



ROOF FANS RF SERIES



INNOVATED COMPACT, SOLID DESIGN

INCREASED EFFICIENCY AND OUTPUT CONTROL

WIDE RANGE OF ACCESSORIES



BASIC CHARACTERISTICS

These quiet, fully controllable roof fans with vertical outlet are intended for air exhaust and ventilation of apartments, bathrooms, department stores, community centres, swimming pools, gymnasiums, kitchens and canteens, workshops, storage halls, stables, industrial and production plants, etc. Using a roof adaptor, these fans can be situated on flat as well as sloping roofs.

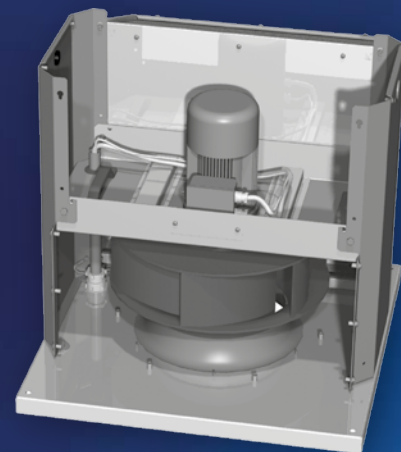
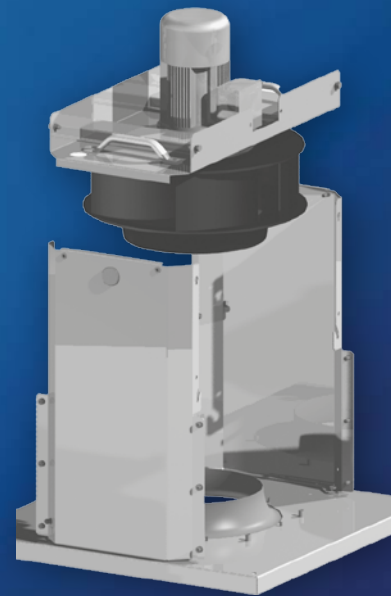
- Four basic sizes according to base dimensions (RF 40/.., RF 56/.., RF 71/.., RF 100/.. – 17 types of fans altogether).
- Air flow rate 400 to 13,000 m³/h
- Innovated compact, solid design
- Damper design preventing direct water penetration
- Enhanced parameters and reduced sound level.
- State-of-the-art plastic V-pro type impellers equipped with profiled blades
- Anticorrosive aluminium design
- Output control
- Wide range of accessories (roof adaptors, attenuators, back-flow dampers, elastic connections)
- Optional installation of Isolator switch

NEW V-PRO TYPE IMPELLERS PROVIDE

- Low sound level of the fan with profiled blades
- Excellent acoustics
- Increased efficiency (lower operating expenses)
- Drive made of composite materials
- Corrosion resistance
- Lower weight

TYPES AND SIZES

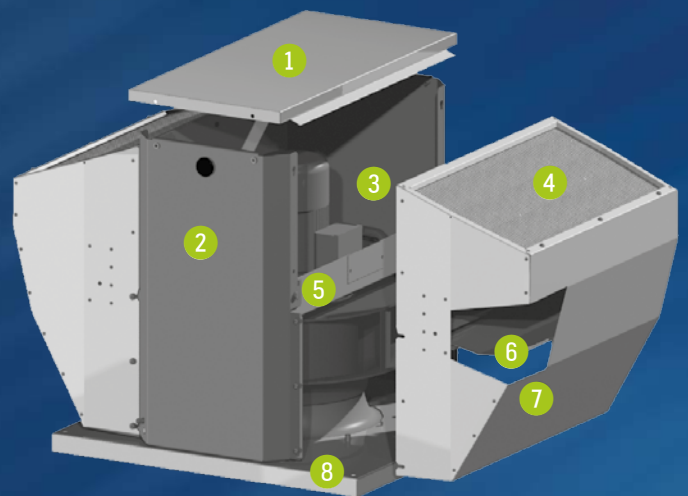
17 types of fans are available, 7 types equipped with single-phase motors and 10 types equipped with three-phase motors. 8 types of roof adaptors NK (respectively NDH – integrated attenuator) are available.



DESIGN

The external casing of RF fans is made of sheet aluminium, which provides very good resistance to corrosion in industrial and coastal areas. Basic support parts of the largest fan housing size RF 100/.. are made of sheet steel protected by backed powder coating. Removable compact outlet pockets are fitted with elements enabling quick water drainage and with gravity dampers protecting the fan's internal area against direct moisture penetration. A finely perforated protecting screen prevents dirt and foreign objects entering the fan impeller area.

