



CLIMATE DESIGNERS

Mini Canal Hybrid

Mini Dynamic Duct

Pre-mounted duct, in sendzimir galvanized steel plate of 1 mm thick, provided with anthracite grey lacquer RAL 7024, gloss degree 10%. The well has 6 pre-perforated holes to lead through the hydraulic tubes and 2 for the electrical connection. 3 Black sealing plastic plugs are included. The mini duct is also provided with anchoring strips in order to fix the duct in the (fill)concrete. The frame is premounted on the Mini-duct. The heat exchanger has to face the window side, the activators the side of the room.

K-value = 8 w/(m²K)

R-value = 0.125 m²K/w

Aluminium frames

Reinforced L-profile, height 31.5 mm x 24 mm width. Versions: anodized aluminium in natural colour / dark brown / black / brass colour / lacquered in a scratch resistant epoxy-polyester powder, sprayed electrostatically and baked at a temperature of 200°C. UV-resistant due to ASTM G53.

The frame is pre-mounted on the Mini floor duct.

With removable pieces to avoid deformation of the frame during installation or floor construction.

A model with a Z-shaped supporting profile 24 mm x height 31.5 mm x 24 mm wide is also available.

Versions: anodized aluminium in natural colour / dark brown / black / brass colour / lacquered in a scratch resistant epoxy-polyester powder, sprayed electrostatically and baked at a temperature of 200°C. UV-resistant due to ASTM G53.

The cover frame has been pre-mounted on the Mini floor duct.

Grilles

Designo rigid aluminium grilles

Profiled slats placed lengthways (7 x 16 mm) with 7 mm space between, mechanically connected with two crossways supporting slats (5 x 27 mm) with maximum 30.5 cm space between.

Free air flow 50%.

Versions: anodized aluminium in natural colour / dark brown / black / brass colour / lacquered in a scratch resistant epoxy-polyester powder, sprayed electrostatically and baked at a temperature of 200°C. UV-resistant due to ASTM G53.

Rigid aluminium grilles

Profiled slats placed lengthways (7 x 16 mm) with 13 mm space between, mechanically connected with two crossways supporting slats (5 x 27 mm) with maximum 30.5 cm space between.

Free air flow 65%.

Versions: anodized aluminium in natural colour / dark brown / black / brass colour / lacquered in a scratch resistant epoxy-polyester powder, sprayed electrostatically and baked at a temperature of 200°C. UV-resistant due to ASTM G53.

Rigid Pebbles grilles

Rigid grille in cast aluminium. The Pebbles grille is built up with "tiles" 1cm thick and 50 cm long, finishing with an element that is at least 20 cm long. It has been fitted with rubber caps to prevent impact sounds. Sand blasted and lacquered over with a long-wearing and UV-resistant polyester lacquer, with a slightly structured mat appearance.

Versions: aluminium colour RAL9006 (colour code 026) or sandblast grey (colour code 028)

Roll-up aluminium grilles

Crossways positioned aluminium slats (5 x 23 mm) with 11 mm space between. The slats are interconnected by a galvanized steel spring and fixed in the correct distance by aluminium pieces in the same colour.

Free air flow 70%.

Versions: anodized aluminium in natural coloured / dark brown / black / brass coloured.

Designo rollable wooden grilles

Crossways positioned wooden slats (12 x 24.5 mm) with 13 mm space between. The wood slats are interconnected by a galvanized steel spring and fixed in the correct distance by natural coloured aluminium pieces.

Free air flow 52%.

Versions: oak / beech / merbau / oak varnished / beech varnished / merbau varnished.

Roll-up wooden grilles

Crossways positioned wooden slats (12 x 24.5 mm) with 20 mm space between. The wood slats are interconnected by a galvanized steel spring and fixed in the correct distance by dark brown synthetic pieces.

Free air flow 63%.

Versions: oak / beech / merbau / oak varnished / beech varnished / merbau varnished.

Roll-up Accordion grilles

Crossways, light in zigzag pleated hollow right-angled aluminium slats (6 x 23 mm) with a spacing of 14 mm at the largest opening. The slats are interconnected by a galvanized steel spring and fixed in the correct distance by transparent pieces. A single piece has a length of 1.70m maximum; longer grilles consist of several components.

Roll-up stainless steel grilles

Roll-up grille in rust proof high-grade steel 1.4301.

