

JAGA VALUES

Jaga is built on five core values which run through everything we do.

We are devoted to developing heating, cooling and ventilation solutions that use less energy and raw materials. The most environmentally-friendly way is the Jaga way!

RESPECT NATURE

Striking the balance between man and the environment, we must respect our planet and work to preserve it for the future.



GUARANTEE
30
YEAR
HEAT EXCHANGER



RUBBISH

BUILD ACCORDING TO
THE CRADLE-TO-CRADLE
PHILOSOPHY
NO NEW TREES WERE HARMED
DURING THE MAKING OF
THIS STAND

RESPECT NATURE

AWAKE THE ARTIST

We create technology to deliver high performance. Our products are also works of art, designed to compliment the surroundings of any room.



AWAKE THE ARTIST



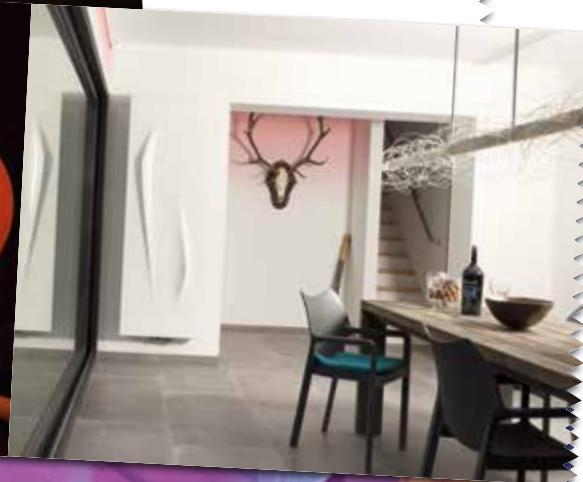


**DREAM A
FUTURE**



DREAM A FUTURE

We look to the future when designing products to create a positive impact on people's lives and our planet.



CREATE EMOTION

Life is about passion, emotions and experiences and we use all of these to create exciting and unique designs.



**CREATE
EMOTION**

BUILDING BRIDGES

We choose to work with like-minded people and companies to unite forces to build a better world.



**BUILDING
BRIDGES**



GUARDIAN LST

STRONG SINGLE PIECE CASING FOR FAST INSTALLATION

- Stylish casing with rounded corners stays safe to touch, even at high flow temperatures
- Extensive range and compact sizes even at low temperatures (see DBE page 10)
- Works with Jaga's ventilation solution 'Oxygen' to deliver combined ventilation and heating in one system



*AWAKE
THE ARTIST*



Award winning Low-H₂O technology



Quick to install, pre-assembled casing



Outstanding performance with low temperature systems



No radiant heat loss to the wall



Wide range of sizes with a choice of designs



Split deliveries



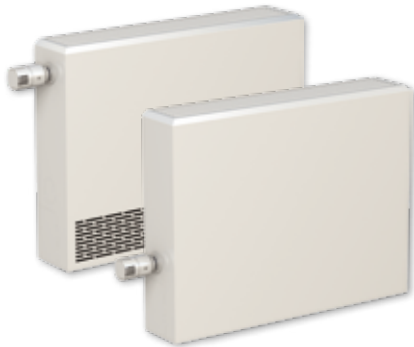
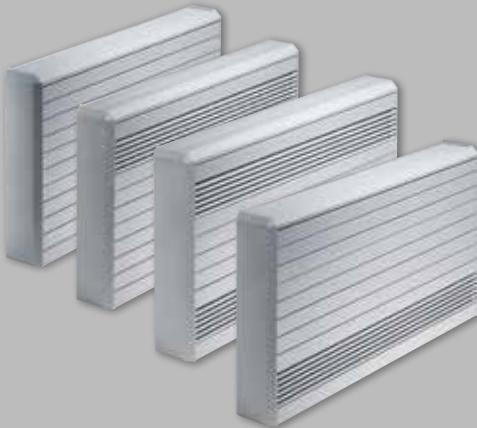
In stock, fast delivery

PRESENTING GUARDIAN LST



THE JAGA LST PORTFOLIO

OUR COMPREHENSIVE RANGE OFFERS YOU THE OPTIMUM SOLUTION FOR ALL APPLICATIONS.

Product	Options	Recommended Application
GUARDIAN LST 	- Wall mounted above skirting (WT) - Wall mounted with casing to finished floor level (FT)	 Care & Nursing Homes  Sheltered Housing  Educational Establishments  Public & Government Buildings  Hotels and Leisure Centres  Hospitals & Healthcare
MAXI 2020 LST 	- Wall mounted above skirting - Wall fixed/floor mounted - Top or front face grilles - WF - Wall model with front grille - WT - Wall model with top grille - FF - Floor model with two front grilles - FT – Floor model with top grille	 Care & Nursing Homes  Prisons & Secure Facilities  Hospitals & Healthcare  Any Heavy Duty Applications  Hotels and Leisure Centres  Educational Establishments
TEMPO LST 	- Wall mounted above skirting - Freestanding - Freestanding with extended foot	 Care & Nursing Homes  Sheltered Housing  Educational Establishments

For information on all of our LST range please contact customer services on **01531 631533** or **www.jaga.co.uk**

	Key Features	Sizes	Options	Notes
	- One piece casing - Rounded corners - Knock-outs for valves and skirting (FT only) - Many sizes held as stocked items for fast delivery - Casing locks - Split deliveries (if required)	Wall (WT): - Heights 400 to 600mm - Lengths 440 to 2040mm Floor (FT): - Heights 400 to 800mm - Lengths 440 to 2040mm	- DBE - High level valve - Oxygen - Pencil-proof grille - Oxygen ventilation system	- With casing to finished floor level, all pipework is covered preventing access to the underside (FT)
	- Super strong casing - Rounded corners - Split deliveries (if required) - Casing locks	Wall: - Heights 440 to 740mm - Lengths 630 to 2030mm Floor: - Heights 440 to 740mm - Lengths 630 to 2030mm	- DBE - High level valve - Range of colours - Anti bacterial coating - Anti ligature grilles (FT/FF) - Continuous casings - Pencil-proof grille (WT/FT) - Oxygen ventilation system	- Floor model with casing to finished floor level, all pipework is covered preventing access to the underside (FF/FT) - 1.5mm thick steel 'U' channels riveted together for an ultra strong front panel
	- Rounded corners - Easy handling & storage - Great value for money - Split deliveries (if required) - Damaged casing parts easily replaced	Wall: - Heights 200 to 900mm - Lengths 400 to 3000mm Freestanding: - Heights 200 to 500mm - Lengths 400 to 3000mm	- DBE - High level valve - Casing locks - Pencil-proof grille - Continuous casings - Twin emitter - Oxygen ventilation system	- Flat packed for reduced storage - For Tempo Freestanding both fixed and adjustable length feet area are available

LOW-H₂O: LIGHTER, FASTER AND EFFICIENT

RESPECT
NATURE



THE LOW WATER CONTENT RADIATOR

Jaga's Low-H₂O radiators contain 90% less water than that of a steel panel radiator, meaning they are faster to heat up and cool down. This means Low-H₂O radiators react faster to the occupants' needs as well as changes to ambient temperature. This ensures better comfort with less energy consumption, no wasteful over-heating and reduced demand on the heating system itself. They also have no heavy steel panels that require pre-heating, are far lighter to install and remain much lighter when fully filled during usage. The ultra-modern aluminium and copper heat exchanger, which comes with a 30 year guarantee provides rapid energy efficient heat to any space.

Research by KIWA show that Low-H₂O radiators consume between 9 and 16%* less energy than a system with steel panel radiators. They achieve the desired temperature faster with less heat wasted through unnecessary over-heating, common in heavier radiators.



Comparison Low-H₂O/panel radiators

	Water temp. > 50°C Saving	Water temp. ≤ 50°C Saving
Renovation	13%	16%
New-builds	9%	10%

There is
a clear connection
between the weight of the
radiator, its reaction time and
the energy savings it offers.



Fastest
response time
for maximum comfort



Scientific and Technical Centre
for the Construction Company
Brussels, 1981



Technical University
Eindhoven, 2001



Partner for progress
Kiwa Certification
Apeldoorn, 2014

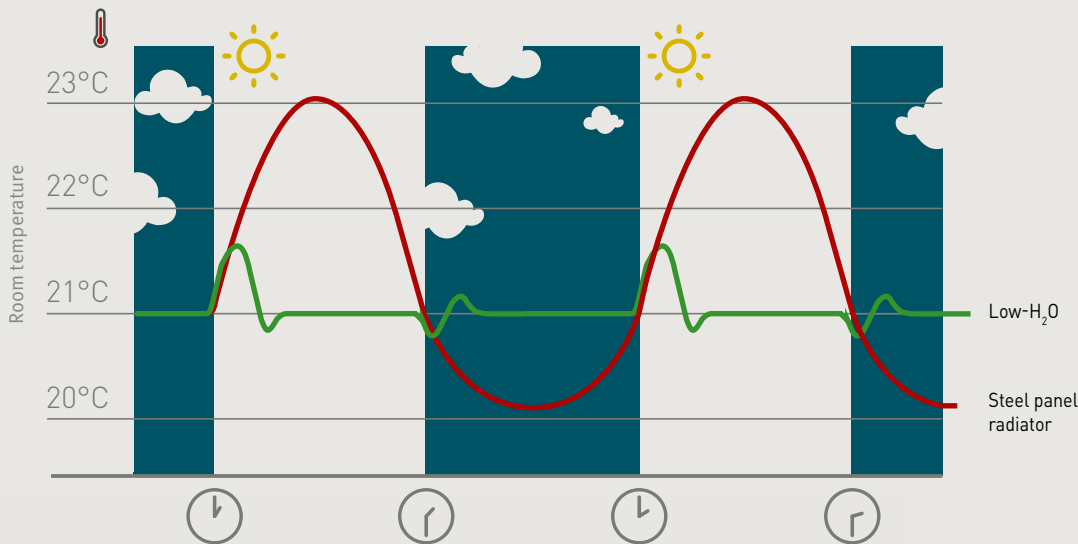


Thermic Regulation
France, 2012



Building Research
Establishment- UK
Watford, 2003

COMPARISON OF RESPONSE TIME TO TEMPERATURE CHANGES



PROVEN TO BE THE WORLD'S MOST ECONOMICAL RADIATOR

Jaga's Low-H₂O technology has been thoroughly tested over the years by a variety of independent bodies, receiving the title of Most Economical Radiator following tests carried out by the Dutch testing body KIWA. Jaga's Low-H₂O radiator achieves consistently high efficiency performance standards every time.

