

Automatic filtration with no need of stopping the process

GENERAL DESCRIPTION

There is a need to remove solid particles from liquid process media in many branches of industry. The task of the self-cleaning filter is to separate the solid fraction from the stream of contaminated liquid. In this case, filtration takes place on a filter medium, which is a cylindrical slit screen. Accumulated sludge is automatically removed without stopping the filtration process. The device adjusts cleaning frequency to changing amount of solid contamination in the stream of liquid.

DESTINATION

Self-cleaning filters can be used as initial (coarse) separators as well as to perform through cleaning. This flexibility is possible due to wide range of available slit sizes – from 30 μm (0.03mm) to 2000 μm (2mm). We offer devices built accordingly to the process parameters. Our self-cleaning filters can work on flow rates ranging from few to hundreds of cubic meters per hour. Automatic self-cleaning filters can be successfully applied to filtration of high viscosity liquids like pastes, glues and resins. Thanks to world-wide unique shaft seal in the field of self-cleaning filters we can guarantee no leakages. Self-cleaning filters are perfect solution for wastewater treatment plants, factories, waste management and recycling plants. They are useful as technological water filters, process water filters, protection of pumps, heat exchangers and spray nozzles. They can work periodically and continuously.



PMA SERIES

Filtration accuracy

30 μm ; 50 μm ; 100 μm ; 150 μm ;
200 μm ; 250 μm ;
500 μm ; 800 μm ; 1 000 μm ; 2 000 μm ;

Seals:

NBR; EPDM; VITON; TEFLON;

Housing stainless steel type:

AISI 304; AISI 316L;

Nominal pressure:

PN 10; PN 16;

Available output signals:

Control in CUS option:

- Work
- Error
- Cleaning in progress
- Scraper position
- Pressure difference 4..20 mA
- microSD memory

Available fittings:

- thread;
- flange;
- Tri- clamp;
- Camlock;
- no fitting (device welded directly into the pipeline);

DIN; ISO; SMS;

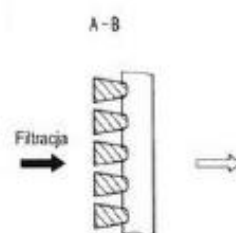
WORKING PRINCIPLE

The filter's controller system is continuously monitoring pressure drop on the filter medium. Automatic cleaning cycle starts after a set threshold of pressure difference is reached. The cleaning procedure starts with scraper moving from the upper side of the split screen down to the dump valve. While moving, the scraper removes the sludge that accumulated on the screen and transports it to the conical part of the filter. After the scraper reaches the bottom of the screen, it returns to its initial position.

In order to remove the collected sludge, the dump valve is opened. Frequency of valve openings is set in the filter's program.

AUTOMATICS

Automatic self-cleaning filters manufactured by Pro-mill are delivered with complete electronic equipment needed for proper operation of the device. Color touchscreen operator panel is mounted on the control cabinet. It allows display or change of working parameters of the filtration unit. Viewing of the process history is also possible. It can also be equipped with industrial communication ports (i.e. Profibus) and share information of its state with an operator in the control room. Uploaded program independently reminds of upcoming services of the device. If the version with automatic valves is chosen – the control cabinet controls the valves as well.



