Smog duct filter

FSBQL-W9

Description

The smog filter is designed for effective filtration of the so-called particulate matter. The PM2.5 and PM10 particles are the main component of smog, which have an optical diameter of 2.5 and 10 μm (micrometers). The filtration efficiency (removal) of PM2.5 particles reaches up to 73%, and PM10 particles up to 81% (according to tests carried out with a dust particle measuring device). The smog duct filter consists of a sealed filter box and two filters: prefilter and smog filter.
It is recommended to install a smog filter on the supply ducts in domestic ventilation and heat recovery systems.
In the MOCarz-CA version prefilter I3 was replaced by an activated carbon prefilter (or activated charcoal). The main purpose of using such a material is deodorization of air and preliminary cleaning of dust and gaseous pollutants. Activated carbon has a huge adsorption surface, which effectively "binds" on its surface particles of pollutants, bacteria, hydrocarbons.

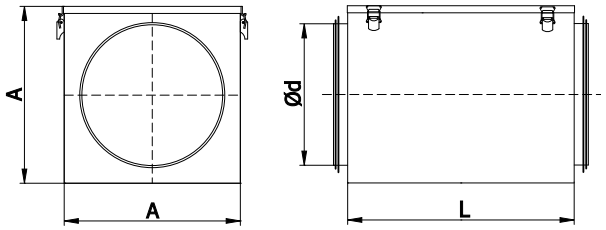
FSBQ-Ød-I3	- prefilter -ISO Coarse 45%
FSBQ-Ød-W9-CA	- prefilter with activated carbon ISO Coarse 70%
FSBQ-Ød-W9	- proper filter - ISO ePM1 80% (EN-ISO 16890)

Available materials - Product code examples
MOCarz-...- galvanized steel sheet

Product code example
Product code **FSQBL - 100 - W9 - CA**

type
Ød
type and class of the main filter
carbon pre-filter

Dimensions



Code	Ød [mm]	A [mm]	L [mm]
FSBQL-100-W9 / FSBQL-100-W9-CA	100	160	290
FSBQL-125-W9 / FSBQL-125-W9-CA	125	180	290
FSBQL-160-W9 / FSBQL-160-W9-CA	160	210	290
FSBQL-200-W9 / FSBQL-200-W9-CA	200	250	290
FSBQL-250-W9 / FSBQL-250-W9-CA	250	300	290
FSBQL-315-W9 / FSBQL-315-W9-CA	315	360	290

Air quality index

The AQI is an index for reporting daily air quality. It tells you how clean or polluted your air is, and what associated health effects might be a concern for you. EPA calculates the AQI for five major air pollutants regulated by the Clean Air Act amongst them particle pollution (also known as particulate matter).

Air quality index	PM2,5 [μg/m³]	PM10 [μg/m³]
Very good	0-12	0-20
Good	13-36	21-60
Moderate	37-60	61-100
Unhealthy for sensitive groups	61-84	101-140
Unhealthy	85-120	141-200
Very unhealthy	>120	>200

The measurements carried out (by ALNOR) indicate that the installation of the FSBQL-W9 filter allows to achieve at least a good air quality level for the supply air. The filtration result may be different for more polluted areas.

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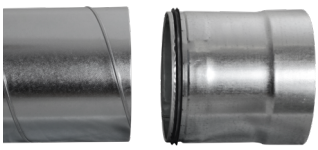
Air quality level	*Cautionary statement*
Very good	Air quality is very good, air pollution does not pose a threat to health, very favorable conditions for any outdoor activity, without limitations.
Good	Air quality is considered satisfactory, and air pollution poses little or no risk. The outdoor activity can be carried out without limitations.
Moderate	Air pollution can have health effect for sensitive groups (e.g. sick people, the elderly, pregnant women and young children). Moderate conditions for outdoor activities.
Unhealthy for sensitive groups	Air quality is sufficient, air pollution is a health hazard (especially for the sick, elderly, pregnant women and small children) and may have negative health effects. Consider restricting (shortening or staggering over time) outdoor activities, especially if this activity requires prolonged or increased physical activties, especially if this activity requires prolonged or increased physical activity.
Unhealthy	Air quality is bad, the sick and the elderly, pregnant women and young children should avoid being outdoors. The remaining population should minimize any physical activity in the open air - especially requiring prolonged or increased physical exertion.
Very unhealthy	Air quality is very bad and has a negative impact on health. Sick and elderly people, pregnant women and young children should absolutely avoid being outdoors. The remaining population should limit being in the open air to the necessary minimum. All physical activities outside are discouraged. Long-term exposure to substances in the air increases the risk of changes, among others in the respiratory, cardiovascular and immune systems.

