

RAISED DOCK SHELTER

LOGISTIC
SOLUTIONS



MOD. KDR-F



ASSEMBLY, USE AND MAINTENANCE MANUAL

INTRODUCTION

UNIT I

DESCRIPTION

UNIT II

**IDENTIFICATION AND CONTROL
OF THE MATERIAL**

UNIT III

VERIFICATION OF THE MASONRY WORK

UNIT IV

INSTRUCTIONS

UNIT V

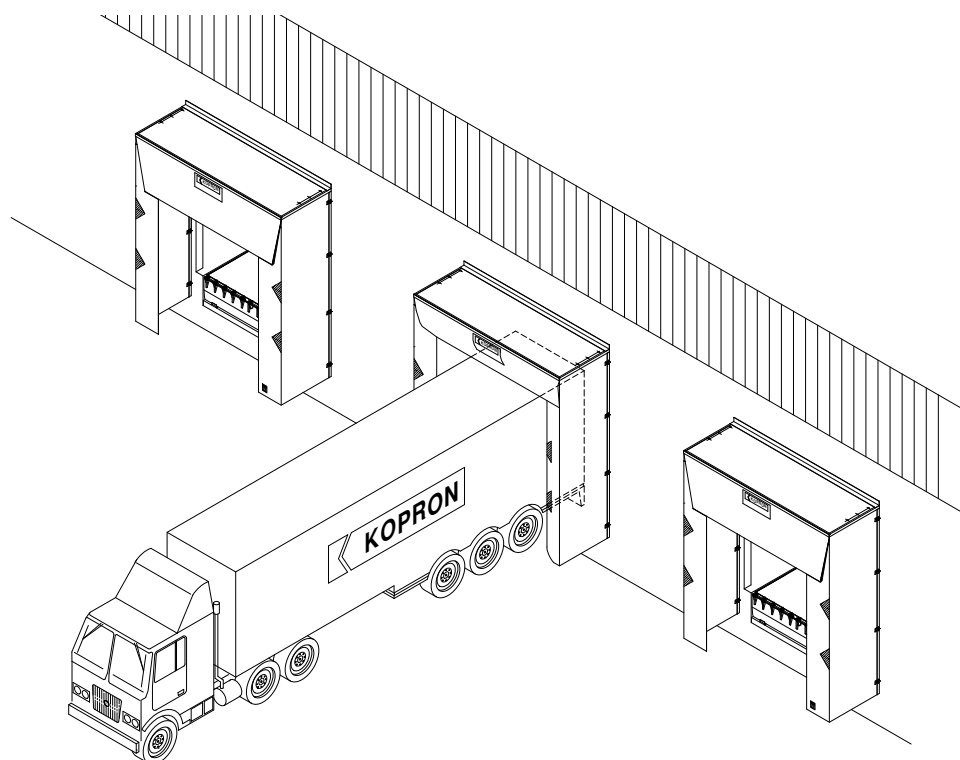
ENVIRONMENT POLLUTION

UNIT VI

SPARE PARTS

UNIT VII

SERVICE / GUARANTEE



SUMMARY

page 5

INTRODUCTION

UNIT I - DESCRIPTION

CHAP. 1

- 7 1.1 DESCRIPTION OF RAISED DOCK SHELTERS
- 7 1.2 IMPROPER USE
- 8 1.3 IDENTIFICATION PLATE

UNIT II -IDENTIFICATION AND CONTROL OF THE MATERIAL

CHAP. 1

- 9 1.1 PREAMBLE
- 9 1.2 IDENTIFICATION AND CONTROL OF THE MATERIAL

UNIT III - VERIFICATION OF THE MASONRY WORK

CHAP. 1

- 11 1.1 VERIFICATION OF THE MASONRY WORK

UNIT IV - INSTRUCTIONS

CHAP. 1- INSTRUCTIONS FOR TRANSPORT

- 12 1.1 GENERAL INDICATIONS
- 12 1.2 HANDLING INSTRUCTIONS

CHAP. 2 – INSTALLATION

- 13 2.1 BEFORE STARTING
- 14 2.2 DOCK SHELTER ASSEMBLY
- 19 2.2.1 NOTE ON THE USE OF THE DOWELS
- 20 2.3.LIST OF TOOLS AND EQUIPMENT
- 20 2.4 REMOVAL OF EXCEEDING MATERIAL
- 20 2.5 ENVIRONMENT CONDITIONS

CHAP. 3 - USE

- 21 3.1 RISKS AND PROTECTION
- 21 3.2 FIRE PREVENTION

CHAP. 4 - ANOMALIES, MAINTENANCE AND REPAIR

- 22 4.1 PREVENTIVE MAINTENANCE AND PLANNED INSPECTIONS
- 22 4.2 NOTES ON THE EQUIPMENT TO USE

CHAP. 5 - INSTRUCTIONS ON SAFETY

- 23 5.1 OTHER RISKS
- 24 5.2 MAINTENANCE INSTRUCTIONS

UNIT V -ENVIRONMENT POLLUTION

CHAP. 1 -

- 25 1.1 DISPOSAL AND DISMANTELLING

UNIT VI - SPARE PARTS

CHAP. 1 –

- 25 1.1 SPARE PARTS.

UNIT VII – SERVICE / GUARANTEE

CHAP. 1

- 26 1.1 PROCEDURES TO REQUEST ASSISTANCE
- 26 1.2 TERMS AND CONDITIONS FOR INTERVENTIONS UNDER GUARANTEE

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 underestimated in order not to risk people's health and safety.



CAUTION

This sign indicates the requirement 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 responsibilities and guarantee will no longer be valid.

Kopron S.p.A.

CHAPTER 1

DESCRIPTIONS

1.1 DESCRIPTION RAISED DOCK SHELTER

Raised dock shelters mod. KDR F are particularly suitable for limiting temperature variation between inside and outside of the building during loading/unloading operations.

Their use allows energy saving when either heating or airconditioning is functioning inside the building. This model is made of flexible bumpers which resist to front and side pressure when truck isn't perfectly aligned with the loading bay axis

Bumpers are made of polyurethane foam, density 30 kg/m³, and the covering sheet consists of a PVC fabric, weighing 800 gr/m².

