Chimney fan RSV

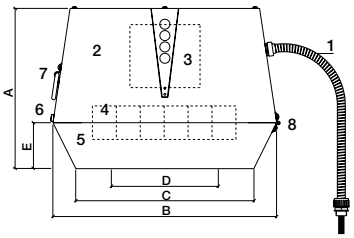
An **exodraft** RSV chimney fan is a specially designed extractor fan with vertical discharge.

exodraft chimney fans RSV160-450 are designed for boiler room installations up to 3 MW using a single fan. For larger boiler capacities several fans can be mounted on a plenum box.
The RSV160-450 can be used with heating appliances burning gas and oil.

The fans are installed on top of the chimney where the vertical discharge column prevents a plume of gas flowing down out-side of the chimney.

exodraft chimney fans RSV are used with heating appliances and provide a controllable negative pressure along the full length of the flue and chimney.

Technical data



1. Connecting cable
2. Top section
3. Motor
4. Vane/centrifugal impeller
5. Bottom section
6. Locking screws
7. Handle
8. Hinges

Model	Motor data				Weight	Dimension (mm)				
	rpm	V	Amp	kW*	kg	A	B x B	C x C	D Ø	E
RSV009-4-1	1400	1 x 230	0,2	0,05	13	250	310	240	215	70
RSV012-4-1	1400	1 x 230	0,4	0,07	17	280	390	310	275	80
RSV014-4-1	1400	1 x 230	0,8	0,16	24	335	485	385	335	100
RSV016-4-1	1400	1 x 230	1,8	0,32	35	380	580	465	365	115
RSV160-4-1	1400	1 x 230	0,4	0,01	12	250	310	240	160	70
RSV250-4-1	1400	1 x 230	0,8	0,16	27	335	485	385	250	100
RSV315-4-1	1400	1 x 230	1,8	0,37	37	380	580	465	315	115
RSV400-4-1	1400	1 x 230	2,9	0,60	47	430	650	525	400	130
RSV400-4-2**	1720	3 x 400	3,5	0,75	52	460	650	525	400	130
RSV450-4-2**	1720	3 x 400	6,5	1,50	58	590	650	525	400	220

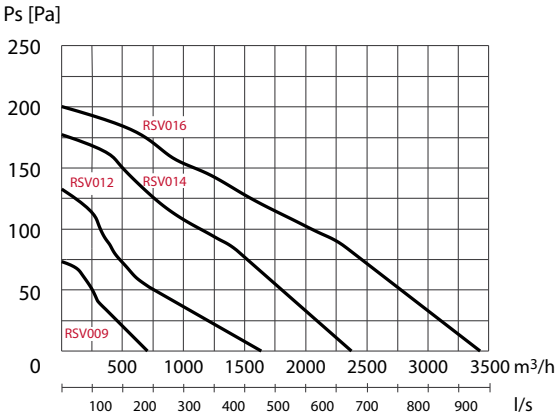
*Power consumption at ambient temperature of 20 °C
**Frequency converter is required
The RPM of the above fan models are infinitely adjustable
Motor protection IP rating IP54
Insulation class F

exodraft a/s
C. F. Tietgens Boulevard 41
5220 Odense SØ
Denmark

www.exodraft.com

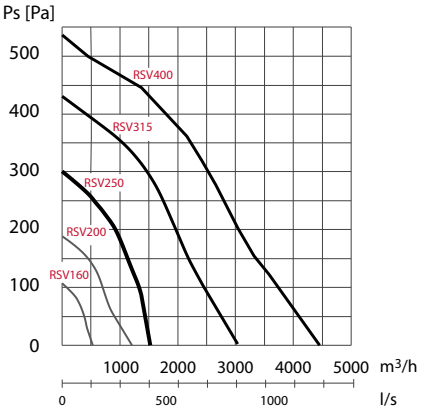
Capacity diagrams

RSV009 to RSV016

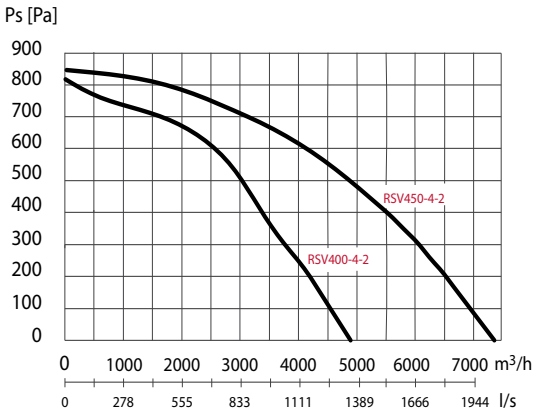


Type	Test flue diameters
RSV009	Ø 160 mm
RSV012	Ø 200 mm
RSV014	Ø 250 mm
RSV016	Ø 315 mm
RSV160	Ø 160 mm
RSV200	Ø 200 mm
RSV250	Ø 250 mm
RSV315	Ø 315 mm
	at 1400 rpm
RSV400	Ø 400 mm
RSV450	Ø 400 mm
	at 1720 rpm

RSV160 to RSV400



RSV400-4-2 to RSV450-4-2



PLEASE NOTE: The capacity diagrams are measured with a flue gas temperature of 20 °C. The fan's capacity changes with the temperature of the flue gases. The correction of the capacity can be calculated using the following equation:

$$Ps_{20} = Ps_t \times \frac{273 + t}{293}$$

Ps = static pressure
t = temperature measured in °C

Example
System demand: 500 m³/h and 90 Pa at 180 °C
Fan selection: 500 m³/h and 139 Pa at 20 °C

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Sound data

Sound levels to external surroundings								
Sound data								
Model	**Lw (dB)**							**Lp dB (A)**
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
RSV009-4-1	57	55	54	49	40	35	26	26
RSV012-4-1	64	62	61	55	51	46	40	33
RSV014-4-1	71	70	68	61	56	50	44	40
RSV016-4-1	76	76	70	65	60	55	49	44
RSV160-4-1	56	54	57	51	44	34	28	30
RSV200-4-1	64	62	61	55	51	46	40	33
RSV250-4-1	64	68	66	65	61	49	45	41
RSV315-4-1	71	75	70	73	68	57	52	48
RSV400-4-1	76	80	75	79	74	62	57	53
RSV400-4-2	87	82	76	76	68	62	58	57
RSV450-4-2	78	88	80	84	77	67	61	59

Tolerance +/- 3 dB
Lw = sound effect level dB (reference: 1 pW)
Lp = sound pressure level dB (A) at 10 m distance from the fan at half spheric sound distribution
Lp (5 m) = Lp (10 m) + 6 dB
Lp (20 m) = Lp (10 m) - 6 dB

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