

VENTS Stream series



Inline mixed-flow fans in sound- and heat-insulated casing with the air flow up to **540 m³/h**

Application

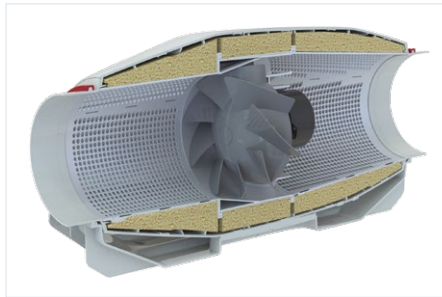
VENTS Stream series of duct fans in a special sound-insulated casing, which ensures silent operation of the fan with high aerodynamic characteristics. Compatible with air ducts with a diameter of 150, 160 mm.

VENTS Stream fans combine the wide capabilities and high performance characteristics of axial and centrifugal fans, providing a powerful air flow and high pressure.

They are used in supply and exhaust ventilation systems of various commercial and industrial premises with increased noise level requirements (libraries, conference rooms, educational institutions, kindergartens, etc.).

Design

The casing and impeller are made of high quality and durable plastic. The casing is internally heat- and sound-insulated with a 50 mm mineral wool layer.



The diffuser, the specially profiled impeller and the directing vanes at the outlet of the fan casing distribute the air flow in such a way as to attain the best combination of high performance and high pressure at low noise level.

The fan casing is equipped with an external sealed terminal box for connection to power mains.

Electric motor

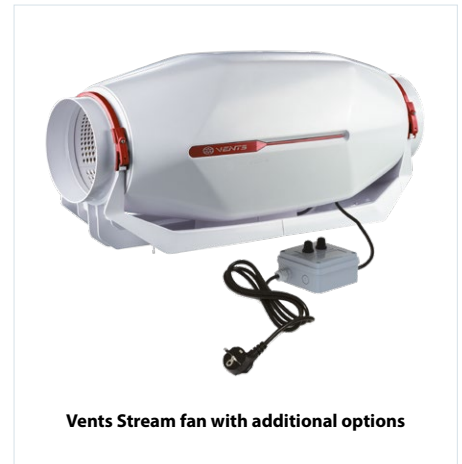
Single-phase energy efficient three-speed motors with low energy demand are used. The fan motors are equipped with thermal fuses for overload protection. The ball bearings provide a long service life (about 40 000 hours of continuous operation).

Speed control

The three-speed motor can be controlled using a built-in switch (option "V") or an external switch for multi-speed fans (purchased separately).

A built-in speed controller (option "P"), an external TRIAC or autotransformer speed controller (available upon separate order) enable smooth motor speed control when connected to the maximum speed terminal.

The models with the "T" option are equipped with a turn-off delay timer, adjustable from 2 to 30 minutes.



Vents Stream fan with additional options

Mounting

The fans are intended for mounting to round air ducts. The fan casing has mounting brackets for floor, wall or ceiling mounting. Access for the fan maintenance shall be provided during mounting. For wiring and mounting follow the guidelines in the user's manual and wiring diagram on the terminal box. Several fans may be installed in a single system in parallel to attain higher air flow or in series to increase operating pressure in the system.

Fan with electronic temperature and speed control module (Un option).

The ideal solution for ventilation of premises with high demands to permanent temperature control e.g. greenhouses.

A fan with an electronic temperature and speed module provides automatic control of impeller rotation speed (air flow) depending on the air temperature in the air duct or in the room.

The front panel of the electronic module has the following control knobs:

- controller for impeller speed presetting
- electronic thermostat operation threshold controller
- thermostat operation indicator.

Designation key

Series	Air duct diameter	Options
VENTS Stream	150/160	<p>T: adjustable turn-off delay timer, from 2 to 30 min.</p> <p>Un: speed controller with an electronic thermostat and a temperature sensor, fixed on a 4 m cable. Temperature-based operation logic.</p> <p>R: power cord with a mains plug.</p> <p>V: three-position speed switch.</p> <p>P: integrated smooth speed controller.</p>

Accessories



Silencer

Filters

Heaters

Backdraft damper

Air damper

Clamps

Speed switch RS-1-300

RS...PS

Speed switch RS...T

RS-1-400

Fan operation algorithm with electronic temperature and speed control module

Set the desired air temperature (thermostat threshold) by turning the thermostat control knob and the minimum rotation speed (air flow) by turning the speed control knob.

If the temperature rises and exceeds the set thermostat threshold, the automation switches the fan to the maximum rotation speed (maximum air flow).

When the air temperature drops below the set thermostat threshold, the automation switches the fan motor to the previously set rotation speed.

To prevent frequent switching of motor speeds in case when the temperature in the air duct is equal to the set temperature threshold, a speed switching delay has been introduced into the algorithm.

When the air temperature exceeds the set thermostat threshold by 2 °C, the fan switches to an

increased speed.

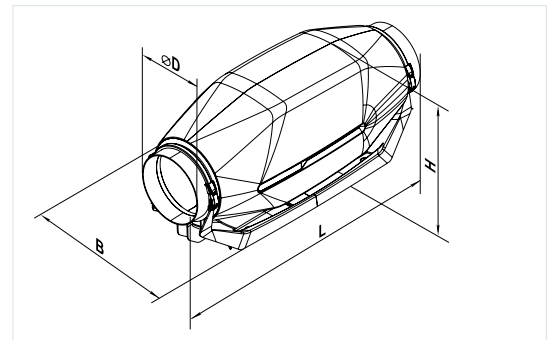
The fan switches to the set (reduced) speed after the temperature drops below the set temperature threshold.

This algorithm is used to maintain the air temperature with an accuracy of 2 °C.

Fan speed changes are infrequent.

Fan dimensions

Model	Dimensions [mm]				Weight [kg]
	∅D	B	L	H	
Stream 150/160 (spigot 150 mm)	150	253	606	273	5
Stream 150/160 (spigot 160 mm)	160		606		



Technical data

	Stream 150/160		
	min.	med.	max.
Speed			
Voltage [V]	1~230		
Frequency [Hz]	50		
Power [W]	25	46	51
Current [A]	0,20	0,21	0,24
Maximum air flow [m³/h]	242	320	540
Maximum air flow [l/s]	67	89	150
RPM [min⁻¹]	1982	2374	2738
Noise level at 3 m [dBA]	20	26	33
Transported air temperature [°C]	-25...+55		
Weight [kg]	5		
Protection rating	IPX4		
Motor protection rating	IP20		

