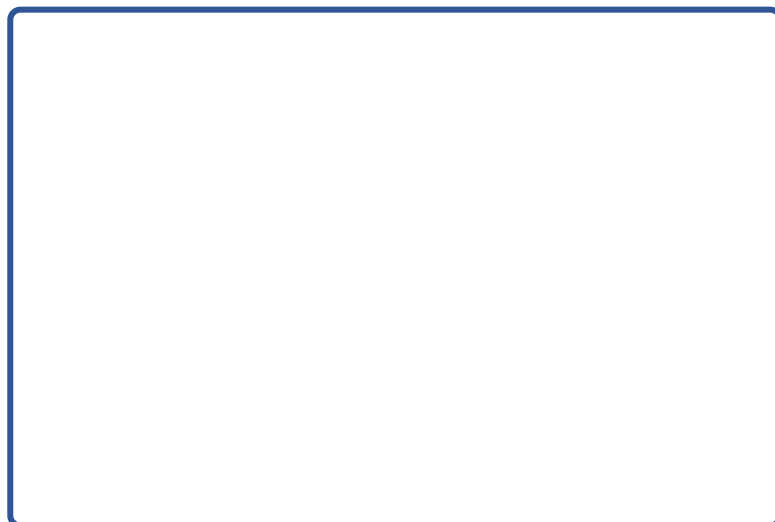
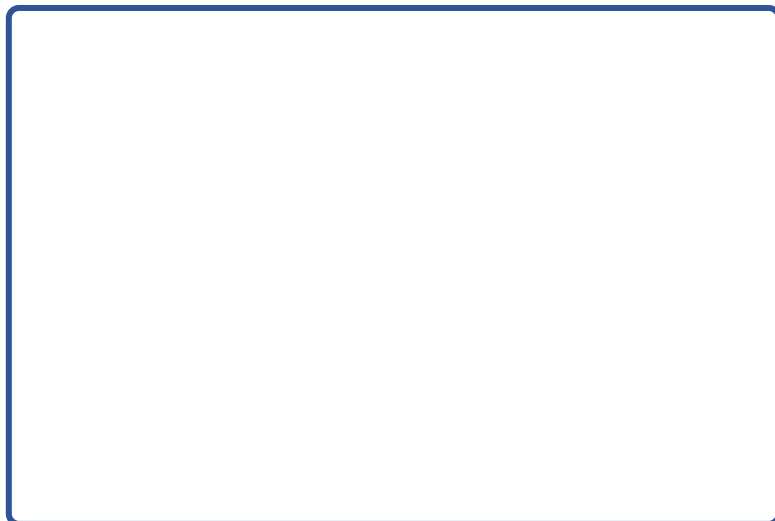


Fire Curtain
UNIKA EI₁60
UNIKA EI₂120



INDEX

1. PACKAGING AND TRANSPORT	P.04
2. DISPOSAL	P.05
3. PRELIMINARY CHECKS	P.05
4. FIRE CURTAIN BLACKFIRE EI TECHNICAL DRAWING	P.06
5. ROLLING CURTAIN LIST OF COMPONENTS	P.07
6. ELECTRICAL CONNECTIONS	P.10
7. ADJUSTMENT OF LIMIT SWITCHES	P.10
8. USE	P.10
9. CONTROLS	P.10
10. CLEANING AND LUBRICATION	P.10
11. MAINTENANCE	P.10
12. SPARE PARTS	P.11
13. TROUBLESHOOTING	P.11
14. GUARANTEE	P.12
15. RISK ANALYSIS	P.12
16. MAINTENANCE INTERVENTIONS REGISTER	P.14

IMPORTANT

All drawings in this manual are purely indicative and non-binding. The Customer is required to verify (see page 8) the suitability of the support (wall) for the installation of the Curtain and the tightness of the anchor points (fixings are not included).

At the end of assembly, the **Installer** must deliver all the CE documentation to the **Customer / User**, together with the *declaration of correct installation*, logging on the test report the delivery of the documentation and the training for the safe use of the roller Curtain.

Dear Customer,

Thank you for choosing our Fire Curtain with **EI₁60** or **EI₂120** resistance performance.

