

Chilled beam OKNH 600



The Solid Air OKNH is an active chilled beam for application in suspended ceilings.

- Unit with high capacities
- Air-outflow direction: 2-sided
- Air supply: horizontal
- Available in various nozzle configurations and colours
- Available for nearly all modular ceilings, including concealed systems and permanent plaster ceilings.

Functions:

- ventilation
- cooling
- heating

Applications:

- offices, open-plan offices
- meeting rooms
- class rooms
- general rooms

Specifications:

- width: 600
- lengths: 1200, 1500, 1800, 2400, 3000
- ventilation: to 280 m³/h
- cooling: to 680 W/m
- heating: to 2150 W/m
- water flow: to 450 l/h

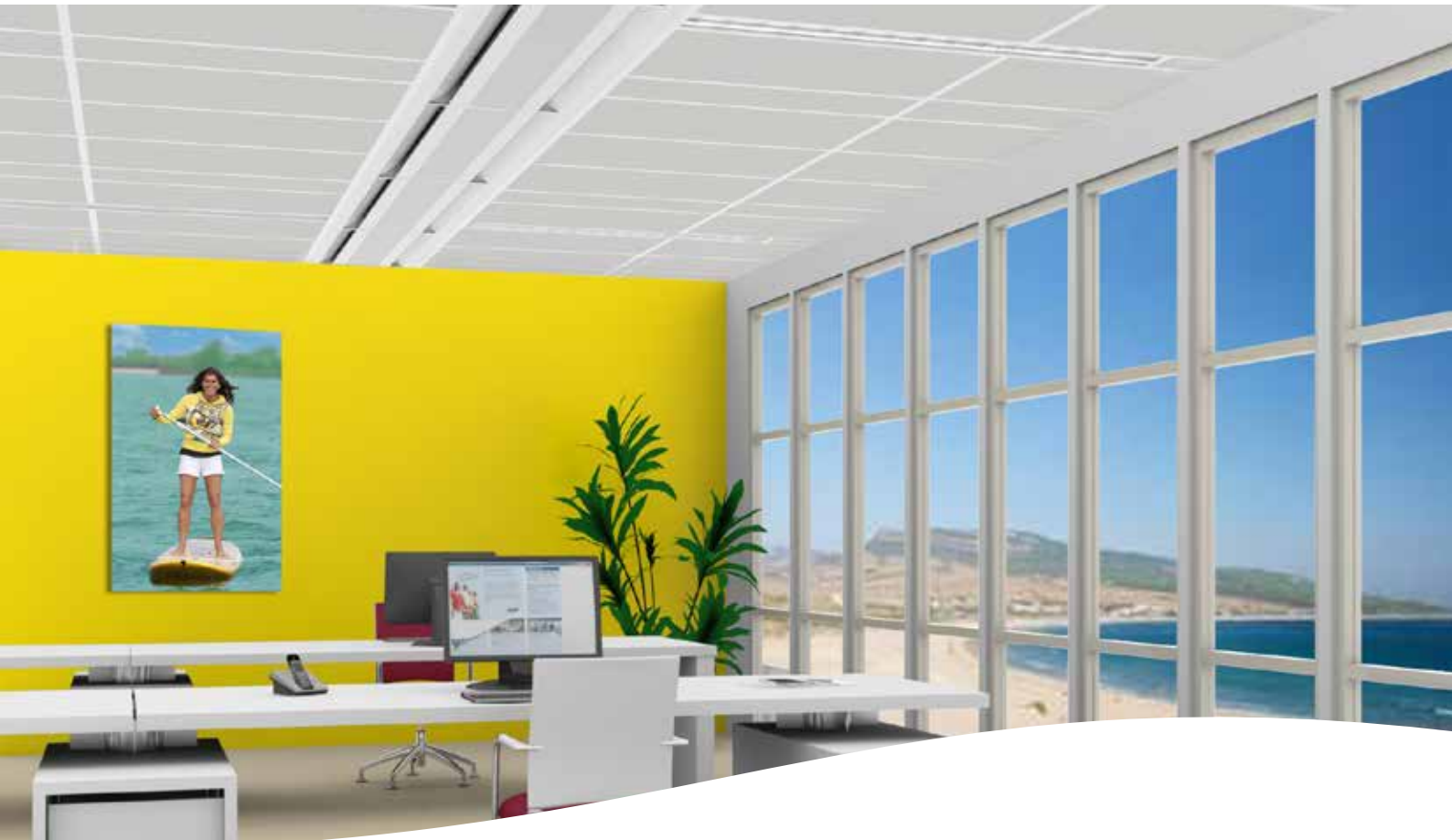
Application

The OKNH has been designed as a high-capacity compact chilled beam and it is suitable for ventilation, cooling and heating rooms of 2.4 to 4.0 metres high. Idea for environments in a warm climate or with high internal heat loads.

The closed units introduces the supply air on two sides and its highly efficient blow-in effect means it can be fitted in offices in the middle of the rooms parallel to the facade. The choice of various nozzle types enables an optimum combination of ventilation air and cooling capacity in every situation.

Contents

7.1	Application	144
7.2	Operation, specifications	146
7.3	Main dimensions, connection sizes and ceiling integration	147
7.4	Versions and options	149
7.5	Order codes	150
7.6	Installation requirements and maintenance	151
7.7	Selection example and selection details	153



Properties and benefits of the OKNH

- Application in offices, meeting rooms, teaching rooms, open-plan offices, general areas
- Unit with significant capacities
- Heat exchanger for cooling and heating
- Room temperature controlled with amount of water (cooling and heating)
- CO₂ control possible with VAV air control
- 6 standard heat-exchanger lengths
- Housing lengths in intervals of 5mm
- Also available for concealed ceiling systems



The unit has been designed as an insert module for modular ceilings with a selection of T-bars or omega profiles, with a module size of 600mm. The unit can also be used as an intermediate element in coffered ceilings, concealed modular ceilings or permanent ceilings. Every length available between 895 and 2995mm at intervals of 5mm.

Eurovent Certified

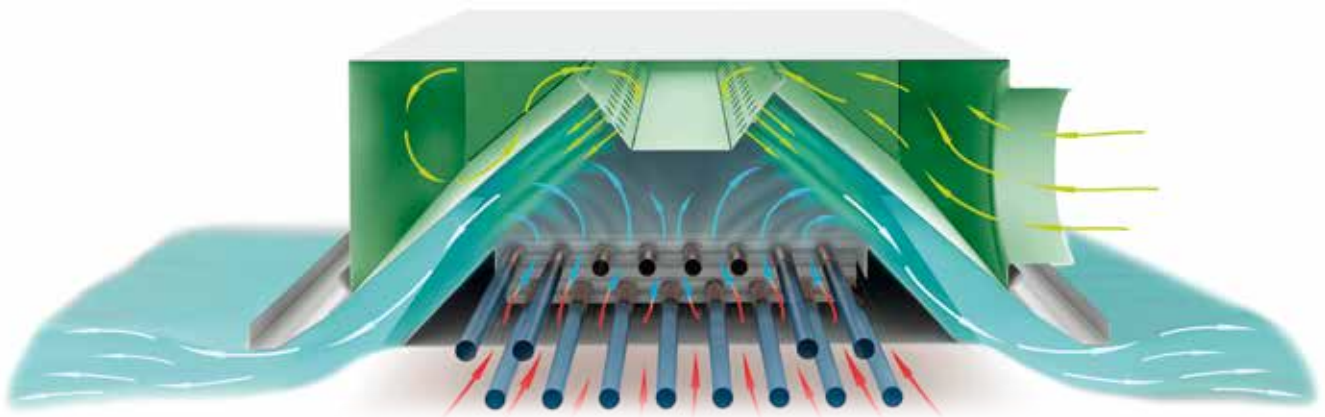
Solid Air is a member of the Eurovent certification programme for “chilled beams”. The products are certified under number 09.11.431 and are listed on the Eurovent website at www.eurovent-certification.com



Operation

Introduction of air through nozzles from a pressure chamber brings primary (ventilation) air to a high velocity. This produces a powerful pump effect (induction) and secondary air (room air) is drawn in via the heat exchanger. When the air passes the heat exchanger, it is cooled or heated in function of the need in the room.

The tertiary airflow (the total of room air and primary air) is brought into the room through integrated outflow openings.



Specifications:

Active chilled beam for water-air systems with high thermal capacities, limited noise levels and a high comfort level. The wide range of edge constructions and standard dimensions makes it suitable for T-bar, integrated, concealed and permanent ceilings. Available in 5 basic lengths. Low height of 205 to 240mm.

Suitable for cooling, ventilating and heating rooms with a height of 2.4 to 4.0 m. Extremely suitable for heating rooms with low warm-water temperatures of heat-pump systems. Heat exchangers available as a 2 or 4-pipe version. Various standard nozzle versions for optimum determination of the ventilation air/recirculation air ratio. The materials that are used are 100% recyclable. Housing is made from galvanised sheet steel, of which the visible parts are painted with an epoxy paint RAL colour

(standard white RAL 9010). The heat exchanger is made from copper pipes with aluminium cooling fins. Leak-tightness 100% tested at 15 bar.

Housing:

Material: galvanised sheet steel.

Finish of visible parts; epoxy paint standard colour white RAL 9010.

Heat exchanger:

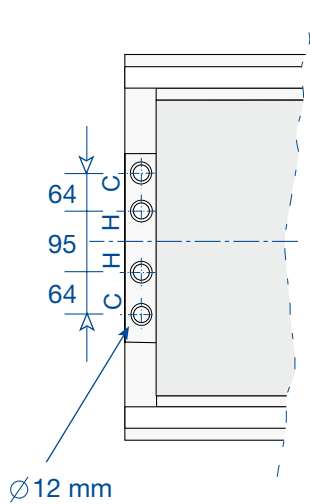
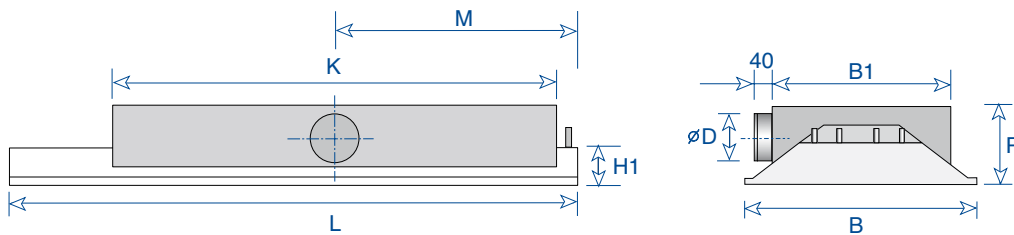
Pipe material:	copper
Fin material:	aluminium
Post-treatment:	none
Test pressure:	15 bar

7.3

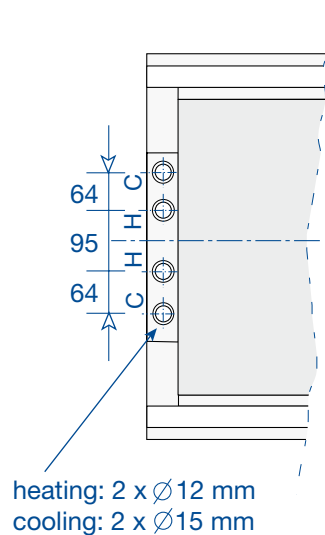
Main dimensions, connection sizes and ceiling integration

Available dimensions and weights: (different widths and lengths available upon request).

type	model	L from/to mm	B* mm	B1 mm	H1 mm	D mm	M mm	P mm	K mm	weight kg
OKNH 600	900	895 / 2995	595	453	106	123	452	205	800	16
	1200	1195 / 2995	595	453	106	123	602	205	1100	22
	1500	1495 / 2995	595	453	106	123	752	205	1400	29
	1800	1795 / 2995	595	453	106	123	902	205	1700	34
	2400	2395 / 2995	595	453	106	158	1202	240	2300	46
	3000	2995	595	453	106	158	1502	240	2900	57



Model 1200 - 1500 - 1800



Model 2400 - 3000

The selection of the OKNH chilled beam must take account of the following tolerances of main dimensions in combination with the side-edge configuration to ensure an optimum integration into the ceiling.

Example 1: OKNH 600-3000 in T-bar ceiling has a net external dimension of: 593 to 597mm, by 2991 to 2995mm.

Example 2: OKNH 600-3000 in superstructure version has a net external dimension of: 593 to 597mm, by 2291 to 2995mm. The “over the flange” size is: 633 to 637mm, by 3031 to 3035mm.

