SENTINEL LST

The UK's slimmest LST radiator

jaga

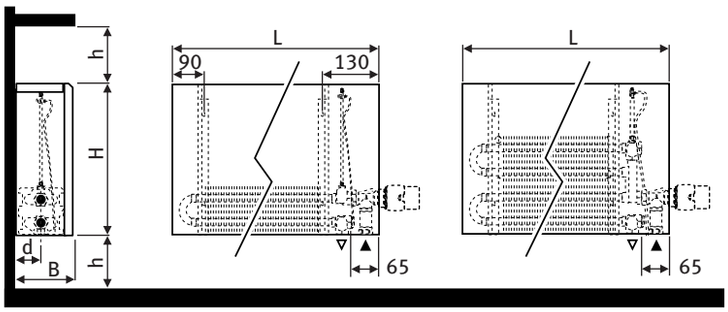
Jaga Heating Products (UK) Ltd | www.jaga.co.uk
T: +44 (0)1531 631 533 | F: +44 (0)1531 631 534 | jaga@jaga.co.uk

Sentinel LST

This product is specially designed to achieve cool touch casing temperatures, and to conform to the NHS Estates Health Guidance Note, without any loss of performance. NHS Estates Health Guidance Notes recommend how to meet the legal duty of care , and to avoid the risk of scalding and burning from hot water and hot surfaces.

Dimensions

Product code: SENW



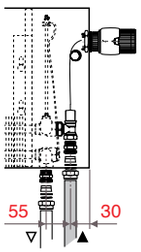
type	B	d	h (min)
06	85	40	100
10-11	118	52	100
15-16	168	77	120

Dimensions in mm

Options

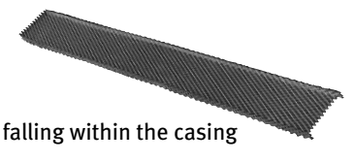
Top valve

Please contact our office for more information and for prices of the high level valve kits available



For optional top valve - Add 30 (for top left) or 60 (for top right) to the ordering code SENW /035/050/06/101/60

Pencil-proof grille



- Prevents smaller objects or waste falling within the casing
- May effect output when used

Antibacterial coating

Available to ensure safety

Brush

Offers easy cleaning of the underside of the Low-H2O heat exchanger without the need to detach the casing

Order code: 5090.001

DBE version

Dynamic Boost Effect technology offers even greater power and efficiency.

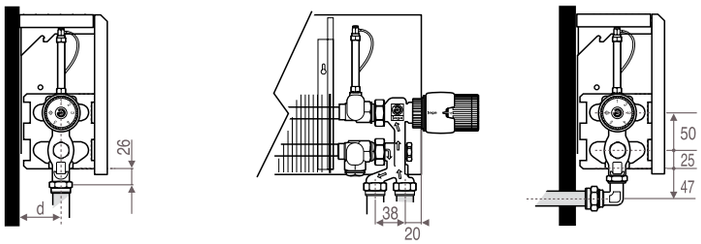
Oxygen version

For healthy heat and clean air.

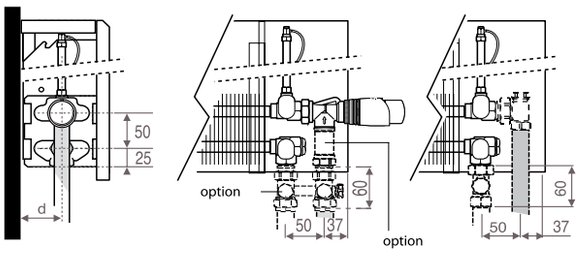
Connections

Jaga offers valves that can be concealed within the standard casing.
other valves may be partially visible

