



Protective Capony

RTC-15

ASSEMBLY AND OPERATION MANUAL
WARRANTY CARD



CE



Protective Canopy

RTC-15

**Assembly and Operation Manual
Warranty Card**



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Dear customers!

*We thank You for choosing the turnstile manufactured by PERCo.
You have purchased a high quality product, which will be long lasting
in operation provided that installation and operation rules are observed.*

The Operation Manual (the Manual) of the **RTC-15 Protective canopy for the RTD-15 Full height rotor turnstile** contains data on transportation, storage, installation, operation, maintenance and warranty of the product. The installation should be undertaken in strict accordance with this Manual.

1 APPLICATION

The RTC-15 Protective canopy (the canopy) is designed for use together with the RTD-15 Full height rotor turnstile (the turnstile) as protection of the turnstile against direct exposure to the elements.

2 OPERATION CONDITIONS

The canopy, in accordance with the resistance to environmental exposure, complies with GOST 15150-69, Category N1 (outdoor operation).

Operation of the canopy is allowed at ambient temperature from -40°C to $+40^{\circ}\text{C}$ and relative air humidity of up to 98% at $+25^{\circ}\text{C}$.

3 TECHNICAL SPECIFICATIONS

Overall dimensions (H × W × D) 2388×2015×2586 mm
Weight (net) max 60 kg
Mean lifetime min 8

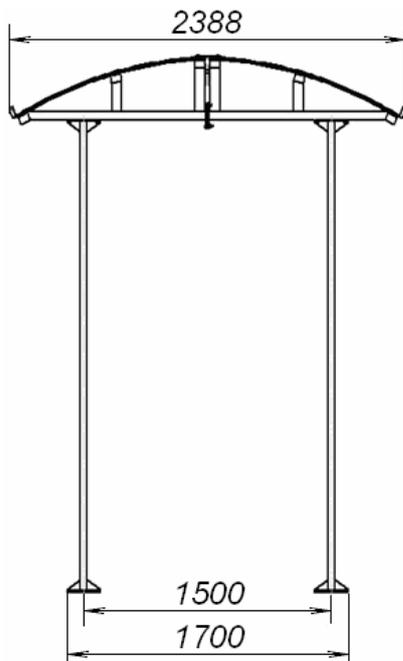


Figure 1. Overall canopy dimensions (frontal view)

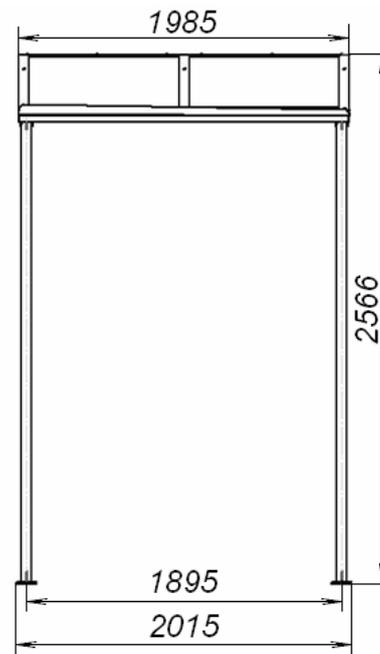


Figure 2. Overall canopy dimensions (side view)

4 DELIVERY SET

4.1 Standard delivery set

Primary parts:

Left roof section	1
Right roof section	1
Post	4
Bushing	2
Jointing plate	1
Sealing element	4

Fasteners:

Hex socket screw M6×30	20
Hex socket screw M6×40	4
Hex socket screw M8×50	2
Nut M6	8
Nut M8	2
Washer 6	24
Washer 8	2
Spring washer 6	24
Spring washer 8	2
Self-tapping screw 4.2×16	12

In-line documentation:

Assembly & operation manual with warranty card	1
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Package:

Package box	3
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4.2 Optional equipment supplied on request

Optional equipment fittings:

As addition to the standard delivery set, the canopy can be supplied with optional equipment fittings used in the canopy installation depending on adjacent equipment:

- Mounting brackets
- Connecting posts



Note:

This Manual gives information on attachment of the canopy to the turnstile by the «Turnstile-Canopy» bracket (see sect. 8.3). Fittings of any other type, their number and installation are dependent on the entrance layout. They should be specified in general mounting documentation for the entrance and cannot be given in this Manual.

Mounting hardware:

We advise using the following metal anchors for medium heavy and heavy fixings in solid and hard foundations like concrete (400 grade or higher), stone, etc.:

Metal anchor with bolt M10×60 PFG IR 10-15 («SORMAT», Finland)	16
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Installation of the canopy on other types of foundations may require different mounting hardware.

5 DESIGN

5.1 Main features

The canopy meets current requirements to such equipment in compliance with GOST P 51241. The main features of the canopy are as follows:

- **high corrosion resistance** of the aluminium frame ensures long period of service even in unfavourable environments;
- **low weight** makes the installation easier;
- **high durability polymeric powder keeps** the outward appearance essentially unchanged for many years of service.

5.2 The canopy design

5.2.1 The design is shown in Fig. 3. Numbers of the position correspond to Fig.3.

5.2.2 The canopy consists:

- right roof section (1) and left roof section (2);
- four posts (3);
- two bushings (7);
- sealing element (9);
- jointing plate (10).



Note:

“Right” and “left” names for the roof sections are conventional and correspond to the name of the RTD-15 turnstile guide barrier section (Fig. 4 and 8), below (see Operation Manual for the RTD-15 full height rotor turnstile).