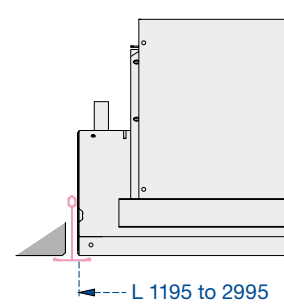
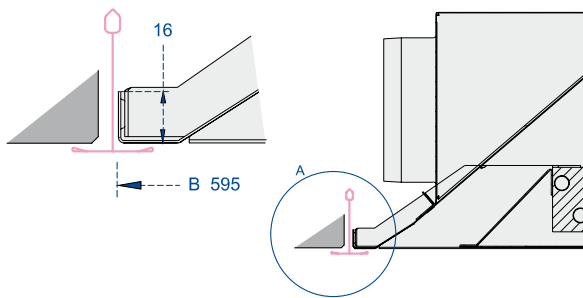
OKNH type 600 side-edge configuration: dimensions and tolerances main dimensions

Actual width B chilled beam:
dimensions in mm, tolerance +/- 2.0 mm

Actual length L chilled beam:
tolerance +0 / -4mm

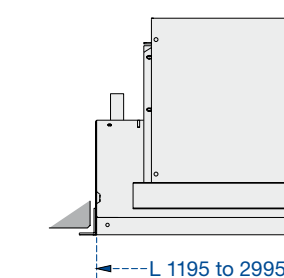
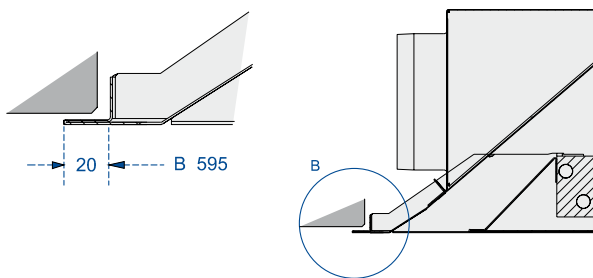
1 T-bar (insert) ceilings

Detail A



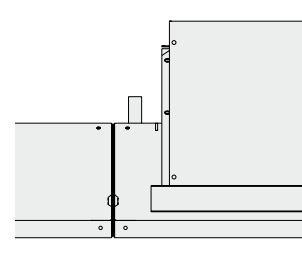
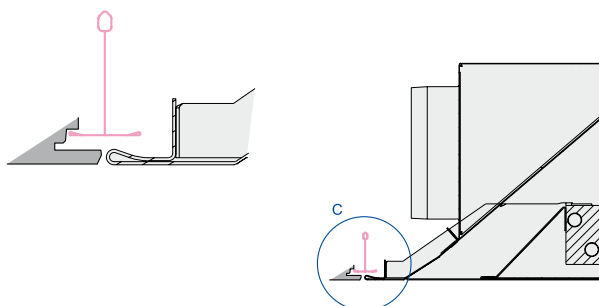
2 Superstructure version permanent ceilings

Detail B



3 Concealed modular ceilings

Detail C



Versions and options

Nozzle configurations

This catalogue lists 3 standard nozzles. Other nozzle configurations are also possible in consultation with Solid Air.

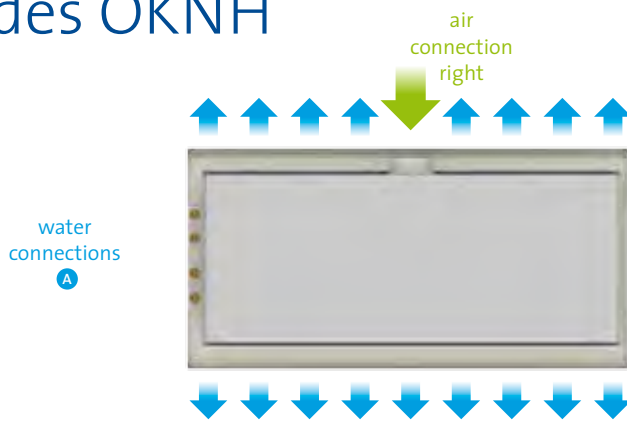
Different lengths

Every length available between 1195 and 2995mm at intervals of 5mm.

Asymmetrical outflow pattern

In a 1-sided outflow unit, the nozzles can be left off on one of the outflow sides. This means the unit can only let through half of the air quantity that corresponds to the chosen nozzle, which reduces the heat-exchanger capacity. Consult our specialists for more information.

Order codes OKNH



Left/right position: standing in the direction of the water connections **A** on the opposite side



Example order code:

OKNH 600 / 1800	A1K2	RO30	O10	595x1795	9010 - 55
1 2 3	4 5 6	7 8 9 10	11 12 13	14 15	16 17

1 Version	OKNH																
2 Type	600																
3 Model	1200																
	1500																
	1800																
	2400																
	3000																
4 Nozzle configuration	A1																
	B2																
	C2																
5 Heat exchanger	K	Cooling															
	V	Cooling & Heating															
6 Discharge configuration	2	Two-sided discharge															
	3	One-sided left discharge															
	4	One-sided right discharge															
7 Air connection	L	Left															
	R	Right															
8 Water connection	O	Standard															
9 Diameter air connection	3	125mm															
	4	160mm															
10 Plenum version	O	Not applicable															
11 Diffuser	O	Not applicable															
12 Edge configuration	1	Suitable for T-bar (insert)															
	2	Superstructure version permanent ceilings															
	3	Concealed															
13 FPC	O	Not applicable															
14 Actual width B	595	Depending on the side-edge configuration															
15 Actual length L	1795	Depending on the model and the side-edge configuration															
16 Colour (RAL)	9010	(standard)															
17 Gloss value	55%	(standard)															

Installation requirements and maintenance

Fitting

The unit has been designed as an 600mm insert module for T-bar ceilings, plaster ceilings, concealed modular ceilings and fine-line modular ceilings. Only trained, specialised fitters should install, connect and set the units. Fitting and installation work must be carried out in accordance with national legislation and regulations.

It is also essential to comply with the requirements, as included in this document. If certain fitting details are not entirely clear, please do not hesitate to contact us. Besides these requirements, there may be specifications or sector-specific requirements that apply to fitting air and water-side accessories.

Unpacking and handling the unit must be done carefully. We recommend that every unit is lifted by 2 fitters by picking it up at the head end. The longer and heavier units in particular should not be lifted by the long sides, because they could bend. It is customary to suspend the unit at 4 points and at 6 points from a length of 2000mm. They can be suspended with rods, cable braid, chains or metal hooks.

The air intake is connected to the central ventilation system with a flexible acoustic-insulating hose that is also thermally insulated.

The hose is clamped to the air intake of the unit with a hose clip, following which the connection can be taped down without tension.

For practical reasons the water pipes are usually connected with flexible hoses to the cold and warm-water circuits of the units.

For the cold-water circuit, noted with the marking C (Cold), there is no specific preference for inlet or outlet; the same applies to the hot-water circuit, marked with H (Hot).

Solid Air does not have a preference concerning connection accessories. Applications vary from country to country and from fitter to fitter - from fixed fittings with soldering, clamping with brass cutting rings (using insert bushes), clips with plastic seals, or double socket couplings with double O-ring seals.

Quick-release couplings are not considered ideal, because if they are tight, they cause significant torque on the solder connections of the heat exchanger, and that may cause water leaks.

Before commissioning, test the leak-tightness of the connections between the copper connection pipes and the water hoses. We also recommend insulating the cold-water pipe because of the risk of condensation.

Standard water parameters:

- Water-side pressure loss: 0 - 10 kPa.
- Water speed: 0.2 - 0.8 m/s
The local flow speed in the pipes may never exceed 1.5 m/s.
- The water must circulate at least once every 3 days.
- Water inlet temperature (in cooling mode): approx. 15 - 18°C.
The temperature of the water must always be above freezing.
If this cannot be guaranteed, anti-freeze fluid must be added.
- Water inlet temperature (in heating mode): approx. 35 - 60°C.
Maximum water temperature may not exceed 90°C.
- Test pressure: 15 bar
All Solid Air heat exchangers are 100% tested at this testing pressure.
- Operating pressure: 10 bar

Water quality:

- Treated water low mineral component
- Acidity between 8.0 – 8.5 pH
- Carbon dioxide less than 25 ppm
- Sulphates less than 17 ppm
- Chloride less than 20 ppm

Maintenance:

Depending on the quality of the room air, this may contain various levels of dust particles and other contamination. As the room air is recirculated through the units, the corresponding electrostatic effect may cause this dirt to build up in the chilled beam. In normal room-air situations, we recommend to inspect, and if necessary clean, the units annually. For cleaning purposes, our patented construction allows the front of the heat exchanger to be removed easily and without tools.

This works as follows:



1 Push the perforated part of the middle segment, in the middle, next to one of the ends, approximately 5mm up.



2 At the same time, push the entire middle segment lengthways into the relevant end.



3 The other side of the middle segment is now released from the opposite end and can be removed from the unit. It remains connected to the unit with two steel safety cables.



4 Clean the surfaces with an industrial vacuum cleaner, fitted with a soft brush. Make sure you do not bend the aluminium fins of the heat exchanger.

Points of attention:

- Fit in reverse order. Check that the mid front is stable on the ends and not on one of the side projections.
- If the units are fitted with electric heating, the units must be switched off before cleaning or maintenance.

Selection example and selection details

Explanation of abbreviations:

parameter	unit	explanation
V_{prim}	l/s or m ³ /h	primary airflow (= fresh air)
t_{pri}	°C	temperature of the primary airflow
t_{room}	°C	temperature of the room
$t_{\text{water in}}$	°C	temperature of the water on entry into the heat exchanger
Sat	%	percentage saturation
Q_l	W	supplied cooling capacity of the primary air
P_s	Pa	static pre-pressure
L_w	dB[A]	sound power level of the unit
V_w	l/h	amount of water in litres per hour
ΔP_w	kPa	water-side pressure drop over the heat exchanger
Q_{wk}	W	supplied cooling capacity water side
Q_{ww}	W	supplied heating capacity water side
Δt_w	°C	difference between incoming and outgoing temperature over the heat exchanger
Q_t	W	supplied capacity by heat exchanger and primary air
quick selection:		
L_9	°C	difference between room temperature and primary air temperature is 9°C
W_9	°C	difference between room temperature and water-entry temperature is 9°C
W_{10}	°C	difference between room temperature and water-entry temperature is 10°C



Selection example OKNH - type 600

Corner office for 2 people (LxWxH)		3.6 x 7.2 x 2.7m
Requirement:	Ventilation rate	150 m ³ /h
	Cooling capacity (75 w/m ²)	1950 Watt
	Heating capacity	1400 Watt
Temperatures:	Summer:	
	Room (t _{room} , 50% Sat)	25°C
	Primary air (t _{pri})	16°C
	Cooling water (t _{water in})	15°C
	Winter:	
	Room (t _{room})	20°C
	Primary air (t _{pri})	20°C
	Heating water (t _{water in})	45°C
This means:	Summer:	
	Temperature difference air side (t _{room} -t _{pri})	9°C (L ₉)
	Temperature difference water side (t _{room} -t _{water in})	10°C (W ₁₀)
	Winter:	
	Temperature difference air side (t _{pri} -t _{room})	0°C (L ₀)
	Temperature difference water side (t _{water in} -t _{room})	25°C
On the basis of the room width, two model 1800 units can be fitted.		
This means:	Primary air per chilled beam (150/2):	75 m ³ /h
	Required cooling capacity per unit (1950/2):	975 Watt
	Required heating capacity per unit (1400/2):	700 Watt

The next page contains the selection table for the OKNH type 600 model 1800.

The table is split into two parts - one part with air-side details (left side of the table) and one part with water-side details (right side).

The total capacity of a chilled beam is the sum of the air-side capacity and the water-side capacity.

For the two common temperature conditions L₉W₉ and L₉W₁₀ the total capacity is included in the dark-blue columns. These quick-selection columns show you instantly whether the maximum available capacities are enough for your selection example.

AIR						WATER												Fast selection*			
Primary			Cooling capacity air $t_{room} - t_{pri}$ °C			Cooling capacity water $t_{room} - t_{water in}$ °C												L_9 W_9	L_9 W_{10}		
			8	9	10	6		7		8		9		10		11					
V_{prim}	P_s	L_w	Q_l	Q_l	Q_l	V_w	ΔP_w	Q_{wk}	Δt_w	Q_{wk}	Δt_w	Q_{wk}	Δt_w	Q_{wk}	Δt_w	Q_{wk}	Δt_w	Q_{wk}	Δt_w	Q_t	Q_t

Nozzle A 1																						
l/s	m³/h	Pa	dB(A)	W_8	W_9	W_{10}	l/h	kPa	W_6	°C	W_7	°C	W_8	°C	W_9	°C	W_{10}	°C	W_{11}	°C	$W_{9,9}$	$W_{9,10}$
8.3	30	46	-	81	91	101	50	0.7	191	3.3	223	3.9	254	4.4	286	5.0	318	5.5	350	6.1	377	409
							100	2.5	245	2.1	286	2.4	326	2.8	367	3.2	408	3.5	449	3.8	458	499
							160	5.6	274	1.5	320	1.8	366	2.0	411	2.2	457	2.5	503	2.8	502	548
							220	9.7	290	1.1	338	1.3	386	1.5	435	1.7	483	1.9	531	2.1	526	574
9.7	35	62	-	94	105	117	50	0.7	207	3.5	242	4.1	276	4.7	310	5.3	345	5.9	380	6.5	415	450
							100	2.5	272	2.3	318	2.7	363	3.1	409	3.5	454	3.9	499	4.3	514	559
							160	5.6	310	1.7	361	2.0	413	2.2	464	2.5	516	2.8	568	3.1	569	621
							220	9.7	330	1.3	385	1.5	440	1.8	495	2.0	550	2.2	605	2.4	600	655
12.5	45	101	15	121	136	151	50	0.7	232	4.0	270	4.6	309	5.3	347	5.9	386	6.6	425	7.3	483	522
							100	2.5	320	2.8	373	3.2	426	3.7	480	4.1	533	4.6	586	5.1	616	669
							160	5.6	373	2.0	435	2.3	497	2.6	559	3.0	621	3.3	683	3.6	695	757
							220	9.7	403	1.6	470	1.8	538	2.1	605	2.3	672	2.6	739	2.9	741	808
15.3	55	150	21	148	166	185	50	0.7	250	4.3	291	5.0	333	5.8	374	6.5	416	7.2	458	7.9	540	582
							100	2.5	358	3.1	418	3.6	478	4.1	537	4.6	597	5.1	657	5.6	703	763
							160	5.6	428	2.3	499	2.7	570	3.0	642	3.4	713	3.8	784	4.2	808	879
							220	9.7	469	1.9	547	2.2	625	2.5	703	2.8	781	3.1	859	3.4	869	947
18.1	65	208	26	174	196	218	50	0.7	263	4.6	307	5.3	351	6.1	395	6.8	439	7.6	483	8.4	591	635
							100	2.5	389	3.4	454	3.9	519	4.5	584	5.0	649	5.6	714	6.2	780	845
							160	5.6	475	2.6	554	3.0	634	3.4	713	3.9	792	4.3	871	4.7	909	988
							220	9.7	528	2.0	616	2.4	704	2.7	792	3.1	880	3.4	968	3.7	988	1076

