AIR FILTRATION

NOTHING BUT PURE AIR

Filter modules and elements that extract dust and dirt reliably and sustainably
Dust filter cartridge
115 NZ/NZC
Ø 115 mm, Rd 60x4, clean or raw gas side installation

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. In combination with the Filtration Group MJD cleaning unit (pressure cleaning with a multi-jet nozzle), this filter cartridge provides an efficient solution in exceptionally challenging environments. This is also supported by a special method of element pleat stabilisation. 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
- High loading capacity
- Good cleaning properties
- High stability
- Installation on the clean or raw gas side
- Universally suitable
- Secured operation
- Large filter surface
- Optimized filter media
- Optimized energy efficiency
- Worldwide distribution
2. Technical Data

Materials
Inner core: Galvanized steel (standard) or stainless steel V4A (1.4571/AISI 316)
End caps: Galvanized steel (standard) or stainless steel V4A (1.4571/AISI 316)
Seal: self-adhesive needle felt
Filter media:
- Ti 07/1 - Electrostatic conductive polyester fleece with PTFE membrane
- Ti 08 - Electrostatic conductive polyester fleece
- Ti 15 - Polyester fleece
- other media on request

Cleaning
Nozzle: Multi jet nozzle G3/8
Cleaning pressure: 6 bar (max. 7 bar)
Differential pressure: max. 18 mbar
Compressed air consumption per cleaning pulse: 9 l (fad)
Compressed air reservoir capacity: max. 2 l per filter cartridge/cleaning pulse

Technical data is subject to change without notice!

3. Type number key, description and dimensions

3.1 Type number key

<table>
<thead>
<tr>
<th>Type</th>
<th>Series</th>
<th>Filter material</th>
<th>Filter surface</th>
<th>Material</th>
<th>Design</th>
<th>Example</th>
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<tr>
<td>852</td>
<td>625</td>
<td>Ti 07/1</td>
<td>-0.8</td>
<td>V4A</td>
<td>Band</td>
<td>Example</td>
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</table>

3.2 Description 115 NZ raw gas side
The dust filter cartridge has a closed bottom end cap with a hexagon bolt. It will be raw gas side mounted within a thread Rd 60x4. The dust filter cartridge will be pulled with a hexagon key with 15 Nm against the filter plate. During the mounting you have to take care, that the thread adapter will be mounted centrical on the filter plate, so that it fits perfect into the Rd 60x4 thread of the cartridge. We recommend cleaning the dust filter cartridge with the MAHLE multi-jet nozzle.

3.3 Description 115 NZC clean gas side
The dust filter cartridge has a closed bottom end cap. It will be clean gas side mounted and fixed with holding down clamps on top of the cartridge. During the mounting you have to take care, that the dust filter cartridge will be mounted centrical into the filter plate, so that the clamps can hold down the cartridge in a perfect way.
We recommend cleaning the dust filter cartridge with the MAHLE multi-jet nozzle.
4. INSTALLATION

4.1 RAW GAS SIDE INSTALLATION

The dust filter cartridge can be mounted on and dismantled from the filter plate using the Rd 60x4 thread adapter - no tools required (tightening torque max. 15 Nm). A hole with a diameter of 67 mm must be drilled in the filter plate in order to mount the thread adapter. 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 72x5 or Rd 74x4 round threads.

4.2 CLEAN GAS SIDE INSTALLATION

The dust filter cartridge is fastened to the filter plate on the cleaned side by use of holding down clamps. The cartridge will be put from the clean gas side through the hole in the filter plate into the raw gas side. To protect the pleats against the filter plate, there is a metal ring (approx. 16 mm high) glued into the end cap. We recommend cleaning the dust filter cartridge with the MAHLE multi-jet nozzle. Recommended diameter of the hole in the filter plate for clean gas side mounting is 118 mm.
5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
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<tr>
<td>77834187</td>
<td>Thread adapter Rd 60x4 evzk</td>
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<tr>
<td>79325234</td>
<td>Nozzle-M12 3/8 stainless steel</td>
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<td>76360275</td>
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<td>79741232</td>
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<td>76925655</td>
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<td>MJD-12 00 ROH V2</td>
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6. Cleaning

We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle. The optimized 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. It can also be purchased as part of the Filtration Group MJD cleaning unit, comprising 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

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.

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D-74613 Öhringen
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70562981.04/2019

Dust filter cartridge 115 NZ/NZC
Dust filter cartridge
120 NK
Ø 120 mm, Rd 72x5

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.

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
- Universally suitable
- Worldwide distribution
2. Technical Data

Materials

Inner core: Galvanized steel (standard) or stainless steel V4A - AISI 316
End caps: Galvanized steel (standard) or stainless steel V4A - AISI 316
Seal: self-adhesive needle felt
Filter material: Ti 07 - Electrostatic conductive polyester fleece with PTFE membrane
Ti 08 - Electrostatic conductive polyester fleece
Ti 15 - Polyester fleece
Ti 19 - Cellulose/polyester carrier with PP meltblown
Other filter materials on request

Cleaning

Nozzle: Multi-jet nozzle G3/8
Cleaning pressure: 4 bar to 6 bar (max. 7 bar)
Differential pressure: max. 18 mbar
Compressed air consumption per cleaning pulse: 9 l (fad)
Compressed air reservoir capacity: approx. 2 l per filter cartridge

Technical data is subject to change without notice!

3. Order numbers

<table>
<thead>
<tr>
<th>Order number</th>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter material</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow** [m³/h]</th>
<th>Max. operating temperature*** [°C]</th>
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</table>

* Version made of stainless steel V4A - AISI 316 or equivalent
** 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
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

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
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<tr>
<td>79382318</td>
<td>Thread adapter Rd 72x5, stainless steel V4A - AISI 316</td>
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<tr>
<td>79741232</td>
<td>MJD 12 raw gas 3/8</td>
</tr>
<tr>
<td>79325234</td>
<td>Nozzle-M12 3/8, stainless steel</td>
</tr>
<tr>
<td>76360275</td>
<td>Nozzle-M12 3/8; aluminium</td>
</tr>
<tr>
<td>78330508</td>
<td>Adapter Rd 60x4/Rd 72x5, galvanized steel</td>
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<tr>
<td>76315329</td>
<td>Adapter Rd 60x4/Rd 72x5, stainless steel V4A - AISI 316</td>
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<td>Adapter Rd 73x4/Rd 72x5, stainless steel V4A - AISI 316</td>
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<td>Adapter Rd 74x4/Rd 72x5, stainless steel V4A - AISI 316</td>
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<td>78314445</td>
<td>Adapter cleaned gas Rd 72x5, galvanized steel</td>
</tr>
<tr>
<td>78314528</td>
<td>Adapter cleaned gas Rd 72x5, stainless steel V4A - AISI 316</td>
</tr>
</tbody>
</table>
6. Cleaning

We recommend cleaning the dust filter cartridge with the Filtra-
tion 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. It can also be purchased as part of the Filtration Group
MJD cleaning unit, comprising 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

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.
Dust filter cartridge
120 NZ
Ø 120 mm, RD72x5

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. 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
- High stability
- Installation on the raw gas side
- Universally suitable
- Worldwide distribution
2. Technical Data

Materials

Inner core: Galvanized steel (standard) or stainless steel V4A - AISI 316
End caps: Galvanized steel (standard) or stainless steel V4A - AISI 316
Seal: self-adhesive needle felt
Filter material: Ti 07/1 - electrostatic conductive polyester fleece with PTFE membrane
Ti 08 - electrostatic conductive polyester fleece
Ti 15 - Polyester fleece
Ti 19 - Cellulose/polyester carrier with PP meltblown
Ti 26 - Glass fibre laminated

Cleaning

Nozzle: Multi-jet nozzle G3/8
Cleaning pressure: 4 bar to 6 bar (max. 7 bar)
Differential pressure: max. 18 mbar
Compressed air consumption per cleaning pulse: 9 l (fad)
Compressed air reservoir capacity: approx. 2 l per filter cartridge

Technical data is subject to change without notice!

3. Order numbers

<table>
<thead>
<tr>
<th>Order number</th>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter material</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow*** [m³/h]</th>
<th>Max. operating temperature [°C]</th>
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</table>

* Pack of 2
** Version made of stainless steel V4A - AISI 316 or equivalent
*** These values may vary depending on the nature of the dust and the composition of the gas.

Dust filter cartridge 120 NZ 2
4. Installation

The dust filter cartridge can be mounted on and dismantled from the filter plate using the RD72x5 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 RD60x4 or RD74x4 round threads.

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
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<tr>
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<td>79382318</td>
<td>Thread adapter RD72x5, stainless steel V4A - AISI 316</td>
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<tr>
<td>79741232</td>
<td>MJD 12 raw gas 3/8</td>
</tr>
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<td>79325234</td>
<td>Nozzle-M12 3/8, stainless steel</td>
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<tr>
<td>76360275</td>
<td>Nozzle-M12 3/8; aluminium</td>
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<td>78314445</td>
<td>Adapter cleaned gas RD72x5, galvanized steel</td>
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<tr>
<td>78314528</td>
<td>Adapter cleaned gas RD72x5, stainless steel V4A - AISI 316</td>
</tr>
</tbody>
</table>
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. It can also be purchased as part of the Filtration Group MJD cleaning unit, comprising 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

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.
Dust filter cartridge
120 OK/OZ
Ø 120 mm, open pleat at bottom

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. According to the special design and the FDA release, this type of filter is especially suitable for applications in the food and pharma industry. By the use of a special sealing concept (silicone form sealing) and our "Open Pleat" technology, product accumulations will be avoided in process. Therefore an optimised cleaning effect of the cartridges will be secured.

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

- High loading capacity
- Very good cleaning properties
- Defined pleat allocation for best performance
- High stability
- Installation on the raw gas side
- Universally suitable
- Application in pharmaceuticals and food industry thanks FDA approval acc. to 21 CFR Ch. I § 177.1550)
- Avoid of product accumulation in process
- Secured operation
- Optimised filter media
- Optimised energy efficiency
- Worldwide distribution
2. Technical Data

Materials

Inner core: Stainless steel V4A (1.4571/AISI 316)
End caps: at top Stainless steel V4A (1.4571/AISI 316) 
below open pleat, PU (polyurethane)
Seal: self-adhesive needle felt
alternative: NBR form seal, black (FDA, electrically conductive)
Silicone form seal, transparent (FDA)
Filter material: Ti 07/1 - Electrostatical conductive polyester fleece with PTFE membrane
Ti 08 - Electrostatical conductive polyester fleece, aluminium coated
Ti 15 - Polyester fleece
Other filter materials on request

Cleaning

Nozzle: Multi-jet nozzle G3/8
Cleaning pressure: 6 bar (max. 7 bar)
Differential pressure: max. 18 mbar
Compressed air consumption per cleaning pulse: 9 l (fad)
Compressed air reservoir capacity: approx. 2 l per filter cartridge

Technical data is subject to change without notice!

3. Type number key, Description and Dimensions

3.1 Type number key

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Version</th>
<th>Design</th>
<th>Filter media</th>
<th>Filter surface</th>
<th>Material</th>
<th>Filter media</th>
<th>Version</th>
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3.2 Description

These dust filter cartridges were developed by Filtration Group for particularly challenging filtration tasks in the food and pharmaceuticals. The cartridge design facilitates optimum cleaning of the filter cake in conjunction with the Filtration Group multi-jet nozzle. The optimum cleaning effect will be especially enhanced by our special "Open Pleat" technology. The dust filter cartridge has a closed bottom end cap.

3.3 Dimensions

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Version</th>
<th>Fig.</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow* [m³/h]</th>
<th>Starting pressure loss** [Pa]</th>
<th>Max. operating temperature [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 067 Ti ...</td>
<td>cyl.</td>
<td>1</td>
<td>80</td>
<td>0.06</td>
<td>6</td>
<td>&lt; 250</td>
<td>80 (standard) depending on gas/material</td>
</tr>
<tr>
<td>852 923 Ti ...</td>
<td>cyl.</td>
<td>1</td>
<td>200</td>
<td>0.15</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 065 Ti ...</td>
<td>cyl.</td>
<td>1</td>
<td>300</td>
<td>0.25</td>
<td>25</td>
<td></td>
<td></td>
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<tr>
<td>852 935 Ti ...</td>
<td>con.</td>
<td>2</td>
<td>300</td>
<td>0.19</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 924 Ti ...</td>
<td>cyl.</td>
<td>1</td>
<td>600</td>
<td>0.5</td>
<td>50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Depending on the air to media ratio of 1.7 m³/m² min
** Depending on volume flow and filter media
4. Installation

The dust filter cartridge can be mounted on and dismantled from the filter plate using the Rd72x5 thread adapter - no tools required (max. torque 15 Nm).

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.
5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>79382318</td>
<td>Thread adapter Rd72x5 stainless steel V4A - AISI 316</td>
</tr>
<tr>
<td>79741232</td>
<td>MJD 12 raw gas 3/8</td>
</tr>
<tr>
<td>76103105</td>
<td>Nozzle-M12 3/8 stainless steel 1.4301 with snap ring (Z)</td>
</tr>
<tr>
<td>79733882</td>
<td>Nozzle-M12 3/8 Alu with snap ring (Z)</td>
</tr>
<tr>
<td>70375129</td>
<td>Form seal 120/089.0/13.0 Si FDA</td>
</tr>
<tr>
<td>70512635</td>
<td>Form seal 120/089.0/13.0 NBR FDA electrically conductive</td>
</tr>
<tr>
<td>76315329</td>
<td>Adapter Rd60x4/Rd72x5 stainless steel V4A - AISI 316</td>
</tr>
<tr>
<td>79747148</td>
<td>Adapter Rd73x4/Rd72x5 stainless steel V4A - AISI 316</td>
</tr>
<tr>
<td>76139950</td>
<td>Adapter Rd74x4/Rd72x5 stainless steel V4A - AISI 316</td>
</tr>
<tr>
<td>78314528</td>
<td>Adapter cleaned gas Rd72x5, stainless steel V4A - AISI 316</td>
</tr>
</tbody>
</table>

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. It can also be purchased as part of the Filtration Group MJD cleaning unit, comprising the nozzle, a stirrup and various small assembly components. The stirrup maintains an optimum distance from the cartridge to ensure maximum cleaning efficiency.

The special design of the cartridges enable to clean them wet in installed or non-installed condition. Please attend to the cleaning procedure of the filter media.

6. Design

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.

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Fax +49 7941 6466-429
fm.de.sales@filtrationgroup.com
www.fluid.filtrationgroup.com
70562987.04/2019
Dust filter cartridge

120 XK

Ø 120 mm, Rd 72x5, temperature-resistant

1. Features

This high-performance dust filter cartridge was developed by Filtration Group for particularly challenging filtration tasks in the chemical and food industries. The conical shape is the outcome of the cartridge’s superior flow behaviour and strength. This cartridge design facilitates optimum cleaning in continuous operation in conjunction with a Filtration Group cleaning unit. Typical dust deposits are virtually eliminated by completely filling the end cap on the bottom, because almost all deposits on the cartridge are drained off during cleaning. The key features here are the Filtration Group MJD multi-jet nozzle and pleats supported by wire mesh.

All filter materials used have undergone extensive testing. 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 on the customer’s site and in our own facilities form the backbone of affordable and reliable products.

Characteristics

- Improved cleaning properties
- Optimised flow conditions
- High stability
- Installation on the raw gas side
- Worldwide distribution
2. Technical Data

Materials
Inner core: Stainless steel V4A - 1.4571
End caps: Stainless steel V4A - 1.4571
Seal: self-adhesive needle felt* (supplied loose)
Filter material: DRG 5N - Stainless steel wire mesh 1.4404 Ti 07/1 - Electrostatical conductive polyester fleece with PTFE membrane Ti 18/1 - Polyphenyl sulphide with PTFE Membrane 1100 µm

Cleaning
Nozzle: Multi-jet nozzle G3/8
Cleaning pressure: 3 bar to 6 bar
Differential pressure: max. 25 mbar
Compressed air consumption per cleaning pulse: 9 l (fad)
Compressed air reservoir capacity: approx. 2 l per filter cartridge

* Other sealing systems can be supplied
Technical data is subject to change without notice!

3. Order numbers

<table>
<thead>
<tr>
<th>Order number</th>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow** [m³/h]</th>
<th>Max. operating temperature [°C]</th>
<th>Electr. conductive</th>
</tr>
</thead>
<tbody>
<tr>
<td>76354922</td>
<td>852 902 DRG 5N 0.25 V4A FRV*</td>
<td>300</td>
<td>0.25</td>
<td>65</td>
<td>130</td>
<td>yes</td>
</tr>
<tr>
<td>70324025</td>
<td>852 902 Ti 07-0.25 V4A FRV*</td>
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<td></td>
<td></td>
<td></td>
<td>no</td>
</tr>
<tr>
<td>76354633</td>
<td>852 902 Ti 18-0.25 V4A FRV*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>79394081</td>
<td>852 903 DRG 5N 0.5 V4A FRV*</td>
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<td>0.5</td>
<td>100</td>
<td>240</td>
<td>yes</td>
</tr>
<tr>
<td>79748666</td>
<td>852 903 Ti 07-0.5 V4A FRV*</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>76361984</td>
<td>852 903 Ti 18-0.5 V4A FRV*</td>
<td></td>
<td></td>
<td></td>
<td>130</td>
<td>no</td>
</tr>
<tr>
<td>76160311</td>
<td>852 904 Ti 07-0.8 V4A FRV*</td>
<td>982</td>
<td>0.8</td>
<td>150</td>
<td>130</td>
<td>yes</td>
</tr>
</tbody>
</table>

* Version made of stainless steel V4A - 1.4571 or equivalent with glued pleat backs
** These values may vary depending on the nature of the dust and the composition of the gas.
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 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.

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>79382318</td>
<td>Thread adapter Rd 72x5, stainless steel V4A - 1.4571</td>
</tr>
<tr>
<td>79325234</td>
<td>Nozzle-M12 3/8, stainless steel</td>
</tr>
<tr>
<td>76315329</td>
<td>Adapter Rd 60x4/Rd 72x5, stainless steel V4A - 1.4571</td>
</tr>
<tr>
<td>79747148</td>
<td>Adapter Rd 73x4/Rd 72x5, stainless steel V4A - 1.4571</td>
</tr>
<tr>
<td>76139950</td>
<td>Adapter Rd 74x4/Rd 72x5, stainless steel V4A - 1.4571</td>
</tr>
<tr>
<td>78314528</td>
<td>Adapter cleaned gas Rd 72x5, stainless steel V4A - 1.4571</td>
</tr>
</tbody>
</table>
6. Cleaning

We recommend cleaning the dust filter cartridge with the Filtra-
tion 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. It can also be purchased as part of the Filtration Group
MJD cleaning unit, comprising 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

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.
Dust filter cartridge
145/156/220/328 NKH

Ø 145/156/220/328 mm, conical with hook-shaped flange

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. This is also supported by a special method of element pleat stabilisation.

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 or clean gas side
- Universally suitable
- For high volumen flow
- Optimised filter media
- Worldwide distribution
2. Technical Data

Materials
- **Inner core:** Galvanized steel (standard)
- **End caps:** Galvanized steel/aluminium (standard)
- **Seal:** NBR-seal fitted into notch (ø 328 NKH version glued in)
- **Filter material:**
  - Ti 07/1 - Electrostatical conductive polyester fleece with PTFE membrane
  - Ti 08 - Electrostatical conductive polyester fleece, aluminium coated
  - Ti 15 - Polyester fleece
  - Ti 19 - Cellulose/polyester carrier with PP meltblown
  - Other filter materials on request

Cleaning
- **Nozzle:**
  - ø 145/156 mm - Multi jet nozzle G3/8
  - ø 220 mm - Multi jet nozzle G3/4
  - ø 328 mm - Multi jet nozzle G1
- **Cleaning pressure:** 4 to 6 bar (max. 7 bar)
- **Differential pressure:** max. 18 mbar
- **Compressed air consumption per cleaning pulse:** 6 to 90 l (fad)
- **Compressed air reservoir capacity:** approx. 2 - 32 l per filter cartridge/cleaning pulse

Technical data is subject to change without notice!

3. Type number key, description and dimensions

3.1 Type number key

<table>
<thead>
<tr>
<th>Type</th>
<th>Series</th>
<th>Filter material</th>
<th>Filter surface</th>
<th>Material</th>
<th>Design</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>852</td>
<td>039</td>
<td>Ti 07/1</td>
<td>-2.7</td>
<td>BAND</td>
<td>Example</td>
<td></td>
</tr>
</tbody>
</table>

3.2 Description 145 NKH

The dust filter cartridge has a closed bottom end cap. It will be raw or clean gas side mounted with a hook-shaped flange. The filter cartridge is fixed to the filter plate via three studs. We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle. Recommended hole in the filter plate for clean gas side installation 149 mm.

3.3 Description 156 NKH

The dust filter cartridge has a closed bottom end cap. It will be raw or clean gas side mounted with a hook-shaped flange. The filter cartridge is fixed to the filter plate via three studs. We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle. Recommended hole in the filter plate for clean gas side installation 160 mm.
3.4 Description 220 NKH
The dust filter cartridge has a closed bottom end cap. It will be raw or clean gas side mounted with a hook-shaped flange. The cartridge is fixed to the filter plate via three studs. We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle. Hole in the filter plate for clean gas side installation 225 mm.

3.5 Description 328 NKH
The dust filter cartridge has a closed bottom end cap. It will be raw or clean gas side mounted with a hook-shaped flange. The cartridge is fixed to the filter plate via three studs. We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle. Hole in the filter plate for clean gas side installation 333 mm.

Several filter media are available for filter elements (see data sheet filter media).

### 3.6 Dimensions 145 NKH

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow* [m³/h]</th>
<th>Start pressure loss** [Pa]</th>
<th>Max. operating temperature*** [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 082 Ti ...</td>
<td>600</td>
<td>1.6</td>
<td>165</td>
<td>&gt; 250</td>
<td>80 (standard)</td>
</tr>
<tr>
<td>852 039 Ti ...</td>
<td>1000</td>
<td>2.7</td>
<td>275</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3.7 Dimensions 156 NKH

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow* [m³/h]</th>
<th>Start pressure loss** [Pa]</th>
<th>Max. operating temperature*** [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 097 Ti ...</td>
<td>500</td>
<td>1.8</td>
<td>185</td>
<td>&gt; 250</td>
<td>80 (standard)</td>
</tr>
</tbody>
</table>

### 3.8 Dimensions 220 NKH

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow* [m³/h]</th>
<th>Start pressure loss** [Pa]</th>
<th>Max. operating temperature*** [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 018 Ti ...</td>
<td>600</td>
<td>4</td>
<td>380</td>
<td>&gt; 250</td>
<td>80 (standard)</td>
</tr>
<tr>
<td>852 056 Ti ...</td>
<td>1000</td>
<td>5.0/6.0</td>
<td>620</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3.9 Dimensions 328 NKH

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow* [m³/h]</th>
<th>Start pressure loss** [Pa]</th>
<th>Max. operating temperature*** [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 061 Ti ...</td>
<td>600</td>
<td>7.5</td>
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<tr>
<td>852 041 Ti ...</td>
<td>1000</td>
<td>12.5</td>
<td>1275</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 051 Ti ...</td>
<td>1200</td>
<td>12/15</td>
<td>1530</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Depending on the air to media ratio of 1.7 m³/m² min
** Depending on volume flow and filter media
*** Depending on media/materials, higher temperature ranges on request
4. Installation

4.1 Raw gas side installation
Three studs with loosened nuts are welded on the filter plate. The cartridge have to be hooked onto the nuts on the raw gas side. The cartridge will be fixed to the filter plate by fastening the nuts. For deinstalling the nuts have to be loosened and the cartridge can be removed downward from the unit easily.

4.1 Clean gas side installation
Three studs with loosened nuts are welded on the filter plate. The cartridge have to be pushed through the hole in the filter plate from the clean gas side. The cartridge will be fixed to the filter plate by fastening the nuts. For deinstalling the nuts have to be loosened and the cartridge can be removed upward from the unit easily.

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
<th>Cartridge ø [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>76360275</td>
<td>Nozzle-M12 3/8 Alu</td>
<td>145/156</td>
</tr>
<tr>
<td>70343824</td>
<td>Nozzle-M16 3/4 Alu Multijet</td>
<td>220</td>
</tr>
<tr>
<td>76381198</td>
<td>Nozzle-M32 1 Alu SE Multijet</td>
<td>328</td>
</tr>
</tbody>
</table>

6. Cleaning

We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle. The optimized 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. It can also be purchased as part of the Filtration Group MJD cleaning unit, comprising 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

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.
Dust filter cartridge
145/156/220/328 NZH
Ø 145/156/220/328 mm, cylindrical with hook-shaped flange

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. This is also supported by a special method of element pleat stabilisation.

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 or clean gas side
- Universally suitable
- For high volumen flow
- Optimised filter media
- Worldwide distribution
2. Technical Data

Materials

Inner core: Galvanized steel (standard)
End caps: Galvanized steel/aluminium (standard)
Seal: NBR-seal fitted into notch (ø 328 NKH version glued in)
Filter material: Ti 07/1 - Electrostatical conductive polyester fleece with PTFE membrane
Ti 08 - Electrostatical conductive polyester fleece, aluminium coated
Ti 15 - Polyester fleece
Ti 19 - Cellulose/polyester carrier with PP meltblown
Other filter materials on request

Cleaning

Nozzle: ø 145/156 mm - Multi jet nozzle G3/8
ø 220 mm - Multi jet nozzle G3/4
ø 328 mm - Multi jet nozzle G1

Cleaning pressure: 4 to 6 bar (max. 7 bar)
Differential pressure: max. 18 mbar
Compressed air consumption per cleaning pulse: 6 - 90 l (i.N.)
Compressed air reservoir capacity: approx. 2 to 32 l per filter cartridge/cleaning pulse

Technical data is subject to change without notice!

3. Type number key, description and dimensions

3.1 Type number key

<table>
<thead>
<tr>
<th>Type</th>
<th>Series</th>
<th>Filter material</th>
<th>Filter surface</th>
<th>Material</th>
<th>Design</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>852</td>
<td>628</td>
<td>Ti 07/1</td>
<td>-3.5</td>
<td>BAND</td>
<td>Example</td>
<td></td>
</tr>
</tbody>
</table>

3.2 Description 145 NZH

The dust filter cartridge has a closed bottom end cap. It will be raw or clean gas side mounted with a hook-shaped flange. The filter cartridge is fixed to the filter plate via three studs. We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle. Recommended hole in the filter plate for clean gas side installation 149 mm.

3.3 Description 156 NZH

The dust filter cartridge has a closed bottom end cap. It will be raw or clean gas side mounted with a hook-shaped flange. The filter cartridge is fixed to the filter plate via three studs. We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle. Recommended hole in the filter plate for clean gas side installation 149 mm.
3.4 Description 220 NZH
The dust filter cartridge has a closed bottom end cap. It will be raw or clean gas side mounted with a hook-shaped flange. The cartridge is fixed to the filter plate via three studs. We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle. Recommended hole in the filter plate for clean gas side installation 225 mm.

3.5 Description 328 NZH
The dust filter cartridge has a closed bottom end cap. It will be raw or clean gas side mounted with a hook-shaped flange. The cartridge is fixed to the filter plate via three studs. We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle. Recommended hole in the filter plate for clean gas side installation 333 mm.

Several filter media are available for filter elements (see data sheet filter media).

### 3.6 Dimensions 145 NZH

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow* [m³/h]</th>
<th>Start pressure loss** [Pa]</th>
<th>Max. operating temperature*** [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 627 Ti ...</td>
<td>600</td>
<td>1.7/2.1</td>
<td>215</td>
<td>&gt; 250</td>
<td>80 (standard)</td>
</tr>
<tr>
<td>852 628 Ti ...</td>
<td>1000</td>
<td>2.7/3.5</td>
<td>355</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 629 Ti ...</td>
<td>1200</td>
<td>3.3/4.3</td>
<td>430</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3.7 Dimensions 156 NZH

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow* [m³/h]</th>
<th>Start pressure loss** [Pa]</th>
<th>Max. operating temperature*** [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 791 Ti ...</td>
<td>500</td>
<td>1.8</td>
<td>185</td>
<td>&gt; 250</td>
<td>80 (standard)</td>
</tr>
</tbody>
</table>

### 3.8 Dimensions 220 NZH

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow* [m³/h]</th>
<th>Start pressure loss** [Pa]</th>
<th>Max. operating temperature*** [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 792 Ti ...</td>
<td>600</td>
<td>3.0/3.7</td>
<td>380</td>
<td>&gt; 250</td>
<td>80 (standard)</td>
</tr>
<tr>
<td>852 963 Ti ...</td>
<td>1000</td>
<td>5.0/6.1</td>
<td>620</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 978 Ti ...</td>
<td>1200</td>
<td>6.1/7.3</td>
<td>745</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3.9 Dimensions 328 NZH

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow* [m³/h]</th>
<th>Start pressure loss** [Pa]</th>
<th>Max. operating temperature*** [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 987 Ti ...</td>
<td>600</td>
<td>7.5/10</td>
<td>1020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 843 Ti ...</td>
<td>800</td>
<td>13</td>
<td>1326</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 976 Ti ...</td>
<td>1000</td>
<td>12.5/16</td>
<td>1630</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 630 Ti ...</td>
<td>1200</td>
<td>15/20</td>
<td>2040</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Depending on the air to media ratio of 1.7 m³/m² min
** Depending on volume flow and filter media
*** Depending on media/materials, higher temperature ranges on request
4. Installation

4.1 Raw gas side installation
Three studs with loosened nuts are welded on the filter plate. The cartridge have to be hooked onto the nuts on the raw gas side. The cartridge will be fixed to the filter plate by fastening the nuts. For deinstalling the nuts have to be loosened and the cartridge can be removed downward from the unit easily.

4.1 Clean gas side installation
Three studs with loosened nuts are welded on the filter plate. The cartridge have to be pushed through the hole in the filter plate from the clean gas side. The cartridge will be fixed to the filter plate by fastening the nuts. For deinstalling the nuts have to be loosened and the cartridge can be removed upward from the unit easily.

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
<th>Cartridge ø [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>76360275</td>
<td>Nozzle-M12 3/8 Alu</td>
<td>145/156</td>
</tr>
<tr>
<td>70343824</td>
<td>Nozzle-M16 3/4 Alu Multijet</td>
<td>220</td>
</tr>
<tr>
<td>76381198</td>
<td>Nozzle-M32 1 Alu SE Multijet</td>
<td>328</td>
</tr>
</tbody>
</table>

6. Cleaning

We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle. The optimized 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. It can also be purchased as part of the Filtration Group MJD cleaning unit, comprising 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

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.

