

USER MANUAL FOR THE INSTALLATION, INSPECTION AND MAINTENANCE TEAM AND OPERATORS ATEX TRUCK USED



AIRMEEX

AIRMEEX

'Protecting people, conserving the environment'

For many years, we have been offering Ex Solutions for all types of electrical or diesel systems operating in risky environments within the scope of the "Regulation on the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres "2014/34/EU.

In addition, we carry out Atex Compliance studies in accordance with the defined Zone maps of construction machines such as electric or diesel forklifts, pallet trucks, compressors, cranes, personnel carriers, generators... operating in explosive environments.

Airmeex is an organization that has the CE Declaration for all exproof equipment used on the machine whose ATEX Compliance is completed.

However, we have certificated from notified bodies in both France and Turkey for all Ex equipment and Atex Compliance practices. We carry out our existing quality management system both as equipment and personnel equipment required for the Atex Directive.

Thank you for choosing AIRMEEX to explosion protect your materials handling equipment.



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**ATEX
PROTECTION**

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ATEX PROTECTION

ATEX MANUFACTURER CERTIFICATE AND EU DECLARATION OF CONFORMITY

Airmeex produce Exproof Equipments for underground and surface explosive environments (Zone1-2, Zone21-22) within the scope of the "Regulation on the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres "2014/34/EU.

In this context, It realizes Atex Compliance of construction equipment working underground and surface ground, electric and diesel forklift, pallet truck, generator, excavator, crane, personnel carrier, compressor etc. The vehicle conversion is carried out in accordance with the latest requirements (all requirements to be taken in electrical and non-electrical mechanical parts.) as specified within the European Standard EN1755:2015 and 2014/34/EU.



(1) **Conformity to Type Based on Quality Assurance of the Production Process Notification**

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, Directive 2014/34/EU

(3) Notification Number: TÜV CY 21 ATEX 0206470 Q Issue:01

(4) Product category: Electrical and diesel equipment of categories 1, 2 and M2 intended to be used in explosive, gas and dust atmosphere

Protective principle:
Flameproof enclosure "d"
Increased safety "e"
Protection by enclosures "t"
Intrinsic safety "i"

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Order number: 0206470
Date of issue: 2022-11-04
First certification: 2021-03-29
Valid to: 2023-03-29

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CY-QF-(IND-ATEX-01)-12-ND_Rev02_10.08.2022

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Appareils et système de protection pour une utilisation en Atmosphère Explosible –
 Directive ATEX 2014/34/UE
 Apparatus and protective system for a use into Explosive Atmosphere –
 ATEX Directive 2014/34/EU

DECLARATION UE DE CONFORMITE
EU DECLARATION OF CONFORMITY

CLIENT / CUSTOMER :
 PRODUIT / PARTS :
 TYPE :
 NUMERO DE SERIE AIRMEEX / AIRMEEX MANUFACTURING NUMBER :
 MARQUAGE DE LA DIRECTIVE / DIRECTIVE MARKING : (Ex)
 NUMERO DE CERTIFICAT / CERTIFICATE NUMBER :

La société Airmeex atteste que le matériel cité ci-dessus et ses accessoires de sécurité ont été transformés pour une utilisation en atmosphère explosible conformément aux dispositions des Directives de la Communauté Européenne, y compris les derniers amendements, comme indiqué ci-dessous :

La présomption de conformité est fondée sur l'application des normes harmonisées, des documents normatifs ou d'autres documents et, le cas échéant, sur la certification d'un Organisme Notifié de la Communauté Européenne, comme indiqué ci-dessous:

Airmeex Company certifies that material specified above and his accessories of safety were transformed for a use into Explosive Atmosphere in conformity with the provisions of the European Community Directives, including the latest amendments, as shown below:

Presumption of conformity is based on the application of the harmonized standards, normative documents or other documents and, when applicable or required a European Community notified body certification as shown below:

- Directive ATEX (2014/34/UE) / ATEX Directive (2014/34/EU)
 Normes harmonisées utilisées / Harmonized standards Used :
 - EN 60079-0 : 2012+A11 : 2013
 - EN 60079-1 : 2014

Organisme Notifié pour Assurance Qualité / Notified body for ATEX for Quality Assurance:
 Notification d'assurance qualité ATEX / Quality assurance notification: N°ITS16ATEXQ01544
 Adresse / Address: Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB
 Numéro de l'organisme / OrganismeNumber: 0359

Hakan CALISKAN
 President and CEO
 Date:

Afinor, Normes en ligne le 06/09/2016 à 18:02
 Pour : AIRMEEX

NF EN 1755:2016-02

NORME EUROPÉENNE
EUROPÄISCHE NORM
EUROPEAN STANDARD

EN 1755

Novembre 2015

ICS 53.060

Remplace EN 1755:2000+A2:2013

6 Rue de l'ancienne sablière – ZI DE LA FOSSE MO
 TEL : 33.01.69.52.96.00 – FAX : 33.01.69.52.31.30 - http://www.airmeex.com

N° du document: 091_P2_DQ-F Date d'application:

Version Française

**Chariots de manutention - Prescriptions de sécurité et
 vérification - Prescriptions supplémentaires pour le
 fonctionnement en atmosphères explosibles**

Sicherheit von Flurförderzeugen - Einsatz in explosionsgefährdeten Bereichen - Verwendung in Bereichen mit brennbaren Gasen, Dämpfen, Nebeln oder Stäuben

Industrial Trucks - Safety requirements and verification - Supplementary requirements for operation in potentially explosive atmospheres

La présente Norme européenne a été adoptée par le CEN le 24 juillet 2015.

Les membres du CEN sont tenus de se soumettre au Règlement Intérieur du CEN/CENELEC, qui définit les conditions dans lesquelles doit être attribué, sans modification, le statut de norme nationale à la Norme européenne. Les listes mises à jour et les références bibliographiques relatives à ces normes nationales peuvent être obtenues auprès du Centre de Gestion du CEN-CENELEC ou auprès des membres du CEN.

La présente Norme européenne existe en trois versions officielles (allemand, anglais, français). Une version dans une autre langue faite par traduction sous la responsabilité d'un membre du CEN dans sa langue nationale et notifiée au Centre de Gestion du CEN-CENELEC, a le même statut que les versions officielles.

Les membres du CEN sont les organismes nationaux de normalisation des pays suivants: Allemagne, Ancienne République yougoslave de Macédoine, Autriche, Belgique, Bulgarie, Chypre, Croatie, Danemark, Espagne, Estonie, Finlande, France, Grèce, Hongrie, Irlande, Islande, Italie, Lettonie, Lituanie, Luxembourg, Malte, Norvège, Pays-Bas, Pologne, Portugal, République Tchèque, Roumanie, Royaume-Uni, Slovaquie, Slovénie, Suède, Suisse et Turquie.

ATEX PROTECTION

GENERAL AND SAFETY INFORMATION

It is essential that this operator manual is read and understood by the purchasing institution, inspection and maintenance team and operators using before operating the ATEX Compliance Truck. If the vehicle is not used in accordance with the instructions specified here, it may pose a hazard. Due to the Airmeex ATEX Compliance study, there may be differences in some of the original vehicle manufacturer's instructions for use. It is important that this manual is read in conjunction with the original equipment manufacturers operating instruction



Airmeex authorized personnel must be contacted for any issues not understood.



If the ATEX Machine fails to operate or if it shuts the vehicle down while operating, do not attempt to restart until permission has been granted by the person in authority. If a flammable gas is suspected of entering any enclosure on the vehicle, the vehicle must be safely transported to a non-hazardous area where the enclosure can be cleaned. Do not restart ATEX Machine until this procedure has been completed and permission granted by the person in authority.



If there is any doubt as to the satisfactory condition of the vehicle or ATEX equipment the person in authority must be consulted and any faults rectified before the vehicle may be used in the hazardous area.



Because of ATEX Declaration of Conformity (CE Declaration) covers the entire vehicle with ATEX Compliance, some components have been reliably tested and used on the vehicle without any changes (For example; Buzzer). Therefore, the authorized person should make sure that these components are replaced by the original manufacturers in the event of a malfunction. If this is not possible, the authorized person should definitely get support from Airmeex.

ATEX PROTECTION



Only suitably trained and competent personnel may carry out maintenance or repair work on the Airmeex equipment. All repair and maintenance must be in accordance with EN 60079-17 and EN 60079-19. Airmeex accepts no responsibility for work undertaken by non-Airmeex trained personnel.



All personnel are expected to employ safe working practices and observe their company safety policy and all relevant safety requirements, regulations and directives applicable to the country or locality in which the equipment is being used.



It is essential that the vehicle is maintained in accordance with the OEM instructions and schedule except where otherwise specified in this manual. Particular attention should be paid to the lubrication of all moving parts. Failure to do so could result in a mechanical ignition hazard.



If an audible noise or vibration is detected that could be indicative of bearing failure. Do not use the vehicle and contact the person in authority immediately.



Check for fluid leaks before vehicle start up. If a leak is detected do not use the vehicle and contact the person in authority immediately. .








