



CBA-I

EUROVENT CERTIFIED PERFORMANCE



- > Active Chilled Beam
- > Removable faceplate
- > Ceiling Mounted

APPLICATION

The CBA-I chilled beam is a high capacity device designed for ventilation, cooling and heating of areas with ceiling heights up to 3 metres.

The beam has been designed for integration with suspended ceilings. Operating test pressure 15/10 bar.

DESIGN

Construction:

Galvanised sheet steel. Copper pipe heat exchanger and Aluminium fins.

Finish:

Epoxy paint white RAL 9010.

Options:

- Nozzle types (A, B or C)
- Extravent

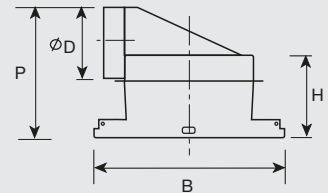
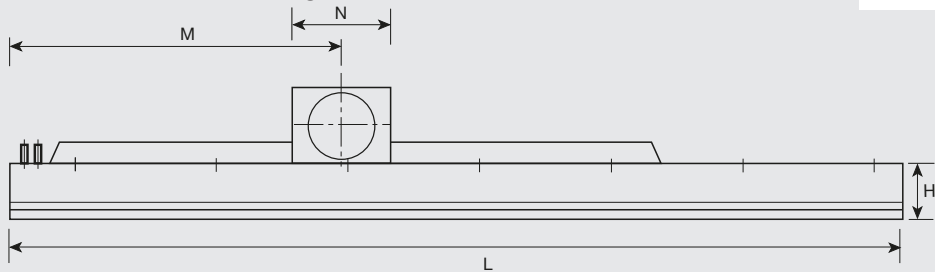
AVAILABLE TYPES

CBA-I: 300, 400, 450, 600

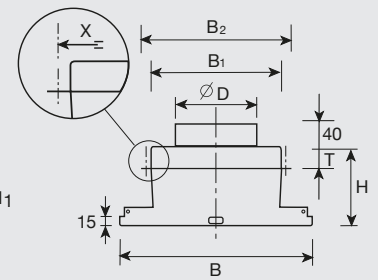
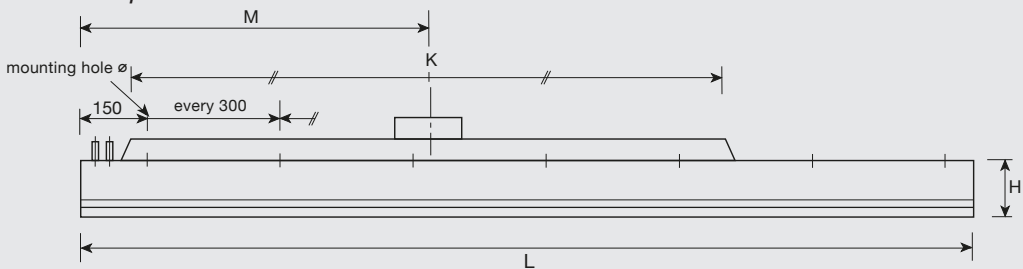
SPECIFICATIONS

Length	1200, 1500, 1800, 2400, 3000
Ventilation	up to 280 m³/h
Cooling	up to 675 W/m
Heating	Water: 1675 W/m Electric: 500 or 1000 W
Water flow	up to 300 l/h

CBA-I – side connection (left & right side connection available)



CBA-I – top connection



DIMENSIONAL DATA (mm)

Model	L (from/to)	B	B ₁	X	B ₂	H	H ₁	D	M	N	P	K	T
1200	1140/2995	295/395	200	219	230	145	105	123	580	225	235	980	40
1500	1140/2995	295/395	200	219	230	145	105	123	730	225	235	1280	40
1800	1670/2995	295/395	200	219	230	145	105	123	845	255	235	1510	40
2400	2295/2995	295/395	200	219	230	145	105	158	1170	300	270	2110	40
3000	2895/2995	295/395	200	219	230	165	105	158	1470	300	270	2710	60

300 & 400 WEIGHT (kg)

Type	1200	1500	1800	2400	3000
CBA-I	12	14	16	22	28
Extravent	12	14	17	23	29

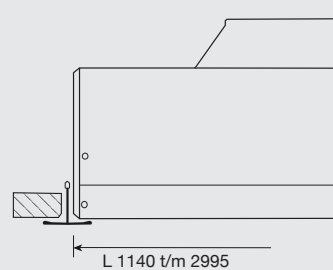
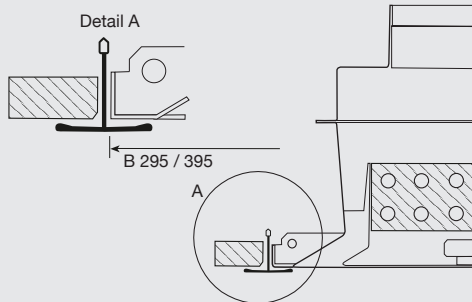
450 & 600 WEIGHT (kg)