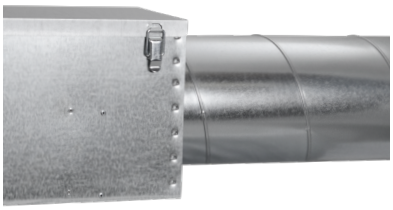
Assemebly

In the case of the filter box installation in the existing ventilation system, it is recommended to use the SMSFL coupling. The diameter of the filter should match the supply duct diameter and then follow instructions below (min. 50 cm duct section):

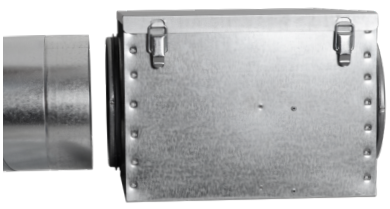
1. Cut off 38 cm long duct section.

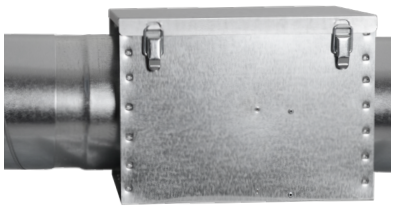


2. Insert SMSFL coupling into the duct.



3. Install the filter box on the opposite duct hole.





4. Insert the SMSFL coupling. Use WGO self-drilling screws to secure the installation.

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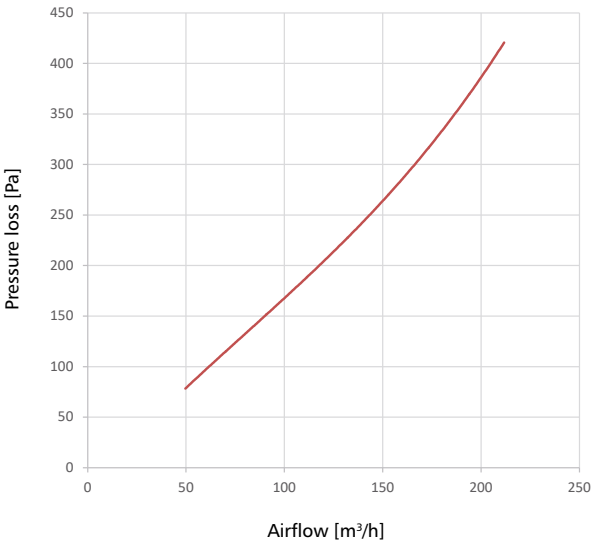
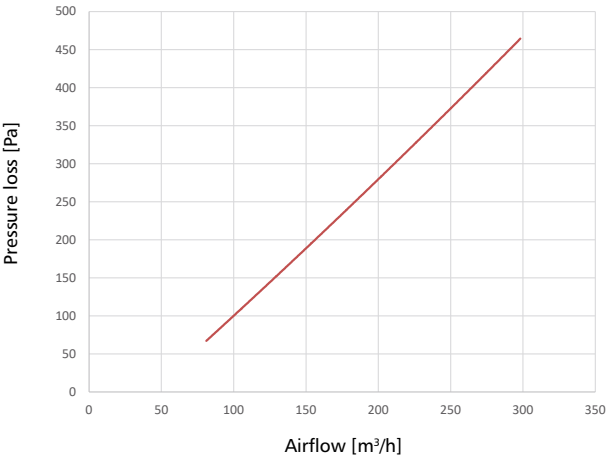
Technical data

