External intake and exhaust louvre

RIA

- Aluminium design
- Blades with drainage, preventing water ingress
- Calculation diagrams provided

General information

Application

- RIA is an intake and exhaust louvre for external installation

Materials and surfaces

- RIA-1 and RIA-2 are made from extruded profiles in seawater resistant aluminium (EN-AW-6060-T66 / EN-AW-6063-T6)
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- RIA-3 is made of seawater resistant aluminium (EN-AW-5052-H34), and is insulated with mineral wool with a glass fibre layer
- RIA-4 are made in seawater resistant aluminium. (EN-AW-6060-T66 /EN-AW-6063-T6). The louvres may also be supplied in painted finish
- Delivered untreated as standard
- Painted finish or alternative material available on request

Design

- RIA-1 is made from extruded aluminium profiles, and is equipped with animal-proof netting
- The RIA-2 design is identical to RIA-1, but without a flange
- RIA-3 is made of aluminium, and has insulated blades and animal-proof netting
- RIA-4 is made from aluminium, and is equipped with animal proof netting

Installation

- For standard installation the minimum groove dimension required is: W x H
- For areas exposed to harsh weather conditions, max. recommended air face velocity is 2 m/s
- Sealing between wall and top edge is recommended in order to prevent rainwater along the façade from penetrating the louvre

Maintenance

- Leaves and dirt must be removed in order to avoid clogging
- For louvres equipped with heating cable, the system should be shut down during defrosting

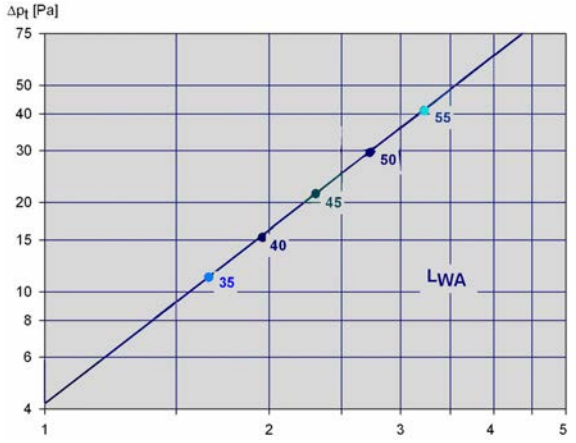
Environment

- Enquiries regarding product declaration can be directed to our sales team, or information can be found at our website: www.trox.no

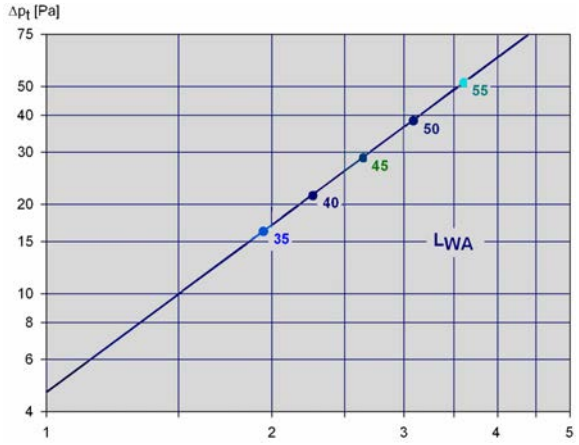
Quick sizing

The diagrams show the sound power level emitted, LWA, as a function of spigot-area velocity and total pressure drop for the RIA 1 and RIA 2 inlet and exhaust functions.

RIA intake



RIA exhaust



RIA correction of sound according to dimension,
$L_W=L_{WA}+K_1$

RIA							
Gross area [m2]	0.1	0.16	0.5	1	2	4	6
K_1 [dB]	-4	-2	1	3	5	8	10

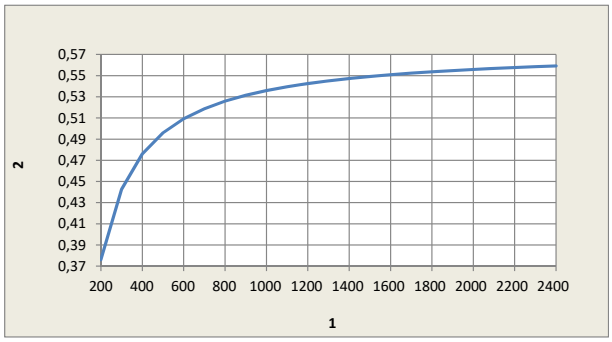
Correction factor for calculation of emitted sound power level,
$L_W= L_{WA}+KO$

