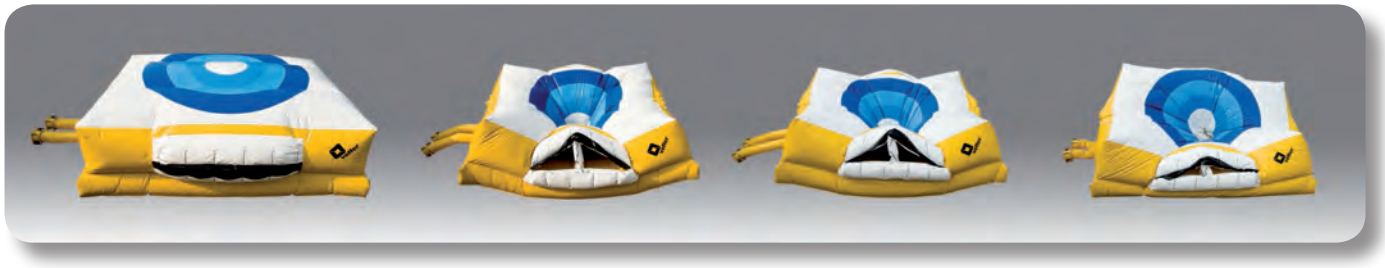
Emergency Pneumatics.

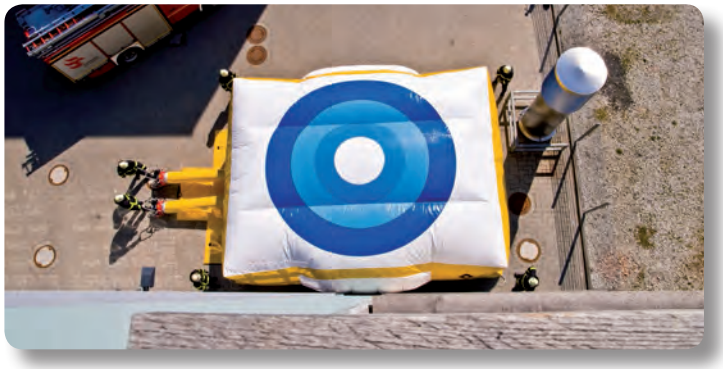
Operating Instructions

VETTER Safety Cushion SP 60

Type Safety Cushion SP 60

based on DIN 14151, Part 3





Serial No.: _____ **Year of manufacture:** _____

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1. EC Conformity declaration

EC Conformity declaration for Ramfan blowers

Euramco Safety

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, 93/68/EEC (Machinery Directive), and Directive 2006/42/EC

Also the following European Directives for our Electric Fans

73/23/EEC	(Low Voltage Directive)
89/336/EEC	(EMC 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)

Manufacturer's Name: Euramco Safety, Inc.

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

Type of Equipment: Electric Fans
Model No: ECKO 8", ECKO 12", EF390H, EV420, EV620, EFC50, EFC120, EFC150, EFi75, EFi85, EFi120, EFi150, UB20

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, 93/68 EEC, and Directive 2006/42/EC), and the additional Directives and Standards listed above.

Jack Simmons 06-07-2010

Jack Simmons **Date**
Engineering and Quality Control Manager

9/09

EC conformity declaration for Leader blowers

Technik der Zukunft

EU-Konformitätserklärung

Das nachfolgend bezeichnete Material entspricht den europäischen harmonisierten Normen. Anwendung fanden die Vorschriften der Richtlinie **2006/42/CE vom 17. Juni 2006.**

Elektrische Lüfter:

ES220, ES230, ESV230, ESP230, ES245, ESV245, SA315, SAX320, SR460, ES280, ESV280, ESX230, Parkfan, Easy Pow'Air Technologie

Lüfter mit Verbrennungsmotoren:

MT225, MT236, MT245, MT260, MT280, MT296 Easy Pow'Air Technologie

Baujahr: 2014

Hersteller:

GROUPE LEADER SA
ZI des Hautes Vallées
2 Chemin n°34
F-76930 Octeville Sur Mer
FRANKREICH

Am 17. Januar 2014
Geschäftsführer
Eric Leroy

LEADER GmbH
Zur Fabrik 10
D-66271 Kleinblittersdorf
Telefon: 06805/60067-0
Telefax: 06805/6006-10
email: info@leader-gmbh.de
Geschäftsführer:
Thierry Delenne
Eric Leroy
Amtsgericht Saarbrücken
HRB-Nr. 11364
Ust-IdNr. DE 812 489 006
www.leader-gmbh.de
Bank 1 Saar
BLZ 591 900 00
Kto.-Nr.117620000
IBAN: DE23 5919 0000 0117 6200 00
BIC: SABADE5S

EC Conformity declaration for safety cushions (available on request)

in accordance with Directive 2006/42/EC

Manufacturer name and address

Vetter GmbH
A Unit of IDEX Corporation
Blatzheimer Str. 10 - 12
53909 Zülpich

We hereby declare, that the Vetter Safety Cushion SP 60 (Rescue height 60 m/192 ft.)

Type: **SP 60**
Serial No: _____
Model: _____

(see appliance plate, to be entered by customer)

meets the following relevant provisions:

Directive 2006/42/EC on Machinery

Applied harmonised standards, references to which have been published in the Official Journal of the European Union:

EN ISO 12100 part 1/2

Applied national standards and technical specifications:

based on DIN 14151-part 1 & 3

Authorised representative for the compilation of technical documents:

Vetter GmbH
Blatzheimer Str. 10 - 12
53909 Zülpich

This EC Conformity Declaration was issued:

Zülpich, 16.05.2017
(Place, Date, Signature)

2. Description of product

The self-aligning VETTER safety cushion SP 60 consists of a dual chamber system. It is also equipped with an innovative pressure regulation system.

A minimum of 4 persons are required to assemble and disassemble it. The external covers are made of inflammable resistive and rot resistive material (according to DIN 4102 B1) and has a combination of welded and sown seams.

The VETTER Safety Cushion SP 60 is produced according to the requirements specified in DIN 14 151, Part 3.

2.1 Correct use according to instructions

The safety cushion is inflated by connecting and starting the blower.

The ventilation openings on all 4 sides prevent over-inflation of the cushion.

