

AIRMASTER BOOMERAIN®

Ø315, Ø250 & Ø160



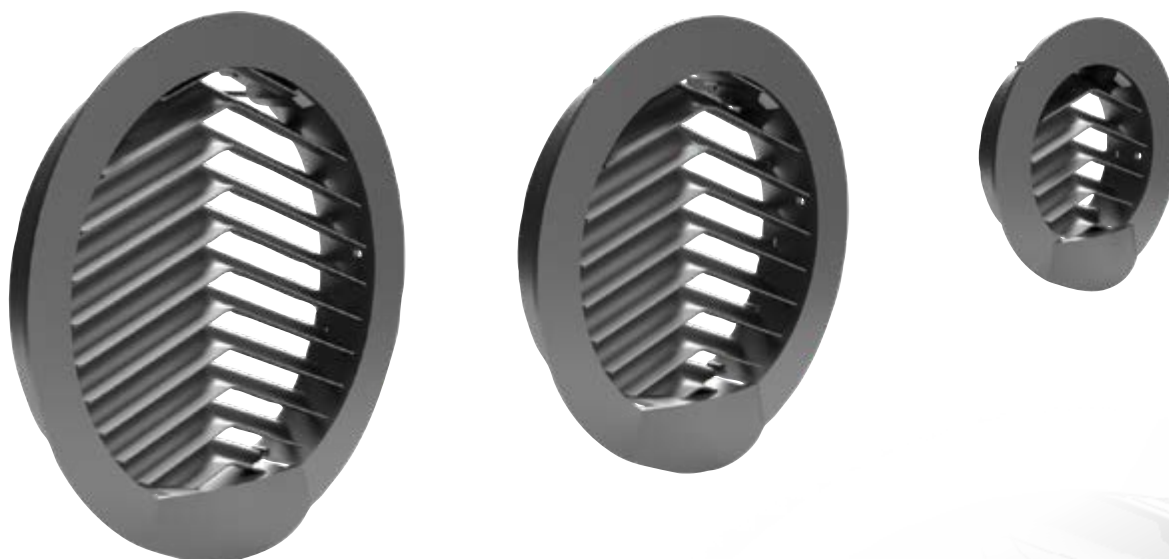
**FAÇADE VENTILATION
GRILLS
FOR ALL WEATHERS**

AIRMASTER®
ventilation in balance

AIRMASTER'S FAÇADE VENTILATION GRILL

With its special geometry and aerodynamic design, Boomerain® - Airmaster's own range of façade ventilation grills - has some truly unique properties. Boomerain is therefore "patent pending".

Boomerain's aerodynamic design means that it is now possible to reduce the diameter of the duct connection on several Airmaster ventilation units, and thus the diameter of the hole in the façade, without additional pressure loss and entrainment of rainwater.