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D-74613 Öhringen
Phone +49 7941 6466-0
Fax +49 7941 6466-429
fm.de.sales@filtrationgroup.com
www.fluid.filtrationgroup.com
70562975.04/2019
Dust filter cartridge
160 NZS/NKS
Ø 160 mm, conical or cylindrical

1. Features

Star-pleated Filtration Group dust filter cartridges are used to separate the finest particles from gases. The element is supplied with dust-laden gas from the outside. The cleaned air flow exits through the upper, open end plate to the clean gas side. In combination with the Filtration Group Multijet nozzle (MJD), the conical filter elements enable optimum filter cake cleaning. This is particularly supported by the pleats, which have been stabilized according to a special process. The conical Filtration Group dust filter element is characterised by optimum flow behaviour and excellent cleaning properties, even with difficult dusts.

The pure and raw gas-side mounting options offer a great advantage and flexibility in the installation variations of this filter element.

A consistently high quality of the Filtration Group dust filter elements is ensured by regular, comprehensive material and performance checks. Our application technology department and our modern development laboratories are constantly working on the further development and optimisation of our products. Application tests at the customer's and in our test facilities are reflected in cost-effective and reliable products.

Characteristics

- Very high loading capacity
- Improved cleaning properties
- Optimised flow conditions
- High stability
- Installation on the raw or clean gas side
- Universally suitable
- Worldwide distribution
2. Technical Data

Materials
Inner core: Galvanized steel (standard) or stainless steel V4A
End caps: Kunststoff PA 66 GF 30
Seal: V form seal NBR
Filter material:
- Ti 07/1 - Electrostatical conductive polyester fleece with PTFE membrane
- Ti 08 - Electrostatical conductive polyester fleece, aluminium coated
- Ti 15 – Polyester fleece
- Ti 19 - Cellulose/polyester carrier with PP meltblown
- Ti 26 – Glass fibre, laminated on both sides with PET
- Other filter materials on request

Cleaning
Nozzle: Multi jet nozzle G 3/4
Cleaning pressure: 4 bar to 6 bar (max. 7 bar)
Differential pressure: max. 15 mbar
Compressed air consumption per cleaning pulse: 4.5 l to 9 l je Element und je nach Elementlänge
Compressed air reservoir capacity: ca. 1 l bis 2 l per filter cartridge/cleaning and depending on cartridge length

Technical data is subject to change without notice!

3. Type number key and description

<table>
<thead>
<tr>
<th>Type number key</th>
<th>Cartridge type</th>
<th>Filter material</th>
<th>Filter surface in m²</th>
<th>Material variation</th>
<th>Cartridge design</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 054</td>
<td>Ti 07/1</td>
<td>3.5 V4A</td>
<td>FDA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 054</td>
<td>Ti 07/1</td>
<td>3.5 V4A</td>
<td>FDA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please note that the lists shown here are not complete. Therefore we ask you to contact us before placing your order.
3.2 160 NZS

Filtration Group GmbH has developed these filter elements for a variety of filtration tasks in air filtration. These elements, in combination with the Filtration Group Multijet nozzle, enable optimum filter cake cleaning. This is particularly supported by the pleats, which are stabilized according to a special process.

The filter element has a closed end plate at the bottom. The filter element is mounted on the raw or clean gas side by means of a bayonet system. During installation, it must be ensured that the filter element is tightened to a maximum torque of 15 Nm. The filter element is cleaned via a multijet nozzle.

<table>
<thead>
<tr>
<th>Type</th>
<th>Length “L” [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow * [m³/h]</th>
<th>Start pressure loss [Pa]**</th>
<th>Max operating temperature [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 XXX Ti …</td>
<td>300</td>
<td>0.75/1.10</td>
<td>115</td>
<td>&gt; 250</td>
<td>Depending on media/materials</td>
</tr>
<tr>
<td>852 XXX Ti …</td>
<td>600</td>
<td>1.50/2.20</td>
<td>225</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 XXX Ti …</td>
<td>1000</td>
<td>2.50/3.50</td>
<td>350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 XXX Ti …</td>
<td>1200</td>
<td>3.00/4.20</td>
<td>430</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.3 160 NKS

Filtration Group GmbH has developed conical high-performance filter elements for a variety of filtration tasks in air filtration. In combination with the Filtration Group Multijet nozzle, these elements enable optimum cleaning of the filter cake. This is particularly supported by the conical design and folds stabilized by a special process.

The filter element has a closed end plate at the bottom. The filter element is mounted on the raw or clean gas side using a bayonet system. During installation, care must be taken to ensure that the filter element is tightened to a maximum torque of 15 Nm. The filter element is cleaned via a multijet nozzle.

<table>
<thead>
<tr>
<th>Type</th>
<th>Length “L” [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow * [m³/h]</th>
<th>Start pressure loss [Pa]**</th>
<th>Max operating temperature [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 XXX Ti …</td>
<td>300</td>
<td>0.75/1.10</td>
<td>115</td>
<td>&gt; 250</td>
<td>Depending on media/materials</td>
</tr>
<tr>
<td>852 XXX Ti …</td>
<td>600</td>
<td>1.50/2.20</td>
<td>225</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 XXX Ti …</td>
<td>1000</td>
<td>2.50/3.50</td>
<td>350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 XXX Ti …</td>
<td>1200</td>
<td>3.00/4.20</td>
<td>430</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Explanation of the tables
Different filter materials are available for the filter elements see data sheet Filter material.

* Depending on the air to media ratio of 1.7 m³/m² min
** Deviations from these values are possible due to dust type and gas composition.

Dust filter cartridge 160 NZS/NKS
4. Installation

The dust filter element can be mounted and dismounted on the filter plate on the raw or clean gas side using the bayonet system without tools. A tool can be supplied for fixing the filter plate on the clean gas side. An exact hole pattern for mounting the bayonet brackets is available on request. The brackets are each fixed to the filter plate with 2 screws. Depending on whether the filter elements are mounted on the raw or clean gas side, the brackets are attached to the top or bottom of the filter plate.

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>n.n.</td>
<td>Mounting Speed Star (3er Pack)</td>
</tr>
<tr>
<td>70366440</td>
<td>Nozzle-M16 3/4 1.4301 MULTIJET OZB A4</td>
</tr>
<tr>
<td>70343824</td>
<td>Nozzle-M16 3/4 ALU MULTIJET OZB</td>
</tr>
<tr>
<td>n.n.</td>
<td>Tool clean gas side assembly</td>
</tr>
</tbody>
</table>

6. Cleaning

We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle. The optimized 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. It can also be purchased as part of the Filtration Group MJD cleaning unit, comprising 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

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.
Dust filter cartridge
160 NK
Ø 160 mm, Type 852 054, 984 mm long

1. Features

The conical Filtration Group 852 054 dust filter cartridge unites optimum flow behaviour with excellent cleaning properties for even the most problematic dusts. The wide range of high-quality media together with our long history of experience in air cleaning technology make Filtration Group a trustworthy partner for a multitude of applications. In combination with the Filtration Group MJD cleaning unit (pressure cleaning with a multi-jet nozzle), this filter cartridge provides an efficient solution in exceptionally challenging environments.

Characteristics

- High volume flows
- Optimised flow conditions
- Excellent cleaning properties
- Worldwide distribution
2. Technical data

Materials

Inner core: Galvanized steel (standard) or stainless steel V4A - 1.4571

End caps: Galvanized steel (standard) or stainless steel V4A - 1.4571

Seal: self-adhesive needle felt

Filter material: Ti 07/1 - Electrostatical conductive polyester fleece with PTFE membrane

Ti 08 - Electrostatical conductive polyester fleece, aluminium coated

Ti 15 - Polyester fleece

Ti 19 - Cellulose/polyester carrier with PP meltblown

Ti 56/2 - Polyester fleece with PTFE-membrane

Cleaning

Nozzle: Multi-jet nozzle G ¾

Cleaning pressure: 4 - 6 bar (max. 7 bar)

Differential pressure: max. 18 mbar

Compressed air consumption per cleaning pulse: 23 l (fad)

Compressed air reservoir capacity: approx. 5 l per filter cartridge

Technical data is subject to change without notice!

3. Order numbers

<table>
<thead>
<tr>
<th>Order number</th>
<th>Type designation</th>
<th>Filter material</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow** [m³/h]</th>
<th>Max. operating temperature [°C]</th>
<th>Electrostatically conductive</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>70328072</td>
<td>852 054 Ti 07-2.5</td>
<td>Ti 07/1</td>
<td>2.5</td>
<td></td>
<td>120</td>
<td>yes</td>
<td>for explosive dusts, very high separation efficiency</td>
</tr>
<tr>
<td>70328077</td>
<td>852 054 Ti 07-2.5 V4A*</td>
<td></td>
<td></td>
<td></td>
<td>130</td>
<td></td>
<td>for explosive dusts, very high separation efficiency, approved for FDA-applications</td>
</tr>
<tr>
<td>70328083</td>
<td>852 054 Ti 08-3.5</td>
<td>Ti 08</td>
<td>3.5</td>
<td>350</td>
<td>120</td>
<td></td>
<td>for explosive dusts</td>
</tr>
<tr>
<td>70328088</td>
<td>852 054 Ti 08-3.5 V4A*</td>
<td></td>
<td></td>
<td></td>
<td>130</td>
<td></td>
<td>for explosive dusts, approved for FDA-applications</td>
</tr>
<tr>
<td>70317049</td>
<td>852 054 Ti 15-3.5</td>
<td>Ti 15</td>
<td>3.5</td>
<td>350</td>
<td>120</td>
<td>no</td>
<td>Good chemical resistance, high stability</td>
</tr>
<tr>
<td>70317050</td>
<td>852 054 Ti 15-3.5 V4A*</td>
<td></td>
<td></td>
<td></td>
<td>130</td>
<td></td>
<td>Good chemical resistance, high stability</td>
</tr>
<tr>
<td>70328092</td>
<td>852 054 Ti 19-2.5</td>
<td>Ti 19</td>
<td>2.5</td>
<td></td>
<td>90</td>
<td></td>
<td>High separation efficiency, especially for fine dusts</td>
</tr>
<tr>
<td>70328094</td>
<td>852 054 Ti 56-2.5</td>
<td>Ti 56/2</td>
<td></td>
<td></td>
<td>120</td>
<td></td>
<td>High separation efficiency, suitable for fine dusts</td>
</tr>
<tr>
<td>70328096</td>
<td>852 054 Ti 56-2.5 V4A*</td>
<td></td>
<td></td>
<td></td>
<td>130</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Version made of stainless steel V4A - 1.4571 or equivalent

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

The 852 054 dust filter cartridge can be mounted on and dismantled from the filter plate using the Rd 100x4 mounting thread adapter - no tools required.

A hole with a diameter 108 mm must be drilled in the filter plate in order to mount the thread adapter. The mounting thread adapter should be spot-welded to the filter plate as shown in the drawing. The Rd 100x4 mounting thread adapter is available from Filtration Group in galvanized steel or stainless steel V4A - 1.4571.

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>70316990</td>
<td>Mounting thread adapter Rd 100x4, galvanized steel</td>
</tr>
<tr>
<td>70316991</td>
<td>Mounting thread adapter Rd 100x4, stainless steel V4A - 1.4571</td>
</tr>
<tr>
<td>70343901</td>
<td>MJD 16 raw gas ¾</td>
</tr>
<tr>
<td>70343906</td>
<td>MJD 16 raw gas ¾ V2A - 1.4301</td>
</tr>
<tr>
<td>76360283</td>
<td>Nozzle ¾ aluminium</td>
</tr>
<tr>
<td>79341447</td>
<td>Nozzle ¾ V4A - 1.4571</td>
</tr>
</tbody>
</table>
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. It can also be purchased as part of the Filtration Group MJD cleaning unit, comprising the nozzle, a tripod and various small assembly components. The tripod maintains an optimum distance from the cartridge to ensure maximum cleaning efficiency.

7. Design

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

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

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fm.de.sales@filtrationgroup.com
www.fluid.filtrationgroup.com
70342665.04/2019

Dust filter cartridge 160 NK
Dust filter cartridge
160 NKC
Ø 160 mm, installation on cleaned side

1. Features

This Filtration Group cartridge meets modern demands for waste reduction and sustainability. Thanks to the reusable inner frame, only plastics parts that are suitable for incineration need to be exchanged if the cartridge is replaced. All metal parts can be reused again. The cartridge can optionally also be supplied with a fixed (non-reusable) inner frame. Star-pleated Filtration Group dust filter cartridges are used to separate dust from gases. The conical cartridge is perfused from outside to inside. The retained dust is cleaned by an air jet pulse. The cartridge performance has been enhanced by the improved cleaning properties and the optimized flow conditions resulting from its conical design.

Regular, extensive material and performance tests are the key to the consistently high quality of Filtration Group dust cartridges. Applications tests both on the customer’s site and in our own facilities form the backbone of affordable and reliable products. The results of these tests form the backbone of innovative products, mature production methods and unmatched operational reliability.

Characteristics

- Very high loading capacity
- High stability
- Excellent cleaning properties
- Optimized flow conditions
- Universally suitable
- Large filter surface
- Wide range of optimized filter media
- Optimized energy efficiency
- Worldwide distribution
2. Technical Data

**Materials**

**Inner core:**
- Galvanized steel (standard)
- or stainless steel V4A - AISI 316

**End caps:**
- PA66 GF25 (Standard)
- or stainless steel V4A - AISI 316

**Seal:**
- EPDM or silicone foam

**Filter media**
- Ti 07/1 - Electrostatical conductive polyester fleece with PTFE membrane
- Ti 08 - Electrostatical conductive polyester fleece, aluminium coated
- Ti 15 - Polyester fleece
- Ti 19 - Cellulose/polyester carrier with PP meltblown
- Other filter materials on request

**Cleaning**

**Nozzle:**
- Multi-jet nozzle G ¾

**Cleaning pressure:**
- 4 bar to 6 bar (max. 7 bar)

**Differential pressure:**
- max. 18 mbar

**Compressed air consumption per cleaning pulse:**
- 23 l (fad)

**Compressed air reservoir capacity:**
- approx. 5 l per cartridge

Technical data is subject to change without notice!

3. Type number key and dimensions

### 3.1 Type number key

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>max. vol. flow* [m³/h]</th>
<th>Start pressure loss** [pa]</th>
<th>max. operating temp.*** [°C]</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 029</td>
<td>600</td>
<td>1.5/2.2</td>
<td>225</td>
<td>&gt; 250</td>
<td>100</td>
<td>Encapsulated inner frame</td>
</tr>
<tr>
<td>852 953</td>
<td>1000</td>
<td>2.5/3.5</td>
<td>360</td>
<td></td>
<td></td>
<td>Reusable inner frame</td>
</tr>
<tr>
<td>852 828</td>
<td>1200</td>
<td>3.0/4.2</td>
<td>430</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 653</td>
<td>1000</td>
<td>2.5/3.5</td>
<td>360</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Depending on the air to media ratio of 1.7 m³/m² min
** Depending on volume flow and filter
*** Depending on media/materials, higher temperature ranges on request
4. Installation

The dust filter cartridge is fastened to the filter plate on the cleaned side by means of retainers. A hole with a diameter of 162 mm must be drilled in the filter plate.

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>79741240</td>
<td>MJD 16 00 clean gas A1 VP</td>
</tr>
<tr>
<td>70390250</td>
<td>MJD 16 00 clean gas V2 VP</td>
</tr>
<tr>
<td>70343824</td>
<td>Nozzle M 16 ¾, aluminium OZB</td>
</tr>
<tr>
<td>70366440</td>
<td>Nozzle M 16 ¾, 1.4301 OZB</td>
</tr>
</tbody>
</table>
6. Cleaning

We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle. The optimized 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. It can also be purchased as part of the Filtration Group MJD cleaning unit, comprising 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

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.
Dust filter cartridge
200 NZ

Ø 200 mm

1. Features

Star-pleated Filtration Group dust filter cartridges are used to separate very fine particles from gases. The cartridge will be inflowed from the outside with dust loaded air or gas. The cleaned air flows inward through the open end cap to the clean side.

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

- High loading capacity
- Improved cleaning properties
- High stability
- Installation on dirt side
- Universally suitable
- Optimised filter materials
- Worldwide distribution
2. Technical Data

Materials
Inner core: Galvanized steel
End caps: Galvanized steel
Seal: PUR soft material
Filter material: Ti 08 - Electrostatically conductive polyester fleece, aluminium coated
Ti 15 - Polyester fleece
Ti 26 - Glass fibre, laminated
Other filter materials on request

Cleaning
Nozzle: Multi-jet nozzle G1
Cleaning pressure: 3 bar to 4 bar (max. 5 bar)
Differential pressure: max. 18 mbar
Compressed air consumption: 23 l (fad) per cleaning pulse
Pressure vessel capacity: approx. 5 l per filter cartridge

Technical data is subject to change without notice!

3. Order numbers

<table>
<thead>
<tr>
<th>Order number</th>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter material</th>
<th>Filter surface [m²]</th>
<th>Max. volume flow* [m³/h]</th>
<th>Max. operating temperature [°C]</th>
<th>Electrostatically conductive</th>
</tr>
</thead>
<tbody>
<tr>
<td>78330904</td>
<td>852 847 Ti 08-2.5</td>
<td>400</td>
<td>Ti 08</td>
<td>2.5</td>
<td>230</td>
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<tr>
<td>78310559</td>
<td>852 847 Ti 15-2.5</td>
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<td>Ti 15</td>
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<td></td>
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<tr>
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<td>852 847 Ti 15-5</td>
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<td>Ti 15</td>
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<td>400</td>
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</tr>
<tr>
<td>79395492</td>
<td>852 847 Ti 26-2.5</td>
<td></td>
<td>Ti 26</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

* These values may vary depending on the nature of the dust and the composition of the gas.
** Depth filter
4. Installation

The 852 847 dust filter cartridge is fastened to the filter plate from the dirt side by means of a tie rod (tightening torque approx. 15 N m). A hole with a diameter of 88 mm must be drilled in the filter plate.

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>76335046</td>
<td>Nozzle-M32 1; aluminium Multijet M 12</td>
</tr>
</tbody>
</table>
6. Cleaning

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

7. Design

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.
Dust filter cartridge
328 NK Quick-Lock

Ø 328 mm, fastened with spring clips

1. Features

The Filtration Group Quick-Lock dust filter cartridge is designed for quick and easy mounting, with only a minimal clearance required for installation and dismantling. The conical shape is the outcome of the cartridge’s superior strength and flow behaviour. Its performance has been significantly enhanced by the improved cleaning power.

Characteristics

- High volume flows
- Optimized flow conditions
- Improved cleaning properties
- Easy mounting
- Minimal clearance required
- Worldwide distribution
2. Technical data

Materials
Inner core: Galvanized steel
End caps: Galvanized steel
Seal: Soft PUR material
Filter material:
- Ti 07/1 - Electrostatic conductive polyester fleece with PTFE membrane
- Ti 08 - Electrostatic conductive polyester fleece
- Ti 15 - Polyester fleece
- Ti 19/2 - Cellulose/polyester carrier with Polypropylene meltblown
- Ti 56/2 - Polyester fleece with PTFE membrane
other filter media on request

Cleaning
Nozzle: Multi-jet nozzle G1
Cleaning pressure: 4 bar - 6 bar (max. 7 bar)
Differential pressure: max. 15 mbar

Technical data is subject to change without notice!

<table>
<thead>
<tr>
<th>Compressed air consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type designation</td>
</tr>
<tr>
<td>852 052 Ti ...</td>
</tr>
<tr>
<td>852 062 Ti ...</td>
</tr>
<tr>
<td>852 032 Ti ...</td>
</tr>
</tbody>
</table>

3. Order numbers

<table>
<thead>
<tr>
<th>Order number</th>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter material</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow* [m³/h]</th>
<th>Max. operating temperature [°C]</th>
<th>Electrostatic conductive</th>
</tr>
</thead>
<tbody>
<tr>
<td>70308668</td>
<td>852 052 Ti 07-7.5</td>
<td>600</td>
<td>Ti 07/1</td>
<td>7.5</td>
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<tr>
<td>70302467</td>
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<td>Ti 56/2</td>
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<td>1600</td>
<td></td>
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</tr>
</tbody>
</table>

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

The dust filter cartridge can be installed and removed on the dirty side with spring clips (Quick-Lock system - no tools required). The spring clips should be fastened to the filter plate as shown in the drawing.

*1 = Filter element holder
*2 = Fixing clip

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>76956668</td>
<td>Quick-Lock fastening set - 1x (1 filter element holder, 2 fixing clips, screws)</td>
</tr>
<tr>
<td>76956676</td>
<td>Quick-Lock fastening set - 10x</td>
</tr>
<tr>
<td>70304809</td>
<td>MJD-32 00 ROH A1 Quick-Lock cleaning unit (Multi-jet nozzle G1, double nipple 1&quot;, tripod, screws)</td>
</tr>
</tbody>
</table>
6. Cleaning

Two cleaning systems are available for conical dust filter cartridges with a diameter of 328 mm.

**Filtration Group multi-jet nozzle**

The optimized 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 aluminum or stainless steel. It can also be purchased as part of the Filtration Group MJD cleaning unit, comprising the nozzle, a tripod and various small assembly components. The tripod maintains an optimum distance from the cartridge to ensure maximum cleaning efficiency.

**Filtration Group conical rotating wing**

The baffle plate closes during cleaning and the rotating wing begins to turn. The large number of pulsed air jets that are discharged from the wing elements guarantee gentle, uniform cleaning over the complete cartridge length. The simultaneous vibratory movement in the pleats generates a significant improvement in cleaning efficiency, particularly with critical dusts. Each pleat is cleaned several times. The filter life is optimized as a result of the rotating wing.

7. Design

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.
Dust filter cartridge
Quick-Lock cartridge with RLK

Quick-Lock cartridge with conical rotating wing

1. Features

The combination of the conical cartridge without bands, the conical rotating wing and the Quick look fixing allows smallest possible mounting height in the dirt side room. The rotating wing ensures quiet, careful and energy efficient cleaning. The conical design benefits a low upstream velocity, increases the performance ratio and improves the cleaning behaviour by effective dust sedimentation.

Characteristics

- Careful cleaning at max 4 bar pressure for a longer cartridge life time at low operating costs
- Conical cartridge without bands
- Compact design allows smallest mounting height in the dirt side room
- Effective cleaning via decreased upstream velocity and improved dust sedimentation
- Worldwide distribution

Applications

- Especially at a high dust load
- Powder coating
- Food industry
- Metalworking
2. Installation

3. Product range dust filtration
Dust filter cartridge
328 NZ
Ø 328 mm

1. Features

Star-pleated Filtration Group dust cartridges are used to separate dust from gases. Dusty air or gas is applied to the outside of the cartridges under pressure and the cleaned airflow exits at the top. The retained dust can be cleaned off with a rotating wing by means of a cleaning pulse or compressed air. Regular and extensive performance testing of all materials used in production is the key to the consistently high quality of Filtration Group dust cartridges. Additional applications tests are carried out both on the test stands in our own development laboratory and on the customer's site. The results of these tests form the backbone of innovative products, mature production methods and unmatched operational reliability.

Characteristics

- High separation efficiency
- Uniform pleat distribution
- Reliable operation
- Large filter surface in a very small space
- Optimised filter materials
- Installation on the dirt side
- Worldwide sales
2. Technical Data

Material
Inner core: Galvanized steel (standard) or stainless steel V4A
End caps: Galvanized steel (standard) or stainless steel V4A
Seal: Soft material PUR
Filter media:
- Ti 07/1 - Electrostatic conductive polyester fleece with PTFE membrane
- Ti 08 - Electrostatic conductive polyester fleece, aluminium coated
- Ti 15 - Polyester fleece
- Ti 19/2 - Cellulose/polyester carrier with Polypropylene meltblown
- Ti 56/2 - Polyester fleece with PTFE membrane
- Ti 70 - Cellulose with 30% polyester fibres
Other filter materials on request

Cleaning
Nozzle: RLD or MJD Rohgass
Cleaning pressure: -3 bar to 4 bar, max. 4.5 bar (for RLD)
Differential pressure: -5 bar to 6 bar (for MJD)
Differential pressure: max. 15 mbar

Technical data is subject to change without notice!

3. Order numbers

<table>
<thead>
<tr>
<th>Order number</th>
<th>Type designation**</th>
<th>Length L [mm]</th>
<th>Filter media</th>
<th>max. volume flow*** [m³/h]</th>
<th>max. operating temperature [°C]</th>
<th>Electrostatic conductive</th>
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<tbody>
<tr>
<td>78388274</td>
<td>852 907 Ti 07-5</td>
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<td>Ti 07/1</td>
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<td>78313124</td>
<td>852 907 Ti 15-5</td>
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<td>79354770</td>
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<td>600</td>
<td>Ti 07/1</td>
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<tr>
<td>79354788</td>
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<td>79354447</td>
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<td>79354697</td>
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<td>Ti 19/2</td>
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<td>79354200</td>
<td>852 908 Ti 19-7.5</td>
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<td>Ti 70</td>
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<td>79354895</td>
<td>852 908 Ti 70-13</td>
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<tr>
<td>78361479</td>
<td>852 908 Ti 07-7.5 V4A Band*</td>
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<td>1200</td>
<td>yes</td>
</tr>
<tr>
<td>79355454</td>
<td>852 908 Ti 08-10 Band</td>
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<td>10</td>
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<td>78312985</td>
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<tr>
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<td>79355181</td>
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<td></td>
<td>Ti 19/2</td>
<td></td>
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<td>no</td>
</tr>
</tbody>
</table>

* Version made of stainless steel V4A
** Further cartridge types available on request
*** These values may vary depending on the nature of the dust and the composition of the gas.
4. Installation

The dust filter cartridges (diameter: 328 mm) are fastened to the filter plate on the dirt side by means of a tie rod (tightening torque approx. 15 Nm). A hole with a diameter of 214 mm must be drilled in the filter plate. Mounting is facilitated by a centre ring.

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>76161913</td>
<td>Reusable end cap, galvanized steel</td>
</tr>
<tr>
<td>76161921</td>
<td>Reusable end cap, stainless steel V4A - AISI 316</td>
</tr>
<tr>
<td>77838568</td>
<td>Centre ring-EL 033, galvanized steel</td>
</tr>
<tr>
<td>77934326</td>
<td>Centre ring-EL 033, stainless steel V2A - AISI 304</td>
</tr>
<tr>
<td>77885031</td>
<td>Centre ring-2E 033, galvanized steel</td>
</tr>
<tr>
<td>78215220</td>
<td>Centre ring-2E 033, stainless steel V2A - AISI 304</td>
</tr>
<tr>
<td>79791104</td>
<td>Holding bolts PA6, pack of 3</td>
</tr>
<tr>
<td>79356387</td>
<td>Cleaning unit MJD-32 06 ROH A1</td>
</tr>
<tr>
<td>78331852</td>
<td>Cleaning unit RLD-32 06 ROH A1</td>
</tr>
<tr>
<td>79339219</td>
<td>Cleaning unit RLD-32 06 ROH V2</td>
</tr>
<tr>
<td>78296840</td>
<td>Cleaning unit RLD-32 06 ROH V1</td>
</tr>
</tbody>
</table>
6. Cleaning

Two cleaning systems are available for dust filter cartridges with a diameter of 328 mm

**Filtration Group multi-jet nozzle (MJD)**

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. It can also be purchased as part of the Filtration Group MJD cleaning unit, comprising the nozzle, a tripod and various small assembly components. The tripod maintains an optimum distance from the cartridge to ensure maximum cleaning efficiency.

**Filtration Group rotating wing (RLD)**

The baffle plate closes during cleaning and the rotating wing begins to turn. The large number of pulsed air jets that are discharged from the wing elements guarantee gentle, uniform cleaning over the complete cartridge length. The simultaneous vibratory movement in the pleats generates a significant improvement in cleaning efficiency, particularly with critical dusts. Each pleat is cleaned several times. The filter life is optimised as a result of the rotating wing.

7. Design

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.
Dust filter cartridge
328 NZ/NZC/UZ/XZ
Ø 328 mm, cylindrical

1. Features

Star-pleated Filtration Group dust cartridges are used to separate dust from gases. The gas flows inward through the cartridge and is discharged via the open end cap on the top. The retained dust can be cleaned off with a cleaning pulse or compressed air. Two systems multi-jet nozzle (pressure cleaning) or rotating wing (cleaning pulse) are available.

This is also supported by a special technology of element pleat stabilisation/pleat distance control (see data sheet Pleat Distance Control).

Regular and extensive performance testing of all materials used in production is the key to the consistently high quality of Filtration Group dust cartridges. Additional applications tests are carried out both on the test stands in our own development laboratory and on the customer's site. The results of these tests form the backbone of innovative products, mature production methods and unmatched operational reliability.

Characteristics
- High loading capacity
- Improved cleaning properties
- Optimised flow conditions
- Defined pleat allocation for best performance
- High stability
- Installation on the raw or clean gas side
- Universally suitable
- Reliable operation
- Large filter surface
- Optimised filter materials
- High energy efficiency
- Worldwide sales
2. Technical Data

**Materials**
- **Inner core:** Galvanized steel (standard) or stainless steel V4A
- **End caps:** Galvanized steel (standard) or stainless steel V4A
- **Seal:** Self adhesive needle felt, alternative silicone form seal/O-Ring
- **Filter material:**
  - Ti 07/1 - Electrostatical conductive polyester fleece with PTFE membrane
  - Ti 08 - Electrostatical conductive polyester fleece, aluminium coated
  - Ti 15 - Polyester fleece
  - Ti 19/2 - Cellulose/polyester carrier with PP meltblown
  - Ti 26 - Glass fibre, laminated
  - Other media on request

**Cleaning**
- **Cleaning unit:** Multi-jet nozzle (MJD) G1
- **Cleaning pressure:** MJD 6 bar (max. 7 bar)
- **Differential pressure:** RLD 3 - 4 bar (max. 4.2 bar)
- **Compressed air consumption:** MJD max. 96 l (fad)
- **Pressure vessel capacity:** RLD max. 80 l (i.N.)
- **Seal:** max. 18 mbar

*Technical data is subject to change without notice!*

3. Type number key, description and dimensions

### 3.1 Type number key

<table>
<thead>
<tr>
<th>Type</th>
<th>Series</th>
<th>Filter material</th>
<th>Filter surface</th>
<th>Material</th>
<th>Design</th>
<th>FDA</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>852</td>
<td>781</td>
<td>Ti 15 -10</td>
<td></td>
<td>V4A</td>
<td>FDA</td>
<td></td>
<td>Example</td>
</tr>
</tbody>
</table>

### 3.2 Description 328 NZ raw gas side

The dust filter cartridge has an opened bottom end cap. It will be raw or clean gas side mounted by means of a tie rod. The dust filter cartridge will be pulled against the filter plate. The upper end plate has three nibs which can lean on the filter plate mounted holding bolts when installing the cartridge. We recommend cleaning the dust filter cartridge with the multi-jet nozzle or rotating wing.