Check the levels of all lubricants before vehicle start up. If any are below the minimum recommended level do not use the vehicle and contact the person in authority immediately.



Ensure where applicable hydraulic activation cylinders are kept free from the build up of dust and debris.

ATEX PROTECTION

-  Read and understand all notices and labels on the equipment before operating the vehicle.
-  If braking performance is suspect or if a squealing sound is heard when the brakes are applied, do not use the vehicle and contact the person in authority immediately.
-  Equipments on the vehicle must not be painted in any way. If it requires paint, the authorized person should be contacted.
-  If any of the equipment of the Atex Compliance vehicle is subjected to direct impact, chemical or corrosion, the equipment should not be used and put into operation without being checked by authorized personnel.
-  In case of any malfunction in Atex Compatible vehicle or ex equipment, intervention must be done outside the dangerous area.



ATEX PROTECTION


LABEL INFORMATION

The vehicle will be fitted with an identification marking label similar to that shown below. The label defines the conversion specification and vehicle details.



If the label is damaged or damaged or becomes illegible, ask the authorized manufacturer to renew it.

- 1) CE Marking
- 2) Notified Body Number
- 3) Ex Mark
- 4) Protection Type
- 5) Atex Manufacturer Information



AIRMEEX-SA
F-91270 VIGNEUX
FRANCE

1) **CE** 2) 0359 3) **Ex** 4) II 2GD

Serial Number :

Numéro de Série :

Safety Box :

Coffree :

Ex MP 17 ATEX 0112 X

II 2G Ex d IIB T6 Gb
II 2D Ex t IIIC T85°C IP6X Db

DO NOT OPEN IN EXPLOSIVE ATMOSPHERE !
NE PAS OUVRIR EN ATMOSPHERE EXPLOSIVE !
PATLAYICI ATMOSFERDE AÇMAYINIZ !







ELECTRIC BOX MODEL-2

ONS2672

**ATEX
PROTECTION**

WARNING and ATTENTION LABELS



NO:	LABEL TEXT		REASON
1	WARNING! NON CONDUCTIVE PART(S) - POTENTIAL ELECTROSTATIC CHARGING HAZARD - CLEAN ONLY WITH A DAMP CLOTH		To prevent the build up of static.
2	WARNING! ENCLOSURES MUST NOT BE OPENED, OR ANY EQUIPMENT DISCONNECTED WHILE INSIDE HAZARDOUS AREA		The equipment will not be protected from gas or dust in the hazardous area.
3	WARNING! CLEAN MACHINE EVERY DAY TO BE SURE THAT NO DUST LAYERS CAN BE FORMED		Dust layers above 5mm can affect the T-class of the truck.
4	WARNING! OPEN ONLY IN A NON HAZARDOUS AREA		The equipment will not be protected from gas or dust in the hazardous area.
5	CHASSIS TO GROUND POINT		The label is to indicate the chassis earthing points on the truck.
6	STOP VEHICLE IMMEDIATELY AND BOOK SYMBOL		This will be because of an over temperature. Surface temperature above the T class of the truck is unsafe for use in the hazardous area.

ATEX PROTECTION

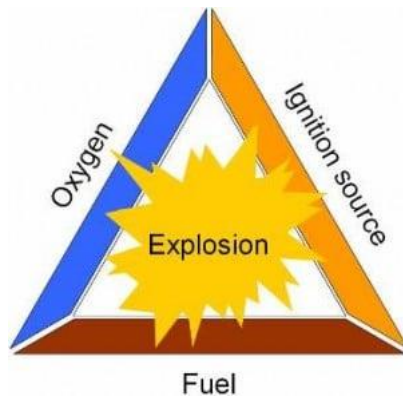
ATEX COMPLIANCE VEHICLE SAFETY FUNCTION

ATEX is an acronym for "ATmosphere Explosible".

At the same time, ATEX is the abbreviated name of the European Directive 2014/34/EU on the market of explosion-proof electrical and mechanical equipment, components and protective systems. It came into force on July 1, 2003, and from that date all new equipment and protective systems have been subject to it.

ATmosphere Explosible;

An explosive atmosphere is defined as a mixture of dangerous substances with air, under atmospheric conditions, in the form of gases, vapours, mist or dust in which, after ignition has occurred, combustion spreads to the entire unburned mixture.



EN 1127-1 lists all 18 sources of ignition recognized;

1. Hot Surfaces,
2. Flames and hot gases(including hot particles),
3. Mechanically generated sparks,
4. Power Supplies,
5. Stray electrical currents, cathodic corrosion protection
6. Static Electricity,
7. Lightning,
8. Electromagnetic waves, radio frequency (RF) from 10^4 to 3×10^{11} Hz),
9. Electromagnetic waves from 3×10^{11} to 3×10^{15} Hz
10. Ionizing radiation,
11. Ultrasound,
12. Adiabatic compression and shock waves,
13. Exothermic reactions, including self-ignition of the powders

ATEX PROTECTION

According to the EN1755 Safety of Industrial trucks- Operation in potentially explosive atmospheres- Use in flammable gas, vapour, mist and dust, there are 5 main points to be taken under the 2014/34 EU Directive on vehicles operating in hazardous areas.

These; Hot surfaces, Flames and hot gases, Mechanical sparks, Electrical equipment and Static electric components.

It is necessary to keep the surface temperatures of the equipment on vehicles operating in hazardous areas below the temperature class specified for the hazardous area. This requirement is provided by temperature sensors and additional measures placed in various locations on the Airmeex ATEX Compliant vehicle.

Basically these processes;

- Grounding of electrostatic charge, which is a potential ignition source.
- Stainless steel coating of forks to protect them from sparking hazard
- Protection of components such as relays and contactors that may create sparking danger with Exproof housings
- Identification of electrostatic charge risks and warning points on the machine with appropriate warning labels

ATEX PROTECTION

ATEX MACHINE SYSTEM COMPONENTS AND MEASURES TAKEN

The equipment on the ATEX Compliance vehicle differs from the equipment on the original vehicle.

Before starting the vehicle, it is essential to read, understand and learn the locations of the locations of variability indicating equipment.

IGNITION KEY

In diesel vehicles, the original ignition key is used and no functional changes are applied. It is necessary to refer to the original vehicle instructions for location and use.

Airmeex Atex Certified ignition keys are used in electric vehicles in accordance with the changing features of the machine.



BUTTONS and SWITCHES

Changes to OEM functions could be in the form of replacing the operation buttons & switches to a product that is required for use in a hazardous area.

The changes in appearance and operation of some buttons & switches will have changed from the OEM operation manual. The replacements will have an identical function OEM manual.



HORN

Air horn is used in the vehicle for warning purposes and to provide driving safety. It creates awareness by making sounds for warning purposes in case of danger.



ATEX PROTECTION

INDICATORS



SU SICAKLIK İKAZI



EGZOZ SICAKLIK İKAZI



YAKIT SEVİYE İKAZI



PARK FRENİ İKAZI + FREN HİDROLİK SEVİYE İKAZI



SURVİTES DEVİR KONTROL İKAZI



HİDROLİK YAĞ ISI İKAZI



KIZDIRMA İKAZI



YAĞ BASINÇ İKAZI



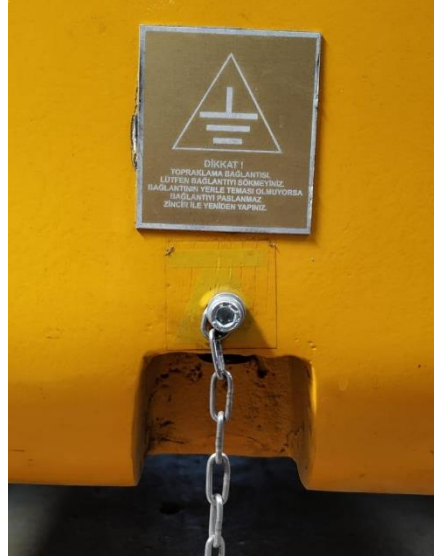
AKÜ ŞARJ İKAZI



ATEX PROTECTION

GROUNDING BELTS AND CHAINS

Grounding belts and chains should be in full contact with the ground. In the event of breakage or damage, the vehicle should not be used and support should be obtained from authorized personnel.



CONDUCTIVE TYRES

Tyres should be free from metal particles, undamaged, and if applicable inflated to the correct pressure. In case of any deformation on the tyres, AirmeeX authorized personnel should be contacted immediately.



Also as part of the daily operator checks the condition of castors, wheels, earth straps and fan belts should be checked for contamination with regard to conductivity. If excessive contamination is suspected the conductivity should be checked by a suitably qualified person.



Grounding strap and chain locations should never be changed without consulting AirmeeX.



The grounding belt and chain can be easily wiped with a cloth to remove dirt and oil.

ATEX PROTECTION

FORKS COATED WITH STAINLESS

Forks and other load handling devices (drum handlers etc.) are clad in 3 mm thick stainless steel.



During operation, the stainless steel cladding will be subject to wear and therefore needs to be routinely inspected to ensure the cladding remains intact and the thickness does not reduce to less than 1mm.



