

Filter Technology

SimPact 4T



SimPact 4T

Characteristics

The SimPact 4T filter is characterized by a cylindrical design and an efficient pulse-jet system, automatically cleaning the filter bags in rows during operation. The SimPact 4T pulse-jet filter is designed for continuous operation with a low pressure drop.

The SimPact 4T filter holds remarkable qualities for separation of dry as well as sticky dust particles. The SimPact 4T filter is an economical solution for dust collection in industrial plants, and the investment is often paid back in terms of product recovery.

- Efficient pulse-jet cleaning
- Up to 50 percent vacuum resistance
- Maintenance-free execution
- Side or top removal of filter bags
- Available in sanitary design.
- Control system saving compressed air
- For dry as well as sticky products
- Advanced control functions
- Separation of almost any type of dust

Design

The SimPact 4T filter is designed to operate with dust explosion vents according to the German VDI 3673 guidelines, alternatively the European Standard EN 14491.

The design of the filter housing and the inlet zone ensures a smooth flow of coarse particles as well as fine dust particles into the filter.

The 4T concept of combining the ideal filter unit with either of the five inlet designs, renders the solution to almost any separation job.



Applications

- Building materials industry
- Chemical industry
- Plastics industry
- Food processing industry
- Feedstuffs industry
- Wood and paper industry
- Foundries
- Incineration industry
- Minerals industry
- Textiles industry
- Colour and enamel industry
- Ceramic industry

Approval by TÜV

Based on the increasing demands for protection of pulse-jet filters against explosions – Simatek’s filter programme has been tested and approved by TÜV Nord e.V., one of the leading institutions for approval of safety equipment.

The filters are pressure-shock resistant according to the German guidelines VDI 2263, and each filter unit can be supplied with an acceptance declaration, ensuring approval by the local authorities.



Control System

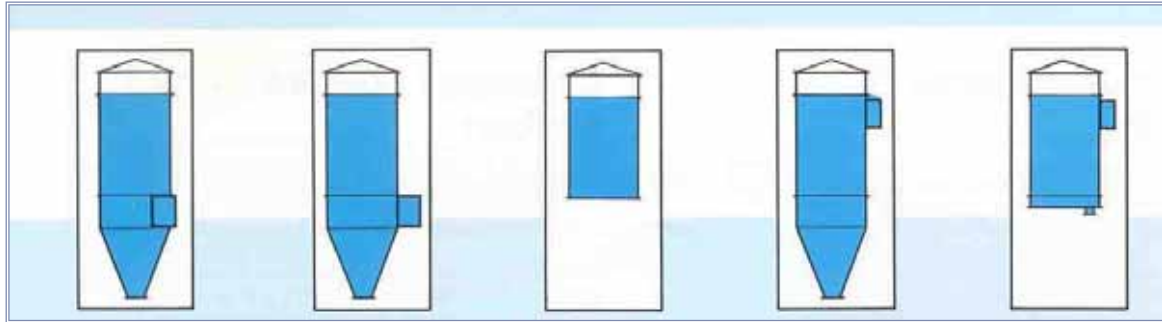
Filters with standard control unit have a mechanical pressure gauge indicating the pressure drop across the filter bags.

The optional, extended control unit is, however, equipped with a differential pressure transducer displaying the pressure drop by LEDs on the filter control board. The extended control adjusts the cleaning frequency to the actual pressure drop, keeping the pressure drop at a constant level. Thus the consumption of compressed air is minimized and the emission values improved.



SimPact 4T pulse-jet filters collecting marble, glass, and polyester dust at S.T.D. plant in France

4T Inlet Design



01
For dust mainly
containing
coarse particles

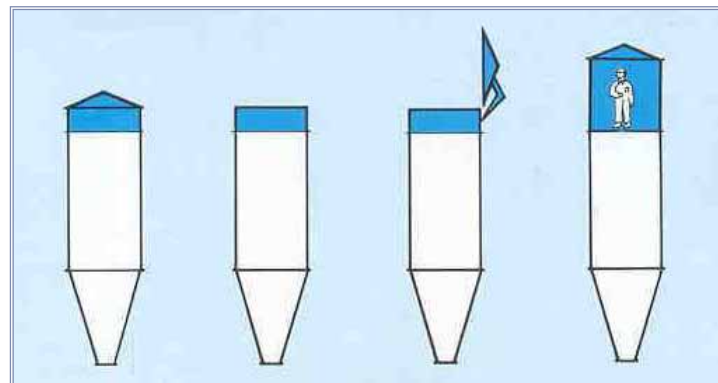
02
For large
amounts
of
material

03
For direct
mounting on
silos or
machines

04
For small and
medium
amounts of
dust containing
fine particles

05
Same as 04,
equipped
with a
scraper
bottom to
save height

4T Clean-Air Chamber



4T

4T1

4T2

4T3

Filter area m²

| | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| JM 7/- | 4.6 | 6.2 | 7.7 | 9.2 | 10.8 | - | - | - |
| JM 10/- | 6.6 | 8.8 | 11.0 | 13.2 | 15.4 | - | - | - |
| JM 14/- | 9.2 | 12.3 | 15.4 | 18.5 | 21.7 | - | - | - |
| JM 21/- | 13.9 | 18.5 | 23.1 | 27.7 | 32.3 | - | - | - |
| JM 32/- | 21.1 | 28.1 | 35.2 | 42.2 | 49.3 | - | - | - |
| JM 41/- | 27.0 | 36.1 | 45.1 | 54.1 | 63.1 | 72.1 | 81.1 | 90.2 |
| JM 52/- | 34.3 | 45.7 | 57.2 | 68.6 | 80.0 | 91.5 | 109.9 | 114.4 |
| JM 70/- | 46.2 | 61.6 | 77.0 | 92.4 | 107.8 | 123.2 | 138.5 | 153.9 |
| JM 90/- | 59.4 | 79.2 | 99.0 | 118.8 | 138.5 | 158.3 | 178.1 | 197.9 |
| JM 124/- | 81.8 | 109.1 | 136.4 | 163.7 | 191.0 | 218.2 | 245.5 | 272.8 |
| JM 146/- | 96.4 | 128.5 | 160.6 | 192.7 | 224.8 | 257.0 | 289.1 | 321.2 |
| JM 170/- | 112.2 | 149.6 | 187.0 | 224.4 | 261.8 | 299.2 | 336.6 | 374.0 |
| JM 198/- | 130.7 | 174.2 | 217.8 | 261.4 | 304.9 | 348.5 | 392.0 | 435.6 |

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