

Technical info



Correction factors



Why the reference standard EN442?

This measuring standard puts an end to the large number of different values that have previously been used, and provides an accurate reference for comparing different appliances.

The 75/65/20 system has been chosen for this reference value. This is a realistic starting point for choosing an appliance that provides sufficient heat with a low water temperature. On exceptionally cold days the water temperature may increase slightly, but for most of the heating season it will be much lower.

Of course many modern systems need to be able to work effectively at much lower water temperatures. Jaga's Low-H₂O technology enables good output to be achieved even at low flow temperatures. Therefore, our main output tables show the values for a 55/45/20 regime. Obviously calculated according to EN442 guidelines, in addition to the standard reference value. In the table you will find the correction factors for all other systems, at a room temperature of 20°C and 24°C.

How to choose the right radiator?

Required output in WATTS/m ²		
Insulation	20°	24°
excellent	45	55
good	65	75
average	85	95
poor	100	115

Example

Volume: L 3 m x B 3 m x H 2.5 m = 22.5 m³
 Level of insulation: excellent
 Room temperature: Tl = 24°C
 Required output: 55 x 22.5 = 1237.5 watts
 Watertemperature 80/60°C
 i.e. Tv = 80°C (flow temperature)
 Tr = 60°C (return temperature)

Solution:

Use the table to determine the relevant correction factor with a water temperature 80/60°C.
 The correction factor = 0.9
 1237.5 : 0.9 = 1375 watts
 Search in the price list 75/65/20 a radiator with an output of 1375 watts.

Rapid estimation of heat losses

Calculate the volume of the room (L x W x H) and multiply this by the watts/m³ figure given in the table below.

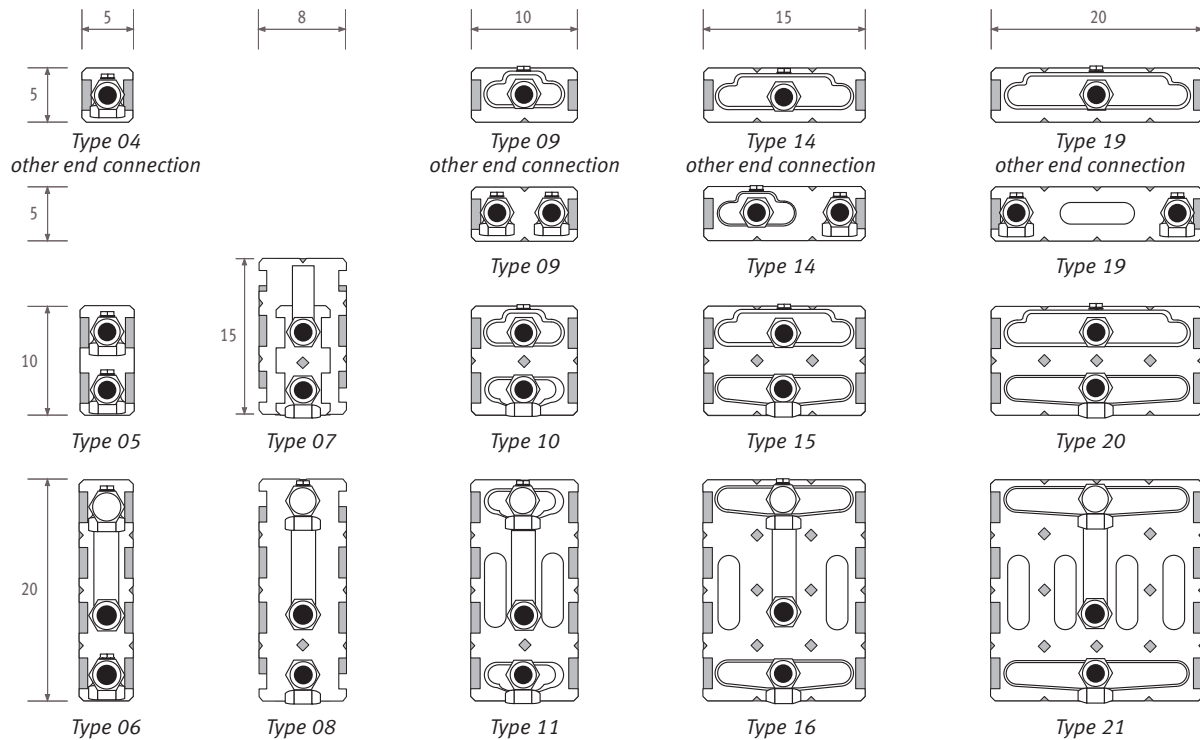
Choose according to the level of insulation and the desired room temperature.

Average correction factors according to EN442 - 75/65/20°C

Tv	Tl	Tr > 20	25	30	35	40	45	50	55	60	65	70	75	80	85
90	20	0,62	0,68	0,74	0,80	0,87	0,93	1,00	1,07	1,14	1,21	1,28	1,36	1,43	1,50
	24	0,52	0,58	0,64	0,70	0,76	0,83	0,89	0,96	1,03	1,10	1,17	1,24	1,31	1,38
85	20	0,56	0,62	0,68	0,74	0,80	0,87	0,93	1,00	1,07	1,14	1,21	1,28	1,36	
	24	0,47	0,52	0,58	0,64	0,70	0,76	0,83	0,89	0,96	1,03	1,10	1,17	1,24	
80	20	0,50	0,56	0,62	0,68	0,74	0,80	0,87	0,93	1,00	1,07	1,14	1,21		
	24	0,41	0,47	0,52	0,58	0,64	0,70	0,76	0,83	0,89	0,96	1,03	1,10		
75	20	0,44	0,50	0,56	0,62	0,68	0,74	0,80	0,87	0,93	1,00	1,07			
	24	0,36	0,41	0,47	0,52	0,58	0,64	0,70	0,76	0,83	0,89	0,96			
70	20	0,39	0,44	0,50	0,56	0,62	0,68	0,74	0,80	0,87	0,93				
	24	0,31	0,36	0,41	0,47	0,52	0,58	0,64	0,70	0,76	0,83				
65	20	0,34	0,39	0,44	0,50	0,56	0,62	0,68	0,74	0,80					
	24	0,26	0,31	0,36	0,41	0,47	0,52	0,58	0,64	0,70					
60	20	0,29	0,34	0,39	0,44	0,50	0,56	0,62	0,68						
	24	0,21	0,26	0,31	0,36	0,41	0,47	0,52	0,58						
55	20	0,24	0,29	0,34	0,39	0,44	0,50	0,56							
	24	0,17	0,21	0,26	0,31	0,36	0,41	0,47							
50	20	0,19	0,24	0,29	0,34	0,39	0,44								
	24	0,13	0,17	0,21	0,26	0,31	0,36								
45	20	0,15	0,19	0,24	0,29	0,34									
	24	0,09	0,13	0,17	0,21	0,26									
40	20	0,11	0,15	0,19	0,24										
	24	0,06	0,09	0,13	0,17										
35	22	0,05	0,08	0,12											
	24	0,03	0,06	0,09											
30	20	0,04	0,08												
	24	0,00	0,03												

