BlueFly

Freiblaseinrichtungen

<u>Automatic Blow Clear System 4.1-4.4 Heavy Duty</u>

protected

Version 2009 V1

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**Thank you for your purchase and for placing your trust in our
Bluefly Blow-Clear Equipment**

For economic and technological reasons modern-day fire prevention often involves using
smoke in-take systems to detect fire.

Unfortunately these generally very good systems come with a costly disadvantage.
Because air is sucked in through the pipe system inlets, fine dust is sucked in too.
After a period of some months - depending on the environment - this fine dust clogs the inlets.
Besides leading to a breakdown in the smoke in-take system, this could even result in a fire
being detected too late, or not at all.

It is because of breakdowns in the smoke in-take system that pipe system maintenance and
cleaning usually come at such a high cost.

**With our BLUFLY Blow-Clear System Serie 4 Heavy Duty you can say goodbye to
maintenance and cleaning costs - and to increased risks also under extreme conditions!**

Once installed, Blow-Clear uses compressed air to clean the pipe system, fully automatically
and at intervals of your choosing.

The comparatively low purchase price will be repaid in no time because of the savings you
make on the costs of breakdowns.

If you are interested, or you have got questions or improvement suggestions, or queries,
please contact us in person, or on the telephone numbers given above. We will be pleased to
give you advice.

We are available at any time on the following mobile number:

+43 (0) 676/845435, ext.100/**200**

Automatic Blow-Clear System Serie 4 HD
1-Sensor Pipe System

Technical Data:

Electrical connection:	230V AC 1.5mm²
	(Option PLC 24 V + Valve power 230V)
Comressed air connect.:	Standard compressed-air-quick-coupling max. 10 bar.
	Internal pressure reducer for adjusting des working pressure depending on lenght of sensor pipe max. 8bar.
	Minimum needed pressured air supply 4,5 bar.
Sensor/Suction pipe:	25mm PVC couplings for bonding
Reset contact 1A/B:	Closes for a second, every time before and/or after or during blow-clearing takes place. This is so that, provided it is compatible with the air intake system, the error message "low air flow" is suppressed during blow-clearing, or for cleaning is deactivated.
Input contact 1a:	Input contact for unscheduled blow-clearing by means of a SIS signal, or manually.
Input contact 2:	Input contact to suppress blow-clearing if fire alert is detected by SIS.
Output contact:	Output contact for error messages to SIS.
Protection class:	IP65 with a transparent control element cover.
Temperature range:	+5 bis +45 Grad Celsius

Suitable for use only inside buildings with standard environmental conditions.
No acidic ambient air.

Dimensions:

Width:	750 mm
Height:	600 mm
Breadth:	200 mm

Timer control :

Number of blow-clearing:	standard 6 times a day
Time slice:	freely adjustable

Optional:

- Case of stainless steel
- Internal adjustable cabinet heating
- Pressure controll
- External filter for sensor pipe

Automatic Blow-Clear System Serie 4 HD
2-Sensor Pipe System

Technical Data:

Electrical connection:	230V AC 1.5mm²
	(Option PLC 24 V + Valve power 230V)
Comressed air connect.:	Standard compressed-air-quick-coupling max. 10 bar.
	Internal pressure reducer for adjusting des working pressure depending on lenght of sensor pipe max. 8bar.
	Minimum needed pressured air supply 4,5 bar.
Sensor/Suction pipe:	25mm PVC couplings for bonding
Reset contact 1A/B:	Closes for a second, every time before and/or after or during blow-clearing takes place. This is so that, provided it is compatible with the air intake system, the error message "low air flow" is suppressed during blow-clearing, or for cleaning is deactivated.
Input contact 1a:	Input contact for unscheduled blow-clearing by means of a SIS signal, or manually.
Input contact 2:	Input contact to suppress blow-clearing if fire alert is detected by SIS.
Output contact:	Output contact for error messages to SIS.
Protection class:	IP65 with a transparent control element cover.
Temperature range:	+5 bis +45 Grad Celsius

Suitable for use only inside buildings with standard environmental conditions.
No acidic ambient air.

