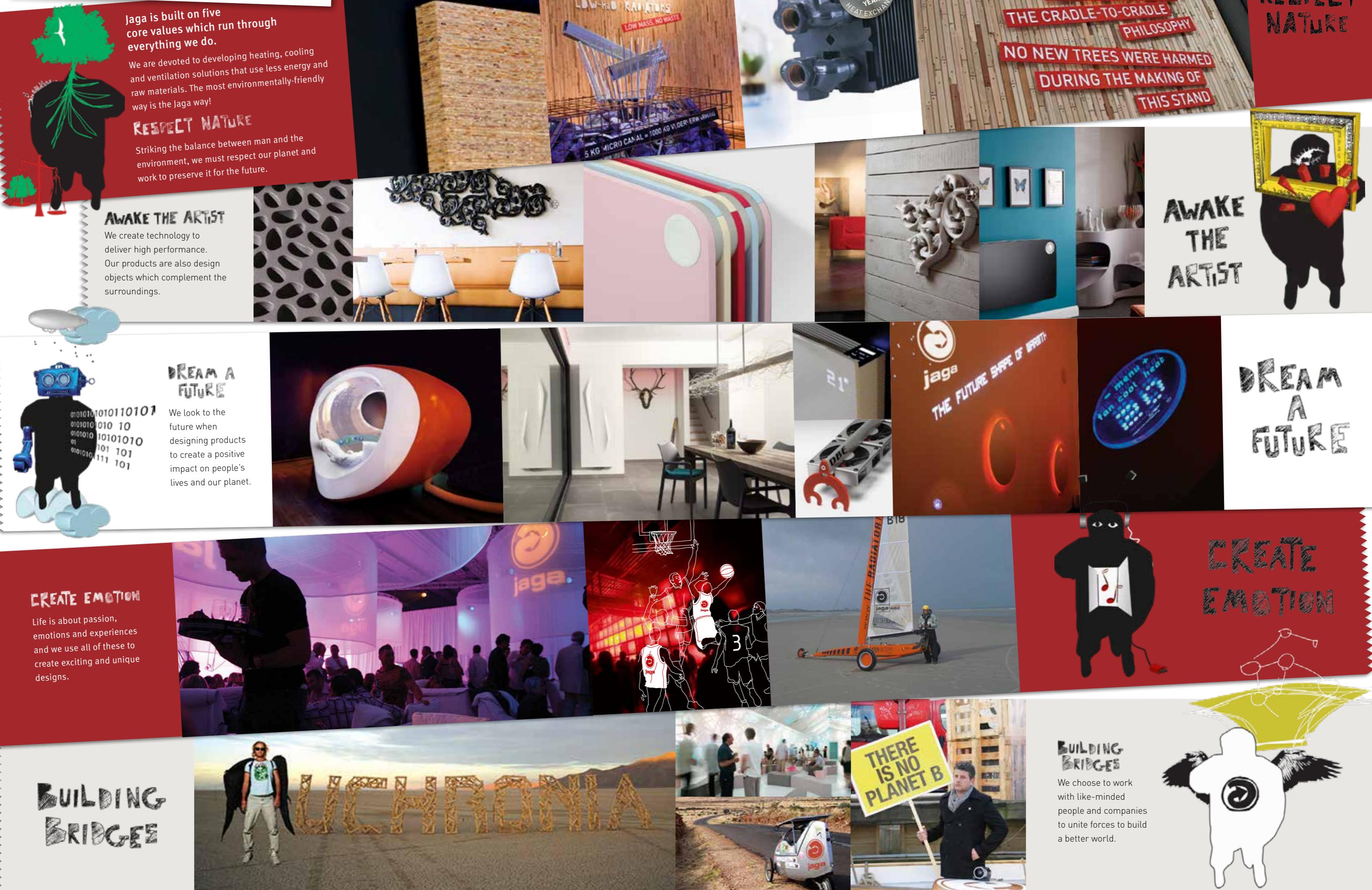


jaga

TEMPO LST /
TEMPO LST DBE



JAGA VALUES



TEMPO LST

SAFE, SUBTLE AND CLASSIC DESIGN

Jaga's Tempo LST is our most popular entry level LST with:

- The widest range of sizes in wall mounted, freestanding and continuous models available
- Energy savings of up to 15%*
- Ease of handling and storage
- Dynamic boost effect (DBE) technology, meaning greater heat output and compact sizes even at low temperatures (see DBE page 10)

- Parts easily replaced if damaged without the cost of replacing the whole radiator
- Works with Jaga's ventilation solution 'Oxygen' to deliver combined ventilation and heating in one system.

Jaga's Tempo LST is a popular choice for low surface temperature heating solutions. Widely specified in care homes and retirement living for its safety features, energy efficiency, and having been designed to meet the NHS Estates guidelines for heat emitters.

*As tested by BRE



Award winning Low-H₂O technology



Wide range of sizes with a choice of designs



Outstanding performance with low temperature systems



Valve options can be concealed in casing



No radiant heat loss to the wall



In stock, fast delivery



Split deliveries



BIM files available



jaga

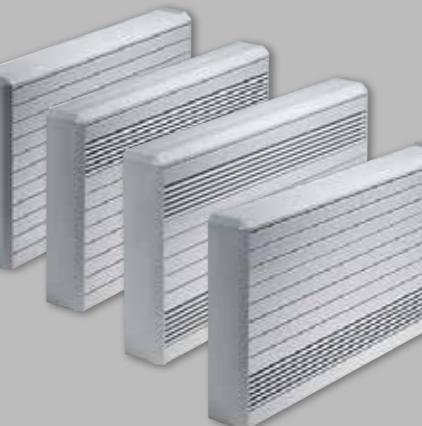
AWAKE
THE ARTIST

PRESENTING TEMPO LST



THE JAGA LST PORTFOLIO

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

Product	Options	Recommended Application	Key Features	Sizes	Options	Notes
TEMPO LST 	<ul style="list-style-type: none"> - Wall mounted above skirting - Freestanding - Freestanding with extended foot 	 Care & Nursing Homes  Sheltered Housing  Educational Establishments	<ul style="list-style-type: none"> - Rounded corners - Easy handling & storage - Great value for money - Split deliveries (if required) - Damaged casing parts easily replaced 	Wall: <ul style="list-style-type: none"> - Heights 200 to 900mm - Lengths 400 to 3000mm Freestanding: <ul style="list-style-type: none"> - Heights 200 to 500mm - Lengths 400 to 3000mm 	<ul style="list-style-type: none"> - DBE - High level valve - Casing locks - Pencil-proof grille - Continuous casings - Twin emitter - Oxygen ventilation system 	<ul style="list-style-type: none"> - Flat packed for reduced storage - For Tempo Freestanding both fixed and adjustable length feet area are available
GUARDIAN LST 	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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): <ul style="list-style-type: none"> - Heights 400 to 600mm - Lengths 440 to 2040mm Floor (FT): <ul style="list-style-type: none"> - Heights 400 to 800mm - Lengths 440 to 2040mm 	<ul style="list-style-type: none"> - DBE - High level valve - Oxygen - Pencil-proof grille - Oxygen ventilation system 	<ul style="list-style-type: none"> - With casing to finished floor level, all pipework is covered preventing access to the underside (FT)
MAXI 2020 LST 	<ul style="list-style-type: none"> - Wall mounted above skirting - Wall mounted with casing to finished floor - 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	<ul style="list-style-type: none"> - Super strong casing - Rounded corners - Split deliveries (if required) - Casing locks 	Wall: <ul style="list-style-type: none"> - Heights 440 to 740mm - Lengths 630 to 2030mm Floor: <ul style="list-style-type: none"> - Heights 440 to 740mm - Lengths 630 to 2030mm 	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> - 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

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

LOW-H₂O: LIGHTER, FASTER AND EFFICIENT

THE LOW WATER CONTENT RADIATOR

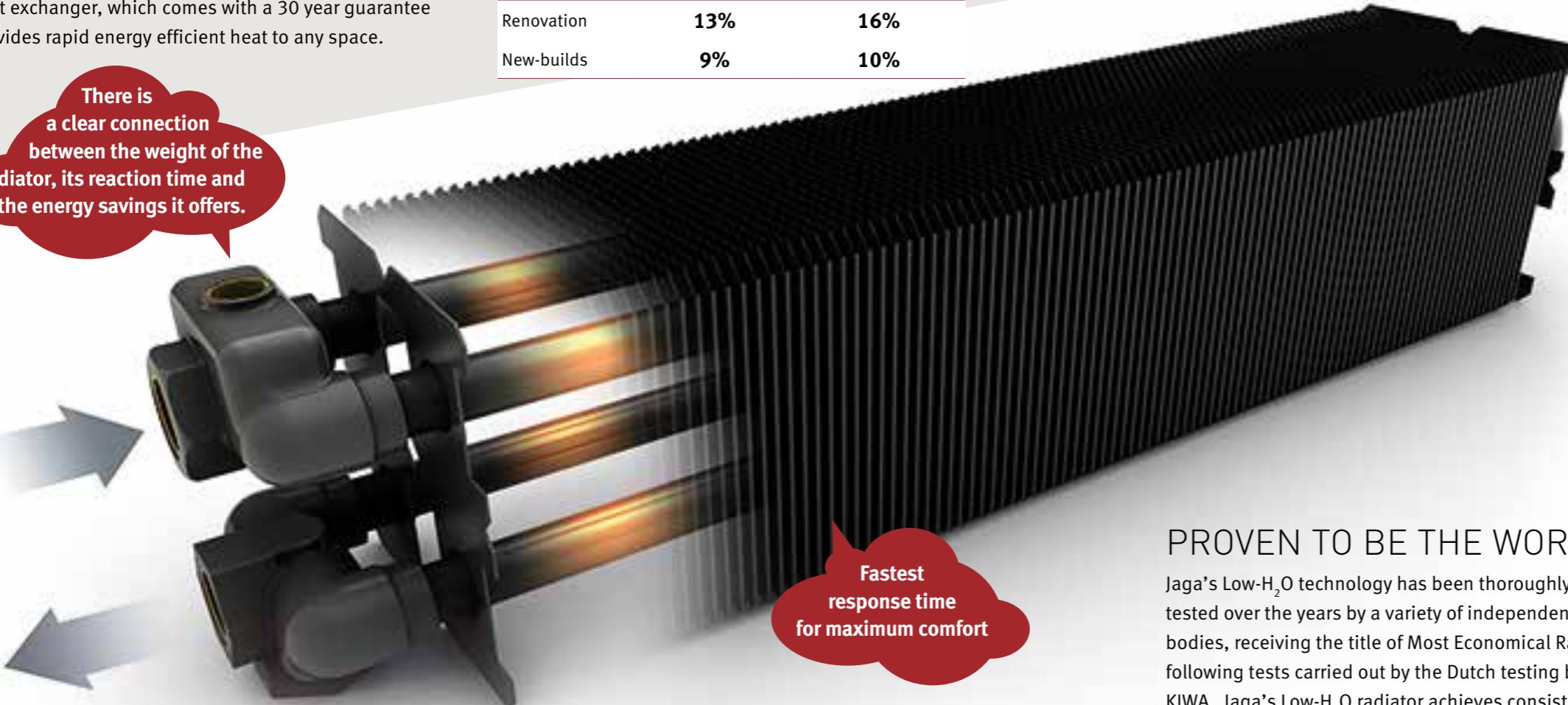
Jaga's Low-H₂O radiators contain 90% less water than that of a steel panel radiator, meaning they are faster to heat up and cool down. This means Low-H₂O radiators react faster to the occupants' needs as well as changes to ambient temperature. This ensures better comfort with less energy consumption, 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.



