



## RINO

Supply/extract air diffuser  
for ceiling mounting in homes

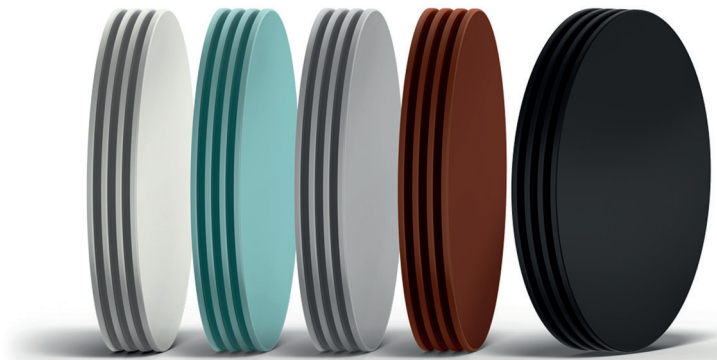


**Swegon** 

# Technical description

## Design

RINO is a ceiling diffuser with exceptional design and extremely good air and sound properties. Thanks to its design RINO is suitable for any room and interior style. In addition to the supply air diffuser, the series includes RINOi exhaust air diffuser. All the products have the same design. The exceptional design and the structure of RINO efficiently prevents dirt collecting around the ceiling diffuser.



RAL 9002 RAL 6034 RAL 9006 RAL 8029 RAL 9005

## Materials and finish

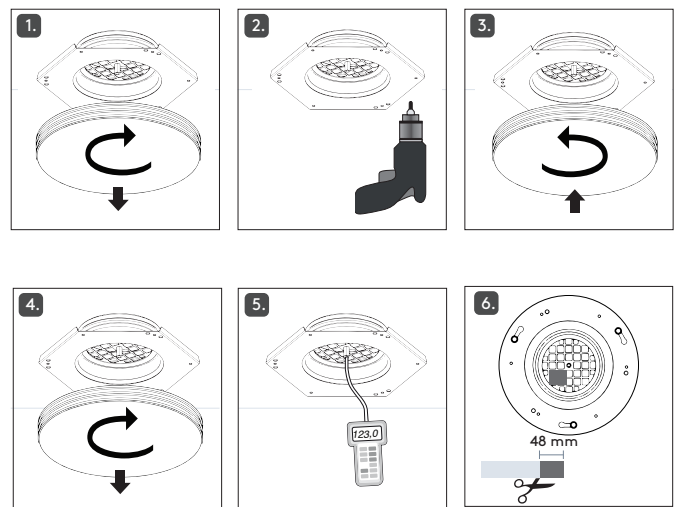
RINO is produced in powder coated steel sheet, white standard color RAL9016. Different colors are available, off-white (9002), Light green (6034), cool metallic (9006) dark red (8029) and black (9005).

## Project planning

Use dimensioning charts to design the unit. Sound from a diffuser mounted directly after a bend (4 dB) or T-piece (8 dB) will increase the sound compared to charts.

## Installation and commissioning

Install the diffuser by dismantling the front plate, fasten the ceiling frame part according to instructions, and re-attach the front plate. Use the accompanying magnet strips to cut and cover desired amount of holes. Use the k-factor and a pressure measurement equipment to set the correct airflow



## Maintenance

Clean air diffuser when necessary using warm water and soap. Alternatively use a vacuum cleaner.

## K-factor

A pressure of at least 5 Pa is required to obtain at least ± 10% accuracy of the airflow.

