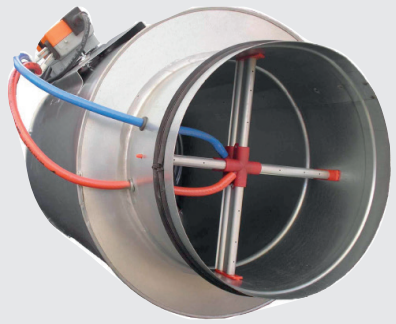
PRICE
ENGINEERED SOLUTIONS Ltd



RD

> Circular VAV
> Elliptical Damper
> Double 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

1mm thick galvanised steel wall.
50 mm acoustic lining (fire resistant to BS476; Part 7).

Options:

- Stainless steel
- Epoxy coating
- Polyester powder coating

NOTES

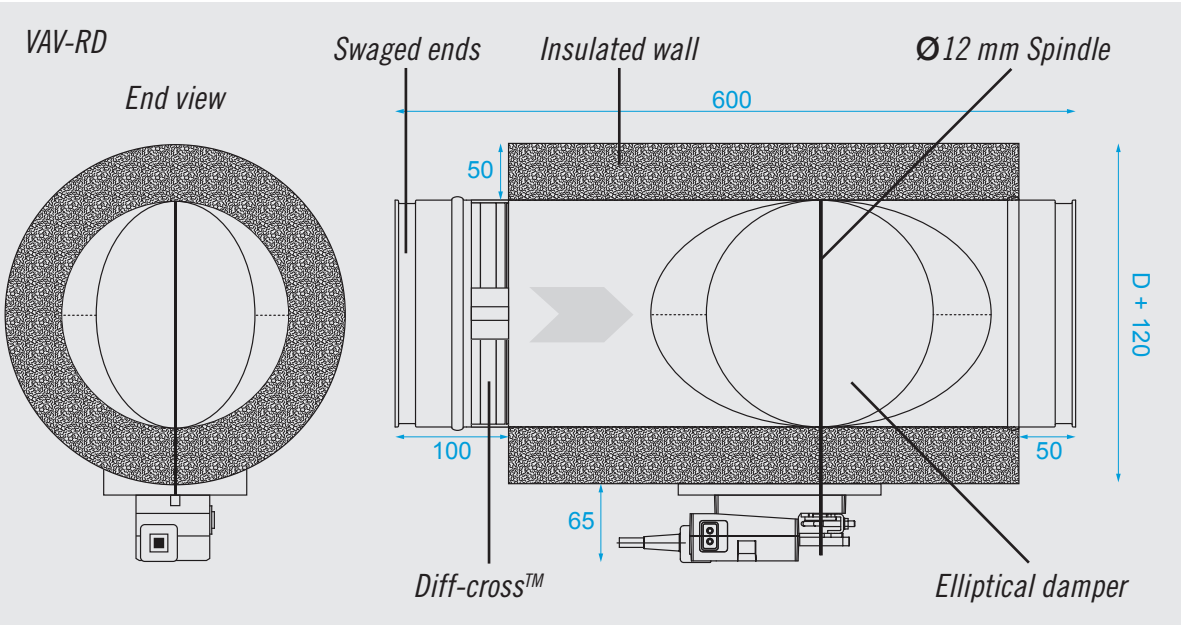
Minimum velocity 1.0 m/s. Controller actuator included. All dimensions are given in mm. Requires 3x diameter straight approach for effective operation.

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.*



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

RD – 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	--	--	--
4	29	10	36	42	49	--	--	--
6	44	23	38	45	51	--	--	21
8	59	41	41	47	53	--	--	24

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	--	--	--
4	47	10	37	43	50	--	--	20
6	70	22	40	45	52	--	--	23
8	93	39	43	48	55	--	--	26

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	--	--	--
4	78	10	36	43	51	--	--	23
6	116	21	40	46	53	--	--	25
8	155	37	43	49	56	--	21	28

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	--	--	21
4	122	9	37	44	51	--	--	25
6	183	18	40	48	54	--	22	27
8	244	33	43	51	56	--	24	30

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	--	--	22
4	192	9	38	46	52	--	21	27
6	287	17	42	49	55	--	24	31
8	383	29	46	52	58	21	27	33

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	6	14	22
4	306	14	38	47	51	14	22	26
6	459	15	41	49	55	17	24	31
8	611	26	45	52	58	20	28	33

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	7	14	24
4	389	10	39	46	52	15	23	28
6	584	14	42	49	56	19	25	32
8	778	25	47	52	58	23	29	34

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	8	15	26
4	495	10	39	47	53	16	23	30
6	742	13	44	50	57	21	26	34
8	990	23	48	53	59	25	30	36

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)