No additional extension connection should be made externally on the forks. In case of need, Airmeex authorized personnel should be contacted immediately.



PARTS IN CONTACT WITH THE OPERATOR (SEATS, ARM RESTS ETC.)

To prevent the build-up of static electricity plastic materials also require consideration. Parts in frequent contact with moving bodies (seats, arm rests, cab sides, etc.) require all plastic materials to be electrically conductive or anti-static.



Therefore seats and arm rests are either covered in an electrically conductive vinyl or cloth.



Nothing that can create static electricity from the outside should be placed on the seat and inside the cabin.



As part of a daily work, the condition of the above-mentioned parts should be checked visually. In the event of any wear or antistatic condition on the parts, the vehicle should not be used and Airmeex authorized personnel should be contacted immediately.

ATEX PROTECTION

PLASTICS PARTS



Plastic parts on which the operator is frequently or constantly in contact with the vehicle have been made antistatic due to the risk of electrostatic and are protected with special paints.



ATEX PROTECTION

WHAT TO DO BEFORE OPERATING THE SYSTEM

- ✓ Pre-operation checks recommended by the vehicle manufacturer, including coolant and fuel level, should be carried out.
- ✓ Before the vehicle is started, a tour should be taken around it and visual control should be provided to cover all equipment.
- ✓ The pre-control and general status control steps for each piece of equipment described in the Equipment section of this manual must be followed.

WHAT TO DO WHEN THE SYSTEM IS OPERATING

- ✓ Before the machine is started, firstly, it should be checked whether the emergency stop button is pressed and the button should be turned on by turning it in the pressed position.
- ✓ A visual check should be made to see if the battery outlet is installed.
- ✓ Check that the battery breaker is open.
- ✓ The ignition key must be turned to the "ON" position. The vehicle is then ready for use and should be operated in accordance with the original vehicle manufacturer's instructions.
- ✓ The vehicle must be stopped if a shutdown condition is detected during operation or if any warning warning is received. Airmeex officials should be contacted for current warning or malfunction.

STOPPING THE SYSTEM

Normal Stop: Normal stop of the vehicle is performed by closing the ignition.

Emergency Stop: The battery breaker is closed and the entire system is turned off.



When the vehicle is not in use, the Battery Breaker must also be closed after the normal stopping.

ATEX PROTECTION

ATEX FLAMEPROOF ENCLOSURE

Flameproof Enclosure Pre-Check;

- ❗ Label information and values should be checked for Atex product accuracy.
- ❗ It should be checked that there is no damage (fracture, crack, impact etc.) that may occur on the product during transportation.
- ❗ It should be ensured that the covers are mounted on the body properly and completely.
- ❗ Make sure that there is no corrosion on the cover and body flange surfaces.
- ❗ In case of a problem, the authorized manufacturer should be contacted.



All circuits and components are located in a flameproof enclosure.

Flameproof Enclosure Electrical Connections;

- ❗ Atex product electrical connection should be made by authorized people with the necessary technical knowledge.
- ❗ The compliance of the supply voltage to the values specified on the product label should be checked.
- ❗ All necessary electrical protection measures must be taken before energizing. (Insurance, thermal switch etc.)
- ❗ While the product body is not fully assembled, the system should not be energized.
- ❗ During operation, it should be checked whether a safety element is open that will prevent the equipment to work. (Battery Breaker etc.)



ATEX PROTECTION

- ❗ Cable connections and electrical product intervention in the enclosure should be done by authorized persons, taking into account the electrical scheme. In case of any malfunction, the manufacturer should be consulted.
- ❗ The connection equipment (blind plug, gland, bolt) properties on the enclosure should be in the values and types specified in the technical drawing, and tightened according to the Torque Table in this manual. It should be ensured that all bolts are fully assembled.
- ❗ Cable connections made on the product should only be provided with Ex d certified cable glands.
- ❗ The grounding line of the Atex product must be intact.
- ❗ It should be ensured that the supply cables are properly connected so that they are not short-circuited. Loose cable connections can cause malfunction and damage.

Care should be taken not to expose the equipment to possible impacts.






In the event of any damage to the equipment or glass, the product should never be used and support from the authorized manufacturer should be sought.

Flameproof Enclosure Maintenance and Control ;

- ❗ Atex product must never be disassembled, opened or maintained by unauthorized persons.
- ❗ Any component on the product should not be changed without authorization / permission from the authorized Atex manufacturer and no new component should be added.
- ❗ In cases of electrical failure, only authorized Atex manufacturer can carry out maintenance and repair operations of the product.
- ❗ Equipment maintenance should be done once every 10,000 hours by people with the necessary technical knowledge.







ATEX PROTECTION

-  The bolts should be opened and closed crosswise while processing the product. Bolts on the product should be carefully removed in situations that require intervention. After the procedure, the cover should be placed on the body, and the bolts used when disassembling should be tightened completely.
-  Grease oil supplied or approved by the manufacturer should be used after the cover and body connection surfaces are processed.
-  After opening the cover, the flameproof surface overlap area should not be exposed to impact, should be protected, and the authorized company should be notified immediately in the slightest cut or damage. Surface roughness should not exceed 6.3 μ .
-  The inner surface of the glass should be cleaned with a soft static cloth against possible dust and misting. The inside of the enclosure should be cleaned from air and dust and dirt.
-  Damaged parts must be replaced with new ones and original parts should be used.

ATEX EQUIPMENT CHANGE AND MAINTENANCE MUST BE CARRIED OUT IN A SAFE ENVIRONMENT WITHOUT EXPOSURE TO CREATE AN EXPLOSIVE ENVIRONMENT!

IN ALL FAULTS / MAINTENANCE / REPAIRS, THE AUTHORIZED MANUFACTURER MUST BE APPLIED FIRST!

-  The following applications should be performed once every 50 hours to check that the equipment is working properly.
-  During operation, the feeding value of the enclosure should be checked to make sure that it catches the value indicated on the label.
-  Check the connection cables for visible damage and loose connections on the mounting components.
-  The assembly of the equipment should be checked once a month and the fittings should be tightened and checked according to the given torque table.

It is the user's responsibility to protect the product label and keep it for the entire life of the product.

If the label is damaged or damaged or becomes illegible, ask the authorized manufacturer to renew it.

**ATEX
PROTECTION**

ATEX INDICATOR BOX

Indicator Box Pre-Check;

- ❗ Label information and values should be checked for ATEX product accuracy.
- ❗ It should be checked that there is no damage (fracture, crack, impact etc.) that may occur on the product during transportation.
- ❗ It should be ensured that the covers are mounted on the body properly and completely.
- ❗ Make sure that there is no corrosion on the cover and body flange surfaces.
- ❗ In case of a problem, the authorized manufacturer should be contacted.








All circuits and components are located in a flameproof enclosure.

Indicator Box Electrical Connections;

- ❗ ATEX product electrical connection should be made by authorized people with the necessary technical knowledge.
- ❗ The compliance of the supply voltage to the values specified on the product label should be checked.
- ❗ All necessary electrical protection measures must be taken before energizing. (Insurance, thermal switch etc.)
- ❗ While the product body is not fully assembled, the system should not be energized.
- ❗ During operation, it should be checked whether a safety element is open that will prevent the equipment to work. (Battery Breaker etc.)








ATEX PROTECTION

-  Cable connections and electrical product intervention in the enclosure should be done by authorized persons, taking into account the electrical scheme. In case of any malfunction, the manufacturer should be consulted.
-  The connection equipment (blind plug, gland, bolt) properties on the enclosure should be in the values and types specified in the technical drawing, and tightened according to the Torque Table in this manual. It should be ensured that all bolts are fully assembled.
-  Cable connections made on the product should only be provided with Ex d certified cable glands.
-  The grounding line of the Atex product must be intact.
-  It should be ensured that the supply cables are properly connected so that they are not short-circuited. Loose cable connections can cause malfunction and damage.







Care should be taken not to expose the equipment to possible impacts.

In the event of any damage to the equipment or glass, the product should never be used and support from the authorized manufacturer should be sought.

Indicator Box Maintenance and Control ;





-  Atex product must never be disassembled, opened or maintained by unauthorized persons.
-  Any component on the product should not be changed without authorization / permission from the authorized Atex manufacturer and no new component should be added.
-  In cases of electrical failure, only authorized Atex manufacturer can carry out maintenance and repair operations of the product.
-  Equipment maintenance should be done once every 10,000 hours by people with the necessary technical knowledge.
-  The bolts should be opened and closed crosswise while processing the product. Bolts on the product should be carefully removed in situations that require intervention. After the procedure, the cover should be placed on the body, and the bolts used when disassembling should be tightened completely.

ATEX PROTECTION

-  Grease oil supplied or approved by the manufacturer should be used after the cover and body connection surfaces are processed.
-  After opening the cover, the flameproof surface overlap area should not be exposed to impact, should be protected, and the authorized company should be notified immediately in the slightest cut or damage. Surface roughness should not exceed 6.3 μ .
-  The inner surface of the glass should be cleaned with a soft static cloth against possible dust and misting. The inside of the enclosure should be cleaned from air and dust and dirt.
-  On the protective glass on the indicator; solution, acid, etc. chemicals should not be spilled and should be cleaned immediately if spilled.
-  If the glass of the indicator cracks, the machine should not be used and the manufacturer should be contacted.
-  Damaged parts must be replaced with new ones and original parts should be used.