Type	1200	1500	1800	2400	3000
CBA-I	16	21	24	33	41
Extravent	17	22	25	34	44

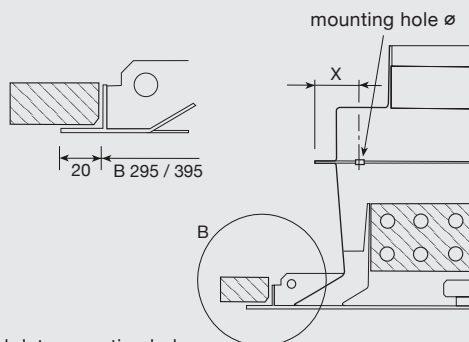
Extravent exceptions: H = 165. T = 60. P value for 1800 Model = 270.

CBA-I – CONFIGURATIONS

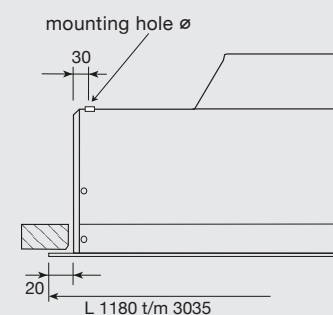
CBA-I – T-bar mountable



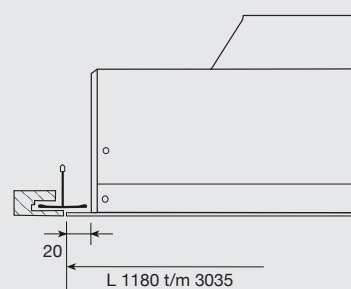
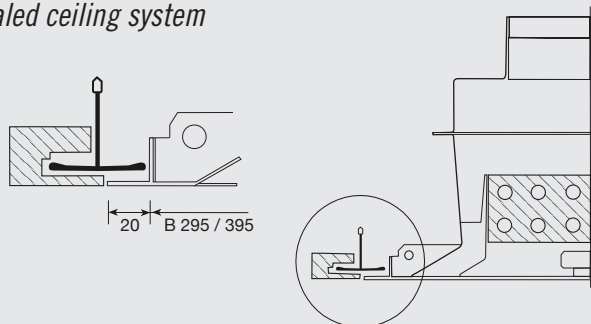
CBA-I – Surface mounted



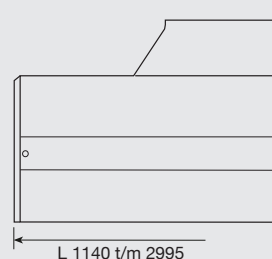
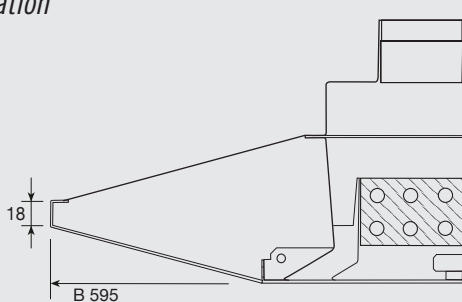
Dimensional data mounting hole:
 Model 1200/1500/1800 => X=35.
 Model 2400/3000 => X=25.



CBA-I – Concealed ceiling system



CBA-I – Suspended application



GENERAL

Actual width B chilled beam:
 Dimensions in mm. Tolerance ± 2.0 mm.
 Actual length L chilled beam: Tolerance: + 0 / -4 mm.