Crossways positioned stainless steel slats (8 x 18 mm) with 12 mm space between. The wood slats are interconnected by a stainless steel spring and fixed in the correct distance by stainless steel synthetic pieces.

Free air flow 60%

With matching frame in anodized aluminium with a natural colour, including black rubber strip to hide the bottom side of the frame, and to avoid contact noises.

Heat exchanger

Round, seamless circulation tubes made of pure red copper, with pure aluminium fins and two brass collectors for left or right 1/2" same end connection. Installation on the window side of the mini-duct.

- extended air 1/8" and drain cock 1/2" are included.
- pressure test: 20 bar
- working pressure: 10 bar

Control unit

A micro electronic system using 12V voltage which controls the activators depending on the water temperature measured. The water temperature sensor is plugged into the copper tube of the heat exchange unit in order to measure the water temperature exactly. As a result the activators are only switched on when the water temperature is "warm" (normally +28°C).

The adjusted usage speed of the activators is set beforehand on the control print at the time of delivery.

Activators

Adjusted by the control unit when a "warm" water temperature has been measured. The usage speed of the activators is dependent on the value set on the control print. Life expectancy of the activators: when ball bearings of high quality are used the life expectancy of the DBE units is 50,000 operating hours at a temperature of 40°C.

The activators are protected when there is a stoppage caused by a blockage. Unwanted blockages through, for example, an external object must be avoided at all times, however, because this could damage the activator blades. Any accidental blockage needs to be removed as soon as possible.

Avoid any pressure on the casing of the activators.

With a unit of 3 activators, depending on the setting, the noise comfort will remain under the 27 dB(A) (Automatic

mode / own noise).

The electric power used for each unit of 3 activators is 2 watt in continuous operation; ca. 3 watt when starting up.

Power supply:

Connection to 230 VAC in the canal, via a 12 VDC plug-in power supply or via a separate connection plug for a central 12V power supply.

The power supply is an electronically switched-on safety power supply which conforms to internationally applicable safety standards.

Up to a maximum of 24 activators may be connected to this power supply.

Measured power in Stand-by < 0.5 watt

We recommend that power supply is connected to the 230V mains outlet via a plug or switched fuse spur. This will allow the power to be isolated during periods when the units are not in use, or for maintenance purposes.

Colour

Heat exchanger electrostatically lacquered with anthracite grey epoxy-polyester RAL 7024, gloss degree 70%. Lacquered frame and rigid grille in the colour... (see colour chart). The coating is a scratch resistant epoxy-polyester powder, sprayed electrostatically and baked at a temperature of 200°C. UV-resistant due to ASTM G53.

Manufacturer: Jaga

Type: Mini Dynamic Canal

Outputs meet standard EN 442.

Options

- Cover plate: 22 mm thick fibreboard plate. Protects the Mini-duct against contamination and damaging during construction works.
- Bottom end insulation: in dark grey polyethylene foam, thickness 5 mm
- 3 Sided insulation: in dark grey polyethylene foam, thickness 5 mm
- Cover strip: to hide the bottom side of the frame and to avoid contact noises
- Fixing: with height control: to adjust the height on uneven and roughcast subfloors.
- Corners: for wooden and aluminium grilles. Corner 90° / corner 135°.

How to install

The building services engineer chooses the radiators considering following conditions:

- A heat output calculation according to the standard.
 - the required heat outputs will be determined by the tables and the fitting instruction of the building services engineer of Mini Dynamic Canal.
 - the heat exchanger should be connected to a two pipe system with a same end connection.
 - the heat exchanger is equipped with brass collectors with connections 1/2", air vent 1/8" and drain cock 1/2" are included. In case of connection the flow valve always has to be fitted to the top connection.
 - The hydraulic connection is standard on the left; the electrical connection on the right (from the side of the room).
 - The heat exchanger must always be on the window side; the activators consequently are on the room side.
- In order to totally block off the cold draughts from the window it is preferable that the heat exchanger covers the full length of the window. Concerning the distance in between the window and the Mini Dynamic Canal allow extra space for curtains, which under no circumstances should hang over the Mini Dynamic Canal.
- The heat exchanger must always be kept accessible for maintenance purposes.
 - The electrical connection must be maintained according to the nationally applicable standard.