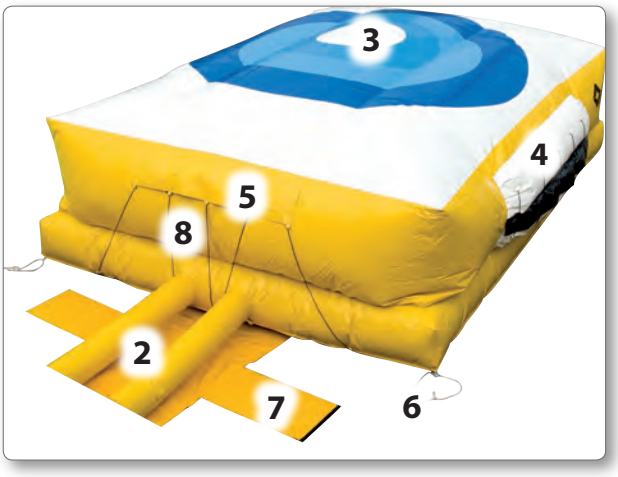
The safety cushion should be used when it is not possible to carry out rescue with other means (e.g. aerial ladder trucks) or when it is necessary to use the safety cushion owing to lack of time.

Possible injury cannot be excluded in every single case when using the safety cushion.

The safety cushion is only permitted to be used in emergencies and only for person rescue! It is strictly forbidden to use it for exercises and shows!

2.2 Technical data for safety cushion

1. Blower	5. Other deventilation openings
2. Inflation hose	6. Positioning loops
3. Landing area with marking	7. Packing covers
4. Deventilation system (on both sides)	8. Type label, imprinted



The serial number on the Type Label is coded as follows:

For example: Serial number 07101234

07	10	1234
Month: July*	Year: 2010*	Consecutive number

* month and year of production

Safety Cushion SP 60 (Art. No. 1530016100)		
External size, approx.	cm	850 x 650 x 250
	inch	331.5 x 253.5 x 97.5
Height, approx.	cm	250
	inch	97.5
Weight, approx.	kg	240
	lbs	529
Inflation time, approx.	sec.	80
Operating temp.	°C	-20 °C bis +50 °C
Folded size, approx.	cm	155 x 100 x 55
	inch	60.5 x 39 x 21.5

2.3 Technical data for blowers

		Ramfan EV420* Electrical blower	Leader ESP 230* Electrical blower
Art. No.		1530020700	1530019100
Capacity	m^3/h	16,498	33,900
	cfm	9,705	19,956
Noise level	dB	97	84
Starting current limiter		integrated	integrated
Motor		1,1 kW, 240 V 50/60 Hz	2,2 kW, 230 V 50 Hz
IP protection mode		IP 64	IP 55
Dimensions, approx.	mm	580 x 430 x 410	550 x 548 x 492
	inch	22.6 x 16.8 x 16	21.7 x 21.4 x 19.2
Weight, approx.	kg	31	43
	lbs	68	95

*Note: Only Leader and Ramfan blowers are to be used which have been supplied by Vetter!

		Leader MT 236 H* High power blower - petrol
Art. No.		1530019300
Capacity	m^3/h	43,100
	cfm	25,372
Noise level	dB	91
Operating pressure	bar	-
	psi	
Motor		6,5 PS Honda - 4 stroke
Running time (with the tank full)		100 min.
Dimensions, approx.	mm	550 x 548 x 492
	inch	21.7 x 21.4 x 19.2
Weight, approx.	kg	42
	lbs	93

*Note: Only Leader and Ramfan blowers are to be used which have been supplied by Vetter!

2.4 Ambient conditions and limits

The assembly location is mainly dependent on the operational situation and the local conditions.

The assembly area should, as far as possible, be free of sharp objects or objects which could puncture.

The safety cushion is to be protected against heat.

2.5 Safety instructions

The main condition for reliable operation of the VETTER safety cushion is an exact knowledge and adherence to these operating instructions and safety information.

In addition to this, it is imperative to observe the valid regulations and stipulations for accident prevention.

Only trained fire service staff are permitted to carry out operation.

Jumping for exercises or shows is strictly forbidden!

Only special drop objects, such as sand bags or dummies, are to be used for exercising and testing!

Drop objects with a weight mass of 75 kg dropped from a height of maximum 60 m

Non-compliance is a contravention of fire service regulations (UVV - German Accident Prevention Regulations) and exclude any form of liability!

It is pointed out here that this can have legal consequences.

Incorrect use or any unauthorized changes to the safety cushion make any manufacturer liability, with respect to any resulting damage, null and void.

3. Preparing the product for use

3.1 Inspection for completeness

An inspection is to be made before and after each operational period in order to check the components for completeness and to see if they are free of damage.

The safety cushion is complete and can be erected without difficulty.	
Two permanent blowers are available and are in perfect condition. Turbine blade, cover and housing are free of damage.	

Set list for SP 60		1530016000	1530019400	1530019600
1530016100	Safety cushion SP 60	1	1	1
1530016200	Packing cover	1	1	1
1530016300	Repair and spare part set consisting of: Elastic strap, 20 m Rope tensioner, wooden 2 pieces Bag 1 piece Operating Instructions	1	1	1
1530020700	Ramfan EV420 blower	2	-	-
1530019100	Leader electr. blower ESP 230	-	2	-
1530019300	Leader blower (petrol) MT 236 H	-	-	2

Packing cover for the safety cushion is available and free of damage.	

3.2 Transport + Storage

Any other objects must not be placed on the safety cushion during transport or storage.

Only store the safety cushion in a dry room when it is clean and in a dry condition.

The life duration of the product can be shortened by being subjected to outside influences (e.g. heat from direct sunlight, temperature deviations etc.).

Optimum storage temperature (min to max): -20 °C to +50 °C

3.3 Safety measures before use

Only extension cables or cable drums of suitable size for the corresponding current load are to be used (see „type label"). The cable should have a minimum cross section of 3 x 2.5 mm^2 and be a maximum of 100 m in length.

It must be ensured that only the original blower supplied by Vetter is used because only this one is permitted by the inspection! Before connecting always make certain that the switch on the blower is positioned to OFF.

Only perfectly working and tested safety cushions are permitted to be used!