		AIR						WATER												Quick selection				
		Primary			Cooling capacity air t _{room} - t _{pri} °C					Cooling capacity water t _{room} - t _{water in} °C										L ₉	L ₁₀			
		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	
		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}
NOZZLE A1	5.6	20	88	17	54	60	67	50	0.8	121	2.1	141	2.4	161	2.8	181	3.2	201	3.5	221	3.8	241	261	
								70	1.5	129	1.6	150	1.8	172	2.1	194	2.3	215	2.6	236	2.9	254	275	
								100	2.8	137	1.2	160	1.4	182	1.6	205	1.8	228	2.0	251	2.2	265	288	
								140	5.2	142	0.9	166	1.0	190	1.2	213	1.3	237	1.5	261	1.6	273	297	
B2	9.7	35	89	25	94	105	117	50	0.8	140	2.4	164	2.8	187	3.2	211	3.6	234	4.0	257	4.4	316	339	
								70	1.5	154	1.9	179	2.2	205	2.5	230	2.8	256	3.1	282	3.4	335	361	
								100	2.8	164	1.4	192	1.7	219	1.9	247	2.2	274	2.4	301	2.6	352	379	
								140	5.2	173	1.1	202	1.3	231	1.4	260	1.6	289	1.8	318	2.0	365	394	
C2	23.6	85	103	36	228	256	285	50	0.8	172	2.9	200	3.4	229	3.9	257	4.4	286	4.9	315	5.4	513	542	
								70	1.5	192	2.3	224	2.7	256	3.1	288	3.5	320	3.9	352	4.3	544	576	
								100	2.8	211	1.8	246	2.1	281	2.4	316	2.7	351	3.0	386	3.3	572	607	
								140	5.2	226	1.4	263	1.6	301	1.8	338	2.1	376	2.3	414	2.5	594	632	
		Primary			Heating capacity air t _{room} - t _{pri} °C					Heating capacity water t _{room} - t _{water in} °C														
		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	Q _{ww}	Δt _w	
		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		
NOZZLE A1	5.6	20	88	17	67	100	134	50	0.5	325	5.6	407	7.0	488	8.4	651	11.2	813	14.0	976	16.8			
								60	0.6	335	4.8	419	6.0	503	7.2	671	9.6	838	12.0	1006	14.4			
								80	1.1	348	3.7	435	4.7	522	5.6	696	7.5	870	9.3	1044	11.2			
								100	1.6	357	3.1	446	3.8	535	4.6	713	6.1	892	7.7	1070	9.2			
B2	9.7	35	89	25	117	176	234	50	0.5	392	6.7	490	8.4	588	10.1	784	13.5	980	16.8	1176	20.2			
								60	0.6	407	5.9	509	7.3	611	8.8	815	11.7	1018	14.7	1222	17.6			
								80	1.1	429	4.6	536	5.8	643	6.9	857	9.2	1072	11.5	1286	13.8			
								100	1.6	443	3.8	553	4.8	664	5.7	885	7.6	1107	9.5	1328	11.4			
C2	23.6	85	103	36	285	428	570	50	0.5	499	8.6	623	10.8	748	12.9	997	17.2	1247	21.5	1496	25.8			
								60	0.6	526	7.5	658	9.4	789	11.3	1052	15.1	1315	18.8	1578	22.6			
								80	1.1	564	6.1	705	7.6	846	9.1	1128	12.1	1410	15.2	1692	18.2			
								100	1.6	590	5.1	738	6.3	885	7.6	1180	10.1	1475	12.7	1770	15.2			

		AIR						WATER												Quick selection				
		Primary			Cooling capacity air t _{room} - t _{pri} °C					Cooling capacity water t _{room} - t _{water in} °C										L ₉	L ₁₀			
		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	
		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}
NOZZLE A1	9.7	35	112	25	94	105	117	50	1.1	175	3.0	204	3.5	233	4.0	262	4.5	291	5.0	320	5.5	367	396	
								80	2.6	203	2.2	237	2.5	271	2.9	305	3.2	339	3.6	373	4.0	410	441	
								110	4.7	220	1.7	257	2.0	294	2.3	330	2.6	367	2.9	404	3.2	435	472	
								170	10.4	238	1.2	278	1.4	318	1.6	357	1.8	397	2.0	437	2.2	462	502	
B2	15.3	55	91	29	148	166	185	50	1.1	187	3.2	218	3.8	249	4.3	280	4.9	311	5.4	342	5.9	446	477	
								80	2.6	221	2.4	258	2.8	295	3.2	332	3.6	369	4.0	406	4.4	498	535	
								110	4.7	242	1.9	282	2.2	322	2.6	363	2.9	403	3.2	443	3.5	529	569	
								170	10.4	265	1.3	309	1.5	354	1.8	398	2.0	442	2.2	486	2.4	564	608	
C2	30.6	110	73	33	295	332	369	50	1.1	202	3.5	236	4.1	270	4.6	303	5.2	337	5.8	371	6.4	635	669	
								80	2.6	245	2.6	286	3.1	326	3.5	367	4.0	408	4.4	449	4.8	699	740	
								110	4.7	271	2.1	316	2.4	361	2.8	406	3.2	451	3.5	496	3.8	738	783	
								170	10.4	301	1.5	351	1.8	401	2.0	451	2.2	501	2.5	551	2.8	783	833	
		Primary			Heating capacity air t _{room} - t _{pri} °C					Heating capacity water t _{room} - t _{water in} °C														
		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	Q _{ww}	Δt _w	
		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		
NOZZLE A1	9.7	35	112	25	117	176	234	50	0.7	499	8.6	624	10.8	749	12.9	999	17.2	1248	21.5	1498	25.8			
								60	0.9	524	7.5	655	9.4	786	11.3	1048	15.1	1310	18.8	1572	22.6			
								80	1.6	559	6.0	698	7.5	838	9.0	1117	12.0	1397	15.0	1676	18.0			
								100	2.3	582	5.0	728	6.2	873	7.5	1164	10.0	1455	12.5	1746	15.0			
B2	15.3	55	91	29	185	278	370	50	0.7	543	9.3	679	11.7	815	14.0	1087	18.7	1358	23.3	1630	28.0			
								60	0.9	575	8.3	718	10.3	862	12.4	1149	16.5	1437	20.7	1724	24.8			
								80	1.6	619	6.7	774	8.3	929	10.0	1239	13.3	1548	16.7	1858	20.0			
								100	2.3	649	5.6	812	7.0	974	8.4	1299	11.2	1623	14.0	1948	16.8			
C2	30.6	110	73	33	369	554	738	50	0.7	603	10.4	753	13.0	904	15.6	1205	20.8	1507	26.0	1808	31.2			
								60	0.9	643	9.2	803	11.5	964	13.8	1285	18.4	1607	23.0	1928	27.6			
								80	1.6	701	7.5	877	9.4	1052	11.3	1403	15.1	1753	18.8	2104	22.6			
								100	2.3	741	6.4	927	8.0	1112	9.6	1483	12.8	1853	16.0	2224	19.2			

