

ROTATIVE DOCK SHELTER

logistic
solutions



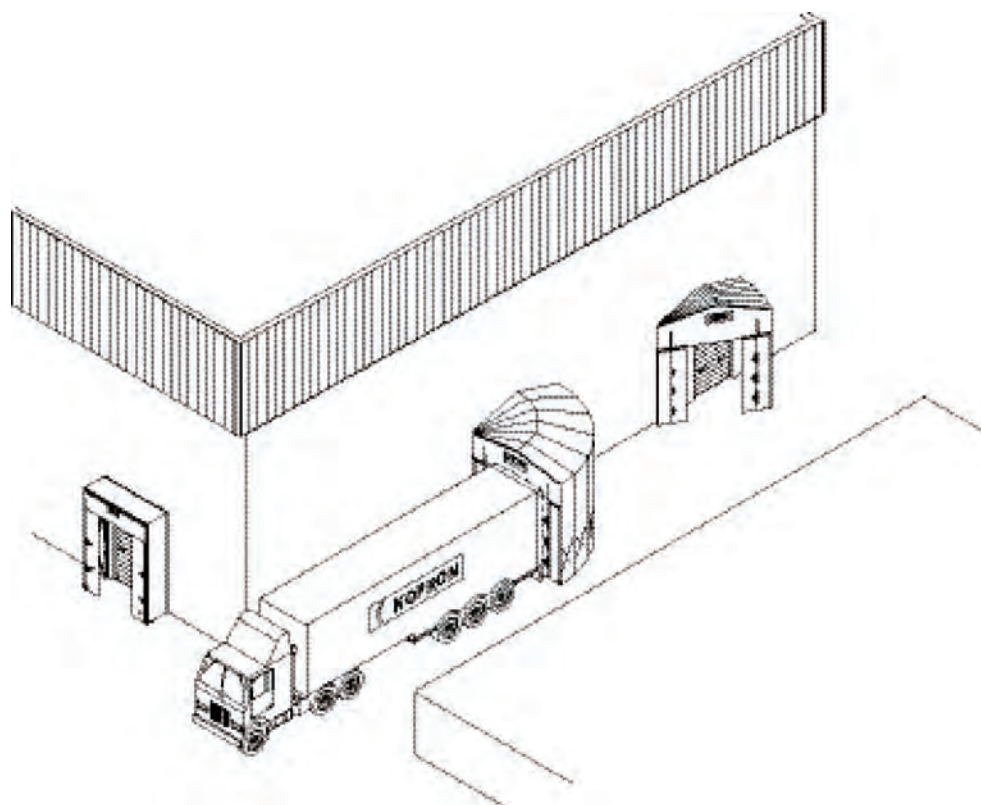
MOD. KTC



ASSEMBLY, USE AND MAINTENANCE MANUAL

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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

DESCRIPTION

1.1 DESCRIPTION OF ROTATIVE DOCK SHELTERS

Rotative dock shelters 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.

These dock shelters, usually assembled to seal door spaces at ground level, are the ideal solution in case trucks cannot load/unload perpendicularly due to the narrow space between warehouse and truck parking space.

In this case trucks are positioned in parallel position or at an angle with respect to the warehouse. The dock shelter can rotate either towards right or left at 30° to 90° degrees. Once loading/unloading operations are over the dock shelter can be brought back to closed position leaving the vehicle transit space free.

The structure consists in wheeled archs connected to one another with pantograph bars which not only enable the dock shelter to stretch towards the vehicle, but also prevent damages to the dock shelter in case of wrong manoeuvres of the truck which may squeeze the structure and press against the dock shelter.

The characteristics plus the robustness of this kind of structure makes it ideal for frequent use.

All the metal parts of the structure are in hot-galvanized steel sheet and wheels are in nylon.

The covering sheets are in a 2 layer, polyester PVC reinforced in points mostly subject to wear and tear, and are anchored to the structure with belts.

Front flaps subject to rubbing of the trucks are in thick, special weft PVC

The side flaps are marked with arrows indicating the correct positioning of the vehicle.

The covering sheet is in a class 2 self-extinguishing fabric.

1.2 IMPROPER USE



The rotative 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 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 responsibilities and guarantee will no longer be valid.

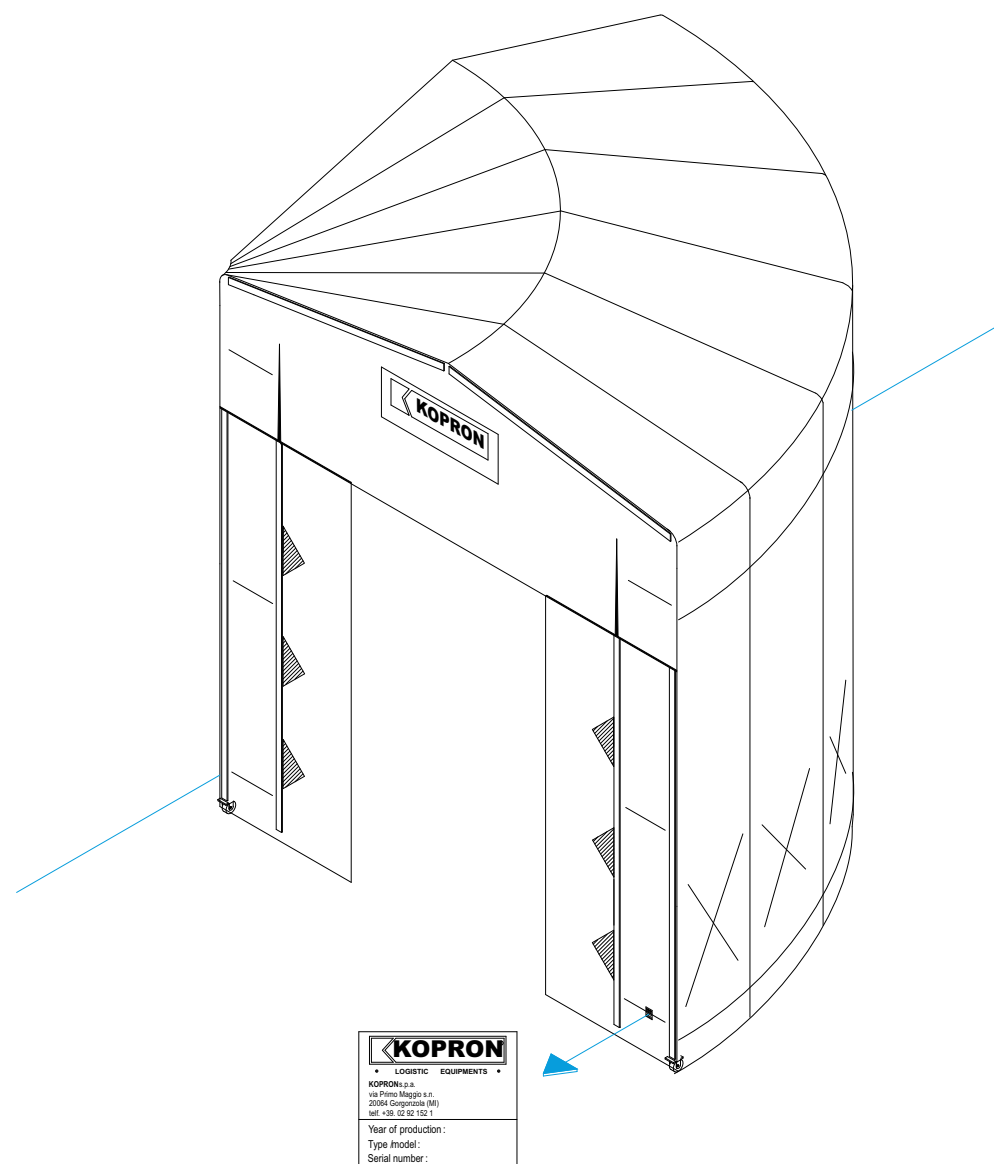
1.3 IDENTIFICATION PLATE

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.

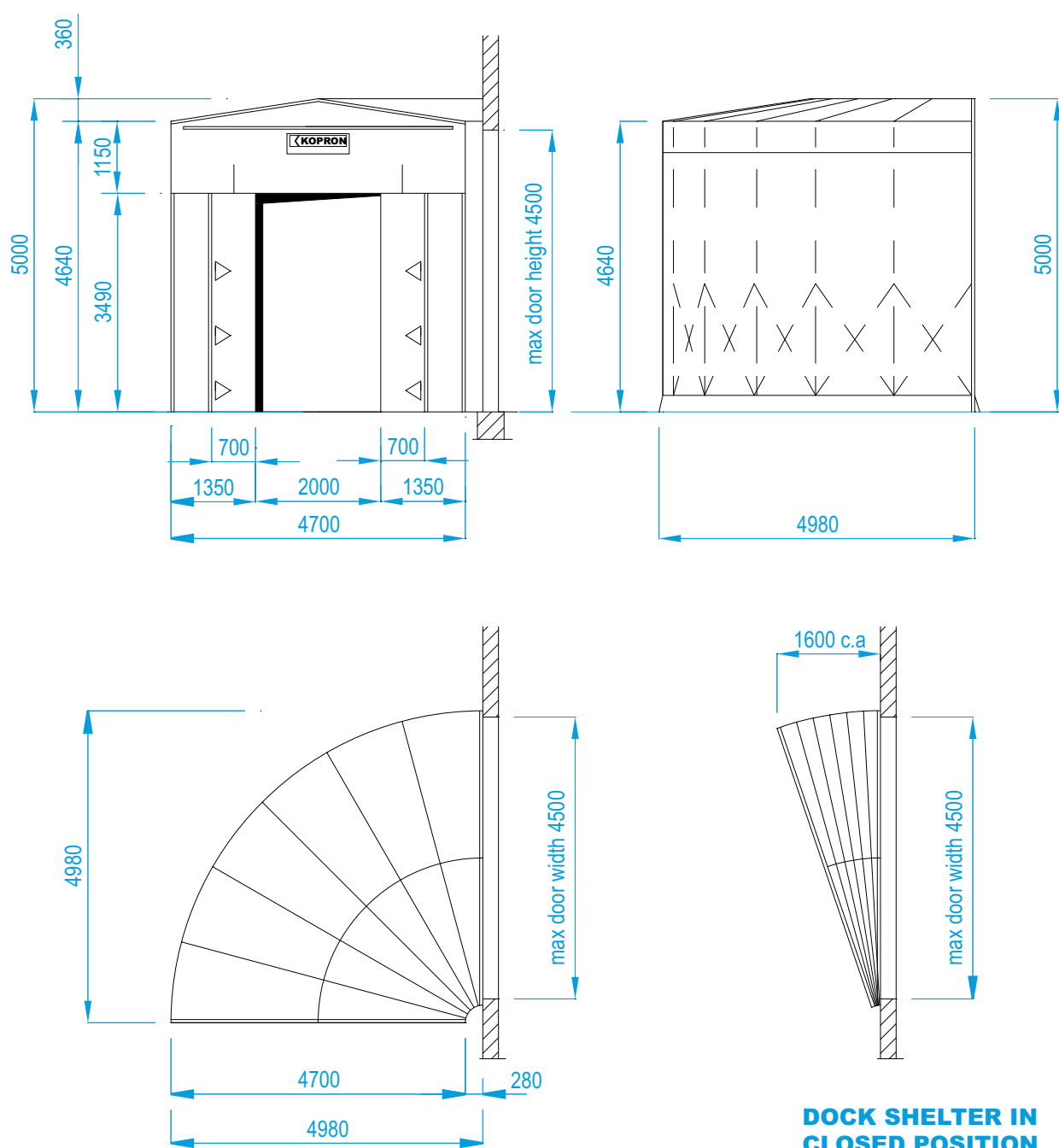


CHAPTER 2

TECHNICAL DATA

2.1 DIMENSIONAL DATA

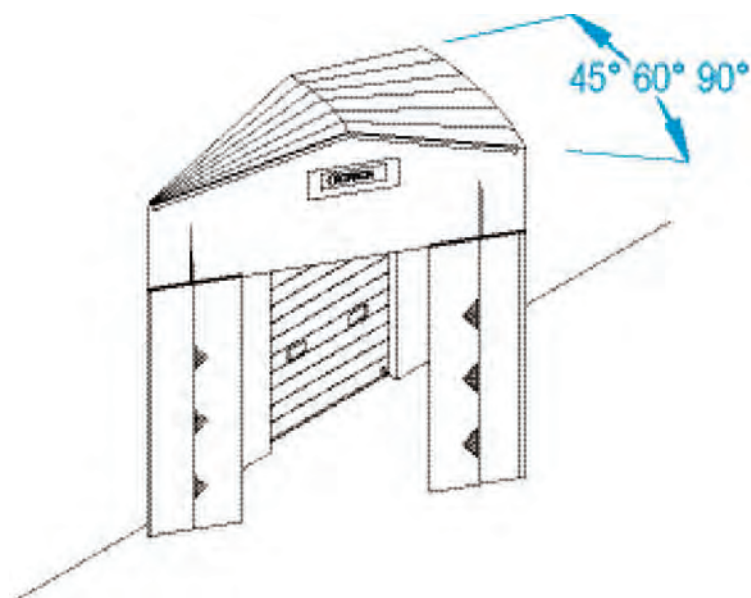
Rotative dock shelter can have standard dimensions as shown in the following drawing.



