

AstroFan FFU



ASTROFAN FAN FILTER UNIT

Features and Benefits

- Available in 7 standard sizes
- Lightweight aluminium housing
- Low sound level
- Suitable for all ISO cleanroom classes
- Suitable for turbulent and laminar flow
- Suitable for a wide range of AAF HEPA and ULPA filters
- Available with EC RS-485, 0-10 Volt and MODBUS RTU control interface
- Many options available to meet customer requirements

Applications

The AAF AstroFan Filter Unit (FFU) is a self-contained ceiling fan filter module, designed for use in turbulent mixing and laminar airflow cleanroom areas. The unit is designed for utilization in the AAF 50 mm and 55 mm T-Bar ceiling grid, the AstroDry HD ceiling grid and compatible ceiling grids. The lightweight unit is easy to install. Typical applications include cleanrooms ISO.EN 14644-1, Class 5 (Class M 3.5 (100) to US Federal Standard 209E). Other applications include:

- Microelectronics
- Pharmaceuticals
- Aerospace
- Optics
- Medical Devices
- Food and Healthcare

The ideal solution to minimize your planned and unplanned cleanroom downtime costs by offering

- More flexibility
- More safety
- More convenience
- More cost savings
- LESS WORRY

The AstroFan FFU module is comprised of an aluminium housing (2 mm) containing a high performance encapsulated AAF optimized direct driven backward curved EC fan/motor combination and a replaceable AAF HEPA or ULPA filter.

The entire housing is easy to decontaminate and resistant to disinfectants. The housing seals and rests on the anodized aluminium extrusions of the AAF HEPA or ULPA filter. The 14 mm flat flange of the filter rests on the dry gasket, applied to the ceiling grid.

If the FFU is provided in the room side change option (RSC), then the housing seals and rests on an adapter frame holding the flush mounted AAF HEPA or ULPA filters for room side change (RSC) provision. The adapter frame rests on the dry gasket, applied to the ceiling grid. The adapter frame and filter have an anodized aluminium cell side extrusion.

Reduced Energy Consumption and Less Noise

AAF centrifugal fans with backward-curved blades are the new standard in ventilation and air conditioning. AAF fans include both noise minimisation and a further decrease in energy consumption. The optimised impeller with backward-curved blades is made of fibreglass-reinforced plastic, enabling an aerodynamically optimised shape that cuts the noise level in half and reduces power requirements significantly.

- Optimised low pressure centrifugal fans
- Perfectly matched components (controller/motor/impeller)
- High efficiency with improved ventilation technology and new EC motors
- Extremely quiet running with optimised impeller air flow
- Significantly reduced rotation noise
- Unmatched compactness
- High power density
- Rugged design and maintenance-free operation

AstroFan FFU Filter Units

Accessories and Sensors

- Cooling coils
- Prefilters
- Various diffusers
- Filter integrated LED FFU status indicator
- Velocity sensors
- Cleanroom pressure control
- Pressure switch

Filter Options

The AstroFan FFU is equipped with an AstroCel II HEPA filter in Class H14 as standard. All filters are factory scanned to the European Standard EN1822:2009 to ensure leak-free operation. Additionally, the FFU's are suitable for our high performing MEGAcel ePTFE filters for maximum filter strength, superior resistance against desinfectants and lowest pressure drop.

Specification Data

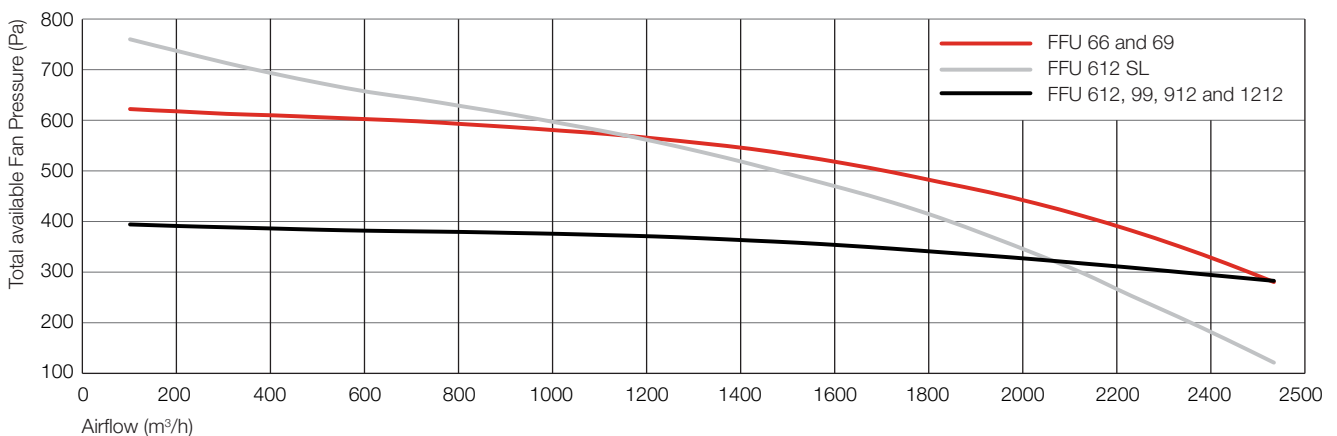
Unit Name	FFU 66	FFU 69	FFU 612	FFU 612 Slim line	FFU 99	FFU 912	FFU 1212
Dimensions and Weight (excl. Filter)							
Actual Dimensions L x W (mm)	562 x 562	562 x 862	562 x 1162	562 x 1162	862 x 862	862 x 1162	1162 x 1162
Height (mm)*	350	350	350	200	350	350	350
Weight (kg)	17	20	26	24	27	30	35
Power Supply, Motor Rating and Protection							
Power Supply	208-277 VAC – 1 Phase – 50/60Hz						
Nominal Motor Rating	0,40 kW 1,8 A 2.100 RPM	0,40 kW 1,8 A 2.100 RPM	0,32 kW 1,5 A 1.300 RPM	0,36 kW 1,2 A 2.300 RPM	0,32 kW 1,5 A 1.300 RPM	0,32 kW 1,5 A 1.300 RPM	0,32 kW 1,5 A 1.300 RPM
Protection	IP 20, insulation class 'B', humidity class F0						
Performance data							
Nominal Air Volume at 0,45 m/s (m ³ /h)	520	800	1.080	1.080	1.225	1.640	2.220
Total available Fan Pressure at 0,45 m/s (Pa)	600	590	370	580	365	345	300
Sound Pressure Level at 0,45 m/s (dB(A))**	49	45	44	55	46	47	55
Pre-filter and pre-filter frame***	optional						

* Handles increased FFU height with 42 mm

** SPL at 1,5 m, single unit, clean filter in free field conditions, AstroCel II A98C9S2R4 with 72 mm media pack

*** Prefilter and prefilter frame increases FFU height with 105 mm

Airflow versus Total available Fan Pressure



AstroFan FFU 612

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