

Chimney fans, controllers & accessories

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



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.



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:

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

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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.

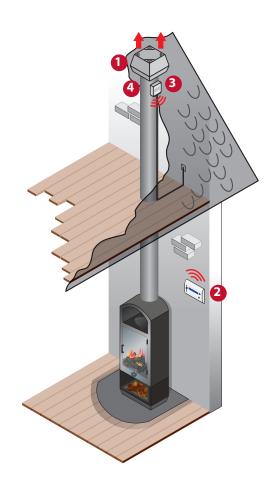
It is the function of the chimney both to remove the smoke and supply oxygen for effective combustion. In an ideal situation this is done though the natural chimney draught, but in reality both the chimney itself and other external factors affect the natural draught and thus the effectiveness of the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



Find the components you need here:

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	Component	Туре	Page
1	Chimney fan	RS with horizontal exhaust	6
		RSV with vertical exhaust	8
2	Control	EFC16	10
		EFC35	10
		EFC18	11
		EW41	12
3	Isolation switch	REP-AFB	14
		REPSW2x16	14
4	Accessories for Installation	Flange	14

Components for a solid fuel or biomass-burning boiler

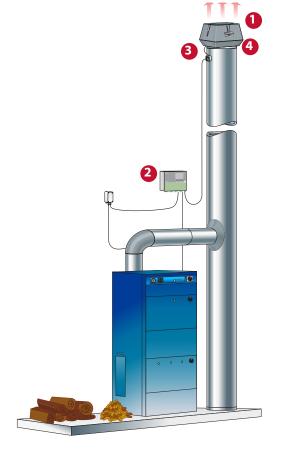
A natural draught chimney system is designed to work at average conditions for the region. So, when a solid fuel or biomass boiler is used all year round, the variable climatic conditions will sometimes lead to insufficient chimney draught. The use of a chimney fan system will ensure the correct chimney 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 EBC20 control regulates the fan speed automatically, maintaining constant pressure in the chimney and creating the optimal conditions to ensure correct combustion.



Find the components you need here:

	Component	Туре	Page
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		RSV with vertical exhaust	8
2	Control	EFC16	10
		EFC35	10
		EFC18	11
		EBC20	13
3	Isolation switch	REP-AFB	14
		REPSW2x16	14
4	Accessories for Installation	Flange	14

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.

The fan is installed on top of a chimney and creates a negative pressure (suction) along the full length of the flue and chimney.

The fan is part of an **exodraft** system and must be connected to an **exodraft** controller.

Design and construction

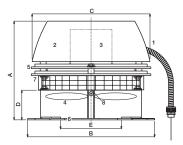
exodraft chimney fans are specially made to continuously withstand flue gas temperatures of up to 250 °C and continue functioning in dirty environments. They are constructed of corrosion resistant cast aluminium and the screws and bolts are made of stainless steel.

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 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. This all ensures that the chimney fan has a long and reliable working lifetime.

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

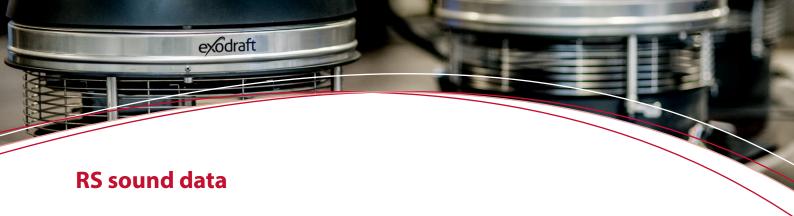


- 1. Motor cable
- 2. Top section
- 3. Motor
- 4. Vane
- 5. Cooling plate
- 6. Base plate
- 7. Hinges
- 8. Locking screws

Model		Moto	r data		Weight		Dir	mension (m	nm)	
	rpm	V	Amp	kW*	kg	А	В	CØ	D	ΕØ
RS009-4-1	1400	1 x 230	0,3	0,05	9	250	300	285	75	220
RS012-4-1	1400	1 x 230	0,4	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

*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.



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

		Lw (dB)						
Model	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	dB (A)
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.