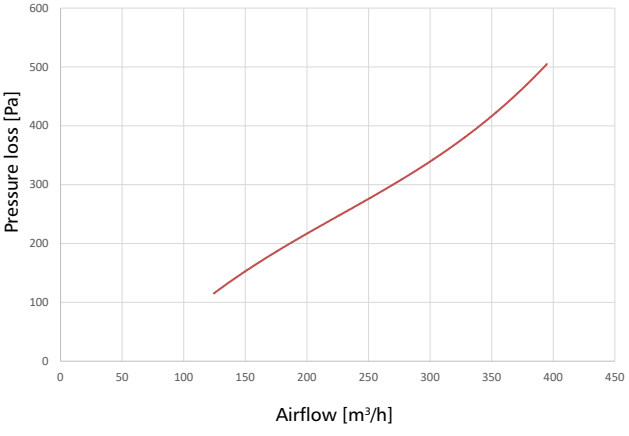
Pressure loss chart for
FSBQL-100-W9 / FSBQL-100-W9-CA



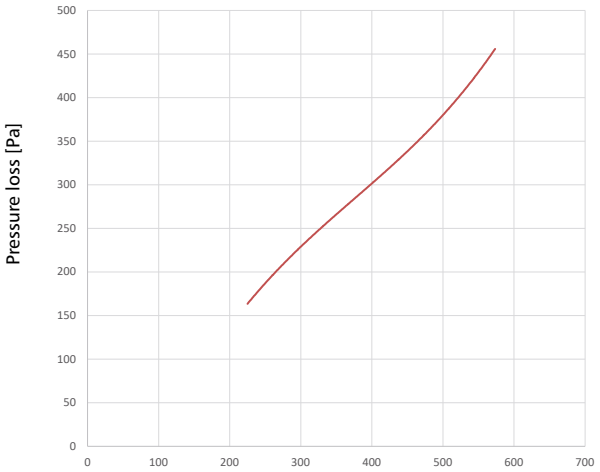
Pressure loss chart for
FSBQL-125-W9 / FSBQL-125-W9-CA



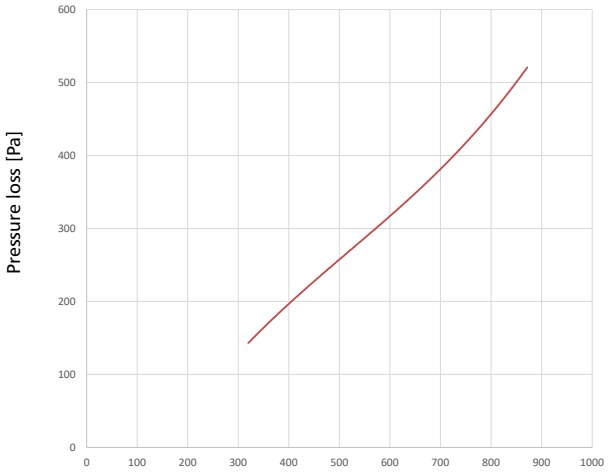
Pressure loss chart for
FSBQL-160-W9 / FSBQL-160-W9-CA



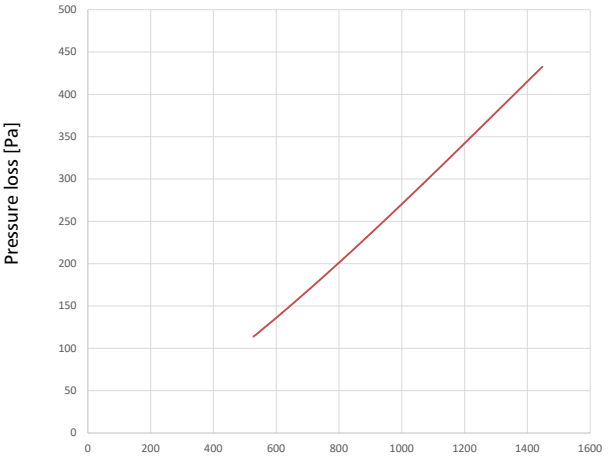
Pressure loss chart for
FSBQL-200-W9 / FSBQL-200-W9-CA



Pressure loss chart for
FSBQL-250-W9 / FSBQL-250-W9-CA



Pressure loss chart for
FSBQL-315-W9 / FSBQL-315-W9-CA



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