### 3.3 Description 328 NZC clean gas side

The dust filter cartridge has a closed bottom end cap. It will be raw or clean gas side mounted and fixed with holding down clamps on top of the cartridge. The cartridge have to be pushed through the hole in the filter plate from the clean gas side. To protect the pleats against the filter plate, there is a metal ring (approx. 16 mm high) glued into the end cap. We recommend cleaning the dust filter cartridge with the multi-jet nozzle or rotating wing. Recommended diameter of the hole in the filter plate for clean gas side mounting is 330 mm.
3.4 Description 328 UZ raw gas side
The dust filter cartridge has a closed bottom end cap with a ø 13 mm hole. The dust filter cartridges are fastened to the filter plate on the dirt side by means of a tie rod (tightening torque approx. 15 Nm). The dust filter cartridge will be fastened via a M12 star handle. We recommend cleaning the dust filter cartridge with the Filtration Group multi-jet nozzle or rotating wing.

3.5 Description 328 XZ raw gas side
This high-performance dust filter cartridge was developed by Filtration Group for particularly challenging filtration tasks in the food, pharmaceuticals and chemical industries. This cartridge design facilitates optimum cleaning of the filter cake in conjunction with the Filtration Group rotating wing. Typical dust deposits are virtually eliminated by completely filling the bottom of the end cap, because almost all deposits on the cartridge are drained off during cleaning. The key features here are the Filtration Group rotating wing and the special pleats, which are supported in an innovative way. A special system with form seal is also applied. The unique design of these cartridges permits wet cleaning with the cartridge installed or removed.

The dust filter cartridge has a closed bottom end cap with a ø 13 mm hole. The dust filter cartridges are fastened to the filter plate on the dirt side by means of a tie rod (tightening torque approx. 15 Nm). The dust filter cartridge will be fastened via a M12 star handle.

Several filter media are available for filter elements (see data sheet filter media).

### 3.6 Dimensions 328 NZ

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow* [m³/h]</th>
<th>Start pressure loss** [Pa]</th>
<th>Max. operating temperature*** [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 907 Ti ...</td>
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<td>510</td>
<td>&gt; 250</td>
<td>80 (160/240)</td>
</tr>
<tr>
<td>852 908 Ti ...</td>
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</table>

* Depending on the air to media ratio of 1.7 m³/m² min
** Depending on volume flow and filter media
*** Depending on media/materials, higher temperature ranges on request

### 3.7 Dimensions 328 NZC

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow* [m³/h]</th>
<th>Start pressure loss** [Pa]</th>
<th>Max. operating temperature*** [°C]</th>
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</thead>
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<td>&gt; 250</td>
<td>80 (160/240)</td>
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</table>
4. Installation

4.1 Raw gas side installation

The dust filter cartridges with diameter: 328 mm are fastened to the filter plate on the dirt side by means of a tie rod (tightening torque approx. 15 Nm). Mounting is facilitated by a centre ring.

Recommended diameter of the hole in the filter plate for raw gas side mounting is 214 mm.

---

### 3.8 Dimensions 328 UZ

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow* [m³/h]</th>
<th>Start pressure loss** [Pa]</th>
<th>Max. operating temperature*** [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 626 Ti ...</td>
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<td>510</td>
<td></td>
<td>&gt; 250</td>
</tr>
<tr>
<td>852 782 Ti ...</td>
<td>600</td>
<td>7.5/10/13</td>
<td>1000</td>
<td></td>
<td>80 (160/240)</td>
</tr>
<tr>
<td>852 020 Ti ...</td>
<td>660</td>
<td>11/21</td>
<td>1200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 876 Ti ...</td>
<td>1000</td>
<td>12.5/16</td>
<td>1630</td>
<td></td>
<td></td>
</tr>
<tr>
<td>852 081 Ti ...</td>
<td>1200</td>
<td>15/20</td>
<td>2040</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Depending on the air to media ratio of 1.7 m³/m² min
** Depending on volume flow and filter media
*** Depending on media/materials, higher temperature ranges on request

### 3.9 Dimensions 328 XZ

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow* [m³/h]</th>
<th>Start pressure loss** [Pa]</th>
<th>Max. operating temperature*** [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>852 844 Ti ... V4A</td>
<td>600</td>
<td>3/5/10</td>
<td>510</td>
<td></td>
<td>&gt; 250</td>
</tr>
<tr>
<td>852 979 Ti ... V4A</td>
<td>1000</td>
<td>12.5/8</td>
<td>1275</td>
<td></td>
<td>80 (160/240)</td>
</tr>
<tr>
<td>852 020 Ti ...</td>
<td>1200</td>
<td>15/20</td>
<td>2040</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dust filter cartridge 328 NZ/NZC/UZ/XZ
4. 2 Clean gas side installation
Filter cartridges with ø 328 are fastened to the filter plate on the cleaned side by means of retainers.
Recommended diameter of the hole in the filter plate for clean gas side mounting is 330 mm.

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>77838568</td>
<td>Centre ring-EL 033, galvanized steel</td>
</tr>
<tr>
<td>77934326</td>
<td>Centre ring-EL 033, stainless steel V2A - AISI 304</td>
</tr>
<tr>
<td>79743709</td>
<td>Centre ring stainless steel V4A - AISI 316</td>
</tr>
<tr>
<td>77885031</td>
<td>Centre ring-2E 033 galvanized steel (2x 852 908 Ti ...)</td>
</tr>
<tr>
<td>78215220</td>
<td>Centre ring-2E 033 Edelstahl 1.4301 V2A (2x 852 908 Ti ...)</td>
</tr>
<tr>
<td>76161913</td>
<td>Reusable end cap, galvanized steel</td>
</tr>
<tr>
<td>76161921</td>
<td>Reusable end cap, stainless steel V4A - AISI 316</td>
</tr>
<tr>
<td>79791104</td>
<td>Holding bolts PA6, pack of 3</td>
</tr>
<tr>
<td>70357074</td>
<td>Form seal SI 355/255/21</td>
</tr>
<tr>
<td></td>
<td>Cleaning unit Multi-jet nozzle MJD-32 (see data sheet MJD)</td>
</tr>
<tr>
<td></td>
<td>Cleaning unit Rotating wing RLD-32 (see data sheet RLD)</td>
</tr>
</tbody>
</table>
6. Cleaning

Two cleaning systems are available for dust filter cartridges with a diameter of 328 mm

**Filtration Group multi-jet nozzle (MJD)**

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. It can also be purchased as part of the Filtration Group MJD cleaning unit, comprising the nozzle, a tripod and various small assembly components. The tripod maintains an optimum distance from the cartridge to ensure maximum cleaning efficiency.

**Filtration Group rotating wing (RLD)**

The baffle plate closes during cleaning and the rotating wing begins to turn. The large number of pulsed air jets that are discharged from the wing elements guarantee gentle, uniform cleaning over the complete cartridge length. The simultaneous vibratory movement in the pleats generates a significant improvement in cleaning efficiency, particularly with critical dusts. Each pleat is cleaned several times. The filter life is optimised as a result of the rotating wing.

7. Design

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.
Dust filter cartridge
328 NZC
Ø 328 mm

1. Features

Star-pleated Filtration Group dust cartridges are used to separate dust from gases. Dusty air or gas impinged to the outside of the cartridges and the cleaned airflow exits at the top. The retained dust can be cleaned with a rotating wing by means of a cleaning pulse or by jet pulse.

Regular and extensive performance testing of all materials used in production is the key to the consistently high quality of Filtration Group dust cartridges. Additional applications tests are carried out both on the test stands in our own development laboratory and on the customer's site. The results of these tests form the backbone of innovative products, mature production methods and unmatched operational reliability.

Characteristics

- High separation efficiency
- Uniform pleat distribution
- Reliable operation
- Large filter surface in a very small space
- Optimised filter materials
- Installation on the clean side
- Worldwide sales
2. Technical Data

Material

**Inner core:**
- Galvanized steel (standard) 
- or stainless steel V4A - AISI 316

**End caps:**
- Galvanized steel (standard) 
- or stainless steel V4A - AISI 316

**Seal:**
- PUR soft material

**Filter material:**
- Ti 07/1 - Electrostatic conductive polyester Fleece with PTFE membrane
- Ti 08 - Electrostatic conductive polyester fleece
- Ti 15 - polyester fleece
- Ti 19/2 - Cellulose/polyester carrier with PP meltblown
- Ti 70 - Cellulose with 30 % polyester fibres
- Other filter materials on request

Cleaning

**Nozzle:**
- Rotating wing RLD Rein
- or multi-jet nozzle G1

**Cleaning pressure:**
- 3 bar to 4 bar (max. 4.5 bar)
- or 5 bar to 6 bar

**Differential pressure:**
- max. 15 mbar

*Technical data is subject to change without notice!*

3. Order numbers

<table>
<thead>
<tr>
<th>Order numbers</th>
<th>Type designation</th>
<th>Length L** [mm]</th>
<th>Filter material</th>
<th>max. volume flow*** [m³/h]</th>
<th>Max. operating temperature [°C]</th>
<th>Electrostatical conductive</th>
</tr>
</thead>
<tbody>
<tr>
<td>78386948</td>
<td>852 781 Ti 07-7.5</td>
<td>600</td>
<td>Ti 07/1</td>
<td>7.5</td>
<td>750</td>
<td>yes</td>
</tr>
<tr>
<td>79394172</td>
<td>852 781 Ti 07-7.5 V4A*</td>
<td>600</td>
<td>Ti 08</td>
<td>10</td>
<td></td>
<td>no</td>
</tr>
<tr>
<td>78361511</td>
<td>852 781 Ti 08-10</td>
<td>600</td>
<td>Ti 15</td>
<td>10</td>
<td></td>
<td>no</td>
</tr>
<tr>
<td>77938046</td>
<td>852 781 Ti 15-10</td>
<td>600</td>
<td>Ti 19/2</td>
<td>7.5</td>
<td>80</td>
<td>no</td>
</tr>
<tr>
<td>79354507</td>
<td>852 781 Ti 19-7.5</td>
<td>600</td>
<td>Ti 70</td>
<td>13</td>
<td></td>
<td>no</td>
</tr>
<tr>
<td>78359788</td>
<td>852 781 Ti 15-10 Band</td>
<td>600</td>
<td>Ti 15</td>
<td>10</td>
<td></td>
<td>no</td>
</tr>
<tr>
<td>79355587</td>
<td>852 781 Ti 19-7.5 Band</td>
<td>600</td>
<td>Ti 19/2</td>
<td>7.5</td>
<td></td>
<td>no</td>
</tr>
</tbody>
</table>

* Version made of stainless steel V4A
** Other cartridge lengths available on request
*** These values may vary depending on the nature of the dust and the composition of the gas.
4. Installation

The dust removal cartridges (diameter: 328 mm) are fastened to the filter plate on the clean air side by means of retainers. A hole with a diameter of 330 mm must be drilled in the filter plate.

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>79356734</td>
<td>Multi-jet nozzle MJD-32 00 Rein A1</td>
</tr>
<tr>
<td>78296758</td>
<td>Rotating wing RLD-32 08 Rein A1</td>
</tr>
<tr>
<td>78296857</td>
<td>Rotating wing RLD-32 06 Rein V1</td>
</tr>
</tbody>
</table>
6. Cleaning

Two cleaning systems are available for dust filter cartridges with a diameter of 328 mm.

**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. It can also be purchased as part of the Filtration Group MJD cleaning unit, comprising the nozzle, a tripod and various small assembly components. The stirrup maintains an optimum distance from the cartridge to ensure maximum cleaning efficiency.

**Filtration Group rotating wing**

The dam plate closes during cleaning and the rotating wing begins to turn. The large number of compressed air jets that are discharged from the wing elements guarantee gentle, uniform cleaning over the complete cartridge length. The simultaneous vibratory movement in the pleats generates a significant improvement in cleaning efficiency, particularly with critical dusts. Each pleat is cleaned several times over. The filter life is optimised as a result of the rotating wing.

7. Design

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.
Dust filter cartridge
328 XZ
Ø 328 mm, high performance cartridge

1. Features

This high-performance dust filter cartridge was developed by Filtra-
tion Group Filtersysteme for particularly challenging filtration tasks
in the pharmaceuticals and chemical industries. This cartridge design facilitates optimum cleaning of the filter cake in
conjunction with the Filtration Group rotating wing. Typical dust de-
posits are virtually eliminated by completely filling the bottom of the
end cap, because almost all deposits on the cartridge are drained
off during cleaning. The key features here are the Filtration Group
rotating wing and the special pleats, which are supported in an in-
novative way. The unique design of these cartridges permits wet cleaning with the
element installed or removed.

Characteristics
- Washable
- Very high differential pressure stability
- Installation on the dirt side
- Improved cleaning properties
- High load capacity
- Worldwide distribution
2. Technical Data

Material
Inner core: Stainless steel V4A - AISI 316
End caps: Stainless steel V4A - AISI 316
Seal: Silicone foam
Filter material:
- DRG 5N - Stainless steel wire mesh 1.4404
- Ti 07/1 - Electrostatical conductive polyester fleece with PTFE membrane
- Ti 08 - Electrostatical conductive polyester fleece
- Ti 18/1 - Polyphenyl sulphide with PTFE membrane
- Ti 56/2 - Polyester fleece with PTFE membrane

Cleaning
Nozzle: Rotating wing
Cleaning pressure: 3 bar to 4 bar
Differential pressure: max. 30 mbar
Compressed air consumption per cleaning pulse: 50 l (fad) for L = 600 mm
100 l (fad) for L = 984 mm
Compressed air reservoir capacity: approx. 16 l per filter cartridge for L = 600 mm
approx. 32 l per filter cartridge for L = 984 mm

Technical data is subject to change without notice!

3. Order numbers

<table>
<thead>
<tr>
<th>Order number</th>
<th>Type designation</th>
<th>Length L [mm]</th>
<th>Filter material</th>
<th>Filter surface [m²]</th>
<th>Max. vol. flow** [m³/h]</th>
<th>Max. operating temperature [°C]</th>
<th>Electrostatical conductive</th>
</tr>
</thead>
<tbody>
<tr>
<td>79747072</td>
<td>852 844 DRG 5N-3 V4A FRV*</td>
<td>600</td>
<td>DRG 5N</td>
<td>3</td>
<td>650</td>
<td>240</td>
<td>yes</td>
</tr>
<tr>
<td>78361370</td>
<td>852 844 Ti 07-3 V4A FRV*</td>
<td>600</td>
<td>Ti 07/1</td>
<td>5</td>
<td>800</td>
<td>130</td>
<td>yes</td>
</tr>
<tr>
<td>78361388</td>
<td>852 844 Ti 07-5 V4A FRV*</td>
<td>600</td>
<td>Ti 07/1</td>
<td>5</td>
<td>800</td>
<td>130</td>
<td>yes</td>
</tr>
<tr>
<td>78215295</td>
<td>852 844 Ti 08-5 V4A FRV*</td>
<td>600</td>
<td>Ti 08</td>
<td>450</td>
<td>160</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>76105969</td>
<td>852 844 Ti 18-5 V4A FRV*</td>
<td>550</td>
<td>Ti 18/1</td>
<td>8</td>
<td>1200</td>
<td>160</td>
<td>no</td>
</tr>
<tr>
<td>78221376</td>
<td>852 844 Ti 56-5 V4A FRV*</td>
<td>550</td>
<td>Ti 56/2</td>
<td>8</td>
<td>1200</td>
<td>160</td>
<td>no</td>
</tr>
<tr>
<td>76355499</td>
<td>852 979 Ti 07-8 V4A FRV*</td>
<td>984</td>
<td>Ti 07/1</td>
<td>8</td>
<td>1200</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>79749664</td>
<td>852 979 Ti 18-8 V4A FRV*</td>
<td>984</td>
<td>Ti 18/1</td>
<td>8</td>
<td>1200</td>
<td>160</td>
<td>no</td>
</tr>
</tbody>
</table>

* Version made of stainless steel V4A - AISI 316 or equivalent with glued pleat backs
** These values may vary depending on the nature of the dust and the composition of the gas.
4. Installation

The dust filter cartridges 852 844/852 979 are fastened to the filter plate on the dirt side by means of a tie bolt (tightening torque approx. 15 Nm). A hole with a diameter of 214 mm must be drilled in the filter plate. Cartridge mounting is facilitated by a centre ring.

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>77934326</td>
<td>Centre ring stainless steel V2A - AISI 304</td>
</tr>
<tr>
<td>79743709</td>
<td>Centre ring stainless steel V4A - AISI 316</td>
</tr>
<tr>
<td>79749631</td>
<td>O-ring silicone 253 mm x 12 mm</td>
</tr>
<tr>
<td>79339219</td>
<td>RLD-32 06 ROH V2 - AISI 304</td>
</tr>
<tr>
<td>79790064</td>
<td>RLD-32 10 ROH V2 - AISI 304</td>
</tr>
</tbody>
</table>
6. Cleaning

We recommend cleaning the dust filter cartridge with Filtration Group rotating wing RLD.
At begin of the cleaning process the baffle plate closes and the wing starts to rotate. Numerous air jets allow for even, gentle cleaning of the complete cartridge length. The cleaning process is significantly more efficient due to the simultaneous vibration movement in the pleats, particularly important with critical dusts. Each pleat is cleaned repeatedly.
By using the rotating wing the optimal service life of the filter cartridge is guaranteed.

7. Design

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.
Dust filter cartridge

Advantage of conical dust filter cartridges

1. Features

Star-pleated Filtration Group dust filter cartridges are used to separate very fine particles from air and gases in nearly all industrial branches. Cylindrical and conical cartridges are offered as standard. The conical geometry offers clear advantages in comparison to cylindrical designs. Conical Filtration Group cartridges improve the performance of a system with only minimal effort.

Characteristics

- 30% larger surface means better dust sedimentation
- Uniform cleaning all the way down to the bottom
- Higher mechanical strength facilitates a more compact system
- Lower filter surface load due to the reduced inflow velocity
- Improved cleaning action extends the cartridge life
2. Course of flow on dirt side

Upstream velocity in dirt side area $V = 1200 \text{ m}^3/\text{h}$, 8 cartridges, diameter of filter housing 530 mm

The conical design of the cartridge shows a high reduction of the upstream velocity in the area of the bottom end cap. Through it the element is much better to clean off, especially in use of light dust. The dust can sediment better.

Higher flow from approximately 30% at compact filter housing is possible.

$x$ = Distance to the bottom end cap in mm
$y$ = Velocity in m/s

Cylindrical cartridge
Conical cartridge

3. Effects in practice – example suction of rare dust

Cylindrical cartridge after 1,170 working hours. Upper area of cartridges is not cleaned well.

After changing to conical filter cartridges and 4,600 working hours.. Cartridges cleaned over the whole length.
4. Technical Data

For example sand blasting, \( V = 1200 \, \text{m}^3/\text{h} \), diameter of housing 530 mm

<table>
<thead>
<tr>
<th>Cartridge diameter in mm</th>
<th>120</th>
<th>120</th>
<th>115</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cartridge design</td>
<td>conical</td>
<td>cylindrical</td>
<td>cylindrical</td>
</tr>
<tr>
<td>Connection</td>
<td>RD 72</td>
<td>RD 72</td>
<td>RD 60</td>
</tr>
<tr>
<td>Filter area per cartridge in m²</td>
<td>1.6</td>
<td>1.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Filter area complete in m²</td>
<td>12.8</td>
<td>12.8</td>
<td>10.4</td>
</tr>
<tr>
<td>Filter surface load in m/min</td>
<td>1.56</td>
<td>1.56</td>
<td>1.92</td>
</tr>
<tr>
<td>Free area in %</td>
<td>82</td>
<td>59</td>
<td>62</td>
</tr>
<tr>
<td>Velocity between bottom end caps in m/s</td>
<td>1.84</td>
<td>2.56</td>
<td>2.42</td>
</tr>
<tr>
<td>Velocity on top end cap (RD connection) in m/s</td>
<td>7.15</td>
<td>7.15</td>
<td>14.75</td>
</tr>
<tr>
<td>Volume, clean side, cartridge in l</td>
<td>3.23</td>
<td>6.08</td>
<td>3.63</td>
</tr>
</tbody>
</table>

Subject to technical changes without prior notice.

Out of these values the following advantages for the conical cartridges result:

High capacity
(approx. 19 % more filter surface in comparison to cylindrical cartridges with diameter 115 mm)

Better dust sedimentation
(smaller area of the bottom end caps)

More efficient cleaning
(lower volume in comparison to the cylindrical cartridge)

Less flow resistance
(an increased outlet area size at the upper end cap in comparison to cartridges with RD 60 connection)

*1 = Cylindrical cartridges with 59 % free area
*2 = Conical cartridges with 82 % free area
Advantage of conical dust filter cartridges
Miofilter
Filter cartridge/Panel filter

1. Features

Miofilter products are mainly used for pre-filtration of air intake filtration for air conditioning systems and electrical engines in train applications. In that case, Miofilter products protect the second filter systems from rough pollution and atmospheric influences such as snow ice or leaves.

Miofilter are utilized as round shaped filter cartridges of filter cells (panel filters). They consist of different layers with undulated and perforated filter media, which is moulded in PU end caps or fixed into special metal frames.

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

- High retention rate along with low differential pressure
- Filter system with a very high load capacity (velocity up to 4 m/s)
- Cleanable filter systems leading to high durability
- Resistance against atmospheric conditions
- Resistance against high temperatures (up to 400°C)
- Very easy handling and installation
- Simple and rugged construction
- Very high degree of efficiency
- Low amount of maintenance
- Worldwide distribution
2. Filter media

**Miovylo**
Multilayered filter media made of perforated plastic
Equably layered (standard filter)
90° shifted layers to improve filtration characteristics (AL filter)
Temperature resistant up to 70 °C
Fire resistance M1

**Mioval**
Multilayered filter media made of perforated aluminum
Equably layered (standard filter)
90° shifted layers to improve filtration characteristics (AL filter)
Temperature resistant up to 120 °C, with a special sealing compound or in a metal frame up to 400 °C
Fire resistance M0

3. Applications

Pre-filtration of air intake filtration for electrical engines
Pre-filtration of air intake filtration for air conditioning systems
Pre-filtration of air intake filtration for air conditioning systems

View of the different filtration efficiency levels
View of the different filtration efficiency levels while installed

4. Design

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 6466-23429
fm.de.sales@filtrationgroup.com, www.fluid.filtrationgroup.com
70562513.04/2019
Dust filter cartridge
Pleat distance control

special pleat distance control for polyester and cellulose based filter media

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.

Due to the new Filtration Group pleat distance control for polyester and cellulose based filter media, the performance of the Filtration Group polyester cartridges increase up to 44 %, compared with standard polyester cartridges on the market. The improved cleaning effect and the optimized flow conditions are leading the performance to a very high level and to a maximum durability of the filter media of the cartridge.

The cleaning effect is highly improved by the engrained ridges/pleat lock of the filter media. Pleat blocking isn’t possible anymore, the air permeability and the air volume flow will be constantly to an extremely high level to get less differential pressure during the process.

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 retention rate with less differential pressure
- Polyester and cellulose based filter media
- Perfect pleat allocation, due to the pleat distance control with ridges and pleat-lock
- Very high durability
- Very high cleanability
- Maximum useable filter surface
- Very high efficiency
- Very low maintenance necessary
- Worldwide distribution
2. Pleat distance control versions

Standard pleat distance control for polyester based filter media

- Very good and constant pleat allocation by the use of a pleat distance hot melt rope on the backside of the pleats
- Improved cleaning effect of the filter cartridges with less differential pressure and high durability
- Increased stability of the pleats with a pleat depth of 50 mm
- Applicable process for cartridges with a pleat depth of 50 mm and a length up to 1200 mm
- Applicable process for polyester based filter media Ti 08 and Ti 15

Pleat distance control with ridges for polyester based filter media

- Perfect and constant pleat allocation by the use of ridges for polyester based filter media
- Best cleaning effect of the filter cartridges with less differential pressure and very high durability
- Maximum stability of the pleats with a pleat depth of 50 mm
- Applicable process for cartridges with a pleat depth of 50 mm and a length up to 800 mm
- Applicable process for polyester based filter media Ti 08 and Ti 15

Pleat distance control with Pleat-Lock for cellulose based filter media

- Perfect and constant pleat allocation by the use of engraved lenses (Pleat-Lock) for cellulose based filter media
- Usage of the complete filter surface for cartridges with a pleat depth of 50 mm
- Best cleaning effect of the filter cartridges with less differential pressure and very high durability
- Maximum stability of the pleats with a pleat depth of 50 mm
- Applicable process for cartridges with a pleat depth of 50 mm and a length up to 800 mm
- Applicable process for cellulose based filter media Ti 10 and Ti 85

3. Comparison of performance and pleat allocation

Comparison of differential pressure development on load with fluted filter media, with and without the pleat distance control with the Filtration Group technology of ridges

Comparison of the pleat allocation between the pleat distance controls of fluted filter media and with or without the Filtration Group technology of ridges

4. Design

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.
Filter media

Overview

1. Features

Filtration Group offers a wide selection of filter media for dust filter elements. This ensures that the right solution can be found for nearly every application.

Special filter media with PTFE membranes, meltblown micro fibre fleece or Web coatings guarantee optimal costs and reliable long-term operation of dust collector systems.

Media conform to EU regulations and FDA requirements are available for the pharmaceutical and food industries.
<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>electro-stat. conductive</th>
<th>Test certificate/ Dust class</th>
<th>FOOD EU 10/2011 + FDA</th>
<th>Air permeability [m³/m²h] (\Delta p) 200 Pa</th>
<th>max. operating temperature [°C]</th>
<th>Properties/ Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 07/1</td>
<td>Polyester fleece with PTFE membrane</td>
<td>yes</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
<td>yes</td>
<td>145 (perm.) 150 (peaks)</td>
<td></td>
<td>Hazardous areas, electrostatically chargeable dusts, high load, difficult fine dusts</td>
</tr>
<tr>
<td>Ti 08</td>
<td>Polyester fleece, aluminium coated</td>
<td>yes</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
<td>yes</td>
<td>580 (perm.) 150 (peaks)</td>
<td></td>
<td>Hazardous areas, electrostatically chargeable dusts, chemical and food industry</td>
</tr>
<tr>
<td>Ti 10</td>
<td>Cellulose with polyester fibres</td>
<td>no</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
<td>no</td>
<td>760 (perm.) 90 (perm.)</td>
<td></td>
<td>High air permeability and stability because of hydrophobe properties, gas turbines</td>
</tr>
<tr>
<td>Ti 15</td>
<td>Polyester fleece</td>
<td>no</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
<td>yes</td>
<td>580 (perm.) 150 (peaks)</td>
<td></td>
<td>High stability, chemical resistance, washable, food industry, gas turbines</td>
</tr>
<tr>
<td>Ti 18/1</td>
<td>Polyphenyl sulphide with PTFE membrane</td>
<td>no</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
<td>yes</td>
<td>200 (perm.) 160 (perm.) 190*</td>
<td></td>
<td>Very good separation, difficult fine dusts, high chemical resistance to organic solvents, alkalis and acids</td>
</tr>
<tr>
<td>Ti 19/2</td>
<td>Cellulose/polyester carrier with PP melt-blown</td>
<td>no</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
<td>no</td>
<td>1230 (perm.) 90 (perm.)**</td>
<td></td>
<td>Very good separation, difficult fine dusts, high air permeability, high load</td>
</tr>
<tr>
<td>Ti 26</td>
<td>Glass fibre, laminated</td>
<td>no</td>
<td>DIN EN 60335-2-69 &quot;H&quot;</td>
<td>yes</td>
<td>90 (perm.)</td>
<td></td>
<td>Separation of airborne particulates, secondary filter (not cleanable), high separation</td>
</tr>
<tr>
<td>Ti 35</td>
<td>Polypropylene (PP)</td>
<td>no</td>
<td>DIN EN 60335-2-69 &quot;L&quot;</td>
<td>yes</td>
<td>1080 (perm.) 80 (perm.)</td>
<td></td>
<td>Very good chemical resistance and against hydrolysis, washable, high air permeability, food industry</td>
</tr>
<tr>
<td>Ti 56/2</td>
<td>Polyester fleece with PTFE-membrane</td>
<td>no</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
<td>yes</td>
<td>250 (perm.) 130 (perm.) 150 (peaks)</td>
<td></td>
<td>Very good separation, difficult fine dusts, high load, washable, food industry</td>
</tr>
<tr>
<td>Ti 69</td>
<td>Polyester fleece, oil and water-repellent</td>
<td>no</td>
<td>DIN EN 60335-2-69 &quot;L&quot;</td>
<td>no</td>
<td>630 (perm.) 130 (perm.) 150 (peaks)</td>
<td></td>
<td>High air permeability, very good cleanable, high stability, oil and water-repellent</td>
</tr>
<tr>
<td>Ti 70</td>
<td>Cellulose with 30 % polyester fibres</td>
<td>no</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
<td>no</td>
<td>450 (perm.) 120 (perm.)</td>
<td></td>
<td>Good cleanable, ecologically harmless fabrication, improved wet strength</td>
</tr>
<tr>
<td>Ti 201</td>
<td>Polyester fleece with polyester nano fibres (M-Web)</td>
<td>no</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
<td>no</td>
<td>540 (perm.) 130 (perm.) 150 (peaks)</td>
<td></td>
<td>Good cleanable, high separation ratio at poor pressure drop, washable</td>
</tr>
<tr>
<td>Ti 202</td>
<td>Polyester fleece with PTFE membrane</td>
<td>no</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
<td>no</td>
<td>250 (perm.) 130 (perm.) 150 (peaks)</td>
<td></td>
<td>Very good separation, high load, washable</td>
</tr>
<tr>
<td>Ti 205</td>
<td>Cellulose with 20 % polyester fibres</td>
<td>no</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
<td>no</td>
<td>560 (perm.) 90 (perm.)</td>
<td></td>
<td>High air permeability and stability because of hydrophobe properties, flame-retardant</td>
</tr>
</tbody>
</table>

* with reduced oxygen content
double asterisk only dry air
<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>electro-stat. conductive</th>
<th>Test certificate/ Dust classe</th>
<th>FOOD EU 10/2011 + FDA</th>
<th>Air permeability [m³/m²h] Δp 200 Pa</th>
<th>max. operating temperature [°C]</th>
<th>Properties/ Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 206</td>
<td>Cellulose with polyester fibres (M-Web)</td>
<td>no</td>
<td>DIN EN 60335-2-69 &quot;M*&quot;</td>
<td>no</td>
<td>650</td>
<td>90 (perm.)</td>
<td>High air permeability and stability because of hydrophobe properties, good cleanable, high separation ratio at poor pressure drop, flame-retardant</td>
</tr>
<tr>
<td>Ti 201</td>
<td>Polyester fleece with with stainless steel fibres and PTFE membrane</td>
<td>yes</td>
<td>DIN EN 60335-2-69 &quot;M*&quot; EN 1822-3 &quot;E10&quot;</td>
<td>yes</td>
<td>180</td>
<td>130 (perm.)</td>
<td>Hazardous areas, electrostatically chargeable dusts, high stability, very good cleanable, high load, difficult fine dusts, food/ pharmaceutical and chemical industry</td>
</tr>
<tr>
<td>DRG5N</td>
<td>Stainless steel wire mesh 1.4404</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>900</td>
<td>240 (perm.) 260 (peaks)</td>
<td>Fine separation, food and pharmaceutical industry, washable</td>
</tr>
</tbody>
</table>

* with reduced oxygen content  
** only dry air
Filter media
DRG 5N
Stainless steel wire mesh 1.4404

1. Features

A special form of surface treatment has been used to obtain a very smooth, finely separating filter media. The wire mesh structure of DRG 5N permits wet cleaning without removing the cartridge. This media is preferred for use in cleanable dust filters installed in dry dust removal applications in the food processing and pharmaceuticals industries.

