



Safety Instructions

After installation, chimney fans are an integral part of the flue gas system of the fireplace (such as boilers, tiled stoves, open fire places, heating elements and single stoves) and influence these directly. Therefore, you should consult the responsible building control before installation. The draught regulator serves to support the functionality of the flue gas system. The design of the flue gas system has to follow DIN EN 13384 T 1 / T 2. The appliance will only operate flawlessly if the following advice is heeded: DIN V 18 160 T 1 (Design standards for flue gas systems) DIN EN 13384 T 1 Calculation of flue gas systems DIN EN 13384 T 2 Calculation of flue gas systems for multiple fireplaces (oil and gas fireplaces only with approved control system).

The installation has to follow effective laws, guidelines and standards. The chimney fan "Diajekt" must only be installed at the outlet of the flue gas system. The static requirements and safe fastening have to be ensured for this.

- The chimney fan has to be removed when burning out the chimney.
- A maintenance switch is absolutely necessary to ensure safety when cleaning the flue gas system and chimney fan.
- Be careful when opening and closing the chimney fan, danger of getting caught in the tilt mechanism.
- Before working on the chimney fan always interrupt the power supply using the maintenance switch and wait for the rotor blade to stop to avoid being injured by the rotating blade.
- Warning! Hot surface. The self-heating of the motor and the heating of the system due to hot flue gasses can cause the surface of the chimney fan to be dangerously hot. Always allow the chimney fan to cool down sufficiently before working on it.
- If the position is easily accessible (e.g. on flat roofs, roof terraces, etc.), it is necessary to set up a barrier on site according to the DIN EN ISO 13857 to make sure that the chimney fan cannot be freely touched so that no-one can be injured by accident.
- In order to transport the device easily and safely, wear gloves and lift the chimney fan with both hands, holding it beneath the rim of the motor cover.
- Make sure that these instructions are read and understood by all people that work with this device.

Range of Use

Particularly for all standard controlled fuels made of wood, coal, oil, gas and for the intended heat generators (e.g. stoves, boilers, motors, etc.). An automatic regulator is necessary when several or different types of fireplaces are connected.

For regulated boilers, industrial systems, etc. we also suggest using the control "RS-Regelung" or controlling the chimney fan with the system's regulator.

The maximum flue gas temperature at the chimney outlet is 300 °C.

- RSD 150 and RSD 150 S usable up to NW 160 or cross-section 160x160 (verification according to DIN EN 13384 required).
- RSD 250 and RSD 250 S usable up to NW 250 or cross-section 250x250 (verification according to DIN EN 13384 required).
- RSD 350 usable up to NW 350 or cross-section 350x350 (verification according to DIN EN 13384 required).



Installation

1. Direct fastening on the chimney cowl with screws.

- Put the mounting plate (optionally available) centrally over the opening of the inner pipe of the chimney and mark the dowel drills.
- Drill holes for approved dowels diameter 10 mm and insert dowels.
- Create a soft, tight layer between the mounting plate and chimney cover (e.g. temperature-resistant silicone, ceramic fibre, etc.) to ensure an even bearing, keep out precipitation and prevent the intake of false air.
- Mount the chimney fan on the mounting plate and then fasten the entire unit with stainless screws in the previously drilled holes.
- The chimney fan has to be connected tightly with the inner flue gas pipe (in multi-shell flue gas systems).
- Bear in mind the linear expansion of the flue gas system. This is stated in the manufacturer's instructions. If necessary, take the appropriate measures based on these specifications and the conditions on site. It is not possible to state specific solutions here due to the large variety of systems.
- The outlet of the flue gas system's ventilation (if present) needs to remain free. Measures need to be taken based on the conditions on site. It is not possible to state specific solutions here due to the large variety of systems.
- The screwing has to ensure a stable and windproof fastening. The chimney cover has to be connected firmly with the chimney shaft or has to have enough dead weight to hold the chimney fan against wind (if necessary, statically connect the cover separately with the chimney shaft).
- Static safety has to be ensured by the customer.