5.2.3 The *roof sections* (1) and (2) with transparent infill, and the *posts* (3) with bottom flanges (4) for fixing the posts to the mounting surface and top flanges (5) for fixing the posts to the roof sections assembly, are made of high durability aluminum profile.

5.2.4 The lower parts of the roof sections should be assembled together by jointing flanges (6), while upper parts by bushes (7), installed between gussets (8).

5.2.5 The joint line between the roof sections is covered by a self-adhesive *sealing element* (9) and a *jointing plate* (10).

5.2.6 Each roof section has a sloping *drain* (11) for drainage.

5.2.7 Both front sides of the canopy are fixed by *fittings* to adjacent equipment (see sect. 8.3).

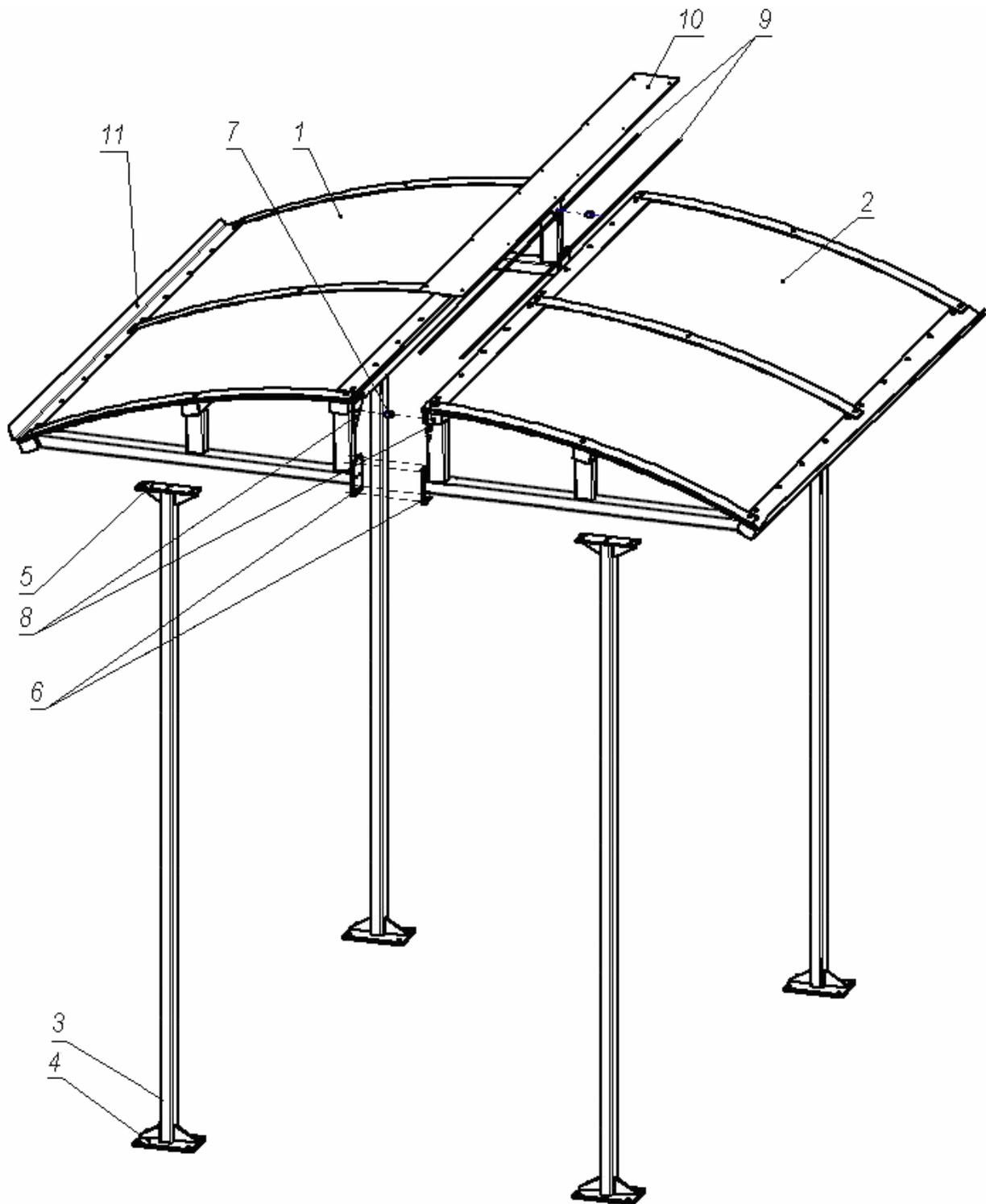


Figure 3. The canopy design:

1 – right roof section; 2 – left roof section; 3 – post; 4 – bottom flange; 5 – фланец top flange; 6 – jointing flanges; 7 – bushing; 8 – gussets *; 9 – sealing element; 10 – jointing strip; 11 – drain.

* The bushing and gussets are also shown in Fig. 5

6 MARKING AND PACKAGING

The canopy in the standard delivery set is packed in three package boxes to protect its parts against damage during transportation and storage.

Overall dimensions and weight of the boxes are given in Table 1. Each box bears a label with product and item name, date of manufacture, serial number, and a label with pictorial markings.

Table 1

Box number	Overall box dimensions (L x W x H), mm	Box weight, kg
1	2100×1280×400	67
2	2100×1280×400	68
3	2386×526×300	70

7 SAFETY REQUIREMENTS

7.1 Installation safety requirements

Installation of the canopy should be carried out by qualified personnel only, in strict accordance with this Manual and general requirements for installation work.