Characteristics
- Smooth surface
- Electrically conductive
- Good separation efficiency
- Excellent cleaning power
- Good cleanability
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²/h]</th>
<th>max. operating temperature [°C]</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRG 5N</td>
<td>Stainless steel wire mesh 1.4404</td>
<td>0.15</td>
<td>750</td>
<td>900 at Δp 200 Pa</td>
<td>240 (permanent) max. 260 (peaks)</td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!

3. Filtration efficiency

Filtration efficiency: $\eta > 98\%$ at 5 µm

Test conditions
- Filter surface load: $3.36 \text{ m}^3/\text{m}^2/\text{min}$
- Mass concentration: $200 \text{ mg/m}^3$ Dolomit
- Test dust: DRB 20 (Rock flour)
- Electrical resistance: $< 4 \times 10^4 \Omega$

$x = \text{Particle size [µm]}$

$y = \text{Filtration efficiency } \eta [%]$

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrolysis</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acids</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkalis</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvents</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mechanical properties</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface quality (smoothness)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stability</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Abrasion resistance</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Cleanability (jet pulse)</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Washability</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

These properties are of purely qualitative valuation and depending on the nature of the dust, the composition of the gas and the operating conditions (e.g. temperature).

5. Design

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.
Filter media
Ti 07/1
Polyester fleece with PTFE membrane, electrostatic conductive

1. Features

This pioneering filter media combines a newly developed, electrostatic conductive polyester media with a PTFE membrane. Statically charged particles transfer their charge via the membrane to the conductive polyester media. Ti 07/1 is a composite media that makes the advantages of surface filtration accessible to applications in hazardous areas.

Characteristics

- Specially designed for filtering electrostatically chargeable and explosive fine dusts
- Efficient surface filtration thanks to the microporous PTFE membrane
- High mechanical strength
- Very smooth, fibre-free surface
- Compliance with the requirements of DIN EN 60335-2-69/
  Dust class "M" and EN 1822-3 class E10 at v ≤ 1m/min
- Filter media is conform to regulations (EC) No. 1935/2004 and (EU) No. 10/2011 as well as FDA 21 CFR CH. I §177.1550 requirements
- Electrostatic behaviour testes acc. to DIN EN 54345
  Part 1 and 5
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²h]</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 07/1</td>
<td>electrostatic conductive polyester fleece with PTFE membrane</td>
<td>0.65</td>
<td>265</td>
<td>150 at Δp 200 Pa</td>
<td>130 (permanent) max. 150 (peaks)</td>
<td>DIN EN 60335-2-69 &quot;M&quot; EN 1822-3 &quot;E10&quot;</td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!
Electrostatic resistance according to DIN EN 54345 Part 1 and 5: < 1 x 10⁶ Ω

3. Filtration efficiency

Filtration efficiency: > 99.99 % at 0.3 µm

Test conditions
Filter surface load: 3.36 m³/m²/min
Mass concentration: 200 mg/m³
Test dust: Dolomit DRB 20 (Rock flour)

\[ x = \text{Particle size [µm]} \]
\[ y = \text{Filtration efficiency } \eta [\%] \]

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
<th>Mechanical properties</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity</td>
<td>x</td>
<td></td>
<td></td>
<td>Surface quality (smoothness)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrolysis</td>
<td>x</td>
<td></td>
<td></td>
<td>Stability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acids</td>
<td>x</td>
<td></td>
<td></td>
<td>Abrasion resistance</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkalis</td>
<td>x</td>
<td></td>
<td></td>
<td>Cleanability (jet pulse)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvents</td>
<td>x</td>
<td></td>
<td></td>
<td>Washability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These properties are of purely qualitative valuation and depending on the nature of the dust, the composition of the gas and the operating conditions (e.g. temperature).

5. Design

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.
Filter media
Ti 08
Polyester fleece, aluminium coated, electrostatic conductive

1. Features

The polyester fibres on the inflow side (dirt side) have a thin aluminium coating that gives the Ti 08 filter media an electrically conductive surface. This coating is inseparable from the substrate and has no influence on the porosity of the media. Ti 08 is a very economical solution in all dust removal applications where static charges in the dust filter cake have to be eliminated.

Characteristics

- Smooth surface
- Electrostatic conductive
- Good separation efficiency
- Excellent cleaning power
- Good cleanability
- Compliance with the requirements of DIN EN 60335-2-69/
  Dust class "M"
- Filter media is conform to regulations (EC) No. 1935/2004 and
  (EU) No. 10/2011 as well as FDA 21 CFR CH. I §177.1630
  requirements
- Electrostatic behaviour tests acc. to DIN EN 54345
  Part 1 and 5
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²h]</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/ dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 08</td>
<td>Polyester fleece, aluminium-coated, electrostatic conductive</td>
<td>0.6</td>
<td>260</td>
<td>580</td>
<td>130 (permanent) 150 (peaks)</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!
Electrostatic resistance according to DIN EN 54345 Part 1 and 5: < 1 x 10^6 Ω

3. Filtration efficiency

Filtration efficiency: > 98 % at 4 µm

Test conditions
Inflow velocity: 3.36 m/min
Mass concentration: 200 mg/m³
Test dust: Dolomit DRB 20 (Rock flour)

x = Particle size [µm]
y = Filtration efficiency η [%]

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
<th>Mechanical properties</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity</td>
<td>x</td>
<td></td>
<td></td>
<td>Surface quality (smoothness)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrolysis</td>
<td>x</td>
<td></td>
<td></td>
<td>Stability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acids</td>
<td>x</td>
<td></td>
<td></td>
<td>Abrasion resistance</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkalis</td>
<td>x</td>
<td></td>
<td></td>
<td>Cleanability (jet pulse)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvents</td>
<td>x</td>
<td></td>
<td></td>
<td>Washability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These properties are of purely qualitative valuation and depending on the nature of dust, composition of gas and operating conditions (e.g. temperature).

5. Design

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.

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Phone +49 7941 6466-0
Fax +49 7941 6466-429
fm.de.sales@filtrationgroup.com
www.fluid.filtrationgroup.com
70342001.04/2019

Filter media Ti 08
Filter media
Ti 10
Cellulose with polyester fibres

1. Features

The cellulose/polyester fibre blend chosen for this filter media is characterised by high air permeability and stability as well as very good hydrophobicity. The media combines efficient operation with a low pressure loss. Ti 10 is consequently ideal for filtering the intake air of gas turbines.

Characteristics

- Humidity resistant
- Low pressure loss
- Long service life
- Efficient operation
- Compliance with the requirements of DIN EN 60335-2-69/
  Dust class "M" and EN 779 "F9"
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²h] at Δp 200 Pa</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 10</td>
<td>Cellulose with polyester fibres</td>
<td>0.5</td>
<td>110</td>
<td>760</td>
<td>90 (permanent)</td>
<td>DIN EN 60335-2-69 <em>M</em> EN 779 <em>F9</em></td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!

3. Filtration efficiency

Filtration efficiency: > 98 % at 5 µm

Test conditions:
- Inflow velocity: 3.36 m/min
- Mass concentration: 200 mg/m³
- Test dust: Dolomit DRB 20 (Rock flour)

x = Particle size [µm]
y = Filtration efficiency η [%]

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
<th>Mechanical properties</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity</td>
<td>x</td>
<td></td>
<td></td>
<td>Surface quality (smoothness)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrolysis</td>
<td>x</td>
<td></td>
<td></td>
<td>Stability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acids</td>
<td>x</td>
<td></td>
<td></td>
<td>Abrasion resistance</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkalis</td>
<td>x</td>
<td></td>
<td></td>
<td>Cleanability (jet pulse)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvents</td>
<td>x</td>
<td></td>
<td></td>
<td>Washability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These properties are of purely qualitative valuation and depending on the nature of the dust, the composition of the gas and the operating conditions (e.g. temperature).

5. Design

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.

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70342003.04/2019

Filter media Ti 10
Filter media

Ti 15
Polyester fleece

1. Features

Ti 15 is a specially optimised polyester filter media offering improved separation efficiency in combination with high air permeability. The media combines efficient operation with a low pressure loss. That is the reason why Ti 15 is also ideal for filtering the intake air of gas turbines. The media owes its remarkable stability to the thermoplastic solidification process. No binder is necessary - which is why Ti 15 is also good for many applications in the food processing industry.

Characteristics

- High mechanical strength (elongation at break 70 %)
- Smooth surface
- Good cleanability
- Resistant to a large number of chemicals
- Thermoplastic binding, no binders can be dispensed
- Hydrophobic properties abetting wet cleaning
- Compliance with the requirements of DIN EN 60335-2-69/
  Dust class "M" and EN 779 "F8"
- Filter media is conform to regulations (EC) No. 1935/2004 and
  (EU) No. 10/2011 as well as FDA 21 CFR CH. I §177.1630 re-
 uirements
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²h] at Δp 200 Pa</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 15</td>
<td>Polyester fleece</td>
<td>0.6</td>
<td>260</td>
<td>130 (permanent)</td>
<td>DIN EN 60335-2-69 <em>M</em> EN 779 <em>F8</em></td>
</tr>
</tbody>
</table>

3. Filtration efficiency

Filtration efficiency: > 98 % at 4 µm

Test conditions:
Inflow velocity: 3.36 m/min
Mass concentration: 200 mg/m³
Test dust: Dolomit DRB 20 (Rock flour)

x = Particle size [µm]
y = Filtration efficiency η [%]

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrolysis</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Acids</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkalis</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvents</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mechanical properties</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface quality (smoothness)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stability</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Abrasion resistance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleanability (jet pulse)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washability</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These properties are of a purely qualitative valuation and depending on the nature of the dust, the composition of the gas and the operating conditions (e.g. temperature).

5. Design

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 the important parameters.

Comprehensive documentation on our product range, cleaning units and cartridges can be provided.
Filter media
Ti 18/1
Polyphenyl sulphide with PTFE membrane

1. Features

The two-layer structure of this filter media enables the maximum benefit of the surface filtration. The fine-pored PTFE membrane separates almost all the dust on the membrane surface. Especially challenging filtration tasks will be solved with a long service life. Polyphenyl sulphide with a PTFE membrane combines very good filtration efficiency with good cleanability. It also boasts good chemical and temperature resistance as well as excellent resistance to hydrolysis.

Characteristics

- Efficient surface filtration thanks to microporous PTFE membrane
- High mechanical strength
- Very good chemical resistance to acids, alkalis and organic solvent vapours
- Very smooth, fibre-free surface
- Excellent resistance to hydrolysis
- Good cleanability
- Compliance with the requirements of DIN EN 60335-2-69/Dust class "M" and EN 1822-3 class "E10" at $v \leq 1 \text{m/min}$
- Filter media is conform to regulations (EC) No. 1935/2004 and (EU) No. 10/2011 as well as FDA 21 CFR CH. I §177.1550 requirements
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²/h]</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 18/1</td>
<td>Polyphenyl sulphide with PT- FE membrane</td>
<td>0.7</td>
<td>250</td>
<td>200 at ∆p 200 Pa</td>
<td>160 (permanent) 190 *</td>
<td>DIN EN 60335-2-69 &quot;M&quot; EN 1822-3 &quot;E10&quot;</td>
</tr>
</tbody>
</table>

* With reduced oxygen content. Technical data is subject to change without notice!

3. Filtration efficiency

Filtration efficiency: $> 99.99 \%$

Test conditions
- Inflow velocity: 3.36 m/min
- Mass concentration: 200 mg/m³
- Test dust: Dolomit DRB 20 (Rock flour)

$x = $ Particle size [µm]

$y = $ Filtration efficiency $\eta$ [%]

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
<th>Mechanical properties</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity</td>
<td>x</td>
<td></td>
<td></td>
<td>Surface quality (smoothness)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrolysis</td>
<td>x</td>
<td></td>
<td></td>
<td>Stability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acids</td>
<td>x</td>
<td></td>
<td></td>
<td>Abrasion resistance</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkalis</td>
<td>x</td>
<td></td>
<td></td>
<td>Cleanability (jet pulse)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvents</td>
<td>x</td>
<td></td>
<td></td>
<td>Washability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These properties are of a purely qualitative valuation and depending on the nature of the dust, the composition of the gas and the operating conditions (e.g. temperature).

5. Design

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Comprehensive documentation on our product range, cleaning units and cartridges can be provided.
Filter media
Ti 19/2
Cellulose/polyester carrier with Polypropylene meltblown

1. Features

The Ti 19/2 filter media is an optimally designed composite media for cleanable, pleated dust filter cartridges. Its thin, fine-pored, meltblown microfibre layer assures maximum separation as well as a low air resistance. The excellent filtration and cleaning properties are the outcome of the small fibre diameter (approximately 2 µm) achieved with the meltblown process. The stable, coarse-pored substrate gives the media the required strength. Ti 19/2 is especially suitable for separating dusts with high fine fraction.

Characteristics

- High porosity and hence a low pressure loss
- Excellent cleanability because the filter layer is made of polypropylene meltblown
- Good chemical and hydrolysis resistance up to the permanent operating temperature
- High filtration efficiency
- Compliance with the requirements of DIN EN 60335-2-69/Dust class "M" and EN 779 "F9"
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²h]</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 19/2</td>
<td>Cellulose/polyester carrier with polypropylene meltblown</td>
<td>0.85</td>
<td>210</td>
<td>1230</td>
<td>90 (permanent) *</td>
<td>DIN EN 60335-2-69 &quot;M&quot; EN 779 &quot;F9&quot;</td>
</tr>
</tbody>
</table>

* Only in dry air. Technical data is subject to change without notice!

3. Filtration efficiency

Filtration efficiency: > 99 %

at 2 µm

Test conditions
Inflow velocity: 3.36 m/min
Mass concentration: 200 mg/m³
Test dust: Dolomit DRB 20 (Rock flour)

x = Particle size [µm]
y = Filtration efficiency η [%]

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
<th>Mechanical properties</th>
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<th>Good</th>
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</tr>
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<td>x</td>
<td></td>
<td>Surface quality (smoothness)</td>
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<td></td>
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</tr>
<tr>
<td>Hydrolysis</td>
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<td>x</td>
<td></td>
<td>Stability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acids</td>
<td></td>
<td></td>
<td>x</td>
<td>Abrasion resistance</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Alkalis</td>
<td></td>
<td></td>
<td>x</td>
<td>Cleanability (jet pulse)</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Solvents</td>
<td></td>
<td></td>
<td>x</td>
<td>Washability</td>
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These properties are of a purely qualitative valuation and depending on the nature of the dust, the composition of the gas and the operating conditions (e.g. temperature).

5. Design

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Completion of the relevant questionnaire would facilitate in the coordination of all the important parameters.
Comprehensive documentation on our product range, cleaning units and cartridges can be provided.
Filter media

Ti 26

Glass fibre, laminated on both sides with PET

1. Features

The filter material Ti 26 consists of a micro glass fibre fleece with polyester spun-bonded fleece laminated on both sides. This results in improved resistance and stiffness of the material. Ti 26 is characterized by a high retention of the particulate material. Filter elements made of this material are generally used as secondary filters that cannot be cleaned.

Characteristics

- Very high separation efficiency
- High mechanical strength
- Compliance with the requirements of DIN EN 60335-2-69/Dust class "H" and EN 1822-3 class "H14" at \( v \leq 1 \) m/min
- Filter media is conform to regulations (EC) No. 1935/2004 and (EU) No. 10/2011 as well as FDA 21 CFR CH. I §177.1630 requirements
- Worldwide distribution
2. Technical data

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<th>Material</th>
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<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 26</td>
<td>Glass fibre, laminated on both sides with PET</td>
<td>0.70</td>
<td>230</td>
<td>95</td>
<td>120 (permanent)</td>
<td>DIN EN 60335-2-69 &quot;H&quot; EN 1822-3 &quot;H14&quot;</td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!

3. Filtration efficiency

- Filtration efficiency:
  - H13 at \( v = 3.5 \text{ m/min} \) > 99.95 % at 0.1 μm
  - H14 at \( v = 1 \text{ m/min} \) > 99.995 % at 0.1 μm

Test conditions
- Mass concentration: 200 mg/m³
- Test dust: DEHS
- \( x = \text{Particle size [μm]} \)
- \( y = \text{Filtration efficiency } \eta [%] \)

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
<th>Mechanical properties</th>
<th>Very good</th>
<th>Good</th>
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</tr>
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<tbody>
<tr>
<td>Humidity</td>
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<td></td>
<td></td>
<td>Surface quality (smoothness)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrolysis</td>
<td>x</td>
<td></td>
<td></td>
<td>Stability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acids</td>
<td>x</td>
<td></td>
<td></td>
<td>Abrasion resistance</td>
<td>x</td>
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<td></td>
</tr>
<tr>
<td>Alkalis</td>
<td>x</td>
<td></td>
<td></td>
<td>Cleanability (jet pulse)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvents</td>
<td>x</td>
<td></td>
<td></td>
<td>Washability</td>
<td></td>
<td></td>
<td></td>
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</table>

These properties are of a purely qualitative valuation and depending on the nature of the dust, the composition of the gas and the operating conditions (e.g. temperature).

5. Design

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 the important parameters. Comprehensive documentation on our product range, cleaning units and cartridges can be provided.
Filter media

Ti 35

Polypropylene

1. Features

Ti 35 is a specially optimised polypropylene filter media offering high separation efficiency in combination with high air permeability. The media owes its enhanced stability to the thermoplastic solidification process. No binder is necessary - therefore you can use Ti 35 for applications in the food processing industry. The structure of Ti 35 polypropylene filter media entails a very good chemical resistance in a lot of applications.

Characteristics

- Very good resistance against hydrolysis
- Smooth surface
- Good cleanability
- Resistant to a large number of chemicals
- Thermoplastic binding, no binders can be dispensed
- Hydrophobic properties abetting wet cleaning
- Compliance with the requirements of DIN EN 60335-2-69/
  Dust class "L"
- Filter media is conform to regulations (EC) No. 1935/2004 and
  (EU) No. 10/2011 as well as FDA 21 CFR CH. I §177.1520 requirements
- Worldwide distribution
2. Technical data

<table>
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<th>Type</th>
<th>Media</th>
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<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²h] at Δp 200 Pa</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
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<tbody>
<tr>
<td>Ti 35</td>
<td>Polypropylene</td>
<td>0.7</td>
<td>200</td>
<td>1080</td>
<td>80</td>
<td>DIN EN 60335-2-69 &quot;L&quot;</td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!

3. Filtration efficiency

Filtration efficiency: > 98 % at 6 µm

Test conditions
- Inflow velocity: 3.36 m/min
- Mass concentration: 200 mg/m³
- Test dust: Dolomit DRB 20 (Rock flour)

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
<th>Mechanical properties</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
</tr>
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<tbody>
<tr>
<td>Humidity</td>
<td>x</td>
<td></td>
<td></td>
<td>Surface quality (smoothness)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrolysis</td>
<td>x</td>
<td></td>
<td></td>
<td>Stability</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Acids</td>
<td>x</td>
<td></td>
<td></td>
<td>Abrasion resistance</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Alkalis</td>
<td>x</td>
<td></td>
<td></td>
<td>Cleanability (jet pulse)</td>
<td></td>
<td></td>
<td>x</td>
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<tr>
<td>Solvents</td>
<td>x</td>
<td></td>
<td></td>
<td>Washability</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

These properties are of a purely qualitative valuation and depending on the nature of the dust, the composition of the gas and the operating conditions (e.g. temperature).

5. Design

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Filter media

Ti 56/2

Polyester fleece with PTFE membrane

1. Features

The two-layer structure of this filter media enables the maximum benefit of the surface filtration. The fine-pored PTFE membrane separates almost all the dust on the membrane surface. Owing to its very smooth, fibre-free surface, Ti 56/2 is especially suitable for cleanable dust filter cartridges. Especially challenging filtration tasks will be solved with a long service life.

Characteristics

- Efficient surface filtration thanks to the microporous PTFE membrane
- High mechanical strenght
- Very good chemical resistance to acids and organic solvent vapours
- Very smooth, fibre-free surface
- Compliance with the requirements of DIN EN 60335-2-69/Dust class "M" and EN 1822-3 class "E10" at v ≤ 1m/min
- Filter media is conform to regulations (EC) No. 1935/2004 and (EU) No. 10/2011 as well as FDA 21 CFR CH. I §177.1550 re-quirements
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²/h]</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 56/2</td>
<td>Polyester Fleece with PT-FE membrane</td>
<td>0.65</td>
<td>260</td>
<td>260 at Δp 200 Pa</td>
<td>130 (permanent) 150 (peaks)</td>
<td>DIN EN 60335-2-69 &quot;M&quot; EN 1822-3 class &quot;E10&quot;</td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!

3. Filtration efficiency

Filtration efficiency: > 99.99 %

Test conditions
- Inflow velocity: 3.36 m/min
- Mass concentration: 200 mg/m³
- Test dust: Dolomit DRB 20 (Rock flour)

x = Particle size [µm]
y = Filtration efficiency η [%]

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
<th>Mechanical properties</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
</tr>
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<tbody>
<tr>
<td>Humidity</td>
<td>x</td>
<td></td>
<td></td>
<td>Surface quality (smoothness)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrolysis</td>
<td>x</td>
<td></td>
<td></td>
<td>Stability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acids</td>
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<td></td>
<td>Abrasion resistance</td>
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</tr>
<tr>
<td>Alkalis</td>
<td>x</td>
<td></td>
<td></td>
<td>Cleanability (jet pulse)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvents</td>
<td>x</td>
<td></td>
<td></td>
<td>Washability</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These properties are of a purely qualitative valuation and depending on the nature of the dust, the composition of the gas and the operating conditions (e.g. temperature).

5. Design

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Completion of the relevant questionnaire would facilitate in the coordination of all the important parameters.

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

Filtration Group GmbH
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D-74613 Öhringen
Phone +49 7941 6466-0
Fax +49 7941 6466-429
fm.de.sales@filtrationgroup.com
www.fluid.filtrationgroup.com
70342020.04/2019
Filter media Ti 56/2
Filter media
Ti 69
Polyester fleece, oil and water-repellent

1. Features

Ti 69 is a specially optimised polyester (PET) filter media offering improved filtration efficiency in combination with high air permeability. Its excellent cleaning properties are the outcome of an oil and water-repellent finishing.

The media owes its remarkable stability to the thermoplastic solidification process. No binders are used.

Characteristics

- Oil and water-repellent finishing
- High mechanical strength
- Smooth surface
- Excellent cleaning properties
- Resistant to a large number of chemicals
- Thermoplastic bound, no binding agent
- Compliance with the requirements of DIN EN 60335-2-69/Dust class "L"
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²h]</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 69</td>
<td>Polyester fleece, oil and water-repellent</td>
<td>0.76</td>
<td>285</td>
<td>635 at Δp 200 Pa</td>
<td>130 (permanent) 150 (peaks)</td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!

3. Filtration efficiency

Filtration efficiency: > 98 %

at 5 µm

Test conditions
Inflow velocity: 3.36 m/min
Mass concentration: 200 mg/m³
Test dust: Dolomit DRB 20 (Rock flour)

x = Particle size [µm]
y = Filtration efficiency η [%]

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
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<td>Abrasion resistance</td>
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<td>Alkalis</td>
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<td>Solvents</td>
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<td></td>
<td>x</td>
<td>Washability</td>
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<td></td>
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</tbody>
</table>

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5. Design

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Filter media

Ti 70

Cellulose with 30 % Polyester fibres

1. Features

The cellulose/polyester fibre blend chosen for this filter media consists of 30 % polyester and 70 % cellulose. This filter media is characterised by high stability and very good hydrophobicity. Using the MAHLE pleat distance control "Pleat Lock" and the deep fluted cellulose media, the Ti 70 obtains high performance, economic efficiency with less differential pressure and high durability.

Characteristics

- High mechanical strength
- Better wet resistance than conventional filter papers
- Smooth and fluted surface
- Long filter life and low pressure loss
- Economical under operation conditions
- Good cleanability under operation conditions
- Compliance with the requirements of DIN EN 60335-2-69/Dust class "M"
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²h] at Δp 200 Pa</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 70</td>
<td>Cellulose with 30% poly-ester fibres</td>
<td>0.77 (fluted)</td>
<td>200</td>
<td>400</td>
<td>120 (permanent)</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!

3. Filtration efficiency

Filtration efficiency: > 98 % at 4 μm

Test conditions
Inflow velocity: 3.36 m/min
Mass concentration: 200 mg/m³
Test dust: Dolomit DRB 20 (Rock flour)

x = Particle size [μm]
y = Filtration efficiency η [%]

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
<th>Mechanical properties</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity</td>
<td>x</td>
<td></td>
<td></td>
<td>Surface quality (smoothness)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrolysis</td>
<td>x</td>
<td></td>
<td></td>
<td>Stability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acids</td>
<td>x</td>
<td></td>
<td></td>
<td>Abrasion resistance</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkalis</td>
<td>x</td>
<td></td>
<td></td>
<td>Cleanability (jet pulse)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvents</td>
<td>x</td>
<td></td>
<td></td>
<td>Washability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These properties are of a purely qualitative valuation and depending on the nature of the dust, the composition of the gas and the operating conditions (e.g. temperature).

5. Design

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

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Schleifbachweg 45
D-74613 Öhringen
Phone +49 7941 6466-0
Fax +49 7941 6466-429
fm.de.sales@filtrationgroup.com
www.fluid.filtrationgroup.com
70342025.04/2019
Filter media
Ti 201
Polyester fleece with polyester nano fibres (M-Web)

1. Features

The Ti 201 filter media is ideal for use in cleanable filter plants. It owes its excellent filtration and cleaning properties to the M-Web Polyester coating. The media combines efficient operation with a low pressure loss and high separation efficiency. Therefore the Ti 201 filter media is especially suitable for filtration of induction air, e.g. vacuum cleaner (wet and dry suction).

Characteristics

- Optimum cleaning properties
- Water-resistant
- Low pressure loss
- Long filter life
- Efficient operation
- Compliance with the requirements of DIN EN 60335-2-69/Dust class "M"
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²/h] at Δp 200 Pa</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 201</td>
<td>Polyester with polyester nano fibres (M-Web)</td>
<td>0.6</td>
<td>240</td>
<td>540</td>
<td>130 (permanent) 150 (peaks)</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!

3. Filtration Efficiency

![Graph showing filtration efficiency](image)

Filtration efficiency: \( > 99 \% \) at 2.5 \( \mu \)m

Test conditions

- Inflow velocity: 3.36 m/min
- Mass concentration: 200 mg/m³
- Test dust: Dolomit DRB 20 (Rock flour)

\[ x = \text{Particle size [µm]} \]
\[ y = \text{Filtration efficiency } \eta [\%] \]

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
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<th>Good</th>
<th>Limited</th>
</tr>
</thead>
<tbody>
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<td>x</td>
<td></td>
<td></td>
<td>Surface quality (smoothness)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrolysis</td>
<td>x</td>
<td></td>
<td></td>
<td>Stability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acids</td>
<td>x</td>
<td></td>
<td></td>
<td>Abrasion resistance</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
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<td></td>
<td>x</td>
<td></td>
<td>Cleanability (jet pulse)</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Solvents</td>
<td></td>
<td>x</td>
<td></td>
<td>Washability</td>
<td></td>
<td>x</td>
<td></td>
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</table>

These properties are of a purely qualitative valuation and depending on the nature of the dust, the composition of the gas and the operating conditions (e.g. temperature).

5. Design

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Filter media

Ti 202

Polyester fleece with PTFE membrane

1. Features

The two-layer structure of this filter media enables the maximum benefit of the surface filtration. The fine-pored PTFE membrane separates almost all the dust on the membrane surface. Owing to its very smooth, fibre-free surface, Ti 202 is especially suitable for cleanable dust filter cartridges. Especially challenging filtration tasks will be solved with a long service life.

Characteristics

- Efficient surface filtration thanks to the microporous PTFE membrane
- High mechanical strenght
- Very good chemical resistance to acids and organic solvent vapours
- Very smooth, fibre-free surface
- Compliance with the requirements of DIN EN 60335-2-69/Dust class "M"
- Filter media is conform to regulations (EC) No. 1935/2004 and (EU) No. 10/2011 as well as FDA 21 CFR CH. I §177.1550 requirements
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²h]</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 202</td>
<td>Polyester fleece with PT-FE membrane</td>
<td>0.50</td>
<td>200</td>
<td>260 at Δp 200 Pa</td>
<td>120 (permanent) 140 (peaks)</td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!

3. Filtration efficiency

Filtration efficiency: > 99.99 % at 0.5 µm
Test conditions
Inflow velocity: 3.36 m/min
Mass concentration: 200 mg/m³
Test dust: Dolomit DRB 20 (Rock flour)

x = Particle size [µm]
y = Filtration efficiency η [%]

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
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<td></td>
<td></td>
</tr>
<tr>
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<td>x</td>
<td></td>
<td></td>
<td>Stability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
<td>Abrasion resistance</td>
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<td></td>
<td></td>
<td>Washability</td>
<td></td>
<td></td>
<td>x</td>
</tr>
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5. Design

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Filter media
Ti 205
Cellulose with 20 % polyester fibres
Flame-retardant

1. Features

The cellulose/polyester fibre blend chosen for this filter media consists of 80 % cellulose and 20 % polyester. This filter media is characterised by high stability and very good hydrophobicity. The media combines efficient operation with a low pressure loss and long filter service life. Furthermore the filter media Ti 205 is flame-retardant and therefore most suitable for flame spraying, plasma and laser cutting as well as welding applications.