The indicated outputs with ΔT 50 and ΔT 30 are the exact outputs. ΔT 50 output measured in accordance with EN 442 and ΔT 30 output calculated according to EN 442. An average correction factor is given in this table for all other ΔT outputs, applicable for all dimensions.

Overview heat exchangers



Heat exchanger per appliance. Overview codes:

Type	Knockonwood	Strada	Linea Plus	Mini	Mini Canal H / B	Canal Plus Canal Compact	Installation into pre-formed duct	Installation into a wall recess	Installation under bath
04 other end	-	-	-	-	5004.04/BS10 09-11/14	-	-	-	-
05	-	-	-	5003.05/BS9	5003.05/BS10 14/14	-	-	-	-
06	-	-	-	5003.06/BS9	-	-	-	-	5003.06
07	5003.07*	5003.07*	-	-	-	-	-	-	-
08	5003.08**	5003.08**	-	-	-	-	-	-	-
09	-	-	-	-	5003.09/BS10 09-11/18	-	-	-	-
09 other end	-	-	-	5004.09/BS9	-	-	-	-	-
10	5003.10	5003.10	5003.10	5003.10/BS9	5003.10/BS10 14-19/26	5003.10	5003.10	5003.10	5003.10
11	5003.11	5003.11	5003.11	5003.11/BS9	-	-	5003.11	5003.11	-
14	-	-	-	-	5003.14/BS10 09-11/34	-	-	-	-
14 other end	-	-	-	5004.14/BS9	-	-	-	-	-
15	5003.15	5003.15	5003.15	5003.15/BS9	5003.15/BS10 14-19/34	5003.15	5003.15	5003.15	-
16	5003.16	5003.16	5003.16	5003.16/BS9	-	-	5003.16	5003.16	-
19	-	-	-	-	5004.19/BS10	-	-	-	-
19 other end	-	-	-	5004.19/BS9	-	-	09-11/42	-	-
20	-	5003.20	5003.20	5003.20/BS9 14-19/42	5003.20/BS10	5003.20	5003.20	5003.20	-
21	-	5003.21	5003.21	5003.21/BS9	-	-	5003.21	5003.21	-

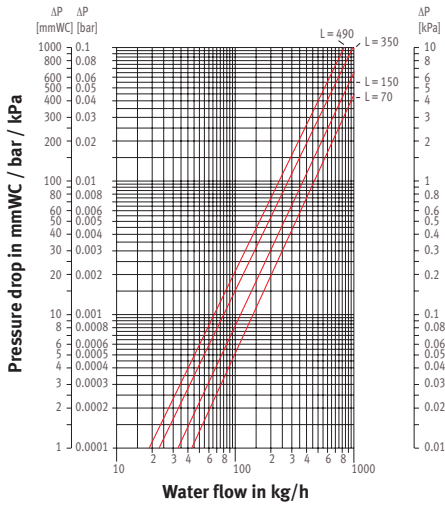
* Knockonwood and Strada type 06 height 20

** Knockonwood and Strada type 06 all other heights

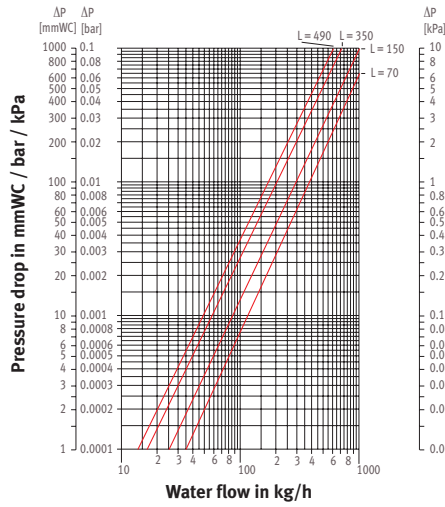


Pressure drop

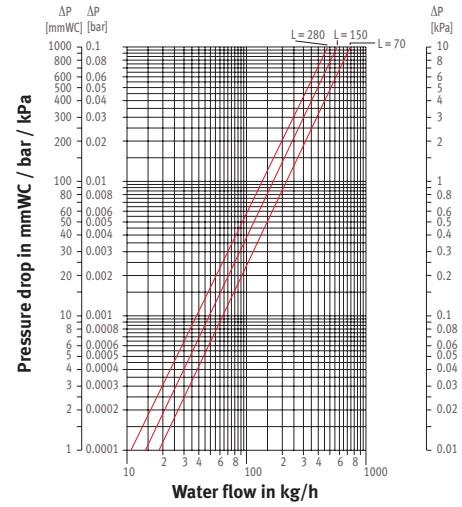
Pressure drop type 04 other end connection



