

TWINGLOCK 300
OPERATING AND INSTALLATION MANUAL



 **BOON EDAM**

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2 Introduction

2.1 Copyright

This manual was prepared and issued by Boon Edam Group Holding B.V. It is only supplied to the owner of the security product and to the approved agents of Boon Edam Group Holding B.V.

All rights are reserved. The information in this manual is the property of Boon Edam Group Holding B.V. situated in the Netherlands. Disclosure of this information or any part of it to third parties is not permitted, except with prior and express written permission of Boon Edam Group Holding B.V. Boon Edam Group Holding B.V. has the reserved rights to improve her products without further notice. Therefore it's possible that the installed products show some differences with the description in this manual. This manual is based on the standard product.

2.2 Safety Aspects

The security products of Boon Edam Group Holding are designed, tested and produced in accordance with strict international regulations.

Correct operation is assured when regular maintenance is undertaken, annually (subject to frequency of use).

All work should be carried out by Boon Edam or approved agents.

Prior to operation, the manual should have been read.

Warning:

Be aware and avoid contact with moving parts.

If you have any questions regarding this manual, contact Boon Edam Group Holding B.V.

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2.3 Foreword

This manual is intended for the owner of the Twinglock 300, and gives you information about;

the operating of the security product,
the construction of the security product,
the maintenance of the security product.

This manual is obtained when the Twinglock 300 is delivered to the customer.

The purpose of this manual is to inform the customer how to use the Twinglock 300 and how to do basic maintenance.

2.4 Abbreviations



WARNING In case of injury or death.



CAUTION When material could be damaged or the function impaired.

2.5 Product description

Twinglock-300: Two opposite pedestals with each one panel. Opening via a remotely located pushbutton.

Twinglock-300 L: Two opposite pedestals with each one panel. Opening via a photocell located before the panel and installed on a railing.

The Twinglock 300 belongs to the group of Security Barriers of Boon Edam and offers low security control with a very wide passage. This basic security product is suitable for most buildings and matches any surrounding interior because of its neutral stainless steel finishing.

The front panels of the unit are equipped with security fastenings, which provide access to the mechanism and electronics for installation and maintenance.

Access control of passage is possible in only one direction i.e. single-directional.

The Twinglock 300 has a very compact design and consists of two opposing pedestals with aluminium tubular door wings filled with a tinted polycarbonate glazing. The door wings have a standard length of 800 mm and can vary in length from 500 mm each, to match the required entrance width.

The Twinglock is especially useful for entrances where larger luggage or trolleys are used.

The Twinglock 300 pedestals offer sufficient space to install a display.

It is also possible to connect a separate installed pedestal for the installation of a card reader.

The Twinglock 300 is also available with additional guide rails (Twinglock 300-L), to create a detection way that allows automatic opening via photocells located on the pedestals and on the guide rails.

For a more exclusive glass wing and transparent version of the Twinglock with bi-directional passage, Boon Edam offers the Twinglock 900.

2.6 Working principle

The user can be authorised via a card read system. Alternatively, authorisation can be given via an external control panel, for example at the reception desk.

Once authorisation is given, the gate opens 90° and closes again by a timed action; the time can be adjusted to suit individual needs.

In case of a power failure or a fire alarm, the Twinglock 300 will unlock the mechanism to freely open and close. Optionally, an anti-panic system can be installed, to make the door wing move to the open position and create a completely free passage.

The working principle mode is;

Access closed with electronic opening via card or ticket reader, coin or token selector, push buttons and/or control switches.

The Twinglock 300-L can additionally be operated with photoelectric cells.

