



exodraft

Technical data

Chimney fans, controllers & accessories

- Wood-burning stoves and fireplaces
- Multiple appliances on a heater system
- Biomass boiler
- Gas fireplaces, stoves and single non-modulating gas boilers

Your energy. **Optimized.**

exodraft

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Project and design support

Exodraft solutions are much more than just products and systems. In close co-operation with our Exodraft dealers worldwide we provide pre-sale analysis, system design and provide recommendations.

A customized Exodraft design software is used. This enables us to design any system with great accuracy and makes it possible to provide the results in an advanced sizing report.

With a correct calculation from Exodraft we take full responsibility for the system's operation. All calculations and system recommendations provided by Exodraft are performed in accordance with the relevant rules and regulations.

Exodraft and our dealers offer telephone engineering and installation support. All calculations are stored electronically for engineers and technicians to have a record of what a system looks like and includes.

To make the most accurate calculation we ask for an appraisal form on the installation.


Appraisal Form Fireplaces, Stoves and Cookers

1a. Originator: _____ Telephone Mobile/Home: _____
 Company: _____ Telephone Work: _____
 Job reference: _____ Fax number: _____


1b. Type of property (tick): Private dwelling Public House/Hotel/Restaurant

2. Fuel used (tick): Wood Smokeless or Coal Oil Natural Gas LPG Other _____


3. Dimensions
 3a. If an open fireplace, please tick your type of fireplace




ONE SIDED




TWO SIDED



OPENING INTO 2 ROOMS



INGLENOOK HOOD (3 SIDED)



CENTRE FIREPLACE

3b. Measurements
 Width of opening (a) _____ mm (____ inch) Depth from front of opening (b) _____ mm (____ inch)
 Height from hearth to top of opening or to Hood (h) _____ mm (____ inch)
 Depth from front of opening (c) _____ mm (____ inch)

3c. If gas, please state maximum gas input: _____ kW or _____ Btu

4. Stove Cooker Openable door Brand: _____ Model: _____
 (always fit in measurements of door opening in 3b.)

5. Extract fan system in the room? YES NO

6a. Chimney height _____ m or _____ ft 6f. Is the angle of the roof: <25° 25°-40° >40°
 Internal size _____ mm or _____ inch
 No. of bends in chimney _____ (45°) _____ (90°)


6b. Chimney shape: round rectangular 6g. Is the chimney closer than 20 km (12.5 mi) to the coast?
 YES NO

6c. Flue material: brick metal (win-wall) 6h. Is the chimney close to adjacent obstructions?
 Flexible liner: stone metal (single wall) YES NO
 Clay Other _____ Adjacent obstructions are buildings, tall trees or mountains within a 15 m range, extending at a 30°+ horizontal angle and a 10°+ vertical angle from top of chimney.

6d. Insulation: Thickness _____ mm _____ m²K/W
 6e. Is the chimney more than 40 cm higher than the ridge of the roof? YES NO

Dimensioned sketch of installation with flue run
must be included as attachment!

Please send filled out form to:
technicalsupport@exodraft.dk



Components for fireplaces or wood-burning stoves

With Exodraft chimney fan systems you always have control over the chimney draught regardless of the weather conditions or other factors influencing the natural draught.

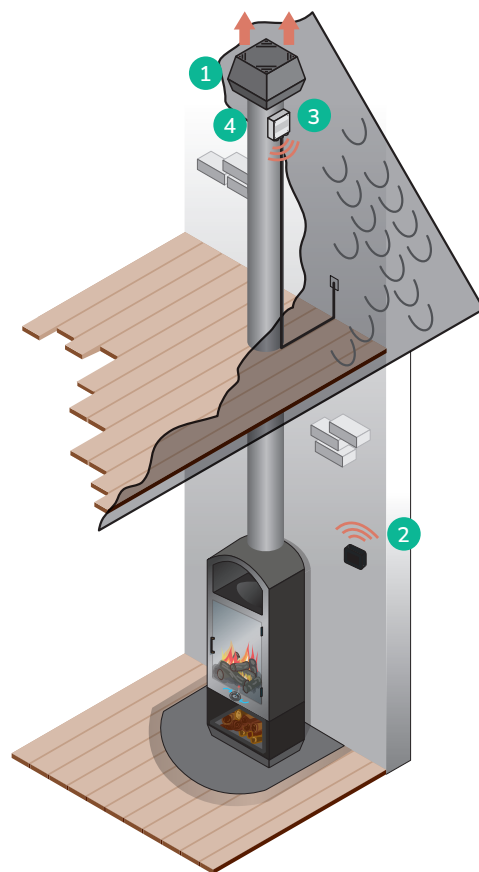
The function of the chimney is both to remove the smoke and supply oxygen for effective combustion. In an ideal situation this is done through the natural chimney draught, but in reality, both the chimney itself and other external factors affect the natural draught and thus the effectiveness of the chimney.

An Exodraft chimney fan gives you complete control over the chimney draught. The chimney fan is installed on top of the chimney and creates a negative pressure in the flue, thus ensuring that the flue gases are extracted up the chimney rather than into the room. The fan control enables you to adjust the chimney draught to suit your needs, so you can enjoy the full comfort of your fireplace.

An Exodraft chimney fan system consists of a RS or a RSV chimney fan, a fan control and some installation accessories.

Find the components you need here:

	Component	Type	Page
1	Chimney fan	 RS with horizontal exhaust	8
		 RSV with vertical exhaust	10
2	Control	 EFC16	28
		 EFC35S	28
		 EFC18	29
		 Xzense	30
		 EBC10v2	32
3	Isolation switch	 REP-AFB	36
		 REPSW2x16	36
4	Accessories for installation	 Flange	35



Components for solid fuel or biomass-burning boiler










A natural draught chimney system is designed to work at average conditions for the region. When a solid fuel or biomass boiler is used all year round, the variable climatic conditions will sometimes lead to insufficient chimney draught. The use of a chimney fan system will ensure the correct chimney draught under any climatic conditions at all times.

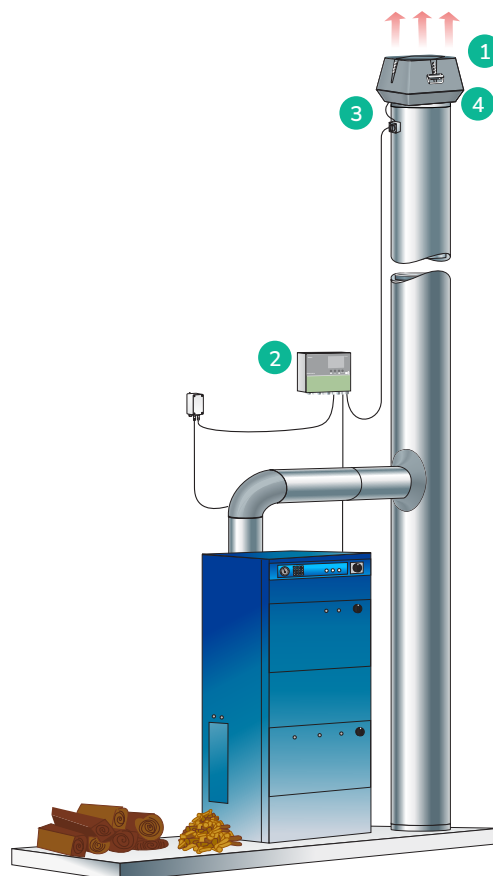
When a biomass burning appliance, for example a pellet stove, has chimney draught issues it might be a challenge lighting the fire and it may cause soot and smoke to be expelled back into the room. Insufficient chimney draught can also lead to poor combustion, and inefficient use of the fuel.

This can be solved by installing an Exodraft chimney fan system which ensures the correct chimney draught all times.

An Exodraft system for a solid fuel or biomass burning boiler consists of an RS or RSV chimney fan, a controller and installation accessories.

Find the components you need here:

	Component	Type	Page
1	Chimney fan	 RS with horizontal exhaust	8
		 RSV with vertical exhaust	10
2	Control	 EFC16	28
		 EFC35S	28
		 EFC18	29
		 EBC24	33
3	Isolation switch	 REP-AFB	36
		 REPSW2x16	36
4	Accessories for installation	 Flange	35



Components for gas fireplaces and gas stoves

The Exodraft chimney fan systems for open gas fireplaces are the only ones on the market that feature an approved fail-safe function which ensures that you are not exposed to any unnecessary hazards from your open gas fire.

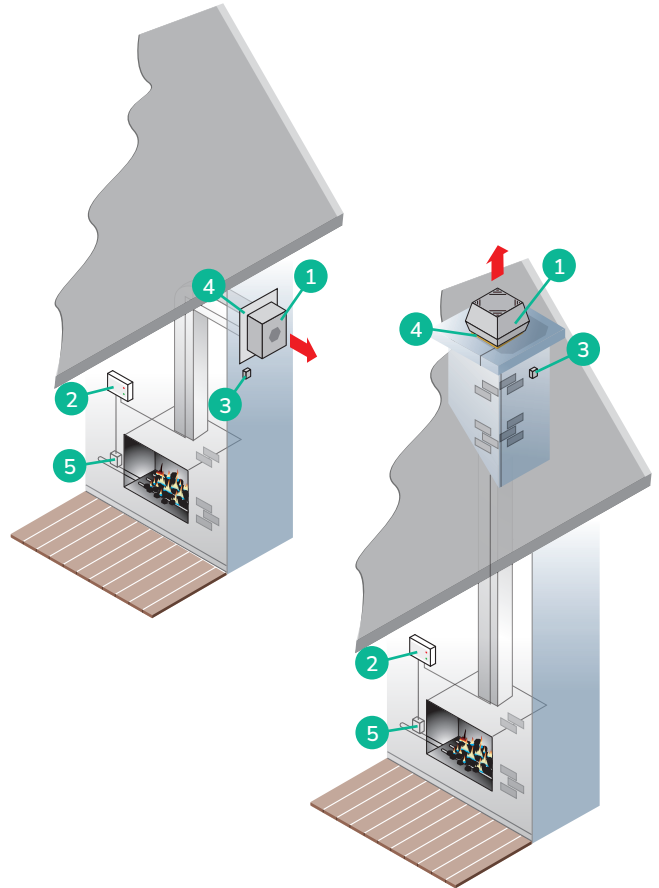
The Exodraft chimney fan system gives you the freedom to choose your gas fireplace based on what you prefer, rather than what the building architecture or layout will allow. In some countries the system can be used in conjunction with a wall-mounted chimney fan.

An Exodraft chimney fan system for gas fireplace or stove consists of a chimney fan with a flow measuring system, a Kiwa Gastec approved fan control and installation accessories.





Four types of Exodraft chimney fans are available for gas: RHG & RSHG, RSVG and the wall-mounted RSG. They are all fitted with a flow measurement system which – with an EFC21 control system – ensures that gas is not supplied to the fireplace unless there is sufficient draught in the chimney.







When switched on, a signal is sent to the chimney fan to create the optimal updraught in the chimney. When this is achieved, the control system opens the gas valve, allowing the fire to be lit. Any reduction in updraught will result in the gas supply to the fire being cut and the fire being switched off.

This is the only system in the market with EN298 Kiwa Gastec approval. The design of the optimum system components for the individual system is calculated using the Exodraft design software in accordance with BS EN 13384.



Find the components you need here:

	Component	Type	Page
1	Chimney fan	 RSHG with horizontal exhaust	14
		 RSVG with vertical exhaust	16
		 RHG with horizontal exhaust	18
		 RSG wall-mounted	19

	Component	Type	Page
2	Control	 EFC21	31
		 EBC22	–
3	Isolation switch	 REPSW2x16	36
4	Accessories for installation	 Flange	35
5	Solenoid valve	 SMG 12	31
		 SMG 14	

Components for single non-modulating gas boilers

The Exodraft chimney fan system for single non-modulating gas boiler installations offers great possibilities within flue and chimney design. The stepless adjustable fan motor and the electronic control ensure a constant draught that guarantees combustion and better heating economy. Large savings on flue systems and installation costs are realistic as downsizing of flue diameters and chimney heights becomes possible.