		AIR						WATER														Quick selection				
		Primary			Cooling capacity air t _{room} - t _{pri} °C			V _w ΔP _w		Cooling capacity water t _{room} - t _{water in} °C											L ₉	L ₁₀				
					8	9	10			6	7	8	9	10	11	W ₉	W ₁₀									
		V _{prim}	Ps	Lw	Q _i	Q _i	Q _i	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					
		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}		
NOZZLE A1	11.1	40	76	20	107	121	134	50	0.3	172	2.9	201	3.4	230	3.9	258	4.4	287	4.9	316	5.4	379	408			
								100	1.0	226	1.9	264	2.2	302	2.6	339	2.9	377	3.2	415	3.5	460	4.98			
								180	2.9	263	1.3	307	1.5	350	1.7	394	1.9	438	2.1	482	2.3	515	2.5	558	2.7	
								350	9.9	292	0.7	340	0.8	389	1.0	437	1.1	486	1.2	535	1.3	558	1.3	558	1.3	
B2	22.2	80	101	32	215	242	269	50	0.3	201	3.5	234	4.1	268	4.6	302	5.2	335	5.8	368	6.4	544	577			
								100	1.0	283	2.5	330	2.9	378	3.3	425	3.7	472	4.1	519	4.5	667	714			
								180	2.9	346	1.7	404	2.0	462	2.2	519	2.5	577	2.8	635	3.1	761	819			
								350	9.9	401	1.0	468	1.1	534	1.3	601	1.4	668	1.6	735	1.8	843	910			
C2	44.4	160	81	40	430	483	537	50	0.3	213	3.7	248	4.3	284	4.9	320	5.5	355	6.1	390	6.7	803	838			
								100	1.0	309	2.6	360	3.1	412	3.5	464	4.0	515	4.4	566	4.8	947	998			
								180	2.9	388	1.9	452	2.2	517	2.5	581	2.8	646	3.1	711	3.4	1064	1129			
								350	9.9	457	1.1	533	1.3	610	1.5	686	1.7	762	1.9	838	2.1	1169	1245			
NOZZLE A1	11.1	40	76	20	Heating capacity air t _{room} - t _{pri} °C			V _w ΔP _w		Heating capacity water t _{room} - t _{water in} °C											Quick selection					
					10	15	20			20	25	30	40	50	60	Q _t	Q _t									
							V _{prim}	Ps	Lw	Q _i	Q _i	Q _i	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _t	Q _t
							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
NOZZLE A1	11.1	40	76	20	134	201	268	50	0.9	549	9.5	687	11.8	824	14.2	1099	18.9	1373	23.7	1648	28.4					
								70	1.6	603	7.4	753	9.2	904	11.1	1205	14.8	1507	18.5	1808	22.2					
								100	3.1	650	5.6	812	7.0	975	8.4	1300	11.2	1625	14.0	1950	16.8					
								150	6.4	692	4.0	865	5.0	1038	6.0	1384	8.0	1730	10.0	2076	12.0					
B2	22.2	80	101	32	269	404	538	50	0.9	693	11.9	867	14.9	1040	17.9	1387	23.9	1733	29.8	2080	35.8					
								70	1.6	787	9.7	983	12.1	1180	14.5	1573	19.3	1967	24.2	2360	29.0					
								100	3.1	875	7.5	1094	9.4	1313	11.3	1751	15.1	2188	18.8	2626	22.6					
								150	6.4	959	5.5	1199	6.9	1439	8.3	1919	11.1	2398	13.8	2878	16.6					
C2	44.4	160	81	40	537	806	1074	50	0.9	758	13.1	948	16.3	1137	19.6	1516	26.1	1895	32.7	2274	39.2					
								70	1.6	875	10.7	1093	13.4	1312	16.1	1749	21.5	2187	26.8	2624	32.2					
								100	3.1	989	8.5	1236	10.7	1483	12.8	1977	17.1	2472	21.3	2966	25.6					
								150	6.4	1100	6.3	1375	7.9	1650	9.5	2200	12.7	2750	15.8	3300	19.0					

