jaga

CLIMATE DESIGNERS

MICRO CANAL

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MICRO CANAL

MICRO CANAL

MAXIMUM WARMTH,
MINIMUM DIMENSIONS

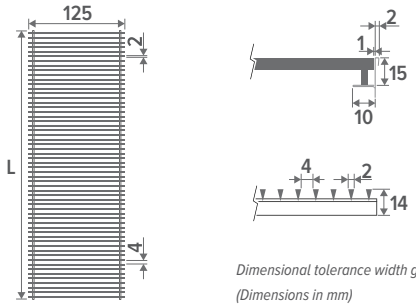
The underfloor element by Jaga is only 6 cm high and 13 cm wide, with small but powerful dynamic heat exchangers and low-noise fans that are no larger than the diameter of a radiator thermostat. They do, however, produce a very high output. Micro Canal combines minimalistic aesthetics and architectural freedom with a heat record breaking output! Micro Canal can be harmoniously integrated into every interior. It gives the architect or designer the freedom to realise every architectural project without having to compromise due to the heating elements.

RIGID STAINLESS STEEL GRILLE

Stainless steel grid with transverse aerodynamic profiles.

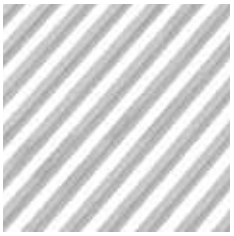
PROPERTIES

- eco-friendly, scratch-resistant powder coating with high UV-resistance
- free air flow: ...%
- no correction factor to apply on the output



Dimensional tolerance width grille: +2 mm

(Dimensions in mm)



SSS Stainless steel

SSC/XXX Stainless steel lacquered

⚠ Our grilles and frames are available in all colours, with the exception of Sandblast grey 001. In case of intensive use (placement in circulation areas, for example in front of sliding windows and doors), wear is, of course, inevitable.

END CAP

POLYETHYLENE BLOCK(S) to avoid damage during installation and 3 connection openings on the left side.

STAINLESS STEEL GRID with transverse aerodynamic profiles.

