

RFM/RFT – CENTRIFUGAL ROOF FANS



Description

- Series of single inlet direct-drive centrifugal fans
- Impeller type TA with radial tip designed of curved blades is used. The shape of blades prevent from retaining contamination.
- Suitable for conveying polluted air containing dust and/or oil mist, but not exceeding 200 mg/m³
- The impellers made by "TANGRA-AV" are statically and dynamically balanced.
- Motors are single or three phase 230/380 V/50 Hz.

Construction

- The fan casing and steps are produced from galvanized metal sheet with powder coating.

Class and operating temperature

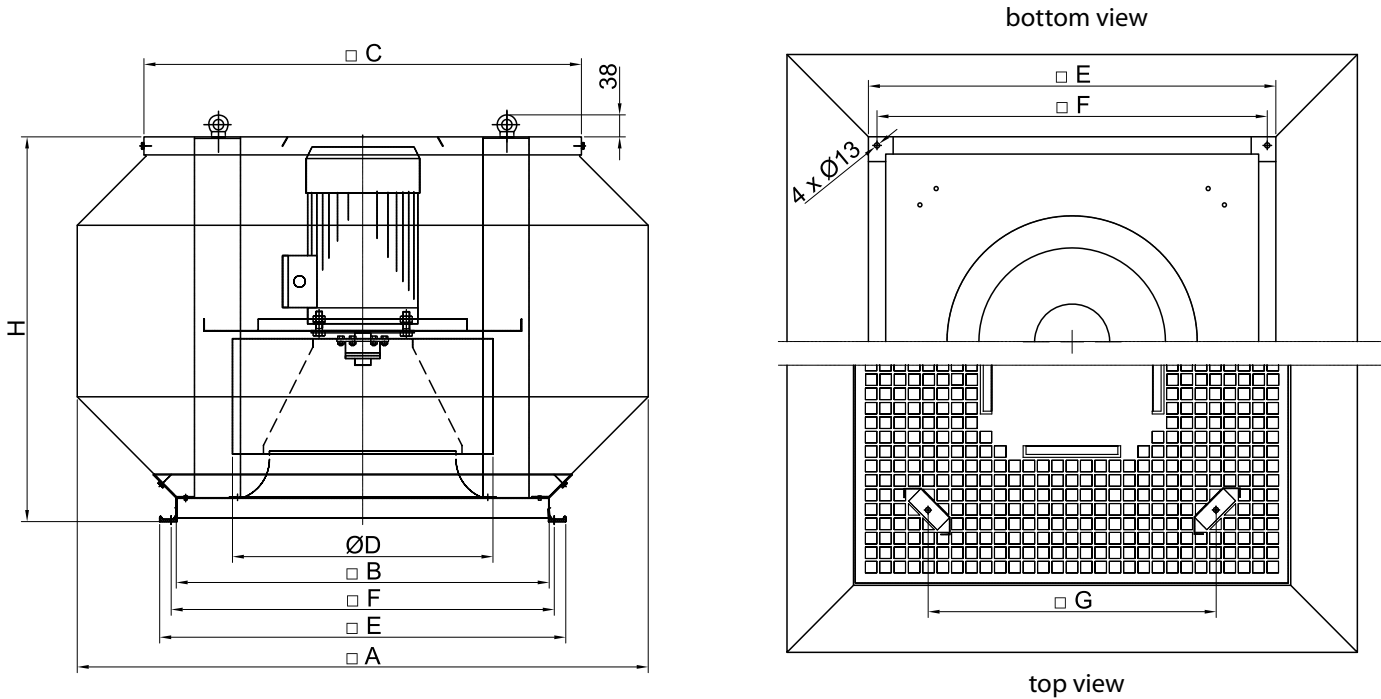
- Protection class IP 54 Din 40050
- Class "F" insulation VDE 0530
- Maximum ambient temperature: -30°C ÷ +40°C
- Temperature of working fluid: + 60°C

Options and accessories

- Counter flange
- Safety grid
- Back draft shutter
- Silencer

Fans are not appropriate for transportation of explosion-risk substances and aggressive gases.

