

1.2.1 Rectangular, single wall VAV terminals

VSQ-SW(L)



Application

VAV (Variable-Air-Volume) terminals are commonly used to control room temperature by varying the air volume to the space. If the room temperature raises above the set point, the damper modulates open to supply more (cold) primary air into the room. As the space temperature drops below set point, the VAV terminal modulates to a pre-set minimum airflow, which is usually determined by the minimum level of ventilation required in the room. Should the cooling load drop even further at the minimum airflow setting, a reheat coil (hot water or electric) can be energized to provide heating, preventing the room temperature to drop below setpoint.

VAV can also be used to control ventilation (CO₂ and/or PM₅) or control pressure in the room.



Type VSQ-SW-BE1 with Belimo LMV-D3-FLX

Design features

Casing

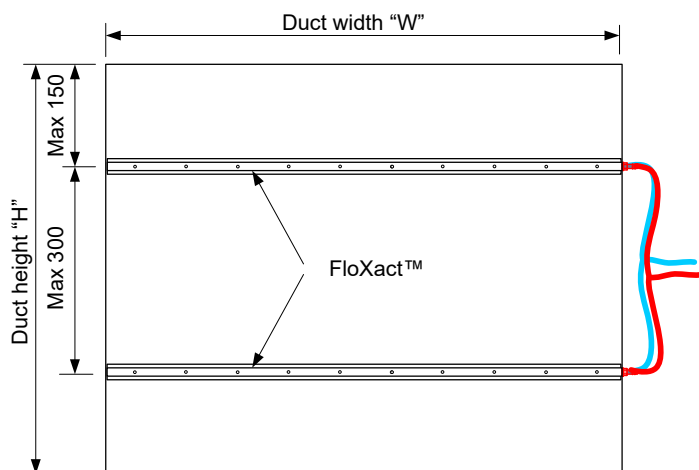
- Ridged galvanised Magnelis® steel construction (1.2mm). Magnelis has a very smooth crystalline surface structure and is 3x more corrosion proof than regular galvanized steel.
- Flanges: 30mm, corner holes ø8x21mm, suitable for 20 to 30mm duct flanges.
- Standard damper blade (SW), steel construction, 100mm pitch, air-tightness EN 1751 Class 2
- Air-Tight damper blade (SWL), extruded aluminium with rubber edge seals and side seals, 100mm pitch, air-tightness EN 1751 Class 4.
- Casing leakage EN 1751 Class B
- Damper shaft 10x10mm with Nylon bearings.
- Operating temperature +10 to 50°C
- Storage temperature 0 to 70°C, max R.H. 95%
- Other construction available upon request.

Air flow sensor FloXact™

- The unique shape, creates a linear amplified signal (at least 2.5x Pdyn) with a low noise level and pressure drop.
- Multi point averaging
- 1% (FS) accuracy with 3x Deq straight duct approach
- 5% (FS) accuracy with 1x Deq straight duct approach
- Stable measuring signal from 0,8 m/s air velocity



Type FloXact™



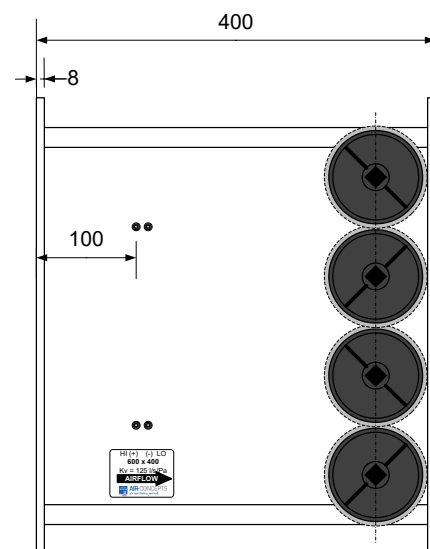
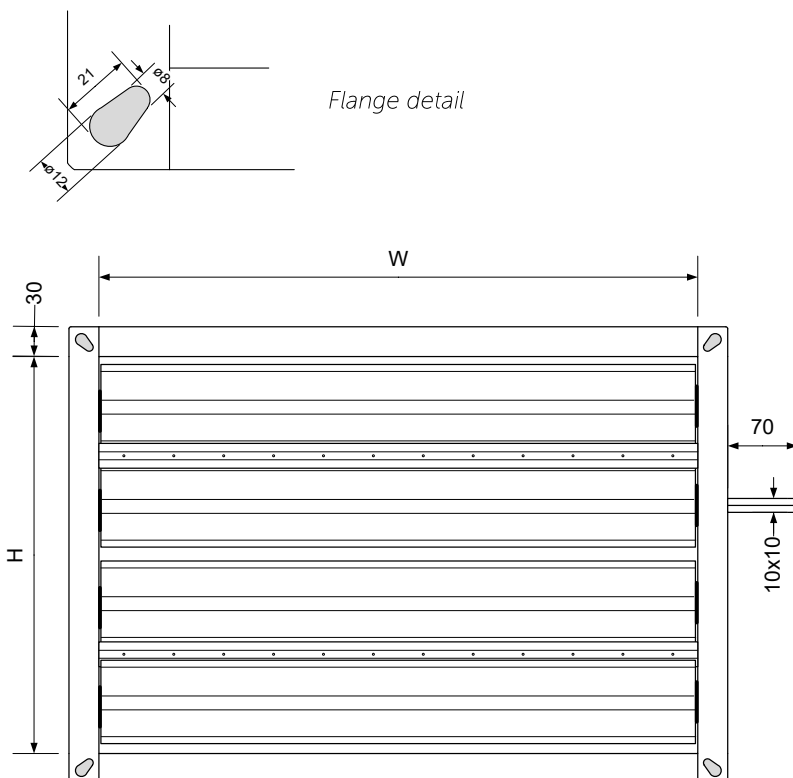
Distribution multiple FloXact™ probes in VSQ units