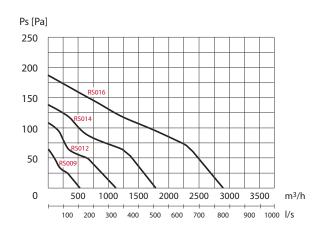
Lw = sound effect level dB (reference: 1 pW)

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 dBLp (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.



Туре	Test flue diameters			
RS009	ø 160 mm			
RS012	ø 200 mm			
RS014	ø 250 mm			
RS016	ø 315 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:

$$\mathsf{P}_{\mathsf{S}_{20}} = \mathsf{P}_{\mathsf{S}_{\mathsf{t}} \, \mathsf{X}} \, \frac{273 + \mathsf{t}}{293}$$

 P_S = static pressure

t = temperature measured in °C

Example

System demand: 500 m3/h and 90 Pa at 180 $^{\circ}$ C Fan selection: 500 m3/h and 139 Pa at 20 $^{\circ}$ 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.

The fan is installed on top of a chimney and creates a negative pressure along the full length of the flue and chimney.

The fan is part of an **exodraft** system and must be connected to an **exodraft** controller.

Design and construction

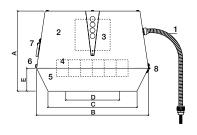
exodraft chimney fans are specially made to continuously withstand flue gas temperatures of up to 250 °C and continue functioning in dirty environments. They are constructed of corrision resistant cast aluminium and the screws and bolts are made of stainless steel.

The RSV009, RSV012, RSV014 and RSV016 models are equipped with axial stainless steel vanes. The 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 cablestrain relief and is armoured. This all ensures that the chimney fan has a long and reliable working lifetime.

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



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

Model	Motor data			Weight		Dir	nension (m	ım)		
Model	rpm	V	Amp	kW*	kg	А	BxB	CxC	DØ	Е
RSV009-4-1	1400	1 x 230	0,2	0,05	13	250	310	240	215	70
RSV012-4-1	1400	1 x 230	0,4	0,07	17	280	390	310	275	80
RSV014-4-1	1400	1 x 230	0,8	0,16	24	335	485	385	335	100
RSV016-4-1	1400	1 x 230	1,8	0,32	35	380	580	465	365	115
RSV250-4-1	1400	1 x 230	0,8	0,16	27	335	485	385	250	100
RSV315-4-1	1400	1 x 230	1,8	0,37	37	380	580	465	315	115
RSV400-4-1	1400	1 x 230	2,9	0,60	47	430	650	525	400	130

*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

				Lw (dB)				Lp
Model	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	dB (A)
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
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

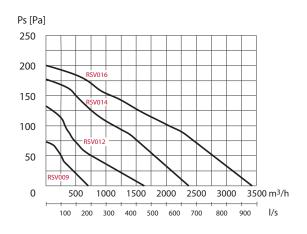
Lw = sound effect level dB (reference: 1 pW)

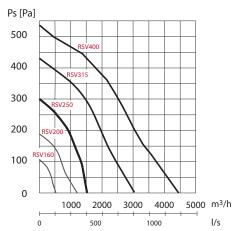
Lp = sound pressure level dB (A) at 10 m distance from the fan at half spheric sound distribution

Lp (5 m) = Lp (10 m) + 6 dBLp (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		
RSV009	Ø 160 mm		
RSV012	Ø 200 mm		
RSV014	Ø 250 mm		
RSV016	Ø 315 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:

$$P_{S_{20}} = P_{S_t X} \frac{273 + t}{203}$$

 P_S = static pressure

t = temperature measured in °C

Example

System demand: $500 \text{ m}^3/\text{h}$ and 90 Pa at $180 ^{\circ}\text{C}$

Fan selection: 500 m³/h and 139 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.