ATEX EQUIPMENT CHANGE AND MAINTENANCE MUST BE CARRIED OUT IN A SAFE ENVIRONMENT WITHOUT EXPOSURE TO CREATE AN EXPLOSIVE ENVIRONMENT!

IN ALL FAULTS / MAINTENANCE / REPAIRS, THE AUTHORIZED MANUFACTURER MUST BE APPLIED FIRST!

-  The following applications should be performed once every 50 hours to check that the equipment is working properly.
-  During operation, the feeding value of the enclosure should be checked to make sure that it catches the value indicated on the label.
-  Check the connection cables for visible damage and loose connections on the mounting components.
-  The assembly of the equipment should be checked once a month and the fittings should be tightened and checked according to the given torque table.

It is the user's responsibility to protect the product label and keep it for the entire life of the product.

If the label is damaged or damaged or becomes illegible, ask the authorized manufacturer to renew it.

ATEX PROTECTION

ATEX MOTOR

Motor Pre-Check;

- ❗ Label information and values should be checked for ATEX product accuracy.
- ❗ It should be checked that there is no damage (fracture, crack, impact etc.) that may occur on the product during transportation.
- ❗ It should be ensured that the covers are mounted on the body properly and completely.
- ❗ Make sure that there is no corrosion on the cover and body flange surfaces.
- ❗ In case of a problem, the authorized manufacturer should be contacted.









All circuits and components are located in a flameproof enclosure.

Motor Electrical Connections;

- ❗ ATEX product electrical connection should be made by authorized people with the necessary technical knowledge.
- ❗ The compliance of the supply voltage to the values specified on the product label should be checked.
- ❗ All necessary electrical protection measures must be taken before energizing. (Insurance, thermal switch etc.)
- ❗ While the product body is not fully assembled, the system should not be energized.









ATEX PROTECTION

-  During operation, it should be checked whether a safety element is open that will prevent the equipment to work. (Battery Breaker etc.)
-  Cable connections and electrical product intervention in the enclosure should be done by authorized persons, taking into account the electrical scheme. In case of any malfunction, the manufacturer should be consulted.
-  The connection equipment (blind plug, gland, bolt) properties on the enclosure should be in the values and types specified in the technical drawing, and tightened according to the Torque Table in this manual. It should be ensured that all bolts are fully assembled.
-  Cable connections made on the product should only be provided with Ex d certified cable glands.
-  The grounding line of the Atex product must be intact.
-  It should be ensured that the supply cables are properly connected so that they are not short-circuited. Loose cable connections can cause malfunction and damage.

Care should be taken not to expose the equipment to possible impacts.





In the event of any damage to the equipment or glass, the product should never be used and support from the authorized manufacturer should be sought.

Motor Maintenance and Control ;

-  Atex product must never be disassembled, opened or maintained by unauthorized persons.
-  Any component on the product should not be changed without authorization / permission from the authorized Atex manufacturer and no new component should be added.
-  In cases of electrical failure, only authorized Atex manufacturer can carry out maintenance and repair operations of the product.
-  Equipment maintenance should be done once every 10,000 hours by people with the necessary technical knowledge.
-  For heat and mechanical sound problems, the manufacturer must be contacted.
-  The bolts should be opened and closed crosswise while processing the product. Bolts on the product should be carefully removed in situations that require intervention. After the procedure,





ATEX PROTECTION

the cover should be placed on the body, and the bolts used when disassembling should be tightened completely.

-  Grease oil supplied or approved by the manufacturer should be used after the cover and body connection surfaces are processed.
-  After opening the cover, the flameproof surface overlap area should not be exposed to impact, should be protected, and the authorized company should be notified immediately in the slightest cut or damage. Surface roughness should not exceed 6.3 μ .
-  The inside of the enclosure should be cleaned from air and dust and dirt.
-  Damaged parts must be replaced with new ones and original parts should be used

ATEX EQUIPMENT CHANGE AND MAINTENANCE MUST BE CARRIED OUT IN A SAFE ENVIRONMENT WITHOUT EXPOSURE TO CREATE AN EXPLOSIVE ENVIRONMENT!

IN ALL FAULTS / MAINTENANCE / REPAIRS, THE AUTHORIZED MANUFACTURER MUST BE APPLIED FIRST!

-  The following applications should be performed once every 50 hours to check that the equipment is working properly.
-  During operation, the feeding value of the enclosure should be checked to make sure that it catches the value indicated on the label.
-  Check the connection cables for visible damage and loose connections on the mounting components.
-  The assembly of the equipment should be checked once a month and the fittings should be tightened and checked according to the given torque table.

It is the user's responsibility to protect the product label and keep it for the entire life of the product.

If the label is damaged or damaged or becomes illegible, ask the authorized manufacturer to renew it.

ATEX PROTECTION

ATEX STARTER MOTOR

Starter Motor Pre-Check;

- ❗ Label information and values should be checked for Atex product accuracy.
- ❗ It should be checked that there is no damage (fracture, crack, impact etc.) that may occur on the product during transportation.
- ❗ It should be ensured that the covers are mounted on the body properly and completely.
- ❗ Make sure that there is no corrosion on the cover and body flange surfaces.
- ❗ In case of a problem, the authorized manufacturer should be contacted.







All circuits and components are located in a flameproof enclosure.

Starter Motor Electrical Connections;

- ❗ Atex product electrical connection should be made by authorized people with the necessary technical knowledge.
- ❗ The compliance of the supply voltage to the values specified on the product label should be checked.
- ❗ All necessary electrical protection measures must be taken before energizing. (Insurance, thermal switch etc.)
- ❗ While the product body is not fully assembled, the system should not be energized.
- ❗ During operation, it should be checked whether a safety element is open that will prevent the equipment to work. (Battery Breaker etc.)
- ❗ Cable connections and electrical product intervention in the enclosure should be done by authorized persons, taking into account the electrical scheme. In case of any malfunction, the manufacturer should be consulted.







ATEX PROTECTION

-  The connection equipment (blind plug, gland, bolt) properties on the enclosure should be in the values and types specified in the technical drawing, and tightened according to the Torque Table in this manual. It should be ensured that all bolts are fully assembled.
-  Cable connections made on the product should only be provided with Ex d certified cable glands.
-  The grounding line of the Atex product must be intact.
-  It should be ensured that the supply cables are properly connected so that they are not short-circuited. Loose cable connections can cause malfunction and damage.

Care should be taken not to expose the equipment to possible impacts.

In the event of any damage to the equipment, the product should never be used and support from the authorized manufacturer should be sought.

Starter Motor Maintenance and Control ;

-  Atex product must never be disassembled, opened or maintained by unauthorized persons.
-  Any component on the product should not be changed without authorization / permission from the authorized Atex manufacturer and no new component should be added.
-  In cases of electrical failure, only authorized Atex manufacturer can carry out maintenance and repair operations of the product.
-  Equipment maintenance should be done once every 10,000 hours by people with the necessary technical knowledge.
-  For heat and mechanical sound problems, the manufacturer must be contacted.
-  The bolts should be opened and closed crosswise while processing the product. Bolts on the product should be carefully removed in situations that require intervention. After the procedure, the cover should be placed on the body, and the bolts used when disassembling should be tightened completely.

ATEX PROTECTION

- ❗ Grease oil supplied or approved by the manufacturer should be used after the cover and body connection surfaces are processed.
- ❗ After opening the cover, the flameproof surface overlap area should not be exposed to impact, should be protected, and the authorized company should be notified immediately in the slightest cut or damage. Surface roughness should not exceed 6.3 μ .
- ❗ **For Bearing Replacement;** Starter maintenance should be done once every 10,000 hours by people with the necessary technical knowledge. The inside of the enclosure should be cleaned from air and dust and dirt.
- ❗ Check whether there is a mechanical noise from the bearings or from any part of the starter motor.
- ❗ Damaged parts must be replaced with new ones and original parts should be used.

ATEX EQUIPMENT CHANGE AND MAINTENANCE MUST BE CARRIED OUT IN A SAFE ENVIRONMENT WITHOUT EXPOSURE TO CREATE AN EXPLOSIVE ENVIRONMENT!

IN ALL FAULTS / MAINTENANCE / REPAIRS, THE AUTHORIZED MANUFACTURER MUST BE APPLIED FIRST!

- ❗ The following applications should be performed once every 50 hours to check that the equipment is working properly.
- ❗ During operation, the feeding value of the enclosure should be checked to make sure that it catches the value indicated on the label.
- ❗ Check the connection cables for visible damage and loose connections on the mounting components.
- ❗ The assembly of the equipment should be checked once a month and the fittings should be tightened and checked according to the given torque table.

It is the user's responsibility to protect the product label and keep it for the entire life of the product.

If the label is damaged or damaged or becomes illegible, ask the authorized manufacturer to renew it.