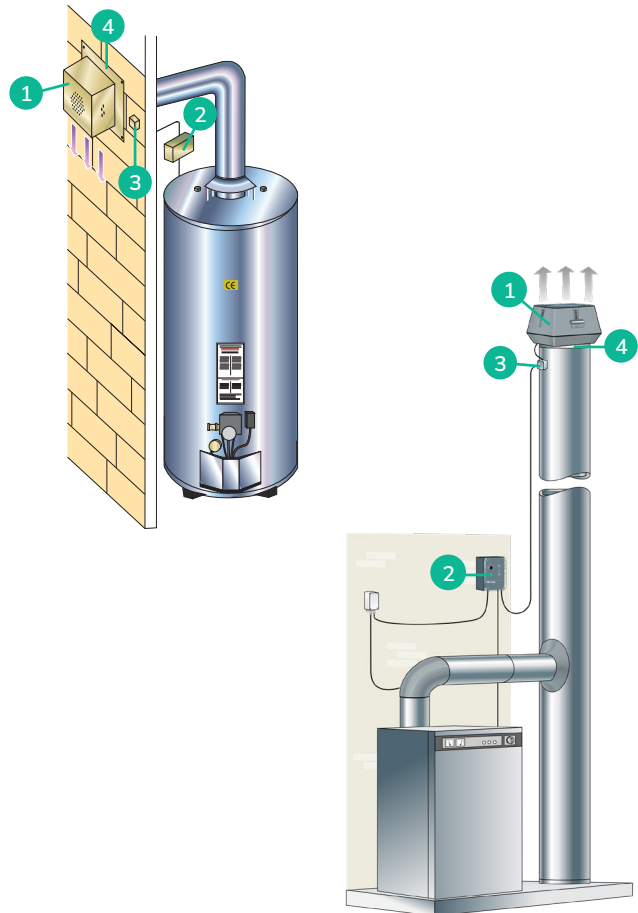
An Exodraft chimney fan system for a single non-modulating gas boiler consists of a chimney fan with a flow measuring system, a Kiwa Gastec approved fan control and installation accessories. It is used where there is a need for design flexibility, enhanced energy performance of the appliances or guarantee against spillage of combustion materials or carbon monoxide.

When switched on, a signal is sent to the chimney fan to create the optimal updraught in the chimney. Once this is achieved, the control system opens the gas valve, allowing the burner to be lit. Any reduction in updraught will result in the gas supply to the fire being cut and the fire being switched off.





Four types of Exodraft chimney fans are available for gas: RHG & RSHG, RSVG and the wall-mounted RSG. They are all fitted with a flow measurement system which – with the EFC21 control system – ensures that gas is not supplied to the boiler unless there is sufficient draught in the chimney.





This is the only system in the market that have the sought-after EN298 Kiwa Gastec approval.

The design of the optimum system components for the individual system is calculated using the Exodraft design software in accordance with BS EN 13384.



Find the components you need here:

	Component	Type	Page
1	Chimney fan	 RSHG with horizontal exhaust	14
		 RSVG with vertical exhaust	16
		 RHG with horizontal exhaust	18
		 RSG wall-mounted	19

	Component	Type	Page
2	Control	 EFC21	31
		 EBC22	–
3	Isolation switch	 REPSW2x16	36
4	Accessories for installation	 Flange	35

RS chimney fan



Description

An Exodraft RS chimney fan is a specially designed chimney fan with horizontal discharge.

The fans can be used with all types of fuel burning appliances and are especially well-suited to solid fuel appliances, such as wood-burning fireplaces and stoves, biomass- and solid-fuel boilers.

Design and construction

Exodraft chimney fans are made to continuously withstand flue gas temperatures of up to 250 °C and continue functioning in dirty environments. They are constructed of corrosion-resistant cast

aluminum. Screws and bolts are made of stainless steel.

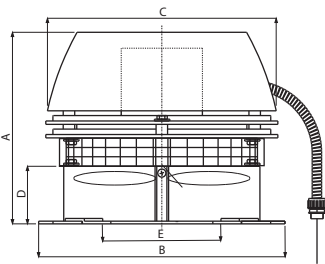
RS chimney fans are available in a range of sizes and capacities. The RS009, RS012, RS014 and RS016 models are equipped with stainless steel axial vanes. The chimney fan RS255 and RS285 are equipped with a centrifugal impeller with cast aluminium blades.

The RS chimney fan has a temperature resistant, entirely closed asynchronous motor, with ball bearings sealed for life. The motor is positioned away from harmful flue gases and is continuously cooled by a special cooling plate and cooling vents.

The heat-resistant supply cable has cable-strain relief and is armoured.

The chimney fan opens easily, so that a chimney sweep can sweep the chimney and clean the chimney fan without any problems. A safety mesh covers the radial discharge for protection.

RS technical data



Model	Motor data				Weight kg	Dimension [mm]				
	rpm	V	Amp	kW*		A	BxB	C [Ø]	D	E [Ø]
RS009-41	1400	1 x 230	0.30	0.05	9	250	300	285	75	220
RS012-41	1400	1 x 230	0.40	0.09	14	275	365	350	85	280
RS014-41	1400	1 x 230	0.60	0.13	18	330	420	395	100	330
RS016-41	1400	1 x 230	1.20	0.29	25	405	480	450	100	380
RS255-41	1400	1 x 230	0.40	0.07	14	260	300	350	35	200
RS285-41	1400	1 x 230	0.80	0.18	20	290	355	395	35	230

*Power consumption at ambient temperature of 20 °C

The RPM of the above fan models are infinitely adjustable

Motor protection IP rating IP54

Insulation class F

The RS009 and RS012 fans can also be supplied with an octagonal mounting plate, specially designed for steel chimneys.

RS sound data

Sound levels to external surroundings
Lw (dB) measured in accordance to ISO 3744

Model	Lw [dB]							Lp dB [A]
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
RS009-41	54	50	47	43	38	31	25	21
RS012-41	64	60	55	52	48	42	34	30
RS014-41	75	69	65	62	57	51	44	41
RS016-41	81	76	72	69	64	58	52	47

Tolerance +/- 3 dB.

Lw = sound effect level dB (reference: 1 pW)

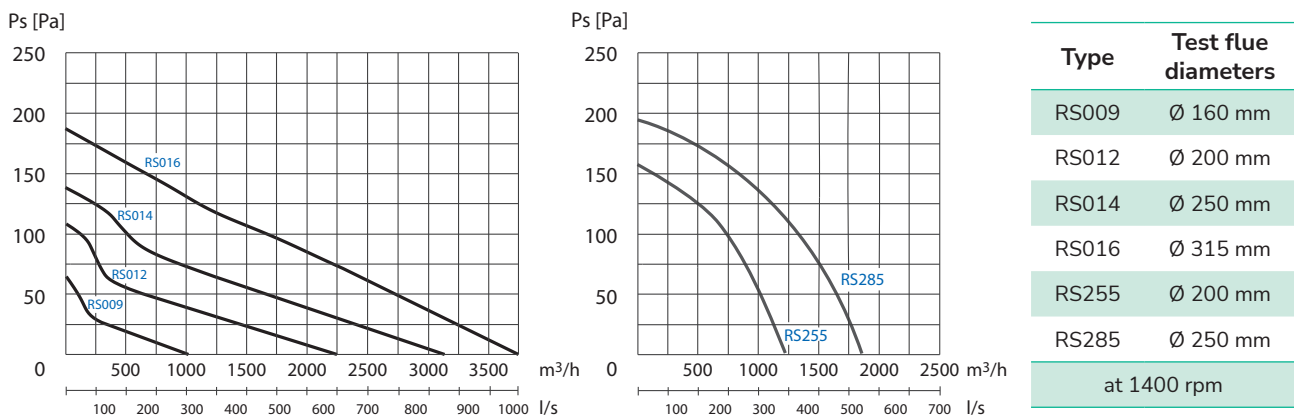
Lp = sound pressure level dB [A] at 10 m distance from the fan at half spheric sound distribution

Lp (5 m) = Lp (10 m) + 6 dB

Lp (20 m) = Lp (10 m) - 6 dB

RS capacity diagram

The capacity diagrams shown below are only for illustration. Contact your nearest dealer to calculate the correct fan size.



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

RSV chimney fan



Description

An Exodraft RSV chimney fan is a specially designed chimney fan with vertical discharge.

The fans can be used with all types of fuel burning appliances and are especially well-suited to solid fuel appliances, such as wood-burning fireplaces and stoves, biomass- and solid-fuel boilers.

Design and construction

Exodraft chimney fans are specially made to continuously withstand flue gas temperatures of up to 250 °C and continue functioning in dirty environments. They are constructed of corrosion

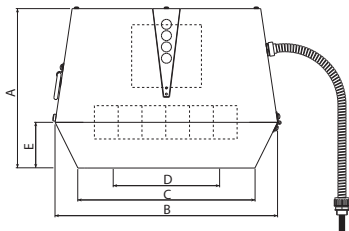
resistant cast aluminium. Screws and bolts are made of stainless steel.

The RSV009, RSV012, RSV014 and RSV016 models are equipped with axial stainless steel vanes. The RSV160, RSV200, RSV250, RSV315 and RSV400 models are equipped with a cast aluminium centrifugal impeller and are used for larger installations.

The RSV chimney fan has a temperature resistant, entirely closed asynchronous motor, with ball bearings sealed for life. The motor is positioned away from harmful flue gases and is continuously cooled by a special cooling plate and cooling vents. The heat-resistant supply cable has cable-strain relief and is armoured.

The chimney fan opens easily, so that a chimney sweep can sweep the chimney and clean the fan without any problems. The exhaust vent has a protective stainless steel grille.

RSV technical data



Model	Motor data				Weight kg	Dimension [mm]				
	rpm	V	Amp	kW*		A	B x B	C x C	D [Ø]	E
RSV009-41	1400	1 x 230	0.14	0.05	13	250	310	240	215	70
RSV012-41	1400	1 x 230	0.35	0.13	17	280	390	310	275	80
RSV014-41	1400	1 x 230	0.80	0.16	24	335	485	385	335	100
RSV016-41	1400	1 x 230	1.80	0.32	35	380	580	465	365	115
RSV160-41	1400	1 x 230	0.40	0.04	12	250	310	240	160	70
RSV200-41	1400	1 x 230	0.40	0.07	18	280	390	310	200	80
RSV250-41	1400	1 x 230	0.80	0.16	27	335	485	385	250	100
RSV315-41	1400	1 x 230	1.80	0.37	37	380	580	465	315	115
RSV400-41	1400	1 x 230	2.60	0.40	47	430	650	525	400	130

*Power consumption at ambient temperature of 20 °C

The RPM of the above fan models are infinitely adjustable

Motor protection IP rating IP54

Insulation class F

RSV sound data

Sound levels to external surroundings
Lw (dB) measured in accordance with ISO 3744

Model	Lw [dB]							Lp dB [A]
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
RSV009-41	57	55	54	49	40	35	26	26
RSV012-41	64	62	61	55	51	46	40	33
RSV014-41	71	70	68	61	56	50	44	40
RSV016-41	76	76	70	65	60	55	49	44
RSV250-41	64	68	66	65	61	49	45	41
RSV315-41	71	75	70	73	68	57	52	48
RSV400-41	76	80	75	79	74	62	57	53

Tolerance +/- 3 dB

Lw = sound effect level dB (reference: 1 pW)

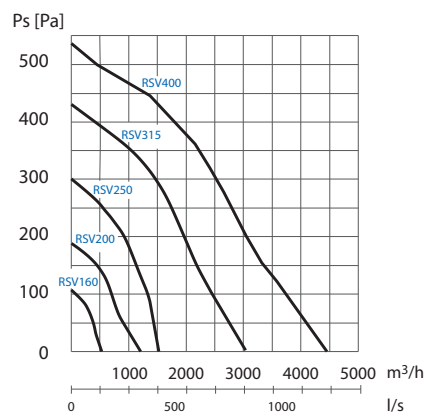
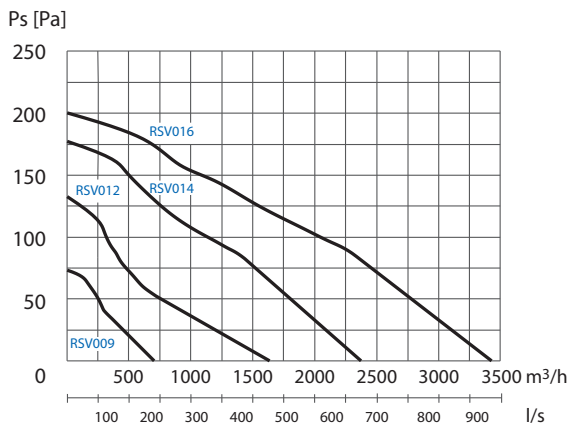
Lp = sound pressure level dB [A] at 10 m distance from the fan at half spheric sound distribution

Lp (5 m) = Lp (10 m) + 6 dB

Lp (20 m) = Lp (10 m) - 6 dB

RSV capacity diagram

The capacity diagrams shown below are only for illustration. Contact your nearest dealer to calculate the correct fan size.



