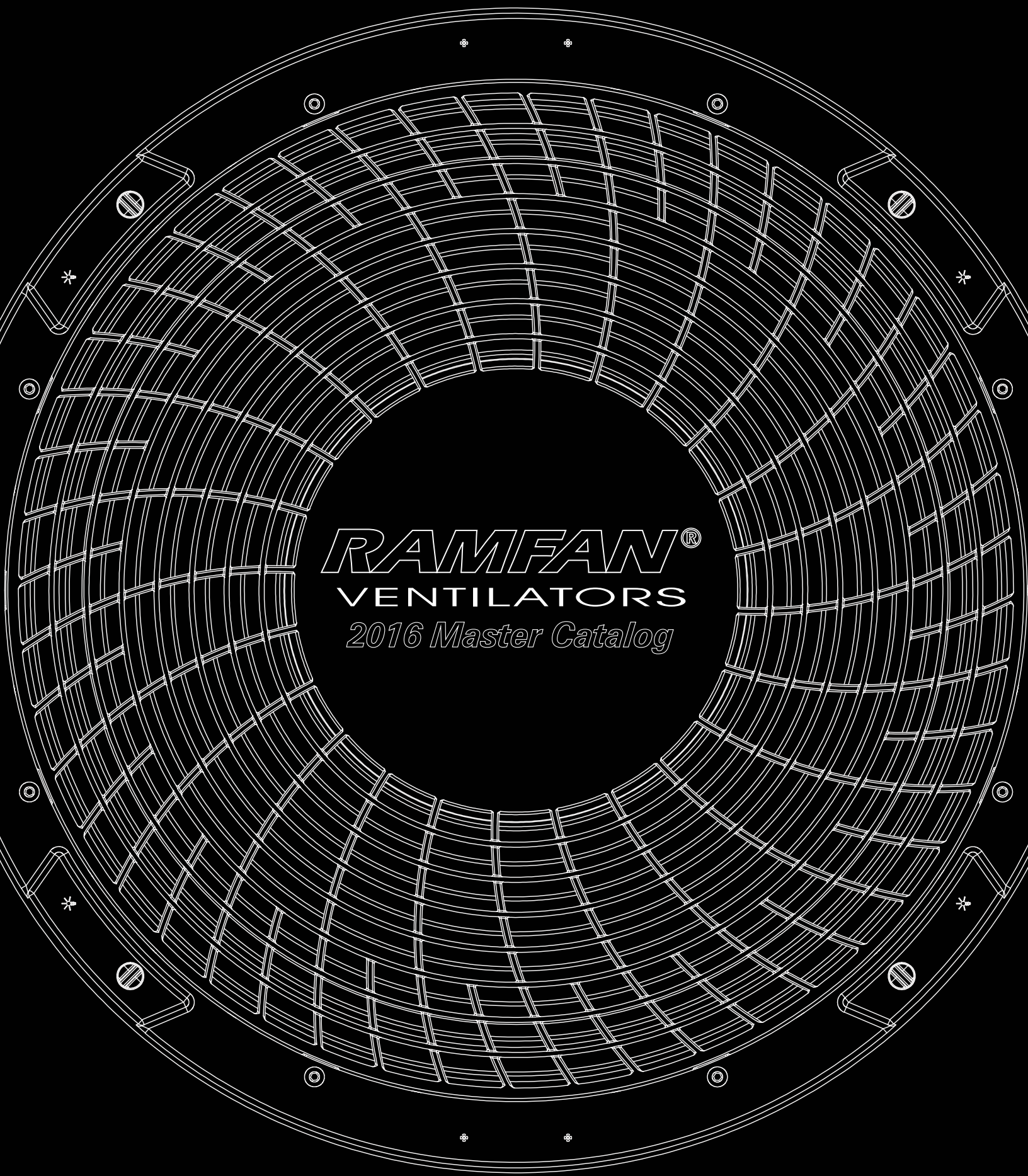


RAMFAN®

VENTILATORS

2016 Master Catalog

Euramco Safety Worldwide

Manufacturers of RAMFAN Portable Ventilators

PORTABLE VENTILATION FOR WORKING PROFESSIONALS

PRODUCT CATALOG 2015

Industrial Workplace | Hazardous Workplace | Fire Rescue | Marine | Military

RAMFAN

EURAMCO SAFETY'S CERTIFIED PRODUCT MARK OF EXCELLENCE

Euramco Safety's Certified Product Mark is our visual statement to you that *RAMFAN Portable Ventilation Fans* are Quality Manufactured and have been tested by Recognized Third Party Testing Facilities throughout the world to certify all product performance information quoted in our catalog, sales materials and on our website is accurate. In addition, the Certified Product Mark assures you that all required operating certifications and designations required by the applicable agencies are in order and available for your review.

