



REZNOR

De-Stratification Fans

DS - 3 Series





DS Series

With any conventional air heating system warm air will rise to roof level by natural convection. In high buildings such as factories, warehouses and sports centres, this can result in high temperature gradients and consequently increased energy usage.

Reznor de-stratification fans reverse the natural convection process, re-circulating warm air back to working level providing a permanent reduction in roof space temperature and uniform temperature distribution.

Model Range

De-strat fans are available in four sizes, with mounting heights ranging from 4m to 18m and air volumes from 3,000 m³/h up to 11,000 m³/h.

DS units are supplied with a high efficiency axial fan with mesh finger guard, robust double skin cabinet with four point suspension and four way discharge with adjustable louvres.

Frost protection unit excluding integral thermostat also available.

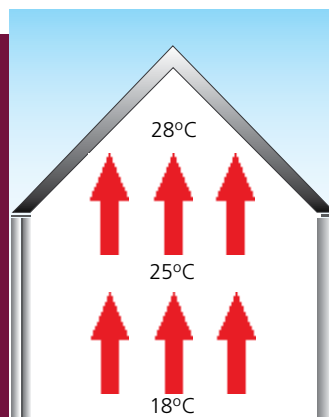
Technical Data

| | | Model Ref | | | |
|-----------------------------------|-------------------|--------------|-------|-------|--------|
| | | DS3-3 | DS4-3 | DS6-3 | DS10-3 |
| Minimum Mounting height | m | 4 | 6 | 10 | 10 |
| Maximum Mounting height | m | 8 | 12 | 18 | 18 |
| Primary air volume | m ³ /h | 3000 | 5300 | 6600 | 9000 |
| Electrical supply | | 230V 1N 50Hz | | | |
| Current rating | A | 0.52 | 1.15 | 1.75 | 2.4 |
| Absorbed power | kW | 0.11 | 0.25 | 0.38 | 0.52 |
| Sound pressure level ¹ | dB(A) | 50 | 54 | 57 | 62 |
| Net weight | kg | 15 | 19 | 21 | 27 |

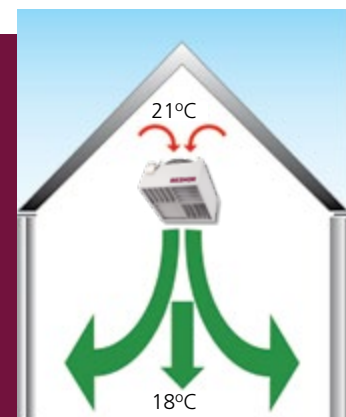
¹ Sound level @ 5m, Q=1, A=160m²

Features

- > Heat recovery by re-circulating high level hot air back to occupancy level
- > Reduced fuel bills by eliminating excess heat loss through the roof
- > Heat reclaim from lighting and machinery
- > Improved comfort level for occupants
- > Reduced pre-heat time

