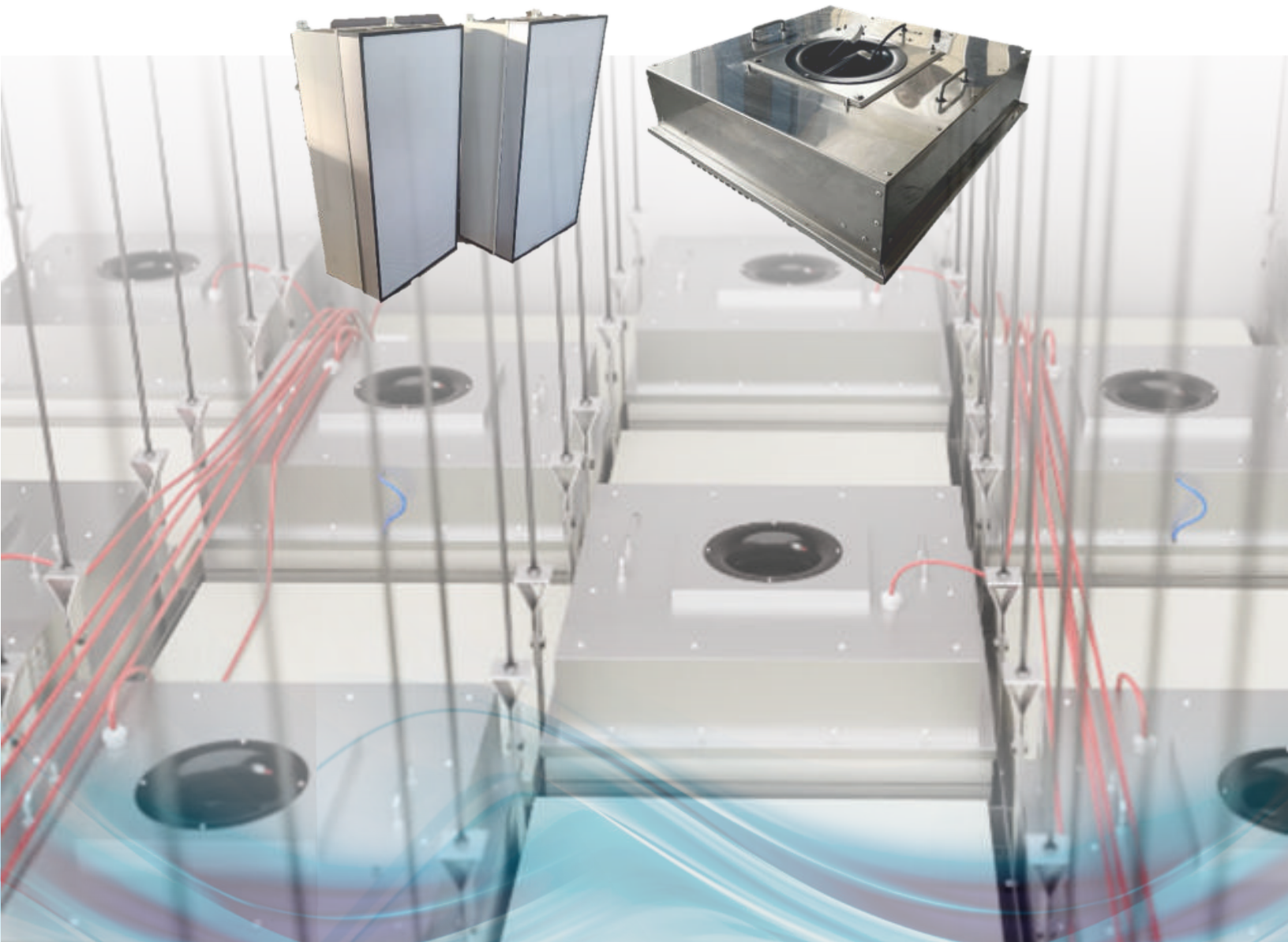
DYNA

Integrity | Intelligence | Innovation

FAN FILTER UNIT (FFU)



FAN FILTER UNIT **(FFU)**

HIGH ENERGY EFFICIENCY

- Industry leading energy efficiency means lower operating costs, potentially saving thousands of dollars in electricity each year.

HIGH AIRFLOW CAPACITY

- Lower costs result from the use of fewer units to fulfil airflow demand.
- Active filter area is maximized with the Top Side Replaceable filter, with 1200mm x 600mm units able to achieve up to 1000 CFM

VERSATILE MOTOR PROGRAMS

- Factory programmed EC/AC motors means no-hassle start-up and commissioning.
- **Constant Torque Program** The motor operates at a constant torque, and is unaffected by change in upstream static pressure. This option should be used with an upstream, pressure-independent terminal unit.
- **Constant Flow Program –** The motor adjusts to maintain airflow rate as the filter loads over time. This option is ideal for non-ducted applications

TOP SIDE REPLACEABLE FILTER

- Maximizes active filter face area to allow for the highest` airflow capacity.
- Less pressure drop and energy consumption compared to Room Side Removable filter.
- Filter replacement requires removal of the unit from the ceiling.