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

at 1400 rpm

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:

$$P_{S_{20}} = P_{S_t} \times \frac{273 + t}{293}$$

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

RSHT chimney fan



Description

The Exodraft RSHT chimney fan is designed to operate under extreme conditions with very high flue gas temperatures.

The patented cooling wheel allows continuous operation of the chimney fan at temperatures up to 500 °C. Peak loads (up to 30 minutes) with temperatures up to 700 °C are possible with the RSHT.

Design and construction

The RSHT has a horizontal discharge and is made of stainless steel with an aluminium housing. The chimney fan is equipped with a stainless steel axial impeller. Screws and bolts are also made of stainless steel.

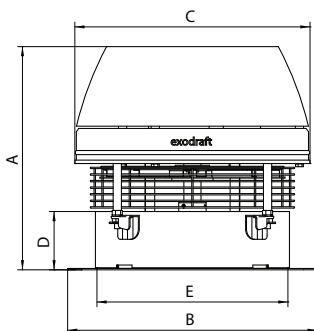
The engine is a heat-resistant asynchronous motor in an enclosed construction with sealed, maintenance-free ball bearings that is continuously adjustable with a TRIAC control.

The cable is heat-resistant and strain relieved, and protected by a reinforced hose casing.

The chimney fan is hinged, which gives the chimney sweeper easy access to sweep the chimney.

A protective stainless steel grille is installed to prevent contact and stop birds from entering the chimney.

RSHT technical data



Model	Motor data				Weight kg	Dimension [mm]				
	rpm	V	Amp	kW*		A	BxB	CxC	D [Ø]	E [Ø]
RSHT009-41	1400	1 x 230	0.40	0.09	12	298	296	275	75	220
RSHT012-41	1400	1 x 230	0.60	0.13	15	325	364	344	85	280
RSHT014-41	1400	1 x 230	1.20	0.29	19	372	422	395	100	330
RSHT016-41	1400	1 x 230	1.80	0.37	22	400	478	441	100	380

*Power absorbed with an ambient temperature of 20 °C

The rotational speed of the flue gas fan is steplessly variable on all single phase 230 V versions.

Protection rating IP 54

Insulation class F

RSHT sound data

Sound levels to external surroundings

Lw (dB) measured in accordance with ISO 3744

Model	Lw [dB]							Lp dB [A]
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
RSHT009-41	66	61	63	57	58	57	51	37
RSHT012-41	72	74	71	65	66	62	54	33
RSHT014-41	80	76	72	70	71	68	61	49
RSHT016-41	84	81	75	74	73	70	65	52

Tolerance +/- 3 dB

Lw = sound effect level dB (reference: 1 pW)

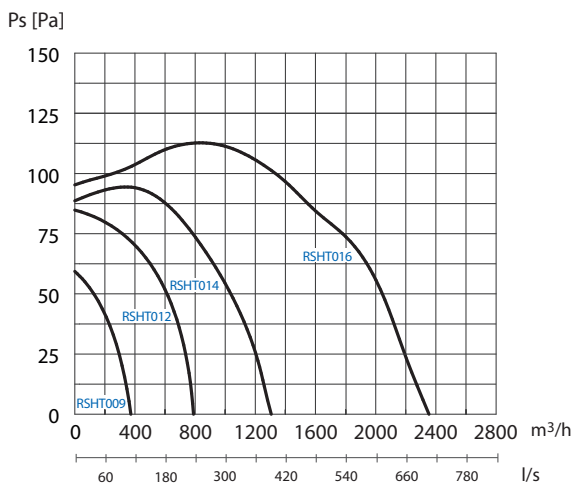
Lp = sound pressure level dB [A] at 10 m distance from the fan at half spheric sound distribution

Lp (5 m) = Lp (10 m) + 6 dB

Lp (20 m) = Lp (10 m) - 6 dB

RSHT capacity diagram

The capacity diagram shown below is only for illustration. Contact your nearest dealer to calculate the correct fan size.



PLEASE NOTE: The capacity diagram is 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:

$$P_{S_{20}} = P_{S_t} \times \frac{273 + t}{293}$$

Ps = static pressure

t = temperature measured in °C

Example:

System demand: 600 m³/h and 32 Pa at 180 °C

Fan selection: 600 m³/h and 50 Pa at 20 °C

RSHG chimney fan



Description

An Exodraft chimney fan RSHG is specially designed to work with heating appliances burning gas. The RSHG fans guarantee optimum draught irrespective of the placement, dimensions or height of the chimney which is beneficial to new or existing installations.

The fan must be connected to an Exodraft EFC21 control.

Design and construction

The chimney fan has a horizontal discharge and an integrated monitoring system, consisting of a pressure control switch and a flow control.

The RSHG is installed on top of the chimney and provides a controlled vacuum regardless of location, size or height of the chimney. The chimney fan can be used for both new and existing installations.

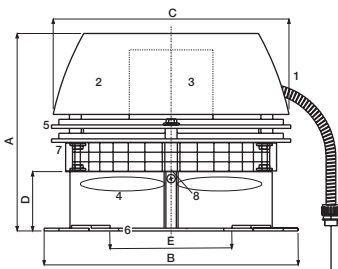
The RSHG is made of corrosion-resistant cast aluminium and is designed to operate in hot and corrosive environments.

The chimney fan withstands flue gas temperatures up to 200 °C and is delivered with a centrifugal impeller that ensures high efficiency. The wheel is driven by an enclosed heat-resistant asynchronous motor with permanently lubricated ball bearings that are developed for high temperatures.

The motor is placed so that it is protected from flue gas and a special cooling plate ensures that the motor is continuously kept cool.

The cable is heat-resistant and strain relieved and protected by a reinforced hose casing.

RSHG technical data



Model	Motor data				Weight kg	Dimension [mm]				
	rpm	V	Amp	kW*		A	BxB	C [Ø]	D	E [Ø]
RSHG012-41	1400	1 x 230	0.30	0.03	14	275	365	350	85	165
RSHG014-41	1400	1 x 230	0.40	0.04	18	330	420	395	100	188

*Max effect at the motor shaft at ambient temperature: 20 °C

RPM is infinitely adjustable for all 1x230 V motors.

The motor is overload protected

Motor protection class IP 54

Insulation class F

Connection cord 120 cm, 6 core, 0.75 mm²

RSHG sound data

Sound levels to external surroundings
Lw (dB) measured in accordance with ISO 3744

Model	Lw [dB]							Lp dB [A]
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
RSHG012-41	64	60	55	52	48	42	34	30
RSHG014-41	75	69	65	62	57	51	44	41

Sound levels to flue pipe
Lw (dB) measured in accordance with ISO 5136

Model	Lw (dLw [dB])							Lw dB [A]	Lp dB [A]
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz		
RSHG012-41	72	65	59	49	47	41	31	61	53
RSHG014-41	82	73	63	58	52	48	38	68	61

Tolerance +/- 3 dB

Lw = sound effect level dB (reference: 1 pW)

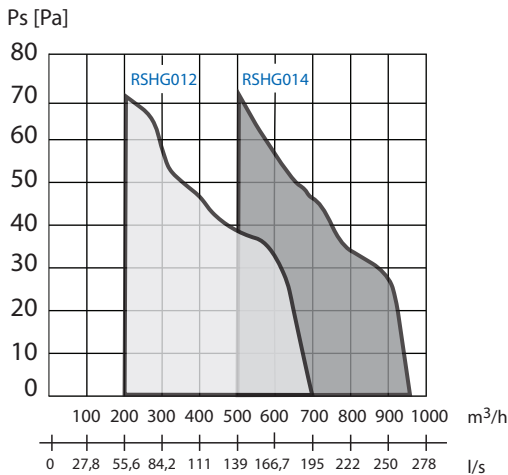
Lp = sound pressure level dB [A] at 10 m distance from the fan at half spheric sound distribution

Lp (5 m) = Lp (10 m) + 6 dB

Lp (20 m) = Lp (10 m) - 6 dB

RSHG capacity diagram

The capacity diagram shown below is only for illustration. Contact your nearest dealer to calculate the correct fan size.



Type	Test flue diameters
RSHG012	Ø 200 mm
RSHG014	Ø 250 mm
at 1400 rpm	

PLEASE NOTE: The capacity diagram is measured at a flue gas temperature of 20 °C. The fan capacity changes with the temperature. Correction of system pressure loss for flue gas temperature higher than 20 °C is calculated:

$$P_{S_{20}} = P_{S_t} \times \frac{273 + t}{293}$$

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

RSVG chimney fan



Description

The RSVG is developed specifically for gas fireplaces and individual gas-fired boilers.

Exodraft chimney fans provide a controllable negative pressure along the full length of the flue and chimney. The fans guarantee an optimum chimney draught irrespective of the placement, dimensions or height of the chimney.

The fan must be connected to an Exodraft EFC21 control.

Design and construction

The chimney fan has a vertical discharge and an integrated monitoring system, consisting of a pressure control switch and a flow control. The RSVG is installed on top of the chimney and provides a controlled vacuum regardless of location, size or height of the chimney.

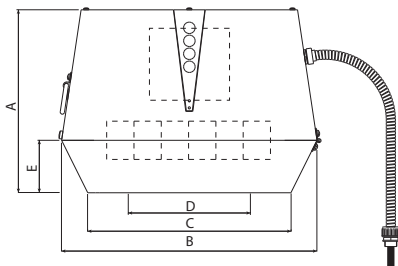
The RSVG chimney fan is made of corrosion-resistant cast aluminium and designed for operation in hot and corrosive environments. The chimney fan withstands flue gas temperatures up to 200 °C and is delivered with a centrifugal impeller, which enables high efficiency.

The chimney fan has an enclosed heat-resistant asynchronous motor with permanently lubricated ball bearings that is developed especially for use in high temperatures.

The motor is placed so that it is protected from flue gases and a special cooling vane wheel as well as cooling air slots that safely ensure continuous cooling of the motor.

The cable is heat-resistant and strain relieved and protected by a reinforced hose casing.

RSVG technical data



Model	Motor data				Weight kg	Dimension [mm]				
	rpm	V	Amp	kW*		A	B x B	C x C	D [Ø]	E
RSVG200-41	1400	1 x 230	0.40	0.07	18	280	390	310	200	80
RSVG250-41	1400	1 x 230	0.80	0.16	27	335	485	385	250	100
RSVG315-41	1400	1 x 230	1.80	0.37	37	380	580	465	315	115

*Max effect at the motor shaft at ambient temperature: 20 °C

RPM is infinitely adjustable for all 1x230 V motors.

Motor protection class IP54

Insulation class F

RSVG sound data

Sound levels to external surroundings

Lw (dB) measured in accordance with ISO 3744

Model	Lw [dB]							LP dB [A]
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
RSVG200-41	58	60	62	61	56	44	37	36
RSVG250-41	64	68	66	65	61	49	45	41
RSVG315-41	71	75	70	73	68	57	52	48

Sound levels to flue pipe

Lw (dB) measured in accordance with ISO 5136

Model	Lw (dLw [dB])							Lw dB [A]	Lp dB [A]
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz		
RSVG200-41	65	62	62	58	48	41	30	63	55
RSVG250-41	72	69	65	63	56	48	41	68	61
RSVG315-41	74	73	70	71	63	53	47	74	69

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

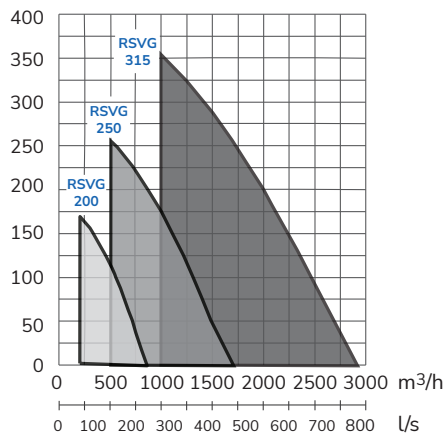
Lp (5 m) = Lp (10 m) + 6 dB

Lp (20 m) = Lp (10 m) - 6 dB

RSVG capacity diagram

The capacity diagram shown below is only for illustration. Contact your nearest dealer to calculate the correct fan size.