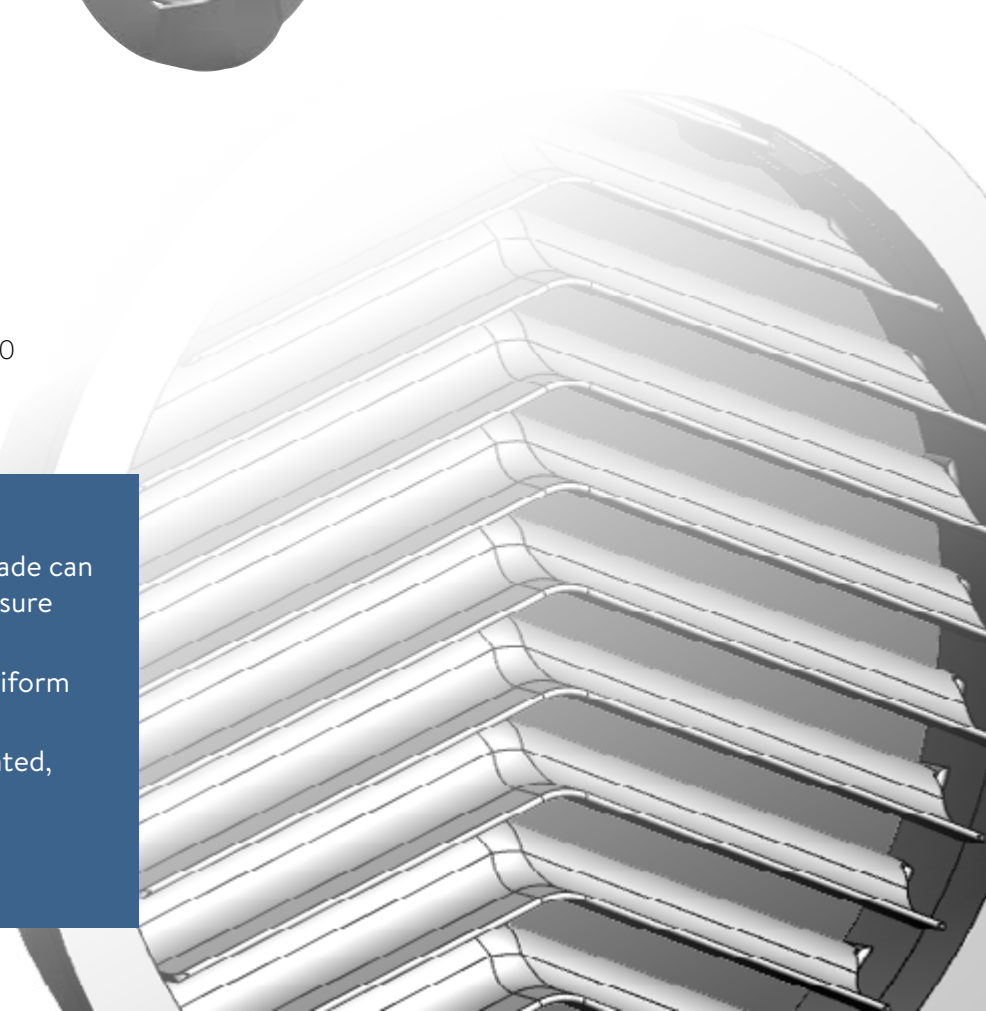


BOOMERAIN DIMENSIONS

- Ø160 - fits Airmaster AM 300
- Ø250 - fits Airmaster AM 500
- Ø315 - fits Airmaster AM 1000, AM 800, AM 900, AM 1200 and DV 1000

BENEFITS

- The diameter of the hole in the façade can be reduced without additional pressure loss
- Several sizes of Boomerain for a uniform appearance on the façade
- The entrainment of water is prevented, even at high air velocities
- Energy consumption is reduced
- Quieter



FAÇADE VENTILATION GRILLS FOR ALL WEATHERS

We install Airmaster ventilation units in vastly different geographical conditions in Europe – from a mild inland climate to the harsh west coast climate in Norway, for example.

Different weather conditions pose different challenges for a façade ventilation grill. We've addressed this by producing three different versions. From the outside, they are identical, making it possible to mount different façade ventilation grills on the same building if required.

Airmaster Boomerain® 1 is a façade ventilation grill with a single layer of slats, which is ideal for an ordinary inland climate under protective conditions in a relatively passive environment.

Airmaster Boomerain® 2 is a façade ventilation grill with a double layer of slats, providing greater protection from rainwater. We recommend it in more exposed places, which are occasionally lashed by westerly winds, for example.

Airmaster Boomerain® 3 is a façade ventilation grill with three layers of slats, which are extra effective at keeping the rain out. It is designed for harsh weather conditions, such as in coastal areas where extra protection may be needed.

MATERIAL

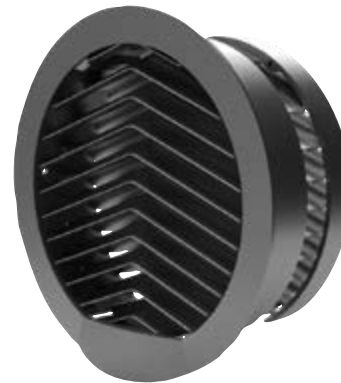
Airmaster Boomerain® is made of salt waterresistant aluminium, and can, as an option, be supplied powder coated in all RAL colours.



**Airmaster
Boomerain® 1**



**Airmaster
Boomerain® 2**



**Airmaster
Boomerain® 3**

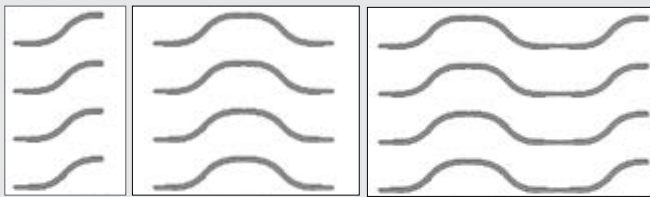


Fig. 1

Fig. 2

Fig. 3

Cross section of the aerodynamic slats:

Fig. 1: Airmaster Boomerain® 1

Fig. 2: Airmaster Boomerain® 2

Fig. 3: Airmaster Boomerain® 3

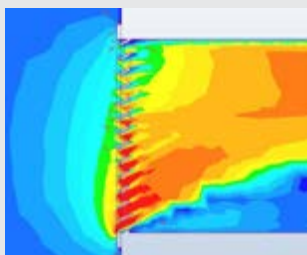


Fig. 4: Standard façade ventilation grill Ø315 mm

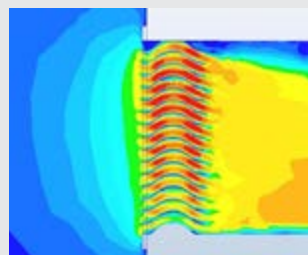


Fig. 5: Airmaster Boomerain® Ø315-2

AERODYNAMIC DESIGN

The shape of the slats has been designed in such a way that only very limited turbulence occurs on the reverse of the façade ventilation grill. Pressure loss is thus reduced, and energy consumption is reduced considerably. The unique geometry is furthermore designed to capture water droplets and channel them away, preventing penetration into the duct.

