

Custom-made plastic profiles for the HVAC industry:

Droplet separators for advanced air-handling units.



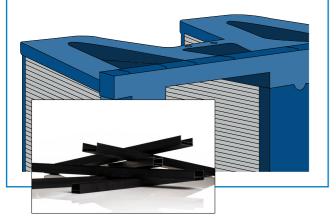


ADVANCED EXTRUSION TECHNOLOGY TO OPTIMISE YOUR AHU SOLUTIONS

Primo designs and manufactures new innovative profiles for the HVAC industry, including filter frames, drop separators and thermal breaks for air-handling units. We work closely with our customers to support their development projects, always striving to find the optimum solution. Our AHU plastic profiles are used to provide optimum insulation and energy saving properties to the final product.

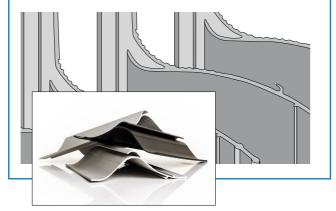
FILTER FRAMES

Primo filter frames support and hold air filters in place and prevent them from moving. They ensure that the filters are positioned correctly and perform optimally, ensuring that the air circulating in a building is clean and free of contaminants. The profiles are available as standard or customised profiles and are suitable for any type of commercial filter system.



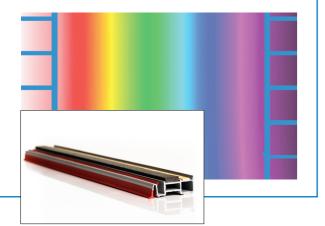
DROP SEPARATORS

Our high-quality plastic lamella for drop separators in air washers or as condensate separators in ventilation systems prevent condensate from accumulating in the HVAC system, which can cause damage to ducts, equipment, and even the building structure. Explore our variety of shapes and sizes for different HVAC configurations. They are designed to drain the collected condensate to a collection point, where it can be properly disposed of.



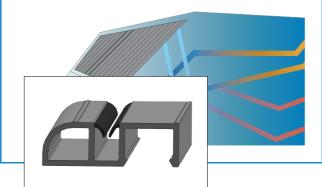
THERMAL BREAKS

Taylormade thermal breaks from Primo join the inner and outer sheets of enclosure panels and increase their insulation values. The profiles can be manufactured from halogen-free and PVC materials, with or without fibre content, co-extruded with soft lips for sealing issues, and various tapes can be added for additional insulation or as a mounting aid.



SPECIAL APPLICATIONS

Examples of special applications for AHU are housing profiles for heat exchangers, sliding profiles, blades, etc. By co/ tri/quad extrusion and special finishing of the profiles, different features can be combined in a single product. Features such as sawing, drilling, punching can be added. Customers benefit from extended design and functional options, ease of assembly, reduced labour/production costs, improved service life in special environments.



DROPLET SEPARATORS FOR AHU



T 100

T 200

T 400

T400/1

T 500



Applications

The T 100 is used as a straightener or droplet separator for condensers as well as in air washers and humidifiers. Likewise, the T 100 is the most used separator profile in plastic apparatus constructions, for electroplating systems and for roof rain separators.

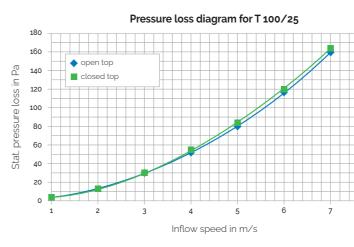
Technical specifications

The installation depth is 170 mm. Recommended profile spacing: - 25 to 30 mm as straightener - 25 mm as droplet separator Continuous operational temperature: max. 100 °C

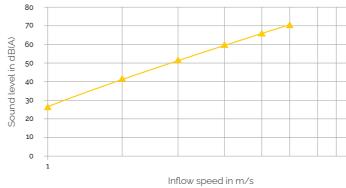
Tested for microbial inertness.

