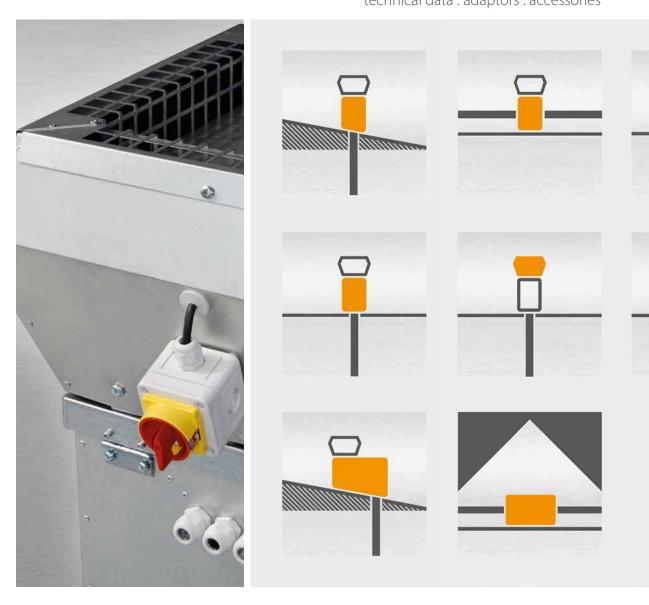
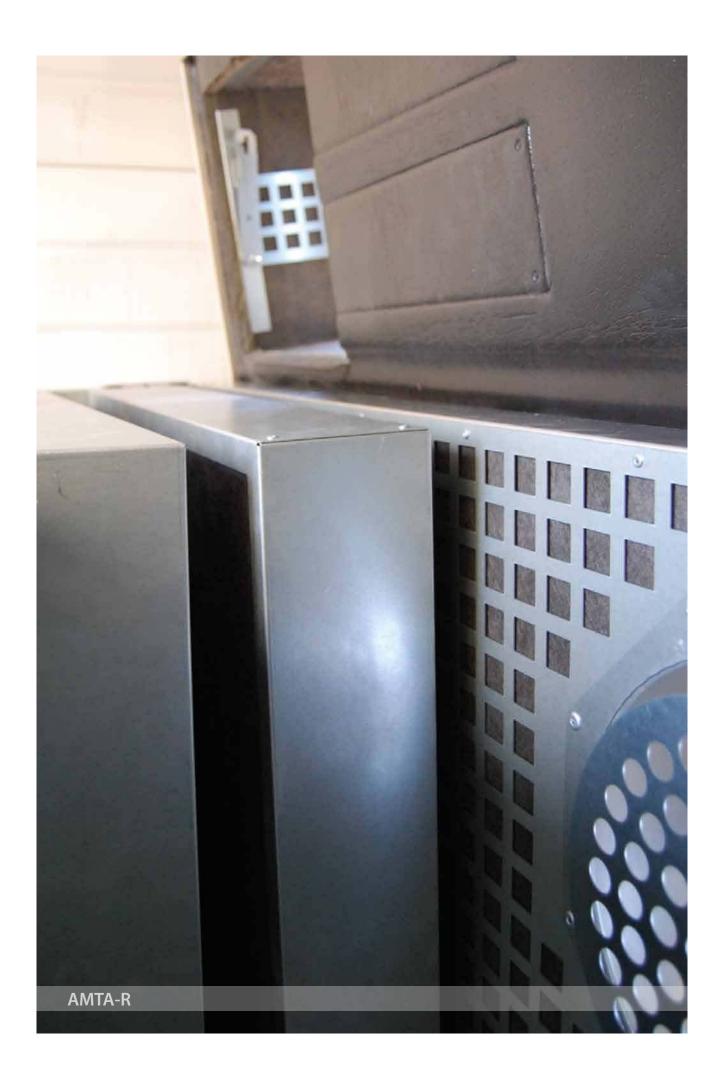
VCZ - VTZ technical data . adaptors . accessories





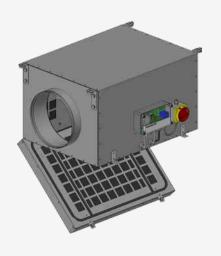


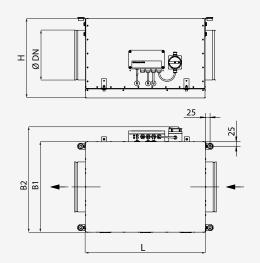
This document introduces the technical specifications of VCZ - VTZ fans and their main accessories, such as adaptors and the integrated pressure control device for example.

Additional information are available in the VCZ - VTZ commercial brochure and in the installation instructions.



