



# Ceiling diffuser DAL 382



## Installation and maintenance Guide



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# nadklima.com

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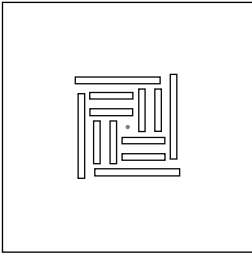
2840 Argentia Road, Unit 6

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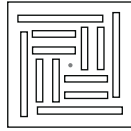
416 860-1067

ontario@nadklima.com

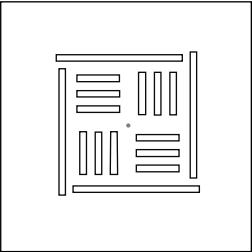
## CONFIGURATION



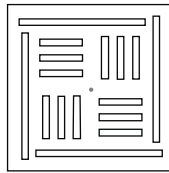
DAL 382 - 300/603



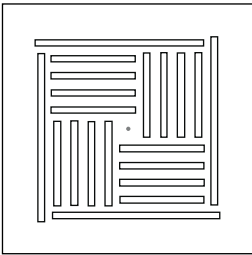
DAL 382 - 300/299



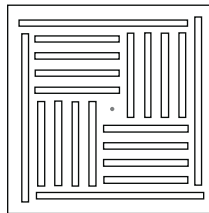
DAL 382 - 400/603



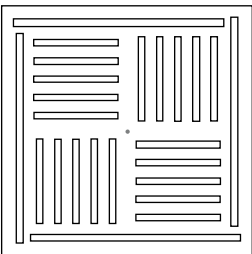
DAL 382 - 400/400



DAL 382 - 500/603



DAL 382 - 500/502



DAL 382 - 600/603

## AIR JET ADJUSTMENT

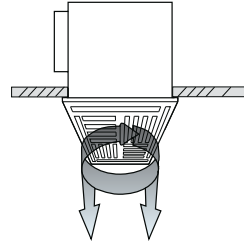
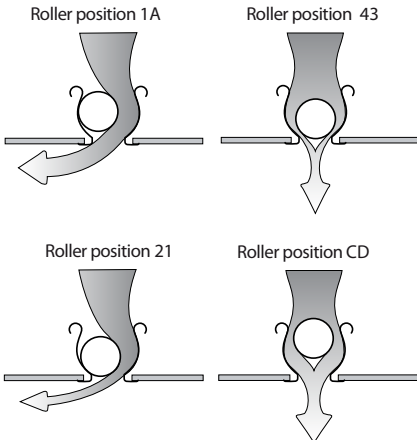
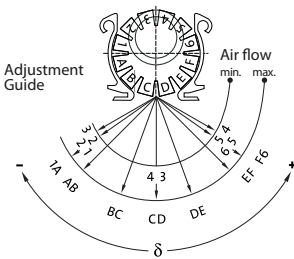
The 100 mm long eccentric rollers can be rotated 360 degrees. In standard position (21), the eccentric rollers establish, through the slot's profile, a streamline in which air is carried along. At the outlet of the roller, a low pressure zone is created generating a high induction rate.

### Flow behaviour

The DAL 382 frontal plate has slots arranged in a characteristic star pattern. Turning the rollers individually can produce a multitude of airstream patterns. In this manner, obstacles to efficient air flow can be avoided (lightning fixtures, overhang in ceiling, architectural columns, etc.).

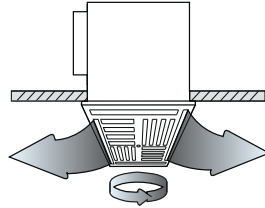
The four (4) groups of slots in the frontal plate regulate the manner in which the exiting jets overlap, creating a helical air jet with a high induction level.

Despite the variety of air flow directions, all stream options have approximately the same acoustic power and pressure drop because of the eccentric rollers' specific design.



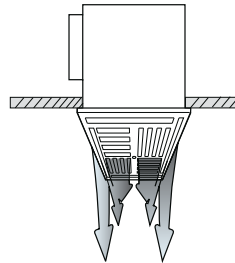
### Jet below the ceiling

The exterior slots are set to expel air outwards (21 or 65). The helical jet at the center of the air jet creates a high induction rate below the ceiling (standard setting).



### Vertical jets

The exterior slots are configured to expel air towards the outside (21 or 65). The extremely turbulent interior helical air jet causes a great deal of induction at ceiling height (standard setting).



### The distance of a vertical jet

When all of the central and external rollers are directed downwards without deviation (CD), the helical movement is cancelled. In contrast, it does cause a strong downward airflow. This penetration can be increased when the external rollers are orientated towards the center.

