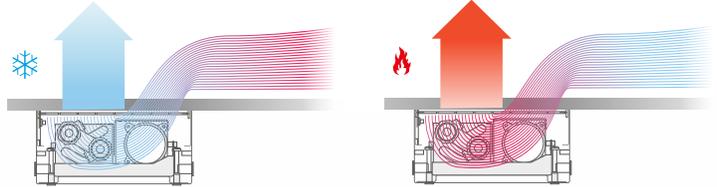


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Floor recessed 4-pipe fancoil unit

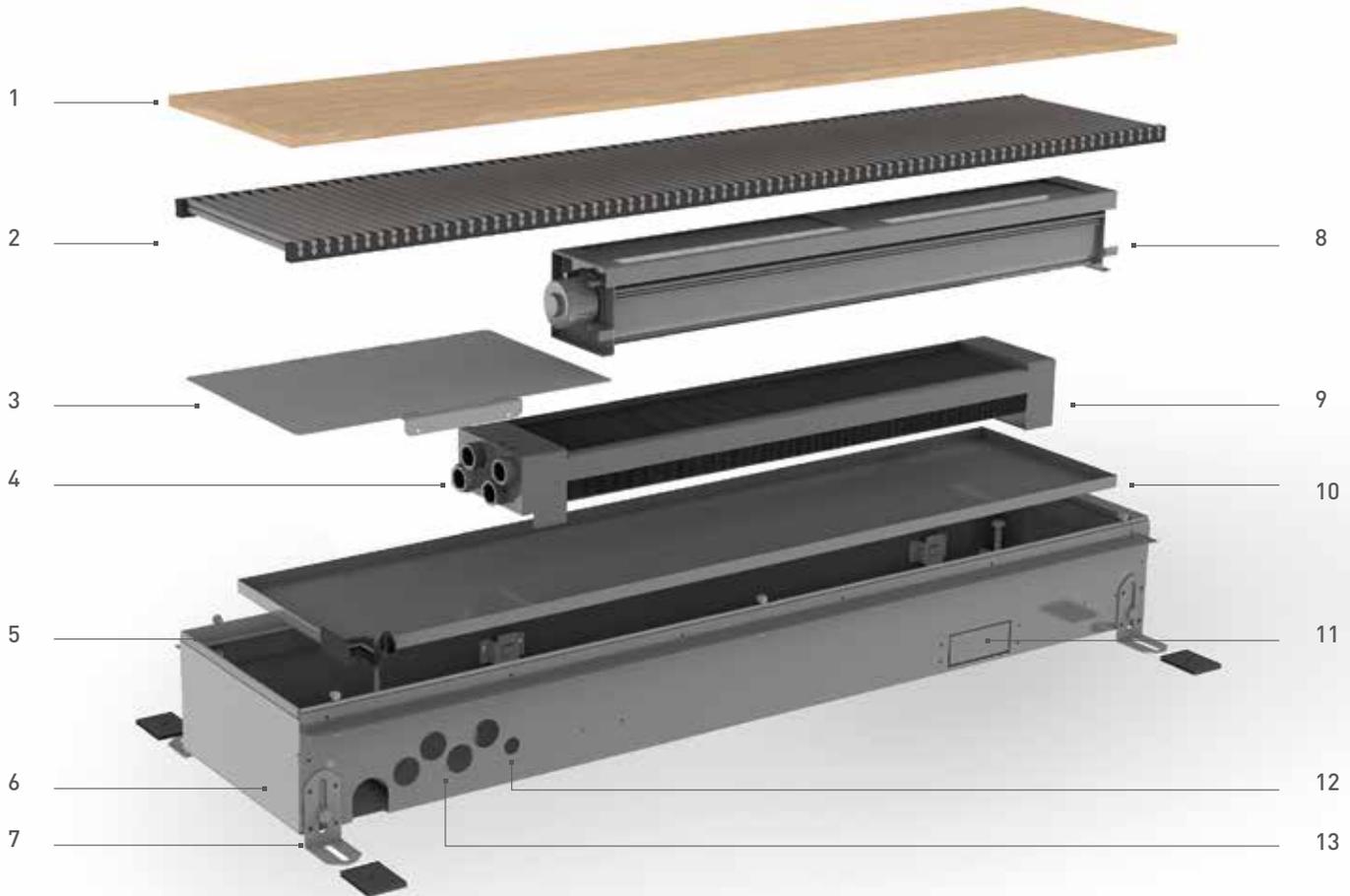
- QUATRO CANAL HYBRID
- electronic control: 0...10V signal
- 24V EC motor