Euramco Safety is an ISO 9001:2008 Company: ISO 9000 is the internationally recognized Quality Management Standard used in more than 760,000 companies in 154 countries to maintain an internationally accepted standardized quality management throughout the world. Our commitment to this standard means our products are built in accordance with documented procedures and control processes to ensure ongoing uniformity and reliability.

The Air Movement and Control Association | The *Air Movement and Control Association* is the worldwide recognized authority for the development of standards and measurement of air movement. Euramco Safety is a member of AMCA and uses their PPV test. ANSI/AMCA Standard 240 - *Laboratory Methods of Testing Positive Pressure Ventilators for Aerodynamic Performance Rating* establishes a uniform method of laboratory testing of positive pressure ventilators (PPVs) in order to determine the airflow rate.

ATEX Hazardous Conditions Directive 94/9/EC | This directive applies to all electrical equipment for use in potentially explosive atmospheres; defined as gas, vapor or mist and are capable of causing an explosion through their own potential sources of ignition. RAMFAN Hazardous Location Fans are Whole Unit ATEX Certified for use in dangerous work environments as defined above anywhere in the world.

IECEx | The objective of the IECEx System is to facilitate international trade for equipment and services for use in explosive atmospheres, while maintaining the required level of safety. The IECEx has put in place a number of Confirmity Assessment Schemes which provide assurance that equipment and systems are manufactured and operated according to the highest International Standards of safety.

Underwriters Laboratories, Inc. | UL is an independent, third party product safety certification organization that evaluates products for compliance to specific standards and permits those products that comply to carry the UL Mark. The UL Mark is recognized worldwide as a symbol of product safety.

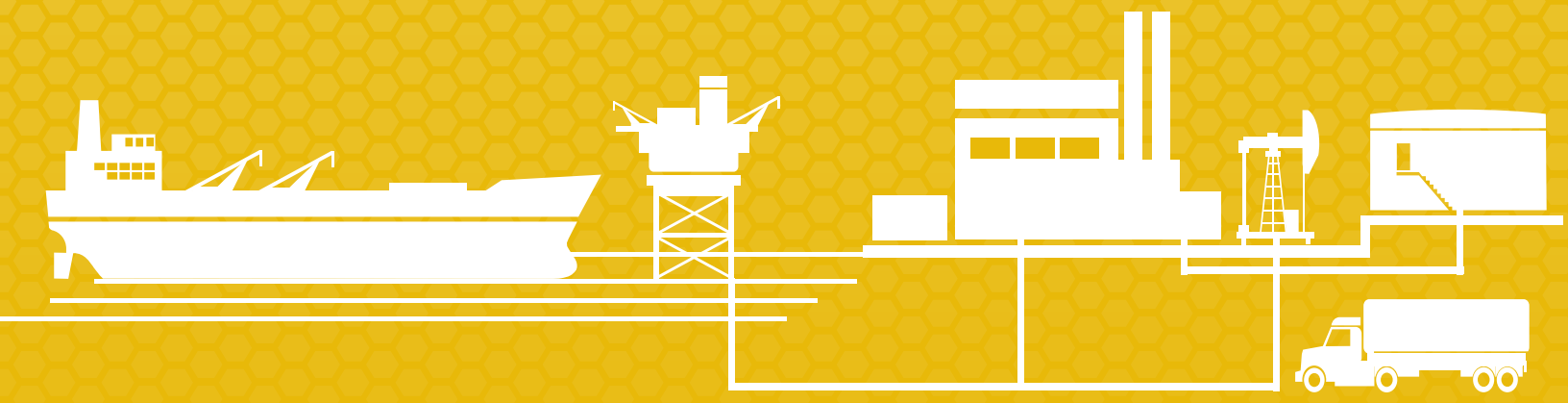
INMETRO – National Institute of Metrology, Normalization and Industrial Quality in Brazil | Products obtain the INMETRO Certification Mark when they meet National Standards or specific technical requirements as detailed in the Brazilian Conformity Evaluation System (SBAC).

