

AIR-FIT® - ACTIVE CHILLED BEAM



HC GROEP
HC BARCOL-AIR | AIR DISTRIBUTION

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Structure type designation:

A	3	O	4	1	7	9	5	-	2	9	5	O	O	B	B	B	O
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Position	Code	Description
1 + 2	A3	Product AIR-FIT®
3	O 1	Type Standard Non standard, specify separately
4	4 1	Finish RAL 9010, 70% gloss grade (standard) Non standard, specify separately
5 + 6 + 7 + 8	Length Actual front length in mm (according to customer specifications)
9		<i>Hyphen between length and width</i>
10 + 11 + 12	...	Width Standard width in mm (according to customer specifications)
13	L/R O	Connection Waterside connection (left / right) Top connection (plenum box type B)
14	O 1	Options Standard Special options, specify separately
15	S B V 1	Plenum box Plenum box with side connection Plenum box with top connection Side connection on plenum box with reduced height (model 300 only) Special plenum box
16	A B C D 1	Coil configuration 2-Pipe configuration 4-Pipe configuration High capacity, 2-pipe configuration (model 600 only) High capacity, 4-pipe configuration (model 600 only) Special configuration
17	A B C D E F G H 1 O	Nozzle plate Nozzle type 1, not adjustable Nozzle type 2, not adjustable Nozzle type 3, not adjustable Nozzle type 4, not adjustable Nozzle type 5, not adjustable Nozzle type 6, not adjustable Nozzle type 2 or 3, adjustable Nozzle type 4 or 5, adjustable Special nozzle type (according to drawing) Not applicable (without nozzles)
18	O B C D E	Nozzle position in case of an adjustable nozzle type Not adjustable Position 2 (with nozzle plate G only, nozzle type 2) Position 3 (with nozzle plate G only, nozzle type 3) Position 4 (with nozzle plate H only, nozzle type 4) Position 5 (with nozzle plate H only, nozzle type 5)

Connections (top view):

Connection O = plenum box type B



Connection L = water left side



Connection R = water right side



Product presentation

Features AIR-FIT® active chilled beam

High capacity

The active chilled beam has a high cooling and heating capacity and is suitable to ventilate, cool and heat (mainly) offices. Model 600 can be supplied with a different coil type, suitable for high capacity solutions (additional cost).

Compact in size

A chilled beam with a size of only 1800 x 300 mm, 10 m² office space is supplied with sufficient ventilated air, cooling and heating. In addition, the active chilled beam is relatively light weight and needs minimum installation space.

Simplicity in mounting

With a width of 295 or 595 mm, the active chilled beam can be perfectly integrated into suspended ceilings with exposed T or bolt-slot systems for intermediate mounting.

Low noise

The efficiently shaped nozzles create (at minimal primary air pressure) a maximum induction at a minimum sound level.

Low maintenance

The active chilled beam has no filter, no fan or any other moving parts, therefore maintenance is limited to cleaning the heat exchanger occasionally. The heat exchanger can be accessed simply by removing the bottom panel, which is equipped with a safety catch.

Controls

The active chilled beam can be controlled in many different ways. Company division HC RT can provide a solution for every (integrated) application.

Ceiling location

The active chilled beam will supply air into the room through two opposite slots. In office applications the unit can be located in the middle of the room, either perpendicular or parallel to the facade.

Flexibility

The active chilled beam is available in different lengths. This makes it possible to select the necessary capacity for every installation.

Plenum box variety

The standard active chilled beam is supplied with a top connection. However, it is also possible to provide a plenum box with a side connection or with a reduced height. For every situation, a solution is available.

AIR-FIT® model 300



AIR-FIT® model 600

**Finish**

- RAL 9010, 70% gloss grade (standard)
- A different finish available on request

Plenum box

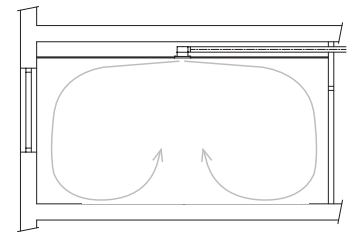
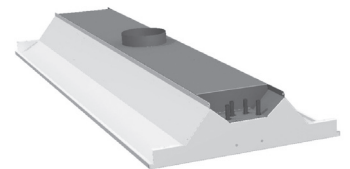
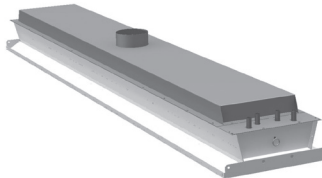
- Galvanised sheet steel, unisolated
- Airside connection(s)

Maintenance

- Removable front panel which is equipped with a safety catch

Heat exchanger

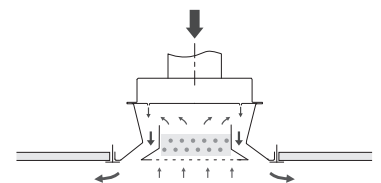
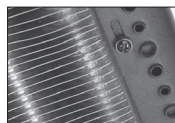
- Waterside connection
- 2-pipe or 4-pipe system
- Tubes: copper
- Fins: aluminium
- Pressure tested: 15 bar



Air distribution AIR-FIT®

Adjustable nozzle types

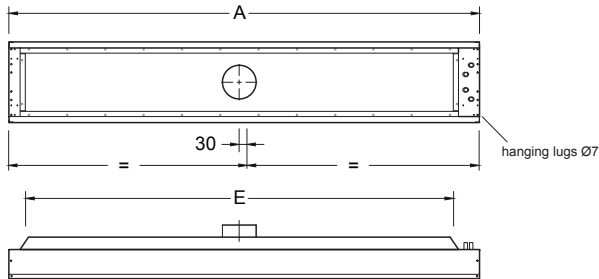
The active chilled beam is standard equipped with a fixed nozzle position for the required fresh air discharge. Optionally an adjustable nozzle bar is available. In this case adjusting the nozzles after mounting is possible.



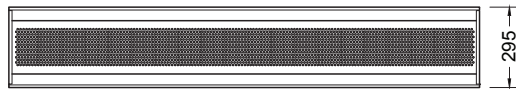
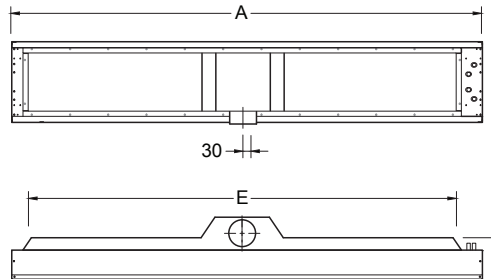
Operating principle of the AIR-FIT®

Dimensional data model 300

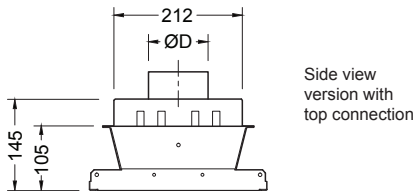
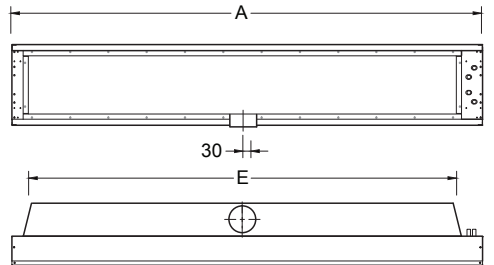
AIR-FIT® with top connection (standard)



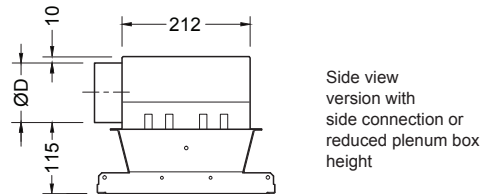
AIR-FIT® with reduced plenum box height (optional)



AIR-FIT® with side connection (optional)



Side view version with top connection



Side view version with side connection or reduced plenum box height

Dimensional data AIR-FIT® 300

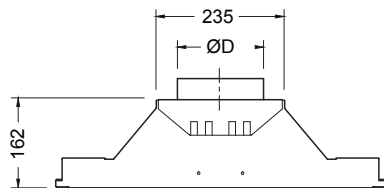
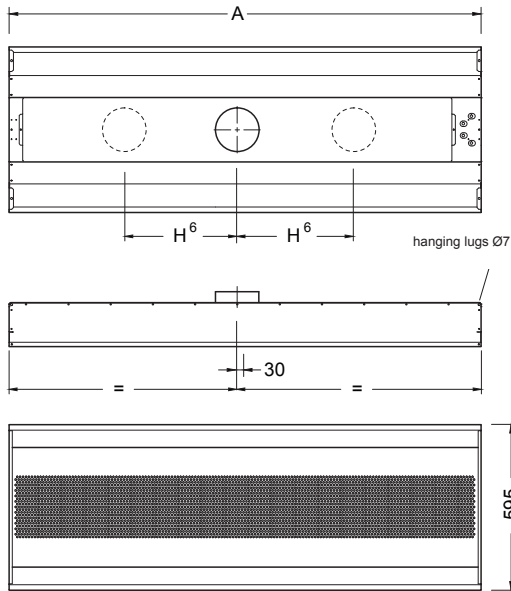
Model	600	1200	1500	1800	2400	3000
A (standard)	594	1194	1494	1794	2394	2994
A (minimum)	594	1118	1418	1718	2318	2918
D ⁵	Ø 98	Ø 98 - Ø 123	Ø 98 - Ø 158	Ø 98 - Ø 158	Ø 123 - Ø 198	Ø 123 - Ø 198
E	480	1000	1300	1600	2200	2800
Weight (kg) ³	7,5	14,0	17,0	20,5	27,0	34,0