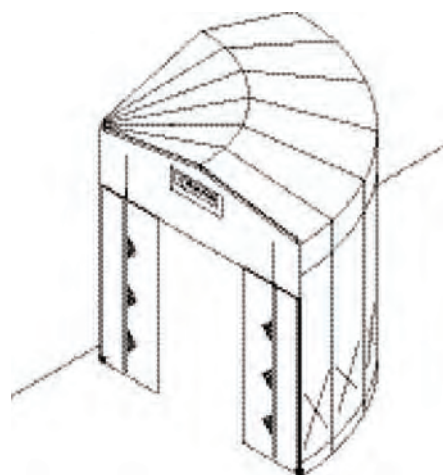
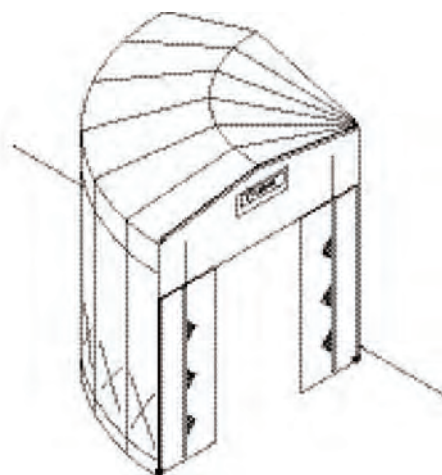
INSTRUCTIONS

The standard version of the rotative dock shelter can have the following configuration:

- 1 Front part completely open.
- 2 Front part with sliding curtains PVC
- 3 Front part with sealing flaps
- 4 Different rotation angles 45°, 60° or 90°

ANGLES

- 5 Manufacturing with either right or left rotation

LEFT ROTATION**RIGHT ROTATION**

Keeping technical and functional characteristics KOPRON s.p.a. may design the rotative dock shelter according to requirements of Buyer.

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 4.300 x height 1.300. Each package can reach max 800 kgs.

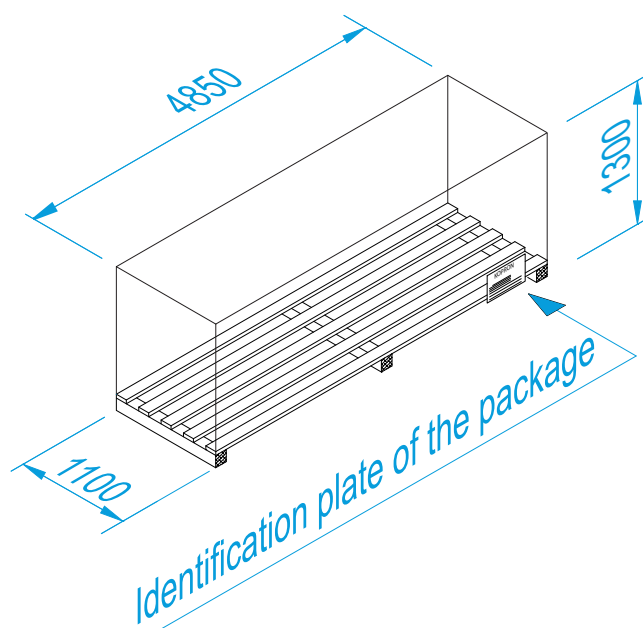
Material contained in the packages is wrapped in plastic sheets.

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 cords 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..



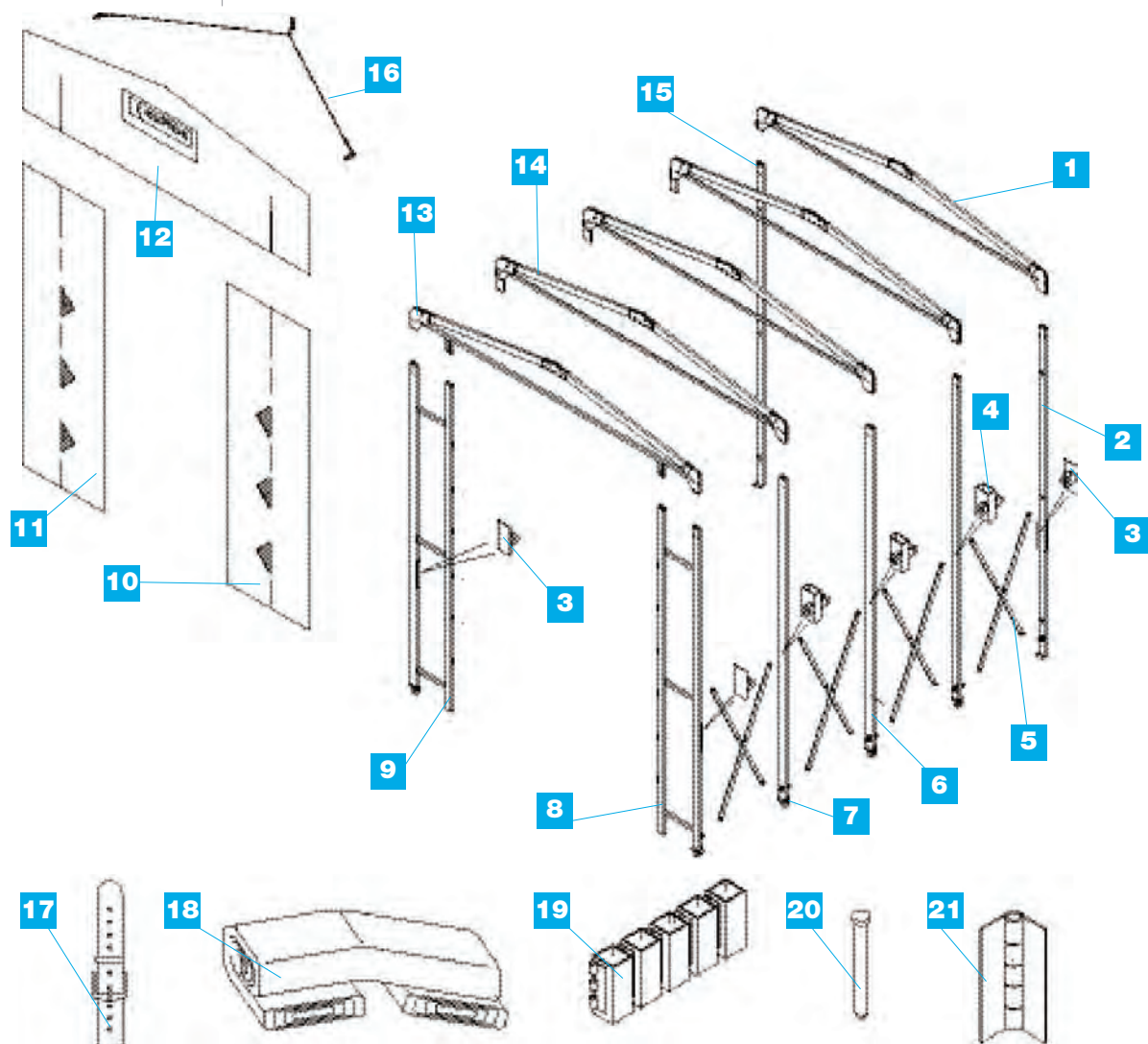
1.2 IDENTIFICATION AND CONTROL OF THE MATERIAL

Transport documents accompanying the delivery of the dock shelter also include a 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 Back arch truss | 12 Top PVC triangular cover |
| 2 back arch right jamba | 13 Back arch truss |
| 3 movable hinge | 14 middle arch truss |
| 4 Double movable hinge | 15 back arch left jamba |
| 5 Pantograph bars | 16 Elastic cord |
| 6 middle arch right jamba | 17 Fixing belts for covering sheet |
| 7 nylon wheels | 18 Covering sheet |
| 8 front right jamba | 19 Lower joints of the archs |
| 9 front left jamba | 20 Hinge pivot |
| 10 front right flap | 21 connecting hinges |
| 11 front left flap | |

CHAPTER 1

VERIFICATION OF THE MASONRY WORK

1.1 VERIFICATION OF THE MASONRY WORK

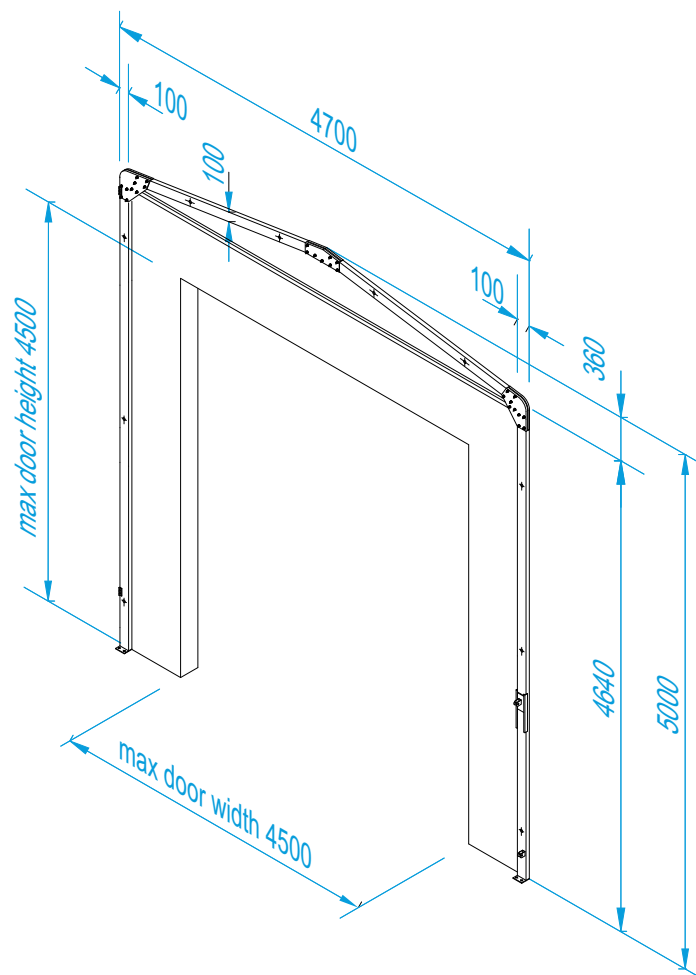
Before starting assembly you must check if the size of the door space is compatible with the dock shelter.

Make sure that the external width and height of framework doesn't prevent the fitting of the door. Length and height of the dock 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 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.



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 work.

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.

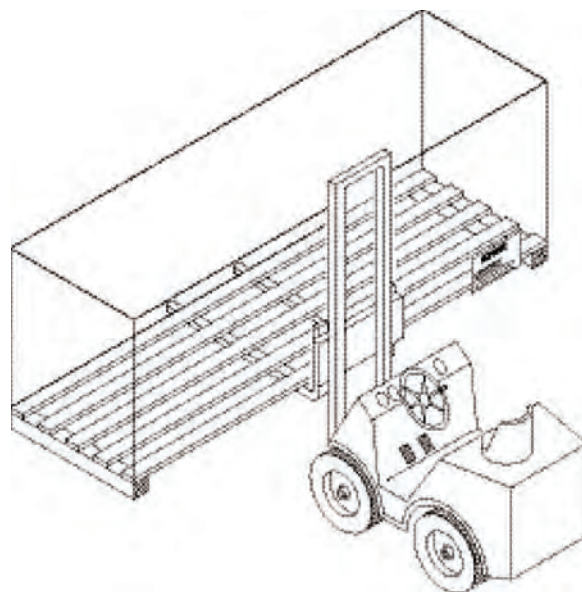
1.2 HANDLING INSTRUCTIONS

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 4.300 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: ☎ 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

Lay on the floor wooden bars and assembly the back arch by inserting jamb **1** and **2**

in the angle plates **3** and **4** of the truss **5** making sure that the jamb holes coincide with the plate holes. Truss **5** is supplied already preassembled.

