

# Filter Technology

Spot Filter



# Spot Filter

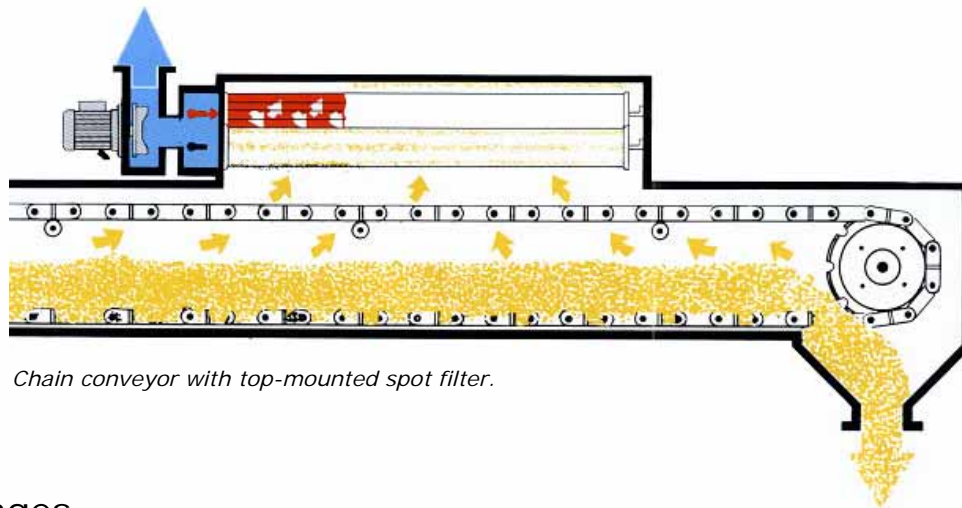
## Mode of Operation

The Simatek spot filter is a miniature bag filter designed to suppress dust emission from machines and silos operating with dusty products.

The Simatek spot filter removes a minor quantity of air from the more or less closed working machine. In this way, a slightly negative pressure is created which prevents dust particles from escaping through leaks or openings.

The built-on fan sucks air through the filter section mounted direct on the machine.

The dust is separated on the outside of the filter bags, and drops into the product stream when the filter bags are automatically pulse-jet cleaned.



*Chain conveyor with top-mounted spot filter.*

## Advantages

The Simatek spot filter is an extremely practical alternative to conventional central aspiration, and offers a number of advantages:

1. The dust being separated inside the filter is continuously returned into the product stream, thus preventing a mixing of different types of dust.
2. The Simatek spot filter delivers the cleaned air where the dust-laden air was removed. In this way, no pressure differentials will occur between the production rooms.
3. The amount of aspiration air is automatically adjusted by the built-on fan, depending on the extent of leakiness.
4. The large suction intake involves a very low admission speed, thus minimizing turbulence and dust circulation.
5. In the event of fire in a machine with built-on spot filter, the filter will not act as a connecting link to other machines.
6. The Simatek spot filters are just as suitable for extension of existing central aspiration plants as they are for building up complete plants, only based on spot filters.
7. With Simatek spot filters, existing plants are easily extended. New machines calling for dust aspiration are equipped with separate spot filters, and thus do not interfere with existing aspiration systems.

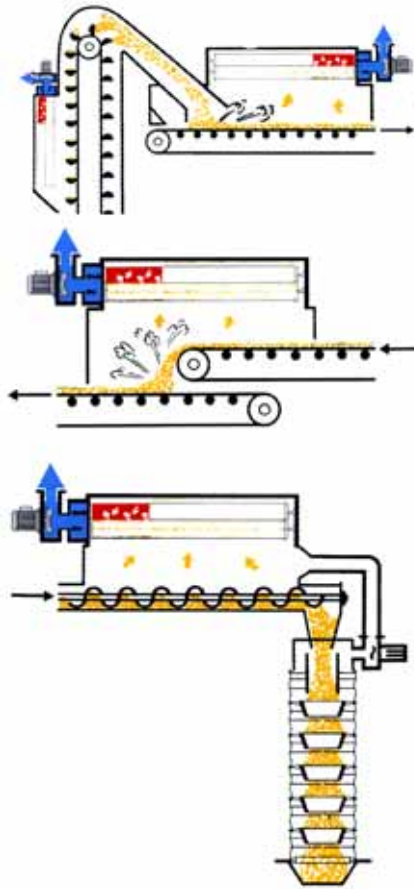
## Design

The Simatek spot filter is characterized by a simple and functional design.

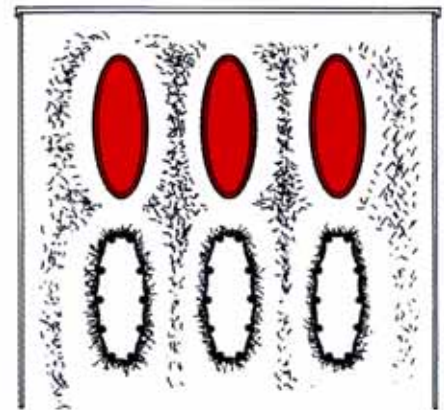
The low and slender design allows a very easy installation on conveyors and bucket elevators.

The filter bags are automatically pulse-jet cleaned, and the change of filter bags is easily accomplished through the large inspection door.

The Simatek spot filter is also available without a built-on fan, for connection to a large central fan.



## Continuous Pulse-Jet Cleaning during Operation



*The design provides a large cross-section between the filter bags.*



*Automatic pulse-jet cleaning of the filter bags regulated by an electronic control unit with adjustable pulse and pause time.*

*Protection class IP 65.*

## Energy Saving

Simatek spot filter with built-on fan is only in operation when the machine is working, thus ensuring energy saving, simplified control of the aspiration system, and a longer lifetime of the filter bags.



<b>Simatek Spot Filters</b> are available in different executions: - 2 mm galvanized plate - 2 mm stainless steel - 2 mm galvanized plate, powder-coated							Dimensions mm			
Filter Type	No. of Bags Qty.	Bag Length dm	Filter Area m <sup>2</sup>	Compr. air Consumpt. NI/(min.*)	Weight without Fan kg	Weight with Fan kg	A	B Vertical Inlet	B Horizontal Inlet	C
JM 3/14	3	14	1,5	15-30	55	70	725	1644	1414	396
JM 6/14	6	14	2,9	30-60	80	95	640	1834	1414	406
JM 6/19	6	19	4,0	30-60	95	125	650	2334	1914	406
JM 6/24	6	24	5,1	30-60	110	155	700	3024	2414	406
JM15/14	15	14	7,4	75-150	150	195	700	2024	1414	646
JM15/19	15	19	10,0	75-150	175	225	760	2524	1914	646
JM15/24	15	24	12,5	75-150	200	270	790	3024	2414	646

\*) Estimated figures, depending on the type of dust and the filter load  
(compressed-air quality acc. to ISO 8573 Class 3)

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Fan for Type	Capacity m <sup>3</sup> /h	Motor kW	Execution
3/14	480	0,37	Mild steel (st. 37), painted
6/14	1000	0,75	Galvanized plate
6/19	1400	1,1	Mild steel (st. 37), painted
6/24	1700	1,5	Mild steel (st. 37), painted
15/14	1700	1,5	Mild steel (st. 37), painted
15/19	2500	2,2	Mild steel (st. 37), painted
15/24	3000	2,2	Mild steel (st. 37) / Stainless steel

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