Dimensions:

Width:	750 mm
Height:	600 mm
Breadth:	200 mm

Timer control :

Number of blow-clearing:	standard 6 times a day
Time slice:	freely adjustable

Optional:

- Case of stainless steel
- Internal adjustable cabinet heating
- Pressure controll
- External filter for sensor pipe

Automatic Blow-Clear System Serie 4 HD
3-Sensor Pipe System

Technical Data:

Electrical connection:	230V AC 1.5mm²
	(Option PLC 24 V + Valve power 230V)
Comressed air connect.:	Standard compressed-air-quick-coupling max. 10 bar. Internal pressure reducer for adjusting des working pressure depending on lenght of sensor pipe max. 8bar. Minimum needed pressured air supply 4,5 bar.
Sensor/Suction pipe:	25mm PVC couplings for bonding
Reset contact 1A/B:	Closes for a second, every time before and/or after or during blow-clearing takes place. This is so that, provided it is compatible with the air intake system, the error message "low air flow" is suppressed during blow-clearing, or for cleaning is deactivated.
Input contact 1a:	Input contact for unscheduled blow-clearing by means of a SIS signal, or manually.
Input contact 2:	Input contact to suppress blow-clearing if fire alert is detected by SIS.
Output contact:	Output contact for error messages to SIS.
Protection class:	IP65 with a transparent control element cover.
Temperature range:	+5 bis +45 Grad Celsius

Suitable for use only inside buildings with standard environmental conditions.
No acidic ambient air.

Dimensions:

Width:	750 mm
Height:	600 mm
Breadth:	200 mm

Timer control :

Number of blow-clearing:	standard 6 times a day
Time slice:	freely adjustable

Optional:

- Case of stainless steel
- Internal adjustable cabinet heating
- Pressure controll
- External filter for sensor pipe

Automatic Blow-Clear System Serie 4 HD
4-Sensor Pipe System

Technical Data:

Electrical connection:	230V AC 1.5mm²
	(Option PLC 24 V + Valve power 230V)
Comressed air connect.:	Standard compressed-air-quick-coupling max. 10 bar. Internal pressure reducer for adjusting des working pressure depending on lenght of sensor pipe max. 8bar. Minimum needed pressured air supply 4,5 bar.
Sensor/Suction pipe:	25mm PVC couplings for bonding
Reset contact 1A/B:	Closes for a second, every time before and/or after or during blow-clearing takes place. This is so that, provided it is compatible with the air intake system, the error message "low air flow" is suppressed during blow-clearing, or for cleaning is deactivated.
Input contact 1a:	Input contact for unscheduled blow-clearing by means of a SIS signal, or manually.
Input contact 2:	Input contact to suppress blow-clearing if fire alert is detected by SIS.
Output contact:	Output contact for error messages to SIS.
Protection class:	IP65 with a transparent control element cover.
Temperature range:	+5 bis +45 Grad Celsius

Suitable for use only inside buildings with standard environmental conditions.
No acidic ambient air.

Dimensions:

Width:	750 mm
Height:	600 mm
Breadth:	200 mm

Timer control :

Number of blow-clearing:	standard 6 times a day
Time slice:	freely adjustable

Optional:

- - Case of stainless steel
- - Internal adjustable cabinet heating
- - Pressure controll
- - External filter for sensor pipe

Technical User Manual for Blow-Clear Equipment:

**For all technical questions ask your reseller or Mr. Markus Petermann
from Hacker & Petermann GmbH support on phone number : 0043 (0) 676 845435 200**

Installation:

The Blow-Clear system must be installed between your smoke in-take system and the pipe network.
More specifically, the Blow-Clear apparatus should be installed immediately behind the smoke in-take
system. We suggest to install possible filter etc. between our automatic Blow-Clear-System and the
sensor pipe. Ask your filter supplier for more information of insensitivity of filter against pressured air.
If you are interested in tested filters made for blow clear systems, we can provide you these.

We recommend to fix our system firmly onto the wall, using dowels and screws. You should use the
prepared four holes. Especially by the IP 65 model we advise the usage of screws with
sealings.

