

DECLARATION OF CONFORMITY
ATEX Certified Portable Fans

This Declaration of Conformity is issued for ATEX certified, flame proof, increased safety, portable fans, intended for use in potentially explosive atmospheres, manufactured by Euramco Safety, Inc. as referenced herein.

Issue Date: June 24, 2022

Manufacturer: Euramco Safety, Inc.
2746 Via Orange Way
Spring Valley, CA 91978 USA

Equipment Descriptions:

UB20xx	8" / 20 cm ATEX Blower Exhauster
EFi75xx	12" / 30 cm ATEX Blower Exhauster
EFi120xx	16" / 40 cm ATEX Blower Exhauster
EFi150xx	16" / 40 cm ATEX Blower Exhauster

Hazardous Location Rating:  **II 2 G Ex db eb IIB T6 Gb**
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Zone 1, 2
T6, non-mining gases up to 85°C

Certification Number: 0539 DEMKO 09 ATEX 0926969X
IECEX Certification Number: IECEX UL 13.0062X
Notification Number: 10 ATEX Q137286

Notified Body: UL International DEMKO A/S, Notified Body Number 0539
Borupvang 5A
2750 Ballerup, Denmark

Standards to which Certificate Applies:

- EN 60079-0:2018**
- EN 60079-1:2014**
- EN 60079-7:2015+A1:2018**
- EN 14986:2017**

Self-Declared Compliance Directives:

- 2006/42/EC** – Machinery Directive
- 2014/30/EU** – EMC Directive
- 2011/65/EU** – RoHS – Reduction of Hazardous Substances Directive

Specific condition of use:

- 1) This special condition of safe use refers to the fact that the Hazardous Location Fans may be purchased with or without an AC power plug termination for the power cable. The flame proof joints are not intended to be repaired.
- 2) This applies to the aluminum enclosure box type: 05 080806 applies to empty enclosures.

**Evaluation of Portable Fans Covered by Demko 09 ATEX 092969X Rev. 5,
To the Requirements per 17.1.5 of EN 60079-0:2012 & EN 14986:2017**

Vibration

EN14986, 4.9

All EFi75xx, EFi120xx and EFi150xx Fan impellers are balanced in accordance with ISO 14694 limits as described below. UB20xx Fan impellers are injection molded plastic, attached to the shaft of a 1/3 hp motor without vibration issues.

These fans best fit the Fan-Application Category of BV-3.
For a fan-application of BV-3 the balance quality grade for rigid impellers is G = 6.3.

The permissible residual unbalance condition for these impellers is determined by the equations below from ISO 14694.

$$U_{per} = m \times e_{per} \text{ g.mm}$$

Where:

$$e_{per} = (G * 1000) / \omega$$

$$\omega = (2\pi * N) / 60$$

$$1\text{mm} = 0.03937\text{ins.}$$

Then:

$$U_{per} = (60 \times m_{kg} \times G \times 1000 \times 0.03937\text{ins/mm}) / (2 \pi \times N \times R) \text{ grams at distance R from center of impeller hub.}$$

Where:

m_{kg} = Mass of impeller in kgs

N = Rotational speed of impeller in rpm

R = Distance from center of impeller hub to balance adjustment circle

See table for permissible residual unbalance conditions for the Fan Models / Impellers listed below. All impellers are balanced not to exceed a residual unbalance condition by 0.25 grams.

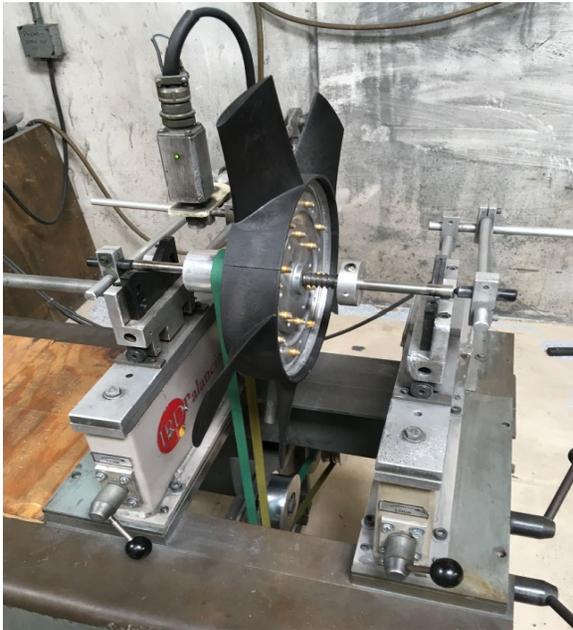
MAXIMUM PERMISSIBLE RESIDUAL UNBALANCE CONDITION

FAN MODEL	IMPELLER	BV BALANCE GRADE	RPM	WEIGHT (lbs)	WEIGHT (kg)	RADIUS R	PERMISSIBLE RESIDUAL UNBAL.
EFi75xx	BL008	6.3	3450	4.228 lbs	1.918 kg	4.380 in.	0.3006 g
EFi120xx	BL906	6.3	3450	3.848 lbs	1.745 kg	3.240 in.	0.3698 g
EFi150xx	BL914	6.3	3450	3.920 lbs	1.778 kg	3.240 in.	0.3768 g
UB20xx	BL011	NA	3450	0.514 lbs	0.233 kg	NA	NA