## INSTALLATION IN A GYPSUM CEILING

### DAL 382

#### A) Opening in the gypsum

Choose one of the three (3) installation options shown on the right.

##### Option 1 and 2

- Measure the diffuser's dimensions.
- **ADD** 13 mm (1/2") to the width and 13 mm (1/2") to the length.
- Cut a square in the gypsum corresponding to these measures (dimension of diffuser + 13 mm).
- Around this hole, insert a plaster frame and fix it.

##### Option 3

- Measure the diffuser's dimensions.
- **REMOVE** 1/2 in (13 mm).
- Cut a square in the gypsum corresponding to these measures (dimension of diffuser - 13 mm).
- Around this hole, insert a plaster frame and fix it.

#### B) Install the plenum box

Suspend the plenum box with metal wire through the 4 predrilled suspension holes.

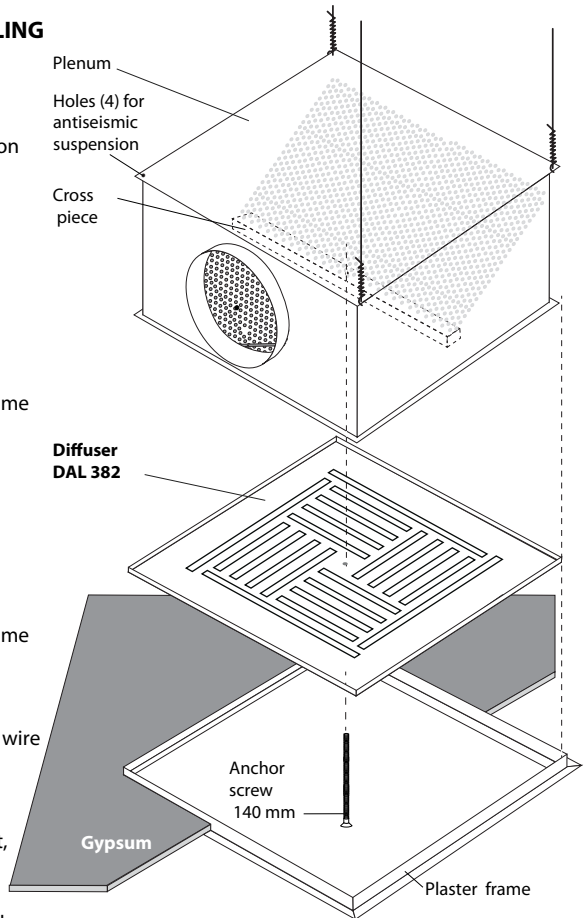
As shown in the drawing on the right, install the plenum by adjusting its height. According to option 1 and 2, the base of the plenum should be 3 mm (1/8") into the hole or, with option 3, the base of the plenum will press outside the gypsum's hole.

#### C) Install the diffuser

Fix the diffuser using the anchor screw provided for this purpose, through the center of the cross-piece in the plenum.

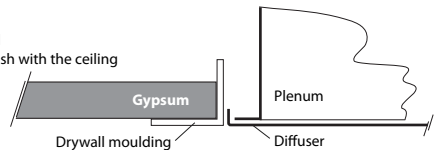
#### NOTE:

**You will find the 140 mm anchor screw clipped on the back of the diffuser.**



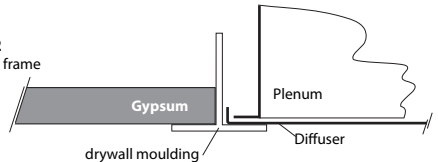
##### Option 1

diffuser flush with the ceiling



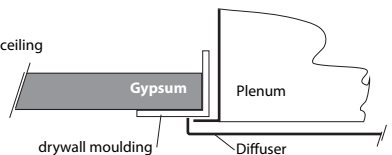
##### Option 2

diffuser on frame



##### Option 3

diffuser under the ceiling



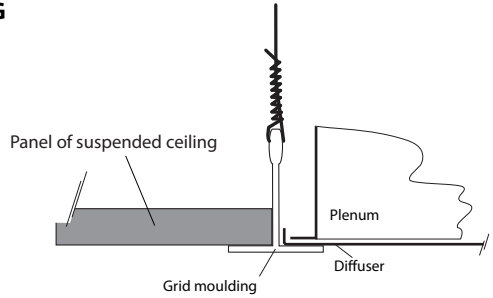
## INSTALLATION IN SUSPENDING CEILING

### DAL 382

#### A) Grid mouldings

Make sure that the grid mouldings of the suspended ceiling match the diffuser's dimensions.