The Blow-Clear-System should be connected with the standard plastic pipes of your smoke in-take
system. Please open the plastic screwing 1* of the lower "suction pipe" and on the upper "sensor pipe"
and push the plastic pipes of your SIS through the provided holes *2.
Than glue the pipes sealed with your standard adhesive into the pipe coupling *3.
By screwing down the plastic screws *1 after the adhesive is cured the case will be sealed.
The distance between pipes is 10cm from middle pipe to middle pipe.
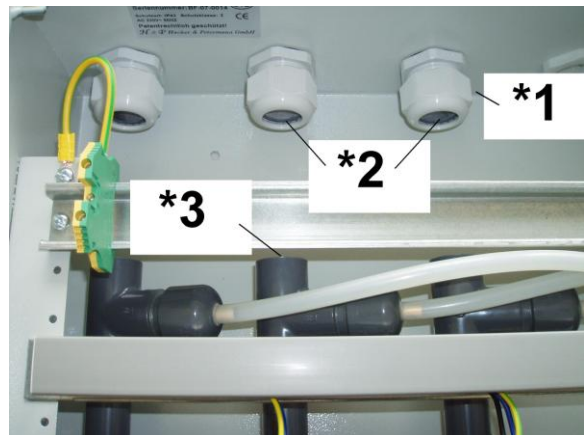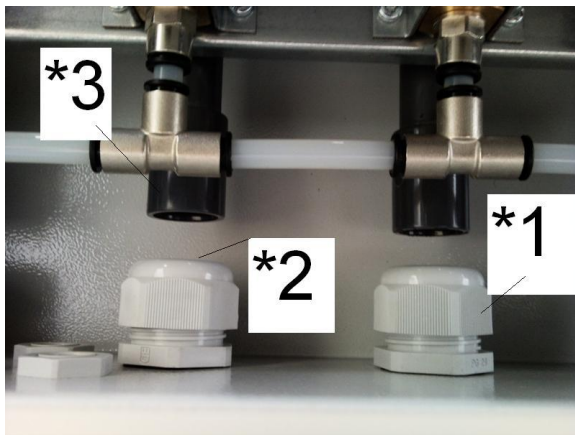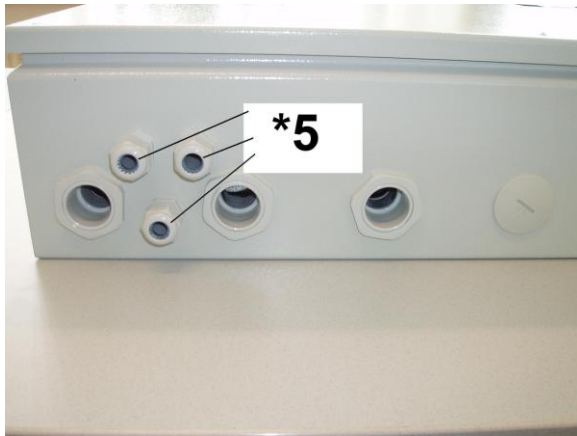

The compressed-air quick release coupling *4 must be connected with oil-free compressed air of
between 4,5 and max. 10 bar. Make sure that the compressed air supply is sufficient.

Electrical connections:

As the cable entry *5 is situated at the bottom, the system can be connected to the mains supply as well as to the smoke intake system, if necessary.

The Blow-Clear System operates on an alternating current of 230 volts.
Connect up to the terminals as follows: Live (black), Neutral (blue), Protective Earth (green/yellow).

The in- and output contacts will be connected depending on programming.
Further information you can find in the circuit diagrams.

Additional installation guide for 24Volt PLC :

In contrast to the 230 VAC PLC Variant the PLC is connected with 24 V at the 24 V clips. See picture!

In this way all inputs can be used with 24V technic.

The connection to 230 V AC is still necessary for power supply of valves.

Adjust the internal pressure reducer:

In order to save you further costs, our new automatic blow clear system has a serial pressure reducer with a manometer *6.
This one allows you to reduce the standard pressure of your pressured air supply with about 8-10 bar to the optimal working pressure. We advise to begin with a pressure of approximately 2 bar and to increase pressure depending on sensor pipe length. Maximal pressure should be 8 bar, because you loose warranty of valves with higher pressures.