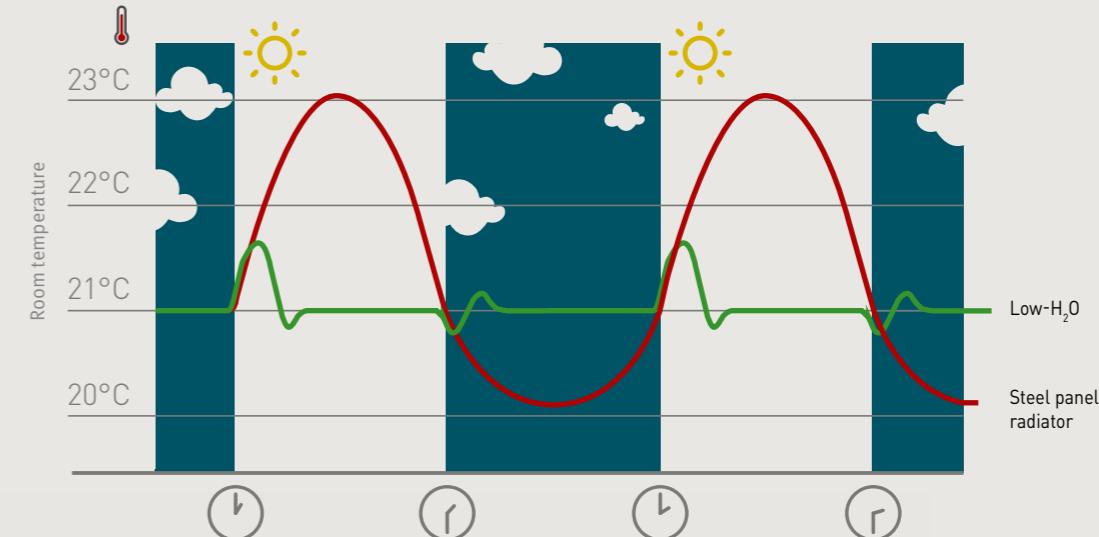
Research by KIWA show that Low-H₂O radiators consume between 9 and 16%* less energy than a system with steel panel radiators. They achieve the desired temperature faster with less heat wasted through unnecessary over-heating, common in heavier radiators.

Comparison Low-H ₂ O/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.



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



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.

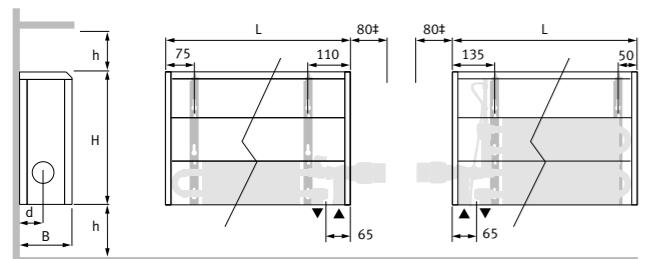


DREAM
A FUTURE

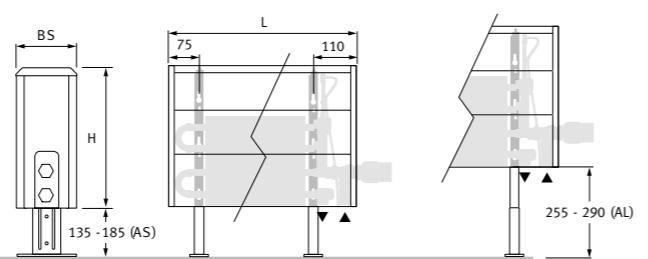
TEMPO LST

DIMENSIONS (in mm)

Tempo LST wall mounted

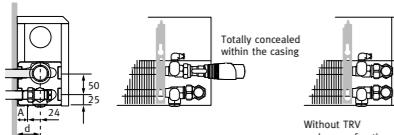


Tempo LST freestanding

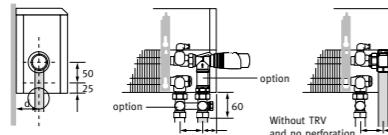


Max. when using Jaga TRV and Head

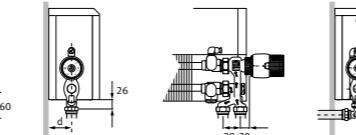
Example with Jaga valve:
to the wall



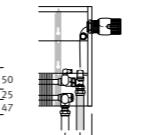
Example with Jaga valve:
to the floor



Example with Jaga Pro valve:
to the wall or to the floor



Example with
Jaga top valve:

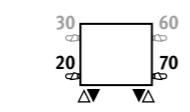


Type	Connection to floor d (mm)	Connection to wall A (mm)	Clearance h (mm)
10/11	53	29	100
15/16	78	53	120
20/21	103	79	150
B	BS		
10/11	119	130	
15/16	169	180	
20/21	129	230	

CONNECTION

Jaga valves can be concealed within the standard casing. Other valves may be partially visible.

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



COLOURS

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

Colour:

- White RAL 9010 (101), soft touch satin finish

ORDERING CODE

code	height	length	type	colour
TEMW .	040	060	10 .	101

For example using ordering code TEMW 040 060 10 101 will result in a Tempo wall model with white casing, 400mm high, 600mm long and type 10.

ORDERING CODE WITH DBE

code	height	length	type	colour	Option
TEMW .	040	080	10 .	101	/DBE

Products with DBE have outputs shown based on 'comfort' mode (see page 9).

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



STOCK ITEMS

All wall mounted models up to 2000 long in all heights are held in stock, all other sizes are made to order.

All freestanding models are made to order.

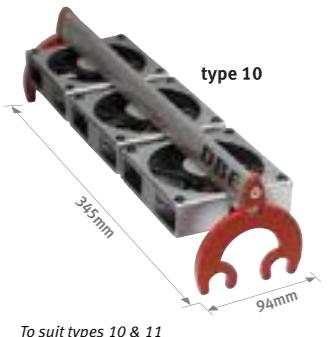
Split delivery options available.

Please contact our customer service team to discuss your requirements and availability on large quantity orders.

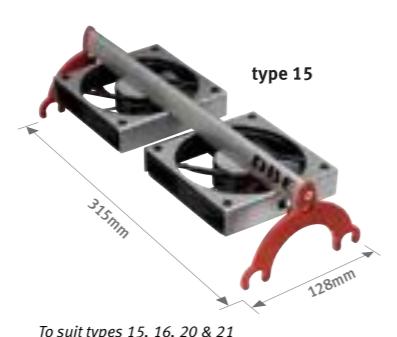


OPTIONAL: DBE

DBE UNIT DBEU.10



DBE UNIT DBEU.15



HEIGHT 200 · OUTPUT TABLES

TEMW.020 LLL TT.XXX

TECHNICAL INFO

STANDARD		STANDARD	
Length mm	Type	Watts	Watts
400	10	262	127
	15	436	212
	20	613	299
500	10	328	159
	15	545	265
	20	766	373
600	10	393	191
	15	654	319
	20	919	448
700	10	459	223
	15	763	372
	20	1072	522
800	10	524	255
	15	872	425
	20	1226	597
900	10	590	287
	15	981	478
	20	1379	672
1000	10	655	318
	15	1090	531
	20	1532	746
1100	10	721	350
	15	1199	584
	20	1685	821
1200	10	786	382
	15	1308	637
	20	1838	895
1400	10	917	446
	15	1526	743
	20	2145	1045
1600	10	1048	509
	15	1744	850
	20	2451	1194
1800	10	1179	573
	15	1962	956
	20	2758	1343
2000	10	1310	637
	15	2180	1062
	20	3064	1493
2200	10	1441	700
	15	2398	1168
	20	3370	1642
2400	10	1572	764
	15	2616	1274
	20	3677	1791
2600	10	1703	827
	15	2834	1381
	20	3983	1940
2800	10	1834	891
	15	3052	1487
	20	4290	2090
3000	10	1965	955
	15	3270	1593
	20	4596	2239

