RAPID DOORS LINE USE, MAINTENANCE AND SAFETY MANUAL

DOOR MODEL	
SERIAL No.	
YEAR OF MANUFACTURE	

R3 – SELF-REINSERTING

R6 – SELF-REINSERTING

RA – ROLL-UP

RI – FOLDING

CONTENTS (CHAPTERS):

GENERAL INFORMATION

SCOPE

This Manual, drafted by the Company in accordance with the requirements of EEC Directive 89/392, Annex 1, 1.7.4 is an integral part of industrial doors manufactured by the prpducer and marked with the following commercial name:

- **R3 – HIGH SPEED SELF- REINSERTING DOOR**
- **R6 – HIGH SPEED SELF- REINSERTING DOOR**
- **RA – HIGH SPEED- ROLL-UP DOOR**
- **RI – HIGH SPEED FOLDING DOOR**

It has been planned and prepared with the aim of indicating to the users and maintenance technicians the correct installation and use of the industrial doors, as envisaged by the design hypothesis, together with the main technical features which the users must be familiar with to be able operate in safety conditions. Therefore, this Manual intends providing the users with all the data, information and instructions considered to be necessary for correct knowledge regarding:

- the envisaged conditions of use;
- the controls;
- start-up;
- use;
- the maintenance and repairs permitted;
- disassembly and reassembly of certain components;
- the permitted adjustments.

Special attention has been paid to the topics regarding safety and safeguarding the health of the users, as well as protection and respect for the workplace, as envisaged by the regulatory standards in force on the matter. Photographs and drawings are provided as examples.

1. CONFIDENTIALITY

The information contained in this Manual is the property of the producer and must be considered as strictly confidential. Divulgation and reproduction, even partial, without the permission of the producer is therefore forbidden. It is also forbidden to use this Manual for purposes other than those strictly described in the Chapters it contains.

2. INDUSTRIAL DOORS MARKING DATA

This Chapter shows the industrial doors marking data as envisaged by EEC Directive 89/392 (Annex I- 1.7.4), the reproduction of the plate bearing the afore-mentioned marking data. The CE marking is done directly on the industrial doors by applying the plate shown below in a clearly visible position.

CE

'11

EN 13241-1:2003 + A1:2011

	DoP e Num. di Tipo Anno: N°ordine: Matricola:
Codice di identificazione unico del prodotto-tipo:	**Porta rapida** **R3**
Rilascio sostanze pericolose	**Assente**
Resistenza al carico del vento	**Classe 1** (25 Kg/mq)
Resistenza alla fiamma	**Classe 2** (combustione con fiamma)
Apertura sicura	**Conforme**
Resistenza meccanica	**Conforme**
Forza di manovra	**Conforme**

Uso: Porta rapida industriale senza caratteristiche di resistenza al fuoco e controllo del fumo, destinata al montaggio in aree di accesso per le persone. L'uso principale è consentire l'accesso sicuro di beni e veicoli accompagnati o guidati da persone ad aree industriali, commerciali e residenziali.

2006/42/CE -- 2006/95/CE -- 2004/108/CE

CE

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EN 13241-1:2003 + A1:2011

	DoP e Num. di Tipo Anno: N°ordine: Matricola:
Codice di identificazione unico del prodotto-tipo:	**Porta rapida** **R6**
Rilascio sostanze pericolose	**Assente**
Resistenza al carico del vento	**Classe 2** (45 Kg/mq)
Resistenza alla fiamma	**Classe 2** (combustione con fiamma)
Apertura sicura	**Conforme**
Resistenza meccanica	**Conforme**
Forza di manovra	**Conforme**

Uso: Porta rapida industriale senza caratteristiche di resistenza al fuoco e controllo del fumo, destinata al montaggio in aree di accesso per le persone. L'uso principale è consentire l'accesso sicuro di beni e veicoli accompagnati o guidati da persone ad aree industriali, commerciali e residenziali.

2006/42/CE -- 2006/95/CE -- 2004/108/CE

CE

'11

EN 13241-1:2003 + A1:2011

	DoP e Num. di Tipo Anno: N°ordine: Matricola:
Codice di identificazione unico del prodotto-tipo:	**Porta rapida** **RA**
Rilascio sostanze pericolose	**Assente**
Resistenza al carico del vento	**Classe 1** (25 Kg/mq)
Resistenza alla fiamma	**Classe 2** (combustione con fiamma)
Apertura sicura	**Conforme**
Resistenza meccanica	**Conforme**
Forza di manovra	**Conforme**

Uso: Porta rapida industriale senza caratteristiche di resistenza al fuoco e controllo del fumo, destinata al montaggio in aree di accesso per le persone. L'uso principale è consentire l'accesso sicuro di beni e veicoli accompagnati o guidati da persone ad aree industriali, commerciali e residenziali.