Ps [Pa]



Type	Test flue diameters
RSVG200	Ø 200 mm
RSVG250	Ø 250 mm
RSVG315	Ø 315 mm

at 1400 rpm

PLEASE NOTE: The capacity diagram is measured at a flue gas temperature of 20 °C. The fan capacity changes with the temperature. Correction of system pressure loss for flue gas temperature higher than 20 °C is calculated:

$$P_{S_{20}} = P_{S_t} \times \frac{273 + t}{293}$$

P_s = 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

RHG chimney fan



Description

The RHG160 is a chimney fan for use in combination with smaller gas fireplaces.

The RHG160 has a horizontal discharge and an integrated monitoring system, which consists of a pressure control switch and a flow meter.

It is installed on top of the chimney and provides a controlled vacuum in the flue pipe and chimney.

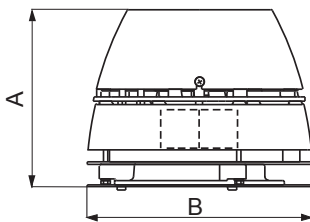
The chimney fan RHG160 ensures an optimum chimney draught regardless of location, size or height of the chimney.

Design and construction

The RHG160 is made of corrosion-resistant cast aluminium and is designed for operation in hot and corrosive environments.

It withstands flue gas temperatures up to 200 °C. The chimney fan has a centrifugal impeller that is enclosed with a heat-resistant asynchronous motor with permanently lubricated ball bearings that is developed especially for use in high temperatures.

RHG technical data

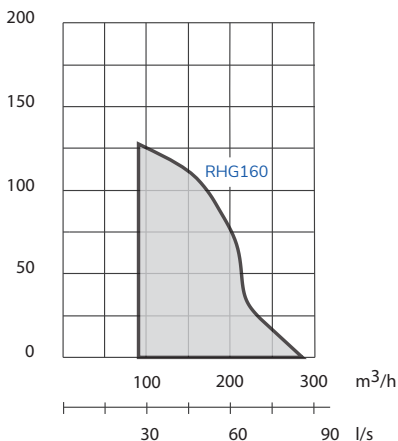


Model	Motor data				Weight kg	Dimension [mm]	
	rpm	V	Amp	kW*		A	B [Ø]
RHG160-41	1400	1 x 230	0.40	0.09	10	238	290

*Max effect at the motor shaft at ambient temperature: 20 °C
 RPM is infinitely adjustable for all 1x230 V motors.
 The motor is overload protected
 Motor protection class IP54
 Insulation class F

RHG capacity diagram

The capacity diagram shown below is only for illustration. Contact your nearest dealer to calculate the correct fan size.



PLEASE NOTE: The capacity diagram is measured at a flue gas temperature of 20 °C. The fan capacity changes with the temperature. Correction of system pressure loss for flue gas temperature higher than 20 °C is calculated:

$$P_{s_{20}} = P_{s_t} \times \frac{273 + t}{293}$$

P_s = static pressure
 t = temperature measured in °C

Example:

System demand: 200 m³/h and 25 Pa at 180 °C
 Fan selection: 200 m³/h and 39 Pa at 20 °C

Type	Test flue diameter
RHG160	Ø 160 mm

at 1400 rpm

RSG chimney fan



Description

An Exodraft chimney fan RSG provides a controllable negative pressure along the full length of the flue and chimney.

A fail-safe system is fitted in the fan which automatically measures the velocity of the flue gases. It can only be used when the velocity exceeds the pre-set and safe level. The fail-safe system prevents spillage from the gas appliance as well as any leaks of CO and poisonous gases.

Fan type RSG is installed on the external wall and thereby enables a gas appliance to be installed in a room with no chimney. The power of the fan will allow for long horizontal flues up to 15 meters.

A silencer type SLR is available as an accessory for the fan type RSG.

Design and construction

The fan is made to work in a hot environment and can withstand temperatures up to 180 °C at the flue exit.

The fans are made from galvanised sheet metal, fitted with a centrifugal impeller that is resistant to dirt in the flue gases.

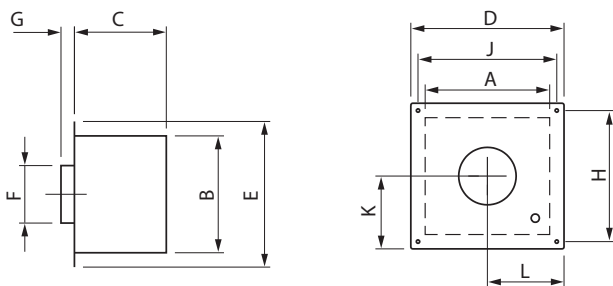
The fans are fitted with an entirely closed, asynchronous motor with ball bearings sealed for life. The motor is constructed to provide reliable operation at a high temperature. It is made according to international classifications IP54 (protection class) and F (insulation).

The motor is located inside the motor housing and thus separated from the flue gases.

The electrical connection is provided by a heat-resistant silicone cable withstanding 200 °C.

The built-in pressure switch in the chimney fan is wired to the Exodraft control unit which supervises the fail-safe function. In case of insufficient chimney draught, the heating appliance will be shut down.

RSG technical data



Model	Motor data				Weight kg	Dimension [mm]										
	rpm	V	Amp	kW*		A	B	C	D	E	F outside	G	H	J	K	L
RSG150-41	1400	1 x 230	0,2	0,05	14	325	310	240	400	380	Ø146	35	340	360	181	186
RSG200-41	1400	1 x 230	0,4	0,11	20	405	380	275	478	453	Ø196	35	413	438	215	221

* Max effect at the motor shaft at ambient temperature: 20 °C

RPM is infinitely adjustable for all 1x230 V motors.

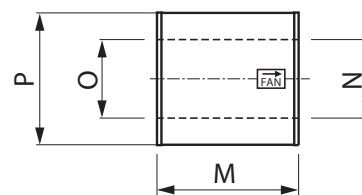
The motor is overload protected.

Motor protection class IP54

Insulation class F

Silencer SLR (install accessory)

Type	M	N [Ø inside]	O [Ø inside]	P [Ø]
SLR150-280	280	153	150	265
SLR200-280	280	206	203	318
SLR200-600	600	206	203	318



RSG sound data

Sound levels to flue pipe

L_w (dB) measured in accordance with ISO 5136

Model	L _w (dL _w [dB])							L _p dB [A]
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
RSG150-41	61	66	61	56	53	47	40	55
RSG200-41	69	72	68	62	59	55	49	61

Sound levels to external surroundings

L_w (dB) measured in accordance with ISO 3744

Model	L _w (dL _w [dB])							L _w dB [A]	L _p dB [A]
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz		
RSG150-41	75	67	52	50	44	36	29	61	35
RSG200-41	80	69	59	56	51	45	36	66	41

Sound absorbed using silencer SLR (L_w to flue pipe)

Model	L _w (dL _w [dB])						
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
SLR150-280	2	4	11	19	14	14	9
SLR200-280	1	2	10	16	12	12	7

Tolerance +/- 3 dB

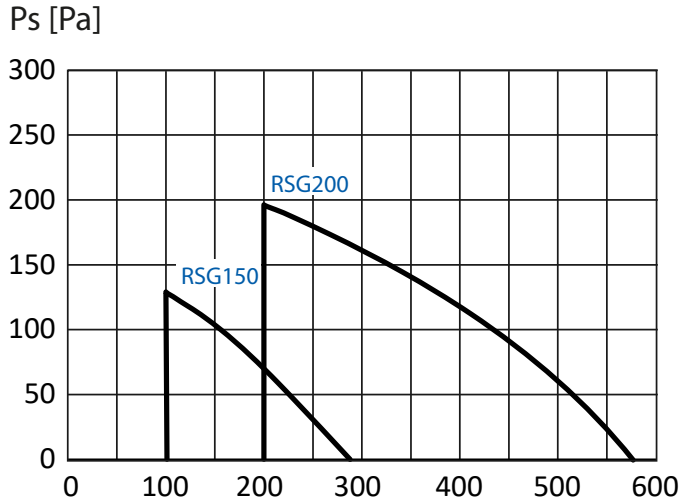
L_w = sound effect level dB (reference: 1 pW)

L_p = sound pressure level dB [A] at 10 m distance from the fan at half spheric sound distribution

L_p (2 m) = L_p (1 m) - 6 dB

RSG capacity diagram

The capacity diagram shown below is only for illustration. Contact your nearest dealer to calculate the correct fan size.



Type	Flue
RSG150	Ø150 mm
RSG200	Ø200 mm
at 1400 rpm	

PLEASE NOTE: The capacity diagram is measured at a flue gas temperature of 20 °C. The fan capacity changes with the temperature. Correction of system pressure loss for flue gas temperature higher than 20 °C is calculated:

$$P_{s_{20}} = P_{s_t} \times \frac{273 + t}{293}$$

P_s = static pressure

t = temperature measured in °C

Example:

System demand: 300 m³/h and 90 Pa at 180 °C

Fan selection: 300 m³/h and 139 Pa at 20 °C

ESP Wood Stove Filter

Exodraft wood stove filter ESP-10 is an electrostatic flue gas particle filter designed to remove most of the hazardous ultrafine particles contained in the flue gasses from your wood stove or fireplace.

The electrostatic precipitator (ESP) comes with an automatic cleaning function which helps to maintain a high filtering efficiency while keeping maintenance requirements at a minimum.

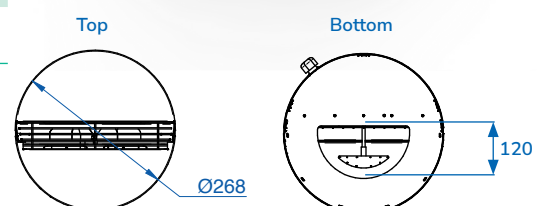
Model ESP-10

Application	Closed, wood-fired appliances
Fireplace performance range	2-10 kW
Min. ambient temperature	-20 °C
Max. flue gas temperature	400 °C
Max. ambient temperature	45 °C
IP	24D
Supply voltage	230 V AC / 50 Hz
Max. current	0.5 A
Power consumption in use	50-90 W
Power consumption in standby	2 W
High voltage	30 kV / 1.7 mA
Testing done at	DIBt: Z-7.4-3536
Housing material	Black: Stainless steel, 1.4301 (304), painted RAL 9005
	Steel: Stainless steel 1.4301 (304)
Inner construction	Stainless steel 1.4404 (316L)
Min. distance to flammable material	500 mm
Mounting	Outside, on chimney
Dimensions and weight	
Chimney size - round	Ø150 - Ø200 mm
Chimney size - square (max.)	250 x 250 mm
Height	956 mm
Outer diameter	Ø268 mm
Weight (without adapter)	14 kg

Filtering effect:

95% reduction in number of particles

70-75% reduction in total particle mass



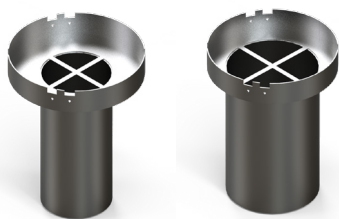
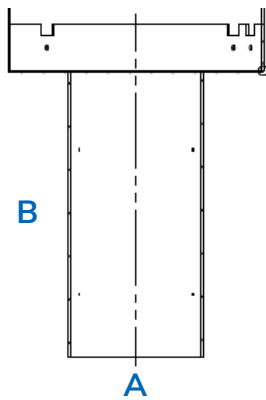
Mounting accessories

