

ROUND J-90

BASIC CHARACTERISTIC

ROUND-J-90 turnstile is the most often used device in entrance control systems thanks to its modern robust design, safe and effective operation together with high-quality material processing and robust construction. Stainless design of the main turnstile parts guarantees its long-life running in interior or exterior. Constructional design ensures better protection in exterior against weather attacks and splashing water high up to 1m except the power water.

Turnstile **ROUND-J-90** is a bi-directional turnstile with electronic control, the 90° openings ensure comfortable and safe access for one person.

ROUND-J-90 turnstile is equipped with a motor drive unit, afterwards it is a quiet, motorised user-friendly turnstile. Up-to-date control electronics enables easy setting of its turnstile operating mode and at the same time it ensures the communication with different types of identification and signal devices.

To ensure the access of immobile persons and at the same time to realize safety regulations the turnstile **ROUND-J-90** can be suitably completed by PEGAS gates and together they make compact and complex entrance control system.

Motor drive unit MT:

Motor-driven unit is supplied in two variants:

- 1) **FAIL-LOCK:** turnstile is blocked during the power failure
- 2) **FAIL-SAFE:** turnstile is unblocked for free passage during the power failure

Turnstile **ROUND-J-90** motor-driven unit provides high comfort coupled with reliable and maintenance-free running, in addition:

- effective blocking system in combination with motor-driven unit
- automatically adapts the rotation speed to the users
- provides a high level of safety – in the event the turnstile senses an obstruction it will stop moving
- silent and fluent operation
- possibility to set smooth final phase of rotation

Turnstile materials and surface treatment:

The turnstile is supplied in two variations:

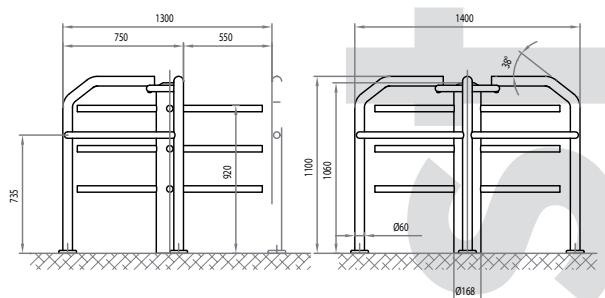
ROUND-J-90: wings made from stainless tube \varnothing 40 mm

ROUND-J-90-U: wings made from bent stainless tube \varnothing 30 mm

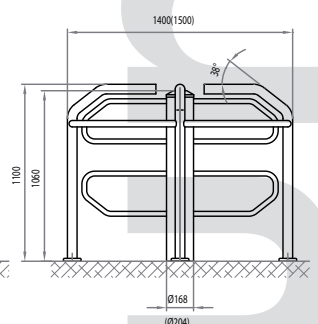
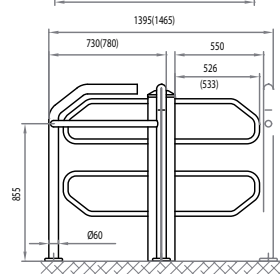
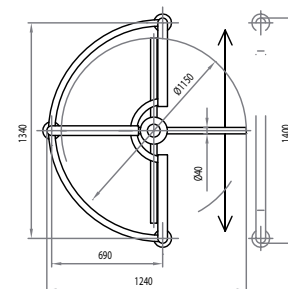
Central column: stainless tube \varnothing 168 mm

Inner guiding railings: stainless tube \varnothing 60 mm

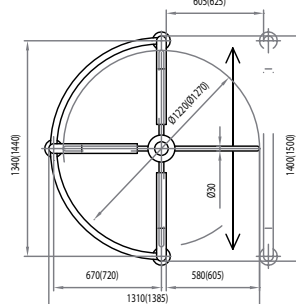
Stainless steel material is standardly brushed. Other mechanical parts of turnstile are finished by galvanic zinking or blackening.



ROUND-J-90



ROUND-J-90-U



Interface:

Turnstiles are controlled by microprocessor control units that is equipped with high effective processor. Electronics is equipped with extensive subsystem that enables the connection of many input and output devices, all of them are separated.