EN442 output at 20°C room temperature

HEIGHT 300 - OUTPUT TABLES

TEMW.030 LLL TT.XXX				TEMW.030 LLL TT.XXX/DBE									
Length mm	STANDARD		TWIN	WITH DBE			STANDARD	TWIN & TWIN WITH DBE					
	Type	Watts	Watts	Type	Watts	Watts	Type	Watts	Watts	Weight Content	Water Content	Fan (Number)	Noise Level dB(A)
400	10	330	161	11	448	215	11	N/A	N/A	N/A	3.6	0.25	N/A N/A N/A N/A
	15	544	267	16	592	281	16	N/A	N/A	N/A	4.8	0.38	N/A N/A N/A N/A
	20	762	373	21	779	368	21	N/A	N/A	N/A	5.9	0.50	N/A N/A N/A N/A
500	10	413	202	11	561	269	11	N/A	N/A	N/A	4.2	0.31	N/A N/A N/A N/A
	15	680	333	16	740	352	16	N/A	N/A	N/A	5.5	0.47	N/A N/A N/A N/A
	20	953	467	21	974	460	21	N/A	N/A	N/A	6.7	0.63	N/A N/A N/A N/A
600	10	496	242	11	673	323	11	973	584	418	4.7	0.38	6.5 0.73 1 DBEU.10 29.0
	15	815	399	16	888	422	16	1368	821	588	6.1	0.56	8.5 1.07 1 DBEU.15 27.0
	20	1144	561	21	1169	552	21	1649	989	709	7.5	0.75	10.2 1.43 1 DBEU.15 27.0
700	10	578	282	11	785	376	11	1085	651	467	5.3	0.44	7.2 0.86 1 DBEU.10 29.0
	15	951	466	16	1036	492	16	1516	910	652	6.8	0.66	9.3 1.26 1 DBEU.15 27.0
	20	1334	654	21	1364	644	21	1844	1106	793	8.3	0.88	11.2 1.69 1 DBEU.15 27.0
800	10	661	323	11	897	430	11	1197	718	515	5.7	0.50	7.8 0.99 1 DBEU.10 29.0
	15	1087	533	16	1184	563	16	1664	998	716	7.5	0.76	10.3 1.46 1 DBEU.15 27.0
	20	1525	747	21	1558	736	21	2038	1223	876	9.1	1.01	12.4 1.95 1 DBEU.15 27.0
900	10	743	363	11	1009	484	11	1609	965	692	6.3	0.57	9.2 1.12 2 DBEU.10 32.0
	15	1223	599	16	1332	633	16	2292	1375	986	8.1	0.86	12.2 1.65 2 DBEU.15 30.0
	20	1715	841	21	1753	828	21	2713	1628	1167	9.9	1.14	14.4 2.21 2 DBEU.15 30.0
1000	10	826	403	11	1121	537	11	1721	1033	740	6.8	0.63	9.9 1.25 2 DBEU.10 32.0
	15	1359	666	16	1480	703	16	2440	1464	1049	8.8	0.95	12.9 1.84 2 DBEU.15 30.0
	20	1906	934	21	1948	920	21	2908	1745	1250	10.7	1.27	15.2 2.46 2 DBEU.15 30.0
1100	10	909	444	11	1233	591	11	1833	1100	788	7.3	0.69	10.6 1.37 2 DBEU.10 32.0
	15	1495	733	16	1628	774	16	2588	1553	1113	9.4	1.05	13.6 2.03 2 DBEU.15 30.0
	20	2097	1028	21	2143	1012	21	3103	1862	1334	11.5	1.39	16.3 2.72 2 DBEU.15 30.0
1200	10	991	484	11	1345	645	11	1945	1167	836	7.9	0.76	11.4 1.50 2 DBEU.10 32.0
	15	1631	799	16	1776	844	16	2736	1642	1176	10.2	1.14	14.6 2.23 2 DBEU.15 30.0
	20	2287	1121	21	2338	1105	21	3298	1979	1418	12.3	1.52	17.4 2.97 2 DBEU.15 30.0
1400	10	1156	565	11	1569	752	11	2169	1301	933	9.2	0.89	13 1.76 2 DBEU.10 32.0
	15	1903	933	16	2072	985	16	3032	1819	1304	11.8	1.34	17.4 2.62 2 DBEU.15 30.0
	20	2668	1308	21	2727	1288	21	3687	2212	1585	14.3	1.78	21.2 3.50 2 DBEU.15 30.0
1600	10	1322	646	11	1794	860	11	2994	1796	1287	10.2	1.02	15.6 2.02 4 DBEU.10 35.0
	15	2174	1066	16	2368	1126	16	4288	2573	1844	13.1	1.53	19.9 3.00 4 DBEU.15 33.0
	20	3050	1495	21	3117	1473	21	5037	3022	2166	16.0	2.04	23.8 4.00 4 DBEU.15 33.0
1800	10	1487	726	11	2018	967	11	3218	1931	1384	11.3	1.14	16.9 2.27 4 DBEU.10 35.0
	15	2446	1199	16	2664	1266	16	4584	2750	1971	14.5	1.73	21.3 3.38 4 DBEU.15 33.0
	20	3431	1682	21	3506	1656	21	5426	3256	2333	17.6	2.30	26.0 4.51 4 DBEU.15 33.0
2000	10	1652	807	11	2242	1074	11	3442	2065	1480	12.2	1.27	18.2 2.53 4 DBEU.10 35.0
	15	2718	1332	16	2960	1407	16	4880	2928	2098	15.8	1.92	22.7 3.77 4 DBEU.15 33.0
	20	3812	1868	21	3896	1841	21	5816	3490	2501	19.2	2.56	28.2 5.04 4 DBEU.15 33.0
2200	10	1817	887	11	2466	1182	11	3666	2200	1576	13.3	1.40	19.5 2.79 4 DBEU.10 35.0
	15	2990	1465	16	3256	1548	16	5176	3106	2226	17.1	2.11	24.3 4.16 4 DBEU.15 33.0
	20	4193	2055	21	4286	2025	21	6206	3724	2669	20.8	2.81	30.3 5.55 4 DBEU.15 33.0
2400	10	1982	968	11	2690	1289	11	4490	2694	1931	14.7	1.53	22.5 3.04 6 DBEU.10 36.8
	15	3262	1599	16	3552	1688	16	6432	3859	2766	18.9	2.30	27.5 4.54 6 DBEU.15 34.8
	20	4574	2242	21	4675	2209	21	7555	4533	3249	23.0	3.07	34.2 6.05 6 DBEU.15 34.8
2600	10	2148	1049	11	2915	1397	11	4715	2829	2027	15.7	1.66	23.9 3.30 6 DBEU.10 36.8
	15	3533	1732	16	3848	1829	16	6728	4037	2893	20.2	2.49	29.3 4.93 6 DBEU.15 34.8
	20	4956	2429	21	5065	2393	21	7945	4767	3416	24.5	3.33	36.5 6.58 6 DBEU.15 34.8
2800	10	2313	1130	11	3139	1504	11	4939	2963	2124	16.8	1.79	25.1 3.56 6 DBEU.10 36.8
	15	3805	1865	16	4144	1970	16	7024	4214	3020	21.5	2.69	30.9 5.31 6 DBEU.15 34.8
	20	5337	2616	21	5454	2577	21	8334	5000	3584	26.1	3.58	38.7 7.09 6 DBEU.15 34.8
3000	10	2478	1210	11	3363	1612	11	5163	3098	2220	17.8	1.92	26.5 3.82 6 DBEU.10 36.8
	15	4077	1998	16	4440	2110	16	7320	4392	3148	22.7		

HEIGHT 500 - OUTPUT TABLES

TEMW.050 LLL TT.XXX

TEMW.050 LLL TT.XXX/DBE

Length mm	STANDARD			TWIN			WITH DBE			STANDARD			TWIN & TWIN WITH DBE			
	Type	Watts	Watts	Type	Watts	Watts	Type	Watts	Watts	Weight	Water	Weight	Water	Fan	Noise Level	
		75/65	55/45		75/65	55/45		75/65	55/45		75/65	Content	75/65	55/45	(Number)	dB(A)
400	10	430	212	11	554	266	11	N/A	N/A	5.2	0.25	N/A	N/A	N/A	N/A	
	15	694	344	16	759	359	16	N/A	N/A	6.6	0.38	N/A	N/A	N/A	N/A	
	20	970	481	21	1033	484	21	N/A	N/A	8.0	0.50	N/A	N/A	N/A	N/A	
500	10	538	265	11	693	332	11	N/A	N/A	5.9	0.31	N/A	N/A	N/A	N/A	
	15	867	430	16	949	449	16	N/A	N/A	7.5	0.47	N/A	N/A	N/A	N/A	
	20	1213	602	21	1291	605	21	N/A	N/A	9.0	0.63	N/A	N/A	N/A	N/A	
600	10	646	318	11	832	399	11	1132	679	487	6.6	0.38	8.4	0.73	1 DBEU.10	29.0
	15	1040	516	16	1139	539	16	1619	971	696	8.3	0.56	10.6	1.07	1 DBEU.15	27.0
	20	1455	722	21	1549	725	21	2029	1217	872	10.0	0.75	12.6	1.43	1 DBEU.15	27.0
700	10	753	371	11	970	465	11	1270	762	546	7.2	0.44	9.2	0.86	1 DBEU.10	29.0
	15	1214	602	16	1329	629	16	1809	1085	778	9.1	0.66	11.6	1.26	1 DBEU.15	27.0
	20	1698	842	21	1807	846	21	2287	1372	983	10.9	0.88	13.8	1.69	1 DBEU.15	27.0
800	10	861	424	11	1109	532	11	1409	845	606	7.9	0.50	10.0	0.99	1 DBEU.10	29.0
	15	1387	688	16	1518	719	16	1998	1199	859	9.9	0.76	12.7	1.46	1 DBEU.15	27.0
	20	1940	962	21	2066	968	21	2546	1528	1095	11.9	1.01	15.1	1.95	1 DBEU.15	27.0
900	10	968	477	11	1247	598	11	1847	1108	794	8.6	0.57	11.6	1.12	2 DBEU.10	32.0
	15	1561	774	16	1708	809	16	2668	1601	1147	10.7	0.86	14.8	1.65	2 DBEU.15	30.0
	20	2183	1083	21	2324	1088	21	3284	1970	1412	12.8	1.14	17.3	2.21	2 DBEU.15	30.0
1000	10	1076	530	11	1386	665	11	1986	1192	854	6.9	0.63	12.3	1.25	2 DBEU.10	32.0
	15	1734	860	16	1898	898	16	2858	1715	1229	11.5	0.95	15.6	1.84	2 DBEU.15	30.0
	20	2425	1203	21	2582	1209	21	3542	2125	1523	13.8	1.27	18.3	2.46	2 DBEU.15	30.0
1100	10	1184	584	11	1525	732	11	2125	1275	914	9.9	0.69	13.2	1.37	2 DBEU.10	32.0
	15	1907	946	16	2088	988	16	3048	1829	1311	12.3	1.05	16.4	2.03	2 DBEU.15	30.0
	20	2668	1323	21	2840	1330	21	3800	2280	1634	14.7	1.39	19.5	2.72	2 DBEU.15	30.0
1200	10	1291	636	11	1663	798	11	2263	1358	973	10.7	0.76	14.1	1.50	2 DBEU.10	32.0
	15	2081	1032	16	2278	1078	16	3238	1943	1392	13.2	1.14	17.6	2.23	2 DBEU.15	30.0
	20	2910	1443	21	3098	1451	21	4058	2435	1745	15.7	1.52	20.8	2.97	2 DBEU.15	30.0
1400	10	1506	742	11	1940	931	11	2540	1524	1092	12.5	0.89	16.3	1.76	2 DBEU.10	32.0
	15	2428	1204	16	2657	1258	16	3617	2170	1555	15.4	1.34	21.0	2.62	2 DBEU.15	30.0
	20	3395	1684	21	3615	1693	21	4575	2745	1967	18.4	1.78	25.3	3.50	2 DBEU.15	30.0
1600	10	1722	849	11	2218	1064	11	3418	2051	1470	13.9	1.02	19.2	2.02	4 DBEU.10	35.0
	15	2774	1376	16	3037	1438	16	4957	2974	2132	17.1	1.53	23.8	3.00	4 DBEU.15	33.0
	20	3880	1924	21	4131	1935	21	6051	3631	2602	20.3	2.04	28.1	4.00	4 DBEU.15	33.0
1800	10	1937	955	11	2495	1197	11	3695	2217	1589	15.2	1.14	20.8	2.27	4 DBEU.10	35.0
	15	3121	1548	16	3416	1617	16	5336	3202	2294	18.7	1.73	25.5	3.38	4 DBEU.15	33.0
	20	4365	2165	21	4648	2177	21	6568	3941	2824	22.2	2.30	30.6	4.51	4 DBEU.15	33.0
2000	10	2152	1061	11	2772	1330	11	3972	2383	1708	16.5	1.27	22.4	2.53	4 DBEU.10	35.0
	15	3468	1720	16	3796	1797	16	5716	3430	2458	20.3	1.92	27.2	3.77	4 DBEU.15	33.0
	20	4850	2405	21	5164	2418	21	7084	4250	3046	24.1	2.56	33.1	5.04	4 DBEU.15	33.0
2200	10	2367	1167	11	3049	1463	11	4249	2549	1827	17.8	1.40	24.0	2.79	4 DBEU.10	35.0
	15	3815	1892	16	4176	1977	16	6096	3658	2621	21.9	2.11	29.1	4.16	4 DBEU.15	33.0
	20	5335	2646	21	5680	2660	21	7600	4560	3268	26.1	2.81	35.6	5.55	4 DBEU.15	33.0
2400	10	2582	1273	11	3326	1596	11	5126	3076	2204	19.8	1.53	27.5	3.04	6 DBEU.10	36.8
	15	4162	2064	16	4555	2156	16	7435	4461	3197	24.3	2.30	32.9	4.54	6 DBEU.15	34.8
	20	5820	2886	21	6197	2902	21	9077	5446	3903	29.0	3.07	40.2	6.05	6 DBEU.15	34.8
2600	10	2798	1379	11	3604	1729	11	5404	3242	2324	21.1	1.66	29.1	3.30	6 DBEU.10	36.8
	15	4508	2236	16	4935	2336										

