

## Product Sheet

### Full - O - Stile 90 Manual security Turnstile

Full - O - Stile 90 is available in two configurations: single (FOS 90S); double (FOS 90D).

#### Technical Specification

<b>Unit Dimensions:</b>	Outside Dimensions:	
	FOS 90S	1480 x 1480mm
	FOS 90D	2200 x 1480mm
	Ceiling Height	1980mm
	Cornice Depth	280mm
	Overall Height of Unit	2270mm
<b>Rotor Elements:</b>	4N <sup>0</sup> rotor wings (90°)	
<b>Drive:</b>	Hand operated	
<b>Orientation:</b>	Pass Left or Pass right	
<b>Materials:</b>	Casework:	304 Grade grained stainless steel with infill panels with made of transparent 5+5 security glass.
	Rotor Wings:	304 Grade grained stainless steel.
	Rotor Spindle:	Tubular 304 Grade grained stainless steel.

**Function:** Passage in both directions, electronically controllable.

**Mechanism:** Control of the FOS 90 operation is achieved by an electro-mechanical head mechanism located in the roof drum of the FOS 90. It is silent in rotation and comprises the following standard features:

- A positive action lock which prevents two passages at one time
- A Self centering mechanism to ensure complete rotation of the head to the rest position.
- An anti backup device prevents reverse rotation once the head has moved 30° from its rest position.
- A hydraulic damper to ensure smooth and quiet operation

**Operating Modes:** The mechanism can be configured to operate in two standard modes.

- Normally Closed – The mechanism is locked until a valid authorisation signal is received.
- Normally Open – The mechanism is permanently unlocked and will only lock if passage is attempted without a valid authorised signal. In this mode the MTBF is increased from 1.5 to 2.5 million cycles and increases passage throughput speeds.

**Power Failure:** In the event of an emergency or isolation of power supply, unit may be configured to fail-safe i.e. rotor freely rotates or fail-lock i.e. rotor locks. Either option is available in both or one direction. Choice must be denoted at time of order placement.

Note - Head mechanism fail state will be the same as power failure choice.

**Interface:** The mechanism is controlled by means of a LCM02 microprocessor control logic with the following features :

- One input for opening/locking the mechanism in each direction.
- Two protected outputs for control of the opening/locking solenoids.
- Four protected outputs for piloting way mode indicators.
- Two 0V output relays indicating availability of use in either direction.
- Two 0V outputs to count passage in either direction.

Unit has an adjustable time out facility if required i.e. Go signal will be cancelled if passage through turnstile is not completed within pre-set time. The standard default is 8 seconds adjustable via parameter change.

Additional detailed information is available upon request.



#### Product Description

The FOS 90 was engineered for perimeter and indoor applications requiring a high-performance security turnstile with an elegant design.

#### Users include

- Government
- Retail
- Finance
- Telecommunications
- Information Technology
- Banking
- Publishing
- Leisure
- Petrochemical
- Pharmaceutical
- Education

### FULL-HEIGHT TURNSTILES



<b>Servicing:</b>	From top of the roof
<b>Power Supply:</b>	115/230 Volts AC 50/60 Hz
<b>Power Rating:</b>	FOS 90S 50VA (without lights optional) FOS 90D 100VA (without lights optional)
<b>Logic Voltage:</b>	24 Volt DC
<b>Installation Details:</b>	Full - O - Stile 90 models are delivered as one piece, which may require lifting gear for off loading. Approx. weight (depending on spec.) : FOS 90S 470 kg. FOS 90D 660 kg.

## Models Available

### Full – O – Stile 90

## Accessories and Optional Extras

### Alternative Materials, Finishes and Custom Design

- Refer to Gunnebo Italdis S.p.A. for specific material design requirements.
- Entry/ Exit roof.
- Halogen internal lights.

### Cardreader Mounting (Please refer to Gunnebo Italdis S.p.A. for feasibility)

- Integration of customer supplied readers onto the FOS casework uprights.
- Cardreader Pedestals.