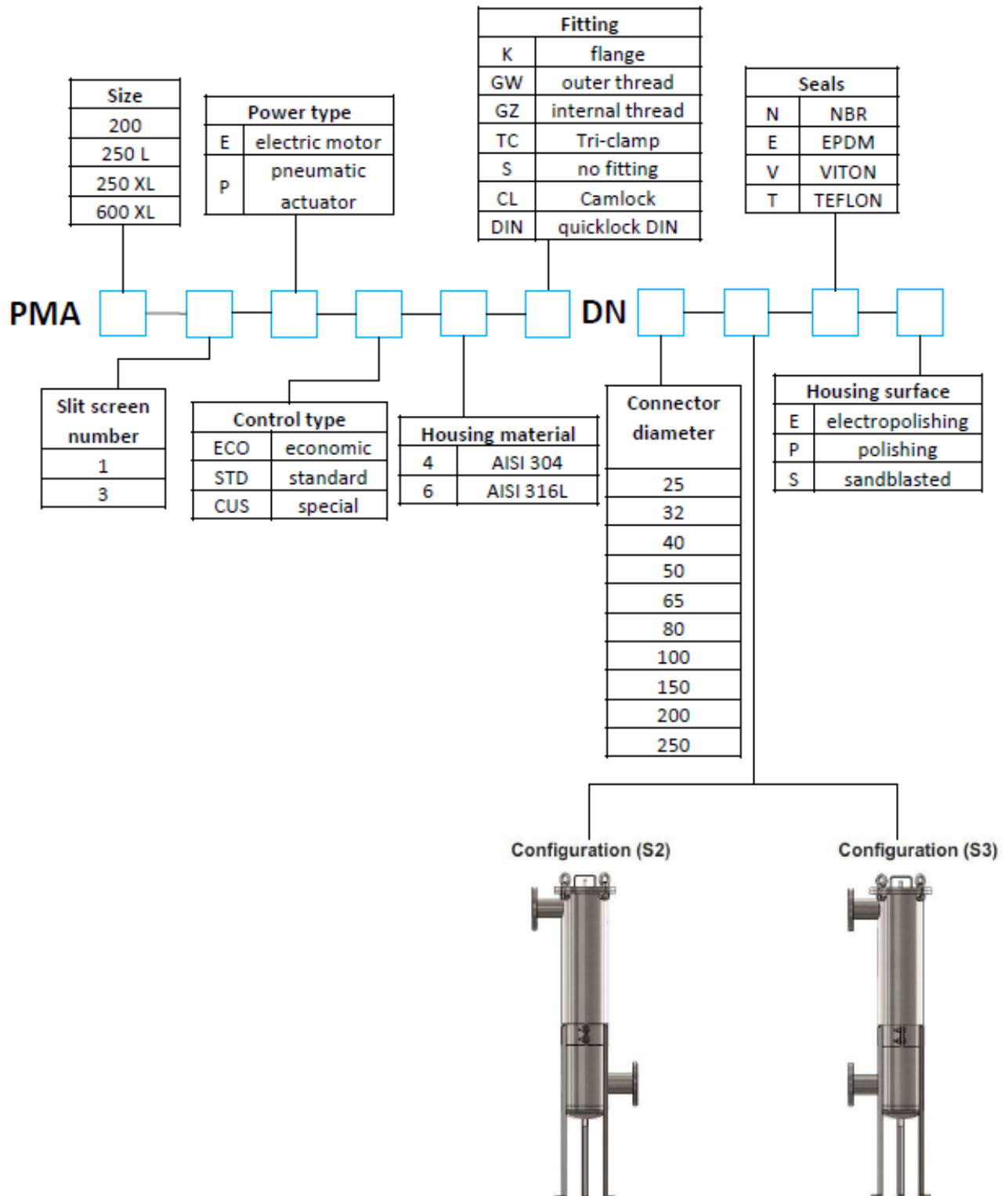
Available additional equipment:

- hand shut-off valves;
- automatic shut-off valves (controlled from control cabinet);
- additional valve enabling working on underpressure;
- bypass;
- adaptation for EX areas;

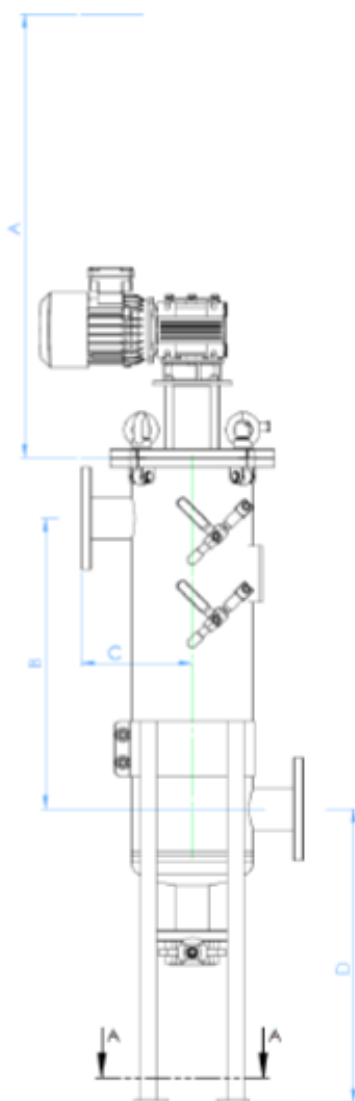


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PRODUCT CODE

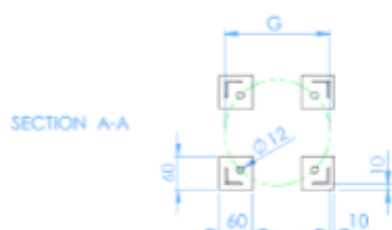
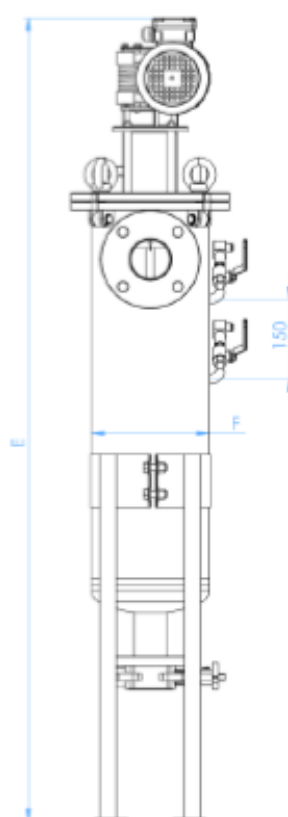


BASIC DIMENSIONS



Caution

These are just exemplary dimensions and drawings. At the client's request we can offer devices with other dimensions complying with the client's standards.



Size	A	B	C	D	E	F	G
200	800	525	200	530	1057	219.1	190
250 L	800	700	270	550	1751	273	359
250 XL	1050	1050	270	550	2001	273	359
600 XL	1050	800	500	965	2413	609.6	780