DOCK SEALS

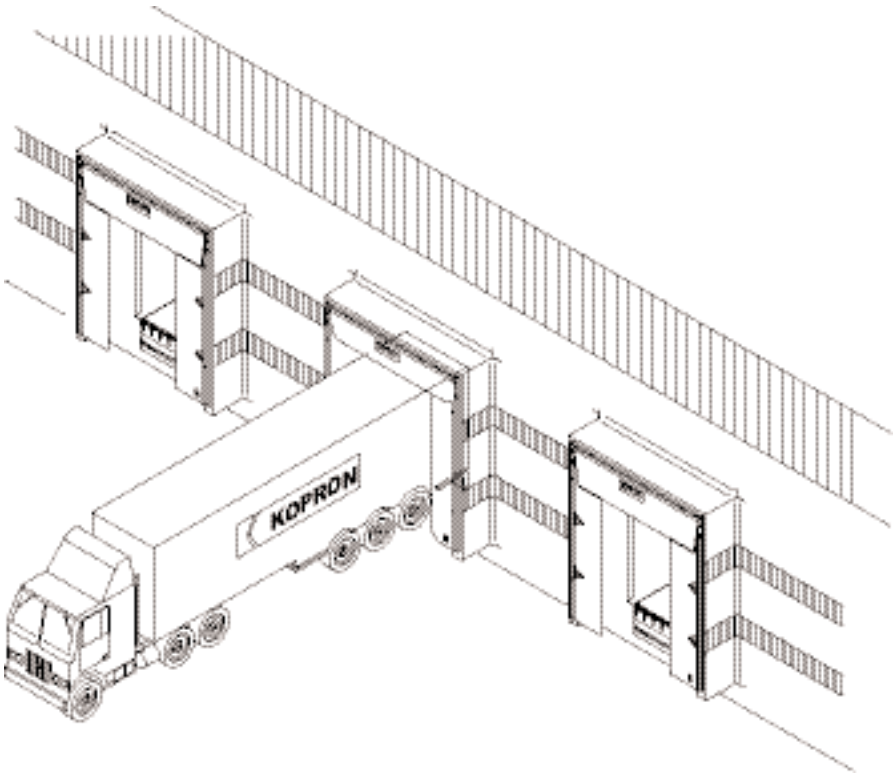
LOGISTIC SOLUTIONS

KOPRON®

MOD. KDF-M

ASSEMBLY, USE AND MAINTENANCE MANUAL

GENERAL INDEX



SUMMARY

All drawings and technical characteristics may be subject to changes at any time, should this occur we shall provide to update the manual as soon as possible.

Kopron S.p.A.

INTRODUCTION

This manual is a guide for installers, users and maintenance personnel as well as being useful for preventing accidents during life cycle of the equipment from installation to dismantling.
In case instructions are not clear or should particular problems arise and are not mentioned herein, please apply to our service department. Do not take personal initiatives for interventions if instructions are not fully understood.
Buyer and personnel involved in installation should read this manual before using the equipment. We would suggest to keep a copy of this manual handy in a place where it can be easily consulted.
Assembly and installation must be carried out by qualified personnel adequately equipped to operate in absolute safety condition. A dedicated chapter on risks will face the matter in detail.
Preventive maintenance for solving anomalies must be programmed according to regulations which require only specialized personnel to carry out interventions.

To have another copy of the manual you may contact our service department at the following address:

KOPRON S.p.A.
via Primo Maggio s.n.
20064 Gorgonzola – Milan - Italy
☏ +39 - 02 – 921 52. 1

KOPRON S.p.A. have the right to update or improve the manual without affecting the validity of this version.

Some important points have been highlighted by using symbols explained on next page.

SYMBOLS

DANGER - NOTICE

This sign indicates serious danger which must not be under estimated in order not to risk people's health and safety.

CAUTION

This sign indicates the requiement to be careful on how to move and act in order not to risk people's health and safety and cause economical damages

IMPORTANT

This sign indicates technical information and important regulations to pay attention to.

ECOLOGY

Remarks regarding ecology

PROHIBITION

If instructions contained in this manual are not strictly followed and original spare parts are not used, or in case ordinary maintenance or non authorized interventions are carried out Buyer will take his own responsabilities and guarantee will no longer be valid.

Kopron S.p.A.

CHAPTER 1
DESCRIPTION

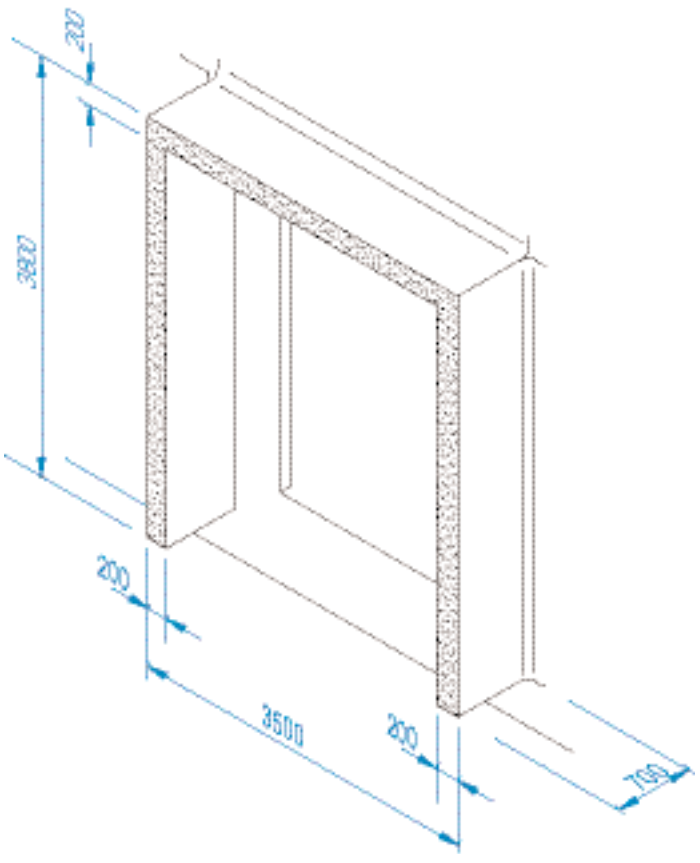
1.1 DESCRIPTION OF DOCK SEALS

Dock seals are particularly suitable for limiting temperature variation between inside and outside of the building during loading/unloading operations.
There use allows energy saving when either heating or airconditioning is functioning inside the building.
This model can meet general requirements and besides being of high quality it is also economical.
Dock seals are usually assembled to seal the door space at the height of a raised dock leveller on a frame in masonry usually prefabricated.
The carrying frame is anchored to the masonry frame.
All the metal parts of the structure are in hot-galvanized steel sheet.
Flaps subject to rubbing of the trucks are in thick, special weft, anti-scratching PVC, with a double layer of tear resistant fabric enable to bear bendings and torsions.
The side flaps are marked with arrows indicating the correct positioning of the lorry.

The flaps are in a class 2 self-extinguishing fabric.

External dimensions of the front seal are: Width 3.400 mm, Height 3.500 mm.