Also, make sure that the moldings of the ceiling are firmly anchored.



#### B) Install the diffuser to the plenum box

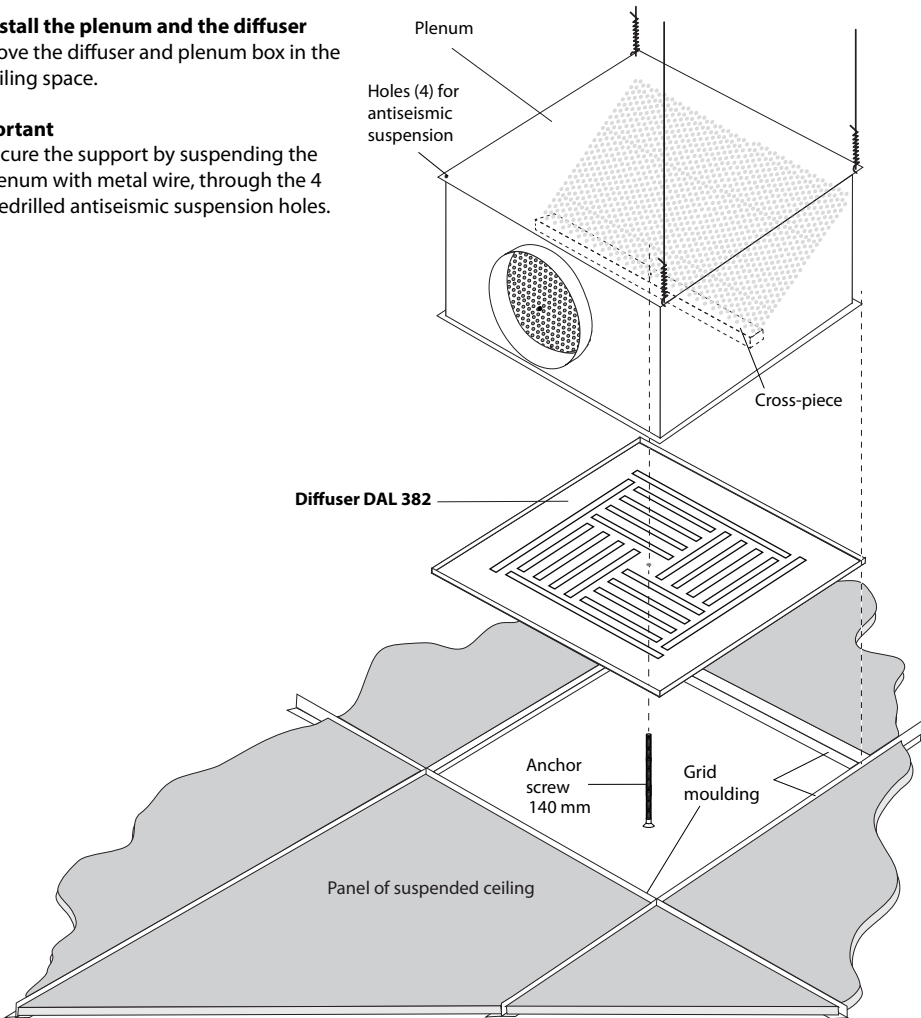
Place the diffuser in the plenum and using the screw anchors provided for this purpose, through the center of the cross-piece in the plenum.

#### C) Install the plenum and the diffuser

Move the diffuser and plenum box in the ceiling space.

#### Important

Secure the support by suspending the plenum with metal wire, through the 4 predrilled antiseismic suspension holes.



## MAINTENANCE

The NAD Klima DAL 382 diffuser requires no special maintenance other than periodic cleaning.

We recommend cleaning the diffuser with a multi-filament brush or microfiber duster that you will pass softly on the diffuser. It has a thermo-lacquered finish for easy cleaning, as dust does not stick to it.



When cleaning, gently move the brush or duster in the direction of the rollers, so as not to change their adjustment.



NAD Klima diffusers are the result of a manufacturing process in which our experts successfully meet your requirements and particular challenges.

Our range of equipment comprises the latest technological innovations. Our passion for work well done and digital precision ensure that the resulting product will guarantee the highest standards.

Manufactured in Sherbrooke, Quebec, (Canada) and distributed all across North America, our products raise the bar in terms of standards of quality, efficiency and energy savings.

A leader in air diffusers for LEED projects, NAD Klima is always striving to provide better comfort to consumers.

All NAD Klima products are the pride of an inventive, innovative and devoted team.

Our goal is not only to supply diffusers, but to create outstanding results.

We are NAD Klima.