2006/42/CE -- 2006/95/CE -- 2004/108/CE

CE

'11

EN 13241-1:2003 + A1:2011

	DoP e Num. di Tipo Anno: N°ordine: Matricola:
Codice di identificazione unico del prodotto-tipo:	**Porta rapida** **RI**
Rilascio sostanze pericolose	**Assente**
Resistenza al carico del vento	**Classe 2** (45 Kg/mq)
Resistenza alla fiamma	**Classe 2** (combustione con fiamma)
Apertura sicura	**Conforme**
Resistenza meccanica	**Conforme**
Forza di manovra	**Conforme**

Uso: Porta rapida industriale senza caratteristiche di resistenza al fuoco e controllo del fumo, destinata al montaggio in aree di accesso per le persone. L'uso principale è consentire l'accesso sicuro di beni e veicoli accompagnati o guidati da persone ad aree industriali, commerciali e residenziali.

2006/42/CE -- 2006/95/CE -- 2004/108/CE

The industrial doors designed to be incorporated in a machine or for assembly with other machines, unless they can operate independently, need not be CE marked but must be accompanied by the Manufacturer's Declaration pursuant to point B of Annex II of Directive 89/392/EEC.

RESPONSIBILITIES

This Chapter defines the responsibilities of the producer, and cases in which the Manufacturer may decline responsibility.

3.1 PRODUCER

The Company has manufactured the industrial doors in total compliance with the regulatory standards on the matter of health and safety at the workplace, with the aim of ensuring users and maintenance personnel maximum guarantee in carrying out all the operations envisaged and permitted, together with the minimum possibility of accidents due to any residual risks.

3.2 MAINTENANCE

As these are powered doors, their installation, operation, use and maintenance must be done by qualified, skilled persons duly trained for the purpose; however, it is advisable to read and interpret this Manual correctly. In particular, installation and calibration operations must be done solely by qualified personnel.

• In any case, to create the required safety conditions, the industrial door must be used only in the operating conditions envisaged by the producer. Therefore, in case of faults the workers are incapable of eliminating independently, it is advisable to define the extent and cause of the problem as far as possible on the basis of the information contained in this Manual and contact those directly responsible at the producer .
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3.3 DECLINATION OF RESPONSIBILITIES

The Manufacturer points out that any damage to persons, door, installations or environment deriving from:

- improper use of the door;
- use not complying with the regulations in force;
- unauthorised modifications and/or actions;
- tampering with the safety devices;
- partial or total failure to observe these instructions
- cannot be attributed to the producer and, therefore,

THE PRODUCER SHALL IMMEDIATELY DECLINE ALL RESPONSIBILITY

3. IDENTIFICATION OF THE ACCOMPANYING DOCUMENTATION

This Chapter defines the documentation theproducer attaches to this Manual.
CE Declaration of conformity (Annex II B Machinery Directive 98/37/CE)

4. INFORMATION IN THIS INSTRUCTION MANUAL

This paragraph provides important information regarding the creation, use, preservation and methods for requesting update of this Manual.
This Instruction manual is intended for:

• all personnel involved in the use, routine maintenance and supervision of industrial doors;
• all authorised personnel involved in the movement, installation and extraordinary

maintenance of industrial doors.

However, it must be remembered that, for using industrial doors in safe conditions, the Instruction manual cannot replace the user's adequate experience, in any manner whatsoever. It is therefore only a useful memorandum for personnel who have had specific preparation and training, as regards the main operations to be carried out on industrial doors. This Instruction manual, drafted in accordance with Machinery Directive CEE 89/392, Annex I, § 1.7.4, consists of the following parts:

• a preface, which has the aim of clarifying the general context in which the user is required to operate, providing useful notes regarding understanding the text and organisation of this Manual, in addition to important safety warnings;

• an introduction, regarding the prescriptions and general information for using industrial doors in safety conditions;

• a main body which contains a description of the general features of industrial doors, their working, the methods for transport and installation, assembly and disassembly of the auxiliary equipment as well as routine and extraordinary maintenance.

5.1 HOW TO USE THE MANUAL

A general index of the contents is given at the beginning of the Manual, to make it easy to find the topics. The passages of texts that are particularly important as regards safety of the operator and persons in general or damage to industrial doors and their components, are highlighted by the following indications:

• The "DANGER" indication is used when failure to follow the instructions and prescriptions for use and maintenance given in this Manual can cause severe harm to persons.