		AIR						WATER														Quick selection				
		Primary			Cooling capacity air t _{room} - t _{pri} °C			V _w ΔP _w		Cooling capacity water t _{room} - t _{water in} °C											L ₉	L ₁₀				
					8	9	10			6	7	8	9	10	11	W ₉	W ₁₀									
		V _{prim}	Ps	Lw	Q _i	Q _i	Q _i	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					
		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}		
NOZZLE A1	13.9	50	72	20	134	151	168	50	0.3	195	3.4	228	3.9	260	4.5	292	5.0	325	5.6	358	6.2	443	476			
								100	1.1	265	2.3	309	2.7	354	3.0	398	3.4	442	3.8	486	4.2	549	593			
								180	3.4	316	1.5	368	1.8	421	2.0	473	2.2	526	2.5	579	2.8	624	677			
								350	11.7	357	0.9	416	1.0	476	1.2	536	1.3	595	1.5	654	1.6	687	746			
B2	27.8	100	95	33	269	302	336	50	0.3	223	3.8	260	4.5	298	5.1	335	5.8	372	6.4	409	7.0	637	674			
								100	1.1	328	2.8	382	3.3	437	3.8	491	4.2	546	4.7	601	5.2	793	848			
								180	3.4	413	2.0	482	2.3	551	2.6	620	3.0	689	3.3	758	3.6	922	991			
								350	11.7	492	1.2	574	1.4	656	1.6	738	1.8	820	2.0	902	2.2	1040	1122			
C2	55.6	200	76	40	537	604	671	50	0.3	234	4.0	273	4.7	312	5.4	351	6.0	390	6.7	429	7.4	955	994			
								100	1.1	355	3.1	414	3.6	473	4.1	532	4.6	591	5.1	650	5.6	1136	1195			
								180	3.4	460	2.2	536	2.6	613	3.0	689	3.3	766	3.7	843	4.1	1293	1370			
								350	11.7	560	1.4	654	1.6	747	1.8	841	2.1	934	2.3	1027	2.5	1445	1538			
NOZZLE A1	13.9	50	72	20	Heating capacity air t _{room} - t _{pri} °C			V _w ΔP _w		Heating capacity water t _{room} - t _{water in} °C											Quick selection					
					10	15	20			20	25	30	40	50	60	Q _t	Q _t									
							V _{prim}	Ps	Lw	Q _i	Q _i	Q _i	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _{ww}	Δt _w	Q _t	Q _t
							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
NOZZLE A1	13.9	50	72	20	168	252	336	50	1.1	636	10.9	795	13.7	954	16.4	1272	21.9	1590	27.3	1908	32.8					
								70	2.1	708	8.7	885	10.9	1062	13.1	1416	17.5	1770	21.8	2124	26.2					
								100	3.9	773	6.7	967	8.3	1160	10.0	1547	13.3	1933	16.7	2320	20.0					
								150	8.1	833	4.8	1042	6.0	1250	7.2	1667	9.6	2083	12.0	2500	14.4					
B2	27.8	100	95	33	336	504	672	50	1.1	788	13.5	985	16.9	1182	20.3	1576	27.1	1970	33.8	2364	40.6					
								70	2.1	911	11.2	1139	14.0	1367	16.8	1823	22.4	2278	28.0	2734	33.6					
								100	3.9	1032	8.9	1290	11.1	1548	13.3	2064	17.7	2580	22.2	3096	26.6					
								150	8.1	1151	6.6	1438	8.2	1726	9.9	2301	13.2	2877	16.5	3452	19.8					
C2	55.6	200	76	40	671	1006	1342	50	1.1	854	14.7	1068	18.3	1281	22.0	1708	29.3	2135	36.7	2562	44.0					
								70	2.1	1003	12.3	1254	15.4	1505	18.5	2007	24.7	2508	30.8	3010	37.0					
								100	3.9	1155	9.9	1444	12.4	1733	14.9	2311	19.9	2888	24.8	3466	29.8					
								150	8.1	1309	7.5	1637	9.4	1964	11.3	2619	15.1	3273	18.8	3928	22.6					