### Traffic Lights

- LED Red Cross and Green Arrow displays

### Push Button Control

- MP20 remote control (COM R1 board required).
- Remote console to specific requirements.
- Casework mounted push button.

### Additional Interface

- RS 485 Serial Interface

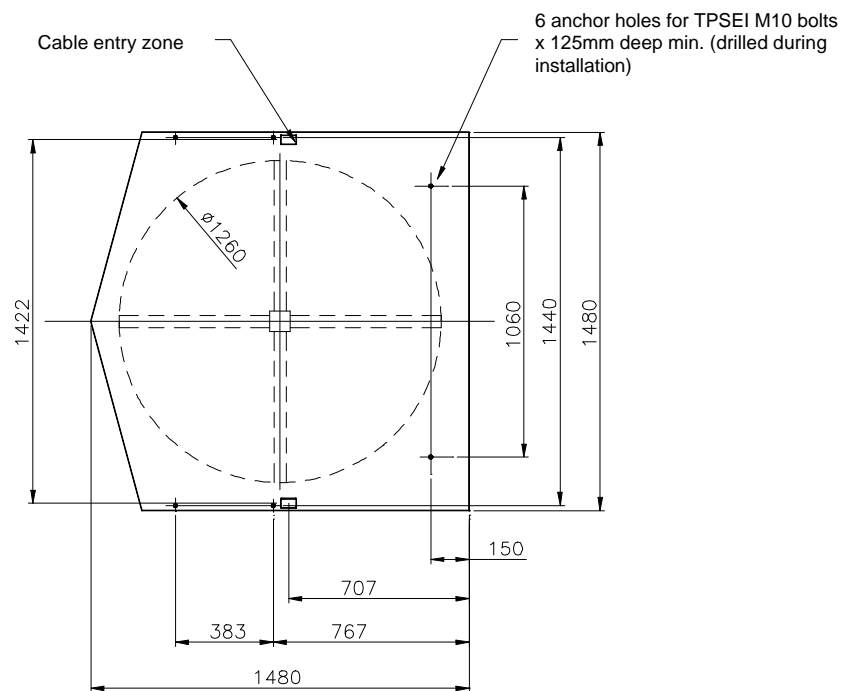
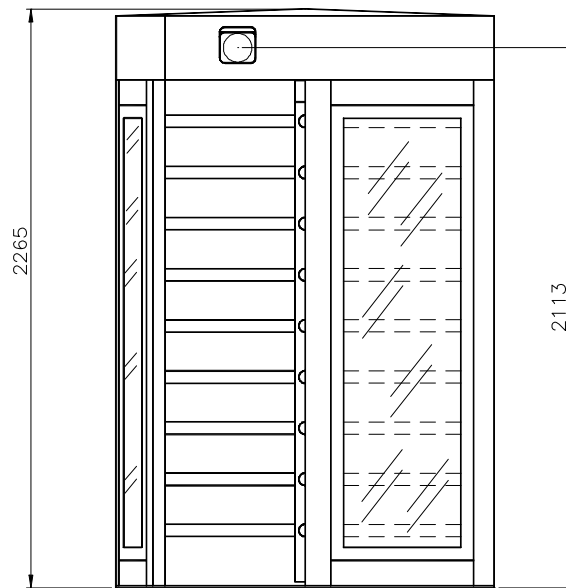
### Counting