• The "ATTENTION" indication is used when failure to follow the instructions and the use and maintenance prescriptions in this Manual can cause damage to the door or other elements associated with these or to the surrounding environment.

5.2 PRESERVING THE MANUAL

The Instruction Manual must be considered as an integral part of the industrial door and must therefore be preserved for future reference and for consultation, until disposal of the industrial door. The Manual must be kept safe near the door in a dry place, protected from the sun rays, so that it is always readily available for consultation.

5.3 VALIDITY OF THE MANUAL

This Manual reflects the state of the technique and technology used in the construction of industrial doors, valid at the time it is put into service and, therefore, cannot be considered as inadequate or obsolete in case of updates on the basis of new experiences.

5.4 TRANSFER OF OWNERSHIP OF THE INDUSTRIAL DOOR

If the industrial door is transferred to a third party, the owner must hand over this Manual and all the accompanying Use and Maintenance documentation, together with the machine.

5.5 RIGHTS OF THE PRODUCER TO THE MANUAL

The Manufacturer reserves the right to update our industrial doors and consequently the Use and Maintenance Manual applicable.
This Manual is exclusively the property of the producer and may, therefore, not be copied, reproduced, transmitted, in part or entirely, to third parties, unless accompanying the machinery, without express written permission from the owner.
The producer welcomes comments, observations and suggestions by users for improving this Manual.

6 SAFETY WARNINGS

This paragraph contains certain useful general warnings for safe use of industrial doors. In order to ensure utmost operating safety for the users, the producer has taken special care in the construction of industrial doors to eliminate all possible risks deriving from its use and has carefully selected the materials and components to be used in the manufacture of the doors. All the structural elements, organs for connection, transmission of movement and controls are designed and constructed with highly precautionary degrees of safety, to withstand abnormal stresses, certainly higher than those deriving from the use indicated in this instruction Manual and the materials used for the manufacture are the best available on the market. Moreover, all the phases of the manufacture of the doors from the design, to purchase of materials, their storage, manufacture, tests and final testing have been subjected to constant checking in order to ensure a valid product, free of damage, deterioration and malfunctioning. It must however be remembered that proper working depends on correct use and adequate preventive maintenance, according to the instructions given in this Manual. Before and during use of the industrial doors, the user must, however, observe the following general safety standards:

- the door must not be used or no operation must be carried out, before having carefully read and completely understood all parts of this Manual;
- all the precautions given in this Manual must be adopted;
- it is forbidden to use the door in conditions or for use different from that indicated in this Manual and the producer cannot be held responsible for accident due to failure to comply with this warning.

7 USE OF INDUSTRIAL DOORS

This paragraph contains a brief description of industrial doors, from the point of view of performance and uses envisaged, complete with a list of equipment and accessories that may be used.

7.1 GENERAL DESCRIPTION OF INDUSTRIAL DOORS

The industrial doors manufactured by us may be distinguished technically into two groups:

INDUSTRIAL DOORS FOR INSTALLATION OUTSIDE OPENING

- industrial doors for installation outside doorway are those manufactured in such a way that these can be installed in front of the opening; they can be installed on the inner side as well as on the outer side in case of entrance doors, as well as doors between two rooms for compartments meant for connecting spaces.

INDUSTRIAL DOORS FOR INSTALLATION IN OPENING

- industrial doors for installation in opening are those where the design and manufacture allows their installation inside the opening or compartment.

7.2 Envisaged uses of Industrial Doors

The industrial doors designed and manufactured by us must be used for the purposes and according to the modes described in the accompanying documentation, according to their specific features.
The industrial doors are designed and manufactured for installation in external and internal industrial entrances.
In areas not considered as public areas, operation of the industrial doors must be intended for a limited number of authorised persons.
The use of industrial doors must conform to the provisions of the regulatory standards on the matter; therefore users are requested to refer to the provisions of Law Decree 626/94 Art. 33 (art.18 art.13 7-8).

ATTENTION! It is **FORBIDDEN** to use the industrial doors for purposes other than those mentioned in this Manual and in the accompanying technical documentation.

7.3 Electrical energy

The industrial doors are equipped with 400 V three-phase electric motors depending on the technical features and dimensions of the doors, the installed power of the motors varies from a maximum of 2.2 kW to a minimum of 0.37 kW.
The control unit is powered with 230V or 400V.
All the accessory elements are powered with 12/24 V.