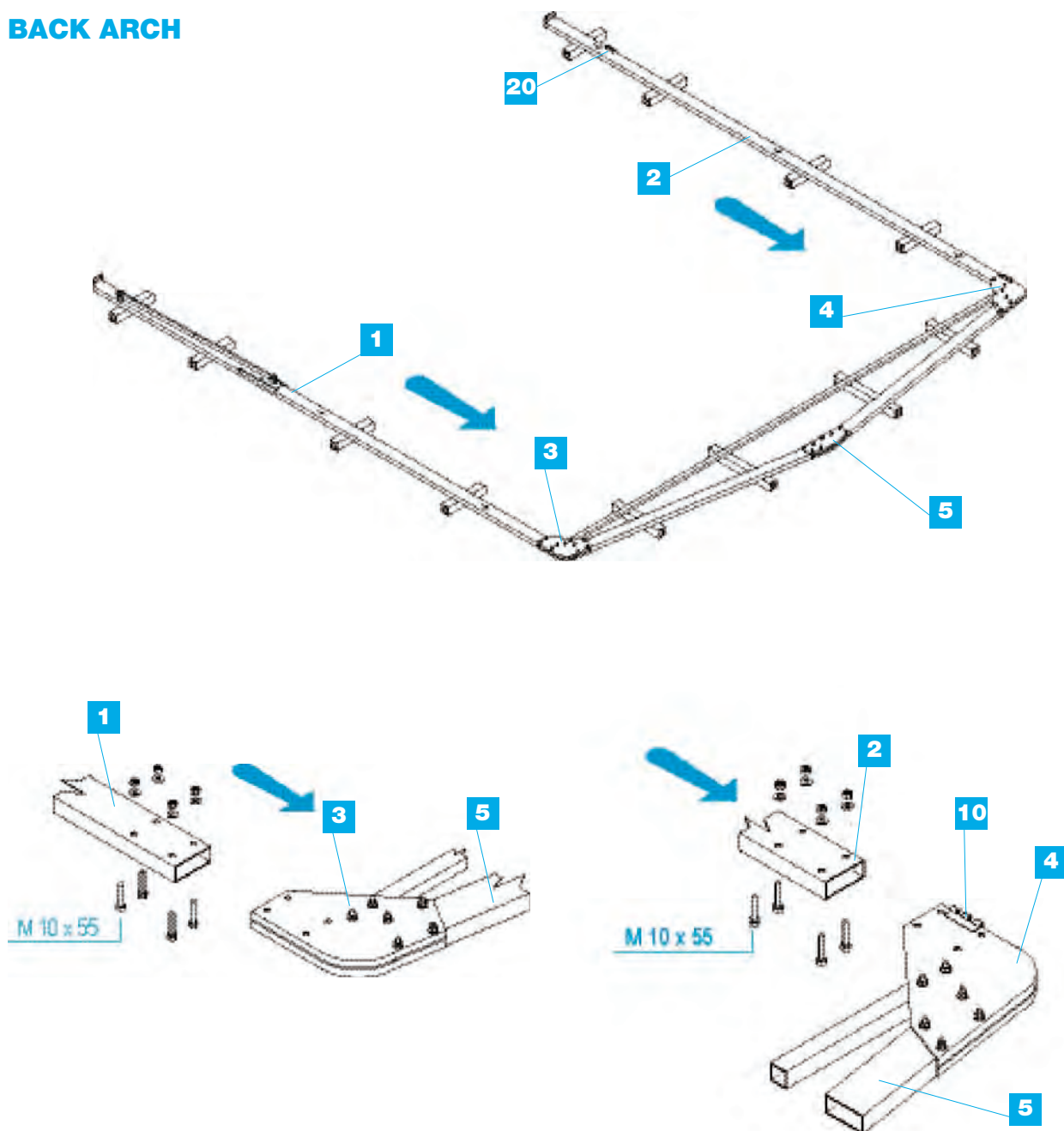
Angle plate **4** is provided with a hinge **10** to join the archs.

Jamb **2** carries in the lower part hinge **20** necessary to assembly the joints of the archs.

Fix the jambs to the angle plate with 4 hexagonal head screws M 10 x 55.

Fasten the screws making sure the jambs are parallel.

The parallel position of the jambs can be checked by measuring the diagonals which must be equal.

BACK ARCH

Carry on with the assembly of the middle archs.

Lay on the floor the wooden bars and assemble the middle archs.by inserting the jamb

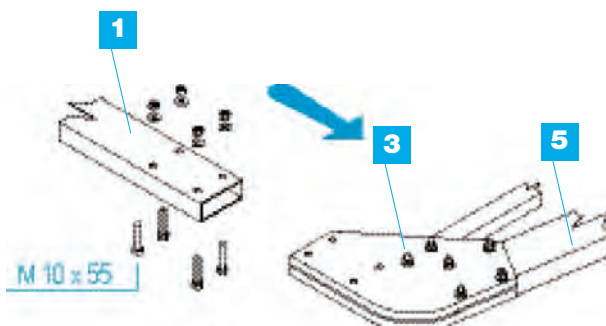
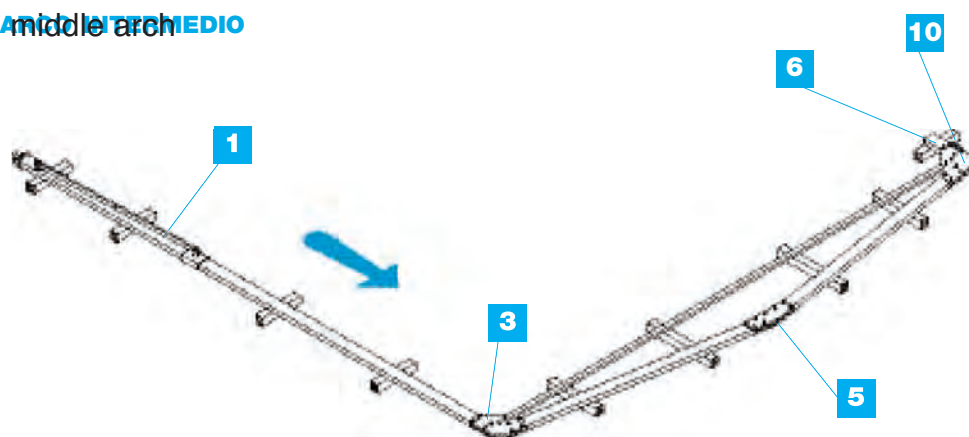
1 in the angle plate **3** of the truss **5** making sure that the holes of the jambs coincide with the holes of the plate. The truss is supplied already preassembled.

The truss for the middle arch has a sole jamb while the opposite angle plate, provided with a hinge **10** for joining the archs is supplied with a piece of tubular preassembled **6** to enable fixing.

Fix the jamb to the angle plate with four hexagonal head screws M 10 x 55.

Fasten the screws taking care the jamb is perfectly orthogonal with respect to the truss.

Assembly of the middle arch



For last assemble the front arch.

Lay on the floor the wooden bars and fix the front arch by inserting the two jambs **7** and **8** in the angle plates **4** and **3** and in the coupling **9** of the truss **5** taking care to make the jamb holes coincide with the plate and coupling holes.

Truss **5** is supplied preassembled.

The jambs of the front arch **7** and **8** are made of the parallel tubulars joined together with welded cross members.

The truss of the front arch **5** has two couplings **9** where one of the two jamb tubulars are inserted while the other is inserted in the angle plate.

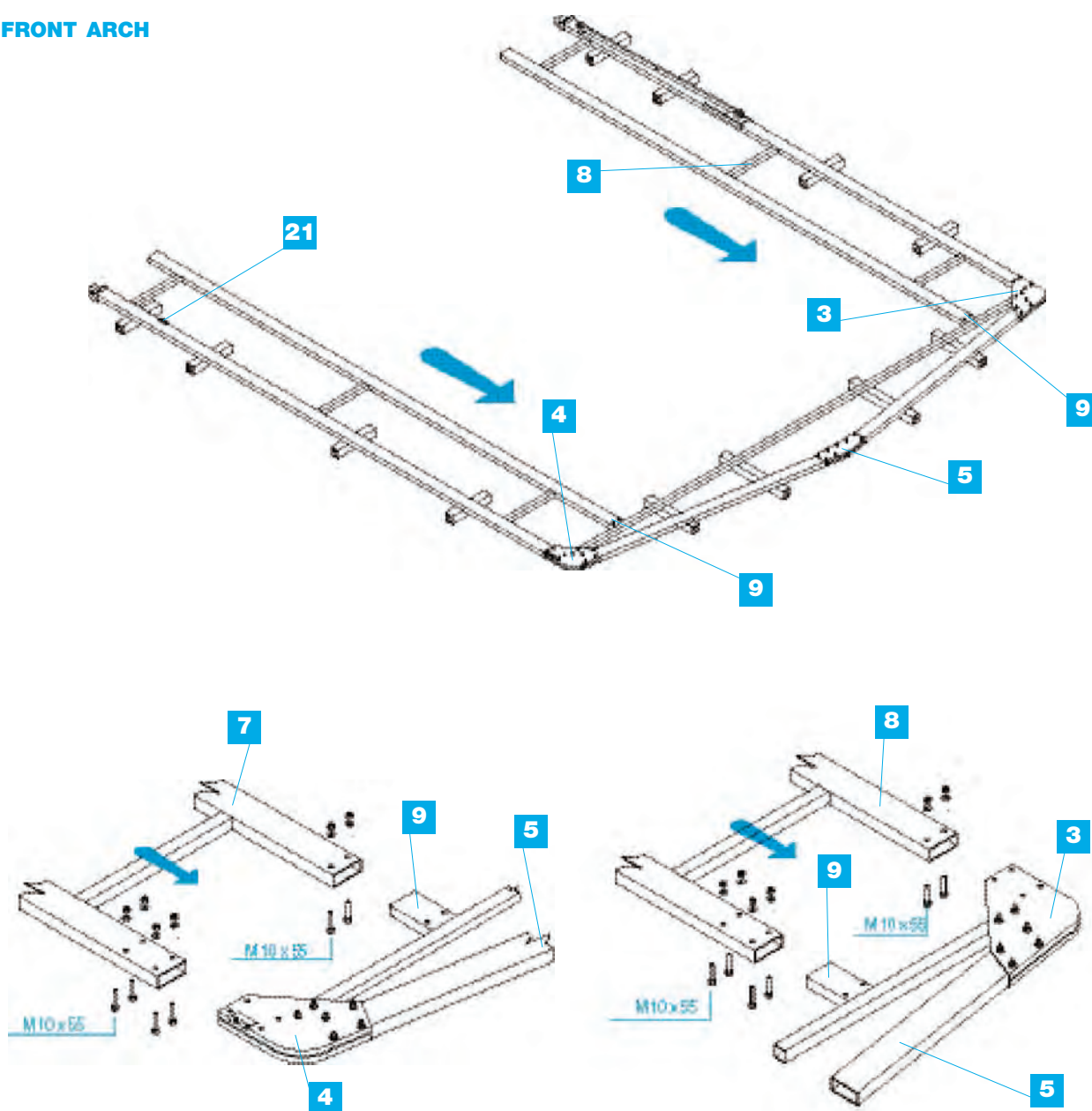
sono costituiti da due tubolari paralleli uniti tra loro con dei traversi saldati.

The Jamb **7** has a hinge in the lower part **21** necessary for the assembly of the arch joints.

Fix the jambs to the angle plate and to the couplings with six hexagonal head screws M 10 x 55.

Fasten the screws to the end making sure the jambs are parallel. The parallel position can be checked by verifying that the diagonals are equal.