- LCD Counter
- Electro-mechanical Counter

## Installation Examples



### FOS 90S Site Preparation.



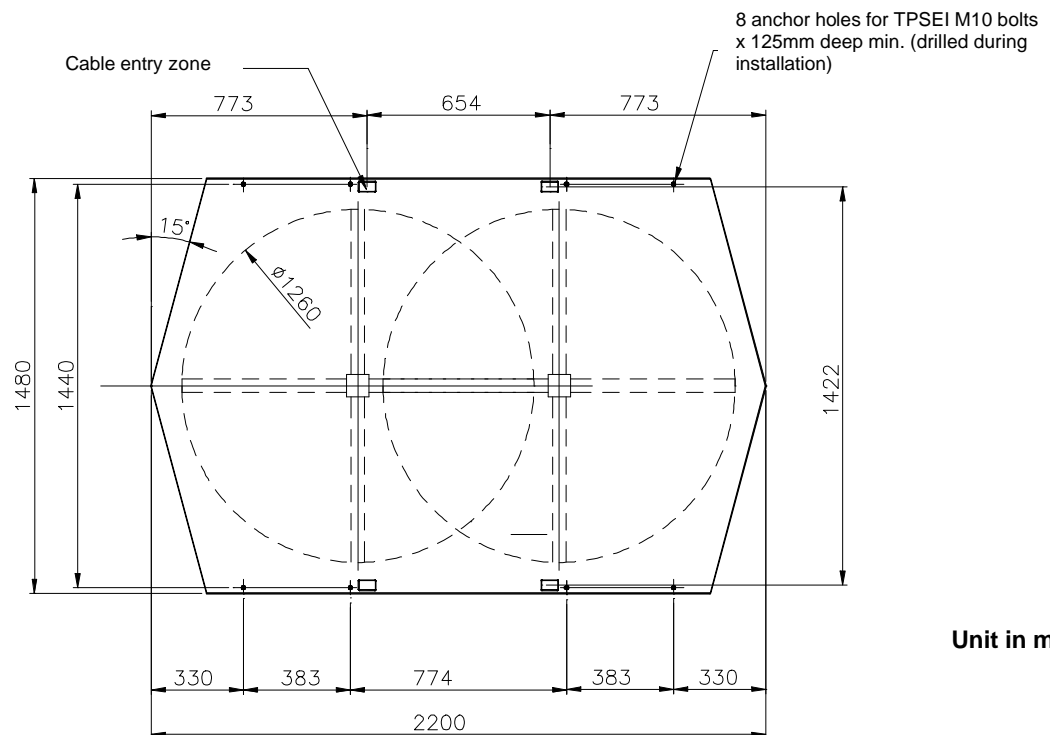
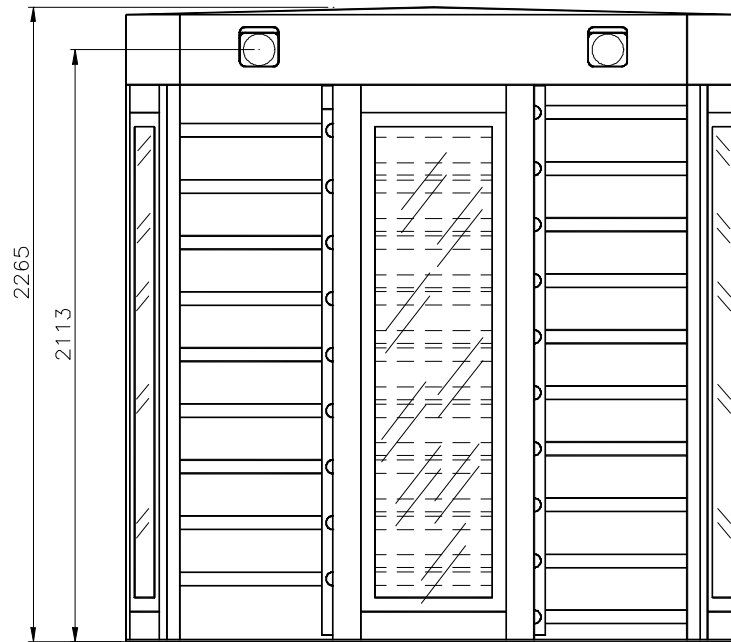
Concrete to UNI 9858, RCK250 type.  
Base to be flat and level to +/- 5mm over the FOS footprint area.

Cables metal conduit,  
shall come up at least  
50mm from foundation

**IMPORTANT**

- Any horizontal pipe or conduit runs below the FOS 90 must be at least 140mm below.
- The dimension reported on this Product Data Sheet are for information only. In order to prepare the Installation Site, please refer to the lay-out drawings prepared by Gunnebo Italdis SpA or ask confirmation.