Kv Values FloXact™ in L/s.Pa

Duct	N°	Duct or unit width "W"													
		200	250	300	350	400	450	500	600	700	800	900	1000	1100	1200
"H"	FloXact™	K _v value in l/s/Pa													
150	1	23,0	28,8	34,5	40,3	46,0	51,8	57,5	69,1	80,6	92,1	104	115	127	138
200		33,1	41,4	49,7	58,0	66,3	74,6	82,9	99,4	116	133	149	166	182	199
250		41,4	51,8	62,1	72,5	82,9	93,2	104	124	145	166	186	207	228	249
300		47,0	58,7	70,4	82,2	94	106	117	141	164	188	211	235	258	282
350	2	55,2	69,1	82,9	96,7	110	124	138	166	193	221	249	276	304	331
400		65,4	81,7	98,1	114	131	147	163	196	229	261	294	327	360	392
450		73,7	92,1	110	129	147	166	184	221	258	295	331	368	405	442
500		83,8	105	126	147	168	189	209	251	293	335	377	419	461	503
600	3	101	127	152	177	203	228	253	304	354	405	456	506	557	608
700		115	144	173	201	230	259	288	345	403	460	518	575	633	691
800		133	167	200	234	267	300	334	400	467	534	601	667	734	801
900		152	190	228	266	304	342	380	456	532	608	684	760	836	911
1000	4	166	207	249	290	331	373	414	497	580	663	746	829	911	994
1100		184	230	276	322	368	414	460	552	644	737	829	921	1013	1105
1200		203	253	304	354	405	456	506	608	709	810	911	1013	1114	1215

- The air volume can be determined with the formula below:

$$Q = K_v \times \sqrt{P_{fs}}$$
 Q = air volume in l/s
 K_v = K_v value in l/s/Pa
 P_{fs} = pressure difference measured by the FloXact™ in Pa
- The table above is for air with 1.20 kg/m³ density (20°C, 50% r.h. and 1013 mbar). The correction for different densities is determined with the following formula : $Corr = \sqrt{(density/1.20)}$
- For intermediate sizes, please contact our office



Type VSQ-SW (single wall construction), drawn model 600x400

Accessories / Optional

The units are supplied as standard with controls on the right side (seen in the air direction).

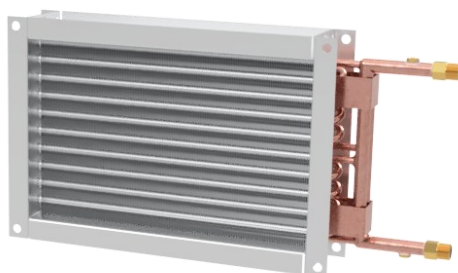
- Standard Controls:
 - BE1 Belimo LMV-D3-MP. 5Nm, 0-10V with NFC
 - BEX Belimo LMV-D3-FLX. 5Nm, 0-10V without NFC
 - BEM Belimo LMV-D3-MOD. 5Nm, MODbus/BACnet
 - BA1 Belimo LMV-BAC-001. 5Nm, ZoneEase BACnet
 - BA2 Belimo LMV-BAC-002. 5Nm, ZoneEase BACnet
 The above controllers are factory mounted, calibrated and, if desired, provided with a location label.
- If desired, Air-Concepts can install free issue controls. We have suitable mounting consoles for all common control manufacturers.
- Transformer 230/24V AC (20 or 30VA)
- Hot water duct heater 1-, 2-, or 4-row. Type HWQ
- Electric duct heater. Type HER



BEM (LMV-D3-MOD)



BEB2 (LMV-BAC-002)