It has been designed and constructed in accordance with:

- ❖ CPR 305/2011 (Construction Products Regulation);
- ❖ Machinery Directive 2006/42/EC
- ❖ Electromagnetic Compatibility Directive 2014/30/EU
- ❖ Low Voltage Directive 2014/35/EU
- ❖ Norm RED (Radio Equipment Directive) 2014/53/UE
- ❖ Directive 2011/65/EU RoHS II - Restrictions on the use of hazardous substances

following the indications of the rules:

- ❖ UNI EN 13241:2016 Industrial, commercial, garage doors and gates – Product standard, performance characteristics;
- ❖ UNI EN 12604:2017 Industrial, commercial, garage doors and gates – Mechanical aspects – Requirements and test methods;
- ❖ UNI EN 12453:2017 Industrial, commercial, garage doors and gates – Safety in use of motorized doors – Requirements and test methods;
- ❖ UNI EN 16034:2014 Pedestrian doors, industrial, commercial, garage doors and opening windows - Product standard, performance characteristics - Fire resistance and / or smoke control characteristics;

and tested according to the standards:

- ❖ UNI EN 1634-1:2018 Fire resistance and smoke dispersion control tests for doors and closing systems, opening windows and their construction accessories - Part 1: Fire resistance tests for doors and closing systems and opening windows;
- ❖ UNI EN 1363-2:2001 Fire resistance tests - Alternative and additional procedures;
- ❖ UNI EN 15269-10:2011 Extended application of the results of fire resistance tests and/or smoke dispersion control for doors, locking systems and opening windows and their construction components - Part 10: Fire resistance of steel roller Curtains;

In addition, EC documents are issued consisting of:

- ❖ Installation, Use, Maintenance and Safety Manual;
- ❖ Motor Manual;
- ❖ Manual of the Control Panel (if any);
- ❖ Safety device manuals with related declarations of conformity issued by manufacturers;
- ❖ DOP (Declaration of Performance);
- ❖ CE label (applied to the product).

All the document must be kept by the *Customer / User* and shown to the maintenance / repair personnel in order to log any intervention after installation.

In order to maintain the performance declared in PDO, it is **MANDATORY** to carry out the scheduled and conservative maintenance, provided in this manual, under penalty of forfeiture of any form of warranty.

This Manual is aimed at *trained and qualified installers and users*, and is intended to provide indications for correct Assembly, Safe Use and Maintenance and highlight the risks and dangers during Assembly, Use, Maintenance.

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IMPORTANT

This Manual must be read in its entirety before installation, use and maintenance of the Fire Curtain and must be kept near it in a transparent rain folder.

This Manual and its contents are the exclusive property of the Manufacturer. Any unauthorized reproduction will be prosecuted in accordance with the Law. The Manufacturer reserves the right to make changes to the product and/or technical documentation for the purpose of its improvement without prior notice.

Assembly and maintenance personnel must be properly trained in workplace safety. To ensure the integrity of the components of the Curtain it is necessary to comply with the following indications:

1. To avoid corrosion problems before installation, the material must be parked in covered and dry places; moreover, sufficient ventilation of the site where the Curtain is installed must be ensured.
2. Do not use solvents or other concentrated chemical compounds that could damage painted, plasticized or galvanized finishes when cleaning the elements or components of the Curtain.
3. Do not use high pressure washers for cleaning.
4. The compartment where the Curtain must be installed must guarantee an adequate outflow of rainwater so that there is no infiltration or stagnation of water near it.
5. All the parts that make up the Curtain must be assembled according to the indications of this manual and the specifications produced to order (drawings) or manuals of the manufacturers of the control and safety components.

The Manufacturer will decline all responsibility for malfunction of the Curtain if non-compliance of assembly, use and maintenance is ascertained, with respect to the requirements of this manual. All the elements of the Curtain have been chosen according to precise design guidelines to ensure perfect operation. The Manufacturer will decline any responsibility for malfunction of the Curtain in the event of ascertained assembly of components of Third Parties.

**DANGER**

The Curtain is equipped with active and passive safety devices. In case of their intervention, do not attempt unlocking maneuvers but request the intervention of specialized personnel recognized by the Manufacturer. Irregular maneuvers can cause damage to property or people. In case of maintenance of the motor make sure that the Curtain stations in the closed position.

1. PACKAGING AND TRANSPORT

In loading, unloading and delivery operations, be sure to pair packages bearing the same Order / Item number and Model. The EI fire Curtain is packed in a wooden cage and consists of Guides (right + left), Support brackets, EI (supplied already wrapped on the winding shaft), Engine, Transmission, Insulated Box; Accessory Box with Small Parts and Technical and CE documentation (**attention wall fixings are not provided**).