Overall and joined dimensions



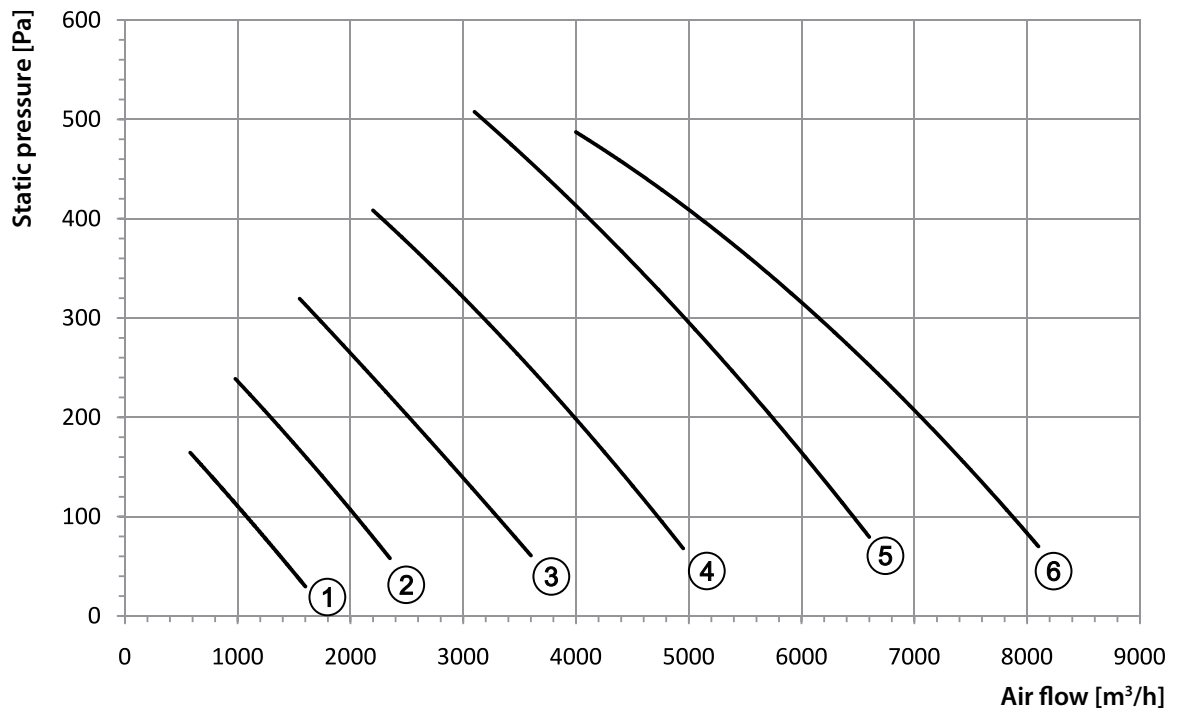
Model	A [mm]	B [mm]	C [mm]	G [mm]	F [mm]	E [mm]	H [mm]	ØD [mm]
RF* 280	760	450	570	318	475	510	490	280
RF* 315	900	550	665	402	575	610	565	315
RF* 355	900	550	665	402	575	610	565	355
RF* 400	950	600	715	452	625	660	615	400
RFT 450	1000	650	765	502	675	710	665	450
RF* 450H	950	600	715	452	625	660	630	400

* = M for single phase motors, * = T for three phase motors

Technical characteristics

Designation in the figure	Model	Speed [min ⁻¹]	Nominal power [kW]	Nominal current [A]		Weight [kg]
				1/220V	Y/380V	
1	RF* 280	1400	0.75	5.7	2.1	45
2	RF* 315	1400	1.10	7.8	2.8	60
3	RF* 355	1400	1.50	10.0	3.7	65
4	RF* 400	1400	1.50	10.0	3.7	75
5	RFT 450	1400	2.20	-	5.0	85
6	RF* 450H	1400	1.50	10.0	3.7	80

Static pressure [Pa]



Sound pressure level on frequency bands Lp [dB]

Fan	Channel	Frequency [Hz]							
		63	125	250	500	1000	2000	4000	8000
RF* 280	Lp1	42.8	49.2	52.1	43.4	44.5	35.9	25.5	15.4
	Lp2	73.2	72.1	75.3	61.0	56.6	54.3	48.8	42.2
RF* 315	Lp1	45.4	48.3	46.4	42.3	46.6	33.4	29.2	18.3
	Lp2	78.5	75.5	70.5	66.6	61.0	58.3	51.6	46.7
RF* 355	Lp1	46.6	50.2	49.6	44.2	48.5	36.7	31.6	22.8
	Lp2	81.4	78.6	73.3	69.8	65.1	59.9	53.4	47.9
RF* 400	Lp1	52.0	53.6	54.5	45.1	44.8	38.8	33.3	24.6
	Lp2	83.8	80.4	76.8	72.6	70.6	65.3	58.1	50.5
RFT 450	Lp1	72.1	58.5	61.6	52.9	47.7	43.5	39.3	33.8
	Lp2	87.5	83.6	79.2	76.3	73.9	70.6	67.1	59.5
RF* 450H	Lp1	61.3	58.7	56.0	48.4	44.2	39.0	33.2	26.1
	Lp2	85.2	82.2	78.7	74.5	70.4	67.1	61.7	53.9

* = M for single phase motors, * = T for three phase motors

(Lp1) – measured close to the housing, in free field condition

(Lp2) – inlet side

Attenuation at distance **d** from the Fan according to "2007 ASHRAE Handbook" in unlimited space is:

$L_{pd} = L_p(A) - K_d(\text{dB})$, where K_d is factor of correction of noise power pressure.