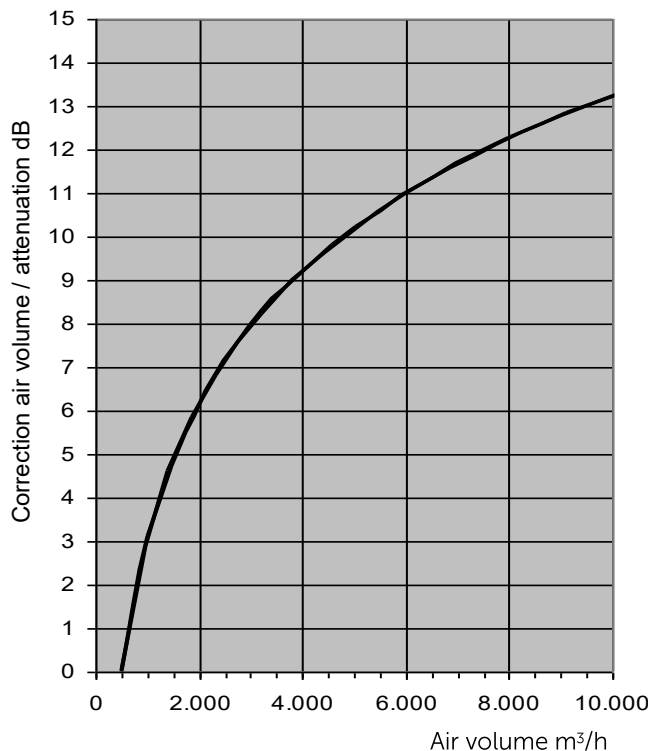
HWQ-2R-400x250

Sound data dB(A) and NR

1. The discharge sound pressure levels $L_p(A)$, are determined with a room absorption of 7dB/oct and the following assumption for downstream ductwork, diffuser(s) and end reflection:

125	250	500	1k	2k	4k	Hz
-3	-5	-10	-15	-15	-12	dB

2. The discharge sound pressure levels $L_p(A)$ also include a correction for air volume :



3. The Radiated sound pressure levels $L_p(A)$ are determined with a room absorption of 7dB/oct and the following assumption ceiling attenuation:

125	250	500	1k	2k	4k	Hz
-1	-3	-5	-7	-7	-10	dB

4. Sound data is measured in a reverberation room at an independent sound laboratory, according to ISO-3741 and ISO-5135 standards.
5. L_w in dB/Oct are sound power levels (re $10^{-12}W$) per octave band in dB for discharge sound and radiated sound. Values less than 17 dB are indicated by "-".
6. n/a Not applicable, static pressure < unit resistance
7. min ΔP_s . Unit resistance with fully opened damper blade

Sound data NC

1. The sound pressure levels $L_p(A)$, are determined with the following attenuation factors according to the guidelines in ARI-885-98

2. The discharge sound pressure levels include:

>Environmental effect

125	250	500	1k	2k	4k	Hz
-3	-2	-1	-1	-1	-1	dB

>Duct lining, 5 feet, 1" lining (1.5m, 25mm thick)

125	250	500	1k	2k	4k	Hz
-1	-3	-8	-21	-20	-12	dB

>End Reflection

125	250	500	1k	2k	4k	Hz
-11	-6	-2	0	0	0	dB

>Acoustical flexible duct, 5 ft 8" (1.5m $\varnothing$ 200mm)

125	250	500	1k	2k	4k	Hz
-6	-10	-17	-19	-19	-12	dB

>Room effect, 3000 cu ft, 10 ft from source.

125	250	500	1k	2k	4k	Hz
-9	-10	-11	-12	-13	-14	dB

>Discharge sound total reduction in dB:

125	250	500	1k	2k	4k	Hz
-30	-31	-39	-53	-53	-39	dB

3. The Radiated sound pressure levels include:

>Environmental effect

125	250	500	1k	2k	4k	Hz
-3	-2	-1	-1	-1	-1	dB

>Ceilling effect, Mineral fibre 5/8" 20 lb/cu ft

125	250	500	1k	2k	4k	Hz
-9	-10	-12	-14	-15	-15	dB

>Room effect, 3000 cubic ft, 10 ft from source.>

125	250	500	1k	2k	4k	Hz
-9	-10	-11	-12	-13	-14	dB

>Radiated sound total reduction in dB:

125	250	500	1k	2k	4k	Hz
-21	-22	-24	-27	-29	-30	dB

4. Sound data is measured in a reverberation room at an independent sound laboratory, according to ISO-3741 and ISO-5135 standards.
5. L_w in dB/Oct are sound power levels (re $10^{-12}W$) per octave band in dB for discharge sound and radiated sound. Values less than 17 dB are indicated by "-".
6. n/a Not applicable, static pressure < unit resistance
7. min ΔP_s . Unit resistance with fully opened damper blade

RECTANGULAR VAV TERMINAL

VSR-SW(L)