Item no.	Sales no.	Description	mm	Outer Ø of stud [mm] - [A]	Length of stud [mm] - (B)
7100019*	ESP-10-ADAPTER125	Adapter for ESP-10, Ø125	-	Ø118	295
7100000*	ESP-10-ADAPTER150	Adapter for ESP-10, Ø150	-	Ø139.7	295
7100010*	ESP-10-ADAPTER180	Adapter for ESP-10, Ø180	-	Ø168.3	295
7100011*	ESP-10-ADAPTER200	Adapter for ESP-10, Ø200	-	Ø193	295
7100020*	ESP-10-ADAPTER250	Adapter for ESP-10, Ø250	-	Ø243	295
7100015**	ESP-FR6125	Flange to Ø125 for ESP-10	395 x 395	Ø122	268
7100016**	ESP-FR6150	Flange to Ø150 for ESP-10	395 x 395	Ø147	268
7100017**	ESP-FR6180	Flange to Ø180 for ESP-10	395 x 395	Ø177	268
7100018**	ESP-FR6200	Flange to Ø200 for ESP-10	395 x 395	Ø197	268
7100021**	ESP-FR6250	Flange to Ø250 for ESP-10	395 x 395	Ø247	268

*Is always required for installation on the chimney (both brick and steel chimneys)

**Must only be used when mounting on a brick chimney

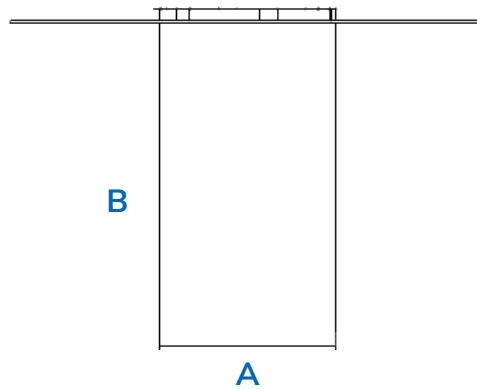
Adapter



Adapter

Adapters are available in sizes. Ø125mm to Ø250mm

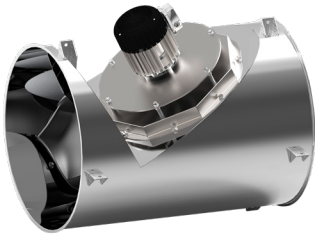
Flange



Flange

Flanges are available in sizes. Ø125mm to Ø250mm

Inline fan CFIR

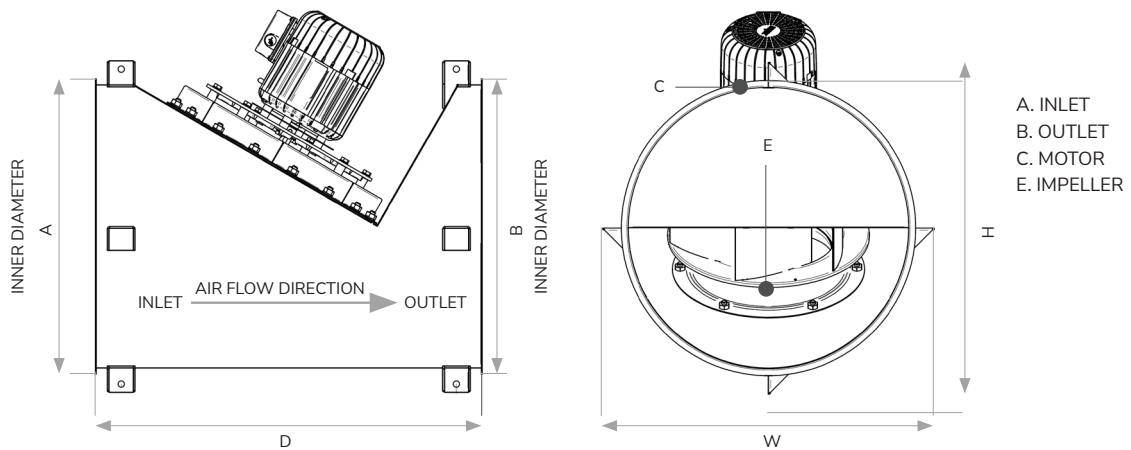


Description

CFIR is a heat-resistant inline fan which supplies gas, oil and steam installations with mechanical draught. Designed to work at continuous flue gas temperatures up to 600 °C, the CFIR can be

installed both vertically and horizontally in your duct system, indoors as well as outdoors (from -40 °C to +50 °C), providing you with more freedom of design.

Its stable construction makes it suitable for pulsating boilers. All stainless steel in accordance with EN1.4404(316L) for installation in corrosive environments. The cylindrical design provides a seamless and aesthetically pleasing integration with cylindrical ducts and chimney flues. It is designed to meet EN1.6475 demands for gas seal. Protected by a reinforced hose casing.

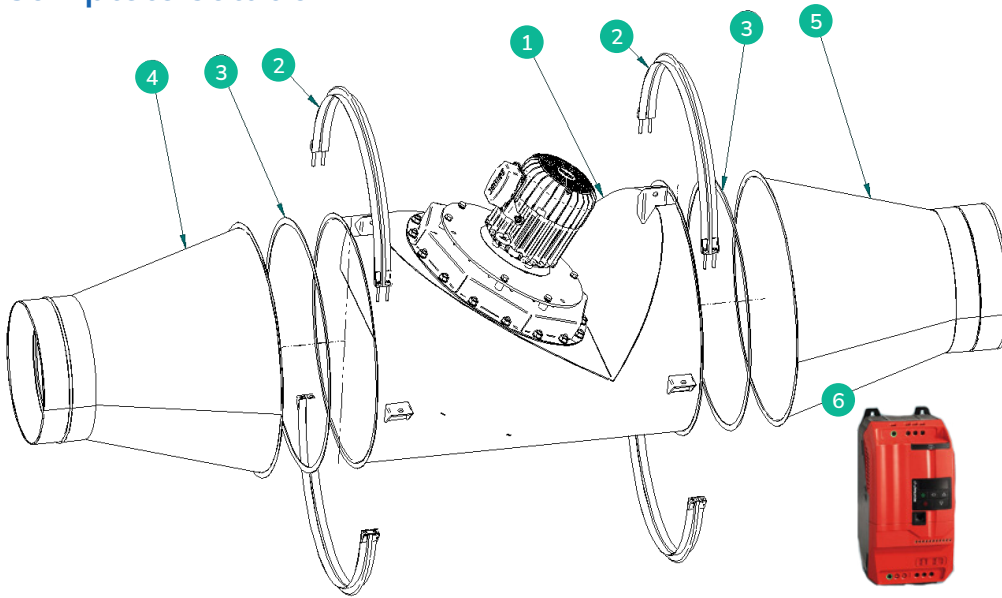


Model	Motor data					Frequency inverter		Weight Kg	Dimension [mm]					Temp. rating	
	rpm (nominal)	rpm (max.)	Voltage [V]	Power [kW]	Amp	Voltage [V]	Current [A]		A [Ø]	B [Ø]	D	H	W		Chimney [Ø]
CFIR200	1750	2400	3 x 208-240*	0.75	3.0	3 x 208-240	4.3	23	406	406	600	568	491	300 **	Max. 600 °C
CFIR300	1750	2200	3 x 380-400*	1.5	3.7	3 x 380-400	5.6	38	508	508	700	662	599	350 **	
CFIR400	1750	1950	3 x 380-400*	2.2	4.8	3 x 380-400	7.5	56	610	610	850	784	700	400 **	
CFIR500	1750	1950	3 x 380-400*	3.0	7.3	3 x 380-400	11.5	78	711	711	1000	859	802	500 **	

* Exodraft frequency inverter required

** Nominal chimney connection

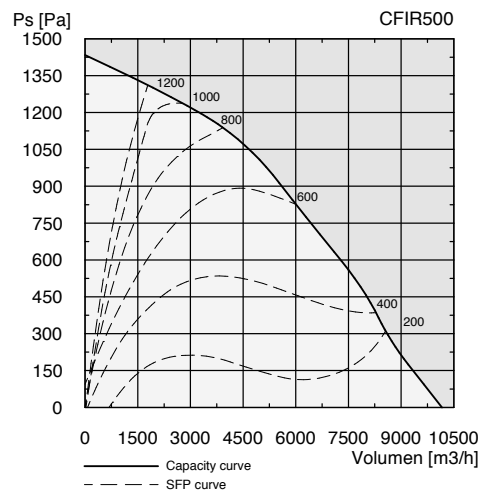
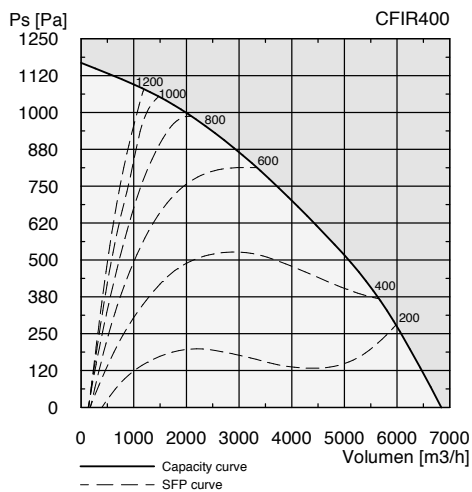
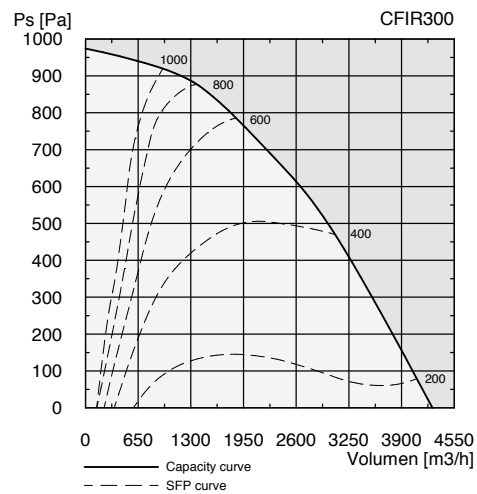
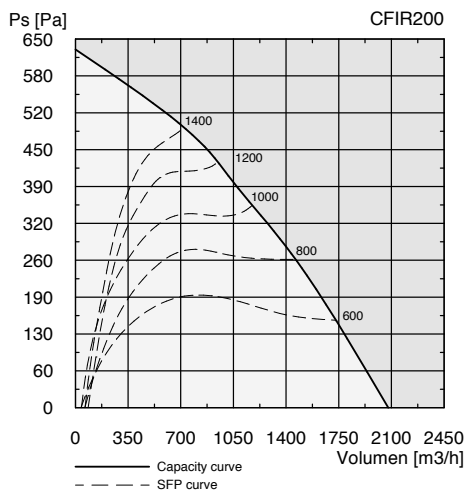
Complete solution



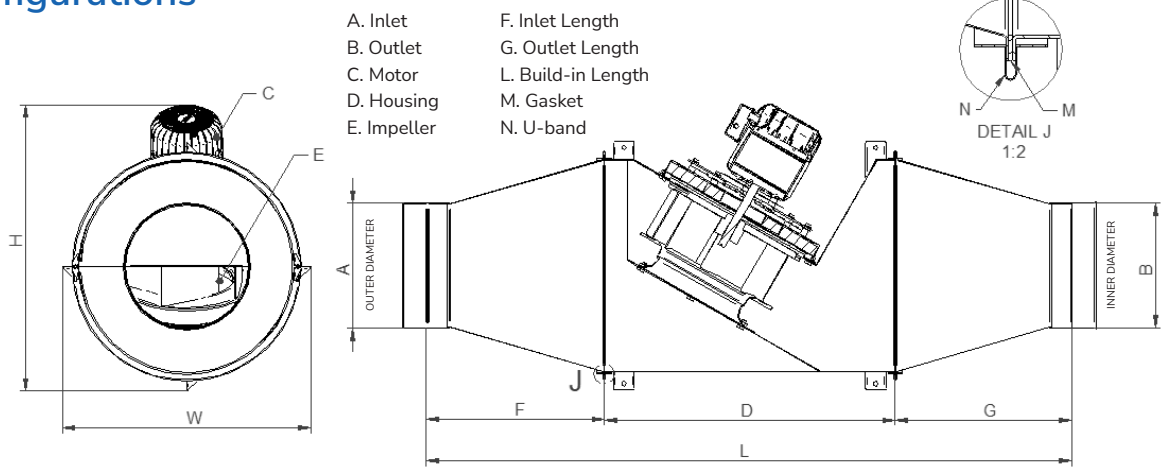
1. CFIR INLINE FAN
2. U-BAND (2x)
3. FLANGE GASKET (2x)
4. INLET CONE (NIPPLE COUPLING)
5. OUTLET CONE (SLEEVE COUPLING)
6. FREQUENCY INVERTER (REQUIRED)

CFIR capacity diagram

The capacity diagrams shown below are only for illustration. Contact your nearest dealer to calculate the correct fan size.