• The indications in the use and maintenance Manuals of the electrical components installed on the industrial doors must be strictly followed.

• The Manufacturer declines all responsibility for problems, faults or malfunctioning that may occur as a result of failure to respect the power supply values provided.

7.4 Environmental conditions of use

The industrial doors are designed and manufactured to resist unfavourable weather and atmospheric agents in a certain temperature range as required by the mechanical features of some of its components.
This range varies from -20°C to +75°C and must not be exceeded.

To ensure the features of the industrial doors over time, it is necessary to carry out preventive and scheduled maintenance as indicated in this Manual.

8 CONDITIONS OF USE NOT PERMITTED

This paragraph provides a list of incorrect uses of industrial doors, whether foreseeable or unexpected, with a description of the risks connected to these uses and the measures adopted in the design and manufacture to prevent said risks.

8.1 Incorrect uses of Industrial Doors

The risk analysis conducted during the design of the doors, regarding unexpected incorrect use, is given in the following Table:

USE	RISK	PREVENTION ADOPTED
Presence of a single entrance to the room, consisting of an opening in which an industrial door is installed	Entrapment inside the rooms in the case of an emergency	Information in the Manual regarding permitted use of industrial doors in accordance with the provisions of L.D. 626/94 and M.D. 10/03/1998

8.2 Foreseeable incorrect uses of Industrial Doors

The risk analysis conducted during the design of the doors, regarding unexpected incorrect use, is given in the following Table:

USE	RISK	PREVENTIVE MEASURE ADOPTED
Lifting persons	Impact against lintel, or falling to the ground, resulting in bodily injuries	Limitation of maximum weight that can be lifted in relation to the power of the motor installed
Blocking of controls	No possibility of locking	Flashing light Door blocking system by fitting photocell on the side of the door Mushroom-shaped emergency button on the control panel Information for use of the doors given in the Manual Limited number of persons authorised by the employer
Pedestrian traffic	Impact between door and parts of pedestrian's body	Information in the Manual regarding permitted use of industrial doors as envisaged.

9. TRAINING PERSONNEL

The aim of this Manual is to provide the installers, users and maintenance personnel with information regarding the fundamental criteria for correct use of industrial doors in safe conditions for themselves and for those in their vicinity. In particular, the objectives of the Manual are as follows:

- knowledge of the door, its components and controls;
- knowledge of the operations permitted and not permitted;
- knowledge of the routine maintenance actions envisaged;
- safety requirements.

Installation of industrial doors must be done by professional technical personnel trained by the Manufacturer, in compliance with all the installation operations indicated in this Manual. Before using the industrial doors, the employer must inform the users regarding the methods of opening and closing of industrial doors, depending on the type and control devices supplied, in order to ensure correct and safe operation. Maintenance of industrial doors must be performed by trained maintenance technicians familiar with the basic information regarding maintenance operations on electrical and mechanical systems, after having read and understood this Manual.

9.1 Training

The employer must make arrangements to train the personnel on the matter of risk of accidents, the devices provided for safety of the users, risks of noise emission and the general safety regulations as envisaged by international guidelines and legislation in the country of use of the industrial doors. Before using the industrial doors, the users and operators in charge of routine maintenance (mechanical and electrical) of the door, must have CAREFULLY read the instructions and information given in this Manual and acquired sufficient familiarity with the controls, by means of sufficient practice regarding correct use of the door.

9.2 Prescriptions for using personal protection equipment

The prescriptions concerning the use of personal protection equipment (PPE) by those involved in the use, cleaning and maintenance of industrial doors must not ignore the evaluation and the prescriptions envisaged for the workplace in which these are installed. The choice of PPE to be used in the door maintenance phases must therefore be in compliance with the criteria for prevention, and environmental hygiene and safety envisaged by the risk assessment and drafting of the relative document by the employer, according to Law Decree 626/94. The PPE to be used during use, cleaning and maintenance of the door in the absence of specific provisions and prescriptions are mentioned below:

- suitable work clothes;
- safety footwear;
- cut-proof gloves
- safety goggles
- hard hat and safety harness during installation and maintenance operations;
- systems for protection of airways in relation to the possible presence of dusts on the doors and their potential hazard.

ATTENTION! special attention must be paid to bracelets, wrist watches, rings or chains which must not dangle and hinder the operator's movements: However, it is advisable to avoid wearing these to ensure the best possible safety.