Notes dimensional data:

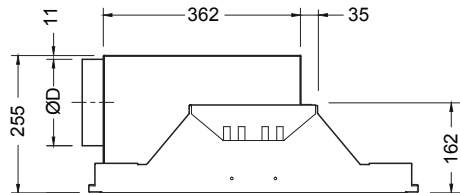
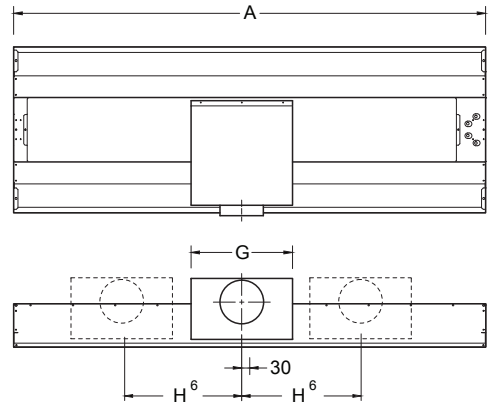
1. Measurement in mm.
2. On request HC Barcol-Air can supply the AIR-FIT® with a airside connection on the short side of the plenum.
3. Weight in kg including the water contents (starting-point weighting; plenum box type S, coil configuration type B, nozzle bar type H).
4. The length of the active chilled beam depends on the ceiling type (please consult your ceiling supplier for the exact measurements). The exact length needs to specified when ordering.
5. The diameter of the inlet depends on the nozzle type (see table on page 25).

Dimensional data model 600

AIR-FIT® with top connection (standard)

Side view
Version with top connection

AIR-FIT® with side connection (optional)

Side view
Version with side connection

Dimensional data AIR-FIT® 600

Model	600	1200	1500	1800	2400	3000
A (standard)	594	1194	1494	1794	2394	2994
A (minimum)	594	1118	1418	1718	2318	2918
D ⁵	Ø 98	Ø 98 - Ø 158	Ø 98 - Ø 198	Ø 123 - Ø 198	Ø 123 - 2 x Ø 160	Ø 123 - 2 x Ø 198
G	150	370	370	370	370 - 2 x 370	370 - 2 x 370
H	not applicable	not applicable	not applicable	not applicable	not applicable - 540 ⁶	not applicable - 690 ⁶
Weight (kg) ³	12,5	23,5	28,0	33,5	45,0	55,0

Notes dimensional data:

1. Measurement in mm.
2. On request HC Barcol-Air can supply the AIR-FIT® with a airside connection on the short side of the plenum.
3. Weight in kg including the water contents (starting-point weighting; plenum box type S, coil configuration type D, nozzle bar type H).
4. The length of the active chilled beam depends on the ceiling type (please consult your ceiling supplier for the exact measurements). The exact length needs to specified when ordering.
5. The diameter of the inlet depends on the nozzle type (see table on page 25).
6. Models 2400 and 3000 are equipped with one or two airside connections, the exact number depends on the chosen nozzle type (see table on page 25).

The data mentioned in this document can be used as an indication.

For an exact selection we refer to the selection software which is available at our website www.hcgroep.com.

Given:

Office space (L x W x H)	= 5.4 x 3.6 x 2.7 m
Required active chilled beam type	1800 x 300 mm, 2x
Fresh air supply (2-way ventilation)	$q_1 = 106 \text{ m}^3/\text{h}$, 53 m ³ /h per active chilled beam
Required cooling capacity at 25 °C room temperature (T_{room}), 55% RV	$P_{\text{tot}} = 1000 \text{ W}$ (500 W / unit)
Required heating capacity at 20 °C room temperature (T_{room})	$P_{\text{tot}} = 1000 \text{ W}$ (500 W / unit)
Temperature cooling water	$T_{\text{w,in}} = 16 \text{ °C}$
Temperature heating water	$T_{\text{w,in}} = 40 \text{ °C}$
Temperature air supply, summer	$T_1 = 17 \text{ °C}$
Temperature air supply, winter	$T_1 = 17 \text{ °C}$

Solution:

For the selection the tables on page 11 (cooling) and 14 (heating) are used, belonging to model 1800 x 300.

Please select the exact nozzle first. Each nozzle type as stated in the table has got a minimum (qmin) and a maximum (qmax) air quantity.

By interpolation an indication for the intermediate value can be obtained.

Nozzle type	Selection from the table, based upon an acceptable static pressure, sound power level and throw.	2
Static pressure, airside	<i>Calculation:</i> $\Delta p = (q_1 / q_{\text{max}})^2 * \Delta p_{\text{max}} = (53 / 85)^2 * 200 = 78 \text{ Pa}$	78 Pa
Throw	<i>Interpolating throw data</i> Throw per m ³ /h (W_{m^3}) for nozzle 2: $W_{\text{m}^3} = (W_{\text{max}} - W_{\text{min}}) / (q_{\text{max}} - q_{\text{min}}) = (3,7 - 1,7) / (85 - 45) = 0,05 \text{ m}^3/\text{h}$ Throw at 53 m ³ /h = 1,7 + (53-45) * 0,05 = 2,3 m Note: in winter situations the throw is of no importance because heated air will not cause any draft.	2,3 m
Sound power level	<i>Interpolating sound power level data</i> Sound power level per m ³ /h ($L_{\text{w,m}^3}$) for nozzle 2: $L_{\text{w,m}^3} = (L_{\text{w,max}} - L_{\text{w,min}}) / (q_{\text{max}} - q_{\text{min}}) = (39 - 22) / (85 - 45) = 0,43 \text{ dB/m}^3/\text{h}$ Sound power level at 53 m ³ /h = 21 + (53-45) * 0,43 = 24 dB(A)	24 dB(A)
Summer situation:		
Cooling capacity fresh air	<i>Please use the calculation help as stated beneath the table:</i> $P_L = 0,335 * q_1 * (T_{\text{ruimte}} - T_1) = 0,335 * 53 * (25-16) = 160 \text{ W}$	160 W
Required cooling capacity water	$P_w = P_{\text{tot}} - P_L = 500 - 160 = 340 \text{ W}$	340 W
Watersided power level	<i>Interpolating coil data</i> Power level per m ³ /h ($P_{\text{L,m}^3}$) at $\Delta T=10\text{K}$ and q_w 170 l/h: $P_{\text{L,m}^3} = (P_{\text{w,max}} - P_{\text{w,min}}) / (q_{\text{max}} - q_{\text{min}}) = (540-375) / (85-45) = 4,1 \text{ W/m}^3/\text{h}$ Power level at 53 m ³ /h = 375 + (53-45) * 4,1 = 408 W $\Delta T=9\text{K}$ leads to approximately 12% reduction (see calculation help as stated beneath the table) $P_{\text{w,9}} = 408/1,12 = 364 \text{ W}$	364 W
Water quantity	<i>See table</i>	170 l/h
Pressure loss, watersided	<i>See table</i>	10,5 kPa
ΔT_w (water out - water in)	$\Delta T = P_w / (q_w * 1,16) = 364 / (170 * 1,16)$	1,85 K
Winter situation:		
Heating capacity fresh air	$P_L = 0,335 * q_1 * (T_{\text{air}} - T_{\text{room}}) = 0,335 * 53 * (17-20) = -53 \text{ W}$	-53 W
Required capacity water	$P_w = P_{\text{tot}} - P_L = 500 - (-53) = 553 \text{ W}$	553 W
Watersided power level	<i>Interpolating coil data</i> Power level per m ³ /h at $\Delta T=20\text{K}$ and q_w 50 l/h: $P_{\text{L,m}^3} = (P_{\text{w,max}} - P_{\text{w,min}}) / (q_{\text{max}} - q_{\text{min}}) = (670 - 540) / (85 - 45) = 3,3 \text{ W/m}^3/\text{h}$ Power level at 53 m ³ /h = 540 + (53-45) * 3,3 = 566 W	566 W
Water quantity	<i>See table</i>	50 l/h
Pressure loss, watersided	<i>See table</i>	0,8 kPa
ΔT_w (water in - water out)	$\Delta T = P_w / (q_w * 1,16) = 566 / (50 * 1,16) = 9,8$	9,8 K

Calculation help:

Cooling capacity air $P_L = 0,335 * (T_{\text{room}} - T_{\text{air}}) * q_1$

Temperate difference between water in and out ($T_{\text{water,out}} - T_{\text{water,in}}$) = $P_w / (1,16 * q_w)$

Cooling capacity of the temperature difference ($T_{\text{room}} - T_{\text{water,in}}$) which leads to an extra capacity of 12% per degree.

If several units are connected together, this will lead to an extended throw of 10%.

