



Z-line filter, construction CBC



**Z-LINE FILTER,  
CONSTRUCTION PLA**

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## ZLW

### FOR HIGH DUST CONCENTRATIONS OR AS A PREFILTER FOR FINE DUST FILTERS

Z-line filter for the separation of coarse dust, used as the first stage in ventilation and air conditioning units or as prefilters for high-quality filter stages

- Filter group ISO Coarse (Coarse dust filter)
- Large filter area due to folding
- Low differential pressures at high volume flow rates
- Moisture-resistant cardboard frame
- Optional frame made of plastic, galvanised sheet steel, stainless steel or aluminium
- Optionally with flat seal
- Tested according to ISO 16890

## Application

- Z-line filter type ZLW for the separation of coarse dust in ventilation and air conditioning systems
- Coarse dust filter: Prefilter in ventilation systems

## Special features

- High dust holding capacity at low initial differential pressure
- Long filter life
- Quick fitting and removal
- Low weight and small transport volume
- Can be easily and safely disposed of in municipal refuse incineration plants as emissions are low in harmful substances

## Nominal sizes

- B × H × T [mm]

## Filter classes

### Filter group

- ISO Coarse to ISO 16890

### Filter classes

- Coarse 90 %
- Coarse 60 %

## Construction

- PLA: Frame made of plastic
- PLAF: Frame made of plastic with 25 mm flange
- CBG: Cardboard frame glued
- CBC: Cardboard frame punched
- CBS: Cardboard frame stapled
- GAL: Galvanised sheet steel
- STA: Stainless steel
- AL: Aluminium

## Useful additions

- Standard cell frame (SCF-B), filter wall (SIF), universal casing (UCA)

## Construction features

- Folded filter media
- Moisture-resistant, stable cardboard frame
- Available in various filter classes and sizes, including commercial installation depths and cross-sections

## Materials and surfaces

- Filter media made of synthetic fibres
- Cardboard frame
- Optional frame made of plastic, galvanised sheet steel, stainless steel or aluminium
- Optionally with flat profile seal on the upstream or downstream side or on both sides

## Standards and guidelines

- Test according to ISO 16890; international standard for general ventilation and air conditioning; classification of efficiency based on the measured fractional efficiency, which is processed into a reporting system for the fine dust efficiency (ePM)
- For coarse dust filters, the gravimetric separation is measured with synthetic dust
- The filters are classified into filter group ISO Coarse depending on the tested values
- For fine dust filters, the fractional arrestance efficiency of a certain size range is determined by aerosols (DEHS and KCl)
- The filters are classified into filter groups ISO ePM10, ISO ePM2.5 and ISO ePM1 depending on the tested values

# TECHNICAL INFORMATION

Gravimetric efficiency Coarse [%] according to ISO 16890	60	90
Nominal face velocity [m/s]	2.5	2.5
Initial differential pressure [Pa] at nominal volume flow rate for T = 48 mm	50	90
Initial differential pressure [Pa] at nominal volume flow rate for T = 96 mm	35	70
Maximum operating temperature [°C]	60	60
Maximum relative humidity [%]	100	100

## Specification text

Z-line filter type ZLW for the separation of coarse dust when used as prefilters in ventilation and air conditioning systems. Z-line filters are available in various filter sizes, including common installation depths and cross-sections, filter group ISO Coarse according to ISO 16890. The filter media is folded, increasing the dust holding capacity and extending the filter life.

## Special features

- High dust holding capacity at low initial differential pressure
- Long filter life
- Quick fitting and removal
- Low weight and small transport volume
- Can be easily and safely disposed of in municipal refuse incineration plants as emissions are low in harmful substances

## Materials and surfaces

- Filter media made of synthetic fibres
- Cardboard frame
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## Sizing data

- Filter group [ISO 16890]
- Efficiency [%]
- Volume flow rate [m³/h]
- Initial differential pressure [Pa]
- Nominal size [mm]

ZLW	-	Coarse	-	60 %	-	CBG	/	592 × 592 × 48	/	FNB
1		2		3		4		5		6

1 Type  
ZLW Z-line filter

2 Classification  
Coarse Gravimetric separation efficiency according to ISO 16890

3 Separation efficiency  
Separation efficiency [%] according to ISO 16890

4 Construction  
CBG Cardboard frame, glued  
CBC Cardboard frame, punched  
CBS Cardboard frame, with clamps  
PLA Plastic frame  
PLAF Plastic frame with 25 mm flange  
GAL Frame made of galvanised sheet steel  
STA Frame made of stainless steel  
AL Aluminium frame

5 Nominal size [mm]  
Specify size (width × height × depth)  
6 Seal  
No entry: without seal  
FNU Flat seal on the upstream side  
FND Flat seal on the downstream side  
FNB Flat seal on both sides  
ZLW-Coarse-90%-PLA/592×592×48  
Classification ISO Coarse to ISO 16890  
Efficiency 90 %  
Construction Plastic frame  
Nominal size 592 × 592 × 48 mm