9.3 Description of control station

The control panel included with each door must be placed in an easily accessible position, near the industrial door, so that the person using the door can see it while acting on the controls.
If possible, the control panel must be installed on the motor side, to make electrical connections easier.
Position the control panel in a safe place, in compliance with the legal provisions on the matter of workplaces.
The personal door controls (remote controls) must be assigned only to authorised personnel after they are appropriately trained.

10 PROTECTION DEVICES AND SAFETIES

The criteria and measures considered as necessary for satisfying the safety requirements envisaged by Machinery Directive 89/392/CEE and successive modifications applicable, as well as the guidelines concerning industrial doors have been adopted in the design and construction of industrial doors. The Manufacturer advices strict compliance with the instructions, procedures and recommendations contained in this Manual and with the laws in force concerning workplace safety, also for using the protective devices envisaged, both built-into the doors as well as personal.

ATTENTION! the Manufacturer does not assume any responsibility for any harm to persons or animals or damage to objects deriving from failure to respect the safety regulations, recommendations contained in the documentation, operations performed by unauthorised persons, and tampering with the protective devices.

10.1 Guards

Depending on the need to raise or lower the door, fixed guards are installed for protecting the movement transmission organs.

- Do not remove the fixed guards protecting the moving parts. It is forbidden to oil and grease the moving parts. Carry out maintenance operations on the moving parts after disconnecting and locking the main electric power switch present on the control panel.
- Replace damaged or worn guards immediately.

10.2 Emergency button

Every industrial door is provided with an easily visible and identifiable emergency button, installed on the control panel to make it possible for the user to stop the door in the case of an emergency. When the emergency button is pressed, all the elements of the door and electric control panel are disconnected from the electric supply and the door leaf stops immediately.

ATTENTION! tampering with the protective devices causes risks for the door users and other exposed persons.

The emergency can be reset by rotating the emergency button; at reset, the electric power

supply is restored and the door rises to open the compartment again completely.

10.3 Flashing light

Every industrial door is provided with a flashing light to be installed in a clearly visible position on the side of the door; if required, another flashing light may be installed on the opposite side.
The signal light flashes to indicate potential danger throughout the operating period of the door: door raised, period door is stopped in the raised position, door lowered.

IT IS FORBIDDEN to prevent the visibility of the flashing light by positioning objects or materials or other means. Keep the flashing light perfectly visible and in working order.

10.4 Photocells

The photocells are connected to the door control unit and must be installed at a distance of 40 to 60 cm off the ground. The safety device is activated whicle the motor is closing the door curtain, stopping and inverting the motor rotation. While it activates the pause time during a pause.

IT IS FORBIDDEN to place objects in front of the photocells or modify the normal working of the industrial door.

10.5 Checking the safety devices

The checks and test described in this paragraph MUST ALWAYS be performed before operating the door.

• ATTENTION: check to make sure the emergency button is in the maximum lift position; it this is not the case, lift by rotating it.
• ATTENTION: check the condition and efficiency of the photocells present on the doors, making sure they are not covered or damaged.

10.6 Checking during operation

During normal operation of the door, the following conditions must be checked:
Absence of abnormal and excessive vibrations, absence of abnormal and excessive noise, absence of smell of burning.

10.7 General safety regulations

• For inspection of the door, check to make sure it is stopped, that the electric supply has been disconnected by turning the switch provided on the electric control panel to “0”.
• Before operating the industrial door, carry out all the checks described in this Manual carefully.
• Maintenance of the industrial door must be performed by skilled trained personnel who have read and understood this Manual.

11 RESIDUAL RISKS AND EMERGENCY SITUATIONS

This paragraph provides a list of residual risks, i.e. risks that cannot be completely reduced by the design of the door or the protection techniques and potential risks that are not evident, with the relative measures adopted to limit the risks.
Certain emergency situations that may be hypothesised during normal use of the door are also mentioned, together with the relative behaviour to be adopted.

The residual risks can be eliminated by carefully following the procedures indicated in this Manual and adopting appropriate personal protection equipment.