Single wall construction

Sound selection

Pressure drop over unit : 100 Pa

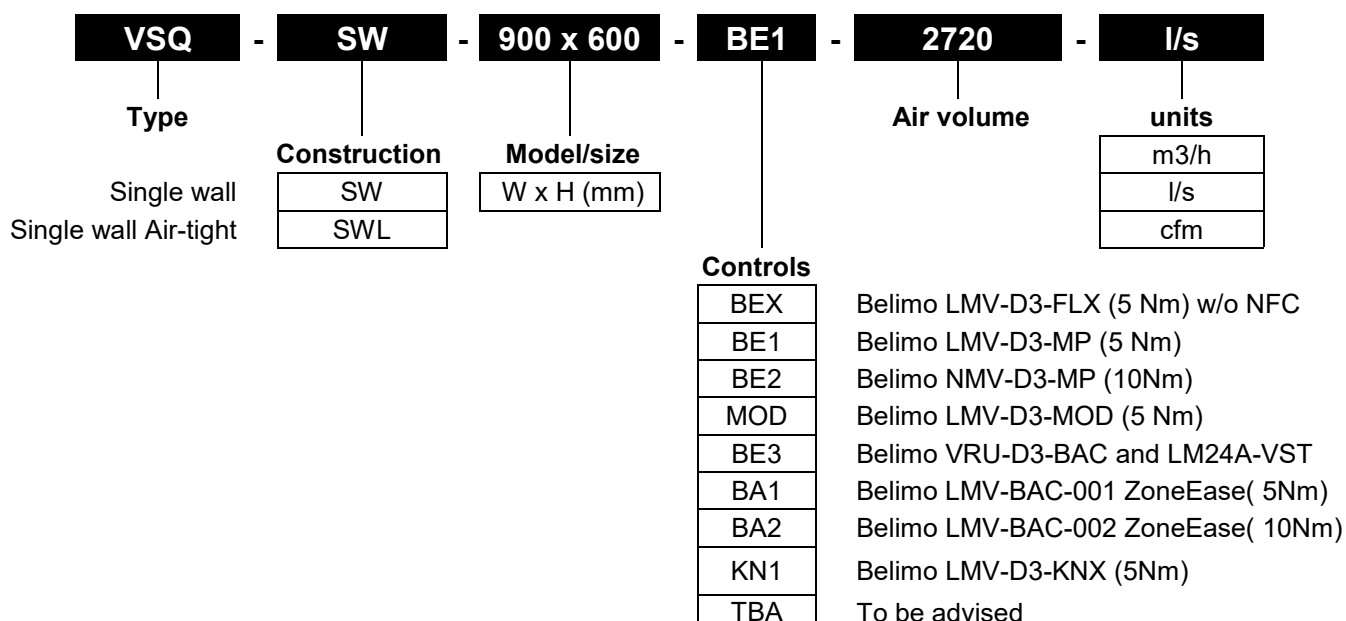
Model	Air Vel.	Air Volume			Min. P _{st}	Discharge sound (Air borne sound)									Radiated sound (Break out sound)								
						Lw (dB/oct) re 10 ⁻¹² W						Quick Sel. L _p			Lw (dB/oct) re 10 ⁻¹² W						Quick Sel. L _p		
							125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	dB (A)	NR	NC	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	dB (A)	NR
250x200	0,8	145	40	85	0	43	43	40	21	22	-	25	21	-	29	27	23	-	-	-	-	-	-
	3,0	540	150	318	3	49	50	46	33	34	26	31	28	-	35	34	29	19	18	18	-	-	-
equiv.	6,0	1080	300	635	12	53	56	51	41	41	35	34	31	-	39	40	34	27	25	27	21	-	-
ø250	9,0	1620	450	953	27	55	55	49	41	43	37	31	28	-	41	39	32	27	27	29	19	-	-
0,05m ²	12,0	2160	600	1271	48	60	57	50	43	49	42	33	29	-	46	41	33	29	33	34	21	-	-
400x200	0,8	232	64	137	0	45	45	42	23	24	-	27	23	-	31	29	25	-	-	-	-	-	-
	3,0	864	240	508	3	51	52	48	35	36	28	31	28	-	37	36	31	21	20	20	-	-	-
equiv.	6,0	1728	480	1016	12	55	58	53	43	43	37	34	31	-	41	42	36	29	27	29	21	-	-
ø315	9,0	2592	720	1525	27	57	57	51	43	45	39	31	29	-	43	41	34	29	29	31	19	-	-
0,08m ²	12,0	3456	960	2033	48	62	59	52	45	51	44	33	29	-	48	43	35	31	35	36	21	-	-
400x300	0,8	365	101	215	0	47	48	45	26	27	18	29	25	-	33	32	28	-	-	-	-	-	-
	3,0	1296	360	762	3	52	54	49	36	37	30	31	28	-	38	38	32	22	21	22	-	-	-
equiv.	6,0	2592	720	1525	12	57	60	55	45	45	39	34	31	-	43	44	38	31	29	31	21	-	-
ø400	9,0	3888	1080	2287	27	58	59	53	45	47	40	31	29	-	44	43	36	31	31	32	19	-	-
0,12m ²	12,0	5184	1440	3049	48	64	61	54	47	53	46	33	29	-	50	45	37	33	37	38	21	-	-
400x400	0,8	464	129	273	0	48	48	45	26	27	18	30	26	-	34	32	28	-	-	-	-	-	-
	3,0	1728	480	1016	3	54	55	51	38	39	31	31	28	-	40	39	34	24	23	23	-	-	-
equiv.	6,0	3456	960	2033	12	58	61	56	46	46	40	34	31	-	44	45	39	32	30	32	21	-	-
ø450	9,0	5184	1440	3049	27	60	60	54	46	48	42	31	29	-	46	44	37	32	32	34	19	-	-
0,16m ²	12,0	6912	1920	4066	48	65	62	55	48	54	47	33	29	-	51	46	38	34	38	39	21	-	-
500x400	0,8	580	161	341	0	50	50	47	27	28	19	31	27	-	36	34	30	-	-	-	-	-	-
	3,0	2160	600	1271	3	56	57	52	39	40	32	32	29	-	42	41	35	25	24	24	19	-	-
equiv.	6,0	4320	1200	2541	12	60	63	57	47	47	41	34	32	19	46	47	40	33	31	33	22	-	-