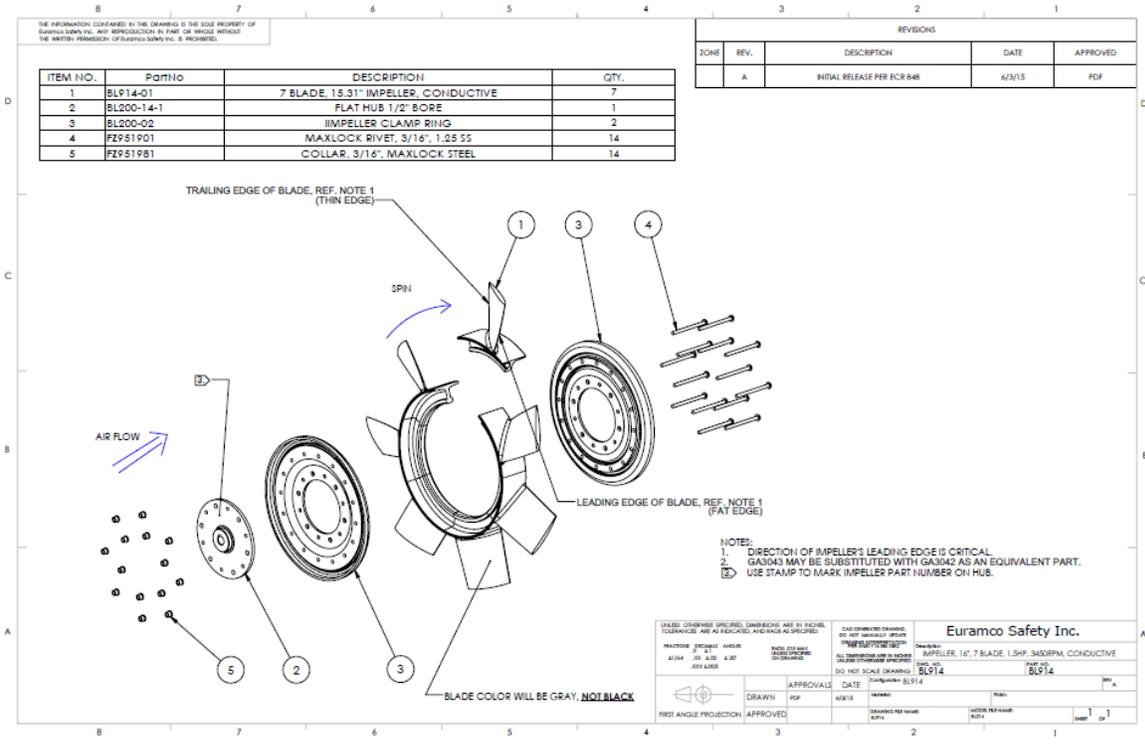
Note: UB20xx is a 1/3 HP fractional fan. Impeller is a precision injection molded part and does not require balancing.

Impeller Balancing Station

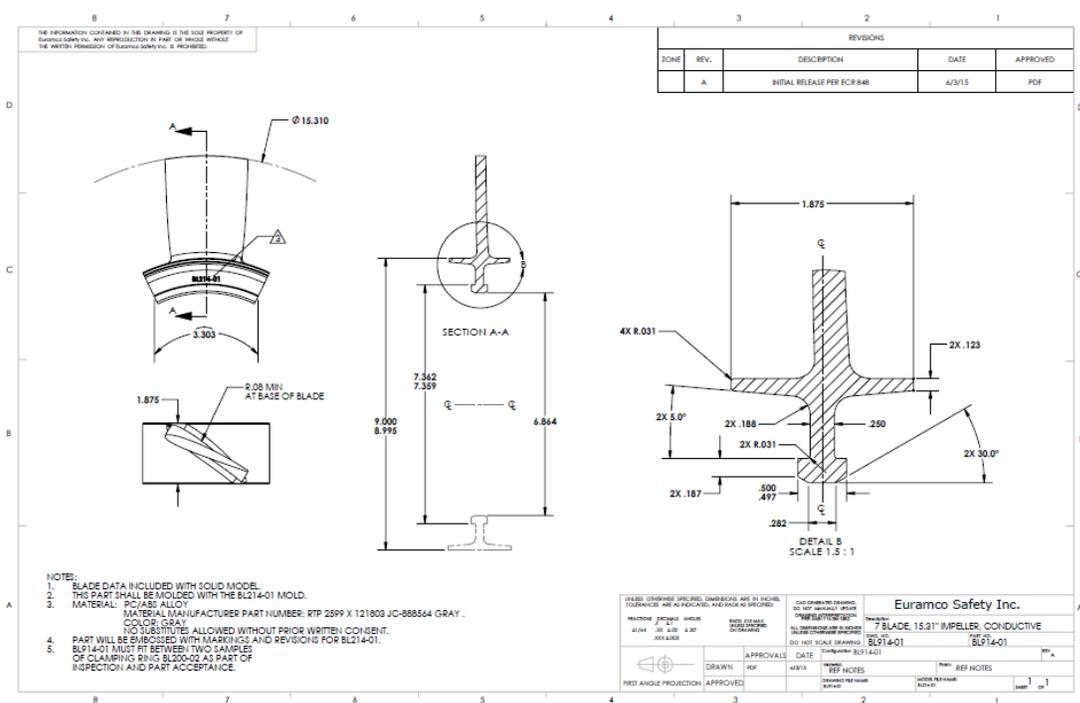
Every impeller is balanced on the IRD balancing test station. Impeller balancing is achieved by adding weight or by removing material from at the distant "R" from the center of the impeller hub until a residual out of balance condition is ≤ 0.25 grams.



Hybrid Impeller Part Number BL914



Impeller Blade, Part Number BL914-01



Euramco Safety, Inc. hereby declares that equipment described above conforms with the protection requirements of ATEX Council Directive 2014/34/EU on the approximation of the laws of the Member States Concerning Equipment and Protection Systems Intended for use in Potentially Explosive Atmospheres.



**Euramco
Group**


Wayne Allen
President and CEO

3/13/2023

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