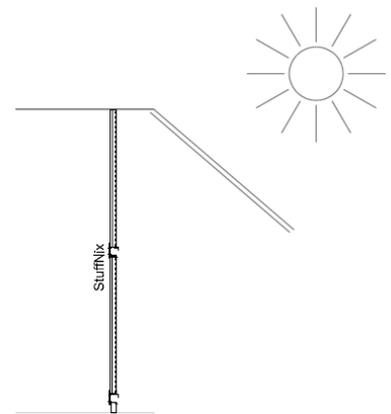


Figure 3-8: Protecting StuffNix V15 from direct sunlight

3.7 Structure

StuffNix V15 can be assembled in two versions:

- Straight arrangement of the filter banks



Figure 3-9: Straight arrangement

- Zigzag arrangement of the filter banks to create a larger filter surface



Figure 3-10: Overall view, zigzag arrangement

To make good use of difficult space conditions or to create filter surface areas of a specific size, StuffNix V15 and the short version of StuffNix V15 can be combined or only partial areas can be mounted, e.g. by using only one filter element or by cutting the filter element to size. Contact Engineering if you need support.

4 Scope of delivery, spare parts

A complete StuffNix V15 dust filter consists of two filter elements that are each 1.40 m high and 2.85 m wide (1.42 m**), two fixing profiles with cleaning slider and a top end profile. The entire system is 3.10 m high.

Angle brackets and screws for fastening are part of the scope of delivery. Wooden posts to fasten the filter and wooden laths for the filter's airtight attachment at the floor and ceiling must be provided by the customer.

Table 4-1: Bill of materials and spare parts list for StuffNix V15

Pos.	Code no.	Description	Qty. [pcs]
	60-50-0300	Dust filter StuffNix cpl. 2.85 x 3.10 m for 20,000 m³/h V15 <i>consisting of:</i>	
1	60-50-0304	End profile 2842 mm galv. for dust filter	1
2	83-03-1461	Angle bracket 50 x 60 galv. for fixing profiles for dust filter	6
3	99-10-3869	Chipboard screw 5.0 x 40 countersunk head cross recess fully threaded galv.	12
4	99-10-3882	Drilling screw 4.8 x 16 DIN 7504-K galv.	6
5	60-40-1991	Negative pressure gauge -10-600 Pa	0.01
6	99-10-3938	Drilling screw 4.8 x 25 DIN 7504-K galv.	20
7	83-14-0899	Fixing profile 2842 mm galv. without back panel for dust filter	2
8	83-14-0857	Back panel 1494 mm galv. for dust filter	8
9	99-10-3934	Tapping screw C 5.5 x 13 DIN 7981 galv.	42
10	83-14-8490	Clamp galv. for basic element StuffNix V15	40
	60-50-0301	Dust filter StuffNix 1.4 m x 2.85 m V15 <i>consisting of:</i>	2
11	83-13-4420	Basic element 350 mm x 475 mm for dust filter	24
12	83-13-4418	Bonnet 1400 PVC for dust filter	78

All parts listed in the BOM are also available individually.

** StuffNix V15 short version

Table 4-2: Bill of materials and spare parts list for StuffNix V15 short version

Pos.	Code no.	Description	Qty. [pcs]
	60-50-0310	Dust filter StuffNix cpl. 1.42 x 3.10 m for 10,000 m³/h V15 <i>consisting of:</i>	
1	83-14-8590	End profile 1417 mm galv. for dust filter	1
2	83-03-1461	Angle bracket 50 x 60 galv. for fixing profiles for dust filter	6
3	99-10-3869	Chipboard screw 5.0 x 40 countersunk head cross recess fully threaded galv.	12
4	99-10-3882	Drilling screw 4.8 x 16 DIN 7504-K galv.	6
5	60-40-1991	Negative pressure gauge -10-600 Pa	0.01
6	99-10-3938	Drilling screw 4.8 x 25 DIN 7504-K galv.	30
7	83-14-8480	Fixing profile 1417 mm galv. without back panel for dust filter	2
8	83-14-0857	Back panel 1494 mm galv. for dust filter	4
9	99-10-3934	Tapping screw C 5.5 x 13 DIN 7981 galv.	20
10	83-14-8490	Clamp galv. for basic element StuffNix V15	16
	60-50-0301	Dust filter StuffNix 1.4 m x 2.85 m V15 <i>consisting of:</i>	1
11	83-13-4420	Basic element 350 mm x 475 mm for dust filter	24
12	83-13-4418	Bonnet 1400 PVC for dust filter	78

All parts listed in the BOM are also available individually.