ATEX PROTECTION

ATEX BATTERY

BATTERY Pre-Check;

- ❗ Label information and values should be checked for ATEX product accuracy.
- ❗ It should be checked that there is no damage (fracture, crack, impact etc.) that may occur on the product during transportation.
- ❗ It should be ensured that the battery's supply values are checked and that it operates properly. In case of a problem, the authorized manufacturer should be contacted.



Battery Electrical Connections;

- ❗ ATEX product electrical connection should be made by authorized people with the necessary technical knowledge.
- ❗ The compliance of the supply voltage to the values specified on the product label should be checked.
- ❗ All necessary electrical protection measures must be taken before energizing. (Insurance, thermal switch etc.)
- ❗ While the product body is not fully assembled, the system should not be energized.
- ❗ During operation, it should be checked whether a safety element is open that will prevent the equipment to work. (Battery Breaker etc.)
- ❗ Only 'Ex e' type certified cable glands can be mounted on the Ex 'e' type battery body.



ATEX PROTECTION

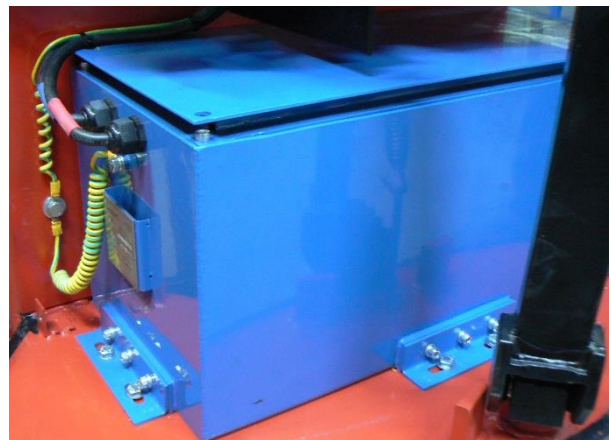
- ❗ In cases where battery cells need to be replaced, the machine should be used after contacting the authorized company of Atex Manufacturer, after re-isolation of the terminals and Ex protection.
- ❗ The grounding line of the Atex product must be intact.
- ❗ It should be ensured that the supply cables are properly connected so that they are not short-circuited. Loose cable connections can cause malfunction and damage.

RESIN APPLICATION AND CABLE ASSEMBLY CAN BE CARRIED OUT BY THE AIRMEEX AUTHORITY.

In the event of any damage to the equipment, the product should never be used and support from the authorized manufacturer should be sought.

Battery Maintenance and Control ;





- ❗ Atex product must never be disassembled, opened or maintained by unauthorized persons.
- ❗ Any component on the product should not be changed without authorization / permission from the authorized Atex manufacturer and no new component should be added.
- ❗ In cases of electrical failure, only authorized Atex manufacturer can carry out maintenance and repair operations of the product.



ATEX EQUIPMENT CHANGE AND MAINTENANCE MUST BE CARRIED OUT IN A SAFE ENVIRONMENT WITHOUT EXPOSURE TO CREATE AN EXPLOSIVE ENVIRONMENT!

IN ALL FAULTS / MAINTENANCE / REPAIRS, THE AUTHORIZED MANUFACTURER MUST BE APPLIED FIRST!

ATEX PROTECTION

-  The following applications should be performed once every 50 hours to check that the equipment is working properly.
-  During operation, the feeding value of the enclosure should be checked to make sure that it catches the value indicated on the label.
-  Check the connection cables and isolation for visible damage and loose connections on the mounting components.
-  The assembly of the equipment should be checked once a month and the fittings should be tightened and checked according to the given torque table.

It is the user's responsibility to protect the product label and keep it for the entire life of the product.

If the label is damaged or damaged or becomes illegible, ask the authorized manufacturer to renew it.

ATEX PROTECTION

ATEX BATTERY CONNECTOR

Battery Connector Pre-Check;

- ❗ Label information and values should be checked for ATEX product accuracy.
- ❗ It should be checked that there is no damage (fracture, crack, impact etc.) that may occur on the product during transportation.
- ❗ It should be checked whether the male socket is fully seated in the female socket. In case of a problem, the authorized manufacturer should be contacted.
- ❗ The contacts in the female and male socket are tightly interconnected. For this reason, it should be ensured that there is no foreign matter or high level of dirt in this area during the pre-assembly inspection.



All circuits and components are located in a flameproof enclosure.

Battery Connector Electrical Connections;

- ❗ ATEX product electrical connection should be made by authorized people with the necessary technical knowledge.
- ❗ The compliance of the supply voltage to the values specified on the product label should be checked.
- ❗ All necessary electrical protection measures must be taken before energizing. (Insurance, thermal switch etc.)



ATEX PROTECTION

- ⚠ While the female and male body of the product is not fully assembled, energy should never be given.
- ⚠ The system should not be energized without ensuring that the cable and socket installation is done correctly.
- ⚠ When the energy is on, the socket must not be disconnected, the male socket must not be separated from the female socket.
- ⚠ During operation, it should be checked whether a safety element is open that will prevent the equipment to work. (Battery Breaker etc.)
- ⚠ The handlebar on the plug should be lifted upright by lifting it at right angles.
- ⚠ After the socket is removed, the male and female sides should not be left exposed to impact, and a dismantling-fitting operation should be carried out in a controlled manner.
- ⚠ When plugging in, it should be installed according to the (+) (-) connection. Cable connections made on the product should only be provided with Ex d certified cable glands.
- ⚠ The battery outlet must not be used to pull anything other than the pull handle.
- ⚠ The battery socket must be charged with the equivalent male body connected on the rectifier side. The grounding line of the Atex product must be intact.
- ⚠ It should be ensured that the supply cables are properly connected so that they are not short-circuited. Loose cable connections can cause malfunction and damage.




Care should be taken not to expose the equipment to possible impacts.

In the event of any damage to the equipment, the product should never be used and support from the authorized manufacturer should be sought.

Battery Connector Maintenance and Control ;





- ⚠ Atex product must never be disassembled, opened or maintained by unauthorized persons.
- ⚠ Any component on the product should not be changed without authorization / permission from the authorized Atex manufacturer and no new component should be added.

ATEX PROTECTION

-  In cases of electrical failure, only authorized Atex manufacturer can carry out maintenance and repair operations of the product.
-  The cartridges in the Female and Male Sockets must be checked to make sure that they are not damaged and not broken.
-  The battery outlet should be kept away from acidic solution, etc. liquids.

ATEX EQUIPMENT CHANGE AND MAINTENANCE MUST BE CARRIED OUT IN A SAFE ENVIRONMENT WITHOUT EXPOSURE TO CREATE AN EXPLOSIVE ENVIRONMENT!

IN ALL FAULTS / MAINTENANCE / REPAIRS, THE AUTHORIZED MANUFACTURER MUST BE APPLIED FIRST!

-  The following applications should be performed once every 50 hours to check that the equipment is working properly.
-  During operation, the feeding value of the enclosure should be checked to make sure that it catches the value indicated on the label.
-  Check the connection cables for visible damage and loose connections on the mounting components.
-  The assembly of the equipment should be checked once a month and the fittings should be tightened and checked according to the given torque table.

It is the user's responsibility to protect the product label and keep it for the entire life of the product.

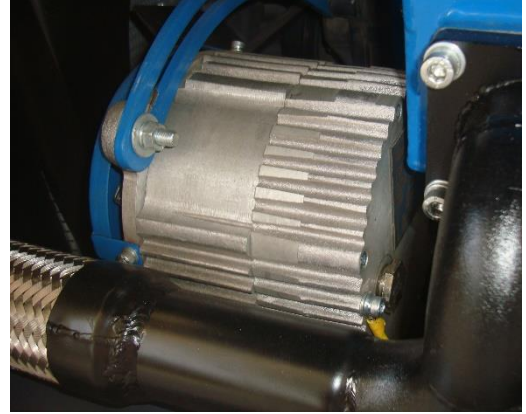
If the label is damaged or damaged or becomes illegible, ask the authorized manufacturer to renew it.

ATEX PROTECTION

ATEX ALTERNATOR

Alternator Pre-Check;

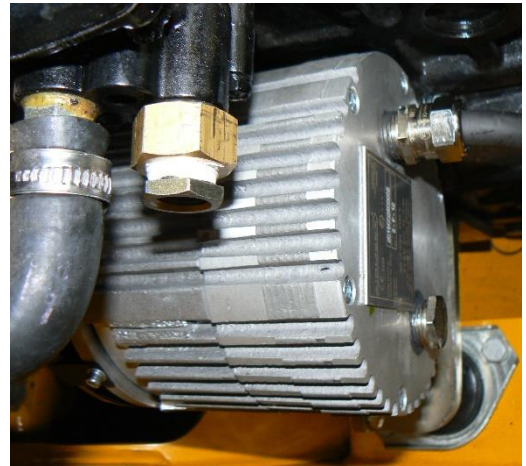
- ❗ Label information and values should be checked for ATEX product accuracy.
- ❗ It should be checked that there is no damage (fracture, crack, impact etc.) that may occur on the product during transportation.
- ❗ Make sure that there is no corrosion on the cover and body flange surfaces.
- ❗ In case of a problem, the authorized manufacturer should be contacted.



