

Dust filter cartridge

120 NK

Ø 120 mm, Rd 72x5, conical

1. Features

Star-pleated Filtration Group dust filter cartridges are used to separate very fine particles from gases. The gas flows inward through the cartridge and is discharged via the open end cap on the top.

The conical shape is the outcome of the cartridge's superior flow behaviour and strength. Its performance has been significantly enhanced by the improved cleaning performance and the optimised flow conditions, especially in dust removal filters with jet pulse cleaning.

The conical elements of the 120 NK series are available in three different versions. The standard version has components made from galvanised steel. For higher requirements and food applications the FOOD version is available with stainless steel components and a polyester felt seal. The FOOD SF version is equipped with a cavity free silicone moulded seal which is more temperature resistant and prevents dust deposits on the element.

Regular, extensive material and performance tests are the key to the consistently high quality of Filtration Group dust cartridges. A team of dedicated engineers in our applications department and modern development laboratories constantly endeavour to mature and perfect our products. Applications tests both on the customer's side and in our own facilities form the backbone of affordable and reliable products.

Characteristics

- Very high loading capacity
- Improved cleaning properties
- Optimised flow conditions
- High stability
- Installation on the raw gas side (clean gas side installation with adapter)
- Compatible with Rd 60x4 thread (with adapter)
- Available in many lengths
- Universally suitable
- Food compliant elements (FOOD)
(EC 1935/2004 + EU 10/2011 and FDA) are available
- Simple, tool-free assembly
- Worldwide distribution



2. Technical Data

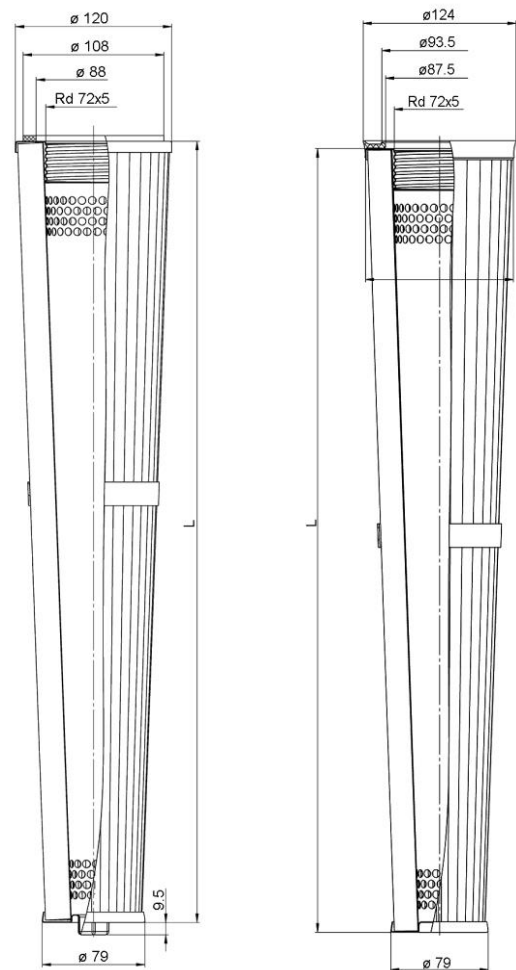
Materials

Inner core:	Galvanised steel (standard) or stainless steel V4A - AISI 316
End caps:	Galvanised steel (standard) or stainless steel V4A - AISI 316
Seal:	self-adhesive polyester felt seal (FOOD at V4A), cavity free silicone moulded seal (FOOD SF)
Filter material:	Ti 07/1 - Electrostatic conductive polyester fleece with PTFE membrane Ti 08 - Electrostatic conductive polyester fleece Ti 15 - Polyester fleece Ti 18/1 - PPS with PTFE membrane Ti 19/2 - Cellulose/polyester carrier with PP meltblown Ti 35 - Polypropylen Ti 56/2 - Polyester fleece with PTFE membrane Other filter materials on request

Cleaning

Nozzle:	Multi-jet nozzle G ³ / ₈ (MJD-12)
Cleaning pressure:	4 bar to 6 bar (max. 7 bar)
Differential pressure:	max. 18 mbar
Compressed air consumption per cleaning pulse:	appr. 4.5 l, 6.8 l or 9 l (fad)
Compressed air reservoir capacity:	appr. 1 l, 1.5 l or 2 l per cartridge (for 300, 600 or 982 mm length)

Technical data is subject to change without notice!



with self-adhesive polyester felt seal with cavity free silicone mould seal
Dimension L see under 3. Order numbers