Stainless steel

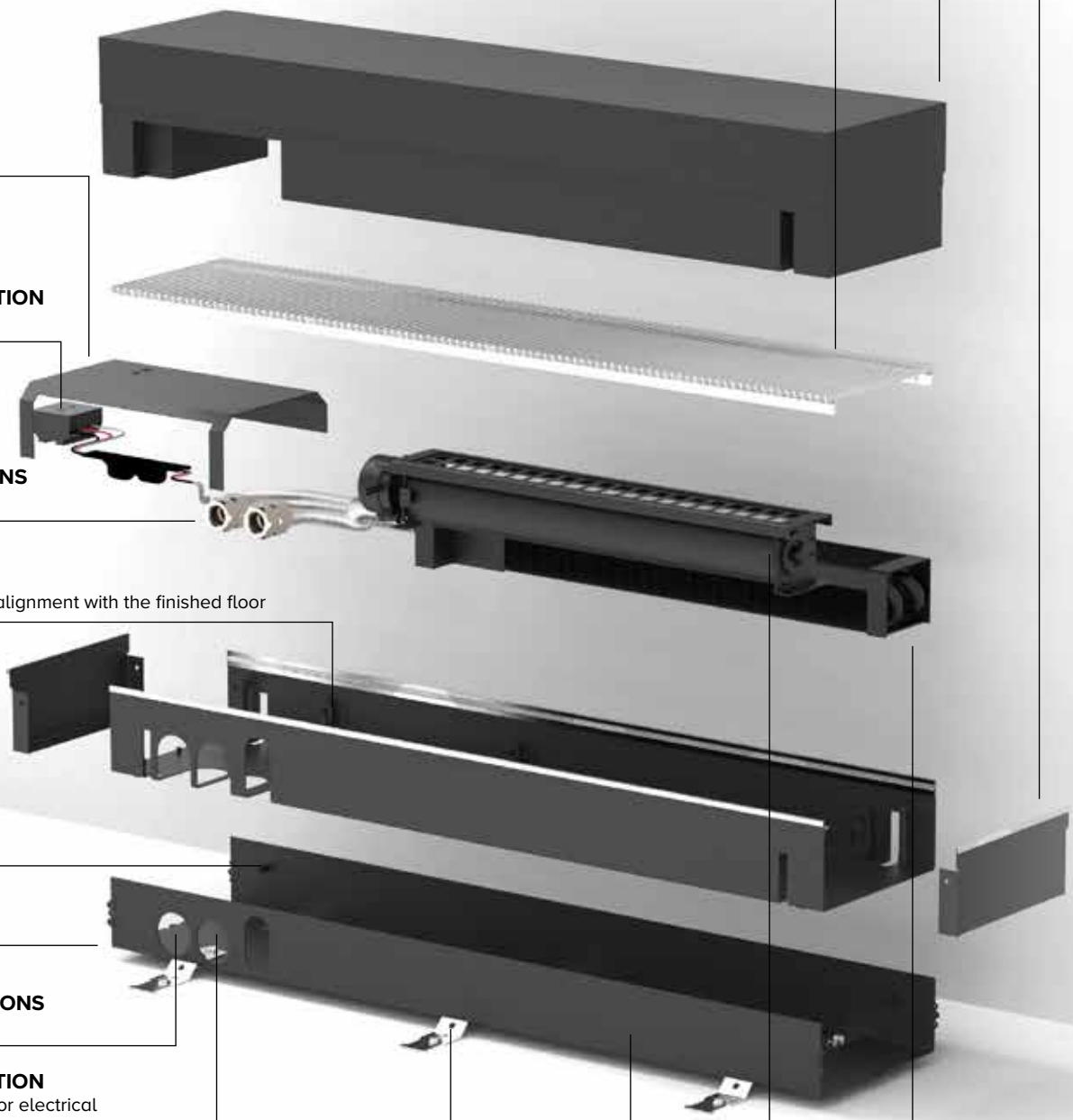
Stainless steel lacquered

COVER PLATE

ELECTRICAL CONNECTION
(24VDC / 0-10V)

STAINLESS STEEL FLEXIBLE CONNECTIONS
1/2", 15 cm long (not fitted)

FINE ADJUSTMENT
to max. 1 cm, for a perfect alignment with the finished floor



ANCHORING
of the inner housing
after fine adjustment

OUTER CASING

HYDRONIC CONNECTIONS
on the left

ELECTRICAL CONNECTION
24 VDC clamp connector for electrical connection to be connected to an external power supply

ANCHORAGE /HEIGHT ADJUSTMENT from 6.2 to 8 cm

FULLY ASSEMBLED INNER HOUSING with stainless steel grille support

THERMAL ACTIVATOR(S) (tangential mini activator)

DYNAMIC HEAT EXCHANGER

MICRO CANAL

ORDER CODE MICRO CANAL

MIRF HHH LLL BB RRR CCC

- *Colour*
- *Grille*
- *Width*
- *Length*
- *Height*

STANDARD DELIVERY

- grille in stainless steel
- outer casing with anchorage elements
- polyethylene block(s) to avoid damage during installation and 3 connection openings on the left side.
- fully assembled inner housing with stainless steel grille support
- 24 VDC tangential activator(s), with integrated stainless steel filter
- dynamic heat exchanger with flexible stainless steel connections 1/2", 15 cm long
- height control with fine adjustment to align with the finished floor
- automatic activator on/off switch by means of temperature sensor
- energy-efficient EC-motor

TRENCH-HEATING: MIRF

HEIGHT

006 cm

LENGTH

060 cm / 095 cm / 130 cm / 165 cm / 200 cm

WIDTH

14 cm

GRILLE

SSS

SSC XXX

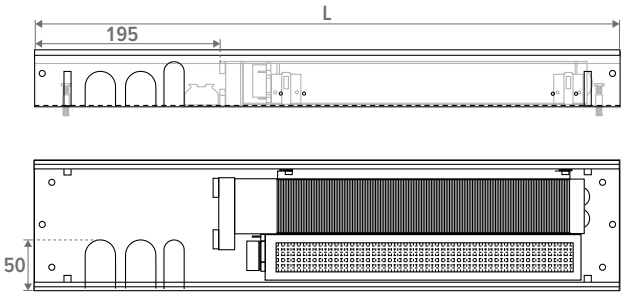
COLOUR GRILLE

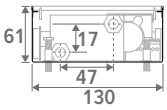
Our grilles and frames are available in all colours, with the exception of Sandblast grey 001. In case of intensive use (placement in circulation areas, for example in front of sliding windows and doors), wear is, of course, inevitable.