HEIGHT 700 - OUTPUT TABLES

TEMW.070 LLL TT.XXX

TEMW.070 LLL TT.XXX/DBE

Length mm	STANDARD			TWIN			WITH DBE			STANDARD			TWIN & TWIN WITH DBE			
	Type	Watts	Watts	Type	Watts	Watts	Type	Watts	Watts	Weight	Water	Weight	Water	Fan	Noise Level	
		75/65	55/45		75/65	55/45		75/65	55/45		Content	Content	(Number)	dB(A)		
400	10	499	248	11	636	305	11	N/A	N/A	6.8	0.25	N/A	N/A	N/A	N/A	
	15	789	396	16	904	426	16	N/A	N/A	8.5	0.38	N/A	N/A	N/A	N/A	
	20	1101	553	21	1271	590	21	N/A	N/A	10.2	0.50	N/A	N/A	N/A	N/A	
500	10	624	311	11	795	382	11	N/A	N/A	7.6	0.31	N/A	N/A	N/A	N/A	
	15	986	495	16	1130	533	16	N/A	N/A	9.4	0.47	N/A	N/A	N/A	N/A	
	20	1377	691	21	1589	738	21	N/A	N/A	11.3	0.63	N/A	N/A	N/A	N/A	
600	10	749	373	11	954	458	11	1254	752	8.4	0.38	10.3	0.73	1 DBEU.10	29.0	
	15	1183	594	16	1356	639	16	1836	1102	10.4	0.56	12.8	1.07	1 DBEU.15	27.0	
	20	1652	829	21	1906	885	21	2386	1432	12.3	0.75	15.0	1.43	1 DBEU.15	27.0	
700	10	874	435	11	1113	534	11	1413	848	9.3	0.44	11.3	0.86	1 DBEU.10	29.0	
	15	1380	692	16	1582	746	16	2062	1237	11.4	0.66	14.0	1.26	1 DBEU.15	27.0	
	20	1927	967	21	2224	1033	21	2704	1622	13.5	0.88	16.4	1.69	1 DBEU.15	27.0	
800	10	998	497	11	1272	611	11	1572	943	10.1	0.50	12.2	0.99	1 DBEU.10	29.0	
	15	1578	792	16	1808	852	16	2288	1373	12.3	0.76	15.2	1.46	1 DBEU.15	27.0	
	20	2202	1105	21	2542	1181	21	3022	1813	14.5	1.01	17.9	1.95	1 DBEU.15	27.0	
900	10	1123	559	11	1431	687	11	2031	1219	10.8	0.57	13.8	1.12	2 DBEU.10	32.0	
	15	1775	891	16	2034	959	16	2994	1796	13.3	0.86	17.4	1.65	2 DBEU.15	30.0	
	20	2478	1244	21	2859	1328	21	3819	2291	15.7	1.14	20.2	2.21	2 DBEU.15	30.0	
1000	10	1248	621	11	1590	764	11	2190	1314	11.6	0.63	14.8	1.25	2 DBEU.10	32.0	
	15	1972	989	16	2260	1065	16	3220	1932	14.2	0.95	18.4	1.84	2 DBEU.15	30.0	
	20	2753	1382	21	3177	1476	21	4137	2482	16.7	1.27	21.3	2.46	2 DBEU.15	30.0	
1100	10	1373	683	11	1749	840	11	2349	1409	12.5	0.69	15.9	1.37	2 DBEU.10	32.0	
	15	2169	1088	16	2486	1172	16	3446	2068	15.2	1.05	19.4	2.03	2 DBEU.15	30.0	
	20	3028	1520	21	3495	1623	21	4455	2673	17.9	1.39	22.7	2.72	2 DBEU.15	30.0	
1200	10	1498	746	11	1908	916	11	2508	1505	13.4	0.76	16.9	1.50	2 DBEU.10	32.0	
	15	2366	1187	16	2712	1279	16	3672	2203	16.2	1.14	20.7	2.23	2 DBEU.15	30.0	
	20	3304	1659	21	3812	1771	21	4772	2863	19.1	1.52	24.2	2.97	2 DBEU.15	30.0	
1400	10	1747	869	11	2226	1069	11	2826	1696	15.8	0.89	19.6	1.76	2 DBEU.10	32.0	
	15	2761	1385	16	3164	1492	16	4124	2474	19.1	1.34	24.6	2.62	2 DBEU.15	30.0	
	20	3854	1935	21	4448	2066	21	5408	3245	22.5	1.78	29.3	3.50	2 DBEU.15	30.0	
1600	10	1997	994	11	2544	1222	11	3744	2246	17.4	1.02	22.8	2.02	4 DBEU.10	35.0	
	15	3155	1583	16	3616	1705	16	5536	3322	21.0	1.53	27.7	3.00	4 DBEU.15	33.0	
	20	4405	2211	21	5083	2361	21	7003	4202	24.7	2.04	32.4	4.00	4 DBEU.15	33.0	
1800	10	2246	1118	11	2862	1374	11	4062	2437	19.0	1.14	24.6	2.27	4 DBEU.10	35.0	
	15	3550	1781	16	4068	1918	16	5988	3593	22.9	1.73	29.7	3.38	4 DBEU.15	33.0	
	20	4955	2488	21	5719	2657	21	7639	4583	26.9	2.30	35.2	4.51	4 DBEU.15	33.0	
2000	10	2496	1242	11	3180	1527	11	4380	2628	20.6	1.27	26.6	2.53	4 DBEU.10	35.0	
	15	3944	1979	16	4520	2131	16	6440	3864	24.9	1.92	31.7	3.77	4 DBEU.15	33.0	
	20	5506	2764	21	6354	2952	21	8274	4964	29.1	2.56	38.0	5.04	4 DBEU.15	33.0	
2200	10	2746	1367	11	3498	1680	11	4698	2819	22.3	1.40	28.5	2.79	4 DBEU.10	35.0	
	15	4338	2177	16	4972	2344	16	6892	4135	26.8	2.11	33.9	4.16	4 DBEU.15	33.0	
	20	6057	3041	21	6989	3247	21	8909	5345	31.3	2.81	40.7	5.55	4 DBEU.15	33.0	
2400	10	2995	1491	11	3816	1832	11	5616	3370	24.8	1.53	32.5	3.04	6 DBEU.10	36.8	
	15	4733	2375	16	5424	2557	16	8304	4982	29.8	2.30	38.5	4.54	6 DBEU.15	34.8	
	20	6607	3317	21	7625	3542	21	10505	6303	34.8	3.07	46.1	6.05	6 DBEU.15	34.8	
2600	10	3245	1615	11	4134	1985	11	5934	3560	26.4	1.66	34.5	3.30	6 DBEU.10	36.8	
	15	5127	2573	16	5876	2770	16	8756	5254	31.7	2.49	40.9	4.93	6 DBEU.15	34.8	
	20	7158	3594	21	8260	3837	21	11140	6684	37.0	3.33	48.9	6.58	6 DBEU.15	34.8	
2800	10	3494	1739	11	4452	2138	11	6252	3751	28.1	1.79	36.4	3.56	6 DBEU.10	36.8	
	1															