Uniform Conformity Procedures Set Forth By the European Union | The CE Mark is a mandatory marking for certain product groups and certifies that a product meets EU consumer safety, health or environmental requirements. In order to use the CE mark on a product the manufacturer must draw up a Declaration of Conformity in which they attest conformity with all relevant EU Directives.

CSA – Canadian Standard Association | CSA International is a recognized provider of product testing and certification services throughout the world. The CSA Mark signifies the product has been tested and meets applicable U.S. and Canadian Standards, including those from CSA and UL for safety and performance.

PLEASE NOTE: You can find certification markings from the above organizations throughout the catalog. Refer to page 53 for certification numbers and markings.

HAZARDOUS WORKPLACE



Worldwide Certified Explosion-Proof Ventilators

Euramco Safety has designed and manufactured a line of fans specifically for use in hazardous atmospheres to meet the standards specified by the ATEX Directive 94/9/EC, IECEx, CE, INMETRO and UL. Our certifications cover the whole unit: the motor, terminal box, power cable, fan blade and labeling.

These Standards apply to all electrical equipment to prevent or minimize potential source of ignition in hazardous gas, dust or vapor atmospheres, to the extent defined in the charts below.

The chart explains the ATEX Identification Numbering System. The highlighted areas specifically apply to the ATEX string seen on Euramco Safety's certified hazardous location fans.

EQUIPMENT GROUP & CATEGORY

Equipment Group	Equipment Category	Protection Level	Hazard Gas	Hazard Dust	Use
I - Mining	M1	Very high protection	–	–	Operable in Ex atmosphere
	M2	High protection	–	–	De-energized in Ex atmosphere
II - Industrial (non-Mining)	1	Very high protection	G	–	Zones 0, 1, 2
			–	D	Zones 20, 21, 22
	2	High protection	G	–	Zones 1, 2
			–	D	Zones 21, 22
	3	Normal protection	G	–	Zone 2
			–	D	Zone 22

CLASSIFICATION OF HAZARDOUS AREAS

Area Classification Gases	Area Classification Dusts	Zone Criteria (based on frequency and duration)
Zone 0	–	Potentially Explosive substance present continuously or for long periods > 1000hrs/yr
–	Zone 20	
Zone 1	–	Potentially Explosive substance likely to be present in normal operation > 10hrs > 1000hrs/yr
–	Zone 21	
Zone 2	–	Potentially Explosive substance unlikely to be present in normal operation, if it does will only be for short periods <10hrs/yr
–	Zone 22	

ATEX STRING

Equipment Group **II**
Equipment Category **2**
Hazard **G**

Gas Group **IIB**

Conditions & Subdivisions **Gb**

II 2 G Ex de IIB T6 Gb

Ignition Protection Category **Ex de**

Temperature Class **T6**

IGNITION PROTECTION CATEGORIES

Ignition Protection Categories	I.D.	Can Be Used In	Safety Principle	
Increased safety	Ex e	Zone 1	No arcs, sparks or hot surfaces	Junction Box
Non-sparking equipment	Ex nA	Zone 2		
Pressurized encapsulation	Ex d	Zone 1	Controls an internal explosion and extinguishes the flame	Motor
Sand encapsulation	Ex q	Zone 1		
Enclosed switching device	Ex nC	Zone 2		
Intrinsic safety (special requirements)	Ex ia	Zone 0	Limits the energy of the sparks and the temp. of the surface	
Intrinsic safety temperature	Ex ib	Zone 1		
Energy-limiting equipment	Ex nL	Zone 2		
Encapsulation	Ex m	Zone 1	Separates source of ignition from potentially explosive atmosphere	
Oil encapsulation	Ex o	Zone 1		
Pressurization	Ex p	Zone 1		
Simplified pressurization	Ex nP	Zone 2		
Vapor-proof housing	Ex nR	Zone 2		

GAS GROUPS

Gas Group	Representative Test Gas
I	Methane (Mining only)
IIA	Propane
IIB	Ethylene
IIC	Hydrogen

Gases are classified according to the ignitability of gas-air mixture. Refer to IEC 60079-20 for classification of common gases and vapors.