The assembly location is mainly dependent on the operational situation and local conditions.

The assembly location must, as far as possible, be free of any sharp or pointed foreign bodies. The safety cushion is to be protected against heat.

3.4 Preparations for operation

Remove the safety cushion from the vehicle and lay it out on a sufficiently large free area.

The exact assembly location is determined by the head of operation.

Release the packing cover.

The pictogram on the cover shows the direction for rolling out the cushion.

Open the cover and lay out the inflation hoses.

Ramfan blowers

The blowers are assembled onto the inflation hoses of the safety cushion via a snap-in connection.

Lay the inflation hoses with the eyes over the pins and then tension the snap-in connection using the ratchet until the inflation hoses are fixed to the blower.

Finally ensure that all 4 eyes lay on one pin thus ensuring stability.



Make certain that the hoses are solidly connected to the blower!

Leader blowers

In order to use the Leader brand of blower it must be ensured that they are equipped with special adapters (contained in the delivery package of the blower). Place the adapter on the opening and turn counter-clockwise until it locks. The inflation hoses of the safety cushion are then fixed via a snap-in coupling.

Lay the inflation hoses with the eyes over the pins and then tension the snap-in coupling with the ratchet until the inflation hoses are solidly connected with the adapters.

Finally ensure that all 4 eyes lay on one pin thus ensuring stability.


Make certain that the hoses are solidly connected to the blower!



4. Operating instructions

4.1 Safe operation

The safety cushion is to be erected so that only vertical jumps can be made. If possible, the person jumping should not jump into the cushion in the upright position but in the supine position. Never ask the person to be rescued to jump at an angle.

After each jump it may be necessary to realign the safety cushion. The safety cushion must only be lifted and moved using the positioning loops.

For safety and life duration reasons, any dragging across rough is to be avoided.

Note! It is possible that the person to be rescued jumps into a safety cushion which has not been completely erected because this is not completely recognizable from above!

The head of operations must decide, before erecting, whether the safety cushion should be erected at the operational location or whether it should be erected at a safe location and then transported to the operation location.

4.2 Normal functions

Adjust the blower, connected to the safety cushion, to maximum power and then switch on.

Note! The blower must always be driven at maximum power so that the safety cushion can be quickly reset and is always filled permanently with sufficient air.

Insufficient air supply can negatively influence operation. The rotary control is set to maximum power for this purpose.

The safety cushion unfolds assisted by the operator and only has to be positioned. Using the positioning loops, the safety cushion is lifted for setting up purposes. The blowers should be simultaneously aligned by two persons depending on the cushion.

The safety cushion is set up within a maximum time of 80 seconds. In doing this a check should be made to see if the vent openings, including rubber rings, are in perfect condition.

Should parts get caught up during safety cushion set up then switch off the blower immediately and eliminate the defect. After this has been done continue filling.

The safety cushion is fully operational only when it has been fully set up.

The maximum jump height is 60 m!

After the person has jumped and has climbed out of the cushion, the cushion automatically realigns itself within a maximum of 20 seconds to its original shape.

The safety cushion is available for further jumps only after the person who jumped has left the cushion and also after it completely realigns again.

4.3 Exceptional situations

If the position of the safety cushion shifts due to the previous jump then the safety cushion as well as the blower are to be realigned.

Switch the blower off immediately if you hear abnormal noises in addition to the noises that are similar to those of a turbine. In this case please inform the manufacturer immediately.

4.4 After operation

Remove the safety cushion out of the danger zone and deflate it in a freely open space.

Switch off the blower in order to do this. The safety cushion automatically deflates on its own and lays flat on the ground.

Fold up the safety cushion according to the packing plan.

Let the blower cool off before storing it.

4.5 Maintenance, repair and cleaning after every operation period

Safety cushions:

Cleaning

The safety cushion can be cleaned with warm water or mild soap suds.

Do not use aggressively acting cleaning agents or solvents!

Completely rinse off soap subs with clear water. Dry the safety cushion at normal room temperature.

Storage

The safety cushion must only be stored in a dry room after cleaning and drying. The safety cushion is to be stored in the packing cover after it has been folded together according to regulations. No other objects are to be stored on top of the safety cushion.

The material of the safety cushion is of course subject to natural aging.

The life duration of the product is greatly influenced by such factors as external effects, storage conditions, how often it is used and the type of use.

Optimum storage temperature (min. to max.): -20 °C to +50 °C

Maintenance

Maintenance on the safety cushion must be carried out by the manufacturer.

After use without loading by a falling load:

- ✓ Cleaning
- ✓ Visual inspection by the user

After use with loading by a falling load or a person to be rescued:

- ✓ Cleaning
- ✓ Visual and function inspections by specialists having additional training by the manufacturer

Cleaning and Maintenance: Blowers

Ramfan: Refer to the operating instructions for the blower from Page 24 onwards

Leader: Refer to the operating instructions for the blower from Page 26 onwards

5. Possible defects: safety cushion

Problem/Defect	Solution
The safety cushion does not align itself correctly.	Check to see if parts of the safety cushion have been caught up. In this case, switch off the blower and eliminate the defect immediately. Inflation can continue after this has been done.
	Check to see if the ventilation openings are in perfect condition, including rubber rings. If necessary align the rubber rings so that the ventilation openings remain closed.
	Check to see if the blower is set to maximum power, correct this if necessary.
The hoses are bent.	Switch off the blower and realign blower and hoses.

Possible defect: blower

Ramfan: Refer to the operating instructions for the blower from Page 24 onwards

Leader: Refer to the operating instructions for the blower from Page 26 onwards

6. Repetitive inspections

Safety cushions are only permitted to be repaired by the manufacturer. Maintenance work is only permitted to be carried out by persons who have undergone special training by the manufacturer in maintenance and repair work and are authorized to do this by the manufacturer. In addition to this, they must work in a maintenance shop authorized by the manufacturer and have a knowledge of the safety and accident prevention regulations.

The following come solely into consideration for safety cushion inspection:

for Annual Inspection

The specialist according to the preliminary remarks in DGUV-G 305-002.

for the Main Safety Inspection

The specialist according to the preliminary remarks in DGUV-G 305-002 in addition to extra training by the manufacturer or a trainer authorized by the manufacturer.