HEIGHT 200 FS ▪ OUTPUT TABLES

▪ TECHNICAL INFO

TEMF.020 LLL TT.XXX

STANDARD		STANDARD	
Length mm	Type	Watts	Watts
		75/65	55/45
400	10	262	127
	15	436	212
	20	613	299
500	10	328	159
	15	545	265
	20	766	373
600	10	393	191
	15	654	319
	20	919	448
700	10	459	223
	15	763	372
	20	1072	522
800	10	524	255
	15	872	425
	20	1226	597
900	10	590	287
	15	981	478
	20	1379	672
1000	10	655	318
	15	1090	531
	20	1532	746
1100	10	721	350
	15	1199	584
	20	1685	821
1200	10	786	382
	15	1308	637
	20	1838	895
1400	10	917	446
	15	1526	743
	20	2145	1045
1600	10	1048	509
	15	1744	850
	20	2451	1194
1800	10	1179	573
	15	1962	956
	20	2758	1343
2000	10	1310	637
	15	2180	1062
	20	3064	1493
2200	10	1441	700
	15	2398	1168
	20	3370	1642
2400	10	1572	764
	15	2616	1274
	20	3677	1791
2600	10	1703	827
	15	2834	1381
	20	3983	1940
2800	10	1834	891
	15	3052	1487
	20	4290	2090
3000	10	1965	955
	15	3270	1593
	20	4596	2239

EN442 output at 20°C room temperature

HEIGHT 300 FS ▪ OUTPUT TABLES

TEMF.030 LLL TT.XXX

TEMF.030 LLL TT.XXX/DBE

STANDARD		TWIN		WITH DBE			STANDARD			TWIN & TWIN WITH DBE						
Length mm	Type	Watts	Watts	Type	Watts	Watts	Type	Watts	Watts	Weight	Water	Weight	Water	Fan	Noise Level	
mm		75/65	55/45		75/65	55/45		75/65	55/45/38	Content	Content	Content	(Number)	dB(A)		
400	10	330	161	11	448	215	11	N/A	N/A	5.9	0.25	N/A	N/A	N/A		
	15	544	267	16	592	281	16	N/A	N/A	7.2	0.38	N/A	N/A	N/A		
	20	762	373	21	779	368	21	N/A	N/A	8.1	0.50	N/A	N/A	N/A		
500	10	413	202	11	561	269	11	N/A	N/A	6.7	0.31	N/A	N/A	N/A		
	15	680	333	16	740	352	16	N/A	N/A	8.0	0.47	N/A	N/A	N/A		
	20	953	467	21	974	460	21	N/A	N/A	9.2	0.63	N/A	N/A	N/A		
600	10	496	242	11	673	323	11	973	584	418	7.4	0.38	8.5	0.73	1 DBEU.10	29.0
	15	815	399	16	888	422	16	1368	821	588	8.9	0.56	10.7	1.07	1 DBEU.15	27.0
	20	1144	561	21	1169	552	21	1649	989	709	10.2	0.75	12.1	1.43	1 DBEU.15	27.0
700	10	578	282	11	785	376	11	1085	651	467	8.2	0.44	9.4	0.86	1 DBEU.10	29.0
	15	951	466	16	1036	492	16	1516	910	652	9.8	0.66	11.8	1.26	1 DBEU.15	27.0
	20	1334	654	21	1364	644	21	1844	1106	793	11.3	0.88	13.4	1.68	1 DBEU.15	27.0
800	10	661	323	11	897	430	11	1197	718	515	8.9	0.50	10.2	0.99	1 DBEU.10	29.0
	15	1087	533	16	1184	563	16	1664	998	716	10.7	0.76	13.0	1.46	1 DBEU.15	27.0
	20	1525	747	21	1558	736	21	2038	1223	876	12.2	1.01	14.7	1.96	1 DBEU.15	27.0
900	10	743	363	11	1009	484	11	1609	965	692	9.7	0.57	11.2	1.12	2 DBEU.10	32.0
	15	1223	599	16	1332	633	16	2292	1375	986	11.6	0.86	14.4	1.65	2 DBEU.15	30.0
	20	1715	841	21	1753	828	21	2713	1628	1167	13.4	1.14	16.4	2.21	2 DBEU.15	30.0
1000	10	826	403	11	1121	537	11	1721	1033	740	10.4	0.63	12.1	1.25	2 DBEU.10	32.0
	15	1359	666	16	1480	703	16	2440	1464	1049	12.4	0.95	15.3	1.85	2 DBEU.15	30.0
	20	1906	934	21	1948	920	21	2908	1745	1250	14.3	1.27	17.4	2.46	2 DBEU.15	30.0
1100	10	909	444	11	1233	591	11	1833	1100	788	11.2	0.69	13.1	1.38	2 DBEU.10	32.0
	15	1495	733	16	1628	774	16	2588	1553	1113	13.4	1.05	16.3	2.04	2 DBEU.15	30.0
	20	2097	1028	21	2143	1012	21	3103	1862	1334	15.4	1.39	18.7	2.72	2 DBEU.15	30.0
1200	10	991	484	11	1345	645	11	1945	1167	836	12.0	0.76	14.1	1.50	2 DBEU.10	32.0
	15	1631	799	16	1776	844	16	2736	1642	1176	14.3	1.14	17.5	2.22	2 DBEU.15	30.0
	20	2287	1121	21	2338	1105	21	3298	1979	1418	16.5	1.52	20.1	2.97	2 DBEU.15	30.0
1400	10	1156	565	11	1569	752	11	2169	1301	933	14.4	0.89	16.9	1.7		

HEIGHT 400 FS • OUTPUT TABLES

TEMF.040 LLL TT.XXX

		STANDARD		TWIN	
Length	Type	Watts	Watts	Type	Watts
mm		75/65	55/45		75/65
400	10	385	189	11	506
	15	627	309	16	680
	20	878	433	21	910
500	10	482	236	11	632
	15	784	386	16	850
	20	1098	541	21	1137
600	10	578	284	11	758
	15	941	464	16	1020
	20	1318	650	21	1364
700	10	674	331	11	885
	15	1098	541	16	1190
	20	1537	758	21	1592
800	10	770	378	11	1011
	15	1254	618	16	1360
	20	1757	866	21	1819
900	10	867	425	11	1138
	15	1411	695	16	1530
	20	1976	974	21	2047
1000	10	963	472	11	1264
	15	1568	773	16	1700
	20	2196	1083	21	2274
1100	10	1059	520	11	1390
	15	1725	850	16	1870
	20	2416	1191	21	2501
1200	10	1156	567	11	1517
	15	1882	928	16	2040
	20	2635	1299	21	2729
1400	10	1348	661	11	1770
	15	2195	1082	16	2380
	20	3074	1516	21	3184
1600	10	1541	756	11	2022
	15	2509	1237	16	2720
	20	3514	1733	21	3638
1800	10	1733	850	11	2275
	15	2822	1391	16	3060
	20	3953	1949	21	4093
2000	10	1926	945	11	2528
	15	3136	1546	16	3400
	20	4392	2166	21	4548
2200	10	2119	1040	11	2781
	15	3450	1700	16	3740
	20	4831	2382	21	5003
2400	10	2311	1134	11	3034
	15	3763	1855	16	4080
	20	5270	2599	21	5458
2600	10	2504	1229	11	3286
	15	4077	2009	16	4420
	20	5710	2816	21	5912
2800	10	2696	1323	11	3539
	15	4390	2164	16	4760
	20	6149	3032	21	6367
3000	10	2889	1417	11	3792
	15	4704	2318	16	5100
	20	6588	3249	21	6822

TEMF.040 LLL TT.XXX/DBE

WITH DBE			
Type	Watts	Watts	Watts
	75/65	55/45	45/38
11	N/A	N/A	N/A
16	N/A	N/A	N/A
21	N/A	N/A	N/A
11	N/A	N/A	N/A
16	N/A	N/A	N/A
21	N/A	N/A	N/A
11	1058	635	455
16	1500	900	645
21	1844	1106	793
11	1185	711	510
16	1670	1002	718
21	2072	1243	891
11	1311	787	564
16	1840	1104	791
21	2299	1379	989
11	1738	1043	747
16	2490	1494	1071
21	3007	1804	1293
11	1864	1118	802
16	2660	1596	1144
21	3234	1940	1391
11	1990	1194	856
16	2830	1698	1217
21	3461	2077	1488
11	2117	1270	910
16	3000	1800	1290
21	3689	2213	1586
11	2370	1422	1019
16	3340	2004	1436
21	4144	2486	1782
11	3222	1933	1385
16	4640	2784	1995
21	5558	3335	2390
11	3475	2085	1494
16	4980	2988	2141
21	6013	3608	2586
11	3728	2237	1603
16	5320	3192	2288
21	6468	3881	2781
11	3981	2389	1712
16	5660	3396	2434
21	6923	4154	2977
11	4834	2900	2079
16	6960	4176	2993
21	8338	5003	3585
11	5086	3052	2187
16	7300	4380	3139
21	8792	5275	3781
11	5339	3203	2296
16	7640	4584	3285
21	9247	5548	3976
11	5592	3355	2405
16	7980	4788	3431
21	9702	5821	4172