## Environment

Building declaration is downloadable at our homepage [www.swegon.com](http://www.swegon.com)

		RINO			
		100	125	100i	125i
Adjustment tape pcs (1 = 4 holes = 48mm)	0	3,14	4,48	3,40	4,90
	1	2,73	4,05	2,89	4,55
	2	2,31	3,70	2,52	4,10
	3	1,96	3,41	2,14	3,80
	4	1,59	3,04	1,78	3,40
	5	1,24	2,72	1,44	3,04
	6		2,44		2,68
	7		2,05		2,38
	8		1,73		1,96

$$q = k \cdot \sqrt{p}$$

$$p = \left(\frac{q}{k}\right)^2$$

$q$  = Airflow l/s  
 $p$  = Pressure (Pa)  
 $k$  = Commissioning factor

Figure 1. commissioning

Dimension	Airflow		Sound dB(A)	Pressure (Pa)
	l/s	m3/h		
RINO 100	16	58	25	25
RINO 125	22	79	25	22
RINOi 100	16	58	25	18
RINOi 125	24	86	25	17
Diffuser fully open				

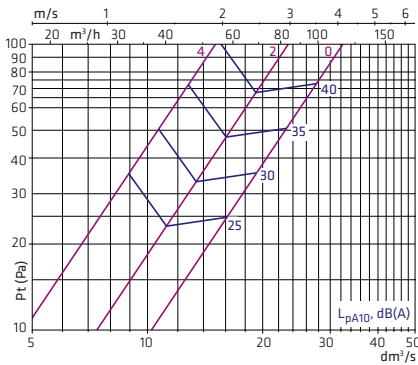
# Dimensioning

- Throw length is presented at isothermal conditions
- In general, the aim should be to have the air distribution covering up so much of the room as possible.
- Throw length is presented with isovel 0.20 m/s. In winter cases with request for isovel 0.15 m/s correction factor 0.8 is used. In summer case with requests for isovel 0.25 m/s use the correction factor 1.2.

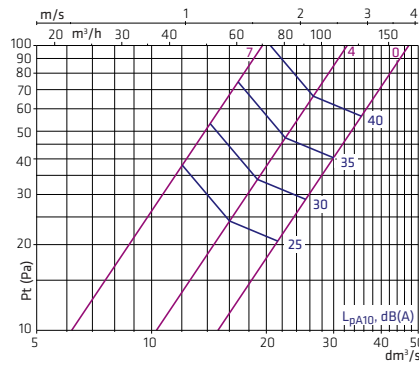
- Recommended max. under-temperature is 10K.
- Noise level is presented in dB(A) with an acoustic room absorbance of 4 dB (10m<sup>2</sup> equivalent sound absorption area).
- Mounting directly after a bend (4 dB) or T-piece (8 dB) will increase the sound compared to charts