MICRO CANAL

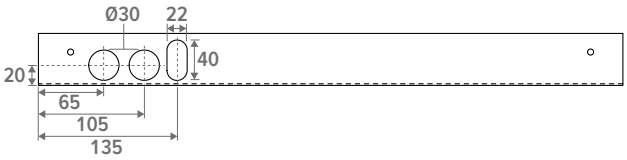
DIMENSIONS *(in mm)*

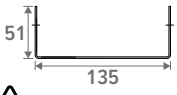
Inner housing





Outer casing





⚠ Installation opening: +5 mm

Recess depth / height adjustment

INSTALLATION

Hydronic connection

- the heat exchangers with same end connection are always connected on the left side of a two-pipe installation
- always install with the heat exchangers facing the window or the wall
- For the distance between the duct and the window, any wall-mounted cornices must be taken into account. Curtains can never be suspended over the duct. The heating element needs to be accessible for maintenance at all times.
- If the unit is not mounted directly onto the even floor, the space between the underside of the unit and the floor needs to be filled with a stable type of filling, such as in-situ concrete.

Electrical connection

- clamp connector for 24 VDC electrical connection on the left, to be connected via external power supply.
- controlling fan speed with 0-10 V signal

MICRO CANAL

OPTIONS SLEEVE COUPLING

Sleeve couplings 3/4" Eurocone

PRECISION METAL TUBE	
CODE	*Tube Ø*
112	12/1
114	14/1
115	15/1
116	16/1
118	18/1

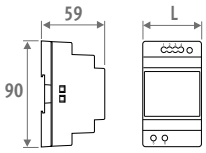
SYNTHETIC OR RPE/ALU	
CODE	*Tube Ø*
612	12/2
614	14/2
616	16/2
618	18/2
619	16/1.5
620	20/2

MICRO CANAL

POWER SUPPLIES

⚠ Jaga units are only CE: EN-60335 certified with use of the original Jaga power supplies

Power supply DIN-rail assembly



- for DIN-rail or wall mounting in a electrical switchboard
- in compliance with UL60950 / UL508 / EN 60950-1 / TUV EN61558-2-16 / Class II
- output voltage 24 VDC
- input voltage 100 - 240 VAC
- screw connection
- LED indicator

CODE	L *mm*	OUTPUT *Watts*	OUTPUT CURRENT *A*
7990 054	3.5	36	1.50
7990 055	5.3	60	2.50
7990 056	7.0	92	3.90
7990 057	10.3	150	6.25

ELECTRICAL CONNECTION

MAXIMUM CABLE LENGTH

Maximum cable length in function of the number of units. For more information, contact Jaga.

	CABLE LENGTH (m)									
	10	*20*	*30*	*40*	*50*	*60*	*70*	*80*	*90*	*100*
Ø CABLE	NUMBER OF MICRO CANAL L060 - 3.0 Watts									
1 mm²	28	14	9	7	5	4	3	3	3	3
1.5 mm²	43	21	14	11	8	7	6	5	4	
2.5 mm²	70	36	24	18	14	11	10	9	8	7
Ø CABLE	NUMBER OF MICRO CANAL L095 - 7.1 Watts									
1 mm²	20	10	6	5	4	3	2	2	2	2
1.5 mm²	31	15	9	7	5	5	4	4	3	
2.5 mm²	50	25	17	10	10	8	7	6	5	5
Ø CABLE	NUMBER OF MICRO CANAL L130 - 10.1 Watts									
1 mm²	19	9	6	4	3	3	1	1	1	1
1.5 mm²	29	14	9	7	5	4	3	3	3	
2.5 mm²	47	23	16	11	9	7	6	6	5	4
Ø CABLE	NUMBER OF MICRO CANAL L165 - 14.1 Watts									
1 mm²	10	5	3	2	2	1	1	1	1	1
1.5 mm²	14	7	5	3	2	2	2	2	1	1
2.5 mm²	23	12	8	6	5	4	3	3	2	2
Ø CABLE	NUMBER OF MICRO CANAL L200 - 14.1 Watts									
1 mm²	9	4	3	2	1	1	1	1	1	1
1.5 mm²	1	6	4	3	2	2	1	1	1	1
2.5 mm²	23	12	8	6	4	4	3	3	2	2