Authorization must be made in writing.

This authorization is valid for a maximum period of 60 months and can, after registration and training, be extended.

The specialist or the inspection institute in which he is employed, must have the necessary testing devices for the scope of the inspection.

for the Main Safety Inspection

The General Safety Inspection is to be exclusively carried out by the manufacturer

6.1 Inspection deadlines

1st Year	Annual Inspection	9th Year	Annual Inspection
2nd Year	Annual Inspection	10th Year	General safety inspection
3rd Year	Annual Inspection	11th Year	Annual Inspection
4th Year	Annual Inspection	12th Year	Annual Inspection
5th Year	Main safety inspection	13th Year	Main safety inspection
6th Year	Annual Inspection	14th Year	Annual Inspection
7th Year	Annual Inspection	15th Year	Disposal
8th Year	Main safety inspection		

Should there be any doubt about safety or reliability then a General Safety Inspection must be arranged with the manufacturer.

The life period of the safety cushion is limited to 15 years due to product reliability and safety.

After this life period, the safety cushion must not be used for exercises or any other purposes.

6.2 Inspection regulations and certification

The individual inspections, such as the annual visual and function inspection, are to be carried out according to the inspection instructions in the operating manual.

A test report is to be made about the inspection carried out (copy the corresponding page if required).

The inspections carried out are to be entered into an inspection log book (contained in the standard delivery package) as well as on the safety cushion itself.

7. Packing plan

Before packing the VETTER safety cushion check for damage.

Safety cushions are only to be packed after inspection!

The safety cushion must only be packed when it is clean and dry.

Completely deflate the safety cushion. To do this, switch off the blower and let the air escape out of the cushion.

Only start packing when the air has completely escaped out of the safety cushion.

Lay out the safety cushion evenly.

Smooth out the landing area (Fig. 2).

The initial position is the front side with the connection hoses for the blower. Fold in the side to the left up to the inflation hoses (Fig. 3).

Turn over the right-hand side of the cushion up to the inflation hoses (Fig. 4).

Once again fold both sides to the middle until the width of the packing cover is reached (Fig. 5).

Now roll the safety cushion in the direction of the inflation hoses as tightly as possible (Fig. 6).

The width of the rolled up safety cushion must not exceed the width of the packing cover.

Place the packing cover behind the rolled up safety cushion. Roll the safety cushion onto the packing cover and after this place the hoses together on the roll.

Then fold the sides of the packing cover in the sequence shown over the rolled up safety cushion.

Finally secure with the belts and adjust them to the corresponding tension with the tension device.

After this, the safety cushion can be stored on a vehicle.

Regulations Annual inspection

and after each period of use

Serial number:		
Year of construction:		
Inspection due	1st Year	1
	2nd Year	2
	3rd Year	3
	4th Year	4
	6th Year	6
	7th Year	7
	9th Year	9
	11th Year	11
	12th Year	12
	14th Year	14
Disposal after 15 years		15

In order to carry out this inspection, the inspector must have the corresponding qualifications according to DGUV-G 305-002.

The execution and results of the inspection are to be recorded in writing. This is made by:

- ✓ Filling out an inspection report (see attachment)
- ✓ Entry into the inspection log book
- ✓ Direct entry on the safety cushion itself (only once annually)

Testing instructions for the inspection after each period of use <u>without loading by a falling object</u>

1. Visual inspection of the cleaned safety cushion for externally recognizable damage in the inflated condition.

Testing instructions for the inspection after each period of use with loading by a falling object or under operation conditions by a person being rescued

1. Visual inspection of the cleaned safety cushion for externally recognizable damage in the deflated condition (upper and lower cover)
2. Inflate the safety cushion
3. Inspect the following parts and visually check for recognizable damage in the assembled condition

✓ Landing area with marking

✓ Side cover

✓ Floor cover

✓ Internal connection cover

✓ Seams

✓ Positioning loops

✓ Packing cover

✓ Quick snap-in connections on the blower

✓ Inflation hoses

✓ Ventilation openings

✓ Rubber bands on the ventilation openings (exchange if necessary)

✓ Blower (according to manufacturers instructions)

4. Inspection of the inside area for foreign bodies (clean if necessary)
5. Documentation (test report filled out, type label marked, inspection entered into the inspection log book)

Maintenance and repair work must only be carried out by the manufacturer.

Contact the manufacturer if there are any doubts about safety or reliability of the Vetter safety cushion!

Regulations Main safety inspection

Serial number:		
Year of construction:		
Inspection due on:	5th Year	5
	8th Year	8
	13th Year	13
Disposal after 15 years		15

In order to carry out this inspection, the specialist must meet the conditions stipulated in the preliminary remarks contained in DGUV-G 305-002 including additional training by the manufacturer or an authorized trainer.

For information concerning training courses at our company please contact: vetter.rescue@idexcorp.com or call us at:
+49 (0) 2252/3008-590

Further information about the Vetter Academy can be found on our website: www.vetter.de!

Regulations General safety inspection

Serial number:		
Year of construction:		
Inspection due on:	10th Year	10
Disposal after 15 years		15

This inspection is to be exclusively carried out by the manufacturer!

Arrange an inspection date with the manufacturer in good time.

Inspection report for the Vetter Safety Cushion

Certification for the execution of the

Annual inspection	
Main safety inspection	
General safety inspection	

according to DGUV-G 305-002 and DIN 14 151-1

User:

Name 1	
Name 2	
Street	
Code/Town	
Country	

The Vetter safety cushion Type SP 60

Serial number:	
Year of constr.	

was tested on _____ by inspector

_____

The inspection produced the following results:

No defects	Defects were as follows

Next inspection: _____

The inspection was permanently noted down on the type label and in the inspection log book.

_____ _____

Location / Date Inspector responsible

8. Spare parts list

Pos.	Description	Art. No.	Picture
3	Ramfan EV420 blower	1530020700	
4	Leader blower	Electr.: 1530019100 Petrol: 1530019300	

9. Withdrawal from use

Safety cushion

The life duration of the safety cushion is limited to 15 years due to product safety and reliability.

The safety cushion is not permitted to be used for exercises or any other purposes after this period.

