



APPLICATION

The VRB 100/721 Fan box is preferably used in laboratories for removing smaller air quantities. Corresponding to German standard DIN 1946, section 7, exhaust systems for chemical store cabinets, gas cylinder cabinets etc must be permanently in operation. Due to its excellent corrosion resistance, low noise generation, compact design, and easy installation, our VRB has proven to be a success. This simple device can also be used successfully in smaller rooms with heavy nuisance caused by smell and in solvent store rooms.

TECHNICAL DESCRIPTION

The fan box consists of a cylindrical base in which the impeller has been arranged. The drive motor is fastened with solid-borne sound insulation directly on the box.

All components for air guiding have been made of fire-retarding polypropylene.

The lower housing section is the suction compartment with three intake sockets with nominal diameter of 75 mm and offset by 90 degrees. This means that up to three suction spots can be connected directly to the fan. Sockets out of use are closed by covering caps.

A special shaft seal prevents the outlet of dangerous substances. Vibration absorbers matched in size and a bore at the lowermost level with closing cap are elements of the standard range of delivery.

The fan thus complies with DIN 1946, section 7.

CONDITION OF USE

permissible ambient temperature: -30 °C ... 40 °C (EX motors -20 °C ... 40 °C)

permissible temperature of medium conveyed: -30 °C ... 40 °C

Higher temperatures are subject to consultation with the manufacturers.

The applied materials have good **chemical resistance** against many substances. It should be considered, however, that even plastic materials are attacked by certain chemicals.

In laboratories and stockrooms for chemicals PPs can be used without any problem in most cases. Critical applications may occur in the process-technological industry - surface refinement, pickling plants, process exhaust air in microelectronics.

For selection of suitable materials the purpose of use of the fan and the type of medium conveyed should be specified in requests or orders.

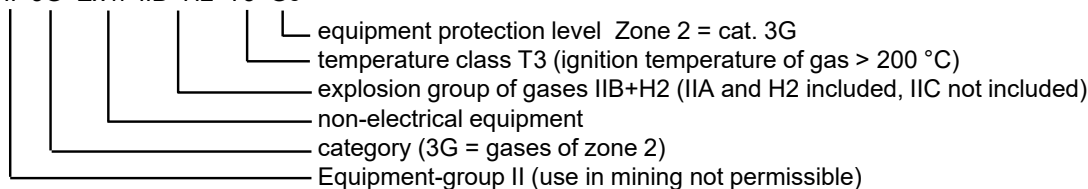
Permissible inclination of fan axis +/- 90° (Consider the condensate drain!)

EXPLOSION PROTECTION

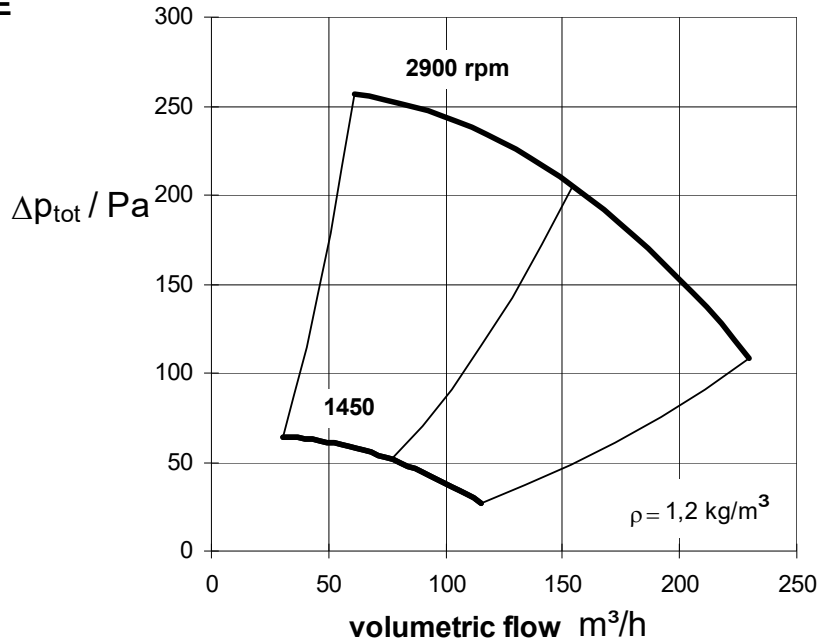


Guideline 2014/34/EU (ATEX) newly regulates explosion protection for non-electrical devices from March 29, 2014. Fans VRB in special design EX-Z2Z2 meet the demands of ATEX and safety instructions according to DIN EN ISO 80079 and DIN EN 14986. Motors in Ex eb II are employed and thus the fan has the following ignition protection:

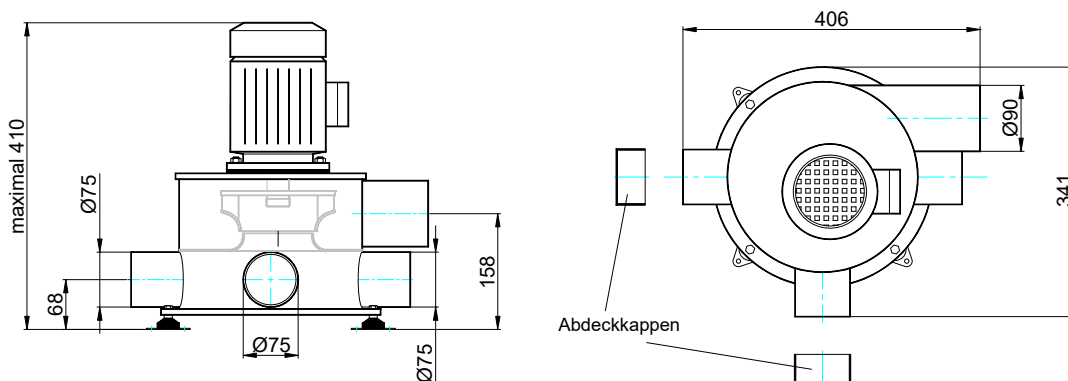
Zone 2: CE  II 3G Ex h IIB+H2 T3 Gc



PERFORMANCE



PRINCIPAL DIMENSIONS



MOTOR VERSIONS for standard motor 3~400V/50Hz

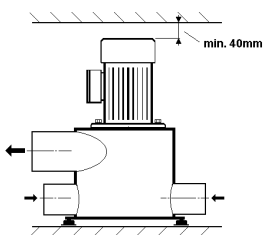
(Data for other motors, such as single-phase, polechanging or Ex, upon inquiry.)