Dimensions of the masonry frame:



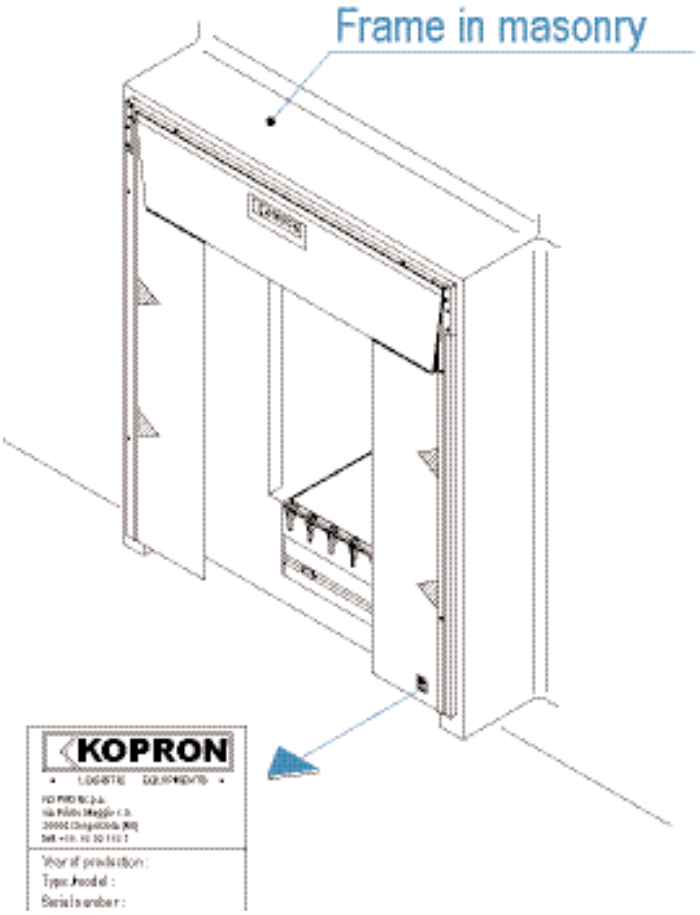
1.2 IMPROPER USE

The front seals with fixed cushions have been specifically designed with the aim to create a division between the outside of a building and the inside, by adhering to the truck during loading/unloading operations.
They cannot have a different application.
In case Buyers need to use them differently they must inform Kopron S.p.A. who in case of authorization will suggest how to handle the product in the best way.

Improper use, and ignoring the instructions contained in this manual will imply Buyer to take his own responsabilities and guarantee will no longer be valid.

1.3 IDENTIFICATION PLATE

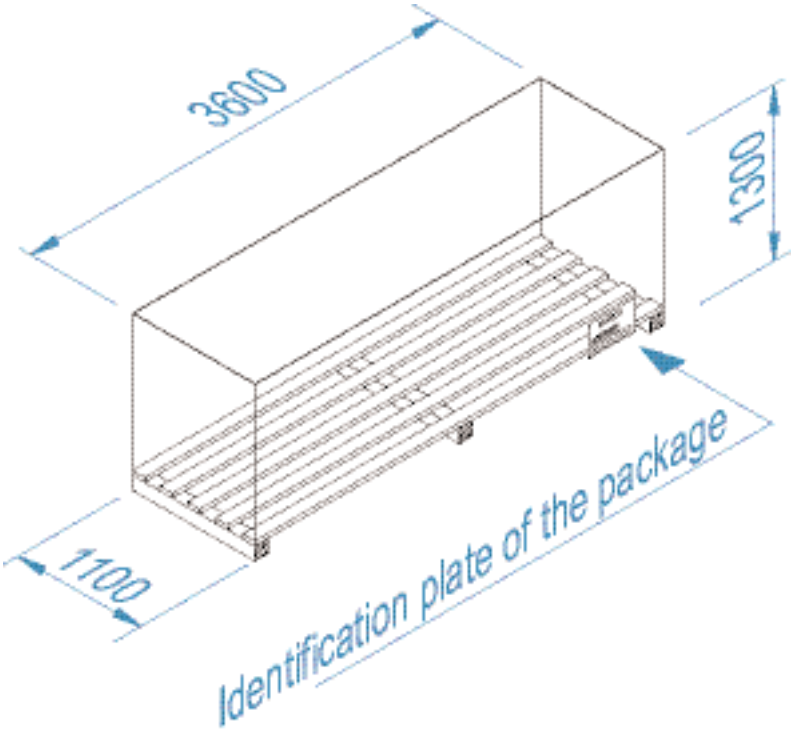
An identification plate is positioned permanently on the right flap as shown in the enclosed drawing.
The data on identification plate must always be kept clean and legible.
The aim of this identification plate is to identify the dock shelter and becomes necessary when the quantity of dock shelters is considerable. Kopron S.p.A. reserves the right to decide when it is the case to apply this identification plate.
Should it be ruined and become no longer legibile it must be replaced.
In the request you must mention the model, year of manufacturing and serial number, data which can be easily found in the documents delivered along with the dock shelter.



CHAPTER 1
IDENTIFICATION AND CONTROL OF THE MATERIAL

1.1 PREAMBLE

Each shipment of dock shelters is made of one or more packages, in case of multiple orders, already placed on pallets. Max size for each package is mm 1.100 x 3.600 x height 1.300.
Each package can reach max 800 kgs.
Material contained in the packages is wrapped in plastic sheets.
All packages have a label carrying the order number.
In case of supply and delivery of more than one dock shelter it could happen to have the coverings all in one package.
Nuts, bolts and elastic strings can also be packed all together in one package.
To verify the completeness of the supply we suggest to check all the packages.
If packages are to be stored, the warehouse must be sheltered and dry.
Packages must not be placed one on top of the other in order to avoid damages.
Take care not to damage the PVC fabric when cutting the plastic wrappings.

