

Portable Ventilators for Hazardous Locations

Rated:



II 2 G Ex d e IIB T6



Applicable Models:

UB20xx	EFi120xx
EFi75xx	EFi85xx
EFi150xx	

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
EFi85xx



EFi120xx
EFi150xx



TECHNICAL INFORMATION & INSTALLATION INSTRUCTIONS

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: Ex d e IIB T6

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/EEC, 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

CE 0539

Demko 09 ATEX 0926969

T6 Temperature Classification

* According to EN 60079-0:2006
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 EN 60079-1:2004

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 #	BLUFFTON PART #	IMPELLER
UB20xx	115VAC, 60Hz	EF7002XX	1933007415	PLASTIC
UB20xx	230VAC, 50/60Hz	EF8002XX	1933007419	PLASTIC
EFi75xx	115/230VAC, 50/60Hz	EB7201XX EB7201XX-230	1133007405	METAL
EFi85xx	115/230VAC, 50Hz	EB8201XX EB8201XX-110	1223007401	METAL
EFi120xx	115/230VAC, 50Hz	EA8120XX EA8120XX-110	1223007401	METAL
EFi150xx	115/230VAC, 50/60Hz	EG8200XX EG8200XX-230	1133007417	METAL

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 60079-0:2006, EN 60079-1:2004, 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-ohms. 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 60079-0:2006, EN 60079-1:2004, EN 60079-7:2006, EN 61241-0:2004 and 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:** IIGD Ex e II

Type: Polyamide Ex metric conforms to International Standards EN 60079-0:2006, EN 60079-7:2006, EN 61241-0:2006 and 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 cable from each blower is terminated with either a yellow 120VAC or a Blue 240VAC Explosion-proof plug to match the operating voltage of the motor. The plugs are made by Appleton and complies with International Standards: EN 60079-0:2006, EN 60079-1:2004, EN 61241-0:2004, EN 61241-1:2004 & EN 60079-7:2006.

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.

INSTRUCTION & CARE

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 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 protection 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 ducting must be statically conductive and properly secured to ventilator to minimize the potential fan static electricity build up.

MAINTENANCE

Disconnect power before disassembly or cleaning. Never immerse or directly spray motor with liquids.

Clean ventilator with commercially 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!

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.*

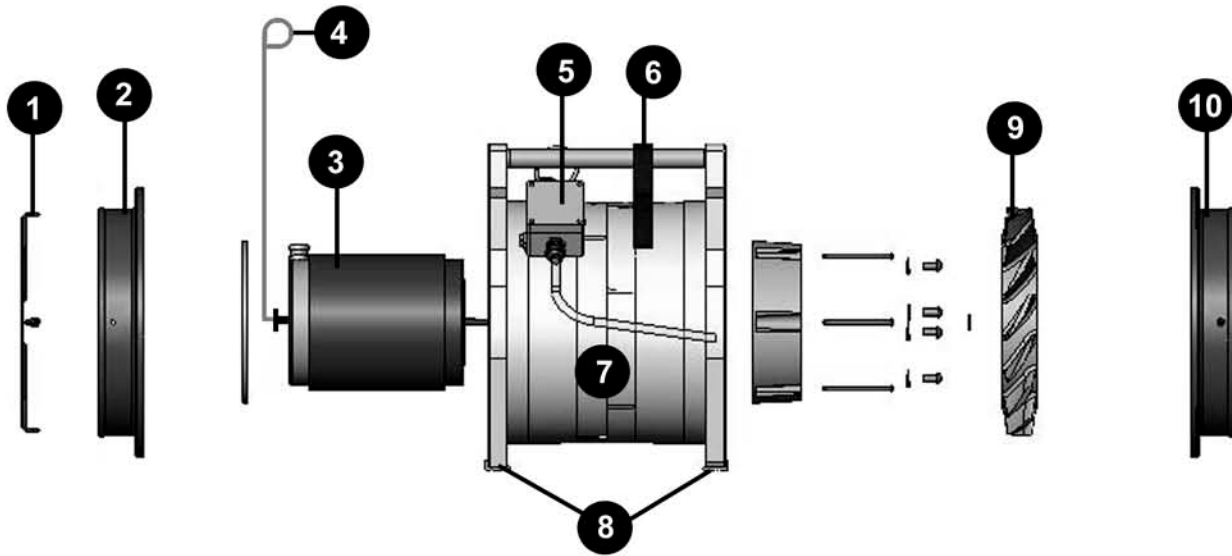
Portable Blowers:

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.**

SPARE PARTS IDENTIFICATION

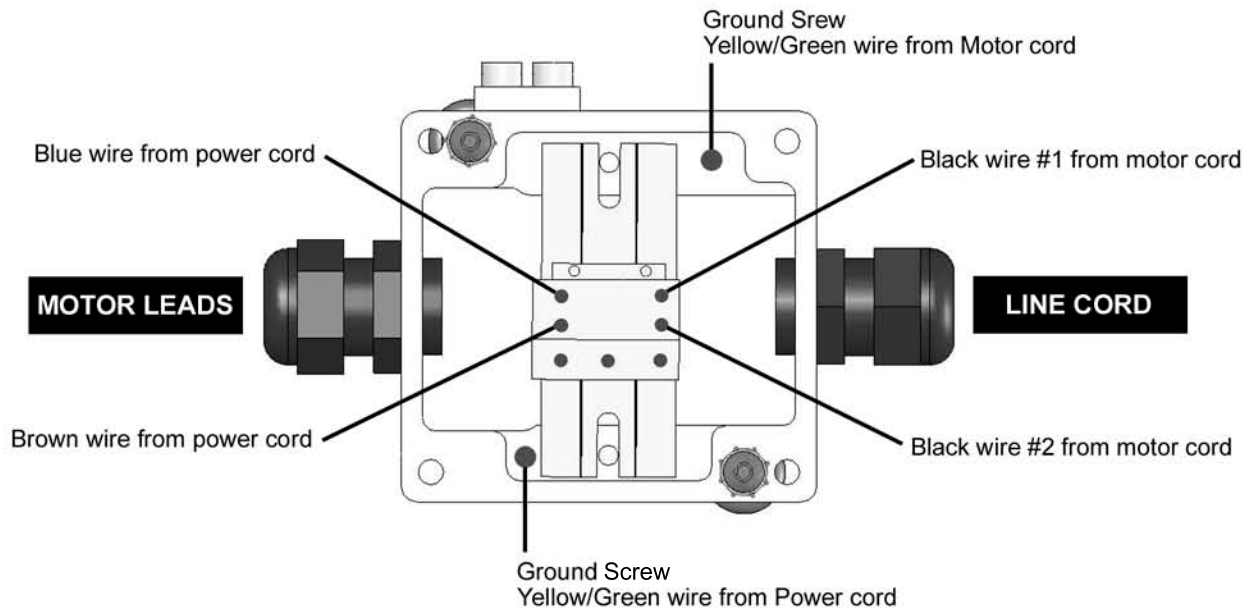
Typical Ventilator



- 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





DECLARATION OF CONFORMITY

In respect of the following Directives:

Council of European Communities Directives

89/392/EEC as amended by 91/368/EEC, 93/44/EEC and 93/68/EEC (Machinery Directive)

Also the following European Directives for our Electric Fans

73/23/EEC (Low Voltage Directive)

89/336/EEC (EMC Directive)

94/9/EC (ATEX Directive)

Standard(s) to which conformity is declared:

EN 294 (Safety of Machinery – Safety Distances to Prevent Danger Zones Being Reached by the Upper Limbs)

EN 953 (Safety of Machinery – Guards – General Requirements for the Design and Construction of Fixed and Movable Guards)

EN 50081-2 (Electromagnetic Compatibility Generic Emission - Industrial)

EN 61000-6-2 (Electromagnetic Compatibility – Immunity for Industrial Environments)

EN 60079-0:2006 (Electrical Apparatus for Potentially Explosive Atmospheres – General Requirements)

EN 60079-1:2004 (Electrical Apparatus for Potentially Explosive Atmospheres – Flameproof Enclosures ‘d’)

EN 60079-7:2007 (Electrical Apparatus for Potentially Explosive Atmospheres Increased Safety ‘e’)

Manufacturer’s Name: Euramco Safety, Inc.

Manufacturer’s Address: 2746 Via Orange Way
Spring Valley, CA 91978
USA

Type of Equipment: Flame Proof - Increased Safety / Exhausters

Model No: UB20xx EFi120xx
EFi75xx EFi150xx
EFi85xx

Euramco Safety Inc. hereby declares that above equipment conforms to the relevant Essential Health and Safety Requirements of the European Machinery Directive (89/392 EEC as amended by 91/368 EEC, 93/44 EEC and 93/68 EEC), and the additional Directives and Standards listed above.

Jack Simmons
Engineering and Quality Control Manager

Date 09/08/2011