Example of Jaga Pro valve - to the wall or the floor



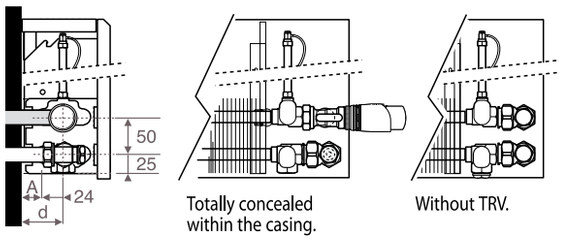
Example of Jaga valve - to the floor



Type	d
06	40
10-11	52
15-16	77

Dimensions in mm

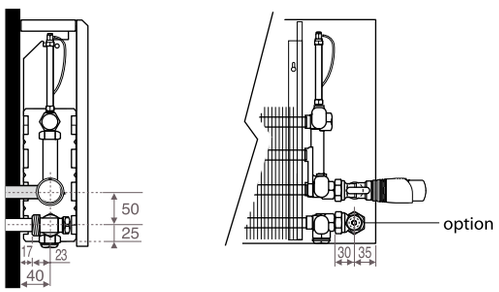
Example of Jaga valve - to the wall



Type	A
10-11	29
15-16	53

Dimensions in mm

Example of Jaga Sentinel valve to the wall



Outputs

Outputs in watts at 75/65/20°C & 55/45/20°C, in accordance with EN442

Wall-Mounted Model Twin Type 6

	code	height	length	type	colour
ORDER CODE:	SENW	035	050	06	133

(Example order code shown is for a 350mm high radiator, 500mm long, type 6)

H		L 500	600	800	1000	1200	1400	1800	2400
350	75/65/20	376	451	601	751	901	1051	1352	1802
	55/45/20	185	221	295	369	442	516	664	885
500	75/65/20	450	540	720	900	1080	1260	1620	2160
	55/45/20	223	268	357	447	536	625	804	1072
650	75/65/20	507	608	810	1013	1216	1418	1823	2431
	55/45/20	254	305	406	508	610	712	915	1220
950	75/65/20	---	699	932	1165	1398	1631	---	---
	55/45/20	---	359	478	598	717	837	---	---

Supplied as Standard

- Colours 101, 133 or 001
- Twin Low-H20 type 08 heat exchanger
- Wall brackets
- Complete casing with base grille
- Extended air vent 1/8", drain plug 1/2" & fixing kit

Wall-Mounted Model Type 10

	code	height	length	type	colour
ORDER CODE:	SENW	035	050	10	133

(Example order code shown is for a 350mm high radiator, 500mm long, type 10)

H		L 500	600	800	1000	1200	1400	1800	2400
350	75/65/20	427	512	682	853	1024	1194	1535	2047
	55/45/20	209	251	334	417	501	584	751	1002
500	75/65/20	511	613	818	1022	1226	1431	1840	2453
	55/45/20	252	302	403	504	604	705	907	1209
650	75/65/20	575	690	920	1150	1380	1610	2070	2760
	55/45/20	285	343	457	571	685	799	1028	1370
950	75/65/20	---	794	1058	1323	1588	1852	---	---
	55/45/20	---	400	533	666	800	933	---	---

Supplied as Standard

- Colours 101, 133 or 001
- Twin Low-H20 type 10 heat exchanger
- Wall brackets
- Complete casing with base grille
- Extended air vent 1/8", drain plug 1/2" & fixing kit

Wall-Mounted Model Twin Type 11

	code	height	length	type	colour
ORDER CODE:	SENW	035	050	11	133

(Example order code shown is for a 350mm high radiator, 500mm long, type 11)

H		L 500	600	800	1000	1200	1400	1800	2400
350	75/65/20	568	682	909	1136	1363	1590	2045	2726
	55/45/20	272	327	436	544	653	762	980	1306
500	75/65/20	659	790	1054	1317	1580	1844	2371	3161
	55/45/20	316	379	506	632	758	885	1137	1516
650	75/65/20	733	880	1173	1466	1759	2052	2639	3518
	55/45/20	352	422	563	704	844	985	1267	1688
950	75/65/20	---	1024	1365	1706	2047	2388	---	---
	55/45/20	---	492	656	820	984	1148	---	---

Supplied as Standard

- Colours 101, 133 or 001
- Twin Low-H20 type 11 heat exchanger
- Wall brackets
- Complete casing with base grille
- Extended air vent 1/8", drain plug 1/2" & fixing kit

All dimensions are shown in millimetres

Output measured in accordance with EN442, at a water temperature of 75/65°C and a room temperature of 20°C (ΔT=50).