- 1 Detachable upper cover
- 2 Basic support structure
- 3 Separate wiring area
- 4 Finely perforated protective inlet screen
- 5 Motor and power unit bracket
- 6 Gravity damper protecting impeller area
- 7 Easy to remove outlet pocket
- 8 Base with diffuser



UNLIMITED FAN SPEED CONTROL

The stepless control used for these fans can save up to 30% of electrical power.

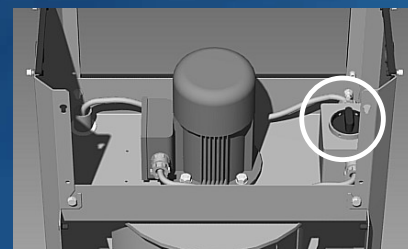
SINGLE-PHASE MOTORS:

- Stepless Voltage Control (PE)
- Five-Stage Voltage Control (TRN)

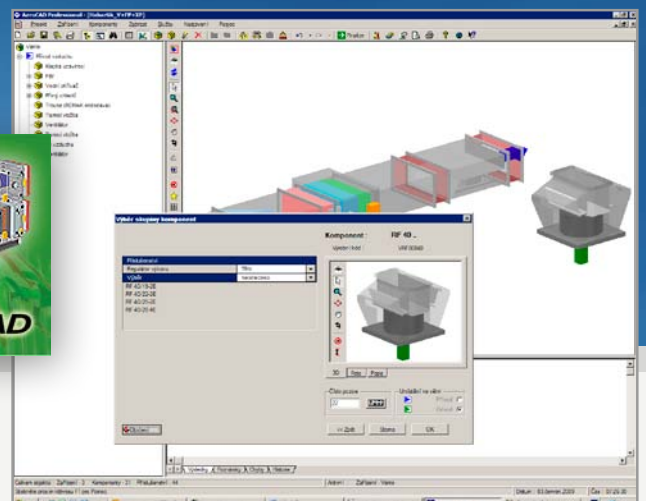
THREE-PHASE MOTORS

- Five-Stage Voltage Control using frequency inverter

The fan control is fully compatible with currently used devices, and of course it can be automatically designed using AeroCAD design software.