		AIR						WATER												Quick selection											
		Primary			Cooling capacity air t _{room} - t _{pri} °C					Cooling capacity water t _{room} - t _{water in} °C										L ₉	L ₁₀										
		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 _{wk}	Δt _w	Q _t	Q _t						
		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}							
NOZZLE A1	8.3	30	94	-	81	91	101	50	1.0	149	2.6	174	3.0	198	3.4	223	3.9	248	4.3	273	4.7	314	339								
								70	1.9	163	2.0	190	2.3	217	2.6	244	3.0	271	3.3	298	3.6	335	362								
								100	3.6	175	1.5	204	1.8	234	2.0	263	2.2	292	2.5	321	2.8	354	383								
								140	6.8	185	1.1	216	1.3	246	1.5	277	1.7	308	1.9	339	2.1	368	399								
B2	13.9	50	82	15	134	151	168	50	1.0	164	2.8	192	3.3	219	3.8	247	4.2	274	4.7	301	5.2	398	425								
								70	1.9	182	2.2	213	2.6	243	3.0	274	3.3	304	3.7	334	4.1	425	455								
								100	3.6	199	1.7	232	2.0	265	2.2	298	2.5	331	2.8	364	3.1	449	482								
								140	6.8	211	1.3	246	1.5	282	1.8	317	2.0	352	2.2	387	2.4	468	503								
C2	27.8	100	82	28	269	302	336	50	1.0	195	3.4	228	3.9	260	4.5	292	5.0	325	5.6	358	6.2	594	627								
								70	1.9	221	2.7	258	3.2	295	3.6	332	4.0	369	4.5	406	5.0	634	671								
								100	3.6	247	2.1	288	2.4	330	2.8	371	3.2	412	3.5	453	3.8	673	714								
								140	6.8	267	1.6	312	1.9	356	2.2	400	2.4	445	2.7	490	3.0	702	747								
NOZZLE A1	8.3	30	94	-	101	152	202	Heating capacity air t _{room} - t _{pri} °C		Heating capacity water t _{room} - t _{water in} °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	Q _{ww}	Δt _w	Q _t	Q _t
								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	W _{9,9}	W _{9,10}	
B2	13.9	50	82	15	168	252	336	50	0.7	468	8.1	585	10.1	702	12.1	936	16.1	1170	20.2	1404	24.2	1592	27.4								
								60	1.0	489	7.0	612	8.8	734	10.5	979	14.0	1223	17.5	1468	21.0	1678	24.0								
								80	1.6	518	5.6	648	7.0	777	8.4	1036	11.2	1295	14.0	1554	16.8	1880	16.2								
								100	2.4	537	4.6	672	5.8	806	6.9	1075	9.2	1343	11.5	1612	13.8	1948	16.2								
C2	27.8	100	82	28	336	504	672	50	0.7	531	9.1	663	11.4	796	13.7	1061	18.3	1327	22.8	1592	27.4										
								60	1.0	559	8.0	699	10.0	839	12.0	1119	16.0	1398	20.0	1678	24.0										
								80	1.6	599	6.5	749	8.1	899	9.7	1199	12.9	1498	16.2	1798	19.4										
								100	2.4	627	5.4	783	6.7	940	8.1	1253	10.8	1567	13.5	1880	16.2										