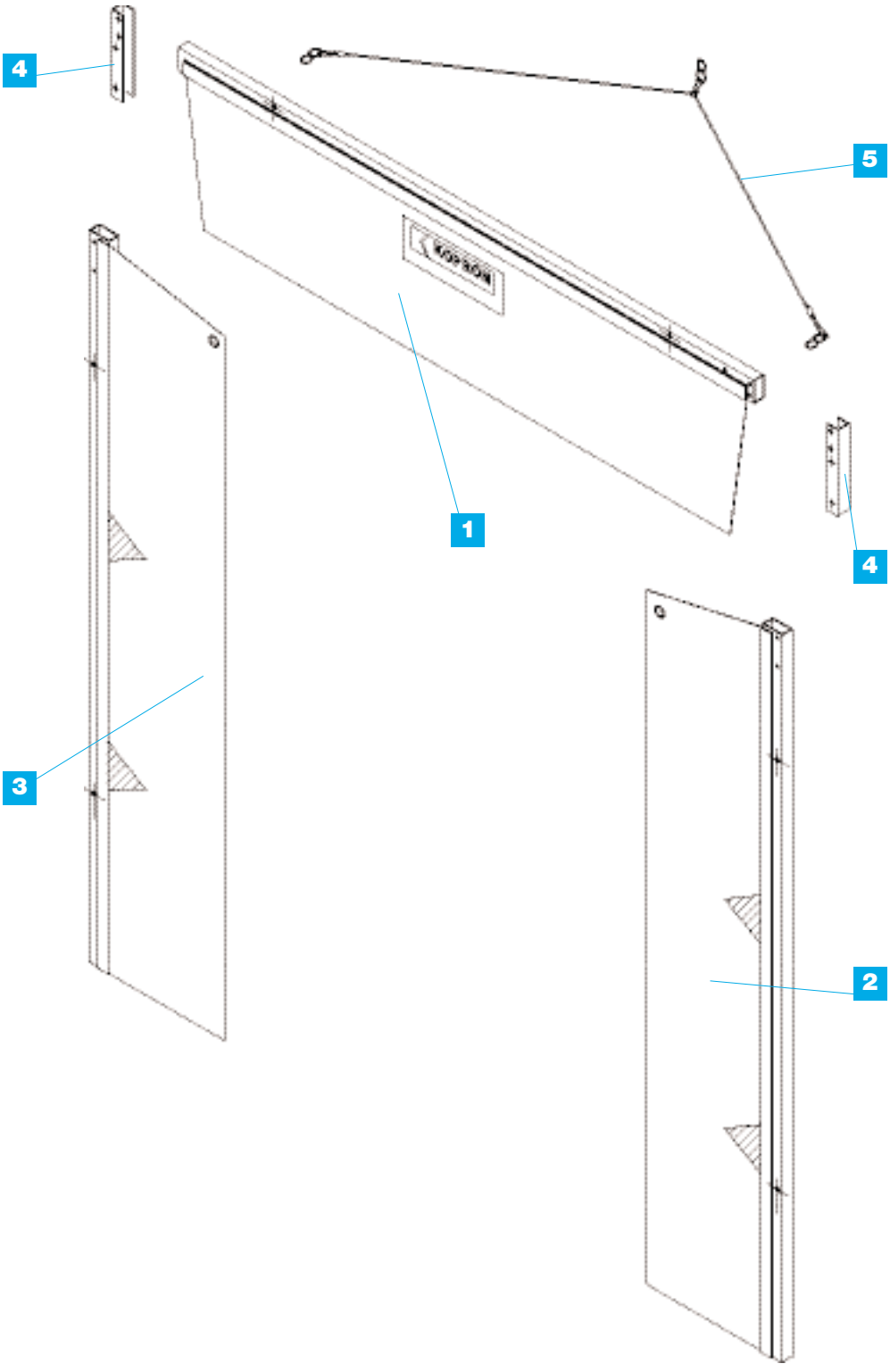


1.2 IDENTIFICATION AND CONTROL OF THE MATERIAL

Transport documents accompanying the delivery of the dock shelter also include a list of material.
Upon receipt the material must go through inspection with the aid of the packing list to verify completeness. In case of damages or missing items, written claim must be made within seven days from delivery and sent through registered mail to Kopron S.p.A.
See drawing enclosed to better identify the details listed in the packing list.

IDENTIFICATION AND E CONTROL OF THE MATERIAL

LIST OF COMPONENTS



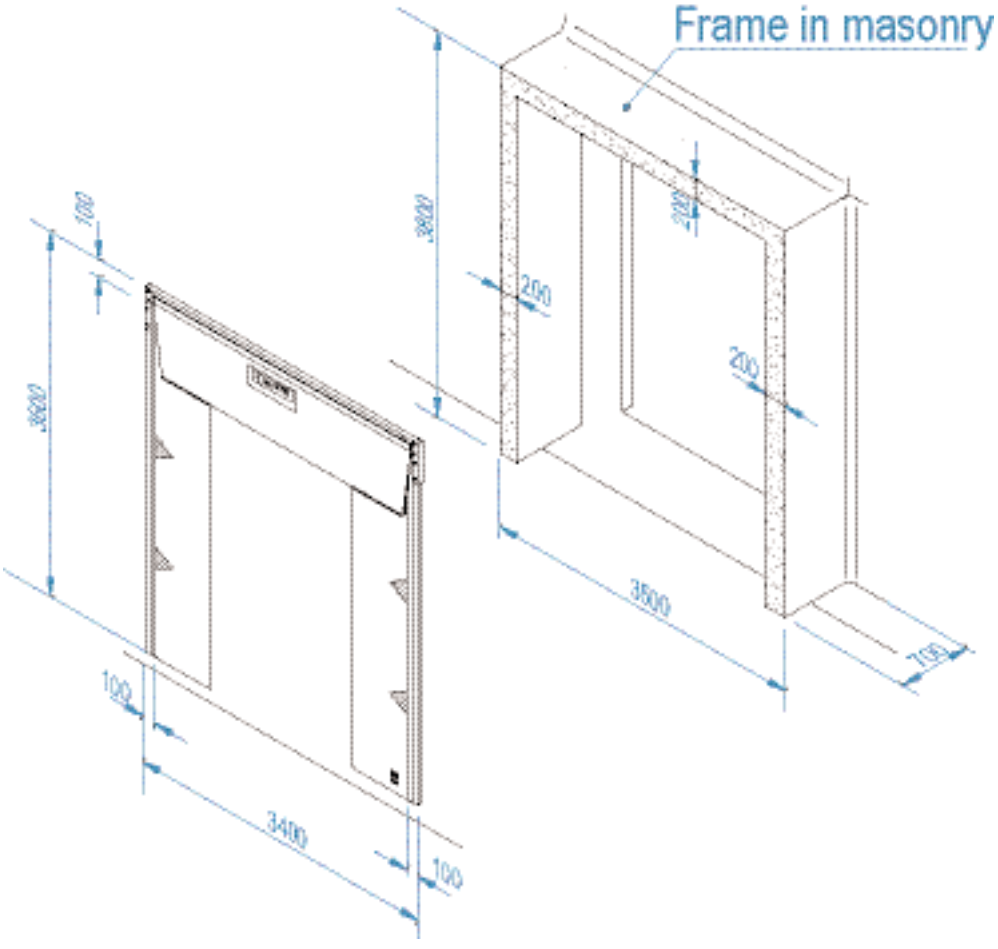
LEGEND

1. Top flap
2. Right flap
3. Left flap
4. Fixing profiles
5. Eastic strings

CHAPTER 1
VERIFICATION OF THE MASONRY WORK

1.1 VERIFICATION OF THE MASONRY WORK

Before starting assembly you must check if the masonry work size is compatible with the dock seal.
Make sure that the external width and height of framework do not prevent the installation.
Length and height of the dock seal are indicated in the drawing.
Make sure that bolts do not interfere with the electric cables, gas tubes, water pipelines.
Eventually you may use specific devices for detecting hidden cables.
Contact with electric lines can cause fire or electric shocks.
Damaged gas tubes create high risk of explosion.
Perforated water pipelines can cause either damages to the material and/or electric shocks.



Verify with a technician of the Buyer that the carrying structure is suitable to bear the weight of the dock shelter and the stress caused during working.
This verification must be carried out by a specialist. For any further problem you may apply to the Service Dpt in Kopron S.p.A. referring to the data contained in the transport documents: ☏ +39- 02 – 92 152 .1

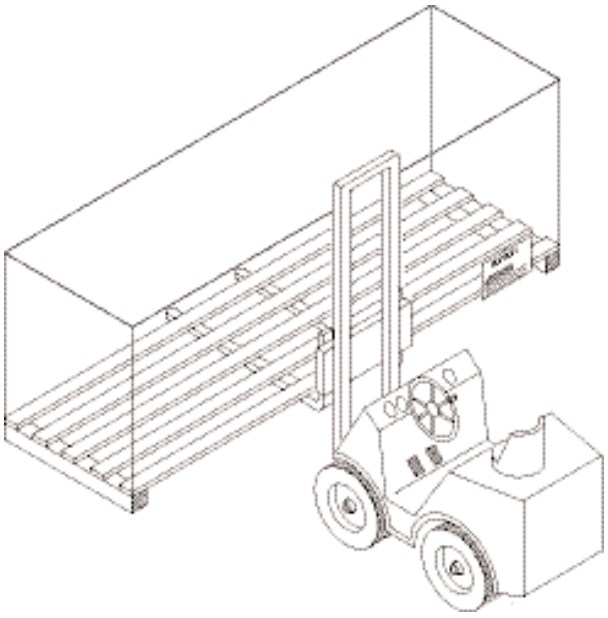
CHAPTER 1
INSTRUCTIONS REGARDING TRANSPORT

1.1 GENERAL INDICATIONS

The handling of the material, must be assigned to personnel trained to operate forklifts or other machinery used for lifting material
Safety measures must be undertaken to guarantee the stability of the machine and of the material.
Should the forklift operator be unable to control the way during handling of goods another person he must go before him and help.
Necessary conditions for lifting material is the perfect balancing of the goods.
The machinery used must be suitable to the volumes and weights to handle.
During operations you must keep an adequate speed and avoid swinging of the material.
Do not leave for any reason the forklift with the material in lifted position. In case of interruption of manoeuvres always lower the goods.