ø500	9,0	6480	1800	3812	27	61	62	56	47	49	43	32	30	-	47	46	39	33	33	35	20	-	-
0,20m ²	12,0	8640	2400	5082	48	67	64	57	49	55	48	33	30	20	53	48	40	35	39	40	22	-	-
600x400	0,8	696	193	410	0	51	52	48	28	29	20	32	28	-	37	36	31	-	-	-	19	-	-
	3,0	2592	720	1525	3	57	59	54	40	40	33	33	30	-	43	43	37	26	24	25	20	-	-
equiv.	6,0	5184	1440	3049	12	62	65	59	48	48	42	35	33	20	48	49	42	34	32	34	22	-	-
ø560	9,0	7776	2160	4574	27	63	64	57	48	50	43	33	31	20	49	48	40	34	34	35	20	-	-
0,24m ²	12,0	10368	2880	6099	48	69	65	58	50	56	49	34	31	21	55	49	41	36	40	41	22	-	-
800x400	0,8	928	258	546	0	54	54	50	29	31	21	33	30	-	40	38	33	-	-	-	20	-	-
	3,0	3456	960	2033	3	60	61	56	41	42	34	34	32	-	46	45	39	27	26	26	21	-	-
equiv.	6,0	6912	1920	4066	12	64	67	61	49	49	43	36	35	23	50	51	44	35	33	35	23	20	-
ø630	9,0	10368	2880	6099	27	66	66	59	49	51	45	34	32	23	52	50	42	35	35	37	21	-	-
0,32m ²	12,0	13824	3840	8132	48	71	68	60	51	57	50	35	33	24	57	52	43	37	41	42	23	-	-
1000x400	0,8	1160	322	683	0	56	56	51	30	31	22	34	31	-	42	40	34	-	-	-	21	-	-
	3,0	4320	1200	2541	3	62	63	57	42	43	35	35	33	19	48	47	40	28	27	27	22	-	-
equiv.	6,0	8640	2400	5082	12	66	69	62	50	50	44	37	36	26	52	53	45	36	34	36	24	21	-
ø710	9,0	12960	3600	7624	27	68	68	60	50	52	46	35	33	25	54	52	43	36	36	38	22	-	-
0,40m ²	12,0	17280	4800	10165	48	73	70	62	52	58	51	36	34	27	59	54	45	38	42	43	24	19	-
1000x500	0,8	1492	414	878	0	58	58	53	31	33	24	35	32	-	44	42	36	17	-	-	22	-	-
	3,0	5400	1500	3176	3	64	65	59	43	44	36	36	34	21	50	49	42	29	28	28	22	19	-
equiv.	6,0	10800	3000	6353	12	68	71	64	51	51	45	38	37	28	54	55	47	37	35	37	25	22	20
ø800	9,0	16200	4500	9529	27	69	70	62	51	53	47	36	34	27	55	54	45	37	37	39	23	19	19
0,50m ²	12,0	21600	6000	12706	48	75	72	63	53	59	52	37	35	29	61	56	46	39	43	44	24	20	21
800x800	0,8	1923	534	1131	0	60	61	55	33	34	25	36	34	-	46	45	38	19	18	-	23	-	-
	3,0	6912	1920	4066	3	66	68	60	44	45	37	37	35	24	52	52	43	30	29	29	23	20	-
equiv.	6,0	13824	3840	8132	12	70	73	66	52	52	46	39	38	30	56	57	49	38	36	38	26	23	22
ø900	9,0	20736	5760	12198	27	72	72	64	52	54	48	37	36	30	58	56	47	38	38	40	24	21	21
0,64m ²	12,0	27648	7680	16264	48	77	74	65	55	60	53	38	36	31	63	58	48	41	44	45	25	21	23