Indicate the following when ordering spare parts:

- the code number and description of the spare part;
- the customer number or order number;
- the current supply, e.g. 230 / 400 V – 3 Ph – 50 / 60 Hz.

5 Transport and storage

5.1 Transport

The system is supplied in pre-assembled groups and in different packaging units. These must be secured adequately against shifting and tilting during transport. Transport must be carried out by experts only.

The assembly groups and packaging units are transported to the construction site by appropriate means of transport. To avoid possible damage, ensure careful loading and unloading. In case of transportation by hand, keep in mind the reasonable human lifting and carrying abilities.

Ensure that transport is carried out safely. Prevent blows and hits and ensure correct transport locks.

The volume of the delivery is listed in the shipping documents. Please check for completeness upon receipt. Possible transport damage and / or missing parts must immediately be reported in writing.

5.2 Storage

Store parts where they will be needed so that their temperature can adjust to the environment.

Open-air storage is acceptable only for a short time. If stored outside temporarily, parts must be protected against harmful environmental influences. They must also be protected against mechanical damage.

The storage area should be dry and roofed. If this is not possible, cover system parts with foil and store them with sufficient ground clearance. Make sure that all stored parts are protected against dust and moisture.

6 Assembly

Only Big Dutchman or a company authorised by Big Dutchman may assemble the system.

NOTICE!

To facilitate understanding, some graphics will no longer show already installed components of the system.

NOTICE!

Keep to the specifications stated in the project drawing when assembling the system.

6.1 Before starting to assemble the system

Before starting to assemble the system, check whether

- project drawing and order match;
- all parts required for assembly are available and undamaged.

6.2 Assembly order

Observe the assembly order specified in the assembly documents. Mount all listed parts to bring stability and weight to the system.

6.3 Assembling StuffNix V15

6.3.1 Posts

Erect the vertical wooden posts (not part of the scope of delivery) at clear distances of 2.85 m (1.42 m^{***}) to fasten the individual parts of the filter. Use squared timbers with a cross section of approx. 10 cm x 10 cm or other material.

6.3.2 Mounting the angle brackets and profiles

For the two fixing profiles and the top end profile, screw 6 angle brackets (83-03-1461) to the wooden posts. For the position of the angle brackets, see figure 6-2 with dimensions. For each angle bracket, two chipboard screws 5.0 x 40 are included upon delivery.

*** StuffNix V15 short version

Place the fixing profiles and the end profile on the angle brackets and fasten them with drilling screws 4.8 x 16 (figures 6-4 and 6-5). When the profiles are mounted correctly, this results in installation dimensions for the two filter elements as shown in figure 6-3.

The fixing profile can be mounted either with the cleaning slider towards the house or at the rear side of the dust filter. We recommend mounting the profile with the slider at the rear side of the dust filter, since most of the dust accumulates here and can then not drop back into the house.

NOTICE!

Seal the gap between the lower fixing profile and the floor carefully, e.g. using a wooden lath. If air flows through this gap, dust that had already been removed can raise again behind the filter. This significantly reduces the filter's efficiency.