Outputs

Outputs in watts at 75/65/20°C & 55/45/20°C, in accordance with EN442

Wall-Mounted Model Type 15

	code	height	length	type	colour
ORDER CODE:	SENW	035	050	15	133

(Example order code shown is for a 350mm high radiator, 500mm long, type 15)

H		L 500	600	800	1000	1200	1400	1800	2400
350	75/65/20	699	838	1118	1397	1676	1956	2515	3353
	55/45/20	344	412	550	687	824	962	1236	1648
500	75/65/20	824	988	1318	1647	1976	2306	2965	3953
	55/45/20	409	490	654	817	980	1144	1470	1960
650	75/65/20	913	1096	1461	1826	2191	2556	3287	4382
	55/45/20	457	549	731	914	1097	1279	1645	2193
950	75/65/20	---	1223	1631	2039	2447	2855	---	---
	55/45/20	---	623	831	1039	1247	1455	---	---

Supplied as Standard

- Colours 101, 133 or 001
- Low-H20 type 15 heat exchanger
- Wall brackets
- Complete casing with base grille
- Extended air vent 1/8", drain plug 1/2" & fixing kit

Wall-Mounted Model Twin Type 16

	code	height	length	type	colour
ORDER CODE:	SENW	035	050	16	133

(Example order code shown is for a 350mm high radiator, 500mm long, type 16)

H		L 500	600	800	1000	1200	1400	1800	2400
350	75/65/20	757	908	1210	1513	1816	2118	2723	3631
	55/45/20	359	431	575	718	862	1006	1293	1724
500	75/65/20	902	1082	1442	1803	2164	2524	3245	4327
	55/45/20	427	512	683	854	1024	1195	1536	2048
650	75/65/20	1032	1238	1651	2064	2477	2890	3715	4954
	55/45/20	487	584	779	974	1169	1364	1753	2338
950	75/65/20	---	1526	2034	2543	3052	3560	---	---
	55/45/20	---	716	954	1193	1432	1670	---	---

Supplied as Standard

- Colours 101, 133 or 001
- Twin Low-H20 type 16 heat exchanger
- Wall brackets
- Complete casing with base grille
- Extended air vent 1/8", drain plug 1/2" & fixing kit

All dimensions are shown in millimetres

Output measured in accordance with EN442, at a water temperature of 75/65°C and a room temperature of 20°C (ΔT=50).

Connection Sets

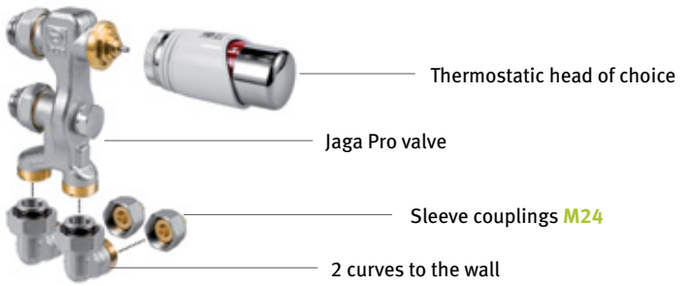
The order code of the connection set will be completed with the sleeve coupling code

Set 11 Jaga Pro valve

Two pipe

Connection to the wall - bottom of casing. Not for type 06 **Kv max. 0.6**

Code	Thermostatic head
COLO.PW2.DW.3...	chrome / white
COLO.PW2.DC.3...	chrome
COLO.PW2.JA.3...	white
COLO.PW2.JC.3...	silver

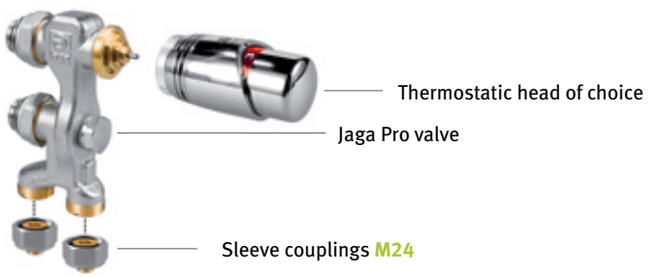


Set 12 Jaga Pro valve

Two pipe

Connection to the floor **Kv max. 0.6**

Code	Thermostatic head
COLO.PF2.DW.3...	chrome / white
COLO.PF2.DC.3...	chrome
COLO.PF2.JA.3...	white
COLO.PF2.JC.3...	silver

