



# DAL 359 Submittal



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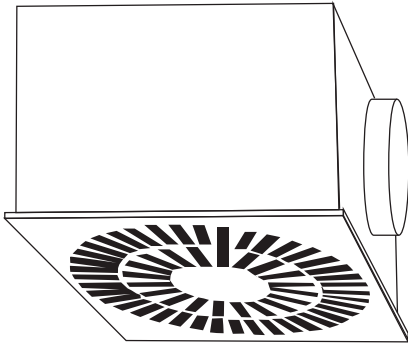
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Date

Project

Engineer

Contractor



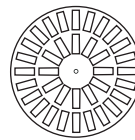
## Configuration

### The diffuser

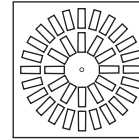
- Made of 20 ga. galvanized steel..
- Blades shall be integrated to the round or square front plate.
- 90 mm long plastic blades
- Horizontal air flow over 360 degrees..
- Adapted to fit regular North American suspended ceilings or classic gypsum ceilings.
- Powder coated with a polyester TGIC-free paint
- Smooth, easy-to-clean, chip and fade resistant finish
- Standard colour from the RAL colour chart, according client choice.

### Plenum

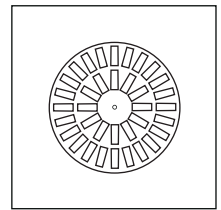
- Made and tagged by the diffuser's manufacturer
- Made from 24 gauge galvanized steel
- Perforated stabilizing (equalizing) plate
- Four suspension points, which adhere to paraseismic standards
- inlet is centered on the side or on the top of the plenum, and calibrated to accommodate the airflow rate.
- The joints of the plenum shall be sealed with a VOC (volatile organic compounds) emission-free caulking.
- The diffuser front plate shall be attached to the plenum with a central screw.



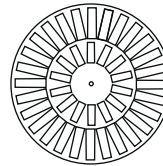
DAL 359-R-400



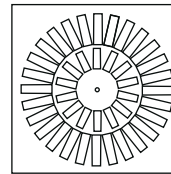
DAL 359-Q-400/400



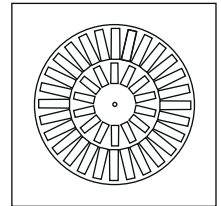
DAL 359-Q-400/603



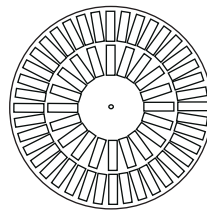
DAL 359-R-500



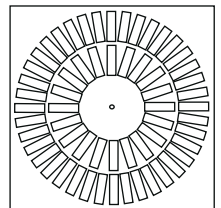
DAL 359-Q-500/502



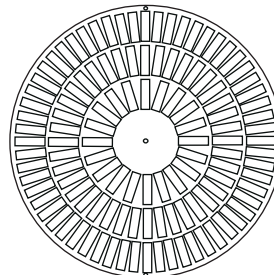
DAL 359-Q-500/603



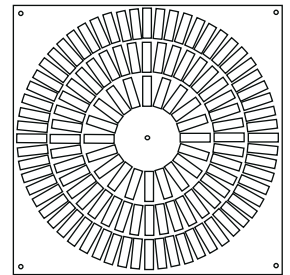
DAL 359-R-600



DAL 359-Q-600/603



DAL 359-R-800

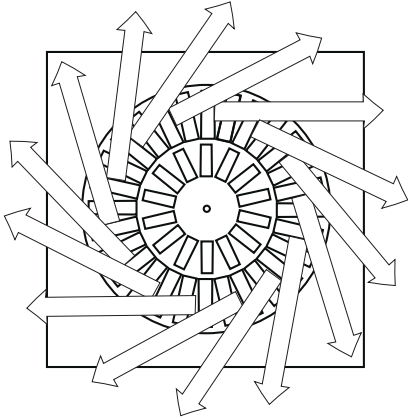


DAL 359-Q-800/800

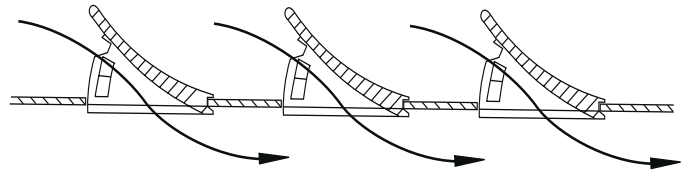
## DAL 359 - Air flow and air direction

The DAL 359 optimizes the ventilation system to meet spatial requirements. The large number of blades (aircraft wing shaped) directing the airflow possess ventilation and acoustic qualities. They allow installation even in spaces with high ceilings and high refrigeration needs.