Quick selection model 300, cooling

AIR-FIT® model 300 - nominal length = 600 mm

Nozzle		1		2		3		4		5		6		
AIR	Ø D	mm		98		98		98		98		98		
	q ₁	m ³ /h	8	14	12	22	20	40	25	50	30	60	40	75
		l/s	2	4	3	6	6	11	7	14	8	17	11	21
	p _{st}	Pa	65	200	55	185	50	190	50	190	50	195	55	195
	L _{WA}	dB(A)	--	32	--	32	--	37	--	43	21	44	24	42
		NC	--	27	--	27	--	32	--	38	--	39	--	37
	L _{PA}	dB(A)	--	22	--	22	--	27	--	33	--	34	--	32
		NC	--	--	--	--	--	22	--	28	--	29	--	27
	W	m	0,7	1,8	1,1	2,4	1,8	3,2	1,9	3,4	2,2	3,6	2,6	3,9
	P _{L,7K}	W	20	35	30	50	45	95	60	115	70	140	95	175
P _{L,10K}	W	25	45	40	75	65	135	85	170	100	200	135	250	
WATER	q _w [l/h]	135												
	Δp _w [kPa]	3,2												
	P _{W,7K}	W	55	90	65	105	80	135	80	135	85	140	100	150
	P _{W,10K}	W	85	135	95	155	120	200	120	200	125	210	145	220
	q _w [l/h]	270												
	Δp _w [kPa]	10,5												
	P _{W,7K}	W	65	100	70	115	90	150	90	150	95	155	110	165
	P _{W,10K}	W	90	145	105	170	130	220	130	220	140	235	160	250

AIR-FIT® model 300 - nominal length = 1200 mm

Nozzle		1		2		3		4		5		6		
AIR	Ø D	mm		98		98		98		123		123		
	q ₁	m ³ /h	16	32	25	50	45	90	55	105	65	120	85	145
		l/s	4	9	7	14	13	25	15	29	18	33	24	40
	p _{st}	Pa	55	215	50	205	50	205	50	175	50	165	50	150
	L _{WA}	dB(A)	--	37	--	37	25	45	24	45	26	45	30	45
		NC	--	32	--	32	20	40	--	40	21	40	25	40
	L _{PA}	dB(A)	--	27	--	27	--	35	--	35	--	35	20	35
		NC	--	22	--	22	--	30	--	30	--	30	--	30
	W	m	0,7	2,6	1,4	3,3	2,5	4,4	2,6	4,4	2,9	4,6	3,4	4,9
	P _{L,7K}	W	40	75	60	115	105	210	130	245	150	280	200	340
P _{L,10K}	W	55	105	85	170	150	300	185	350	220	400	285	485	
WATER	q _w [l/h]	105												
	Δp _w [kPa]	3,3												
	P _{W,7K}	W	120	195	140	220	175	250	175	245	180	250	200	255
	P _{W,10K}	W	175	290	205	325	260	380	260	370	270	370	295	380
	q _w [l/h]	210												
	Δp _w [kPa]	10,6												
	P _{W,7K}	W	125	210	145	245	190	305	185	290	195	295	220	310
	P _{W,10K}	W	180	310	215	355	280	440	275	420	285	430	320	445

Note:

1. Explanation of the symbols used and selection parameters is available on page 25.

Please use the selection software on
www.hcgroep.com for a more extensive selection

Quick selection model 300, cooling

AIR-FIT® model 300 - nominal length = 1500 mm

Nozzle		1		2		3		4		5		6	
AIR	Ø D	98		98		123		123		158		158	
	mm	98		98		123		123		158		158	
	q ₁	22 44		35 70		60 120		75 130		90 160		115 200	
	m ³ /h	22 44		35 70		60 120		75 130		90 160		115 200	
	l/s	6 12		10 19		17 33		21 36		25 44		32 56	
	p _{st}	55 220		55 210		50 190		50 145		50 155		50 155	
	Pa	55 220		55 210		50 190		50 145		50 155		50 155	
	L _{WA}	-- 38		21 40		24 43		28 45		27 45		29 45	
	dB(A)	-- 38		21 40		24 43		28 45		27 45		29 45	
	NC	-- 33		-- 35		-- 38		23 40		22 40		24 40	
L _{PA}	-- 28		-- 30		-- 33		-- 35		-- 35		-- 35		
dB(A)	-- 28		-- 30		-- 33		-- 35		-- 35		-- 35		
NC	-- 23		-- 25		-- 28		-- 30		-- 30		-- 30		
W	0,7 2,7		1,5 3,5		2,6 4,6		2,8 4,4		3,1 4,8		3,6 5,2		
m	0,7 2,7		1,5 3,5		2,6 4,6		2,8 4,4		3,1 4,8		3,6 5,2		
P _{L,7K}	50 105		80 165		140 280		175 305		210 375		270 470		
W	50 105		80 165		140 280		175 305		210 375		270 470		
P _{L,10K}	75 145		115 235		200 400		250 435		300 535		385 670		
W	75 145		115 235		200 400		250 435		300 535		385 670		

WATER	q _w [l/h]	95											
	Δp _w [kPa]	3,3											
	P _{W,7K}	160 245		185 275		220 320		220 295		230 310		250 335	
	W	160 245		185 275		220 320		220 295		230 310		250 335	
	P _{W,10K}	235 365		275 410		330 460		330 435		345 455		370 475	
	W	235 365		275 410		330 460		330 435		345 455		370 475	
	q _w [l/h]	190											
	Δp _w [kPa]	10,8											
P _{W,7K}	170 280		200 315		245 390		245 350		260 375		280 410		
W	170 280		200 315		245 390		245 350		260 375		280 410		
P _{W,10K}	255 410		300 465		365 550		365 505		385 535		415 570		
W	255 410		300 465		365 550		365 505		385 535		415 570		

AIR-FIT® model 300 - nominal length = 1800 mm

Nozzle		1		2		3		4		5		6	
AIR	Ø D	98		123		123		158		158		158	
	mm	98		123		123		158		158		158	
	q ₁	27 55		45 85		75 140		95 165		110 185		140 210	
	m ³ /h	27 55		45 85		75 140		95 165		110 185		140 210	
	l/s	8 15		13 24		21 39		26 46		31 51		39 58	
	p _{st}	55 220		55 200		50 170		50 150		50 135		50 110	
	Pa	55 220		55 200		50 170		50 150		50 135		50 110	
	L _{WA}	-- 39		22 39		27 45		27 45		29 45		33 45	
	dB(A)	-- 39		22 39		27 45		27 45		29 45		33 45	
	NC	-- 34		-- 34		22 40		22 40		24 40		28 40	
L _{PA}	-- 29		-- 29		-- 35		-- 35		-- 35		23 35		
dB(A)	-- 29		-- 29		-- 35		-- 35		-- 35		23 35		
NC	-- 24		-- 24		-- 30		-- 30		-- 30		-- 30		
W	0,8 2,9		1,7 3,7		2,7 4,6		3,0 4,7		3,2 4,8		3,7 5,0		
m	0,8 2,9		1,7 3,7		2,7 4,6		3,0 4,7		3,2 4,8		3,7 5,0		
P _{L,7K}	65 130		105 200		175 330		225 385		260 435		330 490		
W	65 130		105 200		175 330		225 385		260 435		330 490		
P _{L,10K}	90 185		150 285		250 470		320 555		370 620		470 705		
W	90 185		150 285		250 470		320 555		370 620		470 705		

WATER	q _w [l/h]	85											
	Δp _w [kPa]	3,2											
	P _{W,7K}	190 280		225 300		255 325		260 320		265 320		280 320	
	W	190 280		225 300		255 325		260 320		265 320		280 320	
	P _{W,10K}	280 420		335 450		385 475		390 470		395 470		420 475	
	W	280 420		335 450		385 475		390 470		395 470		420 475	
	q _w [l/h]	170											
	Δp _w [kPa]	10,5											
P _{W,7K}	205 330		250 375		295 450		300 430		305 435		330 435		
W	205 330		250 375		295 450		300 430		305 435		330 435		
P _{W,10K}	305 490		365 540		435 625		440 605		450 605		485 610		
W	305 490		365 540		435 625		440 605		450 605		485 610		

Note:

1. Explanation of the symbols used and selection parameters is available on page 25.

Please use the selection software on
www.hcgroep.com for a more extensive selection

