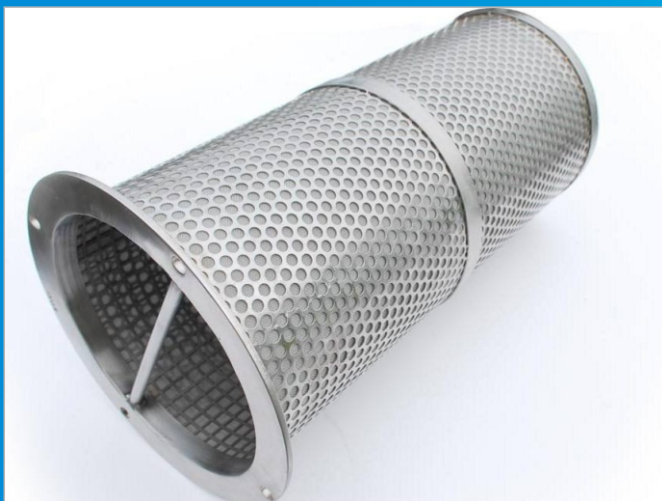


# FILTER DATASHEET

## CMI FILTRATION



## Global Delivery and Fulfillment

**The Reliable Company**

Tel+86 021-80517634 E-mail: [sales@cmi-ly.com](mailto:sales@cmi-ly.com) Web: [www.cmi-ly.com](http://www.cmi-ly.com)



# MGF Series Porous Metal Fiber Medium

Particulate Removal from Gaseous Streams

## Description

CMI MGF series sintered fiber composite material is specifically designed for removal of particulates from challenging gaseous environments. The metal fiber filters are made by metal fiber non-woven paving and sintering. It provides an asymmetrical pore structure to capture particulates on the outer surface, thus filtration is from outside to inside.

We manufacture all complete filters by our own, including the production of metal fibers, the formulation of the base medium to ensure all quality process. The sintering process fuses the structure of the filter media, insuring a "Weld-bond" which utilizes no "binders" that might contaminate downstream equipment or final product quality.

We can manufacture in a wide range of designs to be suitable in each application, especially ideal for blowback filters.



## Features

- Excellent resistance to high temperature and corrosive environments, they are suitable for aggressive gas and liquid filtrations;
- Filters can be back blown, cleaned and reused, the replacement and maintenance cost is low;
- Uniform pore distribution provides high permeability combined with high efficiency;
- Filters usually do not require complex and expensive support structures to make the capital cost low;
- Flexible Design and construction: we can custom engineered acc. to customer's data;
- Excellent machinability allows a wide range of configurations/

## Specifications

### Shape:

- Plain cylindrical or pleated types.

### Dimensions:

- Ø14-- Ø 200mm×L500--L8000mm acc. to customer needs.

### Common used sizes:

- Ø130×1200; Ø130×2400; Ø130×3000; Ø130×4000;
- Ø160×1200; Ø160×2400; Ø160×3000; Ø160×4000; Ø160×6000; Ø160×7500.

### End Connections:

- Threaded, flanges or acc.to customer request.

### Product Material:

- Stainless Steel : SS316L, SS310S. Tel+86 021-80517634 E-mail: sales@cml-ly.com Web: www.cml-ly.com

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## Product Material:

– Stainless Steel : SS316L, SS310S.

## Product Data

Metal filter product performance index

No.	Description	Data	Unit	Remark
1	Filter Medium	316L(022Cr17Ni12Mo2)	/	Sintered fiber
2	Filter Medium thickness	0.6-0.9	mm	including protection mesh
3	Filter material weight	1500-1900	g/m <sup>2</sup>	
4	Longitudinal breaking strength	1400	N/5*20cm	
5	Transverse breaking strength	1400	N/5*20cm	
6	Longitudinal elongation	≤20	%	
7	Transverse elongation	≤20	%	
8	air permeability	90/170	L/dm <sup>2</sup> .min	200pa,20cm <sup>2</sup>
9	Emission Request	≤10	mg/Nm <sup>3</sup>	
10	Inlet concentration	≤100	g/Nm <sup>3</sup>	
11	Long-term Operation temperature	≤400	C°	
12	Short-term Operation temperature	≤450	C°	
13	Filter wind speed	≤1.2	m/min	Recommended
14	Support Cage	VerticalΦ3*12,RingΦ4*200,250	mm	Recommended
15	Back Blowing Pressure	≤0.6	MPa	Compressed air, recommended 0.4~0.5
16	Gaskets	Ceramic fiber		Option

## Applications:

### Refinery:

– FCC TSS & FSS Flue Gas; Catalyst Hopper Vent Gas, etc.

### Mineral Processing:

– Off-Gas Solids Recovery from Calciners, Incinerators, Fluid Bed Dryers, and Storage Silos.