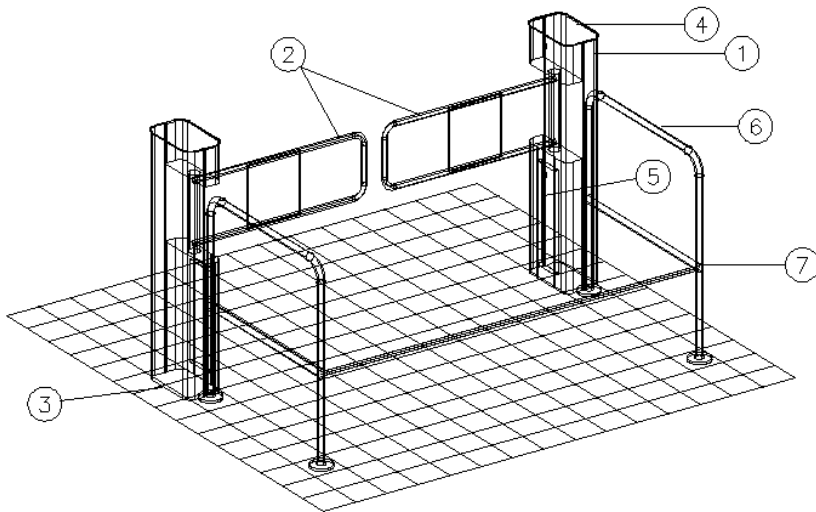
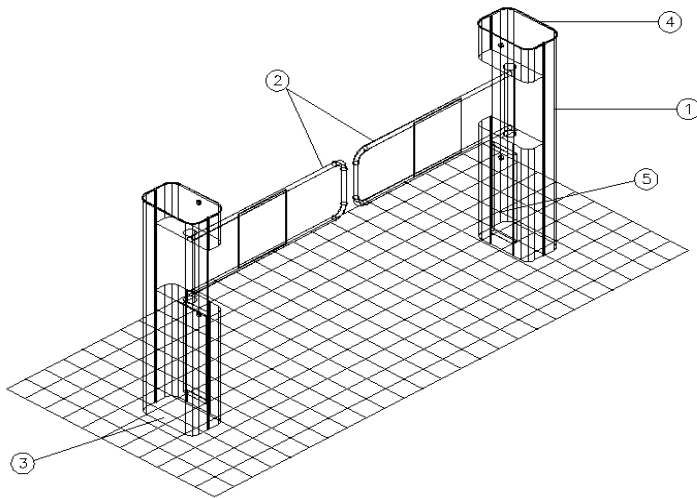
Twinglock 300 features:

Cost effective security solution

Especially suitable for buildings concerned with large goods

Neutral design to match any environment

Service and maintenance possible through locked side panels



1	Side panel
2	Door wings made of tube frame and polycarbonate glazing
3	Base plate
4	Top panel
5	Front panel, removable, with lock
6	Guide rails
7	Photo-cell sensors

3 Technical description

3.1 Technical specs

Capacity	15 passages per minute. Single-directional
Material	Entire unit is finished with 1.5 mm brushed stainless steel, AISI 304 or AISI 316. Optional; any RAL colour powder coated. Tube framed door wing of chromed aluminium, standard with tinted polycarbonate glazing.
Weight	Two pedestals: 50 Kg
Fail-Safe/ Fail-Secure	The panel can be mechanically unlocked by adjusting the pressure between 1 and 30 Kg. Fail-secure is created by increasing the adjustable pressure.
Power supply	230 VAC, 60 Hz Usage 24 V
Power consumption	200 Watt
Power failure	In the event of a power failure, the door wing unlocks allowing free exit. Optional: an electrical anti-panic system, with battery backup automatically opens the panel.
Operation	No standard activation device included. Options include remote control, an external pedestal with push button, or adjustments for integration of a card reader. Closing time is standard 4 seconds, but adjustable.
Installation	Fixed to floor surface with a base plate and screws with expansion plugs. Cables pass through the centre of the pedestal.
Service and maintenance	The top cover is hinged to facilitate installation and maintenance. The cover is locked with a security key.
Optional accessories	Signalling through luminous pictogram indicators. A green arrow and red cross in three modes; continuous, intermittent or progressive. An external pedestal for the installation of a card reader subject to the measurements and characteristics of the reader. A console with push buttons and/or remote control to control the passage through the Twinglock.
Guide Rails	The guide rail types 500-TR with a mid rail and 500-GL with a tinted polycarbonate glazing, match the Twinglock 300. Both available in stainless steel AISI 304 and AISI 316. They are fixed to the floor with a footplate and 12 mm bolts. Standard dimensions are 1000 mm wide and 900 mm high. Boon Edam has an extended range of alternative guide

