



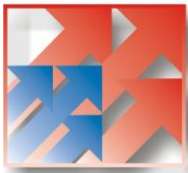
**AEROGRAMMI**  
DESIGN AND MANUFACTURE OF GRILLES AND SPECIAL AIR CONDITIONING COMPONENTS



## ROUND AIR DUCT DIFFUSER

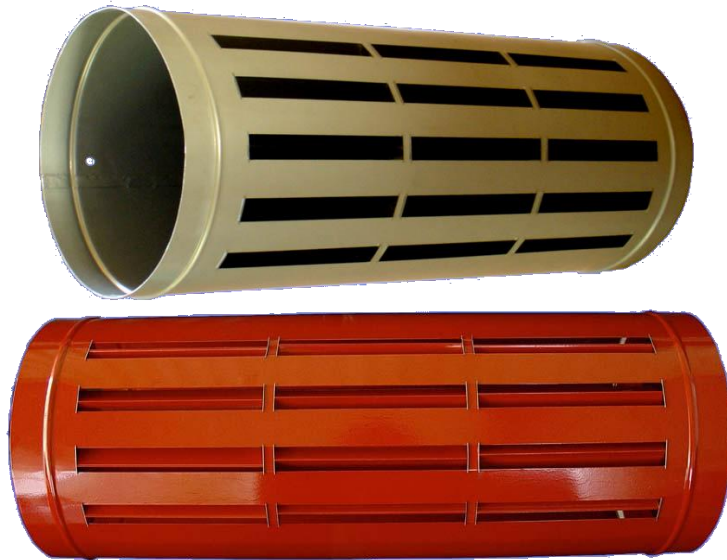
# SRR





## SRR

### CYLINDRICAL DIFFUSER WITH SLOTS

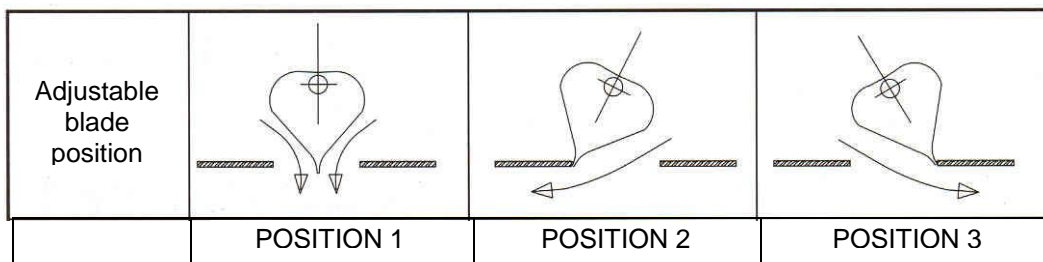


The cylindrical diffuser SRR is designed in such way in order to installed easily in networks of round air ducts. The fact that has the same geometry with the parts of the air duct makes it identical for visible air ducts installations.

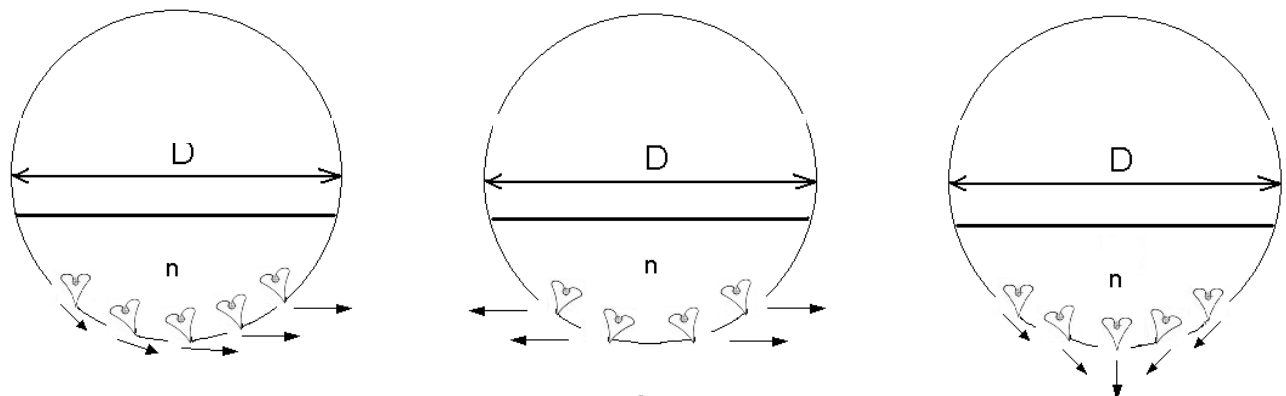
The material of the cylindrical body is steel sheet painted electrostatically in RAL color or galvanized. The blades are made from plastic and they are colored black or white. This way we have big flexibility to adapt any architectural requirements.