Quick selection model 300, cooling

AIR-FIT® model 300 - nominal length = 2400 mm

Nozzle		1		2		3		4		5		6		
AIR	Ø D	mm	123		123		158		158		198		198	
	q ₁	m ³ /h	38	75	60	120	105	195	130	200	160	240	200	260
		l/s	11	21	17	33	29	54	36	56	44	67	56	72
	p _{st}	Pa	55	215	50	205	50	170	50	115	50	120	50	85
	L _{wA}	dB(A)	21	40	23	43	27	45	32	45	32	45	36	45
		NC	--	35	--	38	22	40	27	40	27	40	31	40
	L _{pA}	dB(A)	--	30	--	33	--	35	22	35	22	35	26	35
		NC	--	25	--	28	--	30	--	30	--	30	21	30
	W	m	0,8	3,0	1,7	3,9	2,9	4,8	3,0	4,4	3,5	4,8	4,0	4,8
	P _{L,7K}	W	90	175	140	280	245	455	305	470	375	565	470	610
P _{L,10K}	W	125	250	200	400	350	655	435	670	535	805	670	870	
WATER	q _w [l/h]	180												
	Δp _w [kPa]	3,2												
	P _{w,7K}	W	290	460	340	530	415	635	415	545	440	575	470	560
	P _{w,10K}	W	420	655	490	730	600	820	595	745	630	775	665	760
	q _w [l/h]	360												
	Δp _w [kPa]	10,4												
P _{w,7K}	W	315	525	370	620	465	755	465	640	500	680	540	660	
P _{w,10K}	W	455	740	535	850	665	985	660	870	710	915	760	890	

AIR-FIT® model 300 - nominal length = 3000 mm

Nozzle		1		2		3		4		5		6		
AIR	Ø D	mm	123		158		158		198		198		198	
	q ₁	m ³ /h	50	100	80	155	140	210	170	250	200	260	260	270
		l/s	14	28	22	43	39	58	47	69	56	72	72	75
	p _{st}	Pa	55	225	55	205	50	115	50	105	50	80	50	55
	L _{wA}	dB(A)	23	42	24	43	33	45	33	45	37	45	44	45
		NC	--	37	--	38	28	40	28	40	32	40	39	40
	L _{pA}	dB(A)	--	32	--	33	23	35	23	35	27	35	34	35
		NC	--	27	--	28	--	30	--	30	22	30	29	30
	W	m	0,9	3,1	1,8	3,9	3,0	4,3	3,1	4,4	3,4	4,3	4,0	4,2
	P _{L,7K}	W	115	235	190	365	330	490	400	585	470	610	610	635
P _{L,10K}	W	170	335	270	520	470	705	570	840	670	870	870	905	
WATER	q _w [l/h]	165												
	Δp _w [kPa]	3,4												
	P _{w,7K}	W	365	585	430	665	525	690	515	665	535	635	590	605
	P _{w,10K}	W	520	790	605	860	730	880	720	865	740	840	795	810
	q _w [l/h]	330												
	Δp _w [kPa]	10,9												
P _{w,7K}	W	400	675	475	780	600	820	585	785	610	745	680	700	
P _{w,10K}	W	570	910	670	1015	825	1050	810	1020	840	985	915	940	

Note:

1. Explanation of the symbols used and selection parameters is available on page 25.

Please use the selection software on
www.hcgroep.com for a more extensive selection

Quick selection model 300, heating

AIR-FIT® model 300 - nominal length = 600 mm

Nozzle		1		2		3		4		5		6		
AIR	Ø D	mm		98		98		98		98		98		
	q ₁	m ³ /h	8	14	12	22	20	40	25	50	30	60	40	75
		l/s	2	4	3	6	6	11	7	14	8	17	11	21
	p _{st}	Pa	65	200	55	185	50	190	50	190	50	195	55	195
	L _{wA}	dB(A)	--	32	--	32	--	37	--	43	21	44	24	42
		NC	--	27	--	27	--	32	--	38	--	39	--	37
	L _{pA}	dB(A)	--	22	--	22	--	27	--	33	--	34	--	32
		NC	--	--	--	--	--	22	--	28	--	29	--	27
	P _{L,-3K}	W	-10	-15	-10	-20	-20	-40	-25	-50	-30	-60	-40	-75
	P _{L,-2K}	W	-5	-10	-10	-15	-15	-25	-15	-35	-20	-40	-25	-50
WATER	q _w [l/h]	50												
	Δp _w [kPa]	0,4												
	P _{w,20K}	W	160	230	180	250	210	300	210	300	220	310	240	320
	P _{w,35K}	W	280	410	310	460	380	540	380	540	400	560	440	590
	q _w [l/h]	100												
	Δp _w [kPa]	1,2												
	P _{w,20K}	W	170	260	190	290	240	350	240	350	250	360	280	380
	P _{w,35K}	W	290	450	340	510	410	620	410	620	440	640	490	670

AIR-FIT® model 300 - nominal length = 1200 mm

Nozzle		1		2		3		4		5		6		
AIR	Ø D	mm		98		98		98		123		123		
	q ₁	m ³ /h	16	32	25	50	45	90	55	105	65	120	85	145
		l/s	4	9	7	14	13	25	15	29	18	33	24	40
	p _{st}	Pa	55	215	50	205	50	205	50	175	50	165	50	150
	L _{wA}	dB(A)	--	37	--	37	25	45	24	45	26	45	30	45
		NC	--	32	--	32	20	40	--	40	21	40	25	40
	L _{pA}	dB(A)	--	27	--	27	--	35	--	35	--	35	20	35
		NC	--	22	--	22	--	30	--	30	--	30	--	30
	P _{L,-3K}	W	-15	-30	-25	-50	-45	-90	-55	-105	-65	-120	-85	-145
	P _{L,-2K}	W	-10	-20	-15	-35	-30	-60	-35	-70	-45	-80	-55	-95
WATER	q _w [l/h]	50												
	Δp _w [kPa]	0,5												
	P _{w,20K}	W	310	440	350	480	410	540	410	530	420	530	450	540
	P _{w,35K}	W	540	800	610	870	740	1000	730	980	750	990	810	1010
	q _w [l/h]	100												
	Δp _w [kPa]	1,8												
	P _{w,20K}	W	330	520	380	570	480	670	470	650	490	660	530	680
	P _{w,35K}	W	560	920	660	1020	840	1200	830	1170	860	1180	940	1220

Note:

1. Explanation of the symbols used and selection parameters is available on page 25.

Please use the selection software on
www.hcgroep.com for a more extensive selection

Quick selection model 300, heating

AIR-FIT® model 300 - nominal length = 1500 mm

Nozzle		1		2		3		4		5		6	
AIR	Ø D	98		98		123		123		158		158	
	mm	98		98		123		123		158		158	
	q ₁	22	44	35	70	60	120	75	130	90	160	115	200
	m ³ /h	22		35		60		75		90		115	
	l/s	6	12	10	19	17	33	21	36	25	44	32	56
	p _{st}	55	220	55	210	50	190	50	145	50	155	50	155
	Pa	55		55		50		50		50		50	
	L _{WA}	--	38	21	40	24	43	28	45	27	45	29	45
	dB(A)	--		21		24		28		27		29	
	NC	--	33	--	35	--	38	23	40	22	40	24	40
L _{PA}	--	28	--	30	--	33	--	35	--	35	--	35	
dB(A)	--		--		--		--		--		--		
NC	--	23	--	25	--	28	--	30	--	30	--	30	
P _{L,-3K}	W	-20	-45	-35	-70	-60	-120	-75	-130	-90	-160	-115	-200
P _{L,-2K}	W	-15	-30	-25	-45	-40	-80	-50	-85	-60	-105	-75	-135

WATER	q _w [l/h]	50												
	Δp _w [kPa]	0,7												
	P _{W,20K}	W	400	540	440	580	500	640	500	610	510	630	540	650
	P _{W,35K}	W	710	980	790	1060	910	1180	910	1120	940	1160	990	1210
	q _w [l/h]	100												
	Δp _w [kPa]	2,1												
	P _{W,20K}	W	440	660	510	740	600	830	600	780	630	820	670	850
	P _{W,35K}	W	760	1180	890	1310	1070	1490	1070	1400	1120	1460	1190	1520

AIR-FIT® model 300 - nominal length = 1800 mm

Nozzle		1		2		3		4		5		6	
AIR	Ø D	98		123		123		158		158		158	
	mm	98		123		123		158		158		158	
	q ₁	27	55	45	85	75	140	95	165	110	185	140	210
	m ³ /h	27		45		75		95		110		140	
	l/s	8	15	13	24	21	39	26	46	31	51	39	58
	p _{st}	55	220	55	200	50	170	50	150	50	135	50	110
	Pa	55		55		50		50		50		50	
	L _{WA}	--	39	22	39	27	45	27	45	29	45	33	45
	dB(A)	--		22		27		27		29		33	
	NC	--	34	--	34	22	40	22	40	24	40	28	40
L _{PA}	--	29	--	29	--	35	--	35	--	35	23	35	
dB(A)	--		--		--		--		--		--		
NC	--	24	--	24	--	30	--	30	--	30	--	30	
P _{L,-3K}	W	-25	-55	-45	-85	-75	-140	-95	-165	-110	-185	-140	-210
P _{L,-2K}	W	-20	-35	-30	-55	-50	-95	-65	-110	-75	-125	-95	-140

WATER	q _w [l/h]	50												
	Δp _w [kPa]	0,8												
	P _{W,20K}	W	490	630	540	670	590	720	600	710	600	710	630	710
	P _{W,35K}	W	840	1130	950	1210	1060	1320	1060	1290	1080	1290	1130	1300
	q _w [l/h]	100												
	Δp _w [kPa]	2,5												
	P _{W,20K}	W	520	800	620	870	730	960	730	940	750	940	790	950
	P _{W,35K}	W	920	1420	1100	1550	1290	1730	1300	1690	1330	1690	1410	1700

