Technical Data

Chimney fans, controllers & accessories

- Solid fuel and wood-burning stoves and fireplaces
- Decentralised multiple heating appliances connected to same chimney
- Biomass-burning boiler

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Project and design support

exodraft solutions are so much more than just products and systems. In close co-operation with our exodraft Technology Centres we provide pre-sale analysis, system design and implementation recommendations.

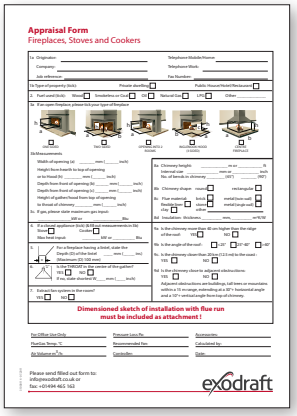
During this process we use design software, developed by exodraft, which enables us to design any system with great accuracy and speed.

The design software allows exodraft and our Technology Centres' experienced engineers to design complete systems quickly, accurately and efficiently, whilst providing engineers with sizing reports.

As exodraft or our Technology Centres design the system, we also take full responsibility for its operation. This is part of exodraft's "Performance Guarantee".

All calculations and system recommendations provided by exodraft are performed in accordance with the relevant rules and regulations.

exodraft and our Technology Centres offer telephone engineering and installation support. All designs are stored electronically, so our engineers and technicians have a record of what a system looks like and what it includes.


Appraisal Form
Fireplaces, Stoves and Cookers
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System solutions with a perspective

exodraft's systems provide the basis for an optimal solution – both during planning and implementation. They are a reliable, simple solution for all professional partners.

Well-documented, our system solutions are adapted to meet the requirements and standards within the various areas of use.

We look forward to assisting you in getting started.

The exodraft chimney draught systems are available through our network of exodraft Technology Centers (ETC), who distribute the full range of exodraft chimney draught systems throughout the UK.

Each ETC has a certified exodraft product manager. The product manager is knowledgeable of exodraft's full chimney draught system and product range and will be able to answer all of your questions. All ETCs hold exodraft products in stock and items can usually be delivered within 24 hours.

Want to know more about chimney fan solutions?

We have a number of CPD seminars that cover your business requirements in connection with the design of boiler systems and/or fireplaces.

Our seminars will help you to take full advantage of the possibilities that mechanical chimney draught gives you to design energy efficient, flexible, and guaranteed safe boiler or fireplace systems.

Please feel free to contact us for further information on our CPD seminars or our Chimney Automation Solutions.

Peace of mind guarantee

exodraft systems are supplied with a peace of mind guarantee:

- 2 year warranty against any mechanical failure to the systems
- 10 year warranty against corrosion.

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.

It is the function of the chimney both to remove the smoke and supply oxygen for effective combustion. In an ideal situation this is done though 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.

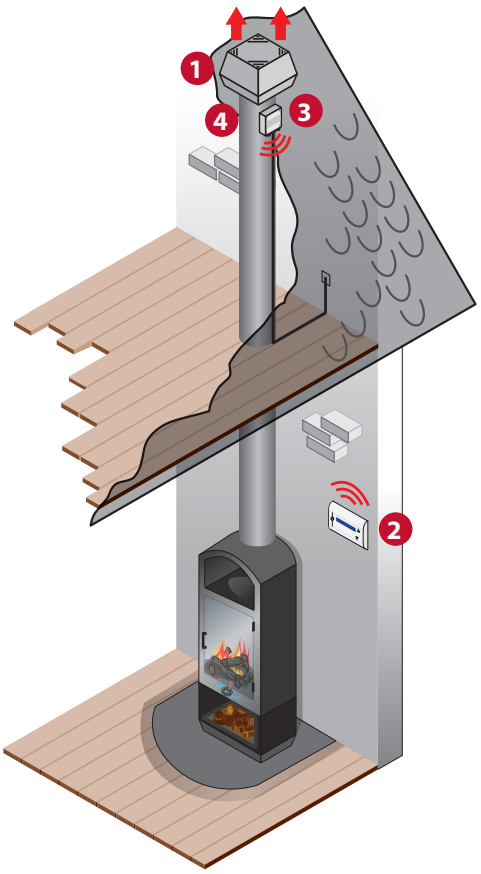
An exodraft chimney fan gives you complete control over the chimney draught. The chimney fan is installed on top of the chimney and creates a negative pressure in the flue, thus ensuring that the flue gases are extracted up the chimney rather than into the room. The fan control enables you to adjust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

An exodraft chimney fan system for a fireplace or wood-burning stove consists of a RS or a RSV chimney fan with an axial vane, a fan control and accessories.