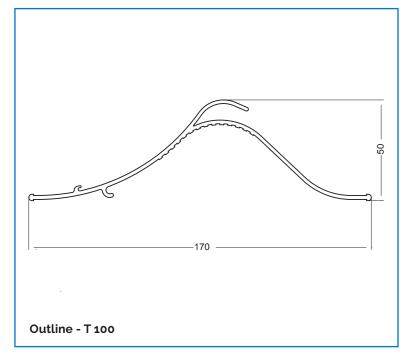
PERFORMANCE OVERVIEW OF DROPLET SEPARATORS T 100 (25 MM DISTANCE)

Calculated droplet size limitation for T 100/25 35 🔶 d50 **d**95 30 🔺 d99,9 25 Temperature: 22°c 20 Humidity: 22% DEHS-Aerosol. Thickness: 0,91 g/cm 15 10 0 4 0 2 1 Inflow speed in m/s



Droplet separator 100/25 - sound level in dB(A)





Material:

PPTV: natural or black PPTV: black with increased UV resistance PVC: grey

The performance profile of the separator is shown in the diagrams on the opposite page. Use at higher face velocities is at the user's own risk and is dependent on the design of the air handling unit as well as the structural conditions. Test samples are available free of charge.

Availability:

Profiles are available in standard lengths of 6000mm. Packaging consists of wooden boxes containing 130 profiles each.

Special cut lengths and quantities are available at extra cost.



 d50: Limit drop-size at 50% separating ability
d95: Limit drop-size at 95% separating ability
d99.9: Limit drop-size at 99.9% separating ability

Example:

At 2 m/s inflow speed drops will be separated as follows: from 6,5 μm to 50%, from 12,5 μm to 95% from 32,0 μm to 99,9%

Installation:

Lamellas installed in frames made of galvanised steel



🔷 a) open top

(without cover); air escapes through the lamella and upwards and downwards through the drain

b) closed top

(with cover); air escapes through the lamella and downwards through the drain

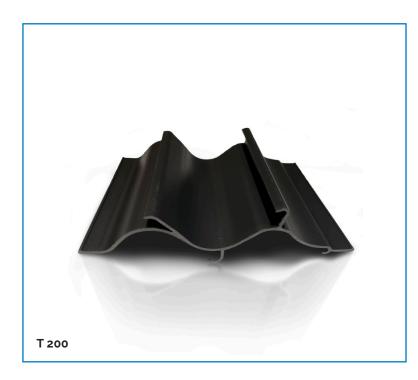


Further performance features on request:

a) Pressure drop as rectifier with 25 mm,30 mm and 33 mm spacings

b) Pressure loss as droplet separator installed in the duct; air can exclusively escape through the lamellas

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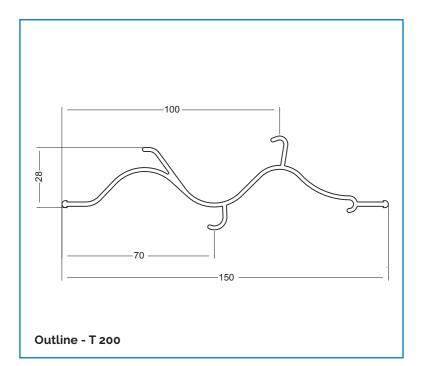
Applications

The T 200 is used as a droplet separator (rarely as a straightener) in air washers and humidifiers. Against the backdrop of an increasingly hot and humid summer, the T 200 is also often used in air conditioning and ventilation systems behind coolers or heat exchangers. It proves its high separation performance at relatively low pressure losses as an optimal combination. Older systems are already being retrofitted with the T 200, taking structural conditions into account.

Technical specifications

The installation depth is 150 mm. Recommended profile spacing: - 25 mm as a straightener - 25 to 30 mm as droplet separator Continuous operational temperature: max. 100 °C

Tested for microbial inertness.



Material:

PPTV: natural or black PPTV: black with increased UV resistance

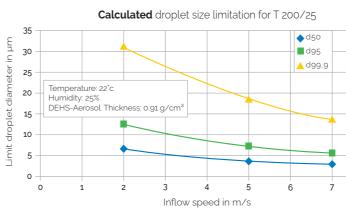
The performance profile of the separator is shown in the diagrams on the opposite page. Use at higher face velocities is at the user's own risk and is dependent on the design of the air handling unit as well as the structural conditions. Test samples are available free of charge.

