Euramco Safety

Portable Ventilators for Hazardous Locations Rated:

Applicable Models:
UB20xx EFi150xx
EFi75xx EFi120xx

Ex II 2 G Ex d e IIB T6 Gb
CE0539 Demko 09 ATEX 0926969X
IECEx UL 13.0062X

CE

The Portable Ventilators described here in are intended for use in Explosive Atmospheres in accordance with the limitations of the rating. It is the user's responsibility to determine the suitability of equipment for the intended purpose.

TECHNICAL INFORMATION & INSTALLATION INSTRUCTIONS

UB20xx

EFi75xx

EFi120xx/
EFi150xx

WARNING!
These units are intended for Explosive Atmospheres use in accordance with ATEX Directive 94/9/EC. It is the user's responsibility to determine the suitability of this equipment for the intended purpose.

CAUTION! THESE FANS ARE NOT INTENDED FOR USE IN MINES SUSCEPTIBLE TO FIREDAMP.

Explosion Proof Fan Rated: II 2 G Ex d e IIB T6 Gb
Euramco Safety hereby declares that the equipment listed in this manual conforms to the relevant Essential Health and Safety Requirements of the European Machinery Directive and standards listed below.

Council of European Communities Directives:
89/392/EEC as amended by 91/368/EEC and 93/44/EEC.
Also EC Directives 93/68/EECI, 94/9/EC, and 76/117/EEC.

Standards to which conformity is declared: See Declaration of Conformity (last page).

Category, Group and Zone Classifications
* According to ATEX Directive (94/9/EC)

II 2 G Ex d e IIB T6 Gb
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Special Conditions for Safe Use
The letter "X" at the end of the ATEX, IECEx, and INMETRO certificate numbers indicates a special condition for safe use. This special condition of safe use refers to the fact that the Hazardous Locations Fans referenced herein are supplied without an AC power plug termination for the power cable.

The un-terminated power cable, (flying leads), must be terminated by the end user in the field according to installation standards, IEC/EN/ABNT NBR IEC 60079-14, to a suitable safe power location, or under one apparatus or enclosure in one of the protection concepts for use in hazardous locations.

T6 Temperature Classification
***According to IEC 60079-0:2007 / EN60079-0:2009 / ABNT NBR IEC60079-0:2008. 85°C T6

To ensure that there is no risk of ignition due to hot surfaces, the equipment is classified with regard to the maximum surface temperature of any part of the equipment while in operation based on the ambient temperature of 40°C. Equipment must be selected with a suitable temperature classification for the gases and vapors present where the equipment is to be installed. Ensure that the maximum surface temperature of any parts of the equipment are below the ignition temperature of the explosive atmosphere concerned.

This equipment is intended for use in ambient temperatures ranging between -20°C and +40°C.

Classification: Ex de
* According to IEC 60079-1:2007 / EN60079-1:2007 / ABNT NBR IEC60079-1:2009 Flame Proof Enclosures with Increased Safety Components.

Description of Apparatus
The Portable Ventilator assemblies represented herein consist of an Approved Explosion Proof Electric Motor Rated: **Ex d IIB** by Bluffton Motor Works (Formerly Franklin Electric) as listed below and are covered by Certificate No. DEMKO 03 ATEX134885U.

		EURAMCO SAFETY VENTILATOR		BLUFFTON MOTOR
MODEL #	INPUT VOLTAGE	EURAMCO PART #	IMPELLER	BLUFFTON PART #
UB20XX	115VAC, 60Hz	EF7002XX	PLASTIC	1933007415
UB20XX	240VAC, 50/60Hz	EF8002XX	PLASTIC	1933007419
EFi75XX	115/230VAC, 50/60Hz	EB7201XX EB7201XX-230	METAL	1133007405
EFi120XX	110/240VAC, 50Hz	EA8120XX EA8120XX-110	PLASTIC	1223007401
EFi150XX	115/230VAC, 50/60Hz	EG8200XX EG8200XX-230	PLASTIC	1133007417

The Flame Proof Electric Motor
Power Requirements: See chart above.

Ambient Temperature Range: $-20°C<T_{amb}< +40°C$

Ingress Protection to IEC 529: IP55
Marked: ("Bluffton Motor Works") Electric Motor for Hazardous Locations.
Flame Proof Enclosure: Ex d IIB

The electric motor consists of one flameproof enclosure, which contains less than 6% magnesium by weight. The on/off switch is housed within the motor enclosure, and is operated by a shaft, extending out from the rear end bell to a lever.The lever is accessible via an attached push rod.

