

RS

- > Circular VAV
- > Elliptical Damper
- > Single Wall

DESCRIPTION

Our compact VAV units are laser welded with continuous galvanised casing and contain a low noise air tight oval air damper with Diff-cross™ airflow averaging grid.

The unit is designed to stop leakage using unique elliptical damper blades with rubber seals and nylon bearings.

- ### STANDARDS
- Tight shut off to EN 1751 Class C
 - Spigots to EN 1506 or 13180, swaged to EN 1506:2006 & 2007
 - Damper blade rubber seal leakage exceeds EN 1751 Class 3

CONSTRUCTION

Single wall 1mm thick galvanised steel.

- Options:**
- Stainless steel
 - Epoxy coating
 - Polyester powder coating

MODELS

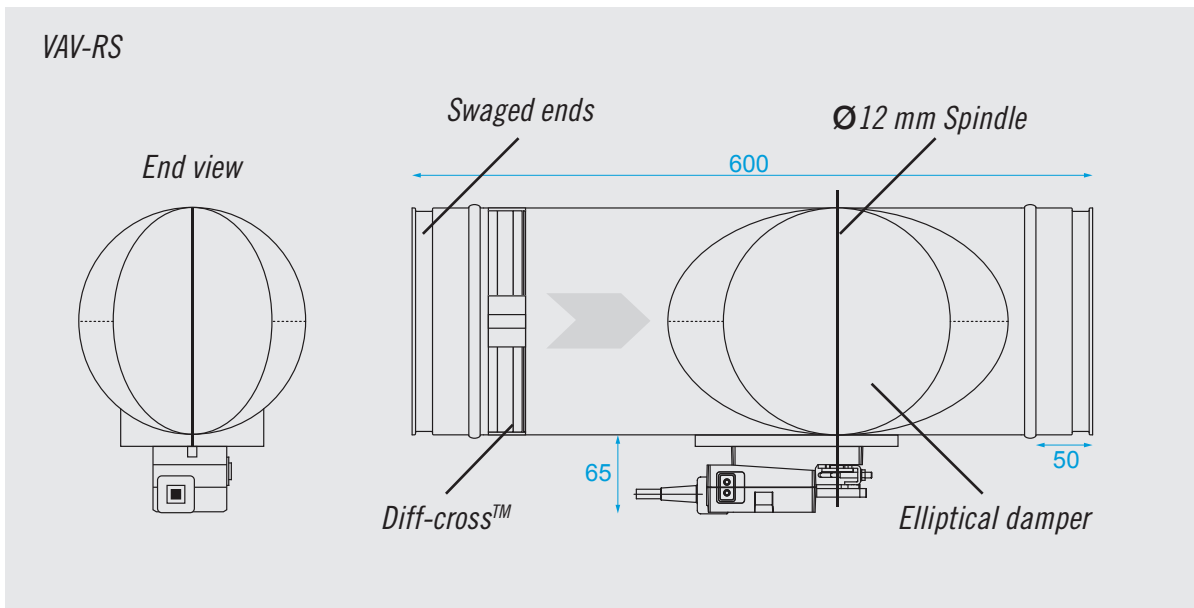
- VAV-RS:** Circular single wall
VAV-RD: Circular double wall
VAV-RAS: Circular attenuated supply
VAV-RAE: Circular attenuated extract

RADIATED SOUND

Radiated sound allowance according to VDI2081 is 5dB/oct for room attenuation and 4dB/oct for ceiling attenuation total 9dB/oct. Double wall radiated figures are based on duct work being acoustically lagged 3 m either side of the unit.

NOTES

Minimum velocity 1.0 m/s. Controller actuator included. All dimensions are given in mm. Requires 3x diameter straight approach for effective operation.