Low-H₂O radiators are more efficient at all water temperatures, making them the perfect partner for renewable systems and boilers alike. In all conditions

Low-H₂O radiators achieve the maximum scores set by ISSO. Without a maximum score*, the Low-H₂O exchanger would achieve even higher. KIWA found Low-H₂O to be at least 5% more economical than underfloor heating.

**The minimum required score is 1.00 (100%) for Low-H₂O as per the quality declaration, and average score of 0.05 (95%) for underfloor heating, according to NEN7120, Table 14.1, delivery efficiency up to 8m.*



DYNAMIC BOOST EFFECT (DBE) TECHNOLOGY

RADIATORS THAT ACTUALLY WORK WITH HEAT PUMPS



UP TO
3 TIMES THE
HEATING OUTPUT
AT LOWER WATER
TEMPERATURES

Heat pumps and solar thermal energy generally require much larger radiators as they operate with very low water temperatures that often don't exceed 35°C. Low-H₂O radiators do not need to increase in size when working with lower water temperatures.

With DBE technology the same heat output can be achieved from a similar size radiator compared to a radiator working with a gas or oil fired heating system, allowing the installation of renewable heating systems without compromising on comfort and aesthetics.

Jaga's innovative DBE technology is a self-regulating system which responds automatically to changes in room temperature. When in **comfort mode** the DBE system operates by measuring radiator water temperature and room air temperature to boost outputs as needed. DBE can also be manually triggered to further increase outputs for approximately 15 minutes in boost mode.

Low-H₂O radiators still deliver effective heating even with DBE in standby mode. DBE however is not a standalone fan or air conditioner and needs to be partnered with the Low-H₂O heat exchanger to be effective.



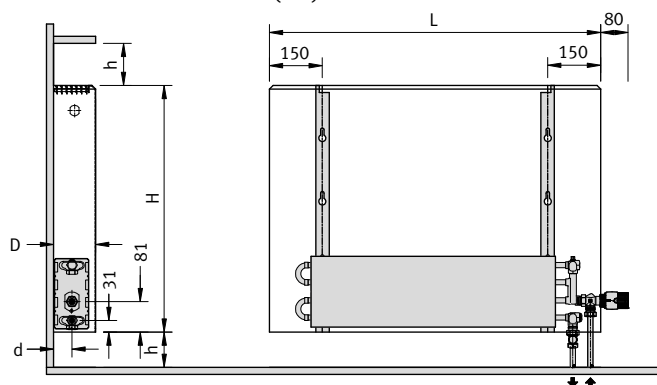
*DREAM
A FUTURE*

GUARDIAN LST

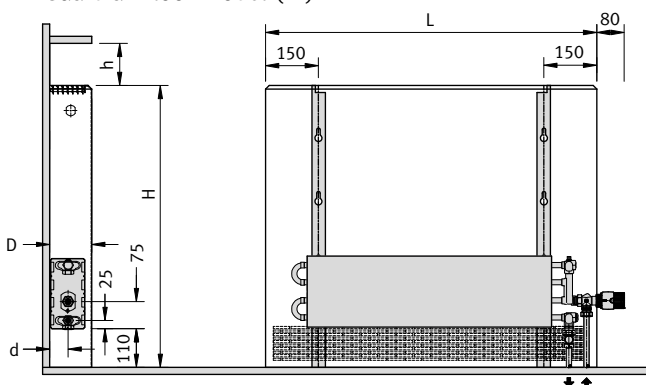
DIMENSIONS (in mm)



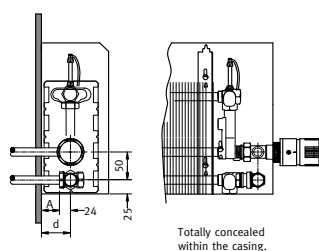
Guardian wall model (WT)



Guardian floor model (FT)

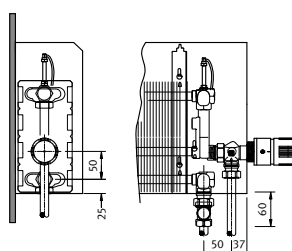


Example with Jaga valve: to the wall.



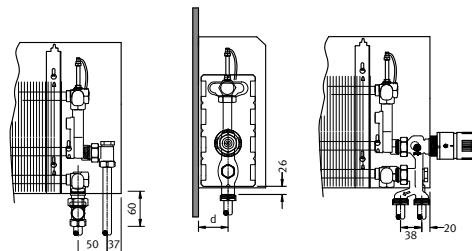
Totally concealed within the casing.

Example with Jaga valve: to the floor.



Without TRV.

Example with Jaga Pro valve: to the floor - WT only.



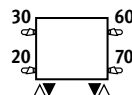
Depth mm	Connection to floor d (mm)	Connection to wall A (mm)	Clearance h (mm)
119	52	29	100
169	77	53	120
219	102	79	150

CONNECTION

Standard connection:

Casing features multiple knockouts to suit high and low level valves, on either left or right. On FT models there are additional knockouts to allow for pipework or skirting at a low level.

High level valve details: see "Valves and TRVs".



Please note when using the low level valve configuration in conjunction with FT and FF casings models clearance will be required between the casing side panel and the skirting (assuming skirting is to be fitted tight to casing) to allow for casing removal

ORDERING CODE

code	height	length	depth	colour	model
GUAR .	040	064	119 .	233	/WT

For example using ordering code GUAR 040 064 119 233 / WT will result in a Guardian wall model with white casing, 400mm high, 640mm long and 119 deep.

ORDERING CODE WITH DBE

code	height	length	depth	colour	model	Option
GUAR .	040	084	169 .	233	/WT	/DBE

Products with DBE have outputs shown based on 'comfort' mode (see page 10).

For other outputs, please see www.jaga.co.uk



COLOURS

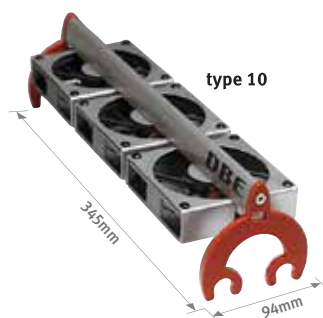
Environmentally friendly, scratch-resistant, high UV resistant powder coating.

Standard colour:

- White RAL 9016 (233), gloss finish.

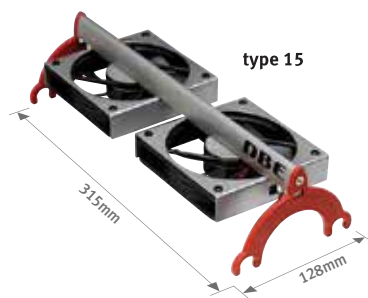
OPTIONAL: DBE See page 10 for more information on DBE technology

DBE UNIT DBEU.10



To suit 119mm depth

DBE UNIT DBEU.15



To suit 169mm and 219mm depths

STOCK ITEMS

All items are stocked except casing heights 700 and lengths 1640 and 2040 which are made to order.

All elements and brackets are in stock.

Contact the office for availability on larger quantities.



HEIGHT 400 - OUTPUT TABLES - WT - TECHNICAL INFO

GUAR.040 LLL Dep.233/WT

Length mm	STANDARD		
	Depth mm	Watts 75/65	Watts 55/45
440	119	234	109
	169	351	164
	219	446	206
640	119	467	218
	169	703	329
	219	893	412
840	119	701	327
	169	1054	493
	219	1339	613
1040	119	934	436
	169	1406	657
	219	1786	818
1240	119	1168	545
	169	1757	822
	219	2232	1030
1440	119	1402	654
	169	2108	986
	219	2678	1236
1640	119	1635	763
	169	2460	1150
	219	3125	1443
1840	119	1869	872
	169	2811	1314
	219	3571	1648
2040	119	2102	981
	169	3163	1479
	219	N/A	N/A

GUAR.040 LLL Dep.233/WT/DBE

WITH DBE			
Depth mm	Watts 75/65	Watts 55/45	Watts 45/38
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
119	1001	601	430
169	1534	920	660
219	1819	1091	782
119	1534	920	660
169	2366	1420	1017
219	2746	1648	1181
119	1768	1061	760
169	2717	1630	1168
219	3192	1915	1373
119	2302	1381	990
169	3548	2129	1526
219	4118	2471	1771
119	2535	1521	1090
169	3900	2340	1677
219	4565	2739	1963
119	3069	1841	1320
169	4731	2839	2034
219	5491	3295	2361
119	3302	1981	1420
169	5083	3050	2186
219	N/A	N/A	N/A