Availability:

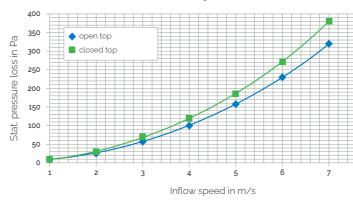
Profiles are available in standard lengths of 6000mm. Packaging consists of wooden boxes containing 130 profiles each.

Special cut lengths and quantities are available at extra cost.

PERFORMANCE OVERVIEW OF DROPLET SEPARATORS T 200 (25 MM DISTANCE)



Pressure loss diagram for T 200/25



Droplet separator T 200/25 - sound level in dB(A)





 d50: Limit drop-size at 50% separating ability
d95: Limit drop-size at 95% separating ability
d99.9: Limit drop-size at 99.9% separating ability

Example:

At 2 m/s inflow speed drops will be separated as follows: from 6,5 μm to 50%, from 12,5 μm to 95% from 32,0 μm to 99,9%

Installation:

Lamellas installed in frames made of galvanised steel

🔷 a) open top

(without cover); air escapes through the lamella and upwards and downwards through the drain

b) closed top

(with cover); air escapes through the lamella and downwards through the drain

Further performance features on request:

a) Pressure drop as rectifier with 25 mm,30 mm and 33 mm spacings

b) Pressure loss as droplet separator installed in the duct; air can exclusively escape through the lamellas







Applications

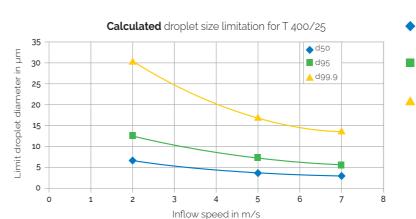
The T 400 is used as a droplet separator for condensers as well as in air conditioners behind cooling units and heat exchangers (rarely as a straightener in air washers).

Technical specifications

The installation depth is 105 mm. Recommended profile spacing: - 25 mm as droplet separator Continuous operational temperature: max. 100 °C

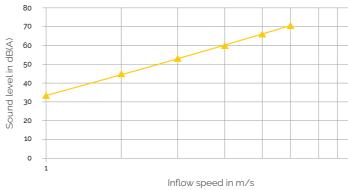
Tested for microbial inertness.

PERFORMANCE OVERVIEW OF DROPLET SEPARATORS T 400 (25 MM DISTANCE)



Presure loss diagram for T 400/25

Droplet separator T 400/25 - sound level in dB(A)



Outline - T 400

Material:

PPTV: natural or black PPTV: black with increased UV resistance

The performance profile of the separator is shown in the diagrams on the opposite page. Use at higher face velocities is at the user's own risk and is dependent on the design of the air handling unit as well as the structural conditions. Test samples are available free of charge.

Availability:

Profiles are available in standard lengths of 6000mm. Packaging consists of wooden boxes containing 320 profiles each.

Special cut lengths and quantities are available at extra cost.

 d50: Limit drop-size at 50% separating ability
d95: Limit drop-size at 95% separating ability
d99.9: Limit drop-size at 99.9% separating ability

Example:

At 2 m/s inflow speed drops will be separated as follows: from 6,0 μm to 50%, from 11,5 μm to 95% from 30,0 μm to 99,9%

Installation:

Lamellas installed in frames made of galvanised steel

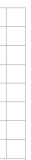


🔷 a) open top

(without cover); air escapes through the lamella and upwards and downwards through the drain

b) closed top

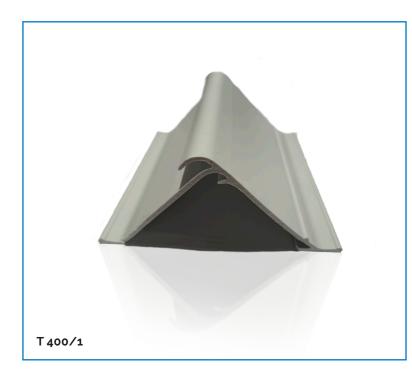
(with cover); air escapes through the lamella and downwards through the drain



Further performance features on request:

Pressure loss as droplet separator installed in the duct; air can exclusively escape through the lamellas

TYPE T 400/1



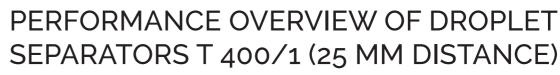
Applications

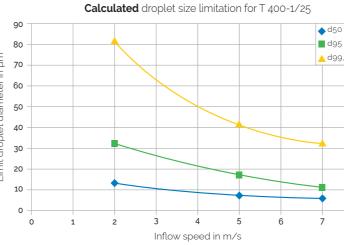
The T 400/1 is used as a droplet separator in air conditioning units behind cooling aggregates and heat exchangers.

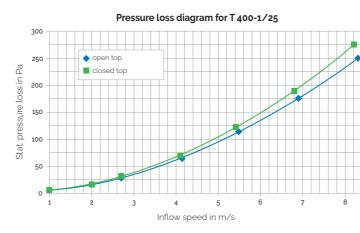
Technical specifications

The installation depth is 100 mm. Recommended profile spacing: - 25 mm as droplet separator Continuous operational temperature: max. 100 °C

Tested for microbial inertness.







Droplet separator T 400-1/25 - sound level in dB(A)



Outline - T 400/1

Material:

PPTV: natural or black PPTV: black with increased UV resistance

The performance profile of the separator is shown in the diagrams on the opposite page. Use at higher face velocities is at the user's own risk and is dependent on the design of the air handling unit as well as the structural conditions. Test samples are available free of charge.

Availability:

Profiles are available in standard lengths of 6000mm. Packaging consists of wooden boxes containing 210 profiles each.

Special cut lengths and quantities are available at extra cost.



♦ **d50:** Limit drop-size at 50% separating ability **dg5:** Limit drop-size at 95% separating ability 🔺 d99.9: Limit drop-size at 99,9% separating ability

Example:

At 2 m/s inflow speed drops will be separated as follows: from 12,0 µm to 50%, from 31,0 µm to 95% from 80,0 µm to 99,9%



Installation:

Lamellas installed in frames made of galvanised steel

a) open top

(without cover); air escapes through the lamella and upwards and downwards through the drain

b) closed top

(with cover); air escapes through the lamella and downwards through the drain



Further performance features on request:

a) Pressure drop as rectifier with 25 mm, 30 mm and 33 mm spacings

b) Pressure loss as droplet separator installed in the duct; air can exclusively escape through the lamellas



Applications

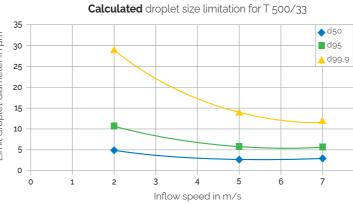
The T 500 is used as a droplet separator for condensers as well as in air conditioners behind cooling units and heat exchangers.

Technical specifications

The installation depth is 100 mm. Recommended profile spacing: - 33 mm as droplet separator Continuous operational temperature: max. 100 °C

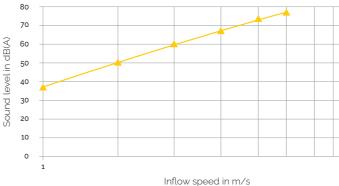
Tested for microbial inertness.

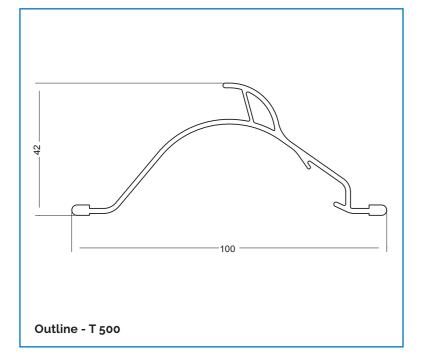
PERFORMANCE OVERVIEW OF DROPLET SEPARATORS T 500 (33 MM DISTANCE)



Presure loss diagram for T goo/31

Droplet separator T 500/33 - sound level in dB(A)





Material:

PPTV: natural or black PPTV: black with increased UV resistance

The performance profile of the separator is shown in the diagrams on the opposite page. Use at higher face velocities is at the user's own risk and is dependent on the design of the air handling unit as well as the structural conditions. Test samples are available free of charge.