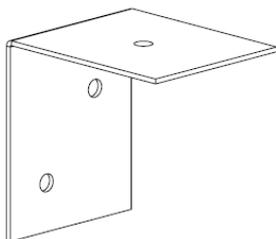


Figure 6-1: Angle bracket 83-03-1461

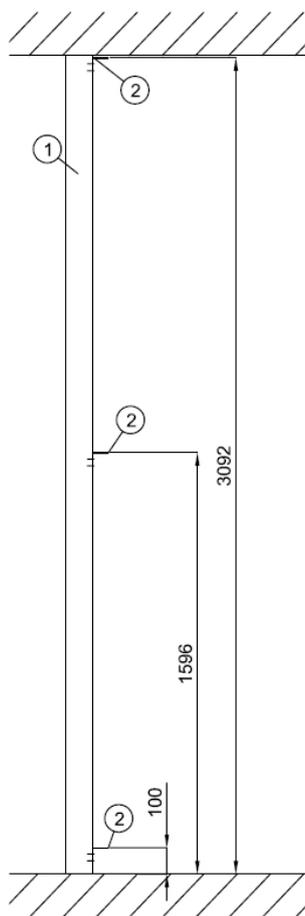


Figure 6-2: Position of the angle brackets

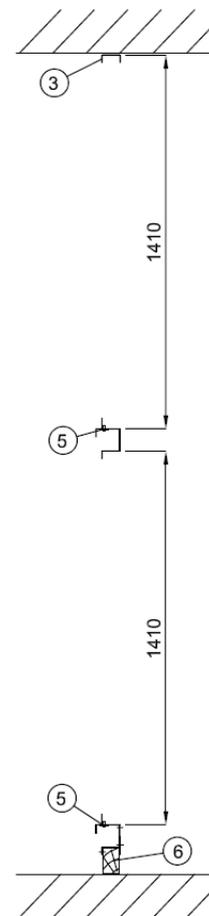


Figure 6-3: Installation dimensions for filter elements

- 1 - Wooden post to fasten the filter (to be provided by the customer)
- 2 - Angle brackets
- 3 - End profile
- 5 - Fixing profile
- 6 - Wooden lath as sealing towards the floor (to be provided by the customer)



Figure 6-4: Mounting the fixing profile



Figure 6-5: Mounting the end profile



Figure 6-6: Fixing profile with slider (open)



Figure 6-7: Fixing profile with slider (closed)

6.3.3 Preparing the filter elements

Every filter element (1.40 m high, 2.85 m (1.42 m^{****}) wide) consists of 24 (12^{****}) basic elements sized 475 mm x 350 mm and 78 (39^{****}) bonnets that are each 1.40 m high.