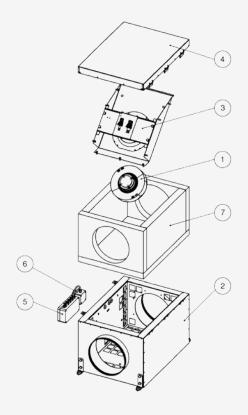
VCZ specifications	4
VTZ specifications	6
VTZ adaptors	8
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VTZ accessories	. 20
VCZ performance	. 22
VTZ performance	. 24
VT7 acoustics and power consumption	26





Callagair to form formatains		VCZ0	VCZ1	VCZ2	VCZ3
Collective fans for attics Standard code		VCZ0 VCZ1084	VCZ1	VCZ2 VCZ1086	VCZ3 VCZ1087
Airflow characteristics		VCZ1084	VCZ1085	VCZ 1086	VCZ 1087
	m³/h	E00	1 000	1 620	2 660
Max. airflow @ 100 Pa		500			
Max. pressure	Pa	300	300	300	300
Pressure control device					
Acoustics	4D(A)	70	60	70	7.5
Max. sound power level Lw	dB(A)	79	68	79	75
Electrics		220.1/4.6./50.11-	220.1/4.6. / 50.1.1-	220.1/4.6./.50.1.1-	220.1/1/2 / 50.11-
Power supply		230 VAC / 50 Hz	230 VAC / 50 Hz	230 VAC / 50 Hz	230 VAC / 50 Hz
Motor type) A /	EC	EC	EC	EC
Max. power	W	83	168	150	450
IP degrees of protection (motor)		IP 54	IP 54	IP 54	IP 54
Characteristics		_			_
Weight	kg	22	24	32	34
Colour		metal	metal	metal	metal
Material (envelope)		galvanised steel	galvanised steel	galvanised steel	galvanised steel
Dimensions (H - L - B1 - B2)	mm	350 - 600 - 455 - 528	400 - 600 - 455 - 528	550 - 600 - 545 - 618	550 - 600 - 545 - 618
Installation		_		_	
Connection	mm	Ø 200	Ø 250	Ø 355	Ø 400
Position		all position	ons possible (horizont	al, vertical, cover up an	d down)
Terrace installation		-	-	-	-
Roof installation		-	-	-	-
Attic installation (protected)					-
Maintenance					
Proximity switch					
Openable cover to access the propeller					=
Working					
Direct driven propeller					-
Max. speed	RPM	3 200	3 230	1 620	2 180

Composition



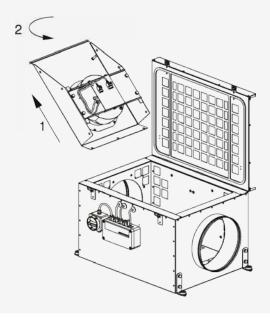
_	
1	Fan propeller
2	Casing
3	Motor support
4	Cover*
5	Pressure control device
6	Supply
7	Thermal and acoustic foam

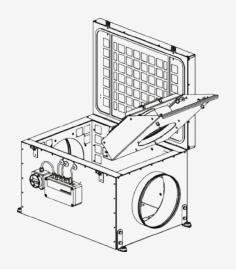
Change of airflow direction

As a standard on VCZ fans ** , the airflow direction can be changed, even when the fan is already installed.

Advantage: for a given piping (means fixed air flow direction) and also given installation position in a corner, it is always possible to install the fan with the control unit and main switch accessible, avoiding any situation where the control unit and the main switch would be hidden on the wall side.

Process to change the airflow direction:

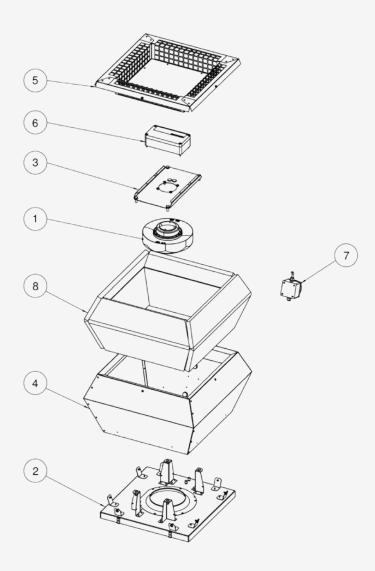




^{**} since November 2012

Collective fans for the terrace / roof		VTZ0	VTZ1	VTZ2	VTZ3	
Standard code		VTZ1075	VTZ1076	VTZ1077	VTZ1078	
Airflow characteristics						
Max. airflow @ 100 Pa	m³/h	500	1 000	1 750	2 750	
Max. pressure	Pa	300	300	300	300	
Pressure control device						
Acoustics						
Max. acoustic power Lw	dB(A)	72	72	66	81	
Max. sound pressure level Lp @ 3 m	dB(A)	58	55	49	63	
Electrics						
Power supply		230 VAC / 50 Hz				
Motor type		EC	EC	EC	EC	
Max. power	W	83	168	150	450	
IP degrees of protection (motor)		IP 54	IP 54	IP 54	IP 54	
Characteristics						
Weight	kg	10	14	21	23	
Colour		metal	metal	metal	metal	
Material (envelope)		galvanised steel	galvanised steel	galvanised steel	galvanised steel	
Dimensions (A - B - H)	mm	445 - 340 - 290	547 - 440 - 338	720 - 600 - 400	720 - 600 - 400	
Installation						
Connection	mm	336 x 336	436 x 436	595 x 595	595 x 595	
Terrace installation						
Roof installation						
Attic installation		-	-	-	-	
Maintenance						
Proximity switch						
Access to propeller and ducts by swinging						
Working						
Direct driven propeller						
Max. speed	RPM	3 200	3 230	1 520	2 180	

Composition



1	Fan propeller
2	Base
3	Motor support
4	Casing
5	Grille
6	Pressure control device
7	Supply
8	Thermal and acoustic foams

VIZ

Which adaptor to choose according to the configuration?