Note:

1. Explanation of the symbols used and selection parameters is available on page 25.

Please use the selection software on
www.hcgroep.com for a more extensive selection

Quick selection model 300, heating

AIR-FIT® model 300 - nominal length = 2400 mm

Nozzle		1		2		3		4		5		6		
AIR	Ø D	mm	123		123		158		158		198		198	
	q ₁	m ³ /h	38	75	60	120	105	195	130	200	160	240	200	260
		l/s	11	21	17	33	29	54	36	56	44	67	56	72
	p _{st}	Pa	55	215	50	205	50	170	50	115	50	120	50	85
	L _{WA}	dB(A)	21	40	23	43	27	45	32	45	32	45	36	45
		NC	--	35	--	38	22	40	27	40	27	40	31	40
	L _{PA}	dB(A)	--	30	--	33	--	35	22	35	22	35	26	35
		NC	--	25	--	28	--	30	--	30	--	30	21	30
	P _{L-3K}	W	-40	-75	-60	-120	-105	-195	-130	-200	-160	-240	-200	-260
	P _{L-2K}	W	-25	-50	-40	-80	-70	-130	-85	-135	-105	-160	-135	-175

WATER	q _w [l/h]	50												
	Δp _w [kPa]	1,0												
	P _{W,20K}	W	640	790	690	840	760	900	760	850	780	870	800	860
	P _{W,35K}	W	1060	1410	1170	1520	1330	1640	1320	1540	1370	1580	1430	1560
	q _w [l/h]	100												
	Δp _w [kPa]	3,3												
	P _{W,20K}	W	620	930	720	1030	860	1140	860	1050	900	1090	950	1070
	P _{W,35K}	W	1230	1830	1410	2030	1690	2240	1680	2070	1770	2130	1870	2100

AIR-FIT® model 300 - nominal length = 3000 mm

Nozzle		1		2		3		4		5		6		
AIR	Ø D	mm	123		158		158		198		198		198	
	q ₁	m ³ /h	50	100	80	155	140	210	170	250	200	260	260	270
		l/s	14	28	22	43	39	58	47	69	56	72	72	75
	p _{st}	Pa	55	225	55	205	50	115	50	105	50	80	50	55
	L _{WA}	dB(A)	23	42	24	43	33	45	33	45	37	45	44	45
		NC	--	37	--	38	28	40	28	40	32	40	39	40
	L _{PA}	dB(A)	--	32	--	33	23	35	23	35	27	35	34	35
		NC	--	27	--	28	--	30	--	30	22	30	29	30
	P _{L-3K}	W	-50	-100	-80	-155	-140	-210	-170	-250	-200	-260	-260	-270
	P _{L-2K}	W	-35	-65	-55	-105	-95	-140	-115	-170	-135	-175	-175	-180

WATER	q _w [l/h]	50												
	Δp _w [kPa]	1,2												
	P _{W,20K}	W	760	900	800	940	870	950	860	940	880	930	910	910
	P _{W,35K}	W	1370	1630	1450	1700	1570	1720	1560	1700	1580	1680	1630	1650
	q _w [l/h]	100												
	Δp _w [kPa]	4,0												
	P _{W,20K}	W	930	1250	1030	1340	1170	1360	1160	1340	1190	1310	1250	1270
	P _{W,35K}	W	1660	2220	1840	2370	2090	2420	2070	2380	2110	2320	2230	2260

Note:

1. Explanation of the symbols used and selection parameters is available on page 25.

Please use the selection software on
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AIR-FIT® model 600 - nominal length = 600 mm

Nozzle		1		2		3		4		5		6	
AIR	Ø D	98		98		98		98		98		98	
	q ₁	9	18	15	30	24	48	32	62	38	73	45	75
		3	5	4	8	7	13	9	17	11	20	13	21
	p _{st}	50	200	50	200	50	205	50	195	50	190	50	140
	L _{WA}	--	25	--	29	--	34	22	41	26	45	31	45
		--	20	--	24	--	29	--	36	21	40	26	40
	L _{PA}	--	--	--	--	--	24	--	31	--	35	21	35
		--	--	--	--	--	--	--	26	--	30	--	30
	W	1,0	2,2	1,4	2,7	1,9	3,2	2,2	3,4	2,4	3,6	2,6	3,6
	P _{L,7K}	20	40	35	70	55	115	75	145	90	170	105	175
P _{L,10K}	30	60	50	100	80	160	105	210	125	245	150	250	
WATER Coil type A of B	q _w [l/h]	120											
	Δp _w [kPa]	3,4											
	P _{W,7K}	75	135	90	160	105	185	120	195	130	205	135	200
	P _{W,10K}	110	195	130	230	155	265	170	285	185	300	195	285
	q _w [l/h]	240											
	Δp _w [kPa]	11,1											
WATER Coil type C of D	q _w [l/h]	240											
	Δp _w [kPa]	3,3											
	P _{W,7K}	90	165	105	190	125	225	145	240	155	255	165	245
	P _{W,10K}	130	235	155	275	180	320	205	350	220	370	235	355
	q _w [l/h]	480											
	Δp _w [kPa]	10,8											
	P _{W,7K}	95	170	110	205	135	240	150	260	160	275	175	265
	P _{W,10K}	135	245	160	290	190	345	215	375	235	395	250	380

Notes:

1. Explanation of the symbols used and selection parameters is available on page 25.
2. AIR-FIT® model 600 can be engineered with the standard coil (type A or B) or with a coil suitable for high capacities (type C or D).

Please use the selection software on
www.hcgroep.com for a more extensive selection

Quick selection model 600, cooling

AIR-FIT® model 600 - nominal length = 1200 mm

Nozzle		1		2		3		4		5		6	
AIR	Ø D	98		123		158		158		158		158	
	mm												
	q ₁	22	43	35	70	56	112	75	150	90	180	105	190
	m ³ /h												
	l/s	6	12	10	19	16	31	21	42	25	50	29	53
	p _{st}	50	200	50	195	50	195	50	205	50	205	50	160
	Pa												
	L _{WA}	--	32	--	35	--	35	--	42	23	45	27	45
	dB(A)												
	NC	--	27	--	30	--	30	--	37	--	40	22	40
L _{PA}	--	22	--	25	--	25	--	32	--	35	--	35	
dB(A)													
NC	--	--	--	20	--	20	--	27	--	30	--	30	
W	1,5	3,2	2,0	3,7	2,7	4,4	3,1	4,8	3,4	5,1	3,7	5,1	
m													
P _{L,7K}	50	100	80	165	130	265	175	350	210	420	245	445	
W													
P _{L,10K}	75	145	115	235	190	375	250	505	300	605	350	635	
W													
WATER Coil type A of B	q _w [l/h]	90											
	Δp _w [kPa]	3,3											
	P _{W,7K}	185	285	205	310	235	335	255	355	270	365	280	360
	W												
	P _{W,10K}	265	410	295	450	340	485	375	505	395	515	410	510
	W												
	q _w [l/h]	180											
	Δp _w [kPa]	10,6											
	P _{W,7K}	195	320	220	360	260	400	285	435	305	460	320	450
	W												
P _{W,10K}	285	465	320	515	370	575	415	620	440	645	460	635	
W													
WATER Coil type C of D	q _w [l/h]	180											
	Δp _w [kPa]	3,3											
	P _{W,7K}	210	340	235	380	275	425	305	465	325	490	340	480
	W												
	P _{W,10K}	305	495	340	550	395	615	440	665	470	700	490	685
	W												
	q _w [l/h]	360											
	Δp _w [kPa]	10,6											
	P _{W,7K}	235	400	265	455	315	520	350	580	380	620	395	605
	W												
P _{W,10K}	340	575	385	645	450	740	505	815	540	865	570	850	
W													

Notes:

1. Explanation of the symbols used and selection parameters is available on page 25.
2. AIR-FIT® model 600 can be engineered with the standard coil (type A or B) or with a coil suitable for high capacities (type C or D).