An adaptation to a possible change of airflow is feasible through a modification of the winglet's opening. It is possible to change the flow's pulse, penetration or thickness.

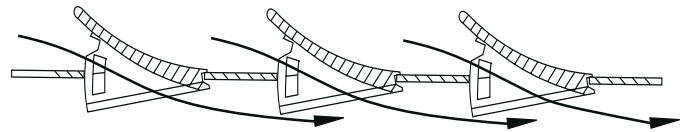


### Position 1



The blades produce, at the level of the diffuser's frontal plate, a change in the air flow (from vertical to horizontal) with acoustic and aerodynamic qualities.

### Position 2



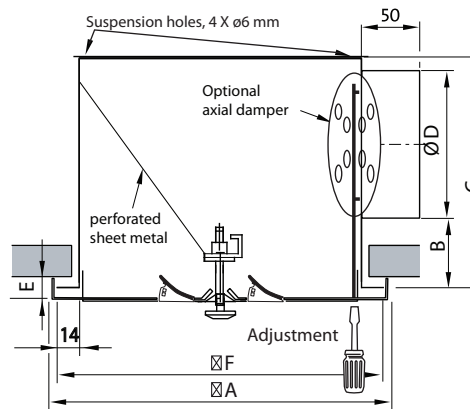
On position two, the blades can be lowered, reducing exiting airflow by 50%. If the airflow doesn't change, the air jet penetration can be increased.

## DAL 359 - Dimensions and weight

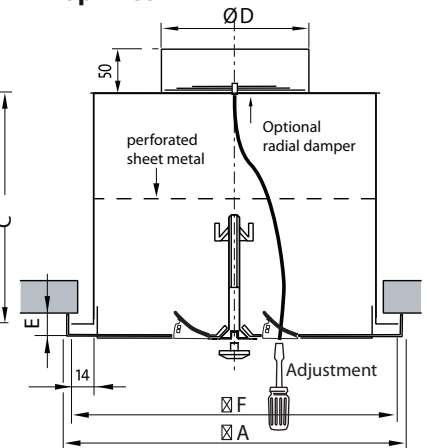
### square plenum

	DN 400	DN 500	DN 600	DN 800
Side ØA	400	502	603	800
Side B	76	82	67	66
Side C	251	312	347	411
Side ØD	200	250 (oval)	250	350
Side E	12	12	12	12
Side ØF	387	488	584	790
Weight (kg)	4.5	6.6	9.2	15.8
A <sub>eff</sub> (m <sup>2</sup> )	0.0080/0.0134	0.0214	0.0347	0.0508

### Side inlet



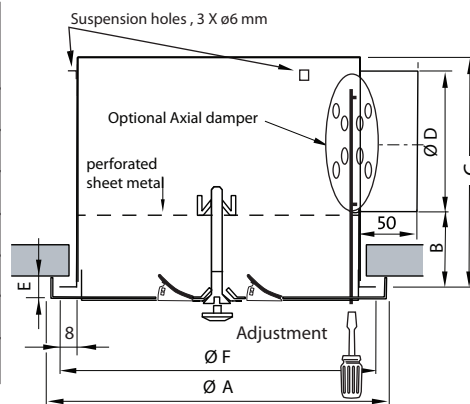
### Top inlet



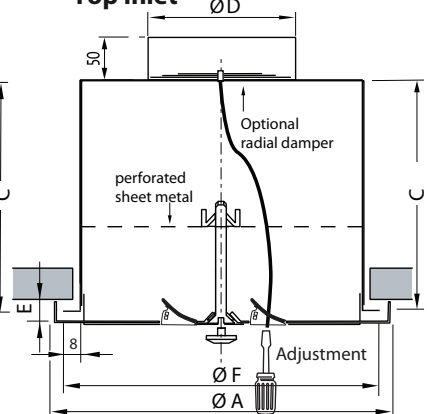
### round plenum

	DN 400	DN 500	DN 600	DN 800
Side ØA	400	500	600	800
Side B	76	82	67	66
Side C	251	312	347	411
Side ØD	200	250	250	350
Side E	8	8	8	8
Side ØF	392	492	592	792
Weight (kg)	3.8	5.8	7.7	12.8
A <sub>eff</sub> (m <sup>2</sup> )	0.0080/0.0134	0.0214	0.0347	0.0508

### Side inlet



### Top inlet



## DAL359 - Fire-proof damper

### Square plenum

Size DN	300		400		500		600
Size □A	603	400	603	400	603	502	603
Size C	400	400	400	400	450	450	498
Size ØD	150	150	150	150	200	200	250
Size □F	584	396	584	396	584	488	584
Weight (Kg)	16.7	10.7	16.8	10.9	17.7	14.6	19.2

**Note :** The balancing damper is not available with the fireproof damper.

Classified ULC (Underwriters laboratories of Canada), the NAD Klima diffusers with fire resistant dampers have a fire-resistant rating of 3 hours.

