spirec

The SILENC'AIR

Quality

Profitability

Health

Sustainable development

The SILENC'AIR, the Spirec inductor

What is induction?

It is a well-known aeraulic phenomenon in fluid mechanics, linked to the Venturi effect named after the physicist's name.
Italian Giovanni Battista Venturi. The acceleration of a fluid in shrinkage generates a suction of the fluid located near the jet and ensures mixing.
The Venturi effect is thus created by the transformation of static energy into dynamic energy through a convergent.

What is the purpose of induction in HVAC?

Since induction is used to mix hot or cold air with room air, the temperature difference between the air blown into the room and the room air is reduced. For example, let's take air at 10°C blown into a duct to an office that must be kept at 26°C.

With a SPIREC inductor, the air at 10 °C is mixed by induction with the air at 26 °C so that it reaches about 20 °C. This is the mixing temperature; since the diffuser has its own induction, the temperature of the air blown into the room is slightly higher.
At the same time, the air flow rate into the room is increased by the air flow rate of the intake air: the mixing ratio of the room is greatly increased without rotating parts or motors. **This is a considerable advantage for hygiene and maintenance.**

The increase in the circulation rate allows the room to be properly ventilated, reducing the risk of dead zones in which pollutants stagnate to the detriment of the hygiene of the occupants.
The absence of motors or moving parts means that maintenance operators do not have to intervene in the premises and can concentrate on the technical equipment.

Induction thus improves comfort, hygiene and maintenance.

Low noise

In a diffuser or induction box, the acceleration is generated by a converging air gap. In a climatic beam the acceleration is generated by a large number of convergents. Unlike these systems, SPIREC inductors have only one convergent air gap. This allows a perfect control of the aeraulic and acoustic characteristics.
All the SPIREC inductors are associated with a flow rectifier which makes it possible to suppress turbulence and therefore be silent.

The SILENC'AIR, the Spirec inductor

Description of SILENC'AIR

SILENC'AIR is made up of :

- ✓ A steel rectifier coated with epoxy resin
- ✓ A stainless steel sheath in which the rectifier is inserted. The diameter is standardized.
- ✓ A male upstream connection sleeve DN
- ✓ An aluminium cone supporting a PP M1 nozzle fixed by rivets. The diameter of the nozzle is determined according to the upstream static pressure and the air flow rate.
- ✓ A downstream connection piece DN+1.
- ✓ External insulation (adhesive PE foam M1)

The **SILENC'AIR health** is made up of :

- ✓ A removable inductor itself made up of :
  - a steel rectifier coated with an epoxy resin
  - an aluminium cone supporting a PP M1 nozzle fixed by rivets. The diameter of the nozzle is determined according to the upstream static pressure and the air flow rate to be passed.
- ✓ A downstream connection piece DN+1 on which the removable inductor is fixed by 3 magnets.

Quality

The **SILENC'AIR** is entirely **manufactured** in the **Sartrouville (78**) factory with **standard components.**

The **SILENC'AIR** is certified «**Origine France Garantie**», more than **50%** of its cost price comes from France.

BVCert. 6054735

SILENC'AIR SANTE

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Among our references

Hôpital du pays d'Autan Castres

CHU Nantes PTMC

Hôpital Américain Istanbul

CHU Lille addictologie

Our others applications

Hôpital de Remiremont