GUAR.040 LLL Dep.233/WT

STANDARD			WITH DBE	
Depth mm	Weight	Water Content	Fan (Number)	Noise Level dB(A)
119	4.5	0.53	N/A	N/A
169	5.9	0.79	N/A	N/A
219	7.1	1.06	N/A	N/A
119	6.6	0.8	N/A	N/A
169	8.6	1.19	N/A	N/A
219	10.4	1.6	N/A	N/A
119	8.7	1.06	1 DBEU.10	29.0
169	11.3	1.58	1 DBEU.15	27.0
219	13.6	2.13	1 DBEU.15	27.0
119	10.7	1.33	2 DBEU.10	32.0
169	13.9	1.98	2 DBEU.15	30.0
219	16.8	2.66	2 DBEU.15	30.0
119	12.8	1.6	2 DBEU.10	32.0
169	16.6	2.38	2 DBEU.15	30.0
219	20.1	3.19	2 DBEU.15	30.0
119	14.8	1.86	2 DBEU.10	32.0
169	19.3	2.77	2 DBEU.15	30.0
219	23.3	3.72	2 DBEU.15	30.0
119	16.9	2.13	4 DBEU.10	35.0
169	22	3.17	4 DBEU.15	33.0
219	26.6	4.26	4 DBEU.15	33.0
119	19	2.39	4 DBEU.10	35.0
169	24.7	3.56	4 DBEU.15	33.0
219	29.8	4.79	4 DBEU.15	33.0
119	21	2.66	4 DBEU.10	35.0
169	27.3	3.96	4 DBEU.15	33.0
219	N/A	N/A	4 DBEU.15	33.0

EN442 output at 20°C room temperature

HEIGHT 500 ■ OUTPUT TABLES - WT ■ TECHNICAL INFO

GUAR.050 LLL Dep.233/WT

Length mm	STANDARD		
	Depth mm	Watts 75/65	Watts 55/45
440	119	259	123
	169	394	187
	219	522	241
640	119	519	246
	169	788	374
	219	1044	482
840	119	778	368
	169	1181	560
	219	1566	723
1040	119	1038	491
	169	1575	747
	219	2088	963
1240	119	1297	614
	169	1969	934
	219	2610	1204
1440	119	1556	736
	169	2363	1121
	219	3132	1445
1640	119	1816	859
	169	2757	1308
	219	3654	1686
1840	119	2075	982
	169	3150	1494
	219	4176	1927
2040	119	2335	1105
	169	3544	1681
	219	N/A	N/A

GUAR.050 LLL Dep.233/WT/DBE

WITH DBE			
Depth mm	Watts 75/65	Watts 55/45	Watts 45/38
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
119	1078	647	464
169	1661	997	714
219	2046	1228	880
119	1638	983	704
169	2535	1521	1090
219	3048	1829	1311
119	1897	1138	816
169	2929	1757	1259
219	3570	2142	1535
119	2456	1474	1056
169	3803	2282	1635
219	4572	2743	1966
119	2716	1630	1168
169	4197	2518	1805
219	5094	3056	2190
119	3275	1965	1408
169	5070	3042	2180
219	6096	3658	2621
119	3535	2121	1520
169	5464	3278	2350
219	N/A	N/A	N/A

GUAR.050 LLL Dep.233/WT

STANDARD			WITH DBE	
Depth mm	Weight	Water Content	Fan (Number)	Noise Level dB(A)
119	5.2	0.53	N/A	N/A
169	6.6	0.79	N/A	N/A
219	7.2	1.06	N/A	N/A
119	7.6	0.8	N/A	N/A
169	9.6	1.19	N/A	N/A
219	10.5	1.6	N/A	N/A
119	9.9	1.06	1 DBEU.10	29.0
169	12.6	1.58	1 DBEU.15	27.0
219	13.8	2.13	1 DBEU.15	27.0
119	12.3	1.33	2 DBEU.10	32.0
169	15.6	1.98	2 DBEU.15	30.0
219	17.1	2.66	2 DBEU.15	30.0
119	14.6	1.6	2 DBEU.10	32.0
169	18.6	2.38	2 DBEU.15	30.0
219	20.3	3.19	2 DBEU.15	30.0
119	17	1.86	2 DBEU.10	32.0
169	21.6	2.77	2 DBEU.15	30.0
219	23.6	3.72	2 DBEU.15	30.0
119	19.4	2.13	4 DBEU.10	35.0
169	24.6	3.17	4 DBEU.15	33.0
219	26.9	4.26	4 DBEU.15	33.0
119	21.7	2.39	4 DBEU.10	35.0
169	27.6	3.56	4 DBEU.15	33.0
219	30.2	4.79	4 DBEU.15	33.0
119	24.1	2.66	4 DBEU.10	35.0
169	30.6	3.96	4 DBEU.15	33.0
219	N/A	N/A	4 DBEU.15	33.0

EN442 output at 20°C room temperature

HEIGHT 600 - OUTPUT TABLES - WT - TECHNICAL INFO

GUAR.060 LLL Dep.233/WT

Length mm	STANDARD		
	Depth mm	Watts 75/65	Watts 55/45
440	119	277	133
	169	425	204
	219	593	273
640	119	554	266
	169	850	409
	219	1187	547
840	119	831	399
	169	1275	613
	219	1780	821
1040	119	1108	532
	169	1700	818
	219	2374	1095
1240	119	1385	665
	169	2125	1022
	219	2967	1368
1440	119	1662	798
	169	2550	1227
	219	3560	1642
1640	119	1939	931
	169	2975	1431
	219	4154	1916
1840	119	2216	1064
	169	3400	1635
	219	4747	2189
2040	119	2493	1197
	169	3825	1840
	219	N/A	N/A

GUAR.060 LLL Dep.233/WT/DBE

WITH DBE			
Depth mm	Watts 75/65	Watts 55/45	Watts 45/38
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
119	1131	679	486
169	1755	1053	755
219	2260	1356	972
119	1708	1025	734
169	2660	1596	1144
219	3334	2000	1434
119	1985	1191	854
169	3085	1851	1327
219	3927	2356	1689
119	2562	1537	1102
169	3990	2394	1716
219	5000	3000	2150
119	2839	1703	1221
169	4415	2649	1898
219	5594	3356	2405
119	3416	2050	1469
169	5320	3192	2288
219	6667	4000	2867
119	3693	2216	1588
169	5745	3447	2470
219	N/A	N/A	N/A

GUAR.060 LLL Dep.233/WT

STANDARD			WITH DBE	
Depth mm	Weight	Water Content	Fan (Number)	Noise Level dB(A)
119	7.1	0.53	N/A	N/A
169	8.4	0.79	N/A	N/A
219	8.8	1.06	N/A	N/A
119	10.4	0.8	N/A	N/A
169	12.2	1.19	N/A	N/A
219	12.9	1.6	N/A	N/A
119	13.6	1.06	1 DBEU.10	29.0
169	16	1.58	1 DBEU.15	27.0
219	16.9	2.13	1 DBEU.15	27.0
119	16.8	1.33	2 DBEU.10	32.0
169	19.8	1.98	2 DBEU.15	30.0
219	20.9	2.66	2 DBEU.15	30.0
119	20.1	1.6	2 DBEU.10	32.0
169	23.6	2.38	2 DBEU.15	30.0
219	24.9	3.19	2 DBEU.15	30.0
119	23.3	1.86	2 DBEU.10	32.0
169	27.4	2.77	2 DBEU.15	30.0
219	28.9	3.72	2 DBEU.15	30.0
119	26.6	2.13	4 DBEU.10	35.0
169	31.2	3.17	4 DBEU.15	33.0
219	33	4.26	4 DBEU.15	33.0
119	29.8	2.39	4 DBEU.10	35.0
169	35	3.56	4 DBEU.15	33.0
219	37	4.79	4 DBEU.15	33.0
119	33	2.66	4 DBEU.10	35.0
169	38.8	3.96	4 DBEU.15	33.0
219	N/A	N/A	N/A	N/A

EN442 output at 20°C room temperature

HEIGHT 400 - OUTPUT TABLES - FT - TECHNICAL INFO

GUAR.040 LLL Dep.233/FT

Length mm	STANDARD		
	Depth mm	Watts 75/65	Watts 55/45
440	119	193	90
	169	277	128
	219	339	160
640	119	385	179
	169	553	256
	219	677	320
840	119	578	269
	169	830	384
	219	1016	481
1040	119	770	358
	169	1106	512
	219	1354	641
1240	119	963	448
	169	1383	640
	219	1693	801
1440	119	1156	537
	169	1660	769
	219	2032	961
1640	119	1348	626
	169	1936	896
	219	2370	1121
1840	119	1541	716
	169	2213	1025
	219	2709	1282
2040	119	1733	805
	169	2489	1152
	219	N/A	N/A

GUAR.040 LLL Dep.233/FT/DBE

WITH DBE			
Depth mm	Watts 75/65	Watts 55/45	Watts 45/38
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
119	878	527	378
169	1310	786	563
219	1496	898	643
119	1370	822	589
169	2066	1240	888
219	2314	1388	995
119	1563	938	672
169	2343	1406	1007
219	2653	1592	1141
119	2056	1234	884
169	3100	1860	1333
219	3472	2083	1493
119	2248	1349	967
169	3376	2026	1452
219	3810	2286	1638
119	2741	1645	1179
169	4133	2480	1777
219	4629	2777	1990
119	2933	1760	1261
169	4409	2645	1896
219	N/A	N/A	N/A