The EFC16, EFC18, EFC35 and EW41 controls allow the user to manually adjust the chimney draught. The EFC18 control comes with a temperature sensor enabling automatic stop of the chimney fan after the fire is out. The EFC18 also has a boost function for extra chimney draught on start-up or when re-stoking the fire, so smoke down draughts and odours do not escape into the room.

The EW41 wireless controller is easy to install as no power supply cables are needed for the control panel. In addition to having similar functionality as the EFC18, the EW41 also signals when it is time to re-stoke the fire and audibly indicates if the temperature inside the chimney becomes too high. It is easy to see and change the settings via the display on the control panel.

The constant pressure regulation EBC10v2 is also an option. This control ensures the correct draught at all times regardless of the surrounding conditions.



Find the components you need here:

	Component	Type	Page
1	Chimney fan	RS with horizontal exhaust	6
		RSV with vertical exhaust	8
2	Control	EFC16	12
		EFC35	12
		EFC18	13
		EW41	14
		EBC10v2	15
3	Isolation switch	REP-AFB	18
		REPSW2x16	18
4	Accessories for Installation	Flange	17

Components for a solid fuel or biomass-burning boiler

A natural draught chimney system is designed to work at average conditions for the region. So, 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.

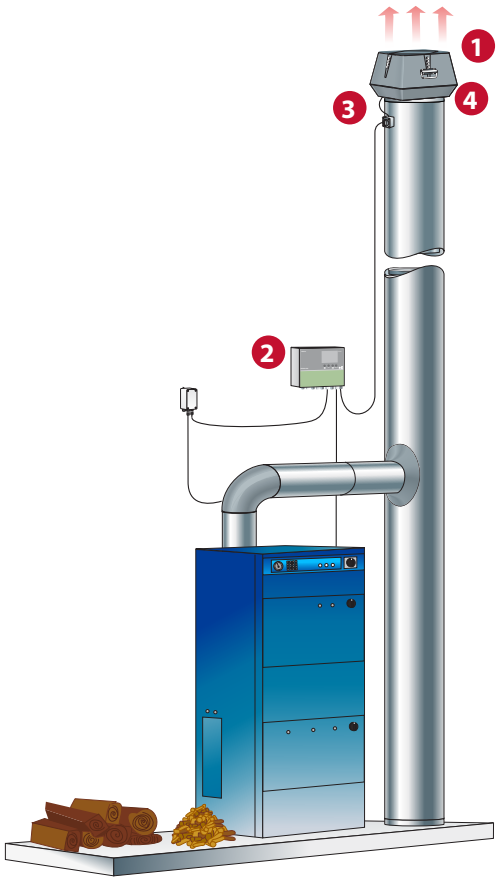
When a biomass burning appliance, for example a pellet stove, has chimney draught problems, this can mean that lighting the fire can be difficult and may cause soot and smoke to be expelled back into the room. Insufficient chimney draught can also lead to poor combustion, and inefficient use of the fuel.

These problems can be solved by installing an exodraft chimney fan system, because the system ensures the correct chimney draught is available at all times.

An exodraft system for a solid fuel or biomass burning boiler consists of an RS or RSV chimney fan with axial blades, a controller and accessories. The EFC16, EFC18 or EFC35 controllers allow the user to manually adjust the chimney draught as needed. The EFC18 controller is supplied with a temperature sensor and will stop the chimney fan 45 minutes after the fire has gone out. It also starts the fan automatically if the preset temperature in the chimney has been reached by lighting the fire and the fan system has not been started manually. However, it is not recommended to light a fire unless the chimney fan is already in operation.

The EBC10v2 control regulates the fan speed automatically, maintaining constant pressure in the chimney and creating the optimal conditions to ensure correct combustion.

For installations with multiple boilers, please use the EBC24.



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		EFC18	13
		EBC10v2	14
		EBC24	15
3	Isolation switch	REP-AFB	18
		REPSW2x16	18
4	Accessories for Installation	Flange	17

RS chimney fan

Description
An exodraft RS chimney fan is a specially designed extractor fan with horizontal discharge.

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

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.