■ TECHNICAL INFO

Standard		Twin & Twin with DBE				
Weight	Water Content	Weight	Water Content	Fan (Number)	Noise Level dB(A)	
7.0	0.25	N/A	N/A	N/A	N/A	
8.4	0.38	N/A	N/A	N/A	N/A	
9.5	0.50	N/A	N/A	N/A	N/A	
7.9	0.31	N/A	N/A	N/A	N/A	
9.4	0.47	N/A	N/A	N/A	N/A	
10.8	0.63	N/A	N/A	N/A	N/A	
8.9	0.38	10.0	0.73	1 DBEU.10	29.0	
10.4	0.56	12.2	1.07	1 DBEU.15	27.0	
11.9	0.75	13.8	1.43	1 DBEU.15	27.0	
9.8	0.44	11.0	0.86	1 DBEU.10	29.0	
11.6	0.66	13.5	1.26	1 DBEU.15	27.0	
13.1	0.88	15.2	1.68	1 DBEU.15	27.0	
10.6	0.50	12.0	0.99	1 DBEU.10	29.0	
12.5	0.76	14.8	1.46	1 DBEU.15	27.0	
14.2	1.01	16.7	1.96	1 DBEU.15	27.0	
11.6	0.57	13.1	1.12	2 DBEU.10	32.0	
13.6	0.86	16.4	1.65	2 DBEU.15	30.0	
15.5	1.14	18.5	2.21	2 DBEU.15	30.0	
12.4	0.63	14.1	1.25	2 DBEU.10	32.0	
14.6	0.95	17.5	1.85	2 DBEU.15	30.0	
16.6	1.27	19.7	2.46	2 DBEU.15	30.0	
13.3	0.69	15.3	1.38	2 DBEU.10	32.0	
15.7	1.05	18.6	2.04	2 DBEU.15	30.0	
17.9	1.39	21.2	2.72	2 DBEU.15	30.0	
14.3	0.76	16.4	1.50	2 DBEU.10	32.0	
16.8	1.14	20.0	2.22	2 DBEU.15	30.0	
19.1	1.52	22.7	2.97	2 DBEU.15	30.0	
17.1	0.89	19.7	1.76	2 DBEU.10	32.0	
20.0	1.34	24.5	2.62	2 DBEU.15	30.0	
22.7	1.78	28.2	3.49	2 DBEU.15	30.0	
18.9	1.02	21.7	2.02	4 DBEU.10	35.0	
22.1	1.53	26.5	3.00	4 DBEU.15	33.0	
25.1	2.04	30.2	4.01	4 DBEU.15	33.0	
20.7	1.14	23.8	2.27	4 DBEU.10	35.0	
24.2	1.73	28.7	3.38	4 DBEU.15	33.0	
27.4	2.30	33.1	4.51	4 DBEU.15	33.0	
22.5	1.27	25.9	2.54	4 DBEU.10	35.0	
26.3	1.92	30.8	3.78	4 DBEU.15	33.0	
29.8	2.56	36.1	5.03	4 DBEU.15	33.0	
24.3	1.40	28.0	2.79	4 DBEU.10	35.0	
28.4	2.11	33.2	4.16	4 DBEU.15	33.0	
32.2	2.81	39.0	5.55	4 DBEU.15	33.0	
27.2	1.53	31.2	3.04	6 DBEU.10	36.8	
31.7	2.30	36.8	4.53	6 DBEU.15	34.8	
35.9	3.07	43.2	6.05	6 DBEU.15	34.8	
29.0	1.66	33.4	3.31	6 DBEU.10	36.8	
33.8	2.49	39.4	4.93	6 DBEU.15	34.8	
38.3	3.33	46.2	6.57	6 DBEU.15	34.8	
30.8	1.79	35.4	3.56	6 DBEU.10	36.8	
35.8	2.69	41.7	5.31	6 DBEU.15	34.8	
40.7	3.58	49.2	7.09	6 DBEU.15	34.8	
32.6	1.92	37.6	3.82	6 DBEU.10	36.8	
37.9	2.88	44.3	5.70	6 DBEU.15	34.8	
43.0	3.84	52.2	7.61	6 DBEU.15	34.8	

HEIGHT 500 FS · OUTPUT TABLES

TEMF.050 LLL TT.XXX

		STANDARD		TWIN	
Length	Type	Watts	Watts	Type	Watts
mm		75/65	55/45		75/65
400	10	430	212	11	554
	15	694	344	16	759
	20	970	481	21	1033
500	10	538	265	11	693
	15	867	430	16	949
	20	1213	602	21	1291
600	10	646	318	11	832
	15	1040	516	16	1139
	20	1455	722	21	1549
700	10	753	371	11	970
	15	1214	602	16	1329
	20	1698	842	21	1807
800	10	861	424	11	1109
	15	1387	688	16	1518
	20	1940	962	21	2066
900	10	968	477	11	1247
	15	1561	774	16	1708
	20	2183	1083	21	2324
1000	10	1076	530	11	1386
	15	1734	860	16	1898
	20	2425	1203	21	2582
1100	10	1184	584	11	1525
	15	1907	946	16	2088
	20	2668	1323	21	2840
1200	10	1291	636	11	1663
	15	2081	1032	16	2278
	20	2910	1443	21	3098
1400	10	1506	742	11	1940
	15	2428	1204	16	2657
	20	3395	1684	21	3615
1600	10	1722	849	11	2218
	15	2774	1376	16	3037
	20	3880	1924	21	4131
1800	10	1937	955	11	2495
	15	3121	1548	16	3416
	20	4365	2165	21	4648
2000	10	2152	1061	11	2772
	15	3468	1720	16	3796
	20	4850	2405	21	5164
2200	10	2367	1167	11	3049
	15	3815	1892	16	4176
	20	5335	2646	21	5680
2400	10	2582	1273	11	3326
	15	4162	2064	16	4555
	20	5820	2886	21	6197
2600	10	2798	1379	11	3604
	15	4508	2236	16	4935
	20	6305	3127	21	6713
2800	10	3013	1485	11	3881
	15	4855	2408	16	5314
	20	6790	3367	21	7230
3000	10	3228	1591	11	4158
	15	5202	2580	16	5694
	20	7275	3608	21	7746

TEMF.050 LLL TT.XXX/D

WITH DBE				STANDARD		TWIN & TWIN WITH DBE			
Type	Watts	Watts	Watts	Weight	Water	Weight	Water	Fan	Noise Level
	75/65	55/45	45/38		Content		Content	(Number)	dB(A)
11	N/A	N/A	N/A	8.1	0.25	N/A	N/A	N/A	N/A
16	N/A	N/A	N/A	9.6	0.38	N/A	N/A	N/A	N/A
21	N/A	N/A	N/A	10.9	0.50	N/A	N/A	N/A	N/A
11	N/A	N/A	N/A	9.2	0.31	N/A	N/A	N/A	N/A
16	N/A	N/A	N/A	10.8	0.47	N/A	N/A	N/A	N/A
21	N/A	N/A	N/A	12.3	0.63	N/A	N/A	N/A	N/A
11	1132	679	487	10.2	0.38	11.3	0.73	1 DBEU.10	29.0
16	1619	971	696	12.0	0.56	13.8	1.07	1 DBEU.15	27.0
21	2029	1217	872	13.5	0.75	15.4	1.43	1 DBEU.15	27.0
11	1270	762	546	11.3	0.44	12.5	0.86	1 DBEU.10	29.0
16	1809	1085	778	13.3	0.66	15.2	1.26	1 DBEU.15	27.0
21	2287	1372	983	15.0	0.88	17.1	1.68	1 DBEU.15	27.0
11	1409	845	606	12.4	0.50	13.7	0.99	1 DBEU.10	29.0
16	1998	1199	859	14.3	0.76	16.6	1.46	1 DBEU.15	27.0
21	2546	1528	1095	16.2	1.01	18.7	1.96	1 DBEU.15	27.0
11	1847	1108	794	13.4	0.57	15.0	1.12	2 DBEU.10	32.0
16	2668	1601	1147	15.6	0.86	18.4	1.65	2 DBEU.15	30.0
21	3284	1970	1412	17.7	1.14	20.7	2.21	2 DBEU.15	30.0
11	1986	1192	854	14.4	0.63	16.1	1.25	2 DBEU.10	32.0
16	2858	1715	1229	16.7	0.95	19.6	1.85	2 DBEU.15	30.0
21	3542	2125	1523	18.9	1.27	22.0	2.46	2 DBEU.15	30.0
11	2125	1275	914	15.5	0.69	17.4	1.38	2 DBEU.10	32.0
16	3048	1829	1311	18.0	1.05	20.9	2.04	2 DBEU.15	30.0
21	3800	2280	1634	20.3	1.39	23.6	2.72	2 DBEU.15	30.0
11	2263	1358	973	16.6	0.76	18.7	1.50	2 DBEU.10	32.0
16	3238	1943	1392	19.2	1.14	22.4	2.22	2 DBEU.15	30.0
21	4058	2435	1745	21.7	1.52	25.3	2.97	2 DBEU.15	30.0
11	2540	1524	1092	19.9	0.89	22.4	1.76	2 DBEU.10	32.0
16	3617	2170	1555	23.0	1.34	27.4	2.62	2 DBEU.15	30.0
21	4575	2745	1967	25.8	1.78	31.3	3.49	2 DBEU.15	30.0
11	3418	2051	1470	21.9	1.02	24.7	2.02	4 DBEU.10	35.0
16	4957	2974	2132	25.4	1.53	29.7	3.00	4 DBEU.15	33.0
21	6051	3631	2602	28.5	2.04	33.6	4.01	4 DBEU.15	33.0
11	3695	2217	1589	24.1	1.14	27.1	2.27	4 DBEU.10	35.0
16	5336	3202	2294	27.7	1.73	32.1	3.38	4 DBEU.15	33.0
21	6568	3941	2824	31.1	2.30	36.8	4.51	4 DBEU.15	33.0
11	3972	2383	1708	26.1	1.27	29.5	2.54	4 DBEU.10	35.0
16	5716	3430	2458	30.1	1.92	34.6	3.78	4 DBEU.15	33.0
21	7084	4250	3046	33.8	2.56	40.1	5.03	4 DBEU.15	33.0
11	4249	2549	1827	28.3	1.40	31.9	2.79	4 DBEU.10	35.0
16	6096	3658	2621	32.4	2.11	37.2	4.16	4 DBEU.15	33.0
21	7600	4560	3268	36.5	2.81	43.3	5.55	4 DBEU.15	33.0
11	5126	3076	2204	31.6	1.53	35.5	3.04	6 DBEU.10	36.8
16	7435	4461	3197	36.3	2.30	41.4	4.53	6 DBEU.15	34.8
21	9077	5446	3903	40.7	3.07	48.0	6.05	6 DBEU.15	34.8
11	5404	3242	2324	33.7	1.66	38.0	3.31	6 DBEU.10	36.8
16	7815	4689	3360	38.6	2.49	44.2	4.93	6 DBEU.15	34.8
21	9593	5756	4125	43.4	3.33	51.3	6.57	6 DBEU.15	34.8
11	5681	3409	2443	35.8	1.79	40.3	3.56	6 DBEU.10	36.8
16	8194	4916	3523	41.0	2.69	46.9	5.31	6 DBEU.15	34.8
21	10110	6066	4347	46.1	3.58	54.6	7.09	6 DBEU.15	34.8
11	5958	3575	2562	37.8	1.92	42.7	3.82	6 DBEU.10	36.8
16	8574	5144	3687	43.4	2.88	49.8	5.70	6 DBEU.15	34.8
21	10626	6376	4569	48.8	3.84	58.0	7.61	6 DBEU.15	34.8

EN442 output at 20°C room temperature

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
Tempo	30 years	---	10 years
tempo 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 easy to handle compact packaging.