3. Order numbers

3.1 Cartridges with galvanised steel components and polyester felt seal (standard)

Order number	Type designation	Length L [mm]	Filter material	Filter surface [m ²]	Max. vol. flow* [m ³ /h]	Max. operating temperature ** [°C]	Electro-static conductive
76353502	852 902 Ti 07/1-0,5	300	Ti 07/1	0.5	50	100	yes
76353510	852 902 Ti 08-0,5		Ti 08			100	
76353528	852 902 Ti 15-0,5		Ti 15			100	
76930879	852 902 Ti 19/2-0,5		Ti 19/2			90	
76353536	852 902 Ti 56/2-0,5		Ti 56/2			100	
78333304	852 903 Ti 07/1-1,0	600	Ti 07/1	1.0	100	100	yes
78321649	852 903 Ti 08-1,0		Ti 08			100	
78311821	852 903 Ti 15-1,0		Ti 15			100	
78388001	852 903 Ti 19/2-1,0		Ti 19/2			90	
78311706	852 903 Ti 56/2-1,0		Ti 56/2			100	
78333312	852 904 Ti 07/1-1,6	982	Ti 07/1	1.6	165	100	yes
78311896	852 904 Ti 08-1,6		Ti 08			100	
78311912	852 904 Ti 15-1,6		Ti 15			100	
78388019	852 904 Ti 19/2-1,6		Ti 19/2			90	
78311904	852 904 Ti 56/2-1,6		Ti 56/2			100	

* Based on a filter area load of 1.7 m³/m²min

These values may vary depending on the nature of the dust and the composition of the gas.

** Depending on media/materials, higher temperature ranges on request.

3.2 Cartridges with stainless steel components and polyester felt seal (FOOD, food grade)

Order number	Type designation	Length L [mm]	Filter material	Filter surface [m ²]	Max. vol. flow* [m ³ /h]	Max. operating temperature ** [°C]	Electro-static conductive
76353619	852 902 Ti 07/1-0,5 V4A FOOD	300	Ti 07/1	0.5	50	100	yes
76355309	852 902 Ti 08-0,5 V4A FOOD		Ti 08			100	
76355317	852 902 Ti 15-0,5 V4A FOOD		Ti 15			100	
76930986	852 902 Ti 35-0,5 V4A FOOD K197		Ti 35			80	
76353601	852 902 Ti 56/2-0.5 V4A FOOD		Ti 56/2			100	
78345811	852 903 Ti 07/1-1,0 V4A FOOD	600	Ti 07/1	1.0	100	100	yes
78311656	852 903 Ti 08-1,0 V4A FOOD		Ti 08			100	
78311839	852 903 Ti 15-1,0 V4A FOOD		Ti 15			100	
70315756	852 903 Ti 18/1-1,0 V4A FOOD		Ti 18/1			100	
78331449	852 903 Ti 35-1,0 V4A FOOD K197		Ti 35			80	
78311714	852 903 Ti 56/2-1,0 V4A FOOD		Ti 56/2			100	
78333320	852 904 Ti 07/1-1,6 V4A FOOD	982	Ti 07/1	1.6	165	100	yes
79355645	852 904 Ti 08-1,6 V4A FOOD		Ti 08			100	
78311953	852 904 Ti 15-1,6 V4A FOOD		Ti 15			100	
76160964	852 904 Ti 18/1-1,6 V4A FOOD		Ti 18/1			100	
78311938	852 904 Ti 56/2-1,6 V4A FOOD		Ti 56/2			100	

* Based on a filter area load of 1.7 m³/m²min

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** Depending on media/materials, higher temperature ranges on request.

3.3 Cartridges with stainless steel components and silicone moulded seal (FOOD SF, food grade)

Order number	Type designation	Length L [mm]	Filter material	Filter surface [m ²]	Max. vol. flow* [m ³ /h]	Max. operating temperature ** [°C]	Electro-static conductive
70563593	852 902 Ti 07/1-0,4 V4A FOOD SF	300	Ti 07/1	0.4	40	100	yes
70390297	852 902 Ti 07/1-0,5 V4A FOOD SF		Ti 07/1	0.5	50	100	
72374676	852 902 Ti 07/1-0,5 V4A FOOD SF K197		Ti 07/1			130	
72336065	852 902 Ti 08-0,5 V4A FOOD SF		Ti 08			100	
72470915	852 902 Ti 18/1-0,5 V4A FOOD SF		Ti 18/1			130	
70304998	852 903 Ti 07/1-0,8 V4A FOOD SF	600	Ti 07/1			0.8	80
70352342	852 903 Ti 07/1-1,0 V4A FOOD SF		Ti 07/1	1,0	100	100	
72404235	852 903 Ti 07/1-1,0 V4A FOOD SF K197		Ti 07/1			130	
70567704	852 903 Ti 08-1,0 V4A FOOD SF		Ti 08			100	
70317159	852 903 Ti 15-1,0 V4A FOOD SF		Ti 15			100	
70358656	852 904 Ti 07/1-1,3 V4A FOOD SF	982	Ti 07/1			1.3	135
76353312	852 904 Ti 07/1-1,6 V4A FOOD SF		Ti 07/1	1.6	165	100	
70543547	852 904 Ti 07/1-1,6 V4A FOOD K197		Ti 07/1			130	
72381731	852 904 Ti 08-1,6 V4A FOOD SF		Ti 08			100	

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These values may vary depending on the nature of the dust and the composition of the gas.