**** StuffNix V15 short version

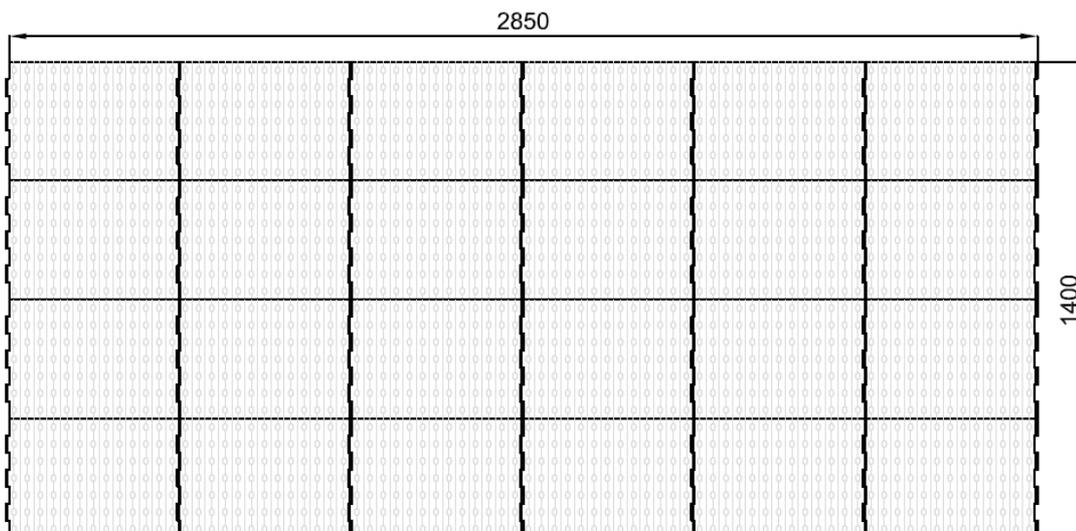


Figure 6-8: StuffNix V15: 4 x 6 basic elements = 1 filter element

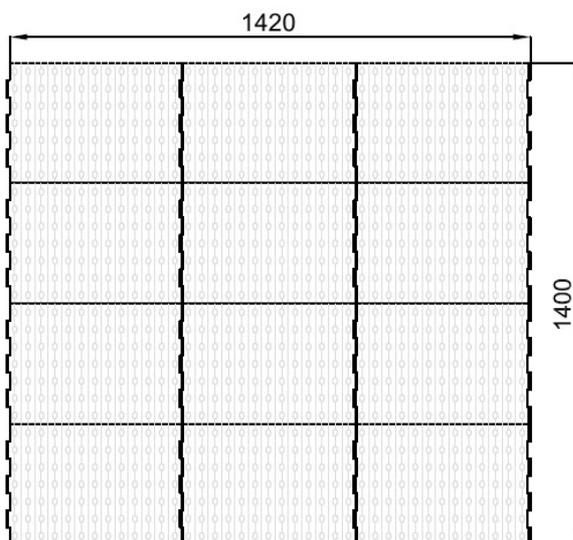


Figure 6-9: StuffNix V15 short version: 4 x 3 basic elements = 1 filter element

For easier handling, the filter element can be pre-mounted in three sections of 2 x 4 basic elements each, and only be completely connected after the fixing profiles have been inserted.

The smaller width of the short version of StuffNix V15 allows installing the entire filter element without separating it into sections.

To install a section, put 8 basic elements together to create an area of 1.40 m x 0.95 m and connect the elements by inserting and pressing down the bonnets without tools. The connections will only click into place when mounted correctly to prevent errors.



Figure 6-10: Individual filter parts



Figure 6-11: Putting together basic elements



Figure 6-12: Connection between basic elements

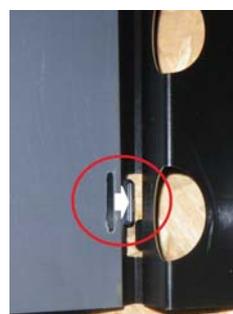
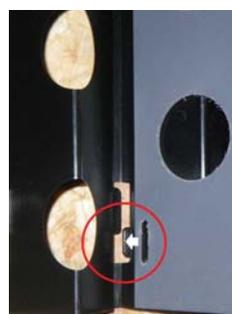
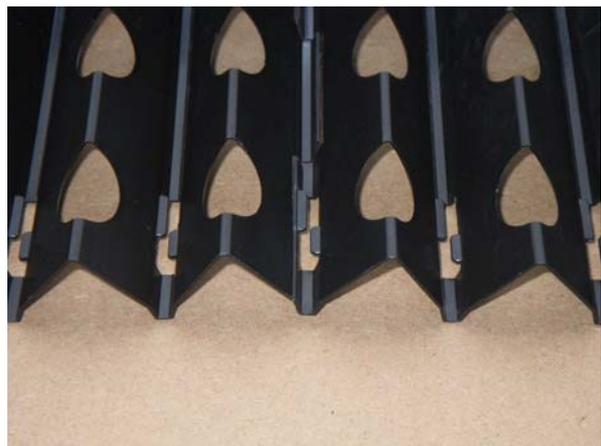


Figure 6-13: Folding the bonnets and placing them on the snap lugs

i NOTICE!

- ▶ Short hole on short tongue, long hole on long tongue. The basic elements and the bonnets are even at the top and bottom.
- ▶ The bonnet only fits in one position. The tongues will only click into place when mounted correctly.
- ▶ The first and the last bonnet connect the basic elements and are only mounted after all sections have been inserted into the frame to create one complete filter element.