Pressure drop over unit : 200 Pa

Model	Air Vel.	Air Volume			Min. P _{st}	Discharge sound (Air borne sound)									Radiated sound (Break out sound)								
						Lw (dB/oct) re 10 ⁻¹² W						Quick Sel. L _p			Lw (dB/oct) re 10 ⁻¹² W						Quick Sel. L _p		
							125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	dB (A)	NR	NC	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	dB (A)	NR
250x200	0,8	145	40	85	0	52	55	54	37	35	25	37	33	-	38	39	37	23	19	-	-	-	-
	3,0	540	150	318	3	51	53	49	37	37	29	34	31	-	37	37	32	23	21	21	22	-	-
equiv.	6,0	1080	300	635	12	63	67	65	56	53	46	45	43	23	49	51	48	42	37	38	33	28	-
ø250	9,0	1620	450	953	27	61	65	61	54	52	45	41	39	21	47	49	44	40	36	37	29	24	-
0,05m ²	12,0	2160	600	1271	48	61	64	60	54	53	46	39	37	20	47	48	43	40	37	38	27	22	-
400x200	0,8	232	64	137	0	54	57	56	39	37	27	39	36	-	40	41	39	25	21	19	27	23	-
	3,0	864	240	508	3	53	55	51	39	39	31	34	31	-	39	39	34	25	23	23	22	-	-
equiv.	6,0	1728	480	1016	12	65	69	67	58	55	48	45	43	25	51	53	50	44	39	40	33	28	19
ø315	9,0	2592	720	1525	27	63	67	63	56	54	47	41	39	23	49	51	46	42	38	39	29	24	-
0,08m ²	12,0	3456	960	2033	48	63	66	62	56	55	48	39	37	23	49	50	45	42	39	40	27	22	-
400x300	0,8	365	101	215	0	55	57	56	39	37	27	40	36	-	41	41	39	25	21	19	27	23	-
	3,0	1296	360	762	3	55	57	53	41	40	33	34	31	-	41	41	36	27	24	25	22	-	-
equiv.	6,0	2592	720	1525	12	66	71	68	60	57	49	45	43	27	52	55	51	46	41	41	33	28	21
ø400	9,0	3888	1080	2287	27	65	69	65	58	55	49	41	39	25	51	53	48	44	39	41	29	24	-
0,12m ²	12,0	5184	1440	3049	48	65	68	64	58	57	50	39	37	25	51	52	47	44	41	42	27	22	-
400x400	0,8	464	129	273	0	57	60	59	42	40	30	42	39	-	43	44	42	28	24	22	30	26	-
	3,0	1728	480	1016	3	56	58	54	42	42	34	34	32	-	42	42	37	28	26	26	22	-	-
equiv.	6,0	3456	960	2033	12	68	72	70	61	58	51	45	43	29	54	56	53	47	42	43	33	28	22
ø450	9,0	5184	1440	3049	27	66	70	66	59	57	50	41	39	26	52	54	49	45	41	42	29	24	-
0,16m ²	12,0	6912	1920	4066	48	66	69	65	59	58	51	39	37	26	52	53	48	45	42	43	27	22	-
500x400	0,8	580	161	341	0	59	62	61	43	41	31	43	40	-	45	46	44	29	25	23	31	27	-
	3,0	2160	600	1271	3	58	60	56	43	43	35	35	33	-	44	44	39	29	27	27	22	-	-
equiv.	6,0	4320	1200	2541	12	70	74	71	62	59	52	46	44	31	56	58	54	48	43	44	34	29	24
ø500	9,0	6480	1800	3812	27	68	72	67	60	58	51	42	40	29	54	56	50	46	42	43	29	25	21
0,20m ²	12,0	8640	2400	5082	48	68	71	66	60	59	52	40	38	28	54	55	49	46	43	44	28	23	20
600x400	0,8	696	193	410	0	61	63	62	44	41	31	44	41	19	47	47	45	30	25	23	31	28	-
	3,0	2592	720	1525	3	60	62	57	44	44	36	36	34	-	46	46	40	30	28	28	23	-	-
equiv.	6,0	5184	1440	3049	12	71	75	72	63	60	52	47	45	33	57	59	55	49	44	44	34	30	25
ø560	9,0	7776	2160	4574	27	69	73	69	61	58	52	42	41	31	55	57	52	47	42	44	30	26	22
0,24m ²	12,0	10368	2880	6099	48	70	73	68	61	60	53	41	39	30	56	57	51	47	44	45	28	24	22
800x400	0,8	928	258	546	0	64	66	64	45	43	33	45	42	22	50	50	47	31	27	25	32	29	-
	3,0	3456	960	2033	3	62	64	59	45	45	37	37	35	20	48	48	42	31	29	29	24	20	-
equiv.	6,0	6912	1920	4066	12	74	78	74	64	61	54	48	46	36	60	62	57	50	45	46	35	31	28
ø630	9,0	10368	2880	6099	27	72	76	71	62	60	53	43	42	34	58	60	54	48	44	45	31	27	25
0,32m ²	12,0	13824	3840	8132	48	72	75	70	62	61	54	42	41	33	58	59	53	48	45	46	29	26	25
1000x400	0,8	1160	322	683	0	65	68	66	46	44	34	46	43	24	51	52	49	32	28	26	33	29	-
	3,0	4320	1200	2541	3	64	66	61	46	46	38	38	36	22	50	50	44	32	30	30	25	21	-
equiv.	6,0	8640	2400	5082	12	76	80	76	65	62	55	48	47	38	62	64	59	51	46	47	36	32	30
ø710	9,0	12960	3600	7624	27	74	78	72	63	61	54	44	43	36	60	62	55	49	45	46	32	28	28
0,40m ²	12,0	17280	4800	10165	48	74	77	71	63	62	55	43	42	35	60	61	54	49	46	47	30	27	27
1000x500	0,8	1492	414	878	0	67	69	66	46	44	34	46	43	25	53	53	49	32	28	26	33	28	-
	3,0	5400	1500	3176	3	66	68	62	47	47	39	39	37	25	52	52	45	33	31	31	26	22	-
equiv.	6,0	10800	3000	6353	12	78	82	78	66	63	56	49	49	41	64	66	61	52	47	48	37	33	32
ø800	9,0	16200	4500	9529	27	76	80	74	64	62	55	45	45	38	62	64	57	50	46	47	32	30	30
0,50m ²	12,0	21600	6000	12706	48	76	79	73	64	63	56	43	43	38	62	63	56	50	47	48	31	28	30
800x800	0,8	1923	534	1131	0	69	71	68	46	45	35	46	44	27	55	55	51	32	29	27	33	29	20
	3,0	6912	1920	4066	3	68	70	64	48	48	40	40	38	27	54	54	47	34	32	32	26	23	19
equiv.	6,0	13824	3840	8132	12	80	84	79	68	64	57	50	50	43	66	68	62	54	48	49	37	35	35
ø900	9,0	20736	5760	12198	27	78	82	76	65	63	56	46	46	41	64	66	59	51	47	48	33	31	32
0,64m ²	12,0	27648	7680	16264	48	78	81	74	65	64	57	44	44	40	64	65	57	51	48	49	31	29	32