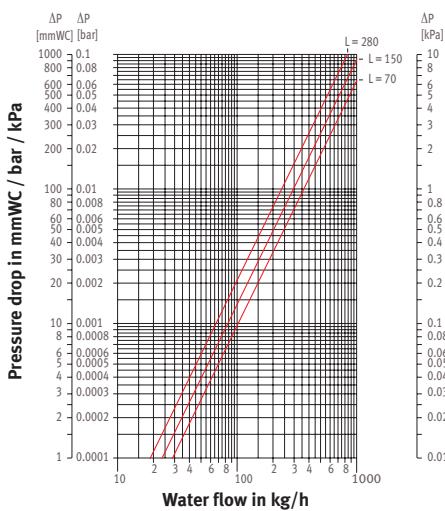
Pressure drop type 05



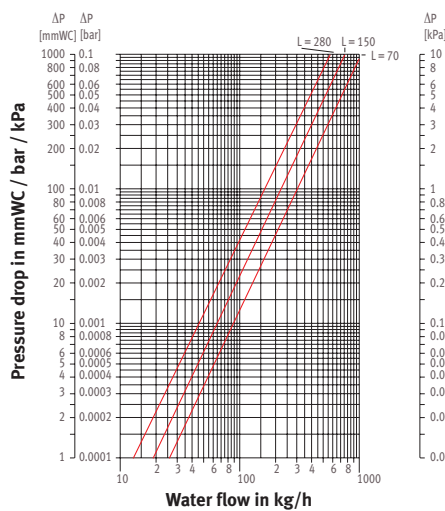
Pressure drop type 06



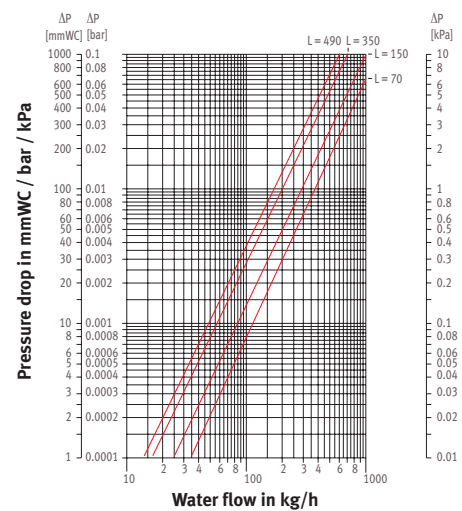
Pressure drop type 07



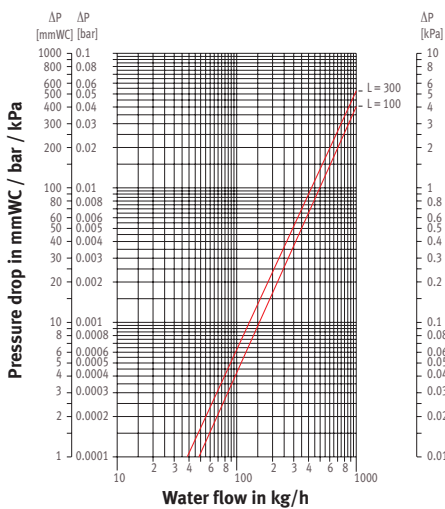
Pressure drop type 08



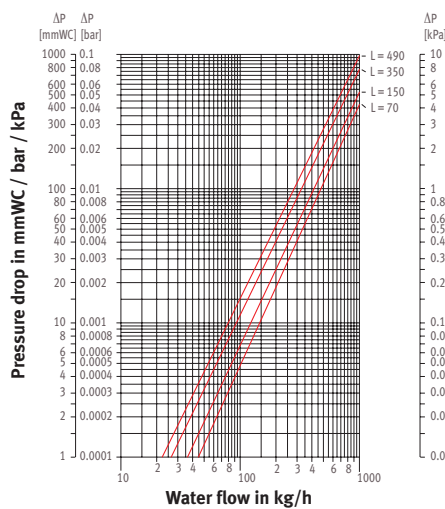
Pressure drop type 09



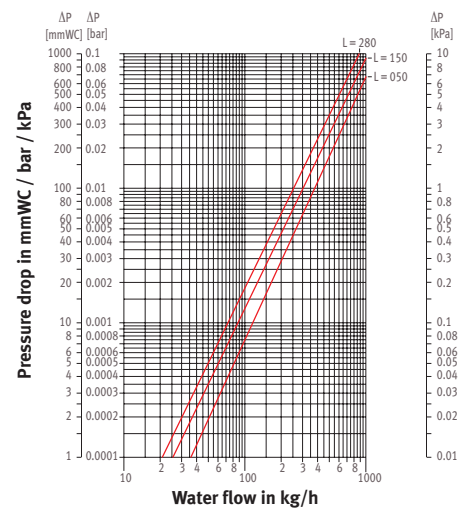
Pressure drop type 09 other end connection



