

Installation, operating and maintenance instructions

**Air handling units KG / KGW
compliant with ATEX for potentially
explosive atmospheres**

**Supplementary user information
(Translation of the original)**



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General

These installation and operating instructions apply only to Wolf KG / KGW air handling units compliant with ATEX.

Before installation read these additional instructions as well as the installation instructions for the relevant version of the KG/KGW air handling units thoroughly and observe them.

The installation instructions should be considered an integral part of the unit supplied, and should always be easily accessible.

Failure to observe these installation and operating instructions voids any Wolf warranty.

Reference symbols

The following symbols and reference symbols are used in this description. These important instructions concern personal and operational safety.



"Safety instructions" are instructions which you must follow exactly, to prevent risks or injuries to individuals, and damage to the unit.



Danger from 'live' electrical components!

Never touch electrical components or contacts when the system ON/OFF switch is in the ON position! This carries a risk of electrocution that may lead to injury or death.

Note

"Note" designates technical instructions which you must observe to prevent the unit being damaged or malfunctioning.

In addition to installation and operating instructions, there are notes attached to the unit in the form of labels.

These must also be observed.

Safety instructions

Only qualified and trained personnel may be appointed for the installation, commissioning, maintenance and operation of the unit.



Only qualified electricians are permitted to work on the electrical system.



The regulations of VDE and those of your local electricity supply utility are applicable to electrical installation work.

Only operate the unit within its output range, which is stated in the technical documentation supplied by Wolf.

Only use the unit in accordance with the instructions given in the technical documentation supplied by Wolf.

Only operate the unit when it is in perfect technical condition. Any faults or damage which impact or might impact upon the safety or correct function of the unit must be remedied immediately by qualified personnel.

Only replace faulty components or equipment with original WOLF spare parts.

Standards and regulations

94/9 EC	EC ATEX Directive: Directive for equipment and protective systems intended for use in potentially explosive atmospheres
DIN 13463 Part 1	Non-electrical appliances for use in potentially explosive atmospheres Principles and requirements
DIN 13463 Part 5	Non-electrical appliances for use in potentially explosive atmospheres Protection through safe design
DIN EN 1127 Part 1	Explosive atmospheres - protection against explosion Principles and methodology
DIN EN 14986	Design of fans working in potentially explosive atmospheres.

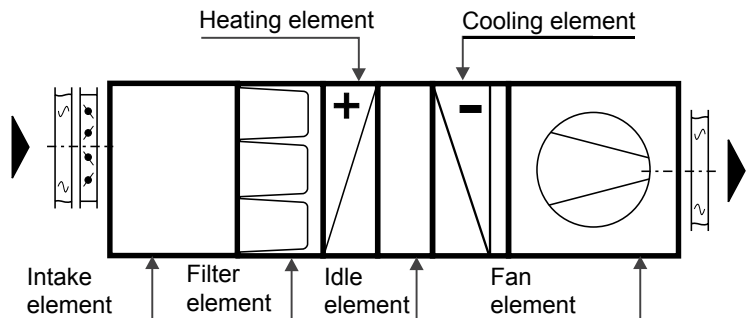
Scope

Supplementary instructions for KG / KGW air handling units compliant with ATEX for potentially explosive atmospheres.

General unit description and design:

Wolf KG / KGW air conditioning units in the ATEX version consist of individual function units, such as filter section, heater section, cooler section, silencer and fan section, which, when assembled in the appropriate configuration, produce a complete exhaust air unit, supply air unit, partial air conditioning unit or combined supply and exhaust air unit. The KG version is designed for indoor installation, while the KGW version is conceived as a weatherproof unit for outdoor installation. The housings of the individual function units consist of a galvanised support frame construction and removable side panelling. The panelling consists of an inner and an outer galvanised cladding panel with non-flammable A1 insulation between the panels. Functional units that need to be accessible for maintenance, such as the filter section or the fan section, are provided with additional inspection doors.

Example: Partial air handling unit



Correct use



Wolf KG / KGW air handling units compliant with ATEX must only be operated in the potentially explosive atmosphere indicated on the type plate:

Explosion protection zone: 2
Unit group: II
Unit category: 3G
Temperature classification: T1, T2, T3, T4 (not T5, T6)
Explosion group: IIA and IIB (not IIC)

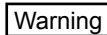
Explosion protection zone: 1
Unit group: II
Unit category: 2G
Temperature classification: T1, T2, T3, T4 (not T5, T6)
Explosion group: IIA and IIB (not IIC)

The units are only designed for the transport of air or potentially explosive atmospheres.

The transport of solids in the transport medium is not permissible.

An on-site modification or incorrect use of the unit is not permissible and we accept no liability for any damage caused as a result.

Instructions for safe use



Installation, commissioning, electrical installation, maintenance and repair must only be carried out by qualified personnel.

Highest permissible surface temperature of all components, max. heater bank flow temperature:

Temperature classification	Ignition temperature	Highest permissible surface temperature of all components, max. heater bank flow temperature	
		Zone 2 (G)	Zone 1 (G)
T 1	> 450 °C	450 °C	360 °C
T 2	> 300 °C	300 °C	240 °C
T 3	> 200 °C	200 °C	160 °C
T 4	> 135 °C	135 °C	108 °C
T 5	> 100 °C	100 °C	80 °C
T 6	> 85 °C	85 °C	68 °C

Max. ambient temperature: -20 °C to +40 °C

Free-running fans may only be operated with an inverter if a protected ignition type drive motor "Pressure-tested enclosure EEx de II" is fitted.

Use only screened cables with inverters.

Protection and monitoring equipment must not restart automatically.

Heater-heat exchangers must only be operated with pumped warm water; operation with pumped hot water is not permissible.

Sufficient frost protection is to be ensured through on-site measures (e.g. antifreeze N mixed into the pumped warm water, anti-frost contact sensors on the return).

Valve control is required with appliance versions for explosion protection zone 1, which prevents the supply of medium when the fan is idle.

Unit installation

Weatherproof units installed on rooftops must be equipped on site with an appropriate lightning protection system.

Operating mode

During operation, the air drawn in must not cause damage to the surface coating of the fan through corrosion or chemical attacks, abrasion or other attacks.
The units are not suitable for transporting media that is corrosive to zinc.
Damaged unit components must be replaced immediately, as explosion protection can no longer be assured.
During operation it must be ensured that no hot particles (e.g. red hot grinding sparks) can find their way into the installation area of the air handling unit, as this would create a risk of fire and explosion.

Maintenance

Check unit for function, damage and dirt at regular intervals.
Large amounts of dirt on the fan and inlet nozzles (caking) must be removed immediately, as the explosion protection cannot otherwise be assured.
Filter maintenance:
Clean filters regularly (replace). A maintenance schedule with short inspection intervals is recommended for fire protection reasons.
Only use original Wolf replacement filters and ensure the filters are correctly earthed.
For belt-driven fans only use "electrically conductive V-belts" with the appropriate identification.

Power supply

In accordance with ATEX, ensure the earthing of the unit casing downstream of the pumped warm water lines.
(Shunt resistance < 1GΩ)