1.2 HANDLING INSTRUCTIONS

Each shipment of dock shelters is made of one or more packages in case of multiple orders, already placed on pallets. Max size for each package is mm 1.100 x 3.600 x height 1.300.
Each package can reach max 800 kgs.
Material contained in the packages is wrapped in plastic sheets.
The transport and handling of material must be by means of a forklift.
Forks must work as shown in the drawing.
No cranes must be used, bridle slings around the package would cause damages inside.



Packages must not be placed one on top of the other in order to avoid damages.
If packages are to be stored, the warehouse must be sheltered and dry.
Take care not to damage the material when cutting the plastic wrappings.

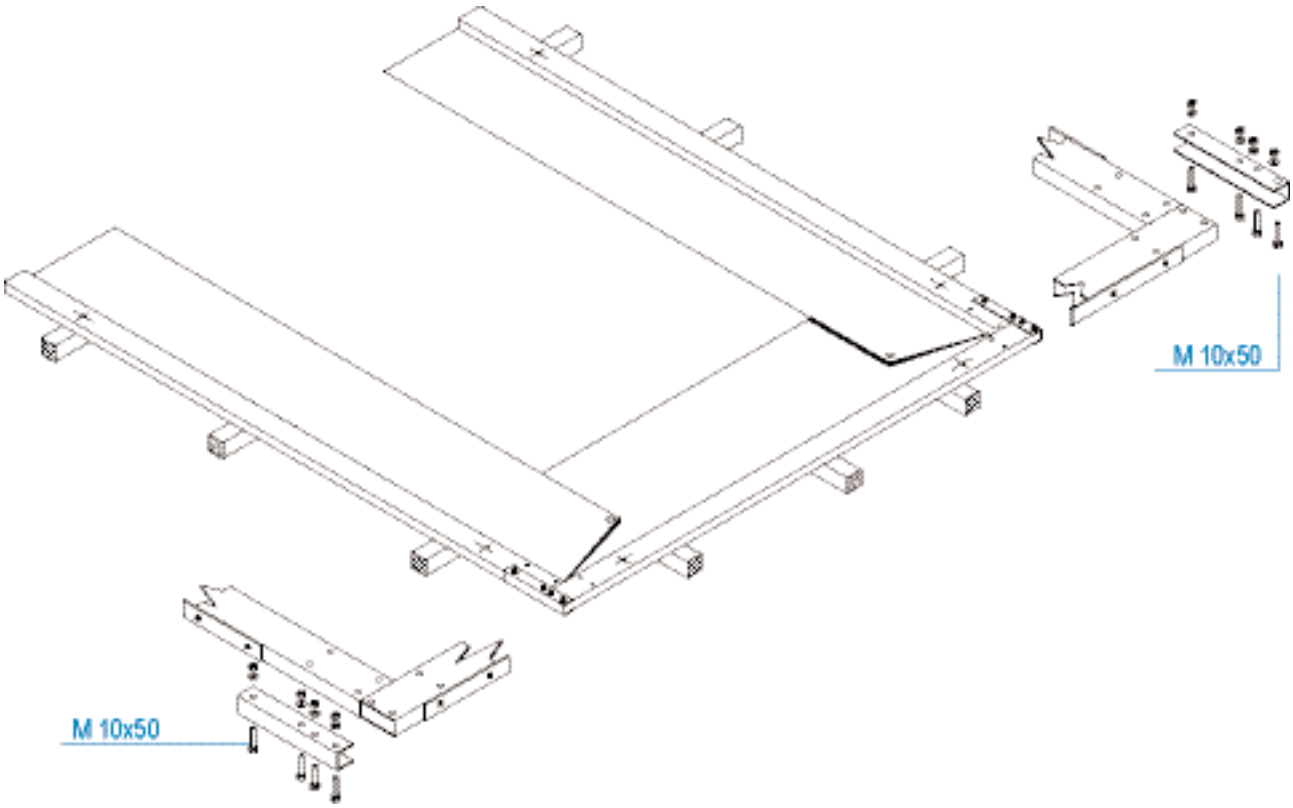
CHAPTER 2
INSTALLATION ASSEMBLY

2.1 BEFORE STARTING

Along with the delivery of material you may have, upon request, an envelope with drawings and technical data regarding the supply, which in addition to the instructions contained in this manual are an aid for an easy, correct and safe assembly of the dock seals.
The envelope can also contain information regarding the positioning of the dock shelter and other details on the technical/commercial agreement between Buyer and Kopron S.p.A.
Therefore, do not start assembly before having read the contents of the envelope.
In case of doubts please apply to the Service Dpt in Kopron S.p.A. at the following numbers, referring to the order number visible on the packages:
☎+39 -02 -92 152 .1
Assembly must be carried out according to local regulations in force and by specialized and skilled personnel.
Specialized personnel, in charge of the assembly, must be informed in advance about the work to be done, the risks they may face in order to provide necessary tools and take the measures for safety.
Assembly must not be carried out in strong windy days.
A scaffold must be positioned near the wall where the dock shelter is going to be assembled.
Before beginning work mark off the working area by means of a white/red ribbon usually used in building yards.

