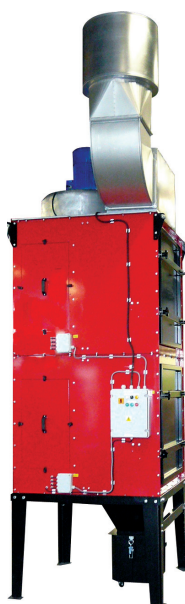




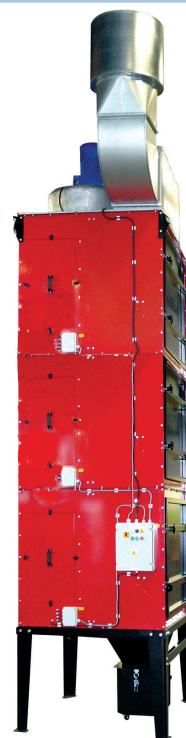
UFO-4-M/N-1



UFO-4-M/N-2



UFO-4-M/N-3



Application

The UFO-4-M/N filtering unit is applied for cleaning the dust laden air from impurities arising during the manufacturing processes. It is irreplaceable in capturing the dry dust formed during welding, grinding the non-sparking materials, gas- or plasma metal cutting and other dust-emitting processes in chemical-, pharmaceutical-, plastic industry, food production and others. The maximum temperature of the conveyed air is 60°C. The appliances are equipped with cartridge filters with a teflon membrane, filtering by surface, capturing even very small dust particles, of diameter smaller than 0,4µm.

Structure

The device consists of one filtration chamber (UFO-4-M/N-1), two filtration chambers (UFO-4-M/N-2) or three filtration chambers (UFO-4-M/N-3) – placed vertically one on top of another. On the filtration chamber is installed a fan and silencer assembly. The filtering chamber is based on a four-leg-base equipped with a hopper chamber and a waste container.

- UFO-4-M/N-1 – consists of 1 filtration chamber and a fan of volume flow 5000 m³/h,
- UFO-4-M/N-2 – consists of 2 filtration chambers and a fan of volume flow 10000 m³/h,
- UFO-4-M/N-3 – consists of 3 filtration chambers and a fan of volume flow 15000 m³/h.

Each filtration chamber is divided vertically with a divider in two spaces:

- chamber of filters – there are four self-cleaning cartridge filters with a teflon membrane class H13,
- chamber of electromagnetic valves – containing the compressed air tank supplied from the external installation of pressure 6 – 8 bar and four electromagnetic valves for filter regeneration by impulses of compressed air. The filter regeneration proceeds automatically.

The UFO-4-M/N is equipped with subsequent connection ferrules:

- Inlet connection Ø500 mm – (one on each filtration chamber), as standard it is located on the right side of the device when viewing at the filtration chamber. It is possible to swap the side walls so that the inlet is on the left side.

- Outlet connection 400x400 mm as outlet from the silencer. The outlet can be connected to the discharge installation or – in case of direct air discharge into the process room – it is recommended to fasten on the 400x400 outlet an additional silencer with a set of connection fittings (bend and reducer).

A control unit energizing the fan and controlling the pneumatic filter regeneration system is fastened to the device.

Additionally the device can be fitted with an inverter controlling the motor function.

Due to the rotation speed control of the motor, it is possible to adjust the flow efficiency of the device, whereby the vacuum is constant within the extraction installation.

Operational use

UFO-4-M/N filtering unit is appropriate for use in closed rooms as well as outdoors. The appliance ought to be fastened firmly to the floor. The UFO-4-M/N is designed for:

- use with installation consisting of local exhausts, e.g. extraction arms connected (through inlet ferrules) to the main collecting ductwork,
- general ventilation with air filtration. In this application it is important to place a multi-jet air-supply device WNK-8, and inlet wire-mesh grids SW-500 at the inlet ferrules.

Upon the device start, the control unit provides constant function of the fan and automatic filter regeneration by means of impulses of compressed air. Cartridge filters ought to be replaced after 1 – 2 years of operational use. In case when the device is applied for operating the plasma cutting or laser cutting, the flow efficiency of the filters decreases twice. Therefore, while selecting the UFO-4 for the above mentioned processes, one should take into account subsequent volume flows:

- for UFO-4-MN-1 2500 m³/h,
- for UFO-4-MN-2 5000 m³/h,
- for UFO-4-MN-3 7500 m³/h.

