



Plastic droplet eliminator TRA series

OPERATING INSTRUCTIONS

Translation of the original operating instructions

1. Basic safety instructions

1.1 Intended use

The droplet eliminators have been built according to the state of the art and recognised safety regulations. When they are used, dangers to life and limb or damage to material assets can only arise in special cases. It is therefore extremely important that the intended use is observed and that the droplet eliminators are in perfect working order. Non-compliance with the aforementioned requirements is considered improper use. The manufacturer is not liable for any damage resulting from such non-compliance and improper use.

The droplet eliminator may only be operated within the limits of use specified by the manufacturer.

In particular, please note:

- ♦ To achieve the desired separation, the projected volumetric flow (or flow rate) is to be maintained. Otherwise, the desired degree of separation cannot be achieved.
- ♦ If droplets occur that are smaller than the projected limit for the droplet size, this causes the droplets to “penetrate”, thereby reducing separation. The following points are to be observed when using the droplet eliminator:
- ♦ The permissible temperature depending on the respective material (PVC: 40 °C / PPs: 70 °C)
Temperatures below freezing are not permitted.
- ♦ Unless otherwise agreed, the permissible negative pressure is 1000 Pa.
Use of the droplet eliminator in the negative pressure range is only permitted if the manufacturer has agreed to such use.
- ♦ The chemical resistance of the materials used with respect to the conveyed medium
- ♦ The medium must not contain any foreign particles.
- ♦ It is imperative to ensure the unimpeded discharge of the separated liquid.

Insofar as there are no separate contractual stipulations for the limits of use, the technical specifications in the MIETZSCH documentation and planning guideline valid at the time the contract is concluded shall apply.

1.2 Organisational measures

- ♦ All installation and repair work on the component, particularly welding work, may only be carried out by trained and reliable personnel.
- ♦ Maintenance and cleaning intervals are to be specified by the owner according to the operating conditions and, if necessary, such intervals are to be agreed with the manufacturer.
- ♦ In the event of any changes that affect safety (e.g. gas or liquid leaks, externally visible damage and defects such as cracks and deformations), the system is to be shut down and repaired.

1.3 Residual risks

As it is not always possible to prevent the discharge of small amounts of the conveyed medium due to wear and the ageing of the component, suitable safety measures are to be specified, depending on how hazardous the gas and liquid is. Such measures include installation in a drip pan or the specification of appropriate occupational health and safety measures.

2. Transport and storage

- ♦ Loading work is only to be carried out by experienced personnel. Hoisting gear and hoist attachments with sufficient load-bearing capacity are to 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.
- ♦ Suitable lifting tackle is to be used for crane transport, e.g. cross beams.
- ♦ In the event of prolonged storage, plastic parts are to be protected against climatic conditions, particularly against exposure to UV radiation. Dark-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. Instructions for installing the droplet eliminator

Unless otherwise agreed, the following points are to be observed:

- ◆ Prior to installation, check the droplet eliminator for transport damage.
- ◆ Install it with horizontal flow and vertically arranged eliminator profiles.
- ◆ Set it up in such a way that it is vibration-free and without mechanical loads from coupled components on level floors or consoles. There must be sufficient room for expansion (thermal expansion).
- ◆ The direction of flow is to be indicated by an arrow attached to the housing.
- ◆ It is necessary to ensure as even a flow as possible. The undisturbed approach section should be at least 2 x side length (a or b). Significant directional changes and obstructions in close proximity to the eliminator reduce its effectiveness. It is imperative that such directional changes and obstructions are avoided.
- ◆ Good accessibility is to be ensured in order to facilitate simple cleaning or the potential replacement of eliminator elements.
- ◆ A sufficiently dimensioned drain pipe is to ensure that the separated liquid can drain freely at all times.
- ◆ Depending on the type of dissolved substances, the liquid is to be treated in an environmentally acceptable manner.
- ◆ Suitable measures (e.g. siphon, collecting tank or immersion pipe) are to be taken at the drain pipe to prevent secondary air flows. The depth of immersion is to be determined according to the negative pressure at the gas outlet side of the droplet eliminator.
- ◆ A valve is to be installed in the drain line, which must be closed during operation.