## Supply air

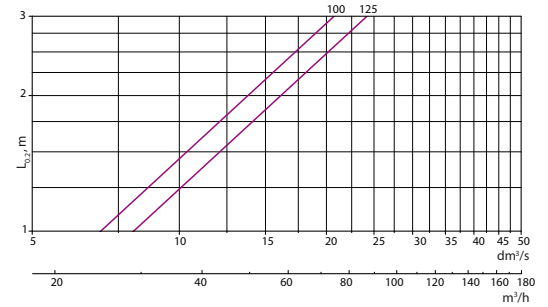
### RINO 100



### RINO 125

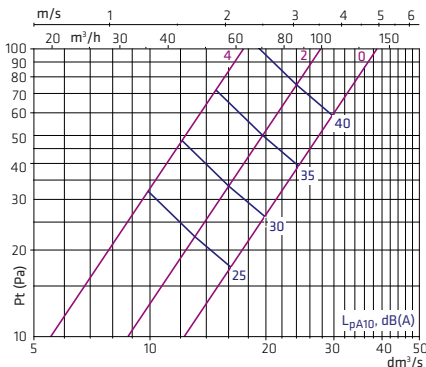


### Throw length

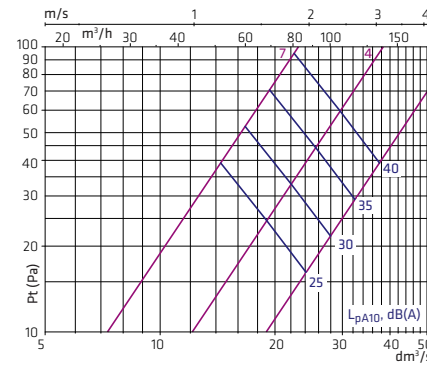


## Extract air

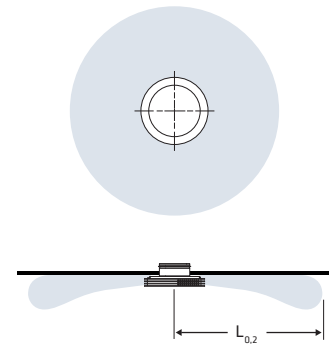
### RINOi 100



### RINOi 125



### Throw pattern



## Sound data

Sound power level  $L_w$  (dB) table  $K_{ok}$

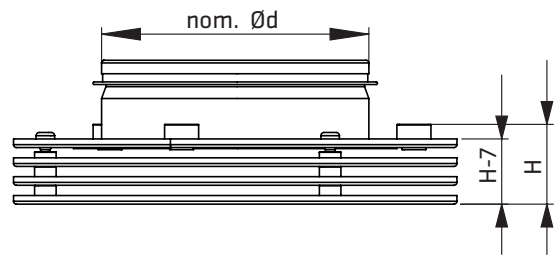
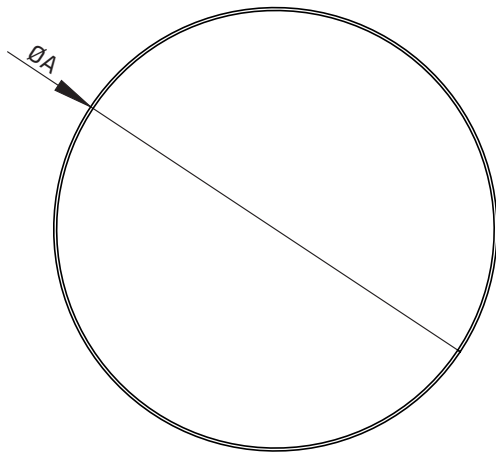
Dimension	Frequency (octave) Hz							
	63	125	250	500	1000	2000	4000	8000
RINO 100	4	7	4	1	-3	-5	-8	-14
RINO 125	1	4	3	1	-1	-5	-7	-14
RINOi 100	1	4	3	1	-1	-5	-7	-14
RINOi 125	-6	3	2	0	-3	-5	-7	-12
Tol +/-	6	3	2	2	2	2	2	2

Sound attenuation  $\Delta L$  (dB) table

Dimension	Frequency (octave) Hz							
	63	125	250	500	1000	2000	4000	8000
RINO 100	20	16	12	8	5	5	6	6
RINO 125	20	14	9	5	3	2	4	5
RINOi 100	20	14	9	5	3	2	4	5
RINOi 125	20	14	9	5	3	2	4	5
Tol +/-	6	3	2	2	2	2	2	2

# Dimensions and weight

	nom Ød	ØA	H	kg
RINO 100	100	206	28	0,7
RINO 125	125	206	37	0,8
RINOi 100	100	206	28	0,7
RINOi 125	125	206	37	0,8



## Order key

### Product

Supply air diffuser: RINO- aaa

Dimension: 100, 125

### Alternative appearance

Color RAL bbb

9016(standard) 9002, 6034, 9006, 8029, 9005

### Product

Extract air diffuser: RINOi aaa

Dimension: 100, 125

### Alternative appearance

Color RAL bbb

9016(standard) 9002, 6034, 9006, 8029, 9005

## Specification text

QMC SUPPLY AIR DIFFUSER FOR CEILING MOUNTING

Multiple slot diffuser with commissioning possibility designed for premises with small airflows.

TDXX  
 Supplier: Swegon  
 Type: RINO  
 Color: RAL bbb  
 Dim. aaa xx pcs

QME EXTRACT AIR DIFFUSER FOR CEILING MOUNTING

Multiple slot diffuser with commissioning possibility designed for premises with small airflows.

FDXX  
 Supplier: Swegon  
 Type: RINOi  
 Color: RAL bbb  
 Dim. aaa xx pcs