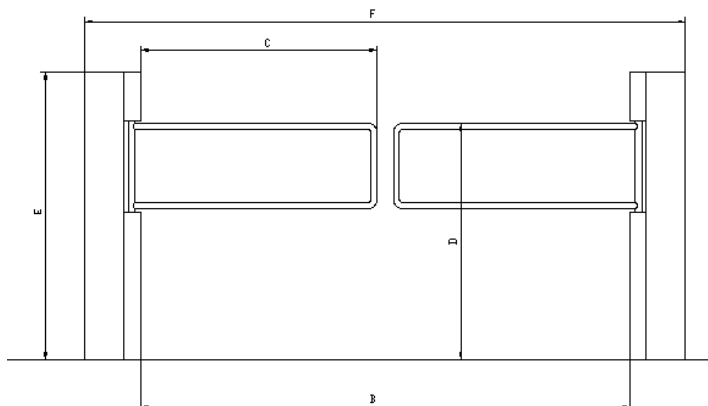
Certification rails and can advise on any custom requirement.
 The Twinglock 300 is CE certified and complies with the EMC directive. (EM Emission EN 61000-3-2 (1995), EN 6000-3-3 (1995), EN 50081-1 (1992). EM Immunity EN 50082-1 (1997). Certificate N° 095461^EM.005).

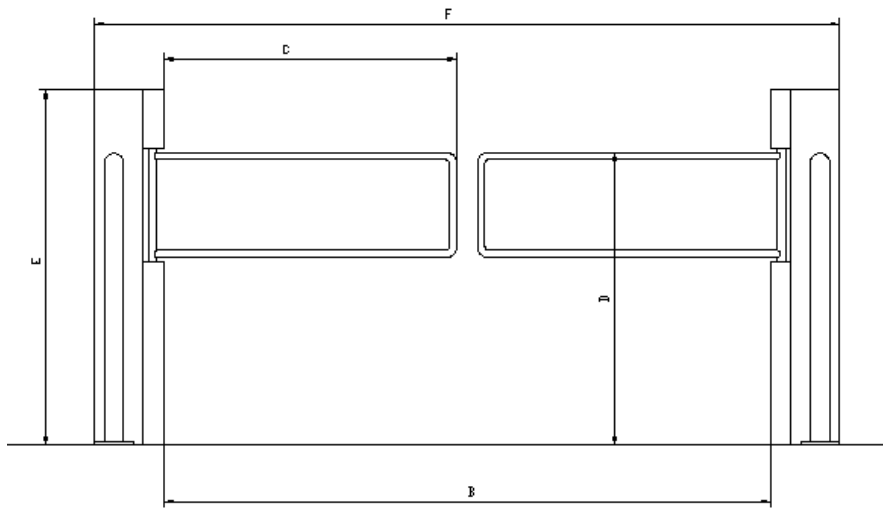
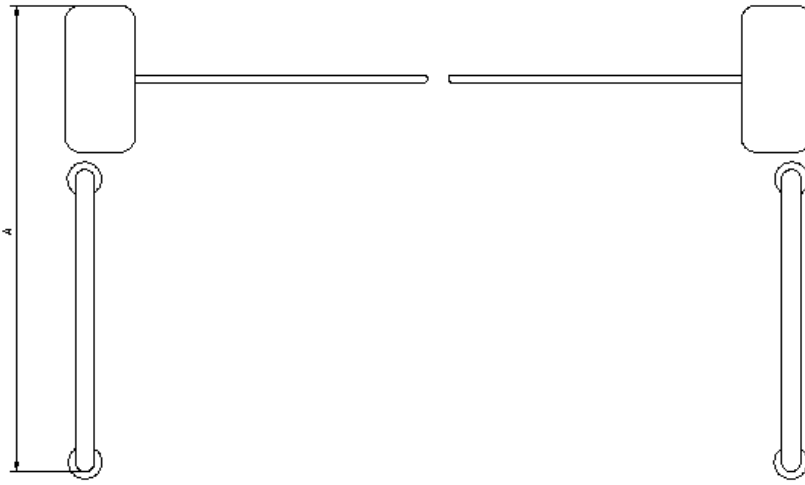
Consumption : 100 W
 Operating temperature : -15 ° to + 50 °C
 Humidity : 95 %

