

Circlelock



The high security interlocking door

The Circlelock is a circular interlocking door system that prevents unauthorised entrance to your secured area. Several verification systems are available to detect piggybacking and reach the highest possible security level at your entrance. The booth can be customised for a stylish integration into your buildings architecture.

Two curved sliding doors

The Circlelock consists of two sliding doors, which will open one after the other, creating an interlocking security booth. The Circlelock is a bi-directional security door allowing entry and exit in turn.

High security entrances

Our Circlelock is to be found in areas where a high level of security has to be balanced with ease and speed of operation. With a Circlelock, surveillance by a third party, such as guards, is no longer necessary. You will often find our Circlelock in government buildings, banks, airports and corporate offices.

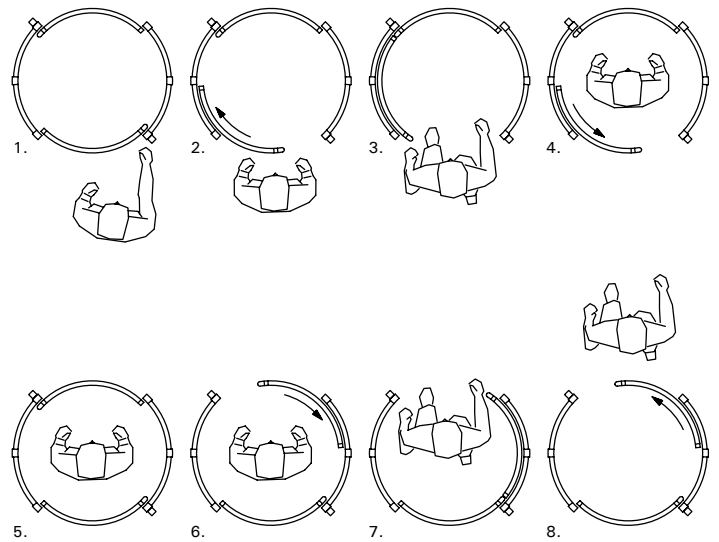
Your **Security.** Our **Solution.**

Working principle

Operation of the Circlelock is dependent on authorisation from an access control system or external control panel (the control panel overrules the autonomous operation of the Circlelock). In this way the Circlelock ensures that only authorised people can enter your secured area. The system is able to remember up to 3 authorisations on each side of the door to ensure smooth passage.

A passage cycle

1. In rest position, both the sliding doors are closed and locked.
2. One sliding door is activated, by a pulse from an external authorisation system such as a card reader or biometric system.
3. The LED display is green. The user can step into the door.
4. The first sliding door closes immediately after stepping in.
5. After the first sliding door is closed and locked, the security system inside the door, verifies the user is alone in the door.
6. The second door will open after successful verification.
7. The user can step out of the door.
8. The second door closes immediately after stepping out.



Working principle Circlelock

'StereoVision detects piggybacking'

Security systems

Several security systems are available with the Circlelock to verify the authorised user in the door. These security systems are linked to a built-in control unit, which determines whether the second door will open or not. The Circlelock will generate an audible and visible alarm in all possible alarm situations. Any attempted sabotage of the door will be detected. During night time the doors can be locked to close the entrance completely.

StereoVision

The single or bi-directional StereoVision sensor system detects piggybacking, in one or two directions. With sophisticated 3D vision technology an extremely high level of security is reached. A bi-focus camera system is integrated in the ceiling, reducing the need for floor adaptations. A special lighting system is mounted in the ceiling as standard.

Weight system

The weight system is a verification system that is installed 45-mm deep in the floor space. If the authorised user, plus any luggage, inside the door exceeds the pre-set weight, the user will be rejected. Hang sensors preventing anyone hanging on the doorframe or standing on the edges of the door, are included when using this verification system.

Two-zone contact mat and sensor system

The Circlelock with a diameter of 1 meter can be equipped with a two-zone contact mat with pressure sensors in the floor, in combination with infrared sensors in the ceiling. The two-zone contact mat and the ceiling sensors verify whether the user is alone in the door. Hang sensors are included when using this verification system.

One-zone contact mat

With a contact mat only, a low-security interlocking door is created. This system will activate an interlocking cycle and does not have an anti-piggybacking function.

Security systems for the Circlelock

Low security		High security	
<i>One-zone contact mat</i>	<i>Two-zone contact mat & sensors</i>	<i>Weight system</i>	<i>StereoVision</i>
Ø 1000 mm	Ø 1000 mm	Ø 1000 mm	Ø 1000 mm
Ø 1500 mm		Ø 1500 mm	Ø 1500 mm
In and/or outgoing	In and/or outgoing Hangsensor required	In and/or outgoing Hangsensor required	In and/or outgoing Minimum height under canopy and canopy height required.