fan type	speed rpm	power required kW	nom. motor power kW	nom. motor current A	weight with motor kg	L_{A3m} dB(A)	L_{WA} dB(A)	octave-band L_{WA-OKt} / dB(A)							
								63	125	250	500	1000	2000	4000	8000
VRB 100/721W1450	1450	0,0045	0,12	0,42	5,0	45	62	39	43	58	54	54	55	44	37
VRB 100/721W2900	2900	0,035	0,18	0,51	5,0	51	68	52	60	62	63	61	55	46	36

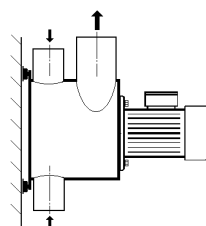
L_{A3m} = A - weighted sound pressure level at distance of 3 m
 L_{WA} = A - weighted sound power level in outlet

ASSEMBLY

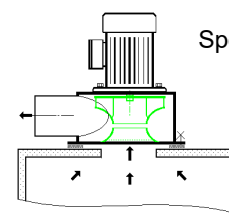
Suction and pressure lines are connected by flexible connectors or suitable plastic hoses. The fan must be arranged with vibration absorbers.




Assembly on / in a laboratory furniture




assembly on a wall



assembly with free intake
on a laboratory furniture

no.	quantity	specification		individual price EUR	Total price EUR
		<p>Fan box of plastic material Mietzsch Lufttechnik - VRB 100/721</p> <p>Object:</p> <p>Radial impeller with backward curved vanes, made of PPs with balancing quality G 6.3 according to DIN ISO 21940-11, fly-mounted on a shaft</p> <p>Cylindrical casing made of PPs with 3 intake sockets with cap, for connection with plastic hoses with condensate drain</p> <p>Direct drive by standard motor outside the flow conveyed, carried with vibration insulation Design in single-phase / three-phase / pole-changing Motor protection: no / thermistor (TS)</p> <p>Vibration absorbers included</p> <p>Safety equipment according to VDMA 24 167</p> <p>VRB 100 / 721 W <u> </u> - <u> </u></p> <p>nominal speed <u> </u> special version <u> </u></p> <p>Volumetric flow : <u> </u> m³/h Total pressure increase : <u> </u> Pa Temperature of medium : <u> </u> °C Motor power : <u> </u> kW Voltage / Frequency : <u> </u> V <u> </u> Hz Rated motor current : <u> </u> A Fan speed : <u> </u> rpm Sound level L_{A3m} : <u> </u> dB(A) Weight : <u> </u> kg</p> <p>Media / use:</p> <p>Special accessories and special equipment</p> <ul style="list-style-type: none"> ◆ Flexible plastic hoses with spiral hose clamps ◆ Repair switch: single / mounted, 3-poles with auxiliary contact / 6-poles with auxiliary switch ◆ Motor protection switch: single / mounted ◆ Other accessories 			


no.	quantity	specification		individual price EUR	Total price EUR
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Fan box of plastic material explosion-proof

Mietzsch Lufttechnik - VRB 100/721

Object:

Permitted for EX-Categorie according to EU-guideline 2014/34/EU (ATEX) :

	Location in relation to the fan	gas area 1	category	
			gas area 2	no EX-area
	inside		II 3G Ex h IIB+H2 T3 Gc	<input type="radio"/> no <input type="radio"/>
outside		II 3G Ex h IIB+H2 T3 Gc	<input type="radio"/> no <input type="radio"/>	

Radial impeller with backward curved vanes, made of PPs with balancing quality G 6.3 according to DIN ISO 21940-11, fly-mounted on a shaft

Cylindrical casing made of PPs with 3 intake sockets with cap, for connection with plastic hoses with condensate drain

Direct drive with **EX-motor** outside the flow conveyed , carried with vibration insulation
Protection: Ex eb II - increased safety

Direct drive by **standard motor** (no EX-protection) outside the flow conveyed carried with vibration insulation

Design in single-phase / three-phase / pole-changing

Motor protection: no / thermistor (TS)

Vibration absorbers included

Safety equipment according to VDMA 24 167

VRB 100 / 721 W _ _ _ _ - _ _ _

nominal speed _____
special version _____

Volumetric flow : _____ m³/h
 Total pressure increase : _____ Pa
 Temperature of medium : _____ °C
 Ambient temperature : _____ °C
 Motor power : _____ kW
 Voltage / Frequency : _____ V _____ Hz
 Rated motor current : _____ A
 Fan speed : _____ rpm
 Sound level L_{A3m} : _____ dB(A)
 Weight : _____ kg

Media / use:

Special accessories and special equipment

- ♦ Flexible plastic hoses with spiral hose clamps
- ♦ Repair switch: single / mounted, 3-poles with auxiliary contact , standard / explosion-proof
- ♦ Motor protection switch: single / mounted, standard / explosion-proof
- ♦ Other accessories