Please use the selection software on
www.hcgroep.com for a more extensive selection

Quick selection model 600, cooling

AIR-FIT® model 600 - nominal length = 1500 mm

Nozzle		1		2		3		4		5		6	
AIR	Ø D	98		123		158		158		198		198	
	mm												
	q ₁	30	60	48	96	77	154	100	185	120	235	145	250
	m ³ /h												
	l/s	8	17	13	27	21	43	28	51	33	65	40	69
	p _{st}	50	205	50	195	50	200	50	165	50	185	50	150
	Pa												
	L _{WA}	--	39	24	41	--	40	26	45	25	45	30	45
	dB(A)												
	NC	--	34	--	36	--	35	21	40	20	40	25	40
L _{PA}	--	29	--	31	--	30	--	35	--	35	--	35	
dB(A)													
NC	--	24	--	26	--	25	--	30	--	30	--	30	
W	1,5	3,3	2,1	3,9	2,8	4,6	3,2	4,8	3,5	5,2	3,8	5,2	
P _{L,7K}	70	140	115	225	180	360	235	435	280	550	340	585	
W													
P _{L,10K}	100	200	160	320	260	515	335	620	400	785	485	840	
W													
WATER Coil type A or B	q _w [l/h]	80											
	Δp _w [kPa]	3,3											
	P _{W,7K}	235	350	265	375	295	410	315	420	330	465	345	455
	W												
	P _{W,10K}	345	500	380	530	430	565	455	570	475	600	500	595
	W												
	q _w [l/h]	160											
	Δp _w [kPa]	10,6											
P _{W,7K}	265	425	300	465	345	520	370	535	395	590	420	580	
W													
P _{W,10K}	385	605	430	660	495	725	535	740	565	800	600	790	
W													
WATER Coil type C or D	q _w [l/h]	160											
	Δp _w [kPa]	3,4											
	P _{W,7K}	275	430	310	470	350	530	380	540	400	610	425	595
	W												
	P _{W,10K}	400	625	445	680	510	755	550	770	580	845	615	830
	W												
	q _w [l/h]	320											
	Δp _w [kPa]	10,9											
P _{W,7K}	310	520	350	575	410	665	445	685	475	775	510	760	
W													
P _{W,10K}	450	740	505	815	590	930	640	955	680	1065	730	1045	
W													

Notes:

1. Explanation of the symbols used and selection parameters is available on page 25.
2. AIR-FIT® model 600 can be engineered with the standard coil (type A or B) or with a coil suitable for high capacities (type C or D).

Please use the selection software on
www.hcgroep.com for a more extensive selection

Quick selection model 600, cooling

AIR-FIT® model 600 - nominal length = 1800 mm

Nozzle		1		2		3		4		5		6	
AIR	Ø D	123		158		158		198		198		198	
	mm												
	q ₁	40	75	60	120	100	190	130	240	155	250	180	250
	m ³ /h												
	l/s	11	21	17	33	28	53	36	67	43	69	50	69
	p _{st}	55	200	50	190	50	185	50	170	50	130	50	90
	Pa												
	L _{WA}	20	36	--	35	25	45	27	45	32	45	35	45
	dB(A)	--	31	--	30	20	40	22	40	27	40	30	40
	NC	--	26	--	25	--	35	--	35	22	35	25	35
L _{PA}	dB(A)	--	21	--	20	--	30	--	30	--	30	20	30
NC	W	1,8	3,5	2,2	4,0	3,0	4,7	3,4	5,1	3,7	5,0	4,0	4,9
W	m	95	175	140	280	235	445	305	565	365	585	420	585
P _{L,7K}	W	135	250	200	400	335	635	435	805	520	840	605	840
P _{L,10K}	W												
WATER Coil type A of B	q _w [l/h]	75											
	Δp _w [kPa]	3,4											
	P _{W,7K}	265	370	285	390	325	415	345	425	360	420	370	410
	W												
	P _{W,10K}	385	545	410	575	475	605	505	615	525	610	540	600
	W												
	q _w [l/h]	150											
	Δp _w [kPa]	11,0											
P _{W,7K}	330	495	355	540	415	590	450	615	470	600	490	575	
W													
P _{W,10K}	475	715	510	775	600	845	645	875	680	860	705	825	
W													
WATER Coil type C of D	q _w [l/h]	150											
	Δp _w [kPa]	3,4											
	P _{W,7K}	340	515	360	555	430	610	460	635	485	620	505	595
	W												
	P _{W,10K}	485	740	520	800	615	875	665	905	700	890	725	855
	W												
	q _w [l/h]	300											
	Δp _w [kPa]	11,1											
P _{W,7K}	395	635	425	705	515	795	560	840	600	820	625	775	
W													
P _{W,10K}	565	900	610	995	730	1115	795	1170	850	1140	885	1085	
W													

Notes:

1. Explanation of the symbols used and selection parameters is available on page 25.
2. AIR-FIT® model 600 can be engineered with the standard coil (type A or B) or with a coil suitable for high capacities (type C or D).

Please use the selection software on
www.hcgroep.com for a more extensive selection

AIR-FIT® model 600 - nominal length = 2400 mm

Nozzle		1		2		3		4		5		6	
AIR	Ø D	123		158		198		2x 158		2x 158		2x 158	
	mm												
	q ₁	50	100	85	170	135	250	180	320	210	340	250	340
	m ³ /h												
	l/s	14	28	24	47	38	69	50	89	58	94	69	94
	p _{st}	50	190	50	205	50	175	50	165	50	130	50	90
	Pa												
	L _{wA}	25	42	21	42	28	45	27	45	30	45	35	45
	dB(A)												
	NC	20	37	--	37	23	40	22	40	25	40	30	40
L _{pA}	--	32	--	32	--	35	--	35	20	35	25	35	
dB(A)													
NC	--	27	--	27	--	30	--	30	--	30	20	30	
W	1,6	3,5	2,4	4,3	3,1	4,8	3,6	5,2	3,9	5,2	4,2	5,1	
P _{L,7K}	115	235	200	400	315	585	420	750	490	795	585	795	
W	170	335	285	570	450	840	605	1070	705	1140	840	1140	
W													
WATER Coil type A or B	q _w [l/h]	125											
	Δp _w [kPa]	3,2											
	P _{w,7K}	420	580	480	600	525	600	560	590	570	595	585	600
	W												
	P _{w,10K}	610	875	700	925	775	940	830	950	850	950	875	940
	W												
	q _w [l/h]	250											
	Δp _w [kPa]	10,5											
	P _{w,7K}	480	755	560	845	640	890	700	930	725	920	760	885
	W												
P _{w,10K}	685	1075	805	1195	915	1255	995	1310	1035	1295	1085	1250	
W													
WATER Coil type C or D	q _w [l/h]	220											
	Δp _w [kPa]	3,4											
	P _{w,7K}	470	735	550	825	620	880	680	930	705	915	740	870
	W												
	P _{w,10K}	675	1065	790	1200	895	1275	980	1355	1020	1335	1070	1270
	W												
	q _w [l/h]	440											
	Δp _w [kPa]	10,9											
	P _{w,7K}	520	875	615	1020	715	1110	795	1200	835	1175	885	1100
	W												
P _{w,10K}	735	1230	875	1420	1010	1530	1115	1640	1170	1615	1240	1520	
W													

Notes:

1. Explanation of the symbols used and selection parameters is available on page 25.
2. AIR-FIT® model 600 can be engineered with the standard coil (type A or B) or with a coil suitable for high capacities (type C or D).

Please use the selection software on
www.hcgroep.com for a more extensive selection

Quick selection model 600, cooling

AIR-FIT® model 600 - nominal length = 3000 mm

Nozzle		1		2		3		4		5		6		
AIR	Ø D	mm	158		198		2x 158		2x 198		2x 198		2x 198	
	q ₁	m ³ /h	67	134	110	220	180	340	230	420	280	440	330	450
		l/s	19	37	31	61	50	94	64	117	78	122	92	125
	p _{st}	Pa	50	200	50	200	50	185	50	165	50	125	50	95
	L _{wA}	dB(A)	--	37	22	42	26	45	27	45	32	45	36	45
		NC	--	32	--	37	21	40	22	40	27	40	31	40
	L _{pA}	dB(A)	--	27	--	32	--	35	--	35	22	35	26	35
		NC	--	22	--	27	--	30	--	30	--	30	21	30
	W	m	1,7	3,7	2,4	4,4	3,2	5,0	3,6	5,4	4,0	5,3	4,3	5,2
	P _{L,7K}	W	155	315	260	515	420	795	540	985	655	1030	775	1055
P _{L,10K}	W	225	450	370	735	605	1140	770	1405	940	1475	1105	1510	
WATER Coil type A of B	q _w [l/h]	110												
	Δp _w [kPa]	3,2												
	P _{w,7K}	W	480	585	525	580	565	580	575	585	580	580	585	580
	P _{w,10K}	W	710	925	780	970	855	1030	880	1070	910	1045	925	1010
	q _w [l/h]	220												
	Δp _w [kPa]	10,6												
WATER Coil type C of D	q _w [l/h]	200												
	Δp _w [kPa]	3,4												
	P _{w,7K}	W	580	865	650	955	740	1070	780	1135	830	1095	860	1040
	P _{w,10K}	W	840	1290	945	1455	1085	1670	1155	1785	1230	1715	1290	1610
	q _w [l/h]	400												
	Δp _w [kPa]	11,1												
WATER Coil type C of D	P _{w,7K}	W	665	1110	760	1275	900	1470	965	1565	1050	1510	1105	1420
	P _{w,10K}	W	935	1535	1075	1740	1260	1980	1350	2095	1455	2025	1530	1915

Notes:

1. Explanation of the symbols used and selection parameters is available on page 25.
2. AIR-FIT® model 600 can be engineered with the standard coil (type A or B) or with a coil suitable for high capacities (type C or D).