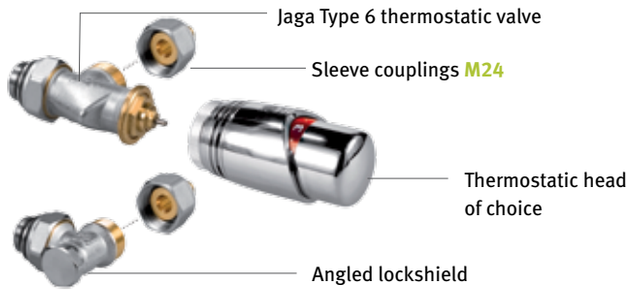


Set 25 Jaga Type 6 valve

Two pipe

Connection to the wall within the casing **Kv max. 0.6**

Code	Thermostatic head
COLO.SW2.DW.3...	chrome / white
COLO.SW2.DC.3...	chrome
COLO.SW2.JA.3...	white
COLO.SW2.JC.3...	silver



Thermostatic heads

DW

Chrome/ White

DC

Chrome

JA

White

JC

Silver

RM

Remote Controlled

DS

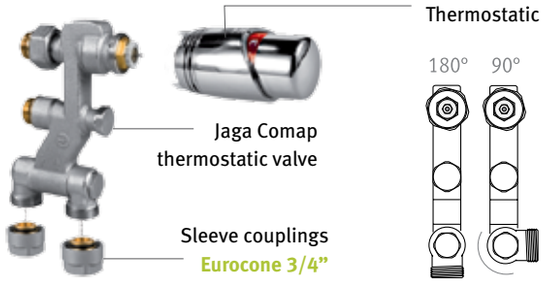
Chrome/white remote sensor

Set 26 Jaga Comap valve

Two pipe

Universal valve set for connection to the wall or to the floor **Kv max. 0.6**

Code	Thermostatic head
COLO.CP2.DW.4...	chrome / white
COLO.CP2.DC.4...	chrome
COLO.CP2.JA.4...	white
COLO.CP2.JC.4...	silver

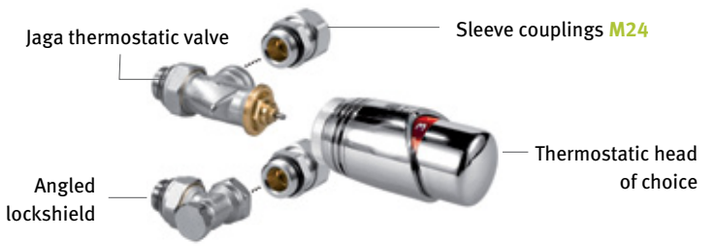


Set 21 Jaga valve

Two pipe

Connection to the wall - Not for Type 06 **Kv max. 0.6**

Code	Thermostatic head
COLO.JW2.DW.2...	chrome / white
COLO.JW2.DC.2...	chrome
COLO.JW2.JA.2...	white
COLO.JW2.JC.2...	silver

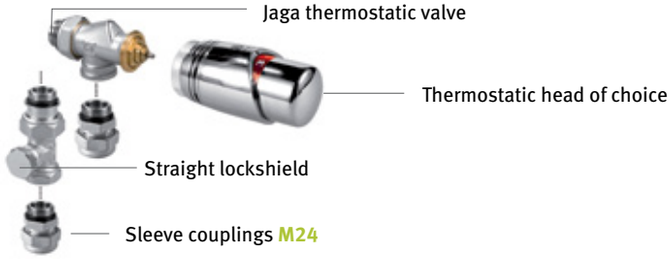


Set 22 Jaga valve

Two pipe

Connection to the floor **Kv max. 0.6**

Code	Thermostatic head
COLO.JF2.DW.2...	chrome / white
COLO.JF2.DC.2...	chrome
COLO.JF2.JA.2...	white
COLO.JF2.JC.2...	silver



Thermostatic heads

DW

Chrome/ White

DC

Chrome

JA

White

JC

Silver

RM

Remote Controlled

DS

Chrome/white remote sensor

The order code of the connection set will be completed with the sleeve coupling code

Sleeve Couplings

Included in the price of the connection sets

Pro Key

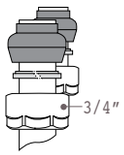
Tool for easy mounting of the Jaga Pro valve.