In case of shipments of several Curtains, the pieces can be grouped. The handling of packages must be carried out with the utmost care using suitable forklifts or pallet trucks. Storage must be carried out in a covered place. At the time of unloading, the customer must verify the presence and integrity of all the pieces indicated in the transport Document and within 24 hours can report any shortages or non-conformities. Complaints must be received by e-mail or fax and be supported by photos documenting the problem encountered. Only in this case the Manufacturer will be able to take charge of the resolution of the problem detected, if attributable to him.

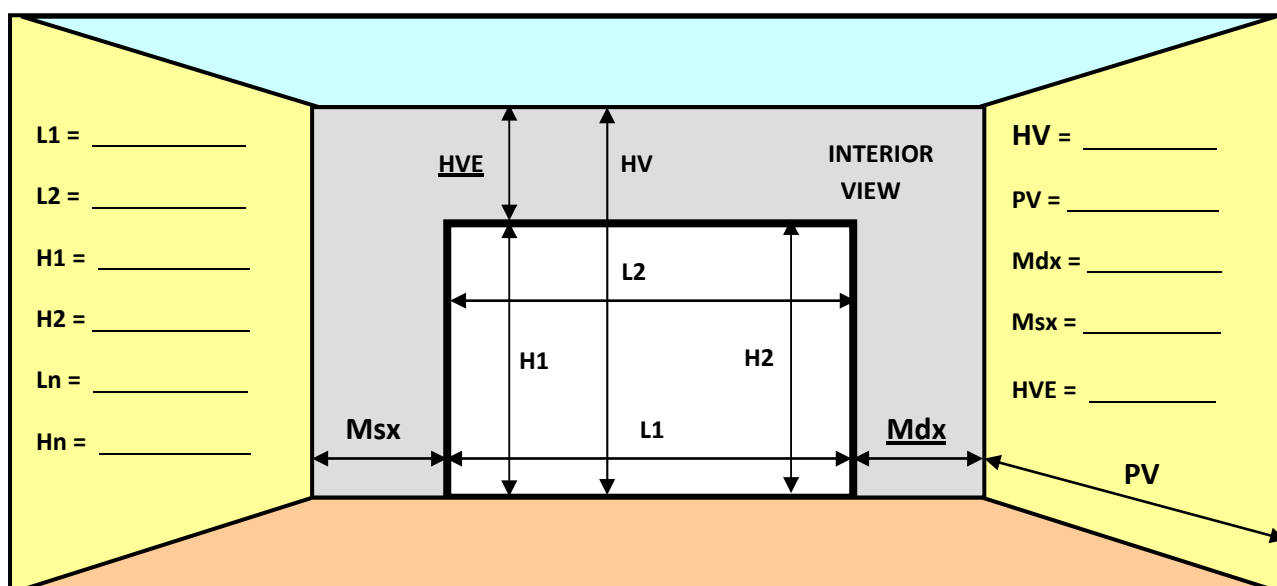
2. DISPOSAL

The disposal of the mechanical parts of the Curtain must be carried out through authorized scrapping companies. Polystyrene, plastic strapping, cardboard constituting packaging, wood constituting stacking frames can be assimilated to municipal solid waste. The EI sheet, the rubber gaskets, the motorization and the electrical components are special waste to be disposed of through authorized companies.

3. PRELIMINARY CHECKS

Before proceeding with the assembly operations, carry out the following preliminary checks:

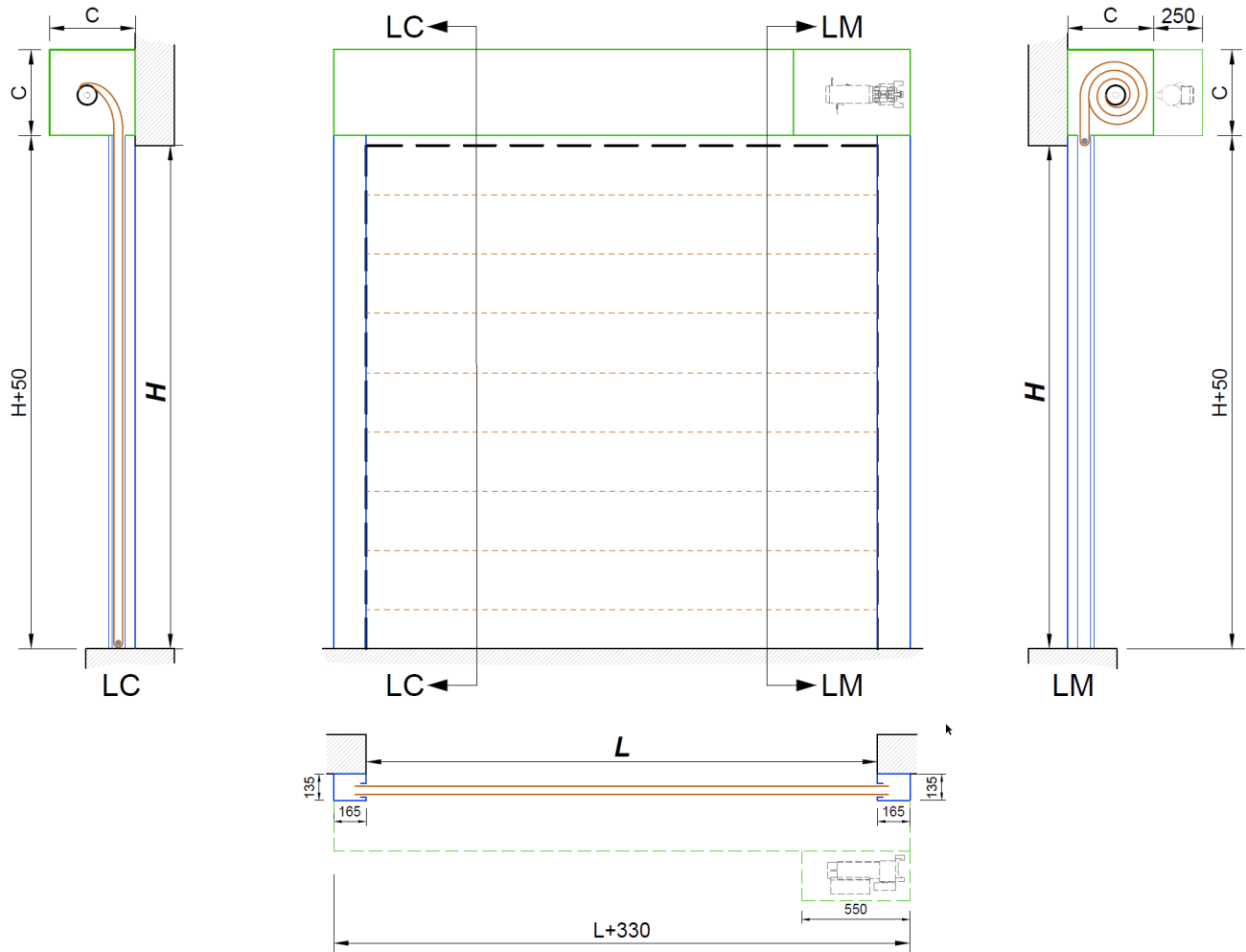
Carry out the survey of the masonry compartment reporting the values on the following diagram;



- Define the values of Ln (width) and Hn (nominal height) determining them on the basis of the maximum values detected (L1 and L2) (H1 and H2) net of any false squares. The values of L and H indicated on the label on the packages must be equal to Ln and Hn or deviate in excess of a maximum of 10 mm.
- Check the consistency of the walls on which the fixings will be made in order to identify the correct ones to be used.
- Check that there are no impediments (electrical ducts, water pipes, beams, etc.) in the installation and sliding area of the Curtain.
- Check the level of the floor and the peof the side tangent.

4. EI₆₀ / EI₁₂₀ FIRE CURTAIN CONSTRUCTION STANDARD

The EI fire rolling Curtain is built for mounting beyond the opening, with clear opening $L \leq 10$ mt
 $H \leq 8$ mt according to the following diagram (always refer to the technical drawing approved at the order).