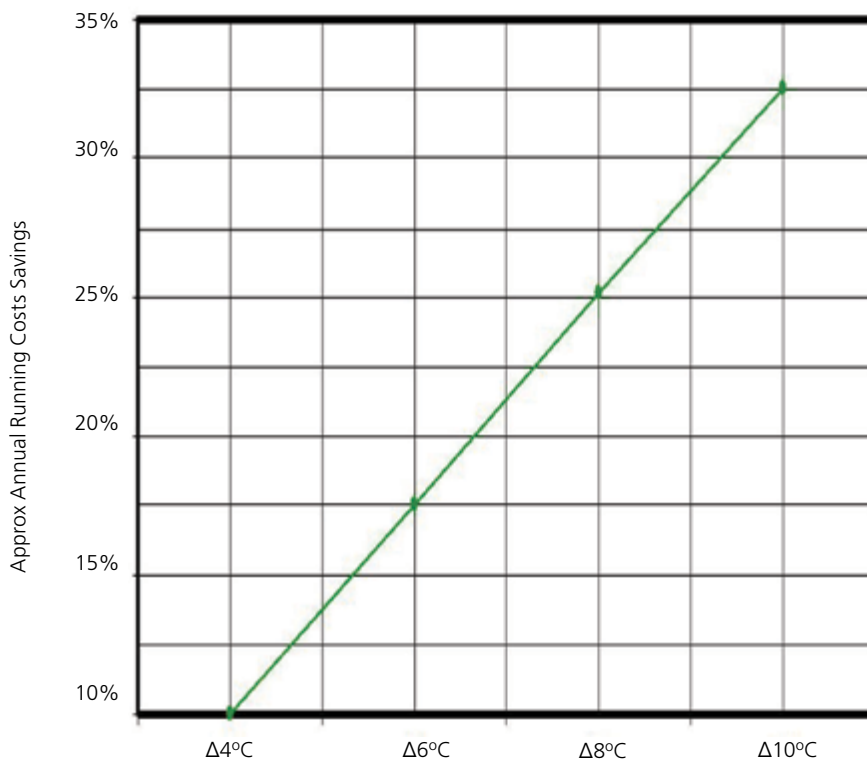


Without de-stratification heat rises resulting in poor distribution, increased heat loss and running costs.



The DS fan returns heat to the working zone for improved comfort and reduced running costs.

Potential savings by reducing excess of heating stratification



ΔT Temperature gradient from floor to roof level

For effective de-stratification, sufficient fans must be installed to re-cycle heat from the full roof area.

Installation

DS units are supplied ready for automatic operation with installation only requiring mounting and connection to a single phase electrical supply.

Standard units are supplied with an integral thermostat to operate the fan as soon as the roof space temperature rises above the set point.

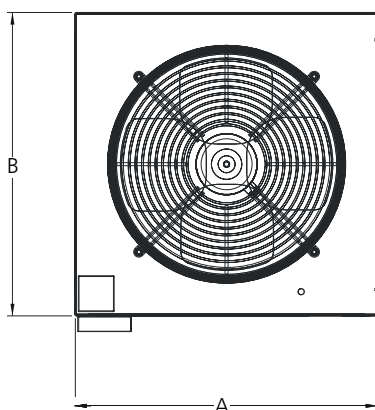
For frost protection applications units are supplied without thermostats to be linked to frost protection controls.

The four-way adjustable outlet blades allow the air direction and terminal velocity to be set to suit the application and mounting height.

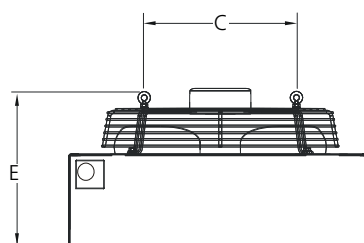
Design Data

Select the DS unit to suit the mounting height required, ideally the units should be installed approximately 1 metre below the apex.

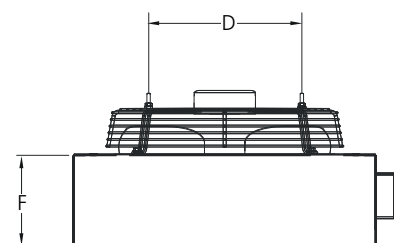
Calculate the volume of the building and multiply by two to determine the amount of air that needs to be re-circulated for effective de-stratification. Divide by the primary air volume of the unit to determine the number of units required.



Top view



Side view



Front view

Dimensions

| | | DS3-3 | DS4-3 | DS6-3 | DS10-3 |
|--------------------|---|-------|-------|-------|--------|
| Width | A | 474 | 573 | 573 | 724 |
| Depth | B | 474 | 573 | 573 | 724 |
| Suspension Centres | C | 332 | 365 | 400 | 440 |
| Suspension Centres | D | 332 | 365 | 400 | 440 |
| Height | E | 318 | 357 | 318 | 368 |
| Casing Height | F | 192 | 192 | 192 | 192 |



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