2. Fastening on a chimney cowl or a stainless-steel flue gas system with plug-in adapter

- The adapter RSD-A ... (Ø adapter plug-in pipe = nominal diameter – 2 mm) can be ordered for this (optional).
- Screw adapter onto chimney fan and then plug the whole assembly into the chimney.
- The connection has to be based on the respective criteria given by the manufacturer of the flue gas system. (For chimneys by the company Raab, the plug-in adapter comes with a suitable clamp fitting. The adapter has to be shortened.)
- Static safety has to be ensured by the customer.

Please remove the transport safety devices (cardboard rolls inside intake chamber) before first start-up!

If there are problems with structure-borne sound due to the conditions in the system, it is also possible to interconnect an RSD vibration absorber retroactively.

Electric Connection

- For electric installation, please follow the relevant regulations in the respective supply area [(e.g. VDE 100), including guidelines and norms for lightning protection] as well as the wiring scheme.
- A professional has to take care of the electric connection.
- The electric connection between the connection box and the chimney fan is completely pre-wired.
- During connection work the system has to be at zero potential.
- Power connection 230V AC, fuse protection 10 A. When connecting the chimney fan to power through a static installation on-site, an all-pole circuit breaker has to be added to the static installation (as described below). The following cable qualities are recommended for this purpose: NYM 3 x 1.5 mm².

- If the original connection cable has to be removed due to damage or replaced with a longer one it is necessary to use a temperature-resistant silicone cable with a permanent temperature resistance of 180 °C and a cross-section of at least 4 x 0.75 mm².
We recommend: HELUKABEL Thermflex 180 EWKF 4GO.75mm²

Cleaning/Maintenance

The chimney fan "Diajekt" should be checked and cleaned as needed in the course of the regular cleaning and inspection intervals of the chimney sweep or the arranged maintenance service (e.g. in industrial plants), but at least once a year.

Procedure:

- Switch off the appliance with the maintenance switch and make sure it cannot be turned on accidentally
- Open both fasteners on the side
- Tilt the Diajekt backwards
- Thoroughly clean the rotor disc with a brush or spatula (do not use steel tools – corrosion risk! Only use plastic or stainless steel)
- Clean the chimney fan casing and the lamination inside the casing
- Clean base plate
- Shut Diajekt and close it with the fasteners

If the rotor disc is not cleaned properly it may become imbalanced which causes vibrations when the Diajekt is turned on. In this case, the cleaning has to be repeated.

 **Warning!**
Interrupt power supply before starting work!

1) Chimney fan "Diajekt"

An expert has to take care of the installation following these installation instructions and those of the flue gas system. Lightning protection has to follow relevant norms, regulations (e.g. VDE guideline) and guidelines.

2) **Branch box** (IP 65, wired with motor) in interior capacitor for motor (can be replaced with a maintenance switch).

3) **The maintenance switch** (available optionally) makes it possible to interrupt the chimney fan's power supply on the roof for cleaning. This switch should always be installed if there is no other safe way to interrupt the power supply. Installed where the chimney sweep cleans the chimney (e.g. chimney cowl or upper cleaning port). Furthermore, it is possible to put the motor capacitor inside the casing of our maintenance switch, which means the branch box does not have to be used (only for models 150 and 250).

4) The **"RS-Regler"** (control unit, optionally available) is used for setting the throughput manually and steplessly. This means that the desired combustion (for solid fuels) and the safe evacuation of flue gasses from the fireplace can be set as needed.

Warning! Set minimum revolution (see instructions RS-Regler).

5) With the **"RS-Timer"** (optionally available) the chimney fan can be switched on for a freely set period of time (1 second to 10 hours) – e.g. during the heat-up phase of the chimney. When the timer runs out ("Countdown"), the chimney fan is switched off. In addition, the RS-Timer can also be used as a normal on/off-switch.