AVT

Standard vertical adaptor for the terrace (square connection)

> p. 10



AVT-R

Standard vertical adaptor for the terrace (round connection)

> p. 11



AVTA

Acoustic vertical adaptor for the terrace (square connection)

> p. 12



AVPA

Acoustic vertical adaptor for the roof (square connection)

> p. 13



The VTZ fans require the use of an adaptation part which allows the connection to ventilation duct(s) and their chimney.

Designed with a double-skin galvanised steel with reinforced thermal insulation, the adaptors include one or several silencers that significantly limit the transmission of fans noise to dwellings. Their quality of manufacture ensures to installations a noteworthy durability and longevity.

This document introduces the main adaptors and accessories offered by Aereco; any other specific geometrical requirement can be achieved with custom-built construction (contact us with plans).



AMTA-R

Acoustic multi round connexions adaptor for terrace



AVP-R

Standard vertical adaptor for the roof (round connection)

> p. 17

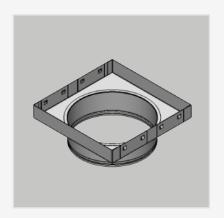


AVP

Standard vertical adaptor for the roof (square connection)

> p. 18

> p. 14



Accessories

> p. 20

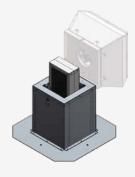


Standard vertical adaptor for the terrace (square connection)

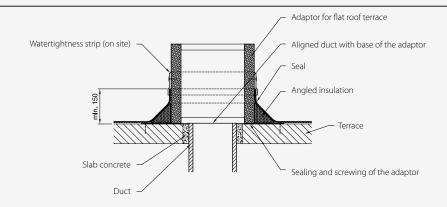
AVT

- Square duct connected from below
- Removable sound trap: acoustic attenuation of about 12 dB at 250 Hz
- Reinforced thermal insulation (50 mm double-skin + thermal foam)
- Integrated cable duct
- Swinging system
- Galvanised stee

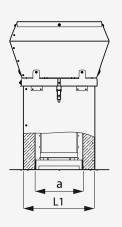
Performances: see p.26

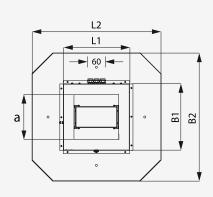


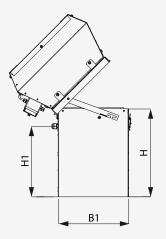
Installation



Model		AVT 0	AVT 1	AVT 23
Matching fan		VTZ0	VTZ1	VTZ2 / VTZ3
L1	mm	320	420	580
B1	mm	320	420	580
L2	mm	520	620	780
B2	mm	520	620	780
H*	mm	700	700	700
Н1	mm	620	620	620
a	mm	216	316	476
Weight	kg	16	23	40



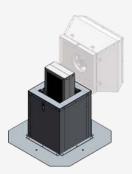




^{*}AVT adaptors also exist in H = 400 mm (on specific request).

AVT-R

Standard vertical adaptor for the terrace (round connection)

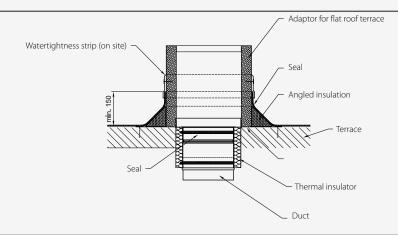


- Round duct connected from below
- Removable sound trap: acoustic attenuation of about 12 dB at 250 Hz
- Reinforced thermal insulation (50 mm double-skin + thermal foam)
- Integrated cable duct
- Swinging system
- Galvanised steel

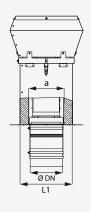
Performances: see p.26

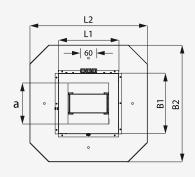


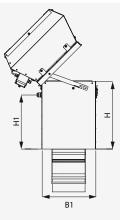
Installation



Model		AVT-R 0	AVT-R 1	AVT-R 2	AVT-R 3
Matching fan		VTZ0	VTZ1	VTZ2	VTZ3
L1	mm	320	420	580	580
B1	mm	320	420	580	580
L2	mm	520	620	780	780
B2	mm	520	620	780	780
H*	mm	700	700	700	700
H1	mm	620	620	620	620
a	mm	216	316	476	476
Ø DN	mm	200	250	355	400
L	mm	124	124	144	144
1	mm	80	80	100	100
Weight	kg	16	23	40	40







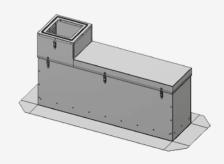
^{*}AVT-R adaptors also exist in H = 400 mm (on specific request).