Characteristics
- Flame-retardant
- Water-resistant
- Smooth and fluted surface
- Optimized cleanability
- Low pressure loss
- High stability
- Long service life
- Efficient operation
- Compliance with the requirements of DIN EN 60335-2-69/Dust class "M"
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²h]</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 205</td>
<td>Cellulose with 20 % polyester-fibres, flame-retardant</td>
<td>0.6 (fluted)</td>
<td>135</td>
<td>560 at Δp 200 Pa</td>
<td>90 (permanent)</td>
<td>DIN EN 60335-2-69 <em>M</em></td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!

3. Filtration efficiency

Filtration efficiency: > 98 %

at 5 µm

Test conditions

Inflow velocity: 3.36 m/min

Mass concentration: 200 mg/m³

Test dust: Dolomit DRB 20 (Rock flour)

x = Particle size [µm]

y = Filtration efficiency η [%]

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
<th>Mechanical properties</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity</td>
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<td></td>
<td></td>
<td>Surface quality (smoothness)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrolysis</td>
<td>x</td>
<td></td>
<td></td>
<td>Stability</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acids</td>
<td>x</td>
<td></td>
<td></td>
<td>Abrasion resistance</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkalis</td>
<td>x</td>
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<td></td>
<td>Cleanability (jet pulse)</td>
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<td></td>
</tr>
<tr>
<td>Solvents</td>
<td>x</td>
<td></td>
<td></td>
<td>Washability</td>
<td>x</td>
<td></td>
<td></td>
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</tbody>
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These properties are of purely qualitative valuation and depending on the nature of the dust, the composition of the gas and the operating conditions (e.g. temperature).

5. Design

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.

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Schleifbachweg 45
D-74613 Öhringen
Phone +49 7941 6466-0
Fax +49 7941 6466-429
fm.de.sales@filtrationgroup.com
www.fluid.filtrationgroup.com
70550902.04/2019
Filter media

Ti 206

Cellulose with polyester fibres (M-Web)
Fire-retardant

1. Features

The Ti 206 filter media is ideal for use in cleanable filter plants. It owes its excellent filtration and cleaning properties to the M-Web coating. The media combines efficient operation with a low pressure loss and high separation efficiency. Furthermore the filter media Ti 206 is fire-retardant and therefore most suitable for welding and laser cutting applications.

Characteristics
- Optimum cleaning properties due to M-Web (nano fibres) coating
- Humidity-resistant
- Smooth and fluted surface
- Fire-retardant
- High stability
- Low pressure loss
- Long filter life
- Efficient operation
- Compliance with the requirements of DIN EN 60335-2-69/Dust class "M"
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²h]</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 206</td>
<td>Cellulose with polyester fibres M-Web</td>
<td>0.4 (fluted)</td>
<td>140</td>
<td>650 at Δp 200 Pa</td>
<td>90 (permanent)</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!

3. Filtration Efficiency

Filtration efficiency: > 99 % at 1.5 µm

Test conditions:
- Inflow velocity: 3.36 m/min
- Mass concentration: 200 mg/m³
- Test dust: Dolomit DRB 20 (Rock flour)

x = Particle size [µm]
y = Filtration efficiency η [%]

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

4. Chemical resistance/mechanical properties

<table>
<thead>
<tr>
<th>Chemical resistance</th>
<th>Very good</th>
<th>Good</th>
<th>Limited</th>
<th>Mechanical properties</th>
<th>Very good</th>
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<tbody>
<tr>
<td>Humidity</td>
<td>x</td>
<td></td>
<td></td>
<td>Surface quality</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Hydrolysis</td>
<td>x</td>
<td></td>
<td></td>
<td>Stability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acids</td>
<td>x</td>
<td></td>
<td></td>
<td>Abrasion resistance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkalis</td>
<td>x</td>
<td></td>
<td></td>
<td>Cleanability (jet pulse)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvents</td>
<td>x</td>
<td></td>
<td></td>
<td>Washability</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These properties are of a purely qualitative valuation and depending on the nature of the dust, the composition of the gas and the operating conditions (e.g. temperature).

5. Design

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Completion of the relevant questionnaire would facilitate in the coordination of all the important parameters.

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

Ti 2011

Polyester fleece with stainless steel fibres and PTFE membrane, electrostatic conductive

1. Features

The filter media Ti 2011 is specially engineered for filtration of very fine, electrostatically charged and flammable dust. This pioneering filter media combines a polyester fleece with stainless steel fibres and with a laminated PTFE membrane and silver fibres. Compared to other electrostatic conductive filter media its surface is white. Electrostatically charged particles transfer their charge via the membrane to the conductive polyester media. Ti 2011 is a composite media that makes the advantages of surface filtration combined with a white media accessible to ATEX applications in the food and pharmaceutical industry.

Characteristics

- Specially designed for filtering electrostatically chargeable and explosive fine dusts
- Efficient surface filtration thanks to the microporous PTFE membrane
- High mechanical strength
- High load capacity
- Very smooth, fibre-free surface
- Excellent cleaning properties
- Compliance with the requirements of DIN EN 60335-2-69/Dust class "M" and EN 1822-3 class "E10" at \( v \leq 1 \text{m/min} \)
- Filter media is conform to regulations (EC) No. 1935/2004 and (EU) No. 10/2011 as well as FDA 21 CFR CH. I §177.1550 requirements
- Electrostatical behaviour tested according to DIN EN 54345 Part 5
- Worldwide distribution
2. Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Media</th>
<th>Media thickness [mm]</th>
<th>Weight [g/m²]</th>
<th>Air permeability [m³/m²h]</th>
<th>max. operating temperature [°C]</th>
<th>Test certificates/dust classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ti 2011</td>
<td>Polyester fleece with stainless steel fibres and PTFE membrane</td>
<td>0.65</td>
<td>350</td>
<td>180 at Δp 200 Pa</td>
<td>130</td>
<td>DIN EN 60335-2-69 &quot;M&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EN 1822-3 &quot;E10&quot;</td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!
Electrostatic resistance according to DIN EN 54345 Part 1 and 5: < 1 x 10⁶ Ω

3. Filtration efficiency

Filtration efficiency: > 99.99 %

Test conditions
- Inflow velocity: 3.36 m/min
- Mass concentration: 200 mg/m³
- Test dust: Dolomit DRB 20 (Rock flour)

\[ x = \text{Particle size [µm]} \]
\[ y = \text{Filtration efficiency } \eta \% \]

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

4. Chemical resistance/mechanical properties

<table>
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<tr>
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<td></td>
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5. Design

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Comprehensive documentation on our product range, cleaning units and cartridges can be provided.
Cleaning unit
MJD
for dust cartridges up to Ø 328 mm

1. Features

The Filtration Group cleaning system MJD is a very cost and cleaning efficient jet pulse cleaning system for dust filter cartridges. By a aimed air flow with the optimized multi-jet nozzle, we can reach a regular cleaning over the whole length of the cartridge.
The cleaning system is available for the different cartridge diameter in optimized sizes. Depending on the application the cleaning system (MJD) is available in aluminium/steel zinc plated, as the standard or stainless steel, as a special version.

In relation with the Filtration Group cartridge the multi-jet cleaning system (MJD) is providing a very efficient and economic solution for a lot of applications.
The optimized multi-jet nozzle (MJD), comparing to the conventional nozzle or jet pipe, shows huge advantages. The advantages are given in the noise reduction (up to 8 dB), energy efficiency and cleaning efficiency. Thereby you go easy on environment and the live time of the cartridge will increase considerable.

Characteristics

- Extremely effective
- Extreme energy efficiency
- Uniform cleaning
- Optimized cleaning efficiency in the upper and bottom part of the cartridge
- Versions for both the untreated and cleaned gas sides
- Compatible to the Rotating Wing (G1 valve)
- Low noise level
- Minimal consumption of compressed air due of the optimised nozzle geometry
- Worldwide distribution
2. Function

During the filtration phase dust particles are separated on the cartridge surface. A filter cake forms, which will be cleaned at a time control or differential pressure related.

At the cleaning we get a very quick expansion of the pressure vessel volume in a short time. These will reverse the flow direction and blow off the filter cake.

3. Technical data

Cleaning unit for dust cartridges with an outside diameter up to 328 mm.

**Standard version multi-jet nozzle**
- Material: Aluminium

**Special version multi-jet nozzle**
- Material: stainless steel (1.4301)

**Standard and special version**
- Differential pressure via filter plate: max. 15 mbar*
- Cleaning medium: Oil, dust and condensate-free compressed air at operating temperature
- Compressed air connection: G3/8, G3/4, G1 male*
- Compressed air: 5 bar to 6 bar (max. 7 bar)
- Pulse duration: 0.1 s to 0.3 s

<table>
<thead>
<tr>
<th>Compressed air consumption per cartridge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type designation</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>MJD-12</td>
</tr>
<tr>
<td>MJD-16</td>
</tr>
<tr>
<td>MJD-32</td>
</tr>
</tbody>
</table>

* Depends on cartridge geometry

Technical data is subject to change without notice!
4. Ordering example

4.1 Type number key for cleaning units

<table>
<thead>
<tr>
<th>Type of cleaning</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>MJD</td>
<td>Multi-jet nozzle for conical and cylindrical cartridges</td>
</tr>
<tr>
<td>RLD</td>
<td>Rotating wing for cylindrical cartridges</td>
</tr>
<tr>
<td>RLK</td>
<td>Rotating wing for conical cartridges</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cartridge diameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>-12</td>
<td>120 mm</td>
</tr>
<tr>
<td>-16</td>
<td>160 mm</td>
</tr>
<tr>
<td>-32</td>
<td>328 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cartridge length and mode of installation</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Independent of length, installation for example via round thread or bayonet</td>
</tr>
<tr>
<td>03</td>
<td>300 mm, installation MJD/RLD via tie rod or RLK via Quick-Lock</td>
</tr>
<tr>
<td>06</td>
<td>600 mm, installation MJD/RLD via tie rod or RLK via Quick-Lock</td>
</tr>
<tr>
<td>10</td>
<td>1000 mm, installation MJD/RLD via tie rod or RLK via Quick-Lock</td>
</tr>
<tr>
<td>12</td>
<td>1200 mm, installation MJD/RLD via tie rod or RLK via Quick-Lock</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Installation side of cartridge</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>REIN</td>
<td>Installation on cleaned gas side</td>
</tr>
<tr>
<td>ROH</td>
<td>Installation on untreated gas side</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Versions</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Nozzle aluminium or galvanized or coated steel, RLD/K with ball bearing</td>
</tr>
<tr>
<td>V1</td>
<td>Nozzle aluminium or stainless steel, RLD with plain bearing</td>
</tr>
<tr>
<td>V2</td>
<td>Stainless steel, RLD with plain bearing</td>
</tr>
<tr>
<td>OS</td>
<td>Only RLD/K with ball bearing without baffle plate, Nozzle aluminium or coated steel</td>
</tr>
</tbody>
</table>

MJD - 16 00 REIN A1 Ordering example

4.2 Order numbers

<table>
<thead>
<tr>
<th>Order number</th>
<th>Cleaning unit</th>
<th>Cartridge geometry</th>
<th>Cartridge mounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>79741232</td>
<td>MJD-12 00 ROH A1 VP</td>
<td>up to Ø 120 mm</td>
<td>Untreated gas side</td>
</tr>
<tr>
<td>79741234</td>
<td>MJD-12 00 REIN A1 VP</td>
<td>up to Ø 120 mm</td>
<td>Cleaned gas side</td>
</tr>
<tr>
<td>70375835</td>
<td>MJD-12 00 ROH V2 VP</td>
<td>up to Ø 220 mm</td>
<td>Untreated gas side</td>
</tr>
<tr>
<td>70343906</td>
<td>MJD-16 00 ROH A1 VP</td>
<td>Ø 328 mm</td>
<td>Untreated gas side</td>
</tr>
<tr>
<td>70343901</td>
<td>MJD-16 00 REIN A1 VP</td>
<td>Ø 328 mm</td>
<td>Cleaned gas side</td>
</tr>
<tr>
<td>79356379</td>
<td>MJD-32 03 ROH A1 VP</td>
<td>Ø 328 mm</td>
<td>Untreated gas side</td>
</tr>
<tr>
<td>79356387</td>
<td>MJD-32 06 ROH A1 VP</td>
<td>Ø 328 mm</td>
<td>Untreated gas side</td>
</tr>
<tr>
<td>79356395</td>
<td>MJD-32 10 ROH A1 VP</td>
<td>Ø 328 mm</td>
<td>Untreated gas side</td>
</tr>
<tr>
<td>70304809</td>
<td>MJD-32 00 ROH A1 VP</td>
<td>Quick-Lock Ø 328 mm</td>
<td></td>
</tr>
</tbody>
</table>

5. Accessories

<table>
<thead>
<tr>
<th>Order numbers</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>79791104</td>
<td>Holding bolts PA6, pack of 3</td>
</tr>
<tr>
<td>77838568</td>
<td>Centre ring EL 033, galvanized steel</td>
</tr>
<tr>
<td>77934326</td>
<td>Centre ring EL 033, V2A stainless steel</td>
</tr>
<tr>
<td>77885031</td>
<td>Centre ring 2E 033, galvanized steel</td>
</tr>
<tr>
<td>78215220</td>
<td>Centre ring 2E 033, V2A stainless steel</td>
</tr>
<tr>
<td>76161913</td>
<td>Reusable end cap, galvanized steel</td>
</tr>
<tr>
<td>76161921</td>
<td>Reusable end cap, V4A stainless steel</td>
</tr>
</tbody>
</table>
6. Installation

The multi-jet nozzle can be supplied for installation on the untreated or cleaned gas side. A membrane valve must be provided on the pressure vessel for each cleaning unit. The cartridges are individually cleaned to ensure the least possible impairment to the volume flow and optimal cleaning results. The membrane valves can be controlled according to a time control or a differential pressure limit.

![Diagram of installation options]

Installation on the cleaned gas side

Installation on the untreated gas side

7. Design

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.
Cleaning systems
MJD, RLD, RLK

1. Features

With Filtration Group cleaning systems we developed a product, characterized by highly efficient cleaning. Additionally the system stands out due to remarkably low operating costs and a minimum amount of maintenance.

The compact systems are suited for the installation in various dust collectors. Specially developed conical filter cartridges grant an excellent air flow within the filter section. This enables long durability of the cartridges. In addition, an efficient and moderate cleaning contributes to an extended lifetime of the cartridges. The differential pressure control allows ideal cleaning properties and guarantees an operation of the system without any breakdowns.

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 endeavor 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

- High effectiveness and energy efficiency
- Economic solution through conical filter cartridges
- Gentle and improved cleaning for long filter durability and low operating costs
- Easy to maintain
- Compact and complete system
- Reduced noise level
- Optimized flow conditions
2. Types

1 Abreinigungseinheit
   Multijetdüse MJD bzw. Rotationslüftdüse RLD oder RLK

2 Control
   Time controlled cleaning MFS-05
   Differential pressure controlled cleaning MFS-05 dp

3 Installation
   Clean and dirt air side mounting with different fixing devices

4 Filter cartridges
   Conical cartridges in different dimensions

5 Magnetic valve

6 Maintenance unit
   Pressure reducer with gauge

7 Pressure vessel
   Volume from 2 l to 32 l

3. Cleaning

Multi-jet nozzle

The optimized multi-jet nozzle grants a highly efficient cleaning with little air consumption.

Rotating wing

With the rotation wing a gentle cleaning is possible, which extends the life of the filter cartridges remarkably.
Cleaning unit
RLD
for cylindrical dust cartridges, Ø 328 mm

1. Features

The Filtration Group rotating wing is an extremely efficient cleaning system for dust collectors that enables the dust filter cake to be detached over the complete cartridge length. Depending on the application, the Filtration Group rotating wing can be supplied either in a standard steel version with a ball bearing or in a special stainless steel/aluminium version with plain bearing.

In combination with Filtration Group dust cartridges, the rotating wing represents an exceptionally effective and economical solution that is suitable for a wide range of applications.

Characteristics

- Extremely efficient
- Uniform cleaning
- Versions for both the untreated and cleaned gas sides
- Low noise level
- Minimal consumption of compressed air
- Careful cleaning of cartridges
- Low cleaning pressure
- Suitable for high differential pressure load
- Worldwide distribution
2. Function

During the filtration phase, the baffle plate is forced upwards by the flow. Dust particles are separated on the cartridge surface and a filter cake forms. The cleaning pulse forces the baffle plate downwards and moves the cartridge out of the filtered fluid flow. At the same time, the rotating wing element is set in motion by the nozzle holes and the filter cake is detached by the fine pulsed air jets and the simultaneous vibratory movement in the cartridge pleats.

3. Technical data

Cleaning unit for dust cartridges with an outside diameter of 328 mm and an inside diameter of 216 mm.

**Standard version with ball bearing**
Materials: Aluminium, galvanized steel, polyester
Operating temperature: -20 °C to 100 °C

**Special version with plain bearing**
Materials: Aluminium, stainless steel (1.4301), PTFE (plain bearing bush), silicone, Silikon
Operating temperature: -40 °C to 200 °C

**Standard and special versions**
Differential pressure via filter plate: up to max. 30 mbar*
Cleaning medium: Oil, dust and condensate-free compressed air at operating temperature
Compressed air connection: G½ male
Compressed air: 3 bar to 4 bar (max. 4.2 bar)
Pulse duration: 0.5 s to 3 s (standard 1.5 s)

<table>
<thead>
<tr>
<th>Compressed air consumption</th>
<th>Compressed air consumption per cleaning impulse [l] (fad)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type designation</td>
<td>Capacity of pressure vessel [l]</td>
</tr>
<tr>
<td>RLD-32 03</td>
<td>10</td>
</tr>
<tr>
<td>RLD-32 06</td>
<td>16</td>
</tr>
<tr>
<td>RLD-32 10</td>
<td>32</td>
</tr>
<tr>
<td>RLD-32 12</td>
<td>32</td>
</tr>
</tbody>
</table>

* Depends on cartridge geometry

Technical data is subject to change without notice!
4. Ordering example

4.1 Type number key for cleaning units

<table>
<thead>
<tr>
<th>Type of cleaning</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MJD</td>
<td>Multi-jet nozzle for conical and cylindrical cartridges</td>
</tr>
<tr>
<td>RLD</td>
<td>Rotating wing for cylindrical cartridges</td>
</tr>
<tr>
<td>RLK</td>
<td>Rotating wing for conical cartridges</td>
</tr>
</tbody>
</table>

**Cartridge diameter**
- 12 120 mm
- 16 160 mm
- 32 328 mm

**Cartridge length and mode of installation**
- 00 Independent of length, installation for example via round thread or bayonet
- 03 300 mm, installation MJD/RLD via tie rod or RLK via Quick-Lock
- 06 600 mm, installation MJD/RLD via tie rod or RLK via Quick-Lock
- 10 1000 mm, installation MJD/RLD via tie rod or RLK via Quick-Lock
- 12 1200 mm, installation MJD/RLD via tie rod or RLK via Quick-Lock

**Installation side of cartridge**
- REIN Installation on cleaned gas side
- ROH Installation on untreated gas side

**Versions**
- A1 Nozzle aluminium or galvanized or coated steel, RLD/K with ball bearing
- V1 Nozzle aluminium or stainless steel, RLD with plain bearing
- V2 Stainless steel, RLD with plain bearing
- OS Only RLD/K with ball bearing without baffle plate, Nozzle aluminium or coated steel

| RLD | -32 | ROH | A1 | Ordering example |

4.2 Order numbers

<table>
<thead>
<tr>
<th>Order number*</th>
<th>Cleaning unit</th>
<th>Cartridge model designation**</th>
<th>Dimension L [mm]</th>
<th>Cartridge mounting</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>78296741</td>
<td>RLD-32 03 REIN A1</td>
<td>852 829 Ti...</td>
<td>300</td>
<td>Cleaned gas side</td>
<td>Cartridge with closed end cap</td>
</tr>
<tr>
<td>78296758</td>
<td>RLD-32 06 REIN A1</td>
<td>852 781Ti...</td>
<td>600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>79340480</td>
<td>RLD-32 10 REIN A1</td>
<td>852 943 Ti...</td>
<td>984</td>
<td></td>
<td></td>
</tr>
<tr>
<td>78331878</td>
<td>RLD-32 03 ROH A1</td>
<td>852 826 Ti...</td>
<td>300</td>
<td>Untreated gas side</td>
<td></td>
</tr>
<tr>
<td>78331852</td>
<td>RLD-32 06 ROH A1</td>
<td>852 908 Ti...</td>
<td>600</td>
<td>Untreated gas side</td>
<td></td>
</tr>
<tr>
<td>78390106</td>
<td>RLD-32 10 ROH A1</td>
<td>852 909 Ti...</td>
<td>984</td>
<td>Cartridge with reusable end cap</td>
<td></td>
</tr>
<tr>
<td>78331696</td>
<td>RLD-32 12 ROH A1</td>
<td>852 908 Ti...</td>
<td>1208</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Ball bearing version, order numbers for plain bearing version on request.
** For more information, refer to the data sheets for the 328 NZ and 328 NZC dust cartridges.

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>79791104</td>
<td>Holding bolts PA6, pack of 3</td>
</tr>
<tr>
<td>77838568</td>
<td>Centre ring EL 033, galvanized steel</td>
</tr>
<tr>
<td>77934326</td>
<td>Centre ring EL 033, V2A stainless steel</td>
</tr>
<tr>
<td>77885031</td>
<td>Centre ring 2E 033, galvanized steel</td>
</tr>
<tr>
<td>78215220</td>
<td>Centre ring 2E 033, V2A stainless steel</td>
</tr>
<tr>
<td>76161913</td>
<td>Reusable end cap, galvanized steel</td>
</tr>
<tr>
<td>76161921</td>
<td>Reusable end cap, V4A stainless steel</td>
</tr>
</tbody>
</table>
6. Installation

Rotating wing versions can be supplied for installation on the untreated or cleaned gas side. A membrane valve must be provided on the pressure vessel for each cleaning unit. The cartridges are individually cleaned to ensure the least possible impairment to the volume flow and optimal cleaning results. The membrane valves can be controlled according to a preset time or a differential pressure limit.

![Installation Diagram](image)

Installation on the cleaned gas side
A hole with a diameter of 330 mm must be drilled in the filter plate. Installation on the untreated gas side
A hole with a diameter of 210 mm must be drilled in the filter plate.

7. Design

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.
Cleaning unit
RLK
for conical dust cartridges, Ø 328 mm

1. Features

The conical Filtration Group rotating wing is an extremely efficient cleaning system for dust collectors that enables the dust filter cake to be detached over the complete cartridge length. This will increase the lifetime of the filter cartridge. Based on the optimized air flow the cleaning has a very low noise level. Comparing to the multi-jet cleaning we can reduce the pressure in the pressure vessel, which gives an efficient energy operating.

In combination with Filtration Group Quick-Lock dust cartridges, the rotating wing represents an exceptionally effective and economical solution which is suitable for a wide range of applications.

Characteristics

- Extremely efficient
- Uniform cleaning
- Version for the untreated gas side
- Simple installation
- Low mounting height
- Low noise level
- Minimal consumption of compressed air
- Careful cleaning of cartridges
- Low cleaning pressure
- Suitable for high differential pressure load
- Worldwide distribution
2. Function

During the filtration phase, the baffle plate is forced upwards by the flow. Dust particles are separated on the cartridge surface and a filter cake forms. The cleaning pulse forces the baffle plate downwards and moves the cartridge out of the filtered fluid flow. At the same time, the rotating wing element is set in motion by the nozzle holes and the filter cake is detached by the fine pulsed air jets and the simultaneous vibratory movement in the cartridge pleats.

3. Technical data

Cleaning unit for Quick-Lock dust cartridges with an outside diameter of 328 mm.

Materials: Aluminium, galvanized steel, polypropylene

Operating temperature: -20 °C to 50 °C

Differential pressure via filter plate: max. 30 mbar

Cleaning medium: Oil, dust and condensate-free compressed air at operating temperature

Compressed air connection: G½ male

Compressed air: 3 bar to 4 bar (max. 4.2 bar)

Pulse duration: 0.5 s to 3 s (standard 1.5 s)

<table>
<thead>
<tr>
<th>Compressed air consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type designation</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>RLK-3206 ROH</td>
</tr>
<tr>
<td>RLK-3210 ROH</td>
</tr>
<tr>
<td>RLK-3212 ROH</td>
</tr>
</tbody>
</table>

Technical data is subject to change without notice!
4. Type number key and Order numbers

4.1 Type number key for cleaning units

Type of cleaning
- **MJD** Multi-jet nozzle for conical and cylindrical cartridges
- **RLD** Rotating wing for cylindrical cartridges
- **RLK** Rotating wing for conical cartridges

| Cartridge diameter |  
|--------------------|----------------------------------|
|                   | -12 120 mm                       |
|                   | -16 160 mm                       |
|                   | -32 328 mm                       |

**Cartridge length and mode of installation**

<table>
<thead>
<tr>
<th>Cartridge model designation</th>
<th>Dimension [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Independent of length, installation for example via round thread or bayonet</td>
</tr>
<tr>
<td>03</td>
<td>300 mm, installation MJD/RLD via tie rod or RLK via Quick-Lock</td>
</tr>
<tr>
<td>06</td>
<td>600 mm, installation MJD/RLD via tie rod or RLK via Quick-Lock</td>
</tr>
<tr>
<td>10</td>
<td>1000 mm, installation MJD/RLD via tie rod or RLK via Quick-Lock</td>
</tr>
<tr>
<td>12</td>
<td>1200 mm, installation MJD/RLD via tie rod or RLK via Quick-Lock</td>
</tr>
</tbody>
</table>

**Installation side of cartridge**

- **REIN** Installation on cleaned gas side
- **ROH** Installation on untreated gas side

**Versions**

- **A1** Nozzle aluminium or galvanized or coated steel, RLD/K with ball bearing
- **V1** Nozzle aluminium or stainless steel, RLD with plain bearing
- **V2** Stainless steel, RLD with plain bearing
- **OS** Only RLD/K with ball bearing without baffle plate, Nozzle aluminium or coated steel

**Order number**

<table>
<thead>
<tr>
<th>Order number</th>
<th>Cleaning unit</th>
<th>Cartridge model designation</th>
<th>Dimension L [mm]</th>
<th>Cartridge mounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>70363715</td>
<td>RLK-32 06 ROH A1</td>
<td>852 052 Ti ...</td>
<td>600</td>
<td>Untreated gas side</td>
</tr>
<tr>
<td>70368951</td>
<td>RLK-32 10 ROH A1</td>
<td>852 062 Ti ...</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>70327511</td>
<td>RLK-32 12 ROH A1</td>
<td>852 032 Ti ...</td>
<td>1200</td>
<td></td>
</tr>
</tbody>
</table>

*For more information, refer to the data sheets for the 328 NK Quick-Lock.

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>76956668</td>
<td>Fixing kit Quick-Lock (1 cartridge holder, 2 fixing clips, screws)</td>
</tr>
<tr>
<td>76956676</td>
<td>Fixing kit Quick-Lock, pack of 10</td>
</tr>
</tbody>
</table>
6. Installation

The conical rotating wing can be installed and removed with the cartridge on the untreated gas side with spring clips (Quick-Lock system - no tools required). The filter plate is to prepare according Fig. 1. Afterwards the tripod with the baffle plate and the fixing kit is to mount on the filterplate. Insert the rotating wing into the cartridge (Fig. 2) and fix the centre ring (Fig. 3). Put the cartridge into the cartridge holder (Fig. 4) and snap it into the fixing clips (Fig. 5).