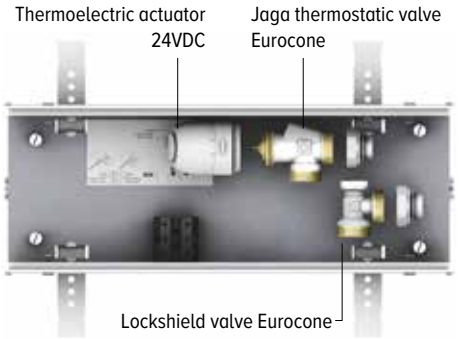
VALVE UNIT

(Eurocone clamp couplings not included)

- length 35 cm
- connection set with thermostatic valve, lockshield and thermoelectric drive 24 VDC
- outer casing with height adjustment
- inner casing with stainless steel grille support
- stainless steel grille, natural coloured or lacquered
- protective block (s)

CODE
7522 00603514 XXX VE

fill in grille code



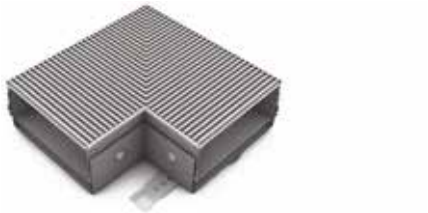
EMPTY HOUSING

- outer casing with height adjustment
- inner casing with stainless steel grille support
- stainless steel grille, natural coloured or lacquered
- protective block (s)
- 2 head pieces

CODE	L
7522 00603514 XXX	035
7522 00606014 XXX	060
7522 00609514 XXX	095
7522 00613014 XXX	130
7522 00616514 XXX	165
7522 00620014 XXX	200

fill in grille code

CORNER PIECE

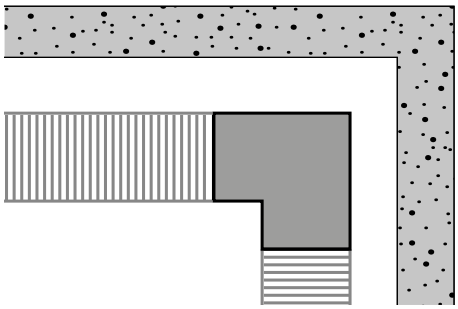


- stainless steel grille, natural coloured or lacquered
- outer casing with anchorage elements
- protective mounting block (s) in polystyrene
- fully assembled inner housing with stainless steel grille support
- height control with fine adjustment to align with the finished floor

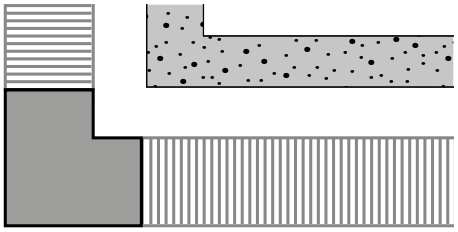
CODE	
7522 00602014 XXX 01	inner corner
7522 00602014 XXX 02	outer corner

fill in grille code

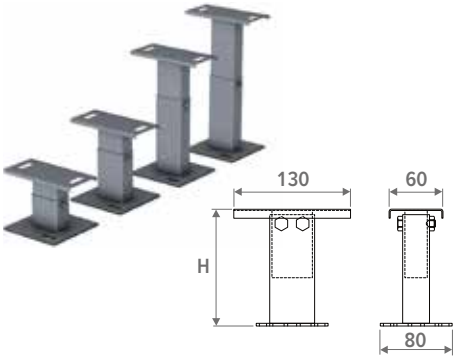
Inner corner



Outer corner



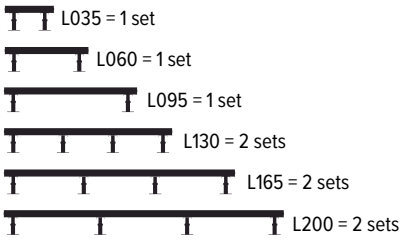
HEIGHT-ADJUSTABLE BASE FOR SYSTEM FLOORS