- device operating by status signals, unit RS 485, USB or Ethernet (with external converter)
- configurable bistable outputs for signalling of turnstile situation
- motors control by digital power bridges with safety and current measurement
- advanced function of auto-diagnostics also include the logging of fault conditions, thanks to built-in circuit of real-time including time stamp
- possibility of remote upgrade firmware
- lot of possibilities for the remote configuration of operation parameters and diagnostics by means of T-CONF program
- full control of turnstile systems and situation display including the passage counters by T-MON program
- possibility to connect the supplementary ultrasonic, laser or infra-red sensors
- enables back up accumulator connection directly in the turnstile (supports the replenish, measuring and switching functions of accumulator after circuit break)
- easy installation, service and replacement thanks to the connection of all signals by the help of connectors
- top-quality electronics enables high operational reliability

State of emergency:

FAIL-SAFE unit: during a power failure the turnstile is automatically unblocked and it can be freely turned by hand in both directions

FAIL-LOCK unit: when the backup device is used it is possible to ensure the turnstile standard functions for a period of 6 hours without possible automatic unblocking and free rotation.

Operating modes:

By virtue of signal from access control system or button controller it is possible to turn round the turnstile 90° and by that way enable the passing to one person. For each way of direction it is possible to define the different operating modes:

1. free passage
2. controlled passage
3. permanently blocked

This setting can be set-up for any direction eventually for both directions at the same time.

BASIC TECHNICAL PARAMETERS

Table of drive unit electric parameters:

Type of drive unit	Rated supply voltage	Power supply at the basic turnstile modes		
		Idle turnstile in the base brake /released at the base		Passage of the turnstile
Motorised FAIL-LOCK	12VDC	3 W	12,5 W	25 W
Motorised FAIL-SAFE	12VDC	12,5 W	3 W	15 W

- standard range of working temperatures +10 ... +50 °C
- range of working temperature (with heating module) -25... +50 °C
- range of storage temperatures 0 +50 °C
- maximum relative humidity 80% (non-aggressive environment)
- MCBF: 3 000 000 cycles (number of cycles before error)

The number of passages, depending on type of control electronics, operating mode and the way of identification of passing people, is between 15 to 30 persons per minute.

Increase of power supply on motor drive unit with automatic heating module is 24 W. The power supply can be also increased by using the optional accessories.



ACCESSORIES

Guiding railings:

For the right function it is suitable to fill up the ROUND turnstile with outer guiding railings with minimal length 900 mm or install the turnstile to some suited object (for example: reception desk).

Columns and holders for accessories:

Columns and holders for placing of identification readers or other accessories (for example: LED information panel).

Traffic-Light information panel:

- information about the turnstile accessibility in set direction
- information about transit permission based on evaluation by access control system
- information about invalid card

Touch control panel:

- animation of identification card alarming necessary identification of the passing person
- information about the turnstile accessibility in set direction
- information about transit permission based on evaluation by access control system
- information about reading of invalid identification card

Back-up accumulator:

During a power failure the accumulator ensures the turnstile continuous operation for a period of minimally 6 hours. It is possible to use two backup modes.

Counter:

- included in program T-MON
- it is possible to connect the external counter

Identification systems:

In order to identify the passing people, it is possible to connect to these turnstiles **ROUND-J-90** any type of barcode, magnetic card, proximity chip card, contact chip card, smartcard, biometric reader.

Outdoor design:

Automatic drive units heating controlled by thermoregulator .

Software accessories:

Communication client - software that enables the connection of turnstile system with PC. This programme runs on the background (its activity is hidden) and enables to any PC with valid authority to make setting and control the turnstile system.

T-MON - programme that enables to control the turnstile system from any PC with valid authority in customer's network. The control is also possible from other PC at the same time. It is fully graphic application that can be used with touch screens, too.

T-CONF - programme that enables to change the turnstile configuration, backup, record the new configuration, printout the error conditions and record the firmware. It is localized to many world languages. It is possible remotely connect any turnstile through the Internet after fulfilment of all network qualifications.

Specific variants:

- central column made from tube Ø 204 mm for the type ROUND-J-90-U
- wider passage from 550 mm to 600 mm