jagaHybridHeating 

QUATRO CANAL HYBRID
LOW TEMPERATURE SYSTEM / HEATING AND COOLING

Parts



1	Protective cover
2	Alu or wooden grille
3	cover plate
4	1/2" NPT connections
5	Internal height adjustment
6	End cap
7	External height adjustment with acoustic insulation

8	Dynamic coil
9	Tangential fan with EC motor
10	Condensate drain Ø 7.8"
11	Connection for ventilationsystem (OPTION)
12	Electrical connection always on the left hand side
13	Hydraulic connection always left
14	Condensate drain Ø 7.8"

Height adjustment (inch)

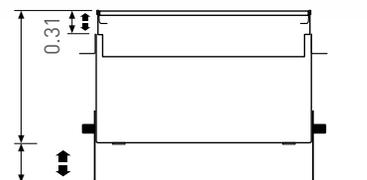


< Fine adjustment height

< Height adjustment

Internal height adjustment (max 0.31"
min 5.12" > max 5.43"

external height adjustment:
max 1.77"





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Quatro Canal Hybrid

General info

Benefits:

- Internal and external height adjustment for perfect installation
- 24VDC EC motors with balanced fans
- electronic speed control via 0...10V signal
- quiet operation
- aluminium grille / wooden grille
- with heel proof option available
- wooden cover plate for protection during installation
- continuous installation, open spaces can be filled with empty ducts

Options

- height adjustable feet for raised floors
- empty trenches, for continuous installation
- corner piece for continuous installation

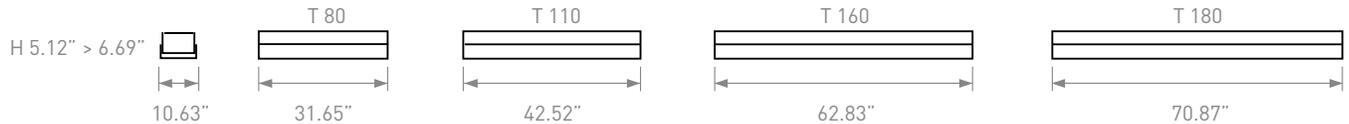
Accessories

- JDPC On/Off controller with water temperature sensor
- Power supply 24 VDC/VAC

CODE: nomenclature



Range

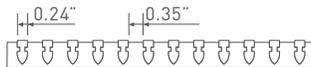


Grill

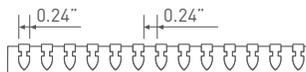
Aluminium grille



BNA Alu nature
BCN Alu nature



BCN/BCC



* BNC/... Alu lacquered
* BCC/... Alu lacquered

* To ensure perfect adherence of the powder coating, a wear and UV-resistant polyester powder coating is used. Only in glossy (code 2..); or special color, code: 006 / 005 / 028 / 026

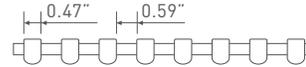
Wooden grille



BON Oak
BBN Beech



BOV Oak varnished
BBV Beech varnished



Quatro Canal Hybrid: heating and cooling

Length (cm)	Length (inch)	CODE	• Heating BTU/h (med)	• Cooling (total) (med) BTU/h
080	31.65	QUAF.013 080 27 / ... / ...	2199	1316
110	42.52	QUAF.013 110 27 / ... / ...	3781	2261
160	62.83	QUAF.013 160 27 / ... / ...	6629	3964
180	70.87	QUAF.013 180 27 / ... / ...	8309	8309