d [m]	1	1.5	4	6	10	15	20	30
$K_d(\text{dB})$	0.5	4.0	12.5	16.1	20.5	24.0	26.5	30.0

Options and accessories

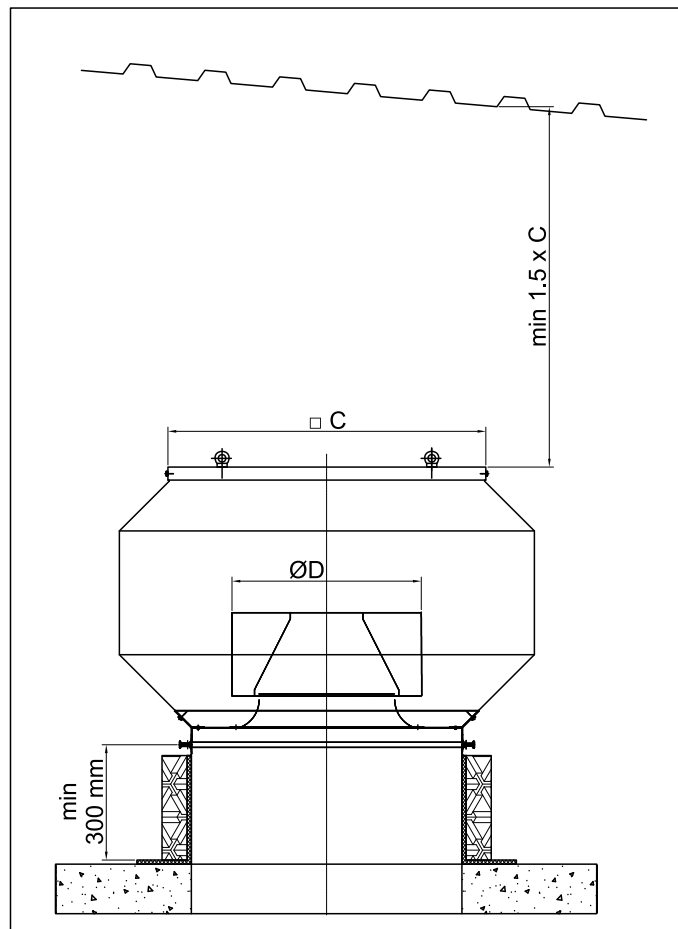
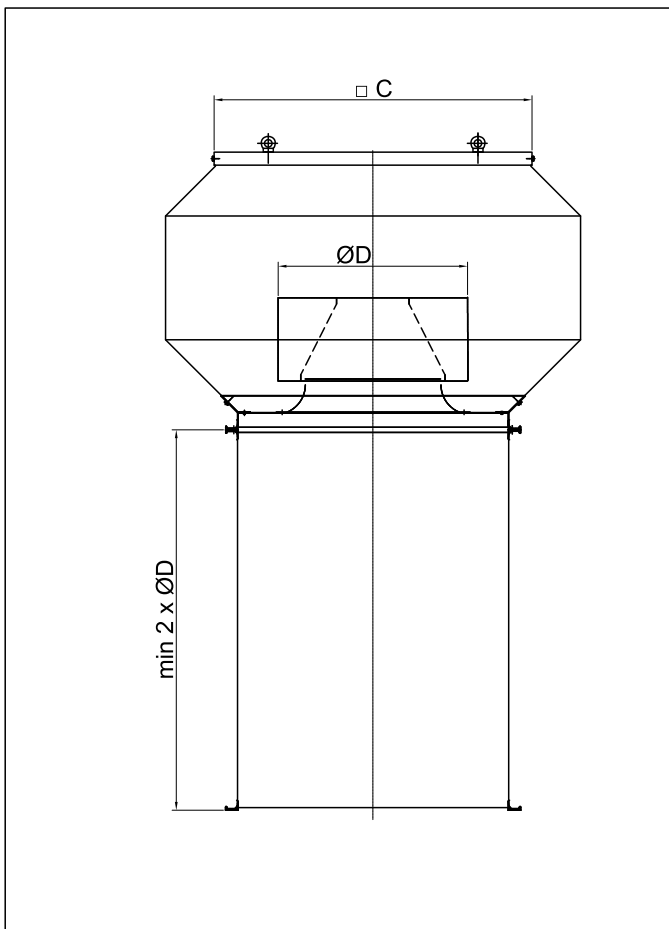
The following accessories are available and can be ordered separately:

1. Counter flange
2. Safety grid
3. Back draft shutter
4. Silencer

Installation instruction

When install a fan we recommend to provide a straight section of pipe with a minimum length of 2 times the diameter of the rotor ($\varnothing D$) of the fan to ensure proper intake of air.

In case of installation of the fan in the attic or space under the shed, it is advisable to ensure the minimum distance between the outlet of the fan and the barrier of not less than 1.5 times of C.



Order designation

RF M 280

Size: 280, 315, 355, 400, 450, 450H

M – single phase

T – three phase

Roof fan