*1 = Cartridge holder
*2 = Fixing clip

7. Design

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.
Dust Collectors

Model code

1. Features

Filtration Group dust collectors are characterized through the features, compact design, minimum energy consumption, long service life of the cartridges and a low noise level. The dust collector must not take a large space, especially at indoor assembly. Due to the use of star pleated cartridges we can fit a large filter area in a small room. For to increase the flow behaviour and with it the capability, Filtration Group has also designed the conical cartridge.
# 2. Model code

## Model code dust collectors with selection examples

<table>
<thead>
<tr>
<th>Collector 1. + 2. item</th>
<th>Collector 3. item</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF</td>
<td>K</td>
</tr>
<tr>
<td>Collector with air pressure cleaning</td>
<td>with conical cartridges</td>
</tr>
<tr>
<td>AF</td>
<td>R</td>
</tr>
<tr>
<td>Collector not cleanable</td>
<td>with rotating wing</td>
</tr>
<tr>
<td>RF</td>
<td>.</td>
</tr>
<tr>
<td>Collector with vibration motor</td>
<td>with cylindrical cartridges</td>
</tr>
<tr>
<td>NF</td>
<td>I</td>
</tr>
<tr>
<td>Collector with air pressure cleaning + secure filter stage</td>
<td>industrial vacuum cleaner</td>
</tr>
<tr>
<td></td>
<td>C</td>
</tr>
<tr>
<td>Collector with CFE cartridges</td>
<td></td>
</tr>
</tbody>
</table>

### Cartridge type/ mounting position

XX details see model code for cartridge types and mounting position

### Number of cartridges

<table>
<thead>
<tr>
<th>XXX</th>
<th>number of mounted cartridges</th>
</tr>
</thead>
</table>

### Dimensions

| DN-XXX | rectangular collector (length x width in dm) |
|        | circular collector (nominal diameter in cm) |

### Design 1. + 2. item type

<table>
<thead>
<tr>
<th>Design 3. item additional options</th>
</tr>
</thead>
</table>

#### S1 collector with bin

- V fan

#### S2 collector with bag

- S fan with silencer

#### S3 collector with bag

- W with cap

#### S5 bag emptying device

- E in take filter

#### S6 product filter with cone

- F flanged body type filter

#### S7 product filter with wide cone

- A basic design according to drawing

- E with earthing/elektrostatic discharging

- Z with cleaning controller

- without cleaning controller/without variation type designation

### Housing material

<table>
<thead>
<tr>
<th>V2</th>
<th>stainless steel V2A (AISI 304)</th>
</tr>
</thead>
<tbody>
<tr>
<td>V4</td>
<td>stainless steel V4A (AISI 316)</td>
</tr>
<tr>
<td>VS</td>
<td>stainless steel special</td>
</tr>
<tr>
<td>AL</td>
<td>aluminum</td>
</tr>
<tr>
<td>SO</td>
<td>special</td>
</tr>
</tbody>
</table>

- S1 steel sheet RAL 7035
- S2 steel sheet RAL 7032
- S3 steel sheet RAL 9006
- SL steel sheet special color
- SZ steel sheet zinc plated

### Fans

<table>
<thead>
<tr>
<th>XX</th>
<th>Standardventilatoren standard fans (see fan list, no. 00-99)</th>
</tr>
</thead>
<tbody>
<tr>
<td>..</td>
<td>without fan</td>
</tr>
<tr>
<td>SO</td>
<td>special</td>
</tr>
</tbody>
</table>

### Variations 1. item

<table>
<thead>
<tr>
<th>S</th>
<th>standard design</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>customer design according to drawing</td>
</tr>
<tr>
<td>X</td>
<td>special design according to drawing (no. 0-9)</td>
</tr>
</tbody>
</table>

### Variations 2. item

<table>
<thead>
<tr>
<th>D</th>
<th>pressure resistant housing (p &lt; -0.4 bar, p &gt; 1 bar)</th>
</tr>
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<tbody>
<tr>
<td>B</td>
<td>with pressure relief (pressure burst resistant)</td>
</tr>
<tr>
<td>T</td>
<td>pressure burst resistant housing</td>
</tr>
<tr>
<td>A</td>
<td>basic design according ATEX RL 94/9/EC</td>
</tr>
<tr>
<td>E</td>
<td>with earthing/elektrostatic discharging</td>
</tr>
<tr>
<td>Z</td>
<td>with cleaning controller</td>
</tr>
</tbody>
</table>

- without cleaning controller/without variation type designation

### Cartridge

<table>
<thead>
<tr>
<th>EXXXXXXXX cartridge 1. filter stage</th>
</tr>
</thead>
</table>

### Cartridge type example

<table>
<thead>
<tr>
<th>SF</th>
<th>AF</th>
<th>RF</th>
<th>NF</th>
<th>SFK</th>
<th>SFR</th>
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<tbody>
<tr>
<td>02</td>
<td>015</td>
<td>016x16</td>
<td>S1V</td>
<td>41</td>
<td>S1</td>
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<tr>
<td>15</td>
<td>017</td>
<td></td>
<td></td>
<td>76</td>
<td>K</td>
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</tbody>
</table>

*E78345811 (example circular collector)*

*E79355447 (example rectangular collector)*

reserved for FG designation

from here available for customer design
### Model Code Dust Collectors

#### 3. Model code for cartridges and mounting position

<table>
<thead>
<tr>
<th>Code</th>
<th>Cartridge type</th>
<th>Cartridge diameter</th>
<th>Cartridge length</th>
<th>Alternate</th>
<th>Mounting position</th>
<th>Mounting</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
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<td>01</td>
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<td>dirt section</td>
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<tr>
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<td>Dürr-Module</td>
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<td>1500</td>
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<td>vertical</td>
<td>dirty section</td>
<td>Dürr-Module</td>
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<tr>
<td>99</td>
<td>other variations</td>
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</tr>
</tbody>
</table>
4. Additional to the model code for dust collectors

Variations 1. item "X"

Nr. 1  with intermediate flanged filter plate
       with intermediate flanged fan plate
       fan silencer has the same area as the collector
       exceptional at collectors with 4 cartridges, here the silencer is bigger
       inlet connection is concentrical in the height
       size of inlet connection adjustable with flat adapter plate
       big metal sheet panels partly with welded reinforcements

Nr. 2  pressure resistant up to -56 mbar
       with intermediate flanged filter plate
       with intermediate flanged fan plate
       fan silencer has the same area as the collector
       exceptional at collectors with 4 cartridges, here the silencer is bigger
       inlet connection is concentrical in the height
       size of inlet connection adjustable with flat adapter plate
       big metal sheet panels partly with welded reinforcements

Nr. 3  pressure resistant up to -50 mbar
       with intermediate flanged filter plate
       with intermediate flanged fan plate
       fan silencer has always the same area
       fan plate has the same area as the collector
       inlet connection is concentrical in the height
       round inlet connection according to DIN 24154 part 2
       2 maintenance doors at clean air section
       rack without reinforcement
       exceptional case units with 4 elements, 1 maintenance door, enlarged fan plate

Nr. 4  pressure resistant up to -58 mbar
       with intermediate flanged filter plate
       with intermediate flanged fan plate
       fan silencer has always the same area
       fan plate has the same area as the collector
       inlet connection is concentrical in the height
       round inlet connection according to DIN 24154 part 2
       2 maintenance doors at clean air section
       rack without reinforcement
       exceptional case units with 4 elements, 1 maintenance door, enlarged fan plate
Dust collector
SFK-01/02/03 SP

Circular construction

1. Features

This unit is from solidly build stainless steel. The individual housing parts are fastened together by clamp rings and can be freely rotated in relation to one another or easily dismounted if required.

Characteristics

- Efficient, energy-saving cleaning with jet pulse
- Compact, space-saving design
- Volume flow range 30 to 680 m³/h
- Filter surfaces 0.5 to 6.4 m²
- Stainless steel design
- Jacob connection system
- Worldwide distribution
2. Versions

Ø 200 mm with 1 cartridge
Ø 300 - 400 mm with 3 - 4 cartridges
... plus fan, frame and dust bucket

3. Modules and accessories

1 Outlet pipe-end
2 Clean air section
3 Dirt air section
4 Cartridge
5 Membrane valve
6 Pressure vessel
7 Jacob connection system
8 Dirt air inlet
9 Cleaning nozzle
10 Threaded connection
11 Sealing ring

4. Functional description

The dust-laden air flows into the filter housing (3) at the bottom (8). As it flows through the cartridge (4), fine dust is separated on the cartridge surface. The filter cake is cleaned off at fixed intervals, depending on the dust load and the filter surface load. The membrane valve (5) is controlled on customer side. The detached dust drops down. The cleaned air flows into the clean side (2) and is discharged at the top of the filter via the outlet pipe-end (1).

The jet pulse cleaning system comprises a pressure vessel with membrane valves (5) and a cleaning unit (9). The version shown here is designed for intermittent operation. For continuous filtration the variant with several elements and membrane valves should be preferred.
5. Technical Data

Dust collector

Housing material: Stainless steel V2A - AISI 304
Max. operating pressure: ± 50 mbar
Max. operating temperature: 70 °C
Dust bucket capacity*: 6/14/25 l

Cartridges

SFK-01: Type 852 902 Ti ...** (data sheet 120 NK)
SFK-02: Type 852 903 Ti ...** (data sheet 120 NK)
SFK-03: Type 852 904 Ti ...** (data sheet 120 NK)

Cleaning

Cleaning system: Filtration Group multi-jet nozzle
Medium: Oil, dust and condensate-free compressed air at operating temperature

Compressed air connection: G½ female
Max. air pressure: 6 bar
Compressed air consumption*: approx. 10 l (fad) for 1 cartridge approx. 17 l (fad) for 3 or 4 cartridges per cleaning cycle
Pulse duration: 0.2 s
Controller: Optional
Valves: DC 24 V, 0.5 A, 12 W, IP 65

* According to version
** Filter media depending on application

6. Dimensions

<table>
<thead>
<tr>
<th>Dust collector</th>
<th>Dimensions [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type designation</td>
<td>Volume flow* [m³/h]</td>
</tr>
<tr>
<td>SFK-01 001 DN-020 ...</td>
<td>30 - 80</td>
</tr>
<tr>
<td>SFK-02 001 DN-020 ...</td>
<td>50 - 120</td>
</tr>
<tr>
<td>SFK-03 001 DN-020 ...</td>
<td>70 - 170</td>
</tr>
<tr>
<td>SFK-02 003 DN-030 ...</td>
<td>150 - 360</td>
</tr>
<tr>
<td>SFK-03 003 DN-030 ...</td>
<td>210 - 510</td>
</tr>
<tr>
<td>SFK-02 004 DN-040 ...</td>
<td>200 - 480</td>
</tr>
<tr>
<td>SFK-02 004 DN-040 ...</td>
<td>280 - 680</td>
</tr>
</tbody>
</table>

* These values may vary depending on the nature of the dust, the composition of the air and the filter media.
** Intermittent filtration
*** Continuous filtration

Technical data is subject to change without notice!
7. Ordering example

<table>
<thead>
<tr>
<th>Basic unit</th>
<th>Optional equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>No. of cartridges</td>
</tr>
<tr>
<td>SFK-02</td>
<td>001</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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</tr>
</tbody>
</table>

8. Design

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 elements can be provided. For more information about installation and operation, please refer to our Instruction Manual.
Dust collector
SFK-02/03/11 FL
Circular construction

1. Features

This unit is manufactured from sturdy steel sheets. The individual housing parts are fastened together by bolted flanges.

Characteristics

- Conical cartridges for maximum performance
- Compact, save-spacing design
- Modular system
- Easy to maintain
- High separation efficiency
- Low noise level
- Efficient, energy-saving cleaning with jet pulse
- Volume flow range 450 to 7,000 m³/h
- Filter surfaces 9 to 70 m²
- Worldwide distribution
2. Versions

A, Flanged body-type filter with fan
S1, with acoustic hood and dust bucket
S6, with cone and fan

3. Modules and accessories

1. Acoustic hood
2. Blow-out pipe end
3. Fan
4. Maintenance cover, acoustic hood
5. Compressed air distributor
6. Membrane valves
7. Pressure vessel
8. Clean air section
9. Filter controller, time or differential pressure-controlled
10. Untreated gas chamber
11. Maintenance door, dirt air section
12. Cartridge
13. Dust section
14. Dirt air inlet
15. Dust collector hopper with rack
16. Dust bucket
17. Multi-jet nozzle
18. Thread adapter
19. Seal
20. Cartridge, connection thread

4. Functional description

The dust-laden air flows tangentially into the dust section (13). This assures a uniform flow distribution and enables coarse dust particles to be pre-separated. As it flows through the cartridges (12), fine dust is separated on the surface. The filter cake is cleaned off at fixed intervals, depending on the dust load and the filter surface load. The membrane valves (6) are controlled by means of the electronic controller (9) mounted on the side of the filter housing. The detached dust drops down to the bottom and is collected in the dust bucket (16). The cleaned air flows into the clean air section (8) and is discharged at the top of the filter via the blow-out nozzle (2). The fully automatic compressed air cleaning system comprises a pressure vessel with membrane valves (6), an electronic controller (9) and the cleaning nozzles (17).
5. Technical Data

Dust collector

Housing material: 1.0037 (DIN EN 10025)
- stainless steel optional
- EPS powder coating
- RAL 7035 light grey

Max. operating pressure: 50 mbar
Max. operating temperature: 70 °C without acoustic hood
40 °C with acoustic hood

Dust bucket capacity: 60 l

Surface protection:

Cartridges

SFK-02: Type 852 903 Ti ...* (120 NK data sheet)
SFK-03: Type 852 904 Ti ...* (120 NK data sheet)
SFK-11: Type 852 054 Ti ...* (160 NK data sheet)

Cleaning

Cleaning system: Filtration Group multi-jet nozzle
Medium: Oil, dust and condensate-free compressed air at operating temperature

Compressed air connection: G½ female
Compressed air consumption:
- SFK-02/03: Approx. 35 l (fad)
- SFK-11: Approx. 80 l (fad)

Pulse duration: 0.2 s
Controller:
- SFK-02/03: Time controlled (MFS-05 data sheet)
- SFK-11: Differential pressure-controlled (MFS-05 dp data sheet)

Valves: Electric membrane valve

* Filter media depends on application

6. Dimensions

<table>
<thead>
<tr>
<th>Dust collector</th>
<th>Dimensions [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type designation</td>
<td>Volume flow* [m³/h]</td>
</tr>
<tr>
<td>SFK-02 009 DN-056...</td>
<td>450-1080</td>
</tr>
<tr>
<td>SFK-03 009 DN-056...</td>
<td>630-1530</td>
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<tr>
<td>SFK-02 015 DN-071...</td>
<td>750-1800</td>
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<td>SFK-03 015 DN-071...</td>
<td>1050-2550</td>
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<td>SFK-11 012 DN-100...</td>
<td>1800-4200</td>
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<td>SFK-11 016 DN-112...</td>
<td>2400-5600</td>
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<tr>
<td>SFK-11 020 DN-125...</td>
<td>3000-7000</td>
</tr>
</tbody>
</table>

* These values may vary depending on the nature of the dust, the composition of the air and the filter media
** Weight of S1 type excluding fan and acoustic hood
*** These values may vary depending on the size of the fan

Technical data is subject to change without notice!
7. Ordering example

<table>
<thead>
<tr>
<th>Type</th>
<th>No. of cartridges</th>
<th>Size</th>
<th>Version</th>
<th>Flanged body-type filter</th>
<th>Bucket</th>
<th>Bucket and fan</th>
<th>Product separator with cone</th>
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</thead>
<tbody>
<tr>
<td>SFK-02</td>
<td>008</td>
<td>DN-053</td>
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<td>S1V</td>
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</tr>
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<td></td>
<td></td>
<td></td>
<td>S6.</td>
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</table>

8. Design

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Dust collector
SFK-09

Rectangular type

1. Features

This unit is manufactured from sturdy steel sheets. The individual housing parts are assembled from bended metal segments that are bolted together and sealed with silicone-free seals.

Characteristics

- Compact, space-saving design
- Easy to maintain
- Low noise level
- Efficient, energy-saving cleaning with compressed air by means of Filtration Group Multijet nozzle
- Volume flow range 1800 to 32400 m³/h
- Filter surfaces 48 to 540 m²
- Cartridges changed on the dirt air side
- Worldwide distribution
2. Versions

S3, with dust drawer  |  S1, with dust bucket

3. Modules and accessories

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Acoustic hood</td>
</tr>
<tr>
<td>2</td>
<td>Fan</td>
</tr>
<tr>
<td>3</td>
<td>Lamella valve for volume flow (optional)</td>
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<tr>
<td>4</td>
<td>Blow-out grid</td>
</tr>
<tr>
<td>5</td>
<td>Lever for lamella valve for volume flow (optional)</td>
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<tr>
<td>6</td>
<td>Cleaning unit (rotating wing)</td>
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<tr>
<td>7</td>
<td>Pressure vessel with membrane valves</td>
</tr>
<tr>
<td>8</td>
<td>Clean air section</td>
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<tr>
<td>9</td>
<td>Differential pressure gauge (optional)</td>
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<tr>
<td>10</td>
<td>Filter controller</td>
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<td>11</td>
<td>Pressure reducer</td>
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<tr>
<td>12</td>
<td>Cartridge</td>
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<td>13</td>
<td>Dirt air section</td>
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<tr>
<td>14</td>
<td>Dirt air inlet with baffle plate</td>
</tr>
<tr>
<td>15</td>
<td>Maintenance door</td>
</tr>
<tr>
<td>16</td>
<td>Dust collector hopper</td>
</tr>
<tr>
<td>17</td>
<td>Rack</td>
</tr>
<tr>
<td>18</td>
<td>Dust bucket</td>
</tr>
<tr>
<td>19</td>
<td>Fastening for cartridge</td>
</tr>
<tr>
<td>20</td>
<td>Seal</td>
</tr>
</tbody>
</table>

4. Funktional description

The dust-laden air flows into the side of the filter housing (13). The perforated baffle plate (14) in the inlet region assures a uniform flow distribution and enables coarse particles to be pre-separated. As it flows through the cartridge (12), fine dust is separated on the surface. The filter cake is cleaned off at fixed intervals, depending on the dust load and the filter surface load. The detached dust drops down through the hopper (16) and is collected in the bucket (18). The cleaned air flows into the clean air section (8) and is discharged via the blow-out grid (4). The fully automatic compressed air cleaning system comprises a pressure vessel with membrane valves (7), an electronic Δp controller (10) and the cleaning units (6).
5. Technical Data

Dust collector
Housing material: 1.0037 (DIN EN 10025)
Surface protection: EPS powder coating, RAL 7035 light grey
Max. operating pressure: - 50 mbar
Max. operating temperature: 50 °C without acoustic hood
40 °C with acoustic hood
Dust collector capacity:
Type S1: 50 l
Type S3: 200 l
Sizes 010x1 and 020x16: 1 St.
Sizes 024x16 and 029x16: 2 St.
Cartridges
Type 852 032 Ti ...**
(328 NKQ data sheet)

Cleaning
Cleaning system: Filtration Group multi-jet nozzle
Medium: Oil, dust and condensate-free compressed air at operating temperature
Compressed air connection: G½ female
Max. air pressure: 6 bar
Compressed air consumption*: approx. 60 l to 70 l (fad.) per cleaning cycle
Pulse duration: 0.2 s
Controller: Δp controlled
(MFS-05 dp data sheet)
Valves: Electric membrane valves

* According to version
** Filter material depending on application

6. Dimensions

<table>
<thead>
<tr>
<th>Dust collector</th>
<th>Dimensions [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type designation</td>
<td>Volume flow* [m³/h]</td>
</tr>
<tr>
<td>SFK-09 004 010x10 S1...</td>
<td>1800 - 2700</td>
</tr>
<tr>
<td>SFK-09 004 010x10 S3...</td>
<td>780</td>
</tr>
<tr>
<td>SFK-09 009 016x16 S1...</td>
<td>4050 - 16200</td>
</tr>
<tr>
<td>SFK-09 009 016x16 S3...</td>
<td>1470</td>
</tr>
<tr>
<td>SFK-09 012 020x16 S1...</td>
<td>5400 - 21600</td>
</tr>
<tr>
<td>SFK-09 012 020x16 S3...</td>
<td>1940</td>
</tr>
<tr>
<td>SFK-09 015 024x16 S1...</td>
<td>6750 - 27000</td>
</tr>
<tr>
<td>SFK-09 015 024x16 S3...</td>
<td>2180</td>
</tr>
<tr>
<td>SFK-09 018 029x16 S1...</td>
<td>8100 - 32400</td>
</tr>
<tr>
<td>SFK-09 018 029x16 S3...</td>
<td>2520</td>
</tr>
</tbody>
</table>

* These values may vary depending on the nature of the dust, the composition of the air and the filter media.
** Weight with fan and acoustic hood. These values may vary depending on the size of the fan.
Technical data is subject to change without notice!
7. Ordering example

<table>
<thead>
<tr>
<th>Basic unit</th>
<th>Optional equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>No. of cartridges</td>
</tr>
<tr>
<td>SFK-09</td>
<td>018</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Design

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 elements can be provided. For more information about installation and operation, please refer to our Instruction Manual.
Dust collector
SFR-08
Rectangular type

1. Features

This unit is manufactured from sturdy steel sheets. The individual housing parts are assembled from bent metal segments that are bolted together and sealed with silicone-free seals.

Characteristics

- Compact, space-saving design
- Easy to maintain
- Low noise level
- Efficient, energy-saving cleaning with compressed air by means of Filtration Group rotating wing
- Volume flow range 5400 to 26900 m³/h
- Filter surfaces 135 to 360 m²
- Cartridges changed on the dirt air side
- Worldwide distribution
2. Versions

S3, with dust drawer

S1, with dust bucket

3. Modules and accessories

1. Acoustic hood
2. Fan
3. Lamella valve for volume flow (optional)
4. Blow-out grid
5. Lever for lamella valve for volume flow (optional)
6. Pressure vessel with membrane valves
7. Clean air section
8. Differential pressure gauge (optional)
9. Filter controller
10. Pressure reducer
11. Cleaning unit (rotating wing)
12. Dirt air section
13. Dirt air inlet with baffle plate
14. Maintenance door
15. Cartridge
16. Dust collector hopper
17. Rack
18. Dust bucket
19. Centre ring
20. Holding bolt
21. Double centre ring
22. Reusable end cap

4. Funktional description

The dust-laden air flows into the side of the filter housing (12). The perforated baffle plate (13) in the inlet region assures a uniform flow distribution and enables coarse particles to be pre-separated. As it flows through the cartridge (15), fine dust is separated on the surface. The filter cake is cleaned off at fixed intervals, depending on the dust load and the filter surface load. The detached dust drops down through the hopper (16) and is collected in the bucket (18). The cleaned air flows into the clean air section (7) and is discharged via the blow-out grid (4). The fully automatic compressed air cleaning system comprises a pressure vessel with membrane valves (6), an electronic $\Delta p$ controller (9) and the cleaning units (11).
5. Technical Data

Dust collector
Housing material: 1.0037 (DIN EN 10025)
Surface protection: EPS powder coating, RAL 7035
light grey
Max. operating pressure: - 50 mbar
Max. operating temperature:
70 °C without acoustic hood
40 °C with acoustic hood
Dust collector capacity:
Type S1: 50 l
Type S3: 200 l
Maintenance cover (doors):
Sizes 016x16 and 020x16: 1 St.
Sizes 024x16 and 029x16: 2 St.
Cartridges
Type 852 908 Ti ...**
(328 NZ data sheet)

Cleaning
Cleaning system: Filtration Group rotating wing
Medium:
Oil, dust and condensate-free compressed air at operating temperature
Compressed air connection: G½ female
Max. air pressure: 4 bar
Compressed air consumption*: approx. 60 l to 70 l (fad.) per cleaning cycle
Pulse duration: 1.5 s
Controller: \( \Delta p \) controlled
(MFS-05 dp data sheet)
Valves:
Electric membrane valves

* According to version
** Filter media depending on application

6. Dimensions

<table>
<thead>
<tr>
<th>Dust collector Type designation</th>
<th>Volume flow* [m³/h]</th>
<th>No. of cartridges</th>
<th>Size</th>
<th>Type of construction</th>
<th>Weight [kg]</th>
<th>Dimensions [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFR-08 018 016x16 S1</td>
<td>5400 - 14400</td>
<td>18</td>
<td>016x16</td>
<td>S1</td>
<td>1630</td>
<td>1615 1600 4567 2130 450x450</td>
</tr>
<tr>
<td>SFR-08 018 016x16 S3</td>
<td></td>
<td></td>
<td></td>
<td>S3</td>
<td>1470</td>
<td></td>
</tr>
<tr>
<td>SFR-08 024 020x16 S1</td>
<td>7200 - 18800</td>
<td>24</td>
<td>020x16</td>
<td>S1</td>
<td>2090</td>
<td>1615 2010 4567 2130 600x600</td>
</tr>
<tr>
<td>SFR-08 024 020x16 S3</td>
<td></td>
<td></td>
<td></td>
<td>S3</td>
<td>1940</td>
<td></td>
</tr>
<tr>
<td>SFR-08 030 024x16 S1</td>
<td>9000 - 22200</td>
<td>30</td>
<td>024x16</td>
<td>S1</td>
<td>2410</td>
<td>1615 2455 3786 1349 2x450x450</td>
</tr>
<tr>
<td>SFR-08 030 024x16 S3</td>
<td></td>
<td></td>
<td></td>
<td>S3</td>
<td>2180</td>
<td></td>
</tr>
<tr>
<td>SFR-08 036 029x16 S1</td>
<td>10800 - 26900</td>
<td>36</td>
<td>029x16</td>
<td>S1</td>
<td>2780</td>
<td>2875 2860 4567 2130</td>
</tr>
<tr>
<td>SFR-08 036 029x16 S3</td>
<td></td>
<td></td>
<td></td>
<td>S3</td>
<td>2520</td>
<td></td>
</tr>
</tbody>
</table>

* These values may vary depending on the nature of the dust, the composition of the air and the filter media.

Technical data is subject to change without notice!
7. Ordering example

<table>
<thead>
<tr>
<th>Basic unit</th>
<th>Optional equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>No. of cartridges</td>
</tr>
<tr>
<td>SFR-08</td>
<td>018</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Design

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 elements can be provided. For more information about installation and operation, please refer to our Instruction Manual.
Dust collector
SFR-09
Rectangular type

1. Features

This unit is manufactured from sturdy steel sheets. The individual housing parts are assembled from bended metal segments that are bolted together and sealed with silicone-free seals.

Characteristics

- Compact, space-saving design
- Easy to maintain
- Low noise level
- Efficient, energy-saving cleaning with compressed air by means of Filtration Group rotating wing
- Volume flow range 1800 to 32400 m³/h
- Filter surfaces 60 to 270 m²
- Cartridges changed on the dirt section
- Worldwide distribution
2. Versions

S3, with dust drawer

S1, with collection bin

3. Modules and accessories

1. Fan silencer
2. Fan
3. Volume control damper (optional)
4. Discharge grille
5. Adjusting lever for volume control damper (optional)
6. Pressure vessel with membrane valves
7. Clean section
8. Differential pressure gauge (optional)
9. Cleaning controller
10. Pressure reducer
11. Cartridge
12. Dirt section
13. Air inlet with baffle plate
14. Access door
15. Discharge hopper
16. Support frame
17. Collection bin
18. Dam plate
19. Center ring
20. Cartridge cleaning nozzle (rotating wing)

4. Funktional description

The dust-laden air flows into the side of the filter housing (12). The perforated baffle plate (13) in the inlet region assures a uniform flow distribution and enables coarse particles to be pre-separated. As it flows through the cartridge (11), fine dust is separated on the surface. The filter cake is cleaned off at fixed intervals, depending on the dust load and the filter surface load. The detached dust drops down through the hopper (15) and is collected in the bin (17). The cleaned air flows into the clean section (7) and is discharged via the discharge grille (4). The fully automatic compressed air cleaning system comprises a pressure vessel with membrane valves (6), an electronic Δp controller (9) and the cleaning nozzles (20).
5. Technical Data

Dust collector

Housing material: 1.0037 (DIN EN 10025)
Surface protection: EPS powder coating RAL 7035 light grey
Max. operating pressure: - 50 mbar
Max. operating temperature: 50 °C without fan silencer
40 °C with fan silencer
Dust collector capacity*: Type S1: 50 l
Type S3: 200 l
Access doors: Sizes 010x10 to 020x16: 1 x
Sizes 024x16 and 029x16: 2 x
Cartridges Type 852 032 Ti ...**
(338 NKQ data sheet)

Cleaning

Cleaning system: Filtration Group rotating wing
Medium: Oil, dust and condensate-free compressed air at operating temperature
Compressed air connection: G½ female
Compressed air: 4 bar (max. 6 bar)
Compressed air consumption*: Approx. 60 l to 70 l (fad) per cleaning pulse
Pulse duration: 1.5 s
Controller: Δp controlled
Valves: Electric membrane valves

* Depending on version
** Filter media depending on application

6. Dimensions

<table>
<thead>
<tr>
<th>Type designation</th>
<th>Volume flow* [m³/h]</th>
<th>No. of cartridges</th>
<th>Size</th>
<th>Version</th>
<th>Weight** [kg]</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>e</th>
<th>fxg</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFR-09 004 010x10 S1...</td>
<td>1800 - 7200</td>
<td>4</td>
<td>010x10</td>
<td>S1</td>
<td>800</td>
<td>1015</td>
<td>1015</td>
<td>1100</td>
<td>3636</td>
<td>1500</td>
<td>300x300</td>
</tr>
<tr>
<td>SFR-09 004 010x10 S3...</td>
<td></td>
<td></td>
<td></td>
<td>S3</td>
<td>780</td>
<td></td>
<td></td>
<td></td>
<td>3356</td>
<td>1220</td>
<td></td>
</tr>
<tr>
<td>SFR-09 009 016x16 S1...</td>
<td>4050 - 16200</td>
<td>9</td>
<td>016x16</td>
<td>S1</td>
<td>1630</td>
<td></td>
<td></td>
<td></td>
<td>1615</td>
<td>1600</td>
<td>4567</td>
</tr>
<tr>
<td>SFR-09 009 016x16 S3...</td>
<td></td>
<td></td>
<td></td>
<td>S3</td>
<td>1470</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3786</td>
<td>1349</td>
</tr>
<tr>
<td>SFR-09 012 020x16 S1...</td>
<td>5400 - 21600</td>
<td>12</td>
<td>020x16</td>
<td>S1</td>
<td>2090</td>
<td></td>
<td></td>
<td></td>
<td>2020</td>
<td>4567</td>
<td>2130</td>
</tr>
<tr>
<td>SFR-09 012 020x16 S3...</td>
<td></td>
<td></td>
<td></td>
<td>S3</td>
<td>1940</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3786</td>
<td>1349</td>
</tr>
<tr>
<td>SFR-09 015 024x16 S1...</td>
<td>6750 - 27000</td>
<td>15</td>
<td>024x16</td>
<td>S1</td>
<td>2410</td>
<td></td>
<td></td>
<td></td>
<td>2455</td>
<td>4567</td>
<td>2130</td>
</tr>
<tr>
<td>SFR-09 015 024x16 S3...</td>
<td></td>
<td></td>
<td></td>
<td>S3</td>
<td>2180</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3786</td>
<td>1349</td>
</tr>
<tr>
<td>SFR-09 018 029x16 S1...</td>
<td>8100 - 32400</td>
<td>18</td>
<td>029x16</td>
<td>S1</td>
<td>2780</td>
<td></td>
<td></td>
<td></td>
<td>2875</td>
<td>4567</td>
<td>2130</td>
</tr>
<tr>
<td>SFR-09 018 029x16 S3...</td>
<td></td>
<td></td>
<td></td>
<td>S3</td>
<td>2520</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3786</td>
<td>1349</td>
</tr>
</tbody>
</table>

* These values may vary depending on the nature of the dust, the composition of the air and the filter media.
** Weight with fan and fan silencer. These values may vary depending on the size of the fan.
Technical data is subject to change without notice!
7. Ordering example

<table>
<thead>
<tr>
<th>Basic unit</th>
<th>Optional equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>No. of cartridges</td>
</tr>
<tr>
<td>SFR-09</td>
<td>009</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Design

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 elements can be provided. For more information about installation and operation, please refer to our Instruction Manual.
Control
MFS-05

Time controlled filter controller

1. Features

The Filtration Group filter controller MFS-05 is an easy to operate time control.

Characteristics

- Inexpensive, compact design
- Cleaning with electrically isolated contact
- Instant cleaning with test switch
- Remote signalling by two defined relays: Operation/fault and cleaning optional available
- Remote access to parameters via an RS 485 port (read only) possible
- Worldwide distribution
2. Technical data

Housing
Material: ABS
Design: Dust-tight, max. 3x M32/M20 possible, ATEX Ex II 3D T60°C
Protection class: IP 65
Operating temperature: 0 - 50 °C
Climatic category: KWF acc. DIN 400040
(≤ 75 % relative humidity, no condensation allowed)

Protection class:

Control lamp
Operation: LED green
Cleaning: LED yellow
Fault: LED red
Valve display: LED red
Alarm threshold: LED red

Electrical data
Electrical connection: Terminal strip 2.5 mm²/valve 1
Voltage (primary): DC 24 V, AC 230 V/50-60 Hz
Tolerance: ± 10 %
Power: 42 W/30 VA
Mains fuse: 3.15 A time-lag/0.315 A time-lag
Valve outputs: 12 (extendable to 24)
Valve voltage: DC 24 V
Tolerance: ± 10 %
Valve current: 1 A (for pulse time ≤ 1 s and
interval time ≥ pulse time, otherwise 0.5 A)
Relay outputs: Pin wiring DC 24 V/0.3 A, AC 250/5 A
(Version with 2 output relays) 1 change-over contact for operating/fault message
(fail-safe circuit)
1 normally open for cleaning message
Inputs: Start or dp input
Enable (contact closed)/Stop (contact open)
Instant cleaning
Fault acknowledgement (button)
dp switch (optional)

Technical data is subject to change without notice!