RIA								
Frequency [Hz]	63	125	250	500	1k	2k	4k	8k
KO [dB]	-5	-6	-7	-8	-9	-10	-15	-20

Static sound attenuation RIA-3

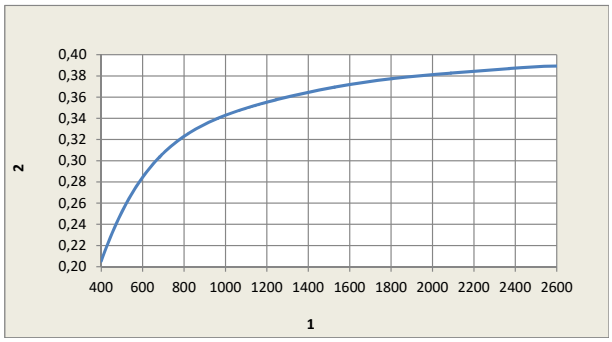
RIA	Frequency [Hz]							
Type	63	125	250	500	1k	2k	4k	8k
RIA-3	3	5	8	11	16	19	21	17

Open space incl.netting RIA 1 and 2



Freearea= Gross x Factor
1 Height
2 Factor

Open space RIA 3



Freearea= gross x Factor
1 Height
2 Factor

Order code

RIA – 1 / 500 × 800 / VK – G – P1 - RAL 9010
| | | | | | |
1 2 3 4 5 6

1 Type
RIA external louvre

2 Variant
1 standard frame profile
2 for embedded installation
3 sound absorbing design
4 circular intake and exhaust louvre (only available in aluminium)

3 Nominal size [mm]
Width × height

Width
200 – 2000[1]

Height
200 – 2000[1] (RIA-1 and RIA-2)
380 – 2000[1] (RIA-3)

4 Heating cable
0 standard
VK heating cable

5 Material
No entry: aluminium profiles
G galvanized
AZ aluzinc
CU copper
A2 stainless
A4 acid resistant

6 Exposed surface
No entry: without surface treatment
9003 powder-coated, RAL 9003 (signal white)
P1 powder-coated, specify RAL colour
PS powder-coated, specify NCS colour

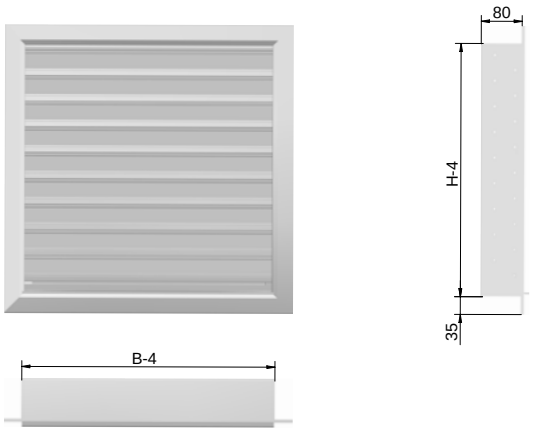
[1] 2000 × 2000 is the largest dimension without division

Order example: RIA-1/500×800/VK/G/P1-RAL9010

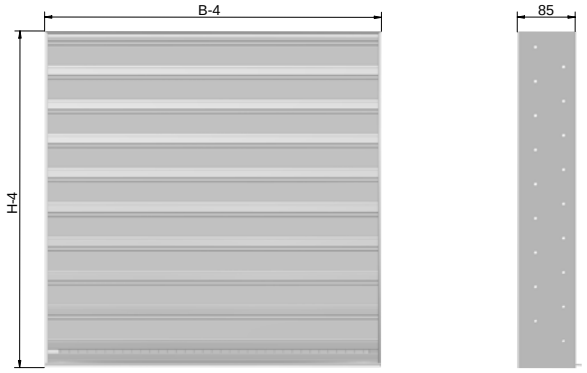
Type	RIA – external louvre
Variant	standard frame profile
Nominal size [mm]	width 500, height 800
Heating cable	heating cable
Material	galvanized
Exposed surface	powder-coated, RAL 9010 (pure white)