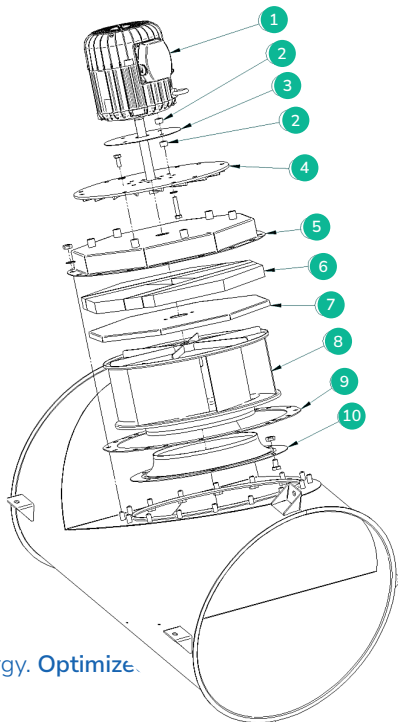


Configurations

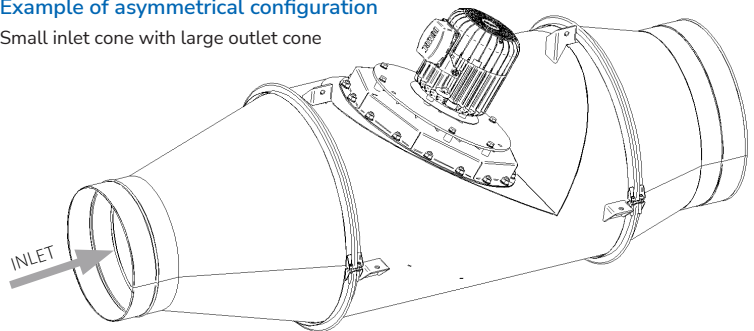


Model	Fan			Cone	Cone	U-band	Gasket	Dimensions [mm] & weight [kg]									
	rpm (max)	Voltage [V]	Power [kW]					Inlet	Outlet	Weight	A	B	D	F	G	H	L
1 pcs.				1 pcs.	1 pcs.	2 pcs.	2 pcs.										
CFIR200	2400	3 x 208 -230*	0.75	CFIR200-STUDS200	CFIR200-MUFFE200	CFIR200-UBAND	CFIR200-PAK	32	200.5	201.3		423	418		1441		
				CFIR200-STUDS250	CFIR200-MUFFE250		30	250.5	251.3	600	338	333	568	1272	491	250**	
				CFIR200-STUDS300	CFIR200-MUFFE300		29	300.5	301.3		251	246		1097			
CFIR300	2200	3 x 380 -480*	1.5	CFIR300-STUDS300	CFIR300-MUFFE300	CFIR300-UBAND	CFIR300-PAK	50	300.5	301.3		431	426		1557		
				CFIR300-STUDS350	CFIR300-MUFFE350		48	350.5	351.3	700	343	339	662	1382	599	300**	
				CFIR300-STUDS400	CFIR300-MUFFE400		47	400.5	401.3		257	251		1208			
CFIR400	2000	3 x 380 -480*	2.2	CFIR400-STUDS400	CFIR400-MUFFE400	CFIR400-UBAND	CFIR400-PAK	71	400.5	401.3		435	429		1614		400**
				CFIR400-STUDS500	CFIR400-MUFFE500		67	500.5	501.3		260	255		784		700	
CFIR500	2000	3 x 380 -480*	3.0	CFIR500-STUDS500	CFIR500-MUFFE500	CFIR500-UBAND	CFIR500	93	500.5	501.3		436	431		1867		500**
				CFIR500-STUDS600	CFIR500-MUFFE600		89	600.5	601.3		262	257	1000		859		802

* Exodraft frequency inverter required
 ** Nominal chimney connection



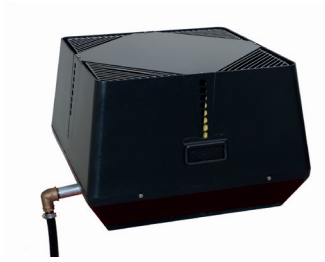
Example of asymmetrical configuration
 Small inlet cone with large outlet cone



Fan model	Cone (inlet)	Cone (outlet)	U-band	Gasket
1 pcs.	1 pcs.	1 pcs.	2 pcs.	2 pcs.
CFIR300	CFIR300-STUDS300	CFIR300-MUFFE400	CFIR300-UBAND	CFIR300-PAK

1. MOTOR
2. SPACER
3. MOTOR HEAT SHIELD
4. MOTOR PLATE DOMEL
5. MOTOR MOUNTING PLATE
6. INSULATION
7. INSULATION COVER
8. IMPELLER
9. GASKET
10. INLET CONE FOR IMPELLER

Greasefan GSV



Description

The Exodraft Grease Fan chimney fan with integrated grease drain is a specially built chimney fan with a vertical discharge for grills and kitchen exhaust. When installed on top of a chimney the chimney fan generates a vacuum in the flue pipe and in the chimney.

The grease fan is suitable for grills and kitchen exhausts. With its integrated grease drain, grease drip pan and exchangeable granule cushion it is the ideal solution for greasy exhaust air.

Design and construction

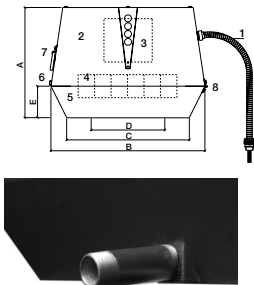
GSV chimney fans are built for temperatures up to 250 °C in continuous rating and made from cast aluminium. All screws and bolts are stainless steel.

The motor is a temperature-resistant, encapsulated induction motor with sealed and maintenance-free ball bearings, sitting outside the air volume flow. The cable is heat-resistant, strain-relieved and shielded externally with a reinforced hose. These measures give the chimney fan high operational reliability and long service life.

The grease fan chimney fan is hinged, allowing chimney cleaners to easily clean the chimney and enabling easy regular cleaning.

The drain opening is fitted with a stainless steel grid as protection.

GSV technical data



Integrated fat drain on the Grease Fan

Model	Motordata				Weight kg	Dimension [mm]				
	rpm	V	Amp	kW*		A	B x B	C x C	D [Ø]	E
GSV315-41	1400	1 x 230	1.80	0.37	45	430	650	525	280	130
GSV400-41	1400	1 x 230	2.60	0.40	47	430	650	525	280	130
GSV400-42**	1720	3 x 230	4.00	0.75	52	460	650	525	400	130

*Power consumption for ambient temperature of 20 °C

**Frequency inverter required

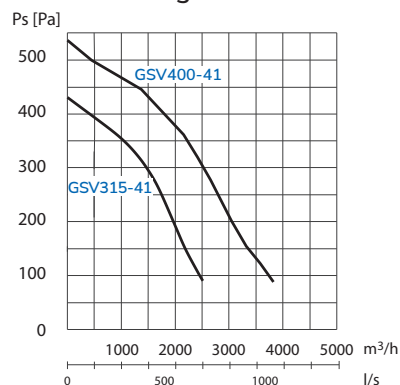
Density class IP54

Insulation class F

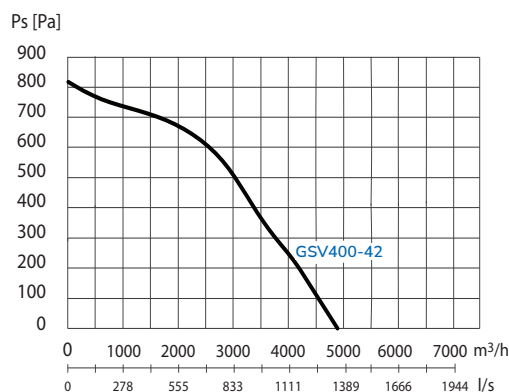
GSV capacity diagram

The capacity diagrams shown below are only for illustration. Contact your nearest dealer to calculate the correct fan size.

GSV315-41 og GSV400-41



GSV400-42



EFC16 and EFC35S manual controls



EFC16



EFC35S

Description

EFC16 and EFC35S are electronic speed controls used to manually control Exodraft chimney fans.

The EFC16 or EFC35S speed controls adjust the speed of the chimney fans and thereby makes it possible to control the fan's capacity (draught) in the range 25–100 %.

They have a built-in ON/OFF switch in the control knob, a built-in minimum-speed trimmer, and a LED to indicate operation. The controls are CE-certified.

Function

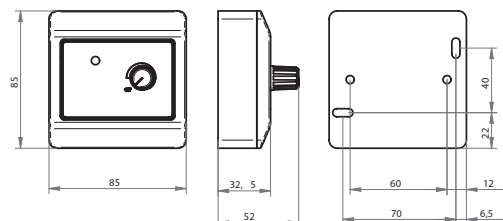
The EFC16 and EFC35S speed controls are for manual control. When the knob on these controllers is turned to the right, it will click, and the fan will turn on at full rpm. As the knob is rotated clockwise, the fan speed will be reduced. To turn the fan off, the knob must be turned all the way anti-clockwise, until it has passed the on/off point again.

EFC16 or EFC35S control units must have a REP-AFB isolation switch installed on the chimney. The isolation switch must be installed by an authorised electrician.

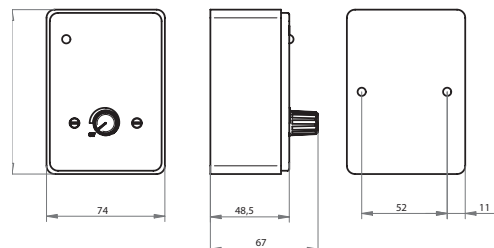
EFC16 and EFC35S technical data

Description	EFC16	EFC35S
Height [mm]	85	120
Width [mm]	85	80
Depth [mm]	52	77
Load [Amp]	Max. 1,5 A	Max. 3,5 A
Fuse [Amp]	T 1.6 A	T 4 A
Power supply	230 VAC, 50 Hz	230 VAC, 50 Hz
Ambient temperature	0 °C to +40 °C	0 °C to +35 °C
IP-rating	IP30	IP44
Casing material	ABS	ABS
Colour	White	White
Usable with the following fans listed in this brochure	RS009/012/014/016 RSV009/012/014 RSV160/200/250 RSHT009/012/014	All 230V models

EFC16



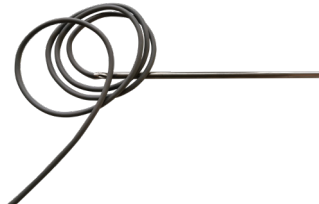
EFC35S



EFC18 control



EFC18



Temperature sensor

Description

The EFC18 is a manual nine-step speed control with an integrated automatic START/STOP. It features a boost function, to make lighting the fire easier. The EFC18 controller comes with a temperature sensor to be fitted under the fan.

Function

The EFC18 controller switches the chimney fan on with a simple press on the button on the control panel. To ensure sufficient up-draught when lighting the fire, the fan will run at full speed for seven minutes unless turned down manually. After the start up period the fan will modulate down to the speed it was running at last time it was in operation.

When re-stoking the fire, press the operating button once. The EFC18 control will then run the fan in boost mode for three minutes to avoid smoke and dust in the room.

The EFC18 temperature sensor, which is installed under the chimney fan, registers falling temperature. As the fire burns out and the flue temperature drops, the controller will (at a pre-set temperature of 20, 40 or 80 °C) run the fan for 45 minutes before stopping.

This ensures that all the wood in the fire has combusted and the fan will automatically start if a chimney temperature above a set level is registered.

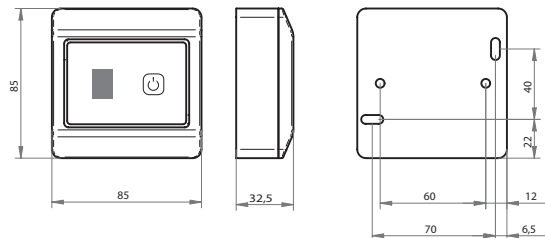
The EFC18 can always be adjusted manually during operation, but the temperature sensor will prevent the fan from being turned off while the fire is still burning and thereby avoid damaging the fan motor and eliminate the risk of spillage.