- painted in dark grey RAL 7024
- easy installation using stainless steel spring system
- 1 set includes 2 height adjusting controls

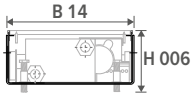
CODE	
5207 05070000	5 > 7 cm
5207 08130000	8 > 13 cm
5207 13230000	13 > 23 cm
5207 20300000	20 > 30 cm

Number of sets per Micro Canal



MICRO CANAL

TECHNICAL TABLE

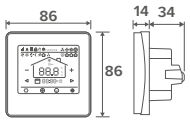
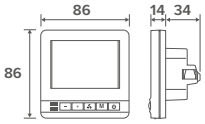
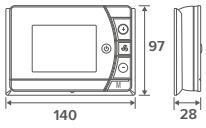
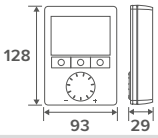
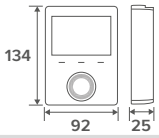


	HEIGHT	LENGTH	WIDTH	CONTROL VOLTAGE	HEATING *room temperature 20°C*					SOUND PRESSURE*	SOUND POWER LEVEL	ELECTRIC POWER CONSUMPTION	AIR FLOW	WEIGHT	WATER CONTENT	ORDER CODE
	H	**L**	**B**		**35/30**	**45/40**	**50/45**	**55/45**	**75/65**							
	cm	*cm*	*cm*		*Watts*	*Watts*	*Watts*	*Watts*	*Watts*	*dB(A)*	*dB(A)*	*Watts*	*m³/u*	*kg*	*L*	
MIRF	**006**	**060**	**14**	**2**	15	27	33	36	60	13.8	21.8	0.5	11	5	0.089	MIRF 006 060 14 XXX
				4	39	71	86	94	157	14.9	22.9	0.8	19			
				6	78	142	174	188	316	18.8	26.8	1.2	29			
				8	104	189	232	251	421	31.6	39.6	1.8	40			
				10	122	222	272	295	495	39.2	47.2	2.7	65			
		095		**2**	32	58	71	77	129	14.3	22.3	0.5	18	9	0.178	MIRF 006 095 14 XXX
				4	84	153	187	203	340	17.4	25.4	0.9	30			
				6	169	308	377	408	684	25.5	33.5	1.5	50			
				8	226	410	502	544	912	36.1	44.1	2.5	74			
				10	265	482	590	639	1072	42.5	50.5	3.8	98			
		130		**2**	49	89	110	119	199	13.9	21.9	0.5	26	12	0.267	MIRF 006 130 14 XXX
				4	129	235	288	312	523	15.2	23.2	1.0	41			
				6	261	473	579	628	1053	26.4	34.4	1.6	67			
				8	347	631	772	837	1403	37.2	45.2	2.7	99			
				10	408	741	907	983	1649	41.8	49.8	4.1	130			
		165		**2**	66	121	148	160	269	17.3	25.3	1.0	36	15	0.356	MIRF 006 165 14 XXX
				4	175	317	389	421	706	20.4	28.4	1.7	60			
				6	352	639	782	848	1422	28.5	36.5	3.1	100			
				8	469	852	1042	1130	1894	39.1	47.1	4.9	148			
				10	551	1001	1225	1328	2226	45.5	53.5	7.7	196			
		200		**2**	84	152	186	202	338	17.1	25.1	1.1	44	18	0.445	MIRF 006 200 14 XXX
				4	220	400	489	530	889	19.4	27.4	1.8	71			
				6	443	805	985	1068	1790	29.0	37.0	3.2	117			
				8	590	1072	1313	1422	2385	39.7	47.7	5.1	173			
				10	694	1260	1543	1672	2803	45.2	53.2	8.0	228			

fill in grille code

** with an assumed room attenuation of 8 dB(A) / 100 m3 room volume / 0.5 sec reverberation time / measured at 1 m high and 2 m from the unit*