ROOM-SIDE REMOVABLE FILTER

- Quickly and easily remove the filter from the Room-side with the Room Side Removable option.
- Integrated knife edge and gel track filters allow for tool free installation and replacement.
- The Room Side Removable filter option also features a room-side removable motor/blower assembly.

TYPICAL APPLICATIONS

Fan Filter Units are crucial components in critical applications such as healthcare, pharmaceutical compounding and micro-electronics production. Since the high efficiency motor is engineered to overcome the static pressure of the integrated filter, FFUs are perfect for retrofit situations where the air handler cannot generate the appropriate static pressure.

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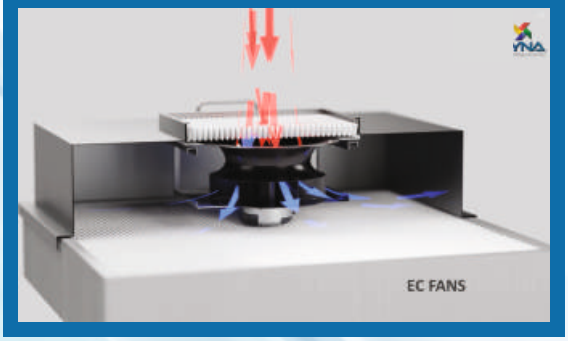


FAN FILTER UNIT **(FFU)**

CONSTRUCTION

Application

- Supply Controlled Air

Size

- 600mm X 600mm
- 900mm X 600mm
- 1200mm X 600mm
- 1200mm X 1200mm

Material

- Aluminum
- Stainless steel
- GI Power coated

Filter

- Room-side removable
- Top side replaceable

Options

- Face-mounted LED indicator
- Integrated LED lighting
- Room-side accessible controls
- Modbus TCP/IP
- PLC Control

BACNET FLOW CONTROLLER

- The BACnet Flow Controller (BFC) integrates seamlessly with BACnet building networks to provide unmatched control and visibility of fan filter unit operation. These native BACnet controllers, when used in conjunction with EC motor technology, allow for the modification and/or monitoring of parameters like as CFM output and filter status.

Key Features

- Native BACnet MS/TP
- Backlit LCD display
- Several network points for control, monitoring or trending:
- CFM output
- Motor RPM and status
- Motor hours
- Filter hours
- Alarm signal of HEPA filter Choking condition
- FFU ON-OFF status
- FFU Fan speed control
- FFU Local / Remote Status
- FFU Remote Start/stop command
- Diff. Pressure Filter Status
- FFU Trip status

WEBSERVER INTEGRATION

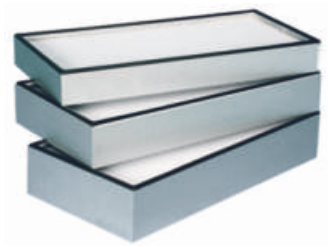
FAN FILTER UNIT **(FFU)**

HEPA

HEPA (H14) and ULPA (U15, U16) filter panels with ultra low outgassing components especially made for turbulent and laminar airflow applications in microelectronic industry. Optimized with glass fiber media for low pressure drop and long life time.

- Developed for microelectronic cleanrooms and equipment
- Ideal for nanoparticle filtration (100 nm)
- No organic outgassing from test aerosol
- Ultra-low outgassing (dopant free) components
- 100% filter scan tested according to ISO29463
- Individual efficiency test reports
- High dust holding capacity
- Manufactured and packed in a controlled environment

HEPA



EC Fans

Experience the Future of Air Filtration with Our Innovative EC Fans!

Discover simplicity and ingenuity in one package with our new EC fans featuring unique outlet guide systems adorned with spiral geometries. Meticulously designed for seamless interaction, our EC fans elevate energy efficiency to unprecedented levels, surpassing the savings offered by conventional EC filter fan units.