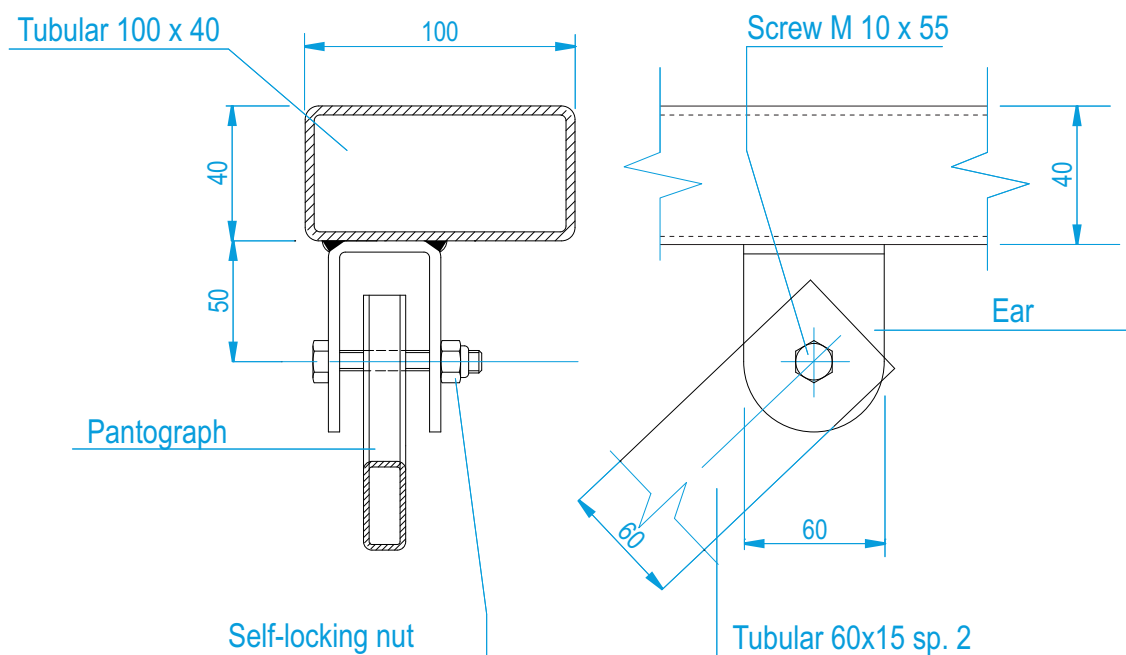
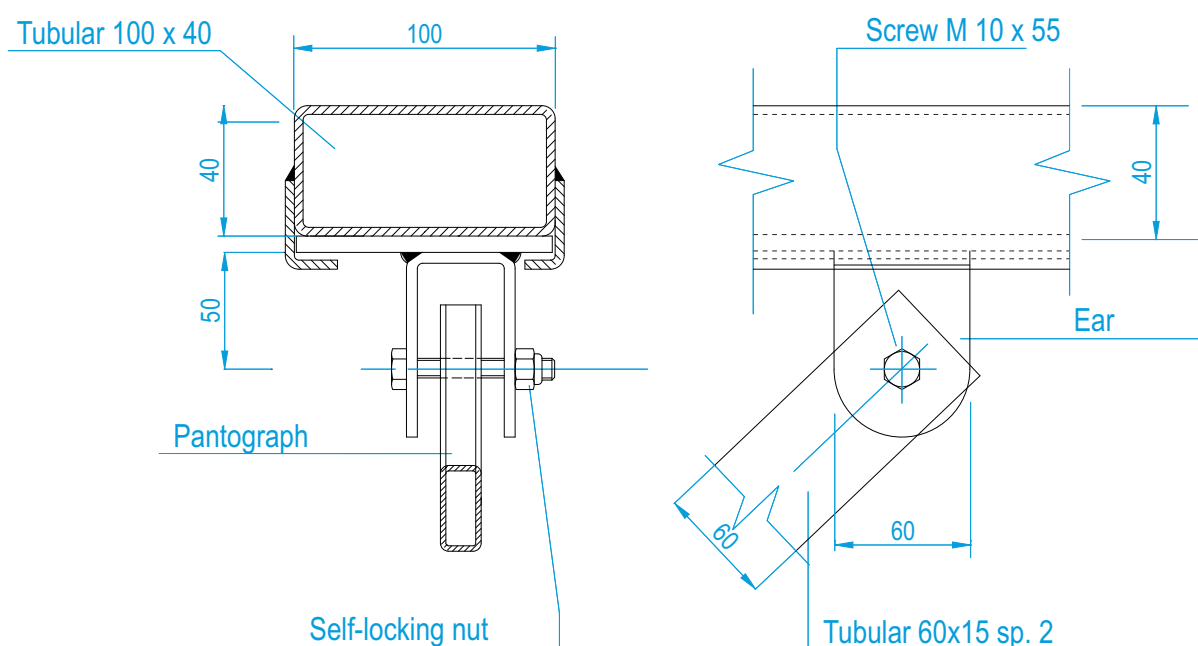
FRONT ARCH



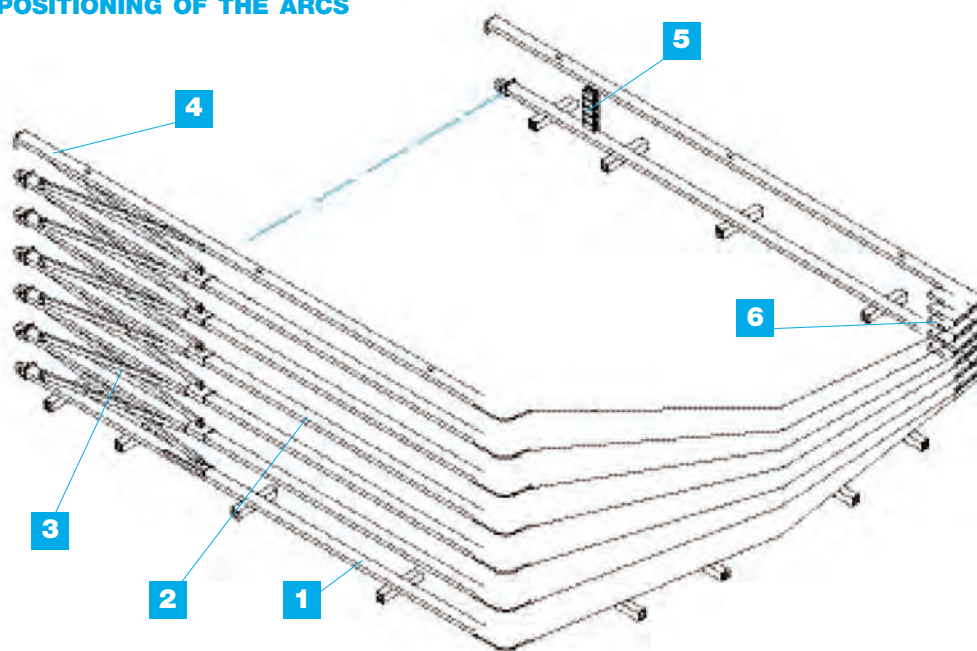
The pantograph bars during transport are fixed temporarily to a sole jamb with screws M 10 X 55.

Afterwards the assembly of the pantograph bars to the movable ears of the jambs must be carried out by using same screws taking care that the heads are positioned towards the outside of the structure leaving the self-locking nut in the inside.

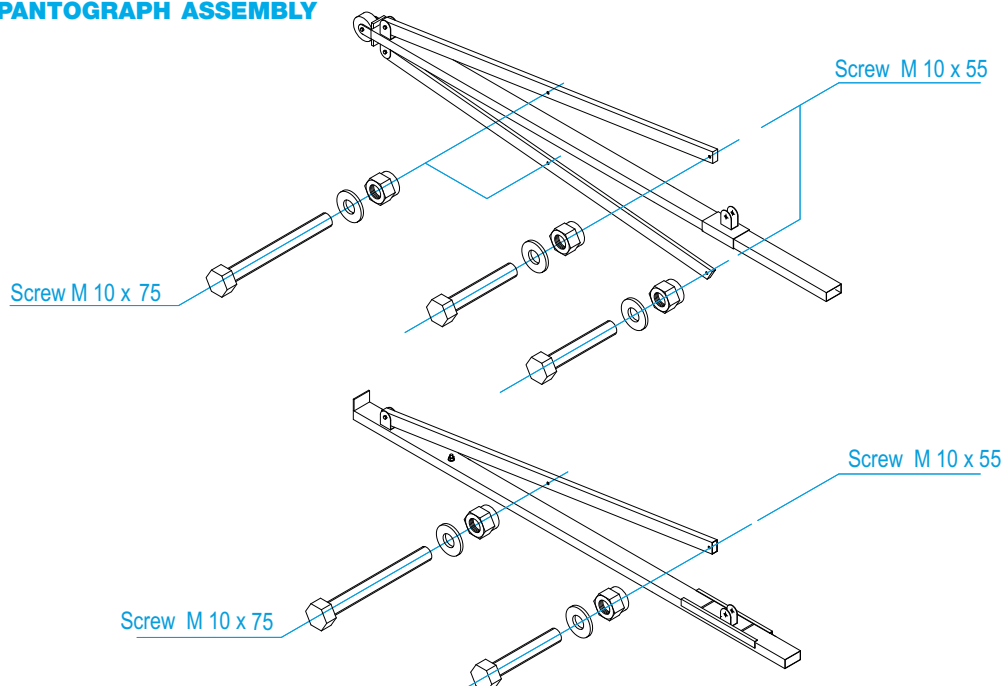
The use of self-locking nuts is due to the need of fixing the screw without locking the joints of the pantograph bars.


MOVABLE EARS

FIXED EARS


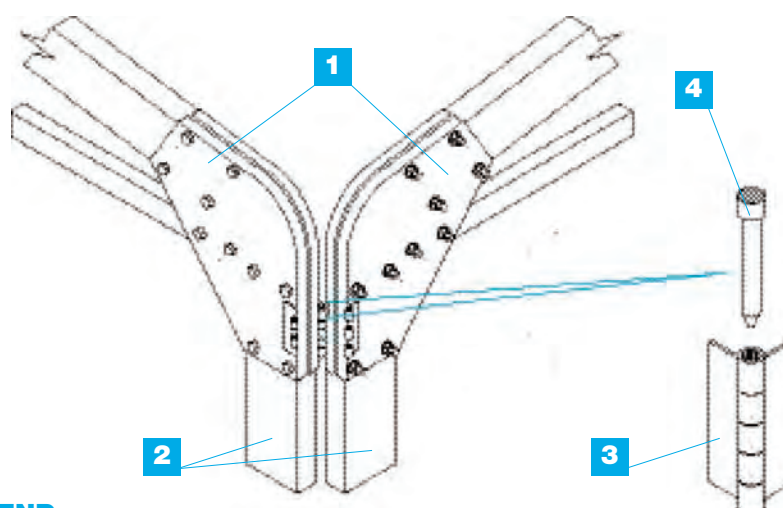
The joining of the archs is carried out in 3 phases: first assemble the pantographs, join the angle plates then adjust the joints of the jamb. The following drawings show how to carry out the operations.

POSITIONING OF THE ARCS

LEGEND

- | | |
|-----------------------|------------------------------------|
| 1 Front archs | 4 Back arch (carrying arch) |
| 2 Middle archs | 5 Joints of the jambs |
| 3 Pantographs | 6 Angle plates |

PANTOGRAPH ASSEMBLY


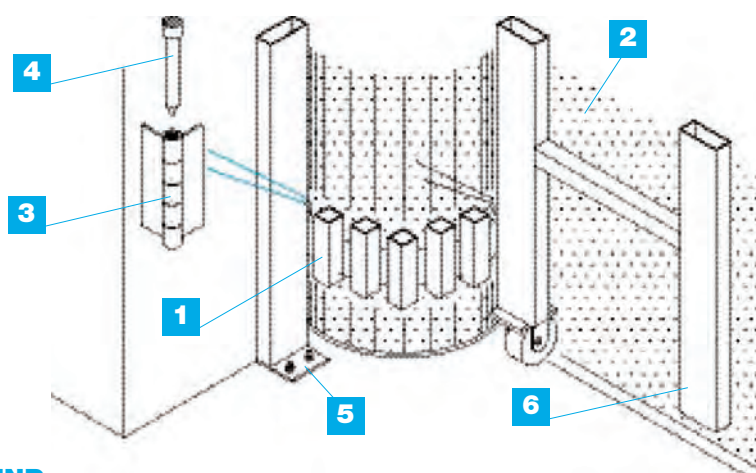
POSITIONING JOINING PLATES



LEGEND

- | | |
|---------------------------|----------------------|
| 1 Angle plates | 3 plate hinge |
| 2 Piece of tubular | 4 hinge pivot |

ADJUSTMENT JAMB JOINTS



LEGEND

- | | |
|------------------------------|--------------------------|
| 1 Joints of the jambs | 4 Hinge pivot |
| 2 Covering sheet | 5 Back arch jamb |
| 3 Hinge | 6 Front arch jamb |



Provide greasing the pivots with molykote grease before inserting them in the hinges.