Acoustic vertical adaptor for the terrace (square connection)

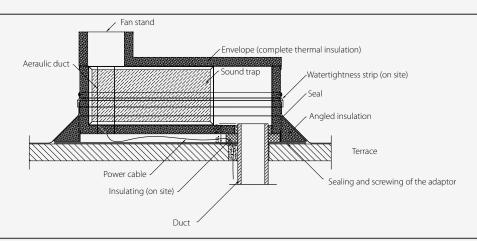
- Square duct connected from below
- Removable sound trap: acoustic attenuation of about 18 dB at 250 Hz
- Reinforced thermal insulation (50 mm double-skin + thermal foam)
- Integrated cable duc
- Swinging system
- Galvanised stee

Performances: see p.26

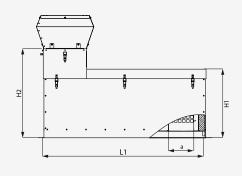


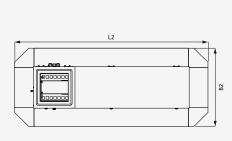
AVTA

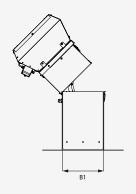
Installation



Model		AVTA 0	AVTA 1	AVTA 23
Matching fan		VTZ0	VTZ1	VTZ2 / VTZ3
L1	mm	1 200	1 200	1 200
L2	mm	1 500	1 500	1 500
H1	mm	500	500	500
H2	mm	650	650	650
B1	mm	320	420	580
B2	mm	620	720	880
a	mm	200	290	400
Weight	kg	29	36	48







AVPA

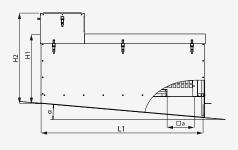
Acoustic vertical adaptor for the roof (square connection)

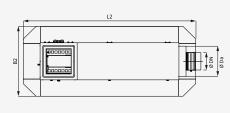


- Square duct connected from below
- Removable sound trap: acoustic attenuation of about 18 dB at 250 Hz
- Fits to several roof slopes from 5° to 15°(custom-built in factory)
- Reinforced thermal insulation (50 mm double-skin + thermal foam
- Integrated cable duct
- Swinging system
- Galvanised steel



Model		AVPA 0	AVPA 1	AVPA 23
Matching fan		VTZ0	VTZ1	VTZ2 / VTZ3
L1	mm	1 200	1 200	1 200
L2	mm	1 500	1 500	1 500
H1	mm	500	500	500
H2	mm	650	650	650
B1	mm	320	420	580
B2	mm	620	720	880
a	mm	200	290	450
α	۰	5 -15	5 - 15	5 - 15
Weight	kg	30	37	48





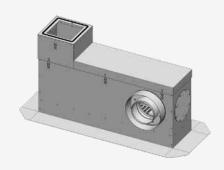




Acoustic multi round connexions adaptor for terrace

- Multiple round duct connections multiple possibilities
- Connects up to 4 ducts
- Removable sound trap: acoustic attenuation of about 18 dB at 250 Hz
- Reinforced thermal insulation (50 mm double-skin + thermal foam)
- Integrated cable duct
- Swinging systen
- Galvanised steel

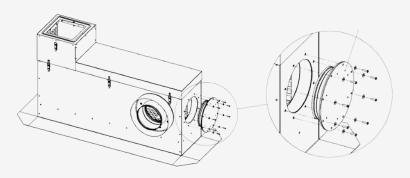
Performances: see p.26

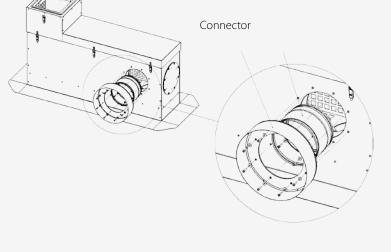


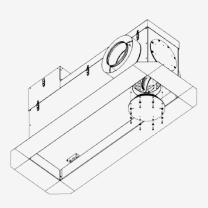
AMTA-R

Configuration

Example with a connection of a lateral duct.