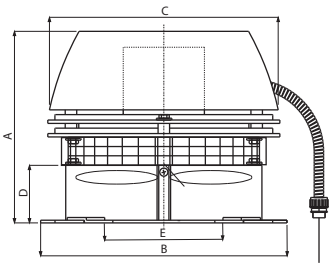
They are constructed of corrosion resistant cast aluminium and the screws and bolts are made of stainless steel.

RS chimney fans are available in a range of sizes and capacities. The RS9, RS12, RS14 and RS16 models are equipped with stainless steel axial vanes for easy cleaning. 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 can be opened 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	Dimension (mm)				
	rpm	V	Amp	kW*	kg	A	B	C Ø	D	E Ø
RS009-4-1	1400	1 x 230	0,3	0,05	9	250	300	285	75	220
RS012-4-1	1400	1 x 230	0,3	0,09	14	275	365	350	85	280
RS014-4-1	1400	1 x 230	0,6	0,13	18	330	420	395	100	330
RS016-4-1	1400	1 x 230	1,2	0,29	25	405	480	450	100	380
RS255-4-1	1400	1 x 230	0,4	0,07	14	260	300	350	35	200
RS285-4-1	1400	1 x 230	0,8	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 bottom section, specially designed for circular chimneys.

RS sound data

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

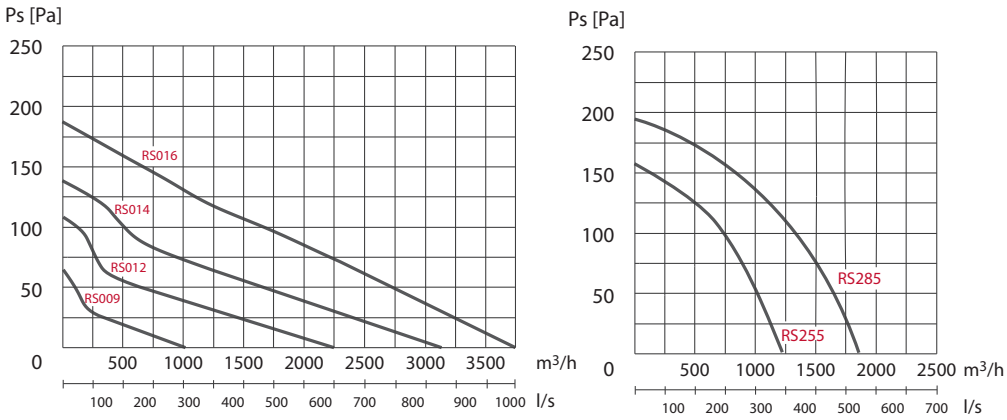
Model	Lw (dB)							Lp dB (A)
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
RS009-4-1	54	50	47	43	38	31	25	21
RS012-4-1	64	60	55	52	48	42	34	30
RS014-4-1	75	69	65	62	57	51	44	41
RS016-4-1	81	76	72	69	64	58	52	47

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



Type	Test flue diameters
RS09	Ø 160 mm
RS12	Ø 200 mm
RS14	Ø 250 mm
RS16	Ø 315 mm
RS255	Ø 200 mm
RS285	Ø 250 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:

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

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 extractor fan with vertical discharge.

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

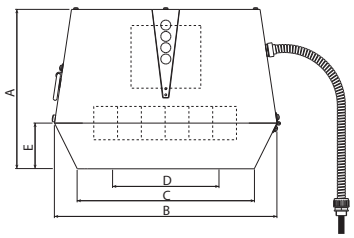
Design and construction
exodraft chimney fans are specially made to continuously withstand flue gas temperatures of up to 250 °C and continue functioning in dirty environments. They are constructed of corrision resistant cast aluminium and the screws and bolts are made of stainless steel.

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, where multiple fireplaces are connected to the same chimney.

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 can be opened 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	Dimension [mm]				
	rpm	V	Amp	kW*	kg	A	B x B	C x C	D Ø	E
RSV009-4-1	1400	1x230	0,14	0,05	13	250	310	240	215	70
RSV012-4-1	1400	1x230	0,35	0,13	17	280	390	310	275	80
RSV014-4-1	1400	1x230	0,8	0,16	24	335	485	385	335	100
RSV016-4-1	1400	1x230	1,8	0,32	35	380	580	465	365	115
RSV160-4-1	1400	1x230	0,4	0,04	12	250	310	240	160	70
RSV200-4-1	1400	1x230	0,4	0,07	18	280	390	310	200	80
RSV250-4-1	1400	1x230	0,8	0,16	27	335	485	385	250	100
RSV315-4-1	1400	1x230	1,8	0,37	37	380	580	465	315	115
RSV400-4-1	1400	1x230	2,6	0,60	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