Nozzle B 2																						
l/s	m³/h	Pa	dB(A)	W_8	W_9	W_{10}	l/h	kPa	W_6	°C	W_7	°C	W_8	°C	W_9	°C	W_{10}	°C	W_{11}	°C	$W_{9,9}$	$W_{9,10}$
15.3	55	50	-	148	166	185	50	0.7	223	3.8	260	4.5	297	5.1	334	5.8	371	6.4	408	7.0	500	537
							100	2.5	301	2.6	351	3.0	402	3.4	452	3.9	502	4.3	552	4.7	618	668
							160	5.6	347	1.9	405	2.2	463	2.5	521	2.8	579	3.1	637	3.4	687	745
							220	9.7	373	1.4	435	1.7	498	1.9	560	2.2	622	2.4	684	2.6	726	788
18.1	65	69	-	174	196	218	50	0.7	238	4.1	278	4.8	318	5.4	357	6.1	397	6.8	437	7.5	553	593
							100	2.5	331	2.8	386	3.3	442	3.8	497	4.2	552	4.7	607	5.2	693	748
							160	5.6	388	2.1	453	2.4	518	2.8	582	3.2	647	3.5	712	3.8	778	843
							220	9.7	421	1.6	491	1.9	561	2.2	631	2.4	701	2.7	771	3.0	827	897
20.8	75	91	19	202	227	252	50	0.7	251	4.3	293	5.0	334	5.8	376	6.5	418	7.2	460	7.9	603	645
							100	2.5	356	3.1	416	3.6	475	4.1	535	4.6	594	5.1	653	5.6	762	821
							160	5.6	424	2.3	495	2.7	566	3.0	636	3.4	707	3.8	778	4.2	863	934
							220	9.7	464	1.8	541	2.1	618	2.4	696	2.7	773	3.0	850	3.3	923	1000

On the basis of the required amount of air of 75m³/h ①, nozzle type B2 is chosen

The details would be:

- Nozzle B2: ② Required static pressure P_s 91 Pa
- ③ Sound power level L_w 19 dB(A)
- ④ Air-side capacity (based on L_9) 227 Watt
- ⑤ Water-side capacity at ⑥ 220 l/h (based on W_{10}) 773 Watt
- ⑦ Total cooling capacity per unit 1000 Watt

The two chilled beams together supply 2000 Watt

As the stated temperature conditions match exactly with the temperature conditions L_9, W_{10} , the far right column lists the total capacity of 1000 Watt. As the required total capacity is 50 Watt lower, the water valve will carry a little less water than 220 l/h.

AIR						WATER													
Primary			Heating capacity air $t_{pri} - t_{room}$ °C			Heating capacity water $t_{water\ in} - t_{room}$ °C													
			10	15	20	20		25		30		40		50		60			
V_{prim}	P_s	L_w	Q_l	Q_l	Q_l	V_w	ΔP_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w

Nozzle A 1																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
8.3	30	46	-	101	152	202	50	0.3	450	7.7	562	9.7	675	11.6	900	15.5	1125	19.3	1350	23.2
							100	1.0	582	5.0	728	6.2	873	7.5	1164	10.0	1455	12.5	1746	15.0
							200	3.3	682	2.9	852	3.7	1023	4.4	1364	5.9	1705	7.3	2046	8.8
							300	6.8	723	2.1	904	2.6	1085	3.1	1447	4.1	1808	5.2	2170	6.2
9.7	35	62	-	117	176	234	50	0.3	481	8.3	601	10.3	721	12.4	961	16.5	1202	20.7	1442	24.8
							100	1.0	635	5.5	793	6.8	952	8.2	1269	10.9	1587	13.7	1904	16.4
							200	3.3	756	3.3	945	4.1	1134	4.9	1512	6.5	1890	8.2	2268	9.8
							300	6.8	807	2.3	1008	2.9	1210	3.5	1613	4.7	2017	5.8	2420	7.0
12.5	45	101	15	151	226	302	50	0.3	527	9.1	659	11.3	791	13.6	1055	18.1	1318	22.7	1582	27.2
							100	1.0	719	6.2	899	7.8	1079	9.3	1439	12.4	1798	15.5	2158	18.6
							200	3.3	879	3.8	1099	4.8	1319	5.7	1759	7.6	2198	9.5	2638	11.4
							300	6.8	950	2.7	1188	3.4	1425	4.1	1900	5.5	2375	6.8	2850	8.2
15.3	55	150	21	185	278	370	50	0.3	560	9.7	700	12.1	840	14.5	1120	19.3	1400	24.2	1680	29.0
							100	1.0	782	6.7	978	8.4	1173	10.1	1564	13.5	1955	16.8	2346	20.2
							200	3.3	976	4.2	1220	5.2	1464	6.3	1952	8.4	2440	10.5	2928	12.6
							300	6.8	1064	3.1	1330	3.8	1596	4.6	2128	6.1	2660	7.7	3192	9.2
18.1	65	208	26	218	327	436	50	0.3	583	10.0	728	12.5	874	15.0	1165	20.0	1457	25.0	1748	30.0
							100	1.0	829	7.1	1036	8.9	1243	10.7	1657	14.3	2072	17.8	2486	21.4
							200	3.3	1050	4.5	1312	5.7	1575	6.8	2100	9.1	2625	11.3	3150	13.6
							300	6.8	1152	3.3	1440	4.2	1728	5.0	2304	6.7	2880	8.3	3456	10.0

Nozzle B 2																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
15.3	55	50	-	185	278	370	50	0.3	503	8.7	629	10.8	755	13.0	1007	17.3	1258	21.7	1510	26.0
							100	1.0	670	5.7	838	7.2	1005	8.6	1340	11.5	1675	14.3	2010	17.2
							200	3.3	802	3.5	1002	4.3	1203	5.2	1604	6.9	2005	8.7	2406	10.4
							300	6.8	859	2.5	1073	3.1	1288	3.7	1717	4.9	2147	6.2	2576	7.4
18.1	65	69	-	218	327	436	50	0.3	539	9.3	673	11.6	808	13.9	1077	18.5	1347	23.2	1616	27.8
							100	1.0	730	6.3	912	7.8	1095	9.4	1460	12.5	1825	15.7	2190	18.8
							200	3.3	889	3.8	1111	4.8	1333	5.7	1777	7.6	2222	9.5	2666	11.4
							300	6.8	958	2.7	1198	3.4	1437	4.1	1916	5.5	2395	6.8	2874	8.2
20.8	75	91	19	252	378	504	50	0.3	567	9.7	709	12.2	851	14.6	1135	19.5	1418	24.3	1702	29.2
							100	1.0	781	6.7	977	8.4	1172	10.1	1563	13.5	1953	16.8	2344	20.2
							200	3.3	963	4.1	1204	5.2	1445	6.2	1927	8.3	2408	10.3	2890	12.4
							300	6.8	1044	3.0	1305	3.8	1566	4.5	2088	6.0	2610	7.5	3132	9.0

For the heating details, the following applies

- Air-side capacity (based on Lo)
- Watt
- ② Water-side capacity at ① 50 l/h (based on W25) 709 Watt
- Total heating capacity 709 Watt
- The two chilled beams together supply 1418 Watt

This supplied heating capacity is 18 Watt higher than the required capacity per unit, so the water valve will carry a little less water than 50 l/h.

AIR						WATER												Fast selection*			
Primary			Cooling capacity air $t_{room} - t_{pri}$ °C			Cooling capacity water $t_{room} - t_{water in}$ °C												L ₉ W ₉	L ₉ W ₁₀		
			8	9	10	6		7		8		9		10		11					
V _{prim}	Ps	Lw	Q _l	Q _l	Q _l	V _w	ΔP _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _t	Q _t

Nozzle A 1																						
l/s	m ³ /h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
5.6	20	49	-	54	60	67	50	0.6	152	2.6	177	3.1	202	3.5	228	4.0	253	4.4	278	4.8	288	313
							100	1.9	190	1.6	221	1.9	253	2.2	284	2.4	316	2.7	348	3.0	344	376
							150	3.8	206	1.2	241	1.4	275	1.6	310	1.8	344	2.0	378	2.2	370	404
							250	9.3	222	0.8	259	0.9	296	1.0	333	1.2	370	1.3	407	1.4	393	430
6.9	25	77	-	67	76	84	50	0.6	172	2.9	200	3.4	229	3.9	257	4.4	286	4.9	315	5.4	333	362
							100	1.9	222	1.9	259	2.2	296	2.6	333	2.9	370	3.2	407	3.5	409	446
							150	3.8	246	1.4	287	1.7	328	1.9	369	2.2	410	2.4	451	2.6	445	486
							250	9.3	269	0.9	314	1.0	359	1.2	404	1.3	449	1.5	494	1.6	480	525
8.3	30	110	-	81	91	101	50	0.6	188	3.2	219	3.8	250	4.3	282	4.9	313	5.4	344	5.9	373	404
							100	1.9	251	2.2	293	2.5	334	2.9	376	3.2	418	3.6	460	4.0	467	509
							150	3.8	283	1.6	330	1.9	377	2.2	424	2.4	471	2.7	518	3.0	515	562
							250	9.3	314	1.1	367	1.3	419	1.4	472	1.6	524	1.8	576	2.0	563	615
9.7	35	148	19	94	105	117	50	0.6	200	3.4	234	4.0	267	4.6	301	5.1	334	5.7	367	6.3	406	439
							100	1.9	276	2.4	322	2.8	368	3.2	414	3.6	460	4.0	506	4.4	519	565
							150	3.8	315	1.8	368	2.1	420	2.4	472	2.7	525	3.0	578	3.3	577	630
							250	9.3	356	1.2	416	1.4	475	1.6	535	1.8	594	2.0	653	2.2	640	699
11.1	40	193	23	107	121	134	50	0.6	211	3.6	246	4.2	281	4.8	316	5.4	351	6.0	386	6.6	437	472
							100	1.9	298	2.6	347	3.0	397	3.4	446	3.9	496	4.3	546	4.7	567	617
							150	3.8	345	2.0	402	2.3	460	2.6	518	3.0	575	3.3	632	3.6	639	696
							250	9.3	395	1.4	461	1.6	527	1.8	593	2.1	659	2.3	725	2.5	714	780

Nozzle B 2																						
l/s	m ³ /h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
9.7	35	49	-	94	105	117	50	0.6	175	3.0	204	3.5	234	4.0	263	4.5	292	5.0	321	5.5	368	397
							100	1.9	228	2.0	266	2.3	304	2.6	342	3.0	380	3.3	418	3.6	447	485
							150	3.8	253	1.4	295	1.7	338	1.9	380	2.2	422	2.4	464	2.6	485	527
							250	9.3	278	1.0	325	1.1	371	1.3	418	1.4	464	1.6	510	1.8	523	569
12.5	45	80	-	121	136	151	50	0.6	196	3.4	229	3.9	262	4.5	294	5.0	327	5.6	360	6.2	430	463
							100	1.9	265	2.3	309	2.7	354	3.0	398	3.4	442	3.8	486	4.2	534	578
							150	3.8	301	1.7	351	2.0	401	2.3	451	2.6	501	2.9	551	3.2	587	637
							250	9.3	337	1.1	393	1.3	449	1.5	505	1.7	561	1.9	617	2.1	641	697
15.3	55	119	20	148	166	185	50	0.6	211	3.7	246	4.3	282	4.9	317	5.5	352	6.1	387	6.7	483	518
							100	1.9	295	2.5	344	2.9	394	3.4	443	3.8	492	4.2	541	4.6	609	658
							150	3.8	341	2.0	398	2.3	454	2.6	511	3.0	568	3.3	625	3.6	677	734
							250	9.3	388	1.3	453	1.5	518	1.8	582	2.0	647	2.2	712	2.4	748	813
18.1	65	164	25	174	196	218	50	0.6	223	3.8	260	4.5	297	5.1	334	5.8	371	6.4	408	7.0	530	567
							100	1.9	320	2.8	373	3.2	426	3.7	480	4.1	533	4.6	586	5.1	676	729
							150	3.8	374	2.2	437	2.5	499	2.9	562	3.2	624	3.6	686	4.0	758	820
							250	9.3	433	1.5	505	1.8	578	2.0	650	2.2	722	2.5	794	2.8	846	918
20.8	75	217	29	202	227	252	50	0.6	231	4.0	270	4.6	308	5.3	346	5.9	385	6.6	424	7.3	573	612
							100	1.9	340	2.9	396	3.4	453	3.9	509	4.4	566	4.9	623	5.4	736	793
							150	3.8	403	2.3	470	2.7	537	3.0	604	3.4	671	3.8	738	4.2	831	898
							250	9.3	473	1.6	552	1.9	630	2.2	709	2.4	788	2.7	867	3.0	936	1015

