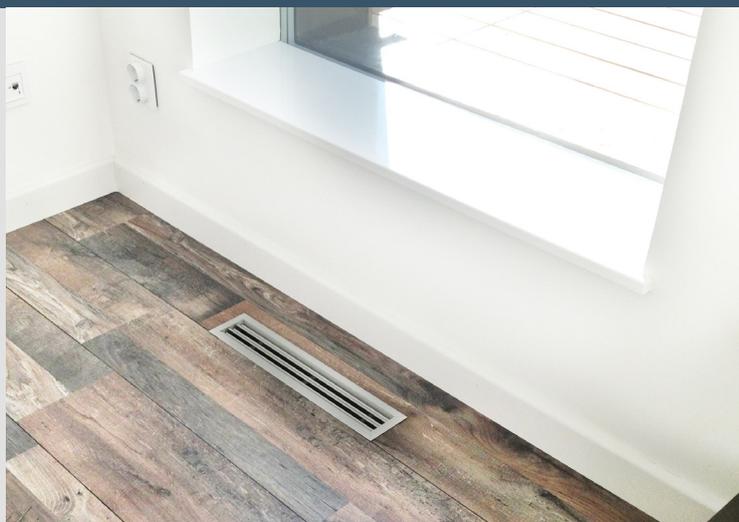


MAXIMUS HOME

Ducted floor units for residentials,
passive houses & offices



Key figures

Connection:	100 (mm)
Airflow:	5 - 25 l/s
Pressure:	10 - 100 Pa
Sound level:	Always below 28 dB(A)
Coating:	Natural anodized aluminum (standard) or any choice of powder-lacquer color

Home is found in MagiCADs database.

HOME is an aesthetically pleasing and extremely quiet floor diffuser designed for residential and passive houses.

HOME can be placed in the floor, wall or ceiling. Its smart design allows full access for cleaning and adjustment of pressure and flow.

HOME has a sturdy construction made of galvanized zinc plating and a robust supply air grille in natural aluminum. The grille can be powder-lacquered in any color.

Function

HOME can be used to both cool and heat a house. The diffuser creates a stratifying ventilation principle when the air interacts with the natural thermodynamics of the heat sources in the room. This leads to a more efficient ventilation of the room in both winter and summertime, which provides a better indoor climate as well as a lower operating cost.

The patented grille directs the air at 90° along the floor where the air interacts with the natural flow forces in the room. The direction of the air can easily be changed by turning the grid.

As an option, Home can be supplemented with an electric heater for temperature control during the winter. This makes it possible to create a hidden source of heat that otherwise might be hard to fit with traditional heat sources along the facade.

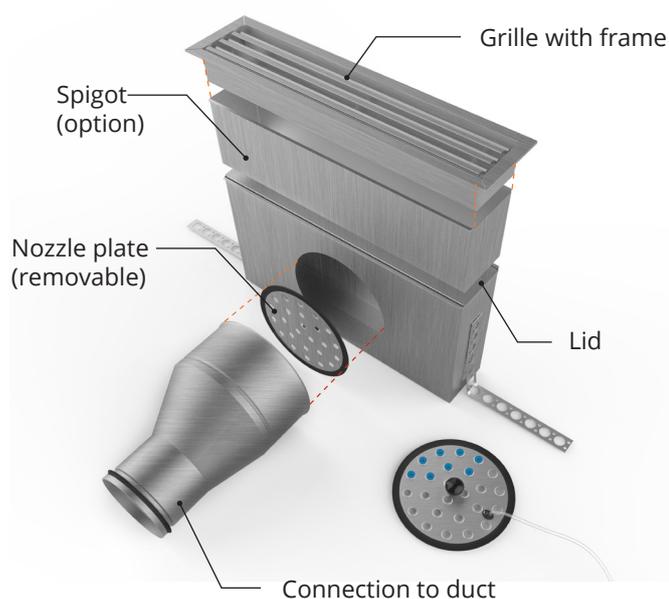


Air distribution of the grid in Maximus Home

Construction

HOME has a connection box made of galvanized zinc plating with approved standard connections for tightness class C & D. The grille is made of anodized aluminum.