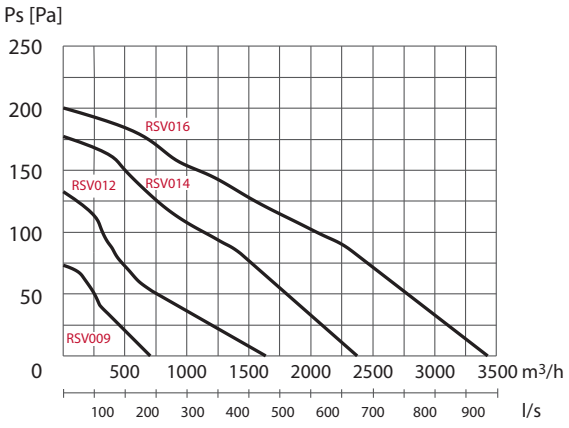
Sound levels to external surroundings
Lw (dB) measured in accordance with ISO 3744

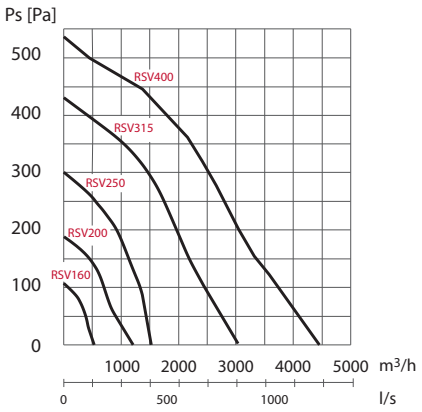
Model	Lw (dB)							Lp dB (A)
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
RSV009-4-1	57	55	54	49	40	35	26	26
RSV012-4-1	64	62	61	55	51	46	40	33
RSV014-4-1	71	70	68	61	56	50	44	40
RSV016-4-1	76	76	70	65	60	55	49	44
RSV160-4-1	56	54	57	51	44	34	28	30
RSV200-4-1	64	62	61	55	51	46	40	33
RSV250-4-1	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

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 diagrams

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





Type	Test flue diameters
RSV09	ø 160 mm
RSV12	ø 200 mm
RSV14	ø 250 mm
RSV16	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:

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

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

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.

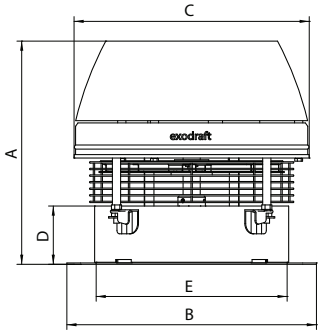
Design and construction
The RSHT has a horizontal discharge and is made of stainless steel with an aluminium housing. The chimney fan is equipped with a stainless steel axial impeller. The same is true for all screws and bolts. The engine is a heat-resistant asynchronous motor in an enclosed construction 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 means the chimney sweeper has easy access to sweep the chimney.

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

RSHT technical data



Model	Motor data				Weight	Dimension [mm]				
	rpm	V	Amp	kW*	kg	A	B	C ø	D	E ø
RSHT009-4-1	1400	1 x 230	0,4	0,09	12	298	296	275	75	220
RSHT012-4-1	1400	1 x 230	0,6	0,13	15	325	364	344	85	280
RSHT014-4-1	1400	1 x 230	1,2	0,29	19	372	422	395	100	330
RSHT016-4-1	1400	1 x 230	1,8	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

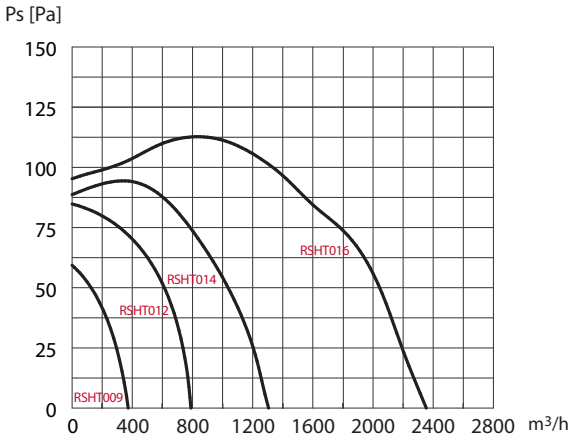
Sound levels to external surroundings
Lw (dB) measured in accordance with ISO 3744

Model	Lw (dLw (dB))							Lp dB (A)
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
RSHT012-4-1	72	74	71	65	66	62	54	33
RSHT014-4-1	80	76	72	70	71	68	61	49
RSHT016-4-1	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 diagrams

The capacity diagrams shown below are only for illustration. Contact exodraft or 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:

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

P_S = 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

EFC16 and EFC35 manual controls

EFC16

EFC35

Description
EFC16 and EFC35 are electronic speed regulators used to manually control exodraft chimney fans.