The air comes out from the diffuser through a number of slots. Inside the slots there are adjustable, aerodynamically shaped, blades as shown in Drawing-1. By adjusting the blades in certain positions we can change the air flow from horizontal (in one or two directions) to vertical as shown in Drawing-2.

In the case where we use the diffuser SRR for return air then is manufactured without blades. Behind the slots there is a perforated steel sheet painted black. This way is not visible from the front side.



**Drawing - 1**



**Drawing - 2**

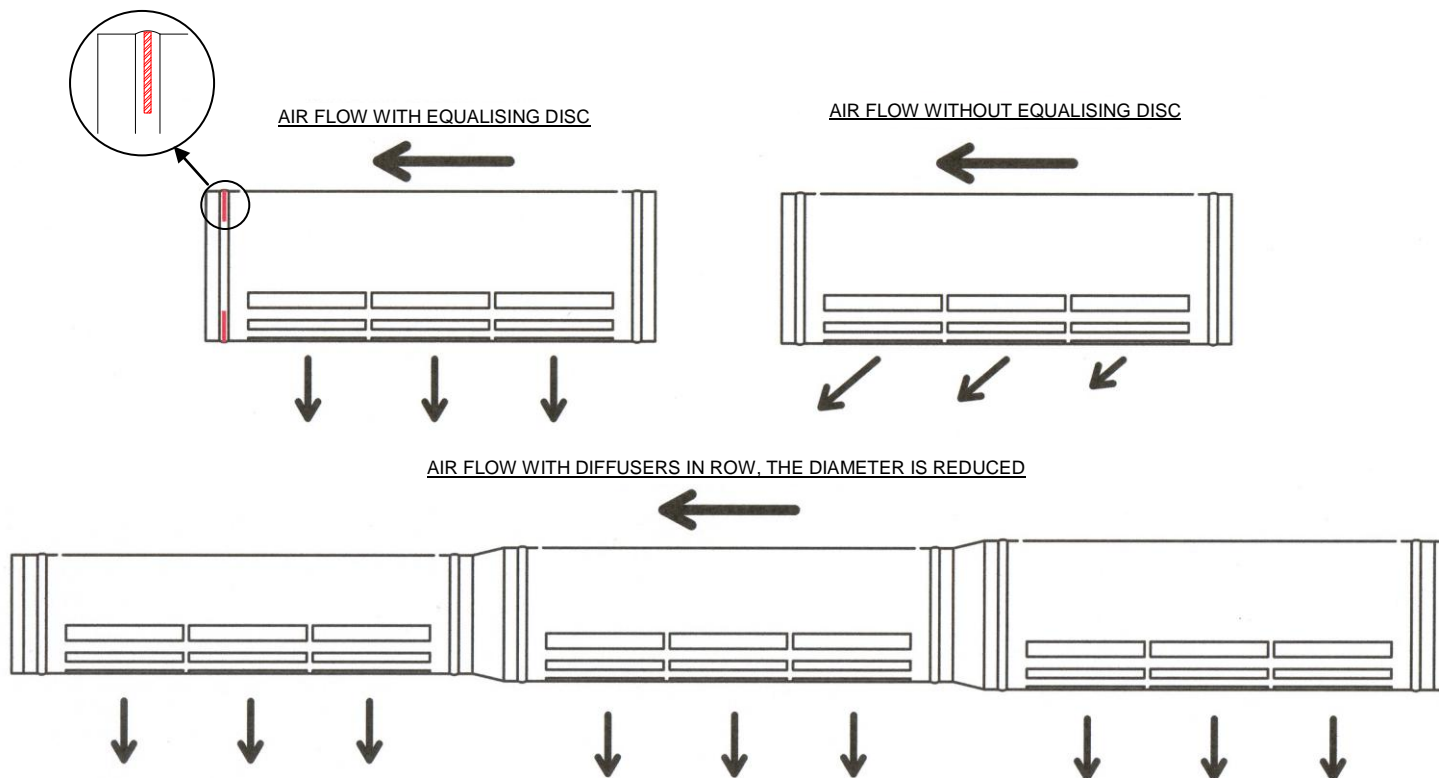


## AIR EQUALIZATION

To achieve equalization of the air in the diffuser there are 2 ways.