Pressure drop type 10

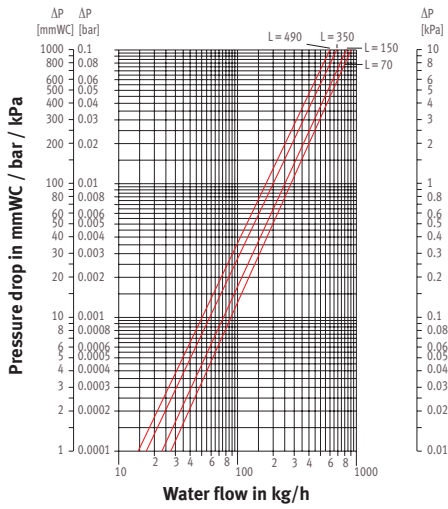


Pressure drop type 11

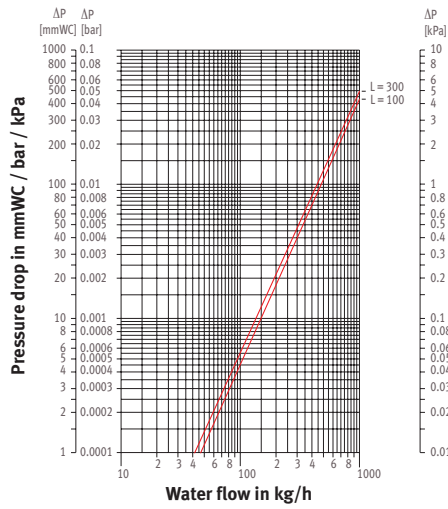


Pressure drop

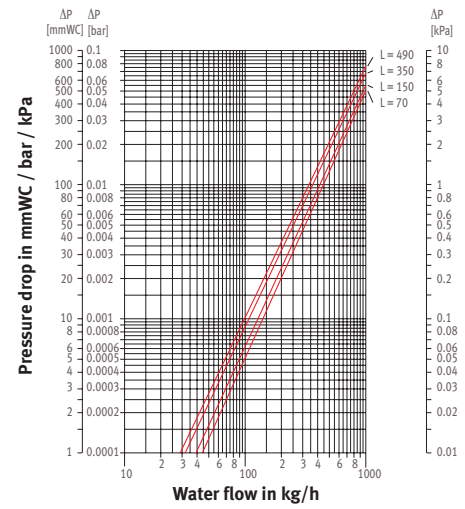
Pressure drop type 14



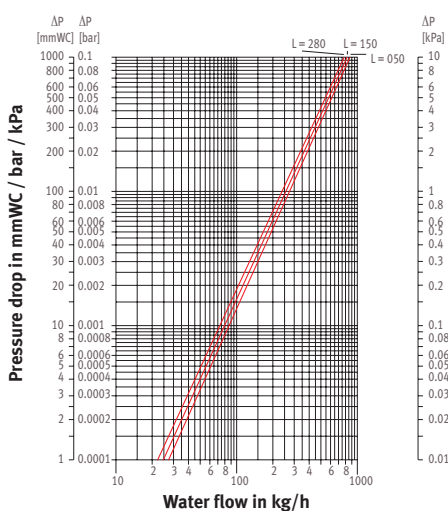
Pressure drop type 14 other end connection



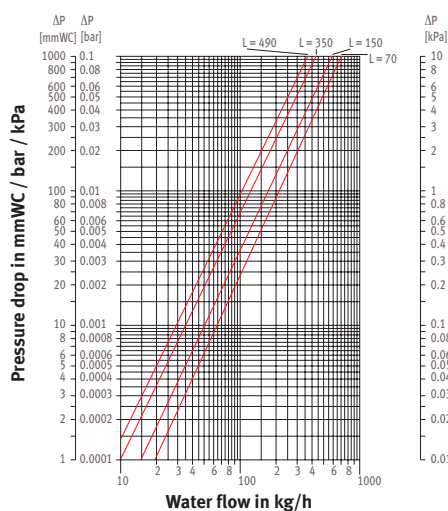
Pressure drop type 15



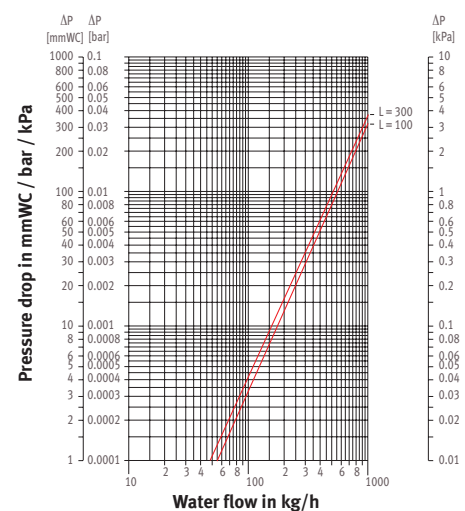
Pressure drop type 16



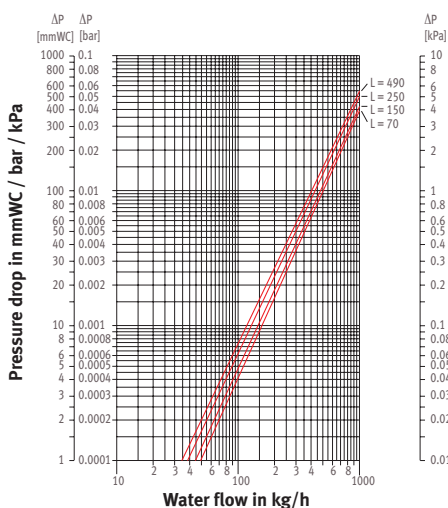
Pressure drop type 19



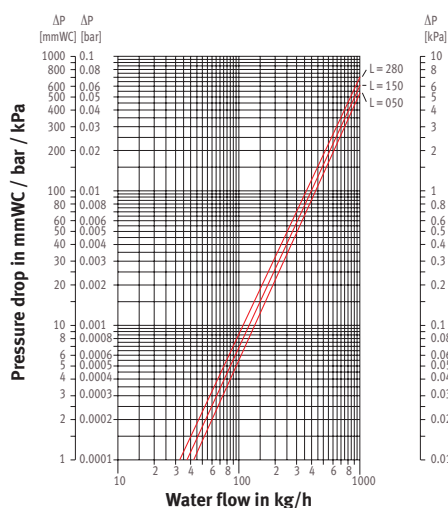
Pressure drop type 19 other end connection



Pressure drop type 20



Pressure drop type 21



Weight

(in kg/metre)

Knockonwood_wall mounted model

H	T	06	10	11	15	16
030	8.3	7.8	9.9	8.9	12.2	
055	12.3	12.0	13.6	14.1	19.7	
080	17.4	16.9	18.6	18.6	21.1	

Strada_wall mounted model

H	T	06	10	11	15	16	20	21
020	6.7	7.5	---	9.4	---	11.4	---	---
035	9.0	9.8	11.2	11.9	14.2	14.0	16.7	
050	11.1	12.0	13.5	14.4	16.7	16.7	19.5	
065	13.3	14.3	15.8	16.9	19.2	19.4	22.1	
095	17.5	18.9	20.4	21.8	24.1	24.8	27.5	