The EFC16 or EFC35 speed regulators adjust the chimney fan's speed, thereby making it possible to control the chimney fan's capacity (draught) in the range 25–100 %.

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

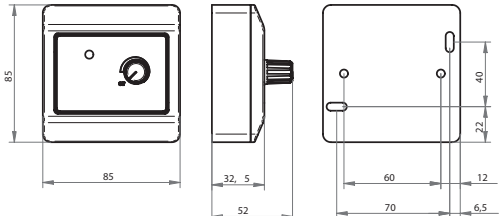
Function
The EFC16 and EFC35 speed regulators are designed for manual control. When the knob on these controllers is turned to the right, it will click and the fan will turn on at full rpm. As the knob is rotated clockwise, the fan speed will be reduced. To turn the fan off, the knob must be turned all the way anti-clockwise, until it has passed the on/off point again.

EFC16 or EFC35 control units must have a REP-AFB isolation switch mounted on the chimney. The isolation switch must be installed by an authorised electrician.

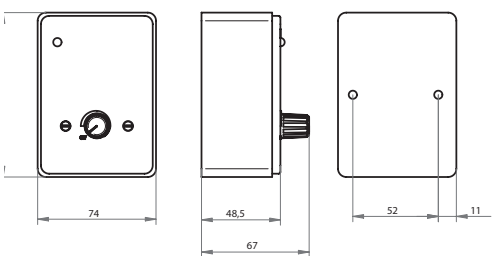
EFC16 and EFC35 technical data

Description	EFC16	EFC35
Height (mm)	85	102
Width (mm)	85	74
Depth (mm)	52	67
Load (Amp)	Max. 1.5 A	Max. 3.5A
Fuse (Amp)	T 1.6 A	T 4 A
Power supply	230 V AC, 50 Hz	230 V AC, 50 Hz
Ambient temperature	0–40 °C	0–35 °C
IP-rating	IP30	IP30
Casing material	ABS	ABS
Colour	White	White
Usable with the following fans listed in this brochure:	RS9/12/14/16 RSV9/12/14 RSV160/200/250	RSV16 RSV315 RSV400

EFC16



EFC35



EFC18

EFC18

Temperature sensor

Description
The EFC18 is a manual nine-step speed regulator with an integrated automatic START/STOP for the exodraft chimney fan. It also 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 of a 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 the 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 so no smoke or dust will escape into the room.

The EFC18 temperature sensor, which is installed under the chimney fan, registers falling temperature. As the fire dies out and the flue temperature drops, the controller will (at a preset temperature of 20, 40 or 80 °C) run the fan for 45 minutes before stopping it. This ensures that all the material in the fire has combusted and also that the fan is automatically started if a chimney temperature above a set level is registered.

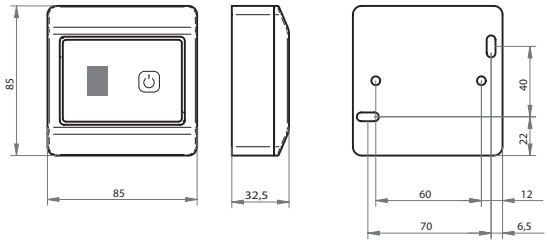
The fan speed can always be adjusted manually during operation, but the temperature sensor will prevent the fan from being turned off while the fire is still burning and thereby avoid damaging the fan motor and eliminate the risk of spillage.

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	0–40 °C
IP-rating	IP30
Casing material	ABS
Colour	White
Usable with the following fans listed in this brochure:	RS9/12/14/16 och RSV9/12/14 RSV160/200/250

EFC18



EW41 wireless control

EW41

Power unit and temperature sensor

Optional accessories

- Installation kit for steel chimneys.
- Mains adapter (230 V) for the control panel.
- Repeater unit to maintain signal strength for those installations where the control panel and power unit are placed far away from each another.