Blowers:

Disposal of used electrical and electronic equipment (to be used in the countries belonging to the European Union and other European countries with a separate equipment collection system) is to be made according to the law governing electrical and electronic equipment (Electrical and Electronic Equipment Act / ElektroG) dated 24th March 2005 for the implementation of EU Guidelines 2002/96/EG concerning electrical / electronic equipment (WEEE Guidelines).

This symbol on the product or its packaging indicates that the electronic component of this product must not be treated as normal household waste but must be returned to the manufacturer for recycling (freight-free return).

10. Operating instructions for blowers

USER AND SAFETY GUIDE RAMFAN TURBOVENTILATORS READ BEFORE OPERATING

For additional technical information, go to
www.euramcosafety.com

Operations

BEFORE STARTING FOR THE FIRST TIME
DO NOT START blower if there are any signs of shipping damage, particularly to blade, guards, or housing. If any damaged is suspected, **STOP** and call your dealer immediately.

GENERAL OPERATION

Start **ONLY** if blower is sitting in a stable and upright position.
While on level surface and running at full speed, the blower should not move around. If unit is moving, check rubber feet for damage and replace if necessary. If this does not correct the problem then impeller balance should be checked. STOP, call your dealer.
STOP the blower if mechanical noise, vibration, or other abnormal condition occurs. Any noise other than blade, turbine-type pitch is not normal.
If supplied, attach appropriate safety labels as indicated by instructions included with labels.
Do NOT move blower while in operation.
Use appropriate lifting practices.
When using the blower, note the directional airflow indicator on the external housing.
Do NOT stack blowers without securing handles of stacked units to each other using Velcro strap.
When using duct, ensure that the duct cuff is securely tightened on the duct adapter.
Units with conductive housings may require statically conductive duct..
Allow blower to cool before storing.
Exercise care during deployment and storage to prevent physical damage.

GASOLINE ENGINE POWERED BLOWERS

Before starting for the first time: Remove the spark plug wire from the spark plug. Slowly pull on the recoil starter; listen for contact between fan and shroud. Repeat. If rubbing is heard, STOP, call your dealer.
Adjust tilt mechanism so that engine is level.
Fill oil sump and gearbox (if applicable). **(see engine manual)**
Fill fuel tank with gasoline. **(see engine manual)**
Replace spark plug wire.
Adjust throttle to obtain desired airflow through structure.
Engines equipped with OIL-ALERT may not operate properly if not used on a level surface or tilted beyond blower tilt mechanism.

AIR POWERED BLOWERS

Fill Automatic Air Lubricator. Motor must be lubricated to perform properly.
Moisture trap and filter must be installed in the Shop Air Line ahead of motor feed line.
Air units come complete with air control valve, air filter, automatic motor lubricator, and grounding clamp.
Read Air Motor Manual for instructions.

ELECTRIC BLOWERS

Use extension cords of suitable size for amperage load (see nameplate data).
Failure to use proper size cord may result in fire or electrical shock, and may cause damage to unit.
Always ensure the switch is in the OFF position prior to connecting to power.

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

VARIABLE SPEED BLOWERS

Use InteliSense Controller to achieve desired air velocity.
Unit can be turned on and off at any speed setting.
Unit can be powered by a GFCI outlet.
Speed Control is Spray-resistant Not waterproof.

ATEX (Ex) RATED BLOWERS

USE Ex-Rated receptacles for this equipment.
See supplementary ATEX instruction sheet for limitations of use.

VENTURI BLOWERS

Operate on compressed air or saturated steam lines limited to 100 p.s.i.
Due to high reaction force, be sure to firmly position and secure unit before turning on the air supply.
Keep area free of loose debris or solid objects.
Properly ground this product to prevent static discharge when used in areas containing combustible gas, vapor or dust.
Do not drag the aluminum base of this product across steel which can create a smear. A heavy smear, when struck with some objects, can cause an incendiary spark.

WATER POWERED BLOWERS

Use only with properly tested and certified hose for inlet and discharge connections.
Connect the inlet and discharge water hoses to the fan. Run both hoses to provide as straight a path as possible.
DO NOT clamp or restrict discharge line from blower. Damage to water turbine may result.
MAXIMUM PRESSURE IS 250 PSI
Visually check for leaks or excessive strain from the hose. Leakage should be controlled if the presence of water could be detrimental to the surrounding area.
Upon completion of operation, secure water supply and disconnect from blower. Disconnect discharge hose and drain by tilting blower from side to side. Install end caps on swivels before storage.
If saltwater or dirty water is used to power blower, flush internal water passages of unit with fresh water after each use.
If equipped with a strainer, periodically remove, inspect and clean.
When reinstalling the Strainer on inlet swivel, DO NOT over tighten. Excessive force can result in damage to threads. Tighten only enough to prevent leakage.

Maintenance

GENERAL

Do NOT disassemble blower for maintenance reasons.
Clean fan periodically to remove accumulated dust or particles
Clean with commercially available biodegradable cleaning solutions.
Do NOT use solvents containing chlorinated hydrocarbons (i.e., MEK, Acetone)
Tighten all loose fasteners immediately. Check all at least once per year.
Do NOT over tighten fasteners.
Check rubber feet on frame for excessive wear or breakage.
Never replace special washer or impeller bolt with other than EURAMCO provided parts.
There are no user serviceable parts.
Contact factory for replacement part applicability
ELECTRIC BLOWERS
Disconnect power before cleaning.
Never immerse or direct spray at motor.
GASOLINE ENGINE POWERED BLOWERS

EURAMCO Safety Inc., Tel. 800 472-6326, Fax 619 670-7345, email: sales@euramcosafety.com, product info: www.euramcosafety.com Pub#: SM-FANS

Set up maintenance schedule for blower engine. **(see engine manual)**
Always remove spark plug wire and secure away from spark plug prior to performing maintenance.
Fan blade must be tightened to 31 N-m (275 in-lb) ± 5%. Shroud to engine face-plate bolts should be torqued to 28 N-m (250 in-lb). Use calibrated torque wrench. Bolt torque should be checked at least once per year.
WATER POWERED BLOWERS
Periodically check Grounding connection on blower to ensure fastener is tight and free of corrosion.