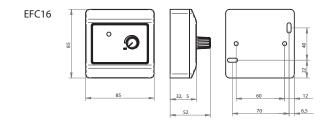
Function

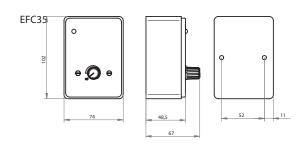
The EFC16 and EFC35 speed regulators are designed for manual control. When the knob on these controllers is turned to the right, it will click and the fan will t urn on at full rpm. As the knob is rotated clockwise, the fan speed will be reduced. To turn the fan off, the knob must be turned all the way anticlockwise, 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:	RS009/012/014/016 RSV009/012/014	RSV016





EFC18





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.

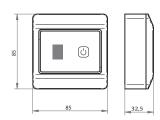
The EFC18 temperature sensor, which is installed under the chimney fan, registers falling temperature. As the fire dies out and the flue temperature drops, the controller will (at a preset temperature of 20, 40 or 80°C) run the fan for 45 minutes before stopping it. This ensures that all the material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

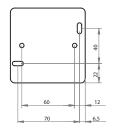
The fan speed can always be adjusted manually during operation, but the temperature sensor will prevent the fan from being turned off while the fire is still burning and thereby avoid damaging the fan motor and eliminate the risk of spillage.

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:	RS009/012/014/016 and RSV009/012/014





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.

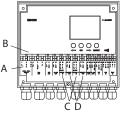
The EW41 controller uses radio wave (Z-wave) communication, which is a very safe system as all commands are confirmed and there is no risk of interference from other equipment.