Please use the selection software on
www.hcgroep.com for a more extensive selection

Quick selection model 600, heating

AIR-FIT® model 600 - nominal length = 600 mm

Nozzle		1		2		3		4		5		6			
AIR	Ø D	mm		98		98		98		98		98			
	q ₁	m ³ /h	9	18	15	30	24	48	32	62	38	73	45	75	
		l/s	3	5	4	8	7	13	9	17	11	20	13	21	
	p _{st}	Pa		50	200	50	200	50	205	50	195	50	190	50	140
	L _{WA}	dB(A)	--	25	--	29	--	34	22	41	26	45	31	45	
		NC	--	20	--	24	--	29	--	36	21	40	26	40	
	L _{PA}	dB(A)	--	--	--	--	--	24	--	31	--	35	21	35	
		NC	--	--	--	--	--	--	--	26	--	30	--	30	
	P _{L,-3K}	W		-10	-20	-15	-30	-25	-50	-30	-60	-40	-75	-45	-75
	P _{L,-2K}	W		-5	-10	-10	-20	-15	-30	-20	-40	-25	-50	-30	-50
WATER Coil type A, B, C of D	q _w [l/h]	50													
	Δp _w [kPa]	0,4													
	P _{W,20K}	W		240	330	260	350	290	380	310	390	320	410	330	400
	P _{W,35K}	W		410	600	460	660	520	710	560	740	580	760	600	750
	q _w [l/h]	100													
	Δp _w [kPa]	1,2													
P _{W,20K}	W		220	380	270	430	310	480	350	500	370	520	390	510	
P _{W,35K}	W		380	690	470	770	560	860	620	910	660	940	690	920	

AIR-FIT® model 600 - nominal length = 1200 mm

Nozzle		1		2		3		4		5		6			
AIR	Ø D	mm		98		123		158		158		158			
	q ₁	m ³ /h	22	43	35	70	56	112	75	150	90	180	105	190	
		l/s	6	12	10	19	16	31	21	42	25	50	29	53	
	p _{st}	Pa		50	200	50	195	50	195	50	205	50	205	50	160
	L _{WA}	dB(A)	--	32	--	35	--	35	--	42	23	45	27	45	
		NC	--	27	--	30	--	30	--	37	--	40	22	40	
	L _{PA}	dB(A)	--	22	--	25	--	25	--	32	--	35	--	35	
		NC	--	--	--	20	--	20	--	27	--	30	--	30	
	P _{L,-3K}	W		-20	-45	-35	-70	-55	-115	-75	-150	-90	-180	-105	-190
	P _{L,-2K}	W		-15	-30	-25	-45	-40	-75	-50	-100	-60	-120	-70	-125
WATER Coil type A, B, C of D	q _w [l/h]	50													
	Δp _w [kPa]	0,6													
	P _{W,20K}	W		480	590	500	620	540	650	560	680	580	690	590	690
	P _{W,35K}	W		830	1060	880	1110	950	1180	1000	1230	1030	1270	1050	1250
	q _w [l/h]	100													
	Δp _w [kPa]	1,8													
P _{W,20K}	W		500	740	560	810	630	880	680	930	720	970	740	950	
P _{W,35K}	W		890	1330	990	1440	1120	1580	1220	1670	1280	1740	1320	1710	

Note:

1. Explanation of the symbols used and selection parameters is available on page 25.

Please use the selection software on
www.hcgroep.com for a more extensive selection

Quick selection model 600, heating

AIR-FIT® model 600 - nominal length = 1500 mm

Nozzle		1		2		3		4		5		6			
AIR	Ø D	mm		98		123		158		158		198		198	
	q ₁	m ³ /h	30	60	48	96	77	154	100	185	120	235	145	250	
		l/s	8	17	13	27	21	43	28	51	33	65	40	69	
	p _{st}	Pa	50	205	50	195	50	200	50	165	50	185	50	150	
	L _{wA}	dB(A)	--	39	24	41	--	40	26	45	25	45	30	45	
		NC	--	34	--	36	--	35	21	40	20	40	25	40	
	L _{pA}	dB(A)	--	29	--	31	--	30	--	35	--	35	--	35	
		NC	--	24	--	26	--	25	--	30	--	30	--	30	
	P _{L,-3K}	W	-30	-60	-50	-95	-75	-155	-100	-185	-120	-235	-145	-250	
P _{L,-2K}	W	-20	-40	-30	-65	-50	-105	-65	-125	-80	-155	-95	-170		
WATER Coil type A, B, C of D	q _w [l/h]	50													
	Δp _w [kPa]	0,7													
	P _{w,20K}	W	570	700	600	730	640	770	660	770	680	800	700	800	
	P _{w,35K}	W	1020	1280	1070	1330	1150	1410	1190	1430	1230	1480	1270	1470	
	q _w [l/h]	100													
	Δp _w [kPa]	2,2													
	P _{w,20K}	W	650	940	720	1010	800	1090	850	1110	890	1170	930	1160	
	P _{w,35K}	W	1190	1700	1310	1810	1460	1960	1540	1990	1610	2100	1680	2080	

AIR-FIT® model 600 - nominal length = 1800 mm

Nozzle		1		2		3		4		5		6			
AIR	Ø D	mm		125		160		160		200		200		200	
	q ₁	m ³ /h	40	75	60	120	100	190	130	240	155	250	180	250	
		l/s	11	21	17	33	28	53	36	67	43	69	50	69	
	p _{st}	Pa	55	200	50	190	50	185	50	170	50	130	50	90	
	L _{wA}	dB(A)	20	36	--	35	25	45	27	45	32	45	35	45	
		NC	--	31	--	30	20	40	22	40	27	40	30	40	
	L _{pA}	dB(A)	--	26	--	25	--	35	--	35	22	35	25	35	
		NC	--	21	--	20	--	30	--	30	--	30	20	30	
	P _{L,-3K}	W	-40	-75	-60	-120	-100	-190	-130	-240	-155	-250	-180	-250	
P _{L,-2K}	W	-25	-50	-40	-80	-65	-125	-85	-160	-105	-170	-120	-170		
WATER Coil type A, B, C of D	q _w [l/h]	50													
	Δp _w [kPa]	0,8													
	P _{w,20K}	W	710	830	730	860	780	890	800	910	810	900	820	890	
	P _{w,35K}	W	1230	1470	1260	1540	1360	1610	1400	1640	1440	1630	1460	1590	
	q _w [l/h]	100													
	Δp _w [kPa]	2,5													
	P _{w,20K}	W	830	1110	870	1180	980	1260	1030	1300	1070	1280	1100	1240	
	P _{w,35K}	W	1460	1980	1530	2110	1730	2260	1830	2330	1900	2300	1950	2220	

Note:

1. Explanation of the symbols used and selection parameters is available on page 25.

Please use the selection software on
www.hcgroep.com for a more extensive selection

Quick selection model 600, heating

AIR-FIT® model 600 - nominal length = 2400 mm

Nozzle		1		2		3		4		5		6			
AIR	Ø D	mm		123		158		198		2x 158		2x 158			
	q ₁	m ³ /h		50	100	85	170	135	250	180	320	210	340	250	340
		l/s		14	28	24	47	38	69	50	89	58	94	69	94
	p _{st}	Pa		50	190	50	205	50	175	50	165	50	130	50	90
	L _{wA}	dB(A)		25	42	21	42	28	45	27	45	30	45	35	45
		NC		20	37	--	37	23	40	22	40	25	40	30	40
	L _{pA}	dB(A)		--	32	--	32	--	35	--	35	20	35	25	35
		NC		--	27	--	27	--	30	--	30	--	30	20	30
	P _{L,-3K}	W		-50	-100	-85	-170	-135	-250	-180	-320	-210	-340	-250	-340
P _{L,-2K}	W		-35	-65	-55	-115	-90	-170	-120	-215	-140	-230	-170	-230	
WATER Coil type A, B, C of D	q _w [l/h]	50													
	Δp _w [kPa]	1,0													
	P _{W,20K}	W		760	910	810	960	850	990	880	1010	900	1010	920	990
	P _{W,35K}	W		1390	1650	1470	1740	1540	1780	1600	1820	1630	1810	1660	1780
	q _w [l/h]	100													
	Δp _w [kPa]	3,3													
	P _{W,20K}	W		1000	1340	1100	1450	1200	1510	1270	1560	1310	1550	1350	1500
	P _{W,35K}	W		1770	2390	1960	2580	2140	2680	2260	2780	2320	2750	2400	2670

AIR-FIT® model 600 - nominal length = 3000 mm

Nozzle		1		2		3		4		5		6			
AIR	Ø D	mm		158		198		2x 158		2x 198		2x 198			
	q ₁	m ³ /h		67	134	110	220	180	340	230	420	280	440	330	450
		l/s		19	37	31	61	50	94	64	117	78	122	92	125
	p _{st}	Pa		50	200	50	200	50	185	50	165	50	125	50	95
	L _{wA}	dB(A)		--	37	22	42	26	45	27	45	32	45	36	45
		NC		--	32	--	37	21	40	22	40	27	40	31	40
	L _{pA}	dB(A)		--	27	--	32	--	35	--	35	22	35	26	35
		NC		--	22	--	27	--	30	--	30	--	30	21	30
	P _{L,-3K}	W		-65	-135	-110	-220	-180	-340	-230	-420	-280	-440	-330	-450
P _{L,-2K}	W		-45	-90	-75	-145	-120	-230	-155	-280	-190	-295	-220	-300	
WATER Coil type A, B, C of D	q _w [l/h]	50													
	Δp _w [kPa]	1,2													
	P _{W,20K}	W		880	1030	920	1070	970	1110	990	1120	1020	1120	1030	1100
	P _{W,35K}	W		1550	1850	1630	1930	1720	2000	1770	2030	1820	2010	1850	1980
	q _w [l/h]	100													
	Δp _w [kPa]	4,0													
	P _{W,20K}	W		1190	1560	1290	1660	1410	1750	1460	1780	1520	1760	1560	1730
	P _{W,35K}	W		2110	2790	2290	2970	2510	3130	2610	3190	2710	3160	2790	3090

