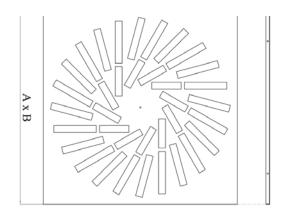


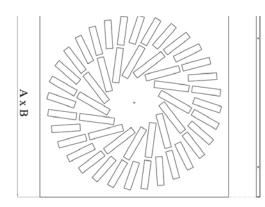
# **DAM15**

Linear throw diffuser on square panel with helically arranged adjustable deflectors with a high induction ratio (mixing capacity) between the injected and the ambient air. Made up of a plate with holes inside which adjustable plastic deflectors are housed.

The helical flow of the air injected can be oriented clockwise, anticlockwise or alternating by changing the position of the deflectors.

TECHNICAL SPECIFICATION AND USAGE LIMIT									
INSTALLATION HEIGHT	APPLICATIONS	MATERIAL	SURFACE FINISH	COLOR	FASTENING				
2,5 to 4 m	The diffuser can also be used for air return; in this case it is supplied without deflecting fins. The deflectors can also be oriented after the diffuser has been installed in order to make adjustments to optimise airflow in the room once the system is running.	Painted steel panel, ABS supports and black PVC deflectors	Epoxy powder coating resistant to impact and abrasion	RAL 9010 white. On request, coating in non-standard RAL colors.	by means of side screws or a central screw				





# GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for suistainable buildings:



**LEED** 

Contributes to credits:

IP, EA, MR

WELL

Contributes to credits: MATERIALS, COMMUNITY



**BREEAM** 

**BREEAM®** 

Contributes to credits: MAN, WST

For further details about specific contributions to the credits indicated, contact Tecnica Srl

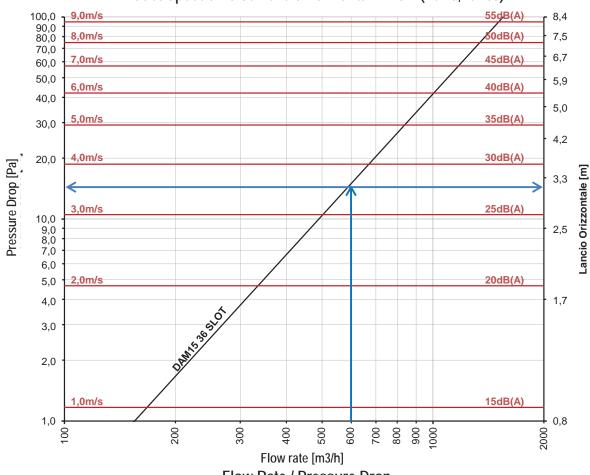
TECHNICAL DATA								
Model	A [mm]	B [mm]						
DAM15 36 SLOTS	595	595						
DAM15 48 SLOTS	595	595						



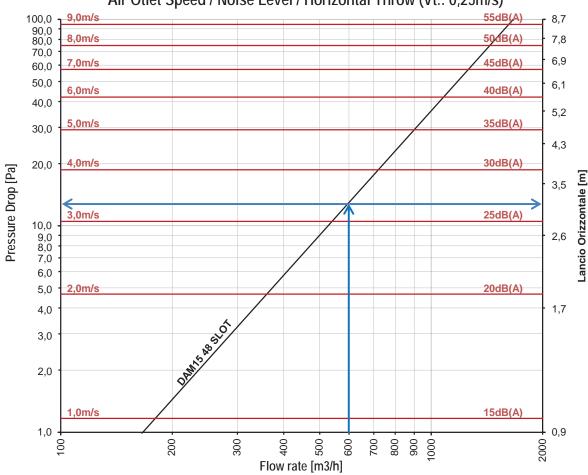
#### APPLICATIONS + -× = Calculation **REACH** RoHS Air Interior Easy Pack Residential Industry Building Certificate Certificate Conditioning Method design

### **Selection charts**

### Flow Rate / Pressure Drop Air Otlet Speed / Noise Level / Horizontal Throw (Vt.: 0,25m/s)



#### Flow Rate / Pressure Drop Air Otlet Speed / Noise Level / Horizontal Throw (Vt.: 0,25m/s)



# Diagram 1

\*on request

The diagram shows the diffuser pressure drop based on the flow rate with relative indication of the noise level without environmental attenuation, air outlet speed and horizontal throw with terminal speed equal to 0.25m/s.

