

SCF40

AXIAL JET FAN



Product Characteristics:

Axial jet fan for general ventilation systems. Equipped with two-speed reversible motors and optional acoustic silencers.

Intended Use

Jet ventilation is a wireless ventilation of large-volume rooms. Systems using jet fans are most often installed in tunnels, closed car parks and garages, fulfilling the functions of reliable and effective ventilation, while ensuring a high level of safety.

SCF40 fans must not be used in an explosive environment. They are also not intended for suction of dusty, aggressive media or media containing dusty fractions, which may interfere with their operation by settling on the blades and the body.

It is unacceptable to use fans for drying of the buildings and thermal air treatment.

The fans are designed for operation at maximum ambient temperature of 40°C. The temperature of the transported medium cannot be higher than 40°C and lower than -20°C.

The maximum level of relative humidity of the conveyed air $\varphi < 80\%$ at $t = 20^\circ\text{C}$.

Description

SCF40 jet fans are manufactured as two-speed, reversible, with diameters 315, 355, 400.

The airing function is executed during normal operation of the system, which purpose is to remove harmful contamination (e.g. aldehydes, oxides, etc.). Appropriate placement of jet fans guarantees air movement throughout the space, where so called „dead zones“ cannot form.



SCF40 two-speed, reversible fan

Dimensions

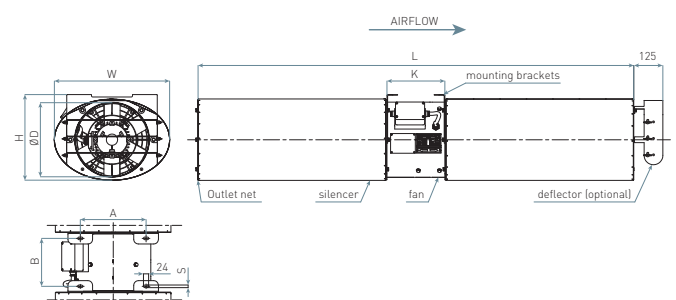


Figure 1. SCF40 dimensions.

Table 1. SCF40 dimensions.

Fan type	ØD [mm]	W [mm]	H [mm]	L* [mm]	K [mm]	A [mm]	B [mm]	S [mm]
SCF40 - 315	315	490	365	1915	315	280	265	11
SCF40 - 355	355	555	405	1960	360	320	310	13
SCF40 - 400	400	625	446	1990	390	375	340	13

* Applies to the standard version (net on the inlet and outlet)

Design

SCF40 axial fans with a steel casing, painted in black, with two mounting brackets. High-efficiency rotor with aluminium hub and plastic blades, mounted directly on the shaft of the electric motor.

2-speed, 400V [YY-Y], 50 Hz electric motors are used to drive the SCF40 fans. The motors are characterized by the protection class IP55. The terminal box is mounted on the fan housing. As standard, all fans of the SCF40 series are fitted with 800 mm long T silencers on the inlet and outlet. The silencers have an elliptical-shape casing, which allows the maximum reduction of the distance between the fan and the ceiling of the room. In the standard version, the silencer housings are made of galvanized sheet (without coating). As an option, silencer housings can be painted.



As a standard solution, S-type safety nets are mounted at the ends of the silencers. D deflectors can be supplied as additional equipment, allowing for appropriate direction of the air stream, which allows to avoid obstacles such as beams. Additionally, deflectors can be used to prevent the air stream from sticking to the ceiling (the so-called Coanda effect) by properly directing the air stream. On request, deflectors can be installed on one or both sides of the fan.

On request, the fan configuration can be non-standard:

- without silencers, with safety nets,
- with outlet deflector and inlet mesh.

The jet fans should be installed in such a way as to enable free suction and discharge of the medium, which is a condition of proper and reliable operation.

Technical data

Table 2. SCF40 parameters.

Fan type	Diameter	Air flow	Thrust theoretical and actual		Motor power	Rated current (3x 400V)	Rotation speed	Acoustic power level (w odl. 3 m)	Standard version	Without silencers
	ØD [mm]	V [m³/h]	F ₁ [N]	F ₂ [N]	P [kW]	I [A]	[obr/min]	L _{PA} [dB(A)]	weight [kg]	
SCF40-315	315	2509 / 4968	5,7 / 22,7	4,6 / 18,2	0,17 / 0,75	0,6 / 1,6	1360 / 2825	46 / 62	52	27
SCF40-355	355	3318 / 6653	9,0 / 37,6	5,8 / 25,4	0,3 / 1,4	1,0 / 2,6	1380 / 2840	56 / 74	62	29
SCF40-400	400	5191 / 10400	14,0 / 60,0	11,3 / 46,2	0,65 / 2,5	1,3 / 3,6	1400 / 2840	53 / 70	72	38

F₁ - theoretical thrust, calculated acc. to $F = m \cdot w$ [N] (m – mass stream of the air [kg/s], w – air velocity [m/s])

F₂ - actual thrust, measured in accordance to the procedure described in PN-EN ISO 13350

SCF40 – Axial jet fan

When ordering, please provide information in accordance with the following pattern:

SCF40 - <D> - <T> - <M> - <P> <RAL>

Where:

D	nominal diameter, mm
T	silencers*
TT	-fan with 2 silencers (standard version)
00	- fan without silencers
M	elements mounted at the fan*
SS	- fan with 2 safety nets (standard version)
SD	- fan with a net and deflector
DD	- fan with 2 deflectors

P finishing

SO - galvanized steel

SL - steel coated

RAL colour of the casing RAL [for SL]

*optional values, if not specified the default values will be used

Order example: **SCF40- 355 -TT- SS - SL9010**