Gas Group IIB includes all gases for Group IIA

Certifications:

IECEx UL Certificate #: **13.0062X**
EC-Type Examination Certificate #: **DEMKO 09 ATEX 0926969X**
INMETRO Certificate #: **UL-BR 13.0593X**
CE Hazardous Location Marking: **CE0539**
Ingress Protection: **IP55**

CONDITIONS & SUBDIVISIONS

Flammable Materials	Temporary Behavior of Explosive Atmosphere	Classication of Hazardous Areas	Group as Defined in Directive 94/9/EC	Equipment Category as Defined in Directive 94/9/EC	Equipment Group as Defined in EN 60079-0	Equipment Protection Level (EPL) as Defined in EN 60079-0
Gases/ Vapors	is present continuously or for long periods or frequently	Zone 0	II	1G	II	Ga
	arises in normal operation occasionally	Zone 1	II	2G or 1G	II	Gb or Ga
	is not likely to arise in normal operation, or if it does, will persist for a short time only	Zone 2	II	3G or 2G or 1G	II	Gc or Gb or Ga
Dusts	is present in the form of a cloud continuously, or for long periods or frequently	Zone 20	II	1D	III	Da
	occasionally develops into a cloud during normal operation	Zone 21	II	2D or 1D	III	Db or Da
	is not likely to develop into a cloud during normal operation, or if it does, for a short time only	Zone 22	II	3D or 2D or 1D	III	Dc or Db or Da
Methane Carbon Dust	operation where there is a risk of explosion	–	I	M1	I	Ma
	disconnection where there is a risk of explosion	–	I	M2 or M1	I	Mb or Ma

TEMPERATURE CLASSES

Class	T1	T2	T3	T4	T5	T6
	MAXIMUM SURFACE TEMPERATURE					
	450ºC	300ºC	200ºC	135ºC	100ºC	85ºC
IIA	Acetone Ammoniac Benzene Acetic Acid Ethane Ethyl Acetate Ethyl Chloride Methane Methanol Naphthalene Phenol Propane	i-Amylacetate n-Butane n-Butyl Alcohol	Gasolines Diesel Fuels Heating Oils n-Hexane	Acetyl-dehyde	–	–
IIB	Town gas (lighting gas)	Ethylene Ethylene Oxide	Hydrogen Sulfide	Ethylether	–	–
IIC	Hydrogen	Acetylene	–	–	–	Carbon

Gas Group IIB, Class t6 includes all specifications for Gas Group IIA, Class T1-T6 and Gas Group IIB, T1-T6

Highlighted areas in charts apply to Euramco Safety's ATEX Certification String

EFi120/150xx

16”/40cm | EFi50xx/EFi120xx/EFi150xx
Stackable Blower/Exhauster

- Models EFi120xx and EFi150xx are whole-unit ATEX certified for safe use in adverse atmospheres
- Blow/exhaust hazardous or explosive gases safely
- High strength, anti-static glass reinforced ABS housing is lightweight, corrosion proof and chemical resistant
- IP55 rain tested switch enclosure
- Stackable for easy storage
- Power cable is 30ft/9m long.
  See page 50 for plug options.
- IMPA Codes:
  EG8200x (115V) - 591507
  EG8200xx-230 (230V) - 591507
- NSN Number: 4140-01-608-6001

