

# PDP



PDP diffusers at the foot of the seats or under the seats were designed to distribute air in auditoriums and cinemas where maximum thermal and acoustic performance is required. The system involves the introduction of air coming from the air conditioning system directly at the base of the chair, generating a microclimate effect around it thanks to a very high induction between the air introduced at the base of the chair and the ambient air, which is taken from the top and mixes with the primary air. Therefore, only already mixed air is distributed in the room, eliminating the risk of localized cold flows.

### MATERIAL AND FINISH

- Painted steel, black RAL 9005, up to 10 mm thick
- PVC swirl element.

### APPLICATION

- Used for rooms containing seats such as auditoriums, theatres, cinemas and conference rooms.
- Specifically, primary air enters from the bottom part of the cylindrical body, which is fitted with an internal swirl diffuser (static) which changes the direction of the air sending it towards the perforated part of the cylinder; this air motion creates a depression at the center of the diffuser which is fitted with an upside-down cone that takes air from the room and mixes it with the primary air. In this way a premixed flow is generated and is distributed over the entire perforated

surface before entering the room at a temperature just 1-2°C lower than that of the room

- Seat diffusers operate with a temperature difference between primary air and ambient air ranging from 5 to 7 K.
- The nominal air flow rate of each diffuser ranges from 30 to 70 m<sup>3</sup>/h and the sound power level is 15 dB(A) with a 40 m<sup>3</sup>/h flow rate.

The distinctive features of this system are:

- utmost comfort close to the people with lower residual velocities and moderate temperature gradient
- less noise
- lower inlet air flow rate.

### FASTENING

Directly to the floor or slab by flanges properly studied based on the structural and architectural requirements.

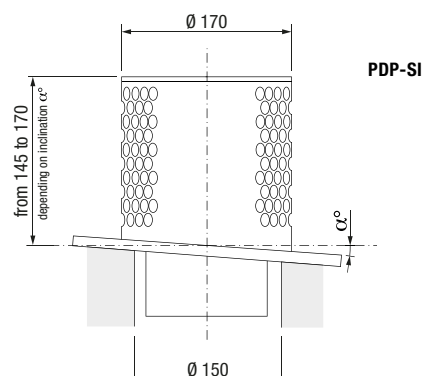
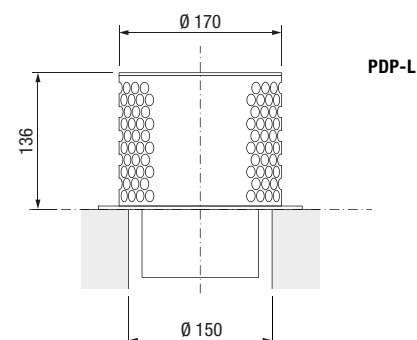
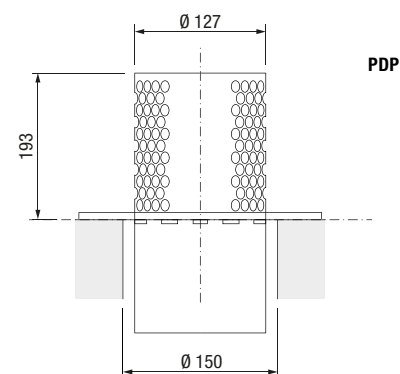
PDP diffusers are installed under the seats, usually one for each seat. They can be arranged both in the central area under the seat or in an intermediate position between two seats, integrating with the assembly system and lying flat on the floor.

### VERSIONS

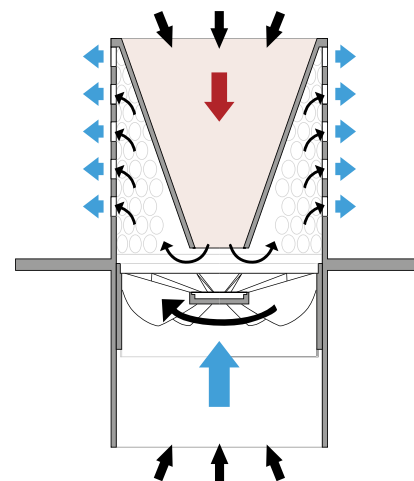
- PDP standard
- PDP-L with larger diameter
- PDP-SI suitable for inclined floors.

This product can also be designed as custom-made.

### DIMENSIONS



### OPERATION



### QUICK SELECTION

Pressure drop in [Pa]