GUAR.040 LLL Dep.233/FT

STANDARD			WITH DBE	
Depth mm	Weight	Water Content	Fan (Number)	Noise Level dB(A)
119	3.4	0.53	N/A	N/A
169	4.5	0.79	N/A	N/A
219	6.9	1.06	N/A	N/A
119	4.9	0.8	N/A	N/A
169	6.6	1.19	N/A	N/A
219	10	1.6	N/A	N/A
119	6.5	1.06	1 DBEU.10	29.0
169	8.7	1.58	1 DBEU.15	27.0
219	13.1	2.13	1 DBEU.15	27.0
119	8	1.33	2 DBEU.10	32.0
169	10.7	1.98	2 DBEU.15	30.0
219	16.2	2.66	2 DBEU.15	30.0
119	9.5	1.6	2 DBEU.10	32.0
169	12.8	2.38	2 DBEU.15	30.0
219	19.3	3.19	2 DBEU.15	30.0
119	11.1	1.86	2 DBEU.10	32.0
169	14.8	2.77	2 DBEU.15	30.0
219	22.5	3.72	2 DBEU.15	30.0
119	12.6	2.13	4 DBEU.10	35.0
169	16.9	3.17	4 DBEU.15	33.0
219	25.6	4.26	4 DBEU.15	33.0
119	14.2	2.39	4 DBEU.10	35.0
169	19	3.56	4 DBEU.15	33.0
219	28.7	4.79	4 DBEU.15	33.0
119	15.7	2.66	4 DBEU.10	35.0
169	21	3.96	4 DBEU.15	33.0
219	N/A	N/A	4 DBEU.15	33.0

EN442 output at 20°C room temperature

HEIGHT 500 - OUTPUT TABLES - FT - TECHNICAL INFO

GUAR.050 LLL Dep.233/FT

Length mm	STANDARD		
	Depth mm	Watts 75/65	Watts 55/45
440	119	221	103
	169	320	149
	219	377	176
640	119	442	206
	169	639	297
	219	754	352
840	119	663	309
	169	959	445
	219	1132	529
1040	119	884	412
	169	1278	593
	219	1509	705
1240	119	1105	515
	169	1598	742
	219	1886	881
1440	119	1326	618
	169	1918	891
	219	2263	1057
1640	119	1547	721
	169	2237	1039
	219	2640	1233
1840	119	1768	823
	169	2557	1187
	219	3018	1410
2040	119	1989	926
	169	2876	1335
	219	N/A	N/A

GUAR.050 LLL Dep.233/FT/DBE

WITH DBE			
Depth mm	Watts 75/65	Watts 55/45	Watts 45/38
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
119	963	578	414
169	1439	863	619
219	1612	967	693
119	1484	890	638
169	2238	1343	962
219	2469	1481	1062
119	1705	1023	733
169	2558	1535	1100
219	2846	1708	1224
119	2226	1336	957
169	3358	2015	1444
219	3703	2222	1592
119	2447	1468	1052
169	3677	2206	1581
219	4080	2448	1754
119	2968	1781	1276
169	4477	2686	1925
219	4938	2963	2123
119	3189	1913	1371
169	4796	2878	2062
219	N/A	N/A	N/A

GUAR.050 LLL Dep.233/FT

STANDARD			WITH DBE	
Depth mm	Weight	Water Content	Fan (Number)	Noise Level dB(A)
119	4	0.53	N/A	N/A
169	5.2	0.79	N/A	N/A
219	7.1	1.06	N/A	N/A
119	5.8	0.8	N/A	N/A
169	7.6	1.19	N/A	N/A
219	10.4	1.6	N/A	N/A
119	7.6	1.06	1 DBEU.10	29.0
169	10	1.58	1 DBEU.15	27.0
219	13.6	2.13	1 DBEU.15	27.0
119	9.4	1.33	2 DBEU.10	32.0
169	12.4	1.98	2 DBEU.15	30.0
219	16.8	2.66	2 DBEU.15	30.0
119	11.2	1.6	2 DBEU.10	32.0
169	14.8	2.38	2 DBEU.15	30.0
219	20.1	3.19	2 DBEU.15	30.0
119	13	1.86	2 DBEU.10	32.0
169	17.1	2.77	2 DBEU.15	30.0
219	23.3	3.72	2 DBEU.15	30.0
119	14.8	2.13	4 DBEU.10	35.0
169	19.5	3.17	4 DBEU.15	33.0
219	26.6	4.26	4 DBEU.15	33.0
119	16.6	2.39	4 DBEU.10	35.0
169	21.9	3.56	4 DBEU.15	33.0
219	29.8	4.79	4 DBEU.15	33.0
119	18.4	2.66	4 DBEU.10	35.0
169	24.3	3.96	4 DBEU.15	33.0
219	N/A	N/A	N/A	N/A

EN442 output at 20°C room temperature

HEIGHT 600 - OUTPUT TABLES - FT - TECHNICAL INFO

GUAR.060 LLL Dep.233/FT

Length mm	STANDARD		
	Depth mm	Watts 75/65	Watts 55/45
440	119	247	115
	169	358	167
	219	419	193
640	119	493	230
	169	716	333
	219	839	387
840	119	740	345
	169	1075	501
	219	1258	580
1040	119	986	460
	169	1433	667
	219	1678	774
1240	119	1233	576
	169	1791	834
	219	2097	967
1440	119	1480	691
	169	2149	1001
	219	2516	1160
1640	119	1726	806
	169	2507	1168
	219	2936	1354
1840	119	1973	921
	169	2866	1335
	219	3355	1547
2040	119	2219	1036
	169	3224	1502
	219	N/A	N/A

GUAR.060 LLL Dep.233/FT/DBE

WITH DBE			
Depth mm	Watts 75/65	Watts 55/45	Watts 45/38
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
119	1040	624	447
169	1555	933	669
219	1738	1043	747
119	1586	952	682
169	2393	1436	1029
219	2638	1583	1134
119	1833	1100	788
169	2751	1651	1183
219	3057	1834	1315
119	2380	1428	1023
169	3589	2153	1543
219	3956	2374	1701
119	2626	1576	1129
169	3947	2368	1697
219	4376	2626	1882
119	3173	1904	1364
169	4786	2872	2058
219	5275	3165	2268
119	3419	2051	1470
169	5144	3086	2212
219	N/A	N/A	N/A

GUAR.060 LLL Dep.233/FT

STANDARD			WITH DBE	
Depth mm	Weight	Water Content	Fan (Number)	Noise Level dB(A)
119	4.5	0.53	N/A	N/A
169	5.9	0.79	N/A	N/A
219	8.1	1.06	N/A	N/A
119	6.6	0.8	N/A	N/A
169	8.6	1.19	N/A	N/A
219	11.7	1.6	N/A	N/A
119	8.7	1.06	1 DBEU.10	29.0
169	11.3	1.58	1 DBEU.15	27.0
219	15.4	2.13	1 DBEU.15	27.0
119	10.7	1.33	2 DBEU.10	32.0
169	13.9	1.98	2 DBEU.15	30.0
219	19	2.66	2 DBEU.15	30.0
119	12.8	1.6	2 DBEU.10	32.0
169	16.6	2.38	2 DBEU.15	30.0
219	22.7	3.19	2 DBEU.15	30.0
119	14.8	1.86	2 DBEU.10	32.0
169	19.3	2.77	2 DBEU.15	30.0
219	26.4	3.72	2 DBEU.15	30.0
119	16.9	2.13	4 DBEU.10	35.0
169	22	3.17	4 DBEU.15	33.0
219	30	4.26	4 DBEU.15	33.0
119	19	2.39	4 DBEU.10	35.0
169	24.7	3.56	4 DBEU.15	33.0
219	33.7	4.79	4 DBEU.15	33.0
119	21	2.66	4 DBEU.10	35.0
169	27.3	3.96	4 DBEU.15	33.0
219	N/A	N/A	N/A	N/A

EN442 output at 20°C room temperature

HEIGHT 700 - OUTPUT TABLES - FT TECHNICAL INFO

GUAR.070 LLL Dep.233/FT

Length mm	STANDARD		
	Depth mm	Watts 75/65	Watts 55/45
440	119	270	126
	169	393	184
	219	N/A	N/A
640	119	540	253
	169	786	367
	219	N/A	N/A
840	119	810	379
	169	1179	551
	219	N/A	N/A
1040	119	1080	505
	169	1572	734
	219	N/A	N/A
1240	119	1350	632
	169	1965	918
	219	N/A	N/A
1440	111	1620	758
	169	2358	1101
	219	N/A	N/A
1640	119	1890	884
	169	2751	1285
	219	N/A	N/A
1840	119	2160	1010
	169	3144	1469
	219	N/A	N/A
2040	119	2430	1137
	169	3537	1652
	219	N/A	N/A

GUAR.070 LLL Dep.233/FT/DBE

WITH DBE			
Depth mm	Watts 75/65	Watts 55/45	Watts 45/38
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
119	1110	666	477
169	1659	995	713
219	N/A	N/A	N/A
119	1680	1008	722
169	2532	1519	1089
219	N/A	N/A	N/A
119	1950	1170	839
169	2925	1755	1258
219	N/A	N/A	N/A
119	2520	1512	1084
169	3798	2279	1633
219	N/A	N/A	N/A
119	2790	1674	1200
169	4191	2515	1802
219	N/A	N/A	N/A
119	3360	2016	1445
169	5064	3038	2178
219	N/A	N/A	N/A
119	3630	2178	1561
169	5457	3274	2347
219	N/A	N/A	N/A