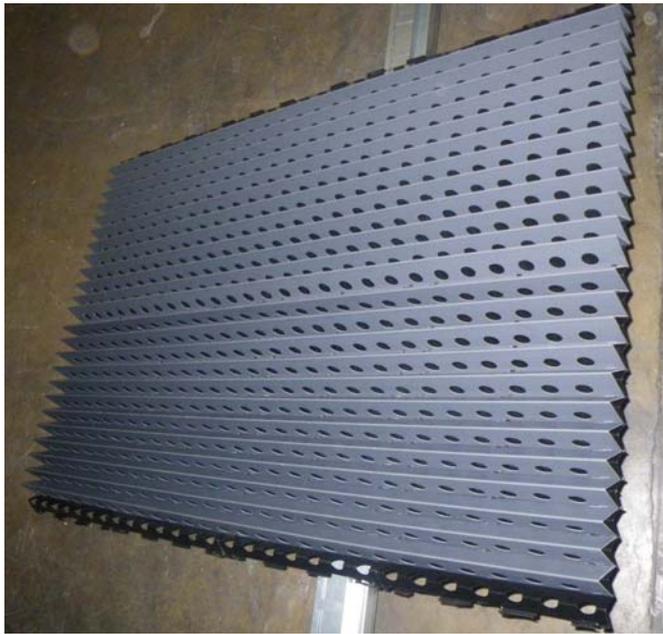


Figure 6-14: Section of the filter



Figure 6-15: Connection between two basic elements

Place a wire clamp on top of every connection where the teeth of two basic elements gear into each other. Mount the clamp either in the third or fifth opening of the basic elements, but never directly in the centre of the opening with the snap lugs (figure 6-17).

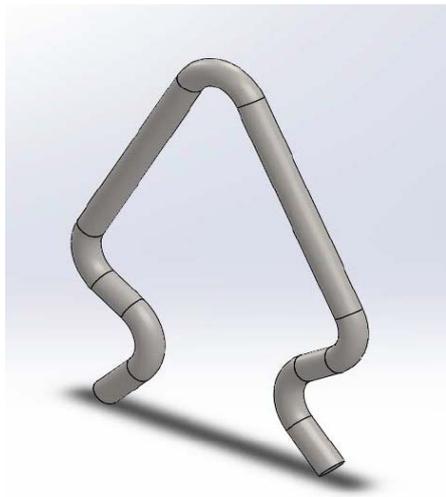


Figure 6-16: Clamp for basic element StuffNix V15

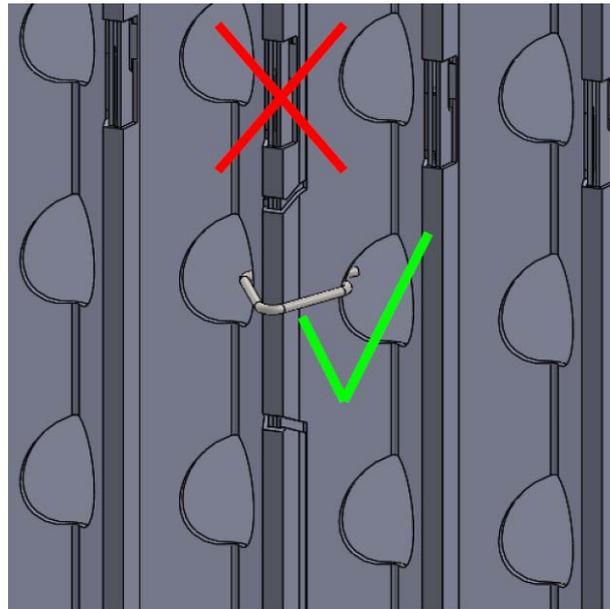


Figure 6-17: Clamp mounted on basic elements

Use suitable pliers (e.g. combination pliers) to press the clamp onto the basic elements from the house side until the clamp's legs click into the openings of the basic elements.

NOTICE!

To do this, press the basic element slightly together using your hand to make mounting the clamp easier.

► Otherwise the basic element may break when the clamp is put on!

When mounted correctly, the clamp is slightly tensioned, keeping the basic elements pressed together. The clamp can easily be removed by hand by pushing the basic elements together. This is deliberate to keep the basic elements from deforming and getting damaged due to too much tension.

NOTICE!

Before mounting the clamps, check the connections between the basic elements and the bonnets and re-connect them, if necessary.

6.3.4 Inserting the filter

Place the filter elements loosely in the fixing profiles and fix them in place with the supplied back panels. Fasten each back panel with 5 tapping screws 5.5 x 13 so the filter element can be removed, if necessary.



Figure 6-18: Inserting StuffNix V15 into the brackets

i NOTICE!

Observe the direction of the airflow when inserting the filters!