Safety

GENERAL

Blowers are **NOT** intended for operation in explosive atmospheres, unless specifically certified. See supplementary ATEX technical data if applicable.
Blowers should be operated and repaired by trained personnel only.
DO NOT START blower if there are any signs of damage, particularly to blade, guards, or housing.
Do NOT move the blower while it is running.
Use good lifting practices.
Immediately stop the unit upon hearing excessive mechanical noise or vibration.
Proper ear and eye protection must be worn while blower is running.
Keep fingers and hands clear of blade.
Keep area clear of rocks and debris.
Keep away from children.

ELECTRIC BLOWERS

Do NOT operate if there is any physical damage to cord or plug.
Fatal electrical shock may result if motor frame and adjacent metal are not grounded in compliance with electrical code.
To reduce the risk of fire or electrical shock, DO NOT use with any solid-state speed control device, except those supplied by Euramco Safety.

GASOLINE ENGINE POWERED BLOWERS

Move fuel Shut-Off Valve to the Off position when not in operation. Contamination of the oil will result if fuel is not shut off.
Always remove spark plug wire and secure away from spark plug prior to performing maintenance.
Carbon Monoxide and other combustion by-products are mixed with air discharge.

WATER POWERED BLOWERS

Duct adapter to blower and duct mounting surfaces must be clean and free of corrosion.
Connect inlet hose to proper supply connection.
Observe the inlet labeling. Running the blower in reverse will result in Turbine damage.
Use grounding connector when operating in potentially explosive atmospheres.

Warranty

RAMFAN blowers, excluding motors and wear items, are warranted for one year from date of original purchase, to be free of defects in material and workmanship. Gasoline and 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 metallic shrouds, excluding plastic blower housings, 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. Duct is not warranted due to its intended use.

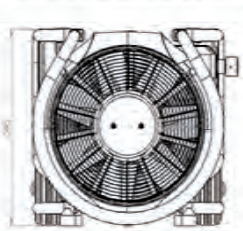
EURAMCO Safety Inc., Tel. 800 472-6326, Fax 619 670-7345, email: sales@euramcosafety.com, product info: www.euramcosafety.com Pub#: SM-FANS

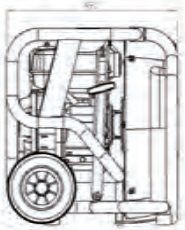
Easy Pow'air MT236

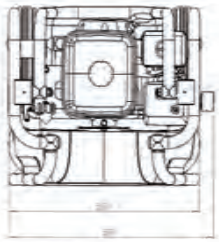
EN

Easy Pow'air MT236 : GENERAL FEATURES

Manufacturer's reference I60.10.042 I60.10.052 I60.10.053
Manufacturer GROUPE LEADER S.A, Octeville sur mer - FRANCE







Weight : 42 Kg
+/- 0.5 Kg

H : 548 L : 550 PR : 492
+/- 5mm

Construction :

- Chassis in ø 30mm steel tube – epoxy coating
- Engine Honda GX160 type – 4-stroke – 5,5 HP at 3600 rpm (SAEJ1349 : 4.8HP)
- Guard of the turbine in double polyethylene skin
- Turbine made of composite resin - ø 420 mm – aluminium axle
- Operating autonomy _ 2h10 at full speed
- Standard equipment : engine stops automatically in the event of shortage of oil or if the fan is accidentally knocked over
- Noise level around 90.9 dB(A) at 3 m
- Retractable handle, two 200mm diameter wheels
- Angle of tilt adjustable (from 10° to 20°).
- Airflow: 43100 m³/h

Guarantee:
2 years, parts and labour, for the engine, see manufacturer's documentation

This equipment is designed and manufactured in FRANCE, in compliance with CE directives.

This equipment should be used only by firefighting professionals

INSTRUCTIONS FOR START-UP :

The following checks must be carried out before first starting the fan:

- Make a visual check of the **MT236** and its accessories to make sure that no damage occurred during transport.

ATTENTION: Dot not attempts to start the **MT236** ventilator if you notice any kind of anomaly. Contact **Groupe Leader SA** immediately.

- Check that the manual for the HONDA is contained in the pack.

With the engine off, pull the recoil starter. If there is any unusual noise, or if the turbine gets stuck, stop the engine and contact **Groupe Leader SA** immediately.

Read the instruction manual for the engine before filling up with oil or petrol.

Use the fuel and lubricant recommended in the instruction manual for the engine: fresh, unleaded petrol with an octane rating of at least 85.

Fill the engine's oil sump with a type of oil recommended in the instruction manual.

MT236 *: engine HONDA: oil capacity: 0.5 litre (20W50)*

The limits for oil use are shown in the HONDA engine manual.

Make sure that everyone responsible for or using this equipment is fully aware of the safety and operating precautions pertaining to rotating machinery.

NB : By its nature, a petrol engine creates vibrations. It is normal for the fan to vibrate when in use, particularly at medium power. To ensure better stability for the **MT236** fan, particularly on an uneven surface, put the accelerator up to maximum power. This will reduce the vibrations and improve the equipment's stability.

It is possible that there will be some extraneous vibration during the engine's running-in period. These will disappear after several hours' use.

START-UP OPERATIONS :

The way the **MT236** fan is started depends on the terrain on which it is being used.

1/ Check that the fuel tank is full.

2/ Check that there is no fuel leakage.

3/ Place the **MT236** fan on a flat surface where there are no slippery products and which is clear of debris. Make sure there is no obstacle between the fan and the opening for air entry.

4/ Start the fan after making sure that it is in a stable position, and adjust the accelerator so as to obtain the desired airflow. (For more information, see the engine manufacturer's manual).

5/ During blowing operations, regularly check that no obstacle is preventing the airflow from penetrating the interior of the building, or blocking the fan's suction grill

ADJUSTING THE TILT:

Use between 2 and 6 metres from the opening

1) Lift the carrying handle, the fan is automatically tilted to an angle of 10° (operating angle recommended for 90% of incidents).

2) To close the carrying handle, unlock it using the index pin (ref. A).