GUAR.070 LLL Dep.233/FT

STANDARD			WITH DBE	
Depth mm	Weight	Water Content	Fan (Number)	Noise Level dB(A)
119	5.1	0.53	N/A	N/A
169	6.6	0.79	N/A	N/A
219	N/A	N/A	N/A	N/A
119	7.5	0.8	N/A	N/A
169	9.5	1.19	N/A	N/A
219	N/A	N/A	N/A	N/A
119	9.8	1.06	1 DBEU.10	29.0
169	12.5	1.58	1 DBEU.15	27.0
219	N/A	N/A	N/A	N/A
119	12.2	1.33	2 DBEU.10	32.0
169	15.5	1.98	2 DBEU.15	30.0
219	N/A	N/A	N/A	N/A
119	14.5	1.6	2 DBEU.10	32.0
169	18.5	2.38	2 DBEU.15	30.0
219	N/A	N/A	N/A	N/A
119	16.8	1.86	2 DBEU.10	32.0
169	21.5	2.77	2 DBEU.15	30.0
219	N/A	N/A	N/A	N/A
119	19.2	2.13	4 DBEU.10	35.0
169	24.4	3.17	4 DBEU.15	33.0
219	N/A	N/A	N/A	N/A
119	21.5	2.39	4 DBEU.10	35.0
169	27.4	3.56	4 DBEU.15	33.0
219	N/A	N/A	N/A	N/A
119	23.9	2.66	4 DBEU.10	35.0
169	30.4	3.96	4 DBEU.15	33.0
219	N/A	N/A	N/A	N/A

EN442 output at 20°C room temperature

HEIGHT 800 ■ OUTPUT TABLES - FT ■ TECHNICAL INFO

GUAR.080 LLL Dep.233/FT

Length mm	STANDARD		
	Depth mm	Watts 75/65	Watts 55/45
440	119	291	136
	169	425	199
	219	517	232
640	119	582	273
	169	849	398
	219	1035	465
840	119	874	410
	169	1274	597
	219	1552	697
1040	1119	1165	546
	169	1698	796
	219	2070	930
1240	119	1456	683
	169	2123	995
	219	2587	1162
1440	119	1747	819
	169	2548	1194
	219	3104	1395
1640	119	2038	955
	169	2972	1392
	219	3622	1627
1840	119	2330	1092
	169	3397	1592
	219	4139	1859
2040	119	2621	1229
	169	3821	1790
	219	N/A	N/A

GUAR.080 LLL Dep.233/FT/DBE

Depth mm	WITH DBE		
	Watts 75/65	Watts 55/45	Watts 45/38
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
119	1174	704	505
169	1754	1052	754
219	2032	1219	874
119	1765	1059	759
169	2658	1595	1143
219	3030	1818	1303
119	2056	1234	884
169	3083	1850	1326
219	3547	2128	1525
119	2647	1588	1138
169	3988	2393	1715
219	4544	2726	1954
119	2938	1763	1263
169	4412	2647	1897
219	5062	3037	2177
119	3530	2118	1518
169	5317	3190	2286
219	6059	3635	2605
119	3821	2293	1643
169	5741	3445	2469
219	N/A	N/A	N/A

GUAR.080 LLL Dep.233/FT

STANDARD			WITH DBE	
Depth mm	Weight	Water Content	Fan (Number)	Noise Level dB(A)
119	5.8	0.53	N/A	N/A
169	7.2	0.79	N/A	N/A
219	9.6	1.06	N/A	N/A
119	8.4	0.8	N/A	N/A
169	10.5	1.19	N/A	N/A
219	14	1.6	N/A	N/A
119	11	1.06	1 DBEU.10	29.0
169	13.8	1.58	1 DBEU.15	27.0
219	18.4	2.13	1 DBEU.15	27.0
119	13.6	1.33	2 DBEU.10	32.0
169	17.1	1.98	2 DBEU.15	30.0
219	22.8	2.66	2 DBEU.15	30.0
119	16.2	1.6	2 DBEU.10	32.0
169	20.3	2.38	2 DBEU.15	30.0
219	27.2	3.19	2 DBEU.15	30.0
119	18.9	1.86	2 DBEU.10	32.0
169	23.6	2.77	2 DBEU.15	30.0
219	31.5	3.72	2 DBEU.15	30.0
119	21.5	2.13	4 DBEU.10	35.0
169	26.9	3.17	4 DBEU.15	33.0
219	35.9	4.26	4 DBEU.15	33.0
119	24.1	2.39	4 DBEU.10	35.0
169	30.2	3.56	4 DBEU.15	33.0
219	40.3	4.79	4 DBEU.15	33.0
119	26.7	2.66	4 DBEU.10	35.0
169	33.5	3.96	4 DBEU.15	33.0
219	N/A	N/A	N/A	N/A

EN442 output at 20°C room temperature

DURATION OF THE GUARANTEE



Type equipment	Low-H ₂ O heat exchanger	Electric spare parts	Other spare parts
Guardian	30 years	---	10 years
Guardian DBE	30 years	2 years	10 years
DBE unit	---	2 years	---
Valves for Low-H ₂ O heat exchangers	---	---	3 years

Full Guarantee and Conditions of Sales available on request.

DELIVERY

Our radiators are delivered in a strong cardboard packaging, which can also be used as protection onsite after installation.

Standard delivery:

- Low-H₂O heat exchanger with one piece casing with multiple cutouts for valves, fixing kit, extended air vent 1/8" and drain plug 1/2"
- cover plate in white effect for the side panel at the opposite end from the valve

Delivery with (optional) DBE:

- number of DBE unit(s) varies according to the length
- operation, control and power supply 12VDC
- mounting instructions included
- fan units packed with the radiator



OXYGEN

DEMAND CONTROLLED HEATING & MECHANICAL VENTILATION

Jaga Oxygen works alongside our Low-H₂O radiators to deliver an energy-efficient, intelligent and fully programmable heating and ventilation solution.

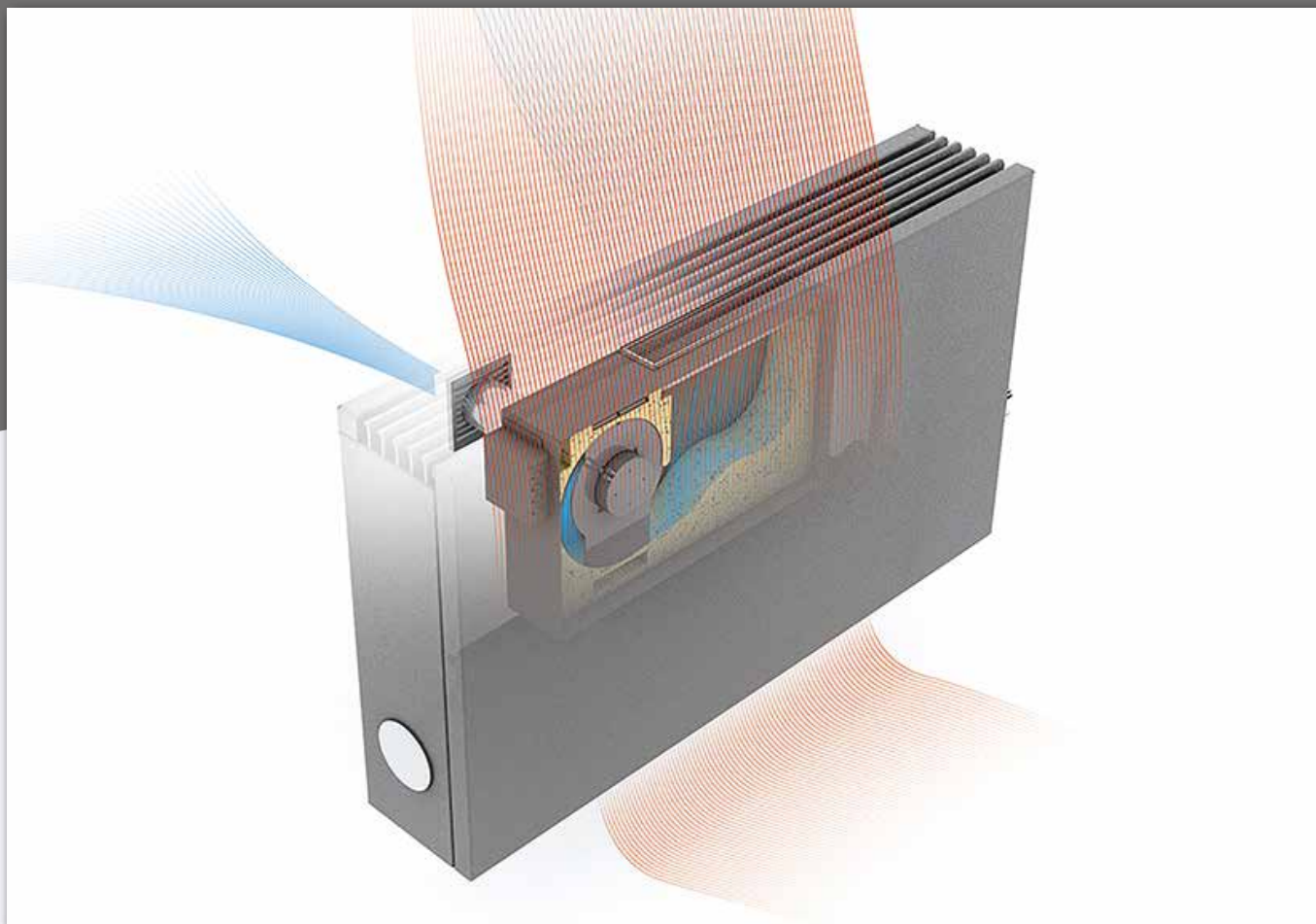
This supply and extract system brings in fresh air at low-levels and extracts stale room air at high-levels creating optimal air movement, ensuring optimum indoor air quality (IAQ).

Due to its modular design this system is particularly effective for rooms with high occupancy such as classrooms, and rooms of lower occupancy such as offices and care homes.

Oxygen delivers clean, filtered, fresh air on demand and efficiently, in buildings of any age or type.



*BUILDING
BRIDGES*





WHY CHOOSE DEMAND CONTROLLED MECHANICAL VENTILATION?