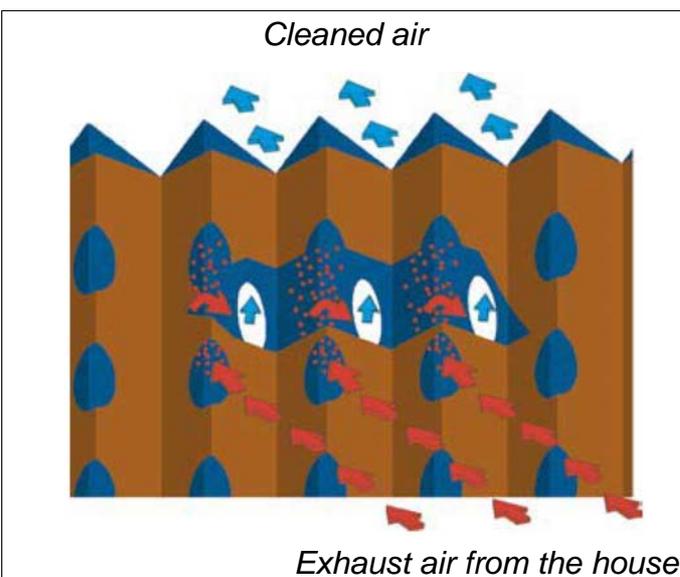


Figure 6-19: Observing the direction of the airflow



Figure 6-20: Fastening the back panels with tapping screws 5.5 x 13

6.3.5 Connecting sections to create one filter

Connect the sections (figures 6-21 to 6-25) and use the clamps (figure 6-26) to stabilise the connections as described in chapter 6.3.3 "Preparing the filter elements".



Figure 6-21: Inserting sections



Figure 6-22: Pushing together basic elements

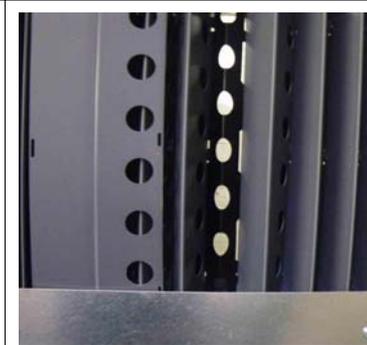


Figure 6-23: Inserting final bonnets

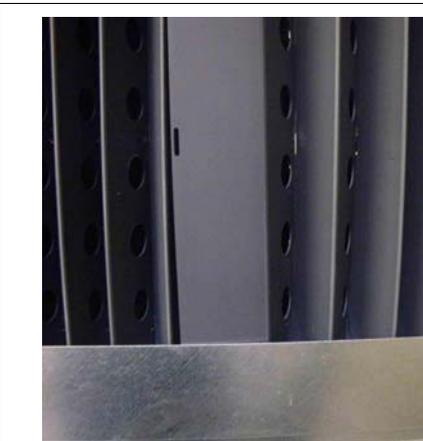


Figure 6-24: Folding and pushing down bonnet

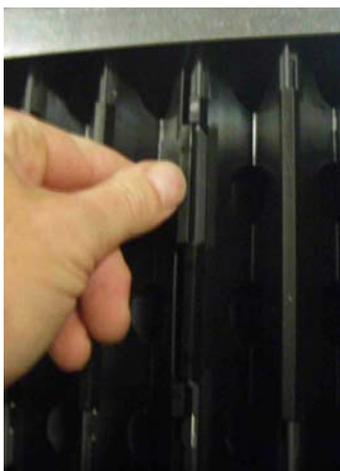


Figure 6-25: Checking basic element connections and clicking them into place

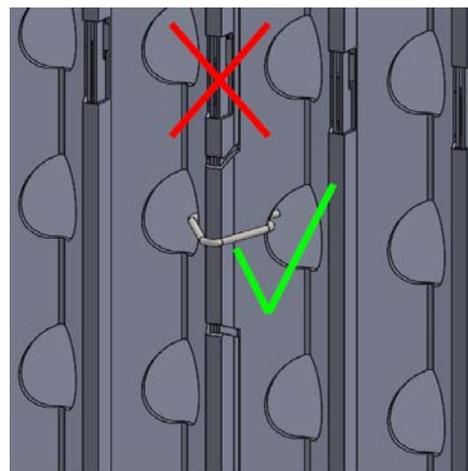


Figure 6-26: Mounting clamps on basic elements

6.3.6 Connecting the filters to the wooden posts

Screw the filter element to the wooden posts on the left and on the right using the supplied drilling screws 4.8 x 25. Use the holes in the bonnets for this purpose. Use 5 screws on each side for 1.40 m high filter elements.