2.2 ASSEMBLY OF THE FRONT SEAL

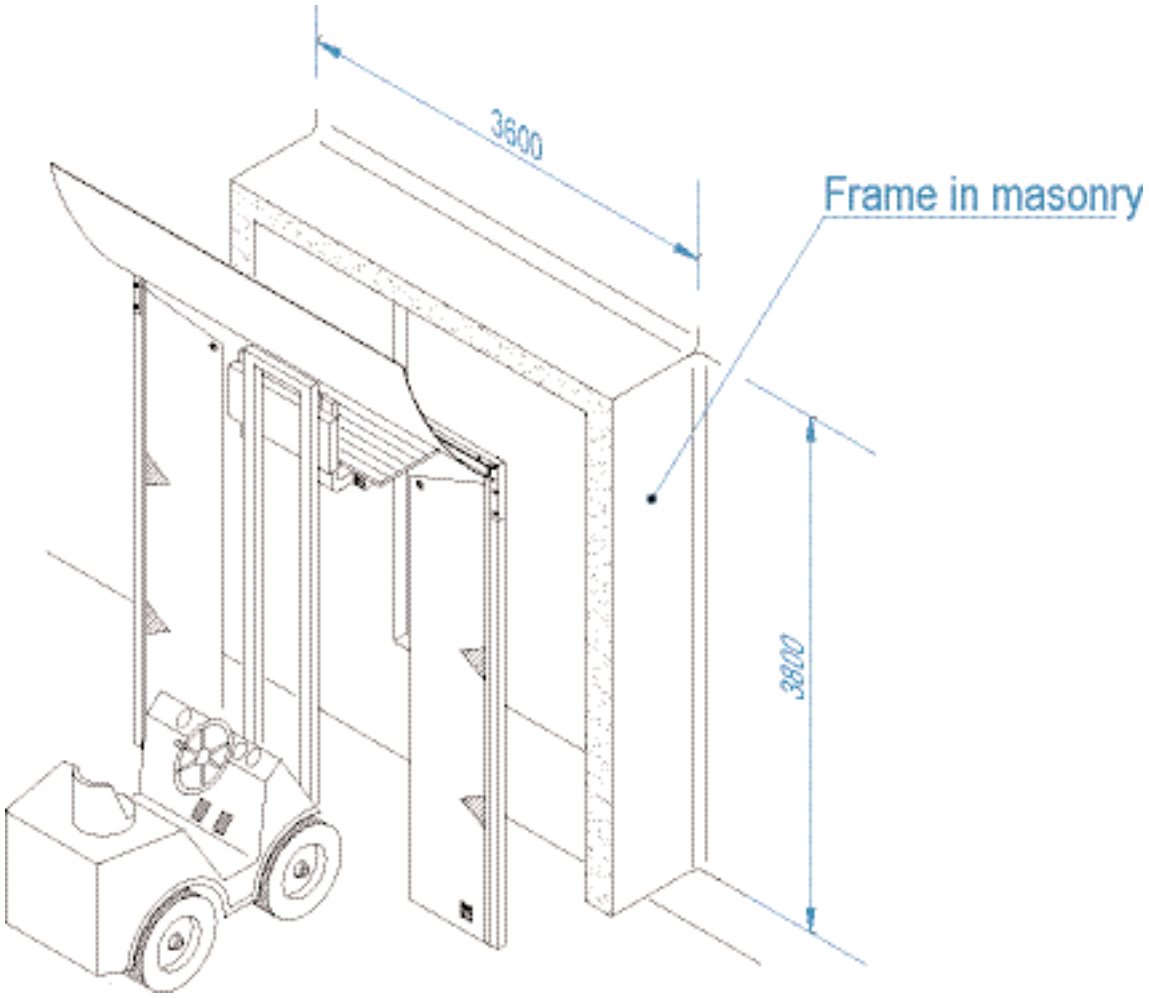
Lay on the floor the wooden bars and start assembling the front seal by using the profiles and eight hexagonal head screws M 10 X 50.
Fix jambs to the cross member by fastening the screws making sure the jambs are parallel. The parallel positon of the jambs can be checked by measuring the diagonals which must be equal.



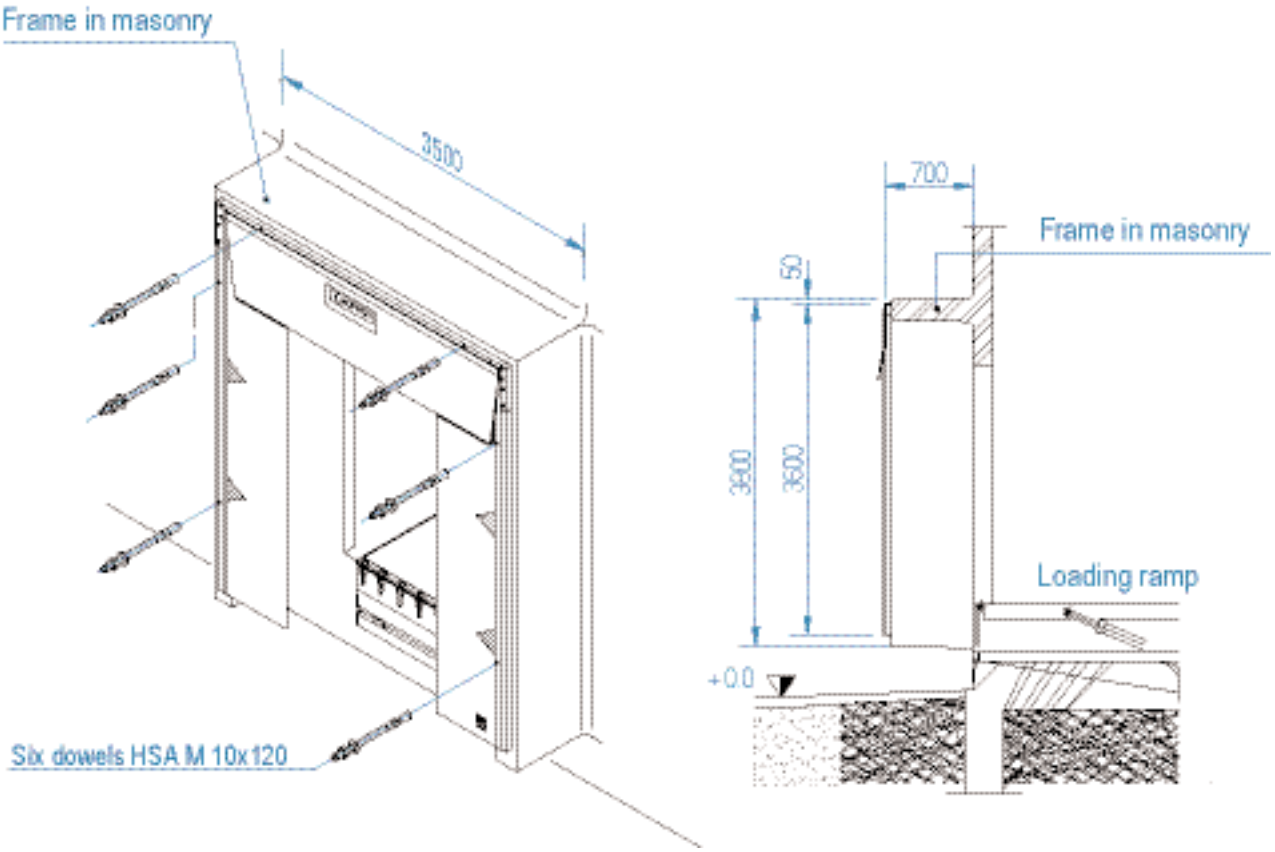
Please note that the frame of the front seal is in galvanized steel sheet, any operation which could scratch off the protective coating, such as welding and grinding which are the most common, must be avoided.
Protective coating is important to prevent corrosion.