All circuits and components are located in a flameproof enclosure.

Alternator Electrical Connections;

- ❗ ATEX product electrical connection should be made by authorized people with the necessary technical knowledge.
- ❗ The compliance of the supply voltage to the values specified on the product label should be checked.
- ❗ All necessary electrical protection measures must be taken before energizing. (Insurance, thermal switch etc.)
- ❗ While the product body is not fully assembled, the system should not be energized.
- ❗ During operation, it should be checked whether a safety element is open that will prevent the equipment to work. (Battery Breaker etc.)



ATEX PROTECTION

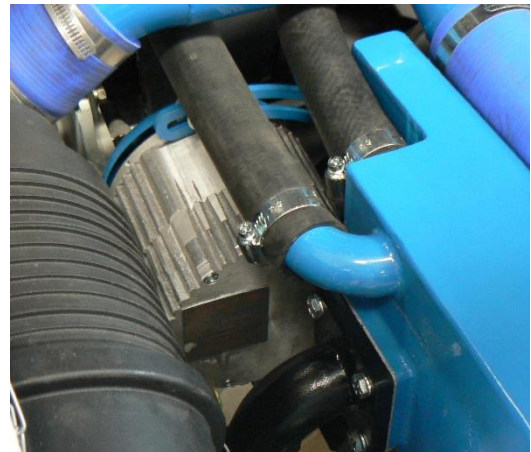
- ❗ Cable connections made on the product should only be provided with Ex d certified cable glands.
- ❗ The grounding line of the Atex product must be intact.
- ❗ It should be ensured that the supply cables are properly connected so that they are not short-circuited. Loose cable connections can cause malfunction and damage.

Care should be taken not to expose the equipment to possible impacts.

In the event of any damage to the equipment, the product should never be used and support from the authorized manufacturer should be sought.

Alternator Maintenance and Control ;





- ❗ Atex product must never be disassembled, opened or maintained by unauthorized persons.
- ❗ Any component on the product should not be changed without authorization / permission from the authorized Atex manufacturer and no new component should be added.
- ❗ In cases of electrical failure, only authorized Atex manufacturer can carry out maintenance and repair operations of the product.
- ❗ **For Bearing Replacement;** Alternator maintenance should be done once every 10,000 hours by people with the necessary technical knowledge. The inside of the casing should be free from dust and dirt.
- ❗ Damaged parts must be replaced with new ones and original parts should be used.
- ❗ It should be checked whether there is a mechanical noise from the bearings or anywhere in the alternator.
- ❗ The strap type is anti-static. Its replacement should be made in the same feature and length.
- ❗ The propeller is for cooling. It should never be dismantled and should be checked continuously since it is likely to be rubbed with impact.



ATEX PROTECTION

ATEX EQUIPMENT CHANGE AND MAINTENANCE MUST BE CARRIED OUT IN A SAFE ENVIRONMENT WITHOUT EXPOSURE TO CREATE AN EXPLOSIVE ENVIRONMENT!

IN ALL FAULTS / MAINTENANCE / REPAIRS, THE AUTHORIZED MANUFACTURER MUST BE APPLIED FIRST!

-  The following applications should be performed once every 50 hours to check that the equipment is working properly.
-  During operation, the feeding value of the enclosure should be checked to make sure that it catches the value indicated on the label.
-  Check the connection cables for visible damage and loose connections on the mounting components.
-  The assembly of the equipment should be checked once a month and the fittings should be tightened and checked according to the given torque table.

It is the user's responsibility to protect the product label and keep it for the entire life of the product.

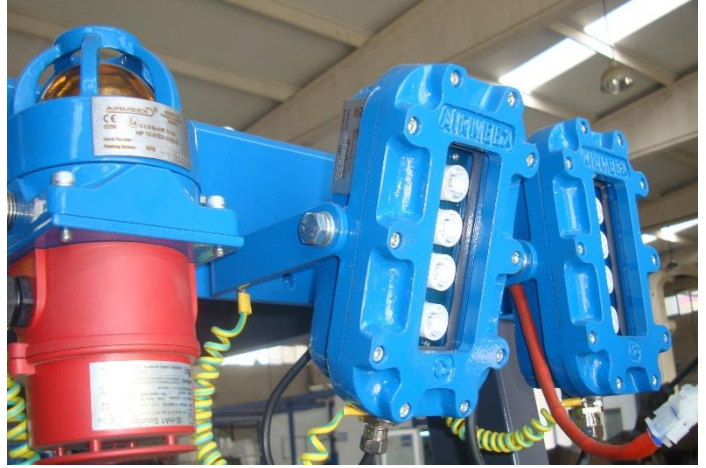
If the label is damaged or damaged or becomes illegible, ask the authorized manufacturer to renew it.

ATEX PROTECTION

ATEX LIGHTING and WARNING EQUIPMENTS (RECTHANGLE-CIRCULAR LIGHT, FLASHING BEACON)

Lighting and Warning Equipments Pre-Check;

- ❗ Label information and values should be checked for ATEX product accuracy.
- ❗ It should be checked that there is no damage (fracture, crack, impact etc.) that may occur on the product during transportation.
- ❗ It should be ensured that the covers are mounted on the body properly and completely.
- ❗ Make sure that there is no corrosion on the cover and body flange surfaces.
- ❗ In case of a problem, the authorized manufacturer should be contacted.



All circuits and components are located in a flameproof enclosure.

Flameproof protection is provided by tempered glass with special strength and special resin.

The light is not mounted on a base directly from its body. It is mounted in place with the help of a suitable bracket. The use of brackets also includes equipment; It provides the ability to be turned up and down in vertical mounting and left and right in horizontal mounting.

ATEX PROTECTION

Lighting and Warning Equipments Electrical Connections;

- ❗ Atex product electrical connection should be made by authorized people with the necessary technical knowledge.
- ❗ The compliance of the supply voltage to the values specified on the product label should be checked.
- ❗ All necessary electrical protection measures must be taken before energizing. (Insurance, thermal switch etc.)
- ❗ While the product body is not fully assembled, the system should not be energized.
- ❗ During operation, it should be checked whether a safety element is open that will prevent the equipment to work. (Battery Breaker etc.)
- ❗ Cable connections made on the product should only be provided with Ex d certified cable glands.
- ❗ The grounding line of the Atex product must be intact.
- ❗ It should be ensured that the supply cables are properly connected so that they are not short-circuited. Loose cable connections can cause malfunction and damage.



Care should be taken not to expose the equipment to possible impacts.

In the event of any damage to the equipment or glass, the product should never be used and support from the authorized manufacturer should be sought.

ATEX PROTECTION

Lighting and Warning Equipments Maintenance and Control ;





- ❗ Atex product must never be disassembled, opened or maintained by unauthorized persons.
- ❗ Any component on the product should not be changed without authorization / permission from the authorized Atex manufacturer and no new component should be added.
- ❗ In cases of electrical failure, only authorized Atex manufacturer can carry out maintenance and repair operations of the product.
- ❗ Equipment maintenance should be done once every 10,000 hours by people with the necessary technical knowledge.
- ❗ The bolts should be opened and closed crosswise while processing the product. Bolts on the product should be carefully removed in situations that require intervention. After the procedure, the cover should be placed on the body, and the bolts used when disassembling should be tightened completely.
- ❗ Grease oil supplied or approved by the manufacturer should be used after the cover and body connection surfaces are processed.
- ❗ After opening the cover, the flameproof surface overlap area should not be exposed to impact, should be protected, and the authorized company should be notified immediately in the slightest cut or damage. Surface roughness should not exceed 6.3μ .
- ❗ The inner surface of the glass should be cleaned with a soft static cloth against possible dust and misting. The inside of the enclosure should be cleaned from air and dust and dirt.
- ❗ Damaged parts must be replaced with new ones and original parts should be used.



ATEX EQUIPMENT CHANGE AND MAINTENANCE MUST BE CARRIED OUT IN A SAFE ENVIRONMENT WITHOUT EXPOSURE TO CREATE AN EXPLOSIVE ENVIRONMENT!

IN ALL FAULTS / MAINTENANCE / REPAIRS, THE AUTHORIZED MANUFACTURER MUST BE APPLIED FIRST!

ATEX PROTECTION

-  The following applications should be performed once every 50 hours to check that the equipment is working properly.
-  During operation, the feeding value of the enclosure should be checked to make sure that it catches the value indicated on the label.
-  Check the connection cables for visible damage and loose connections on the mounting components.
-  The assembly of the equipment should be checked once a month and the fittings should be tightened and checked according to the given torque table.

It is the user's responsibility to protect the product label and keep it for the entire life of the product.

If the label is damaged or damaged or becomes illegible, ask the authorized manufacturer to renew it.