Figure 6-27: Fastening to the wooden post



Figure 6-28: StuffNix V15 mounted (front/house side)



Figure 6-29: StuffNix V15 mounted (rear side)

6.3.7 Mounting the negative pressure gauge

Mount the negative pressure gauge to StuffNix V15.

NOTICE!

Refer to the instructions supplied by **Big Dutchman** (Code no. 99-94-0247). Also refer to these for operation and maintenance.

Mounting instructions:

Lay the two hoses of the negative pressure gauge as follows:

- Connection "+": in front of the dust filter viewed in direction of the airflow
- Connection "-": behind the dust filter viewed in direction of the airflow

The negative pressure gauge measures the pressure difference between the areas in front of and behind the dust filter.

Do not lay the hoses outside.

7 Initial operation

 **WARNING!**

Only take the device into operation after all components and all protective equipment have been completely integrated into the system.

- Inspect the entire system visually.
- Check whether all mounting tasks have been duly completed.

8 Maintenance and cleaning

CAUTION!

During cleaning, always wear a respiratory protection mask against dust and safety goggles.

For correct operation of the air cleaning system, the operator must carry out the cleaning tasks listed below at regular intervals. The cleaning interval for StuffNix V15 and for the corresponding floor area in front of and behind the filter bank depend on the dust loads in the air volume flow that needs to be filtered. It should be no longer than three weeks.

Weekly maintenance and cleaning tasks:

- Check the amount of dust that has accumulated. If more than 1 cm of dust has accumulated on the floor in front of or behind the filter bank, clean the dust filter.
- Check the pressure increase caused by the dust filter using the supplied pressure gauge.

Clean the system as follows:

1. Switch off the fans of the corresponding filter chamber / filter element before starting to clean the filter bank.

WARNING!

Clean the filters one after another. Never switch off the whole ventilation system, as adequate ventilation must be provided for the livestock!

2. To do this, pull the cleaning slider from the fixing profiles as far as it will go.
3. Start cleaning at the inlet side in front of the filters.
4. Use a brush or similar tool to beat the filter surface evenly from the top to the bottom.
5. Also beat the rear side of the filter banks.
6. Clean the fixing profiles and the cleaning sliders and then the floor in front of and behind the filter.
7. Push the cleaning sliders back into the fixing profiles.
8. Check the dust filter for visible damage.
9. Switch the fans back on after completing your work and check whether they run.

Annual cleaning tasks:

Use a high-pressure cleaner to clean the filter and the entire floor area in front of and behind the filter bank at least once per year. We recommend using the period between two batches because the ventilation system must be switched off.

1. Switch off the fans of the corresponding filter chamber / filter element before starting to clean the filter bank.
2. Start cleaning at the inlet side of the filter banks and clean from the top to the bottom.



CAUTION!

SLIPPERY WHEN WET!

Water in combination with dust and feed remains can lead to a slippery floor.

3. After cleaning, dry the filters while letting the ventilation system run at a low level.
4. Switch the fans back on after completing your work and check whether they run.

8.1 Cleaning instructions

- Shut off the power when cleaning live parts!
- Protect moisture-sensitive parts such as control cabinets and motors from splash water during wet cleaning by covering them!
- Water in combination with dust and feed remains can lead to slippery floors!
- Cleaning agents and disinfectants can cause corrosion! Observe the manufacturer's instructions!



NOTICE!

If you use thermal disinfection, ensure that the temperature does not exceed 60°C.

Temperatures above 60°C can damage the equipment in the house. **Specifically, plastics may deform.**



9 Dismantling and disposal

NOTICE!

When disposing of the system, commission experts only.

The operator is responsible for disposing of the system at the end of its service life. Observe the applicable statutory provisions when disposing of the system.

NOTICE!

Incorrect disposal can lead to environmental damage.

- ▶ The system and individual parts must be disposed of properly!
- ▶ If necessary, commission a specialised company with the disposal.

NOTICE!

Observe system-specific safety instructions during dismantling.