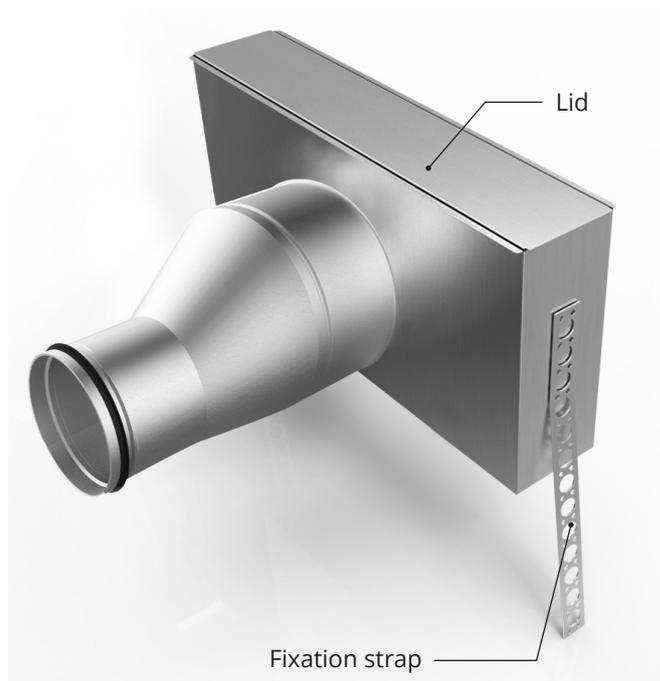
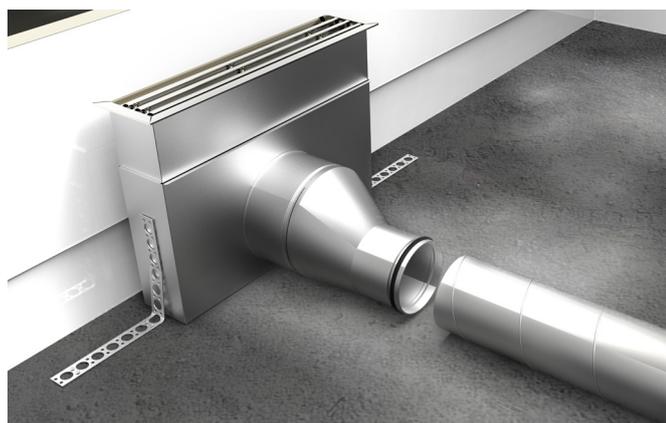
The smart design allows full access from the room for adjustment, cleaning and inspection.



Mounting

HOME can be mounted into the ceiling, wall and floor joists and also cast into the floor. Connection dimensions according to Swedish Standard SS 2609.

Read more about how the unit is assembled in our assembly documentation.



The construction is reinforced at the top and provided with a tight-fitting lid for stable embedding. The cover is easily removed when casting is completed.

Stable mount to the floor joists with fixation on each side for custom height.

Adjustments

HOME can be pre-set during factory production to the correct airflow and pressure. Readjustment and flow and pressure adjustments are easily made on-site without tools.

Home is adjusted by changing the number of open nozzles of the integrated nozzle plate. By measuring the available pressure of the nozzle plate, the function chart can specify how many open nozzles are needed to get the desired air flow. The number of open nozzles can also be calculated by the k-factor for the nozzle. The nozzle plate is always accessible and can be reached through the grille opening in the unit.

The grille can be turned to change the airflow pattern and direction.

Material

The plenum is made of galvanized zinc plating Z275 in corrosivity category C2. Gasketing in recyclable EPDM rubber. The grille is manufactured as standard in anodized aluminum. Other colors or surface coatings upon request.

Accessories

- Screw fixation for the grid
- Adjustable spigot
- Electrical heater (HHT)
- Room thermostat

Optional - screw fixation

If the optional screw fastening is selected, the grid is pre-drilled in the factory, so the grid easily can be screwed into the ground. For special requests concerning the placement of holes and the diameter, contact your InventiAir technician for support.

Optional - adjustable spigot

Maximus Home can be supplemented with a spigot for controlling the level differences at the floor installation. The connector is built 50 mm as standard, but can be manufactured to order based on your preferences.