Accessories

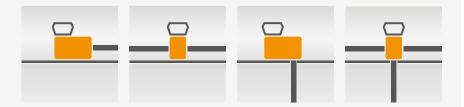
Stoppers (ref. STP)

Connectors

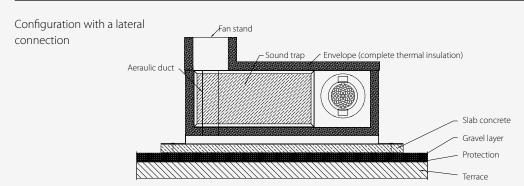
Model		CON200S	CON200B	CON250	CON355	CON400
ØDN	mm	200 (side)	200 (bottom)	250	355	400

AMTA-R is standardly delivered with 2 x stoppers and 2 x connectors (diameter to be precised at the order). Stoppers and connectors are fixed with Ø5mm metric threads (supplied).

round connectors: 3 possibilities to connect horizontal duct + 1 connection below (vertical duct).



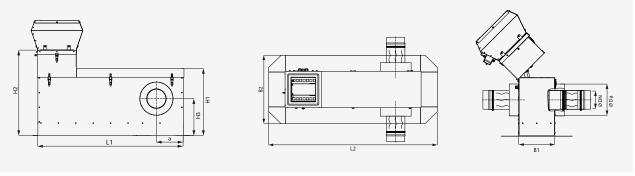
Installation



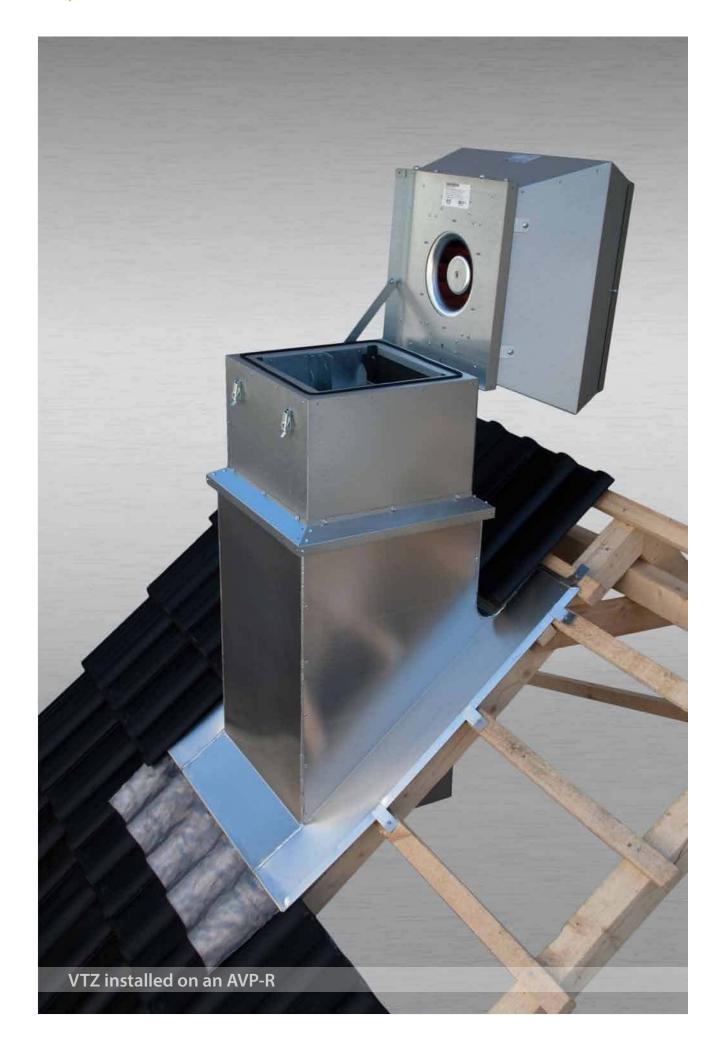
Dimensions

Model		AMTA-R 0	AMTA-R 1	AMTA-R 2	AMTA-R 3
Matching fan		VTZ0	VTZ1	VTZ2	VTZ3
L1	mm	1 200	1 200	1 200	1 200
L2	mm	1 500	1 500	1 500	1 500
H1	mm	555	605	755	755
H2	mm	705	755	905	905
H3	mm	310	350	410	410
B1	mm	320	420	580	580
B2	mm	620	720	880	880
ØDN	mm	200	250	355	400
ØDa	mm	310	360	465	465
a	mm	220	280	280	280
Weight	kg	29	36	48	48

Configuration with 2 lateral connections:



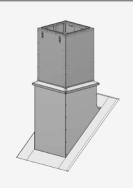
AMTA-R can also be built with a 5° or 15° angle (on specific request).



