



# EcoMultiCyclone

## Powerful bath cleaning

The **EcoMultiCyclone** is used for the separation of solid particles from the pre-treatment baths in automotive paint finishing. Compared to conventional bag filter systems, the use of the **EcoMultiCyclone** significantly reduces the dirt particles in the entire system peripherals. Its immediate impact is a much higher surface quality and less manual rework compared to cleaning with bag filters only.

**EcoMultiCyclone** contributes to sustainability by requiring significantly lower energy; bag filters do not need to be manually exchanged and disposed of resulting in less waste production.

One of its greatest strengths are the specially designed unbreakable inserts made from a TPE-plastic composite. They stand for longevity and ease of maintenance.

### HIGHLIGHTS



High filtration efficiency

Optimized processes

Unbreakable inserts

– High breaking strength

– High abrasion resistance

– High temperature and shape stability

Easy maintenance

Easy to retrofit

Sustainable

Compact design

# Technical Data

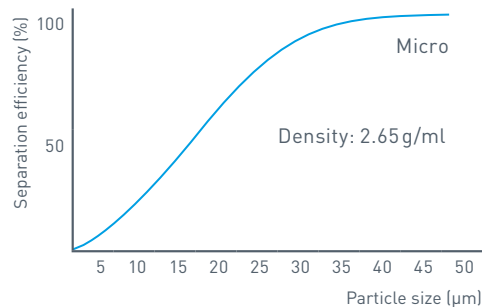
## EcoMultiCyclone

### OPTIMIZED PROCESSES

The **EcoMultiCyclone** is placed in the first zones of the pre-treatment. In a continuous process, the bath fluid is pumped through the inlet in the housing and the conical cyclone inserts. Here, due to centrifugal force, the actual process of separation of the solid particles and fluid takes place. Welding slag and grinding particles are collected in the lower part of the housing and discharged at intervals of time to a downstream band filter. The recovered liquid is fed continuously back into the pre-treatment zone.

### HIGHER QUALITY

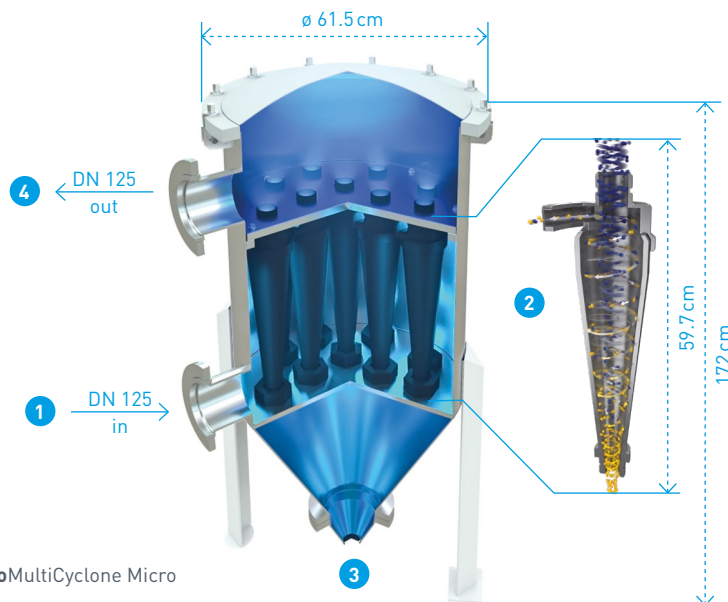
- Highest level of separation
  - Micro: 90% at 30  $\mu\text{m}$ ,  
100% at 50  $\mu\text{m}$
- Optimally sized passages for inlets and outlets



### COMPACT AND FLEXIBLE DESIGN

- Low installation heights
- Optimized passage through modified feed pipe
- Variable number of inserts
- Vessel available in mild steel or stainless steel

### HIGH FILTRATION EFFICIENCY WITH MINIMAL NEED FOR SPACE



EcoMultiCyclone Micro

- 1 Insertion of the bath fluid with up to 6 bar of pressure in the conical cyclone inserts; pressure drop: 0.8–1.2 bar.
- 2 Separation: Dirt particles are pressed to the inner wall and slide down. The cleaned liquid is thrown up into the secondary vortex.
- 3 Delivery of separated solids to the downstream filter.
- 4 Continuous recirculation of recovered fluid in the pre-treatment zone.

Pressure drop	1.2 bar	1.5 bar
Flow rate per single cyclone	12 m <sup>3</sup> /h	15 m <sup>3</sup> /h

approx. flow rates per vessel

MC12/12	144 m <sup>3</sup> /h	180 m <sup>3</sup> /h
MC12/11	132 m <sup>3</sup> /h	165 m <sup>3</sup> /h
MC12/10	120 m <sup>3</sup> /h	150 m <sup>3</sup> /h
MC12/9	108 m <sup>3</sup> /h	135 m <sup>3</sup> /h
MC12/8	96 m <sup>3</sup> /h	120 m <sup>3</sup> /h
MC12/7	84 m <sup>3</sup> /h	105 m <sup>3</sup> /h
MC6/6	72 m <sup>3</sup> /h	90 m <sup>3</sup> /h
MC6/5	60 m <sup>3</sup> /h	75 m <sup>3</sup> /h
MC6/4	48 m <sup>3</sup> /h	60 m <sup>3</sup> /h
MC6/3	36 m <sup>3</sup> /h	45 m <sup>3</sup> /h
MC6/2	24 m <sup>3</sup> /h	30 m <sup>3</sup> /h

### Definition of the EcoMultiCyclone

To reach a pressure drop of about 1 bar  
Every single cyclone flow rate should be about 12–15 m<sup>3</sup>/h

For pump calculation:  
12 m<sup>3</sup>/h => 1.2 bar pressure drop  
15 m<sup>3</sup>/h => 1.5 bar pressure drop

**EcoMultiCyclone** names in flow chart and in order description: MC12/xx or MC6/x  
(first digit = vessel size / second digit = number of installed cyclones per vessel)