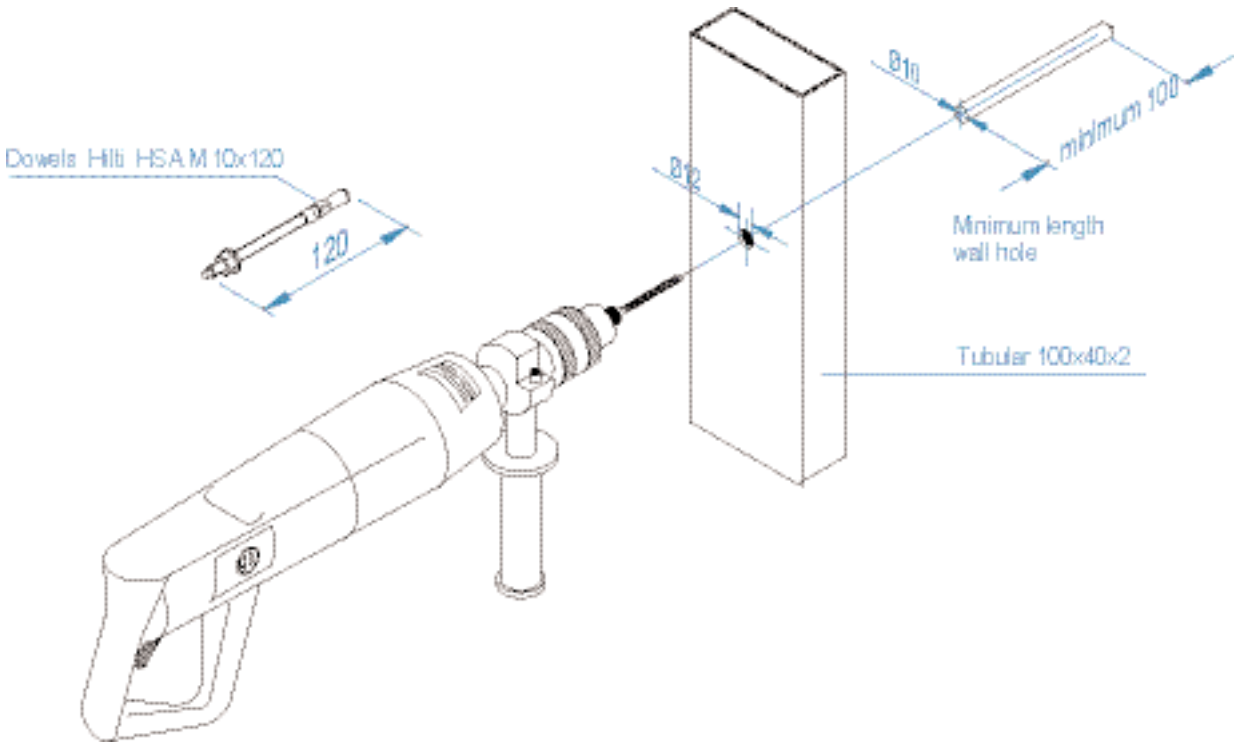
2.3 POSITIONING AND FIXING

Once the front seal has been assembled it must be lifted and leaned against the wall and fixed.
This operation must be carried out with the aid of a forklift and a pallet to be positioned under the front cross member.
Then it must be lifted slowly taking care not to strain the jambs which must accompany the lifting movement.
The pallet is necessary as a further support along with the cross members and helps to prevent the front seal to be stressed during lifting and positioning operations.
Use a pallet in good conditions, and take care to pad with polystyrene or similar material points of contact or edges which could damage the flaps.



Once the front seal has been postioned, start fixing it after having checked the vertical position of the jambs and the perfect spirit levelling of the cross members.
Check the jambs are parallel by measuring the diagonals which must be equal.
Dowel the front seal as shown in the drawing.


Frame in masonry
3500
Six dowels HSA M 10x120
700
Frame in masonry
50
3600
3600
Loading ramp
+0.0

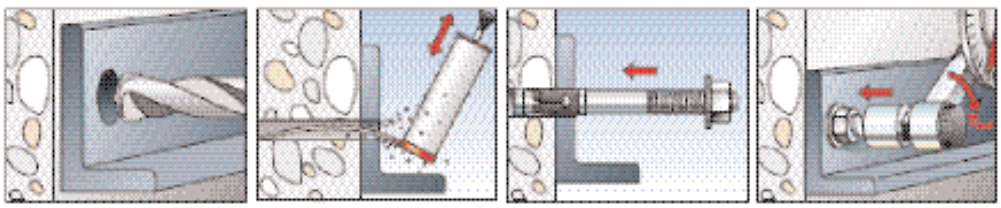

Dowels Hilti HSA M 10x120
120
Ø10
Ø12
minimum 100
Minimum length
wall hole
Tubular 100x40x2

2.3.1 NOTES ON THE USE OF ANCHOR BOLTS

Anchor Bolts HILTI tipo HSA M 10 x 120. Articolo: 00255842

Anchoring length	120 mm
Certifications	ETA, Fire (IBMB and Warrington)
Basic material	concrete block (solid, intact)
Environment conditions	Inside dry
Type of anchoring	Mechanical
Functioning principle	Torque controlled expansion
Type of fixing	Through-fastening, Pre-setting
Material	Straight-carbon steel
Material coating	Galvanized min. 5µm
Identific. length mark	G
Minimum penetration depth -empty brick	50 mm
Max diam. passing hole	12 mm
Insert diameter	10 mm
couple requested	30 Nm
Key size	17 mm
Total length	120 mm
Diam. thread (M)	M10
Protection from corrosion	Zinc plated to min. 5µm

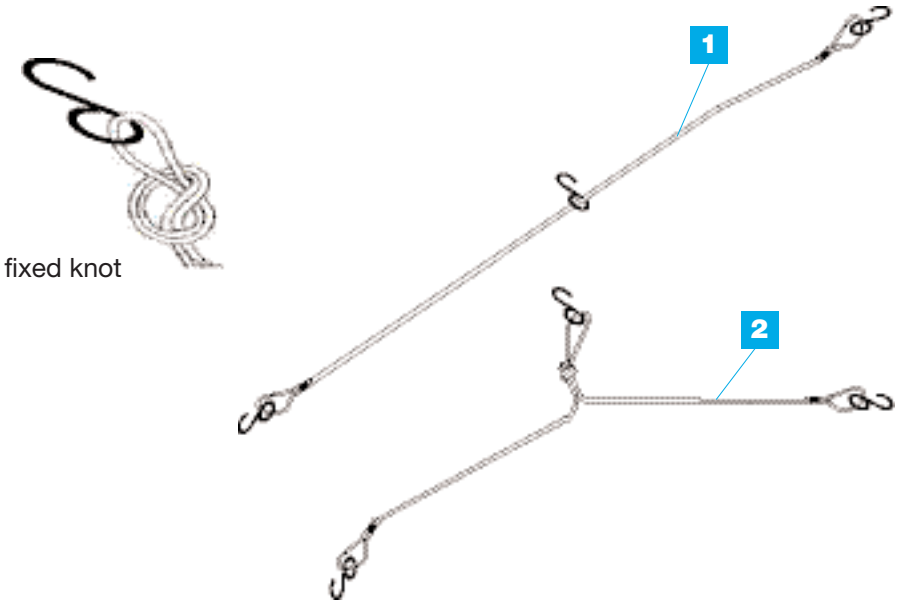
ASSEMBLY



Drill hole with insert Ø 10, depth of the hole 110 mm.
Make sure the hole is clean before inserting the anchor bolts.

