



CLEAN BUILDINGS HEALTHY ANIMALS

EFFICIENT DISINFECTION WITH PULSFOG
AEROSOL TECHNOLOGY

pulsFOG[®]
AEROSOL SYSTEMS

PATHOGENS IN LIVESTOCK BUILDINGS

In modern livestock operations, pathogens can spread throughout the entire building within a very short time and cause significant damage.

Poultry and pig populations are particularly susceptible to pathogens such as:

- **Salmonella**
- **Campylobacter**
- **Avian influenza (bird flu)**
- **Moulds such as Aspergillus**

INFECTIONS CAN LEAD TO PRODUCTION LOSSES-ANIMAL MORTALITY AND SIGNIFICANT ECONOMIC DAMAGE. CONSISTENT STABLE HYGIENE IS THEREFORE A KEY COMPONENT OF MODERN LIVESTOCK FARMING.



CLEAN BUILDINGS ENSURE HEALTHY ANIMALS

BIOSECURITY AND LIVESTOCK HYGIENE

This includes all measures aimed at preventing pathogens from entering a livestock population or spreading within a farm.

Effective disinfection of buildings, equipment and air is essential.

Consistent disinfection helps to:

- **reduce pathogens**
- **interrupt infection chains**
- **improve animal health**
- **reduce production losses**

A HYGIENICALLY CLEAN BUILDING IS THE FOUNDATION FOR HEALTHY ANIMALS AND ECONOMICALLY SUCCESSFUL PRODUCTION.



CHALLENGES IN LIVESTOCK CLEANING

Before disinfection, buildings must be thoroughly cleaned. Organic residues such as manure, feed remains, feathers or bedding provide ideal conditions for microorganisms.

Even after intensive cleaning, pathogens can still be present, especially in:

- **cracks**
- **ventilation systems**
- **ceiling and wall areas**
- **hard-to-reach areas**

LIMITS OF CONVENTIONAL SPRAY METHODS

Many disinfection measures are based on high-pressure or spray methods.

Typical problems include:

- shadowing on walls and ceiling
- uneven distribution of active substances
- high water consumption
- high labour effort
- contamination of sewage sludge

These methods cannot always ensure complete disinfection.

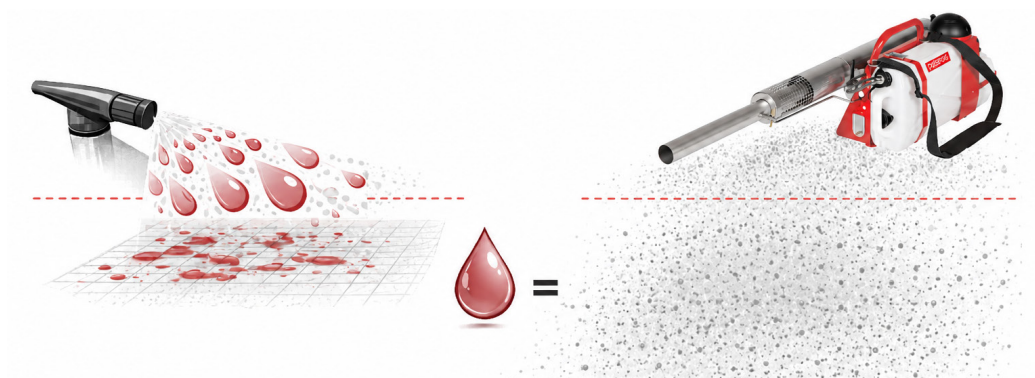
The effectiveness of disinfection depends largely on droplet size.

Fine aerosols offer several advantages:

- uniform distribution throughout the building
- access to hard-to-reach areas
- longer suspension in the air
- uniform coverage

This allows the active ingredient to develop its full effect.

EFFECTIVE DISINFECTION MUST THEREFORE ALSO REACH AREAS THAT ARE DIFFICULT TO ACCESS WITH CONVENTIONAL METHODS.



ULTRA-FINE AEROSOLS – MAXIMUM EFFECT

THE PULSFOG METHOD

EFFICIENT LIVESTOCK HYGIENE

PULSFOG IS ONE OF THE PIONEERS OF FOGGING TECHNOLOGY. SINCE THE 1950S, OUR FOUNDER DR. K.H. STAHL HAS PLAYED A KEY ROLE IN DEVELOPING INNOVATIVE DEVICES USED WORLDWIDE. TODAY, THIS EXPERIENCE ENABLES PARTICULARLY UNIFORM AND EFFECTIVE DISINFECTION.

With pulsFOG technology, a solution is atomized into ultra-fine droplets and distributed as an aerosol.