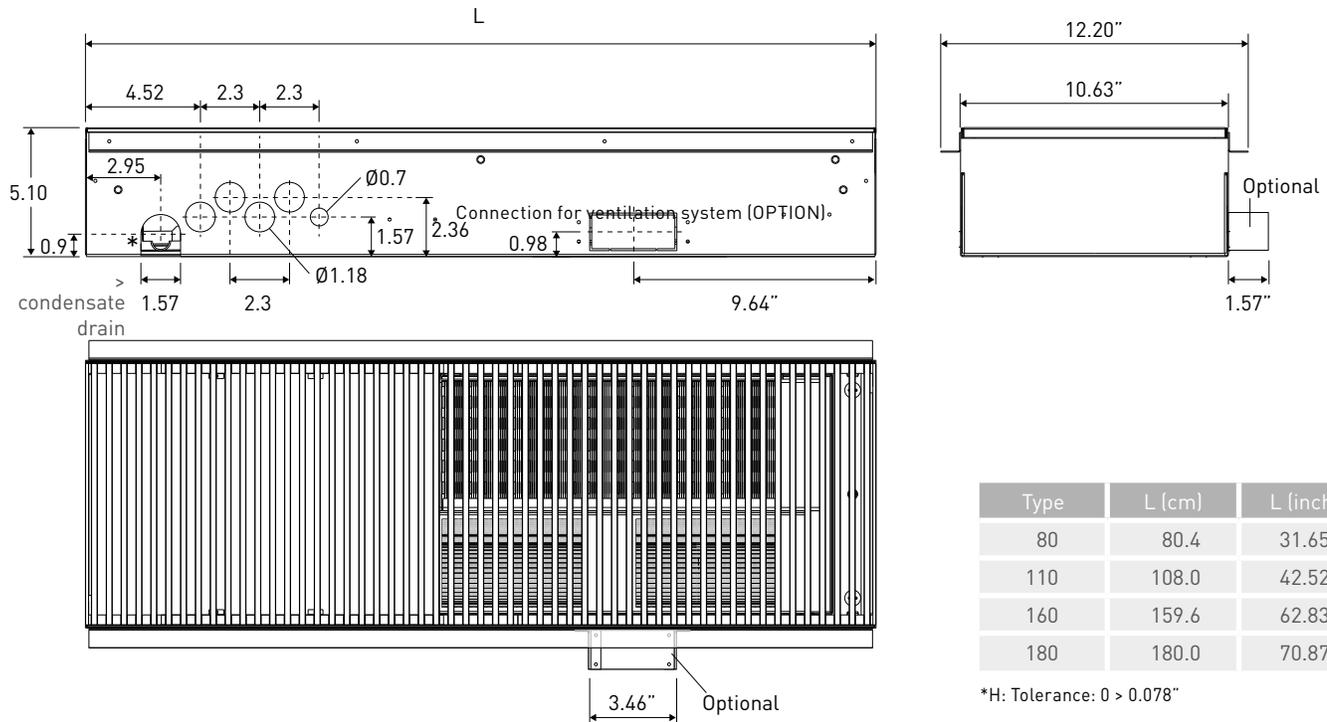
Fill in Grill code ———— Fill in Grill colour code (BNC)

* BNC: To ensure perfect adherence of the powder coating, an extremely wear-resistant and UV-resistant polyester powder coating of the highest quality is used. Only in glossy finish (code 2..)

- Supply water T°: 140°F, return water T°: 120°F, return air T°: 70°F Supply
- water T°: 45°F / Return water T°: 55°F / return air T°: 78°F dry bulb T°: - 50% RH (relative humidity)

Outputs for BNA / BNC grilles with 60% free area. Grilles with a free area of 50% have a deration factor of 0.8.