Pressure drop over unit : 300 Pa

Model	Air Vel.	Air Volume			Min. P _{st}	Discharge sound (Air borne sound)									Radiated sound (Break out sound)								
						Lw (dB/oct) re 10 ⁻¹² W						Quick Sel. L _p			Lw (dB/oct) re 10 ⁻¹² W						Quick Sel. L _p		
							125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	dB (A)	NR	NC	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	dB (A)	NR
250x200	0,8	145	40	85	0	56	59	60	43	39	29	42	39	-	42	43	43	29	23	21	30	27	-
	3,0	540	150	318	3	54	57	54	42	41	33	38	35	-	40	41	37	28	25	25	26	20	-
equiv.	6,0	1080	300	635	12	64	68	67	59	55	47	47	44	25	50	52	50	45	39	39	35	30	19
ø250	9,0	1620	450	953	27	69	74	73	67	62	54	51	49	31	55	58	56	53	46	46	40	35	25
0,05m ²	12,0	2160	600	1271	48	69	74	72	68	62	56	50	47	32	55	58	55	54	46	48	39	33	25
400x200	0,8	232	64	137	0	58	61	62	45	41	31	44	41	-	44	45	45	31	25	23	32	29	-
	3,0	864	240	508	3	56	59	56	44	43	35	38	35	-	42	43	39	30	27	27	26	20	-
equiv.	6,0	1728	480	1016	12	66	71	69	61	57	49	47	45	27	52	55	52	47	41	41	35	30	21
ø315	9,0	2592	720	1525	27	71	76	75	69	64	57	51	49	34	57	60	58	55	48	49	40	35	28
0,08m ²	12,0	3456	960	2033	48	71	76	74	70	64	58	50	48	34	57	60	57	56	48	50	38	33	27
400x300	0,8	365	101	215	0	61	64	65	48	44	34	47	44	19	47	48	48	34	28	26	35	32	-
	3,0	1296	360	762	3	58	61	58	46	44	37	38	35	-	44	45	41	32	28	29	26	20	-
equiv.	6,0	2592	720	1525	12	68	72	71	63	58	51	47	45	29	54	56	54	49	42	43	35	30	23
ø400	9,0	3888	1080	2287	27	73	78	76	71	65	58	51	49	36	59	62	59	57	49	50	40	35	30
0,12m ²	12,0	5184	1440	3049	48	73	78	76	71	66	60	50	48	36	59	62	59	57	50	52	38	33	29
400x400	0,8	464	129	273	0	61	64	65	48	44	34	47	44	20	47	48	48	34	28	26	35	32	-
	3,0	1728	480	1016	3	59	62	59	47	46	38	38	35	-	45	46	42	33	30	30	26	20	-
equiv.	6,0	3456	960	2033	12	69	74	72	64	60	52	47	45	31	55	58	55	50	44	44	35	30	25
ø450	9,0	5184	1440	3049	27	74	79	78	72	67	60	51	49	37	60	63	61	58	51	52	40	35	31
0,16m ²	12,0	6912	1920	4066	48	74	79	77	73	67	61	50	48	37	60	63	60	59	51	53	38	33	30
500x400	0,8	580	161	341	0	63	66	66	49	45	35	48	45	22	49	50	49	35	29	27	36	33	-
	3,0	2160	600	1271	3	61	64	61	48	47	39	39	37	20	47	48	44	34	31	31	26	21	-
equiv.	6,0	4320	1200	2541	12	71	75	73	65	61	53	48	46	33	57	59	56	51	45	45	36	31	26
ø500	9,0	6480	1800	3812	27	76	81	79	73	68	61	52	50	40	62	65	62	59	52	53	40	35	33
0,20m ²	12,0	8640	2400	5082	48	76	81	79	74	68	62	50	49	40	62	65	62	60	52	54	39	34	32
600x400	0,8	696	193	410	0	65	67	68	50	46	36	49	46	24	51	51	51	36	30	28	36	33	20
	3,0	2592	720	1525	3	63	66	62	49	47	40	40	37	22	49	50	45	35	31	32	27	22	-
equiv.	6,0	5184	1440	3049	12	73	77	75	66	61	54	49	47	35	59	61	58	52	45	46	36	32	28
ø560	9,0	7776	2160	4574	27	77	83	80	74	68	61	52	51	42	63	67	63	60	52	53	41	36	34
0,24m ²	12,0	10368	2880	6099	48	77	83	80	74	69	63	51	50	42	63	67	63	60	53	55	39	35	33