Safety features

At Boon Edam, we put safety first. Safety takes a prominent part in our product development.

User safety

Active rubber safety buffers are mounted on the end stile of the sliding doors (SRT), to prevent users from getting trapped between the door and curved wall.

Emergency

The Circlelock is always equipped with an emergency button mounted inside the door. The emergency button is indicated with a red LED and will open the last active door.

The standard door is complete with a battery back up enabling the door to operate in the event of a power failure. As standard, the Circlelock is supplied with fail-safe operation. During a power failure the lock and motor of one or both sliding doors are disengaged, allowing manual opening. Alternatively, one of the door leaves can be supplied fail-secure to lock in the event of a power failure, allowing anyone inside the Circlelock to escape without compromising security.

Flexible design

The Circlelock has many options in design and surface finish and can be manufactured to match or complement a wide variety of interiors and facades.

Finishing

The frame and door wings can be finished in powder coated or anodised aluminium. The profiles of the door can be clad with stainless steel or other metals. A black rubber floor mat is provided as standard in a Circlelock with weight system or contact mat.

Construction

Due to its compact construction, the Circlelock is a very space efficient security door. The curved walls are available in either solid or glazed versions. Solid walls are constructed from aluminium sandwich panels. Glass walls provide a spacious and transparent feel and consist of slim line aluminium sections with laminated glass (class P2A). The sliding doors are constructed from aluminium profiles and laminated glass (class P2A). A mat well trim in the floor also functions as floor guides for the sliding doors. The canopy can have a high-pressure laminate, stainless steel or aluminium dustcover.

Options

- Adaptations for mounting of proximity or other card reader on the vertical end stile of the curved walls
- Aluminium or stainless steel pedestal for mounting of external card readers or other authorisation systems
- External control panel for integration in the reception desk
- A push button on the end stile on the secured side, to allow free exit
- Cleaning mode function, operated with a key switch panel on the secured side of the door
- Feedback signals to the authorisation system
- Connection to an external fire alarm system
- Vandalism (P4A), burglary (P6B) or bullet resistant (BR2NS / BR4NS) glass or solid panels in the door set or curved walls
- A steel construction of the floor, allowing mounting on a computer floor.
- Alternative junctions to the facade or wall



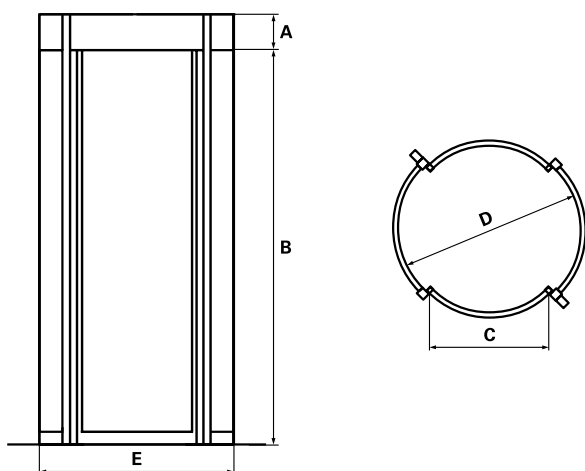
Standard dimensions and capacity

<i>D</i> Diameter (mm)	<i>A</i> Canopy height (mm) ¹	<i>B</i> Height Under Canopy (mm) ²	<i>C</i> Throat opening (mm)	<i>E</i> Installation width (mm)	Capacity # persons per minute ³	Escape route	Disabled access
1000	200	2200	680	1077	1 x 6	-	-
1500	200	2200	1030	1577	1 x 6		

¹ Optional canopy heights 200-600 going up by 100 mm

² Optional HUC's available 2100-2600 going up by 50 mm
Other heights are available on request.

³ Depending on authorisation system. In one direction at a time.



Technical specifications

Power supply	200-240 VAC, 50/60 Hz
Power consumption	250 W
Fuse	External power supply fused with 16 A slow
Compatibility	The Circlelock is compatible with a number of access control system by using potential-free contacts

High quality

At Boon Edam, we take quality seriously; the quality of the materials we use, the quality of our employees as well as the quality of our partners. As with all Boon Edam products, the Circlelock is manufactured to the highest standards, is CE approved and complies with the Machine Directive (98/37/EEC), the EMC Directive (89/336/EEC) and the Low Voltage Directive (93/68/EEC).