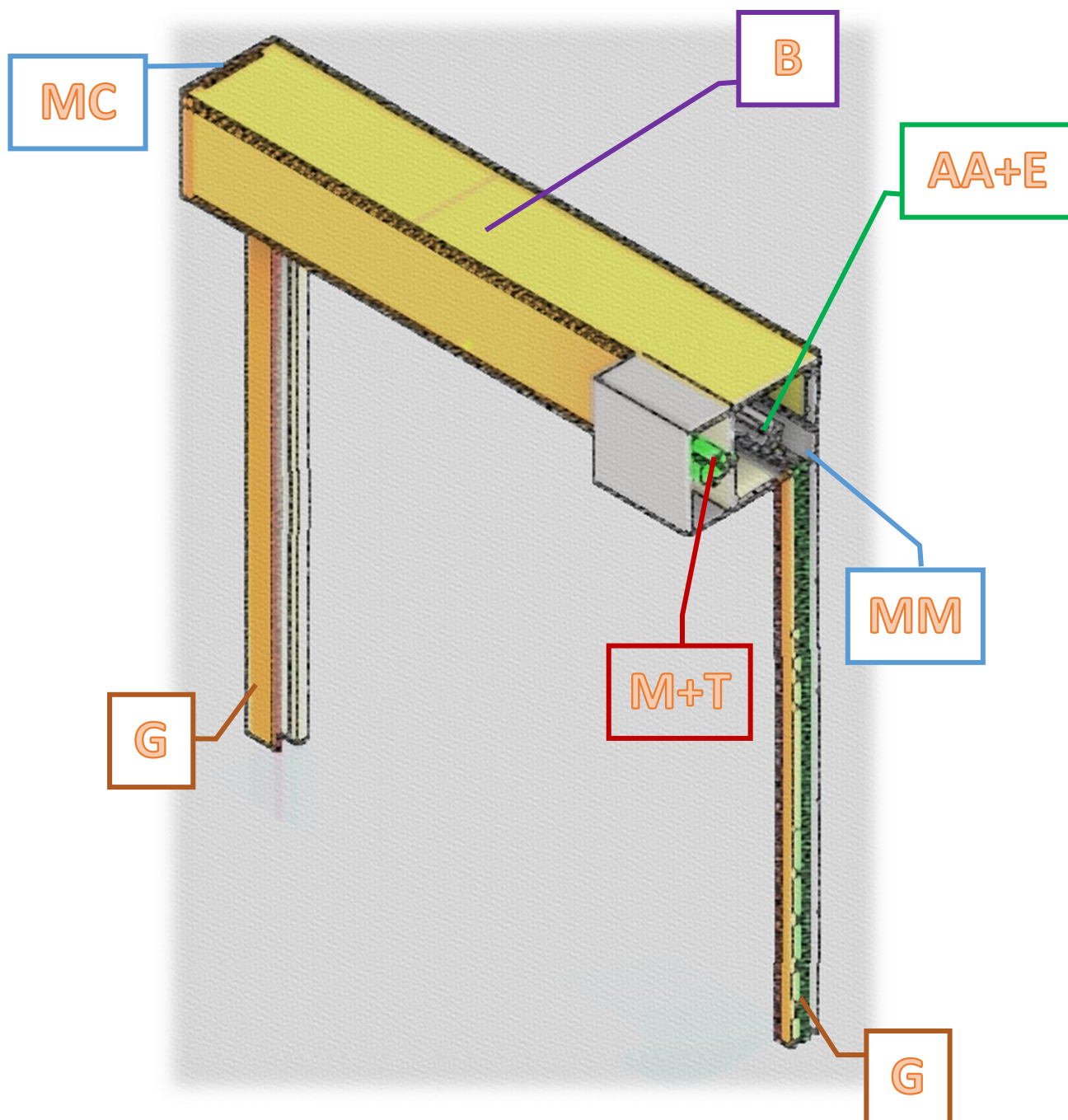


The motor in the drawing is an example. The motor position is at the customer choice.

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5. FIRE ROLLING CURTAIN LIST OF COMPONENTS



B) Insulated Box;
G) Guide (left and right);
MC) Bearing bracket;
MM) Motor bracket;



T) Transmission;
M) Motor;
AA) Roll shaft
E) EI₆₀ / EI₁₂₀ Curtain


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IMPORTANT

The EI₁60 / EI₂120 fire curtain is certified to be installed on fire-protected steel structures and fire-resistant frame walls with the following minimum fire resistance characteristics: 100x100 tubular covered with double panel kanuf gkf 15mm. the Client must verify that the *structural characteristics* of the support are suitable for the installation of the Curtain. It can be fixed on a brick or concrete structural support as long as it is sized according to the EN15269-10:2011 standard. Fasteners are not included. **Use only fasteners that are suitable for the mechanical strength and fire resistance provided and that fit the mounting surface.** **Use the "Installation Instructions" attached to the order for correct installation.**