Nozzle C 2																						
l/s	m ³ /h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
19.4	70	44	22	188	212	235	50	0.6	200	3.4	233	4.0	266	4.6	300	5.1	333	5.7	366	6.3	512	545
							100	1.9	271	2.3	316	2.7	362	3.1	407	3.5	452	3.9	497	4.3	619	664
							150	3.8	308	1.7	360	2.0	411	2.3	463	2.6	514	2.9	565	3.2	675	726
							250	9.3	346	1.2	403	1.4	461	1.6	518	1.8	576	2.0	634	2.2	730	788
25.0	90	72	29	242	272	302	50	0.6	219	3.8	256	4.4	292	5.0	328	5.7	365	6.3	402	6.9	600	637
							100	1.9	310	2.6	361	3.1	413	3.5	464	4.0	516	4.4	568	4.8	736	788
							150	3.8	359	2.0	419	2.4	478	2.7	538	3.1	598	3.4	658	3.7	810	870
							250	9.3	412	1.4	480	1.7	549	1.9	617	2.2	686	2.4	755	2.6	889	958
30.6	110	107	35	295	332	369	50	0.6	232	4.0	270	4.6	309	5.3	347	5.9	386	6.6	425	7.3	679	718
							100	1.9	338	2.9	395	3.4	451	3.9	508	4.4	564	4.9	620	5.4	840	896
							150	3.8	400	2.3	466	2.7	533	3.0	599	3.4	666	3.8	733	4.2	931	998
							250	9.3	467	1.6	545	1.9	622	2.2	700	2.4	778	2.7	856	3.0	1032	1110

AIR						WATER													
Primary			Heating capacity air $t_{pri} - t_{room} \text{ } ^\circ\text{C}$			Heating capacity water $t_{water\ in} - t_{room} \text{ } ^\circ\text{C}$													
			10	15	20	20		25		30		40		50		60			
V_{prim}	Ps	Lw	Q_I	Q_I	Q_I	V_w	ΔP_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w

Nozzle A 1																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
5.6	20	49	-	67	100	134	50	0.2	345	5.9	432	7.4	518	8.9	691	11.9	863	14.8	1036	17.8
							100	0.7	438	3.8	548	4.8	657	5.7	876	7.6	1095	9.5	1314	11.4
							200	2.5	507	2.2	633	2.8	760	3.3	1013	4.4	1267	5.5	1520	6.6
							300	5.2	534	1.5	668	1.9	801	2.3	1068	3.1	1335	3.8	1602	4.6
6.9	25	77	-	84	126	168	50	0.2	381	6.5	476	8.2	571	9.8	761	13.1	952	16.3	1142	19.6
							100	0.7	497	4.3	622	5.3	746	6.4	995	8.5	1243	10.7	1492	12.8
							200	2.5	587	2.5	733	3.2	880	3.8	1173	5.1	1467	6.3	1760	7.6
							300	5.2	625	1.8	781	2.3	937	2.7	1249	3.6	1562	4.5	1874	5.4
8.3	30	110	-	101	152	202	50	0.2	408	7.0	510	8.8	612	10.5	816	14.0	1020	17.5	1224	21.0
							100	0.7	545	4.7	681	5.8	817	7.0	1089	9.3	1362	11.7	1634	14.0
							200	2.5	654	2.8	818	3.5	981	4.2	1308	5.6	1635	7.0	1962	8.4
							300	5.2	701	2.0	877	2.5	1052	3.0	1403	4.0	1753	5.0	2104	6.0
9.7	35	148	19	117	176	234	50	0.2	429	7.4	536	9.2	643	11.1	857	14.8	1072	18.5	1286	22.2
							100	0.7	583	5.0	728	6.2	874	7.5	1165	10.0	1457	12.5	1748	15.0
							200	2.5	710	3.1	888	3.8	1065	4.6	1420	6.1	1775	7.7	2130	9.2
							300	5.2	766	2.2	957	2.8	1149	3.3	1532	4.4	1915	5.5	2298	6.6
11.1	40	193	23	134	201	268	50	0.2	444	7.7	555	9.6	666	11.5	888	15.3	1110	19.2	1332	23.0
							100	0.7	613	5.3	766	6.6	919	7.9	1225	10.5	1532	13.2	1838	15.8
							200	2.5	755	3.3	944	4.1	1133	4.9	1511	6.5	1888	8.2	2266	9.8
							300	5.2	819	2.3	1024	2.9	1229	3.5	1639	4.7	2048	5.8	2458	7.0

Nozzle B 2																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
9.7	35	49	-	117	176	234	50	0.2	381	6.5	476	8.2	571	9.8	761	13.1	952	16.3	1142	19.6
							100	0.7	493	4.3	617	5.3	740	6.4	987	8.5	1233	10.7	1480	12.8
							200	2.5	579	2.5	723	3.1	868	3.7	1157	4.9	1447	6.2	1736	7.4
							300	5.2	614	1.7	768	2.2	921	2.6	1228	3.5	1535	4.3	1842	5.2
12.5	45	80	-	151	226	302	50	0.2	423	7.3	529	9.1	635	10.9	847	14.5	1058	18.2	1270	21.8
							100	0.7	564	4.9	705	6.1	846	7.3	1128	9.7	1410	12.2	1692	14.6
							200	2.5	677	2.9	846	3.7	1015	4.4	1353	5.9	1692	7.3	2030	8.8
							300	5.2	725	2.1	906	2.6	1087	3.1	1449	4.1	1812	5.2	2174	6.2
15.3	55	119	20	185	278	370	50	0.2	457	7.9	572	9.8	686	11.8	915	15.7	1143	19.7	1372	23.6
							100	0.7	620	5.3	775	6.7	930	8.0	1240	10.7	1550	13.3	1860	16.0
							200	2.5	755	3.3	943	4.1	1132	4.9	1509	6.5	1887	8.2	2264	9.8
							300	5.2	813	2.3	1017	2.9	1220	3.5	1627	4.7	2033	5.8	2440	7.0
18.1	65	164	25	218	327	436	50	0.2	485	8.3	606	10.4	727	12.5	969	16.7	1212	20.8	1454	25.0
							100	0.7	665	5.7	831	7.2	997	8.6	1329	11.5	1662	14.3	1994	17.2
							200	2.5	817	3.5	1021	4.4	1225	5.3	1633	7.1	2042	8.8	2450	10.6
							300	5.2	884	2.5	1105	3.2	1326	3.8	1768	5.1	2210	6.3	2652	7.6
20.8	75	217	29	252	378	504	50	0.2	508	8.7	635	10.9	762	13.1	1016	17.5	1270	21.8	1524	26.2
							100	0.7	700	6.0	875	7.5	1050	9.0	1400	12.0	1750	15.0	2100	18.0
							200	2.5	864	3.7	1080	4.7	1296	5.6	1728	7.5	2160	9.3	2592	11.2
							300	5.2	937	2.7	1172	3.3	1406	4.0	1875	5.3	2343	6.7	2812	8.0

Nozzle C 2																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
19.4	70	44	22	235	352	470	50	0.2	443	7.6	553	9.5	664	11.4	885	15.2	1107	19.0	1328	22.8
							100	0.7	585	5.1	732	6.3	878	7.6	1171	10.1	1463	12.7	1756	15.2
							200	2.5	698	3.0	872	3.8	1047	4.5	1396	6.0	1745	7.5	2094	9.0
							300	5.2	745	2.1	932	2.7	1118	3.2	1491	4.3	1863	5.3	2236	6.4
25.0	90	72	29	302	453	604	50	0.2	479	8.3	599	10.3	719	12.4	959	16.5	1198	20.7	1438	24.8
							100	0.7	653	5.6	817	7.0	980	8.4	1307	11.2	1633	14.0	1960	16.8
							200	2.5	799	3.5	998	4.3	1198	5.2	1597	6.9	1997	8.7	2396	10.4
							300	5.2	863	2.5	1078	3.1	1294	3.7	1725	4.9	2157	6.2	2588	7.4
30.6	110	107	35	369	554	738	50	0.2	501	8.6	627	10.8	752	12.9	1003	17.2	1253	21.5	1504	25.8
							100	0.7	699	6.0	873	7.5	1048	9.0	1397	12.0	1747	15.0	2096	18.0
							200	2.5	870	3.7	1088	4.7	1305	5.6	1740	7.5	2175	9.3	2610	11.2
							300	5.2	947	2.7	1184	3.4	1421	4.1	1895	5.5	2368	6.8	2842	8.2

AIR						WATER												Fast selection*			
Primary			Cooling capacity air $t_{room} - t_{pri}$ °C			Cooling capacity water $t_{room} - t_{water in}$ °C												L_9 W_9	L_9 W_{10}		
			8	9	10	6		7		8		9		10		11					
V_{prim}	P_s	L_w	Q_l	Q_l	Q_l	V_w	ΔP_w	Q_{wk}	Δt_w	Q_{wk}	Δt_w	Q_{wk}	Δt_w	Q_{wk}	Δt_w	Q_{wk}	Δt_w	Q_{wk}	Δt_w	Q_t	Q_t

Nozzle A 1																						
l/s	m ³ /h	Pa	dB(A)	W_8	W_9	W_{10}	l/h	kPa	W_6	°C	W_7	°C	W_8	°C	W_9	°C	W_{10}	°C	W_{11}	°C	$W_{9,9}$	$W_{9,10}$
8.3	30	63	-	81	91	101	50	0.7	188	3.2	220	3.8	251	4.3	283	4.9	314	5.4	345	5.9	374	405
							100	2.2	245	2.1	286	2.4	326	2.8	367	3.2	408	3.5	449	3.8	458	499
							170	5.6	279	1.4	326	1.7	372	1.9	418	2.2	465	2.4	512	2.6	509	556
							240	10.2	296	1.1	346	1.3	395	1.4	445	1.6	494	1.8	543	2.0	536	585
9.7	35	86	-	94	105	117	50	0.7	203	3.5	237	4.1	271	4.6	305	5.2	339	5.8	373	6.4	410	444
							100	2.2	271	2.3	316	2.7	362	3.1	407	3.5	452	3.9	497	4.3	512	557
							170	5.6	314	1.6	367	1.9	419	2.2	472	2.4	524	2.7	576	3.0	577	629
							240	10.2	337	1.2	393	1.4	450	1.6	506	1.8	562	2.0	618	2.2	611	667
11.1	40	111	16	107	121	134	50	0.7	216	3.7	252	4.3	288	5.0	324	5.6	360	6.2	396	6.8	445	481
							100	2.2	295	2.5	344	2.9	394	3.4	443	3.8	492	4.2	541	4.6	564	613
							170	5.6	347	1.7	405	2.0	463	2.3	521	2.6	579	2.9	637	3.2	642	700
							240	10.2	376	1.3	438	1.5	501	1.8	563	2.0	626	2.2	689	2.4	684	747
12.5	45	140	19	121	136	151	50	0.7	226	3.9	264	4.6	302	5.2	339	5.9	377	6.5	415	7.2	475	513
							100	2.2	316	2.7	369	3.2	422	3.6	474	4.0	527	4.5	580	5.0	610	663
							170	5.6	378	1.9	441	2.2	504	2.6	567	2.9	630	3.2	693	3.5	703	766
							240	10.2	412	1.5	480	1.8	549	2.0	617	2.2	686	2.5	755	2.8	753	822
13.9	50	172	22	134	151	168	50	0.7	235	4.0	274	4.7	314	5.4	353	6.0	392	6.7	431	7.4	504	543
							100	2.2	335	2.9	391	3.4	447	3.8	503	4.3	559	4.8	615	5.3	654	710
							170	5.6	407	2.0	475	2.4	542	2.7	610	3.1	678	3.4	746	3.7	761	829
							240	10.2	446	1.6	521	1.9	595	2.2	670	2.4	744	2.7	818	3.0	821	895

Nozzle B 2																						
l/s	m ³ /h	Pa	dB(A)	W_8	W_9	W_{10}	l/h	kPa	W_6	°C	W_7	°C	W_8	°C	W_9	°C	W_{10}	°C	W_{11}	°C	$W_{9,9}$	$W_{9,10}$
13.9	50	58	-	134	151	168	50	0.7	209	3.6	244	4.2	279	4.8	314	5.4	349	6.0	384	6.6	465	500
							100	2.2	281	2.4	328	2.8	375	3.2	422	3.6	469	4.0	516	4.4	573	620
							170	5.6	328	1.7	383	2.0	438	2.2	492	2.5	547	2.8	602	3.1	643	698
							240	10.2	353	1.3	412	1.5	470	1.7	529	1.9	588	2.1	647	2.3	680	739
16.7	60	82	16	161	181	201	50	0.7	226	3.9	263	4.6	301	5.2	338	5.9	376	6.5	414	7.2	519	557
							100	2.2	312	2.7	364	3.2	416	3.6	468	4.0	520	4.5	572	5.0	649	701
							170	5.6	371	1.9	433	2.2	494	2.5	556	2.8	618	3.1	680	3.4	737	799
							240	10.2	403	1.4	470	1.7	537	1.9	604	2.2	671	2.4	738	2.6	785	852
19.4	70	111	21	188	212	235	50	0.7	238	4.1	277	4.8	317	5.4	356	6.1	396	6.8	436	7.5	568	608
							100	2.2	338	2.9	394	3.4	450	3.8	507	4.3	563	4.8	619	5.3	719	775
							170	5.6	409	2.0	477	2.4	545	2.7	613	3.1	681	3.4	749	3.7	825	893
							240	10.2	448	1.6	522	1.9	597	2.2	671	2.4	746	2.7	821	3.0	883	958
22.2	80	144	25	215	242	269	50	0.7	248	4.3	289	5.0	330	5.7	372	6.4	413	7.1	454	7.8	614	655
							100	2.2	359	3.1	419	3.6	479	4.2	539	4.7	599	5.2	659	5.7	781	841
							170	5.6	442	2.2	515	2.6	589	3.0	662	3.3	736	3.7	810	4.1	904	978
							240	10.2	488	1.7	569	2.0	650	2.3	732	2.6	813	2.9	894	3.2	974	1055
25.0	90	181	29	242	272	302	50	0.7	256	4.4	298	5.1	341	5.8	383	6.6	426	7.3	469	8.0	655	698
							100	2.2	378	3.2	441	3.8	504	4.3	567	4.9	630	5.4	693	5.9	839	902
							170	5.6	470	2.4	549	2.8	627	3.2	706	3.6	784	4.0	862	4.4	978	1056
							240	10.2	524	1.9	612	2.2	699	2.5	787	2.8	874	3.1	961	3.4	1059	1146