Demand Controlled Mechanical Ventilation only vents fresh filtered air when required, meaning that it is the most energy efficient method of ventilation whilst also eliminating the drawbacks of draughts and noise pollution. CO₂ levels are constantly monitored meaning that if occupancy levels rise or fall the system will draw in more or less fresh air, ensuring good indoor air quality is always present.

This control method also allows the system to react to other parameters such as temperature, thus also increasing comfort.

Jaga Oxygen is an energy efficient, innovative and highly responsive heating and ventilation solution providing automated:

- CO₂ monitoring
- Clean, fresh air on demand – adapting to the changing requirements of the room
- Heating even at low water temperatures
- Free night-time 'cooling' for energy efficient secure summer time cooling

Jaga Oxygen delivers fresh, clean air which can be pumped into a room to suit the demand, boosting the indoor air quality

Jaga Oxygen removes stale air with CO₂ and other pollutants and delivers fresh air without the distraction of outside noise associated with the opening of windows

GUARDIAN LST ■ CORRECTION FACTORS

AVERAGE CORRECTION FACTORS
ACCORDING TO EN442 - 75/65/20°C

Tv	Tl	Tr	25	30	35	40	45	50	55	60	65	70	75	80	85
90	18		0.45	0.58	0.69	0.79	0.89	0.98	1.07	1.16	1.24	1.34	1.41	1.49	1.56
	20		0.38	0.52	0.63	0.74	0.83	0.92	1.01	1.10	1.18	1.28	1.35	1.43	1.50
	22		0.30	0.46	0.57	0.68	0.78	0.87	0.96	1.04	1.13	1.22	1.30	1.37	1.44
	24		0.20	0.39	0.52	0.62	0.72	0.81	0.90	0.99	1.07	1.15	1.24	1.31	1.38
85	18		0.42	0.54	0.65	0.75	0.84	0.93	1.01	1.10	1.20	1.27	1.34	1.41	
	20		0.36	0.49	0.59	0.69	0.79	0.87	0.96	1.04	1.12	1.21	1.28	1.35	
	22		0.28	0.42	0.54	0.64	0.73	0.82	0.90	0.99	1.06	1.15	1.22	1.30	
	24		0.19	0.36	0.48	0.58	0.68	0.76	0.85	0.93	1.01	1.10	1.17	1.24	
80	18		0.39	0.51	0.61	0.70	0.79	0.88	0.96	1.04	1.12	1.20	1.27		
	20		0.33	0.45	0.56	0.65	0.74	0.82	0.90	0.98	1.07	1.14	1.21		
	22		0.26	0.39	0.50	0.60	0.68	0.77	0.85	0.93	1.01	1.08	1.15		
	24		0.17	0.34	0.45	0.54	0.63	0.72	0.80	0.87	0.96	1.03	1.10		
75	18		0.37	0.47	0.57	0.66	0.74	0.82	0.90	0.99	1.05	1.12			
	20		0.30	0.42	0.52	0.61	0.69	0.77	0.85	0.93	1.00	1.07			
	22		0.24	0.36	0.46	0.55	0.64	0.72	0.79	0.88	0.95	1.01			
	24		0.16	0.31	0.41	0.50	0.59	0.67	0.74	0.83	0.89	0.96			
70	18		0.34	0.44	0.53	0.61	0.69	0.77	0.85	0.92	0.99				
	20		0.28	0.39	0.48	0.56	0.64	0.72	0.80	0.87	0.93				
	22		0.22	0.33	0.43	0.51	0.59	0.67	0.74	0.81	0.88				
	24		0.14	0.28	0.38	0.46	0.54	0.62	0.69	0.76	0.83				
65	18		0.31	0.40	0.49	0.57	0.64	0.71	0.79	0.85					
	20		0.25	0.35	0.44	0.52	0.59	0.66	0.74	0.80					
	22		0.19	0.30	0.39	0.47	0.54	0.61	0.69	0.75					
	24		0.12	0.25	0.34	0.42	0.50	0.57	0.64	0.70					
60	18		0.28	0.37	0.45	0.52	0.59	0.66	0.73						
	20		0.23	0.32	0.40	0.47	0.54	0.62	0.68						
	22		0.17	0.27	0.35	0.43	0.50	0.57	0.63						
	24		0.11	0.23	0.31	0.38	0.45	0.52	0.58						
55	18		0.25	0.33	0.40	0.47	0.55	0.60							
	20		0.20	0.29	0.36	0.43	0.50	0.56							
	22		0.15	0.24	0.32	0.38	0.45	0.51							
	24		0.09	0.20	0.27	0.34	0.40	0.47							
50	18		0.22	0.30	0.36	0.43	0.49								
	20		0.18	0.25	0.32	0.38	0.44								
	22		0.13	0.21	0.28	0.34	0.40								
	24		0.08	0.17	0.24	0.30	0.36								
45	18		0.19	0.26	0.32	0.38									
	20		0.15	0.22	0.28	0.34									
	22		0.11	0.18	0.24	0.30									
	24		0.06	0.14	0.20	0.26									
40	18		0.16	0.22	0.28										
	20		0.12	0.18	0.24										
	22		0.09	0.15	0.20										
	24		0.05	0.12	0.17										
35	18		0.13	0.19											
	20		0.10	0.15											
	22		0.07	0.12											
	24		0.03	0.09											
30	18		0.10												
	20		0.07												
	22		0.04												
	24		0.02												

The indicated outputs with ΔT 50 are the exact outputs, measured in accordance with EN 442. An average correction factor is given in this table for all other ΔT outputs, applicable for all dimensions.
These correction factors are to be used for guidance only.

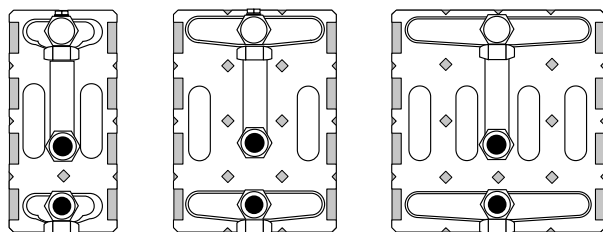
CORRECTION FACTORS - GUARDIAN LST WITH DBE

AVERAGE CORRECTION FACTORS ACCORDING TO EN442 - 75/65/20°C

Tv	Tl	Tr	25	30	35	40	45	50	55	60	65	70	75	80	85
90	18		0.56	0.67	0.76	0.84	0.92	0.99	1.05	1.11	1.17	1.24	1.29	1.34	1.39
	20		0.49	0.62	0.71	0.80	0.87	0.94	1.01	1.07	1.13	1.20	1.25	1.30	1.35
	22		0.42	0.56	0.66	0.75	0.83	0.90	0.97	1.03	1.09	1.16	1.21	1.26	1.31
	24		0.31	0.50	0.61	0.71	0.79	0.86	0.93	0.99	1.05	1.11	1.17	1.22	1.27
85	18		0.53	0.64	0.73	0.81	0.88	0.95	1.01	1.07	1.14	1.19	1.24	1.29	
	20		0.47	0.59	0.68	0.76	0.84	0.91	0.97	1.03	1.09	1.15	1.20	1.25	
	22		0.39	0.53	0.63	0.72	0.79	0.86	0.93	0.99	1.05	1.11	1.16	1.21	
	24		0.29	0.47	0.58	0.67	0.75	0.82	0.89	0.95	1.01	1.07	1.12	1.17	
80	18		0.50	0.61	0.70	0.77	0.84	0.91	0.97	1.03	1.09	1.14	1.19		
	20		0.44	0.56	0.65	0.73	0.80	0.87	0.93	0.99	1.05	1.10	1.15		
	22		0.37	0.50	0.60	0.68	0.76	0.82	0.89	0.95	1.01	1.06	1.11		
	24		0.27	0.45	0.55	0.64	0.71	0.78	0.85	0.91	0.97	1.02	1.07		
75	18		0.48	0.58	0.66	0.74	0.80	0.87	0.93	0.99	1.04	1.09			
	20		0.42	0.53	0.62	0.69	0.76	0.82	0.88	0.95	1.00	1.05			
	22		0.35	0.48	0.57	0.65	0.72	0.78	0.84	0.91	0.96	1.01			
	24		0.25	0.42	0.52	0.60	0.68	0.74	0.80	0.87	0.92	0.97			
70	18		0.45	0.55	0.63	0.70	0.76	0.82	0.89	0.94	0.99				
	20		0.39	0.50	0.58	0.65	0.72	0.78	0.85	0.90	0.95				
	22		0.32	0.45	0.54	0.61	0.68	0.74	0.80	0.86	0.91				
	24		0.24	0.39	0.49	0.57	0.64	0.70	0.76	0.82	0.87				
65	18		0.42	0.51	0.59	0.66	0.72	0.78	0.84	0.89					
	20		0.36	0.47	0.55	0.62	0.68	0.74	0.80	0.85					
	22		0.30	0.42	0.50	0.57	0.64	0.70	0.76	0.81					
	24		0.22	0.36	0.46	0.53	0.60	0.66	0.72	0.77					
60	18		0.39	0.48	0.55	0.62	0.68	0.74	0.79						
	20		0.34	0.43	0.51	0.58	0.64	0.70	0.75						
	22		0.28	0.39	0.47	0.54	0.60	0.66	0.71						
	24		0.20	0.33	0.42	0.49	0.56	0.62	0.67						
55	18		0.36	0.44	0.51	0.58	0.64	0.69							
	20		0.31	0.40	0.47	0.54	0.60	0.65							
	22		0.25	0.35	0.43	0.49	0.55	0.61							
	24		0.17	0.30	0.39	0.45	0.51	0.57							
50	18		0.33	0.41	0.47	0.53	0.59								
	20		0.28	0.36	0.43	0.49	0.55								
	22		0.22	0.32	0.39	0.45	0.51								
	24		0.15	0.27	0.35	0.41	0.47								
45	18		0.30	0.37	0.43	0.49									
	20		0.25	0.33	0.39	0.45									
	22		0.20	0.28	0.35	0.41									
	24		0.13	0.24	0.31	0.37									
40	18		0.26	0.33	0.39										
	20		0.22	0.29	0.35										
	22		0.17	0.25	0.31										
	24		0.11	0.20	0.27										
35	18		0.23	0.29											
	20		0.18	0.25											
	22		0.14	0.21											
	24		0.08	0.16											
30	18		0.19												
	20		0.14												
	22		0.10												
	24		0.06												

The indicated outputs with ΔT 50 are the exact outputs, measured in accordance with EN 442. An average correction factor is given in this table for all other ΔT outputs, applicable for all dimensions. These correction factors are to be used for guidance only.

