



Application

For cleaning the air from dust impurities and optionally for gas contaminations arising during various production processes, is appropriate the BIG-1000 filtering unit. It is irreplaceable for capturing the dry dust particles emitted during welding and other processes where fine dust arises. Maximum temperature of the conveyed air should not exceed +60°C. Due to automatically regenerated cartridge filters with teflon-coated membrane, dust particles, even smaller than 0,4µm are separated on the outer filter surface. By means of impulses of compressed air the contamination is periodically struck off from the filter surface.

BIG-1000 appliances are manufactured in two versions:

- mobile – with air recirculation,
- stationary – the air is discharged outside of building.

Structure

BIG-1000 filtering unit consists of:

- steel sheet housing,
- radial fan,
- spark catcher,
- high-efficiency cartridge filter – teflon-coated polyester paper – class H13,
- pneumatic filter regeneration system – compressed air tank, electromagnetic valves,
- waste container for the accumulated dust (capacity 30 litres),
- control unit – to start the device and control its function,
- a set of castor wheels for the mobile version (stationary version stands on four legs, which have to be screwed to the floor).

Operational use

The BIG-1000 appliance is adapted for installing of extraction arms of workrange 2 or 3 metres and 160 mm diameter.

There are two versions at your disposal:

1. mobile version – the appliance is with a set of castor wheels, the cleaned air is redirected to the process room (full air recirculation),
2. stationary version – it is equipped with an outlet ferrule for connection to the ductwork to discharge the air outside the building. In case of the stationary version it is admissible to install an extraction arm of workrange 4m, under the condition that the legs must be screwed to the floor.

Prior to startup, it is important to connect the device to the external compressed air installation of pressure 6-8 bars. When the device is started, the automatic filter regeneration system provides continuous work of the fan and automatic periodical filter cleaning by means of impulses of compressed air – without work interruption.

The filter cleaning grade is controlled by pressostat (pressure control). When the filter is excessively charged with dust (increased flow resistance, drop in efficiency), the yellow signalling lamp will go on.

Moreover, the appliance is equipped with a hour-meter to measure the time of operational use of the device.

Maintenance of filters consists in:

- periodical replacement of carbon spunbond filter (every several months),
- periodical replacement of the cartridge filter (every 1 – 2 years).

As option the appliance can be equipped with:

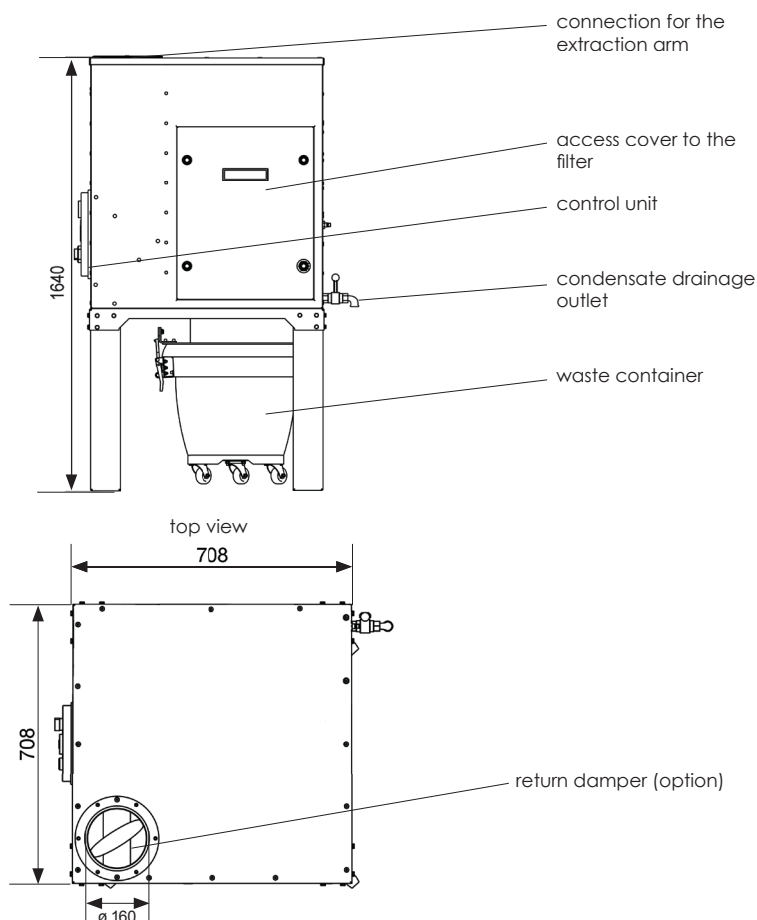
- return damper, protecting from emerging the dust outside the device – through the extraction arm suction hood (during the filter regeneration),
- active carbon impregnated spunbond filter – for filtering the gas contamination during the welding processes.

Technical Data

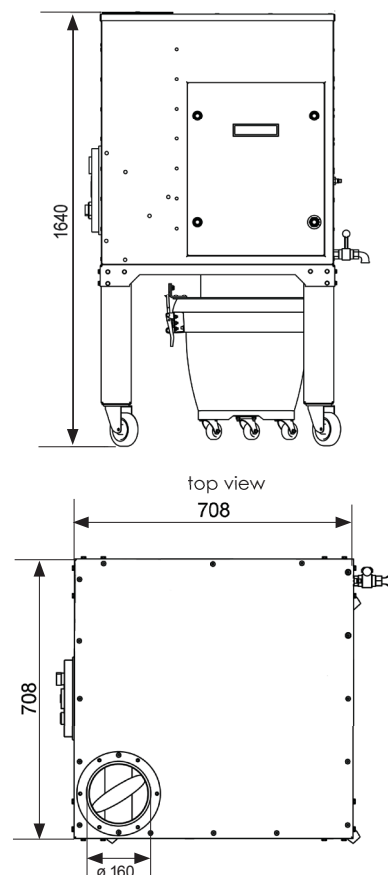
Type	Part.No	Maximum volume flow [m³/h]	Maximum vacuum [Pa]	Supply voltage [V]	Motor rate [kW]	Acoustic pressure level [dB(A)] from distance		Compressed air consumption [Nm³/h]	Weight [kg]	Quantity of connections for ERGO extraction arms
						1 m	5 m			
BIG-1000-O	804U44	1500	2000	230	1,1	75	61	0,7	136	1
BIG-1000-R	804U49								140	


BIG-1000
stationary version

front view



mobile version

front view




Additional Equipment

Return damper


	Type	Part.No	Weight [kg]	Remarks
	P-BIG	829P11	0,6	Due to the return damper, the dust is not getting out from the device during the filter cleaning. The damper is installed in the connection ferrule of the extraction arm.

Activated carbon impregnated spunbond

	Type	Part.No	Weight [kg]	Remarks
	FCR-BIG-1000	838F73	0,6	The spunbond along with the protective net is placed inside the cartridge filter.


Replaceable filters

Cartridge filter

	Type	Part.No	Weight [kg]	Class	Filtration efficiency [%]	Quantity of filters
	PTMb-085032T	838N18	4,2	H13	99,95	1

Caution: As standard the device is equipped with the PTMb-085032T.

Carbon filter insert

	Type	Part.No	Weight [kg]	Remarks
	WFCR-BIG-1000	838W95	0,3	The spunbond is placed between the internal diameter of the cartridge filter and the protective net.