

## Swirl diffuser DRS



## Maintenance and installation guide



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#### CONFIGURATION

The different possible DRS layouts meet many requirements. The variety of sizes available meet the most exacting performance needs.

The DRS is installed directly on the air duct via an adapted connector. It can be set up with a square front plate (12" x 12" or 24" x 24").

# Q - 100/299 Q - 100/603 O - 125/299 O - 125/603 Q - 180/603 Q - 215/603 Q - 250/603 Q - 315/603

Q - 355/603

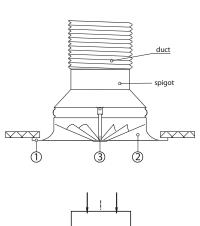
## COMPOSITION AND METHOD OF OPERATION

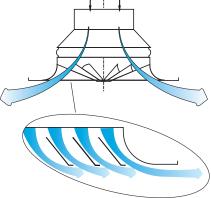
#### Structure

The DRS air diffuser is composed of a front plate (1) with blades integrated into the diffuser's exit (2). The diffuser is held up by a concealed central screw (3).

#### Operation

The blades divide the airflow into numerous single high-induction airflows. The blades integrated into the diffuser's exit ensure a horizontal air flow even at a slow rate, while cooling up to a minimum of 25% in variable air volume (VAV).





## INSTALLATION IN A GYPSUM CEILING DRS Q

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

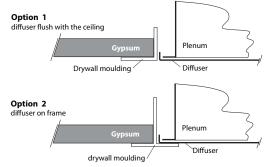
#### B) Install the plenum box

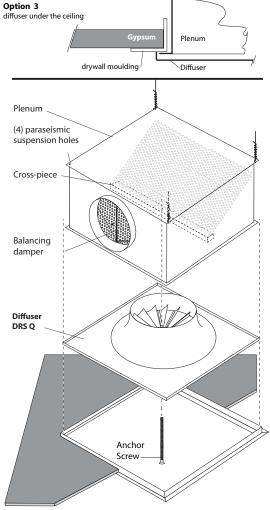
Suspend the plenum with metal wire through the 4 predrilled paraseismic suspension holes.

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.





#### INSTALLATION IN A GYPSUM CEILING

#### **DRS R**

#### A) Opening in the gypsum

Choose one of the two (2) installation options shown on the right.

#### Option 1

- Measure the diffuser's diameter (ØD).
- REMOVE 13 mm (1/2").
- Cut a circle in the gypsum equivalent to this new measure (ØD + 1/2" (13 mm)).
- Around this hole, place the gypsum guide and fix it.

#### Option 2

- Measure the diffuser's diameter (ØD).
- ADD 13 mm (1/2").
- Cut a circle in the gypsum equivalent to this new measure (ØD 13 mm (1/2")).
- Around this hole, place the drywall moulding and fix it.

#### B) Install the plenum

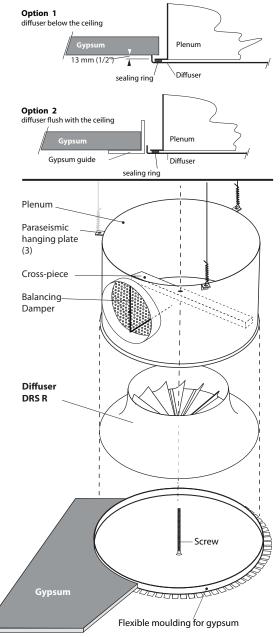
The plenum shall be hanged with metal wire through the paraseismic hanging plates (3).

As shown in the drawing on the right, install the plenum and adjust its height. According to **option 1**, the lip of the plenum will be installed 6 mm under the gypsum. **Or**, according to **option 2**, the base of the plenum must enter 3 mm (1/8") into the hole.

#### C) Install the diffuser

Install the diffuser, making sure that the ring is perfectly aligned on the damper shaft axis.

Fix the diffuser using the 140 mm (5 1/2") anchor screw provided for this purpose, through the center of the cross-piece in the plenum.



## INSTALLATION IN SUSPENSION CEILING DRS Q

#### A) Grid mouldings

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

Also, make sure that the mouldings are firmly anchored.

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

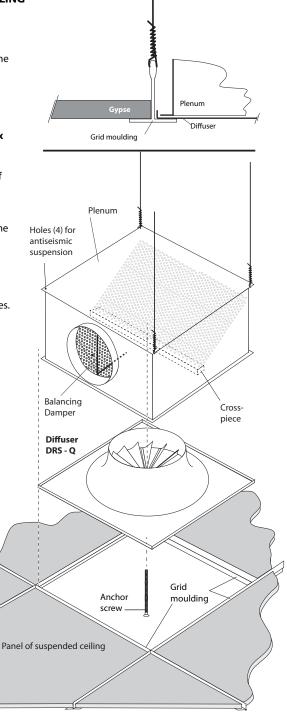
Place the diffuser in the plenum and fix it using the screw anchors provided for this purpose, through the center of the cross-piece in the plenum.

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

Move the diffuser and plenum box in the ceiling space.

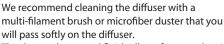
#### Important

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



#### **MAINTENANCE**

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



The thermo-lacquered finish allows for easy cleaning of the diffuser as dust does not stick to it.





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 of 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.