Motor connections are made through a non-detachable cable, secured to the motor with an approved Flame Proof cable gland from the company Hawke, Model 501/421/0/M20 and complies with International Standards EN 60079-0:2009, EN 60079-1:2007, EN 60079-7:2007.

The electric motor drives an aluminum or plastic fan blade containing less than 6% Magnesium by weight which is enclosed in a plastic, statically conductive housing with a conductivity rating of <1 giga ohmes. Connection to the motor is facilitated by a Terminal Block mounted in an Increased Safety/Flame Proof Enclosure rated II 2 G Ex e II T6, from the company Rose Industries, Part No. 05080806, and covered under the certificate No. PTB 00ATEX1063. This box was designed to conform to International Standards EN 60079-0:2009, EN 60079-1:2007, EN 60079-7:2007, EN 61241-02006, EN 61241-1:2004. The enclosure features stainless steel grounding lugs, with a high heat silicon gasket.

The Flame Proof enclosure has attached, approved, explosion proof cable glands **Rated:** II GD Ex e II.

Type: Polyamide Ex metric conforms to International Standards EN 60079-0:2009, EN 60079-1:2007, EN 60079-7:2007, EN 61241-02006, EN 61241-1:2004.
Material: Polyamide **Color:** Black/Blue
Grommet: NBR **Protection classification:** IP68
Temperature range: -4°F to +212°F **Approval:** PTB 00 ATEX 1063

The power cables are not terminated with power plugs. See Special Conditions for safe use.

The fans are assembled with both Inlet and Outlet Safety Guards that conform to the safety standards to prevent danger zones being reached by upper limbs in the BS EN 294:1992 Guards Standard.

INSTALLATION & START-UP
During the installation and start-up of the Euramco Safety blowers in areas where there is a risk of explosion:

- Design of the electrical installations must be in accordance with EN/IEC/ABNT NBR IEC 60079-14.
- Ensure power source is providing an electrical ground.
- Blowers must be integrated into a system in a way to support accessibility for regular maintenance.
- Perform careful inspection of each blower system to ensure ducting is securely attached to blower. All components of the blower system are made of electrically conductive material. It is very important to properly and securely attach each piece to maintain a ground path.
- Ensure set-up, installation, operation, and maintenance are performed only by properly trained personnel.
- Operation after a faulty installation or maintenance shall be considered as unintended use.

Before STARTING the FIRST Time
DO not start operation if there are signs of shipping damage to blade, guards, or housing. STOP, call your dealer. USE Ex-Rated receptacles for this equipment. IT IS NOT recommended to use extension cords for high amperage load. (See power rating label on limit.)

OPERATION
Always ensure the switch is in the OFF position prior to connecting a ventilator to a power source.

Stop the blower if mechanical noise, vibration, or other abnormal conditions occur. Any noise other than turbine-type pitch is not normal.

To protect the user, this unit is equipped with thermal overload protection with automatic reset. Motor will restart without warning after protector trips. If motor thermal protector trips, disconnect unit and determine cause.

Conductive RAMFAN Portable Ventilators are made with statically conductive materials. When ducting is required to remote the ventilator from the point of application in a potentially explosive environment, the available biodegradable cleaning solutions. Do not use solvents containing hydrocarbons (i.e. MEK, Acetone).

Clean fan periodically to remove accumulated dust or debris.

There are no user serviceable parts. Contact factory for replacement part applicability.

Do not change make or model number of motor for any reason!

MAINTENANCE
Disconnect power before disassembly or cleaning. Never immerse or directly spray motor with liquids. Clean ventilator with commercially

CAUTIONS
Do not move ventilator while fan is in operation. Use good lifting practices when moving ventilator to prevent bodily injury.

Blower should be operated and repaired by trained personnel only.

Do not operate if there is any physical damage to cord, plug or receptacle.

Keep fingers and hands clear of fan blade. Keep fan guard securely in place. Do not operate with damaged or missing fan guards.

Use properly grounded power receptacle in potentially explosive atmospheres, and for operation safety. Ensure continuity to the earth.

Fatal electrical shock may result if motor frame and adjacent metal are not grounded in compliance with electrical code.

Keep area clear of rock and debris.

Keep away from children.

WARRANTY
Positive Pressure Ventilators and Turbo Ventilators, excluding engine and wear items, are warranted for one year from date of original purchase, to be free of defects in material and workmanship. Electric motors are warranted by their respective manufacturers. Wear items include feet, fasteners, handles, wheels, and paint, and are not covered under the warranty. Fan impellers and shrouds are warranted to be free of defects in material and workmanship for five years. Components exposed to salt water service are warranted for a period of one year from date of original purchase.*

Portable Blowers:
Portable Blowers are warranted against defects in material and workmanship for a period of one year from the date of original purchase. Duct is not warranted due to its intended use.