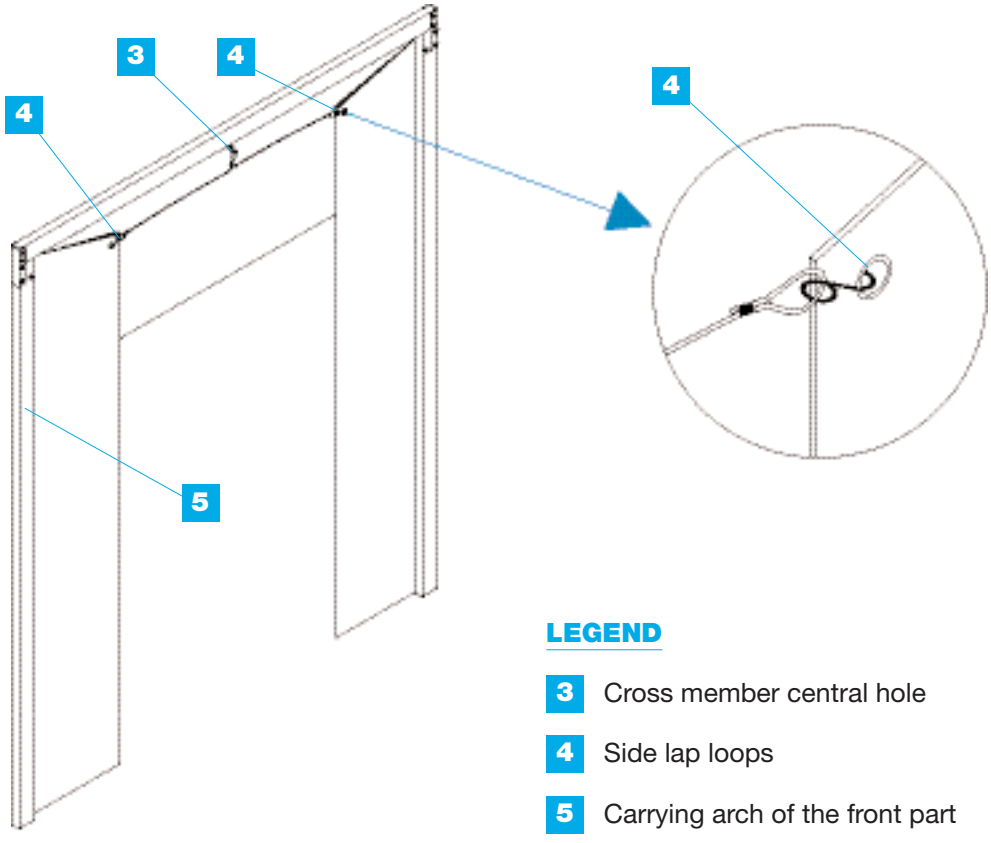
2.4 ASSEMBLY OF THE ELASTIC STRINGS

The elastic string for pulling the side panels must be assembled for last once the front seal has already been fixed to the wall.
The string is supplied as in ref. 1, with three metal hooks, two at the two ends and one free.
The free hook must be stopped at half a string with a knot as shown at ref. 2.



fixed knot

To assemble the string you must hook the central hook (the one stopped with the knot) to the hole positioned at the center of the cross member of the front arch, and the two other hooks (at the ends of the cord) must be hooked to the loops of the side flaps.



LEGEND

- **3** Cross member central hole
- **4** Side lap loops
- **5** Carrying arch of the front part

2.5 LIST OF TOOLS AND EQUIPMENT

In order to carry out installation with ease and in safety the following tools and equipment may be used:

- Plumb line, wire for tracing, pencils, laser level, level and ruler of about 2 m
- Drill complete with inserts for drilling iron.
- Churn drill complete with inserts for reinforced concrete.
- Saw for metal with set of blades.
- Clamps and trestles
- Control panel and sockets suitable for building yards, complete with general switch, thermal magnetic switch and differential set at 30 mA.
- Extension wires with sockets and plugs, for single phase supply 230 V and three phase 400 V.
- Fixed ladder 2.5 m long provided with movable elements for reaching a further extension of 6 m.
- Wheeled scaffold with a height which reaches the dock.
- Tool box with keys, screwdrivers, pliers, hammers, etc...
- Safety tools,safety belts, goggles, helmets, protection gloves against cuts and scratches, safety shoes, opto-isolators.
- First aid box

The assembly area must be delimited by a red and white striped ribbon normaly used in building yards.

All tools and equipment must be according to EC safety standards.

2.6 REMOVAL OF EXCEEDING MATERIAL

Exceeding and waste material from assembly can be dumped along with Customer's waste material.

2.7 ENVIRONMENT CONDITIONS

For a correct functioning of the dock shelter minimum and maximum temperatures depend on the technical characteristics of the covering sheet and on the PVC of the front flaps, therefore it cannot operate under 15°C and over 50° C.
Should it be necessary to operate with different temperatures please apply for info and support to our Service Dpt.

CHAPTER 3
USE

3.1 PARTICULAR RISKS AND SPECIFIC PROTECTION

There are no dangerous spots near the front seal and operator can move at ease. He must however avoid either staying or getting near to the front seal when lorry is in loading/unloading phase, or stop under the front seal.

Vehicles must approach and dock according to regulations established by user for the safety of personnel.

3.2 FIRE-PREVENTION

Dock seals can be installed in areas without particular fire-prevention methods. However please note that covering panels are in self-extinguishing, class 2 PVC.

CHAPTER 4
ANOMALIES, MAINTENANCE AND REPAIR

4.1 PREVENTIVE MAINTENANCE AND PLANNED INSPECTIONS

Weekly inspection
Verify if the carrying arch tubulars are in good conditions.
Check the fastening of the anchor bolts.
Check the fastening of the nuts and bolts assembling the archs.
Check the condition of the elastic strings

Quarterly inspection
Check status and efficiency of the closing panels.
Cleaning and brushing of the panels.

Annual inspection
Fastening of the dock seal anchor bolts
Fastening of the door anchor bolts

Inspection and controls, or operational interventions must be carried out by specialized personnel with proven skills as according to norm EN 292.2 art. 5.5.1.

4.2 NOTE ON THE EQUIPMENT TO USE

Normal workshop equipment is sufficient to carry out all maintenance and repair operations of the door.
There is no need of special tools and equipment.

CHAPTER 5
INSTRUCTIONS ON SAFETY

Main operation	**Transport**
Secondary operation	Lifting and handling
Danger connected	Mechanical danger due to either the shape of the structure or to operations carried out.
Other risks	The operators can injure themselves by either breaking or squeezing feet and hands. Manual handling of bulky and or heavy loads.
Prevention	Personal protection wear, gloves, safety shoes, helments. Qualified personnel Specific instructions on operations in Unit IV Chap.1 Use of lifting means according to EC standards.

Main operation	**Assembly**
danger connected	Danger due to mechanical handling of the components.
Other risks	Bruises, excoriation, pricks, cuts.
Prevention	Personal protection wear, gloves, safety shoes, hel mets and goggles. Use of lifting devices according to EC standards. Appropriate tools and equipment in Unit IV Chap. 2.5 Qualified personnel Specific instructions on operations in Unit IV Chap.2, 3 and 4 Strictly follow the instructions to prevent specific risks existing on place of assembly, provided by Customer

Main operation	**Positioning and fixing**
Secondary operation	
Danger connected	Danger due to mechanical handling of the components. Danger linked to operations being carried out under precarious conditions and when lifted from ground.
Other risks	Bruises, fractures, falls, falling material.
Prevention	Personal protection wear, gloves, safety shoes, hel mets and goggles. Safety belts Appropriate tools and equipment in Unit IV Chap. 2.5 Safety ladder, scaffolds Qualified personnel. Specific instructions on operations in Unit IV Chap.2, 3 and 4

Main operation	**Maintenance and repair**
Secondary operation	
Danger connected	Danger due to mechanical handling of the components. Danger linked to operations being carried out under precarious conditions and when lifted from ground.
Other risks	Bruises, fractures, falls, falling material.
Prevention	Personal protection wear, gloves, safety shoes, helmets and goggles. Safety belts Appropriate tools and equipment. Safety ladder, scaffolds Qualified personnel. Specific instructions on operations in Unit IV Chap.5.1

5.2 WARNING FOR MAINTENANCE

It is to be said, before mentioning any other warning, that for preventive maintenance such as repair interventions you must apply to specialized personnel with proven experience according to norm EN 292.2 art. 5.5.1.

Once this has been established, before starting operations delimit working area with a red/white striped ribbon used in building yards, and position warning signs which prohibit the passage of vehicles.
For interventions at the top of the dock shelter, a scaffold must be used.

UNIT V

ENVIRONMENTAL POLLUTION

CHAPTER 1
ENVIRONMENT POLLUTION

1.1 DISPOSAL AND DISMANTELLING

Waste material must be separated according to type:
- Iron
- Plastic

Metal along with other material must be collected and dumped according to local reagulations.