		AIR						WATER												Quick selection											
		Primary			Cooling capacity air t _{room} - t _{pri} °C					Cooling capacity water t _{room} - t _{water in} °C										L ₉	L ₁₀										
		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 _{wk}	Δt _w	Q _t	Q _t						
		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}							
NOZZLE A1	13.9	50	107	17	134	151	168	50	0.3	179	3.1	209	3.6	238	4.1	268	4.6	298	5.1	328	5.6	419	449								
								100	0.9	239	2.0	279	2.4	319	2.7	359	3.1	399	3.4	439	3.7	510	550								
								180	2.8	281	1.3	328	1.5	375	1.8	422	2.0	469	2.2	516	2.4	573	620								
								350	9.8	316	0.8	368	0.9	421	1.0	473	1.2	526	1.3	579	1.4	624	677								
B2	25.0	90	109	25	242	272	302	50	0.3	198	3.4	231	4.0	264	4.6	297	5.1	330	5.7	363	6.3	569	602								
								100	0.9	276	2.4	322	2.8	368	3.2	414	3.6	460	4.0	506	4.4	686	732								
								180	2.8	335	1.6	391	1.9	446	2.2	502	2.4	558	2.7	614	3.0	774	830								
								350	9.8	385	1.0	449	1.1	513	1.3	577	1.4	641	1.6	705	1.8	849	913								
C2	50.0	180	108	38	483	544	604	50	0.3	221	3.8	258	4.4	295	5.0	332	5.7	369	6.3	406	6.9	876	913								
								100	0.9	325	2.8	379	3.3	434	3.8	488	4.2	542	4.7	596	5.2	1032	1086								
								180	2.8	410	2.0	479	2.3	547	2.6	616	3.0	684	3.3	752	3.6	1160	1228								
								350	9.8	488	1.2	570	1.4	651	1.6	733	1.8	814	2.0	895	2.2	1277	1358								
NOZZLE A1	13.9	50	107	17	168	252	336	Heating capacity air t _{room} - t _{pri} °C		Heating capacity water t _{room} - t _{water in} °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	Q _{ww}	Δt _w	Q _t	Q _t
								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	W _{9,9}	W _{9,10}	
B2	25.0	90	109	25	302	453	604	50	1.0	761	13.1	951	16.3	1141	19.6	1521	26.1	1902	32.7	2282	39.2										
								70	1.8	737	9.1	921	11.3	1105	13.6	1473	18.1	1842	22.7	2210	27.2										
								100	3.4	809	6.9	1012	8.7	1214	10.4	1619	13.9	2023	17.3	2428	20.8										
								150	7.1	876	5.0	1095	6.2	1314	7.5	1752	10.0	2190	12.5	2628	15.0										
C2	50.0	180	108	38	604	906	1208	50	1.0	882	15.2	1102	19.0	1323	22.8	1764	30.4	2205	38.0	2646	45.6										
								70	1.8	1042	12.8	1302	16.0	1563	19.2	2084	25.6	2605	32.0	3126	38.4										
								100	3.4	1207	10.4	1508	13.0	1810	15.6	2413	20.8	3017	26.0	3620	31.2										
								150	7.1	1375	7.9	1719	9.8	2063	11.8	2751	15.7	3438	19.7	4126	23.6										

		AIR						WATER														Quick selection						
		Primary			Cooling capacity air t _{room} - t _{pri} °C					Cooling capacity water t _{room} - t _{water in} °C														L ₉	L ₁₀			
		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 _{wk}	Δt _w	Q _t	Q _t			
		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}				
NOZZLE A1	19.4	70	108	17	188	212	235	50	0.3	212	3.7	248	4.3	283	4.9	319	5.5	354	6.1	389	6.7	531	566					
								90	1.0	288	2.8	336	3.2	384	3.7	432	4.1	480	4.6	528	5.1	644	692					
								170	3.2	365	1.9	426	2.2	486	2.5	547	2.8	608	3.1	669	3.4	759	820					
								320	10.4	424	1.1	495	1.3	566	1.5	636	1.7	707	1.9	778	2.1	848	919					
B2	31.9	115	91	22	309	347	386	50	0.3	225	3.9	262	4.6	300	5.2	338	5.9	375	6.5	412	7.2	685	722					
								90	1.0	312	3.0	364	3.5	416	4.0	468	4.5	520	5.0	572	5.5	815	867					
								170	3.2	404	2.0	471	2.4	538	2.7	606	3.1	673	3.4	740	3.7	953	1020					
								320	10.4	479	1.3	559	1.5	638	1.7	718	1.9	798	2.1	878	2.3	1065	1145					
C2	58.3	210	76	34	564	634	705	50	0.3	241	4.1	281	4.8	321	5.5	361	6.2	401	6.9	441	7.6	995	1035					
								90	1.0	346	3.3	403	3.9	461	4.4	518	5	576	5.5	634	6.1	1152	1210					
								170	3.2	466	2.3	543	2.7	621	3.1	698	3.5	776	3.9	854	4.3	1332	1410					
								320	10.4	570	1.6	665	1.8	760	2.1	855	2.3	950	2.6	1045	2.9	1489	1584					
NOZZLE A1	19.4	70	108	17	Heating capacity air t _{room} - t _{pri} °C					Heating capacity water t _{room} - t _{water in} °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	Q _{ww}	Δt _w	Q _t	Q _t
					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	W _{9,9}	W _{9,10}	
B2	31.9	115	91	22	386	579	772	50	1.3	805	13.9	1006	17.3	1207	20.8	1609	27.7	2012	34.7	2414	41.6							
								70	2.5	925	11.4	1157	14.3	1388	17.1	1851	22.8	2313	28.5	2776	34.2							
								90	3.9	1010	9.7	1262	12.1	1515	14.5	2020	19.3	2525	24.2	3030	29.0							
								130	7.5	1120	7.4	1400	9.2	1680	11.1	2240	14.8	2800	18.5	3360	22.2							
C2	58.3	210	76	34	705	1058	1410	50	1.3	876	15.1	1095	18.8	1314	22.6	1752	30.1	2190	37.7	2628	45.2							
								70	2.5	1022	12.5	1278	15.7	1533	18.8	2044	25.1	2555	31.3	3066	37.6							
								90	3.9	1127	10.8	1408	13.5	1690	16.2	2253	21.6	2817	27.0	3380	32.4							
								130	7.5	1265	8.4	1582	10.5	1898	12.6	2531	16.8	3163	21.0	3796	25.2							
C2	58.3	210	76	34	705	1058	1410	50	1.3	963	16.5	1203	20.7	1444	24.8	1925	33.1	2407	41.3	2888	49.6							
								70	2.5	1152	14.1	1440	17.7	1728	21.2	2304	28.3	2880	35.3	3456	42.4							
								90	3.9	1294	12.4	1618	15.5	1941	18.6	2588	24.8	3235	31.0	3882	37.2							
								130	7.5	1491	9.9	1864	12.3	2237	14.8	2983	19.7	3728	24.7	4474	29.6							

