Product specification

Colourfan® Twin Acoustic

1.1. General

A. Provide an extract fan unit to meet the performance and configuration as indicated in the schedule and detail drawings. The extract fan unit shall be tested in accordance with BS EN ISO 5801:2017 and shall be of the Colourfan type as manufactured by VES Andover Ltd a company accredited with BS EN ISO 9001:2008.

1.2. Unit construction

A. The unit shall be provided pre-assembled comprising of a rigidly constructed case, twin centrifugal backward curved fans with direct drive motors and rectangular spigots.

B. The unit shall be supplied pre-wired, factory fitted and tested controls package or pre-wired to an external isolator.

C. The unit shall be available in plantroom or weatherproof construction as indicated in the schedule and detail drawings.

D. Sizes 0-10 shall have rectangular duct spigots complete with a flange as indicated in the schedule and detail drawings.

E. Weatherproof units shall be available with horizontal inlet spigot as indicated in the schedule and detail drawings. Plantroom units shall be available with horizontal spigot as standard.

F. Weatherproof units shall be available with an outlet louvre or spigot as indicated in the schedule and detail drawings.

G. The unit casework shall incorporate high quality rubber gaskets seals on service doors and panels.

H. The unit shall be provided pre-assembled comprising of a rigidly constructed 50mm tubular aluminium case, double skinned galvanised sheet stell panels.

I. Access for maintenance shall be via hinged panels, allowing access for the cleaning or removal of internal components as indicated in the schedule and detail drawings.

J. Plantroom units shall be suitable for top or bottom access as indicated in the schedule and detail drawings. Weatherproof units shall be suitable for top access only via a removable weather lid.

K. Plantroom only shall incorporate mounting brackets compatible with drop-rod support systems.

L. 1. Sizes 0-3 weatherproof units shall be supplied as standard with mounting feet. Plantroom units shall be available with optional mounting feet as indicated in the schedule.

2. Sizes 4-10 weatherproof units shall be supplied as standard on a galvanised sheet steel channel base, the frame shall be 100mm high

M. Plantroom unit casework and spigots shall be supplied naturally finished in high quality galvanised steel as standard. Optional powdercoat colour as indicated in the schedule.

N. Weatherproof units shall be supplied powdercoated signal grey RAL7004 as standard. Alternative colour according to schedule.

O. The unit shall be designed to be secured to a suitable base, wall or ceiling, ensuring the use of correct fixings for the application and taking into account individual unit weight as indicated in the schedule and detail drawings.

1.3. Fans

A. The fan impellers shall be of PA6 glass-fibre reinforced, backward curved plastic blade construction with galvanised steel mounting plate.

B. The impellers shall be statically and dynamically balanced to G 2.5 / G 6.3 according to ISO1940 part 1.

C. The fan impellers shall be mated with aerodynamic bell inlet eyes for high efficiency and low noise generation.

D. The fan impellers are supplied as standard in natural uncoated finish.

1.4. Motors

A. The fans shall incorporate external rotor motors to insulation class F, IP44 environmental protection rating and shall be supplied with thermal protection cut-out as standard.

B. The integrated motor shall be supplied epoxy painted grey to RAL7032.

1.5. Operation environment

A. The unit shall be designed to operate with process air temperature -20°C go 40°C, and humidity up to 80%.

1.6. Controls

A. The unit shall be fitted as standard with EC fan speed control system to match fan type with max/min speed and 0-10 VDC BMS control. i.e. air quality or temperature sensor.

Ltd to suit or alternative loose CPF panel for installation by others. If no control panel is ordered the unit will be supplied with local isolator for unit mains connections.

C. Fitted controls shall be positioned as indicated in the schedule and detail drawings.

D. Controls shall be supplied with internally mounted circuit breakers, run, trip and panel live indication and lockable door isolation switch.

E. Control panels shall have individual circuit breakers where indicated in the schedule and detail drawings.

F. Fitted controls shall be supplied with a wired AHU mounted LCD controller. Optional room user interfaces are available.

G. Fitted controls shall be fully pre-wired to internal components.

H. Automatic fan change over on airflow failure.

I. Fully programmable digital controller with commissioning and adjustment for constant pressure, humidity and temperate applications.

J. Duty share with 12 hour run-time memory retention.

K. Start stop from remote volt free contacts.

L. 7 day time.

M. Volt free run and trip indicators.

N. Volt free enable, and 24 VDC fire alarm interface.

1.7. Ancillaries

A. The unit shall be fully compatible with a standard range of spigot mounted silencers. The silencers shall be suitable for direct mounting to the unit as indicated in the schedule.

B. The silencer shall be a rigidly constructed 50mm tubular aluminium case, double skinned galvanised sheet steel panels incorporating internal splitters lined with resin bonded mineral wool. Polythene and perforated metal sheet lining shall be available where indicated in the schedule.

C. The silencer casework shall be provided naturally finished in high quality galvanised stell as standard. Internal and external powdercoat available as indicated in the schedule. Colour to be in accordance with schedule.

D. The plantroom unit shall be fully compatible with loosespigot mounted dampers suitable for direct fitting to the unit.

E. Dampers shall incorporate an aluminium extruded channel frame and aluminium damper blades, mounted on nylon cogs with nylon bearing inserts. Blade operation shall be via a 12mm sq. spindle mounted to one side of the damper.

F. Dampers shall be of opposed blade type, incorporating gasket seals between blades and sealed angles on the frame to ensure maximum sealing efficiency when the blades are closed.

G. Dampers shall be suitable for use with optional 230 VAC or 24 VAC open/close actuator as supplied by VES Andover Ltd.

Download specification from www.ves.co.uk

Product code guide

Colourfan Twin Acoustic					Case construction				Options				Ancillaries examples	
Product	Unit size	Fan type	Fan size	Phase	Unit config	Main heating	Infill	Handling	Main filter	Control panel section	Inlet/ outlet	Colour	Name	Part number
CAT	00	5	1	-1	/PH	[null]	/EE	/RT	[null]	/ISC	/SP	[null]	Silencer	CATVA0000/1200/STD
	01	4	1	-1	/WH			/RB		/CPSC	/L	/R7004	Feet	NRGEX9000
	02	4	2	-1				/LT						
	03	4	3	-1				/LB						
	04	4	4	-1										
	05	4	5	-1										
	06	4	6	-1										
	07	4	7	-3										
	08	4	8	-3										
	09	4	9	-3										
	10	4	10	-3										

Product
CAT = Colourfan Extract Acoustic

Example codes
TWIN CAT 0051-1/PH/EE/LT/CPSC/L

Unit config
/PH=Plantroom horizontal inlet/ outlet
/WH=Weatherproof horizontal inlet/ outlet

Main heating
[null]=No heating

Infill
/EE=50mm

Handing
/RT=Right top
/RB=Right bottom
/LT=Left top
/LB=Left bottom

Main filter
[null]=No filters

Control panel section
/ISC=Isolator and speed control
/CSPC=Control panel and speed control

Inlet/Outlet
/SP=Square spigot
/L=Louvre

Colour
[null]=Galvanised
/R=RAL (colours)

Please note: Weatherproof units are supplied in R7004 powdercoating as standard