Dimensions

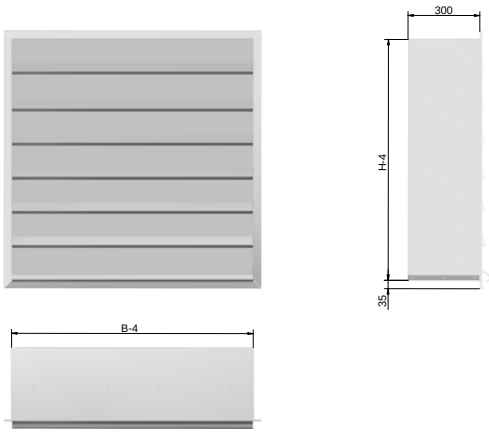
RIA-1



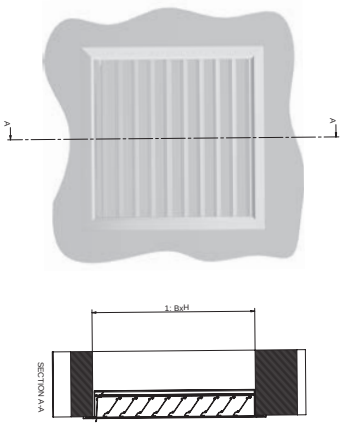
RIA-2



RIA-3 Min. hight RIA3: 380mm



RIA -1 standard design



Specified size = order dimensions (B x H). Products are supplied undersized for installation at duct end and/or in groove as illustrated in figures: B÷ and H÷.
Weight: RIA-1 and 2, approx. 15kg/m² without wall-mounting frame and 20 kg/m² with wall-mounting frame. RIA-3 approx. 45 kg/m2.
Max dim. RIA-1, RIA-2 and RIA-3, not split: 2000 x 2000 mm

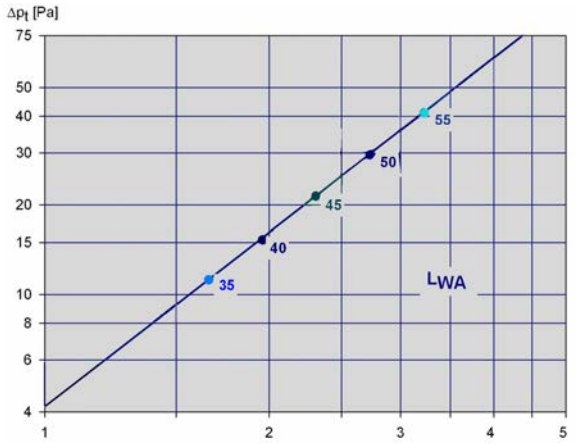
Variant

Application
RIA-4 is an circular intake and exhaust louvre for external installation

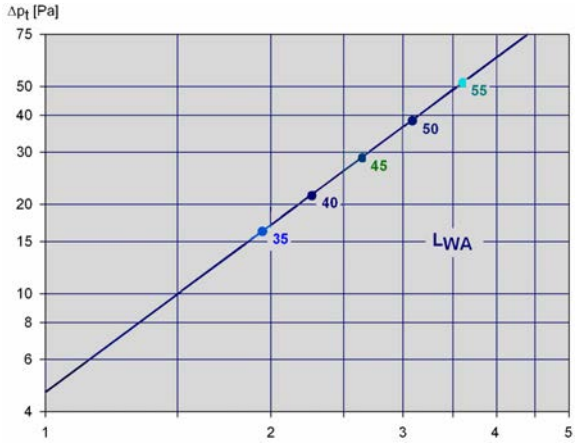
Design
RIA-4 is made from aluminium, and is equipped with animal proof netting

Materials and surface coating
RIA-4 are made in seawater resistant aluminium. (EN-AW-6060-T66 / EN-AW-6063-T6). The louvres may also be supplied in painted finish.