JRT-100 TB BLACK	JRT-100 TW WHITE	JRT-100	JRT-200	RDG 160T	RDG264KN
					
8751 050019	8751 050017	8751 050012	8751 050013	8751 050009	8751 050018

	JRT-100 TB / TW	JRT-100	JRT-200	RDG 160T	RDG264KN
POWER SUPPLY					
supply voltage	24V DC	24V DC	24V DC	24V DC	24V DC
OUTPUT / INPUT VOLTAGE					
valve 24V DC contact	2 (NO)	2 (NO)	-	-	-
potential-free contact	-	-	2 (NO)	3 (NO)	3 (NO)
input from keycard	-	-	✓	✓	✓
input from window contact	-	-	-	✓	✓
fan (0 - 10 V DC)	max. +/- 10 mA	max. +/- 10 mA	max. +/- 10 mA	max. +/- 5 mA	max. +/- 5 mA
manual 3-position speed controller	✓	✓	✓	✓	✓
automatic mode	✓	✓	✓	✓	✓
APPLICATIONS					
2-pipe					
manual (H/C)	✓	✓	✓	✓	✓
auto (H/C) - water temperature sensor required	-	-	-	✓	✓
4-pipe					
manual (H/C)	✓	✓	✓	✓	✓
auto (H/C)	✓	✓	✓	✓	✓
DIMENSIONS					
for wall mounting	-	-	✓	✓	✓
for recessed-mounting	✓	✓	optional	optional	optional
					
POSITION					
LCD display with backlight	-	✓	✓	✓	✓
LCD touch screen with backlight	✓	-	-	-	-
protection category IP20	-	-	-	-	-
protection category IP30	✓	✓	✓	✓	✓
Integrated CO2-sensor	-	-	-	-	✓
humidity sensor	-	-	-	-	✓
FEATURES					
programmable time zones	✓	✓	✓	✓	✓
control via Wi-Fi (smartphone app)	✓	-	-	-	-
fan start delay	-	-	-	✓	✓
continuous fan speed	-	-	-	✓	✓
temperature sensor 80 cm	✓	✓	optional	optional	optional

CORRECTION FACTORS

The indicated outputs at ΔT 50 are exact values measured in accordance with EN16430. This table provides a calculated value using an average correction factor for all other ΔT outputs, valid for all dimensions.

Click *www.jaga.com/selection-tools/* to download the calculation tools with the exact outputs. The online calculation tools are kept up to date with the most recent data. Minor output differences between printed tables and the different online calculation tools are therefore completely normal and within the margins of tolerance imposed by the standard.