11.1 Warning plates

USE	RISK	PREVENTIVE MEASURE ADOPTED
Operations involved in the first installation, connection and calibration of industrial door	Lifting and handling loads. Falling, crushing, injuries resulting from falling Cutting, shearing because of contact with pointed, sharp, materials. Electric shock caused by direct or indirect contact with powered parts.	Installation operations to be carried out by skilled, trained personnel. Information and instructions provided by this Manual. Pictograms indicating safety present on the doors. Use appropriate PPE.
Door cleaning operations.	Electric shock caused by possibility of contact with powered parts. Cuts, bruises, shearing because of contact with sharp, cutting materials, etc., contact and possible inhalation of different kinds of dusts. Falling to the ground from a step ladder, scaffolding, etc.	Information provided in this Manual. Cleaning forbidden with the electricity connected. Use appropriate PPE – provide adequate protection for the airways depending on the environment. Forbid the use of compressed air for cleaning. Use standard equipment
Maintenance operations	Electric shock caused by possibility of contact with powered parts. Cuts, bruises, shearing because of contact with sharp, cutting materials, etc., contact and possible inhalation of different kinds of dusts. Risk of dorso-lumbar injuries caused by postures assumed during the operations. Crushing, impact, caused by falling objects, parts of the door, etc, step ladder, scaffolding, etc. falling to the ground.	Maintenance operations to be carried out by skilled, personnel duly qualified and trained for the purpose. Use appropriate PPE – provide adequate protection for the airways depending on the environment. Adequate lighting in the work area. Adopting safety, hygiene and prevention measures envisaged by the regulatory standards in force.

On the sides of the doors, certain warning symbols (pictograms) are applied concerning non-eliminable residual risks, to warn the operator of risks that may lead to certain hazardous situations.

DO NO THROW WATER: the notice applied near the electric panel, near the main switch, indicates that it is forbidden to use or throw water. In the case of a fire the main power switch must be deactivated before working with fire-prevention systems.

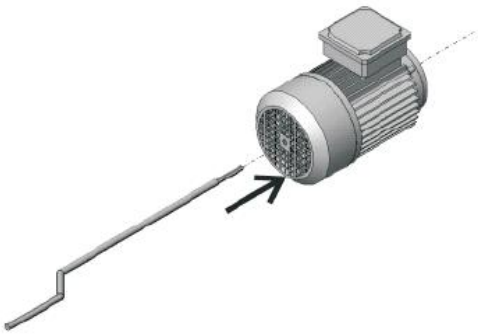
DANGER! The sign indicates the danger of impact between the moving door and any pedestrian passing under the door.

DANGER! The sign indicates danger of electric shock in case of removal of protection devices. It is accompanied by the writing “Not to be opened by unqualified persons”.

KEEP THE SIGNS CLEAN TO ENSURE THEY ARE ALWAYS LEGIBLE

11.2 EMERGENCY MOVEMENTS

In case of a power failure or malfunctioning of the industrial door, the door can be operated in manual mode.
The industrial doors are equipped with a crank for manual opening, which must be inserted in the housing provided on the motor as shown in the image below.



- Keep the manual opening crank handle near the industrial door in an accessible visible area

- The manual door activation operations must be carried out in total compliance with the safety conditions.

To proceed with manual opening of the industrial door, follow the procedure given below:

- Fit the crank handle
- Disconnect power from the main electric panel, by acting on the switch and turning it to OFF
- Insert the crank handle in the rear opening provided and start rotating it to raise the door.
- When the operation is complete and the problem is solved, the door is automatically reset

ATTENTION: Check to ensure the mushroom-shaped emergency button is in working order by activating and simulating a stop; otherwise, contact the person in charge immediately and DO NOT PROCEED.

12 INDICATIONS REGARDING NOISE

The airborne noise level of industrial doors has been measured and evaluated by simulating their working at the manufacturer's premises:
Weighted equivalent continuous acoustic pressure level = 65.00 -dB(A)
The weighted equivalent continuous acoustic pressure level Leq has been measured and evaluated with respect to the control station assumed by the user for opening and closing the door.
The noise level of the door varies as regards:

- use conditions (environment, layout, etc);
- state of efficiency;
- power of installed motor;
- type of door adopted

13 REFERENCE STANDARDS

This paragraph describes the international standards and national laws complied with in the design and manufacture of the machine.

2 UNI EN 292/1 –Safety of Machinery. Basic concepts, General design principles. Terminology, basic methods.
2 UNI EN 292/1 –Safety of Machinery. Basic concepts, General design principles.
Specifications and technical principles.
2 UNI EN 294 –Safety of Machinery. Safety distances. 2 CEI EN 60204 –Safety of Machinery. Electrical equipment of machinery.
Part 1a: General rules.

2 UNI EN 12445 - Industrial, commercial and garage doors and gates. Safety in the use of power-operated doors. Test methods.

2 UNI EN 12453 - Industrial, commercial and garage doors and gates. Safety in the use of power-operated doors. Requirements.

14 INFORMATION FOR USING INDUSTRIAL DOORS

This paragraph contains a detailed description of the operations and rules to be respected and the checks to be carried out to ensure correct use of the industrial doors and safety of the users. The information given in the previous chapter must be taken into consideration for safe use of the door.