Linea Plus_wall mounted model

H	T	10	11	15	16	20	21
020	5.9	---	7.0	---	8.2	---	---
035	8.2	9.7	9.5	12.0	11.0	14.3	
050	10.6	12.1	12.1	14.6	13.8	17.1	
065	13.0	14.4	14.7	17.2	16.7	19.9	
095	15.4	19.1	17.0	22.4	18.8	25.6	

Linea Plus_freestanding model

H	T	10	11	15	16	20	21
020	10.2	---	11.5	---	12.7	---	---
035	14.3	15.8	15.9	18.6	17.5	20.8	
050	18.3	19.9	20.4	23.0	22.2	25.5	
065	22.4	23.9	24.8	27.5	27.0	30.3	

Mini_wall & freestanding

H	T	05	06	09	10	11	14	15	16	19	20	21
008	---	---	5.17	---	---	6.13	---	---	6.97	---	---	---
013	5.62	---	---	7.06	---	---	8.43	---	---	9.69	---	---
023	---	8.54	---	---	10.15	---	---	12.75	---	---	16.13	---
028	---	10.80	---	---	13.60	---	16.80	---	---	---	19.50	---

Mini Canal

H	B	14	18	26	34	42
009	4.60	5.01	5.80	7.05	8.29	
011	5.00	5.42	6.24	7.52	8.80	
014	5.70	---	7.77	9.51	11.28	
019	---	---	9.25	11.06	12.89	

Average weight in kg/metre for Mini duct, including frame and heat exchanger.

Weight grille in kg/metre

Model	Width duct	12.8	16.8	24.8	32.8	40.8
		14	18	26	34	42
Roll-up Designo merbau/merbau varnished		2.18	3.00	3.52	3.98	4.67
Roll-up Designo oak/oak varnished		1.59	2.03	2.69	3.34	3.90
Roll-up Designo beech/beech varnished		1.50	1.90	2.50	3.10	3.60
Roll-up merbau/merbau varnished		2.15	2.70	3.03	3.35	4.05
Roll-up oak/oak varnished		1.48	1.71	2.15	2.61	3.12
Roll-up beech/beech varnished		1.40	1.60	2.00	2.42	2.88
Roll-up alu natural/black/brown/brass		1.21	1.38	2.07	2.76	3.45
Roll-up stainless steel		2.18	2.86	4.22	5.58	6.94
Rigid Designo alu natural/black/brown/brass/lacquered		1.60	2.10	3.20	4.10	5.00
Rigid alu natural/black/brown/brass/lacquered		1.55	2.20	2.50	3.15	3.75

Canal Plus

Average weight in kg/metre for complete unit, including frame and grille.

R 2.5			R 3.0			R 4.0			R 0.58		
B	H	Kg/m	B	H	Kg/m	B	H	Kg/m	B	H	Kg/m
34	68	22.54	36	69	22.58	42	72	23.63	25	66	22.50
38	68	25.61	40	69	25.80	46	72	25.97	29	66	24.37
49	68	30.53	51	69	30.44	57	72	31.44	41	66	28.54

Water content

(in litre/metre)


T	L/metre
05	0.32
06	0.64
07*	0.51
08*	0.63
09	0.31
10	0.65
11	1.33
14	0.47
15	0.98
16	1.98
19	0.63
20	1.32
21	2.66

07 = Strada type 06 height 20
08 = Knockonwood and Strada type 06 all other heights

Water content Mini Canal

in Litre/metre

H	B	14	18	26	34	42
009	0.16	0.32	0.32	0.48	0.66	
011	0.16	0.32	0.32	0.48	0.66	
014	0.32	---	0.65	0.98	1.32	
019	---	---	0.65	0.98	1.32	

 Weight and water content without packaging or options

Product descriptions

Knockonwood

Material

- Low-H₂O heat exchanger is composed of 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.
- Extended air vent 1/8" and drain cock 1/2" are included.
- Pressure test: 20 bar
- Working pressure: 10 bar
- Brackets: galvanized steel plate thickness 1 mm, dark grey lacquered, with a maximum intermediate distance of 1.05 m.
- Casing pre-fitted and supplied in one single piece, consisting of:
 - front panel with grille made from a single curved, finished wood laminate panel at least 16 mm thick. FSC-labelled.
 - sides and chassis made from electrolytic galvanized steel plate 1.25 mm thick, fitted with a hole underneath for use with an integrated Jaga valve, including metallized cover plate for the unused hole.
- Strong and functional packaging, can be used as a protective cover during construction works.

Colour

- Heat exchanger electrostatically lacquered with anthracite grey epoxy-polyester RAL 7024, gloss degree 70%.
- Sides and chassis lacquered in the colour sandblast grey metallic, in a scratch resistant epoxy-polyester powder, sprayed electrostatically and baked at a temperature of 200°C. UV resistant due to ASTM G53.
- Front panel with grille finished in veneer, inside koto veneer, outside in: oak / bleached oak / mahogany / wenge-coloured oak / beech / bleached beech / maple / walnut / zebrano veneer (FSC-labelled).

The surface temperature remains safe at all times, even at a water temperature of 90°C.

Manufacturer: Jaga
Type: Knockonwood

Outputs meet standard EN442.

Options

- Brush for easy cleaning of the underside of the heat exchanger.
- Calorimeter holder.