Availability:

Profiles are available in standard lengths of 6000mm. Packaging consists of wooden boxes containing 300 profiles each.

Special cut lengths and quantities are available at extra cost.



 d50: Limit drop-size at 50% separating ability
d95: Limit drop-size at 95% separating ability
d99.9: Limit drop-size at 99,9% separating ability

Example:

At 2 m/s inflow speed drops will be separated as follows: from 6,0 μm to 50%, from 11,0 μm to 95% from 28,0 μm to 99,9%

Installation:

Lamellas installed in frames made of galvanised steel

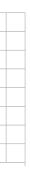


🔷 a) open top

(without cover); air escapes through the lamella and upwards and downwards through the drain

b) closed top

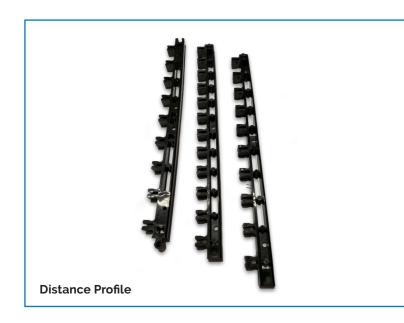
(with cover); air escapes through the lamella and downwards through the drain



Further performance features on request:

Pressure loss as droplet separator installed in the duct; air can exclusively escape through the lamellas

DISTANCE PROFILE



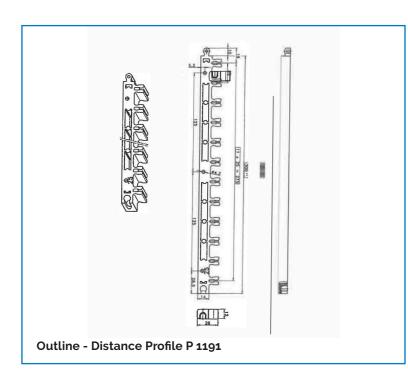
Application

PRIMO spacer profiles are used to install of the droplet separator profiles in droplet separator cassettes, air washers and humidifiers and duct constructions. Precisely fitting connections result in an endless profile with always the same defined distances.

Technical specifications

Total length (approx.): 300mm Usable length P 1191 (25 mm) 275mm Usable length P 1192 (30 mm) 270mm Usable length P 1193 (33 mm) 264mm Continuous operating temperature: max. 100 °C

Tested for microbial inertness.



Material:

PP/PE: black Material samples are available on request

Availability:

- Spacer profile with 25 mm spacing (P 1191): 250 pieces/carton
- Spacer profile with 30 mm spacing (P 1192): 450 pieces/carton
- Spacer profile with 33 mm spacing (P 1193): 450 pieces/carton

Working with Primo, you will get a:

ONE STOP SHOP

Primo designs and manufactures tailored polymer profile solutions for the HVAC industry. Our in-house tooling competence center guarantees optimal performance of the tools and the manufacturing process. We offer inline machining, finishing as well as packaging solutions to save resources in the assembly process.

GLOBAL BUSINESS PARTNER

Primo is a reliable business partner with decades of experience working together with leading HVAC/AHU solution providers. Primo is a Danish family-owned company, consisting of production units in Europe and Asia ready to serve you. With our well-spread production capacity and raw material sourcing at group level we offer security in your supply chain.

MATERIAL & PROCESS SPECIALIST

Primo uses high-quality raw material and grades dedicated for the HVAC applications including thermal breaks, filter frames and droplet separators for air-handling units, always fulfilling the industry's standards and special requirements. Our production lines and processes are optimised for highest output and quality.

DESIGN AND INNOVATION EXPERT

Through our material and extrusion technology know-how we support you in the development process. Our experts are at your full disposal - improving your projects and securing that the quality level is met and producibility of the products are optimised.

RESPONSIBLE SUPPLIER

We are committed to help customers reduce their Co2 emissions. We will do so by optimising our production process to use less material and resources and by investing in sustainable solutions. Together with customers and suppliers we will drive innovation in sustainable materials and designs and increase the uptake of recycled and renewable materials.





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