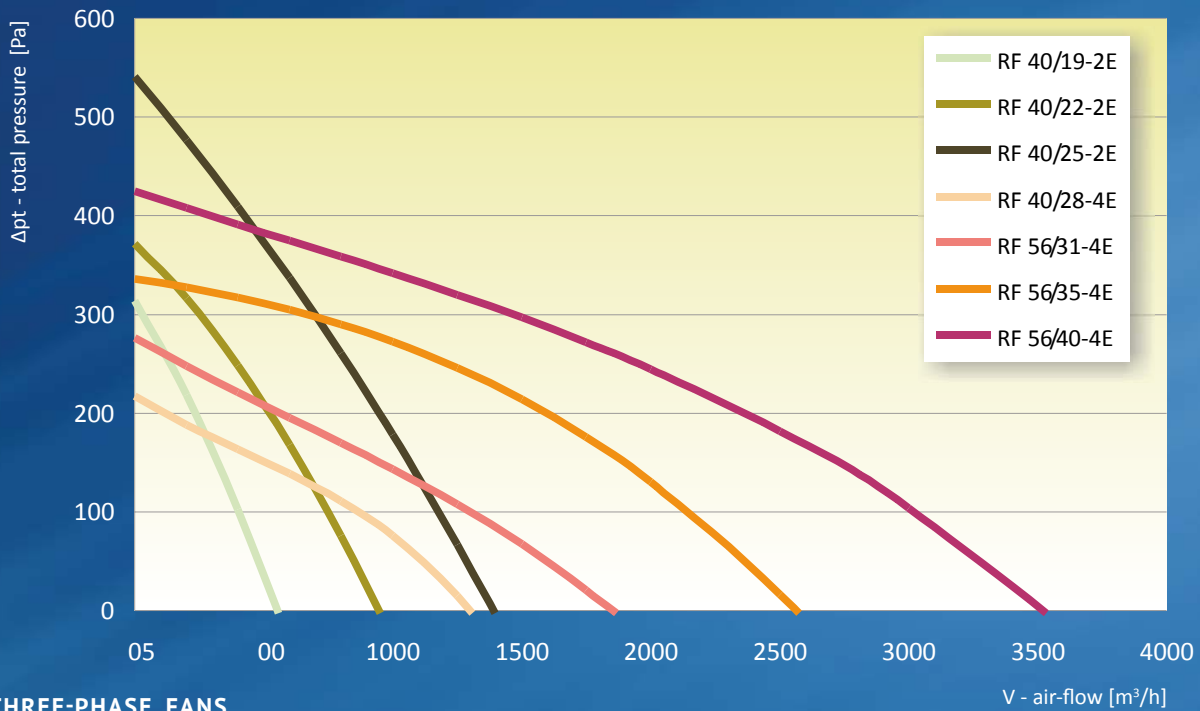
Isolator switch



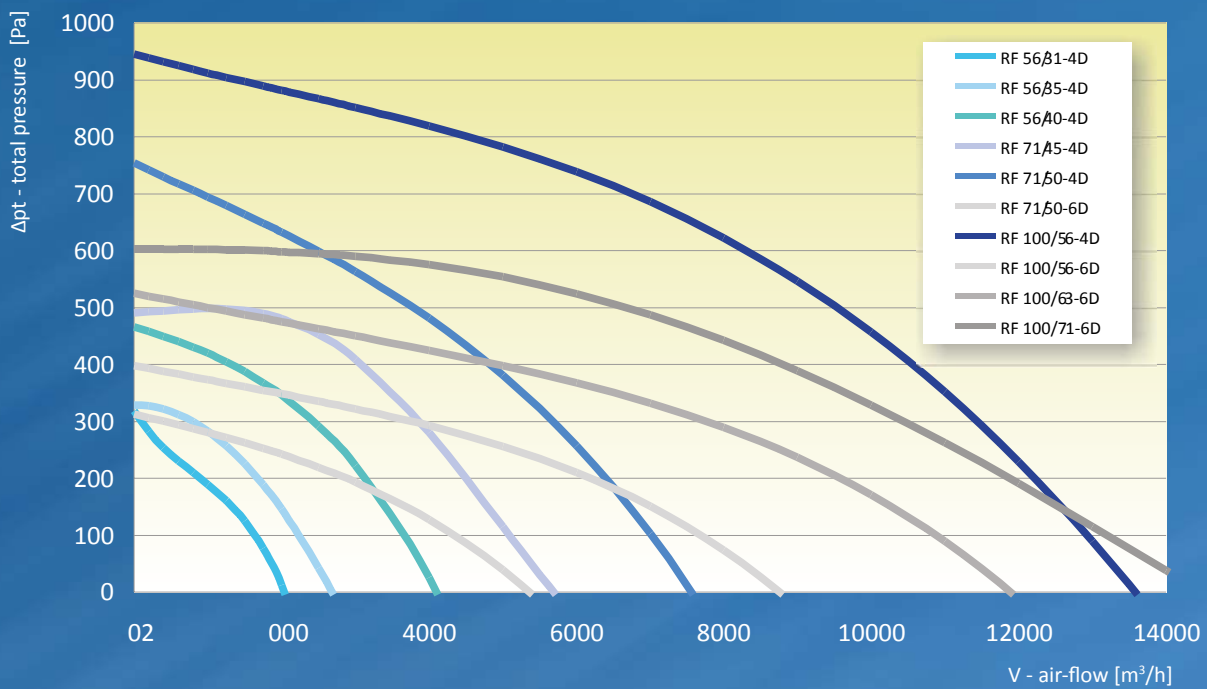
ROOF FANS, RF SERIES

QUICK FAN SELECTION

SINGLE-PHASE FANS



THREE-PHASE FANS



ROOF FANS, RF SERIES

PERFORMANCE GUIDE

BASIC PARAMETERS AND NOMINAL VALUES OF RF FANS													
	Power unit (*)	V _{max}	p _{max}	P _{max}	U _{nom}	Number of motor poles	n _{nom}	t _{max}	Motor degree of protection	Sound power to the inlet	Sound power to the surroundings	Weight	Power unit weight
		m ³ /h	Pa	W	V		min ⁻¹	°C		IP	L _{WA} dB(A)		
SINGLE-PHASE MOTORS													
RF 40/19-2E	MOK	550	310	60	230	2	2500	60	IP44	67	71	11,5	3,8
RF 40/22-2E	MOK	950	370	100	230	2	2560	60	IP44	70	74	12,0	4,2
RF 40/25-2E	MOK	1 350	540	200	230	2	2420	60	IP44	73	76	12,5	5,0
RF 40/28-4E	MOK	1 250	220	110	230	4	1360	60	IP44	62	68	12,5	4,7
RF 56/31-4E	MOK	1 800	280	140	230	4	1240	60	IP44	70	70	22	7,7
RF 56/35-4E	MOK	2 500	330	310	230	4	1360	60	IP54	71	72	25	10,5
RF 56/40-4E	MOK	3 500	420	490	230	4	1350	60	IP54	72	74	27	12,0
THREE-PHASE MOTORS													
RF 56/31-4D	OK+M	2 000	320	120	400	4	1360	40	IP55	68	71	25	10,5
RF 56/35-4D	OK+M	2 600	330	250	400	4	1380	40	IP55	71	74	26	11,5
RF 56/40-4D	OK+M	4 000	470	550	400	4	1400	40	IP55	74	77	30	15
RF 71/45-4D	OK+M	5 700	500	750	400	4	1400	40	IP55	80	80	40	21
RF 71/50-4D	OK+M	7 400	750	1100	400	4	1400	40	IP55	81	84	43	23
RF 10/56-4D	OK+M	13 000	900	2200	400	4	1420	40	IP55	78	83	125	50
RF 71/50-6D	OK+M	5 200	310	370	400	6	900	40	IP55	72	72	40	20
RF 100/56-6D	OK+M	8 200	380	550	400	6	900	40	IP55	66	66	115	41
RF 100/63-6D	OK+M	11 500	500	1100	400	6	910	40	IP55	74	80	117	45
RF 100/71-6D	OK+M	14 000	600	2200	400	6	940	40	IP55	84	87	135	60

(*) Note: MOK ...Compact motors with an external rotor situated in the air flow, OK+M ...IEC asynchronous motor situated outside the air flow, impeller on the shaft

FANS ACCORDING TO TOTAL PRESSURE/MAX. AIR FLOW			