On demand of Customer, the device can be equipped with active carbon impregnated spunbond filters, for filtering the gases arising during welding processes.

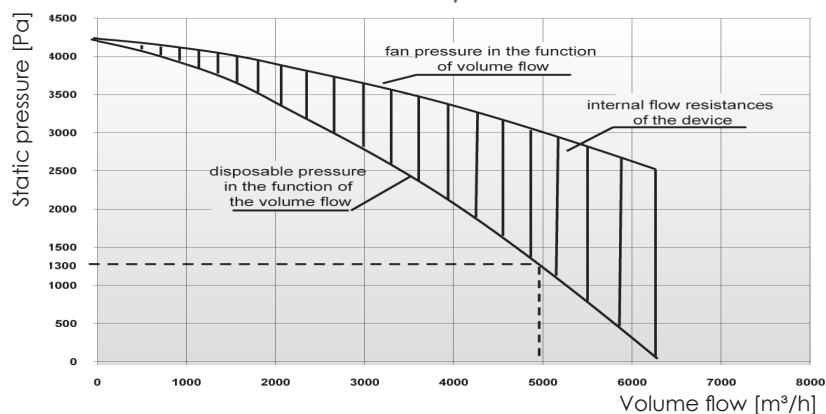


Technical data

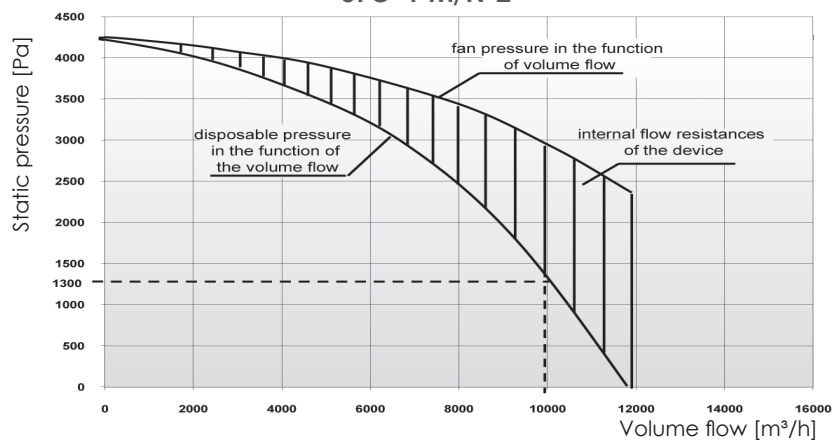
Type	UFO-4-M/N-1	UFO-4-M/N-2	UFO-4-M/N-3	UFO-4-M/N-1/R	UFO-4-M/N-2/R	UFO-4-M/N-3/R
Remarks	-	-	-	Assembly of efficiency adjustment.		
Part No.	804U85	804U86	804U87	804U05	804U06	804U07
Maximum volume flow [m ³ /h]	6300	12 000	16 200	6300	12 000	16 200
Maximum vacuum [Pa]	4200	4260	4800	4200	4260	4800
Motor rate [KW]	6,5	12	18	6,5	12	18
Supply voltage [V]	3×400	3×400	3×400	3×400	3×400	3×400
Acoustic pressure level [dB(A)]	72	76	79	72	76	79
Weight [kg]	565	860	1200	565	860	1200
Inlet diameter [mm]	1×Ø500	2×Ø500	3×Ø500	1×Ø500	2×Ø500	3×Ø500
Outlet diameter [mm]	400×400	400×400	400×400	400×400	400×400	400×400
Required pressure of the compressed air	0,6	0,6	0,6	0,6	0,6	0,6
Cartridge filters [pc] Part.No 838N05	4	8	12	4	8	12
Capacity of the waste container [dm ³]	72	72	72	72	72	72
Consumption of compressed air [Nm ³ /h]	2,8	5,6	8,4	2,8	5,6	8,4