The fog spreads evenly throughout the building and reaches areas that are difficult to treat with conventional methods.

This enables uniform treatment of:

- **surfaces**
- **equipment**
- **ventilation systems**
- **airborne pathogens**

The fine aerosols remain suspended in the air for longer and distribute evenly throughout the space. This allows the active ingredient to achieve its full effectiveness.



The fog generated by the pulsFOG machine spreads quickly throughout the entire building.



YOUR BENEFITS WITH PULSFOG

- UNIFORM DISTRIBUTION THROUGHOUT THE BUILDING
- HIGH EFFECTIVENESS DUE TO ULTRA-FINE AEROSOLS
- REDUCED USE OF DISINFECTANTS
- LOWER WATER CONSUMPTION
- FAST TREATMENT OF LARGE AREAS
- REDUCED LABOUR EFFORT

FLEXIBLE APPLICATION IN LIVESTOCK HYGIENE

FOGGING INSIDE THE BUILDING

FOGGING BY MOVING THE MACHINE THROUGH THE BUILDING

One option is to position the pulsFOG machine inside the building and move it slowly during the fogging process.

Start with the machine positioned roughly in the centre of the building. The generated fog spreads evenly throughout the space and reaches even hard-to-access areas.

As soon as the fog begins to drift back towards you, slowly move the machine further backwards. During the application, step back gradually towards the exit.

In this way, the entire building is filled evenly with fog.

This fogging option requires the use of full personal protective equipment (e.g. respirator, protective clothing).



The pulsFOG machine is actively moved through the building.

FLEXIBLE APPLICATION IN LIVESTOCK HYGIENE

FOGGING FROM THE OUTSIDE

WITHOUT ENTERING THE BUILDING

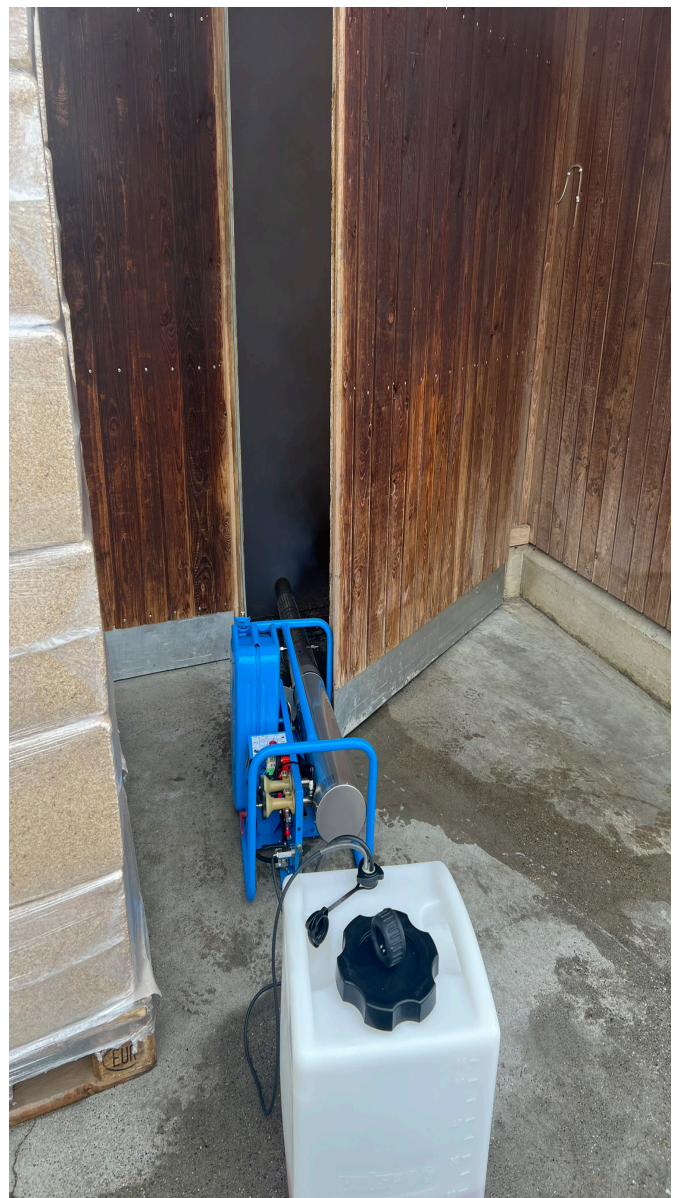
Alternatively, fogging can be carried out from outside the building. In this case, the pulsFOG machine is positioned at the entrance so that the engine remains outside the building.

