

# FFA100 FAMILY

Fan Filter Assembly 100 CFM (170 m<sup>3</sup>/h)



## SYSTEM CONFIGURATION

The FFA100 is a modular CBRN fan filter assembly / air filtration system. Designed for mobile applications, the FFA100 can be configured as a push-thru or pull-thru filtration device with a quick filter replacement retention system. Mounted horizontally or vertically on one of three different mounting surfaces, the FFA100 is capable of providing up to 100 CFM (170 m<sup>3</sup>/h) of filtered air into a protected enclosure, or Toxic Free Area (TFA). The FFA100 creates positive pressure up to 4 IWG (1000Pa) and its modular design offers the choice of a low-efficiency or high-efficiency inertial particle separator (IPS).

- **Push-Thru** filtration systems push air through the filter into the TFA. The filter is in positive pressure. This configuration requires the system to be installed outside the TFA. Filter replacement is handled from the vehicle exterior. The high efficiency particle separator does not require a scavenger fan with push-thru filtration system configurations.
- **Pull-Thru** filtration systems pull air through the filter into the TFA. The filter is in negative pressure. This configuration requires the system to be installed inside the TFA. Filter replacement is handled from the vehicle interior, or through special exterior access provisions through the vehicle armor. The high efficiency particle separator requires the addition of a scavenger fan.

## FAN UNIT

The FFA100 is equipped with a high pressure, high performance variable speed, 28VDC, brushless fan unit. When connected to any of the HDT System Control Modules (SCM), the fan airflow output is controlled to maintain constant pressure in the TFA, and does not require a pressure relief valve (PRV). The fan may be mounted directly to the filter cradle, or ducted to the filter cradle for better space utilization.

## FILTER

The FFA100 employs a US M48A1 Gas and Particulate filter canister, designed specifically for use in combat vehicles. It is widely used by the US armed forces in vehicles such as the Abrams MBT, Bradley fighting vehicle, MRAP and HIMARS. A ventilation filter (HEPA only) and a dummy filter (empty but simulating a real filter airflow restriction) is also available.



## SYSTEM CONTROL MODULES

A simplified System Control Module (SCM) is available to monitor TFA internal pressure and to vary fan output to maintain constant TFA pressure. The SCM displays low pressure conditions or initiates audible / visual alarms in a dangerous low pressure condition.

A more sophisticated SCM is also available. It continuously displays TFA pressure and filter pressure loss and can connect with two Joint Chemical Agent Detectors (JCAD) or LCD3.3 detectors. Upon threat detection the SCM will turn on the FFA100 automatically. A manual override is also provided.



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Fan Filter Assembly 100 CFM (170 m<sup>3</sup>/h)



Ordering information	FFA100-124	FFA100-224	FFA100-124HE	FFA100-224HE
HDT part number				
NSN	N/A	N/A	N/A	N/A
GSA				
<b>Type</b>	Push-Through configuration	Pull-Through configuration	Push-Through with high-efficiency dust separator	Pull-Through with high-efficiency dust separator <sup>1</sup>
<b>Rated air flow</b>	100 CFM 170 m <sup>3</sup> /h	100 CFM 170 m <sup>3</sup> /h	100 CFM 170 m <sup>3</sup> /h	100 CFM 170 m <sup>3</sup> /h
<b>Pressure performance</b>				
TFA <sup>2</sup>	Up to 4 IWG Up to 1000 Pa	Up to 4 IWG Up to 1000 Pa	Up to 4 IWG Up to 1000 Pa	Up to 4 IWG Up to 1000 Pa
Fan	21 IWG 5250 Pa	21 IWG 5250 Pa	21 IWG 5250 Pa	21 IWG 5250 Pa
<b>Physical characteristics</b>				
L x W x D	24.39" x 14.5" x 14.97" 62 x 36.8 x 38 cm	24.69" x 14.5" x 14.97" 62.7 x 36.8 x 38 cm	30.64" x 14.5" x 14.97" 77.8 x 36.8 x 38 cm	28.91" x 14.5" x 14.97" 73.4 x 36.8 x 38 cm
Weight	65 lbs 29.5 kg	65 lbs 29.5 kg	70 lbs 31.8 kg	70 lbs 31.8 kg
<b>Electrical</b>				
Voltage	19 – 32 VDC	19 – 32 VDC	19 – 32 VDC	19 – 32 VDC
Current	22A	22A	22A	22A

<sup>1</sup> Requires a separate scavenger fan.

<sup>2</sup> Set by SCM or PRV.

Products, product specifications and data are subject to change without notice to improve reliability, function, and/or design. Please contact Customer Service at 800.969.8527 for the most up-to-date product information.



FFA100-124  
mounted  
horizontally



FFA100-224  
mounted  
horizontally



FFA100-124HE  
mounted  
horizontally



FFA100-224HE  
mounted  
horizontally



FFA100-224  
mounted verti-  
cally



FFA100-124HE  
mounted verti-  
cally

## HDT Expeditionary Systems, Inc.

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This item and the technical data directly related to this item are subject to the Export Administration Regulations (EAR), 15 CFR 730-744. Filters are sold separately and may require prior authorization in order to be exported from the United States.

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