ATEX PROTECTION

ATEX BUTTON and SWITCHES

Button ve Switches Pre-Check;

- ❗ Label information and values should be checked for ATEX product accuracy.
- ❗ It should be checked that there is no damage (fracture, crack, impact etc.) that may occur on the product during transportation.
- ❗ It must be ensured that the equipment is properly and completely mounted on the body.
- ❗ Make sure that there is no corrosion on the cover and body flange surfaces.
- ❗ In case of a problem, the authorized manufacturer should be contacted.



The functional buttons and buttons on the vehicle are replaced with Ex equipment suitable for use in a hazardous area. It allows the operator to manage the vehicle by using 'd' type on a flameproof enclosure. It differs visually from the buttons and buttons used by the original equipment manufacturer. The definitions on the vehicle regarding the duties of the buttons and switches should be taken into consideration.

All circuits and components are located in a flameproof enclosure.

- ❗ The position of the emergency stop button must not be closed in any way. Make sure that the operator knows the location of the button.

ATEX PROTECTION

Button ve Switches Electrical Connections;

- ❗ Atex product electrical connection should be made by authorized people with the necessary technical knowledge.
- ❗ The compliance of the supply voltage to the values specified on the product label should be checked.
- ❗ All necessary electrical protection measures must be taken before energizing. (Insurance, thermal switch etc.)
- ❗ While the product body is not fully assembled, the system should not be energized.
- ❗ During operation, it should be checked whether a safety element is open that will prevent the equipment to work. (Battery Breaker etc.)
- ❗ Ex d type button can only be used on Ex d certified housings.
- ❗ It should be ensured that the supply cables are properly connected so that they are not short-circuited. Loose cable connections can cause malfunction and damage.



Care should be taken not to expose the equipment to possible impacts. In the event of any damage to the equipment, the product should never be used and support from the authorized manufacturer should be sought.

Button ve Switches Maintenance and Control ;

- ❗ Atex product must never be disassembled, opened or maintained by unauthorized persons.
- ❗ Any component on the product should not be changed without authorization / permission from the authorized ATEX manufacturer and no new component should be added.
- ❗ In cases of electrical failure, only authorized ATEX manufacturer can carry out maintenance and repair operations of the product.



ATEX PROTECTION

- ❗ Equipment maintenance should be done once every 10,000 hours by people with the necessary technical knowledge.
- ❗ Damaged parts must be replaced with new ones and original parts should be used.

ATEX EQUIPMENT CHANGE AND MAINTENANCE MUST BE CARRIED OUT IN A SAFE ENVIRONMENT WITHOUT EXPOSURE TO CREATE AN EXPLOSIVE ENVIRONMENT!

IN ALL FAULTS / MAINTENANCE / REPAIRS, THE AUTHORIZED MANUFACTURER MUST BE APPLIED FIRST!

- ❗ The following applications should be performed once every 50 hours to check that the equipment is working properly.
- ❗ During operation, the feeding value of the enclosure should be checked to make sure that it catches the value indicated on the label.
- ❗ Check the connection cables for visible damage and loose connections on the mounting components.
- ❗ The assembly of the equipment should be checked once a month and the fittings should be tightened and checked according to the given torque table.

It is the user's responsibility to protect the product label and keep it for the entire life of the product.

If the label is damaged or damaged or becomes illegible, ask the authorized manufacturer to renew it.

ATEX PROTECTION

ATEX SOLENOID

Solenoid Pre-Check;

- ❗ Label information and values should be checked for ATEX product accuracy.
- ❗ It should be checked that there is no damage (fracture, crack, impact etc.) that may occur on the product during transportation.
- ❗ In case of a problem, the authorized manufacturer should be contacted.



All circuits and components are located in a flameproof enclosure.

THE SOLENOID PRODUCT IS NOT A SUITABLE FOR DISASSEMBLY PRODUCT BECAUSE OF SPECIAL RESIN APPLICATION.

Solenoid Electrical Connections;

- ❗ ATEX product electrical connection should be made by authorized people with the necessary technical knowledge.
- ❗ The compliance of the supply voltage to the values specified on the product label should be checked.
- ❗ All necessary electrical protection measures must be taken before energizing. (Insurance, thermal switch etc.)
- ❗ While the product body is not fully assembled, the system should not be energized.
- ❗ During operation, it should be checked whether a safety element is open that will prevent the equipment to work. (Battery Breaker etc.)



ATEX PROTECTION

- ⚠ It should be ensured that the supply cables are properly connected so that they are not short-circuited. Loose cable connections can cause malfunction and damage.

Care should be taken not to expose the equipment to possible impacts.

In the event of any damage to the equipment, the product should never be used and support from the authorized manufacturer should be sought.





Solenoid Maintenance and Control ;

- ⚠ Atex product must never be disassembled, opened or maintained by unauthorized persons.
- ⚠ Any component on the product should not be changed without authorization / permission from the authorized Atex manufacturer and no new component should be added.
- ⚠ In cases of electrical failure, only authorized Atex manufacturer can carry out maintenance and repair operations of the product.
- ⚠ Equipment maintenance should be done once every 10,000 hours by people with the necessary technical knowledge.
- ⚠ The manufacturer must be contacted for heat and mechanical sound problems.
- ⚠ Damaged parts must be replaced with new ones and original parts should be used.

ATEX EQUIPMENT CHANGE AND MAINTENANCE MUST BE CARRIED OUT IN A SAFE ENVIRONMENT WITHOUT EXPOSURE TO CREATE AN EXPLOSIVE ENVIRONMENT!

IN ALL FAULTS / MAINTENANCE / REPAIRS, THE AUTHORIZED MANUFACTURER MUST BE APPLIED FIRST!

ATEX PROTECTION

-  The following applications should be performed once every 50 hours to check that the equipment is working properly.
-  During operation, the feeding value of the enclosure should be checked to make sure that it catches the value indicated on the label.
-  Check the connection cables for visible damage and loose connections on the mounting components.
-  The assembly of the equipment should be checked once a month and the fittings should be tightened and checked according to the given torque table.

It is the user's responsibility to protect the product label and keep it for the entire life of the product.

If the label is damaged or damaged or becomes illegible, ask the authorized manufacturer to renew it.

**ATEX
PROTECTION**

ATEX CABLE GLAND-CAP

Cable gland-Cap Pre-Check;

- ❗ Label information and values should be checked for ATEX product accuracy.
- ❗ It should be checked that there is no damage (fracture, crack, impact etc.) that may occur on the product during transportation.
- ❗ In case of a problem, the authorized manufacturer should be contacted.



TORQUE TABLE:

Reference Number	XX body	Body Torque	Cable Diameter mm		YY, bolt	Bolt Torque	Group I Material	Group II Material
			“e”	“d”				
	NPT	N.m			Nbr	N.m	B; C; I	A; B; C; I
S5029-100-CER-A	1/4	12 to 16	6 to 8	8	84	7.5	*	*
S5029-120-CER-A	3/8	14 to 32	6 to 11	11	84	7.5	*	*
S5029-130-CER-A	1/2	32 to 40	6 to 8	8	85	7,5	*	*
S5029-140-CER-A	1/2	32 to 40	7 to 11	11	86	12.5	*	*
S5029-150-CER-A	1/2	32 to 40	12 to 15	15	87	17,5	*	*
S5029-160-CER-A	3/4	40 to 48	17 to 19	19	87	25	*	*

ATEX PROTECTION

Cable Gland-Cap Electrical Connections;

- ❗ Atex product electrical connection should be made by authorized people with the necessary technical knowledge.
- ❗ The compliance of the supply voltage to the values specified on the product label should be checked.
- ❗ All necessary electrical protection measures must be taken before energizing. (Insurance, thermal switch etc.)
- ❗ While the product body is not fully assembled, the system should not be energized.
- ❗ An additional inlet connection should not be made to the place with a atex cap.
- ❗ It should be ensured that the supply cables are properly connected so that they are not short-circuited. Loose cable connections can cause malfunction and damage.

Care should be taken not to expose the equipment to possible impacts.

In the event of any damage to the equipment, the product should never be used and support from the authorized manufacturer should be sought.





Cable Gland-Cap Maintenance and Control ;

- ❗ Atex product must never be disassembled, opened or maintained by unauthorized persons.
- ❗ Any component on the product should not be changed without authorization / permission from the authorized Atex manufacturer and no new component should be added.
- ❗ In cases of electrical failure, only authorized Atex manufacturer can carry out maintenance and repair operations of the product.
- ❗ Equipment maintenance should be done once every 10,000 hours by people with the necessary technical knowledge.
- ❗ Damaged parts must be replaced with new ones and original parts should be used.

ATEX PROTECTION

ATEX EQUIPMENT CHANGE AND MAINTENANCE MUST BE CARRIED OUT IN A SAFE ENVIRONMENT WITHOUT EXPOSURE TO CREATE AN EXPLOSIVE ENVIRONMENT!

IN ALL FAULTS / MAINTENANCE / REPAIRS, THE AUTHORIZED MANUFACTURER MUST BE APPLIED FIRST!