RIA intake



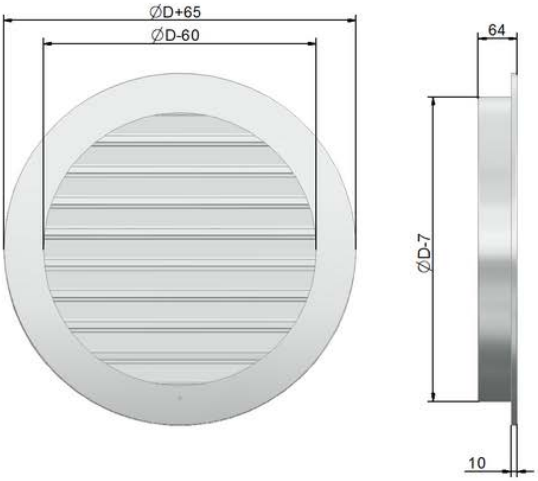
RIA exhaust



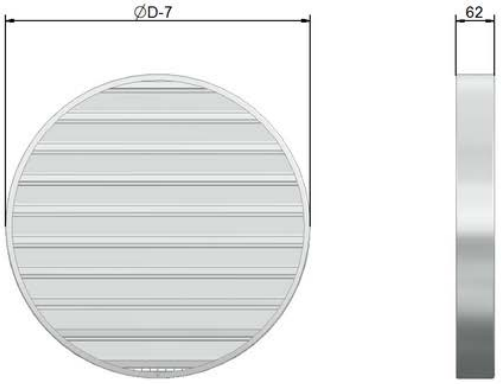
Calculation diagram
The diagrams show the sound power lever emitted, LWA, as a function of spigot-area velocity and total pressure drop for the RIA-4 inlet and exhaust functions.

Dimensions	Spigiot area [m2]	Free area [m2]
315	0,078	0,028
400	0,126	0,054
500	0,196	0,093
630	0,312	0,154
800	0,503	0,269
1000	0,785	0,437
1250	1,227	0,694

RIA -4 with decorative flange

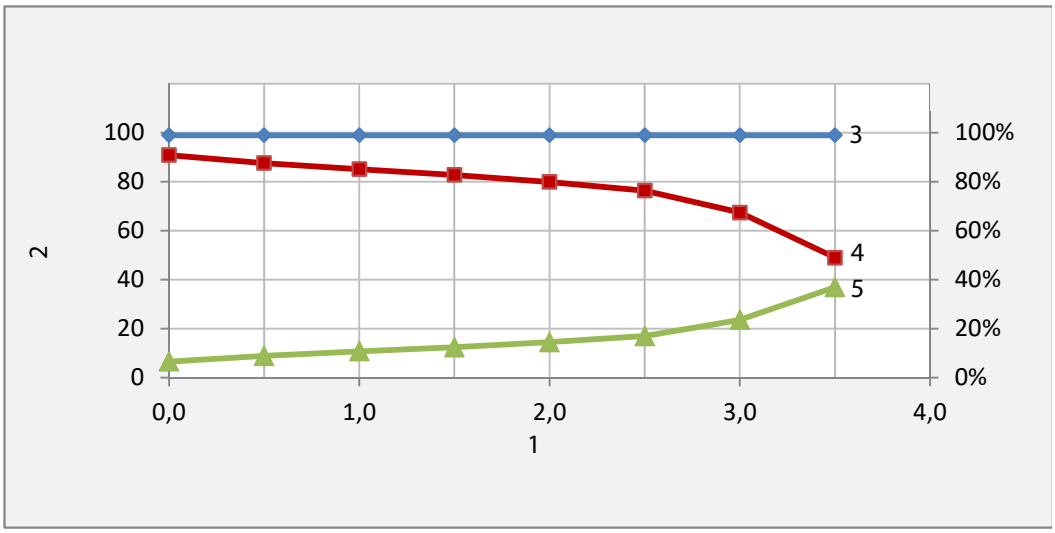


RIA -4 without decorative flange



Product details

Efficient water separation RIA



Degree of separation of rain measured by NS EN 13030:2001. Similarly to AMCA 500-L-07

1 The gross velocity over the grate acreage m/s
2 Water volume l/h
3 Water volume l/h
4 Efficient %
5 Penetrated l/h