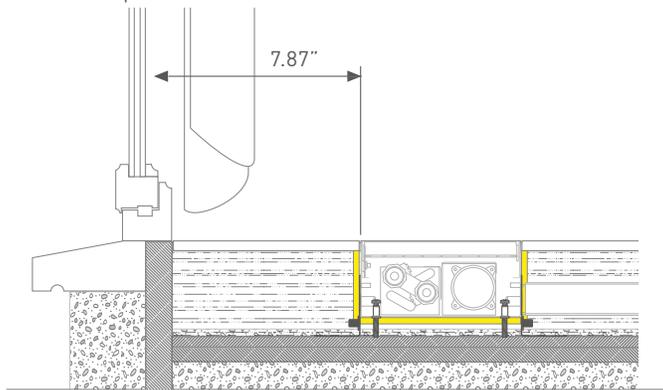
Dimension (inch)



Attention !!

For cooling: the pipes must have sufficient thermal insulation to prevent condensation.

Sufficient space for curtains foreseen!



Cleaning the trench

- cleaning at regular interval is important, (at least once a year), depending on the use and function of the room

Cleaning the grate

- a dirty grate obstructs the flow of air to the ventilator. Clean the grate at regular intervals, depending on the usage and function of the room.
- the grate must not be dismantled for maintenance and can simply be cleaned with a vacuum cleaner.

For special floor types, allow for sound transfer and acoustics.

Cleaning the trench

- cleaning at regular interval is important, (at least once a year), depending on the use and function of the room

Cleaning the grate

- a dirty grate obstructs the flow of air to the ventilator. Clean the grate at regular intervals, depending on the usage and function of the room.
- the grate must not be dismantled for maintenance and can simply be cleaned with a vacuum cleaner.

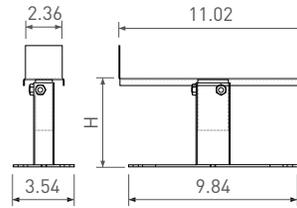
For special floor types, allow for sound transfer and acoustics.

Options

Height adjustable feet for raised floors

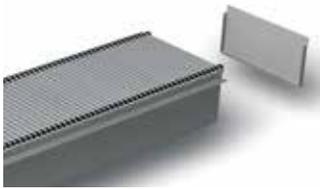


- 3 feet per unit
- height adjustable feet for raised floors
- painted in the colour black RAL 7024
- 1 set contains 2 height adjustable feet



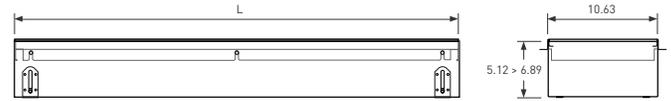
Order CODE	H (inch)
5208.05070000	1.97 > 2.76
5208.08130000	3.15 > 5.12
5208.13230000	5.12 > 9.06
5208.20300000	7.87 > 11.81

Empty trenches all standard lengths



To fill open spaces for a continuous installation

- with protection panel
- without connection perforations
- with continuous grille
- with height adjustments and fine height adjustment
- with end caps

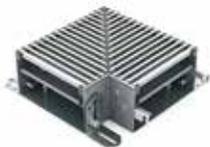


T	Order CODE	Length (cm)	Length (inch)
80	QUAD.01308027/.../...	80.4	31.65
110	QUAD.01311027/.../...	108.0	42.52
160	QUAD.01316027/.../...	159.6	62.83
180	QUAD.01318027/.../...	180.0	70.87

Fill in Grill code

Fill in Grill colour code (BNC)

Corner piece



Connecting and finishing of corners.

- with grille
- with protection panel
- with height adjustment

Order CODE	Grill
QUAD.013 036 27/BNA	Alu. natural
QUAD.013 036 27/BNC/...	Alu. powder coated

Fill in Grill code



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Quatro Canal Hybrid

Option

JAGA Dynamic Product Control , Jaga Control panel



On - Off controller, for use with 0...10V Building Management Systems.

Heating: The fans will start when the water temperature sensor detects 28°C / 83°F water in the coil.

Cooling: The fans will start when the water temperature sensor detects 18°C / 64°F water in the coil.

Installation

Electrical connections: IMPORTANT!