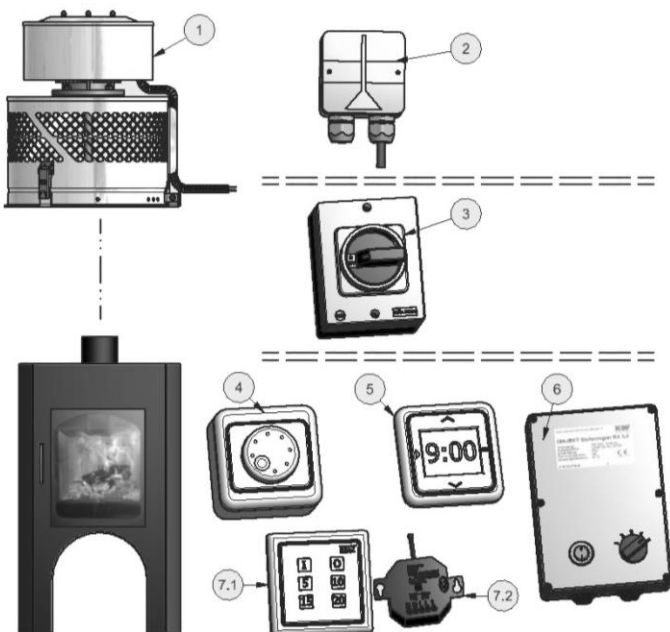
6) The **"RS-Stufentrafo"** (step transformer, optionally available) allows for a manual, multi-step setting of the throughput. This means that the desired combustion (for solid fuels) and the safe evacuation of flue gasses from the fireplace can be set as needed. The RS-Stufentrafo is particularly recommended for open chimneys or in the case of problems due to structure-borne sound caused by induction humming.

7) With the **"RS-Funktimer"** (radio timer, optionally available) the chimney fan can be switched on for a selectable period of time (5 min., 10 min., 15 min., 20 min.) – e.g. during the heat-up phase of fireplaces. When the time is up ("countdown") the chimney fan is switched off again. In addition, the RS Funktimer can also be used as a normal on/off switch. In case it is used in an unfavourable position, a repeater is included for signal enhancement.

8) Ranges of use for control panels and switching devices (No 4 to 7) for solid fuel stoves, open fireplaces, furnaces, tiled stoves or the like.

Automatic controls are available for further uses.

When installing a manually controlled chimney fan (with speed control), we suggest to also use a draught regulator (Z 150 S) in order to achieve the required draught of the fireplace.



Troubleshooting

If one of the following problems should arise while using the chimney fan, this list may be helpful for localizing the error:

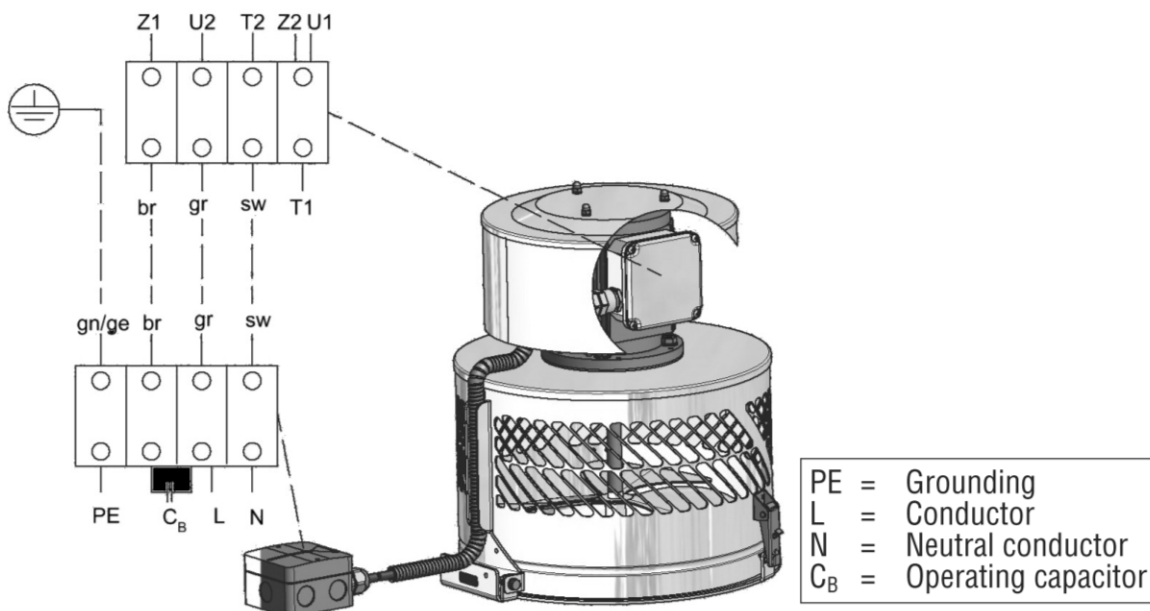
Error:	Possible Cause:	Solution:
Chimney fan won't start	Transport safety devices not removed (cardboard rolls inside intake chamber)	Remove transport safety device
	Incorrect wiring	Check wiring
	Dirt inside chimney fan	Clean chimney fan
	No voltage on chimney fan	Check power supply
	Faulty fuse in RS-Regler	Change fuse
	Minimum rotation set too low with RS-Regler	Set minimum rotation
Chimney fan overheated (outlet temperature permanently above 300 °C)	Chimney fan overheated (outlet temperature permanently above 300 °C)	Allow device to cool down
	Faulty starting capacitor	Replace capacitor
Chimney fan can't be slowed	Minimum rotation set too high with RS-Regler	Set minimum rotation
Humming in the chimney system	Induction humming from RS-Regler	Replace RS-Regler with RS-Stufentrafo
		Add RSD vibration absorber
Vibration in the chimney system	Rotor disc imbalanced due to dirt	Clean rotor disc
	Increased vibration due to natural resonance	Slightly change rotation Add RSD vibration absorber

When you notice a malfunction, switch off the system's power supply and contact an expert.

Technical Data

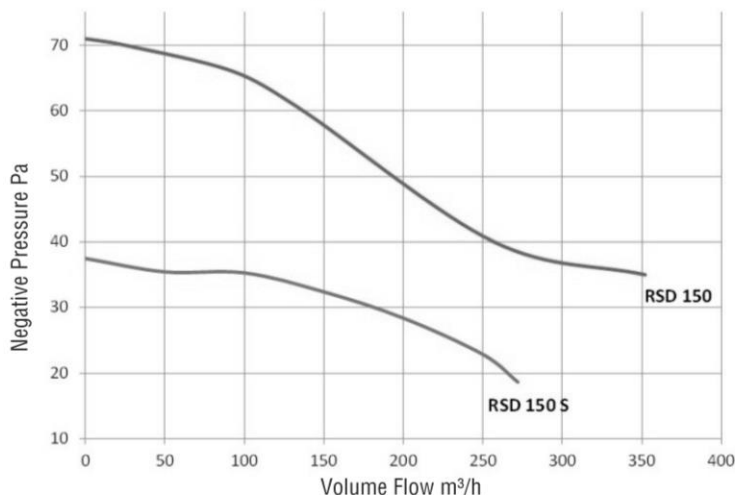
Max. acceptable flue gas temperature at the outlet during continuous operation 300 °C.