Standard delivery:

- Low-H₂O heat exchanger with one piece casing with 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 separately for ease of handling



OXYGEN

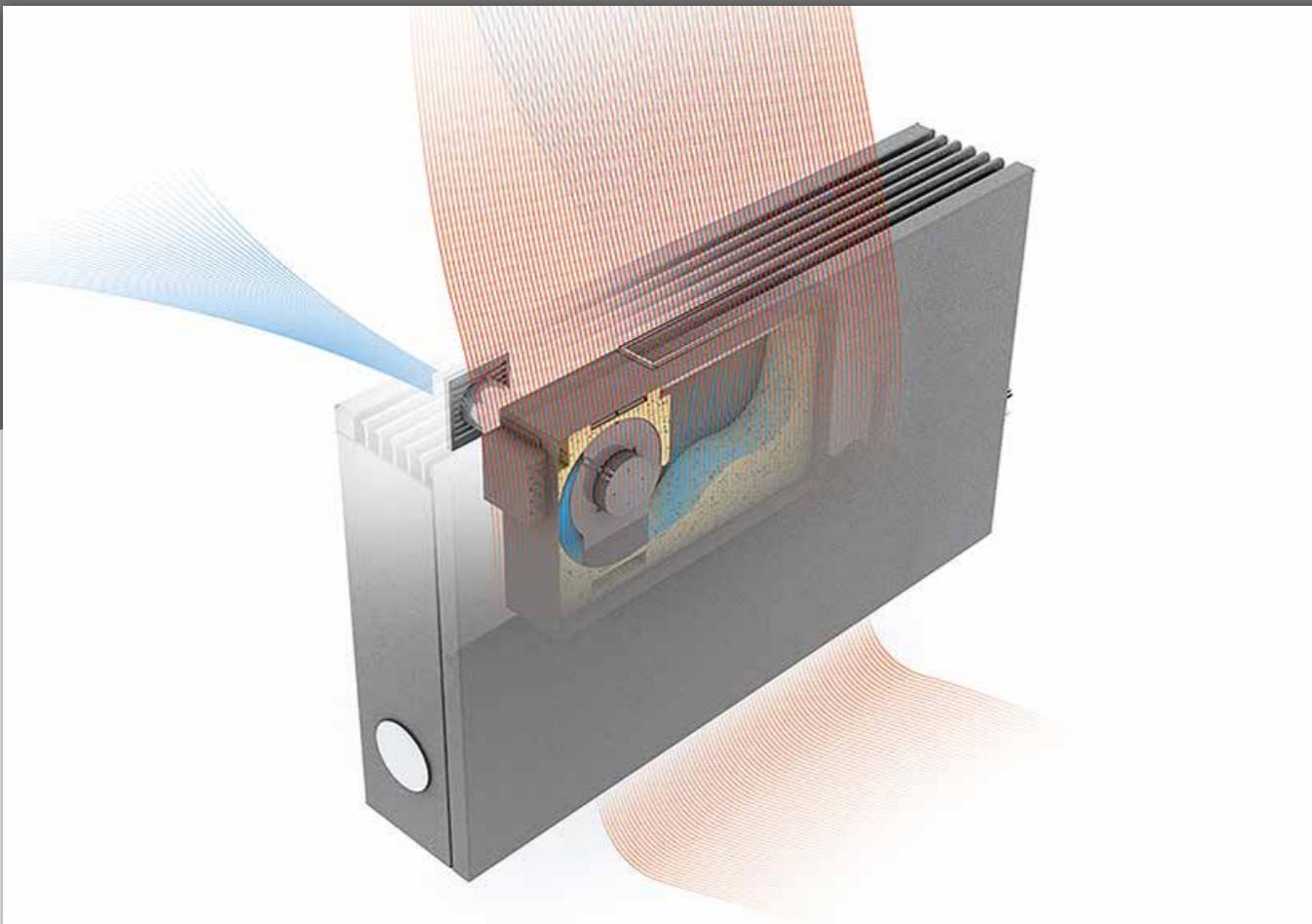
DEMAND CONTROLLED HEATING & MECHANICAL VENTILATION

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.



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



TEMPO LST CONTINUOUS



CREATE
EMOTION

CONTINUOUS CASING **FROM WALL-TO-WALL** BASED ON THE TEMPO LST CASING.

Jaga's innovative 'click' system allows for assembly of all components without tools. Suitable for a range of applications no matter how large or small.

With Jaga Continuous Tempo LST heights start from 200mm increasing in 100mm increments up to a recommended maximum height of 700mm. Lengths are made up of standard Tempo casings ranging from 400mm up to 3000mm with joining strips to make bespoke runs, that can include sections with no elements going into the casings for aesthetic or heat load requirements.

JAGA TEMPO LST CONTINUOUS OPTIONS & FEATURES:

- Brackets with cut outs for pipe work (subject to height and element type)
- Wall to wall casings for aesthetic appearance.
- Can be made up of active and inactive units.
- Internal & external corner sections
- Split deliveries available of elements & brackets with casings to follow
- A full site survey by a Jaga product specialist to site measure and offer advice can be arranged.



TEMPO 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.

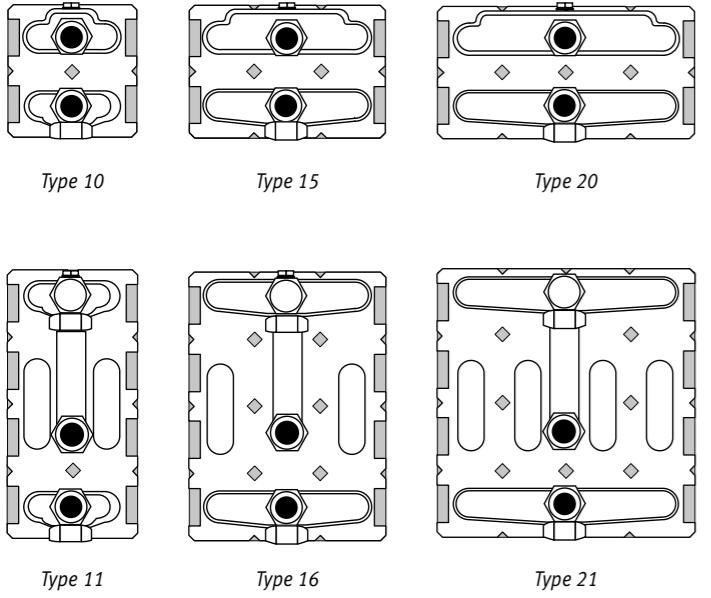
CORRECTION FACTORS ▪ TEMPO LST WITH DBE

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	

TEMPO LST ▪ HEAT EXCHANGERS OVERVIEW & PRESSURE DROP

PRESSURE DROP ▪ TEMPO LST



TO CALCULATE FLOW RATE:

$$\text{Corrected output [Watts]} \times 3600$$

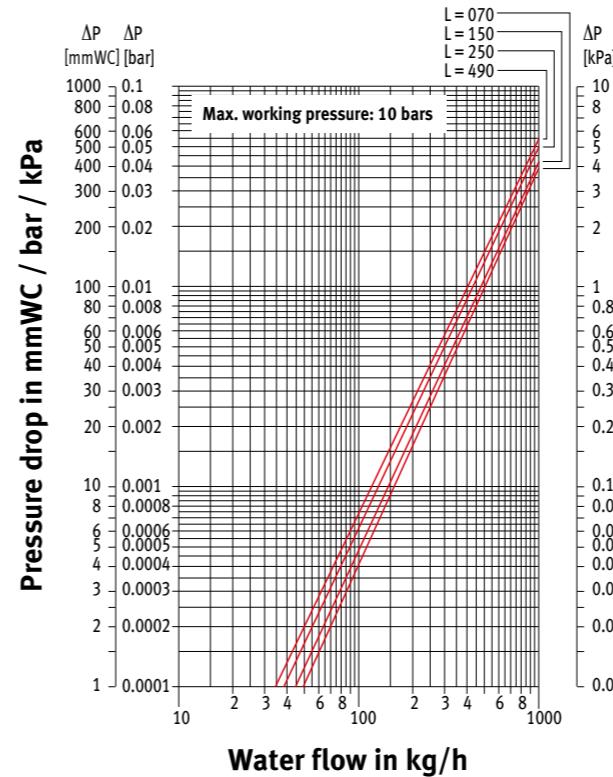
$$\text{Specific heat capacity [J/kg} \cdot ^\circ\text{C}] \times [\text{flow temp} - \text{return temp}]$$

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.

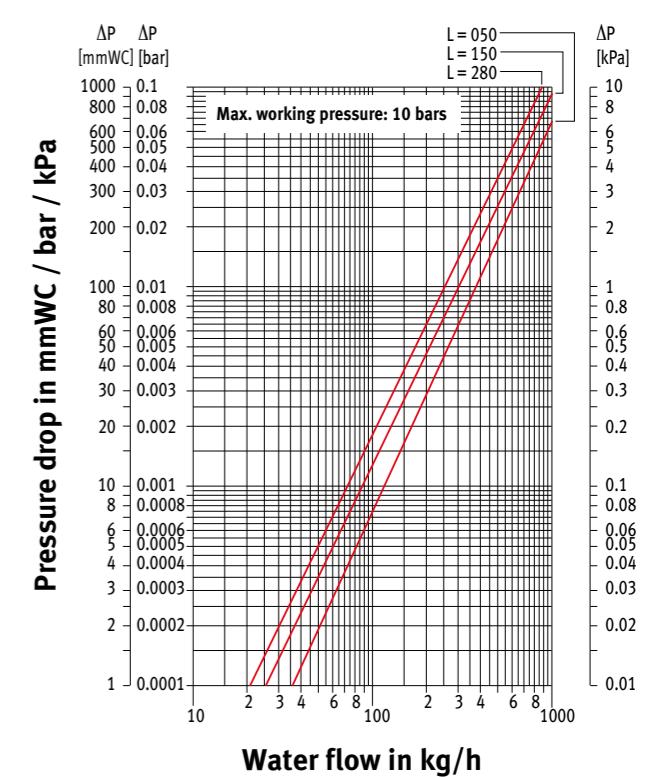
$$\text{Mass flow} = \frac{1000 \times 3600}{4187 \times (70-50)}$$