15 MOVEMENT OF THE DOOR

The industrial doors are dismantled for shipping and are supplied with the wiring necessary for successive connections. The parts of the industrial doors are wrapped in plastic film to protect the sensitive parts from humidity and rain.

• Handle the parts of the door with utmost caution and prudence, carrying out the loading and unloading operations gently.

• Store the disassembled components of the industrial doors in places protected from rain and humidity.

Operations involved in the loading/unloading, installation of parts of industrial doors must be carried out by personnel specialised in the handling of industrial machinery, equipped with the necessary personal protection equipment. For unloading, transport, unpacking and handling operations to be carried out during installation operations, proceed as follows:

• During loading/unloading and handling operations, at least two qualified technicians must be present (expert forklift truck operators).

• Keep the body and hands away when the parts of the door are lowered; failure to follow these instructions can cause serious injuries.

• Personnel are not authorised to pass under the load or near it, not even the operator providing assistance for movements, for any reason whatsoever.

• The capacity of the lifting means must be appropriate for the weight to be handled. The

movement must be performed gently, with sufficient lighting, with sufficient clearance around the handling area.
• Before carrying out any operation for lifting and handling, check to ensure that the connecting devices conform and are in good condition, that the ropes are inserted correctly in the hooks, that the ropes are appropriate for the total weight of the parts to be unloaded.

• Do not climb on or place any object on the parts of the door.

NOTE: for handling the door parts as well as the handling operations involved in installation, use a forklift truck suitable for the size and features of the weight to be handled: the supplier declines all responsibility as regards the conditions and suitability of the handling means used. For other lifting and shifting of the door, after the first installation, carry out the following operations:

- consult this Manual for the safety conditions to be adopted;
- restore any safety measures for the transport applied by the Manufacturer;
- take special care with the distribution of the movable weights and their blockage.

16 MAINTENANCE OF INDUSTRIAL DOORS

16.1 Introduction

This paragraph contains some general information for carrying out the maintenance operations on industrial doors in safety conditions. Before reading this section and starting with any operation described in it, it is necessary to know the topics discussed in Chapter 2, which must be understood for correct maintenance of the door.

16.2 General prescriptions for safety

• Before every action on the door, block off the passage at a suitable distance, informing vehicles and pedestrians regarding no entry. Confine the work area and indicate NO ENTRY by means of appropriate notices.

• Before every maintenance action on the door, the maintenance technician must set it in stop position and in such a condition that it cannot be restarted, without the technician's consent, in such a way as to avoid any unexpected start up, as long as it is in risk position.

• The maintenance technician must have appropriate professional training, experience and be familiar with the exact function of the parts of the door and every possible movement of these; it is therefore indispensable to have read and understood this Manual.
• After completion of maintenance, before starting operation of the door, check to make sure there are no foreign bodies inside it.
• It is strictly forbidden for the operator to access the inside of the powered equipment without permission which ensures experience in this type of operation.
• Do not allow unauthorised persons to carry out repair or maintenance.
• Read the instruction manual carefully before carrying out maintenance on the door.

16.3 Special prescriptions for safety

• During cleaning and/or maintenance operations, avoid using naked flames or heat sources which can spark off any material deposits present on the door; it is forbidden to carry out welds or flame cuts on the door.

• It is forbidden to use compressed air for any cleaning operation on the door, which could

disperse any dust in the work area.
• It is forbidden to use any kind of solvent for cleaning and maintenance operations.

16.4 Personal protection equipment

During cleaning and maintenance operations, all personnel concerned must wear suitable personal protection equipment (PPE), according to the provisions of Chapter 2 of this Manual, in accordance with the safety charts of the materials processed, and in relation to the risk assessment carried out in conformity with Law Decree 626/94.

16.5 Maintenance

This paragraph contains a list of all the tests, inspections, cleaning and maintenance acts to be performed on the door, with the relative frequency and methods of operation.

17. Routine maintenance

All operations which can be carried out by the user are included under routine maintenance. These are cleaning, periodic and preventive inspections which allow safe use of the door. The cleaning and maintenance of the door are indispensable for obtaining the best operation, greater safety and longer operation.

17.1 Cleaning the door

This paragraph describes the cleaning operations required to ensure efficient working of the door and maintenance of the required safety conditions for use.