DIMENSIONAL DATA (mm)	
Ø Dia.	Length
100	600
125	600
160	600
200	600
250	600
315	600
355	600
400	600

DISCHARGE SOUND ALLOWANCE						
Calculated according to VDI 2081						
Hz	125	250	500	1K	2K	4K
dB	10	8	7	8	8	8

DISCHARGE SOUND ALLOWANCE										
Calculated according to VDI 2081										
l/s	139	278	417	556	695	834	1111	1389	1667	
dB/oct	0	3	5	6	7	8	9	10	11	

RS – SELECTION DATA

SUPPLY SELECTION DATA									
Ø 100 mm	Size			Discharge Sound			Radiated Sound		
	VEL m/s	VOL l/s	Min Δ Ps Pa	100 Pa	200 Pa	400 Pa	100 Pa	200 Pa	400 Pa
2	15	2	32	40	47	--	22	30	
4	29	10	36	42	49	--	24	31	
6	44	23	38	45	51	21	26	33	
8	59	41	41	47	53	23	29	35	

SUPPLY SELECTION DATA									
Ø 125 mm	Size			Discharge Sound			Radiated Sound		
	VEL m/s	VOL l/s	Min Δ Ps Pa	100 Pa	200 Pa	400 Pa	100 Pa	200 Pa	400 Pa
2	23	2	32	40	47	--	22	30	
4	47	10	37	43	50	--	25	33	
6	70	22	40	45	52	22	27	35	
8	93	39	43	48	55	26	30	37	

Ø 160 mm	Size			Discharge Sound			Radiated Sound		
	VEL m/s	VOL l/s	Min Δ Ps Pa	100 Pa	200 Pa	400 Pa	100 Pa	200 Pa	400 Pa
2	39	2	30	41	47	--	24	31	
4	78	10	36	43	51	--	26	34	
6	116	21	40	46	53	23	28	36	
8	155	37	43	49	56	26	31	39	

Ø 200 mm	Size			Discharge Sound			Radiated Sound		
	VEL m/s	VOL l/s	Min Δ Ps Pa	100 Pa	200 Pa	400 Pa	100 Pa	200 Pa	400 Pa
2	61	2	30	39	47	--	23	32	
4	122	9	37	44	51	20	28	35	
6	183	18	40	48	54	23	32	38	
8	244	33	43	51	56	27	35	41	

Ø 250 mm	Size			Discharge Sound			Radiated Sound		
	VEL m/s	VOL l/s	Min Δ Ps Pa	100 Pa	200 Pa	400 Pa	100 Pa	200 Pa	400 Pa
2	96	2	31	39	48	--	23	32	
4	192	9	38	46	52	21	29	36	
6	287	17	42	49	55	26	33	39	
8	383	29	46	52	58	30	35	42	

Ø 315 mm	Size			Discharge Sound			Radiated Sound		
	VEL m/s	VOL l/s	Min Δ Ps Pa	100 Pa	200 Pa	400 Pa	100 Pa	200 Pa	400 Pa
2	153	3	30	39	46	16	25	33	
4	306	14	38	47	51	23	32	37	
6	459	15	41	49	55	27	35	41	
8	611	26	45	52	58	30	38	44	

Ø 355 mm	Size			Discharge Sound			Radiated Sound		
	VEL m/s	VOL l/s	Min Δ Ps Pa	100 Pa	200 Pa	400 Pa	100 Pa	200 Pa	400 Pa
2	194	2	31	38	48	16	24	35	
4	389	10	39	46	52	24	32	38	
6	584	14	42	49	56	28	35	41	
8	778	25	47	52	58	32	38	43	

Ø 400 mm	Size			Discharge Sound			Radiated Sound		
	VEL m/s	VOL l/s	Min Δ Ps Pa	100 Pa	200 Pa	400 Pa	100 Pa	200 Pa	400 Pa
2	248	2	31	39	49	17	25	35	
4	495	10	39	47	53	25	32	39	
6	742	13	44	50	57	30	35	43	
8	990	23	48	53	59	34	39	45	

KEY INFORMATION

100 Pa 200 Pa 400 Pa System Static Pressure.
Discharge and Radiated Sound (LpA)

VEL = Velocity in (m/s)

VOL = Volume in (l/s)