Code 5090.1120

For Jaga Comap valve - Eurocone 3/4”

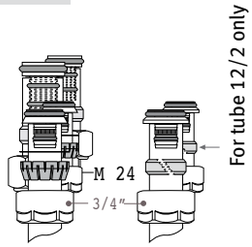
For flexible steel or copper tube

Code	Tube Ø
112	12/1
114	14/1
115	15/1
116	16/1
118	18/1



For synthetic or RPE/ALU tube

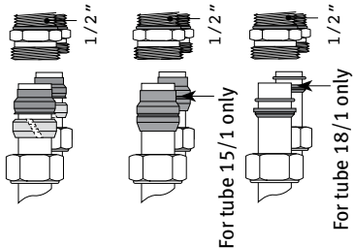
Code	Tube Ø
612	12/2
614	14/2
616	16/2
617	17/2
618	18/2
615	15/2.5
619	16/1.5
620	20/2



For Jaga valve - M24

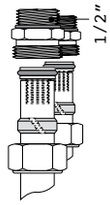
For flexible steel or copper tube

Code	Tube Ø
110	10/1
112	12/1
114	14/1
115	15/1
116	16/1
118	18/1



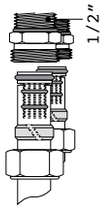
For synthetic tube

Code	Tube Ø
212	12/2
214	14/2
219	16/1.5
216	16/2
217	17/2
218	18/2



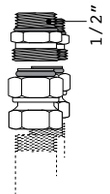
For RPE/ALU tube

Code	Tube Ø
314	14/2
316	16/2
326	16/2.2
318	18/2



Steel tube for CH

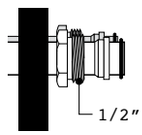
Code	Tube Ø
501	1/2”
503	3/8”



Short Coupling - for Connection to the wall

For flexible steel or copper tube Ø 15mm

Code	Tube Ø
125	15/1



Complete ordering code with sleeve couplings according to the material used and diameter of the tube. *The correct type of sleeve coupling is determined by the ordering code of the connection set*

Example: COLO. PW2.DW. 32. (insert relevant code from above)

Correction factors

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											

The indicated outputs with ΔT 50°c and ΔT 30°c are the exact outputs. ΔT 50°c outputs are measured in accordance with EN442 and ΔT 30°c outputs are calculated according to EN442.

An average correction factor is given in this table for outputs at other ΔT and is applicable for all dimensions.

KEY
Tv = flow temperature
Tr = return temperature
Tl = desired air temperature

How to choose the right radiator?

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.

Insulation	20°	24°
excellent	45	55
good	65	75
average	85	95
poor	100	115

Required output in Watts/m³

Example
Use the table to determine the relevant correction factor with a water temperature of 80/60°c with a room temperature of 24°C.

The correction factor = 0.89

Required output 1000 watts : 1000 divided by 0.89 = 1124 watts therefore search in this leaflet's standard output table for a product with an output of at least 1124 watts. Alternatively use the "Radiator Finder" search function on www.jaga.co.uk to identify all Jaga heating products with this required output.

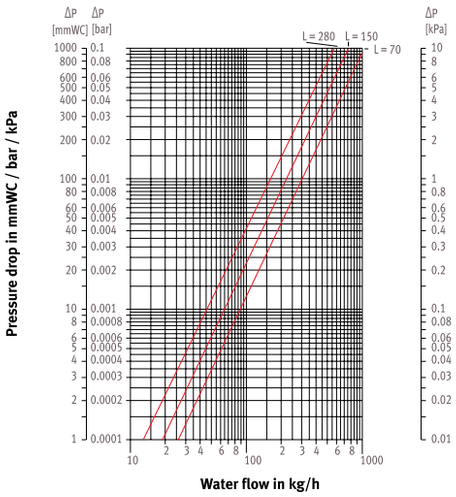
EN 442 EURONORM

Output calculated in accordance with EN442, at a water temperature of 75/65°C and a room temperature of 20°C (ΔT=50).

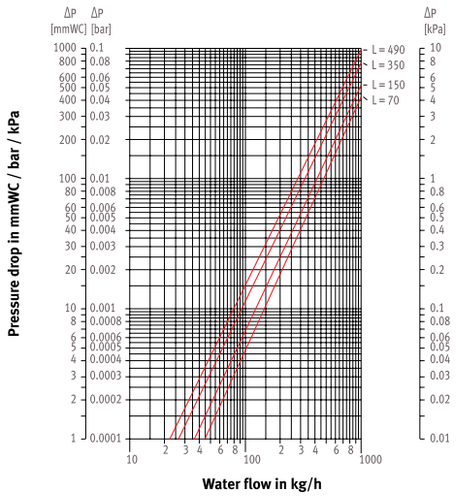
To ensure the maximum output from the Sentinel Type 06 casing the elements have been changed to a Type 08 heat exchanger

