

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

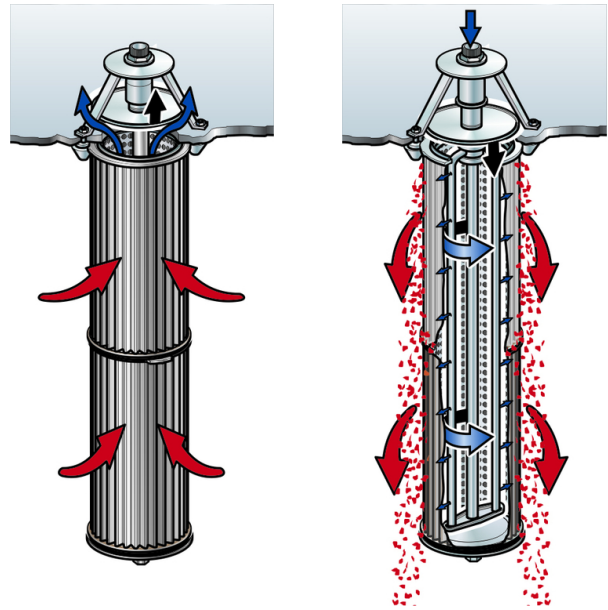
- Extremely efficient
- Uniform cleaning
- Versions for both the untreated and cleaned gas sides
- Low noise level
- Minimal consumption of compressed air
- Careful cleaning of cartridges
- Low cleaning pressure
- Suitable for high differential pressure load
- Worldwide distribution



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.



Filtration phase

Cleaning phase

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

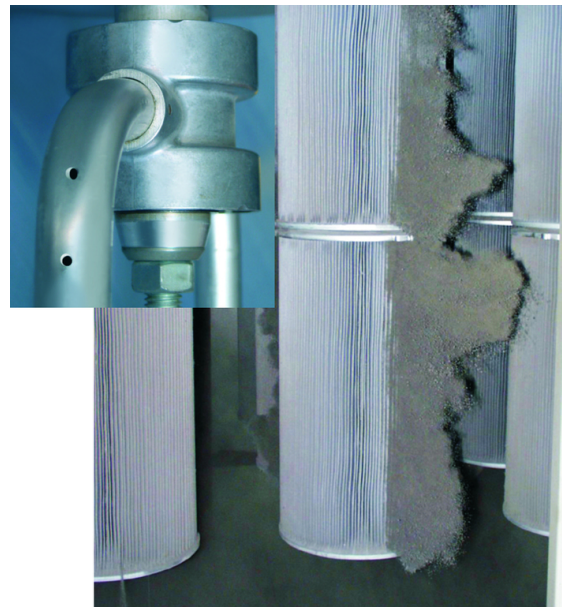
Differential pressure via filter plate: up to max. 30 mbar*

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

Compressed air connection: G $\frac{3}{4}$ male

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

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



Rotating wing during cleaning

Compressed air consumption		
Type designation	Capacity of pressure vessel [l]	Compressed air consumption per cleaning impuls [l] (fad)
RLD-32 03	10	Approx. 30
RLD-32 06	16	Approx. 50
RLD-32 10	32	Approx. 80
RLD-32 12	32	Approx. 90

* Depends on cartridge geometry

Technical data is subject to change without notice!

4. Ordering example

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

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 12 ROH A1 Ordering example

4.2 Order numbers

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

* 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.

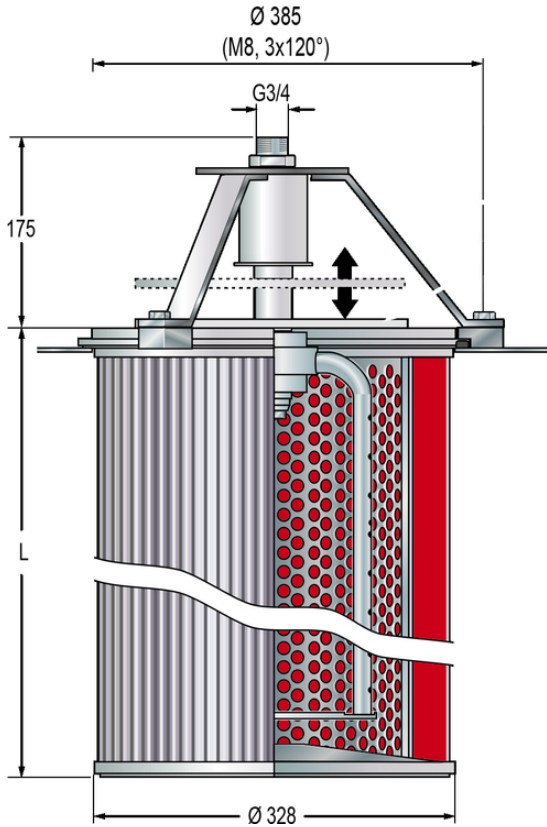
5. Accessories

Order number	Designation
79791104	Holding bolts PA6, pack of 3
77838568	Centre ring EL 033, galvanized steel
77934326	Centre ring EL 033, V2A stainless steel
77885031	Centre ring 2E 033, galvanized steel
78215220	Centre ring 2E 033, V2A stainless steel
76161913	Reusable end cap, galvanized steel
76161921	Reusable end cap, V4A stainless steel

6. Installation

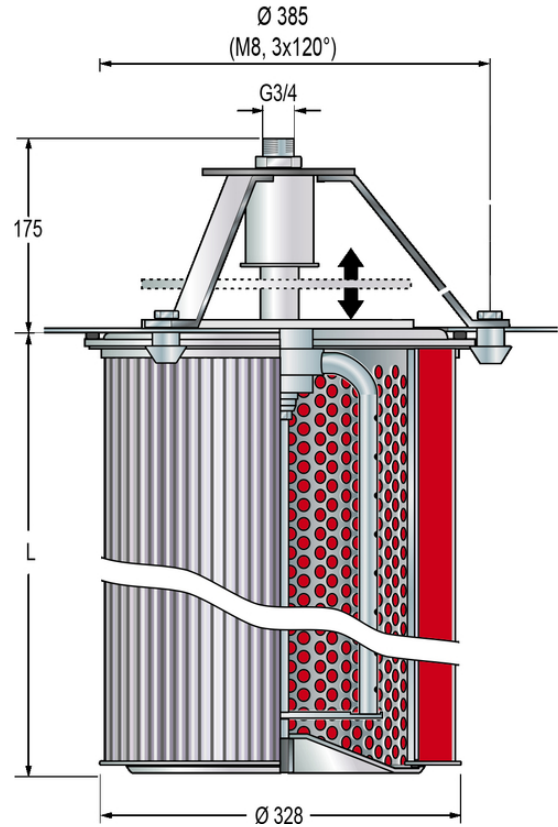
Rotating wing versions can be supplied for installation on the untreated or cleaned gas side.

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 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.

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