Warning! While doing the installation work:

- use only serviceable tools;
- be particularly careful when installing parts of the canopy before they are secured in place, prevent the parts from fall.

7.2 Operational safety requirements



Do not:

- use the canopy if it is not fixed to the turnstile.
- make mechanical shock and jerking of the canopy.
- use substances and tools that may cause damage to the surface of the canopy.

Make sure that snow that may cover the canopy in winters is not higher than 200 mm.

8 INSTALLATION WORK

8.1 General recommendations

Installation is an operation substantially responsible for durability and serviceable life of the canopy. Study this section carefully before commencing the installation work, and strictly follow the instructions.



Warning!

The manufacturer will not accept liability for any damage to the canopy or other equipment, or otherwise loss caused as a result of improper installation, and will dismiss any claims by the customer should the installation work be carried out not in accordance with this Manual.

We advise:

- installation to be carried by at least two persons in assembly and installation work;
- mounting the canopy on flat, solid concrete floors (grade 400 or higher), stone or similar foundations at least 150 mm thick;
- using reinforcing elements 500×500×500 mm for weaker foundations;
- using mounting hardware as recommended in sect. 4.2.

8.2 Installation tools

Use the following tools for the installation work:

- 1.2÷1.5 kW electric perforator;
- 0.6 kW electric drill;
- Ø16 mm carbide drill bits;
- Ø3.5 and Ø8.5 mm drill bits;
- S10; S13; S17 horn wrenches;
- S5; S6 hex-nut wrenches;
- N2 cross-tip screwdriver, 150 mm;
- pair of trammels;
- 3 m tape-measure;
- level gauge;
- two stepladders (four steps or more).



Note:

Use of other similar tools is allowed as long as it does not reduce quality of the installation work.

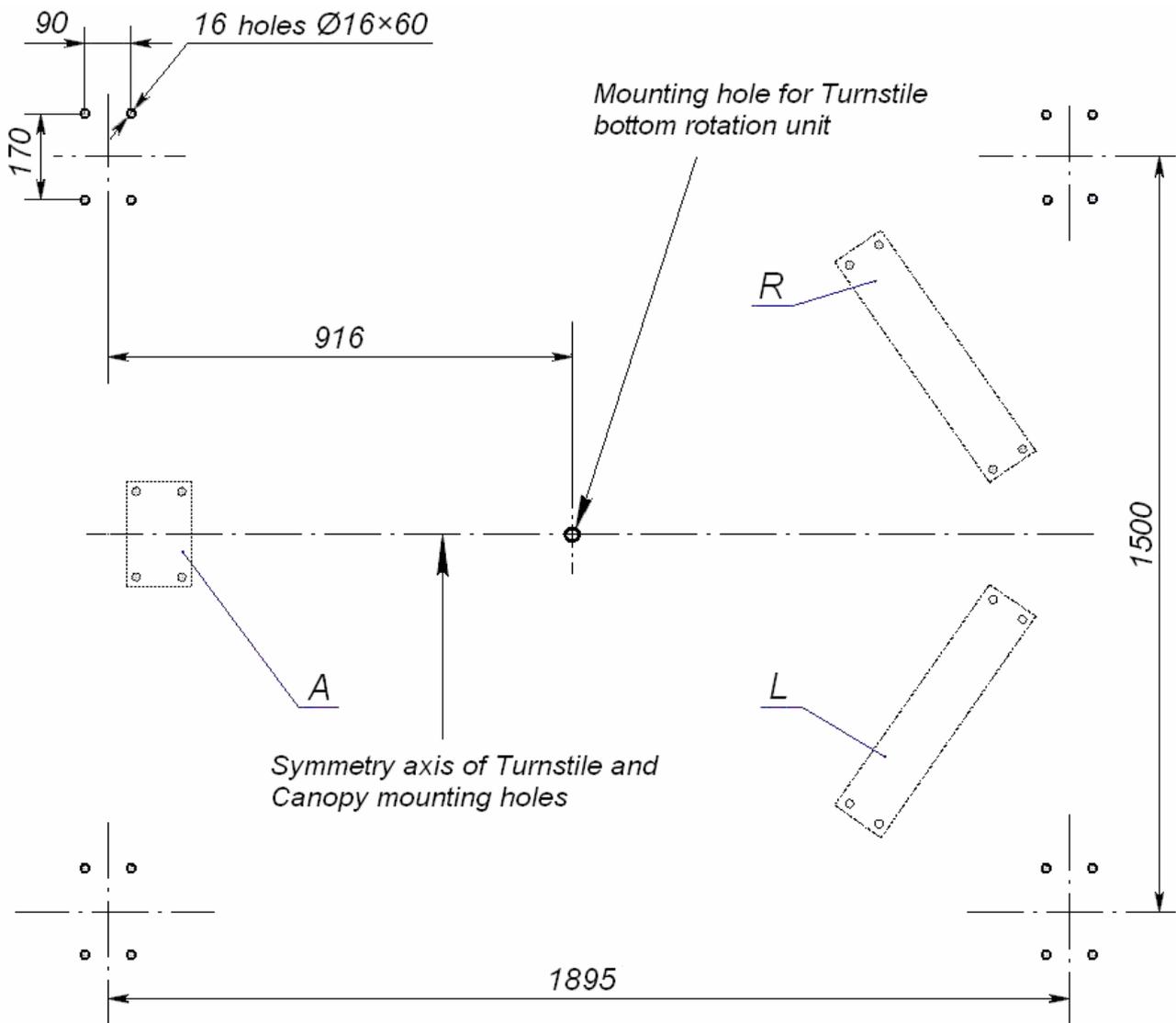


Figure 4. Hole pattern for mounting of the canopy posts (3) relative to the turnstile mounting holes:

- A – mounting point of the turnstile barrier section.
- L – mounting point of the turnstile left guide barrier section.
- R – mounting point of the turnstile right guide barrier section.