3. Order numbers

<table>
<thead>
<tr>
<th>Order number</th>
<th>Type designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>79743071</td>
<td>MFS-05 DC 24 V, standard</td>
</tr>
<tr>
<td>79743477</td>
<td>MFS-05 DC 24 V, 2 relay outputs</td>
</tr>
<tr>
<td>79743055</td>
<td>MFS-05 AC 230 V, 50 - 60 Hz, standard</td>
</tr>
<tr>
<td>79742974</td>
<td>MFS-05 AC 230 V, 50 - 60 Hz, 2 relay outputs</td>
</tr>
</tbody>
</table>
4. Dimensions

5. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>7610664</td>
<td>Valve extension 13 to 24</td>
</tr>
<tr>
<td>76186605</td>
<td>Replacement fuses for MFS-05 24 V, 3.15 A time-lag (pack of 5)</td>
</tr>
<tr>
<td>76186597</td>
<td>Replacement fuses for MFS-05 230 V, 0.315 A time-lag (pack of 5)</td>
</tr>
</tbody>
</table>

6. Default settings

The controller is delivered with a standard setting to facilitate optimum operation in almost any application. This setting should be checked when the controller is started up for the first time. A service expert can be called in if necessary to alter the setting in the field.

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

For more information about installation and operation, please refer to our Instruction Manual.
## Filter controller
### Default settings
#### MFS-05

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Comments</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of valves</td>
<td>setting no. of valves</td>
<td>n</td>
</tr>
<tr>
<td>Break time</td>
<td></td>
<td>600 divided by number of valves</td>
</tr>
<tr>
<td>Pulse time</td>
<td>Pressure cleaning</td>
<td>0.2 s</td>
</tr>
<tr>
<td></td>
<td>Rotating wing</td>
<td>1.5 s</td>
</tr>
<tr>
<td>Post-cleaning time</td>
<td></td>
<td>18 min</td>
</tr>
<tr>
<td>□ Selection</td>
<td>1. Pressure switch function off (not activated)</td>
<td></td>
</tr>
<tr>
<td>Time control*</td>
<td>2. 4 to 20 mA activated</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Basic setting threshold</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. End complete cycle</td>
<td></td>
</tr>
<tr>
<td>Note:</td>
<td>In the standard setting, terminals 16 and 17, 18 and 19 are bridged.</td>
<td></td>
</tr>
<tr>
<td>□ Selection</td>
<td>1. Pressure switch function off (not activated)</td>
<td></td>
</tr>
<tr>
<td>Time control</td>
<td>2. 4 to 20 mA activated</td>
<td></td>
</tr>
<tr>
<td>with 5 mbar pressure switch switch-on threshold</td>
<td>3. Basic setting threshold</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. End complete cycle</td>
<td></td>
</tr>
<tr>
<td>Note:</td>
<td>In the standard setting, terminals 16 and 17 are bridged. The switching contact of the $\Delta p$ pressure switch is connected to terminals 18 and 19.</td>
<td></td>
</tr>
<tr>
<td>* or with variable pressure switch, e.g. setting range 5 to 33 mbar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Selection</td>
<td>1. Pressure switch function off (not activated)</td>
<td></td>
</tr>
<tr>
<td>Time control</td>
<td>2. 4 to 20 mA activated</td>
<td></td>
</tr>
<tr>
<td>with 18 mbar pressure switch as alarm output</td>
<td>3. Basic setting threshold</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. End complete cycle</td>
<td></td>
</tr>
<tr>
<td>Note:</td>
<td>In the standard setting, terminals 16 and 17, 18 and 19 are bridged. The contact of the pressure switch can be used as a signal for higher-level control.</td>
<td></td>
</tr>
<tr>
<td>□ Selection</td>
<td>1. Pressure switch function off (not activated)</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>2. 4 to 20 mA activated</td>
<td></td>
</tr>
<tr>
<td>External p transmitter with analog output (4 to 20 mA)</td>
<td>3. Basic setting control</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. End complete cycle</td>
<td></td>
</tr>
<tr>
<td>Note:</td>
<td>Terminal 16 is not assigned. Analog input (terminals 17+ and 18-). The post-cleaning has a fixed pause time of 30 s.</td>
<td></td>
</tr>
</tbody>
</table>

The filter control MFS-05 is delivered with these parameters.
Control
MFS-05 dp
Differential pressure-controlled filter controller

1. Features

The Filtration Group MFS-05 dp filter controller reduces the number of cleaning cycles to a necessary minimum compared to the simple time control principle. It facilitates a longer cartridge service life, improved cleaned gas values, smaller variations in the volume of exhaust air and lower costs for compressed air. The filter controller can be operated in three different modes:

1. Interval time control: Cyclic cleaning with a variable interval time (time between two cleaning cycles) according to dp
2. Switching threshold control: A cleaning cycle is tripped when settable dp threshold is reached
3. Time control: Cyclic cleaning with a fixed interval time

Characteristics

- Inexpensive, compact design
- Settable number of cleaning cycles when the dp threshold is reached
- Remote signalling by three defined relays: Operation/fault, cleaning and settable dp alarm
- Cleaning through potential free contact
- Instant cleaning with test switch
- Remote access to parameters via an RS 485 port (read only) possible
- Digital dp display (0 - 40 mbar)
- Worldwide distribution
2. Technical data

Housing
Material: ABS
Design: Dust-tight, max. 3x M32/M20 possible, ATEX Ex II 3D T60°C
Protection class: IP 65
Operating temperature: 0 - 50 °C
Climatic category: KWF acc. DIN 400040 (≤ 75 % relative humidity, no condensation allowed)

Control lamp
Operation: LED green
Cleaning: LED yellow
Fault: LED red
Valve display: LED red
Alarm display: LED red

Electrical data
Electrical connection: Terminal strip 2.5 mm²/valve 1
Voltage (primary): DC 24 V, AC 230 V/50-60 Hz
Tolerance: ± 10 %
Power: 42 W/30 VA
Mains fuse: 3.15 A time-lag, 0.315 A time-lag
Valve outputs: 12 (extendable to 24)
Valve voltage: DC 24 V
Tolerance: ± 10 %
Valve current: 1 A (for pulse time ≤ 1 s and interval time ≥ pulse time, otherwise 0.5 A)
Relay outputs: Pin wiring DC 24 V/0.3 A, AC 250/5 A
Analogue output: 0 (4) ... 20 mA
Inputs: Start or dp input
Enable (contact closed)/Stop (contact open)
Post-cleaning
Instant cleaning
Fault acknowledgement (button)

Technical data is subject to change without notice!

3. Order numbers

<table>
<thead>
<tr>
<th>Order number</th>
<th>Type designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>76341846</td>
<td>MFS-05 dp DC 24 V, relay</td>
</tr>
<tr>
<td>76341838</td>
<td>MFS-05 dp AC 230 V, 50-60 Hz, relay</td>
</tr>
</tbody>
</table>

Control MFS-05 dp
4. Dimensions

5. Instrument lead set

A set comprising a pressure sensor and instrument lines can be supplied for measuring the differential pressure. Dust protection in the form of a membrane filter is provided at the measuring point for the raw gas. Dirty instrument lines can lead to errors and breakdowns.

<table>
<thead>
<tr>
<th>Item</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nipple G¼, a/f 21</td>
</tr>
<tr>
<td>2</td>
<td>Screw nut on fitting R¼ OD6, a/f 16</td>
</tr>
<tr>
<td>3</td>
<td>Plastic hose PU-4 black, approx. 2 m</td>
</tr>
<tr>
<td>4</td>
<td>Sealing ring PVDF</td>
</tr>
<tr>
<td>5</td>
<td>Pipe nut DIN 431-A-G¼ - 14H</td>
</tr>
<tr>
<td>6</td>
<td>2x angular screw joint R¼ OD8</td>
</tr>
<tr>
<td>7</td>
<td>Compressed air hose PU-6 blue, approx. 1.5 m</td>
</tr>
<tr>
<td>8</td>
<td>Membrane filter</td>
</tr>
<tr>
<td>9</td>
<td>Snap ring 15x1 DIN 472</td>
</tr>
</tbody>
</table>

*1 = bore Ø 13.5 mm in the filter plate
*2 = bore 2x Ø 14 mm in the housing
6. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>76109664</td>
<td>MFS-05 extension</td>
</tr>
<tr>
<td>79759846</td>
<td>Instrument lead set for dp sensor</td>
</tr>
<tr>
<td>76186605</td>
<td>Replacement fuses for MFS-05 dp 24 V, 3.15 A time-lag (pack of 5)</td>
</tr>
<tr>
<td>76186597</td>
<td>Replacement fuses for MFS-05 dp 230 V, 0.315 A time-lag (pack of 5)</td>
</tr>
</tbody>
</table>

7. Default settings

The controller is delivered with a default setting to facilitate optimum in almost any application. This setting should be checked when the controller is started up for the first time. A service engineer can be called in if necessary to alter the setting in the field.

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

For more information about Installation and operation, please refer to our Instruction Manual.
## Filter controller

### Default settings

#### MFS-05 dp

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Comments</th>
<th>Default</th>
<th>Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>&quot;Break time control&quot; operating mode</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of valves</td>
<td>Observe the notes in chapter 6 of the instruction manual when making settings</td>
<td>n</td>
<td></td>
</tr>
<tr>
<td>Break potentiometer</td>
<td>Controller characteristic curve chapter 10.9 of the instruction manual</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Pulse time</td>
<td>Pressure cleaning</td>
<td>0.1 s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rotating wing</td>
<td>1.5 s</td>
<td></td>
</tr>
<tr>
<td>Post-cleaning cycles</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Alarm threshold</td>
<td></td>
<td>18 mbar</td>
<td></td>
</tr>
<tr>
<td>Terminal configuration</td>
<td>see wiring diagram</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jumpers positions</td>
<td>Jumper Sch./Reg.</td>
<td>Top</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jumper T/G cycle</td>
<td>Top</td>
<td></td>
</tr>
<tr>
<td><strong>Operating mode &quot;Switching threshold&quot;</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obere Schwelle</td>
<td></td>
<td>14 mbar</td>
<td></td>
</tr>
<tr>
<td>Cleaning cycles</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Terminal configuration</td>
<td>see wiring diagram</td>
<td>Bridge 18 a. 19</td>
<td></td>
</tr>
<tr>
<td>Jumpers positions</td>
<td>Jumper Sch./Reg.</td>
<td>Below</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jumper T/G cycle</td>
<td>Top</td>
<td></td>
</tr>
<tr>
<td><strong>&quot;Time control&quot; operating mode</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terminal configuration</td>
<td>Terminals 16 and 17, 18 and 19 are bridged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Break time</td>
<td>600 divided by number of valves n</td>
<td>xx</td>
<td></td>
</tr>
<tr>
<td>Jumpers positions</td>
<td>Jumper Sch./Reg.</td>
<td>Below</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jumper T/G Zyklus</td>
<td>Top</td>
<td></td>
</tr>
</tbody>
</table>

The filter control MFS-05 dp is delivered with these parameters.
Control
MFS-09
Differential pressure-controlled filter controller

1. Features

The Filtration Group MFS-09 filter controller reduces the number of cleaning cycles to a necessary minimum compared to the simple time control principle. It facilitates a longer cartridge service life, improved cleaned air values, smaller variations in the volume of exhaust air and lower costs for compressed air. The filter controller can be operated in seven different modes:

1. Differential pressure related cleaning
2. Variable break time (dp-related)
3. Time controlled cleaning
4. Pressure switch function
5. Post cleaning
6. After-run time for discharge argans
7. Cycle counting (option)

Characteristics

- Differential value free selectable 0 bis 10 ... 100 mbar
- Digital display of the and current valve
- Exact setting of pulse and break time
- 2 free selectable dp alarms (min./max.)
- 15 LED for operating and fault display
- Flexible selection of functions by menu control, input by 4 buttons
- Optocoupler input for stop, post cleaning, fault acknowledgement and pressure switch
- 3 free selectable relay outputs for operating and fault display
- RS 485 port
- Worldwide distribution
2. Technical data

**Housing**
- **Material:** Makrolon
- **Design:** Dust-tight, max. 10 PG-bolttings possible, ATEX Ex II 3D T60°C
- **Protection class:** IP 65

**Operating temperature:** 0 - 50 °C
- **Climatic category:** KWF acc. DIN 40040
  - (≤ 75 % relative humidity, no condensation allowed)

**Control elements:** 4 pushbuttons

**Displays**
- **Operation:** 7 segment display (2 decimal places), 6 LEDs
- **Δp regulator:** 7 segment display (4 decimal places), 5 LEDs
- **General:** 4 LEDs

**Electrical data**
- **Electrical connection:** Terminal strip 2.5 mm²
- **Voltage (primary):** DC 24V, AC 115 V/50-60 Hz, AC 230 V/50-60 Hz
  - **Tolerance:** ± 10 %
- **Power:** 30 W/30 VA
- **Mains fuse:** 3.15 A time-lag/0.315 A time-lag
- **Valve outputs:** 12 (extendable to 24)
- **Valve voltage:** DC 24 V
  - **Tolerance:** ± 10 %
- **Valve current:** 1 A (for pulse time ≤ 1 s and interval time ≥ pulse time, otherwise 0.5 A)
- **Analogue output:** 0 (4) ... 20 mA
- **Relay outputs:** 3 relay change-over contact, AC 24 V, 5 A
  - **Inputs:** Stop
    - Post-cleaning Fault acknowledgement (Reset-Hold)
    - Pressure switch

Technical data is subject to change without notice!

3. Order numbers

<table>
<thead>
<tr>
<th>Order number</th>
<th>Type designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>76109490</td>
<td>MFS-09 DC 24 V, 12 valve outputs</td>
</tr>
<tr>
<td>76109508</td>
<td>MFS-09 DC 24 V, 24 valve outputs</td>
</tr>
<tr>
<td>76109474</td>
<td>MFS-09 AC 115/230 V, 50-60 Hz, 12 valve outputs</td>
</tr>
<tr>
<td>76109482</td>
<td>MFS-09 AC 115/230 V, 50-60 Hz, 24 valve outputs</td>
</tr>
</tbody>
</table>
4. Dimensions

5. Instrument lead set

A set comprising a pressure sensor and instrument lines can be supplied for measuring the differential pressure. Dust protection in the form of a membrane filter is provided at the measuring point for the dirt air. Dirty instrument lines can lead to errors and breakdowns.

<table>
<thead>
<tr>
<th>Item</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>①</td>
<td>Nipple G¼, a/f 21</td>
</tr>
<tr>
<td>②②</td>
<td>Screw on fitting R¼ OD6, a/f 16</td>
</tr>
<tr>
<td>③</td>
<td>Plastic hose PU-4 black, approx. 2 m</td>
</tr>
<tr>
<td>④</td>
<td>Sealing ring PVDF</td>
</tr>
<tr>
<td>⑤</td>
<td>Pipe nut DIN 431-A-G¼ - 14H</td>
</tr>
<tr>
<td>⑥</td>
<td>2x angular screw joint R¼ OD8</td>
</tr>
<tr>
<td>⑦</td>
<td>Compressed air hose PU-6 blue, approx. 1.5 m</td>
</tr>
<tr>
<td>⑧</td>
<td>Membrane filter</td>
</tr>
<tr>
<td>⑨</td>
<td>Snap ring 15x1 DIN 472</td>
</tr>
</tbody>
</table>

*1 = bore Ø 13.5 mm in the filter plate  
*2 = bore 2x Ø 14 mm in the housing
6. Accessories

<table>
<thead>
<tr>
<th>Order number</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>76109730</td>
<td>Instrument lead set for dp sensor MFS-09</td>
</tr>
<tr>
<td>76186605</td>
<td>Replacement fuses for MFS-09 24 V, 3.15 A time-lag (pack of 5)</td>
</tr>
<tr>
<td>76186597</td>
<td>Replacement fuses for MFS-09 115/230 V, 0.315 A time-lag (pack of 5)</td>
</tr>
</tbody>
</table>

7. Default settings

The controller is delivered with a default setting to facilitate optimum in almost any application. This setting should be checked when the controller is started up for the first time. A service engineer can be called in if necessary to alter the setting in the field.

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

For more information about installation and operation, please refer to our Instruction Manual.
Dust extraction technology
Adapter for conical cartridges
Rd72x5 threaded connection

1. Features

The Filtration Group adapter system allows high-quality Filtration Group conical cartridges to be used in dust removal equipment where previously cylindrical cartridges with an Rd60x4 threaded connection were suitable. The cartridges can also be adapted to third-party equipment. If a cartridge is replaced, the adapter can continue to be used.

Characteristics

- Easy installation of the cartridge thanks to the proven assembly system
- Wide choice of standard cartridges available
- Lower warehousing costs owing to reduced type diversity
- Worldwide distribution
2. Technical data

Rd60x4 to Rd72x5 adapter

Rd72x5 adapter for installation on the clean side

Bayonet to Rd72x5 adapter

Rd74x4 to Rd72x5 adapter

Technical data subject to change without notice!

3. Order numbers

<table>
<thead>
<tr>
<th>Order number</th>
<th>Type designations</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>78330508</td>
<td>Adapter RD60x4/RD72x5 VZK</td>
<td>VZK</td>
</tr>
<tr>
<td>76315329</td>
<td>Adapter RD60x4/RD72x5 V4A</td>
<td>V4A</td>
</tr>
<tr>
<td>78314445</td>
<td>Adapter cleaned gas RD72x5 VZK</td>
<td>VZK</td>
</tr>
<tr>
<td>78314528</td>
<td>Adapter cleaned gas RD72x5 V4A</td>
<td>V4A</td>
</tr>
<tr>
<td>79756131</td>
<td>Adapter RD72x5/Bajonett VZK</td>
<td>VZK</td>
</tr>
<tr>
<td>76139950</td>
<td>Adapter RD74x4/RD72x5 V4A</td>
<td>V4A</td>
</tr>
</tbody>
</table>
Dust extraction technology
SDG-100

Dosing device for filter aid

1. Features

A filter aid sometimes needs to be added to optimise the dust removal process. The filter aid is blown into the row gas via an injector nozzle, so that it forms a filter aid layer on the cartridges. This improves the cleaning and filtration efficiency in applications with sticky or very fine dusts.

- Compact design
- Easy maintenance
- Affordable
- Good dispersion
- Worldwide distribution
2. Technical data

Operating pressure: 3 - 4 bar
Housing/cover material: Sheet steel
Surface treatment: EPS
Colour: RAL 7035

The selected filter aid depends on the type of dust and the untreated gas.
The compressed air consumption varies according to the dosing setting.
Typical range: 0.2 - 2 m³/h (normal operation)
Filter aid dosing rate: 0.3 - 3.5 kg/h

Electrical data:
Max. voltage: DC 24 V
Max. switching current: 1 A

3. Dimensions

All dimensions except “V” in mm.

<table>
<thead>
<tr>
<th>Type</th>
<th>H</th>
<th>B</th>
<th>L</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDG-100</td>
<td>877</td>
<td>504</td>
<td>504</td>
<td>50</td>
</tr>
</tbody>
</table>

4. Components/spare parts

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Part name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Magnetic valve ¼”</td>
</tr>
<tr>
<td>2</td>
<td>Solenoid DC 24 V/1 A</td>
</tr>
<tr>
<td>2</td>
<td>Pressure valve with gauge</td>
</tr>
<tr>
<td>2</td>
<td>Ball valve ½”</td>
</tr>
<tr>
<td>1</td>
<td>Injector nozzle</td>
</tr>
<tr>
<td>1</td>
<td>Piston vibrator</td>
</tr>
<tr>
<td>1</td>
<td>Discharge hose</td>
</tr>
<tr>
<td>2</td>
<td>Vent filter Pi 0140 Mic</td>
</tr>
<tr>
<td>1</td>
<td>Level limit switch (optional)</td>
</tr>
<tr>
<td>1</td>
<td>Control cabinet for dosing device (optional)</td>
</tr>
</tbody>
</table>
Dust removal filters for combustible dusts

Information

ATEX-compliant dust removal filters

1. Features

Explosion protection is stipulated for combustible dusts by the 94/9/EC Directive.

Particles are separated and upgraded on the raw gas side of a cleanable dust removal filter. The dust cloud that is frequently produced when the filter cartridges are cleaned will cause an explosion in the presence of a sufficiently large spark. To avoid the risk of explosion when combustible dusts are separated, explosion-proof designs in line with ATEX regulations have been specified for Filtration Group dust removal filters together with an engineering consultant.

A hazard analysis and risk assessment based on DIN EN 13463 provide the starting point for appraising the suitability of a particular application and selecting the device type. The hazard analysis evaluates the possible explosion hazards and the probability of occurrence of potentially explosive atmosphere. The analysis presupposes that the filtration device will be for its "intended purpose" and that it is divided into an installation chamber and a process chamber (zones). The possible explosion hazards to be considered are described in DIN EN 1127-1. Hazard analyses are documented for the various applications of Filtration Group dust removal filters.
2. Selection of the dust removal filter

The dust removal filter is selected according to the minimum ignition energy of the dust and the envisaged application. Filtration Group dust removal filters for installation in Zone 22 are designed with the Ex II 3D c T140 °C type of protection.

<table>
<thead>
<tr>
<th>Dust removal filter</th>
<th>Minimum ignition energy</th>
<th>Type of dust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type A</td>
<td>&gt; 10 mJ</td>
<td>Normally flammable</td>
</tr>
<tr>
<td>Type A or Type B *</td>
<td>Between 3 and 10 mJ</td>
<td>Highly flammable</td>
</tr>
<tr>
<td>Type B</td>
<td>&lt; 3 mJ</td>
<td>Extremely flammable</td>
</tr>
</tbody>
</table>

* Type B must be selected if the dust removal filter is to be used for one of the following purposes: pneumatic conveying, central aspiration or suction, separation downstream of a drying or grinding process, suction with mechanical conveyors operating at a speed of more than 1 m/s or separation of self-igniting powder.

3. Type A dust removal filter in basic ATEX design with proactive explosion protection

![Diagram of dust removal filter]

1. Earth conductor or equipotential bonding conductor
2. Quick-disconnect earth conductor
3. Filter controller or terminal box, category II 3D

Characteristics

- Equipotential bonding conductors on all housing parts, incl. earth connection
- ATEX-compliant electrical components with the appropriate type of protection, e.g. filter controller, magnetic valve, electric motor, level indicator for Zone 22
- Terminal strip for connecting more than one magnetic valve to a filter controller or control cabinet
- Filter cartridges capable of electrostatic discharge (Filtration Group standard, even for a minimum ignition energy > 4 mJ)

Operating principle

Static electricity cannot build up in the basic ATEX version, so that sparking and explosion are ruled out. Sparking must be reliably prevented. If this is not possible, a type B dust removal filter must be used instead.
4. Type B dust removal filter in explosion-proof ATEX design

In the case of the explosion-proof design, the dust removal filter must be decoupled from explosions in the raw and clean gas lines. All plant components connected upstream or downstream are then protected against dust explosion propagation. The dust is discharged either in an explosion-proof bucket or by means of a flameproof discharge device.

Explosion protection by decoupling a dust removal filter in explosion-proof design with explosion release.

Example 1: Decoupling with a quick-acting valve and check valve

1. Earth conductor or equipotential bonding conductor
2. Filter controller or terminal box
3. Explosion-tested air release valve with integrated flame absorber
4. Rotary valve
5. Explosion-tested check valve
6. VENTEX quick-closing valve
7. Control room or cabinet

Explosion-proof dust removal filter with air release valve

Characteristics
- Equipotential bonding conductors on all housing parts, incl. earth connection
- ATEX-compliant electrical components with the appropriate type of protection, e.g. filter controller, magnetic valve, electric motor, level indicator for Zone 22
- Terminal strip for connecting more than one magnetic valve to a filter controller or control cabinet
- Filter cartridges capable of electrostatic discharge (Filtration Group standard, even for a minimum ignition energy > 4 mJ)
- Max. dust constant (Kst value): 300 bar m/s
- Signal transmitter on the air release valve for recording explosions
- Quick-acting valve and check valve for decoupling explosions
- Pressure burst resistance of the housing: 0.5 bar

Operating principle
At the start of an explosion, the fitted spring contact sends a signal to the control room (7) as soon as the air release valve (3) opens. The transmission of the signal causes all electrical components to be disconnected. The check valve on the raw gas side (5) closes automatically by mechanical means in a fraction of a second when the explosion begins. A quick-acting shut-off device (6) decouples the explosion on the clean gas side (6), e.g. the automatic VENTEX quick-closing valve or an active fire barrier. Alternatively, the air release valve (3) can be replaced by a rupture disc or a quench pipe and the rotary valve (4) by a dust bucket.
Example 2: Decoupling with extinguishing agent

Explosion-proof dust removal filter with rupture disc

**Characteristics**

- Equipotential bonding conductors on all housing parts, incl. earth connection
- ATEX-compliant electrical components with the appropriate type of protection, e.g. filter controller, magnetic valve, electric motor, level indicator for Zone 22
- Terminal strip for connecting more than one magnetic valve to a filter controller or control cabinet
- Filter cartridges capable of electrostatic discharge (Filtration Group standard, even for a minimum ignition energy > 4 mJ)
- Max. dust constant (Kst value): 300 bar m/s
- Rupture disc with breakwire as a signal transmitter
- Extinguishing agent bottles for decoupling explosions
- Pressure burst resistance of the housing: 0.5 bar

**Operating principle**

At the start of an explosion, the rupture disc (3) opens at a defined set pressure and the signal is transmitted to the switch box by the breakwire (7). The transmission of the signal causes the extinguishing agent bottles (6) to be activated. The extinguishing agent expelled via the pipes on the raw and clean gas sides prevents the flame front from propagating. At the same time, the signal disconnects all electrical components. Alternatively, the rupture disc (3) can be replaced by an air release valve or a quench pipe and the dust bucket (4) by a rotary valve.
**Explosion protection by suppressing the explosion in a dust removal filter in explosion-proof design**

Explosion-proof dust removal filter with extinguishing agent bottles

1. Earth conductor or equipotential bonding conductor
2. Filter controller or terminal box
3. Pressure sensor
4. Socket for pressure sensor
5. Extinguishing agent bottles
6. Dust bucket with clamping lever
7. Quick-disconnect earth conductor
8. Switch box

**Characteristics**

- Equipotential bonding conductors on all housing parts, incl. earth connection
- ATEX-compliant electrical components with the appropriate type of protection, e.g. filter controller, magnetic valve, electric motor, level indicator for Zone 22
- Terminal strip for connecting more than one magnetic valve to a filter controller or control cabinet
- Filter cartridges capable of electrostatic discharge (Filtration Group standard, even for a minimum ignition energy > 4 mJ)
- Max. dust constant (Kst value): 300 bar m/s
- Extinguishing agent bottle(s) on the dust removal filter for suppressing explosions
- Extinguishing agent bottles in the pipes on the raw and clean gas sides for decoupling explosions
- Pressure burst resistance of the housing: 0.5 bar

**Operating principle**

At the start of an explosion, the pressure increase is recorded by two separate pressure sensors (3) and the extinguishing agent bottles (5) are activated by the high-speed electronics. Inside the dust removal filter, the flame is suppressed by the extinguishing agent, so that the explosion pressure is reduced. The number of explosion agent bottles depends on the volume of the raw gas side, the maximum explosion pressure, the dust constant and the ignition temperature. If this pressure reduction is ensured by optimising the design of the dust removal filter, it is possible to minimise the explosive action such that additional pressure relief can be dispensed with. The extinguishing agent expelled via the pipes on the raw and clean gas sides prevents the flame front from propagating. At the same time, the signal from the switch box (8) disconnects all electrical components. Alternatively, the dust bucket (6) can be replaced by a rotary valve.
Explosion protection with dust removal filter in explosion-proof design

1. Earth conductor or equipotential bonding conductor
2. Filter controller or terminal box
3. Manhole
4. Swinging gallows

Characteristics

- Equipotential bonding conductors on all housing parts, incl. earth connection
- ATEX-compliant electrical components with the appropriate type of protection, e.g. filter controller, magnetic valve, electric motor, level indicator for Zone 22
- Terminal strip for connecting more than one magnetic valve to a filter controller or control cabinet
- Filter cartridges capable of electrostatic discharge (Filtration Group standard, even for a minimum ignition energy > 4 mJ)
- Dust constant (Kst value) corresponding to the approval for the decoupling elements
- Explosion decoupling must be provided for the dust removal filter in the raw and clean gas lines
- Dust removal filter design optimised for the maximum explosion pressure

Operating principle

In the event of an explosion, the maximum explosion pressure is absorbed by the robust housing. The steel is not stressed beyond the yield point in accordance with the design. All electronic components can be disconnected by tripping an optional pressure switch. Cabinet optional.

5. Type examination with explosion test

The stable design of our apparatus is confirmed by an FSA test certificate. A pressure burst resistance of 0.5 bar was demonstrated in a test series with selectively induced explosions. The devices thus comply with the test requirements of EN 14460 “Explosion resistant equipment.”

6. Design

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 elements can be provided. For more information about installation and operation, please refer to our Instruction Manual.
Aerosol separator device
ASL 1 - 4

Nominal volume flow up to 3600 m³/h

1. Features

High-performance device for separating cooling lubricants from machine tool exhaust air

In industrial machining and shaping processes – such as in modern machine tools – cooling lubricants are used under high pressure. This sends more aerosols into the ambient air. To prevent the aerosol concentrations from exceeding the permitted limits, the cooling lubricant mist must be continuously extracted from the machine’s work area and cleaned. Filtration Group aerosol separator devices efficiently protect workers, equipment and production facilities from cooling lubricant aerosols and improve their productivity.