Nozzle C 2																						
l/s	m ³ /h	Pa	dB(A)	W_8	W_9	W_{10}	l/h	kPa	W_6	°C	W_7	°C	W_8	°C	W_9	°C	W_{10}	°C	W_{11}	°C	$W_{9,9}$	$W_{9,10}$
25.0	90	42	27	242	272	302	50	0.7	226	3.9	263	4.6	301	5.2	338	5.9	376	6.5	414	7.2	610	648
							100	2.2	312	2.7	364	3.2	416	3.6	468	4.0	520	4.5	572	5.0	740	792
							170	5.6	370	1.9	432	2.2	494	2.5	555	2.8	617	3.1	679	3.4	827	889
							240	10.2	401	1.4	468	1.7	535	1.9	602	2.2	669	2.4	736	2.6	874	941
30.6	110	62	32	295	332	369	50	0.7	242	4.2	283	4.9	323	5.6	364	6.3	404	7.0	444	7.7	696	736
							100	2.2	346	3.0	403	3.5	461	4.0	518	4.5	576	5.0	634	5.5	850	908
							170	5.6	419	2.1	489	2.4	559	2.8	629	3.2	699	3.5	769	3.8	961	1031
							240	10.2	460	1.6	537	1.9	614	2.2	690	2.4	767	2.7	844	3.0	1022	1099
36.1	130	86	37	349	392	436	50	0.7	255	4.4	298	5.1	340	5.8	382	6.6	425	7.3	468	8.0	774	817
							100	2.2	373	3.2	435	3.8	498	4.3	560	4.9	622	5.4	684	5.9	952	1014
							170	5.6	461	2.3	538	2.7	614	3.1	691	3.5	768	3.9	845	4.3	1083	1160
							240	10.2	511	1.9	596	2.2	682	2.5	767	2.8	852	3.1	937	3.4	1159	1244

AIR						WATER													
Primary			Heating capacity air $t_{pri} - t_{room}$ °C			Heating capacity water $t_{water in} - t_{room}$ °C													
			10	15	20	20		25		30		40		50		60			
V _{prim}	Ps	Lw	Q _l	Q _l	Q _l	V _w	ΔP _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w

Nozzle A 1																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
8.3	30	63	-	101	152	202	50	0.3	431	7.4	538	9.2	646	11.1	861	14.8	1077	18.5	1292	22.2
							100	0.9	563	4.9	703	6.1	844	7.3	1125	9.7	1407	12.2	1688	14.6
							200	3.0	665	2.9	831	3.6	997	4.3	1329	5.7	1662	7.2	1994	8.6
							300	6.2	707	2.0	884	2.5	1061	3.0	1415	4.0	1768	5.0	2122	6.0
9.7	35	86	-	117	176	234	50	0.3	457	7.9	572	9.8	686	11.8	915	15.7	1143	19.7	1372	23.6
							100	0.9	610	5.3	762	6.6	915	7.9	1220	10.5	1525	13.2	1830	15.8
							200	3.0	732	3.1	915	3.9	1098	4.7	1464	6.3	1830	7.8	2196	9.4
							300	6.2	784	2.3	980	2.8	1176	3.4	1568	4.5	1960	5.7	2352	6.8
11.1	40	111	16	134	201	268	50	0.3	479	8.3	599	10.3	719	12.4	959	16.5	1198	20.7	1438	24.8
							100	0.9	650	5.6	812	7.0	975	8.4	1300	11.2	1625	14.0	1950	16.8
							200	3.0	790	3.4	988	4.2	1185	5.1	1580	6.8	1975	8.5	2370	10.2
							300	6.2	851	2.5	1064	3.1	1277	3.7	1703	4.9	2128	6.2	2554	7.4
12.5	45	140	19	151	226	302	50	0.3	497	8.5	622	10.7	746	12.8	995	17.1	1243	21.3	1492	25.6
							100	0.9	683	5.9	854	7.3	1025	8.8	1367	11.7	1708	14.7	2050	17.6
							200	3.0	841	3.6	1051	4.5	1261	5.4	1681	7.2	2102	9.0	2522	10.8
							300	6.2	911	2.6	1138	3.2	1366	3.9	1821	5.2	2277	6.5	2732	7.8
13.9	50	172	22	168	252	336	50	0.3	512	8.8	640	11.0	768	13.2	1024	17.6	1280	22.0	1536	26.4
							100	0.9	711	6.1	889	7.7	1067	9.2	1423	12.3	1778	15.3	2134	18.4
							200	3.0	884	3.8	1105	4.8	1326	5.7	1768	7.6	2210	9.5	2652	11.4
							300	6.2	961	2.7	1202	3.4	1442	4.1	1923	5.5	2403	6.8	2884	8.2

Nozzle B 2																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
13.9	50	58	-	168	252	336	50	0.3	464	8.0	580	10.0	696	12.0	928	16.0	1160	20.0	1392	24.0
							100	0.9	615	5.3	768	6.6	922	7.9	1229	10.5	1537	13.2	1844	15.8
							200	3.0	735	3.1	918	3.9	1102	4.7	1469	6.3	1837	7.8	2204	9.4
							300	6.2	785	2.3	982	2.8	1178	3.4	1571	4.5	1963	5.7	2356	6.8
16.7	60	82	16	201	302	402	50	0.3	499	8.6	623	10.8	748	12.9	997	17.2	1247	21.5	1496	25.8
							100	0.9	675	5.8	843	7.2	1012	8.7	1349	11.6	1687	14.5	2024	17.4
							200	3.0	819	3.5	1023	4.4	1228	5.3	1637	7.1	2047	8.8	2456	10.6
							300	6.2	882	2.5	1102	3.2	1323	3.8	1764	5.1	2205	6.3	2646	7.6
19.4	70	111	21	235	352	470	50	0.3	527	9.1	659	11.3	791	13.6	1055	18.1	1318	22.7	1582	27.2
							100	0.9	724	6.2	905	7.8	1086	9.3	1448	12.4	1810	15.5	2172	18.6
							200	3.0	890	3.8	1112	4.8	1335	5.7	1780	7.6	2225	9.5	2670	11.4
							300	6.2	963	2.7	1204	3.4	1445	4.1	1927	5.5	2408	6.8	2890	8.2
22.2	80	144	25	269	404	538	50	0.3	552	9.5	690	11.8	828	14.2	1104	18.9	1380	23.7	1656	28.4
							100	0.9	765	6.6	957	8.2	1148	9.9	1531	13.2	1913	16.5	2296	19.8
							200	3.0	949	4.1	1187	5.1	1424	6.1	1899	8.1	2373	10.2	2848	12.2
							300	6.2	1032	2.9	1290	3.7	1548	4.4	2064	5.9	2580	7.3	3096	8.8
25.0	90	181	29	302	453	604	50	0.3	573	9.9	716	12.3	859	14.8	1145	19.7	1432	24.7	1718	29.6
							100	0.9	800	6.9	1000	8.6	1200	10.3	1600	13.7	2000	17.2	2400	20.6
							200	3.0	999	4.3	1248	5.3	1498	6.4	1997	8.5	2497	10.7	2996	12.8
							300	6.2	1088	3.1	1360	3.9	1632	4.7	2176	6.3	2720	7.8	3264	9.4

Nozzle C 2																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
25.0	90	42	27	302	453	604	50	0.3	512	8.8	640	11.0	768	13.2	1024	17.6	1280	22.0	1536	26.4
							100	0.9	685	5.9	857	7.3	1028	8.8	1371	11.7	1713	14.7	2056	17.6
							200	3.0	824	3.5	1030	4.4	1236	5.3	1648	7.1	2060	8.8	2472	10.6
							300	6.2	884	2.5	1105	3.2	1326	3.8	1768	5.1	2210	6.3	2652	7.6
30.6	110	62	32	369	554	738	50	0.3	546	9.4	682	11.8	819	14.1	1092	18.8	1365	23.5	1638	28.2
							100	0.9	749	6.5	937	8.1	1124	9.7	1499	12.9	1873	16.2	2248	19.4
							200	3.0	920	3.9	1150	4.9	1380	5.9	1840	7.9	2300	9.8	2760	11.8
							300	6.2	996	2.9	1245	3.6	1494	4.3	1992	5.7	2490	7.2	2988	8.6
36.1	130	86	37	436	654	872	50	0.3	570	9.8	712	12.2	855	14.7	1140	19.6	1425	24.5	1710	29.4
							100	0.9	797	6.9	996	8.6	1195	10.3	1593	13.7	1992	17.2	2390	20.6
							200	3.0	995	4.3	1243	5.3	1492	6.4	1989	8.5	2487	10.7	2984	12.8
							300	6.2	1085	3.1	1356	3.9	1627	4.7	2169	6.3	2712	7.8	3254	9.4

AIR						WATER												Fast selection*					
Primary			Cooling capacity air $t_{room} - t_{pri}$ °C			Cooling capacity water $t_{room} - t_{water in}$ °C												L ₉ W ₉	L ₉ W ₁₀				
			8	9	10	6		7		8		9		10		11							
V _{prim}	Ps	Lw	Q _l	Q _l	Q _l	V _w	ΔP _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _t	Q _t

Nozzle A 1																						
l/s	m ³ /h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
8.3	30	46	-	81	91	101	50	0.7	191	3.3	223	3.9	254	4.4	286	5.0	318	5.5	350	6.1	377	409
							100	2.5	245	2.1	286	2.4	326	2.8	367	3.2	408	3.5	449	3.8	458	499
							160	5.6	274	1.5	320	1.8	366	2.0	411	2.2	457	2.5	503	2.8	502	548
							220	9.7	290	1.1	338	1.3	386	1.5	435	1.7	483	1.9	531	2.1	526	574
9.7	35	62	-	94	105	117	50	0.7	207	3.5	242	4.1	276	4.7	310	5.3	345	5.9	380	6.5	415	450
							100	2.5	272	2.3	318	2.7	363	3.1	409	3.5	454	3.9	499	4.3	514	559
							160	5.6	310	1.7	361	2.0	413	2.2	464	2.5	516	2.8	568	3.1	569	621
							220	9.7	330	1.3	385	1.5	440	1.8	495	2.0	550	2.2	605	2.4	600	655
12.5	45	101	15	121	136	151	50	0.7	232	4.0	270	4.6	309	5.3	347	5.9	386	6.6	425	7.3	483	522
							100	2.5	320	2.8	373	3.2	426	3.7	480	4.1	533	4.6	586	5.1	616	669
							160	5.6	373	2.0	435	2.3	497	2.6	559	3.0	621	3.3	683	3.6	695	757
							220	9.7	403	1.6	470	1.8	538	2.1	605	2.3	672	2.6	739	2.9	741	808
15.3	55	150	21	148	166	185	50	0.7	250	4.3	291	5.0	333	5.8	374	6.5	416	7.2	458	7.9	540	582
							100	2.5	358	3.1	418	3.6	478	4.1	537	4.6	597	5.1	657	5.6	703	763
							160	5.6	428	2.3	499	2.7	570	3.0	642	3.4	713	3.8	784	4.2	808	879
							220	9.7	469	1.9	547	2.2	625	2.5	703	2.8	781	3.1	859	3.4	869	947
18.1	65	208	26	174	196	218	50	0.7	263	4.6	307	5.3	351	6.1	395	6.8	439	7.6	483	8.4	591	635
							100	2.5	389	3.4	454	3.9	519	4.5	584	5.0	649	5.6	714	6.2	780	845
							160	5.6	475	2.6	554	3.0	634	3.4	713	3.9	792	4.3	871	4.7	909	988
							220	9.7	528	2.0	616	2.4	704	2.7	792	3.1	880	3.4	968	3.7	988	1076