$$= 42.99 \text{ kg/hr}$$

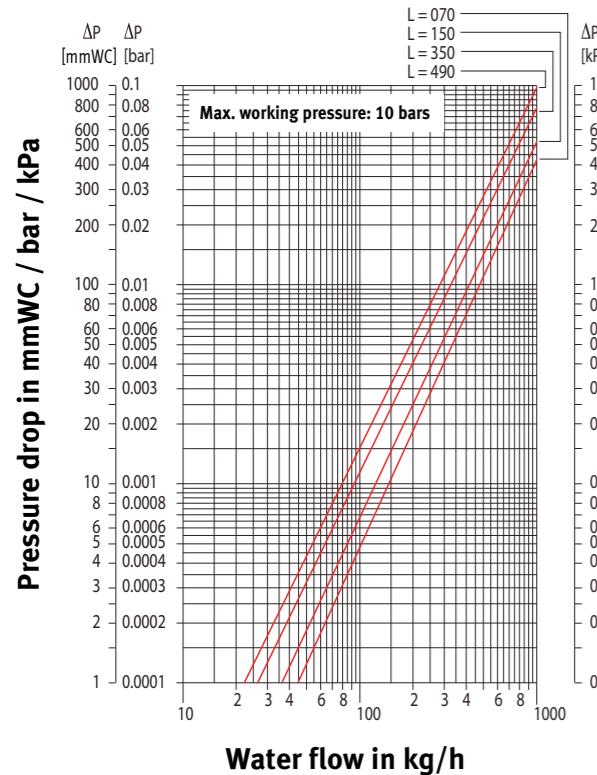
PRESSURE DROP TYPE 20



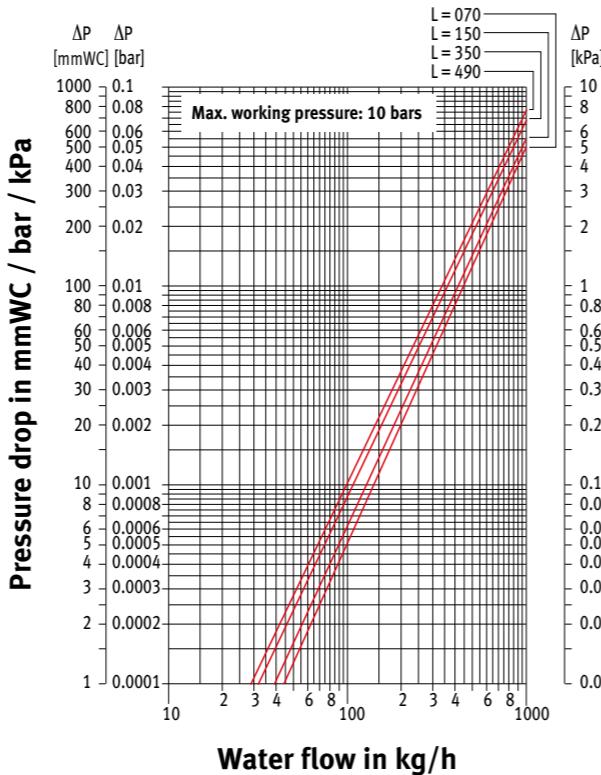
PRESSURE DROP TYPE 11



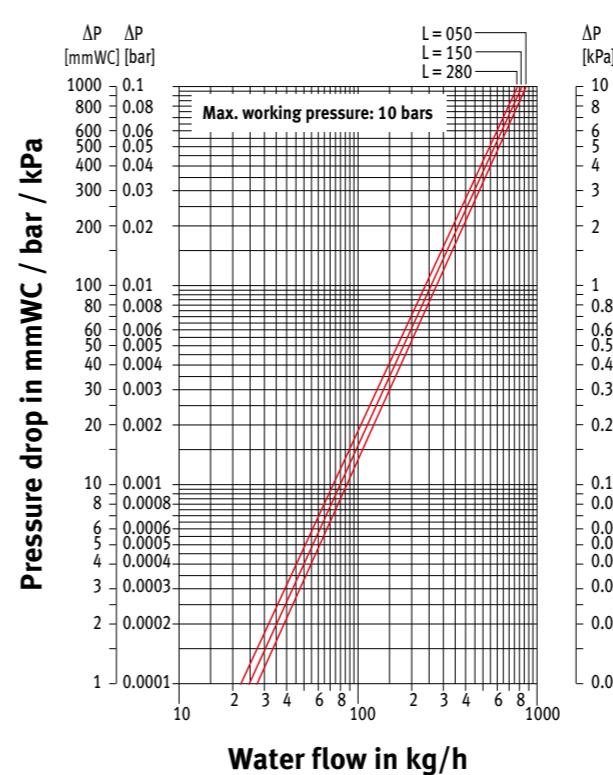
PRESSURE DROP TYPE 10



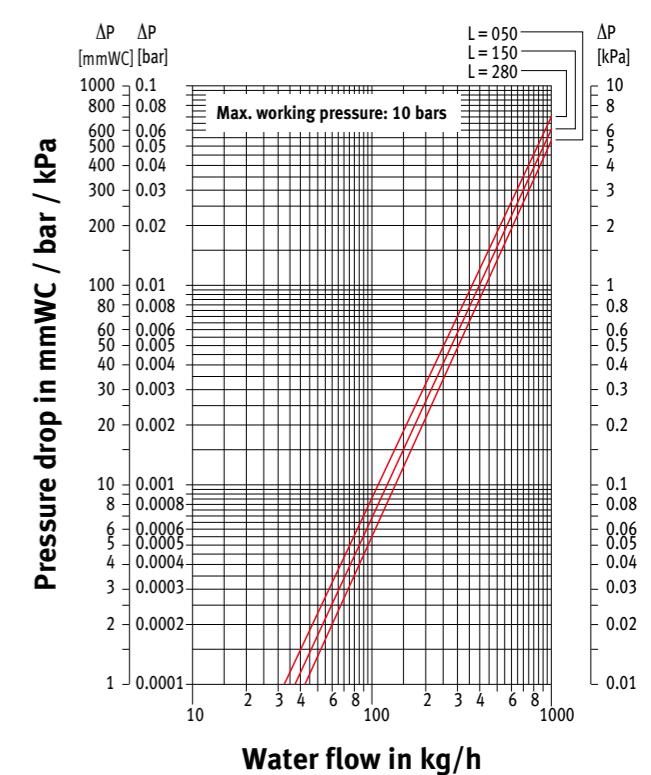
PRESSURE DROP TYPE 15



PRESSURE DROP TYPE 16



PRESSURE DROP TYPE 21



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.

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 PRO THERMOSTATIC VALVE



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

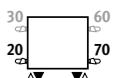
JAGA THERMOSTATIC VALVE – WALL



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).



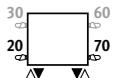
JAGA THERMOSTATIC VALVE – FLOOR



Consists of the following :

- 5090.405 angled TRV
- 5090.109 straight lockshield valve
- 5090.110 angled 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).



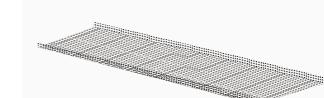
TRV HEADS



CODE	5090.1125	CODE	5090.1151	CODE	5090.1150	CODE	5090.1152

PENCIL PROOF GRILLE

Same colour as casing.



CODE	5606	Height	000	Length	050*	Type	10

*to suit casing length

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.

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

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.

RESPECT
NATURE

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

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.

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 Ecolizer 2.0 based on the Eco-Indicator EI-99 database. The lower the LCA score, the 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



MINI WALL



KNOCKONWOOD



STRADA



LINEA PLUS

INSTALLATION IN A WALL RECESS



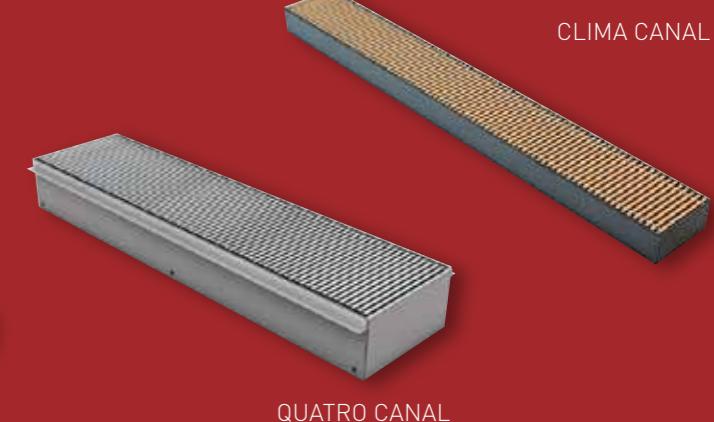
BRIZA



TRENCH HEATING



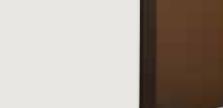
MICRO CANAL



QUATRO CANAL



VERTIGA



CLIMA CANAL

OXYGEN



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

FREESTANDING



KNOCKONWOOD DBE



MINI



LINEA PLUS



PANEL PLUS



MINI DBE

DESIGNER



HEATWAVE



GEO



ORECA CROSSROADS



IGUANA & IGUANA PLUS



ORECA MOON



DECOPANEL PLUS

LOW SURFACE TEMPERATURE (LST)

GUARDIAN LST
(AVAILABLE IN WALL AND FLOOR MODELS)MAXI 2020 LST
(AVAILABLE IN WALL AND FLOOR MODELS)

TEMPO LST

TEMPO LST
FREESTANDING

CPD SEMINAR REQUEST



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.



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

BUILDING
BRIDGES



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

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

This CPD aims to address some of the issues that building service engineers and designers can face when looking at heat emitters and the knock on effect of the chosen selection.

Jaga UK CPD 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



To arrange a CPD or to request more information please contact CPD Coordinator on the details below:
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You can also register online at www.jaga.co.uk/technical-support/cpd-seminar-request

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



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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/](http://www.jaga.co.uk/technical-support/cpd-seminar-request/)

-  **Award winning Low-H₂O technology**
-  **Wide range of sizes with a choice of designs**
-  **Outstanding performance with low temperature systems**
-  **Valve options can be concealed in casing**
-  **No radiant heat loss to the wall**
-  **In stock, fast delivery**
-  **Split deliveries**
-  **BIM files available**



jaga

www.jaga.co.uk



Climate Designers -
Heating, Cooling
and Ventilation

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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.

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