The fire-resistant damper is integrated directly to the plenum. This assembly is designed for installation in either a suspended or gypsum ceiling.



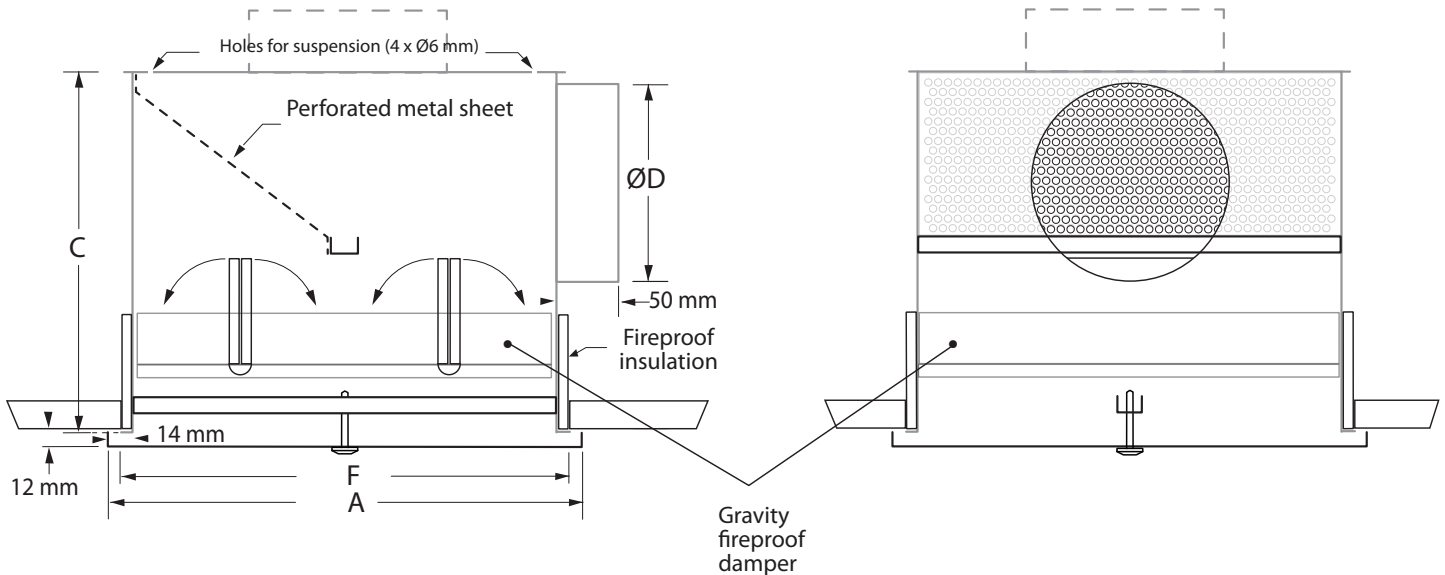
**LISTED**

Air Terminal Unit  
R38924

CAN/ULC - S112.2 et CAN/ULC - S101



CEILING AIR DIFFUSER  
FIRE RESISTANCE CLASSIFICATION  
ANSI/UL 555C et ANSI/UL 263



# DAL 359 - Codification

DAL 359										<b>Product</b>	
Q = Square - R = Round										<b>Configuration</b>	
400, 500, 600, 800										<b>Nominal dimension</b>	
400, 502, 603, 800 (603 for 24"X24" T-bar)										<b>Outer size</b>	
S = Standard swirl flow X = Return (without winglet)										<b>Airflow</b>	
W = White winglets (RAL 9003) B = Black winglets (RAL 9010) X = Without winglets (return)										<b>Winglet color</b>	
9003 = White 00SB = Solar black (Standard Black Matte) 00SM = Silver matte (Metallic Grey Standard) ____ = RAL color (write the RAL color number)										<b>Diffuser color</b>	
S = Plenum with inlet on the side T = Plenum with inlet on the top X = Without plenum										<b>Plenum</b>	
I = Acoustic insulation A = Closed cell acoustic insulation X = Without insulation										<b>Acoustic insulation</b>	
F = With fire-proof insulation and fire-proof damper (balancing damper not available) X = Without fire-proof insulation and fire-proof damper										<b>Fire-proof insulation</b>	
D = With axial damper (standard for inlet on the side) R = With radial damper (for inlet on the top and on the side) X = Without damper										<b>Balancing damper</b>	
DAL359	Q	400	400	S	W	9003	S	X	X	X	<b>Example</b>