Optional Accessories: Anti-Static Duct, Duct Carrying Bags

MODEL	EFi50xx	EFi120xx (50Hz)	EFi150xx
Order #	EA8000XX	EA8120XX	EG8200XX, EG8200XX-230
STOCK LOCATIONS			
FREE AIR 15’/4.6m 1-90° turn	3,200cfm/5,440m³/hr 1,935cfm/3,289m³/hr	3,750cfm/6,375m³/hr 2,700cfm/4,590m³/hr	4,459cfm/7,580m³/hr 3,179cfm/5,404m³/hr
IMPELLER	21-blade	7-blade	7-blade
DUCT ADAPTER(S)	2	2	2
WEIGHT	49lbs/22kg	55lbs/25kg	61lbs/28kg
DIMENSIONS (h/w/d)	19/18/16 in 483/457/407 mm	19/18/16 in 483/457/407 mm	19/18/16 in 483/457/407 mm
NOISE	90.2dB	86.1dB	90.2dB
MOTOR	0.5Hp/0.37kW	1.2Hp/0.9kW	1.5Hp/1.1kW
ELECTRIC	115/230VAC, 1ø, 50/60Hz	110/240V VAC, 1ø, 50Hz	115/230VAC, 1ø, 50/60Hz
AMPS – START – RUN	115V: 21A 230V: 10A 115V: 6A 230V: 3A	110V: 54A 240V: 27A 110V: 10A 240V: 5A	115V: 80A 230V: 40A 115V: 15A 230V: 8A
APPROVALS	LR66789 LISTED		Segurança




16”/40cm | AFi50xx
Hazardous Location
Air Driven Blower/Exhauster

- Pneumatic powered blower is safe for use in adverse atmospheres
- High strength, anti-static glass reinforced ABS housing is lightweight, corrosion proof and chemical resistant
- Exhausts OUTSIDE of duct, compressed air not in airstream
- Complete with filter, motor lubricator, exhaust muffler, air control valve and static grounding cord
- Stackable for easy storage
- IMPA Codes:
  AA7000 - 591512, 591426

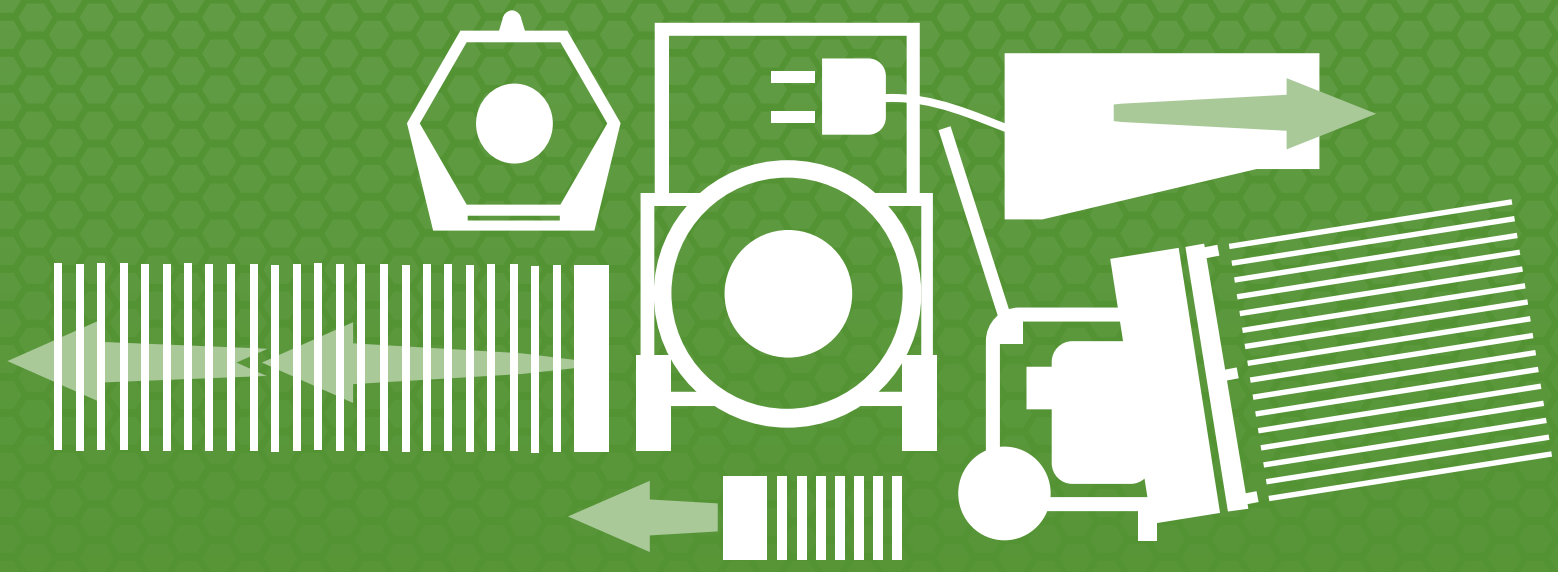
Optional Accessories: Standard Duct, Anti-Static Duct, Duct Carrying Bags, Cooling Collar,