If the diameter of the air duct is constant, we add in the edge of the diffuser (in the side of the air exit from the diffuser) a disk which equalizes the air in the surface of the diffuser.

If the diameter of the air duct is going smaller and smaller the air equalized from the parts of the air duct where the diameter is reduced.



## MATERIALS

The material of the cylindrical body is steel sheet painted electrostatically in RAL color or galvanized steel sheet. The blades are made from plastic black RAL 9005 (as standard) or white (RAL 9010).

In the opposite side of the blades (or in other position if requested) are installed two nuts. From these, through wire cords we can fix the diffuser in the ceiling.



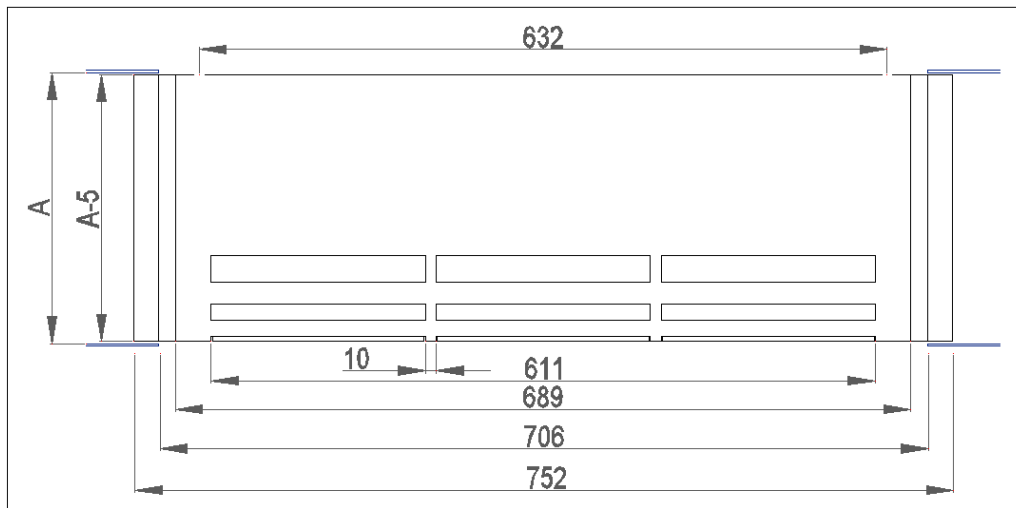


## DIMENSIONS

The diffuser SRR consists of a cylindrical body with length  $L=750$  mm. The cylinder has in length slots divided in three equal parts with length 197mm each. In every part of the slot an independent adjustable blade is installed. The number of slots  $n$  could be from one to a maximum number  $n_{max}$ . The  $n_{max}$  is depended from the diameter of the diffuser. The diameter of the diffuser  $D$  could be from 150 to 800mm. We can see the possible combinations between the diameters  $D$  and the maximum number of slots  $n_{max}$  in the following table.

No	L	D	$n_{max}$
1	750	150	2
2	750	200	4
3	750	250	4
4	750	300	5
5	750	350	5
6	750	400	6
7	750	450	6
8	750	500	6
9	750	550	7
10	750	600	7
11	750	650	7
12	750	700	8
13	750	750	8
14	750	800	8

The one edge of the diffuser is round, the other is also round or shaped like gear. Depends to the client's desire.



## TECHNICAL DATA

To calculate the air volume supply in the diffuser  $V_{sup}$  for a certain number of slots  $n$  and for noise 35 and 40 dB(A) (pressure drop  $\Delta p= 43$  and 53 Pa respectively), we use the following table.

$n$	$V_{sup}$ 35 dB(A) 43 Pa	$V_{sup}$ 40dB(A) 53 Pa
1	165	190
2	330	380
3	495	570
4	660	760
5	825	950
6	990	1140
7	1155	1330
8	1320	1520

## WAY OF ORDER

For the order of the diffusers SRR we use a string of numbers and letters according to the following pattern: **SRR -  $\Phi X_1 - X_2 - RAL X_3 - X_4$** .

Where  $X_1$ : The diffuser diameter.

$X_2$ : The number of slots.

$X_3$ : The cylindrical body color.

$X_4$ : The blades color.

I.e.: **SRR -  $\Phi 400 - 3 - RAL 9010 - RAL 9005$**