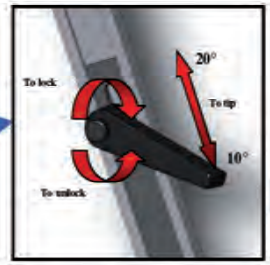
ADJUSTING THE TILT: LANDING, ENTRY WITH STEPS, WINDOW:

Use between 4 and 6 metres from the opening

1) To adjust the tilt between 10° and 20°, unlock the tilt adjustment lever by moving it a quarter turn.

2) Tilt the fan manually so as to centre the jet on the opening.

3). Lock the lever while holding the fan in place so as not to alter the tilt.



IMPORTANT: READ BEFORE USE

EN

This document has been drawn up in order to help you get to know how to use your **MT236** ventilator.

All operating and safety instructions must be strictly followed in order to avoid accidents or problems. All operations involving dismantling or repair must be carried out by GROUPE LEADER S.A., or by an approved dealer.

This document demonstrates the ease of use and maintenance of the **MT236** ventilator. If you have any suggestions for improving this document, **GROUPE LEADER S.A.** would be very happy to hear them. Please do not hesitate to contact us.

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MT236.00.ZN03. ??.ML.0

ISO 9001

As it is our policy to constantly seek to improve our products, we reserve the right to change the specification of our equipment without notice.

SAFETY INSTRUCTIONS :

This equipment is manufactured in compliance with CE directives. It should be used only by fire-fighting professionals.

Read this manual completely, together with the attached instructions for the use and maintenance of the engine before starting up or using the equipment.

Do not remove the petrol tank stopper, or fill the tank, while the engine is running or when it is hot (let the engine cool down for 2 minutes before filling the petrol tank).

Keep fingers and hands away from the turbine and the hot parts of the equipment (cylinder block and exhaust).

Do not start up the engine when the air filter or the air filter cover are removed.

Always use recently produced unleaded petrol. Petrol which has been stored for a long time forms a deposit which could block the carburettor.

Do not run the engine in an enclosed space. (The exhaust gases contain carbon monoxide.)

Do not fill the petrol tank in an unventilated area.

This ventilator must be operated or repaired only by qualified, trained staff.

Do not start up the engine if the blades or the protective shroud show any signs of damage.

Never move the ventilator when it is running at full speed.

Only use genuine spare parts supplied by GROUPE LEADER S.A. when replacing defective parts.

During maintenance operations, the wire leading to the spark-plug should be removed and fixed elsewhere.

MT236 type blowers must not be used in explosive atmospheres.

Do not remain in the fan's outlet area (risk of flying debris).

Keep this equipment out of reach of children.

Wear safety glasses, gloves and earmuffs when using this ventilator.

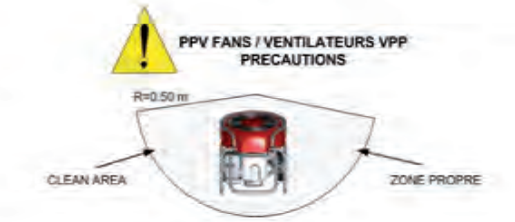
Never allow anyone to use a ventilator without first giving them the necessary instructions.

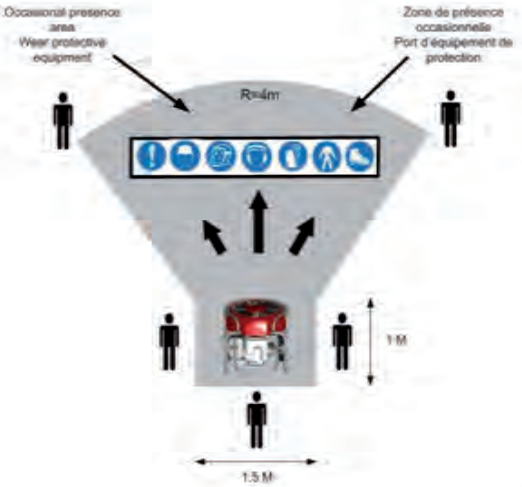
Do not wear loose clothing which could get caught in the ventilator.

Do not use chocks or any other system for increasing the ventilator's tilt angle.

Do not forget to put oil in the ventilator's engine before use.

PRECAUTIONS FOR USE :





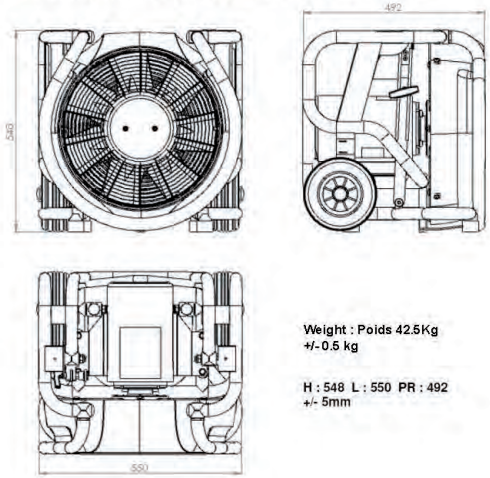
NB : MT236 ventilators operate on the high-speed entrained air principle. These portable ventilators are designed to clear smoke and gas, volatile or otherwise, by their blowing (or positive power) action, in all types of premises where an exit has been prepared. They are designed to be used between 2 and 6 metres away from the opening concerned.
Groupe Leader SA recommends that the minimum opening for escaping smoke should be the same size as the entry opening : the ideal would be double the size.

Easy Pow'air ESP230

EN

ESP230 : GENERAL FEATURES

Manufacturer's reference I63.10.012
Manufacturer GROUPE LEADER S.A, Octeville sur mer - FRANCE



Weight : Poids 42.5Kg +/- 0.5 kg

H : 548 L : 550 PR : 492 +/- 5mm

Construction :

- Chassis in ø 30mm steel tube – epoxy coating
- 2.2KW 220V 50 Hz Single-phase motor IP55
- Guard of the turbine in double polyethylene skin
- Turbine made of composite resin - ø 420 mm – aluminium axle
- Noise level around 83.6 dB(A) at 3 m.
- Retractable handle, two 200m diameter wheels
- Angle of tilt adjustable (from 10° to 20°).
- Airflow 33900 m/h

Guarantee: 2 years, parts and labour, wear parts excluded

This equipment is designed and manufactured in FRANCE, in compliance with CE directives.
This equipment should be used only by firefighting professionals

INSTRUCTIONS FOR START-UP :

The following checks must be carried out before first starting the fan:

- Make a visual check of the **ESP** and its accessories to make sure that no damage occurred during transport.
- If there is any unusual noise, or if the turbine gets stuck, stop the engine and contact **Groupe Leader SA** immediately.