Optional - electrical heater (HHT)

Maximus Home can be supplemented with optional HHT, an electric heater. This heater is placed in the airflow below the grid, and warms the incoming air from the diffuser. The heater can be supplied with three different power levels of 80W, 160W or 320W and is powered by 230VAC. The heat is regulated by a room thermostat. If the optional HHT is included, the grille must be screwed to the floor. HHT has a built-in thermostat to avoid overheating, when the ventilation air is turned off.

Care/cleaning

HOME is easily vacuum-cleaned or cleaned with a damp cloth by lifting up the unit's cover grille in the floor. If the grid is bolted to the floor, these must be removed for access. The grille and nozzle plate are easily accessible and removable from the room without tools.

If the additional function of heat (HHT) is delivered, ensure that heat and power to the heating element are turned off before removing the grille.

Dimensioning

With InventiAir technology, a considerably smaller amount of energy supplied to the room is needed, compared to a traditional mixing system. Please contact your InventiAir contact for support with dimensioning.

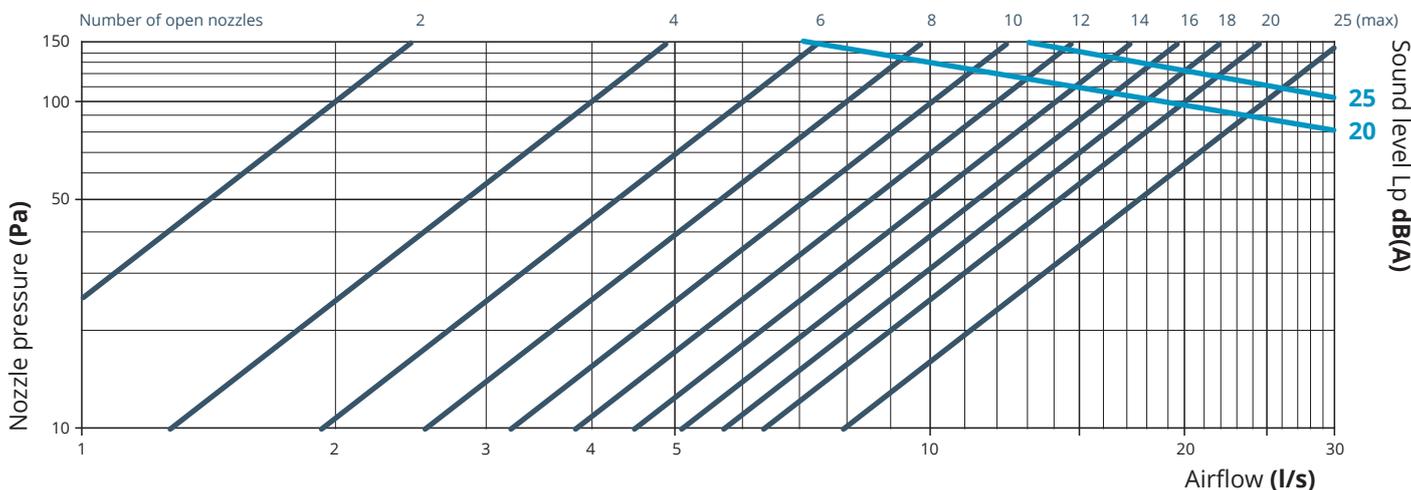
Order number (example)

Product name	Access.	Dimension (∅)	Airflow (l/s)	Air pressure (Pa)
○ HOME 100-15-70-SF	SF	100	15	70
○ HOME 100-20-50-JS	JS	100	20	50

SF - Screw fixation for the grid
JS - Adjustable spigot

HHT - Electrical heater
RT - Room thermostat

Capacity- & adjustment chart (k-factor per nozzle is 0,1)



Every nozzle has a k-factor = 0,1. To calculate the amount of active nozzles for the preferred pressure and air flow, use the formula "Amount of active nozzles" = $Q_s / (K \cdot \sqrt{\Delta P})$. Q_s = applied airflow, K = k-factor, ΔP = available pressure in the nozzles

Maximus Home uses nozzles designed to provide high accuracy, while these provide low noise levels even at high operating pressures. This gives you a quiet diffuser with a wide working area.

The specified sound pressure level in the function chart includes room attenuation 4 dB (A), corresponding to an equivalent absorption area of 10m² Sabine.