## FOS 90D Site Preparation.



Unit in mm

Concrete to UNI 9858, RCK250 type.  
Base to be flat and level to +/- 5mm over the FOS footprint area.

Cables metal conduit,  
shall come up at least  
50mm from foundation

### IMPORTANT

- Any horizontal pipe or conduit runs below the FOS 90 must be at least 140mm below.
- The dimension reported on this Product Data Sheet are for information only. In order to prepare the Installation Site, please refer to the lay-out drawings prepared by Gunnebo Italdis SpA or ask confirmation.

## Flow Rates

Reader Device	Number per minute
Insertion type	12
Insertion type with PIN code keypad	7.5
Swipe type	15
Swipe type with PIN code keypad	8.5
Proximity 'Hands Free'	17

- Please note the figures are approximate and must be confirmed with Gunnebo Italdis S.p.A. Figures quoted are for one person per complete passage per walkway and per minute. It is assumed the access control authorisation response is instantaneous. Flow rates will increase with multiple passage use.



**ITALY**

Gunnebo Entrance Control SpA, Via A Volta 15 - IT 38015, Lavis (TN)  
Tel +39 0461 248 900 Fax +39 0461 248 999

Gunnebo Entrance Control SpA, Via Torri Bianche, 9 – IT 20059, Vimercate, (MI)  
Tel +39 039 685 95 11 Fax +39 039 685 95 24

*Note: In pursuit of its policy of continuous refinement and improvement, Gunnebo Italdis S.p.A. reserves the right to modify design and details.*

## A COMPANY WITHIN THE GUNNEBO GROUP.....

**HEAD OFFICE SWEDEN – Gunnebo Entrance Control AB, SE-590 93, Gunnebo.**  
Tel +46 (0) 490 89000, Fax +46 (0) 490 23889

**DENMARK** Gunnebo Protection A/S  
Division Entrance Control  
Erhvervsparken 3, DK-4621 Gadstrup  
Tel +45 46 19 14 66  
Fax +45 46 19 14 55

**FRANCE** Gunnebo Entrance Control SARL  
Zone d'Activites Le Mandinet,  
20 Rue des Campanules  
F-77185, Lognes  
Tel +33 (0) 1 64 80 14 40  
Fax +33 (0) 1 64 80 14 39

**GERMANY** Gunnebo Entrance Control GmbH  
Diagonalstrasse 41, D-20537  
Hamburg  
Tel +49 (0) 40 47 11 30 0  
Fax +49 (0) 40 47 11 30 79

**HONG KONG** Gunnebo Entrance Control  
Room 2312, C.C. Wu Building,  
302-308 Hennessy Road, Wanchai.  
Tel +852 2882 8337  
Fax +852 2523 7880

**ITALY** Gunnebo Entrance Control SpA  
Via A Volta 15 - IT 38015  
Lavis (TN)  
Tel +39 0461 248 900  
Fax +39 0461 248 999

**NORWAY** Gunnebo Troax A/S  
Division Entrance Control  
Postboks 179, Kalbakken N-0903, Oslo  
Tel. +47 22 80 42 00  
Fax +47 22 80 42 01

**SPAIN** Gunnebo Entrance Control  
BBC, Comte d'Urgel 143, lola 08036,  
Barcelona  
Tel +34 93 452 59 56  
Fax +34 93 451 56 53

**SWEDEN** Gunnebo Entrance Control  
Box 500, Kumla Gardsvag 33F, 145 63  
Norsborg  
Tel +46 (0)8 53 17 15 75  
Fax +46 (0) 8 53 18 85 39

**UNITED KINGDOM** Gunnebo Mayor Ltd  
Bellbrook Business Park, Uckfield,  
East Sussex, TN22 1QQ  
Tel +44 (0) 1825 761022  
Fax +44 (0) 1825 763835

**USA** Gunnebo Omega Inc  
535 Getty Court, Suite F  
Benicia, CA 94510  
Tel +01 707 745 0885  
Fax +01 707 745 60201