Flow charts

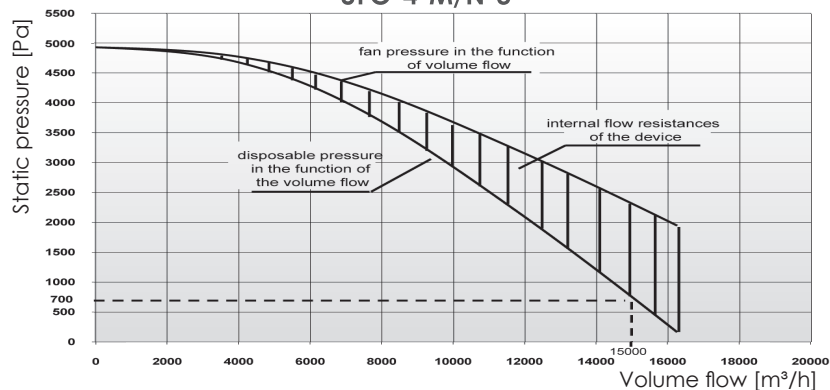
UFO-4-M/N-1



UFO-4-M/N-2



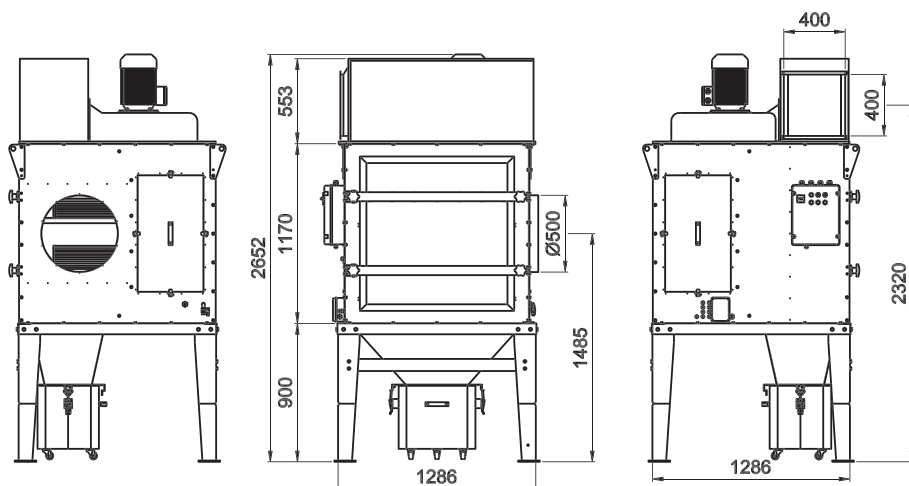
UFO-4-M/N-3



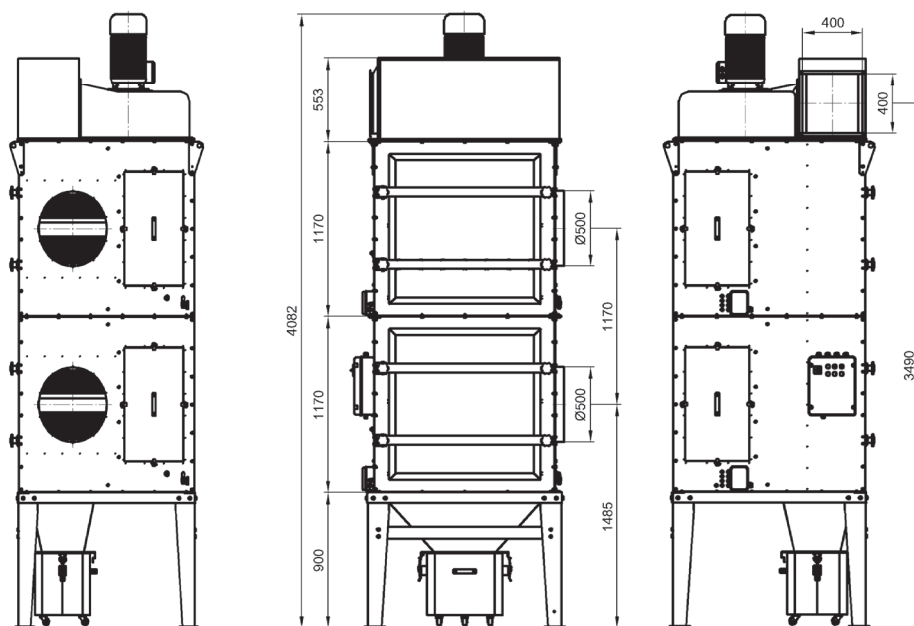
Caution: The flow charts have been prepared for the cartridge filters slightly polluted with dust and after having worn out 1500 welding electrodes ER24