The front part of the bumpers mostly exposed to rubbing and scratching of the trucks are in thick PVC, special weft.

All the metal parts of the structure are in hot galvanize steel and the top covering consists of a multilayer insulating panel.

The dock shelters prevent the building structure to receive the thrust from the truck impact

Covering sheets are in tear resistant, Class 2 self-extinguishing fabric.

1.2 IMPROPER USE



The raised dock shelters 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 Koprion 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 responsibilities and guarantee will no longer be valid.

1.3 IDENTIFICATION PLATE

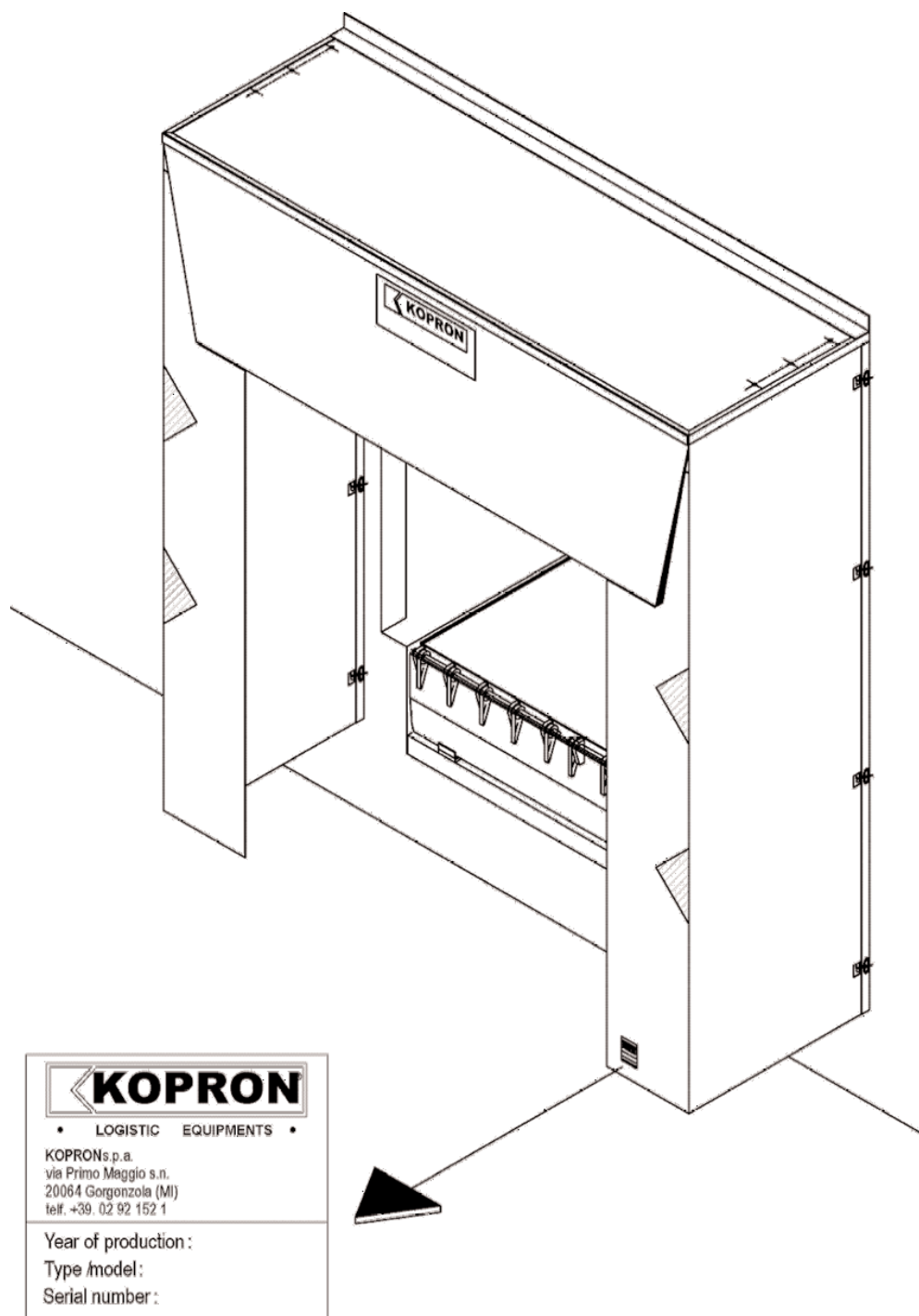


An identification plate is positioned permanently on the right flap as shown in the enclosed drawing.

The data on identification plate must always be kept clean and legible.

Should it be ruined and become no longer legible 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.

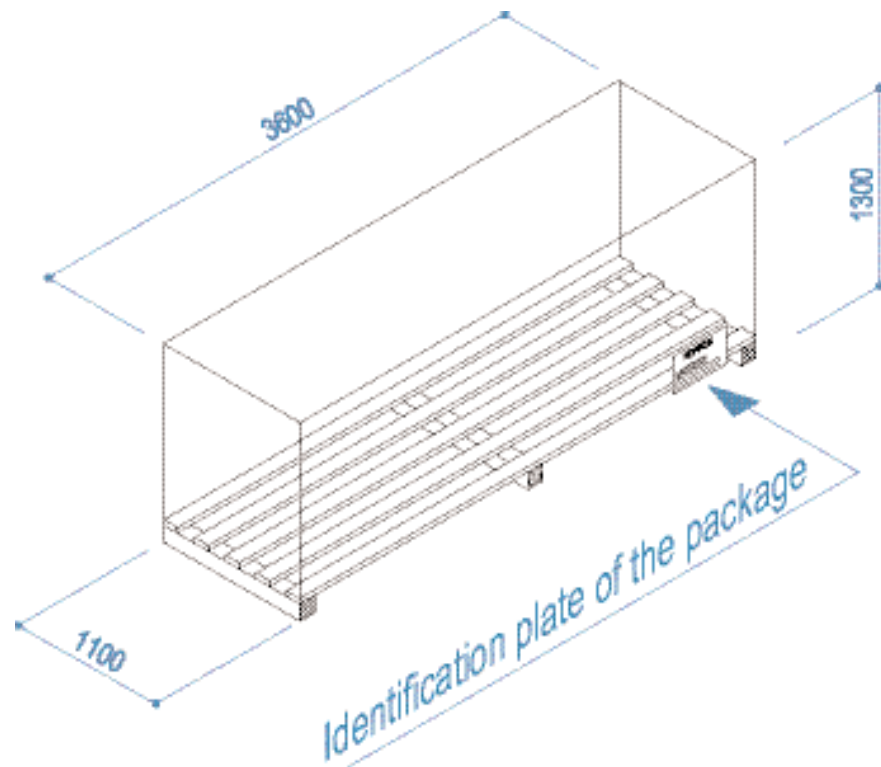
Material contained in the packages is wrapped in plastic sheets.