A REPSW2x16 isolation switch must be fitted to the chimney when the EFC18 control system is installed. The isolation switch must be installed by an authorised electrician.

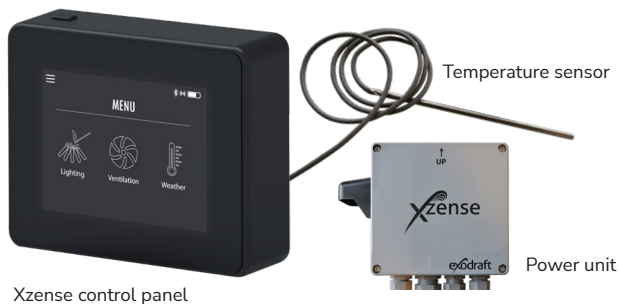
EFC18 technical data

Description	EFC18
Height [mm]	85
Width [mm]	85
Depth [mm]	32,5
Load [Amp]	1,2 A
Fuse [Amp]	T 1,25 A
Power supply	230 V AC, 50 Hz
Temperature sensor range	-50 °C to +400 °C
Ambient temperature	0 °C to +40 °C
IP-rating	IP30
Casing material	ABS
Colour	White
Usable with the following fans listed in this brochure	RS009/012/014 RSV009/012/014 RSV160/200/250 RSHT009/012/014

EFC18



Xzense wireless smart control



Xzense control panel

Optional accessories (to be ordered separately)

- Mounting kit for power unit on steel chimney
- Repeater unit for maintaining signal strength for those installations where the control panel and power unit are placed far apart
- XTP pressure sensor
- Additional Xzense control panel
- Additional USB charger cable

Xzense technical data

Description	Xzense
Frequency for radiocommunications	868 MHz Bluetooth LE 2.4 Ghz
Range	~ 18 m inside buildings
Power unit	
Dimensions [h x w x d]	122 x 120 x 55 mm
Material	PC
IP-rating	IP54
Voltage	230 V ±10 % / 50 Hz
Fuse [Amp]	T 2,0 A
Power output [Amp]	2 A
Operating temperature	-30 °C to +60 °C
Power consumption (standby)	1 W
Control panel	
Dimensions [h x w x d]	71 x 85 x 25 mm
Voltage	5 V (USB)
Material	ABS
Operating temperature	0 °C to +40 °C
IP-rating	IP20
Battery	Li-Po
Battery life (full charge)	approx. 30 days (normal use)
Temperature sensor	
Dimensions	Ø6 x 200 mm
Type	PT 1000
Material	Stainless steel
Ambient temperature	Sensor: -50 °C to +50 °C Cable: -50 °C to +125 °C

Description

The Xzense wireless remote from Exodraft is used for chimney fans for solid fuel fires, such as wood-burning stoves or open fireplaces. Xzense can be paired with your iOS or Android smart phone via Bluetooth.

Xzense consists of:

- Xzense wireless control panel with touchscreen
- Power unit with 5 metre cable that plugs into the mains
- Temperature sensor to be placed under the fan (must be connected to the power unit)
- Wall-mounting kit for control panel

The Xzense control panel helps you start and stop the fan and regulate its speed. The panel stores the last operating settings and allows you to access current and historical performance data from the display.

When lighting the fire, activate Xzense's boost function and the chimney fan will boost the chimney draught for ten minutes (default setting) to help establish the fire and prevent smoke backflow. Once the boost period expires, Xzense will automatically return to the last used setting to balance the fire.

Once the fire is smouldering, Xzense will notify you that it is time to refuel. If you choose to refuel, Xzense will prompt the chimney fan to return to its maximum speed for three minutes (default setting) to prevent smoke from spilling into the room while the oven door is open.

If you choose not to refuel, the Xzense will instead go into after run mode for 30 minutes (default setting) to ensure that there are no more embers left in the fireplace. The fan will automatically turn off and the heat from the dwelling is not sucked away. The default run times for boost and after run modes can be changed in the settings menu.

Xzense also has a ventilation mode for ventilating the fireplace at your convenience. This can be useful while cleaning the fireplace to prevent ash and dirt from escaping into the room.

The optional eXotelligence mode, which can be activated from the settings menu, is a self-learning function that stores data from previous lightings and helps you create the best possible chimney draught by automatically adjusting the speed of the chimney fan based on weather conditions and temperature. This mode also helps to further reduce particle emission.

EFC21 control

Description

Exodraft controller EFC21 is developed for gas fireplaces where an Exodraft chimney fan is installed. The control system supervises the fail-safe function. In case of insufficient chimney draught, the EFC21 will shut off the gas supply.

Function

By activating EFC21, the chimney fan will immediately start up at full speed. When the fail-safe supervision confirms sufficient chimney draught, the fireplace can be lit and the fan speed will adjust to the pre-set value which was set during commissioning.

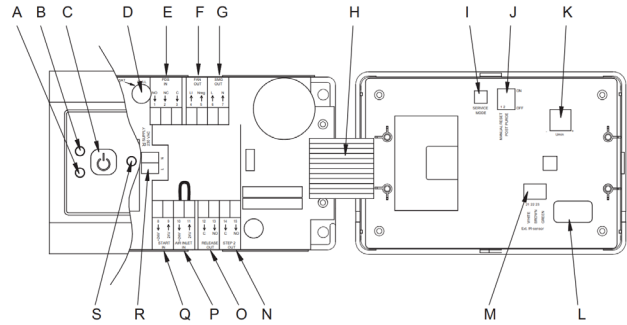
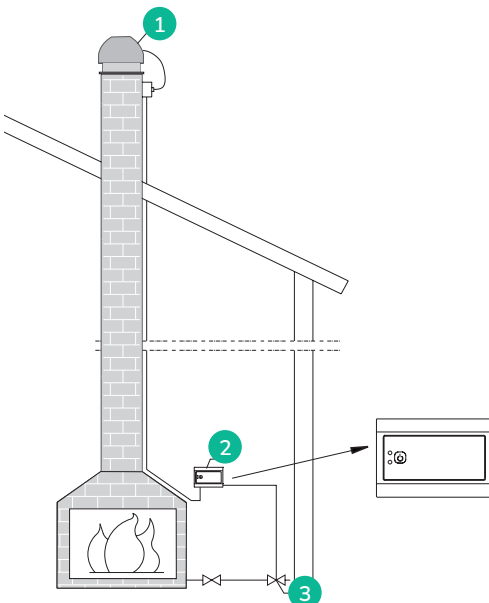
The controller has a step-up function and a 15-second built-in delay function to avoid nuisance cut-outs. When EFC21 is turned off, the chimney fan stops. It is possible to pre-set a post-purge period of 3 minutes.

The step-up function is part of the fail-safe system.

Should the draught fail during normal operating conditions, the controller will increase the fan speed to compensate. This usually occurs on windier days than the commissioning day. If sufficient draught cannot be re-established, the EFC21 will shut off the gas supply.

The system consists of:

1. Chimney fan
2. Controller EFC21
3. Solenoid valve SMG (order separately)

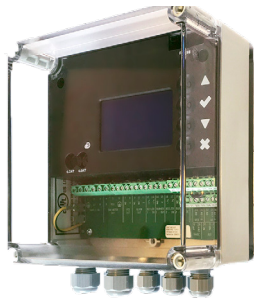


EFC21 technical data

Description	EFC21
Height [mm]	85
Width [mm]	126
Depth [mm]	32
Fuse [Amp]	T 3,15 A
Fail-safe pressure differential switch (PDS)	24 V DC (Closed circuit supply)
Output to chimney fan	1.8 A/230 V (AC 3)
Output to solenoid valve (SMG)	230 V AC, max. 100 V A
Dipswitch options	<ul style="list-style-type: none"> • Manual reset • Post-purge 3 min. period
Set-point running speed	Potentiometer on PCB
Supply	230 V AC ±10 %, 50 Hz
Input for external on/off switch	24 V DC (Closed circuit supply)
Release out relay	Max. 3,15 A 250 V AC / 3,15 A 30 V DC (Fused: 3,15 AT)
Operating temperature	-10 °C to +40 °C
IP-rating	IP30
Material	ABS
Colour	White
CE approval	Certificat no.: 0063BT1395
Usable with the following fans listed in this brochure	RHG, RSHG, RSVG, RSG



EBC10v2 automatic control



EBC10v2



XTP-sensor

Description

The EBC10v2 is an automatic control with a pressure transducer (XTP) for one boiler or other installations with one heat source.

With the help of the XTP sensor, which is installed in the chimney, the constant pressure is monitored and maintained by regulating the speed of the chimney fan.

EBC10v2 offers the possibility of an external entry point for a pressure switch or alarm sensor as well as the possibility of an alarm exit point for, for instance, a building management system.

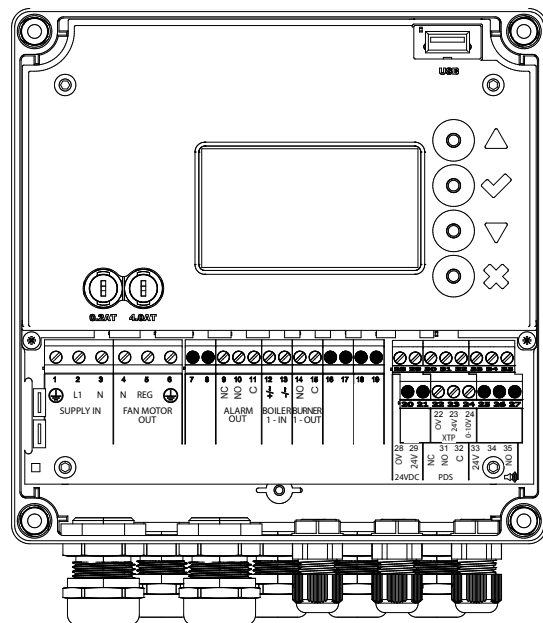
EBC10v2 technical data

Description	EBC10v2
EBC10v2EU01	
Dimensions [h x w x d]	175 x 175 x 110 mm
Weight	1,5 kg
IP-rating / material	IP54 / ABS PA758
Voltage	230 V AC $\pm 10\%$, 50 Hz $\pm 1\%$
Power consumption	475 W
Fuse	4.0T
Temperature	-20 °C to +50 °C
Monitoring range	-500 to +500 Pa
XTP-sensor	
Dimensions [h x w x d]	80 x 82 x 55 mm
Operating temperature	-25 to +50 °C
Monitoring range	0 to +150 Pa
Max. distance between EBC10v2 and XTP sensor	100 m
IP-rating	IP65
EBC10v2EU01 inputs	
Digital boiler inputs (1)	10 to 230 V AC/DC
Pressure sensor (XTP) input	0 to 10 V DC, 20 mA
Pressure switch (PDS) input	24 V DC, 20 mA
EBC10v2EU01 outputs	
Digital boiler outputs (1)	250 V AC, 8 A
Motor regulator	Supply voltage -3 %, 3 A
24 V DC power supply	100 mA
Alarm output relay	250 V AC, 8 A, AC3

Function

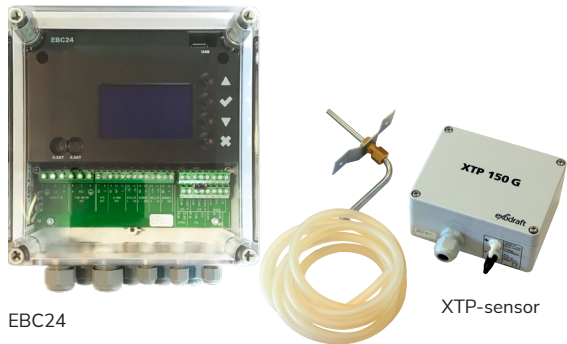
When the boiler or the heating system starts, a signal is sent to the EBC10v2 which starts the chimney fan. When the control receives the signal that the desired chimney vacuum has been reached, a signal is sent to start the burner of the boiler.

The required chimney draught is therefore always guaranteed when you start the boiler, thereby the best and most economical operating conditions are ensured. If the draught in the chimney falls below the desired level, the speed of the chimney fan is regulated until the desired chimney draught is re-established.