XTP sensor

EBC20 technical data



BC20EU01/EBC20EU02 Height x width x depth Weight IP-rating / material Voltage (A) Power consumption Fuse (B) T4A Temperature Dimension (w x h x d) Operating temperature Max. distance between EBC20 and XTP sensor IP-rating IP-rating IP-s4 EBC20EU01 Inputs Digital inputs (D11 & D12) (C) Pressure sensor (XTP) input Pressure switch (PDS) input EBC20 EU01 VDC Adams A		
Height x width x depth Weight IP-rating / material Voltage (A) Power consumption Fuse (B) Temperature Monitoring range XTP sensor Dimension (w x h x d) Operating temperature Monitoring range Max. distance between EBC20 and XTP sensor IP-rating Digital inputs (D11 & D12) (C) Pressure sensor (XTP) input Digital relay outputs D	Description	EBC20
Weight IP-rating / material IP54/ABS PA758 Voltage (A) 230 V AC ±10 %, 50 Hz ±1 % Power consumption 475 W (3,7 A) Fuse (B) T4A Temperature -20 °C to +60 °C Monitoring range -500 to +500 Pa XTP sensor Dimension (w x h x d) 75 x 92 x 49 mm Operating temperature 0 to 70 °C Monitoring range 100 m Max. distance between EBC20 and XTP sensor IP-rating IP54 EBC20EU01 Inputs Digital inputs (D11 & D12) (C) 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 EBC20EU01 Outputs Digital relay outputs 250 V AC, 8 A, (DO1 & DO2) (D) 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	EBC20EU01/EBC20EU02	
IP-rating / material Voltage (A) Power consumption Fuse (B) Temperature Monitoring range XTP sensor Dimension (w x h x d) Operating temperature Monitoring range Max. distance between EBC20 and XTP sensor IP-rating IP54 EBC20EU01 Inputs Digital inputs (D11 & D12) (C) Pressure sensor (XTP) input Pressure switch (PDS) input EBC20EU01 Outputs Digital relay outputs (D01 & D02) (D) Motor regulator Motor start/stop relay Control signal 0-10 VDC 24 VDC power supply IVAA T4A T4A T5 W (3,7 A) T4A T5 X 92 X 49 mm O to 70 °C O to +500 Pa 100 m	Height x width x depth	204.3 x 239.5 x 77.2 mm
Voltage (A) Power consumption Fuse (B) Temperature -20 °C to +60 °C Monitoring range XTP sensor Dimension (w x h x d) Operating temperature Monitoring range Max. distance between EBC20 and XTP sensor IP-rating EBC20EU01 Inputs Digital inputs (D11 & D12) (C) Pressure sensor (XTP) input Pressure switch (PDS) input EBC20EU01 Outputs Digital relay outputs (D01 & D02) (D) Motor regulator Motor start/stop relay Control signal 0-10 VDC 24 VDC power supply 174 T4A T4A T5 W (3,7 A) T5 W (3,7 A) T4A T4A T5 W (3,7 A) T4A T4A T4A T5 W (3,7 A) T4A T4A T4A T4A T4A T4A T4A T	Weight	1.62 kg
Power consumption 475 W (3,7 A) Fuse (B) T4A Temperature -20 °C to +60 °C Monitoring range -500 to +500 Pa XTP sensor Dimension (w x h x d) 75 x 92 x 49 mm Operating temperature 0 to 70 °C Monitoring range 100 m Max. distance between EBC20 and XTP sensor IP-rating IP54 EBC20EU01 Inputs Digital inputs (D11 & D12) (C) 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 EBC20EU01 Outputs Digital relay outputs (DO1 & DO2) (D) 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	IP-rating / material	IP54/ABS PA758
Fuse (B) Temperature Temperatu	Voltage (A)	230 V AC ±10 %, 50 Hz ±1 %
Temperature Monitoring range -20 °C to +60 °C -500 to +500 Pa XTP sensor Dimension (w x h x d) Operating temperature Monitoring range Max. distance between EBC20 and XTP sensor IP-rating IP54 EBC20EU01 Inputs Digital inputs (D11 & D12) (C) Pressure sensor (XTP) input Pressure switch (PDS) input Digital relay outputs (DO1 & DO2) (D) Motor regulator Motor start/stop relay Control signal 0–10 VDC 24 VDC power supply -500 to +500 °C -500 to -500 °C -500 to -150 °C -500	Power consumption	475 W (3,7 A)
Monitoring range XTP sensor Dimension (w x h x d) Operating temperature Monitoring range Max. distance between EBC20 and XTP sensor IP-rating IP54 EBC20EU01 Inputs Digital inputs (D11 & D12) (C) Pressure sensor (XTP) input Pressure switch (PDS) input Digital relay outputs Digital relay outputs Digital relay outputs (D01 & D02) (D) Motor regulator Motor start/stop relay Control signal 0–10 VDC 24 VDC power supply -500 to +500 Pa 75 x 92 x 49 mm 0 to 70 °C 0 to +150 Pa 100 m 100 m 100 m 100 m Supply VAC/DC Supply voltage -3 %, 3 A 250 V AC, 8 A, Control signal 0–10 VDC 20 mA	Fuse (B)	T4A
XTP sensor Dimension (w x h x d) Operating temperature 0 to 70 °C Monitoring range 0 to +150 Pa Max. distance between EBC20 and XTP sensor IP-rating IP54 EBC20EU01 Inputs Digital inputs (D11 & D12) (C) Pressure sensor (XTP) input 0 to 10 V DC, 20 mA Pressure switch (PDS) input EBC20EU01 Outputs Digital relay outputs (D01 & D02) (D) Motor regulator Motor start/stop relay Control signal 0-10 VDC 24 VDC power supply 100 m 75 x 92 x 49 mm 0 to 70 °C 18-230 V AC/DC 18-230 V AC/DC 18-230 V AC/DC 250 V AC, 8 A, 250 V AC, 8 A, 250 V AC, 8 A	Temperature	-20 °C to +60 °C