MINIMUM FIXING ON FLEXIBLE STRUCTURE: SELF-DRILLING SCREW TE C/ROND 6.3X50 ZN	
MINIMUM FIXING ON RIGID STRUCTURE: ANCHOR WITH BOLT TYPE SZS 10-10	

MOTOR NOTE	
<p>Each motor is equipped with a key selector with manually adjustable limit switches for controlled descent (refer to the dedicated installation manual). A continuous 24Vdc fire alarm signal connected to the release solenoid allow the activation of the descent per gravity in controlled speed. <i>The signal must be continuous</i>, in case of interruption the solenoid will unlock the gravity descent. 24Vdc LED acoustic alarm as standard (<i>provide a dedicated line for activating the visual acoustic alarm</i>).</p>	

ATTENTION: If the Solenoid is not armed, the actuator pushes on the motor brake release lever keeping it open. The motor does not lift the shutter.



Page 9

6. ELECTRICAL CONNECTIONS

Refer to the instructions contained in the motor and control unit manuals.

7. LIMIT SWITCHES'S ADJUSTMENT

Refer to the instructions contained in the motor and control unit manuals.

8. USE

Before using the Fire Curtain, carry out the checks and operations listed below.

The Fire Curtain is equipped with all active and passive safety devices, to better safeguard the safety of the user and his parts. The efficiency over time of its performance and safety is subject to proper use and maintenance. For operating modes: refer to the instructions in the control panel manual.

9. CONTROLS

At the time of first start-up and *at least once year*, the following checks must be carried out:

- Integrity of the Curtain
- Integrity of sliding guides;
- Verification of the sliding of the Curtain in the guides;
- Verification of the correct activation of the emergency lock;
- Check that the Curtain does not have uncontrolled movements during emergency closure;
- Tightening of fastening systems (brackets, guides, box);
- Tightening nuts and bolts (motor);
- Noise control;
- Control of manual actuation forces (in the case of a motor equipped with an emergency manoeuvre);

10. CLEANING AND LUBRICATION

At the time of the first start-up and at least once every six months it is necessary to proceed with the cleaning of the side guides and the lubrication of Transmission chain and Bearings eliminating by special means the excesses of dust or solid materials.

11. MAINTENANCE

For the perfect efficiency of the Fire Curtain, for the maintenance over time of the performance declared in the DOP and CE, plate and in accordance with the provisions of the mandatory safety regulations in the workplace, it is **MANDATORY** to carry out periodic and accurate maintenance by specialized personnel recognized by the MANUFACTURER, under penalty of forfeiture of the warranty.



ATTENTION



Irregular or unexpected operations can cause damage to property or people, in case of anomaly do not perform negligent maneuvers, always ask for the intervention of a Specialized Technician. THE MANUFACTURER assumes no responsibility for damage or disturbances resulting from periodic lack of maintenance or user carelessness. Carry out maintenance with the blind in the **closed position**, **always turn off the power supply before any work.**

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Checks must be carried out with the following frequency:

CONTROL	FREQUENCY
Tightening of fastening systems (shelves, guides, beam plate);	12 MONTHS
Tightening of fasteners (motor, bearings);	12 MONTHS
Integrity of the sliding guides;	12 MONTHS
Integrity of the Curtain;	12 MONTHS
Sliding and alignment of the Curtain in the guides;	12 MONTHS
Emergency closure drive cycle.	6 MONTHS
Noise of the motor;	12 MONTHS

NOTE

In the event that the environmental conditions are particular, for example there is a high humidity or concentration of dust in the air, high temperature ranges and/or conditions favorable to the increase in corrosive processes, it is advisable to increase the frequency of checks as well as lubrication interventions.

12. SPARE PARTS

The spare parts must be original, under penalty of forfeiture of any form of warranty.

To order them, it is sufficient to communicate to the MANUFACTURER the serial number shown on the CE plate, identifying with a photo the requested component.

13. TROUBLESHOOTING

The major problems that may occur on the Fire Curtain are summarized in the following table. If there are any unreported incidents, contact the MANUFACTURER.