C A L C U L A T I O N (input data)								
Total Flow Rate	6000 m³/h	6000 m³/h						
Max Noise Level	30dB(A)	30dB(A)						
Number of dif- fusers expected	10 pz.	10 pz.						
Horizontal Throw	3,2m	3,1m						

SELECTION								
Model	DAM15 600 36 SLOTS	DAM15 600 48 SLOTS						
Flow Rate	600 m³/h	600 m <sup>3</sup> /h						
Pressure Drop	+/- 15Pa	+/- 12Pa						
Noise Level	27dB(A)	27dB(A)						
Inlet Air Speed	Flow Rate / (Ak * 3600) = 3,60m/s	Flow Rate / (Ak * 3600) = 3,33m/s						
Isothermal Throw	3,3m	3,1m						

# Diagram 2

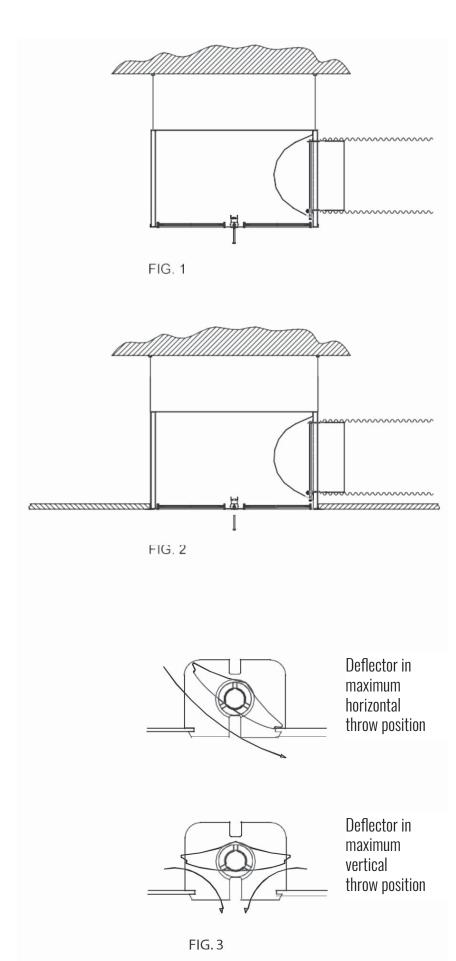
The diagram shows the diffuser pressure drop based on the flow rate with relative indication of the noise level without environmental attenuation, air outlet speed and horizontal throw with terminal speed equal to 0.25m/s.

**Note:** Pressure drop data shown in the diagram refer to the diffuser with the damper fully open.



MODEL	DESCRIPTION	Vi (m/sec)										
		U.M.	1	2	3	4	5	6	7	8	9	10
DAM15 36 SLOTS Ak: 0,0465m2	Flow Rate	m3/h	168	335	503	670	838	1005	1173	1340	1508	1675
	Pressure Drop	Pa	1	5	11	19	29	42	57	75	95	117
	Horizontal Throw Vt 0,25m/s	mt	0,9	1,8	2,7	3,6	4,4	5,3	6,2	7,1	8,0	8,9
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60
DAM15 48 SOLTS Ak: 0,0500m2	Flow Rate	m3/h	180	360	540	720	900	1080	1260	1440	1620	1800
	Pressure Drop	Pa	1	5	11	19	29	42	57	75	95	117
	Horizontal Throw Vt 0,25m/s	mt	0,9	1,8	2,8	3,7	4,6	5,5	6,5	7,4	8,3	9,2
	Noise Level	dB(A)	15	20	25	30	35	40	45	50	55	60

# ASSEMBLY INSTRUCTION



Easy installation, adjustments and maintenance. The diffusers are fastened to the plenum by means of side screws or a central screw.

## **Adjustment**

The airflow distribution is manually adjusted by acting on the deflectors that are fitted with a snap positioning device so that they stay in position during operation.

# Fig. 1 Installation with plenum fastened on the ceiling

- Hang the plenum on the ceiling using brackets or chains fastened on the plenum whose outer edge can be drilled.
- Fit the flexible duct on the connecting sleeve and fasten it with a hose clamp.
- Make a preliminary adjustment to the damper by acting on the pin with Allen screw and tightening the hexagonal-head screw that fastens the pin.
- Fit the diffuser using either a central screw screwing it onto the plenum bridge (if provided) or 4 self-tapping side screws.

### Fig. 2 Installation on the false ceiling

- Hang the false ceiling elements on the ceiling.
- Make a preliminary adjustment to the damper by acting on the pin with Allen screw and tightening the hexagonalhead screw that fastens the pin.
- Fit the flexible duct on the connecting sleeve and fasten it with a hose clamp.
- Fit the diffuser using either a central screw screwing it onto the plenum bridge (if provided) or 4 self-tapping side screws.
- Rest the diffuser pre-fitted on the plenum on the square space of the false ceiling.

#### Fig. 3 Movable deflector adjustment

• The movable deflectors can be adjusted from an angle of 0° (maximum vertical throw position used in heating) to a maximum angle (maximum horizontal throw position used in cooling).

The deflectors are fitted with a snap positioning device in order to guarantee accuracy and always correct positioning even with high flow rates and velocities.