Figure 4 shows a sketch layout of the turnstile mounting holes. Exact coordinates of the holes in A, L and R mounting points are given in the *Operational Manual to the RTD-15 Full Height Rotor Turnstile*.

8.3 Canopy installation

Recommendations how to prepare mounting holes in the foundation (the mounting surface) are given with regard to anchor bolts for solid concrete floors or similar foundations (see sect. 8.1). Use relevant mounting hardware for installation on different foundations.

8.3.1 Unpack the canopy, check completeness of the delivery set according to sect. 4.1.

8.3.2 Mark out the mounting holes for installation of the posts (3) according to Fig. 4.



Note:

Carry out the marking together with that for turnstile mounting holes given in the Operational Manual to the **RTD-15** Full Height Rotor Turnstile. Symmetry axis of turnstile and canopy mounting holes geometrically coincide (Figure 4).

8.3.3 Prepare holes for the anchor bolts. Set the anchors all the way down the prepared holes.



Warning!

Further work should be carried out after installation of the turnstile. Be particularly careful when installing parts of the canopy before they are secured in place, prevent the parts from fall.

8.3.4 Erect and fix the posts with anchor bolts observing their verticality by means of a level gauge, use insertions when necessary.

8.3.5 Lay both roof sections side by side down a soft material (foam plastic, etc.) on a horizontal platform so that the jointing flanges (6) face each other, and the gap between the gussets (8) is 3-7 mm more than the length of the bushing (7).

8.3.6 Put the screw M8×45, through the hole in the left roof section gusset from inside, take the bushing on the screw. Put the screw inside the hole in the right roof section gusset (Fig. 5). Fix the screw by the nut M8 with two washers from inside the right roof section. Fix the other side gussets together. Do not tighten the screws.

8.3.7 Tie the jointing flanges together by fittings shown in Fig. 5. Do not tighten the screws.

8.3.8 Tighten all the screws jointing the roof sections: first in the gussets on one side together with the screws in the jointing flanges on the opposite side, then tighten the screws on the other sides.

8.3.9 Lay the jointing strip (10) down a flat surface, stick the self-adhesive sealing element (9) along the long sides of the strip closest to the edge. Trim the sealing element where necessary.

8.3.10 Lay the jointing strip along the joint line, the sealing element down. Drill 12 Ø3.5 mm holes 9 mm deep for the 4.2×16 self-tapping screw through the 12 Ø5 mm holes in the strip (Fig. 6). Fix the strip on the roof sections with the screws.