Dimension (w x h x d) Operating temperature O to 70 °C Monitoring range Oto +150 Pa Max. distance between EBC20 and XTP sensor IP-rating IP54 EBC20EU01 Inputs Digital inputs (D11 & D12) (C) Pressure sensor (XTP) input O to 10 V DC, 20 mA Pressure switch (PDS) input EBC20EU01 Outputs Digital relay outputs (D01 & D02) (D) Motor regulator Motor start/stop relay Control signal 0-10 VDC 24 VDC power supply 75 x 92 x 49 mm O to 70 °C Oto +150 Pa 100 m 18-230 V AC/DC 18-230 V AC/DC 24 V DC, 20 mA 250 V AC, 8 A, 250 V AC, 8 A 250 V AC, 8 A 250 V AC, 8 A	Monitoring range	-500 to +500 Pa
Dimension (w x h x d) Operating temperature Oto 70 °C Monitoring range Oto +150 Pa Max. distance between EBC20 and XTP sensor IP-rating IP54 EBC20EU01 Inputs Digital inputs (D11 & D12) (C) Pressure sensor (XTP) input Oto 10 V DC, 20 mA Pressure switch (PDS) input EBC20EU01 Outputs Digital relay outputs (D01 & D02) (D) Motor regulator Motor start/stop relay Control signal 0-10 VDC 24 VDC power supply 75 x 92 x 49 mm Oto 70 °C Oto 710 V DA 100 m 100		
Operating temperature 0 to 70 °C Monitoring range 0 to +150 Pa Max. distance between EBC20 and XTP sensor IP-rating IP54 EBC20EU01 Inputs Digital inputs (D11 & D12) (C) 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 EBC20EU01 Outputs Digital relay outputs (D01 & D02) (D) 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	XTP sensor	
Monitoring range Max. distance between EBC20 and XTP sensor IP-rating IP54 EBC20EU01 Inputs Digital inputs (D11 & D12) (C) Pressure sensor (XTP) input Pressure switch (PDS) input 24 V DC, 20 mA EBC20EU01 Outputs Digital relay outputs (D01 & D02) (D) Motor regulator Motor start/stop relay Control signal 0–10 VDC 24 VDC power supply 0 to +150 Pa 18-230 V AC/DC 18-230 V AC/DC 250 V AC, 20 mA 24 V DC, 20 mA 250 V AC, 8 A, 250 V AC, 8 A 20 mA 20 mA 2100 mA	Dimension (w x h x d)	75 x 92 x 49 mm
Max. distance between EBC20 and XTP sensor IP-rating IP54 EBC20EU01 Inputs Digital inputs (D11 & D12) (C) Pressure sensor (XTP) input Pressure switch (PDS) input EBC20EU01 Outputs Digital relay outputs (DO1 & DO2) (D) Motor regulator Motor start/stop relay Control signal 0–10 VDC 24 VDC mA 100 m 18-230 V AC/DC 18-230 V AC/DC 24 V DC, 20 mA 24 V DC, 20 mA 250 V AC, 8 A, 250 V AC, 8 A Control signal 0–10 VDC 20 mA 24 VDC power supply 100 m	Operating temperature	0 to 70 °C
EBC20 and XTP sensor IP-rating IP54 EBC20EU01 Inputs Digital inputs (D11 & D12) (C) Pressure sensor (XTP) input Pressure switch (PDS) input EBC20EU01 Outputs Digital relay outputs (DO1 & DO2) (D) Motor regulator Motor start/stop relay Control signal 0–10 VDC 24 VDC and 24 VDC and Supply voltage -3 %, 3 A Control signal 0–10 VDC 24 VDC power supply 100 mA	Monitoring range	0 to +150 Pa
IP-rating IP54 EBC20EU01 Inputs Digital inputs (D11 & D12) (C) 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 EBC20EU01 Outputs Digital relay outputs (D01 & D02) (D) 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	Max. distance between	100 m
EBC20EU01 Inputs Digital inputs (D11 & D12) (C)	EBC20 and XTP sensor	
Digital inputs (D11 & D12) (C) Pressure sensor (XTP) input Pressure switch (PDS) input EBC20EU01 Outputs Digital relay outputs (D01 & D02) (D) Motor regulator Motor start/stop relay Control signal 0–10 VDC 24 VDC (D1	IP-rating	IP54
Digital inputs (D11 & D12) (C) Pressure sensor (XTP) input Pressure switch (PDS) input EBC20EU01 Outputs Digital relay outputs (D01 & D02) (D) Motor regulator Motor start/stop relay Control signal 0–10 VDC 24 VDC (D1		
Pressure sensor (XTP) input Pressure switch (PDS) input 24 V DC, 20 mA 24 V DC, 20 mA EBC20EU01 Outputs Digital relay outputs (DO1 & DO2) (D) Motor regulator Motor start/stop relay Control signal 0–10 VDC 24 VDC power supply 0 to 10 V DC, 20 mA 250 V AC, 8 A, 250 V AC, 8 A 250 V AC, 8 A 20 mA 100 mA	EBC20EU01 Inputs	
Pressure switch (PDS) input EBC20EU01 Outputs Digital relay outputs (DO1 & DO2) (D) Motor regulator Motor start/stop relay Control signal 0–10 VDC 24 V DC, 20 mA 250 V AC, 8 A, 250 V AC, 8 A 250 V AC, 8 A 250 V AC, 8 A 100 mA	Digital inputs (D11 & D12) (C)	18-230 V AC/DC
EBC20EU01 Outputs Digital relay outputs (DO1 & DO2) (D) 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	Pressure sensor (XTP) input	0 to 10 V DC, 20 mA
Digital relay outputs (DO1 & DO2) (D) 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	Pressure switch (PDS) input	24 V DC, 20 mA
Digital relay outputs (DO1 & DO2) (D) 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		
(DO1 & DO2) (D) Motor regulator Supply voltage -3 %, 3 A Motor start/stop relay Control signal 0–10 VDC 24 VDC power supply Supply voltage -3 %, 3 A 250 V AC, 8 A 20 mA 100 mA	EBC20EU01 Outputs	
Motor start/stop relay 250 V AC, 8 A Control signal 0–10 VDC 20 mA 24 VDC power supply 100 mA	, , ,	250 V AC, 8 A,
Control signal 0–10 VDC 20 mA 24 VDC power supply 100 mA	Motor regulator	Supply voltage -3 %, 3 A
24 VDC power supply 100 mA	Motor start/stop relay	250 V AC, 8 A
	Control signal 0–10 VDC	20 mA
Alarm output relay 250 V AC, 8 A	24 VDC power supply	100 mA
	Alarm output relay	250 V AC, 8 A