Please note that the framework 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.

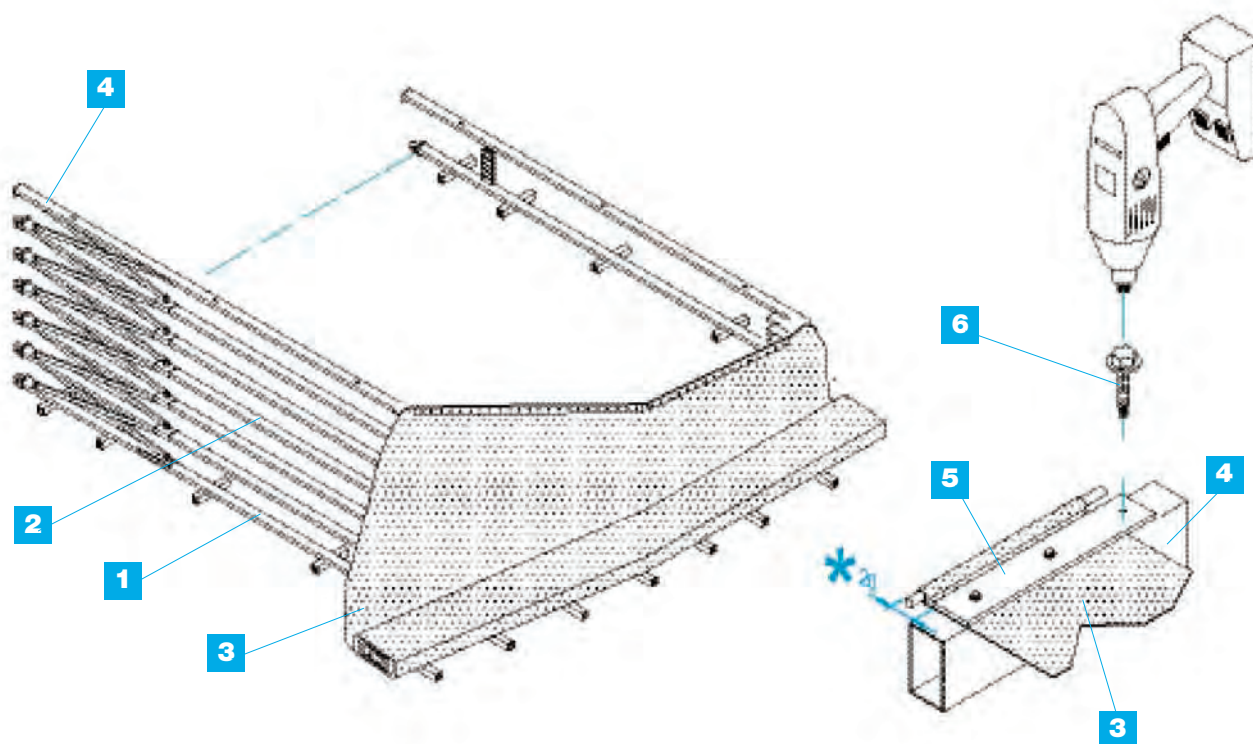
2.3 POSITIONING AND FIXING

Before positioning the dock shelter provide fixing one part of the covering sheet. The covering sheet must be fixed on the back arch (the carrying arch) as indicated in the following drawing by using drilling screws and the plastic plates preassembled on the two flaps of the truss.

Start stretching the covering over the structure adjusting the length. Then fix it starting from highest point of the truss keeping it well stretched in order to avoid hollows.



☞ The covering sheet on the back arch (carrying arch) must overlap the structure by 20mm so once the dock shelter is fixed to the wall it creates a sealing.



LEGEND

- | | |
|------------------------------|--------------------------------------|
| 1 front arch | 4 Back arch (carrying arch) |
| 2 intermediate arches | 5 Profile in plastic material |
| 3 covering sheet | 6 Drilling screw |

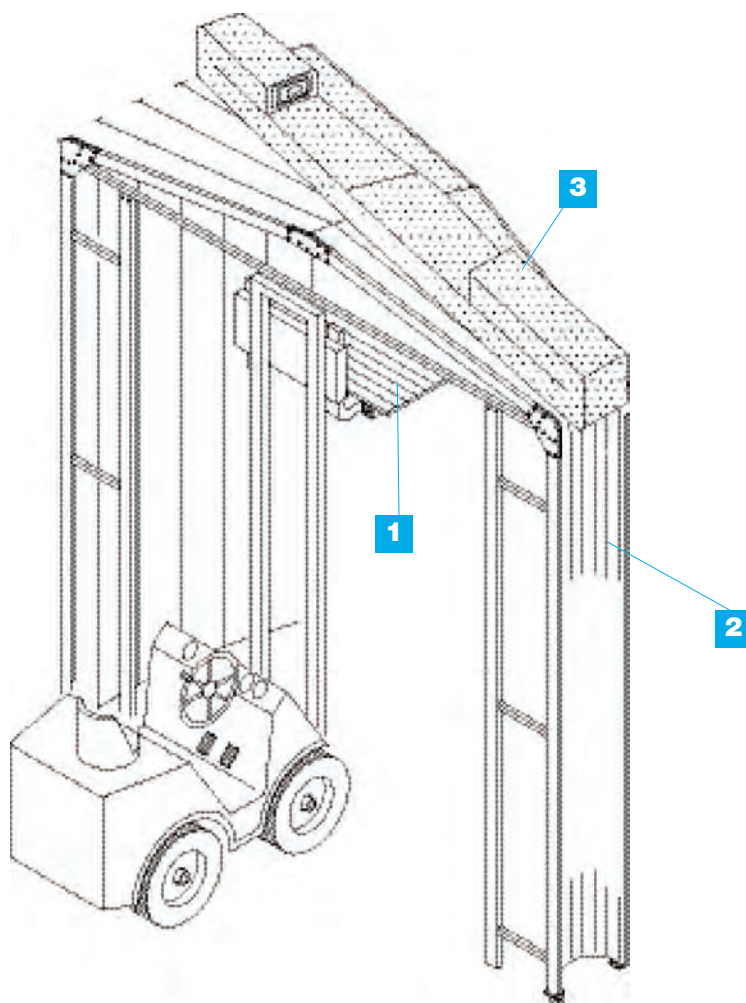


The dock shelter with the covering sheet must be lifted and leaned against the wall before fixing.

This operation must be carried out with the aid of a forklift and a pallet to be positioned under the chains of the trusses of the archs. Then it must be lifted slowly making sure the trusses accompany the lifting movement.

The pallet is necessary as a further support and helps to prevent the dock shelter to get damaged 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 covering sheet.


LEGEND

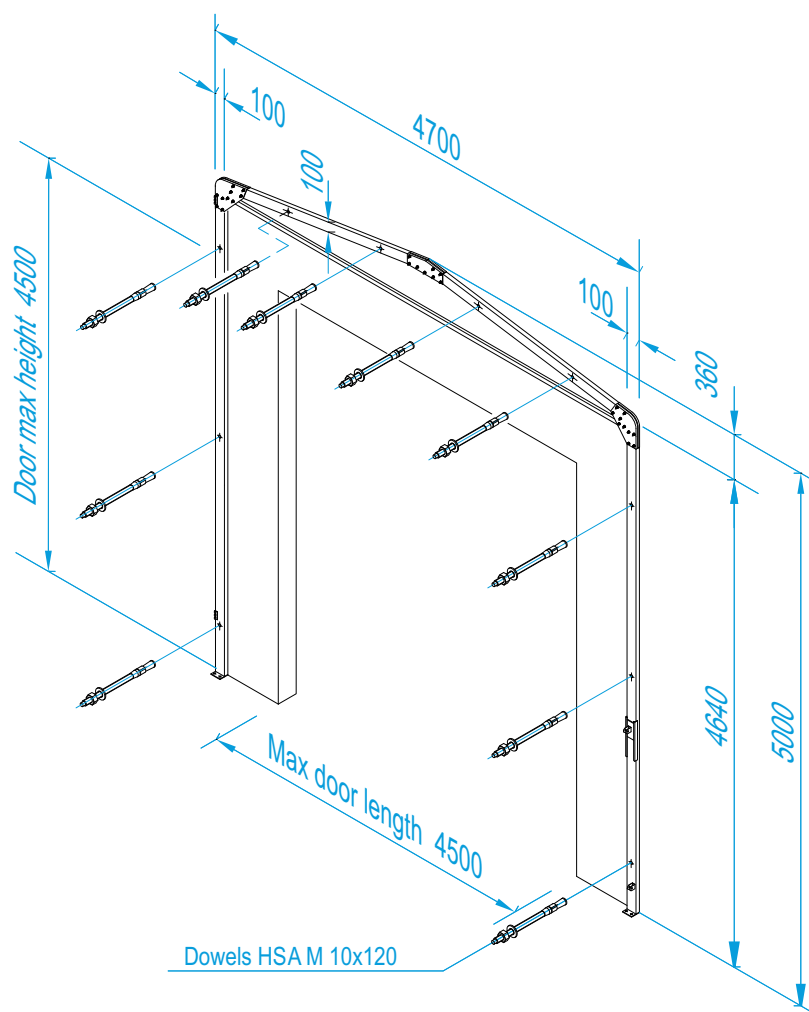
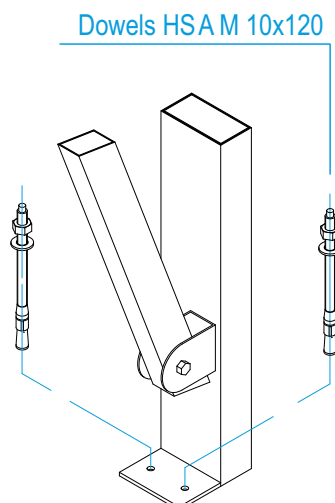
1 Pallets

2 Dock shelter

3 covering sheet

Once the dock shelter has been positioned, start fixing it after having checked the vertical position of the jambs and the perfect spirit levelling of the truss chains. Check the jambs are parallel by measuring the diagonals which must be equal.

Fix the dock leveller dowelling the rear arch as shown in the drawing.

FIXING TO THE WALL

FIXING TO THE GROUND


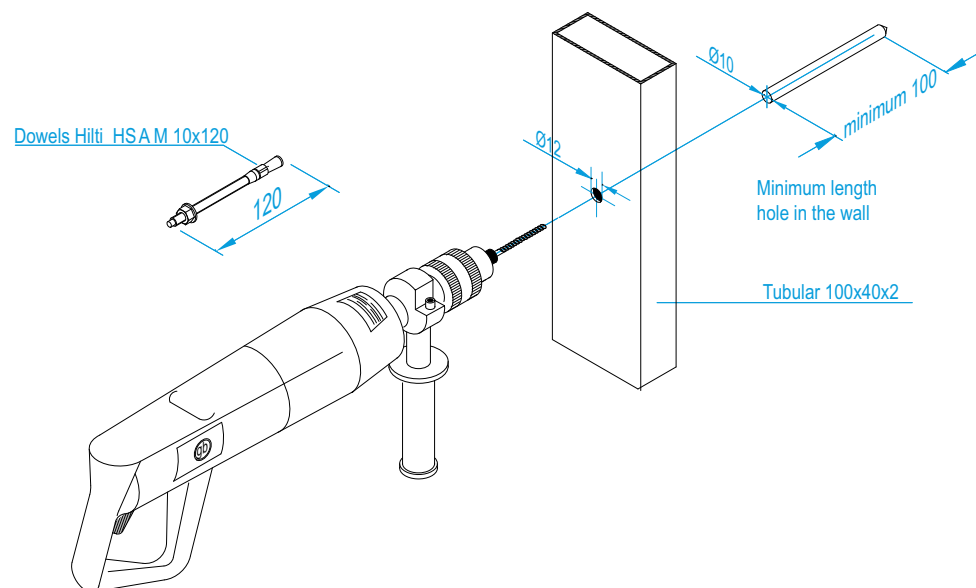


Make sure that bolts do not interfere with the electric cables, gas tubes, water pipelines. Eventually you may use specific devices for detecting hidden cables.