AVERAGE CORRECTION FACTORS DYNAMIC PRODUCTS - 75/65/20°C

room temperature: 20°C **Average N-value: 1.00**

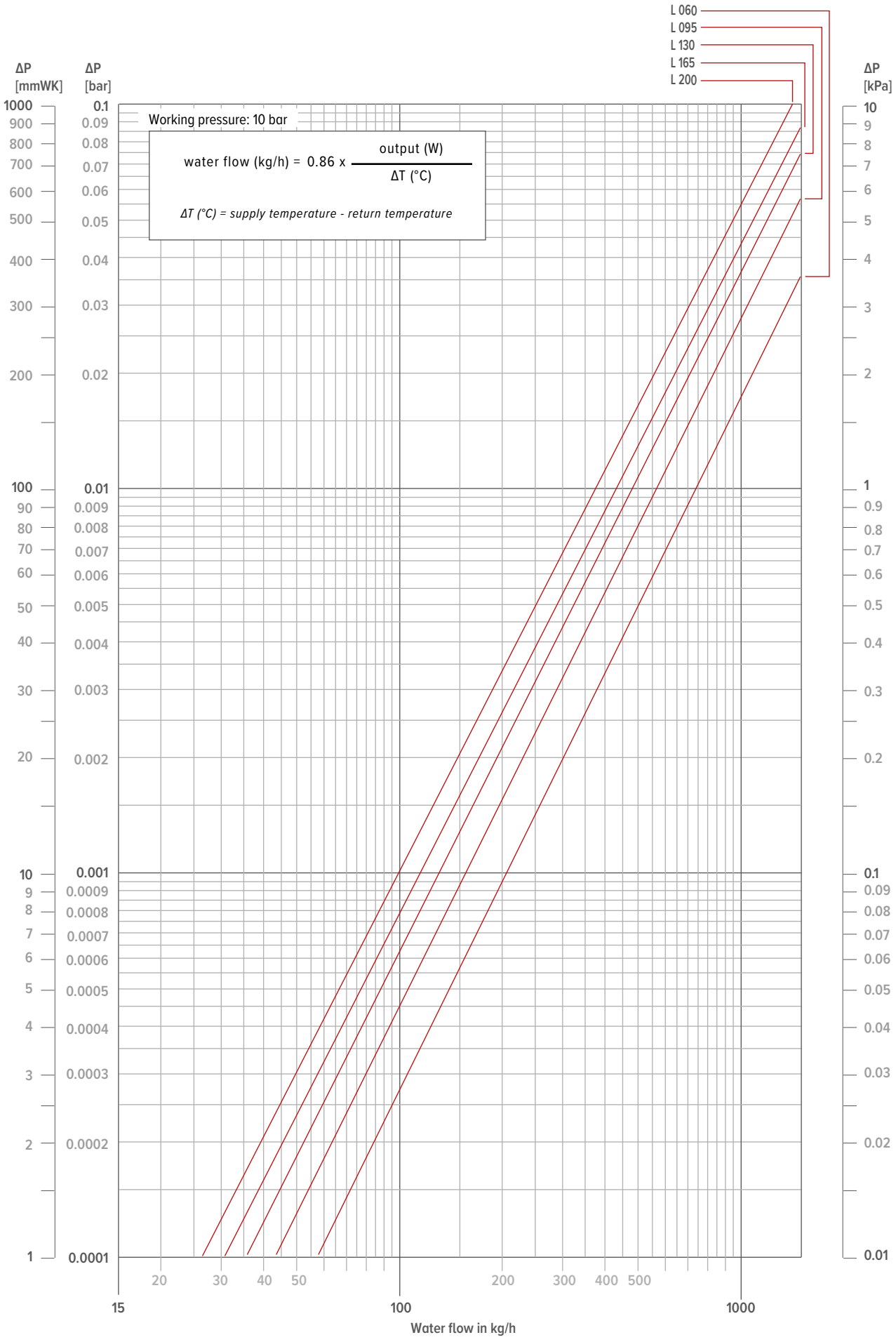
	TR 65	60	55	50	45	40	35	30	25
TA									
75	1.00	0.95	0.89	0.83	0.76	0.69	0.62	0.53	0.42
70	0.95	0.90	0.84	0.79	0.72	0.66	0.58	0.50	0.39
65		0.85	0.80	0.74	0.68	0.62	0.55	0.47	0.37
60			0.75	0.70	0.64	0.58	0.51	0.43	0.34
55				0.65	0.60	0.54	0.47	0.40	0.31
50					0.55	0.49	0.43	0.37	0.28
45						0.45	0.39	0.33	0.25
40							0.35	0.29	0.22
35								0.25	0.18
30									0.14

room temperature: 24°C **Average N-value: 1.00**

	TR 65	60	55	50	45	40	35	30	25
TA									
75	0.92	0.86	0.81	0.74	0.68	0.61	0.52	0.42	0.26
70	0.87	0.82	0.76	0.70	0.64	0.57	0.49	0.39	0.24
65		0.77	0.72	0.66	0.60	0.53	0.46	0.37	0.22
60			0.67	0.62	0.56	0.49	0.42	0.34	0.20
55				0.57	0.52	0.46	0.39	0.31	0.18
50					0.47	0.41	0.35	0.27	0.15
45						0.37	0.31	0.24	0.13
40							0.27	0.20	0.11
35								0.17	0.08
30									0.06