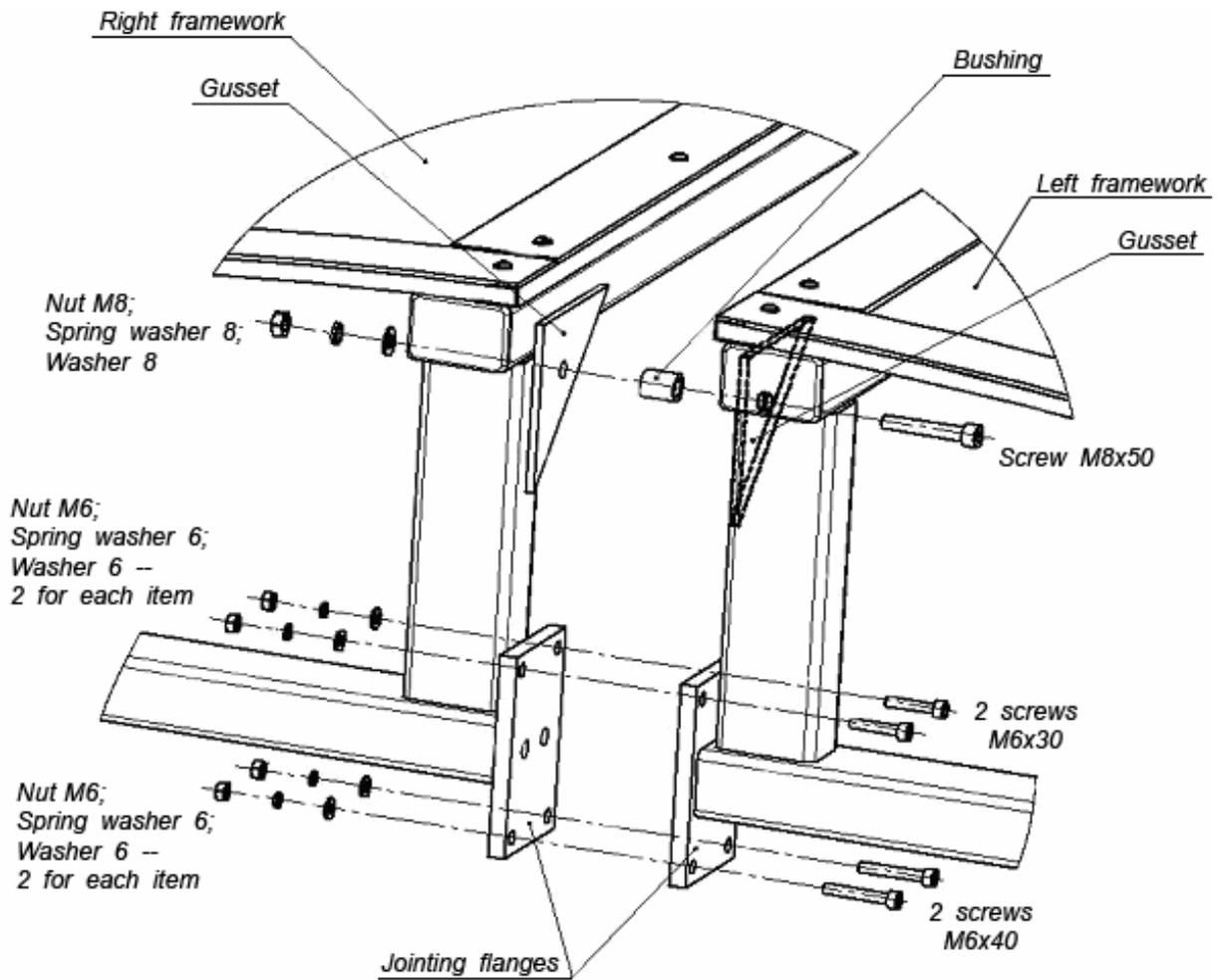


Figure 5. Juncture of the roof sections (1) and (2)

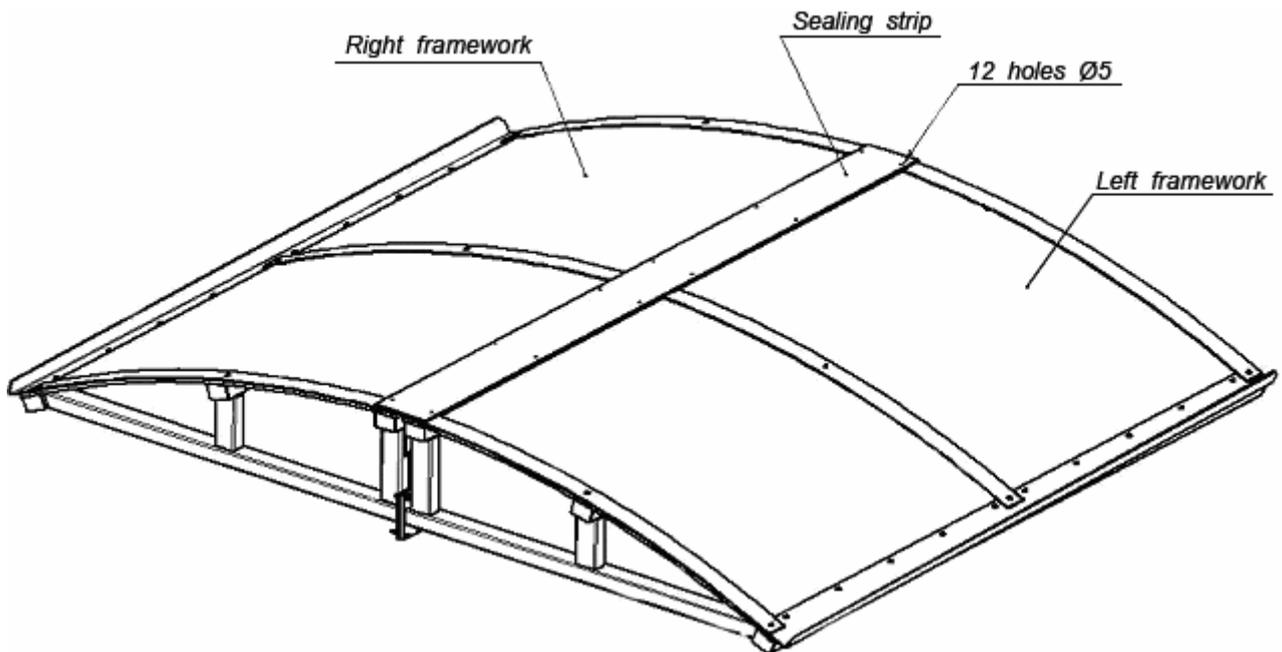


Figure. 6 Assembled roof

8.3.11 Choose direction of the water drainage off the canopy and visually determine pitch of the drains (11). Lift and place the roof assembly on the posts in such way as to achieve the chosen drainage direction.

8.3.12 Drive the screws M6×30 with washers into the thread bushings in the roof sections through the four holes in the top flange (5) (Fig. 7). Obtrusive ends of the thread bushings should enter the counterbored holes in the top flanges. Differences between diameters of the bushings and the holes, and the screw M6 and the flange hole allow compensating for possible installation faults.