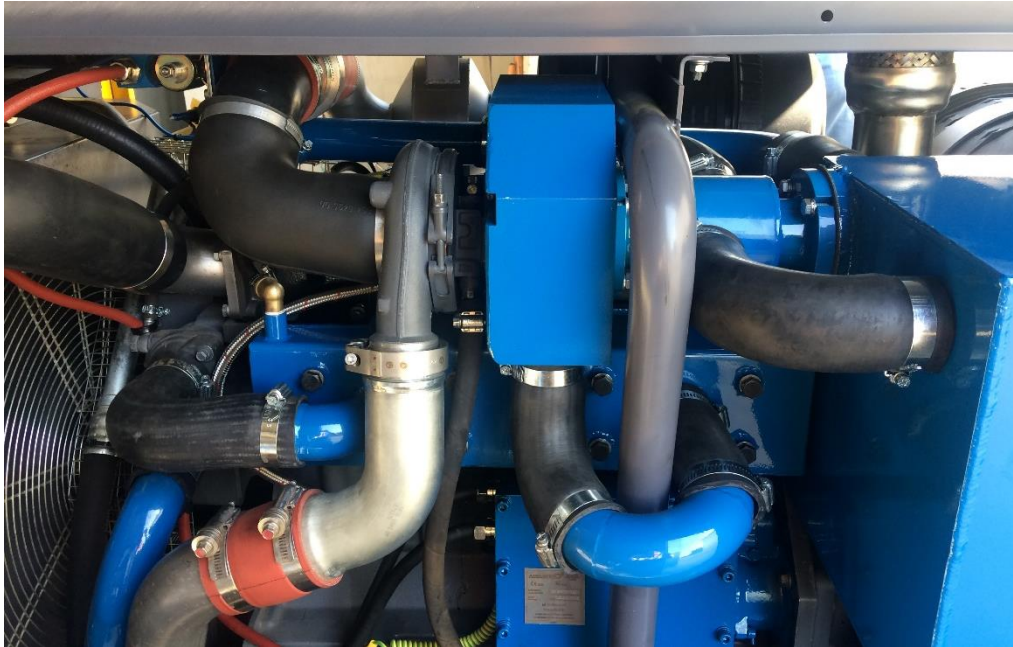
-  The following applications should be performed once every 50 hours to check that the equipment is working properly.
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-  The assembly of the equipment should be checked once a month and the fittings should be tightened and checked according to the given torque table.

It is the user's responsibility to protect the product label and keep it for the entire life of the product.

If the label is damaged or damaged or becomes illegible, ask the authorized manufacturer to renew it.

ATEX PROTECTION

ADDITIONAL MEASURES FOR ATEX DIESEL VEHICLES



VALVE

The use of a diesel engine in hazardous areas such as the oil and CHEMICAL INDUSTRIES requires the use of a shutdown valve..

A diesel engine which absorbs hydrocarbon in the atmosphere is likely to rev up and can only be stopped by a shutdown valve used as an emergency stop.

Placed between the air filter and the inlet manifold, it closes the air inlet by the use of a controlled valve.



ATEX PROTECTION

SPARK ARRESTOR

A spark arrestor is designed to stop sparks coming from the DIESEL engine to avoid the propagation of explosion or fire in dangerous areas.

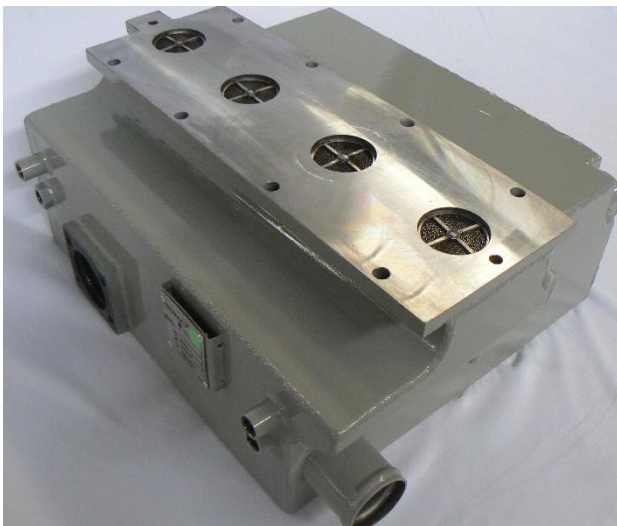
It ensures that the hot particles from the exhaust do not go to the atmosphere.

It does not require maintenance due to the self-cleaning process of the particle inside.



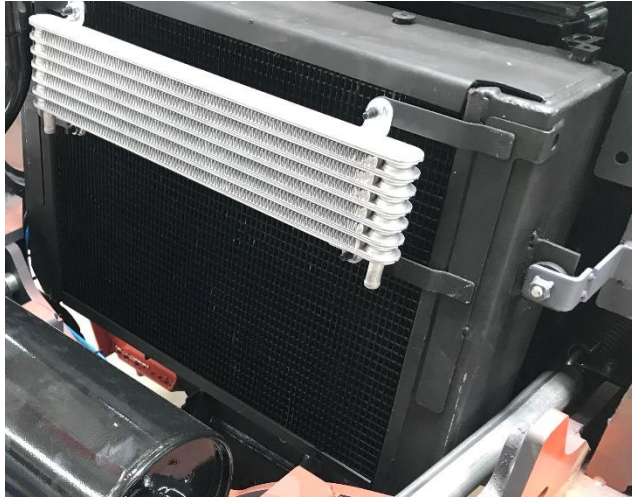
EXCHANGER

It cools the engine exhaust below the machine's temperature (T).



RADIATOR

Machine performance is maintained with high cooling capacity of industrial radiators that provide additional cooling capacity and corrosion resistance.



EXHAUST WITH ASS

AIRMEEX ASS series are in stainless steel construction, with a dry cyclonic effect which extinguished the sparks. No maintenance is required due to a self cleaning operation of the particulate contain inside.



ATEX MACHINE MAINTENANCE RULES

The Atex equipment and Atex Compliance machine that described in this manual have been adapted for operation in potentially explosive environments. Due to the precautions to be taken in these risky areas, it is very important to preserve the Ex properties during the use of these equipment. This manual must be read in conjunction with the operator manual provided by the original machine tool builder. As explained in detail in this manual, the working conditions of the equipment, rules of use, maintenance and control must be observed. Special conditions that may exist due to the Atex Compliance work carried out should take precedence over the original equipment manufacturer's recommendations.

Airmeex has defined how Atex Compliance vehicles should be inspected and maintained in accordance with EN60079-17. In the scope of the Ex equipment and Atex Compliance vehicle used in this context, EN60079-17 Inspection and maintenance standard requirements are taken as reference in hazardous areas. Authorized personnel must be checked at certain intervals, such as the equipment enclosure, glass pieces, seals between glass metal pieces, bolts, cable entries, cable records, physical integrity of grounding cables. If any negative situation be encountered during these checks, contact Authorized Equipment Manufacturer Airmeex immediately.

For this reason, it is very important to comply with the manufacturer's user manuals and guidelines for the continuity of the reliability and robustness of the Ex equipment or ATEX Compliance machine purchased.

**ATEX
PROTECTION**

BASIC CONTROL POINTS

FORKS – check cladding including underside for damage and wear. (Forks shall be clad in such a way that inspection for hair cracks on critical locations shall always be possible).

TYRES – check for damage, embedded foreign particles, pressure (where applicable). Castors wheels, earth straps and fan belts should be checked for contamination with regard to conductivity

RADIATOR – check coolant level. Top up as necessary. Check radiator core for damage or blockage. Clean as required

BRAKES – check operation. Investigate any excessive noise or poor performance.

CONDUCTIVITY – Check earth strap is in contact with the ground.

PLASTIC SURFACES – Seats, arm rests and plastic surfaces - warning, electrostatic ignition hazard. Clean only with a damp cloth. DO NOT use solvents

ANCILLARIES – check that lights and beacons are intact with no broken lenses or guards

BATTERY – charge and maintain as per manufacturers instruction.

ATEX PROTECTION

EPILOG

AIRMEEX, which realizes ATEX compliance of devices combined with Atex Certified equipment with Atex Manufacturer identity, delivers all the necessary obligations in line with the relevant regulations and standards and delivers the machine whose Atex Compliance is completed.

Periodic inspections and inspections will be carried out on the delivered product periodically every 6 (six) months.

As a manufacturer, even if not in the regulation, we are aware that this is of great necessity and importance for both ourselves and user awareness.

Therefore; It should be observed that companies that own machinery, equipment and users also have certain responsibilities regarding the product within these 6 (six) months.

For this purpose, the product responsibility in the first place is in the company that performs Atex Compliance. In the case of incorrect user intervention and similar situations, when the vehicle or equipment is not used in accordance with the steps mentioned above, the responsibility passes directly to the owner and the user.

All of the instructions specified in this user manual delivered to you should be followed.

"Protection" is indispensable for our life.

This feature exists in the nature of our creation.

we have either protected in the struggle for survival or felt the need for a port to be protected. If AIRMEEX is the port to be protected here, the owner must also meet the requirements to protect it.

The main reason is to give confidence.

For this purpose; ATEX Regulations and Standards have been published and mandatory to keep both human and national capital away from possible dangers.