Nozzle B 2																						
l/s	m ³ /h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
15.3	55	50	-	148	166	185	50	0.7	223	3.8	260	4.5	297	5.1	334	5.8	371	6.4	408	7.0	500	537
							100	2.5	301	2.6	351	3.0	402	3.4	452	3.9	502	4.3	552	4.7	618	668
							160	5.6	347	1.9	405	2.2	463	2.5	521	2.8	579	3.1	637	3.4	687	745
							220	9.7	373	1.4	435	1.7	498	1.9	560	2.2	622	2.4	684	2.6	726	788
18.1	65	69	-	174	196	218	50	0.7	238	4.1	278	4.8	318	5.4	357	6.1	397	6.8	437	7.5	553	593
							100	2.5	331	2.8	386	3.3	442	3.8	497	4.2	552	4.7	607	5.2	693	748
							160	5.6	388	2.1	453	2.4	518	2.8	582	3.2	647	3.5	712	3.8	778	843
							220	9.7	421	1.6	491	1.9	561	2.2	631	2.4	701	2.7	771	3.0	827	897
20.8	75	91	19	202	227	252	50	0.7	251	4.3	293	5.0	334	5.8	376	6.5	418	7.2	460	7.9	603	645
							100	2.5	356	3.1	416	3.6	475	4.1	535	4.6	594	5.1	653	5.6	762	821
							160	5.6	424	2.3	495	2.7	566	3.0	636	3.4	707	3.8	778	4.2	863	934
							220	9.7	464	1.8	541	2.1	618	2.4	696	2.7	773	3.0	850	3.3	923	1000
23.6	85	116	23	228	256	285	50	0.7	260	4.5	304	5.2	347	6.0	391	6.8	434	7.5	477	8.2	647	690
							100	2.5	379	3.2	442	3.8	505	4.3	568	4.9	631	5.4	694	5.9	824	887
							160	5.6	456	2.5	532	2.9	608	3.3	684	3.7	760	4.1	836	4.5	940	1016
							220	9.7	503	2.0	587	2.3	670	2.6	754	3.0	838	3.3	922	3.6	1010	1094
26.4	95	144	26	255	287	319	50	0.7	269	4.6	314	5.4	358	6.2	403	6.9	448	7.7	493	8.5	690	735
							100	2.5	398	3.4	464	4.0	530	4.6	597	5.1	663	5.7	729	6.3	884	950
							160	5.6	485	2.6	566	3.0	646	3.4	727	3.9	808	4.3	889	4.7	1014	1095
							220	9.7	538	2.1	628	2.4	718	2.8	807	3.2	897	3.5	987	3.8	1094	1184

Nozzle C 2																						
l/s	m ³ /h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
33.3	120	53	32	322	363	403	50	0.7	257	4.4	300	5.2	342	5.9	385	6.7	428	7.4	471	8.1	748	791
							100	2.5	369	3.2	430	3.7	492	4.2	554	4.8	615	5.3	676	5.8	917	978
							160	5.6	440	2.3	514	2.7	587	3.1	661	3.5	734	3.9	807	4.3	1024	1097
							220	9.7	484	1.9	564	2.2	645	2.6	725	2.9	806	3.2	887	3.5	1088	1169
38.9	140	72	37	376	423	470	50	0.7	269	4.6	314	5.4	359	6.2	404	6.9	449	7.7	494	8.5	827	872
							100	2.5	396	3.4	462	4.0	528	4.6	594	5.1	660	5.7	726	6.3	1017	1083
							160	5.6	481	2.6	561	3.0	641	3.4	721	3.9	801	4.3	881	4.7	1144	1224
							220	9.7	532	2.1	621	2.4	710	2.8	798	3.2	887	3.5	976	3.8	1221	1310
44.4	160	93	40	430	483	537	50	0.7	279	4.8	326	5.6	372	6.4	418	7.2	465	8.0	512	8.8	901	948
							100	2.5	418	3.6	488	4.2	558	4.8	627	5.4	697	6.0	767	6.6	1110	1180
							160	5.6	515	2.8	601	3.2	686	3.7	772	4.1	858	4.6	944	5.1	1255	1341
							220	9.7	575	2.2	671	2.6	766	3.0	862	3.3	958	3.7	1054	4.1	1345	1441

AIR						WATER													
Primary			Heating capacity air $t_{pri} - t_{room} \text{ } ^\circ\text{C}$			Heating capacity water $t_{water in} - t_{room} \text{ } ^\circ\text{C}$													
			10	15	20	20		25		30		40		50		60			
V_{prim}	P_s	L_w	Q_l	Q_l	Q_l	V_w	ΔP_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w

Nozzle A 1																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
8.3	30	46	-	101	152	202	50	0.3	450	7.7	562	9.7	675	11.6	900	15.5	1125	19.3	1350	23.2
							100	1.0	582	5.0	728	6.2	873	7.5	1164	10.0	1455	12.5	1746	15.0
							200	3.3	682	2.9	852	3.7	1023	4.4	1364	5.9	1705	7.3	2046	8.8
							300	6.8	723	2.1	904	2.6	1085	3.1	1447	4.1	1808	5.2	2170	6.2
9.7	35	62	-	117	176	234	50	0.3	481	8.3	601	10.3	721	12.4	961	16.5	1202	20.7	1442	24.8
							100	1.0	635	5.5	793	6.8	952	8.2	1269	10.9	1587	13.7	1904	16.4
							200	3.3	756	3.3	945	4.1	1134	4.9	1512	6.5	1890	8.2	2268	9.8
							300	6.8	807	2.3	1008	2.9	1210	3.5	1613	4.7	2017	5.8	2420	7.0
12.5	45	101	15	151	226	302	50	0.3	527	9.1	659	11.3	791	13.6	1055	18.1	1318	22.7	1582	27.2
							100	1.0	719	6.2	899	7.8	1079	9.3	1439	12.4	1798	15.5	2158	18.6
							200	3.3	879	3.8	1099	4.8	1319	5.7	1759	7.6	2198	9.5	2638	11.4
							300	6.8	950	2.7	1188	3.4	1425	4.1	1900	5.5	2375	6.8	2850	8.2
15.3	55	150	21	185	278	370	50	0.3	560	9.7	700	12.1	840	14.5	1120	19.3	1400	24.2	1680	29.0
							100	1.0	782	6.7	978	8.4	1173	10.1	1564	13.5	1955	16.8	2346	20.2
							200	3.3	976	4.2	1220	5.2	1464	6.3	1952	8.4	2440	10.5	2928	12.6
							300	6.8	1064	3.1	1330	3.8	1596	4.6	2128	6.1	2660	7.7	3192	9.2
18.1	65	208	26	218	327	436	50	0.3	583	10.0	728	12.5	874	15.0	1165	20.0	1457	25.0	1748	30.0
							100	1.0	829	7.1	1036	8.9	1243	10.7	1657	14.3	2072	17.8	2486	21.4
							200	3.3	1050	4.5	1312	5.7	1575	6.8	2100	9.1	2625	11.3	3150	13.6
							300	6.8	1152	3.3	1440	4.2	1728	5.0	2304	6.7	2880	8.3	3456	10.0

Nozzle B 2																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
15.3	55	50	-	185	278	370	50	0.3	503	8.7	629	10.8	755	13.0	1007	17.3	1258	21.7	1510	26.0
							100	1.0	670	5.7	838	7.2	1005	8.6	1340	11.5	1675	14.3	2010	17.2
							200	3.3	802	3.5	1002	4.3	1203	5.2	1604	6.9	2005	8.7	2406	10.4
							300	6.8	859	2.5	1073	3.1	1288	3.7	1717	4.9	2147	6.2	2576	7.4
18.1	65	69	-	218	327	436	50	0.3	539	9.3	673	11.6	808	13.9	1077	18.5	1347	23.2	1616	27.8
							100	1.0	730	6.3	912	7.8	1095	9.4	1460	12.5	1825	15.7	2190	18.8
							200	3.3	889	3.8	1111	4.8	1333	5.7	1777	7.6	2222	9.5	2666	11.4
							300	6.8	958	2.7	1198	3.4	1437	4.1	1916	5.5	2395	6.8	2874	8.2
20.8	75	91	19	252	378	504	50	0.3	567	9.7	709	12.2	851	14.6	1135	19.5	1418	24.3	1702	29.2
							100	1.0	781	6.7	977	8.4	1172	10.1	1563	13.5	1953	16.8	2344	20.2
							200	3.3	963	4.1	1204	5.2	1445	6.2	1927	8.3	2408	10.3	2890	12.4
							300	6.8	1044	3.0	1305	3.8	1566	4.5	2088	6.0	2610	7.5	3132	9.0
23.6	85	116	23	285	428	570	50	0.3	592	10.2	740	12.8	888	15.3	1184	20.4	1480	25.5	1776	30.6
							100	1.0	825	7.1	1032	8.8	1238	10.6	1651	14.1	2063	17.7	2476	21.2
							200	3.3	1028	4.4	1285	5.5	1542	6.6	2056	8.8	2570	11.0	3084	13.2
							300	6.8	1119	3.2	1399	4.0	1679	4.8	2239	6.4	2798	8.0	3358	9.6
26.4	95	144	26	319	478	638	50	0.3	613	10.5	767	13.2	920	15.8	1227	21.1	1533	26.3	1840	31.6
							100	1.0	863	7.4	1078	9.2	1294	11.1	1725	14.8	2157	18.5	2588	22.2
							200	3.3	1083	4.7	1353	5.8	1624	7.0	2165	9.3	2707	11.7	3248	14.0
							300	6.8	1183	3.4	1479	4.2	1775	5.1	2367	6.8	2958	8.5	3550	10.2

Nozzle C 2																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
33.3	120	53	32	403	604	806	50	0.3	593	10.2	741	12.8	889	15.3	1185	20.4	1482	25.5	1778	30.6
							100	1.0	817	7.0	1021	8.8	1225	10.5	1633	14.0	2042	17.5	2450	21.0
							200	3.3	1007	4.3	1258	5.4	1510	6.5	2013	8.7	2517	10.8	3020	13.0
							300	6.8	1091	3.1	1364	3.9	1637	4.7	2183	6.3	2728	7.8	3274	9.4
38.9	140	72	37	470	705	940	50	0.3	619	10.7	773	13.3	928	16.0	1237	21.3	1547	26.7	1856	32.0
							100	1.0	868	7.5	1085	9.3	1302	11.2	1736	14.9	2170	18.7	2604	22.4
							200	3.3	1087	4.7	1359	5.8	1631	7.0	2175	9.3	2718	11.7	3262	14.0
							300	6.8	1187	3.4	1484	4.2	1781	5.1	2375	6.8	2968	8.5	3562	10.2
44.4	160	93	40	537	806	1074	50	0.3	637	10.9	797	13.7	956	16.4	1275	21.9	1593	27.3	1912	32.8
							100	1.0	907	7.8	1134	9.7	1361	11.7	1815	15.6	2268	19.5	2722	23.4
							200	3.3	1151	4.9	1439	6.2	1727	7.4	2303	9.9	2878	12.3	3454	14.8
							300	6.8	1265	3.6	1581	4.5	1897	5.4	2529	7.2	3162	9.0	3794	10.8

AIR						WATER												Fast selection*					
Primary			Cooling capacity air $t_{room} - t_{pri}$ °C			Cooling capacity water $t_{room} - t_{water in}$ °C																	
			8	9	10	6		7		8		9		10		11							
V _{prim}	Ps	Lw	Q _l	Q _l	Q _l	V _w	ΔP _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _t	Q _t

Nozzle A 1																						
l/s	m ³ /h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
13.9	50	62	-	134	151	168	50	0.2	211	3.7	246	4.3	282	4.9	317	5.5	352	6.1	387	6.7	468	503
							100	0.6	307	2.6	358	3.1	409	3.5	460	4.0	511	4.4	562	4.8	611	662
							225	2.5	409	1.6	477	1.8	546	2.1	614	2.3	682	2.6	750	2.9	765	833
							450	8.6	472	0.9	551	1.0	630	1.2	708	1.3	787	1.5	866	1.6	859	938
16.7	60	89	15	161	181	201	50	0.2	224	3.8	261	4.5	298	5.1	336	5.8	373	6.4	410	7.0	517	554
							100	0.6	336	2.9	392	3.4	448	3.8	504	4.3	560	4.8	616	5.3	685	741
							225	2.5	466	1.8	544	2.1	622	2.4	699	2.7	777	3.0	855	3.3	880	958
							450	8.6	551	1.1	643	1.3	735	1.4	827	1.6	919	1.8	1011	2.0	1008	1100
19.4	70	120	20	188	212	235	50	0.2	233	4.0	272	4.7	311	5.4	350	6.0	389	6.7	428	7.4	562	601
							100	0.6	361	3.1	421	3.6	481	4.2	541	4.7	601	5.2	661	5.7	753	813
							225	2.5	517	2.0	603	2.3	690	2.6	776	3.0	862	3.3	948	3.6	988	1074
							450	8.6	626	1.2	731	1.4	835	1.6	940	1.8	1044	2.0	1148	2.2	1152	1256
22.2	80	155	24	215	242	269	50	0.2	240	4.1	280	4.8	320	5.5	360	6.2	400	6.9	440	7.6	602	642
							100	0.6	380	3.3	444	3.9	507	4.4	571	5.0	634	5.5	697	6.1	813	876
							225	2.5	563	2.2	657	2.5	750	2.9	844	3.2	938	3.6	1032	4.0	1086	1180
							450	8.6	697	1.3	813	1.5	929	1.8	1045	2.0	1161	2.2	1277	2.4	1287	1403
25.0	90	195	27	242	272	302	50	0.2	245	4.2	286	4.9	327	5.6	368	6.3	409	7.0	450	7.7	640	681
							100	0.6	397	3.4	463	4.0	529	4.6	595	5.1	661	5.7	727	6.3	867	933
							225	2.5	604	2.3	704	2.7	805	3.0	905	3.4	1006	3.8	1107	4.2	1177	1278
							450	8.6	763	1.4	890	1.7	1018	1.9	1145	2.2	1272	2.4	1399	2.6	1417	1544