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 suggested 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..



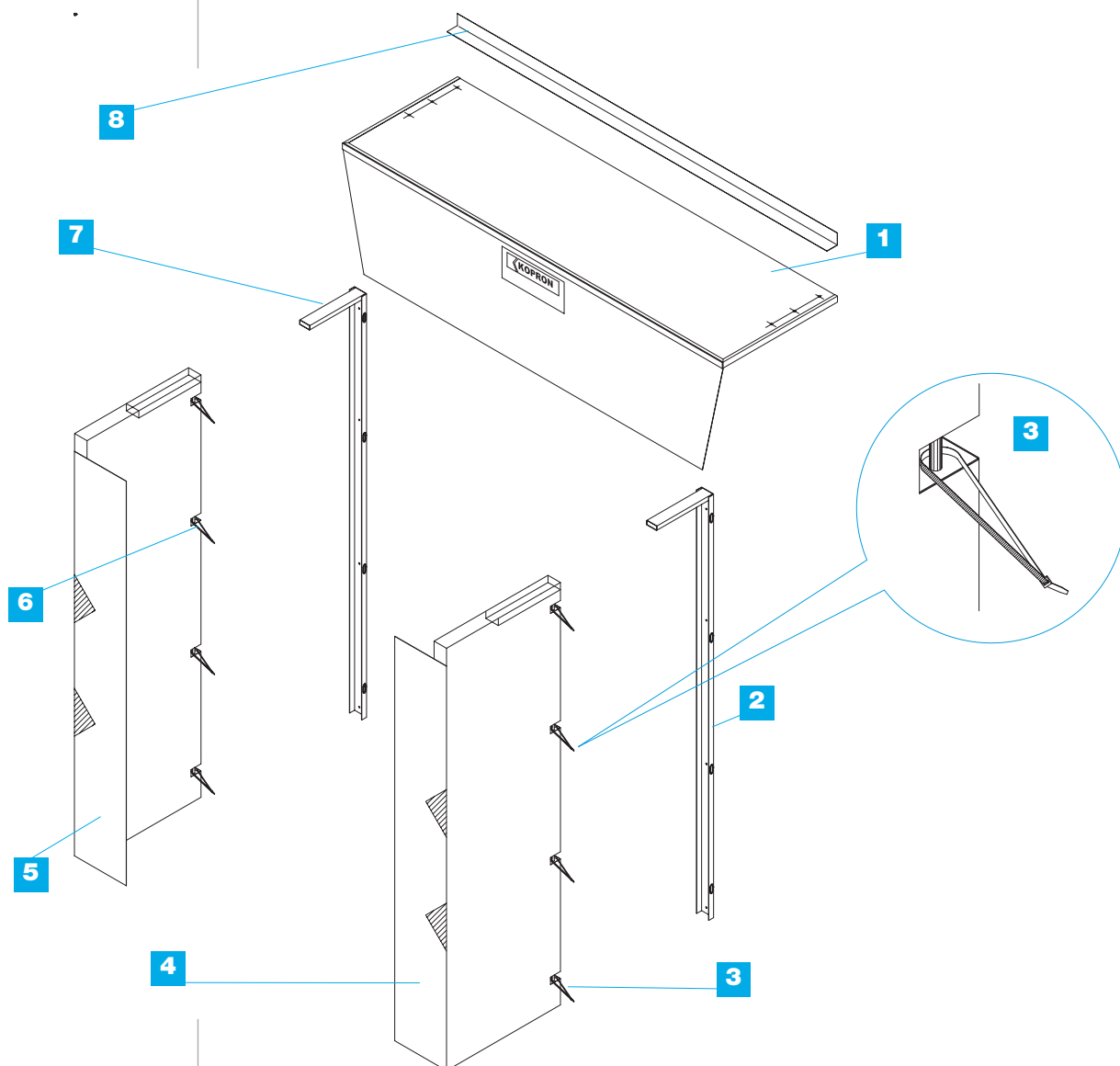
1.2 IDENTIFICATION AND CONTROL OF THE MATERIAL



Transport documents accompanying the delivery of the dock shelter also include a packing list detailing the number of bolts, drilling screws necessary for assembly plus dowels to fix the dock to the wall.

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.

LIST OF COMPONENTS



LEGEND

- 1** covering panel
- 2** Right jamb
- 3** Straps
- 4** Left flap
- 5** Right flap
- 6** Straps
- 7** left jamb
- 8** gutter