- the warranty is only valid when using the power supply provided by Jaga
- the Jaga DPC is polarization-sensitive. By disrespecting the minus and plus connection, the controller will be irrevocably broken. This damage is not covered by Jaga warranty.
- the electrical connection of the unit must be carried out by qualified personnel, in compliance with the regulations applicable in the country where the unit is installed
- non-conforming electrical connections releases Jaga from liability concerning damage to objects and persons



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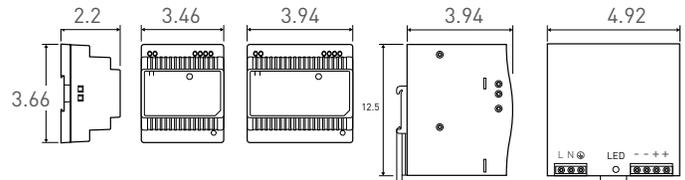
Quatro Canal Hybrid

Accessories

Power supply 24VAC

- small mounting depth
- safety: UL1310 Class 2
- passive cooling
- DIN-rail or wall mounting

CODE	Description
7990.050	36 W
7990.051	60 W
7990.052	100 W
7990.053	240 W



The warranty is only valid when using the original Jaga power supply.

Required power = sum of the power consumption of the equipments

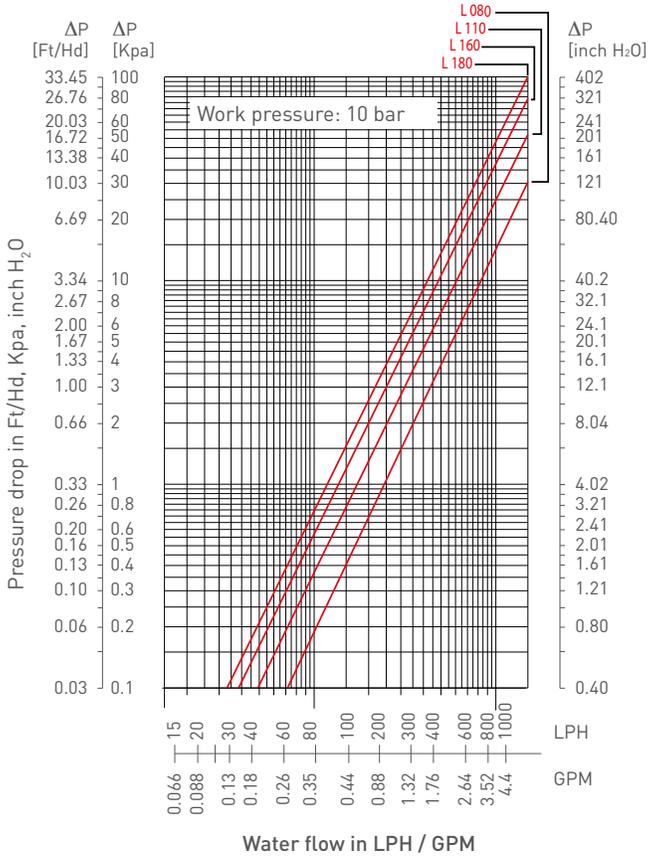


Technical data	Order CODE	7990.050	7990.051	7990.052	7990.053
Power	Watt	36	60	100	240
Output voltage	VDC	24-28			
Output current	A	1,3	2,5	4,2	5
Input voltage	VAC	85-264	88-264		85/264
	VDC	120-370	124-370		120/370
Weight	lbs	0.66		0.77	2.64
Overload protection		120 - 145%			
LED		DC ok			
Operating temperature		-40 > +185 ° F			