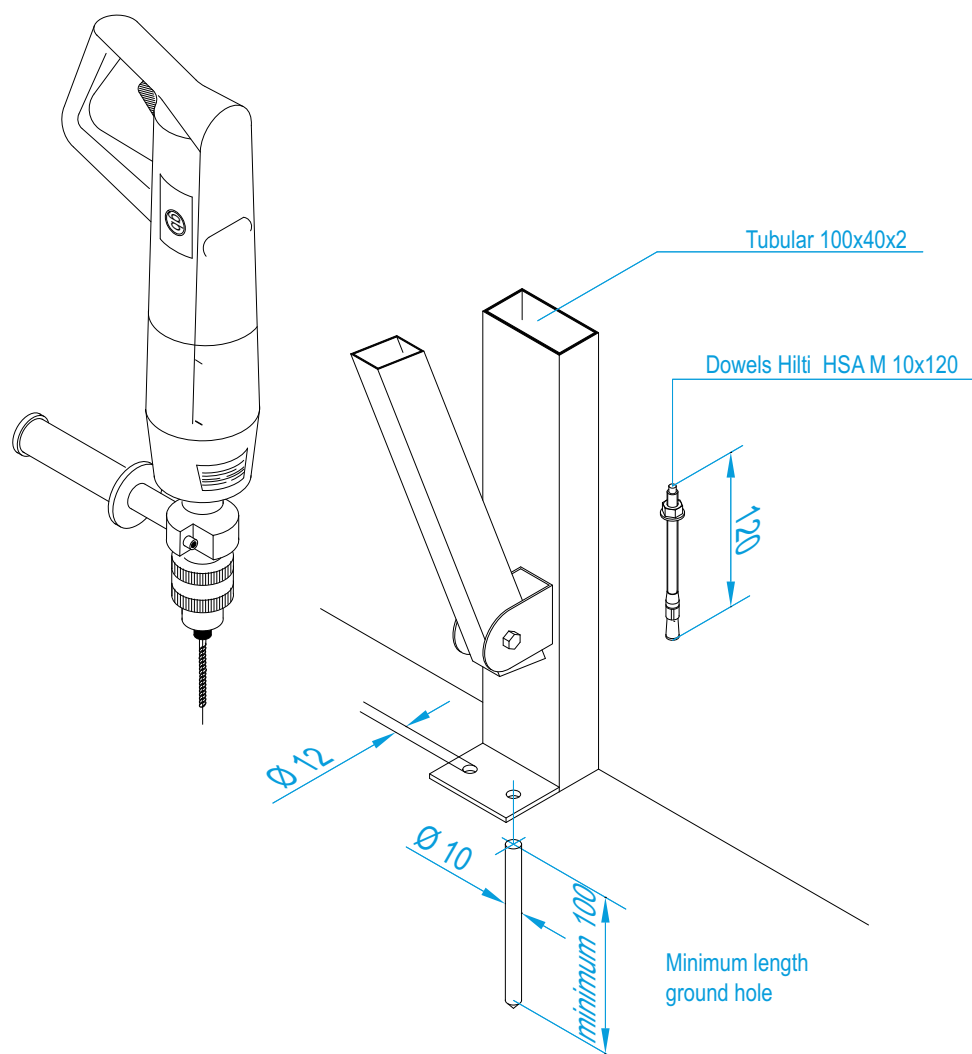
Contact with a electric lines can cause fire or electric shocks.

Damaged gas tubes create high risk of explosion. Perforated water pipelines can cause either damages to the material and/or electric shocks.

DOWELLING TO THE WALL



DOWELLING TO THE GROUND



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.

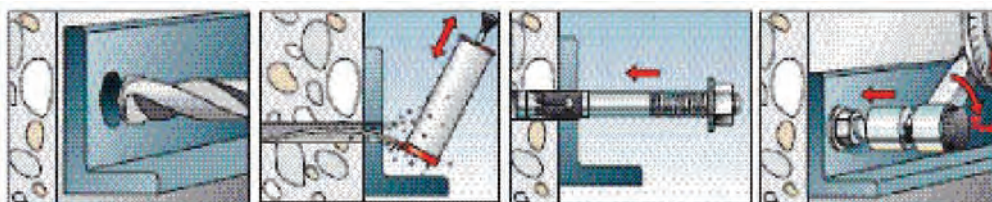
2.3.1 NOTES ON THE USE OF DOWELS



Dowel HILTI type 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

ASSEMBLING



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

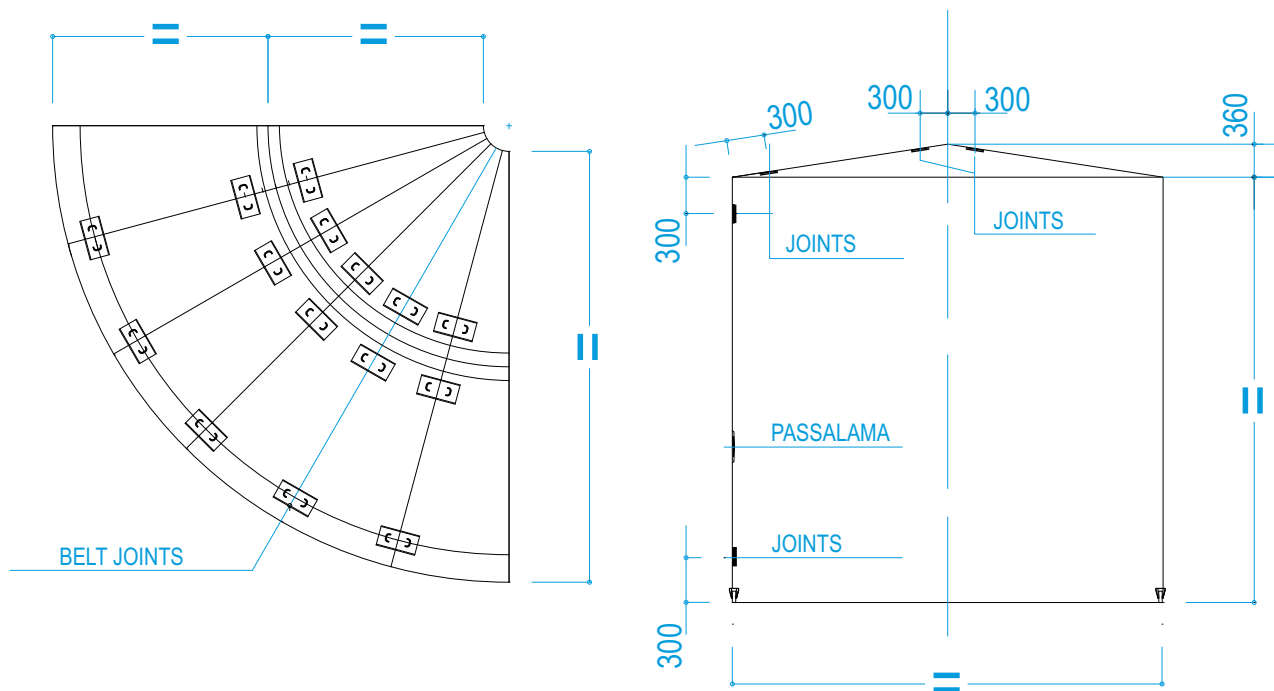
2.4 ASSEMBLY OF THE COVERING SHEET



After having fixed the structure to the wall you can start positioning the covering sheet. The assembly of the covering sheet, for safety reasons, must be carried out in days without strong wind.

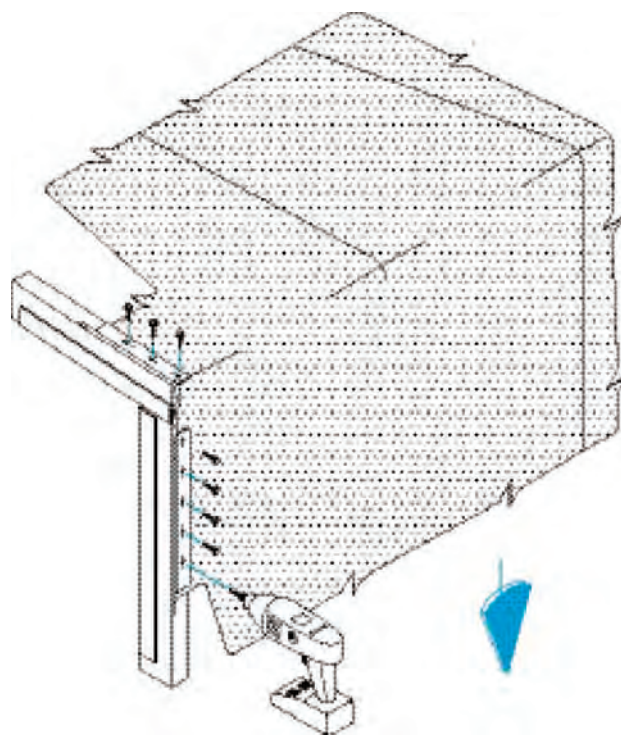
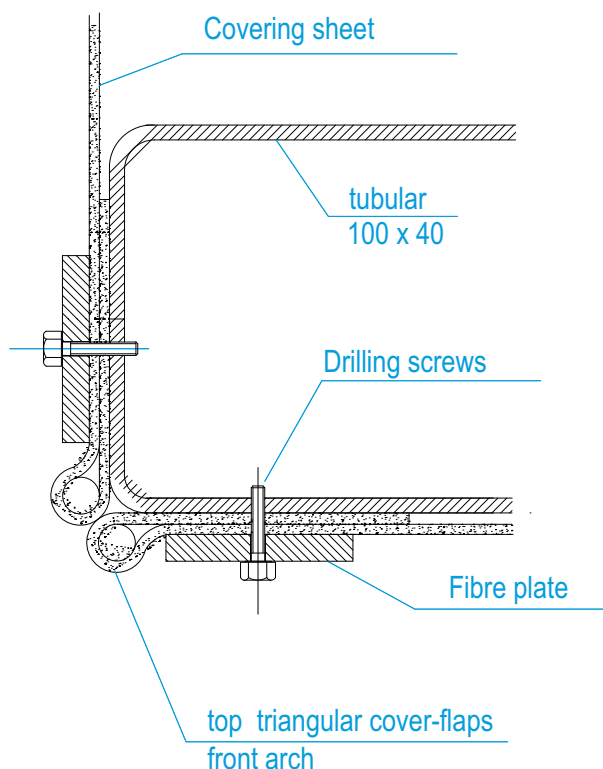
In the envelope containing documents for assembly (see Part II CHAP. 1.2 - Identification and control of the material) you may also find a drawing of the covering sheet to assemble. The drawing has useful information such as the position of the highest point, the length of the flaps and of the walls of the tunnel plus the number and position of the belts.

The following design shows the covering sheet.



To obtain a good result make sure, when you position the covering sheet, that the top of the sheet and of the structure coincide perfectly. This to guarantee an even covering on both sides and the correct positioning of the belts.

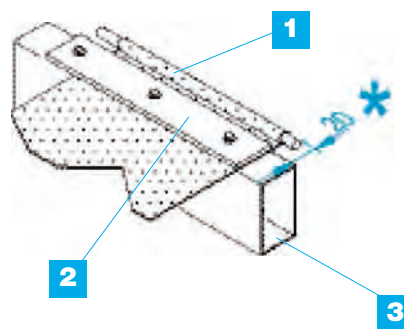
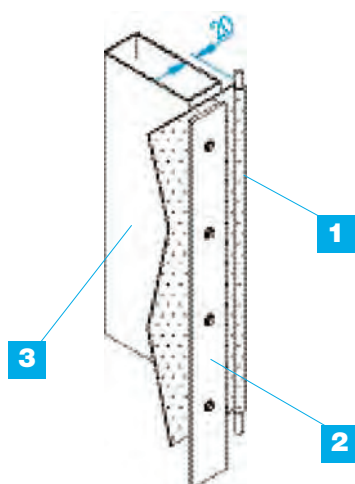
After having stretched the covering sheet and made sure that the side walls of the tunnel are evenly covered, provide fixing the top of the cover to the profile by means of the fibre plates and of the preassembled drilling screws.



When fixing the cover make sure to stretch it well by pulling it towards the ground in order to prevent hollows.



The covering sheet over the back arch must overlap the metal tubular by 20 mm in order to create a sealing once the dock shelter is fixed to the wall.