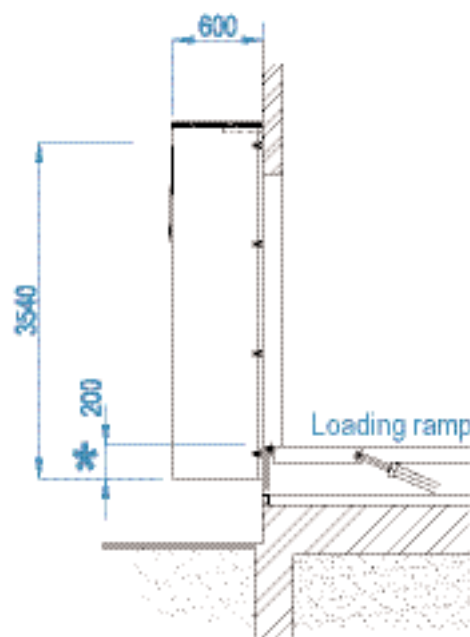
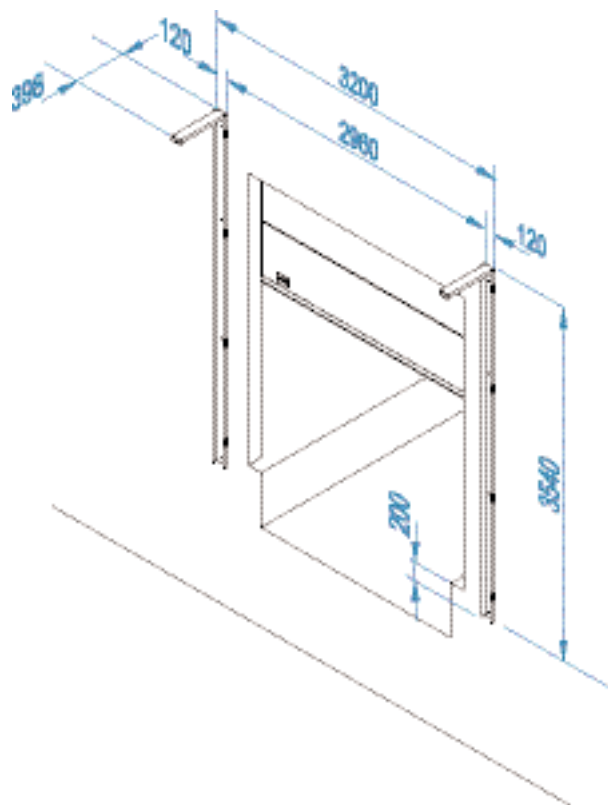
CHAPTER 1

VERIFICATION OF THE MASONRY WORK

1.1 VERIFICATION OF THE MASONRY WORK

Before starting assembly you must check if the size of the door space is compatible with the dock shelter.

Make sure that the external width and height of framework do not prevent the fitting of the door. Length and height of the dock are indicated in the drawing.



*Dimension 200 mm refers to the distance between the bay, or ramp plate in resting position, and the lower part of the dock shelter. This distance is recommended for a good functioning of the dock shelter.



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.

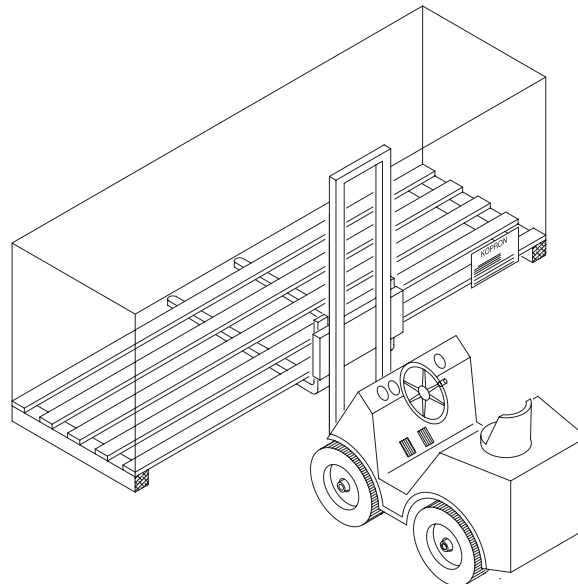
1.2 HANDLING INSTRUCTIONS

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 shelters.

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.

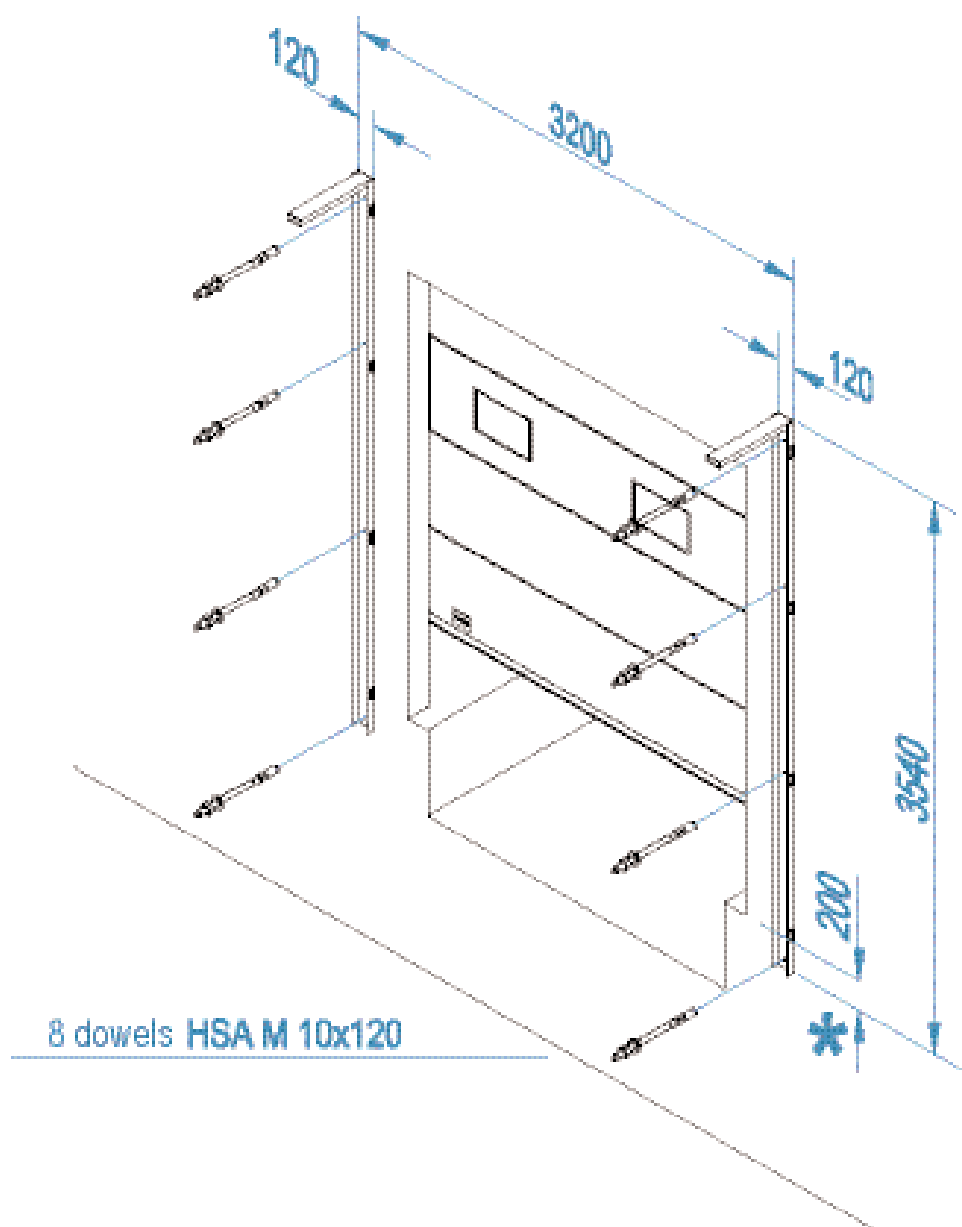
Therefore, do not start assembly before having read the contents of the envelope. In case of doubts please apply to the Service Dpt in Kopron S.p.A. at the following numbers, referring to the order number visible on the packages: ☎+39-02-92 152 .1 Assembly must be carried out according to local regulations 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 DOCK SHELTER