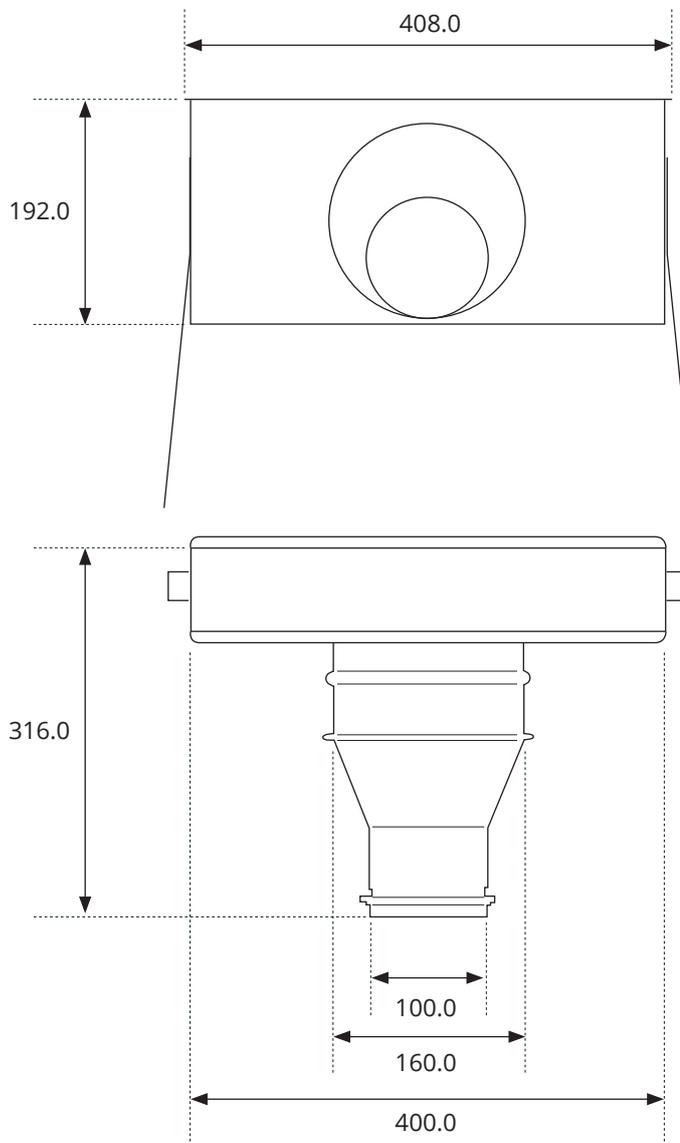
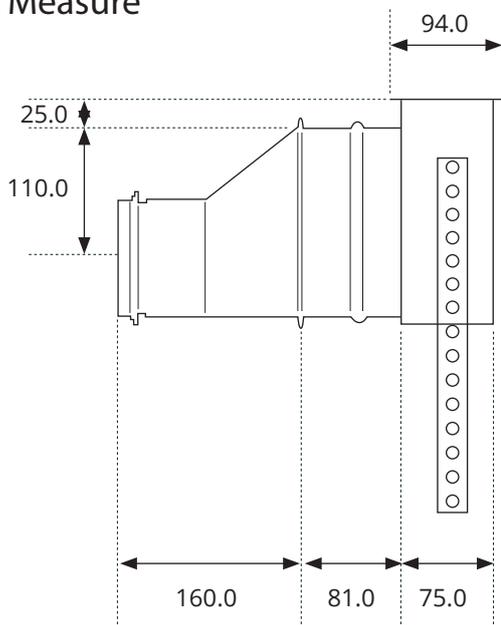
Correction of sound pressure level (Lp) to the sound power level (Lw) in each octave band*

63	125	250	500	1000	2000	4000	8000	Hz
-14	-10	-8	-5	-3	-7	-10	-10	

Natural attenuation in octave band*

63	125	250	500	1000	2000	4000	8000	Hz
21	19	15	8	8	9	3	1	

Measure



Measure grid

Product name	Height	Length	Width
○ HOME 100	35	398	67

Dimensions refer to plenum box. Other connections and dimensions made to order.