Attention:
Our new automatic blow clear system Serie 4 contain ¼" pressure valves, which allows a higher air flow with the same working pressure. So the pressure and the airflow has to be adjusted with the pressure reducer.

Included:

- Protection class IP65 with folding upwards control element cover for better protection against water, dust and contact to electrical parts.

- Internal pressure reducer with manometer:

  This one allows you to reduce the standard pressure of your pressured air supply with about 8-10 bar to the optimal working pressure. We advise to begin with a pressure of approximately 2 bar and to increase pressure depending on sensor pipe length.
  Maximal pressure should be 8 bar, because you loose warranty of valves with higher pressures.

  Attention:
  Our new automatic blow clear system Serie 4 contain ¼" pressure valves, which allows a higher air flow with the same working pressure. So the pressure and the airflow has to be adjusted with the pressure reducer.

- Input contact for unscheduled blow-clearing by means of an SIS signal, or manually by installed button. Here, an input contact I1 is installed, which activates the blow-clearing in case the signal (e.g. of the smoke intake system) is not available (e.g. error message "line blocked").

- Input contact for suppressing a blow-clearing if a fire alert is detected by SIS while clearing should happen by schedule.

- Output contact for error message.
  Here, an output contact O1&2 (NO switch) is installed that can for instance – depending on the programming – signal that, after unscheduled blow-clearing, the SIS input signal (e.g. error message "line blocked") is still not activated.

Optional:

- Case made of stainless Steel for bad environmental conditions/ recommended by law or just for a better design.

- Equipment cabinet heating
  To protect the technical equipment against lower temperatures, etc, a pre-assembled equipment cabinet heating is available. It can be readily integrated into the Blow-Clear System.

- Pressure control
  In case off too less pressured air it produce a signal.

Technical data AFE Serie 4 HD Blow Clear System

Electrical connection: 230V AC 1.5mm²
                                (Option PLC 24 V + Valve power 230V)
Comressed air connect.:   Standard compressed-air-quick-coupling max.10 bar
                                „oil free" pressured air.

                                We advise „oil free" air, in order to keep the sensor pipes clean.
                                Modern compressors can supply relative „oil free" air.
                                If you use several Blow Clear Systems we advise to set different times
                                for blow clearing in order to minimize the max. needed amount of
                                pressured air.

                                Internal pressure reducer for adjusting des working pressure
                                depending on lenght of sensor pipe max. 8bar.
                                Minimum needed pressured air supply 4,5 bar.

Compressed air valve: 1/4" NC 230 V AC
Steering valve: 1/8" NC 230 V AC with automatic vent
Pressure controlled valve: 1" NO pneumatic angle seat valve for best CV factor.

Sensor/Suction pipe: 25mm PVC couplings for bonding. 10cm distance pipe to pipe.
Protection class: IP65 with a transparent control element cover.
Temperature range: +5 bis +45 Grad Celsius

Suitable for use only inside buildings with standard environmental conditions.
No acidic ambient air.

Dimensions 4.1-4.4:

Width: 750 mm
Height: 600 mm
Breadth: 200 mm

Timer control :

Number of blow-clearing: standard 6 times a day
Time slice: freely adjustable

Setting the Blow-Clearing Intervals & Programming:

Bluefly Blow-Clear Systems are delivered factory-adjusted to meet the customer's requirements. Only the time setting for the blow-clearing has to be changed, if necessary.

If you want to set the blow clearing times you need the Logo Soft 5 software and a data cable. In the supplied control program you only are allowed to set the two timers on the upper left side. Double-click on the timer and change the "Nocken" 1-3 (your blow-clearing times) analog to the old one. That means from 07:00 and 07:01 you can make 14:30 and 14:31.
The one minute delay is only for the program.

All changes in software have to be made by professional personal. Consequential damages are excluded from any possible warranty or liability claim.

For any further information please contact us on the telephone numbers given before.