Strada

Material

- Low-H₂O heat exchanger is composed of 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.
- Extended air 1/8" and drain cock 1/2" are included.
- Pressure test: 20 bar
- Working pressure: 10 bar
- Brackets: sendzimir, galvanized steel plate thickness 1 mm, dark grey lacquered, with a maximum intermediate distance of 1.05 m.
- Front panel: electrolytic, galvanized steel plate of 1.25 mm thick.
- Side panels: electrolytic, galvanized steel plate of 1.25 mm thick with hole for integrated Jaga valve, inclusive metallized cover plates for the unused hole.
- Wall slat: electrolytic, galvanized steel plate of 1.25 mm thick
- Inversed aluminium top grille coated in the same colour as the casing.
- Strong and functional packaging, can be used as a protection cover during construction works.

Colour

- Heat exchanger electrostatically lacquered with anthracite grey epoxy-polyester RAL 7024, gloss degree 70%.
- The casing is lacquered in the colour white (RAL 9010) / white (RAL 9016) / sandblast grey metallic 001 / other (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.

The surface temperature remains safe at all times, even with a waterflow of 90°C.

Manufacturer: Jaga.
Type: Strada.

Outputs meet standard EN442.

Options

- Towel rail in chrome-plated aluminium.
- Brush for easy cleaning of the underside of the heat exchanger.
- Calorimeter holder.

Linea Plus

Material

- Low-H₂O heat exchanger is composed of 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.
- Air vent 1/8" and drain cock 1/2" are included.
- Pressure test: 20 bar
- Working pressure: 10 bar
- Brackets: galvanized steel plate thickness 1 mm, dark grey lacquered, with a maximum intermediate distance of 1.05 m
- Front panel: electrolytic, galvanized steel plate of 1.25 mm thick
- Side panels: electrolytic, galvanized steel plate of 1 mm thick
- Top grille: electrolytic, galvanized steel plate of 1 mm thick with small round perforations
- The freestanding model: front and back panels are identical, grille and side panels come adapted to this model. The feet are telescopically adjustable for placement on finished floor / concrete floor.

Colour

- Heat exchanger electrostatically lacquered with anthracite grey epoxy-polyester RAL 7024, gloss degree 70%.
- The casing is lacquered in the colour white (RAL 9010) / white (RAL 9016) / sandblast grey metallic 001 / other (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.

The surface temperature remains safe at all times, even with a waterflow of 90°C.

Manufacturer: Jaga
Type: Linea Plus

Outputs meet standard EN442.

Options

- Towel rail in the same colour as the radiator.
- Extended air vent for heat exchanger type 10 / 15 / 20.
- Brush for easy cleaning of the underside of the heat exchanger.
- Calorimeter holder.

How to install

The building services engineer chooses the heating elements considering the following conditions:

- A heat output calculation according to the standard.
- Tables of heat outputs and dimensions for Knockonwood / Strada / Linea Plus elements, according to EN 442
- The normal fitting position for the heating elements is under the window, and to achieve the most aesthetically pleasing appearance the casing should not be wider than the total width of the window. The height of the casing has to be a function of the heat loss calculations; aesthetically narrower types are preferable. Types 20 and 21 are more suitable for utility areas.
- When only small outputs are required, the casing can be extended, if necessary, to fill up the total window space
- the minimum space requirement under the heating elements is: for Knockonwood / Strada / Linea Plus
 - 10 cm for types 06, 10 and 11
 - 12 cm for types 15 and 16
 - 15 cm for types 20 and 21
- As minimum space between the top of the casing and the extended window sills, the above mentioned dimensions have to be applied.
- The heat exchangers will be connected to a two pipe system, with a same end connection. The flow valve always has to be fitted to the top connection of the heat exchanger.
- The specially designed thermostatic Jaga-Danfoss / Jaga Comap / Jaga / Jaga type 6 / Jaga-Pro valves can be connected to plastic central heating service pipes/ RPE/ALU. tube / copper tube/ steel pipe. The valve body is concealed within the standard casing
- Jaga Danfoss thermostatic heads
 - white type RA / white type RAX / chrome type RAX/ Jaga thermostatic heads / Jaga Deco thermostatic heads chrome / Jaga Deco thermostatic heads chrome-white / Jaga Comap thermostatic heads silver / remote controlled Jaga thermostatic heads / Jaga Deco thermostatic heads chrome-white with sensor at distance / not / to be fitted.



Product descriptions

Mini

Material

- The heat exchanger is manufactured from round, seamless circulation tubes of pure red copper, with pure aluminium fins and two brass collectors for left or right 1/2" same end (H=13 - 23 - 28) or 1/2" other end (H=8) connection.
Air vent 1/8" and drain cock 1/2" are included
Pressure test: 20 bar
Working pressure: 10 bar
- The casing: in one piece, electrolytic painting, galvanized double profiled steel plate 1.25 mm thick.
- The top grille: electrolytic, galvanized steel plate of 0.80 mm thick, profiled backwards angled steel plate with angled topside.
- Wall brackets or feet delivered in same colour as the casing.
Mini height 08 / 13 cm;
fixed feet 6.5 / 10 / 12 cm; Mini height 23 / 28 cm: fixed feet 10 / 12 cm.

Colour

- Heat exchanger electrostatically lacquered with anthracite grey epoxy-polyester RAL 7024, gloss degree 70%.
- The casing is lacquered in the colour white (RAL 9010) / white (RAL 9016) / sandblast grey metallic 001 / other (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.

The surface temperature remains safe at all times, even with a waterflow of 90°C.

Manufacturer: Jaga
Type: Mini

Outputs meet standard EN442.

Options

- Brush for easy cleaning of the underside of the heat exchanger.
- Adjustable feet for mounting in concrete floor. Adjustable from 13.5 to 21 cm / from 21.5 to 34 cm.
- Calorimeter holder for heat exchangers with a same end connection.