MODEL	AFi50xx
Order #	**AA7000**
STOCK LOCATIONS	
FREE AIR*	3,200cfm/5,440m³/hr
IMPELLER	21-blade
DUCT ADAPTER(S)	2
AIR CONSUMPTION	40cfm/68m³/hr
INDUCTION RATIO	80:1
WEIGHT	43lbs/20kg
DIMENSIONS (h/w/d)	19/21/16 in 480/530/407 mm
NOISE	89dB
MOTOR	GAST 4AM-NRV-50C
APPROVALS	CE

* Measurements @ 80psig inlet air




ACCESSORIES



«ECKO Flex™

Durable Anti-static ducting

The ECKO Flex™ ducting allows great flexibility with several diameters and lengths to allow you to safely ventilate virtually any application. With new and improved construction, our unique Anti-static ducting is available on short lead times with many items held in stock. Every duct purchase comes with its own duct carrying bag to easily transport and store the duct.

Flexible ducting is vitally important in improving safety and working conditions. It can be used to bring fresh air into an area, extract contaminated air, and be used to direct heated air where it is needed. Using ducting gives you greater flexibility.

This duct system is a result of Euramco Safety's no compromise approach to user safety. Carefully selected materials, robust design and rigorous testing combine to bring you a ducting system second to none. Using an Anti-static reinforced polymer material with an integrated steel helix wire, it has been vigorously tested by an independent laboratory and passed both the anti-static and flammability tests.

By using the ECKO Flex ducting system you can be sure you are providing the safest system for your team. The safer the area and the better the environment the quicker the tasks will get completed. This will enable projects to be finished on time or early. This brings great benefits to you and your team. The duct is compatible with several brands of ventilators, including RAMFAN®.

Key Features

- Anti-static, safely conduct electricity to the ground circuit of the blower
- Non-collapsible, reinforced duct
- 8"/20 cm, 12"/30 cm or 16"/40 cm diameters
- Flame retardant
- Carrying bag included for storage and transport

«Ordering information

Anti-static Duct
16"/40 cm x 15'/4.6 m
order# **FDT-1615CBR**

16"/40 cm x 25'/7.6 m
order# **FDT-1625CBR**

Certification Reference Chart

LOGO	REPRESENTS	MARKING / CERTIFICATION
	ATEX- European Union Hazardous Location Certification by UL International Demko A/S notified by number 0539	II 2 G Ex d e IIB T6 Gb Demko 09 ATEX 0926969X
	European Union EMC and Safety	CE
	Recognized Component Mark for Canada and the United States	UL E305448
	CSA Mark with other Standards as indicated by the mark below logo.	Motor Cert. LR66789
	CSA Certified for both Canadian and United States markets	Motor Only 1743107
	CSA Certified to the applicable US Standards for gas and other liquid petroleum products	1743107
	CSA Certified to the applicable Canadian Standards for gas and other liquid petroleum products	1743107
	International Electric Code - worldwide certification standards for electrical equipment used in hazardous locations.	IECEx UL 13.0062X
	INMETRO Mark -Brazilian Hazardous Location Conformity	Ex d e IIB T6 Gb UL-Br 13.0593X
	North American Hazardous Location Certification	UL Class 1 - Group D UL Class II - Group E,F,G Motor Cert. E312535
	Registed by UL to a specifed ISO or QS System.	UL ISO 9001:2008
IP RATING	**FIRST DIGIT**	**SECOND DIGIT**
IP55	Limited protection against dust ingress. (no harmful deposit)	Protected against low pressure water jets from any direction. Limited ingress permitted.
IP65	Totally protected against dust ingress.	Protected against low pressure water jets from any direction. Limited ingress permitted.