***Authorization for warranty repairs must be obtained from the factory. There are no other warranties expressed or implied.**

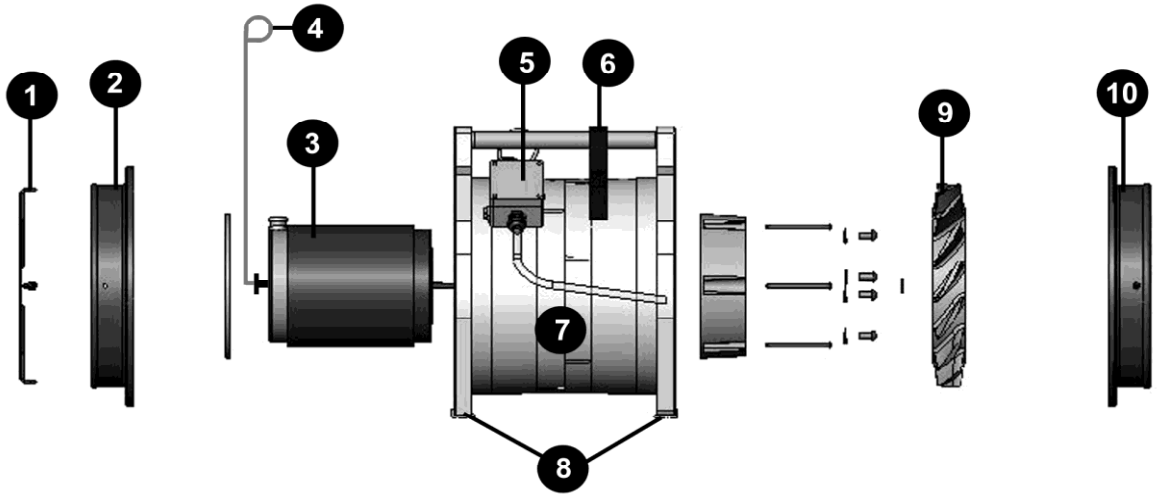
Euramco Safety has a number of optional antistatic / conductive airflow duct accessories designed explicitly for use with our Hazardous Location Fans to support various end user applications as identified in the list below.

ACCESSORY LIST

FAN Model	Accessory PN	Description
UB20xx		
	EF7004CS	Quick-Couple Canister with 8" x 15' Duct, Antistatic
	EF7004CL/DS	Quick-Couple Canister with 8" x 5' & 8" x 15' Duct, Antistatic
	EF7004CL/DL	Quick-Couple Canister with 8" x 5' & 8" x 25' Duct, Antistatic
	EF7004CL	Quick-Couple Canister with 8" x 25' Duct, Antistatic
	FDT-0815CBB	Duct, 8" x 15', Antistatic with Belt and Belt
	FDT-0825CBB	Duct, 8" x 25', Antistatic with Belt and Belt
	EF0304X	Duct Adapter, 8" / 20cm
	DC8	Duct Coupler, 8", Stainless Steel
	MED189XX	Manhole Entry Device, Conductive
	MED90XX	MED 90˚ Elbow, Conductive
	MED5100XX	Manhole Entry Device (MED), Conductive, Assembly
	MEDUM	MED Universal Mount
EFi75xx		
	FDT-1215CBB	Duct, 12" x 15', Antistatic with Belt and Belt
	FDT-1225CBB	Duct, 12" x 25', Antistatic with Belt and Belt
	EC0301	Duct Adapter, 12"/30cm to 8"/20cm
	DC12	Duct Coupler, Stainless Steel
EFi120xx & EFi150xx		
	FDT-1615CBR	Duct, 16" x 15', Antistatic with Belt and Ring
	FDT-1625CBR	Duct, 16" x 25', Antistatic with Belt and Ring
	FDT-1625CBB	Duct, 16" x 25', Antistatic with Belt and Belt
	EA7106	Duct Adapter, 16" / 40cm
	DC16	Duct Coupler, Stainless Steel

SPARE PARTS IDENTIFICATION

Typical Ventilator



1. Discharge Guard
2. Duct Adapter
3. Motor
4. Switch Rod
5. Junction Box/Cord
6. Handle/Cord Strap
7. Housing
8. Housing Feet
9. Impeller
10. Inlet Guard/Duct Adapter

WIRING DIAGRAM