How to install

The building services engineer chooses the heating elements considering the following conditions:

- a heat output calculation according to the standard.
- Tables of heat outputs and dimensions for Mini elements, according to EN 442.
- the normal fitting position for the heating elements is under the window, and to achieve the most aesthetically pleasing appearance the casing should not be wider than the total width of the window. The height of the casing has to be a function of the heat loss calculations; aesthetically narrower types are preferable. Types 19, 20 and 21 are more suitable for utility areas.
- when only small outputs are required, the casing can be extended, if necessary, to fill up the total window space
- the minimum space requirement under the heating elements for Mini is:
 - 5 cm for types 05 and 09
 - 7 cm for types 10 and 14
 - 9 cm for types 15 and 19
 - 11 cm for type 20 and 21
- as minimum space between the top of the casing and the extended window sills, the above mentioned dimensions have to be applied.
- the heat exchangers will be connected to a two pipe system, with a same end connection. Mini height 8 cm will be connected with an other end connection.
The flow valve always has to be fitted to the top connection of the heat exchanger.
- The specially designed thermostatic Jaga-Danfoss / Jaga Comap / Jaga / Jaga type 6 / Jaga-Pro valves can be connected to plastic central heating service pipes/ RPE/ALU. tube / copper tube/ steel pipe. The valve body is concealed within the standard casing.
- Jaga Danfoss thermostatic heads white type RA / white type RAX / chrome type RAX/ Jaga thermostatic heads / Jaga Deco thermostatic heads chrome / Jaga Deco thermostatic heads chrome-white / Jaga Comap thermostatic heads silver / remote controlled Jaga thermostatic heads / Jaga Deco thermostatic heads chrome-white with sensor at distance / not / to be fitted.



Product descriptions

Mini Canal

Mini-Duct

Pre-mounted duct, in sendzimir galvanized steel plate of 1 mm thick, provided with anthracite grey epoxy-polyester RAL 7024, gloss degree 10%. The well has 6 pre-perforated holes to lead through the tubes. These holes, 2 in the front and 2 in each side are covered with black plugs. Mini Canal with same end connection is provided with 3 pre-perforated holes in the front. The mini duct is also provided with brackets, air conducting compartments and anchoring strips in order to fix the duct in the concrete. The frame is premounted on the Mini-Canal.

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.

Designo rigid aluminium grilles

Profiled slats placed lengthways (5 x 16 mm) with 8.5 mm space between, mechanically connected with two crossways supporting slats (5 x 27 mm) with maximum 30.5 cm space between. Free air flow 62.5%.

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 (5 x 16 mm) with 15 mm space between, mechanically connected with two crossways supporting slats (5 x 27 mm) with maximum 30.5 cm space between. Free air flow 75%.

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.

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 colour / dark brown / black / brass colour.

Roll-up Designo 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 stainless steel grilles

Roll-up grille in rust proof high-grade steel V2A 1.4301.

Crossways positioned stainless steel slats (8 x 18 mm) with 12 mm space between. The slats are interconnected by a metal spring, with a light grey synthetic cover.

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

The heat exchanger is manufactured from round, seamless circulation tubes of pure red copper, with pure aluminium fins and two brass collectors for left or right 1/2" same end connection. Other end connection 1/2": only for heat exchanger type 04.

Air vent(s) 1/8" and drain cock(s) 1/2" are included.

Pressure test: 20 bar.

Working pressure: 10 bar.

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 Canal

Outputs meet standard EN442.

Options

- Cover plate: 22 mm thick fibreboard plate.

- Bottom end insulation: in dark grey polyethylene foam, thickness 5 mm

- 3 Sided insulation

- 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: corner 90° / corner 135°.

For wooden and aluminium grilles.

How to install

The building services engineer chooses the heating elements considering the 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.
 - the heat exchanger should be connected to a two pipe system with a same end connection, other end connection (just for type 04).
 - the heat exchanger is equipped with two brass collectors for left or right 1/2" same end connection. Air vent 1/8" and drain cock 1/2" are included. In case of same end connection the flow valve always has to be fitted to the top connection.
 - 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 Canal allow extra space for curtains, which under no circumstances should hang over the Mini Canal.
- The heat exchanger must always be kept accessible for maintenance purposes.



Product descriptions

Canal Compact Polyester

Made of 4 mm thick fibreglass-reinforced polyester, provided with topcoat. Waterproof, single-piece. Provided on the top side with an integrated anodized black/natural coloured aluminium profile, height 31.5 mm, that serves as a frame for the grille and for the anchoring of the duct in the subfloor.

- Insulated R 1.5 / K 0.67 w/(m².K): inside coating of 25 mm polyurethane foam.
- Insulated R 4.0 / K 0.25 w/(m².K): inside coating of 80 mm polyurethane foam.

Polyurethane foam: (32 kg/m³); in accordance to ASTM 1692.

Finish: dark grey polyethylene foam of 5 mm thick, in accordance to DIN 4102-1, class B2.

Canal Compact is provided as standard with a chipboard cover, thickness 1.5 cm, with pre-assembled spacer sleeves (meter load max. 90 kg).

Feet

Feet of sendzimir galvanized and dark grey coated (RAL 7024) 1.5 mm steel plate, provided with upright lips for fixing the separation wall and heat exchanger.

Brackets

Brackets of electrolytic galvanized and dark grey coated (RAL 7024) 1 mm steel plate included. These are clicked on the heat exchanger and give extra support for the separation wall. On both ends they function as a seal between the duct and separation wall.

Separation wall

Black finished polyurethane wall in one piece, thickness 25 mm, slid in between the vertical upright lips of the feet.

Canal Plus Polyester

Made of 4 mm thick fibreglass-reinforced polyester, provided with topcoat. Waterproof, single-piece. Provided on the top side with an integrated black/natural coloured anodized aluminium profile, height 31.5 mm, that serves as a frame for the grille and for the anchoring of the duct in the subfloor.

- Insulated R 2.5 / K 0.4 w/(m².K): inside coating of 40 mm polyurethane foam.
- Insulated R 3.0 / K 0.33 w/(m².K): inside coating of 50 mm polyurethane foam.
- Insulated R 4.0 / K 0.25 w/(m².K): inside coating of 80 mm polyurethane foam.

Polyurethane foam : (32 kg/m³); in accordance to ASTM 1692.