GUIDELINE FOR LIMITING FLOW NOISE

TUBE	outer Ø	Wall thick-ness	Max. water speed (EN10255)	water content per metre	max. water flow	Maximum power at ΔT (° C) (T supply - T return)						
						ΔT 30	ΔT 20	ΔT 10	ΔT 5	ΔT 4	ΔT 3	ΔT 2
	mm	*mm*	*m/s*	*l*	*kg/h*	*Watts*	*Watts*	*Watts*	*Watts*	*Watts*	*Watts*	*Watts*
GALVANISED PIPE DIN 2440												
3/8 DN10 OD	17.2	2.35	0.40	0.12	173	6028	4019	2009	1005	804	603	402
1/2 DN15 OD	21.3	2.65	0.40	0.20	288	10046	6698	3349	1674	1340	1005	670
3/4 DN20 OD	26.9	2.65	0.42	0.37	559	19515	13010	6505	3253	2602	1952	1301
1 DN25 OD	33.7	3.25	0.49	0.58	1023	35690	23793	11897	5948	4759	3569	2379
1 1/4 DN32 OD	42.4	3.25	0.60	1.01	2182	76101	50734	25367	12684	10147	7610	5073
1 1/2 DN40 OD	48.3	3.25	0.66	1.37	3255	113549	75700	37850	18925	15140	11355	7570
2 DN50 OD	60.3	3.65	0.80	2.21	6365	222025	148017	74008	37004	29603	22203	14802
PRECISION METAL TUBE												
10/1	10	1.00	0.40	0.05	72	2512	1674	837	419	335	251	167
12/1	12	1.00	0.40	0.08	115	4019	2679	1340	670	536	402	268
14/1	14	1.00	0.40	0.11	158	5526	3684	1842	921	737	553	368
15/1	15	1.00	0.40	0.13	187	6530	4353	2177	1088	871	653	435
16/1	16	1.00	0.40	0.15	216	7535	5023	2512	1256	1005	753	502
18/1	18	1.00	0.40	0.20	288	10046	6698	3349	1674	1340	1005	670
22/1	22	1.00	0.40	0.31	446	15572	10381	5191	2595	2076	1557	1038
28/1	28	1.00	0.47	0.53	904	31522	21014	10507	5254	4203	3152	2101
RPE/ALU												
12/2	12	2.00	0.40	0.05	72	2512	1674	837	419	335	251	167
14/2	14	2.00	0.40	0.08	115	4019	2679	1340	670	536	402	268
16/1.5	16	1.50	0.40	0.13	187	6530	4353	2177	1088	871	653	435
16/2	16	2.00	0.40	0.11	158	5526	3684	1842	921	737	553	368
17/2	17	2.00	0.40	0.13	187	6530	4353	2177	1088	871	653	435
18/2	18	2.00	0.40	0.15	216	7535	5023	2512	1256	1005	753	502
20/2	20	2.00	0.40	0.20	288	10046	6698	3349	1674	1340	1005	670
26/3	26	3.00	0.40	0.31	446	15572	10381	5191	2595	2076	1557	1038
32/3	32	3.00	0.47	0.53	904	31522	21014	10507	5254	4203	3152	2101
40/3.5	40	3.50	0.56	0.86	1726	60220	40147	20073	10037	8029	6022	4015
50/4.25	50	4.25	0.66	1.35	3206	111824	74549	37275	18637	14910	11182	7455
63/5	63	5.00	0.80	2.21	6346	221359	147573	73786	36893	29515	22136	14757


L 060
L 095
L 130
L 165
L 200
ΔP [mmWK]
ΔP [bar]
ΔP [kPa]
Working pressure: 10 bar
water flow (kg/h) = 0.86 x output (W) / ΔT (°C)
ΔT (°C) = supply temperature - return temperature
1000 900 800 700 600 500 400 300 200 100 90 80 70 60 50 40 30 20 10 9 8 7 6 5 4 3 2 1
0.1 0.09 0.08 0.07 0.06 0.05 0.04 0.03 0.02 0.01 0.009 0.008 0.007 0.006 0.005 0.004 0.003 0.002 0.001 0.0009 0.0008 0.0007 0.0006 0.0005 0.0004 0.0003 0.0002 0.0001
10 9 8 7 6 5 4 3 2 1 0.9 0.8 0.7 0.6 0.5 0.4 0.3 0.2 0.1 0.09 0.08 0.07 0.06 0.05 0.04 0.03 0.02 0.01
15 20 30 40 50 100 200 300 400 500 1000
Water flow in kg/h

jaga CLIMATE DESIGNERS

JAGA INTERNATIONAL JAGA NV

In need of some advice? Make an appointment at the Jaga Advice Centre.

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26/02/2025 - JAGA N.V.