UNIT VI

SPARE PARTS

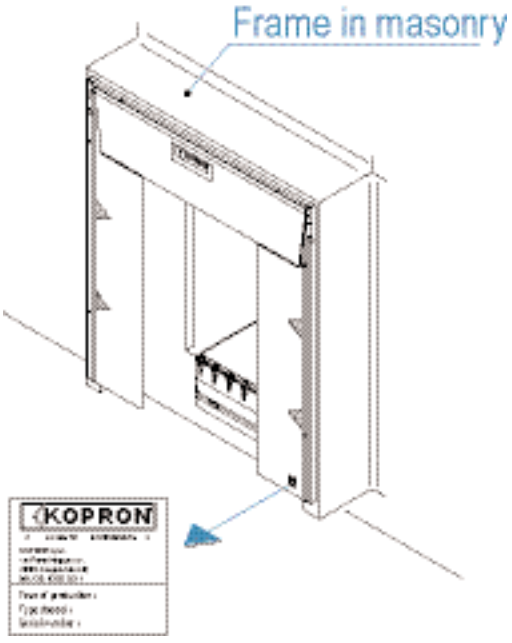
CHAPTER 1
SPARE PARTS

1.1 SPARE PARTS SUGGESTED

For any request for spare parts you may apply to headquarters at the following address:

KOPRON S.p.A. via Primo Maggio s.n. - 20064 Gorgonzola – Milan -Italy
☏ +39-02 – 921 52 .1

You must mention, year of construction, serial number and all data you can get from the identification plate permanently positioned on the right bumper.
To identify exactly the spare part make use of the drawing as per Unit II Chap. 1.2 Identification and control of the material.



The use of non original spare parts is considered improper. This will imply for Buyer to take his own responsibilities and the loss of guarantee.

Kopron S.p.A

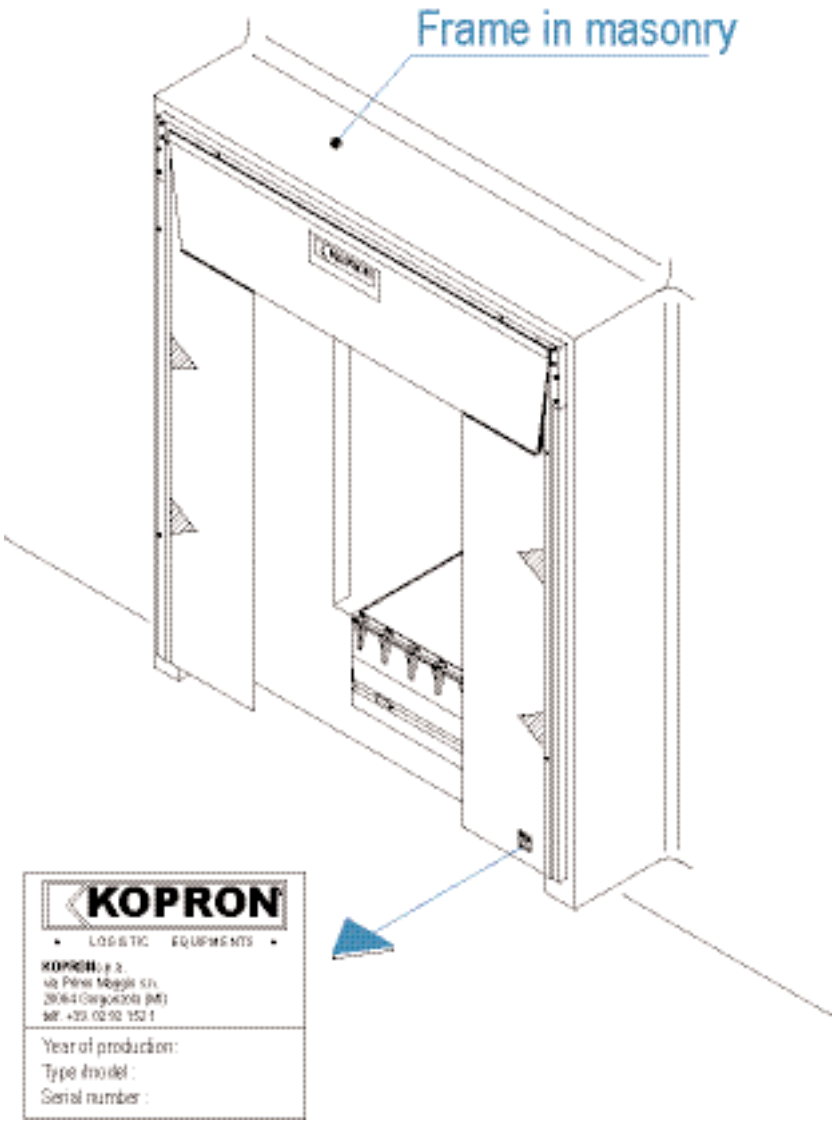
CHAPTER 1
SERVICE AND GUARANTEE

1.1 PROCEDURES FOR REQUESTING ASSISTANCE

For any request for service you must apply to our offices at the following address:

KOPRON S.p.A. via Primo Maggio s.n. - 20064 Gorgonzola –Milan - Italy
☏ 02 – 921 52 .1

You must mention the problem along with the serial number and year of construction of the dock shelter.
An identification plate with the data requested is positioned permanently on the right flap as shown in the following drawing.



1.2 GUARANTEE

1 - Kopron S.p.A. grant a guarantee period of 12 months from delivery date except for electric and electronic parts for which there is no guarantee, these omponents used for production have there own guarantee, established by the relevant suppliers, which as well does not exceed 12 months from delivery.

2 - Kopron S.p.A. undertake to remove any defect due to error in design or material/production faults occuring within the terms mentioned at point 1.

3 - For each faulty part, Buyer must give Kopron written notice within eight days. Buyer will be charged with transport costs and risks plus eventual customs expenses for faulty parts as well as for the supply of parts repaired or sent for replacement.

4 - Upon request of Buyer service under guarantee can be carried out locally where the dock leveller has been assembled, in this case intervention plus expenses for travel, food and lodging will be charged to customer.

5 - Guarantee is valid only in case equipment has been correctly used according to instructions contained in the Use and Maintenance manual. Guarantee will not cover damages causd by wrong manoeuvres of vehocles or incapacity of the driver. It also will not cover malfunction due to incorrect operation or maintenance or to interventions not authorized by Kopron S.p.A. in writing, or due to wear and tear. Guarantee will not cover any damages caused directly or indirectly by tools, or due to missing production.

6 - Material subject to normal wear and tear is not under guarantee.

7 - The duration of the guaranteed does not exclude the obligation on behalf of Customer to stock up with spare parts as suggested by Kopron S.p.A. in due time.

8 - The obligations implied in the guarantee have nothing to do with the economical conditions agreed upon and do not authorize interruptions or changes in payment modalities.

9 -Guarantee covers only the mechanical functioning of the equipment, therefore Kopron S.p.A. will not be responsible for personal Customer expectations regarding quality or quantity of the product. Buyer must take care of the disposal of the hydraulic liquid, therefore Kopron will not be responsible in case Customer does not comply with local regulations.

Should instructions contained in this manual not be followed strictly, or if any negligence occur during maintenance, or repairs not be carried out properly, or should non original spare parts be used, this will be considered improper and will imply Buyer to take his own responsabilities plus the loss of guarantee.

Kopron S.p.A

LOOKING AHEAD

Quality Management System
UNI EN ISO 9001:2008 Certified
Factory Production Control
UNI EN ISO 1090
Applicable standard
UNI EN 13241-1
UNI EN 16005
UNI EN 1398
UNI EN 3834-2

CERTIFICAZIONI
CERTIFICATIONS

Kopron attraverso le certificazioni di qualità offre un'ulteriore garanzia sull'efficacia e l'efficienza dei propri prodotti.

Through certifications Kopron offer a further guarantee on efficiency and quality of their products.

KOPRON LOGISTIC SOLUTIONS

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