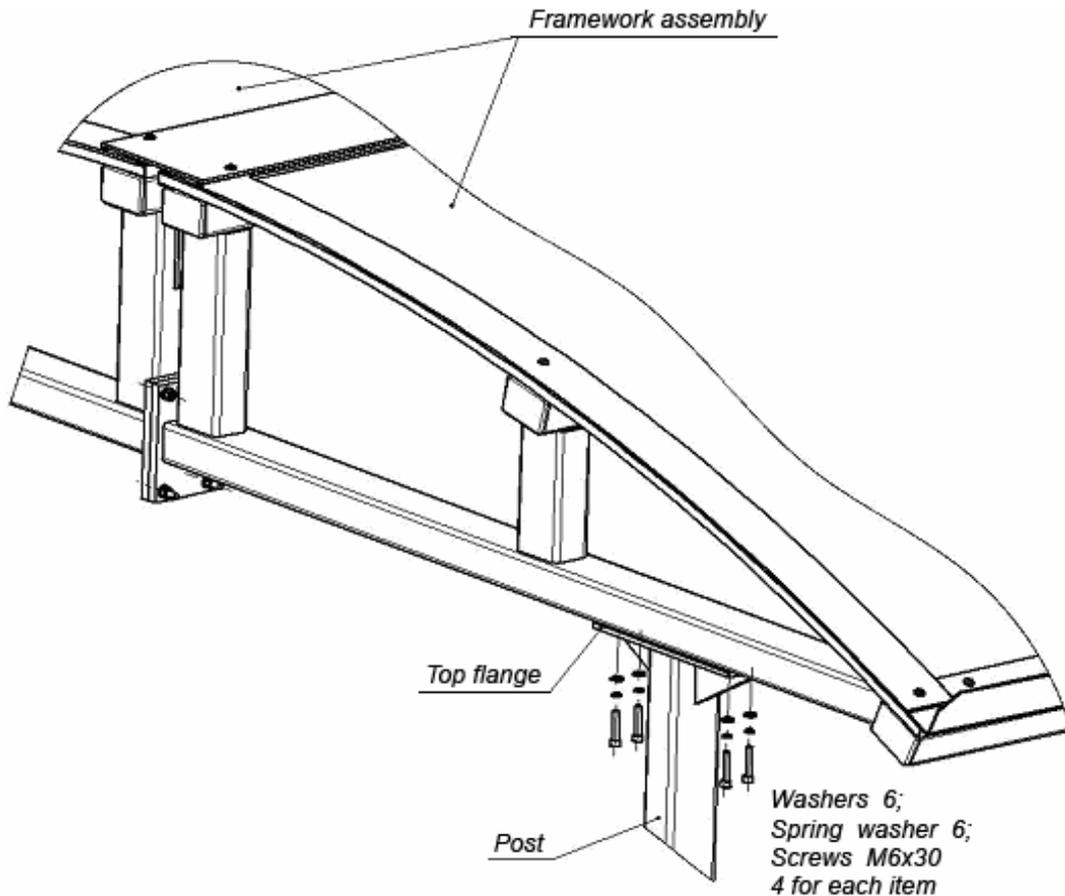


Figure. 7 Fixing the roof assembly to the post (3)

8.3.13 Use the fasteners and fix both sides of the canopy through the jointing flanges to adjacent equipment:

8.3.13.1 when the canopy is used together with a standalone turnstile without railings, fix it to the turnstile top channel by two «Turnstile-Canopy» brackets mounted on both ends of the top channel (Fig. 8.3.16);

8.3.13.2 when two or more turnstiles are used together with canopies joined in a row, or when turnstiles are used together with canopies and railings installed at one or both frontal sides, follow instructions given in corresponding installation documents.



Do not:

use the canopy that is not fixed to the turnstile or railings with brackets. Both frontal sides of the canopy should be fixed to adjacent equipment.

8.3.14 Install the «Turnstile-Canopy» bracket as follows:

8.3.14.1 Take off the top channel cover (refer to the RTD-15 Operation Manual);

8.3.14.2 Unscrew two bottom screws M6×40 with nuts and washers (Fig. 8) from the canopy jointing flanges on the side of the turnstile barrier section (Fig. 5);

8.3.14.3 Install the bracket on the flanges and fix it with the earlier undone screws (Fig. 9);

8.3.14.4 Mark the turnstile top channel for two Ø8.5 mm holes to mount the bracket with the screws M8×30.

8.3.14.5 Undo the screws and take off the bracket.

8.3.14.6 Drill two Ø8.5 mm holes as marked.

8.3.14.7 Mount the bracket on the flanges, fix the bracket by two screws M6×40 with nuts and washers. Do not tighten the screws.

8.3.14.8 Put two screws M8×30 through the holes in the bracket and fasten them by nuts with washers from inside the top channel, as shown in Fig. 9.