*Dimension 200 mm refers to the distance between the bay, or ramp plate in resting position, and the lower part of the dock shelter. This distance is recommended for a good functioning of the dock shelter.

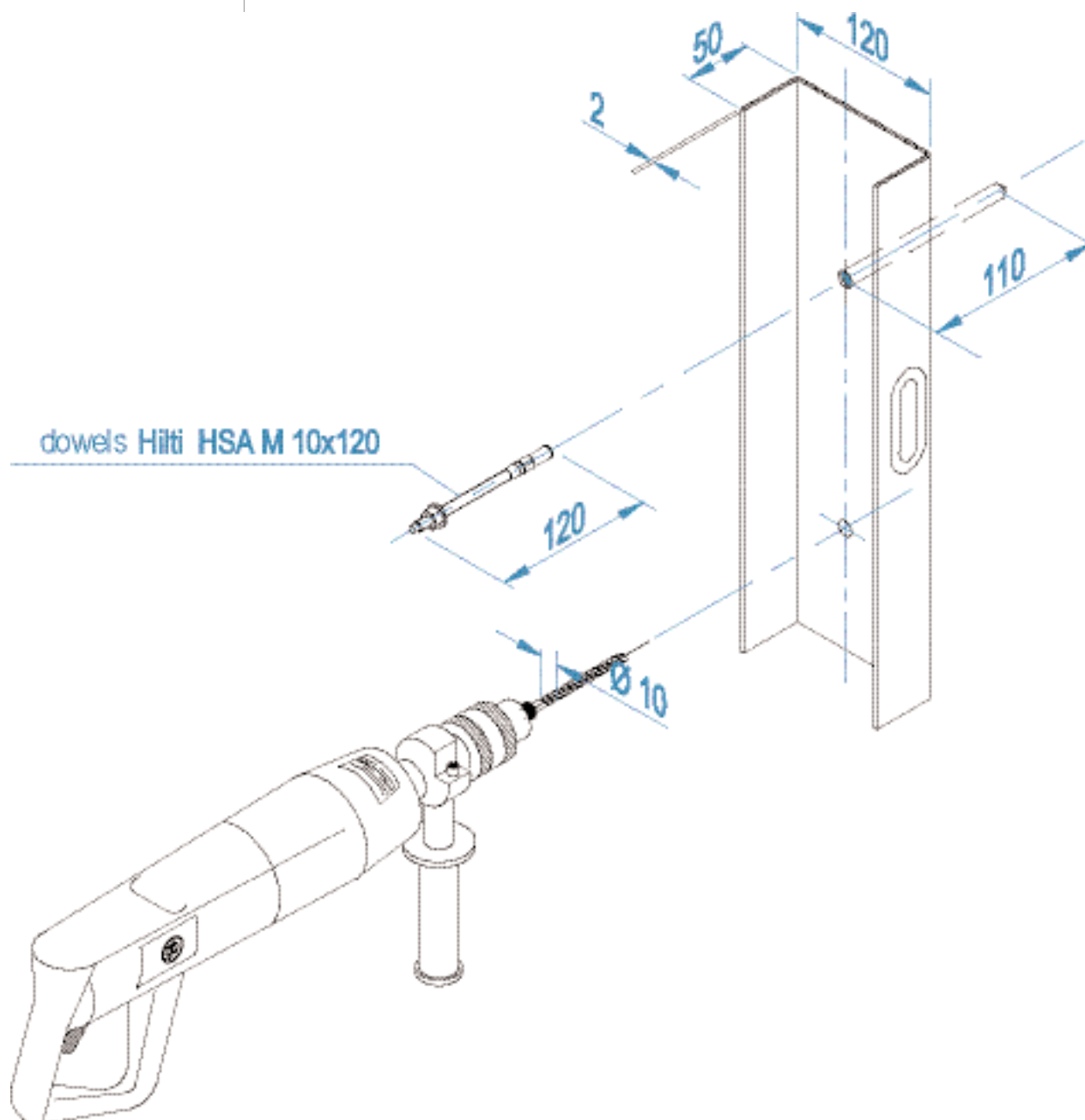
Fix the jambs which must be perfectly squared and spirit levelled.

Jambs must be parallel, this can be checked by measuring the diagonals which must be equal.

The two jambs are the same and can be assembled either on the right or on the left of the loading space.