EW41 technical data

Description	EW41
EW41	
Frequency	868,42 MHz
Protocol	Z-wave
Range	~ 12 m inside buildings
Control box	
Dimensions (w x h x d)	122 x 120 x 55 mm
Material	ABS
Ingress protection	IP64
Voltage	230 V ±10 %, 50 Hz
Fuse	T 2.0
Current out	2 Ampere
Operating temperature	-30 °C to 60 °C
Temperature sensor	-50 °C to 450 °C
Power consumption (standby)	1 W
Control panel	
Dimensions (w x h x d)	130 x 100 x 44 mm
Material	ABS
Operating temperature	0 °C til 40 °C
Ingress protection	IP20
Battery	4 pcs. AA (LR6)
Battery lifetime	approx. one year

Description

The wireless control EW41 from exodraft , is used to regulate chimney fans for solid fuel fires, such as open fires or wood-burning stoves.

EW41 consists of:

- A control panel
- A control box with fan repair switch and 5 m cable that plugs into the mains
- A temperature sensor to be placed under the fan (Must be connected to the control box)

The EW41 control panel lets you start and stop the fan or regulate its speed. The panel saves the last operating setting and you can read the consumption data in the display.

The temperature sensor automatically monitors the system's temperature to prevent possible overloading caused by omission. When the fire is lit, the system will switch on automatically even if you do not activate the EW41. Once the fireplace is cold, the fan turns off automatically, so the heat from the dwelling is not sucked away.

EW41 boosts the chimney draught for seven minutes. So lighting the fire is quick and easy.

The controller signals when it is time to re-stoke the fire. Once you have stoked the fire, the panel is activated and chimney draught is increased for three minutes. This prevents unpleasant smoky down draughts and your fire lights faster.

The control panel monitors chimney draught and triggers the alarm if:

- The repair switch is switched off
- The fan power fails
- There is no connection to the control box
- There is risk of a chimney fire because chimney temperature is too high.

The EW41 controller uses radio wave (Z-wave) communication, which is a very safe system as all commands are confirmed and there is no risk of interference from other equipment.

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.

The control has input and output for one boiler.

The EBC10v2 automatic also 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 example for a building management system.

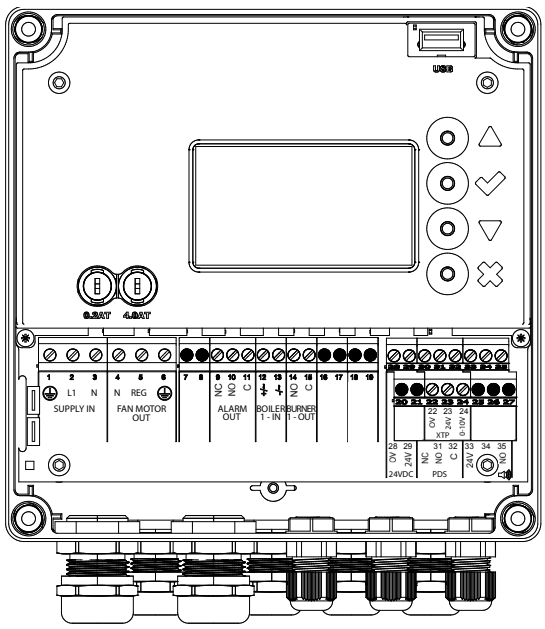
Function
When the boiler or the heating system starts, a signal is sent to the EBC10v2 which starts the chimney fan at full speed. When the control receives the signal that the desired chimney vacuum has been reached, a signal is sent to start the boiler's burner.

The necessary chimney draught is therefore always guaranteed when you start the boiler, thereby the best and most economical operating conditions are ensured.

If the chimney draught falls below the desired level, the speed of the chimney fan is regulated until the desired chimney draught is reestablished.