8.3.14.9 Tighten all the bracket screws.

8.3.15 In the same way, mount the «Turnstile-Canopy» bracket from the side of the turnstile guide barrier set (Fig. 8).

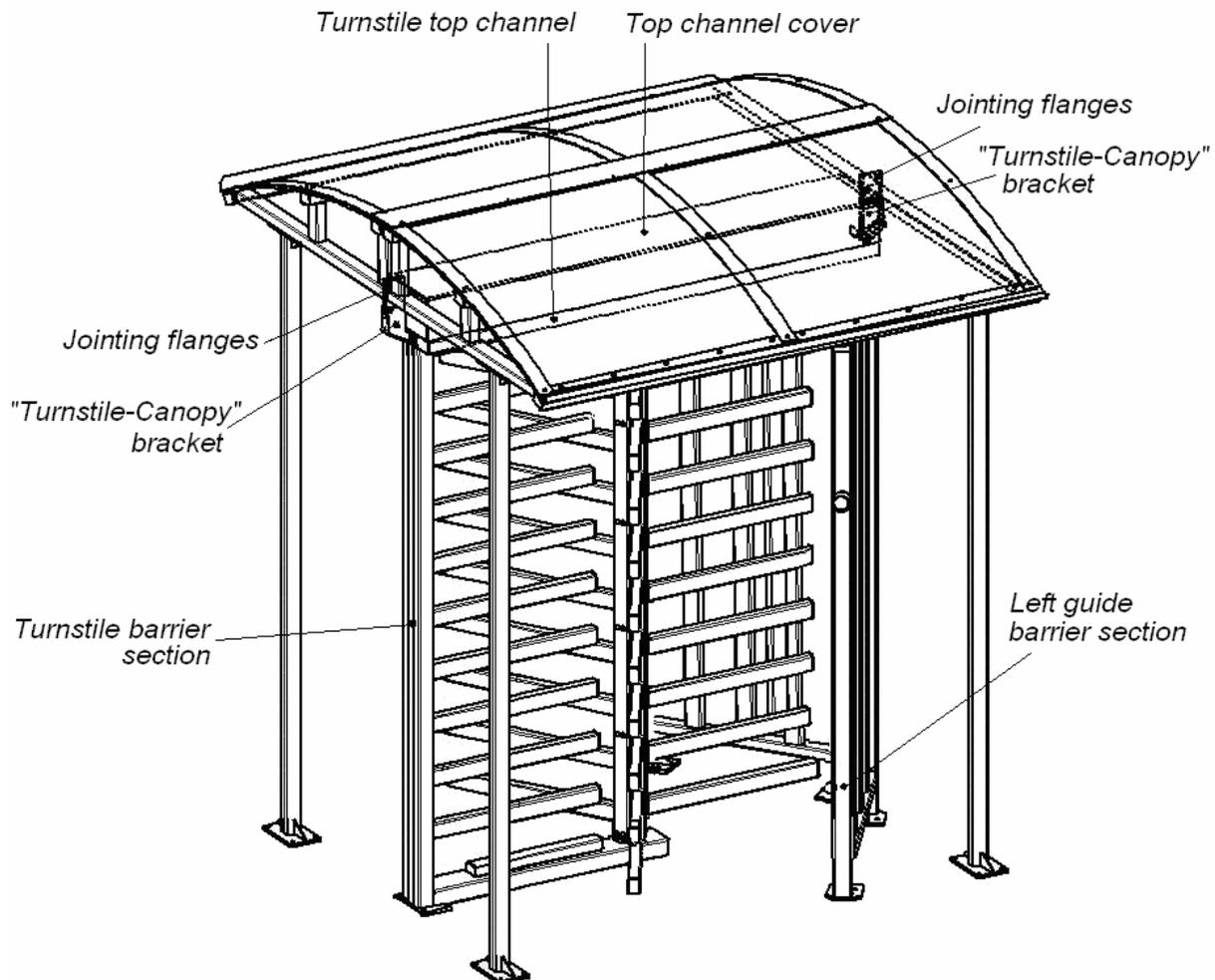


Fig. 8 Positioning of the «Turnstile-Canopy» brackets between the canopy jointing flanges (6) and the turnstile top channel