Characteristics

- Extraction of damaging aerosols right at the processing machine
- Can be used for aqueous cooling lubricant applications or applications with oil aerosols less than 20 mg/m³
- High energy efficiency
- Modular structure of the individual filter stages
- Optional H13 filter stage
- Modular design for direct installation of main components into the processing machine
- Small space requirements
- Long maintenance interval and service-friendly operation
- Cleanable and reusable individual filter stages
- Extensive accessories
- Optimal price-performance ratio
- Worldwide distribution and service
2. Functional principle

The raw air from the area of the machine tools is extracted with a powerful fan (5). The raw air flows through each filter stage. The wire mesh pre-filter stage (1) removes the large dirt particles (chips, coarse dirt) and protects the downstream separation stages from contamination. Additionally, at this stage the large aerosols are separated through turbulence and gravity. The primary separation stage (2) removes the coarse to fine aerosols. The secondary separation stage (3) removes the very fine aerosols. The largest share of fine aerosols can be separated thanks to a local acceleration of the stream via perforated baffle plate and a subsequent slowdown in a multi-layered Miofilter panel. A star pleated fine filter element (4) can be used additionally to remove the remaining very fine aerosols from airstream. The bottom of the housing collects the separated aerosol, which is sent through a drain hose into the storage tank for cooling lubricant. The transported air quantity depends strongly on the stage of expansion of the ASL and can vary during operation in dependency of each filter stage’s contamination. The gauge (6) measures the adjacent vacuum before the first filter stage and is an indicator for the actually funded volume flow.

1. Wire mesh pre-separator
2. Primary separation stage
3. Secondary separation stage
4. Fine filter
5. Fan
6. Maintenance indicator (analog gauge)

3. Procedural principle

4. Application area

Suitable for:
- water-mixable cooling lubricants for machine tools
- non-water-mixable cooling lubricants (cutting, grinding and drilling oil) at raw gas load less than 20mg/m³

Other special applications on request.

Limits of use:
- Set-up in potentially explosive atmospheres (zones 0, 1 and 2) is not permitted!
- Extraction of toxic or hazardous substances is not permitted!

a Air
b Aerosoles
5. Dimensions

All Dimension except "D" in mm

<table>
<thead>
<tr>
<th>Type</th>
<th>A ±3</th>
<th>B ±3</th>
<th>C ±3</th>
<th>D</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>In</th>
<th>Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 1</td>
<td>860</td>
<td>475</td>
<td>400</td>
<td>G 3/4</td>
<td>260</td>
<td>160</td>
<td>445</td>
<td>DN 150</td>
<td>DN 150</td>
</tr>
<tr>
<td>ASL 2</td>
<td>1056</td>
<td>512</td>
<td>490</td>
<td>G 3/4</td>
<td>305</td>
<td>235</td>
<td>512</td>
<td>DN 200</td>
<td>DN 150</td>
</tr>
<tr>
<td>ASL 3</td>
<td>1310</td>
<td>625</td>
<td>900</td>
<td>G 3/4</td>
<td>510</td>
<td>355</td>
<td>541</td>
<td>DN 300</td>
<td>DN 300</td>
</tr>
<tr>
<td>ASL 4</td>
<td>1510</td>
<td>805</td>
<td>1100</td>
<td>G 3/4</td>
<td>610</td>
<td>455</td>
<td>502</td>
<td>DN 300</td>
<td>DN 300</td>
</tr>
</tbody>
</table>

6. Technical specification

<table>
<thead>
<tr>
<th></th>
<th>ASL 1</th>
<th>ASL 2</th>
<th>ASL 3</th>
<th>ASL 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating volumetric flow m³/h:</td>
<td>500</td>
<td>1000</td>
<td>2000</td>
<td>3600</td>
</tr>
<tr>
<td>Operating temperature range °C:</td>
<td>+10 bis +50</td>
<td>+10 bis +50</td>
<td>+10 bis +50</td>
<td>+10 bis +50</td>
</tr>
<tr>
<td>Motor voltage VAC/50 Hz:</td>
<td>400</td>
<td>400</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Power consumption A:</td>
<td>1</td>
<td>1.35</td>
<td>2.7</td>
<td>6.5</td>
</tr>
<tr>
<td>Motor power kW:</td>
<td>0.37</td>
<td>0.55</td>
<td>1.1</td>
<td>3</td>
</tr>
<tr>
<td>Protection class:</td>
<td>IP 54</td>
<td>IP 54</td>
<td>IP 54</td>
<td>IP 54</td>
</tr>
<tr>
<td>Motor speed U/min:</td>
<td>2800</td>
<td>2800</td>
<td>2840</td>
<td>2880</td>
</tr>
<tr>
<td>Sound level dB (A):</td>
<td>74</td>
<td>74</td>
<td>73</td>
<td>72</td>
</tr>
<tr>
<td>Raw gas connection mm:</td>
<td>DN 150</td>
<td>DN 200</td>
<td>DN 300</td>
<td>DN 300</td>
</tr>
<tr>
<td>Clean gas connection mm:</td>
<td>DN 150</td>
<td>DN 150</td>
<td>DN 300</td>
<td>DN 300</td>
</tr>
<tr>
<td>Drain hose:</td>
<td>15x2 mm PVC transparent (5.5 m)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions LxWxH mm:</td>
<td>860x475x400</td>
<td>1056x512x550</td>
<td>1310x625x960</td>
<td>1510x805x1160</td>
</tr>
<tr>
<td>Weight kg:</td>
<td>70</td>
<td>85</td>
<td>150</td>
<td>190</td>
</tr>
</tbody>
</table>
7. Type number key

Type number key with order example ASL 2.2

<table>
<thead>
<tr>
<th>Type ASL</th>
<th>Aerosol Separator Light</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>up to 500 m³/h, recommended extraction area up to 2 m³</td>
</tr>
<tr>
<td>2</td>
<td>up to 1000 m³/h, recommended extraction area up to 4 m³</td>
</tr>
<tr>
<td>3</td>
<td>up to 2000 m³/h, recommended extraction area up to 8 m³</td>
</tr>
<tr>
<td>4</td>
<td>up to 3600 m³/h, recommended extraction area up to 16 m³</td>
</tr>
</tbody>
</table>

Filterstufen

1. Pre-separator incl. Mio-filter
2. Pre-separator incl. Mio-filter and fine filter

8. Order numbers

<table>
<thead>
<tr>
<th>Part designation</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASL 11 RAL 7035</td>
<td>72429284</td>
</tr>
<tr>
<td>ASL 12 RAL 7035</td>
<td>72416648</td>
</tr>
<tr>
<td>ASL 21 RAL 7035</td>
<td>72373051</td>
</tr>
<tr>
<td>ASL 22 RAL 7035</td>
<td>72383123</td>
</tr>
<tr>
<td>ASL 31 RAL 7035</td>
<td>72406670</td>
</tr>
<tr>
<td>ASL 32 RAL 7035</td>
<td>72395791</td>
</tr>
<tr>
<td>ASL 41 RAL 7035</td>
<td>72439127</td>
</tr>
<tr>
<td>ASL 42 RAL 7035</td>
<td>72437692</td>
</tr>
</tbody>
</table>

9. Spare parts

<table>
<thead>
<tr>
<th>Part designation</th>
<th>Fig. position in functional principle</th>
<th>ASL 1</th>
<th>ASL 2</th>
<th>ASL 3</th>
<th>ASL 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-separator</td>
<td>1</td>
<td>72366908</td>
<td>72373140</td>
<td>72352822</td>
<td>72392822</td>
</tr>
<tr>
<td>Primary separation stage element</td>
<td>2</td>
<td>72417927</td>
<td>72374686</td>
<td>72388445</td>
<td>72438238</td>
</tr>
<tr>
<td>Secondary separation stage element</td>
<td>3</td>
<td>72417939</td>
<td>72374780</td>
<td>72388983</td>
<td>72438243</td>
</tr>
<tr>
<td>Fine filter</td>
<td>4</td>
<td>72418905</td>
<td>72382322</td>
<td>2x 72382322</td>
<td>3x 72382322</td>
</tr>
<tr>
<td>HEPA filter</td>
<td>not shown</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fan</td>
<td>5</td>
<td>72454474</td>
<td>72420067</td>
<td>72459040</td>
<td>72458466</td>
</tr>
<tr>
<td>Maintenance indicator (analog gauge)</td>
<td>6</td>
<td>72368574</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service kits</td>
<td>not shown</td>
<td>see 10.1 Service kits</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Accessories and options

10.1 Service kits
The filter stages in the ASL unit are clean- and reusable. It is useful to order a service kit with the new device to avoid a standstill of machines during the cleaning and drying of elements.

Service kits
- ASL 11 Order-no. 72425205
- ASL 12 Order-no. 72425206
- ASL 21 Order-no. 72422335
- ASL 22 Order-no. 72425124
- ASL 31 Order-no. 72422380
- ASL 32 Order-no. 72425204
- ASL 41 Order-no. 72439391
- ASL 42 Order-no. 72439389

- Please also read our cleaning recommendation for fine and Mio-filter.

10.2 Suspended solids filter (HEPA downstream filter stage)
For very high requested quality of cleaned air in recirculation mode, there is an option to add a Filtration Group filter (HEPA) downstream. HEPA downstream filters (class H13) are standardly available with filter surfaces about 3.5 m², 7 m², 12 m² or 16 m².

Preparing of a HEPA downstream filter stage depends strongly on the application and that’s why they are only available on request.

10.3 Silencer
Suitable silencer including mounting material can be prepared and offered if necessary.

10.4 Height adjustable racks
For installing/mounting the unit besides a tooling machine (on request).

10.5 Piping kits
Optimal piping concepts and kits can be prepared and offered on request.

10.6 Desired finishes
The units are standardly powder coated with RAL7035. Other RAL colours are available on request.
11. Questionnaire for requests

---

### Checklist for Aerosol separation systems

#### Customer data

<table>
<thead>
<tr>
<th>Company</th>
<th>Function</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contact person</th>
<th>Phone number</th>
<th>Adress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Information on the tooling machine

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Year of construction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of processing</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Turning</td>
<td></td>
</tr>
<tr>
<td>Milling</td>
<td></td>
</tr>
<tr>
<td>Grinding</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Machine housing</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Partial housing</td>
<td></td>
</tr>
<tr>
<td>Complete housing</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Machine utilization</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-shift</td>
<td></td>
</tr>
<tr>
<td>Double-shift</td>
<td></td>
</tr>
<tr>
<td>Three-shift</td>
<td></td>
</tr>
</tbody>
</table>

#### Information on the cooling lubricant

<table>
<thead>
<tr>
<th>Type of cooling lubricant</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Water-miscible (e.g. emulsion)</td>
<td></td>
</tr>
<tr>
<td>Non water-miscible (e.g. oil)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name according to safety data sheet</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Minimal quantity lubrication (MQL)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

#### Evacuation system and aerosol separator

If an aerosol separator is already in use:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Year of construction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number and position of the evacuation points</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Size of the evacuation ports</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DN 100</td>
<td></td>
</tr>
<tr>
<td>DN 150</td>
<td></td>
</tr>
<tr>
<td>DN 200</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position of the separator</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>On top of the machine</td>
<td></td>
</tr>
<tr>
<td>Next to the machine</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exhaust air</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Recirculation in the hall</td>
<td></td>
</tr>
<tr>
<td>Extraction to the outside</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What else may be important</th>
<th></th>
</tr>
</thead>
</table>

---

Aerosol separator device ASL 1 - 4
Aerosol Separator Device
LGA 601 FU/FUW
Nominal volume flow 600 m³/h

1. Features

High performance aerosol separator device for separation of coolant from tooling machine exhaust air

- Excellent retention rates 100 % at 1 µm aerosols
- Suitable for high raw gas loads up to 3000 mg/m³
- Equipped with high-efficient coalescer elements
- High dirt holding and optimized service life
- Pre-separation system for optimized service life
- HEPA filter stage available for more efficiency
- Low maintenance and energy system
- Modular design for direct installation of main components onto tooling machines
- Quality filters, easy to service
- Low space requirements
- Worldwide distribution and service
- Numerous accessories
2. Fractional collection efficiency

\[ y = \frac{x}{100} \]

Aerosol: Wiolan SH 10
Raw gas concentration: 50 mg/m³
Volume flow: 600 m³/h

1 = Filter cartridge as delivered
2 = Filter cartridge after 100 operating hours

3. Operating principle

Oil aerosols are sucked away from the machining space of machine tools. The oil-laden air flows outward through the coalescer element from the inside. The oil attaches itself to the fibre media as it passes through the filter. Minute oil droplets “coalesce” to form larger drops. These larger droplets migrate downwards on the coalescer element due to gravity. The oil accumulates at the bottom of the housing and is returned to the cooling lubricant storage reservoir via the oil drain hose and the membrane valve. The vacuum in the filter housing causes external air to be sealed off by the membrane valve. The valve opens automatically when the oil in the drain hose reaches a height of at least 500 mm. The cleaned airflow is sucked away by means of a high-pressure fan and blown out at the top through a silencer.

4. Application

Suitable for non-water-miscible cooling lubricants (cutting oil, grinding oil, drilling oil) and oil aerosol exhausted by machine tools and also for water-miscible cooling lubricants.

Operating limits

If oil is used as cooling lubricant for machining processes, air usually has to be sucked away from the working area to prevent the atomized oil from dispersing. The concentrations that often occur in the cooling lubricant jet or in the machine room could result in ignition in case of tool breakage, for example. If the machining process involves flammable cooling lubricants or flammable materials, safe operation must be ensured by providing suitable fire and explosion protection devices in conformance with statutory regulations.

Installation in potentially explosive atmosphere (Zones 0, 1 and 2) is not permitted!

5. Product information

LGA 601 FU and FUW
The LGA 601 is a filtering separator with optional pre-separation (when FUW design).
It is driven by a frequency controlled motor. A volumetric flowrate sensor supplies the actual value required to obtain a constant volume flow of 600 m³/h. If this value falls below the setpoint, an electrical signal is output at approximately 450 m³/h. These signals can be evaluated to enable suitable maintenance action to be taken.

6. Order numbers

<table>
<thead>
<tr>
<th>Type</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGA 601 FU RAL 7035</td>
<td>72374902</td>
</tr>
<tr>
<td>LGA 601 FUW RAL 7035</td>
<td>72410327</td>
</tr>
</tbody>
</table>
7. Modules/main components

- Membrane valve (FU 1x/FUW 2x)
- Oil hose (FU 1x/FUW 2x)
- Air inlet nozzle
- Oil drain nozzle (FU 1x/FUW 2x)
- Pre-separation element (only FUW)
- Coalescer element
- Housing
- Filter housing
- Eyebolt for transport
- Fan with FU
- Electric motor
- Air outlet nozzle/Mounting fixture for HEPA filter
- Silencer
- Connection port
- Volume flow display
- Frequency converter
- Volumetric flowrate sensor
- Mounting base plate

8. Technical data

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume flow</td>
<td>600 m³/h</td>
</tr>
<tr>
<td>Temperature range</td>
<td>+10 °C to +60 °C</td>
</tr>
<tr>
<td>Air nozzles (2x Jacob)</td>
<td>150 mm</td>
</tr>
<tr>
<td>Oil hose (2x)</td>
<td>PVC transparent 15x2 mm (5.5 m) (FUW 2x)</td>
</tr>
<tr>
<td>Filter</td>
<td>1 coalescer element and 1 pre-separation element (only FUW)</td>
</tr>
<tr>
<td>Filter surface</td>
<td>4.8 m²</td>
</tr>
<tr>
<td>Dimensions (LxWxH)</td>
<td>919x550x825 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>140 kg</td>
</tr>
<tr>
<td>Supply voltage</td>
<td>3 AC 400 V/PE, 50-60 Hz</td>
</tr>
<tr>
<td>Current consumption</td>
<td>3.3 A</td>
</tr>
<tr>
<td>Protection class electrical devices</td>
<td>IP54</td>
</tr>
<tr>
<td>Backup fuse</td>
<td>10 A</td>
</tr>
<tr>
<td>Connection port</td>
<td>Harting 10B</td>
</tr>
<tr>
<td>Motor output</td>
<td>1.5 kW</td>
</tr>
<tr>
<td>Motor speed</td>
<td>5920 U/min</td>
</tr>
<tr>
<td>Sound level</td>
<td>69 dB (A)</td>
</tr>
</tbody>
</table>
9. Dimensions

A* Min. clearance required for filter element change
B* Removable side panel
C* Snap closure filter housing
1* Membrane valve
2* Oil hose
3* Raw gas inlet connection DN 150

8* Filter housing
12* Clean gas outlet connection DN 150
14* Connection port
15* Volume flow display
18* Mounting base plate
10. Installation

1 Equipotential bonding
2 Suction pipe
3 Raw air inlet nozzle
4 Oil hose (FUW 2x)
5 Oil storage reservoir
6 Membrane valve (FUW 2x)
7 Exhaust air pipe

Note the minimum clearance of 480 mm is required for element removal!

11. Spare parts

<table>
<thead>
<tr>
<th>Order numbers for spare parts</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-separation element (only LGA 601 FUW)</td>
<td>70515630</td>
</tr>
<tr>
<td>Coalescer element</td>
<td>79354390</td>
</tr>
<tr>
<td>Silencer</td>
<td>76326227</td>
</tr>
<tr>
<td>Oil hose</td>
<td>76326268</td>
</tr>
<tr>
<td>Membrane valve</td>
<td>78769697</td>
</tr>
<tr>
<td>Fixing nut for Coalescer element</td>
<td>76302996</td>
</tr>
<tr>
<td>Differential pressure transmitter</td>
<td>72404747</td>
</tr>
<tr>
<td>Volume flow display</td>
<td>70593410</td>
</tr>
<tr>
<td>Fixing nut for pre-separation element (only LGA 601 FUW)</td>
<td>76302996</td>
</tr>
<tr>
<td>Fan with frequency-controlled motor</td>
<td>72374884</td>
</tr>
</tbody>
</table>
12. Accessories and options

12.1 HEPA filter
For very high requested quality of cleaned air in recirculation mode, there is an option to add a HEPA filter downstream. Thanks to the outstanding separating performance of the LGA device, HEPA filters can reach a very long service life. HEPA downstream filters (class H13) are standardly available with filter surfaces about 3.5 m². Order number 72381952

12.2 Rack
For installation or mounting of the LGA-Gerätes beside a tooling machine. Order number 70539323

A* plate height adjustable
B* height adjustable grid
12.3 External preseparation with an impact separator (MIO filter plate)
Protects the prefilter and main filter installed in the unit from impurities such as entrained metal parts, dust particles or macro emulsions. MIO filter plates are cleanable coarse filters which can achieve class G4 (EN 779) depending on the inflow velocity.

12.3.1 Installation in the tooling machine
The MIO filter plate (order number 70569965) can be installed into the tooling machine directly in front of the raw air inlet nozzle of the LGA 601 using the fixing set (order number 70571759).

12.3.2 Installation outside the tooling machine
The MIO filter plate (order number 70569965) can be installed outside the tooling machine in the sheet metal housing (order number 70579167) in front of the oil aerosol separator device.

12.4 Tubing package
DN150 tubing package with a total length of approx. 5 meters includes two 90° bends, tube sections and clamps incl. seals. Order number 70549566

12.5 Keypad for frequency converter and display
Allows the volume flow (350 to 700 m³/h) to be optimally adapted to the operating conditions (must be installed by a qualified electrician or customer service). Energy efficiency is significantly improved as a result. Order number 72415282
### 13. Check list for aerosol separators

<table>
<thead>
<tr>
<th>Customer data</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company</td>
<td></td>
</tr>
<tr>
<td>Contact person</td>
<td></td>
</tr>
<tr>
<td>Phone number</td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
</tr>
</tbody>
</table>

#### Information on the tooling machine

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Year of construction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Type of processing |  |  |
|---------------------|  |  |
| Turning             | ✔ |  |
| Milling             |  | ✔ |
| Grinding            |  |  |
| Others              |  |  |

<table>
<thead>
<tr>
<th>Machine housing</th>
<th>Year of construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Partial housing</td>
<td></td>
</tr>
<tr>
<td>Complete housing</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Machine utilization</th>
<th>Year of construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-shift</td>
<td></td>
</tr>
<tr>
<td>Double-shift</td>
<td></td>
</tr>
<tr>
<td>Three-shift</td>
<td></td>
</tr>
</tbody>
</table>

#### Information on the cooling lubricant

<table>
<thead>
<tr>
<th>Type of cooling lubricant</th>
<th>Year of construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water-miscible (e.g. emulsion)</td>
<td></td>
</tr>
<tr>
<td>Non water-miscible (e.g. oil)</td>
<td></td>
</tr>
</tbody>
</table>

#### Evacuation system and aerosol separator

If an aerosol separator is already in use:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Year of construction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number and position of the evacuation points</th>
<th>Year of construction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size of the evacuation ports</th>
<th>Year of construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>DN 100</td>
<td></td>
</tr>
<tr>
<td>DN 150</td>
<td></td>
</tr>
<tr>
<td>DN 200</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position of the separator</th>
<th>Year of construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>On top of the machine</td>
<td></td>
</tr>
<tr>
<td>Next to the machine</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exhaust air</th>
<th>Year of construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recirculation in the hall</td>
<td></td>
</tr>
<tr>
<td>Extraction to the outside</td>
<td></td>
</tr>
</tbody>
</table>

### What else may be important:

---

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07/2019

Aerosol Separator Device LGA 601 FU/FUW
Oil Mist Separator Unit
LGA 1200 FU/FUW
Nominal volume flow 1200 m³/h

1. Features

High performance oil mist separator unit for separation of coolant from tooling machine exhaust air

- Compact design
- High oil mist load capacity
- Excellent retention rates
- Quality filters, easy to service
- Service reduced and energy-saving system
- Equipped with high-efficient coalescer elements
- High dirt holding and optimized service life
- Modular design for direct installation of main components onto tooling machines
- Pre-separation system for optimized service life
- Optional backfitting with a HEPA filter (H13) for more efficiency
- Recirculating or exit air operation available
- Worldwide distribution
2. Fractional collection efficiency

\[ x = \text{Particle size in } \mu\text{m} \]
\[ y = \text{Fractional retention rate in } \% \]

Aerosol: Wiolan SH 10
Raw gas concentration: 50 mg/m³
Volume flow: 600 m³/h

1 = Filter cartridge as delivered
2 = Filter cartridge after 100 operating hours

3. Operating principle

Oil aerosols are sucked away from the machining space of machine tools. The oil-laden air flows outward through the coalescer element from the inside. The oil attaches itself to the fibre media as it passes through the filter. Minute oil droplets "coalesce" to form larger drops. These larger droplets migrate downwards on the coalescer element due to gravity. The oil accumulates at the bottom of the housing and is returned to the cooling lubricant storage reservoir via the oil drain hose and the membrane valve. The vacuum in the filter housing causes external air to be sealed off by the membrane valve. The valve opens automatically when the oil in the drain hose reaches a height of at least 500 mm. The cleaned airflow is sucked away by means of a high-pressure fan and blown out at the top through a silencer.

4. Application

Suitable for non-water-miscible cooling lubricants (cutting oil, grinding oil, drilling oil) and oil aerosol exhausted by machine tools and also for water-miscible cooling lubricants.

Operating limits

If oil is used as cooling lubricant for machining processes, air usually has to be sucked away from the working area to prevent the atomized oil from dispersing. The concentrations that often occur in the cooling lubricant jet or in the machine room could result in ignition in case of tool breakage, for example. If the machining process involves flammable cooling lubricants or flammable materials, safe operation must be ensured by providing suitable fire and explosion protection devices in conformance with statutory regulations.

Installation in potentially explosive atmosphere (Zones 0, 1 and 2) is not permitted!

5. Product information

LGA 1200 FU and FUW
The LGA 1200 is a filtering separator with optional pre-separation in FUW version.
It is driven by a frequency controlled motor. A volumetric flowrate sensor supplies the actual value required to obtain a constant volume flow of 1200 m³/h. If this value falls below the setpoint, an electrical signal is output at approximately 900 m³/h. These signals can be evaluated to enable suitable maintenance action to be taken.

6. Order numbers

<table>
<thead>
<tr>
<th>Type</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGA 1200 FU RAL7035</td>
<td>70526210</td>
</tr>
<tr>
<td>LGA 1200 FUW RAL7035</td>
<td>70386720</td>
</tr>
</tbody>
</table>
7. Modules/main components

1. Membrane valve (FU 1x/FUW 2x)
2. Oil hose (FU 1x/FUW 2x)
3. Air inlet nozzle
4. Oil drain nozzle (FU 1x/FUW 2x)
5. Pre-separation element (only FUW)
6. Coalescer element
7. Housing
8. Filter housing
9. Eyebolt for transport
10. Fan
11. Electric motor
12. Air outlet nozzle/base for HEPA filter
13. Silencer
14. Connection port
15. Volume flow display
16. Frequency converter
17. Volumetric flowrate sensor
18. Mounting base plate

8. Technical data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume flow</td>
<td>1200 m³/h</td>
</tr>
<tr>
<td>Temperature range</td>
<td>+10 °C to +80 °C</td>
</tr>
<tr>
<td>Air nozzles (2x Jacob)</td>
<td>200 mm/150 mm</td>
</tr>
<tr>
<td>Oil hose (2x)</td>
<td>PVC transparent 15x2 mm (5 m) (FUW 2x)</td>
</tr>
<tr>
<td>Filter</td>
<td>1 pre-separation element and 1 coalescer element (FU)</td>
</tr>
<tr>
<td></td>
<td>1 pre-separation element and 2 coalescer elements (FUW)</td>
</tr>
<tr>
<td>Filter surface</td>
<td>9.5 m²</td>
</tr>
<tr>
<td>Dimensions (LxWxH)</td>
<td>1155x641x1073 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>237 kg</td>
</tr>
<tr>
<td>Supply voltage</td>
<td>3 AC 400 V/PE, 50-60 Hz</td>
</tr>
<tr>
<td>Current consumption</td>
<td>9.5 A</td>
</tr>
<tr>
<td>Protection class electrical devices</td>
<td>IP54</td>
</tr>
<tr>
<td>Backup fuse</td>
<td>16 A</td>
</tr>
<tr>
<td>Connection port</td>
<td>Harting 10B</td>
</tr>
<tr>
<td>Motor output</td>
<td>4 kW</td>
</tr>
<tr>
<td>Motor speed</td>
<td>6190 U/min</td>
</tr>
<tr>
<td>Sound level</td>
<td>72 dB (A)</td>
</tr>
</tbody>
</table>
9. Dimensions

*1 Air outlet nozzle
*2 Air inlet nozzle
*3 Cover removable for changing element
*4 Side cover removable

HEPA filter (H13)
(further versions upon request)
Minimum clearance required 150 mm
10. Installation

1 Equipotential bonding
2 Suction pipe
3 Air inlet nozzle
4 Oil hose (2x)
5 Oil storage reservoir
6 Membrane valve (2x)
7 Exhaust air pipe

Note the minimum clearance of 480 mm is required for element removal!

11. Spare parts and accessories

<table>
<thead>
<tr>
<th>Order numbers for spare parts and accessories</th>
<th>Designation</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-separation element</td>
<td>70518319</td>
<td></td>
</tr>
<tr>
<td>Coalescer element (2x)</td>
<td>70373631</td>
<td></td>
</tr>
<tr>
<td>HEPA after-filter</td>
<td>72381953</td>
<td></td>
</tr>
<tr>
<td>Membrane valve *</td>
<td>78769697</td>
<td></td>
</tr>
<tr>
<td>Harting easy hood (19 30 010 1540)</td>
<td>70360184</td>
<td></td>
</tr>
<tr>
<td>Harting bush insert (09 33 010 2716)</td>
<td>70345233</td>
<td></td>
</tr>
<tr>
<td>Jacob pipe nozzle (11151431)</td>
<td>70346551</td>
<td></td>
</tr>
<tr>
<td>Jacob clamp ring (12152903)</td>
<td>79389081</td>
<td></td>
</tr>
<tr>
<td>Jacob NBR flanged sealing ring (10156951)</td>
<td>76141121</td>
<td></td>
</tr>
<tr>
<td>Jacob 90° bend (11151339)</td>
<td>70365712</td>
<td></td>
</tr>
<tr>
<td>Fan</td>
<td>70516277</td>
<td></td>
</tr>
<tr>
<td>Frequency converter</td>
<td>70514173</td>
<td></td>
</tr>
<tr>
<td>Volumetric flowrate display</td>
<td>70385600</td>
<td></td>
</tr>
<tr>
<td>Electrical plug connection</td>
<td>72374158</td>
<td></td>
</tr>
<tr>
<td>Oil hose 5 m *</td>
<td>70595658</td>
<td></td>
</tr>
<tr>
<td>Element sealing O-Ring</td>
<td>70378616</td>
<td></td>
</tr>
<tr>
<td>Element housing flanged sealing ring</td>
<td>70576597</td>
<td></td>
</tr>
</tbody>
</table>

* For FUW version are 2 elements needed
Filter element
Oil separator element for oil separator devices

1. Features

High performance aerosol separator element for separation of coolant from tooling machine exhaust air
3. Fractional collection efficiency

\[
x = \text{Particle size [\(\mu m\)]} \\
y = \text{Fractional retention rate [%]}
\]

Aerosol: Wiolan SH 10
Raw gas concentration: 50 mg/m³
Volume flow: 600 m³/h

1 = Filter cartridge as delivered
2 = Filter cartridge after 100 operating hours

4. Dimensions

x = Particle size [\(\mu m\)]
y = Fractional retention rate [%]

5. Application

Suitable for non-water-miscible cooling lubricants (cutting oil, grinding oil, drilling oil) and oil aerosol exhausted by machine tools and also for water-miscible cooling lubricants.

6. Technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume flow</td>
<td>600 m³/h</td>
</tr>
<tr>
<td>(\Delta p) mbar</td>
<td>40 mbar at 600 m³/h at the operating point</td>
</tr>
<tr>
<td>Temperature range</td>
<td>+10 °C up to +60 °C</td>
</tr>
<tr>
<td>Filter surface</td>
<td>46000 cm²</td>
</tr>
</tbody>
</table>

7. Order numbers

<table>
<thead>
<tr>
<th>Order numbers for spare parts</th>
<th>Designation</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coalescer element</td>
<td>79354390</td>
<td></td>
</tr>
<tr>
<td>Fixing nut for Coalescer element</td>
<td>76302996</td>
<td></td>
</tr>
</tbody>
</table>

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04/2019
Oil mist separation  
LGA Series 600, 1200 und 2400 FUW

for direct suction from tooling machine

Features

High performance oil mist separator unit for separation of coolant from tooling machine exhaust air

- High reliability
- Very low maintenance costs
- Low maintenance equipment
- High economic efficiency
- Low operating costs
- Service life up to two years possible
- Complies the labour-safety regulation „ASV“
Application examples

Further MAHLE products for tooling machine

Suction filter for dry tooling application
Automatic filter for cooling lubricants
Mechanical emulsion breaker
Screen basket filter
Fluid filters and elements

Further information or product sheets requested?

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Phone: ________________________________
Fax: ________________________________
Email: ________________________________
Theme: ________________________________
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www.fluid.filtrationgroup.com/en-US/contact

www.fluid.filtrationgroup.com

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