Klemmplan / wiring scheme



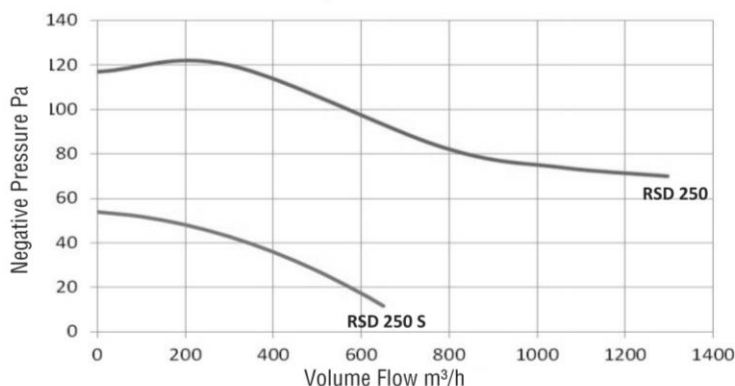
Performance diagram RSD 150 and RSD 150 S

	RSD 150	RSD 150 S
Voltage	230 V 50 Hz	230 V 50 Hz
Power drain max.	45 W	40 W
Max. negative pressure	71 Pa	38 Pa
Max. volume flow	352 m ³ /h	275 m ³ /h
Weight	8,3 kg	8,0 kg



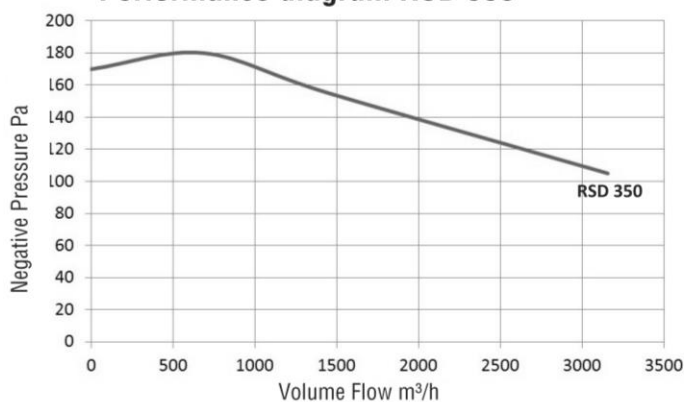
Performance diagram RSD 250 and RSD 250 S

	RSD 250	RSD 250 S
Voltage	230 V 50 Hz	230 V 50 Hz
Power drain max.	110 W	68 W
Max. negative pressure	120 Pa	54 Pa
Max. volume flow	1296 m ³ /h	650 m ³ /h
Weight	13,6 kg	12,8 kg

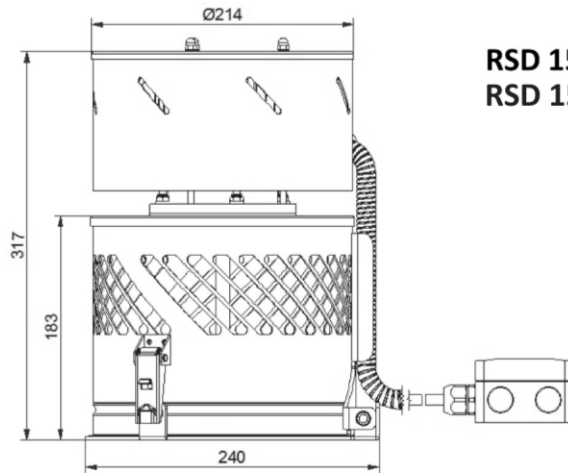
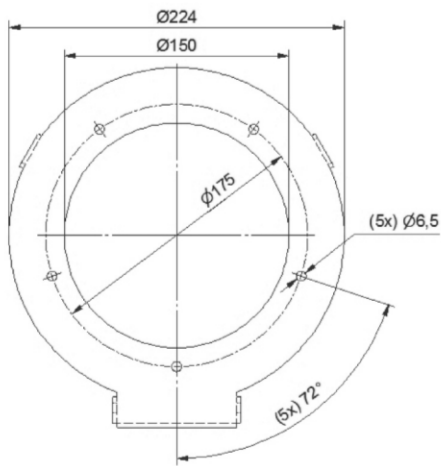