POINT OF ACTION	CLEANING TO BE CARRIED OUT	FREQUENCY
Photocells	Cleaning of photocells positioned on the door frame by removing residual dust. Clean with a soft cloth, avoiding the use of any kind of solvent or liquid.	Every three months
Window	Cleaning the window by removing the dust present; if necessary wash with water and neutral soap and then dry.	Every six months
Door surface	Removal of dust by suction. The features of the suction unit must be suitable for the needs of the work areas in which the doors are installed.	Every six months

Avoid touching the control pushbutton panel with rigid, hard or pointed objects which can damage, perforate, scratch, etc. the controls.

17.2 Scheduled maintenance

All operations which can only be carried out by authorised persons come under scheduled maintenance. These are periodic and preventive inspections and actions on the door to allow safe use.

17.3 Verifications and periodic inspections

All the operations are described in the program Table below and must be carried out at as scheduled.

POINT OF ACTION	INSPECTION TO BE CARRIED OUT	FREQUENCY
Checking the working of the emergency button	Check to ensure correct working of the emergency button provided on the door control panel, by simulating the stop.	Four-monthly
Checking the condition of the gear motor seals	Visual inspection for oil leaks.	Four-monthly
Inspections on the motor	Check to see if the motor is blocked by turning the axis manually. Check for build up of water or moisture	Four-monthly
Efficiency of motor brake	Disassembly of motor casing and checking the distance between the brake lining and disk	Four-monthly
Condition and fixing	Visual inspection of shaft and checking correct tightening of the nuts and bolts.	Four-monthly

of lateral and central shaft support		
Door made of plastic with relative lifting systems	Checking for tears, wear, etc. of door.	Four-monthly
Electric power supply	Checking the condition of the electric wiring and connections.	Four-monthly
Electric panel and individual components	Checking the condition of the wiring.	Four-monthly
Mechanical limit stop unit	Checking by simulating the arrival point and door limit stop, any adjustment as indicated in the Manual.	Four-monthly
Movement and operation	Simulation of opening, checking stop time, checking correct closure. Checking working of emergency button.	Four-monthly

III. The annual basic fee as stated in the contract is fixed according to the number of programmed yearly operations as shown in point 2. and 10. of the contract. This frequency refers to a normal use of products which, for industrial doors and loading platforms, envisages a maximum of 5 opening/closing cycles per solar day and an operating environment without aggressive conditions (temperature, humidity, corrosive agents, etc.). If the Customer uses the products more frequently or in aggressive environments, proportionally more frequent maintenance visits are recommended. While the obligation remains for the Customer to promptly report such circumstances, the basic annual fee will change according to the different scheduled visits defined in agreement.

ROUTINE AND EXTRAORDINARY MAINTENANCE ACTIONS REGISTER

Date	Maintenance technician	Type of action Routine Extraordinary
Description of action		
Material replaced		
Notes		
Maintenance technician's signature	Customer's signature	

Date	Maintenance technician	Type of action Routine Extraordinary
Description of action		
Material replaced		
Notes		
Maintenance technician's signature	Customer's signature	

ROUTINE AND EXTRAORDINARY MAINTENANCE ACTIONS REGISTER

Date	Maintenance technician	Type of action Routine Extraordinary
Description of action		
Material replaced		
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Maintenance technician's signature	Customer's signature	

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Date	Maintenance technician	Type of action Routine Extraordinary
Description of action		
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ROUTINE AND EXTRAORDINARY MAINTENANCE ACTIONS REGISTER

Date	Maintenance technician	Type of action Routine Extraordinary
Description of action		
Material replaced		
Notes		
Maintenance technician's signature	Customer's signature	

Date	Maintenance technician	Type of action Routine Extraordinary
Description of action		
Material replaced		
Notes		
Maintenance technician's signature	Customer's signature	

18. SPARE PARTS

The customer must purchase original spare parts, the disassembly and assembly must be done according to the Manufacturer's indications. To order spare parts, the identification data of the part in question must be mentioned completely; this information must make it easier to find the spare parts without misunderstanding. For any information regarding the spare parts or complex repairs, contact the producer.

18.1 Demolition

The door must be deactivated on reaching the end of its technical and working life. It must be rendered unfit for the purposes for which it has been designed and constructed; moreover, it must be possible to reuse the raw material used for its construction. The Manufacturer does not assume any responsibility for harm to persons or animals or damage to objects deriving from reuse of the individual parts of the machine for functions or assembly different from those originally specified.

18.2 Deactivation procedure

To dismantle the door, proceed as follows:

• disconnect the door electrically;
• set the door in safety, making sure there is no risk of its tipping over during disassembly;
• remove the fixing devices from the wall;
• lower the door to the ground, using means suitable for the size and weight of the door;
• separate the parts of the door.

NOTES