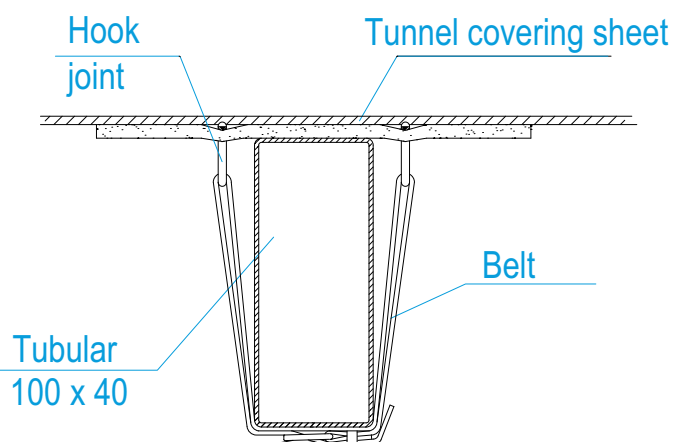
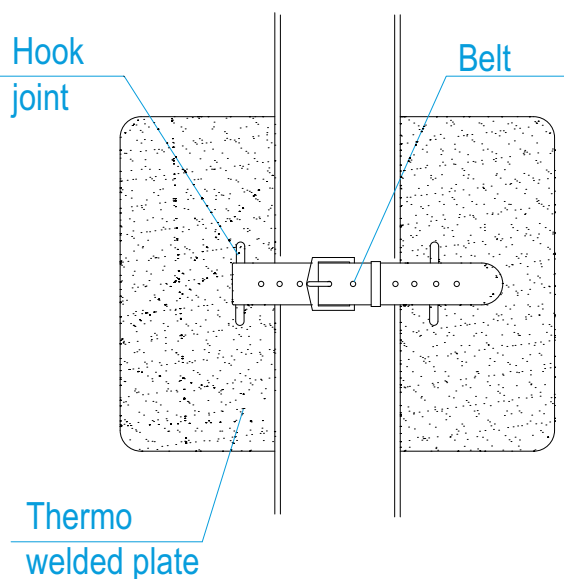
LEGEND

1 covering sheet

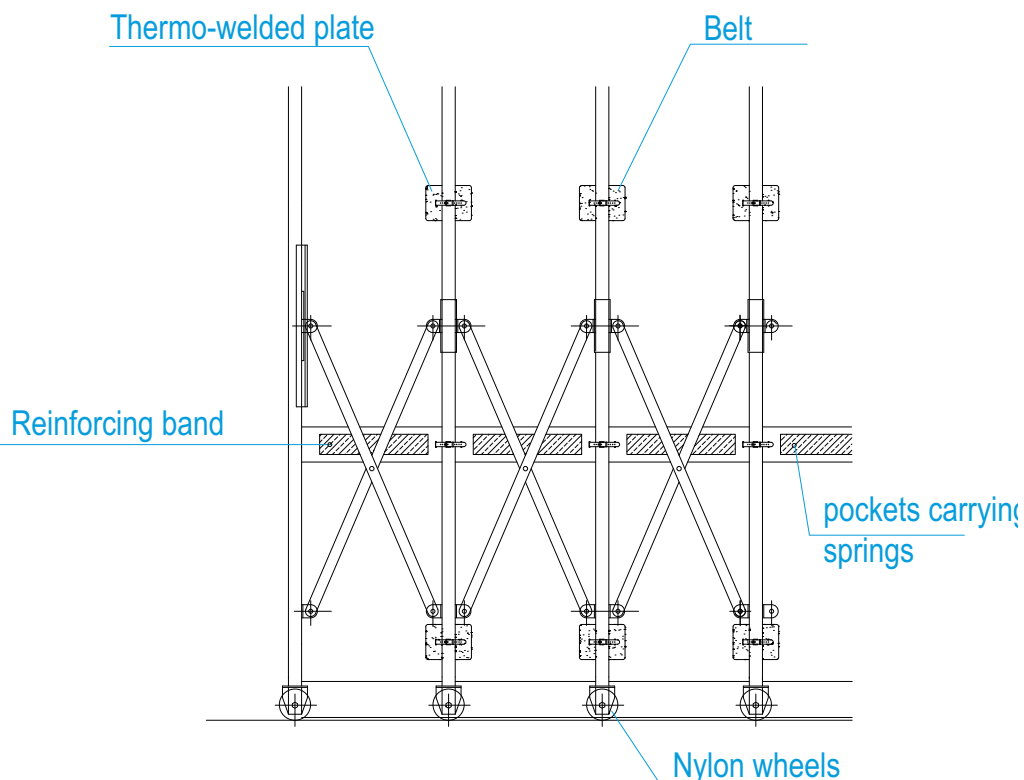
2 profile in plastic material

3 Tubular 100 x 40

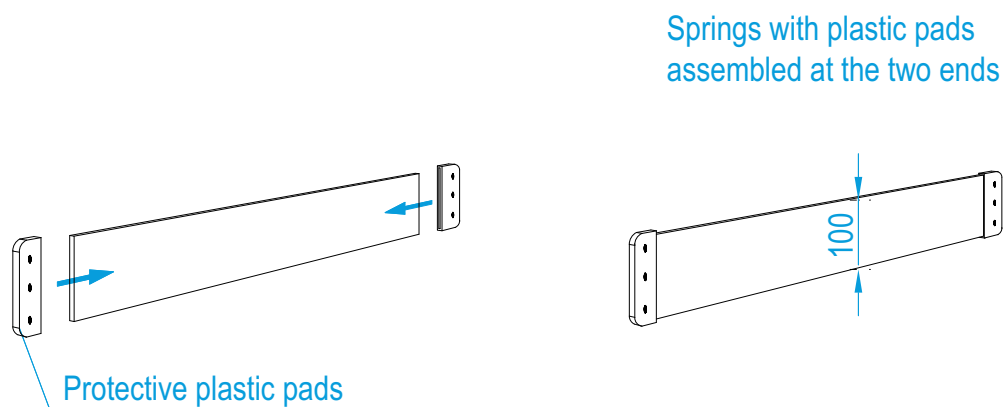
After having fixed the top of the covering sheet to the profiles of the front and rear part of the dock shelter, fasten the belts starting from the trusses above going downwards along the jambs.



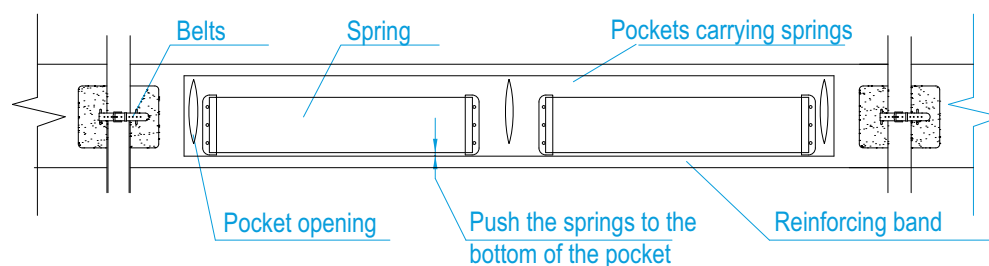
Carry on with the assembly of the covering sheet by positioning the springs which facilitate the folding movement of the rotative dock shelter. The outside wall of the rotative dock shelter carries on the length a reinforcing band provided with pockets which contain the springs



Springs consist in a harmonic steel band 100 mm high, 0.8 mm thick and are supplied already cut and without plastic protective pads. Assemble the plastic pads according to the drawing..

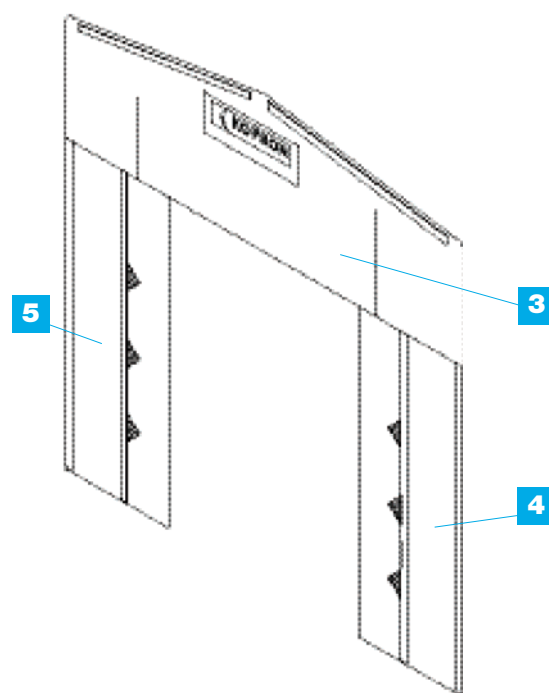
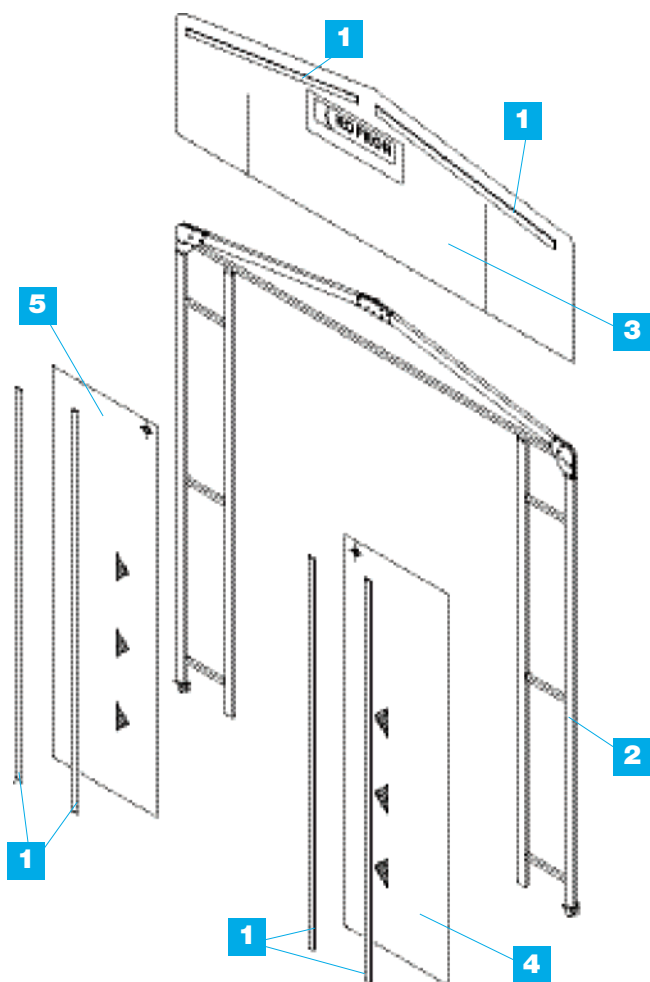


Run the springs with the protective plastic pads through the three openings of pockets and push them to the bottom as shown in the drawing.



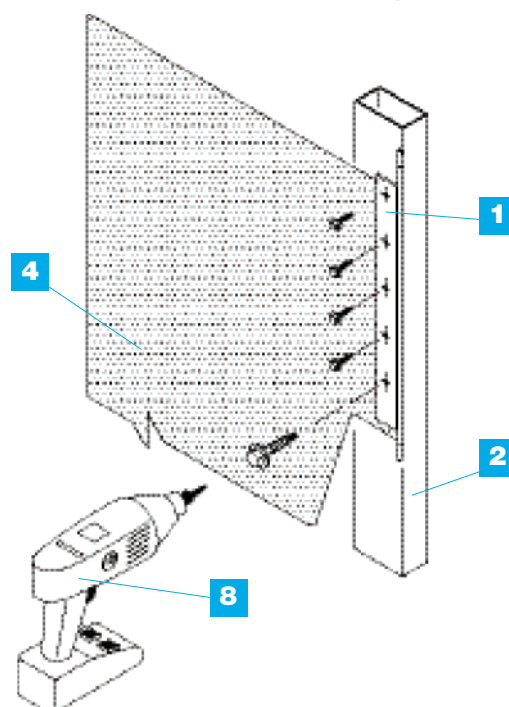
2.5 ASSEMBLY OF THE FRONT FLAPS AND TOP COVER.

In case the front arch is supplied without side and top flaps, these must be assembled once the covering sheet has already been assembled as shown in the drawing. First assemble on the front frame **2** the two side flaps **4** and **5**, fixing them with drilling screws and plastic plates **1**, then carry on same way with the top flap.