** Depending on media/materials, higher temperature ranges on request.

Other cartridges on request

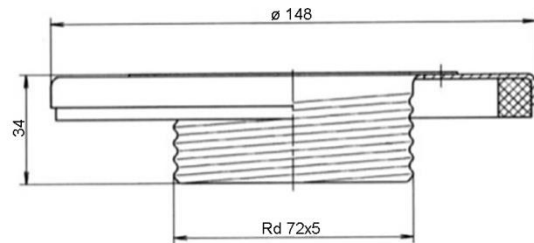
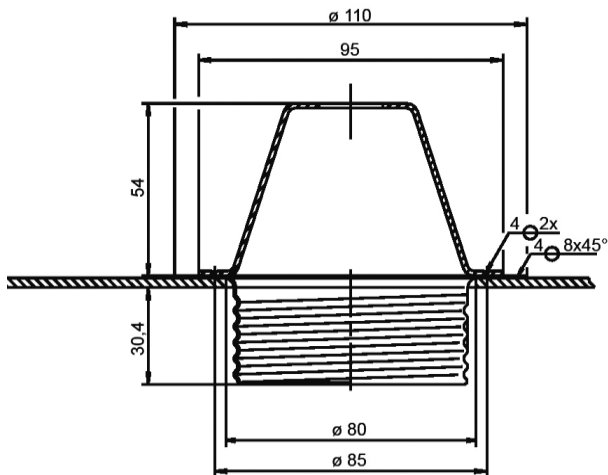
4. Installation

The dust filter cartridge can be mounted on and dismantled from the filter plate using the Rd 72x5 thread adapter - no tools required.

A hole with a diameter of 80 mm must be drilled in the filter plate in order to mount the thread adapter. The stirrup and the thread adapter should be spot-welded to the filter plate as shown in the drawing.

Various adapters are available for installation on the cleaned side or for mating with Rd 60x4 or Rd 74x4 round threads.

Tightening torque min. 6 Nm/max. 12 Nm



5. Accessories

Order number	Designation	Description
Threaded adapter for fixing elements on the raw gas side		
77769201	Gewindestutzen Rd 72x5, evzk	Galvanised steel
79382318	Gewindestutzen Rd 72x5, 1.4571 3.1	Stainless steel
Adapter for mounting on the raw gas side on Rd 60x4 threaded connection piece		
78330508	Adapter Rd 60x4/Rd 72x5, evzk	Galvanised steel
76315329	Adapter Rd 60x4/Rd 72x5, 1.4571	Stainless steel
Adapter for mounting on the raw gas side on Rd 74x4 threaded connection piece		
76139950	Adapter Rd 74x4/Rd 72x5, 1.4571	Stainless steel
Adapter for clean gas side mounting		
78314445	Adapter Reingas Rd 72x5, evzk	Galvanised steel
78314528	Adapter Reingas Rd 72x5, 1.4301	Stainless steel
72338890	Adapter Reingas Rd 72x5, FDA	Stainless steel with food grade seal
Multijet nozzles for cleaning		
79741232	MJD-12 00 ROH A1	Aluminium nozzle (element assembly on raw gas side)
70375835	MJD-12 00 ROH V2	Nozzle stainless steel (element assembly on raw gas side)
76925655	MJD-12 00 REIN A1	Aluminium nozzle (clean gas side cartridge assembly)
72472172	MJD-12 00 REIN V2	Nozzle stainless steel (clean gas side cartridge assembly)
Replacement seals		
77727480	FLACHD 108,0X088,0X4,5 FILZ SK	Felt seal for galvanized cartridges
72421393	FLACHD 108,0X088,0X3,0 FILZ SK FDA HI131	Food grade felt seal for V4A cartridges (FOOD)
70375129	FORMD 124,0X089,0X13,0 30SH SI FDA	Cavity free, food-compatible silicone moulded seal (FOOD SF)

6. Cleaning

We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle. The optimised geometry of the multi-jet nozzle guarantees excellent cleaning results with a significantly lower noise level.

The multi-jet nozzle is available from Filtration Group in aluminium or stainless steel. The Filtration Group MJD cleaning unit comprises the nozzle, a stirrup and various small assembly components. The stirrup maintains an optimum distance from the cartridge to ensure maximum cleaning efficiency.



7. Design

In addition to the cartridges of the 120 NK series, there are other cartridge versions with 120 mm diameter and Rd 72 thread:

120 NZ - short cylindrical cartridges

120 XK - reinforced conical cartridges for higher temperatures

120 OZ - cartridges with open bottom pleat and cavity free moulded seal

Please contact us for detailed technical information, any open questions and for general expert advice. Completion of the relevant questionnaire would facilitate in the coordination of all important parameters.

Comprehensive documentation on our product range, cleaning units and cartridges can be provided.

Filtration Group GmbH
Schleifbachweg 45
D-74613 Öhringen
Phone +49 7941 6466-0
Fax +49 7941 6466-429
industrial@filtrationgroup.com
industrial.filtrationgroup.com
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