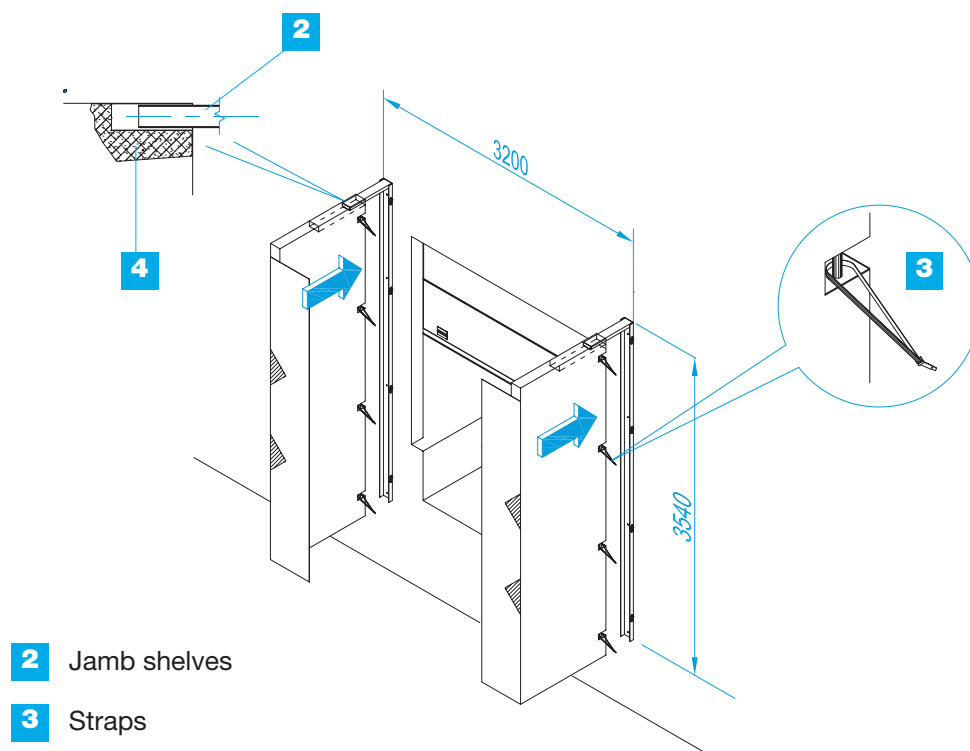
The jambs are in galvanized steel sheet, therefore all operations which could scratch of the coating must be avoided, such as welding or grinding. The coating is necessary for avoiding corrosion.

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 a 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.



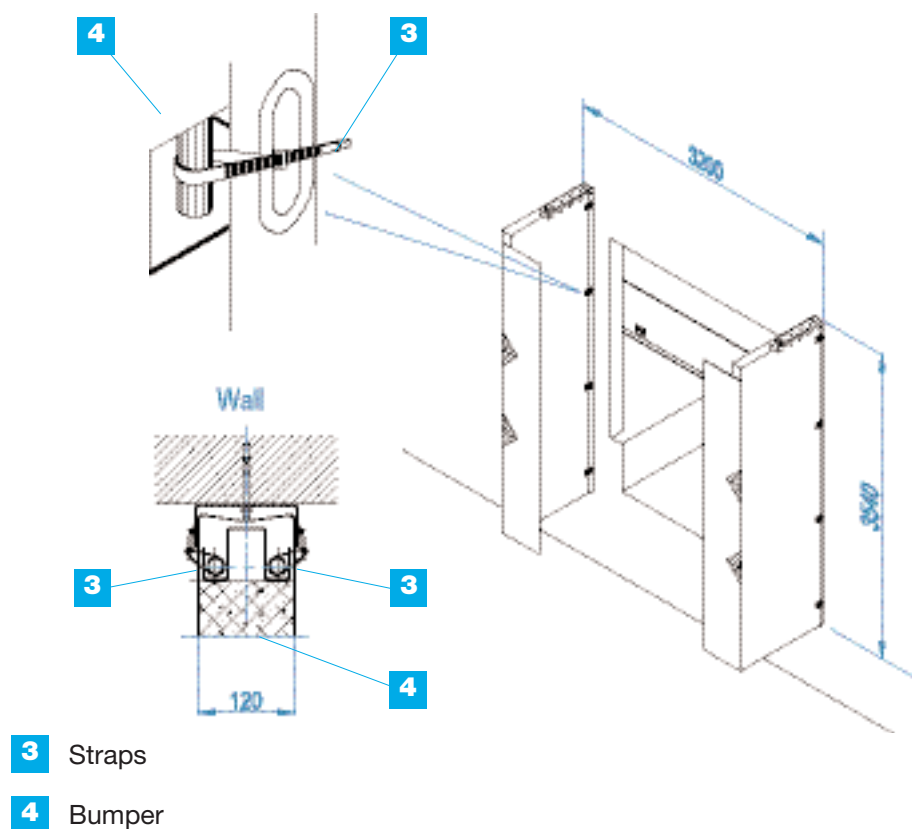
The diameter of the drill insert must be of $\varnothing 10$ mm and the depth must be of at least 110 mm
 Make sure the hole is perfectly clean before inserting the dowel.
 The dowel must be positioned in the hole in order to leave the head thread out 2 o 3 mm.

Position the side bumpers inserting the pockets in the shelves of the jambs.



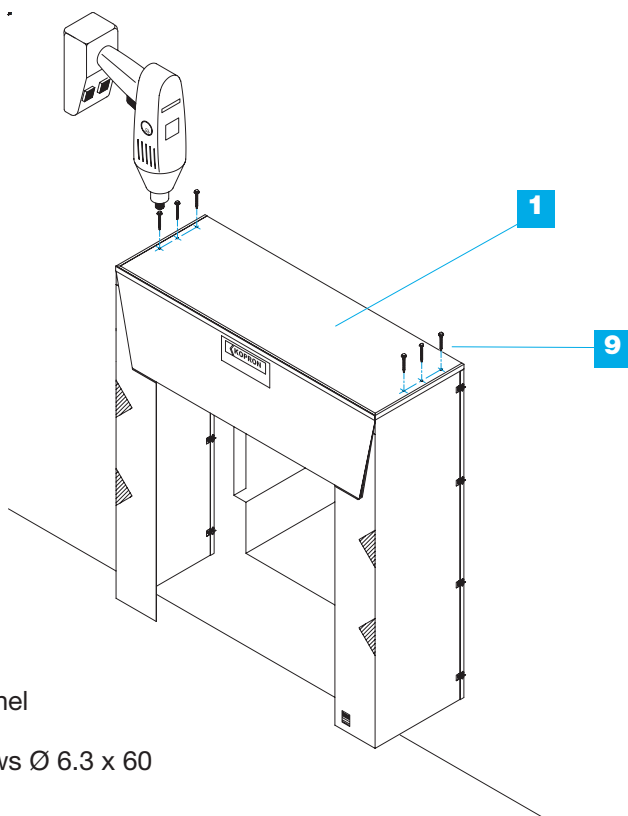
- 2** Jamb shelves
- 3** Straps
- 4** Bumper pockets

Fix the bumpers by tightening the straps starting from above downwards.