LEGEND

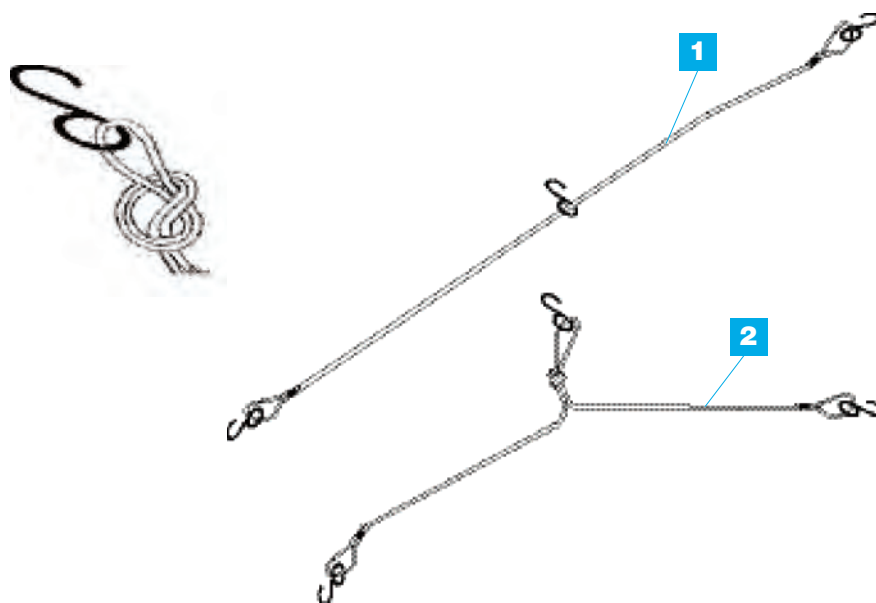
- 1** Profiles in plastic material
- 2** Front part of the dock shelter
- 3** Top flap
- 4** Front right flap
- 5** Front left flap
- 7** Drilling screws
- 8** Automatic screwdriver



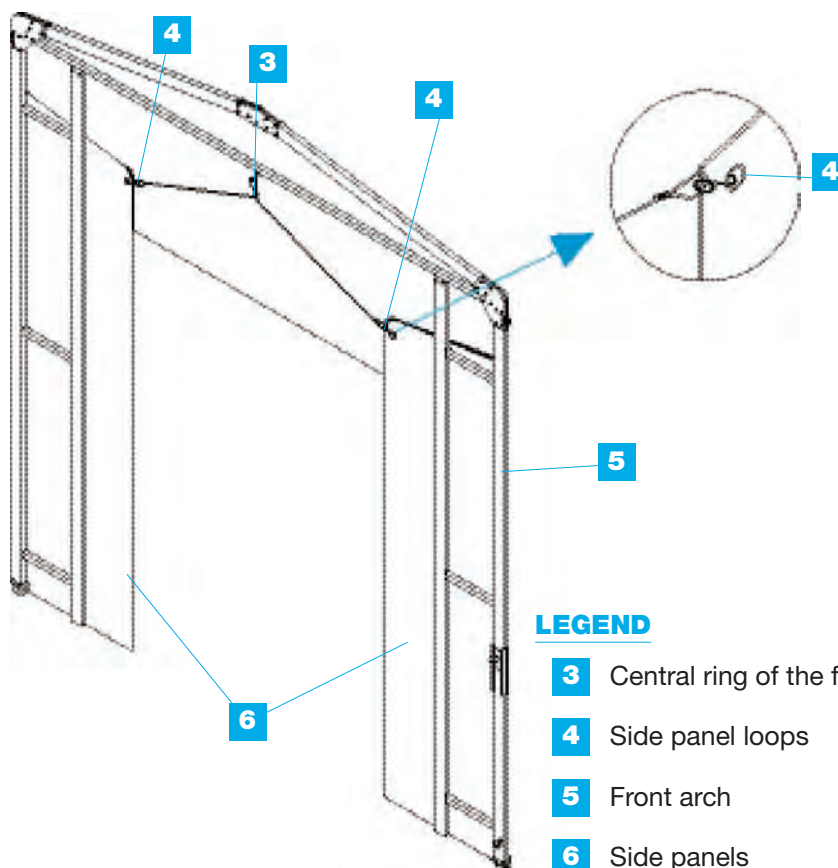
2.6 ASSEMBLY OF THE ELASTIC CORDS

The elastic cord for pulling the side panels must be assembled for last once the dock shelter has already been fixed to the wall

The cord 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 cord with a knot as shown at ref. 2.



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


LEGEND

- 3** Central ring of the front cross member
- 4** Side panel loops
- 5** Front arch
- 6** Side panels

2.7 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 normally used in building yards

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

2.8 REMOVAL OF EXCEEDING MATERIAL



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

2.9 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 30°C and over 70° C.

Should it be necessary to operate with different temperatures please apply for info and support to our Service Dpt.

The dock shelter shouldn't be used when covered with snow.

CHAPTER 3

Use



3.1 NOTES FOR A CORRECT USE AND MAINTENANCE

The following notes must be strictly followed to guarantee a correct use and maintenance:

- ☞ In case of strong wind or snow check if the structure is well stretched with no sign of sagging or unfastened parts.
- ☞ Should any snow deposit on the covering sheet it should be removed immediately otherwise it could cause damage to the structure.
- ☞ The belts which fix the covering sheet to the structure are of extreme importance, since they not only keep the covering duly hooked to the structure, but they are also necessary to keep the structure aligned and prevent the drifting of the trusses, Therefore if any belts are damaged or missing they must be immediately replaced. We suggest to replace the belts every two years.
- ☞ In case the covering sheet accidentally rips, it must be repaired immediately through vulcanization, to avoid wind to widen the hole and make the damage irreparable, and jeopardizing the stability of the structure.
- ☞ Since the structure has been properly designed to resist against wind or snow, the Buyer has the responsibility to always keep it in good order, by constantly checking the jambs, the cross members, the pantograph bars, the belts which must be immediately replaced if damaged.
- ☞ The covering sheet must always be well stretched when sealing around the vehicles.
As time goes by the fabric, due to pollution may deteriorate and cave in and create bags which retain water. The covering must be replaced in this case.

When using tools and equipment, for safety reasons, make sure that:

- a) They are installed according to instructions of the manufacturer,
- b) they are used correctly,
- c) they are duly maintained.



The improper use of the equipment will have as a consequence the loss of guarantee and Buyer will take his own responsibilities.

3.2 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.

3.3 FIRE-PREVENTION

Dock shelters can be installed in areas without particular fire-prevention methods. However 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 belts which keep the covering sheet stretched, in case they are damaged provide replacing them immediately.

monthly inspection

Check correct functioning of the springs and the slides of the movable ears.
Check the fastening of the fixing dowels.
Check the fastening of the nuts and bolts for fixing the archs.
Check the wholeness of the elastic cords and side panels.
Check if the wheels roll with ease.

Quarterly inspection

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

Annual inspection

Fastening of the dock shelter nuts and bolts
Fastening of the door fixing dowels.

Biennial inspection

The belts which fix the structure must be checked weekly, and in case of damages they must be replaced immediately.
Total replacement is recommended every two years.

4.2 INSTRUCTIONS FOR LUBRICATION

Monthly operation

Greasing of the hinges of the pantographs with Molykote grease.
Greasing of the slides of the movable ears with Molykote grease.
Greasing of the hinges of the archs with Molykote grease
Greasing of the joint hinges of the jambs.

4.3 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

OTHER RISKS

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
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,
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,
2,	3 and 4

INSTRUCTIONS

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

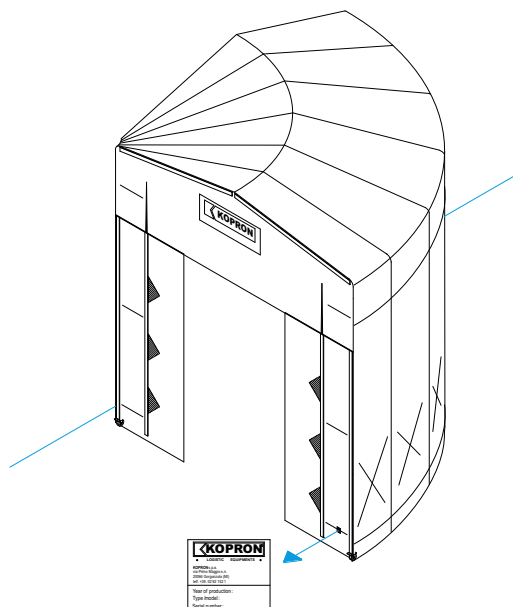
SPARE PARTS

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 – (MI)
☞ 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

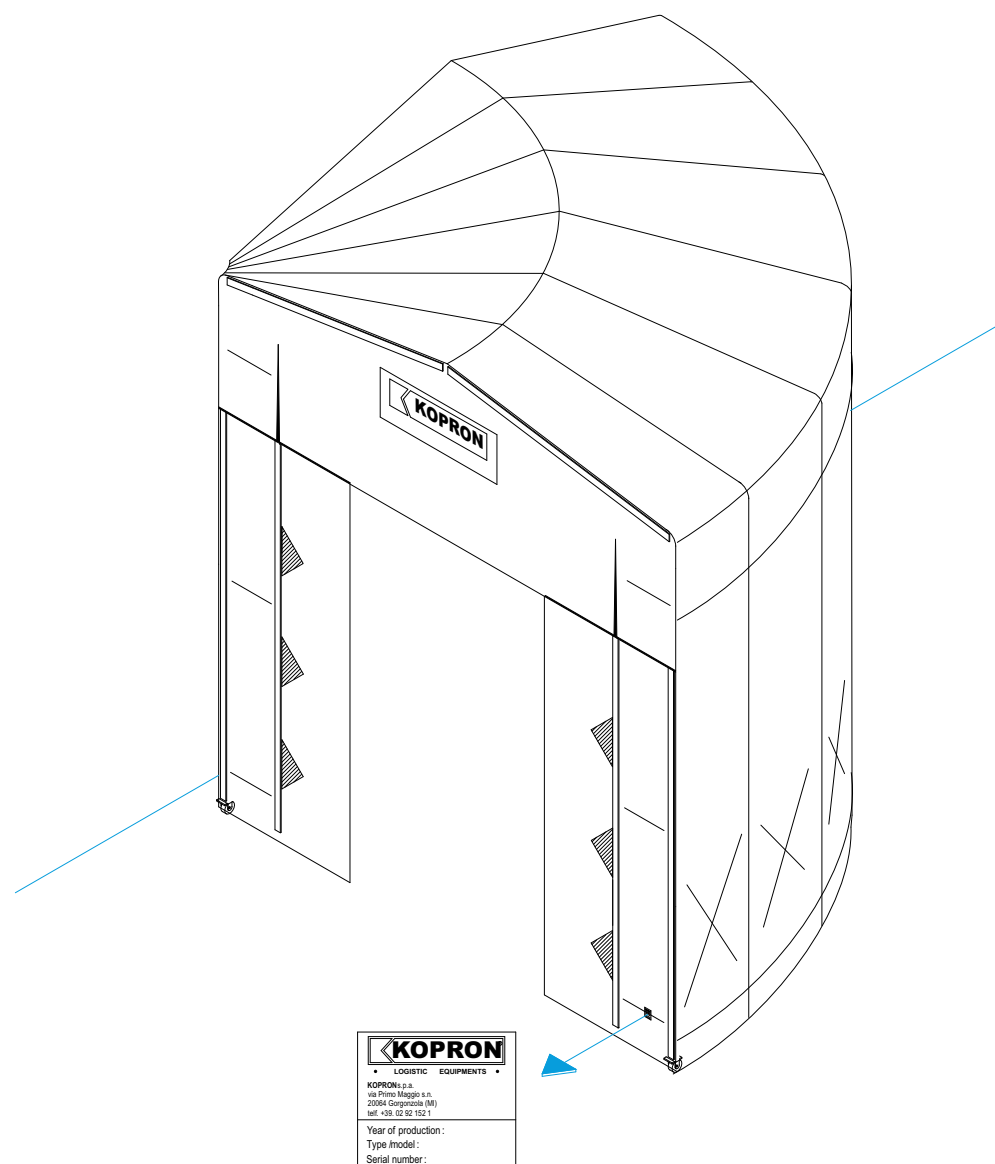
1.1 PROCEDURES FOR REQUESTING ASSISTANCE

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 there 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 occuring 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

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