GUARDIAN LST ■ HEAT EXCHANGERS OVERVIEW & PRESSURE DROP



119mm depth

169mm depth

219mm depth

TO CALCULATE FLOW RATE:

Corrected output [Watts] x 3600

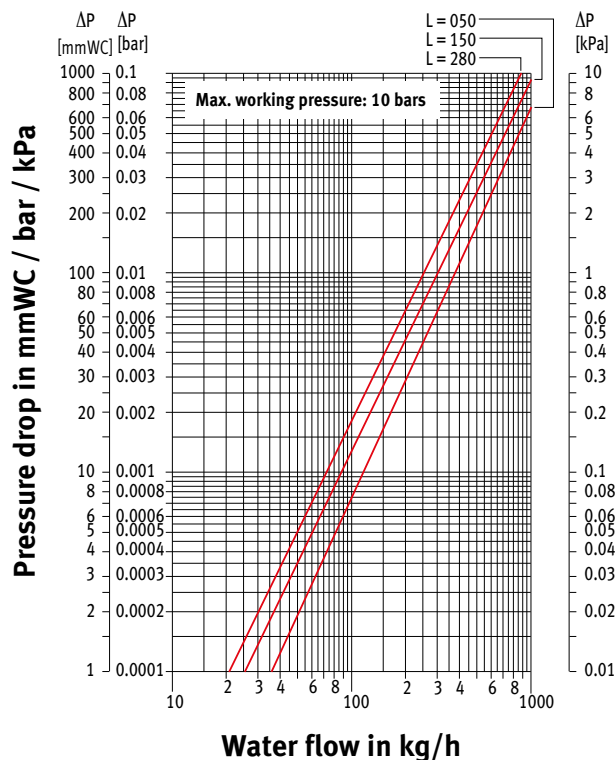
Specific heat capacity [J/kg.°C] x [flow temp – return temp]

For central heating hot water systems
the specific heat capacity of 4187 can be used:

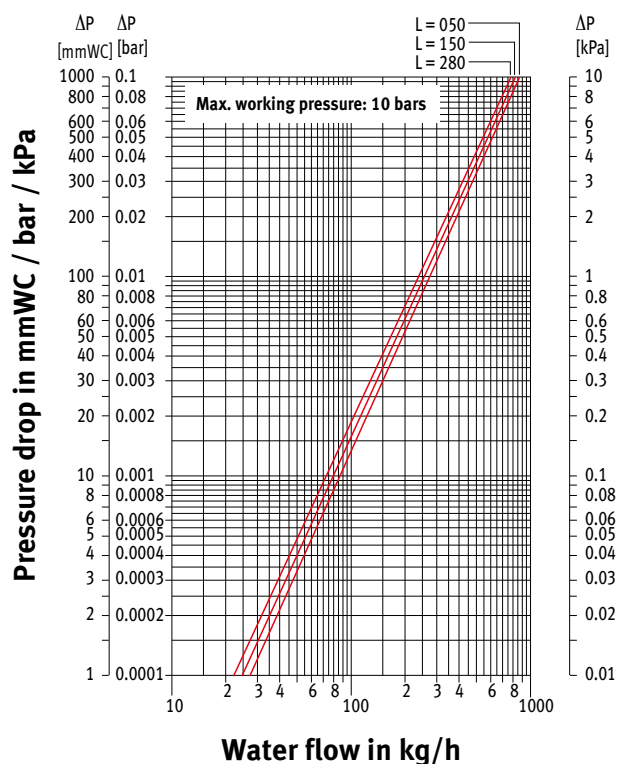
e.g. for a radiator with a 1000 Watt output with
a flow temp of 70°C and a return temp of 50°C.

$$\text{Mass flow} = \frac{1000 \times 3600}{4187 \times (70 - 50)} = 42.99 \text{ kg/hr}$$

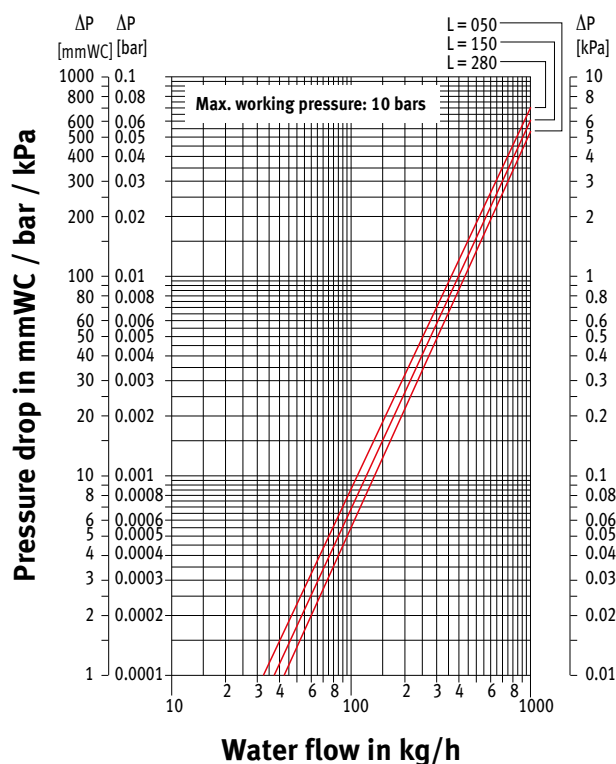
PRESSURE DROP 119mm DEPTH



PRESSURE DROP 169mm DEPTH



PRESSURE DROP 219mm DEPTH







VALVES, TRV HEADS AND ACCESSORIES

OUR SPECIALLY SHORTENED VALVES CAN BE CONCEALED WITHIN THE STANDARD CASING. OTHER VALVES MAY BE PARTIALLY VISIBLE.

SLEEVE COUPLING M24

Copper Tube

CODE	Tube Ø
5094.110	10/1
5094.115	15/1

Steel Tube for C.H

CODE	Tube Ø
5094.501	1/2"

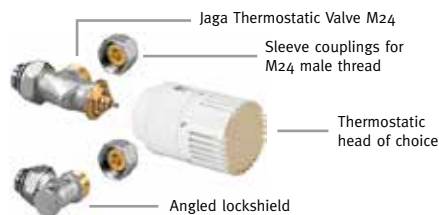
Please note other couplings are available on request.

JAGA PRO THERMOSTATIC VALVE (for Guardian LST – WT only)



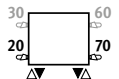
- with pre-setting
- for two pipe
- for connection to the floor
- complies to European standard EN 215.1

JAGA THERMOSTATIC VALVE – WALL (suitable for all LST Radiators)



- Consists of the following :
- 5090.407 type o6 angled TRV
 - 5090.111 type o6 angled lockshield valve
 - 5090.1125 white TRV head
 - Adaptors to suit 15mm copper pipe as standard

To suit pipework to wall
(Same end 20/70 connections).



SLEEVE COUPLING 1/2"

Copper Tube

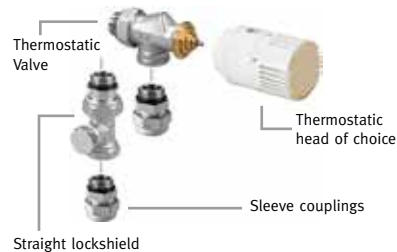
CODE	Tube Ø
5098.110	10/1
5098.115	15/1

Steel Tube for C.H

CODE	Tube Ø
5094.502	1/2"

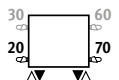
Please note other couplings are available on request.

JAGA THERMOSTATIC VALVE – FLOOR (suitable for all LST Radiators)



- Consists of the following :
- 5090.405 angled TRV
 - 5090.109 straight lockshield valve
 - 5090.1125 white TRV head
 - Adaptors to suit 15mm copper pipe as standard

To suit pipework from the floor
(Same end 20/70 connections).

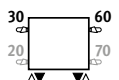


HIGH LEVEL JAGA TOP VALVE



- Consists of the following :
- 5090.13001 High Level TRV set (including valve, capillary & head).
 - 5090.109 straight lockshield valve
 - 5090.110 angled lockshield valve
 - Adaptors to suit 15mm copper pipe as standard

To suit pipework from the floor
(Same end 30/60 connections).



TRV HEADS



CODE
5090.1125



CODE
5090.1151



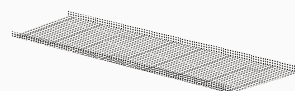
CODE
5090.1150



CODE
5090.1152

PENCIL PROOF GRILLE FT/WT

Same colour as casing.



CODE	Height	Length	Depth
5606 000	064*	119	

*to suit casing length and type

ARTHRITIC AID



CODE
5090.ARTH



WHAT MAKES JAGA SUSTAINABLE?

Sustainability does not just start when the product is in use, but from the sourcing of the materials and throughout the product life cycle. Being sustainable and reducing our impact on the environment is what we do. There is no Planet B*. The values are the ethos on which the company bases everything.