CFD SIMULATION AT INTAKE

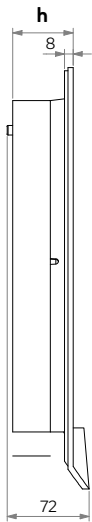
Graphic presentation of CFD simulation of air velocity with façade ventilation grill Ø315.

Fig. 4 shows a standard façade ventilation grill and fig. 5 shows Airmaster Boomerain® Ø315-2.

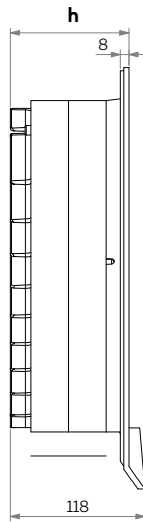
The aerodynamic design of the slats in the Airmaster façade ventilation grill ensures a more even distribution of the air in the duct. The consequent lower level of turbulence means reduced noise.

	Ø160-1	Ø160-2	Ø160-3	Ø250-1	Ø250-2	Ø250-3	Ø315-1	Ø315-2	Ø315-3
Ød	157 mm	157 mm	157 mm	250 mm	250 mm	250 mm	312 mm	312 mm	312 mm
ØD	215 mm	215 mm	215 mm	305 mm	305 mm	305 mm	370 mm	370 mm	370 mm
h	53 mm	104 mm	155 mm	53 mm	126 mm	177 mm	53 mm	104 mm	155 mm
H	72 mm	118 mm	174 mm	72 mm	140 mm	196 mm	72 mm	118 mm	174 mm
Free area	0,015 m ²	0,015 m ²	0,015 m ²	0,038 m ²	0,038 m ²	0,038 m ²	0,0624 m ²	0,0624 m ²	0,0624 m ²
Weight	0,99 kg	1,47 kg	1,98 kg	1,72 kg	2,67 kg	3,66 kg	2,12 kg	3,64 kg	5 kg

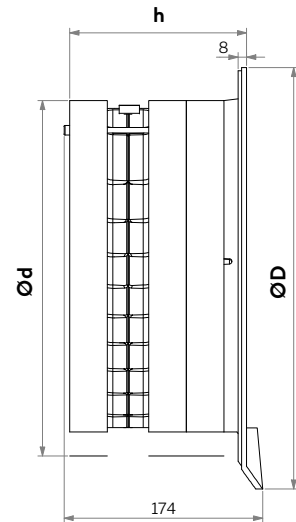
Boomerain® 1



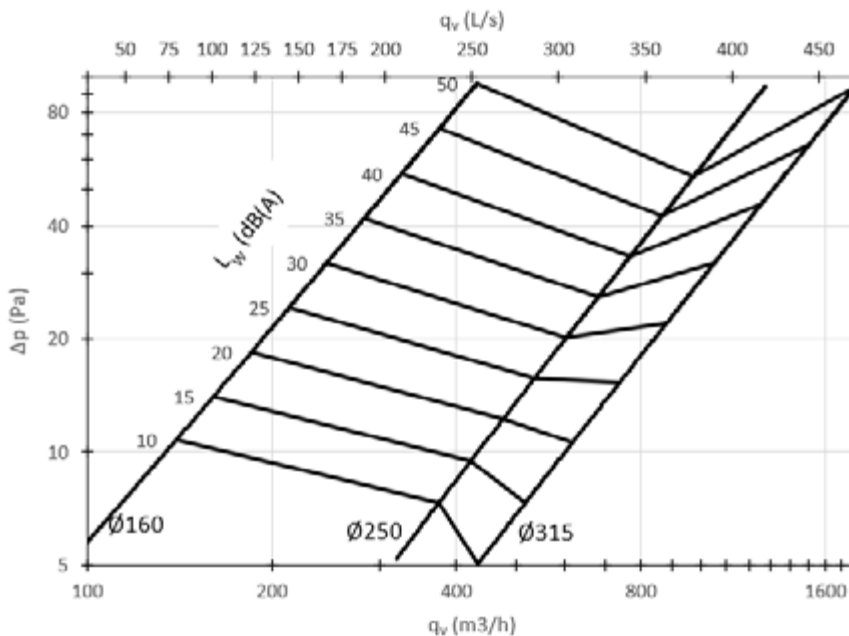
Boomerain® 2



Boomerain® 3



Pressure loss & Sound power level



Pressure loss, Δp [Pa], Sound power level, q_v [l/s] and [m³/h].

Sound power level, L_{WA} [dBA], due to self-noise at the specified air flow, q_v [l/s] and [m³/h].

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