According to max. pressure		According to max. air flow	
Fan type	Total pressure pt max (Pa)	Fan type	Max. air flow V (m ³ /h)
RF 40/28-4E	220	RF 40/19-2E	550
RF 56/31-4E	280	RF 40/22-2E	950
RF 40/19-2E	310	RF 40/28-4E	1 250
RF 71/50-6D	310	RF 40/25-2E	1 350
RF 56/31-4D	320	RF 56/31-4E	1 800
RF 56/35-4E	330	RF 56/31-4D	2 000
RF 56/35-4D	330	RF 56/35-4E	2 500
RF 40/22-2E	370	RF 56/35-4D	2 600
RF 100/56-6D	380	RF 56/40-4E	3 500
RF 56/40-4E	420	RF 56/40-4D	4 000
RF 56/40-4D	470	RF 71/50-6D	5 200
RF 71/45-4D	500	RF 71/45-4D	5 700
RF 100/63-6D	500	RF 71/50-4D	7 400
RF 40/25-2E	540	RF 100/56-6D	8 200
RF 100/71-6D	600	RF 100/63-6D	11 500
RF 71/50-4D	750	RF 100/56-4D	13 000
RF 100/56-4D	900	RF 100/71-6D	14 000

Table shows all RF fans arranged in the first column according to total pressure and according to maximum air flow in the second column are listed in table. However, in most cases the air flow rate–pressure interrelationship is more important than just the maxima of individual values.

ACCESSORIES

ACCESSORIES FOR FAN SPEED CONTROL

- STE and STD protecting relays
- Electronic PE controller
- Frequency inverter
- TRN-E five-stage controller
- ORe 5 controller
- Isolator switch



STD, STE
protecting relays



ORE 5
start-up and air-flow
control (5 stages)

FM
frequency
inverter



TRN
five-stage
voltage
controller



PE
electronic
controller

ACCESSORIES FOR INSTALLATION

- NK & NDH roof adaptors
- VS low-pressure damper
- DK elastic connections
- Reduction



NDH, NK
roof adaptor



VS, DK
low-pressure damper,
elastic connections

FAN BASE INSTALLATION

- 1 RF Roof Fan
- 2 Fan base
- 3 Self-acting VS low-pressure damper
- 4 Thermally-insulated NDH roof adaptor
- 5 Attenuator in the NDH roof adaptor
- 6 Plumbing flashings
- 7 Roof hydro-insulation
- 8 Roof beams and boards (respectively concrete)
- 9 Roof adaptor base