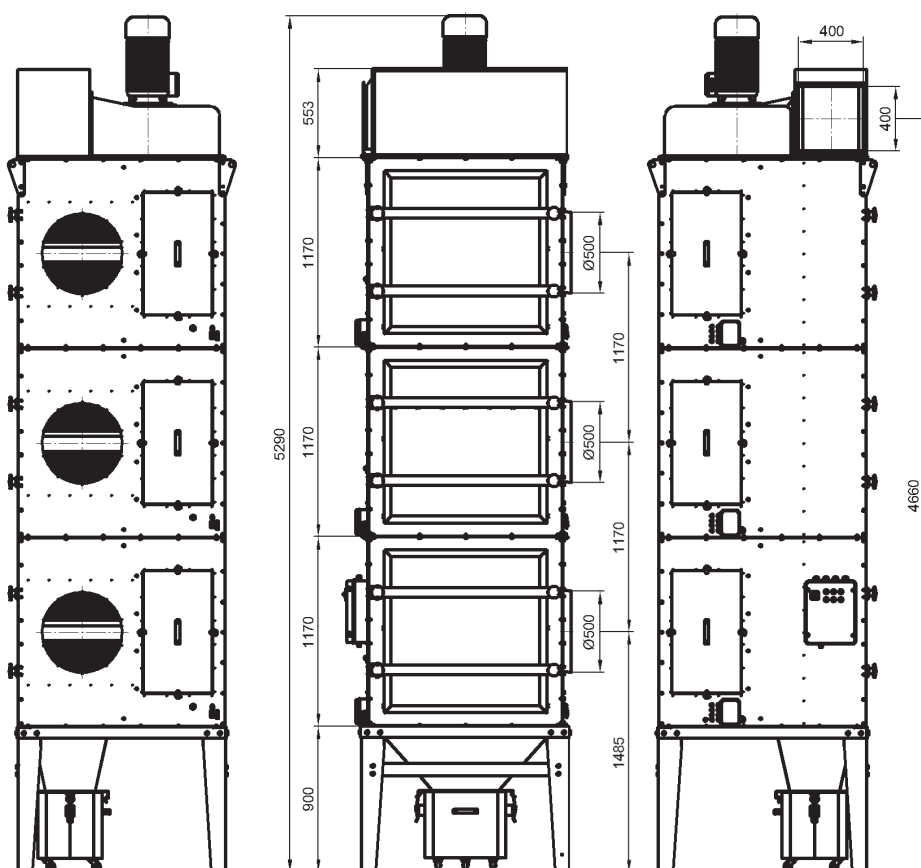
UFO-4-M/N-1



UFO-4-M/N-2



UFO-4-M/N-3





Replaceable equipment

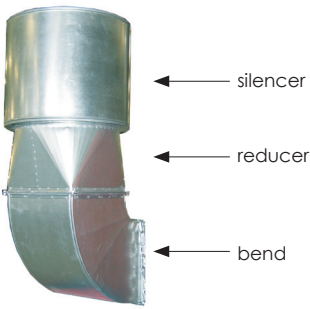

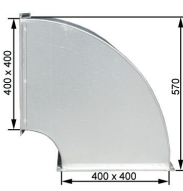
Cartridge filter

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

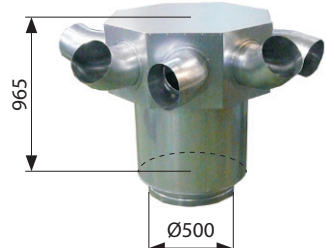
Caution: The standard devices are equipped with filters type PTMb-085032T class H13.

Additional equipment

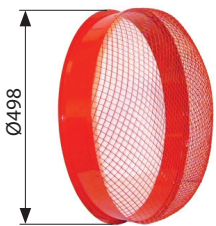
Additional sound absorbing assembly

		Remarks
		The assembly can be adjusted with the silencer outlet upwards or sideways. Components are specified below.
Reducer 400x400/Ø500 mm		Silencer
	Type	Part No.
	ZR-UF	829R82
		Bend 400x400 mm
		
		Type
		KL-UF
		Part No.
		829K97

Multi-jet air-supply device

	Type	Part No.	Outlet diameter [mm]	Weight [kg]	Application
	WNK-8/M-1	829W01	125	33	Fastened at the air outlet of the UFO-4-M/N unit in application of general ventilation.
	WNK-8/M-2	829W02	160	34	
	WNK-8/M-3	829W03	200	35	

Inlet grid

	Type	Part No.	Weight [kg]	Application
	SW-500	834Z35	1,3	As a guard of the outlets at free air discharge.