Initial commissioning

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

Pay special attention to forgotten tools and leftover materials.

Prior to commissioning, check that the system has been installed in accordance with the project and that it will be operated in accordance with the "intended use" (c.f. Sec. 1.1). Cordon off the vicinity so that there is no risk of personal injuries or damage to material assets if damage has been sustained during transport 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

At all times, operate the system in accordance with the safety regulations and the intended use stipulated in Section 1. Inspections and cleaning are to be carried out on a regular basis. The inspection and cleaning interval is to be specified by the system owner. Due consideration is to be given to the operating conditions in this regard.

The inspection must include the following:

- ◆ Check of all components for visible damage such as cracks, leaks, deformations
- ◆ Contamination

During cleaning, pay attention to the following:

- ◆ Eliminators with a spray module are generally cleaned by the sprayed liquid to a sufficient extent.
- ◆ With regard to eliminators without a spray module, the eliminator cassettes are pulled out and carefully washed down with a liquid jet. Carefully remove deposits by mechanical means.
- ◆ With regard to eliminators without cassettes, the slats can be pulled out individually. However, this should only be done in exceptional cases (e.g. system failure), as insertion is relatively difficult.
When installed, the profiles are to be carefully washed from above with a liquid jet. This is to be done through the cleaning openings. In special cases, the entire droplet eliminator is to be removed from the system and then cleaned.
- ◆ Cleaning fluids must not dissolve the plastics. Water is generally sufficient.
- ◆ Do not use hard or sharp objects for mechanical cleaning.
- ◆ The drain valve is to be opened during cleaning.

The eliminator is to be inspected thoroughly after approximately 10 years. A specialist must then decide on its further use.

5. Repair instructions

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

6. Disposal

Plastic droplet eliminators are durable products. Disposal issues therefore only arise after many years of operation. The individual components are not regarded as hazardous waste according to current legislation.

- ◆ Dispose of metal components (fasteners, screws, stiffeners etc.) in the usual manner.
- ◆ Cleaned (!) plastic components can be disposed of as normal waste.

The owner is to dispose of residual materials and deposits in the droplet eliminator in an **environmentally acceptable manner**.

We declare herewith that the MIETZSCH ventilation components designated below comply with the current european and german standards and regulations:

pipes, ducts, fittings e.g. round elbows, transitions, sleeves und flanges¹⁾,
waste air components e.g. deflector hoods, air extraction hoods, sound silencers
control components, e.g. throttle- and shut-off dampers, back-draft dampers, louvre dampers,
separation systems e.g. droplet eliminators

MIETZSCH follows the european standards and regulations designated below:

89/106/EEC	Council Directive for marketing construction products
EN 13 779	Ventilation for non-residential buildings. Performance requirements for ventilation and room-conditioning systems
EN 1506	Ventilation for buildings - Sheet metal air ducts and fittings with circular cross-section - Dimensions
EN 12 237	Ventilation for buildings - Ductwork. Strength and leakage of circular sheet metal ducts
EN 1505	Ventilation for buildings - Sheet metal air ducts and fittings with rectangular cross-section - Dimensions
EN 1507	Ventilation for buildings - Sheet metal air ducts with rectangular section - Requirements for strength and leakage
EN 1751	Ventilation for buildings - Air terminal devices - Aerodynamic testing of damper and valves

Applied national technical standards and rules:

DIN 4740-1, -2, -5	Ventilation plants; unplasticized polyvinylchloride (PVC-U) pipes, ducts, fittings; calculation of the minimum wall thickness
DIN 4741-1, -2, -5	Ventilation plants; polypropylene (PP) pipes, ducts, fittings; calculation of the minimum wall thickness
DIN 4102	Fire behaviour of building materials and building components; air ducts
DVS 2205	Calculation of tanks and apparatus made of thermoplastics

1) Flanges or frames are manufactured according to company standard MWS, but can be manufactured according to other standards, too.

This declaration **does not apply** for fans and fan accessories



Rausch
Manager

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