AVP-R

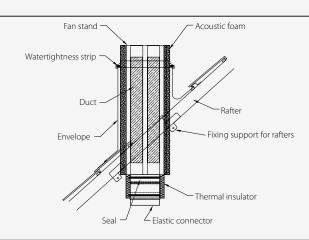
Standard vertical adaptor for the roof (round connection)

- Round duct connected from below
- Removable sound trap: acoustic attenuation of about 18 dB at 250 Hz
- Fits to every roof slopes (custom-built in factory)
- Reinforced thermal insulation (50 mm double-skin + thermal foam)
- Integrated cable duct
- Swinging system
- Galvanised steel





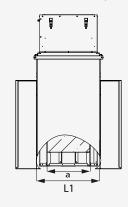
Installation

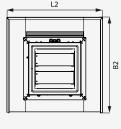


Dimensions

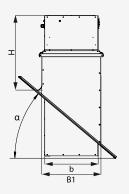
Model		AVP-R 0	AVP-R 1	AVP-R 2	AVP-R 3	
Matching fan		VTZ0	VTZ1	VTZ2	VTZ3	
L1	mm	363	463	623	623	
B1	mm	363	463	623	623	
L2	mm	670	770	930	930	
B2	mm	depending on roof slopes angles				
н	mm	408 880	480 880	480 880	480 880	
a	mm	215	315	475	475	
b	mm	320	420	580	580	
ØDN	mm	200	250	355	400	
L/I	mm	212 / 80	312 / 80	472 / 100	472 / 100	
Acoustic duct length	mm	1 100	1 100	1 100	1 100	
Weight	kg	35	44	58	58	

 α -angle is adapted to the configuration (custom-built).





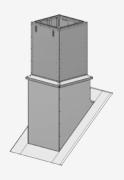






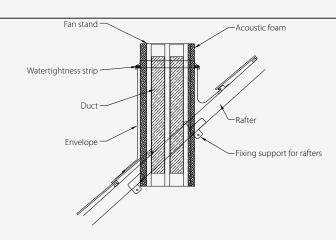
Standard vertical adaptor for the roof (square connection)

- Square duct connected from below
- Removable sound trap: acoustic attenuation of about 18 dB at 250 Hz
- Fits to every roof slopes (custom-built in factory
- Reinforced thermal insulation (50 mm double-skin + thermal foam)
- Integrated cable duc
- Swinging system
- Galvanised steel



AVP

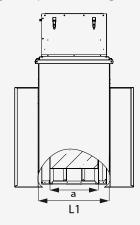
Installation

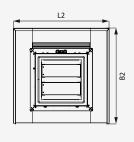


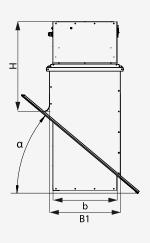
Dimensions

Model		AVP 0	AVP 1	AVP 23
Matching fan		VTZ0	VTZ1	VTZ2 / VTZ3
L1	mm	363	463	623
B1	mm	363	463	623
L2	mm	670	770	930
B2	mm	depending on roof slopes angles		
н	mm	408 880	480 880	480 880
a	mm	215	315	475
b	mm	320	420	580
ØDN	mm	200	250	355
Acoustic duct length	mm	1 100	1 100	1 100
Weight	kg	35	44	58

 $\alpha\text{-angle}$ is adapted to the configuration (custom-built).







Integrated pressure control device



- 2 configurable pressure levels (reduced and nominal mode)
- Pressure settings from 20 to 300 Pa
- 0-10 V input to control the fan

The VCZ and VTZ fans integrate a pressure control device that defines the working pressure. It is automatically regulated, optimizing the working of the system with demand controlled extract units.

Working and settings

The pressure control unit automatically regulates the rotation speed of the fan. Pressure level is defined by using jumpers. The measured pressure is displayed on a digital display in the unit.

0-10 V input

In addition an external device (0 - 10 V) can be connected to control the fan, working as an ON/OFF switch:

- .input = 0 V-> stop of the fan
- $0.3 \text{ V} \le \text{input} \le 10 \text{ V} -> \text{run of the fan at the set pres$ sure level (nominal or reduced mode)

Nominal and reduced pressure levels

As an option two pressure levels can be set (nominal and reduced level). One can switch between nominal and reduced pressure level by operating a potential free switch (closed = reduced pressure level). This feature can be issued par example to operate the system with reduced power and therefore reduced noise during the night, controlled by an external clock.

0-10 V output

The pressure control unit generates an output signal (0 - 10 V) to drive the fan or other external actors or to indicate the fans pitch on external displays or control units.

Fan speed output (from early 2013)

An output for fan speed information is integrated in the pressure control device, through a 4 to 20 mA signal.

Automatic control and diagnosis

The unit permanently checks pressure values read by the pressure gauge. If an inordinate difference between the recommended pressure and the real pressure is noticed, an error message is displayed on the screen (it requires from 1 to 5 minutes to detect an error).

LED indicators

- The available power supply (voltage) is displayed by a
- Operating the unit in the reduced pressure level mode is indicated by a yellow LED.
- Power supply default, pressure sensor error or significant deviations between the set pressure level and the measured pressure level are indicated by a red LED and additionally by a potential free output switch.