Pressure drops

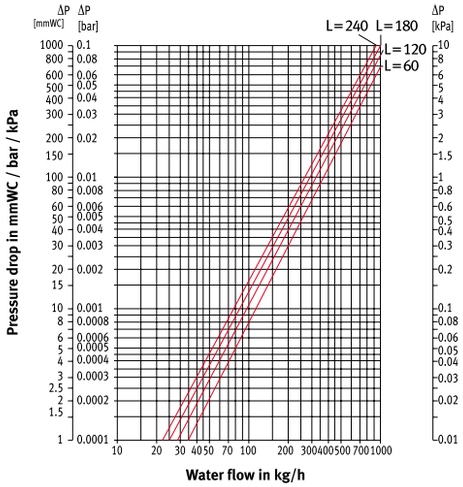
Type 08



Type 10



Type 11



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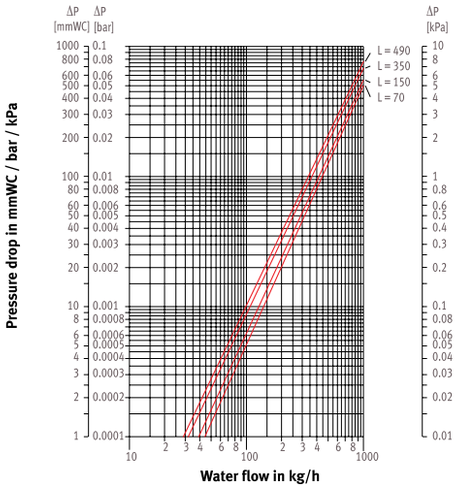

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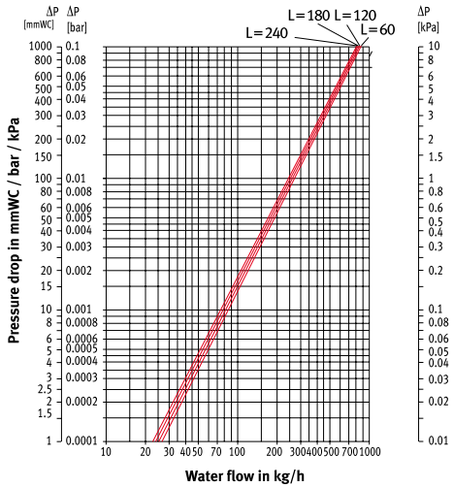

Weight & water content

Weight in kg

Height	Type	06	10	11	15	16
350		9.0	9.8	11.2	11.9	14.2
500		11.1	12.0	13.5	14.4	16.7
650		13.3	14.3	15.8	16.9	19.2
950		17.5	18.9	20.4	21.8	24.1

Water content in litres

Type	L/metre
08	0.63
10	0.65
11	1.33
15	0.98
16	1.98

Product specification

Sentinel LST

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 plug
- Pressure test: 20 bar
- Working pressure: 10 bar
- Brackets: galvanised steel plate thickness 1mm, dark grey, with a maximum intermediate distance of 1.05m
- Front panel: galvanised steel plate of 1.25mm thick
- Side panels: galvanised steel plate of 1.25mm thick with hole for integrated Jaga valve, inclusive synthetic cover plates
- The top grille: galvanised steel plate of 0.80mm thick, profiled backwards angled steel plate with angled topside. At corners the grille is supplied with high standard aluminium angled corner pieces in same finish as the casing
- Base grille: galvanised perforated steel plate of 1.25mm thick, in same finish as the casing

Colour

- Heat exchanger electrostaticaly lacquered with anthracite grey epoxy-polyester RAL 7024
- The casing is lacquered in the colour white (RAL 9016) / white (RAL 9010) / sandblast grey metallic 001 / other (see colour chart) A scratch resistant epoxy-polyester powder, sprayed electrostatically and baked at a temperature of 200 °C. UV resistant due to ASTM G53

Product information

- The casing surface temperature remains safe to touch at all times
- Manufacturer: Jaga
- Type: Sentinel LST
- Outputs measured in accordance with EN442, at a water temperature of 75/65°C and a room temperature of 20°C (ΔT=50°C)

Options

- Pencil-proof grille, avoiding the possibility of smaller objects or waste falling within the casing. Lacquered in the same colour as the casing
- Top valve
- Brush for easy cleaning of the underside of the heat exchanger