Description

The EBC20 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 EBC20 system consists of an EBC20 controller, 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 EBC20 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 EBC20 is usable with all **exodraft** chimney fan types.

EBC20EU01 Controls for indoor installation.
EBC20EU02 Controls for outdoor installation.

Isolation switch





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.

REP-AFB

REPSW2x16

Туре	Description	Used with controls
REP-AFB	2-pole isolation switch	EFC16, EFC35, EW41*, EBC20
REPSW2x16	4-pole** isolation switch	EFC18

^{*} EW41 is delivered with the repair switch

FR flange



FR



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 \emptyset 197 mm, designed to fit into a chimney opening with a \emptyset 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.

Туре	mm	Chimney diameter	Chimney fan
FR1	240 x 240	125 - 150 -175 - 200	RSV009, RSV160
FR2	310 x 310	125 - 150 - 175 - 200 - 250	RS009, RS255, RSV012, RSV200
FR3	395 x 395	150 - 175 - 200 - 250 - 300- 350	RS012, RS014, RS285, RSV014, RSV250
FR4	500 x 500	200 - 250 -300 - 350 - 400 - 450	RS016, RSV016, RSV315, RSV400, RSV450
FR2-02	310 x 310	150-160-200	RS009-4-1-02
FR3-02	395 x 395	150-200	RS012-4-1-02

Spigot length 120 mm

Other fitting accessories



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.

^{** 3-}pole with help switch

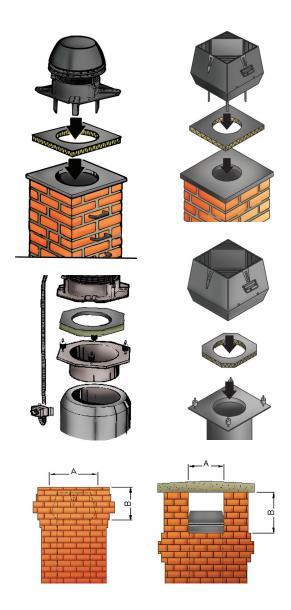
Installing a chimney fan

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.

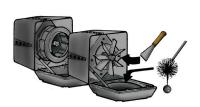


Hiding the chimney fan

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.



<u>exodraft</u>