Nominal pressure range	20 - 300 Pa		
Reduced pressure level	0 Pa / or 90% to 30% of the set nominal pressure (10% steps)		
Nominal tension / voltage	230 VAC, 50 Hz ± 5%		
Nominal power	100 mA		
Internal protection	315 mA fuse		
Protection	IP 54		
Alarm relay	230 V AC, 2 A (free switch)		
Driving signal	0-10 VDC, 1 mA		
External control	> 0,3 VDC		

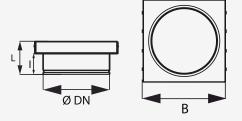
Connector for round ducts

RC

- Connecting round ducts to square bases of the adaptors
- Converts to "R"-version adaptors shown in this document
- Easy to install by clipping
- 4 sizes for VTZ models from 0 to 3
- Galvanised steel

Model		RC 0	RC 1	RC 2	RC 3
Matching	g fan	VTZ0	VTZ1	VTZ2	VTZ3
ØDN	mm	200	250	355	400
L	mm	124	124	144	144
В	mm	212	312	472	472
1	mm	80	80	100	100



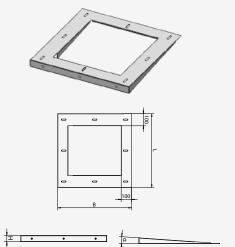


Light slope corrector

PC

- Allows installation of VTZ adaptors with square base on light slopes
- Exists in 3° and 4° versions
- Adjusts the slope with slots (compensation angle about + / 0,5°)
- 4 sizes for VT7 models from 0 to 3
- Galvanised steel

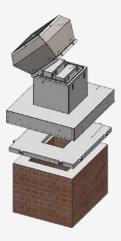
Model		PC0-3	PC0-4	PC1-3	PC1-4	PC23-3	PC23-4
Matching	j fan	VT	Z0	VT	Z1	VTZ2 /	VTZ3
α	0	3	4	3	4	3	4
L	mm	52	20	62	20	78	30
В	mm	52	20	62	20	78	30
h	mm	28	37	33	44	41	55



Chimney stack adaptor

CC

- Custom-built adaptor for chimney stack (specify plan when ordering)
- 4 sizes for VTZ models from 0 to 3
- Galvanised steel



Many additional accessories which allow to fit in different situations and configurations are available or can be custom-built on plan. Please contact us for your requests.

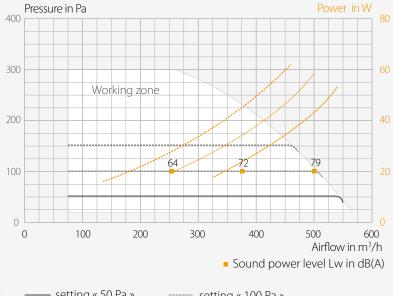






Each curve represents an example of the fan working speed with use of the pressure control device.

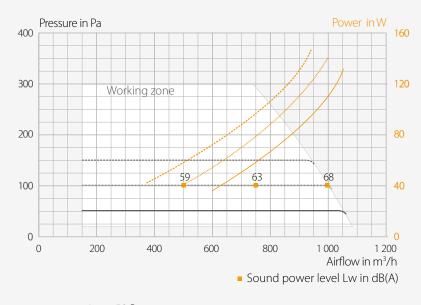
VCZ0



examples: —— setting « 50 Pa » setting « 100 Pa »

------ setting « 150 Pa » —— the limit of the working zone determines the maximum airflow / pressure available at the fan

VCZ1

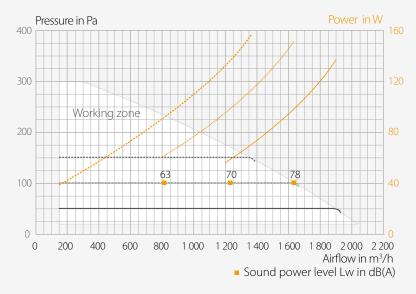


examples: —— setting « 50 Pa » setting « 100 Pa »

setting « 150 Pa » —— the limit of the working zone determines the maximum airflow / pressure available at the fan



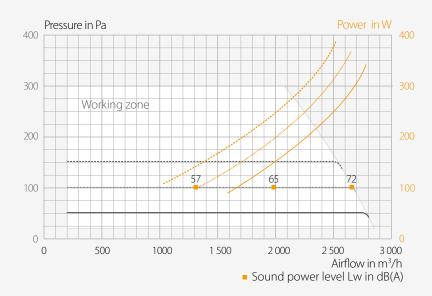
VCZ2



examples: —— setting « 50 Pa » setting « 100 Pa »

setting « 150 Pa » — the limit of the working zone determines the maximum airflow / pressure available at the fan

VCZ3



examples: —— setting « 50 Pa » setting « 100 Pa »

------ setting « 150 Pa » —— the limit of the working zone determines the maximum airflow / pressure available at the fan

Data measured by ILK Dresden

The following charts describe the fan alone without adaptation part



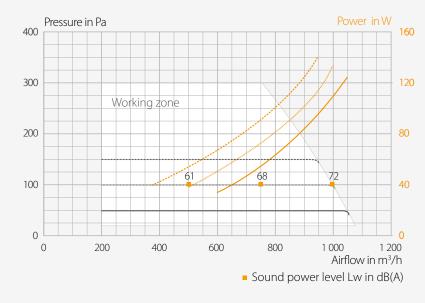
Each curve represents an example of the fan working speed with use of the pressure control device.

