

LEGEND BAL405	
	BAL - Heat Recovery Unit
	F7 Filter & Box
	150mm Extract Diffuser
	150mm Supply Diffuser
	External Supply and Exhaust Grilles
	Double Branch Take-off
	200-150-150mm Y Branch
	150mm Acoustic R0.6 Flexible Duct
	150mm Insulated R0.6 Flexible Duct
	200mm Insulated R0.6 Flexible Duct
	200mm Nude Flexible Duct
	Manual Damper

PARTS LIST

Products required/recommended:

- 1x FAN6839, BAL405 – **Heat Recovery Ventilation System**
- 1x DCT2335, Additional Extract
- 1x DCT2334, Additional Supply
- 1x DCT0787, 150mm Manual dampers

[Some Components in the standard ventilation kits may be excess to requirements in this application]

Additional duct estimate:

- 3x DCT0634, 150mm x 6m acoustic insulated duct
- DCT0787, 150mm Manual dampers
- 2x DCT0723, 150mm duct connector

NOTES

- + This design is developed based on the information provided, and the layout is applicable to the specified SmartVent products only.
- + While the Diffuser locations may vary to suit the install, please ensure its <2m from the windows and >1m from walls & smoke detectors/any sensors.
- + Diffusers are adjustable to balance the airflow into the respective areas. For further airflow balancing, barrel dampers are available separately.
- + This layout should be used alongside the duct layout guidelines in the system installation instructions. It is recommended that ducting is taught and as straight as possible, avoiding sharp bends.
- + For the Outside Air intake Grill, ensure a minimum separation distance of >1m from the natural ventilation openings and >2m from any exhaust vents.
- + Please note that this design is not to scale.
- + Systems are plotted to the ideal conditions. The final runs and install are to be determined/confirmed by the installer on site, while the system functionality must be confirmed by the client.

TECHNICAL NOTES

- + Ensure to adjust the manual dampers to balance the airflow, as required. (DO NOT INSTALL IT CLOSED)
- + Ensure to increase the extract and/or supply fan speeds to 70-80% while commissioning. Refer the installation manual for the directions.
- + F7 filter is subjected to install based on commissioning for BAL systems.
- + Kitchen must have local exhaust.
- + **Wet area temperature must be always maintained above 10C for the system extracting from wet zones.**



Accessories

Acoustic Insulated Duct

150mm x 3m	DCT0633
150mm x 6m	DCT0634
200mm x 3m	DCT0635
200mm x 6m	DCT0636



Insulated Duct

150mm x 3m	DCT0583
150mm x 6m	DCT0584
200mm x 3m	DCT0585
200mm x 6m	DCT0586



Nude Duct

150mm x 3m	DCT0561
150mm x 6m	DCT0562
200mm x 3m	DCT0563
200mm x 6m	DCT0564



Duct Fasteners

Hanging Strap	DCT2299
Duct Tape 48mm x 5m	DCT0173
Duct Tape 48mm x 30m	DCT0807



Duct Joiners

150mm Metal	DCT0723
200mm Metal	DCT0724



Y Branch

150–150–150	DCT1233
200–150–150	DCT0379
200–200–200	DCT0376
250–200–200	DCT0471



Branch Take Off

200–200–150	DCT0877
250–250–150	DCT0880



Double Branch Take Off

200–150–150–150	DCT0889
250–200–150–150	DCT0891



Fixed Louvre Grilles – White Plastic

125mm	DCT0041
150mm	DCT0063
200mm	DCT0340



Ceiling Diffuser – Square White Plastic

150mm Flat	DCT2208
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Extract Diffuser – Round White Plastic

150mm	DCT2610
200mm	DCT2611



Noise Reduction Fan Housing

150/200mm Centrifugal	DCT2297
150/200mm Mixed Flow	DCT2298



Replacement Filters

G4 Sock	DCT1411
G4 Filter	DCT2221
F7 Filter/EU 7	DCT2093
F7 with Carbon Filter	DCT2277
HEPA with Carbon Filter	DCT2278



Replacement Filters (2 Pack)

G3 Filter for BAL225	DCT4493
G3 Filter for BAL405/405 PLUS	DCT4494
G3 Filter for SYN190/E/E2	DCT4495
G3 Filter for SYN1015/E/E2	DCT4496
G3 Filter for SYN2025/E/E2	DCT4497
G3 Filter for SYN3035/E/E2	DCT4498

Extension Leads

3m Fan Lead (4–wire)	FAN2190
3m Heater or Damper Lead (3–wire)	FAN2194



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PROJECT/ADDRESS:

DRAWING:

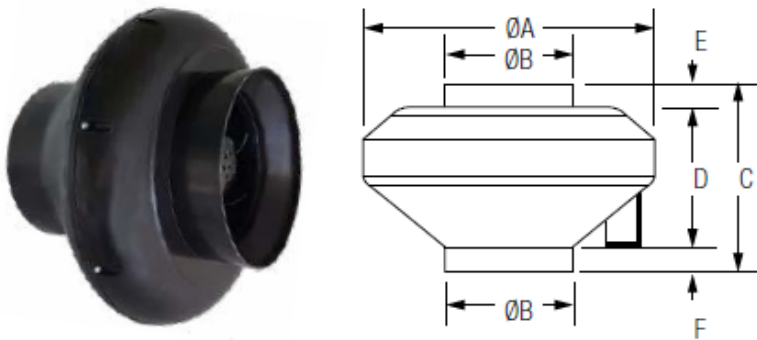
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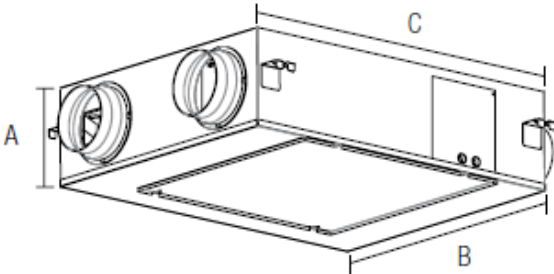
Specifications	SV01L+	SV01P3	SV02L+	SV02P3	SV02AD	SV04L+	SV04P3	SV04AD	SV06L+	SV06P3	SV06AD
House Size	Up to 100m ²		Up to 100m ²			Up to 280m ²			Up to 560m ²		
Max. Fans	2	4	2	4		2	4		2	4	
Fan Type	AC	EC	AC	EC		AC	EC		AC	EC	
Spigot Size	150mm		150mm			200mm			200mm		
Fan Speeds	3	Infinitely Variable	3	Infinitely Variable		3	Infinitely Variable		3	Infinitely Variable	
Max. Air Flow per Fan @ 0 Pa	152 l/s, 548m ³ /hr	175 l/s, 630m ³ /hr	152 l/s, 548m ³ /hr	175 l/s, 630m ³ /hr		282 l/s, 1014m ³ /hr	284 l/s, 1023m ³ /hr		282 l/s, 1014m ³ /hr	284 l/s, 1023m ³ /hr	
Max. Air Flow per Fan @ 150 Pa	98 l/s, 353m ³ /hr	132 l/s, 480m ³ /hr	98 l/s, 353m ³ /hr	132 l/s, 475m ³ /hr		211 l/s, 760m ³ /hr	206 l/s, 742m ³ /hr		211 l/s, 760m ³ /hr	206 l/s, 742m ³ /hr	
Max. Static Pressure per Fan	336 Pa	568 Pa	336 Pa	568 Pa		441 Pa	461 Pa		441 Pa	461 Pa	
Power Supply	220–240V AC 50 Hz		220–240V AC 50 Hz			220–240V AC 50 Hz			220–240V AC 50 Hz		
Input Power per Fan	57W		57W			105W	85W		105W	85W	
Current (A) per Fan	0.26A		0.26A			0.47A	0.7A		0.47A	0.7A	
Operating Temp	–25°C to 50°C		–25°C to 50°C			–25°C to 50°C			–25°C to 50°C		
Sound Level	47 dB(A)		47 dB(A)			53 dB(A)			53 dB(A)		



Fan Dimensions (mm)	A	B	C	D	E	F
Spigot Size – 150mm	340	150	280	170	50	60
Spigot Size – 200mm	340	200	280	170	50	60

Specifications	SYN1015AD	SYN2025AD	SYN3035AD	BAL225	BAL405
Fan Type	AC Centrifugal			EC Centrifugal	EC Centrifugal
Max. Fan Cores	2			–	
Spigot Size	150mm			125mm	150mm
Fan Speeds	3			10	
Max. Air Flow per Fan @ 0 Pa	77 l/s, 277m ³ /hr	97 l/s, 350m ³ /hr	130 l/s, 468m ³ /hr	76 l/s, 275m ³ /hr	136 l/s, 490m ³ /hr
Max. Air Flow per Fan @ 150 Pa	38 l/s, 137m ³ /hr	60 l/s, 216m ³ /hr	90 l/s, 324m ³ /hr	62 l/s, 223m ³ /hr	110 l/s, 395m ³ /hr
Max. Static Pressure per Fan	238 Pa	285 Pa	354 Pa	380 Pa	600 Pa
Power Supply	230–240V AC 50 Hz			220–240V AC 50 Hz	
Total Input Power	120W	178W	280W	128W	173W
Current (A)	0.46A	0.7A	1.1A	0.58A	0.79A
Operating Temp	–10°C to 40°C			–20°C to 45°C	
Sound Level	31.5 dB(A)	34 dB(A)	37 dB(A)	39 dB(A)	

Energy Recovery Core Dimensions (mm)	A	B	C
SYN1015AD	230	690	860
SYN2025AD	230	710	930
SYN3035AD	240	820	1070



Heat Recovery Core Dimensions (mm)	A	B	C
BAL225	285	650	550
BAL405	524	745	776