3.2 Technical drawings

Dimensions drawing and table

		Twinglock 300	Twinglock 300-L
A	Column/ Passage length	280 mm	1000 mm
B	Passage width	Max. 1650 mm Variable from 1010 mm	Max. 1650 mm Variable from 1010 mm
C	Door wing length	Standard 800 mm each Variable from 500 mm each	Standard 800 mm each Variable from 500 mm each
D	Door wing height (from floor)	900 mm	900 mm
E	Column height	1080 mm	1080 mm
F	Overall width	1350 to 1990 mm	1350 to 1990 mm





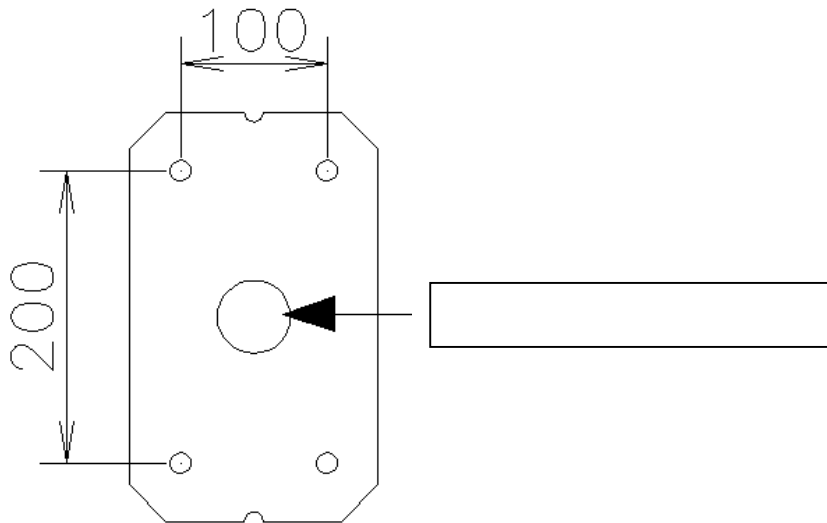
3.3 Electric control

Plus drawings of electric circuit

3.4 Installation and assembly

TO BE SUPPLIED BY THE PURCHASER:

- Power supply
- Electrical power supply cabling for the access gate and the operation and control pushbutton unit.
- Preparation of the floor where the unit(s) are to be installed.



Holeplan for the installation of the (baseplate of) Twinglock 300

1. Place the door wings in the holes of the central cylinder, taking care that the drills match up with the ones of the cylinder.
2. Fixate the door wings with the provided screws.
3. Fix the equipment to the ground using the provided plugs, washers and screws.
4. Make the connections according to the annexed 'pin-out'.
5. Connect the Power supply to 220VAC in the place located in the thermal magneto.

4 Operating Features

4.1 Basic Operation

Motorised gate for pedestrian access control.

The system consists of a pedestal or column, from the side of which extends a tubular barrier that closes off access and operates in only one direction, i.e. single-directional. The barrier normally remains closed and it opens when it receives a signal from a remote pushbutton. Once access has taken place, it closes again through a timer action.