HIGHEST EFFICIENCY RATINGS

Jaga's Low-H₂O uses less energy than any other radiator and contains 90% less water than that of an equivalent steel panel. Meaning faster response times and no wasteful over-heating.

BUILT TO LAST

The heat exchanger consists of aluminium heating fins, copper and brass irrigation tubes and brass collectors. Totally rust-free, resistant to very high working pressures and with a 30-year guarantee. A long life means lower environmental impact.

EFFICIENT USE OF MATERIALS

Since copper and aluminium are such efficient heat conductors, only a relatively small quantity of these materials are required, this includes the casing. A Low-H₂O radiator weighs much less and uses a lot less materials than a steel panel radiator.

FULLY RECYCLABLE

Copper and aluminium may not seem like the most ecological choice, but due to their high efficiency, long life, and the fact that these valuable materials are always fully recyclable, it will ultimately result in an improved LCA score.

"Low-H₂O radiators reduce the CO₂ emissions of an average house by about 1000 kg."



RESPECT
NATURE

*Ban Ki-Moon,
Former Secretary General
of the UN

JAGA LOW-H₂O RADIATORS REDUCE WASTE

Life cycle analysis (LCA) according to the Ovam Ecolizer database and weight.
Example for a 10 kW heating system, 45/35/20 temperature profile.

	underfloor heating	cast iron radiator	steel panel radiator	Jaga Low-H ₂ O radiator
LCA Score	248700	248744	185853	66517
Total weight incl. water (kg)	6252	360	216.7	48.8

What is an LCA score?

LCA or 'Life Cycle Assessment' is a system designed to compare products and their overall impact on the environment. This looks at all processes from design, materials sourced, manufacturing, energy usage until the product is ultimately 'retired'. Governments are trying to standardise LCA systems and to integrate them into the legislation. Jaga uses Ovam's Ecoliser 2.0 based on the Eco-Indicator EI-99 database. The lower the LCA score, less adverse impact on the environment. Jaga Low-H₂O radiators score significantly better than other radiators or heating systems.

BEST LCA - SCORE



OTHER PRODUCTS

WALL MOUNTED



PLAY



KNOCKONWOOD



STRADA



LINEA PLUS

INSTALLATION IN
A WALL RECESS



BRIZA



MINI WALL

OXYGEN



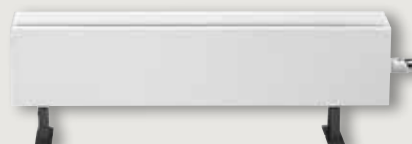
JAGA'S OXYGEN SYSTEM WORKS WITH ANY OF OUR LOW SURFACE TEMPERATURE (LST) AND WALL-MOUNTED PRODUCTS.

FREESTANDING



KNOCKONWOOD DBE

LINEA PLUS



MINI



MINI DBE

LOW SURFACE TEMPERATURE (LST)



GUARDIAN LST
(AVAILABLE IN WALL
AND FLOOR MODELS)



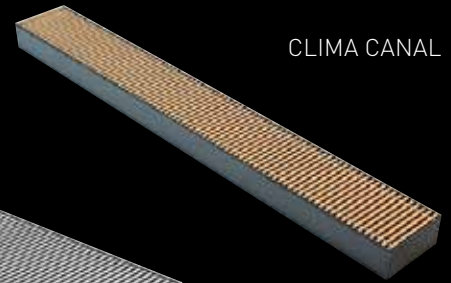
MAXI 2020 LST
(AVAILABLE IN WALL
AND FLOOR MODELS)

PANEL PLUS

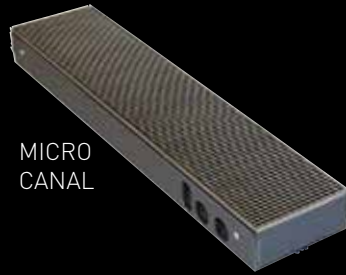


TRENCH HEATING

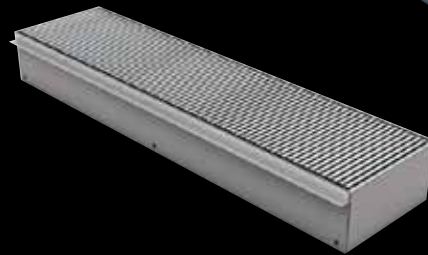
CLIMA CANAL



MICRO
CANAL



QUATRO CANAL



MINI CANAL
DBE



GEO



VERTIGA



TETRA



DECO
PANEL



PANEL
PLUS



DECO
SPACE

ORECA
MOON



ORECA
CROSSROADS

IGUANA &
IGUANA PLUS



TEMPO LST



TEMPO LST
FREESTANDING



DESIGNER

HEATWAVE



CPD SEMINAR REQUEST

jaga
CLIMATE DESIGNERS

VENTILATION IN SCHOOLS

Jaga UK's one-hour Ventilation in Schools CPD seminar certified by RIBA and CIBSE is designed to keep HVAC professionals abreast of recent advances and compliance in educational based environments.

This includes the techniques and challenges faced by specifiers in designing the most appropriate solutions.

Each seminar addresses current practices whilst helping designers to identify technical solutions and harness the benefits of various systems.

Jaga UK CPD seminars can be held at a venue of your choice.

CONTENT OF CPD:

How to meet BB101 requirements

How to maintain acceptable indoor air quality (IAQ)

Effects of poor IAQ

The importance of maintaining ideal CO2 levels

Relevant regulatory requirements

Natural and powered solutions

How to achieve effective ventilation



To arrange a CPD or to request more information please contact CPD Coordinator on the details below:
✉ Jaga House, Orchard Business Park, Ledbury, HR8 1LG - ☎ 01531 631 533 - email us @ cpd@jaga.co.uk
You can also register online at www.jaga.co.uk/technical-support/cpd-seminar-request

jaga
CLIMATE DESIGNERS

AT
HEA
CRI

Jaga UK's
HVAC pro
available.
and runnin
challenges
solution.

This CPD air
engineers a
and the kno

Jaga UK CPD
a venue of yo



To arrange a CPD or to request more information please contact:
✉ Jaga House, Orchard Business Park, Ledbury, HR8 1LG - ☎ 01531 631 533
You can also register online at www.jaga.co.uk/technical-support/cpd-seminar-request



THE END OF THE LINE... HEAT EMITTER SELECTION CRITERIA

One-hour Heat Emitter CPD seminar is designed to keep professionals up-to-date with the choice of heat emitters. We look at their effect on the energy performance and costs of the building before exploring in-depth the challenges faced in designing the most appropriate heating

seminars to address some of the issues that building service engineers and designers can face when looking at heat emitters and the effect of the chosen selection.

seminars are accredited by CIBSE, and can be held at a venue of your choice.

CONTENT OF CPD:

- The basics covering heat sources & distribution
- Regulations: building and specific regulations for different buildings
- The types of heat emitters available
- Looking at combined approaches
- Designing the best solution



For CPD Coordinator on the details below:
01531 631 533 - email us @ cpd@jaga.co.uk
or cpd-seminar-request

Jaga runs accredited CIBSE and RIBA Continuous Professional Development seminars on:

- Heat Emitter Selection
- Facade Heating
- Ventilation in Schools

Register your interest on our website:
www.jaga.co.uk/technical-support/cpd-seminar-request/

jaga
CLIMATE DESIGNERS

TRENCH & PERIMETER HEATING

Jaga UK's one-hour Facade Heating CPD-certified seminars is designed to keep HVAC professionals abreast of recent advances in facade heating techniques before exploring, in depth, the challenges faced by building services engineers in designing the most appropriate solution.

The seminar addresses current practices whilst helping design engineers to identify technical solutions and harness the benefits of the latest natural and fan-assisted trench and perimeter heating systems.

Jaga UK CPD seminars are accredited by CIBSE, and can be held at a venue of your choice.



CONTENT OF CPD:

- Design considerations for trench heating
- Influences of trench configuration
- When to use low level floor mounted heating
- Working with renewable energy sources
- Calculating heat outputs
- Case studies of recent facade heating projects
- EN16430 legislation
- Design & performance criteria



To arrange a CPD or to request more information please contact CPD Coordinator on the details below:
Jaga House, Orchard Business Park, Ledbury, HR8 1LG - 01531 631 533 - email us @ cpd@jaga.co.uk
You can also register online at www.jaga.co.uk/technical-support/cpd-seminar-request



Award winning Low-H₂O technology



Quick to install, pre-assembled casing



Outstanding performance with low temperature systems



No radiant heat loss to the wall



Wide range of sizes with a choice of designs



Split deliveries

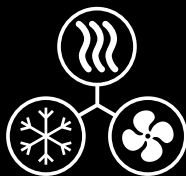


In stock, fast delivery

jaga

CLIMATE DESIGNERS

www.jaga.co.uk



Climate Designers -
Heating, Cooling
and Ventilation

Jaga UK

Jaga House, Orchard Business Park,
Bromyard Road, Ledbury,
Herefordshire HR8 1LG
Tel: +44 1531 631 533
Fax: +44 1531 631 534
E-mail: jaga@jaga.co.uk

Jaga NV

Verbindingslaan 16
B-3590 Diepenbeek
Tel: +32 11 29 41 11
Fax: +32 11 32 35 78
Email: info@jaga.be

About Jaga

Jaga manufactures a wide range of energy-efficient, heating, ventilation and cooling solutions.

Originally founded in Belgium in 1962 and established in the UK in 1991, Jaga UK is now one of the UK's leading distributors of award-winning, energy-saving, low-water content and designer products.

GUAR_BRO_V4_1119