### Chemical:

– Catalyst Recovery in Fluidized Bed & Slurry Loop Reactors.

### Alternative Energy:

Biomass & Coal Gasification Flue Gas, Fischer Tropsch Synthesis.

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## Reference Cases

### Case 1:

The 1350-ton alumina roasting furnace renovation project of an Aluminum Co., Ltd.

The flue gas volume to be treated is 380,000m<sup>3</sup>/h, the dust concentration is <100g/m<sup>3</sup>, and the final emission concentration is required to be <10mg/m<sup>3</sup>.

No.	Item	Unit	Data
1	Flue gas purification treatment air volume	m <sup>3</sup> /h	380000
2	Inlet dust concentration	g/m <sup>3</sup>	<100
3	Filter Element Spec.	mm	Ø130×6000/4000
4	Number of Filter Element	Pc	2184/416
5	Filtration Speed	m/min	<1.0
6	Cleaning Pressure	MPa	0.4~0.6
7	Flue Gas Temp.	C°	160
8	Instant Max. Temp.	C°	≤450
9	Filter Element Resistance	pa	Initial<500,Final<800
10	Filter element Life	Year	≥5
11	Emission Standard	mg/m <sup>3</sup>	<5

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# MGF Series Porous Metal Fiber Medium

Particulate Removal from Gaseous Streams

## Reference Cases

### Case 2:

A Cement Co., Ltd. 1000T/D special cement clinker rotary kiln integrated dust removal and out-of-stock transformation project, using the dust removal process combined with electric bags.

The flue gas volume is 153620m<sup>3</sup>/h, and the dust concentration is less than 100g/m<sup>3</sup>, and the final emission concentration is required to be <10mg/m<sup>3</sup>.

No.	Item	Unit	Data
1	Flue gas purification treatment air volume	m <sup>3</sup> /h	153620
2	Inlet dust concentration	g/m <sup>3</sup>	<100
3	Filter Element Spec.	mm	Ø130×7000
4	Number of Filter Element	Pc	1456
5	Filtration Speed	m/min	1
6	Cleaning Pressure	MPa	<0.5
7	Flue Gas Temp.	C°	280~350
8	Instant Max. Temp.	C°	≤450
9	Filter Element Resistance	pa	<900
10	Filter element Life	Year	≥5
11	Emission Standard	mg/m <sup>3</sup>	<10

### Case 3:

The integrated project of dust removal and denitrification for glass kiln of a glass products Co., Ltd.

The flue gas volume is 88153m<sup>3</sup>/h, and the dust concentration is less than 20g/m<sup>3</sup>, and the final emission concentration is required to be <10mg/m<sup>3</sup>.

No.	Item	Unit	Data
1	Flue gas purification treatment air volume	m <sup>3</sup> /h	88153
2	Inlet dust concentration	g/m <sup>3</sup>	<120
3	Filter Element Spec.	mm	Ø160×6000
4	Number of Filter Element	Pc	480
5	Filtration Speed	m/min	<1.04
6	Cleaning Pressure	MPa	0.2~0.3
7	Flue Gas Temp.	C°	300
8	Instant Max. Temp.	C°	≤450
9	Filter Element Resistance	pa	<900
10	Filter element Life	Year	≥5
11	Emission Standard	mg/m <sup>3</sup>	<10

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# MGF Series Porous Metal Fiber Medium

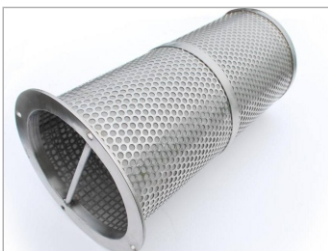
Particulate Removal from Gaseous Streams

## Reference Cases

### Case 4:

The technical transformation and expansion of a high-end alkaline refractory material project of a refractory material factory of a steel group company uses our metal dust removal process. The flue gas volume is 81200m<sup>3</sup>/h, and the dust concentration is less than 3mg/m<sup>3</sup>. The final emission concentration is required to be <10mg/m<sup>3</sup>.

No.	Item	Unit	Data
1	Flue gas purification treatment air volume	m <sup>3</sup> /h	153620
2	Inlet dust concentration	g/m <sup>3</sup>	<100
3	Filter Element Spec.	mm	Ø130×7000
4	Number of Filter Element	Pc	1456
5	Filtration Speed	m/min	1
6	Cleaning Pressure	MPa	<0.5
7	Flue Gas Temp.	C°	280~350
8	Instant Max. Temp.	C°	≤450
9	Filter Element Resistance	pa	<900
10	Filter element Life	Year	≥5
11	Emission Standard	mg/m <sup>3</sup>	<10



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