8.3.16 Paste the joint line between the flange edges and the flanges/the top channel with a clear silicon sealer.

8.3.17 Installation check-up:

8.3.17.1 Take a visual check-up whether the direction of the water drainage off the canopy is as chosen.

8.3.17.2 Check all the threaded connections, tighten when necessary.

8.3.18 Install the cover on the turnstile top channel.

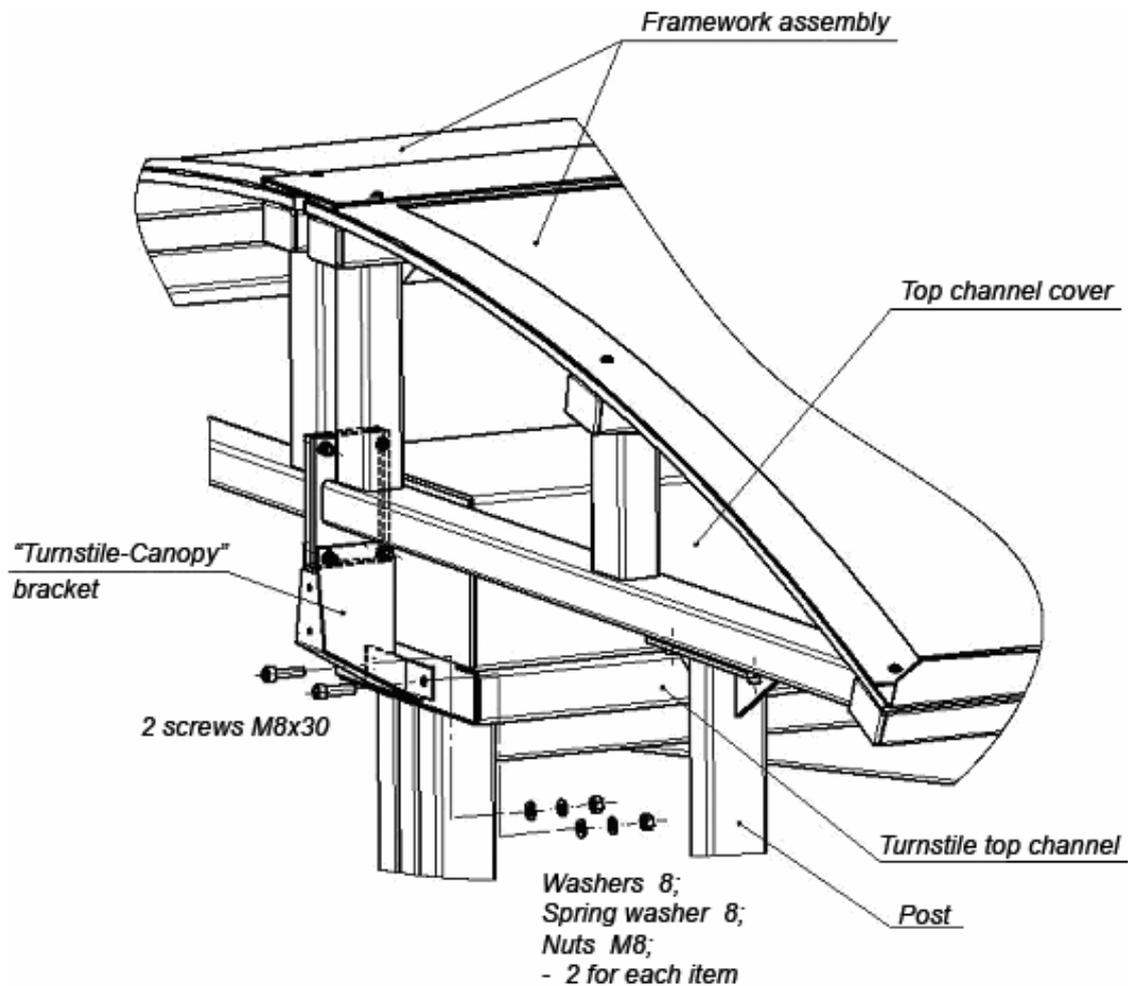


Figure 9. Fixing the «Turnstile-Canopy» bracket to the canopy jointing flanges (6) and the turnstile top channel

The canopy is installed. Consult with PERCo Technical Support Department when necessary.

9 TRANSPORTATION AND STORAGE

The canopy in the original package should be transported only in closed freight containers or other closed type cargo transport.

During storage and transportation the boxes can be stacked no more than 2 layers high.

The canopy should be stored indoors at ambient temperatures between -40°C to +45°C and relative air humidity no more than 98% at + 25°C. The storage facilities should be free from acid and alkali vapours, or corrosive gases.

If prior to installation the canopy was transported or stored at below-zero temperatures or high air humidity, it should be kept in package for no less than 24 hours under operation conditions given in sect.2.

10 WARRANTY PERCo

PERCo (the Manufacturer) warrants that the **RTC-15 Protective Canopy for RTD-15 Full Height Rotor Turnstile** (the Product) complies with applicable statutory safety requirements, electromagnetic compatibility provided that the instructions on storage, installation and operation, given in the Assembly & Operation Manual, are observed.

The warranty period is **5 (five) years** commencing from the date of sale.

Should there be no date of sale on the warranty card, the warranty period shall commence from the date of manufacture specified in the Certificate and on the Product label.

In the post-warranty period the replacement parts/components are warranted to be free from defects in material or workmanship for a period of 3 (three) months from the date of shipment of the repaired/replaced Product to the Customer.

All claims with regard to quantity, completeness and defects to appearance of the Product delivered are accepted by the Manufacturer in writing within no more than 5 (five) working days after the products are received by the Customer. In case of failure to meet the abovementioned deadline no claims are accepted.

The Warranty does not cover:

- products, parts and components with:
 - external mechanical damages resulting in the Product's fault;
 - defects resulting from Customer's improper testing, operation, installation, maintenance, modification, alteration, or adjustment;
 - damages due to force majeure circumstances (natural disasters, vandalism etc.) or defects as a result of external circumstances (power surges, electric discharge, etc);
- fuses, accumulators, galvanic elements and other components, replacement of which is performed by the Customer in accordance with the Product's in-line documentation.

To the maximum extent permitted by the acting law, the Manufacturer does not incur a liability for any direct or indirect losses of the Customer, including but not limited to loss of profit or data, losses caused by idle period, missed profit, and etc related to use or impossibility to use products and software, including possible software errors and failures.

Within the warranty period the products are repaired free of charge at the Manufacturer's site. The Manufacturer reserves the right to repair failed product or replace it with an operational one. Time of repair is specified at the moment the Product is accepted for repair. Transportation cost to and back from the place of repair shall be borne by the Customer.

In order to shorten the repair time the Customer must inform the Manufacturer's Technical Support Department (the TSD) of the problem with the Product's operation and/or about the origin of the fault by submitting a filled-in Technical Support Form by e-mail, fax or via the Manufacturer's website or communicate directly a specialist of the TSD.

The Manufacturer reserves the right not to accept the Product for repair from the Customer who failed to submit the Technical Support Form.

The Manufacturer's warranty obligations don't cover attendance by the experts of a Customer and maintenance of any Product on site

If in the course of the examination taken by the Manufacturer of the Product or its parts/components believed to be faulty, no faults have been detected, the Customer is responsible for compensation of the Manufacturer's expenses related to the examination.

Apart from the warranties mentioned above the Manufacturer does not provide any other warranties with regard to compatibility of a Product purchased with software or products produced by other manufacturers as well as any warranties that this Product will fit for the purposes not stipulated in the Product's in-line documentation.

The warranty does not provide for any claims with regard to the technical specifications of the Product in case they are in compliance with those stated by the Manufacturer. The Manufacturer does not guarantee that the Product purchased will meet Customer's requirements and expectations.

**PLEASE NOTE THAT PERCo PRODUCES TECHNICALLY
SOPHISTICATED PRODUCTS THAT, IF NOT FAULTY,
CANNOT BE RETURNED BACK IF BY SOME REASON
THE CUSTOMER DEEMS THEM UNSATISFACTORY**



The PERCo **RTC-15 Protective Canopy** is in conformity with the essential requirements of the EU's Machinery, Low-Voltage and EMC Directives and carries the CE marking accordingly.

WARRANTY CARD



**RTC-15 Protective Canopy
for RTD-15 Full Height Rotor Turnstile**

Date of manufacture: _____ 201__

Quality Control Seal

Date of sale: « » _____ 201__

(signature, seal)



Cutting line

WARRANTY REPAIR COUPON



**RTC-15 Protective Canopy
for RTD-15 Full Height Rotor Turnstile**

Date of manufacture: _____ 201__

Quality Control Seal

Date of sale: « » _____ 201__

(signature, seal)

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