Jaga colours

For Sentinel LST

RAL 9010 101 White	112 Bahama	122 Capri	RAL 9016 133 Traffic White
RAL 9001 102 Off-white	RAL 6009 113 English Green	123 Natural	
RAL 7035 103 Light Grey	114 Whisper Rose	124 Edelweis	
RAL 9005 Black	RAL 5018 115 Turquoise	125 Jasmine	
105 Pergamon	116 Bermuda	RAL 3003 126 Ruby Red	
106 Manhattan	RAL 8017 117 Chocolate Brown	128 Classic White	
RAL 5003 108 Sapphire Blue	RAL 5015 118 Azure	RAL 6000 129 Patina Green	
RAL 7011 109 Dark Grey	RAL 4008 119 Violet	130 Aloa Blue	
RAL 1004 110 Golden Yellow	120 Aegean	RAL 7016 131 Anthracite Grey	
RAL 3000 111 Flaming Red	121 Calypso	132 Sunrise	

Special Colours

001 Sandblast Grey Metallic

002 Hammerstroke Silver/Black

003 Claret Metallic

004 Gold Structure

005 Smooth Grey Metallic

RAL 9006 006 Aluminium

007 Anthracite Metallic

008 Anthracite Structure

As it's impossible to reproduce colours with 100% accurancy, this colour chart is intended as a guide only.
Colour swatches are available on request.

Jaga Heating Products (UK) Ltd | www.jaga.co.uk
T: +44 (0)1531 631 533 | F: +44 (0)1531 631 534 | jaga@jaga.co.uk

Jaga Guarantee Information

1 The guarantee is valid only if the equipment is properly and correctly used, by its first owner and if installed in accordance with the norms and instructions as detailed in the instruction leaflet and current industry standard practices.

2 The guarantee only applies to the equipment and the spare parts supplied by Jaga. Jaga has the choice between repair and replacement of the equipment or the spare parts. If any modifications have been made by Jaga to the standard product design, Jaga reserves the right to replace the guaranteed equipment with equivalent products or spare parts.

3 The period of guarantee is mentioned in this certificate. The guarantee decreases every year on a straight line basis by an equal percentage in order to reach a zero guarantee at the end of the guarantee period (e.g. for a period of 10 years the annual decrease of the guarantees 10% of the invoiced value). Repaired or replaced product is guaranteed through to the end of the original guarantee period.

4 The guarantee is valid only on products displaying the appropriate identification information concerning product type and series. No guarantee is granted on equipment or spare parts lacking this information, on equipment where this information has been removed or altered, or on equipment that has been repaired or modified by persons not authorised by Jaga to carry out this work.

5 The customer is responsible for any damage caused as a result of errors in installation or use of incorrect fittings, or for any damage caused by electrical connections, faulty or damaged electrical installations or appliances, erroneous voltage or hydraulic pressure and all other errors not directly related to the product delivered by Jaga. The guarantee is also revoked when unsuitable parts or components are used. The guarantee for our heat exchangers is not valid if they are regularly drained, or if they are heated by means of industrial water, steam or water saturated by excessive quantities of oxygen. The quality of the system ater has to be in accordance with the VDI 2035-2 directives. The guarantee is also not applicable if the heat exchangers are placed in unsuitable atmospheric surroundings, such as but not exclusively ammonia, caustic substances etc.

6 This guarantee excludes damage due to incorrect handling and/or use of the equipment, or due to formation of lime deposits, incorrect use of the safety valve, or to all equipment that is incorporated into the building in a way that means it cannot be accessed normally.

7 Any work undertaken or product supplied as a result of a guarantee claim that proves not to be valid will be charged for. Product supplied will be invoiced at the customer's standard purchasing terms, and labour will be charged at £50 per hour with a minimum labour charge of £200.

8 The guarantee period starts from the date of the invoice for supply of the products covered by the guarantee. If the invoice is not available, the date of production will be used based on the product ID number/series.

9 Only the courts of judicial district Hasselt (Belgium) are authorised to deal with disputes arising from this guarantee. It will apply Belgian law even when sales involved are subjects of EU member states as well as non-EU member countries.

Heat exchanger

Casings and components

Valves for Low-H2O heat exchangers

Jaga Heating Products (UK) Ltd | www.jaga.co.uk
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