800x400	0,8	928	258	546	0	67	70	70	51	47	37	50	47	27	53	54	53	37	31	29	37	34	22
	3,0	3456	960	2033	3	65	68	64	50	49	41	41	39	25	51	52	47	36	33	33	28	24	-
equiv.	6,0	6912	1920	4066	12	75	80	77	67	63	55	50	48	38	61	64	60	53	47	47	37	33	30
ø630	9,0	10368	2880	6099	27	80	85	82	75	70	63	53	52	45	66	69	65	61	54	55	41	37	36
0,32m ²	12,0	13824	3840	8132	48	80	85	82	76	70	64	52	51	45	66	69	65	62	54	56	40	36	36
1000x400	0,8	1160	322	683	0	69	72	71	52	48	38	51	48	29	55	56	54	38	32	30	38	35	24
	3,0	4320	1200	2541	3	67	70	65	51	50	42	42	40	27	53	54	48	37	34	34	29	25	19
equiv.	6,0	8640	2400	5082	12	77	81	78	68	64	56	50	49	40	63	65	61	54	48	48	38	34	32
ø710	9,0	12960	3600	7624	27	82	87	84	76	71	64	54	53	47	68	71	67	62	55	56	42	38	39
0,40m ²	12,0	17280	4800	10165	48	82	87	83	77	71	65	53	52	47	68	71	66	63	55	57	41	37	39
1000x500	0,8	1492	414	878	0	72	74	74	54	50	40	52	49	32	58	58	57	40	34	32	39	36	27
	3,0	5400	1500	3176	3	69	72	67	52	51	43	42	41	29	55	56	50	38	35	35	29	26	21
equiv.	6,0	10800	3000	6353	12	79	83	80	69	65	57	51	50	43	65	67	63	55	49	49	38	35	34
ø800	9,0	16200	4500	9529	27	84	89	86	77	72	64	55	55	49	70	73	69	63	56	56	43	39	41
0,50m ²	12,0	21600	6000	12706	48	84	89	85	78	72	66	54	53	49	70	73	68	64	56	58	41	38	41
800x800	0,8	1923	534	1131	0	74	77	76	55	51	41	53	51	35	60	61	59	41	35	33	40	37	29
	3,0	6912	1920	4066	3	71	74	69	53	52	44	43	42	32	57	58	52	39	36	36	30	27	23
equiv.	6,0	13824	3840	8132	12	81	86	81	70	66	58	52	52	45	67	70	64	56	50	50	39	37	37
ø900	9,0	20736	5760	12198	27	86	91	87	78	73	66	56	56	52	72	75	70	64	57	58	43	41	43
0,64m ²	12,0	27648	7680	16264	48	86	91	87	79	73	67	54	55	52	72	75	70	65	57	59	42	40	43



Specify as:

Example:

Supply and install, VAV terminal, single wall construction, from 1.2mm thick galvanized sheet steel, with 30mm duct flanges. Casing leakage rate to class II, VDI 3803/ DIN 24 194. The VAV units should have a low leakage, opposed blade damper with 100mm pitch and aluminium damper shaft 10x10mm with self lubricating Nylon bearings and averaging airflow sensor type FloX-act®.

For:

Air volume m³/h
 Unit size (w x h) X mm
 Max. pressure loss Pa
 Max. discharge SPL dB(A)
 Max. radiated SPL dB(A)
 Controller Belimo LMV-D3-MP (factory fitted and calibrated)
 Manufacturer AIR-CONCEPTS BV
 Type VSQ-SW-xxx-BE1-xxx-

Delivery / Controls :

- All controls fitted are pressure independent and factory calibrated.
- The unit can be supplied with analogue, DDC or pneumatic controls
- When units are ordered with controls "free-issued" by 3rd party, wiring diagrams, calibration instructions, calibration tools and mounting instructions must be provided free of charge.
- All controls will be mounted, as standard, on the right hand side of the unit when looking in the direction of airflow, unless otherwise requested.



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