		AIR						WATER														Quick selection						
		Primary			Cooling capacity air t _{room} - t _{pri} °C					Cooling capacity water t _{room} - t _{water in} °C														L ₉	L ₁₀			
		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 _{wk}	Δt _w	Q _t	Q _t			
		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}				
NOZZLE A1	25	90	108	18	242	272	302	50	0.4	236	4.1	275	4.8	314	5.4	354	6.1	393	6.8	432	7.5	626	665					
								90	1.1	333	3.2	388	3.7	444	4.2	500	4.8	555	5.3	610	5.8	772	827					
								170	3.8	440	2.2	514	2.6	587	3.0	661	3.3	734	3.7	807	4.1	933	1006					
								300	11	523	1.5	610	1.8	697	2.0	784	2.2	871	2.5	958	2.8	1056	1143					
B2	44.4	160	106	25	430	483	537	50	0.4	253	4.3	295	5.0	337	5.8	379	6.5	421	7.2	463	7.9	862	904					
								90	1.1	369	3.5	430	4.1	492	4.7	554	5.3	615	5.9	676	6.5	1037	1098					
								170	3.8	507	2.6	592	3.0	676	3.4	760	3.9	845	4.3	930	4.7	1243	1328					
								300	11	620	1.8	723	2.1	826	2.4	930	2.7	1033	3.0	1136	3.3	1413	1516					
C2	77.8	280	81	37	752	846	940	50	0.4	263	4.6	307	5.3	351	6.1	395	6.8	439	7.6	483	8.4	1241	1285					
								90	1.1	396	3.8	462	4.4	528	5.0	594	5.7	660	6.3	726	6.9	1440	1506					
								170	3.8	563	2.8	657	3.3	750	3.8	844	4.2	938	4.7	1032	5.2	1690	1784					
								300	11	708	2.0	826	2.4	944	2.7	1062	3.1	1180	3.4	1298	3.7	1908	2026					
NOZZLE A1	25.0	90	108	18	Heating capacity air t _{room} - t _{pri} °C					Heating capacity water t _{room} - t _{water in} °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	Q _{ww}	Δt _w	Q _t	Q _t
					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	W _{9,9}	W _{9,10}	
B2	44.4	160	106	25	537	806	1074	50	1.7	1009	17.3	1261	21.7	1513	26.0	2017	34.7	2522	43.3	3026	52.0							
								70	3.1	1073	13.2	1342	16.5	1610	19.8	2147	26.4	2683	33.0	3220	39.6							
								80	4.0	1136	12.2	1420	15.2	1704	18.3	2272	24.4	2840	30.5	3408	36.6							
								110	7.0	1279	10.0	1599	12.5	1919	15.0	2559	20.0	3198	25.0	3838	30.0							
C2	77.8	280	81	37	940	1410	1880	50	1.7	1069	18.4	1337	23.0	1604	27.6	2139	36.8	2673	46.0	3208	55.2							
								70	3.1	1315	16.1	1644	20.2	1973	24.2	2631	32.3	3288	40.3	3946	48.4							
								80	4.0	1417	15.3	1772	19.1	2126	22.9	2835	30.5	3543	38.2	4252	45.8							
								110	7.0	1663	13.0	2079	16.2	2495	19.5	3327	26.0	4158	32.5	4990	39.0							