Nozzle B 2																						
l/s	m ³ /h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
25.0	90	72	16	242	272	302	50	0.2	232	4.0	271	4.7	310	5.4	348	6.0	387	6.7	426	7.4	620	659
							100	0.6	359	3.1	419	3.6	479	4.2	539	4.7	599	5.2	659	5.7	811	871
							225	2.5	517	2.0	603	2.3	690	2.6	776	3.0	862	3.3	948	3.6	1048	1134
							450	8.6	628	1.2	732	1.4	837	1.6	941	1.8	1046	2.0	1151	2.2	1213	1318
31.9	115	116	24	309	347	386	50	0.2	246	4.3	287	5.0	328	5.7	369	6.4	410	7.1	451	7.8	716	757
							100	0.6	395	3.4	461	4.0	527	4.6	593	5.1	659	5.7	725	6.3	940	1006
							225	2.5	596	2.3	696	2.7	795	3.0	895	3.4	994	3.8	1093	4.2	1242	1341
							450	8.6	749	1.4	874	1.7	998	1.9	1123	2.2	1248	2.4	1373	2.6	1470	1595
36.1	130	146	28	349	392	436	50	0.2	252	4.3	294	5.0	336	5.8	378	6.5	420	7.2	462	7.9	770	812
							100	0.6	412	3.5	481	4.1	550	4.7	618	5.3	687	5.9	756	6.5	1010	1079
							225	2.5	636	2.5	742	2.9	848	3.3	954	3.7	1060	4.1	1166	4.5	1346	1452
							450	8.6	814	1.6	949	1.8	1085	2.1	1220	2.3	1356	2.6	1492	2.9	1612	1748
40.3	145	180	31	390	438	487	50	0.2	257	4.4	300	5.2	342	5.9	385	6.7	428	7.4	471	8.1	823	866
							100	0.6	426	3.7	497	4.3	568	4.9	639	5.5	710	6.1	781	6.7	1077	1148
							225	2.5	671	2.6	783	3.0	895	3.4	1007	3.9	1119	4.3	1231	4.7	1445	1557
							450	8.6	873	1.7	1018	2.0	1164	2.2	1310	2.5	1455	2.8	1600	3.1	1748	1893
44.4	160	218	34	430	483	537	50	0.2	260	4.5	304	5.2	347	6.0	391	6.8	434	7.5	477	8.2	874	917
							100	0.6	438	3.8	511	4.4	584	5.0	657	5.7	730	6.3	803	6.9	1140	1213
							225	2.5	703	2.7	820	3.2	938	3.6	1055	4.0	1172	4.5	1289	5.0	1538	1655
							450	8.6	928	1.8	1083	2.1	1238	2.4	1392	2.7	1547	3.0	1702	3.3	1875	2030

Nozzle C 2																						
l/s	m ³ /h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
41.7	150	44	32	402	453	503	50	0.2	236	4.1	275	4.8	314	5.4	354	6.1	393	6.8	432	7.5	807	846
							100	0.6	369	3.2	430	3.7	492	4.2	554	4.8	615	5.3	676	5.8	1007	1068
							225	2.5	537	2.0	626	2.4	716	2.7	806	3.1	895	3.4	984	3.7	1259	1348
							450	8.6	657	1.3	766	1.5	876	1.7	986	1.9	1095	2.1	1204	2.3	1439	1548
50.0	180	63	37	483	544	604	50	0.2	247	4.3	288	5.0	330	5.7	371	6.4	412	7.1	453	7.8	915	956
							100	0.6	396	3.4	462	4.0	528	4.6	594	5.1	660	5.7	726	6.3	1138	1204
							225	2.5	595	2.3	694	2.7	794	3.0	893	3.4	992	3.8	1091	4.2	1437	1536
							450	8.6	746	1.4	870	1.7	994	1.9	1119	2.2	1243	2.4	1367	2.6	1663	1787
58.3	210	86	41	564	634	705	50	0.2	256	4.4	298	5.1	341	5.8	383	6.6	426	7.3	469	8.0	1017	1060
							100	0.6	418	3.6	488	4.2	558	4.8	627	5.4	697	6.0	767	6.6	1261	1331
							225	2.5	646	2.5	753	2.9	861	3.3	968	3.7	1076	4.1	1184	4.5	1602	1710
							450	8.6	826	1.6	963	1.8	1101	2.1	1238	2.3	1376	2.6	1514	2.9	1872	2010

AIR						WATER													
Primary			Heating capacity air $t_{pri} - t_{room} \text{ } ^\circ\text{C}$			Heating capacity water $t_{water in} - t_{room} \text{ } ^\circ\text{C}$													
			10	15	20	20		25		30		40		50		60			
V_{prim}	Ps	Lw	Q_l	Q_l	Q_l	V_w	ΔP_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w

Nozzle A 1																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
13.9	50	62	-	168	252	336	50	0.4	577	9.9	722	12.4	866	14.9	1155	19.9	1443	24.8	1732	29.8
							100	1.4	815	7.0	1018	8.8	1222	10.5	1629	14.0	2037	17.5	2444	21.0
							200	4.5	1025	4.4	1281	5.5	1537	6.6	2049	8.8	2562	11.0	3074	13.2
							300	9.2	1121	3.2	1402	4.0	1682	4.8	2243	6.4	2803	8.0	3364	9.6
16.7	60	89	15	201	302	402	50	0.4	616	10.6	770	13.2	924	15.9	1232	21.2	1540	26.5	1848	31.8
							100	1.4	887	7.6	1109	9.5	1331	11.4	1775	15.2	2218	19.0	2662	22.8
							200	4.5	1139	4.9	1423	6.1	1708	7.3	2277	9.7	2847	12.2	3416	14.6
							300	9.2	1257	3.6	1571	4.5	1885	5.4	2513	7.2	3142	9.0	3770	10.8
19.4	70	120	20	235	352	470	50	0.4	648	11.1	810	13.9	972	16.7	1296	22.3	1620	27.8	1944	33.4
							100	1.4	949	8.1	1186	10.2	1423	12.2	1897	16.3	2372	20.3	2846	24.4
							200	4.5	1235	5.3	1544	6.7	1853	8.0	2471	10.7	3088	13.3	3706	16.0
							300	9.2	1374	3.9	1718	4.9	2061	5.9	2748	7.9	3435	9.8	4122	11.8
22.2	80	155	24	269	404	538	50	0.4	675	11.6	844	14.5	1013	17.4	1351	23.2	1688	29.0	2026	34.8
							100	1.4	1001	8.6	1251	10.8	1501	12.9	2001	17.2	2502	21.5	3002	25.8
							200	4.5	1318	5.7	1648	7.1	1977	8.5	2636	11.3	3295	14.2	3954	17.0
							300	9.2	1474	4.2	1842	5.2	2211	6.3	2948	8.4	3685	10.5	4422	12.6
25.0	90	195	27	302	453	604	50	0.4	700	12.1	875	15.1	1050	18.1	1400	24.1	1750	30.2	2100	36.2
							100	1.4	1046	9.0	1308	11.2	1569	13.5	2092	18.0	2615	22.5	3138	27.0
							200	4.5	1389	6.0	1737	7.5	2084	9.0	2779	12.0	3473	15.0	4168	18.0
							300	9.2	1560	4.5	1950	5.6	2340	6.7	3120	8.9	3900	11.2	4680	13.4

Nozzle B 2																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
25.0	90	72	16	302	453	604	50	0.4	662	11.4	828	14.3	993	17.1	1324	22.8	1655	28.5	1986	34.2
							100	1.4	961	8.3	1202	10.3	1442	12.4	1923	16.5	2403	20.7	2884	24.8
							200	4.5	1241	5.3	1552	6.7	1862	8.0	2483	10.7	3103	13.3	3724	16.0
							300	9.2	1375	3.9	1719	4.9	2063	5.9	2751	7.9	3438	9.8	4126	11.8
31.9	115	116	24	386	579	772	50	0.4	707	12.1	883	15.2	1060	18.2	1413	24.3	1767	30.3	2120	36.4
							100	1.4	1053	9.1	1317	11.3	1580	13.6	2107	18.1	2633	22.7	3160	27.2
							200	4.5	1394	6.0	1742	7.5	2091	9.0	2788	12.0	3485	15.0	4182	18.0
							300	9.2	1563	4.5	1954	5.6	2345	6.7	3127	8.9	3908	11.2	4690	13.4
36.1	130	146	28	436	654	872	50	0.4	727	12.5	909	15.7	1091	18.8	1455	25.1	1818	31.3	2182	37.6
							100	1.4	1095	9.4	1368	11.8	1642	14.1	2189	18.8	2737	23.5	3284	28.2
							200	4.5	1465	6.3	1831	7.8	2197	9.4	2929	12.5	3662	15.7	4394	18.8
							300	9.2	1651	4.7	2063	5.9	2476	7.1	3301	9.5	4127	11.8	4952	14.2
40.3	145	180	31	487	730	974	50	0.4	744	12.8	930	16.0	1116	19.2	1488	25.6	1860	32.0	2232	38.4
							100	1.4	1128	9.7	1410	12.2	1692	14.6	2256	19.5	2820	24.3	3384	29.2
							200	4.5	1521	6.5	1902	8.2	2282	9.8	3043	13.1	3803	16.3	4564	19.6
							300	9.2	1721	4.9	2151	6.2	2581	7.4	3441	9.9	4302	12.3	5162	14.8
44.4	160	218	34	537	806	1074	50	0.4	758	13.1	948	16.3	1137	19.6	1516	26.1	1895	32.7	2274	39.2
							100	1.4	1155	9.9	1444	12.4	1733	14.9	2311	19.9	2888	24.8	3466	29.8
							200	4.5	1566	6.7	1958	8.4	2349	10.1	3132	13.5	3915	16.8	4698	20.2
							300	9.2	1776	5.1	2220	6.3	2664	7.6	3552	10.1	4440	12.7	5328	15.2

Nozzle C 2																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
41.7	150	44	32	503	754	1006	50	0.4	679	11.7	848	14.6	1018	17.5	1357	23.3	1697	29.2	2036	35.0
							100	1.4	989	8.5	1237	10.7	1484	12.8	1979	17.1	2473	21.3	2968	25.6
							200	4.5	1282	5.5	1602	6.9	1923	8.3	2564	11.1	3205	13.8	3846	16.6
							300	9.2	1423	4.1	1778	5.1	2134	6.1	2845	8.1	3557	10.2	4268	12.2
50.0	180	63	37	604	906	1208	50	0.4	713	12.3	891	15.3	1069	18.4	1425	24.5	1782	30.7	2138	36.8
							100	1.4	1059	9.1	1323	11.4	1588	13.7	2117	18.3	2647	22.8	3176	27.4
							200	4.5	1399	6.0	1748	7.5	2098	9.0	2797	12.0	3497	15.0	4196	18.0
							300	9.2	1566	4.5	1958	5.6	2349	6.7	3132	8.9	3915	11.2	4698	13.4
58.3	210	86	41	705	1058	1410	50	0.4	738	12.7	922	15.8	1107	19.0	1476	25.3	1845	31.7	2214	38.0
							100	1.4	1112	9.5	1390	11.9	1668	14.3	2224	19.1	2780	23.8	3336	28.6
							200	4.5	1489	6.4	1862	8.0	2234	9.6	2979	12.8	3723	16.0	4468	19.2
							300	9.2	1679	4.8	2099	6.0	2519	7.2	3359	9.6	4198	12.0	5038	14.4

AIR						WATER												Fast selection*			
Primary			Cooling capacity air $t_{room} - t_{pri}$ °C			Cooling capacity water $t_{room} - t_{water in}$ °C												L ₉ W ₉	L ₉ W ₁₀		
			8	9	10	6		7		8		9		10		11					
V _{prim}	Ps	Lw	Q _I	Q _I	Q _I	V _w	ΔP _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _{wk}	Δt _w	Q _t	Q _t

Nozzle A 1																						
l/s	m ³ /h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
22.2	80	95	17	215	242	269	50	0.2	263	4.5	307	5.2	350	6.0	394	6.8	438	7.5	482	8.2	636	680
							100	0.7	406	3.5	473	4.1	541	4.6	608	5.2	676	5.8	744	6.4	850	918
							225	2.9	580	2.2	676	2.6	773	3.0	869	3.3	966	3.7	1063	4.1	1111	1208
							450	9.8	700	1.3	816	1.5	933	1.8	1049	2.0	1166	2.2	1283	2.4	1291	1408
25.0	90	119	20	242	272	302	50	0.2	271	4.7	316	5.5	361	6.2	406	7.0	451	7.8	496	8.6	678	723
							100	0.7	426	3.7	497	4.3	568	4.9	639	5.5	710	6.1	781	6.7	911	982
							225	2.9	625	2.4	729	2.8	834	3.2	938	3.6	1042	4.0	1146	4.4	1210	1314
							450	9.8	769	1.5	897	1.8	1026	2.0	1154	2.2	1282	2.5	1410	2.8	1426	1554
27.8	100	146	24	269	302	336	50	0.2	277	4.7	323	5.5	369	6.3	415	7.1	461	7.9	507	8.7	717	763
							100	0.7	443	3.8	517	4.5	591	5.1	665	5.8	739	6.4	813	7.0	967	1041
							225	2.9	667	2.5	778	2.9	889	3.4	1000	3.8	1111	4.2	1222	4.6	1302	1413
							450	9.8	835	1.6	974	1.9	1114	2.2	1253	2.4	1392	2.7	1531	3.0	1555	1694
30.6	110	176	27	295	332	369	50	0.2	281	4.9	328	5.7	374	6.5	421	7.3	468	8.1	515	8.9	753	800
							100	0.7	458	4.0	535	4.6	611	5.3	688	5.9	764	6.6	840	7.3	1020	1096
							225	2.9	704	2.7	822	3.2	939	3.6	1057	4.0	1174	4.5	1291	5.0	1389	1506
							450	9.8	898	1.7	1047	2.0	1197	2.3	1346	2.6	1496	2.9	1646	3.2	1678	1828
33.3	120	208	30	322	363	403	50	0.2	285	4.9	332	5.7	380	6.6	428	7.4	475	8.2	522	9.0	791	838
							100	0.7	471	4.1	550	4.8	628	5.4	706	6.1	785	6.8	864	7.5	1069	1148
							225	2.9	739	2.8	862	3.3	986	3.8	1109	4.2	1232	4.7	1355	5.2	1472	1595
							450	9.8	957	1.8	1116	2.1	1276	2.4	1436	2.7	1595	3.0	1754	3.3	1799	1958

