



Application

As a basic appliance, RAK filtering unit has been developed for cleaning the air from welding fumes, arising at mobile or stationary workplaces. It is designed for intermittent use at welding stations of not significant emission of welding dust. The device is efficient in capturing both, the dry, as well as viscous dusts, that arise during welding the oil-laden steel sheet and while using the anti-spattering liquids in large amounts. Each device features four-step filtration system pre-filter, filtering pad, compact filter and carbon filter, absorbing the part of gaseous contamination. At the moment the filters reach the limit pollution degree, replace them for new – they cannot be submit to regeneration.

Structure

RAK consists of subsequent elements:

- housing of steel sheet,
- radial fan,
- pre-filter – wire mesh of 0,8x0,01” holes,
- filtering pad – class G-3,
- compact filter – class F-9,
- spunbond filter impregnated with active carbon,
- control unit,
- hour-meter – to measure the work time,
- pressure control (pressostat),
- castor assembly for the mobile version, or a set of brackets for the wall mounted version.

Operational Use

RAK-type filtering unit is adapted to install castor wheels (mobile version) or wall brackets (stationary version). Both, mobile- and stationary version can work with extraction arms of work-range 2 or 3 metres.

The RAK series of units are of two sizes:

- RAK-1000 - adapted for installing of one extraction arm
- RAK-2000 - adapted for installing of two extraction arms

Air outlet of the RAK filtering unit is carried out in two ways: version RAK-R – the air is fully recirculated and redirected back to the process room, whereas in version RAK-O, there is an outlet ferrule providing connection to the discharge extraction ductwork, removing the air outside. For convenience of the operator, the connection ferrule can be fastened on the right or left side of the device.

The device is switched on through a control unit. The pressure control indicates by the signalling lamp the replacement necessity of the compact filter.

Periodical maintenance of the filter consists in:

- periodical cleaning the pre-filter of wire-mesh,
- periodical replacement of the filtering pad and the carbon spunbond,
- periodical replacement of the compact filter.

Technical Data

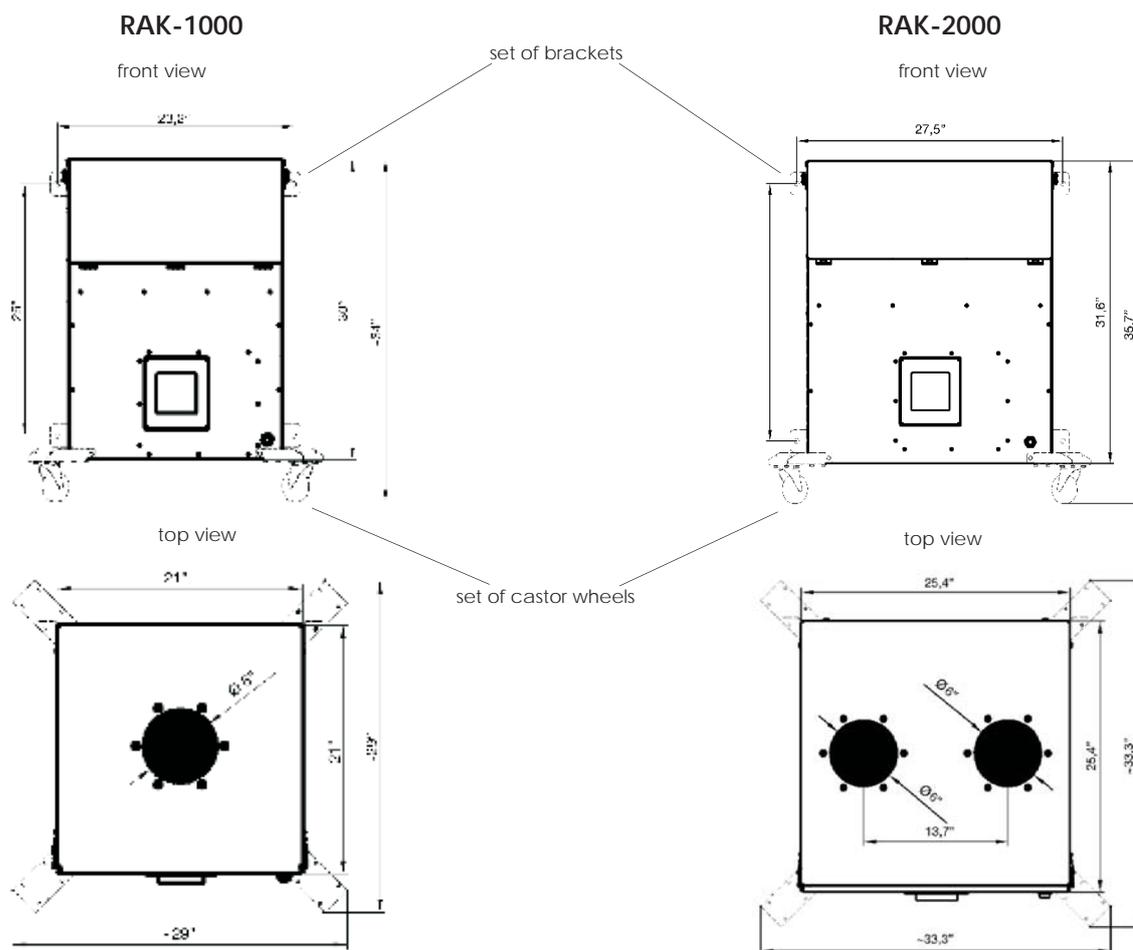
Type	Part. No	Maximum volume flow [cfm] ¹	Supply voltage [V]	Motor rate [HP]	Acoustic pressure level [dB(A)] from distance ²		Weight [lb]	Quantity of connections for ERGO extraction arms ³
					3,3 ft	16,5 ft		
RAK-1000-R	700O42	1060	120	1,5	76	62	143	1
RAK-1000-O	700O43				71	57		
RAK-2000-R	700O44	1560	120	2,0	79	65	187	2
RAK-2000-O	700O45				75	61		

- Caution:
1. Volume flow has been measured at the clean filters.
 2. Acoustic pressure level are given in conditions of free field.
 3. Full reference for the ERGO extraction arms is represented on separate catalogue cards.



Additional equipment

Type	Part.No	Remarks
 <p>Set of castor wheels</p>	828K00	<ul style="list-style-type: none"> Consists of 4 castor wheels along with the brackets (for RAK-1000 and RAK-2000)
 <p>Set of brackets</p>	828W00	<ul style="list-style-type: none"> Consists of 4 pieces of wall brackets (for RAK-1000 and RAK-2000)



Caution: Broken line illustrates the elements of additional equipment.

Replaceable filters

Filtering pad

Type	Part.No	Weight [lb]	Dimensions[in]	Class	Filtration efficiency [%]	Remarks	
	FWR-1000	838W78	0,4	19,3x19,3	G3	88	In each device is placed one filtration pad.
	FWR-2000	838W79	0,4	23,6x23,6			

Compact filter

Type	Part.No	Weight [lb]	Dimensions [in]	Class	Filtration efficiency [%]	Remarks	
	FKR-1000	838F47	5,5	19,3x19,3	F9	95,6	1 piece in RAK-1000
	FKR-2000	838F48	8,8	23,6x23,6		1 piece in RAK-2000	

Active carbon impregnated spunbond

Type	Part.No	Weight [lb]	Dimensions [in]	Remarks	
	FCR-1000	838W96	0,7	17,5x17,5	In each device is placed one sheet of spunbond. Dimensions of spunbond in FCR-2000 is given in the developed view.
	FCR-2000	838W97	0,7	22,6x27,6	