Key Features:

- New technology: Aerodynamic air guides optimise flow conditions
- Excellent energy savings: Over 60% efficiency thanks to the interaction of the best components
- Optimised performance range: Considerable increase to pressure for the same maximum speed and power requirements
- Considerably quieter: Noise levels up to 4 dB lower
- Air distribution: Maintained high level of uniformity

EC FANS

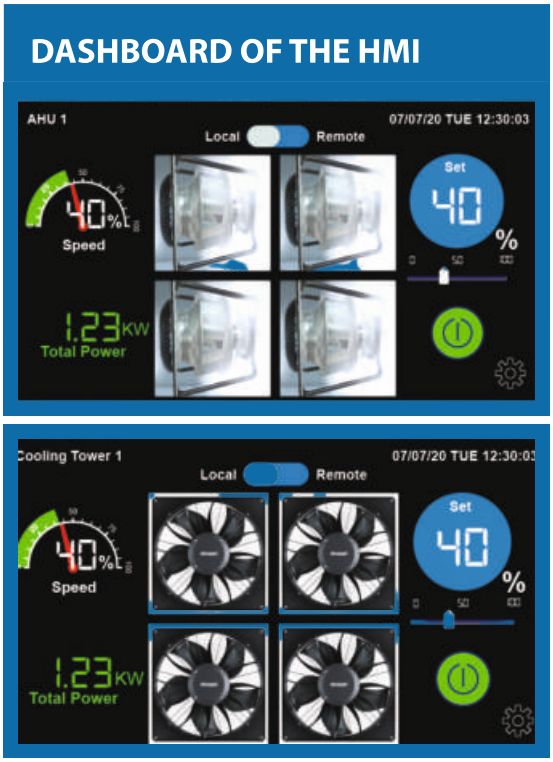
TÜV SÜD UL Solutions

FAN FILTER UNIT **(FFU)**

EC fan Control

Intelligate Touch for intuitive EC fan control

- The HMI intelligate Touch works seamlessly with Electronically Commutated (EC) fans.
- The dashboard of the HMI has an intuitive layout, which makes monitoring and controlling fans a breeze.
- Also, end-users can customize various aspects, such as the fan type or the unit of measurement that is shown.
- It helps to monitor and control EC fans with convenience and ease.



Features at a glance

- High resolution 7" touch display unprecedented levels, surpassing the savings offered by conventional EC filter fan units.
- USB, RS-485 & TCP connectivity
- Modbus RTU, TCP & BACnet protocol
- Built-in power isolator
- Low power consumption
- Real-time fan speed control & monitor
- Silent cooling system

FAN FILTER UNIT **(FFU)**

PERFORMANCE DATA

PRODUCT NAME	DYNA MAKE - FAN FILTER UNIT WITH EC FAN		DYNA MAKE - FAN FILTER UNIT WITH EC FAN	
	TOP SIDE LOADING		BOTTOM SIDE LOADING	
PRODUCT MODEL	FFU-ET42	FFU-ET44	FFU-EB42	FFU-EB44
DIMENSION (mm)	1225 x 615 X 375	1225 x 1225 x 375	1225 x 615 X 375	1225 x 1225 x 375
FILTER DIMENSION (mm)	1220 x 610	1220 x 1220	1220 x 610	1220 x 1220
AIR VOLUME (CFM)	700	1300	700	1300
NOISE (dbA)	55	55	55	55
AIR PRESSURE (Pa)	150	150	150	150
POWER (Watts)	100	100	90	90
WEIGHT (kg)	28	50	28	50
MATERIAL	GALVANISED STEEL / ALLUMINIUM / SS 304		GALVANISED STEEL / ALLUMINIUM / SS 304	
SUPPLY POWER	AC 230V/ 50 Hz		AC 230V/ 50 Hz	
CONTROL SYSTEM	MANUAL / AUTO		MANUAL / AUTO	
FILTER EFFICIENCY	H13 / H14		H13 / H14	
PRE FILTER (Optional)	G3 / G4		G3 / G4	
WORK STATUS	POWER INDICATOR, WORK INDICATOR, ERROR INDICATOR		POWER INDICATOR, WORK INDICATOR, ERROR INDICATOR	
CONNECTION TYPE	TERMINAL BLOCK / 3 PIN TOP		TERMINAL BLOCK / 3 PIN TOP	
OVERLOAD PROTECTION	OVERLOAD PROTECTION OF MOTOR AND CONTROLLER		OVERLOAD PROTECTION OF MOTOR AND CONTROLLER	
MONITOR/COMMUNICATION METHOD	MODBUS / SCADA		MODBUS / SCADA	

FAN FILTER UNIT **(FFU)**

DIMENSIONAL DATA

Fan Filter Unit (FFU)

Unit Size (feet)	Air Flow (CFM)	A (mm)	B (mm)	C (mm)	Pre-Filter Size (WxDxH) (mm)	HEPA/ULPA Size (WxDxH) (mm)	Watts at 90 FPM	Wight in Kg
2x2	500	620	620	355	450x450x70	610x610x70	190	20
3x2	750	925	620	355	610x450x70	915x610x70	216	29
4x2	1000	1230	620	355	915x450x70	1220x610x70	280	42
4x4	1500	1230	1230	355	915x915x70	1220x1220x70	385	50

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