Performance diagram RSD 350

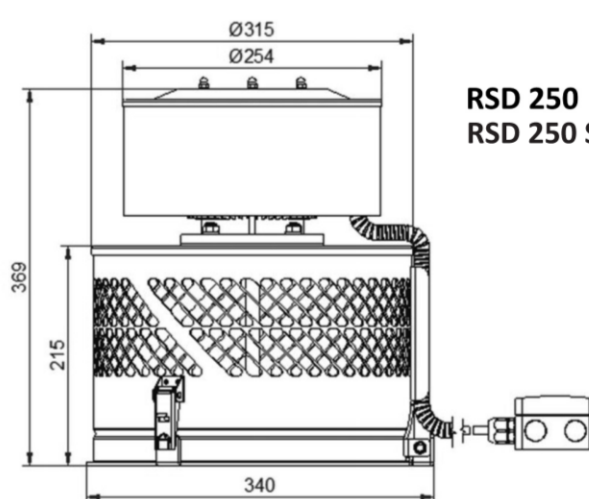
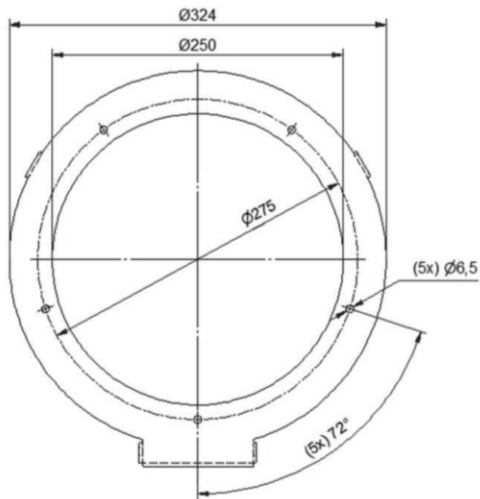
	RSD 350
Voltage	230 V 50 Hz
Power drain max.	350 W
Max. negative pressure	180 Pa
Max. volume flow	3155 m ³ /h
Weight	24,5 kg



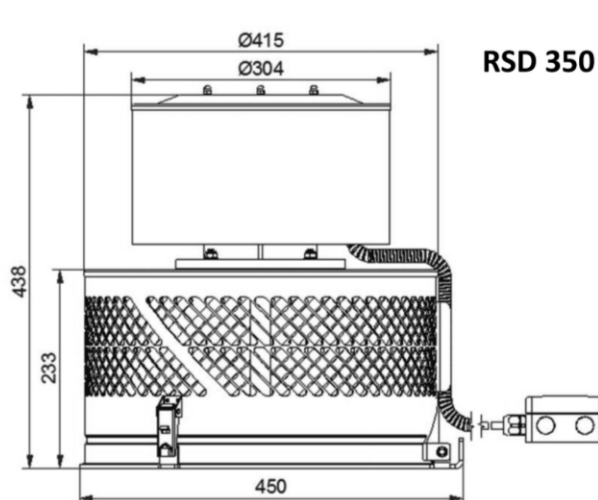
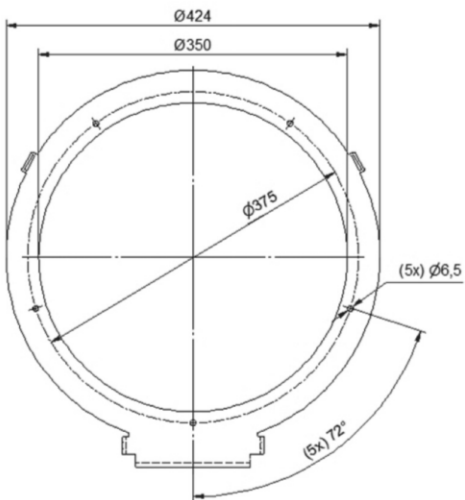
Performance data at an ambient temperature of 20 °C
Tested based on the new chimney fan standard prEN 16475-2



RSD 150
RSD 150 S



RSD 250
RSD 250 S



RSD 350