Nozzle B 2																						
l/s	m ³ /h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
33.3	120	77	18	322	363	403	50	0.2	272	4.7	317	5.5	362	6.2	408	7.0	453	7.8	498	8.6	771	816
							100	0.7	431	3.7	503	4.3	574	5.0	646	5.6	718	6.2	790	6.8	1009	1081
							225	2.9	638	2.5	745	2.9	851	3.3	958	3.7	1064	4.1	1170	4.5	1321	1427
							450	9.8	791	1.5	923	1.8	1054	2.0	1186	2.2	1318	2.5	1450	2.8	1549	1681
38.9	140	103	23	376	423	470	50	0.2	281	4.9	328	5.7	374	6.5	421	7.3	468	8.1	515	8.9	844	891
							100	0.7	455	3.9	531	4.6	607	5.2	683	5.9	759	6.5	835	7.2	1106	1182
							225	2.9	695	2.6	811	3.1	927	3.5	1043	4.0	1159	4.4	1275	4.8	1466	1582
							450	9.8	881	1.7	1028	2.0	1174	2.2	1321	2.5	1468	2.8	1615	3.1	1744	1891
44.4	160	134	27	430	483	537	50	0.2	288	5.0	336	5.8	384	6.6	432	7.5	480	8.3	528	9.1	915	963
							100	0.7	476	4.1	555	4.8	634	5.4	714	6.1	793	6.8	872	7.5	1197	1276
							225	2.9	745	2.8	869	3.3	994	3.8	1118	4.2	1242	4.7	1366	5.2	1601	1725
							450	9.8	964	1.9	1124	2.2	1285	2.5	1445	2.8	1606	3.1	1767	3.4	1928	2089
50.0	180	167	30	483	544	604	50	0.2	294	5.0	343	5.9	392	6.7	441	7.6	490	8.4	539	9.2	985	1034
							100	0.7	493	4.3	575	5.0	657	5.7	739	6.4	821	7.1	903	7.8	1283	1365
							225	2.9	788	3.0	920	3.5	1051	4.0	1183	4.5	1314	5.0	1445	5.5	1727	1858
							450	9.8	1039	2.0	1212	2.3	1385	2.6	1558	3.0	1731	3.3	1904	3.6	2102	2275
55.6	200	205	34	537	604	671	50	0.2	298	5.2	348	6.0	398	6.9	447	7.7	497	8.6	547	9.5	1051	1101
							100	0.7	506	4.4	591	5.1	675	5.8	760	6.6	844	7.3	928	8.0	1364	1448
							225	2.9	827	3.2	965	3.7	1102	4.2	1240	4.8	1378	5.3	1516	5.8	1844	1982
							450	9.8	1107	2.1	1292	2.4	1476	2.8	1660	3.2	1845	3.5	2030	3.8	2264	2449

Nozzle C 2																						
l/s	m ³ /h	Pa	dB(A)	W ₈	W ₉	W ₁₀	l/h	kPa	W ₆	°C	W ₇	°C	W ₈	°C	W ₉	°C	W ₁₀	°C	W ₁₁	°C	W _{9,9}	W _{9,10}
55.6	200	47	33	537	604	671	50	0.2	276	4.7	322	5.5	368	6.3	414	7.1	460	7.9	506	8.7	1018	1064
							100	0.7	441	3.8	514	4.4	588	5.0	662	5.7	735	6.3	808	6.9	1266	1339
							225	2.9	661	2.5	771	2.9	882	3.4	992	3.8	1102	4.2	1212	4.6	1596	1706
							450	9.8	827	1.6	965	1.8	1102	2.1	1240	2.3	1378	2.6	1516	2.9	1844	1982
66.7	240	68	38	645	725	806	50	0.2	287	4.9	335	5.7	383	6.6	431	7.4	479	8.2	527	9.0	1156	1204
							100	0.7	470	4.0	549	4.7	627	5.4	706	6.0	784	6.7	862	7.4	1431	1509
							225	2.9	729	2.8	850	3.2	972	3.7	1094	4.1	1215	4.6	1336	5.1	1819	1940
							450	9.8	934	1.8	1089	2.1	1245	2.4	1400	2.7	1556	3.0	1712	3.3	2125	2281
77.8	280	92	42	752	846	940	50	0.2	296	5.1	346	6.0	395	6.8	445	7.6	494	8.5	543	9.4	1291	1340
							100	0.7	494	4.3	577	5.0	659	5.7	742	6.4	824	7.1	906	7.8	1588	1670
							225	2.9	786	3.0	917	3.5	1048	4.0	1179	4.5	1310	5.0	1441	5.5	2025	2156
							450	9.8	1029	2.0	1200	2.3	1372	2.6	1544	3.0	1715	3.3	1886	3.6	2390	2561

AIR						WATER													
Primary			Heating capacity air $t_{pri} - t_{room} \text{ } ^\circ\text{C}$			Heating capacity water $t_{water} - t_{room} \text{ } ^\circ\text{C}$													
			10	15	20	20		25		30		40		50		60			
V_{prim}	P_s	L_w	Q_l	Q_l	Q_l	V_w	ΔP_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w	Q_{ww}	Δt_w

Nozzle A 1																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
22.2	80	95	17	269	404	538	50	0.5	737	12.7	921	15.8	1105	19.0	1473	25.3	1842	31.7	2210	38.0
							100	1.6	1084	9.3	1355	11.7	1626	14.0	2168	18.7	2710	23.3	3252	28.0
							200	5.2	1418	6.1	1773	7.6	2127	9.1	2836	12.1	3545	15.2	4254	18.2
							300	10.5	1580	4.5	1975	5.7	2370	6.8	3160	9.1	3950	11.3	4740	13.6
25.0	90	119	20	302	453	604	50	0.5	763	13.1	954	16.4	1145	19.7	1527	26.3	1908	32.8	2290	39.4
							100	1.6	1137	9.8	1422	12.2	1706	14.7	2275	19.6	2843	24.5	3412	29.4
							200	5.2	1505	6.5	1882	8.1	2258	9.7	3011	12.9	3763	16.2	4516	19.4
							300	10.5	1688	4.9	2110	6.1	2532	7.3	3376	9.7	4220	12.2	5064	14.6
27.8	100	146	24	336	504	672	50	0.5	787	13.5	984	16.9	1181	20.3	1575	27.1	1968	33.8	2362	40.6
							100	1.6	1184	10.2	1480	12.8	1776	15.3	2368	20.4	2960	25.5	3552	30.6
							200	5.2	1583	6.8	1978	8.5	2374	10.2	3165	13.6	3957	17.0	4748	20.4
							300	10.5	1783	5.1	2228	6.4	2674	7.7	3565	10.3	4457	12.8	5348	15.4
30.6	110	176	27	369	554	738	50	0.5	809	13.9	1011	17.4	1213	20.9	1617	27.9	2022	34.8	2426	41.8
							100	1.6	1225	10.5	1532	13.2	1838	15.8	2451	21.1	3063	26.3	3676	31.6
							200	5.2	1651	7.1	2063	8.8	2476	10.6	3301	14.1	4127	17.7	4952	21.2
							300	10.5	1867	5.3	2333	6.7	2800	8.0	3733	10.7	4667	13.3	5600	16.0
33.3	120	208	30	403	604	806	50	0.5	829	14.3	1036	17.8	1243	21.4	1657	28.5	2072	35.7	2486	42.8
							100	1.6	1263	10.9	1578	13.6	1894	16.3	2525	21.7	3157	27.2	3788	32.6
							200	5.2	1711	7.3	2139	9.2	2567	11.0	3423	14.7	4278	18.3	5134	22.0
							300	10.5	1941	5.5	2427	6.9	2912	8.3	3883	11.1	4853	13.8	5824	16.6

Nozzle B 2																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
33.3	120	77	18	403	604	806	50	0.5	786	13.5	982	16.9	1179	20.3	1572	27.1	1965	33.8	2358	40.6
							100	1.6	1167	10.1	1458	12.6	1750	15.1	2333	20.1	2917	25.2	3500	30.2
							200	5.2	1539	6.6	1924	8.2	2309	9.9	3079	13.2	3848	16.5	4618	19.8
							300	10.5	1723	4.9	2153	6.2	2584	7.4	3445	9.9	4307	12.3	5168	14.8
38.9	140	103	23	470	705	940	50	0.5	817	14.1	1022	17.6	1226	21.1	1635	28.1	2043	35.2	2452	42.2
							100	1.6	1233	10.6	1541	13.2	1849	15.9	2465	21.2	3082	26.5	3698	31.8
							200	5.2	1653	7.1	2066	8.9	2479	10.7	3305	14.3	4132	17.8	4958	21.4
							300	10.5	1865	5.3	2331	6.7	2797	8.0	3729	10.7	4662	13.3	5594	16.0
44.4	160	134	27	537	806	1074	50	0.5	842	14.5	1052	18.1	1263	21.7	1684	28.9	2105	36.2	2526	43.4
							100	1.6	1285	11.1	1607	13.8	1928	16.6	2571	22.1	3213	27.7	3856	33.2
							200	5.2	1745	7.5	2182	9.4	2618	11.3	3491	15.1	4363	18.8	5236	22.6
							300	10.5	1981	5.7	2477	7.1	2972	8.5	3963	11.3	4953	14.2	5944	17.0
50.0	180	167	30	604	906	1208	50	0.5	863	14.9	1078	18.6	1294	22.3	1725	29.7	2157	37.2	2588	44.6
							100	1.6	1328	11.4	1660	14.3	1992	17.1	2656	22.8	3320	28.5	3984	34.2
							200	5.2	1819	7.8	2274	9.7	2729	11.7	3639	15.6	4548	19.5	5458	23.4
							300	10.5	2075	5.9	2594	7.4	3113	8.9	4151	11.9	5188	14.8	6226	17.8
55.6	200	205	34	671	1006	1342	50	0.5	879	15.1	1099	18.9	1319	22.7	1759	30.3	2198	37.8	2638	45.4
							100	1.6	1362	11.7	1702	14.7	2043	17.6	2724	23.5	3405	29.3	4086	35.2
							200	5.2	1877	8.1	2347	10.1	2816	12.1	3755	16.1	4693	20.2	5632	24.2
							300	10.5	2149	6.1	2686	7.7	3223	9.2	4297	12.3	5372	15.3	6446	18.4

Nozzle C 2																				
l/s	m ³ /h	Pa	dB(A)	W ₁₀	W ₁₅	W ₂₀	l/h	kPa	W ₂₀	°C	W ₂₅	°C	W ₃₀	°C	W ₄₀	°C	W ₅₀	°C	W ₆₀	°C
55.6	200	47	33	671	1006	1342	50	0.5	805	13.9	1006	17.3	1207	20.8	1609	27.7	2012	34.7	2414	41.6
							100	1.6	1199	10.3	1499	12.9	1799	15.5	2399	20.7	2998	25.8	3598	31.0
							200	5.2	1588	6.8	1985	8.5	2382	10.2	3176	13.6	3970	17.0	4764	20.4
							300	10.5	1781	5.1	2226	6.4	2671	7.7	3561	10.3	4452	12.8	5342	15.4
66.7	240	68	38	806	1209	1612	50	0.5	841	14.5	1051	18.1	1261	21.7	1681	28.9	2102	36.2	2522	43.4
							100	1.6	1276	11.0	1595	13.8	1914	16.5	2552	22.0	3190	27.3	3828	33.0
							200	5.2	1723	7.4	2153	9.2	2584	11.1	3445	14.8	4307	18.5	5168	22.2
							300	10.5	1950	5.6	2438	7.0	2925	8.4	3900	11.2	4875	14.0	5850	16.8
77.8	280	92	42	940	1410	1880	50	0.5	868	14.9	1085	18.7	1302	22.4	1736	29.9	2170	37.3	2604	44.8
							100	1.6	1335	11.5	1668	14.3	2002	17.2	2669	22.9	3337	28.7	4004	34.4
							200	5.2	1827	7.9	2283	9.8	2740	11.8	3653	15.7	4567	19.7	5480	23.6
							300	10.5	2082	6.0	2602	7.5	3123	9.0	4164	12.0	5205	15.0	6246	18.0