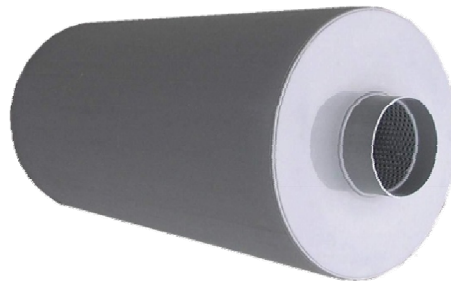




**Splitter Attenuators
Series KKS**

**Duct Attenuators
Series KRS**



**Duct Attenuator with Core
Series KRS-K**

Attenuators (Plastic)

OPERATING INSTRUCTIONS

Translation of the original operating instructions

1. Basic safety instructions

1.1 Conditions of use

The attenuators have been built according standard practices and recognised safety standards. Except in special cases, their utilisation does not lead to personal injuries or damage of material assets. It is extremely important that the conditions of use are observed and that the unit is in perfect working order. Non-compliance with the specified requirements constitutes a violation of the conditions of use. The manufacturer is not liable for damages resulting from such non-compliance.

The operating limits specified by the manufacturer must be observed. Particular attention must be paid to:

- ♦ the permissible values for temperature, internal pressure and flow rate (depending on the model and the construction material)
- ♦ the chemical resistance of the construction materials with respect to the conveyed medium
- ♦ the medium must not contain foreign particles and has to be practically dustless.
- ♦ dusts or gases with a tendency to produce deposits may cause damage.

The technical specifications stated in the MIETZSCH documentation and Planning Guideline valid at the time the contract was concluded shall apply, unless specified otherwise by contractual agreements.

1.2 Organisational measures

- ♦ All installation and repair work on the component, particularly welding work, must be carried out by appropriately instructed and reliable personnel.
- ♦ Maintenance and cleaning intervals are to be specified by the owner/user according to the operating conditions and, if necessary, in consultation with the manufacturer.
- ♦ In the event of any changes that affect the safety (e.g. leakages of gas or condensate from unsealed points, damage and defects such as cracks and deformation), the system must be shut down and repaired.

1.3 Residual risks

Since it is not always possible to prevent leakages of small amounts of conveyed medium due to wear and ageing of the component, suitable safety measures should be implemented, depending on how dangerous the gas is.

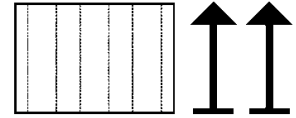
Depending on the technical sound attenuation concept, the sound pressure level may exceed the immission limit value specified by the Unfallverhütungsvorschrift "Lärm" (Accident Prevention Regulation "Noise") in the vicinity of the ventilation system and also the attenuator. Suitable measures must be implemented to protect persons within this zone from noise-related injuries.

2. Transport and storage

- ♦ Loading work must be carried out by experienced personnel. Hoisting gear and hoist attachments with sufficient load-bearing capacity must be used.
- ♦ When transporting the unit, attention must be paid to the fact that plastics can be damaged by collisions, particularly at low temperatures. The components must be properly secured against movement, tipping and collisions.
- ♦ If the unit is to be transported with a crane, use suitable hoisting gear, e.g. a gantry crane.
- ♦ In the event of prolonged storage, plastic parts must be protected against climatic conditions, particularly against exposure to UV radiation. Darkly coloured tarpaulins and plastic films are unsuitable for protection against climatic conditions. Exposure to intense sunlight can heat the components and thus damage them.

3. Installation information for the attenuator (the component)

Check the component for damage sustained during transport.



If not otherwise agreed, comply with the following:

- ♦ install in a horizontal and flat position with no vibrations
- ♦ install splitter attenuators horizontally with the baffles oriented vertically
- ♦ there must not be any mechanical loads due to connected components
- ♦ there must be enough room for expansion (thermal expansion)
- ♦ fasteners must be appropriately dimensioned and mounted (no inadmissible loading of the component)
- ♦ condensate must be able to drain unhindered and must be disposed of in an environmentally acceptable manner

Commissioning

Check the inside of the system and remove any foreign objects that may have been left behind.

Pay special attention to forgotten tools and leftover materials.

Before commissioning, check that the system has been installed in accordance with the project and that it will be operated in accordance with the conditions of use (see Section 1.1). Cordon off the vicinity so that there is no risk of personal injuries or damaging material assets if damage has been sustained during transportation or due to foreign bodies. Abnormal noises often indicate a faulty system. Contact the manufacturer if this occurs during the warranty period. Unauthorised manipulation and modifications void the warranty.

4. Operation and maintenance

Operate the system at all times in accordance with the safety regulations as well as the conditions of use stipulated in Section 1. Maintenance work amounts to inspections and cleaning work. The frequency depends on the respective operating conditions and must be specified by the owner/user.

The inspection must include the following:

- ♦ check of all components for visible damage such as cracks, leakage points, deformations
- ♦ soiling

During cleaning, pay attention to the following:

- ♦ cleaning fluids must not attack the plastics.
- ♦ do not use hard or sharp objects for mechanical cleaning.
- ♦ do not clean the inside of the attenuator with a strong water jet because this could damage the absorber material.

The attenuator must be inspected thoroughly after about 10 years. A specialist must then decide on its further use.

5. Repair information

When working on the attenuator, always switch off fans and other machinery. Take measures to ensure that it cannot be switched on during repair work.

6. Disposal

Plastic components are designed to last. Thus disposal issues only crop up after many years of operation. The individual components are not regarded as hazardous waste according to current legislation.

- ♦ dispose of metal components (fasteners, screws, etc.) in the usual manner
- ♦ cleaned (!) plastic components can be disposed of as normal waste.

The owner/user must dispose of residual materials and deposits in the attenuator in an **environmentally acceptable** manner.