ATTENTION : Do not attempt to start the **ESP** ventilator if you notice any kind of anomaly. Contact Groupe Leader SA immediately.

- Make sure that everyone responsible for or using this equipment is fully aware of the safety and operating precautions pertaining to rotating machinery.

START-UP OPERATIONS:

The way the **ESP** fan is started depends on the terrain on which it is being used.

1/ Place the **ESP** fan on a flat surface where there are no slippery products and which is clear of debris. Make sure there is no obstacle between the fan and the opening for air entry.

2/ Start the fan after making sure that it is in a stable position.

3/ During blowing operations, regularly check that no obstacle is preventing the airflow from penetrating the interior of the building, or blocking the fan's suction grill.

USING :

Attention : Always keep your hands away from moving parts.

Before starting :

1. Connect the electric supply, making sure that the energy necessary for starting the motor is available.
2. Roll out on the ground, systematically, all the extension cables used for energy supply.
3. Use wiring strengths which are compatible with the installed capacity.
4. Place the ESP fan on a flat surface with no slippery products or debris, and make sure that there is no obstacle between the fan and the opening for air entry.

Starting the motor :

1. Start the fan after making sure that it is in a stable position
2. Move the motor switch to the 'I' position.

Stopping the motor :

1. Move the motor switch to the '0' position.

USE WITH PORTABLE GENERATING SETS :
Electric motors require a high level of power to start up. If the ESP230 Easy Pow'air Technology fan is to be used with a portable generating set, GROUPE LEADER S.A. recommends that a minimum power level of 4 KVA should be available.

ADJUSTING THE TILT:

Use between 2 and 6 metres from the opening

1) Lift the carrying handle, the fan is automatically tilted to an angle of 10° (operating angle recommended for 90% of incidents).

2) To close the carrying handle, unlock it using the index pin (ref. A).

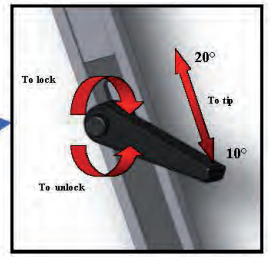
ADJUSTING THE TILT : LANDING, ENTRY WITH STEPS OR WINDOW :

Use between 4 and 6 metres from the opening

1) To adjust the tilt between 10° and 20°, unlock the tilt adjustment lever by moving it a quarter turn.

2) Tilt the fan manually so as to centre the jet on the opening.

3). Lock the lever while holding the fan in place so as not to alter the tilt.



IMPORTANT: READ BEFORE USE

EN

This document has been drawn up in order to help you get to know how to use your **ESP** ventilator.

All operating and safety instructions must be strictly followed in order to avoid accidents or problems. All operations involving dismantling or repair must be carried out by GROUPE LEADER S.A., or by an approved dealer.

This document demonstrates the ease of use and maintenance of the **ESP** ventilator. If you have any suggestions for improving this document, **GROUPE LEADER S.A.** would be very happy to hear them. Please do not hesitate to contact us.

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CERTIFICATION ISO 9001 AB CERTIFICATION

CE

SAFETY INSTRUCTIONS :

This equipment is manufactured in compliance with CE directives. It should be used only by fire-fighting professionals.

Read this manual completely, together with the attached instructions for the use and maintenance of the engine before starting up or using the equipment.

Keep fingers and hands away from the turbine and the hot parts of the equipment.

This ventilator must be operated or repaired only by qualified, trained staff.

Do not start up the engine if the blades or the protective shroud show any signs of damage.

Never move the ventilator when it is running at full speed.

Only use genuine spare parts supplied by GROUPE LEADER S.A. when replacing defective parts.

During maintenance operations, the wire leading to the spark-plug should be removed and fixed elsewhere.

ESP type blowers must not be used in explosive atmospheres.

Do not remain in the fan's outlet area (risk of flying debris).

Keep this equipment out of reach of children.

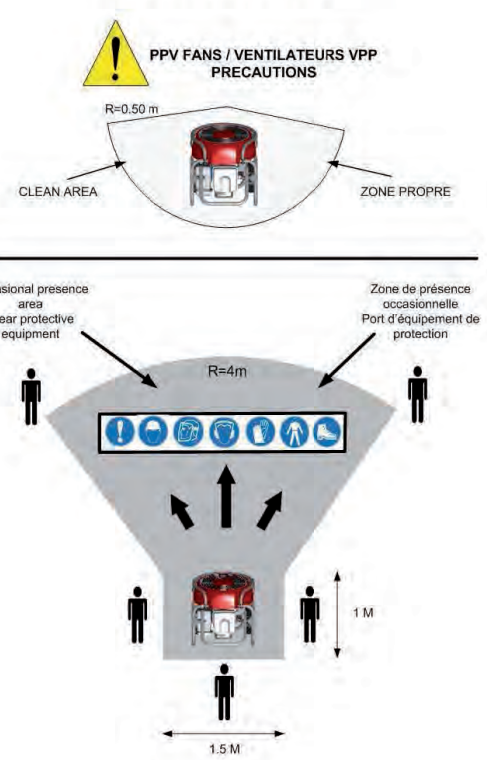
Wear safety glasses, gloves and earmuffs when using this ventilator.

Never allow anyone to use a ventilator without first giving them the necessary instructions.

Do not wear loose clothing which could get caught in the ventilator.

Do not use chocks or any other system for increasing the ventilator's tilt angle.

PRECAUTIONS FOR USE :



NB : ESP ventilators operate on the high-speed entrained air principle. These portable ventilators are designed to clear smoke and gas, volatile or otherwise, by their blowing (or positive power) action, in all types of premises where an exit has been prepared. They are designed to be used between 2 and 6 metres away from the opening concerned. **Groupe Leader SA** recommends that the minimum opening for escaping smoke should be the same size as the entry opening: the ideal would be double the size.

Place your trust in emergency pneumatics!

We are the company who can help you, find a solution to your problem!

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