- 3** Straps
- 4** Bumper

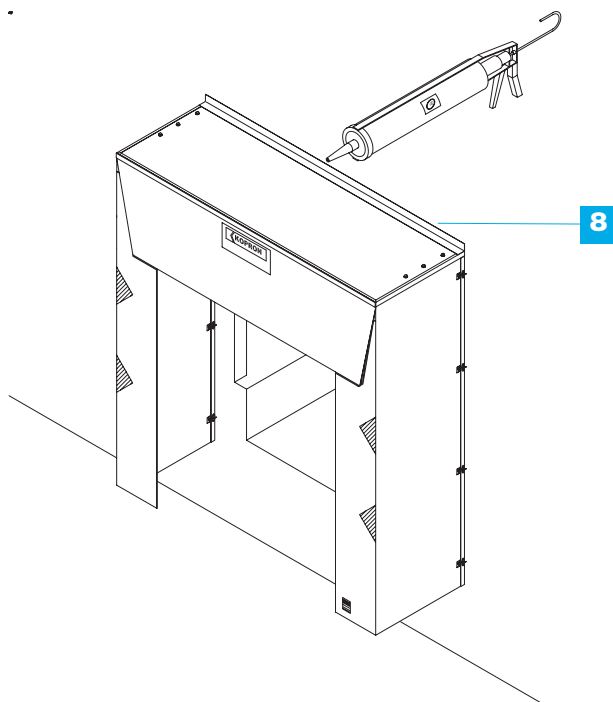
Fix the covering panel of the dock shelter by using 6 drilling screws.



1 Covering panel

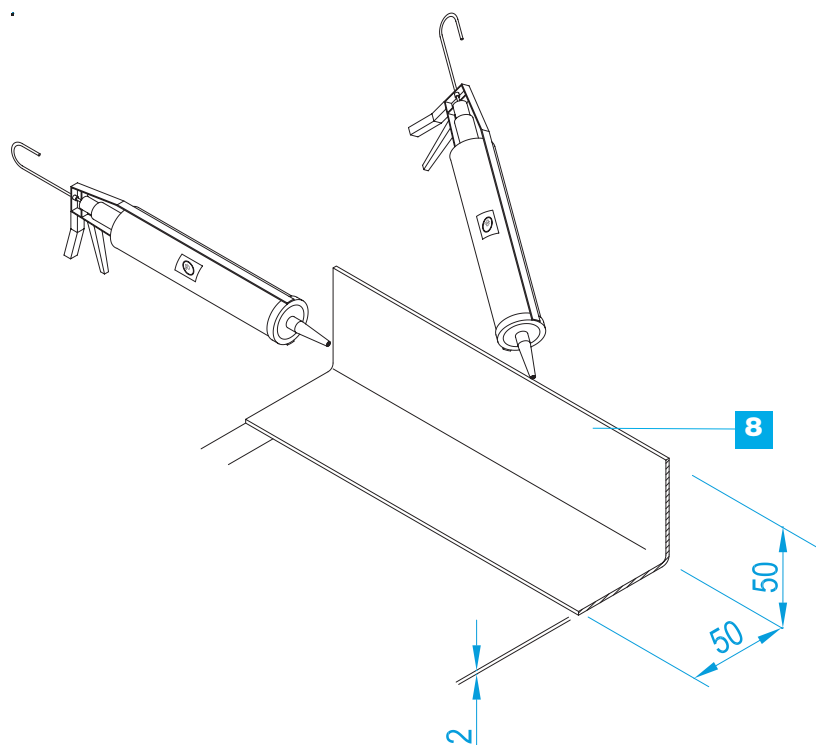
9 Drilling screws Ø 6.3 x 60

Stick with silicone the metal sheet gutter between the covering panel and the wall where the dock shelter is fixed to.



8 Galvanized steel gutter - thickness. 1,5 mm 50 x 50 mm

Apply silicone around the gutter for a complete sealing.



8 Galvanized steel gutter - thick. 1,5 mm 50 x 50 mm

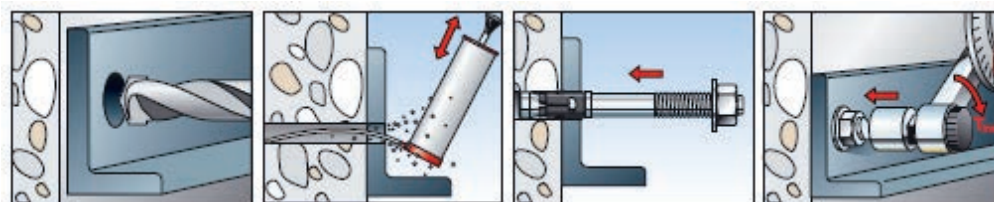
2.2.1 NOTES ON THE USE OF DOWELS



DOWEL HILTI Ttype HSA M 10 x 120. Article: 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	50 mm
-empty brick	
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 dowel

2.3 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 residual-current device 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.

All tools and equipment must be according to EC standards.

**2.4 REMOVAL OF EXCEEDING MATERIAL**

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

**2.5 ENVIRONMENT CONDITIONS**

Minimum and maximum temperatures for a correct functioning of the dock shelter depend on the technical characteristics of the covering PVC fabric, therefore it cannot operate under 30°C and over 70° C.

For different temperatures please refer 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 dock shelter and operator can move at ease. He must however avoid either staying or getting near to the dock shelter when lorry is in loading/unloading phase.