A normally open and free of voltage contact when tilting in close with a duration between 150 and 500 msec. Between terminals 12 and 18, the door wing starts moving to one side, allowing free entrance. When receiving an impulse of the same characteristics between 12 and 17, the door wing will return to its central position again blocking the entrance. If this last impulse is not given within the given time on the potentiometer P1, the door wing will automatically return to its position blocking the pass.

If the door wing is blocked in its way and cannot complete its path in the programmed time (set up in the factory), the system will stop during a moment and try again to complete the action, repeating this cycle continuously. While the shutdown lasts, the system provides an intermittent signal between terminals 3, 4 and 5, which correspond to the three voltage-free contacts in a relay.

If the door wing is closed, or strongly pressed against in the direction of passage (any of the two directions), a overload coupling will come into operation allowing it to move, leaving the passage way free. While this situation lasts, the system will provide the same intermittent signal between terminals 3, 4 and 5.

To reset the device, first, it is necessary to place the door wing in its normal position and after a few moments the product will operate again. Tightening or loosening the screw located at the back of the aluminium cylinder on which the anti-panic switch is located can adjust the necessary force to put this coupling into action.

The mounting of the door is done by holes located in the base, and using expansion plugs and screws. There is an opening in the base for cables to pass through.

For the installation of the Winglock 300-L its necessary to precisely install the guide rails with photocell and reflector, which enable the door wing to be open when a user arrives at the panel.

4.2 Emergency / Safety operation

If there is a power cut, the barrier panel unlocks allowing free exit.

There is an electrical anti-panic system that automatically opens the panel in the event of a power cut, leaving the passage way clear for an evacuation.

The panel can also be mechanically unblocked by a pressure greater than 30kg.

5 Maintenance



Switch off the power of the door during maintenance or other work.



Do not use water near the drive-unit or control boxes.

This schedule can be used as a checklist to maintain the door in its correct condition	
Daily	Check the general function of the Twinglock 300 daily.
Weekly	Clean the stainless steel surfaces with a wet cloth.
Monthly	Clean the stainless steel surfaces with a wet cloth and with a non aggressive soap.
Yearly	The Twinglock 300 needs a big maintenance check up once a year. This can be done by Boon Edam B.V. or approved agents.

6 Trouble Shooting



Switch off the power of the door during maintenance or other work.
Use for replacement original parts, so that a correct operation is guaranteed.

6.1 Mechanical/ Electrical

MALFUNCTION	POSSIBLE CAUSE	CORRECTIVE ACTION
1.Unusual noises	Mechanical components loose or faulty.	Find the cause of the noise. Consult your Boon Edam service agent.
1. Product does not function. Door is blocked.	Power supply. Doorwing-unit sticks.	Check power supply and the several fuses. Check all the switches. Check sticking of the relay.
Door will not lock.		Check all the switches. Check the voltage on the unit(approximately 230 VDC). Check the relay and rectifier.

6.2 Spare parts list

SPARE PARTS MAINTENANCE

MECHANISM Winglock 300

REFERENCE	Description
1	REF.6000-2Z ball bearing
2	Connecting rod
3	Connecting rod separator
4	Drag plate
5	Plate spacer
6	REF.6301-2Z ball bearing
7	Engine nut
8	Drag bracket separator
9	Power pulley
10	Tension spring

11	Spring
12	REF.6004-2Z ball bearing
13	Switch activator adjustment
14	Micro switch activator
15	Bolt plate
16	CLOSED DOOR POSITION
17	Washer
18	M10X40 DIN912 screw
19	M10 DIN985 nut
20	M12X45 DIN 912 screw
21	Adjustment bush
22	Switch support
23	Switch support
11397033000	MOTOR
CRPOVIN6454	6 ° X 454 mm Ring belt
83160006	Micro switch
ARGPF20	Electronic circuit without power supply
POLIC300	Polycarbonate panel

7 Enclosures

In this Chapter specific information regarding the Project can be added.