VTZ0



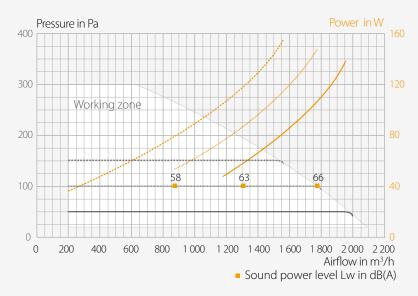
— setting « 50 Pa » examples: setting « 100 Pa » the limit of the working zone determines the maximum airflow / pressure available at the fan ----- setting « 150 Pa »

VTZ1



examples: – setting « 50 Pa » setting « 100 Pa » the limit of the working zone determines the maximum airflow / pressure ----- setting « 150 Pa » available at the fan

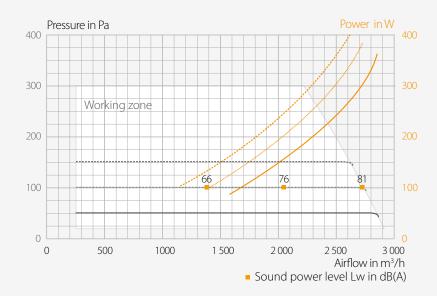
VTZ2



examples: —— setting « 50 Pa » setting « 100 Pa »

------ setting « 150 Pa » ———— the limit of the working zone determines the maximum airflow / pressure available at the fan

VT73



examples: —— setting « 50 Pa » setting « 100 Pa »

------ setting « 150 Pa »

the limit of the working zone determines the maximum airflow 7 pressure available at the fan

Data measured by ILK Dresden

Acoustic power







% of maximum airflow @ 100 Pa				
AVT H = 400 mm	Lw, A	dB (A)		
	Lp, A @ 3m	dB (A)		
	Power	W		
AVT H = 700 mm	Lw, A	dB (A)		
	Lp, A @ 3m	dB (A)		
	Power	W		
AVTA /	Lw, A	dB (A)		

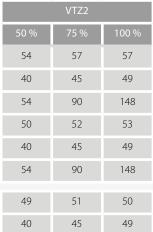
AVTA / AMTA-R	Lw, A	dB (A)
AIVITA-K	Lp, A @ 3m	dB (A)
9	Power	W

VTZ0				
50 %	75 %	100 %		
48	56	61		
43	51	58		
21	36	62		
46	53	58		
43	51	58		
21	36	62		
43	50	55		
43	51	58		
20	37	67		

VTZ1	
75 %	100 %
59	61
50	55
86	165
54	56
50	55
86	165
50	52
50	55
92	165
	75 % 59 50 86 54 50 86 50 50



% of maximum airflow @ 100 Pa			
AVT H = 400 mm	Lw, A	dB (A)	
	Lp, A @ 3m	dB (A)	
	Power	W	
AVT H = 700 mm	Lw, A	dB (A)	
	Lp, A @ 3m	dB (A)	
	Power	W	
AAVTA /	Lw, A	dB (A)	
AMTA-R	Lvv, A	GD (A)	
	Lp, A @ 3m	dB (A)	
	Power	W	



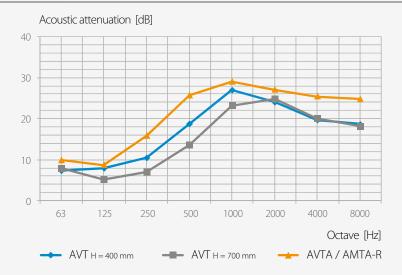
91

53

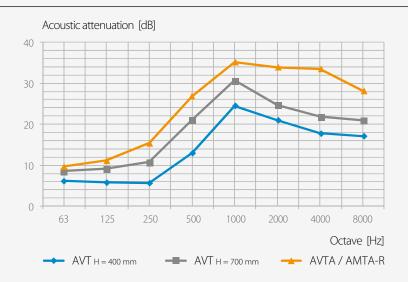
	VTZ3			
100 %	50 %	75 %	100 %	
57	56	65	69	
49	48	58	63	
148	100	214	405	
53	51	59	63	
49	48	58	63	
148	100	214	405	
50	48	55	59	
49	48	58	63	
153	105	225	430	

Acoustic attenuation

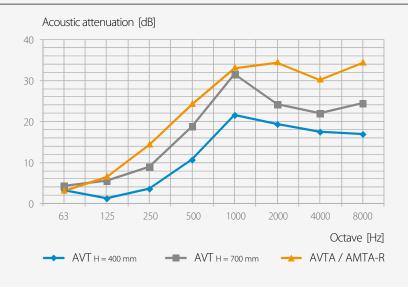
VTZ0



VTZ1



VTZ2 - VTZ3



Data measured by ILK Dresden





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