If possible, the fogging pipe can be inserted into the building through a suitable opening in the wall. From this position, the fog can be distributed throughout the entire building.

This method enables efficient disinfection without the need to enter the building during application.

It is important to ensure that the specified amount of disinfectant is fully applied inside the building.

This fogging option does not require personal protective equipment.



The pulsFOG machine remains outside the building, with the fogging pipe directed inside.

DOSAGE, FOGGING TIME AND MACHINE SELECTION AT A GLANCE

Effective disinfection depends on the correct dosage and a uniform application.

The following guideline values are based on many years of practical experience and typical applications with pulsFOG machines.

DOSAGE VALUES BY CONCENTRATION

Equivalent concentration (high-volume spraying)	1%	2%	3%
Active ingredient volume / 1000 m ³ (pulsFOG application)	1,5 - 2 Litres	3 - 4 Litres	4,5 - 8 Litres
+ Water	4 Litres	5 Litres	6 Litres
+ Additive (steadyFOG)	0,5 Litres	0,5 Litres	0,5 Litres
Total volume/ 1000 m ³	6 - 6,5 Litres	8,5 - 9,5 Litres	11 - 14,5 Litres

FOGGING TIME BY MACHINE

	1%	2%	3%
pulsFOG K-22	18 min	27 min	33 - 52 min
pulsFOG K-30	6 min	9 min	11 - 14 min
pulsFOG K-50	3 min	5 min	5 - 7 min

DISCHARGE RANGE & FLOW RATE – MACHINE PERFORMANCE COMPARISON

	Fog throw range	Flow rate	Livestock building size
pulsFOG K-22	up to 60 m	approx. 30 l/h	Small building areas / longer treatment time acceptable
pulsFOG K-30	up to 95 m	approx. 60 l/h	Medium-sized buildings / efficient operation
pulsFOG K-50	up to 150 m	approx. 120 l/h	Large-scale facilities / fast treatment is essential

Would you like to determine the optimal solution for your operation?
We support you in selecting the right machine and defining the optimal application.

Note:

The values given are intended as a guideline and are based on practical experience in real applications. Depending on the disinfectant used, building size and environmental conditions, adjustments may be required.

You can find all available pulsFOG machines in our product catalog or at www.pulsfog.de/fogging-products

GLOBAL PRESENCE LOCAL EXPERTISE

OUR MISSION

WITH OUR FOGGING TECHNOLOGY, WE DEVELOP AND MANUFACTURE SOLUTIONS THAT HELP PROTECT PEOPLE, ANIMALS AND PLANTS EFFECTIVELY FROM PATHOGENS AND PESTS.

WE FOCUS ON PRECISE AEROSOL TECHNOLOGY, DURABLE EQUIPMENT AND THE EFFICIENT USE OF RESOURCES.

GERMAN ENGINEERING

Precision. Reliability. Trust.

Our machines stand for quality, reliability and durability.

They meet international standards and are certified accordingly:

- **DIN EN ISO 9001**
- **WHO guidelines**
- **Safety tested by independent institutions**



We operate worldwide with a strong network of distribution partners and service centres, ensuring reliable support for our customers across the globe.

We take responsibility for our partners and customers in key quality markets worldwide.

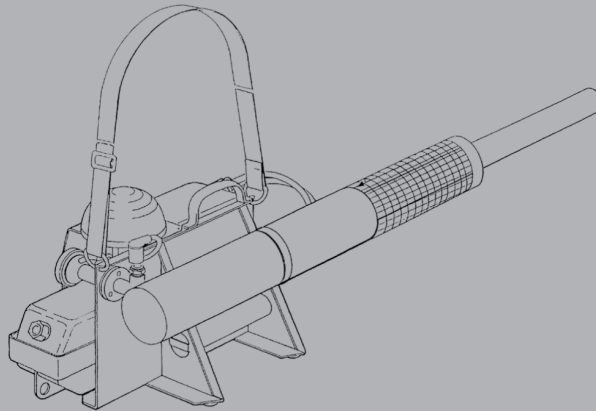
International presence:

- **Engineering and production in Germany**
- **Subsidiary in South America**
- **Production in India**
- **Production in Egypt**
- **Production in the Netherlands**



OUR VISION

We aim to contribute to creating safe and healthy environments for people, animals and plants worldwide.



pulsFOG = PRECISE FOGGING TECHNOLOGY FOR THE PROTECTION OF PEOPLE, ANIMALS AND PLANTS

■ **MADE**
■ **IN**
■ **GERMANY**



IMPRINT

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Responsible for the content:
The Managing Director
Edition: 11-MAY-2026



Management
System
ISO 9001:2015
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ID 9105047775