Finish: dark grey polyethylene foam of 5 mm thick, in accordance to DIN 4102-1, class B2.

Canal Plus is provided as standard with a chipboard cover, thickness 1.5 cm, with pre-assembled spacer sleeves (meter load max. 90 kg).

Feet

Feet of electrolytic galvanized and dark grey coated (RAL 7024) 1.5 mm steel plate, provided with upright lips for fixing the separation wall and heat exchanger.

Brackets

Brackets of electrolytic galvanized and dark grey coated (RAL 7024) 1 mm steel plate included. These are clicked on the heat exchanger and give extra support for the separation wall. On both ends they function as a seal between the duct and separation wall.

Separation wall

Black finished polyurethane wall in one piece, thickness 25 mm, slid in between the vertical upright lips of the feet.

Canal Plus Metal

Grey lacquered sendzimir galvanized steel plate of 0.75 mm thick. Easy to assemble and fit into the floor. Supplied with holes for easy pipe connection.

- Not insulated
K-value = 8 w/(m².K)
R-value = 0.12 m²K/w
- Insulated
K-value = 1.73w/(m².K)
R-value = 0.58 m²K/w

Inside coating of 10 mm antracite coloured polyurethane foam. Auto-extinctive in accordance to DIN 4102-1, class B2.

Aluminium frames for metal ducts

Reinforced L-profile. Height : 31.5 mm x width : 24 mm. 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.

With attaching pieces and removable distant pieces. Separate frames are delivered with removable pieces to avoid deformation of the frame during installation or floor construction.

Brackets

Brackets are included and made of sendzimir galvanized steel plate of 1 mm; supplied to be installed with a maximum intermediate distance of 1.05 m.

Seperation walls

Double profiled, electrolytic galvanized steel plate of 0.7 mm thick ; lacquered grey (RAL 7011). To be attached to the lips of the brackets; if wall mounted at one side. If freestanding at both sides. The separating wall has to be fitted as close as possible to the grille.



Product descriptions

Grilles

Roll-up wooden grilles

Crossways positioned wooden slats (12 x 24.5 mm up to grille width with 40.8 cm; 12 x 32 mm from grille width 44.8 cm) 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 Designo wooden grilles

Crossways positioned wooden slats (12 x 24.5 mm up to grille width with 40.8 cm; 12 x 32 mm from grille width 44.8 cm) 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 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 natural colour / dark brown / black / brass colour.

Rigid aluminium grilles

Profiled slats placed lengthways (5 x 16 mm) with 15 mm space between, mechanically connected with two crossways supporting slats (5 x 27 mm) with maximum 30.5 cm space between. Free air flow 75%.

Versions: anodized aluminium 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.

Designo rigid aluminium grilles

Profiled slats placed lengthways (5 x 16 mm) with 8 mm space between, mechanically connected with two crossways supporting slats (5 x 27 mm) with maximum 30.5 cm space between. Free air flow 62.5%.

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

Roll-up stainless steel grilles

Roll-up grille in rust proof high-grade steel V2A 1.4301. Crossways positioned stainless steel slats (8 x 18 mm) with 12 mm space between. The slats are interconnected by a metal spring, with a light grey synthetic cover.

Free air flow 60%

With matching insert 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

The heat exchanger is manufactured from round, seamless circulation tubes of pure red copper, with pure aluminium fins and two brass collectors for left or right 1/2" same end connection. Straight air vent 1/8" and drain cock 1/2" are included.

Pressure test: 20 bar.

Working pressure: 10 bar.

Mounting with Canal Compact and Canal Plus: on feet on the bottom end of the polyester duct.

Wall mounting for Canal Plus metal ducts.

Mounting in a pre-formed duct: wall mounting / central mounting on feet.

Heat exchanger electrostatically lacquered with anthracite grey epoxy-polyester RAL 7024, gloss degree 70%.

Manufacturer: Jaga

Type: Canal Compact

Canal Plus polyester duct

Canal Plus metal duct

Outputs meet standard EN442.

Options

- Complete connection sets with flexible connection or with extended connection for remote control in the duct or at distance.
- Flexible connections from stainless steel
- Cover strip: to hide the bottom side of the frame and to avoid contact noises
- Extended air vent for heat exchanger type 10 / 15 / 20.

How to install

The building services engineer chooses the heating elements considering the 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 Canal Compact / Canal Plus.
- The heat exchangers will be connected to a two pipe system, with a same end connection. The flow valve always has to be fitted to the top connection of the heat exchanger.
- The supply pipe is brought in on the side or end of the duct: the specially designed connection set with flexible stainless steel connections with white Jaga thermostatic head with remote control / chrome-white Jaga thermostatic head in the duct and sensor at distance / white Jaga thermostatic head /white Jaga manual head / chrome-white Jaga thermostatic head can be connected to plastic central heating service pipes/ RPE-ALU tube / copper tube / steel pipe. (Flexible connection from highest quality stainless steel, with welded connections and 100% diffusion-proofed. Length 60 cm, stretches to ± 1 meter. Don't squeeze in small bends.)
- The supply pipe is brought in on the side of the duct: the specially designed connection set with extended connection from RPE/ALU tube ø16/2 with white Jaga thermostatic head with remote control / with white Jaga thermostatic head above in the duct / with white manual head above the duct can be connected to plastic central heating service pipes / RPE-ALU tube / copper tube / steel pipe.
- The supply pipe is brought in on the side of the duct: the specially designed connection set with white Jaga thermostatic head with remote control / with chrome-white Jaga thermostatic head in the duct and sensor at distance / with white Jaga thermostatic head / with white Jaga manual head / with chrome-white Jaga thermostatic head can be connected to plastic central heating service pipes / RPE-ALU tube / copper tube / steel pipe.
- 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 Canal Plus allow extra space for curtains, which under no circumstances should hang over the Canal Plus. The heat exchanger must always be kept accessible for maintenance purposes.