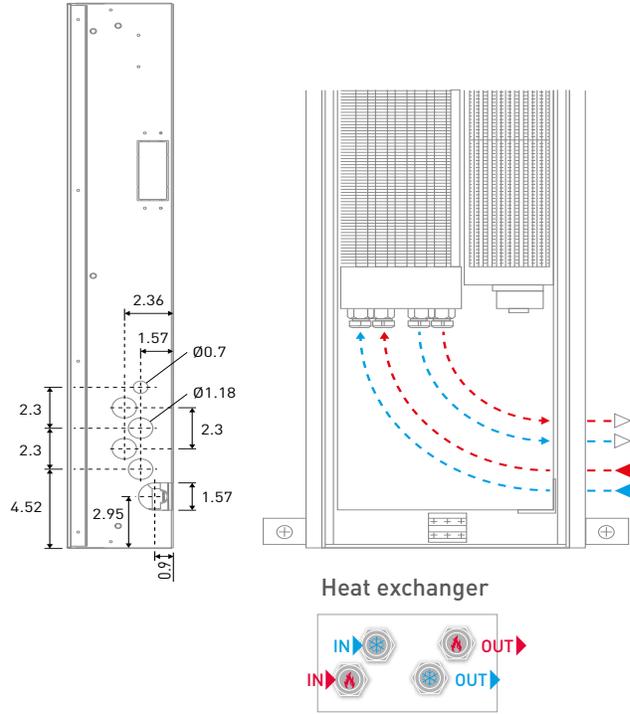
Quatro Canal		Cable length according to number of devices (feet) (max. voltage drop 5%)									
Max. cable length in feet		32	65	98	131	164	197	230	262	295	328
Wire size ↓		Type 80 (8.4W) aantal Clima Canals:									
17 AWG		10	5	3	3		2		1	1	
16 AWG		15	7	5	3	3	2	0	0	0	
14 AWG		24	12	8	6	5	4	4		3	
Wire size ↓		Type 110 (14W), aantal Clima Canals:									
17 AWG		6	3	2	2				1		
16 AWG		9	4	3	2		2			1	
14 AWG		15	6	5	3	3	3		2		2
Wire size ↓		Type 160 (22W), aantal Clima Canals:									
17 AWG		3	3			1				0	
16 AWG		5	2	2	1				0		
14 AWG		9	4	3	2	2	2		1		
Wire size ↓		Type 180 (28W), aantal Clima Canals:									
17 AWG		3	3		1		0				
16 AWG		4	2	2				1			0
14 AWG		7	3	2	2		2			0	

QuatroCanal_pressure drop

Pressure drop



Dimensions hydraulic connection (INCH)





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Clima Canal Hybrid / Clima Canal_technical data

Jaga Quatro Canal: Technical data					
Size		Type 1	Type 2	Type 3	Type 4
Cooling (total) BTU/h • (45°F/55°F/80°F)	Med	1380	2374	4161	5215
	Max	1739	2991	5242	6571
Cooling (sensible) BTU/h • (45°F/55°F/80°F)	Med	950	1634	2864	3589
	Max	1212	2084	3653	4578
Water flow cooling GPM	Med	0.26	0.45	0.79	0.99
Heating BTU/h • (140°F / 120°F / 70°F)	Med	2189	3763	6597	8269
	Max	2562	4405	7721	9678
Water flow heating GPM	Med	0.22	0.38	0.66	0.83
CFM (Cubic feet per minute)	Med	69	122	168	198
	High	87	168	205	238
Heat Exchanger (coil)	Fins Per Inch (FPI)	0.08 (48 fins per 3.94 inch)			
	Face Area ft ²	10.08			
	Coil connections inch	1/2 NPT			
Fan	Quantity	1	1	1+2	2+2
	Diameter inch	2.36			
	Width inch	1x14.17	1x24.8	1x14.17, 1x24.8	2x24.8
EC Motor (24VDC)	Consumption Watt (max)	7.7	9.8	17.5	19.7
	Quantity	1	1	2	2
	RPM Speed (8 VDC) Med	1100			
	RPM Speed (10VDC) Max	1300			
Sound pressure	dB(A) speed Max	38	39.1	41.6	42.1
Voltage	Volts	24VDC			
Cabinet	Height, inch	adjustable between min. 5.12" > max. 6.69"			
	Length, inch	31.65	42.52	62.83	70.87
	Width, inch	10.63			
	Fine adjustment height, inch	max 0.39			
	Weight lbs	28.22	38.8	56.44	63.49

- Supply water/return water/ room air temperatures: 140/120/68°F
- Supply water/return water/ room air temperatures: 45/55/80°F 50% Relative humidity.