EBC10v2 technical data

Description	EBC10v2
EBC10v2EU01	
Dimension (W x H 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 (3,7 A)
Fuse	4.0T
Temperature	-20 °C to +50 °C
Monitoring range	-500 to +500 Pa
XTP-sensor	
Dimension (W x H x D)	80 x 82 x 55 mm
Operating temperature	-25 to 50 °C
Monitoring range	0 to +150 Pa
Max. distance between EBC24 and XTP sensor	100 m
IP-rating	IP54
EBC10v2 Inputs	
Digital boiler inputs (1)	10-230 V AC/DC
Pressure sensor (XTP) input	0 to 10 V DC, 20 mA
Pressure switch (PDS) input	24 V DC, 20 mA
EBC10v2 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



● = not available on EBC10v2 (see EBC24)

EBC24 automatic control

EBC24

XTP sensor

EBC24 technical data

Description	EBC24
EBC24EU01/EBC24EU02	
Dimension (W x H 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 (3,7 A)
Fuse	4.0T
Temperature	-20 °C to +50 °C
Monitoring range	-500 to +500 Pa
XTP-sensor	
Dimension (w x h x d)	80 x 82 x 55 mm
Operating temperature	-25 to 50 °C
Monitoring range	0 to +150 Pa
Max. distance between EBC24 and XTP sensor	100 m
IP-rating	IP54
EBC24EU01/ EBC24EU02 Inputs	
Digital boiler inputs (2)	18-230 V AC/DC
Pressure sensor (XTP) input	0 to 10 V DC, 20 mA
Pressure switch (PDS) input	24 V DC, 20 mA
EBC24EU01/ EBC24EU01 Outputs	
Digital boiler outputs (2)	250 V AC, 8 A,
Motor regulator	Supply voltage -3 %, 3 A
Motor start/stop relay	250 V AC, 8 A
Control signal 0–10 VDC	20 mA
24 VDC 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 other 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.

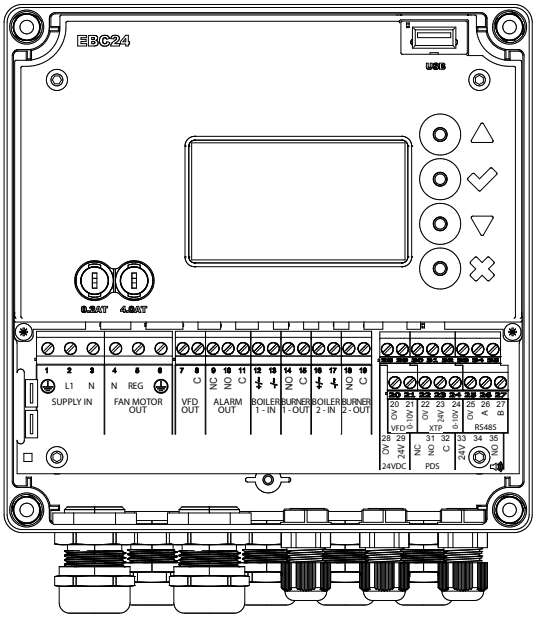
The control may only be used with exodraft fans. The EBC24 system consists of an EBC24 control, which can be positioned anywhere, and a pressure transducer (XTP sensor) which is positioned in the chimney.

Function
In installations where several fireplaces or stoves 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.

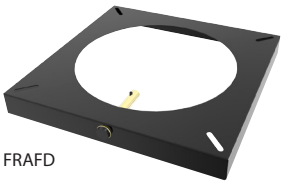
The EBC24 has two heating appliance interlock circuits as standard but can be expanded in multiples of four with the use of additional relay boards (ES12).

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.



Cover plate

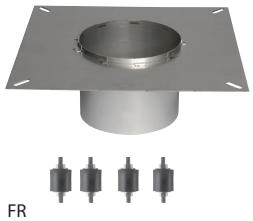


FRAFD

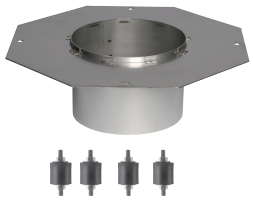
Description
Cover plate for brick chimneys (to cover anti-vibration mat and flange).

Type	Description	Fits chimney fan type
FR1AFD	Cover plate steel chimney	RSV009, RSV160
FR2AFD	Cover plate steel chimney	RSV012, RSV200, RSVG200, RS009, RS255, RSHT009
FR3AFD	Cover plate steel chimney	RSV014, RSV250, RSVG250, RS012, RS014, RS285, RSHG012, RSHG014, RSHT012, RSHT014
FR4AFD	Cover plate steel chimney	RSV016, RSV315, RSVG315, RS016, RSV400, RSV450, RSHT016
FR1AFD-001	Cover plate brick chimney	RSV009, RSV160
FR2AFD-001	Cover plate brick chimney	RSV012, RSV200, RSVG200, RS009, RS255, RSHT009
FR3AFD-001	Cover plate brick chimney	RSV014, RSV250, RSVG250, RS012, RS014, RS285, RSHG012, RSHG014, RSHT012, RSHT014
FR4AFD-001	Cover plate brick chimney	RSV016, RSV315, RSVG315, RS016, RSV400, RSV450, RSHT016

FR flange



FR



FR-02

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

The flanges are made of stainless steel and ensure that the chimney fans have a flat and level installation base. The flange is supplied with four vibration dampers that reduce vibrations and help create a stable base for the chimney fan.