Inconvenience	Probable cause	Solution
The Curtain gets stuck during the ascent or descent	The Curtain's slats are not perfectly aligned	Check the alignment of the Curtain and the integrity of the lateral stops; Check the integrity of the guides and their gaskets;
The Curtain does not work electrically	Lack of power supply	Wait for the power to be restored by the supply company
	Interruption of the fuse on the control panel	Replace the fuse with another of equal capacity
	Unsuitable power supply line	Check with the multimeter the voltage values 230/400 V with tolerance +/-10%

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During an intensive operating cycle, the Curtain stops	Intervention of the thermal protections of the motor	Wait about ten minutes for the electrical parts of the motor to cool down, then try the maneuver again
The Curtain starts but slows down and stops during the manoeuvre	Loss of insulation of the winding of the electric motor	Contact the Maintenance Company
Excessive noise	Lack of cleanliness and/or lubrication. Damaged lateral guide	Contact the Maintenance Company Verify the integrity of guides
Damage of the Curtain	Accidental events	Do not operate the Curtain Contact the Maintenance Company
The Curtain freezes during operation and does not start again	Intervention of security device	Contact the Maintenance Company
	Intervention of the auxiliary safety limit box	Contact the Maintenance Company

14. GUARANTEE

According to laws in force from the date of supply. According to this warranty, the MANUFACTURER undertakes to repair or replace free of charge, as soon as possible, those parts that prove to be defective in materials or construction. Excluded from the warranty are those parts subject to wear in normal operation and failures due to force majeure, lack of maintenance, overloads, fraud, inexperience or negligence of the user.

The MANUFACTURER guarantees the continuation of the services declared in DOP provided that the checks and maintenance required by a specialized and authorized company are carried out.

15. RISK ANALYSIS

Below is the risk analysis carried out on the Fire Rolling Curtain.

The Curtain is equipped with all the necessary safety measures to eliminate, as far as reasonably possible, any risk. The risks and related remedies are listed in the safety requirements of *UNI EN 13241: 2016* and indicated in the following table:

RISK	SOLUTION
Fall protection of vertical sliding doors	Safety brake device was installed on the motorized axle. All structural elements are sized according to UNI EN 12604.
Cutting, blanking	Gasket mounted on the guides; Control with dead man maneuver.
Crushing, Collision	Control with dead man maneuver.
Conveying, Hooking	Blind coat and lack of protrusions ≥ 40 mm;

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Lifting	Control with dead man manoeuver; Blind coat and lack of protrusions ≥ 40 mm;
Loss of stability	Rigid brackets of guides and shelves; Tightening of bolts and fixing dowels; Verification of welds.
Emission of harmful substances	The Curtain is built with materials that do not release harmful or dangerous substances to health.
Unexpected movements due to wind	The Curtain is designed to withstand wind overloads declared in DOP.
Resistance to wind load	The Curtain is designed to withstand wind overloads declared in DOP.
Installation and use	The Curtain is equipped with a manual "Use, Maintenance and Safety"
Motorization units	Differential and magnetothermic protection on the supply line; Thermal protection in the engine; Safety devices with redundant control (where necessary).
Manual operation in case of emergency	Chain emergency maneuver (if included in the supply)
Extra stroke of the Curtain	Auxiliary Safety limit box.

Residual risks are indicated on the Curtain by applying the following signal

RESIDUAL RISKS



RISK	SOLUTION
Electrocution	Do not intervene on the electrical parts without first cut of the power from the motor. Report the fault and wait for the intervention of specialized personnel.

LOG BOOK OF ORDINARY AND EXTRAORDINARY MAINTENANCE**Pag.01**

Date	Maintainer	Intervention type:	<input type="checkbox"/> Ordinary <input type="checkbox"/> Extraordinary
Description of the intervention carried out			
Replaced material			
Notes			
Signature of the Maintainer		Customer's signature	

Date	Maintainer	Intervention type:	<input type="checkbox"/> Ordinary <input type="checkbox"/> Extraordinary
Description of the intervention			
Replaced material			
Notes			
Signature of the Maintainer		Customer's signature	

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LOG BOOK OF ORDINARY AND EXTRAORDINARY MAINTENANCE

Pag.02

Date	Maintainer	Intervention type: <input type="checkbox"/> Ordinary <input type="checkbox"/> Extraordinary
Description of the intervention		
Replaced material		
Notes		
Signature of the Maintainer		Customer's signature

Date	Maintainer	Intervention type: <input type="checkbox"/> Ordinary <input type="checkbox"/> Extraordinary
Description of the intervention		
Replaced material		
Notes		
Signature of the Maintainer		Customer's signature

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