Outputs are calculated for a grill with a free area of 50% (0.25" opening between the grill profiles. Grills with a free area of 65% are available on request.

jagaHybridHeating





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Quatro Canal Hybrid product description

Standard delivery:

Pre-assembled heating, cooling appliance for installation in the floor, consisting of:

- a 0.04" -thick trench of galvanized steel and a telescopically adjustable height adjustment with stainless steel grille holder, coated with a charcoal grey scratch-proof epoxy polyester lacquer, RAL 7024, trench 10% gloss.
- the appliance is equipped as standard for heating and for connection to traditional water heating systems, but can also be used for cooling with a chilled water supply, and for connection to mechanical ventilation systems
- a minimum recess depth of 5.31" below finished floor level is required.
- the appliance is equipped with a height adjustment from 0" to 1.77" and a fine height adjustment up to + 0.31" to perfectly align the appliance with the finished floor
- the shaft is equipped with 4 openings for the passage of the hydraulic lines and 1 opening for the electric cables. These openings - in the side - are sealed with black insulation tape
- the shaft is also equipped with a condensate drain \varnothing 1.26/008"
- two end caps are supplied, equipped with a stainless steel grille support and aluminium rivets with countersunk heads for finishing the ends of the inner trench
- all components are secured with special spring steel suspension hooks, so all the parts can be removed extremely quickly and easily for regular cleaning and maintenance without hydraulic or electrical disconnection
- anodized aluminium grille(s)
- dynamic Low-H₂O heat exchanger
- tangential fan (s)
- protection panel

Aluminium grille

Aluminium floor grille bars, length 14.17" with EPDM holder 0.65".

- profile: 0.24 x 0.55"

- spacing 0.35"

- material: anodized aluminium

Dynamic coil

A single, four pipe coil for heating and cooling. Round, seamless circular pipes in pure copper, connected to pure aluminium fins with a spacing of 0.07" and an integrated brass collector, including air vent.

- coil electrostatically powder coated with black epoxy-polyester, 70% gloss
- element pressure test: 290 psi.
- operating pressure: max 145 psi.
- • 1/2" NPT standard connection left.

Fans:

One or more tangential fans, 24 VDC, with galvanized steel plate cover and integrated protection grate.

Colour black, 70% gloss

Electrical connection:

Integrated connector with press fitting.

Standard connection left

Options:

- empty duct(s) with height adjustment, comprising a 0.04" duct of galvanized steel coated with an charcoal-grey scratch-proof epoxy polyester lacquer, RAL 7024, 10% gloss, with stainless steel grille and protection panel
- connecting / finishing of corners 90 °Corner piece with height adjustment, comprising a 0.04" trench of galvanized steel, coated with an charcoal-grey scratch proof epoxy polyester powder coating RAL 7024, 10% gloss. Cover plate made of aluminium.
- Adjustable feet for raised floors, powder coated in the colour black RAL 7024:
 - Type 1: adjustable between 3.94" and 5.91"
 - Type 2: adjustable between 5.51" and 7.87"
- supply 31.2 W / 60 W / 100.8

How to install:

The installer will propose all the heating elements, while taking into Design of the system has to be done by a certified professional, based on the local building codes and:

- a heat loss and cooling load calculation must be carried out in function of the local climate and building codes.
- the performance of the units must be calculated based on the technical specifications, provided by the manufacturer. For alternative water temperatures, correction factors are applicable. A selection tool is available for professional engineers upon request.
- The unit is designed for use in a four pipe system with same end connections.

Standard connections left

- The trench must be installed with the fan installed on the room side and the coil oriented towards the facade.
- In case curtains are installed, the distance between the window and trench must allow airflow into the room. The trench should never be covered by any type of curtain.
- if the trench is not installed directly on the floor, the gap between the trench and concrete deck must be filled with wet cement or spray foam.

Manufacturer: Jaga

Type: Quatro Canal



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25 April 2019 1:49 PM - Jaga N.V.

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