● = not available on EBC10v2 (see EBC24)

EBC24 automatic control



EBC24

XTP-sensor

EBC24 technical data

Description	EBC24
EBC24EU01 / EBC24EU02	
Dimensions [h x w x d]	175 x 175 x 110 mm
Weight	1,5 kg
IP-rating / material	IP54 / ABS PA758
Voltage	230 V AC ±10 %, 50 Hz ±1 %
Power consumption	475 W
Fuse	4.0T
Temperature	-20 °C to +50 °C
Monitoring range	-500 to +500 Pa
XTP-sensor	
Dimensions [h x w x d]	115 x 90 x 55 mm
Operating temperature	-25 to +50 °C
Maks. distance between EBC24 and XTP sensor	100 m
IP-rating	IP65
EBC24EU01 / EBC24EU02 inputs	
Digitale inputs (2)	10 to 230 V AC/DC
Pressure sensor (XTP) input	0 to 10 V DC, 20 mA
Pressure switch (PDS) input	24 V DC, 20 mA
EBC24EU01 / EBC24EU02 outputs	
Digital boiler outputs (2)	250 V AC, 8 A, AC3
Motor regulator	Supply voltage -3 %, 3 A
Motor start/stop relay	250 V AC, 8 A
Control signal 0–10 V DC	20 mA
24 V DC power supply	100 mA
Alarm output relay	250 V AC, 8 A

EBC24EU01 Control for indoor installation
 EBC24EU02 Control for outdoor installation

Description

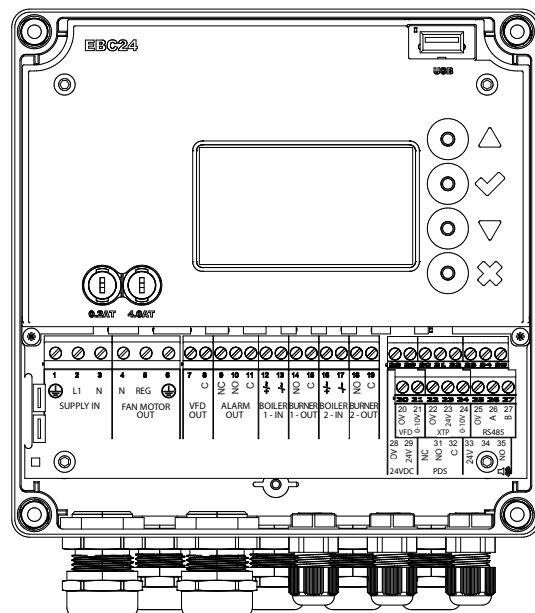
The EBC24 is an automatic control system for boiler installations and for installations in which multiple heat sources are connected to the same chimney. The control monitors and maintains a specific draught by maintaining a constant pressure. The EBC24 system consists of an EBC24 control, which can be positioned anywhere, and a pressure transducer (XTP sensor) which is positioned in the chimney.

Function

In installations where more fireplaces are connected to the same chimney, the chimney fan operates continuously. The EBC24 controller monitors and maintains a specific draught by maintaining a constant pressure. The pressure in the chimney is measured by the XTP sensor. If the draught falls below the set value, the speed of the chimney fan is regulated until the draught reaches the required level again.

The EBC24 has two heating appliance interlock circuits as standard and can be expanded in multiples of four with the use of additional relay boards (ES12). A self-diagnostic panel with LEDs monitors all connection terminals for easy service and troubleshooting. The EBC24 also has an alarm output for a BMS-system. An alarm via a buzzer can be made through the buzzer output.

The EBC24 has terminals for connecting a RS485 communication BUS.



Frequency inverter FRK



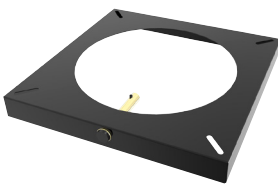
Description

The frequency inverters - or variable speed drives (VSD) – are used for regulating the speed of the chimney fans with three-phase motors. All CFIR inline fans have special EC (electronically controlled) motors that can only be regulated by using a frequency inverter. The inverters are used in combination with the controllers EBC22/24 or the manual controller Pot S.

All FRK frequency inverters are pre-programmed with a unique software tested and designed to suit each fan.

Type	Description	Power supply
FRK-038	For inline fan CFIR200, density class IP20	1 x 230 V
FRK-039	For inline fan CFIR200, density class IP66	1 x 230 V
FRK-032	For inline fan CFIR300, density class IP20	3 x 400 V
FRK-033	For inline fan CFIR300, density class IP66	3 x 400 V
FRK-034	For inline fan CFIR400, density class IP20	3 x 400 V
FRK-035	For inline fan CFIR400, density class IP66	3 x 400 V
FRK-036	For inline fan CFIR500, density class IP20	3 x 400 V
FRK-037	For inline fan CFIR500, density class IP66	3 x 400 V
FRK-040	For chimney fan RSV400-42	1 x 230 V
FRK-041	For chimney fan RSV450-42	1 x 230 V
FRK-042	For chimney fan RSV400-42	3 x 400 V

Cover plate



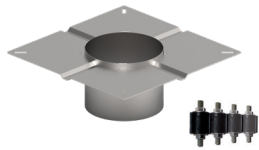
FRAFD

Description

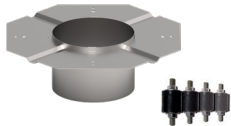
Cover plate for brick and steel chimneys (to cover anti-vibration mat and flange).

Type	Description	Fits chimney fan type
FR1AFD6	Cover plate steel chimney	RSV009, RSV160
FR2AFD6	Cover plate steel chimney	RSV012, RSV200, RS009, RS255, RSHT9
FR3AFD6	Cover plate steel chimney	RSV014, RSV250, RS012, RS014, RS285, RSHT12, RSHT014
FR4AFD6	Cover plate steel chimney	RS016, RSV016, RSV315, RSV400, RSV450, RSHT016
FR1AFD6-001	Cover plate brick chimney	RSV009, RSV160
FR2AFD6-001	Cover plate brick chimney	RSV012, RSV200, RS009, RS255, RSHT009
FR3AFD6-001	Cover plate brick chimney	RSV014, RSV250, RS012, RS014, RS285, RSHT012, RSHT014
FR4AFD6-001	Cover plate brick chimney	RS016, RSV016, RSV315, RSV400, RSV450, RSHT016

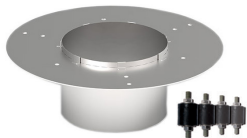
FR flange



FR



FR-02



FR5

Description

FR flanges from Exodraft are used to install Exodraft chimney fans on steel chimneys.

The flanges are made of stainless steel (1.4301 (304)) and ensure that the chimney fans have a flat and level installation base. The flange is supplied with four vibration dampers that reduce vibrations.

The diameter of the flange spigot is 3 mm smaller than the diameter of the chimney. For example, the diameter of the spigot of an FR1200 is Ø197 mm, designed to fit into a chimney opening with a Ø200 mm diameter.

The flange range caters for all types of chimney fans and chimneys.

Type	mm	Chimney diameter	Chimney fan
FR1	272 x 272	100 - 125/130 - 150 - 175 - 200 - 250	RSV009, RSV160
FR2	310 x 310	125/130 - 145 - 150 - 175 - 190 - 200 - 250	RS009, RS255, RSV012, RSV200, RSVG200, RSHT009
FR3	395 x 395	150 - 175 - 200 - 250 - 300 - 350	RS012, RS014, RS285, RSV014, RSV250, RSVG250, RSHG012, RSHG014, RSHT012, RSHT014
FR4	500 x 500	200 - 250 - 300 - 350 - 400	RS016, RSV016, RSV315, RSV400, RSV450, RSVG315, RSHT016
FR2-002	310 x 310	150 - 200	RS009-02
FR3-002	395 x 395	150 - 200	RS012-02
FR5	300 x 300	100 - 125 - 150	RHG160

Spigot length 107-114 mm

Other fitting accessories

Levelling screws



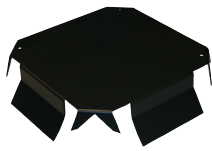
RSD

Four levelling screws type RSD can be installed between the fan and the chimney to create dilution air in brick chimneys if the temperature in the chimney is too high. If dilution air is required, it is important to take the increased capacity need into consideration when sizing the fan system.

Rainshield



RS Rainshield



RSV Rainshield



ESP-10 Rainshield

Rain protection against driving rain.

Type	Description	Fits chimney fan type
7300006	Rainshield	RS009, RSHT009
7300010	Rainshield	RS012, RSHG012, RSHT012
7300011	Rainshield	RS014, RSHG014, RSHT014
7300012	Rainshield	RS016, RSHG016, RSHT016
7300007	Rainshield	RSV009, RSV160
7300008	Rainshield	RSV012, RSV200, RSVG200
7300000	Rainshield	RSV014, RSV250, RSVG250
7300009	Rainshield	RSV016, RSV315
7300013	Rainshield	ESP-10 (black)
7300014	Rainshield	ESP-10 (steel)

Isolation switch



REP-AFB



REPAFB3P



REPSW2x16

It is a legal requirement that an isolation switch is installed in the immediate vicinity of the chimney fan, so that, for example, chimney sweeps can disconnect the electrical current to the chimney fan. The type of isolation switch required depends on the chimney fan control system.

Type	Description	Used with controls
REP-AFB	2-pole isolation switch	EFC16, EFC35S, Xsense, EFC21, EBC10v2
REPAFB3P	3-pole isolation switch	EFC16, EFC21
REPSW2x16	4-pole* isolation switch	EFC18, EFC21

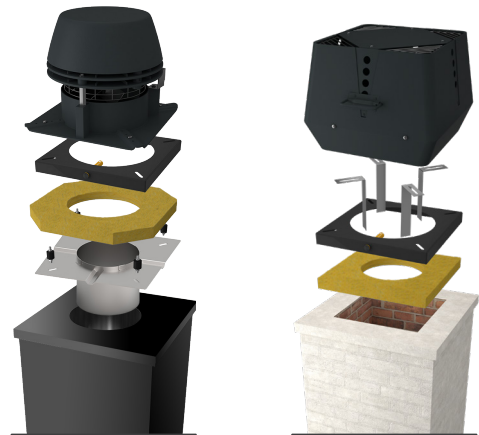
* 3-pole with help switch

Installing a chimney fan

The chimney fan is installed on top of the chimney. The chimney fan is supplied as standard with adjustable location brackets, armoured power cable, a safety wire and a mineral wool mat, which ensures vibration-free operation.

When installing a fan onto a brick chimney the location brackets are fitted under the chimney fan.

If the chimney fan is to be fitted onto a steel chimney, then a flange and vibration dampers must be used instead of location brackets. The flange, which includes vibration dampers is ordered separately.

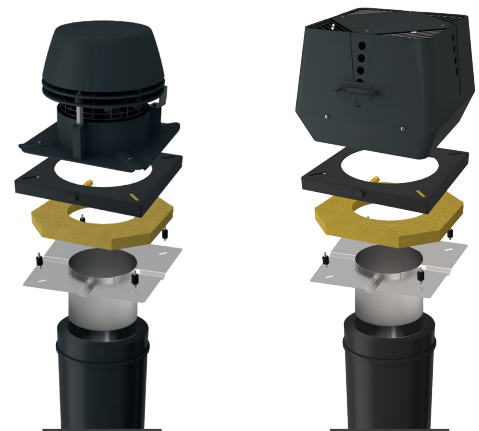


Hiding the chimney fan

Installation of Exodraft chimney fans on top of chimneys can sometimes be difficult due to special site conditions such as listed buildings or special architectural demands. For those installations it is possible to make the fans virtually invisible.

Contact your nearest dealer for assistance if such a solution is needed.

Find more about how to hide a chimney in our brochure at: www.exodraft-brochures.com



Service and maintenance

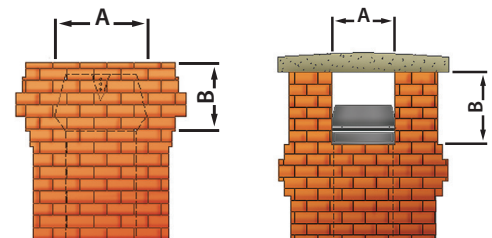


The chimney fan should be cleaned as often as needed (at least once a year) depending on the type of fire fuel. When the fan is open, it is easy to clean it while the chimney is being swept.

Find more about how to clean the specific chimney fans, visit www.exodraft-manuals.com.

The chimney fan must always be running when there is a fire in the fireplace, stove or boiler.

Exodraft provides a two-year manufacturer's warranty. The Exodraft warranty does not include damage caused by fire.



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