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 FR1-200 is Ø 197 mm, designed to fit into a chimney opening with a Ø 200 mm diameter.

The flange range caters for all types of chimney fans and chimneys. Flanges with diameters other than those shown in the table can be made to order.

Type	mm	Chimney diameter	Chimney fan
FR1	272 x 272	125 -150-175-180-190-200	RSV009, RSV160
FR2	310 x 310	125-150-160-175-180-190-200-250	RSV012, RSV200, RSVG200, RS009, RS255, RSHT009
FR3	395 x 395	150-175-180-190-200-250-300-350	RSV014, RSV250, RSVG250, RS012, RS014, RS285, RSHG012, RSHG014, RSHT012, RSHT014
FR4	500 x 500	200 - 250 -300 - 350 - 400 - 450	RSV016, RSV315, RSVG315, RS016, RSV400, RSV450, RSHT016
FR2-02	310 x 310	150-160-180-190-200	RS009-02
FR3-02	395 x 395	150-180-190-200	RS012-02

Spigot length 120 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

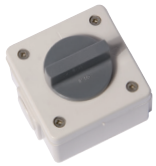
RS Rainshield

RSV Rainshield

Rain protection against driving rain.

Typ	Description	Fits chimney fan type
1105619	Rainshield	RS009, RSHT009
1105621	Rainshield	RS012, RSHG012, RSHT012
1105623	Rainshield	RS014, RSHG014, RSHT014
1100178	Rainshield	RSV009, RSV160
1100179	Rainshield	RSV012, RSV200, RSVG200
1100192	Rainshield	RSV014, RSV250, RSVG250

Isolation switch



REP-AFB

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, EFC35, EW41*, EBC10v2, EBC24
REPSW2x16	4-pole** isolation switch	EFC18

* EW41 is delivered with the repair switch
** 3-pole with help switch

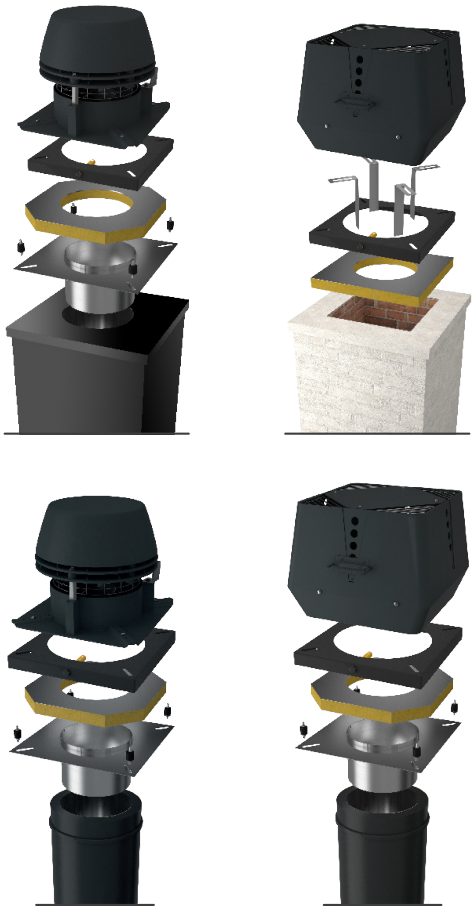
Installing a chimney fan

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, must be ordered separately.

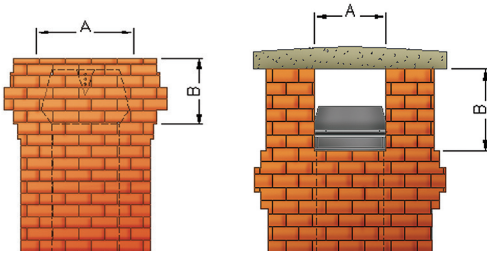
NB! If the chimney has been used previously to a fan being installed, then it should be cleaned before the chimney fan is switched on, thus reducing the risks of a chimney fire.



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 exodraft for assistance if such a solution is needed.



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.

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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