Note:

1. Explanation of the symbols used and selection parameters is available on page 25.

Please use the selection software on
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Parameters quick selection / airside connections

Used symbols

$\varnothing D$	Air inlet diameter plenum	mm
q_1	Primary air flow	m ³ /h - l/s
p_{st}	Static pressure plenum	Pa
L_{WA}	Sound power level	dB(A)
L_{pA}	Sound pressure level	dB(A)
W	Throw per air outlet	m
q_w	Water flow	l/h
Δp_w	Waterside pressure drop of the coil	kPa
$P_{L,7K}$	Air cooling capacity at a temperature difference of 7K ($T_{room} - T_1 = 7K$)	W
$P_{L,10K}$	Air cooling capacity at a temperature difference of 10K ($T_{room} - T_1 = 10K$)	W
$P_{W,7K}$	Water cooling capacity at a temperature difference of 7K ($T_{room} - T_{water,in} = 7K$)	W
$P_{W,10K}$	Water cooling capacity at a temperature difference of 10K ($T_{room} - T_{water,in} = 10K$)	W

Parameters quick selection

Discharge pattern	2-sided	
Room height	2,7 - 3,0	m
L_{pA} maximum	35 / 30	dB(A) / NC
Room attenuation L_{pA} values	10	dB / Oct
p_{st} maximum	50 - 200	Pa
Δp_w maximum	11	kPa

Model 300 - top connection, side connection or reduced height with side connection

$\varnothing D$	Nozzle bar configuration								
	Length	A	B	C	D	E	F	G	H
600	98	98	98	98	98	98	98	98	98
1200	98	98	98	123	123	123	98	123	123
1500	98	98	123	123	158	158	123	158	158
1800	98	123	123	158	158	158	123	158	158
2400	123	123	158	158	198	198	158	198	198
3000	123	158	158	198	198	198	158	198	198

Model 600 - top connection or side connection

$\varnothing D$	Nozzle bar configuration								
	Length	A	B	C	D	E	F	G	H
600	98	98	98	98	98	98	98	98	98
1200	98	123	158	158	158	158	158	158	158
1500	98	123	158	158	198	198	158	198	198
1800	123	158	158	198	198	198	158	198	198
2400	123	158	198	2 x 158	2 x 158	2 x 158	198	2 x 158	2 x 158
3000	158	198	2 x 158	2 x 198	2 x 198	2 x 198	2 x 158	2 x 198	2 x 198

Installation

The unit has 7 mm diameter hanging lugs for easy installation. These can be used to connect the unit to the ceiling construction. Or these can be used as safety precaution when 'lay-in' method is used.

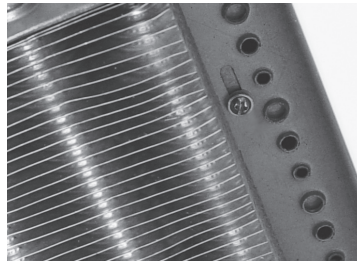
The width (295 or 595 mm) is suitable for T-bar ceilings with 300 or 600 mm centre to centre dimensions. For use in gypsum or other 'closed-ceiling' types, the same dimensions has to be considered.

Extra care shall be taken on the airside and waterside connections (top, left or right side). The installation method should be suitable for the weight of the unit.

Adjustable nozzle types

When an active chilled beam AIR-FIT® is selected, a standard fixed nozzle type is required.

Optionally an unit with two nozzle types can be chosen. The required nozzle type is set ex works. By using an adjustable sliding plate, the nozzle type can be altered subsequently. By means of this, the primary air flow can be altered at a constant fan position.

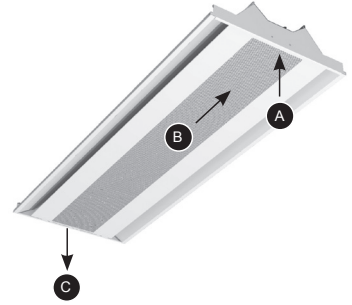


Adjustable nozzle types

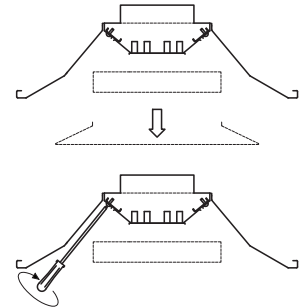
Adjusting nozzle types

The only tool needed to adjust the nozzle type is a Philips head (cross-slotted) screwdriver.

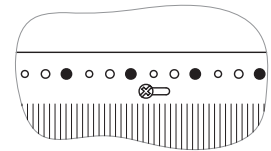
Step 1: Remove the perforated screen (A, B, C):



Step 2: Unscrew all screws from the sliding plate (1 full turn):



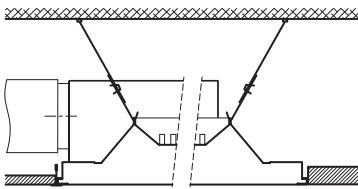
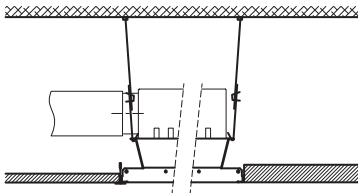
Step 3: Move the sliding plate into the desired position.



Step 4: Tighten all screws (hand tight).

Step 5: Replace the perforated screen.

Exposed Tee method Bolt-Slot method



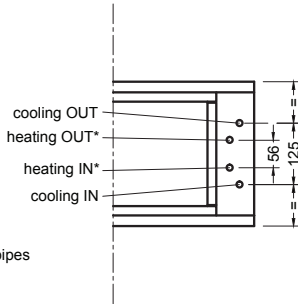
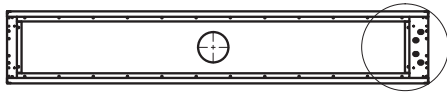
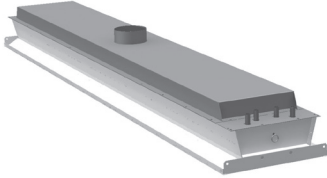
Installation methods AIR-FIT®

Remark:

Please note that all controls must be accessible at all time. During installation this must be taken in consideration. Furthermore, all units must be installed in a clean, dust free and dry environment.

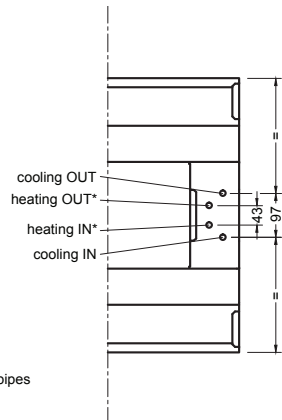
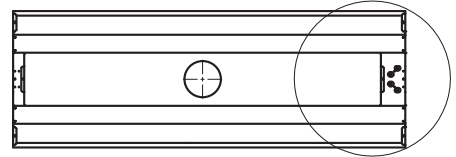
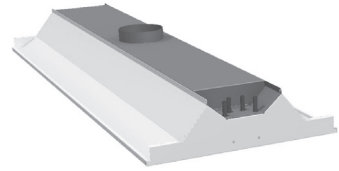
Waterside connections

MODEL 300



* only 4-pipes

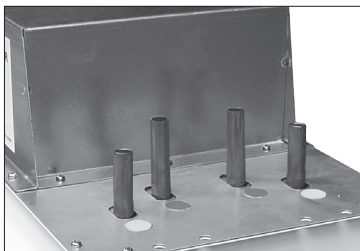
MODEL 600



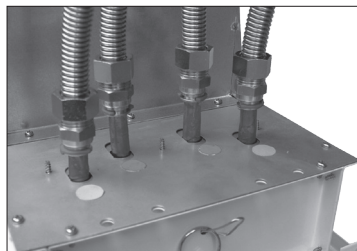
* only 4-pipes

Dimensional data connections

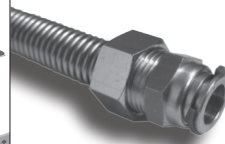
Width	300 / 600	
Model	600 - 1800	2400 - 3000
Ød _{cold}	12	15
Ød _{hot}	12	



Example of copper heat exchanger connections for model 300. The length of the copper connections is at least 40 mm.



Optional:
Flexible synthetic hoses (diffuse tight until 80 °C), with stainless steel casing. The hose is on both sides combined with a speed connection with a security clip (straight or right-angled).



Remarks:
To ensure a leakage proof connection, copper pipe must be undamaged, without sharp edges and perfectly circular. Be aware of deviations in length as a result of shrinking and expanding due to the temperature.



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