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

3.2 FIRE-PREVENTION

Dock shelters can be installed in areas without particular fire-prevention methods. However please note that both covering fabric and bumper 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 front arch tubulars and the pantograph bars are complete or damaged. In case of damages provide for immediate repair or replacing.
Check the fastening of the fixing dowels.
Check the fastening of the nuts and bolts assembling the archs.
Check the wholeness of the elastic cord and of the side flaps
Grease the hinges of the pantograph with molykote grease.

Quarterly inspection

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

Annual inspection

Fastening of the dock shelter fixing dowels.
Fastening of the door fixing dowels.

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, helmets. 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 at hands.
Prevention	Personal protection wear, gloves, safety shoes, helmets and goggles. Use of lifting means 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, helmets 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.

CHAPTER 1

ENVIRONMENT POLLUTION

1.1 DISPOSAL AND DISMANTELLING

Waste material must be separated according to type:

- ◇ Iron
- ◇ Plastic

Disposal and dumping must be carried out according to local regulations.

SPARE PARTS

CHAPTER 1

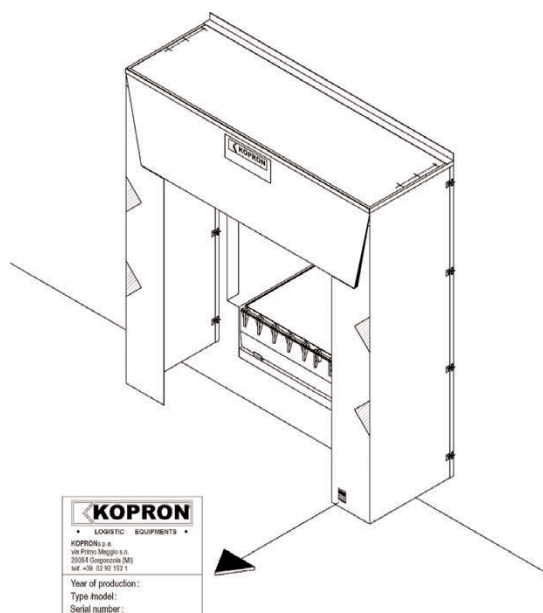
SPARE PARTS

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

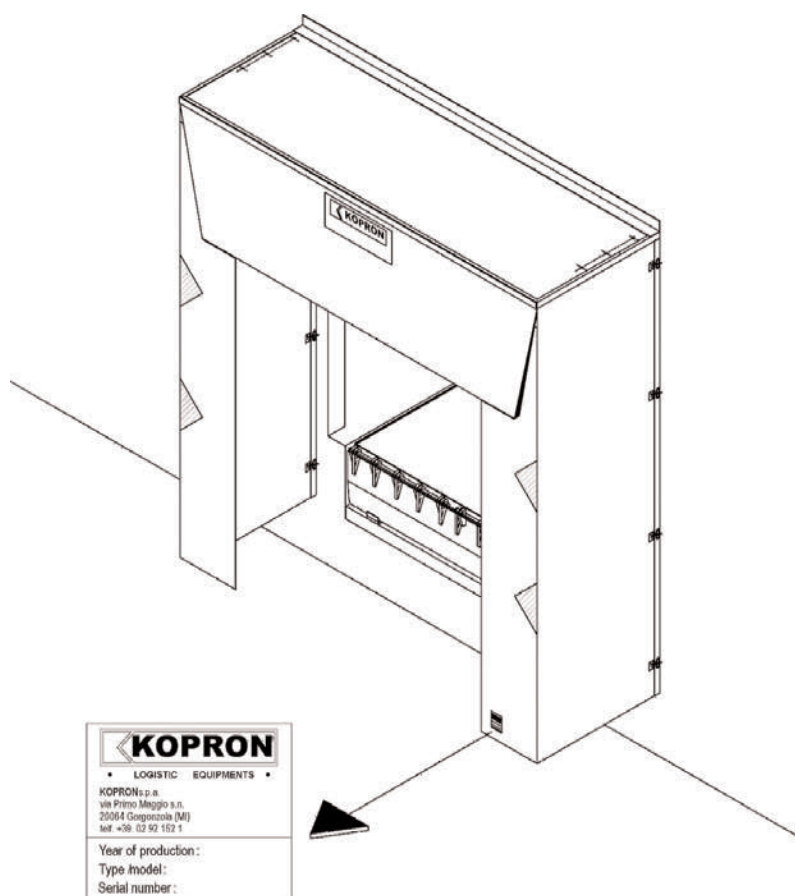
For any request for service you must apply to our offices at the following address:

KOPRON S.p.A. via Primo Maggio s.n. - 20064 Gorgonzola – Milan - Italy

☎ +39-02 – 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. Components used for production have their own guarantee established by 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 occurring within the terms mentioned at point 1.

3 - For each faulty part, Buyer must give Kopron written notice within eight days. Supplier will be charged with transport costs and risks plus 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 shelter 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 faults caused by Buyer in case of maintenance or 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 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.

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 responsibilities 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.



www.kopron.com

LOGISTIC SOLUTIONS

Kopron S.p.A. - Headquarters

Via I Maggio s.n.
20064 Gorgonzola (Mi) Italy
t +39 02 92 15 21
f +39 02 92 15 29 20
kopron@kopron.com

Export Sales

t +39 02 92 15 27 51
export@kopron.com

Kopron SERVICE

Assistenza e ricambi/ Spare parts
assistenza@kopron.com
www.kopronservice.com

Kopron do Brasil

Av. José Alves de Oliveira, 123
Parque Industrial III
Jundiaí - São Paulo - Brasil
t +55 11 31 09 67 00
comercial@kopron.com
www.kopron.com.br

Kopron China

江苏省 无锡市新城区南路207号 214028
207, Chengnan Road
214028 New district Wuxi Jiangsu China
电话 **t**+86 0510 85 36 30 50
sales@kopronchina.com
www.kopronchina.com

Kopron France

Parc de Chavanne
817, Route des Frênes
69400 Arnas - France
t+33 04 74 68 16 57
kopron@kopron.fr
www.kopron.fr