Biometric Circlelock



Security portal with biometric authentication

In response to market demands for increased security levels we developed the Circlelock with StereoVision to ensure single authorised person entry. Recent developments in biometric technology have produced a wide range of devices designed to authenticate individual users and now it is possible to incorporate this function within the Circlelock to ensure only the correct authorised user is permitted to pass.

Circlelock with StereoVision

Our Circlelock with StereoVision is a high security door, capable of ensuring only authorised users pass through an unmanned secure entry point. By combining interlocking door leaves with a sophisticated sensor system measuring shape, size and volume in 3-D, this compact high security portal blocks entry if more than one person attempts to gain entry on a single authorisation.

Why integrate biometric identification?

Combining biometric identity technology with a Circlelock StereoVision allows the system to positively authenticate a single user before they are allowed to complete their passage through the door. This prevents any possibility of an authorised user being forced into, or attempting to help an unauthorised person pass through the Circlelock.

Types of biometric technology

Our Circlelock offers the option to include special software to communicate with your biometric reader technology and a mounting column within the door to house any form of biometric device measuring up to 240mm x 120mm.

Typical biometric identification methods

- Fingerprint recognition
- Hand geometry recognition
- Palm vein recognition
- Iris recognition
- Voice recognition
- Face recognition

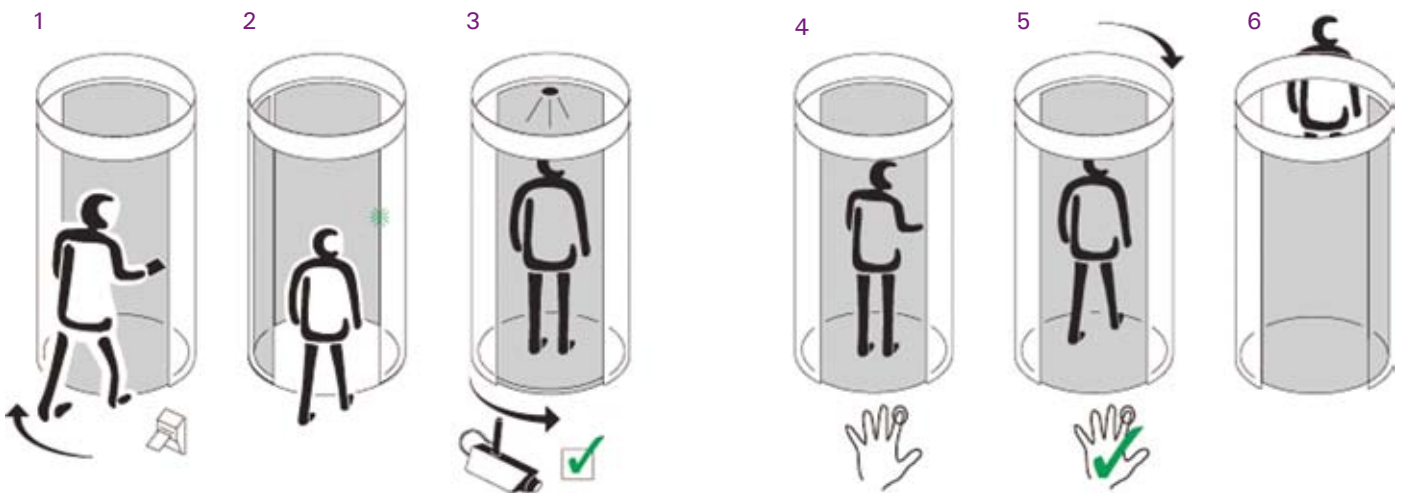
Advantages of biometrics

- Biometric identification as a means of security authorisation is completely individual and cannot be stolen, lost or forgotten.
- User characteristics relevant to the type of device being used are registered on a smartcard and these are used to positively authenticate the user.
- Biometric authentication guarantees security at unmanned entrances.

'Passage is only granted upon successful authorisation, verification and authentication'

Working Principle

- 1 Once a user is authorised by an external card reader the first door slides open and the user enters the Circlelock.
- 2 The authorised user enters the door and the first door wing re-closes.
- 3 The StereoVision system checks only one person is present.
- 4 The biometric device activates once the StereoVision system has verified only one user is present.
- 5 Passage is only granted upon successful authentication of the user.
- 6 The user passes through and the Circlelock is ready for further use.



More Information

Please see our website for more detailed information about the Circlelock and other products in our Security Access range.

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