



LET'S MAKE LIFE SAFER!



PRODUCT CATALOGUE



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Product specifications and complete sets may differ from that shown on the photo. Drawings in catalog are placed for reference. Dimensions may vary depending on configuration.

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Drop-arm



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Bi-directional



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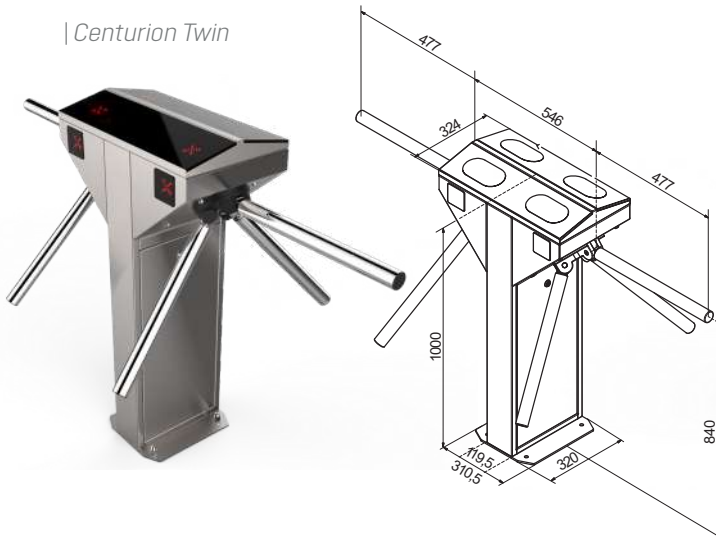
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TURNSTILES

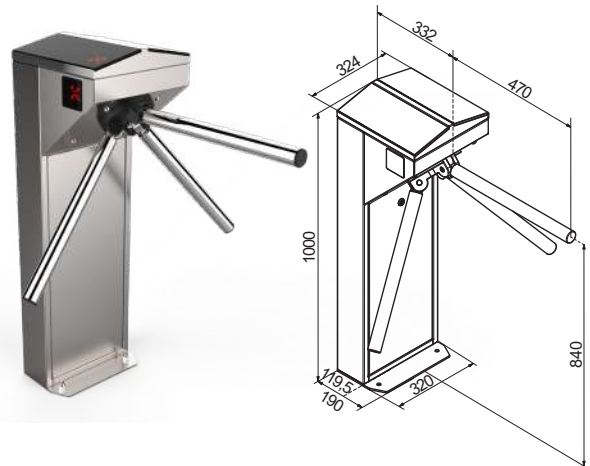


Centurion

| Centurion Twin



| Centurion



Centurion turnstile access control solution featured with the most space-saving dimensions in combination to affordable price level.

Advantages:

- Bi-direconal motorized tripod turnstile with panic / bar drop function
- High quality at a cost effective price
- Integration with any type of access control and ID systems
- Low power consumption
- Panic / bar drop function with automac reset
- Whisper quiet, low noise operation
- Optional indoor or outdoor housing types
- Wide range of accessories
- Availability of a back up batery connection
- Any additional devices could be integrated (e.g. passage counter, RFID/Proximity/BioMetric readers, coin acceptor, push buon, barcode and QR-code reader)

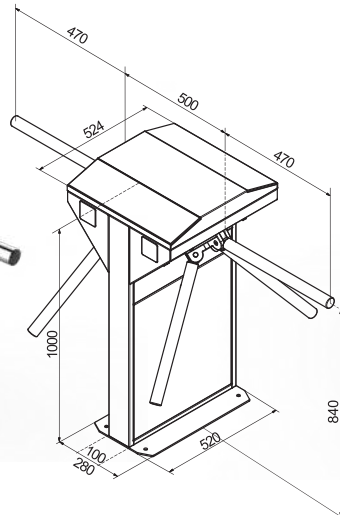
Product specifications:

	Centurion	Centurion Twin	Centurion-M	Centurion-M Twin
Unit dimensions (H×L×W), mm	1000×745×802	1000×745×1490	1000×793×847	1000×793×1580
Crossing capacity in free access mode, person/min	60	120	60	120
Crossing capacity in single access mode, person/min	25	50	25	50
Passage width, mm	550	550 (each pass)	600	600 (each pass)
Mechanism	Motorized		Motorized (Triservo-M)	
Blocking mechanism	Single electromagnetic brake (generallocking system)		Two electromechanical stop catches (separate locking system)	
Emergency mode (when power goes off)	Free rotation in both direction when power goes off		Arm drops when power goes off	
Drop arm function	Drop arm function can be activated when power is available only (or within using super capacitor module)		Drop arm function can be activated when power is on Drop arm function activates automatically when power goes off	
Fail safe	+ (free rotation)		+ (drop arm)	
Standard housing	Brushed SS AISI 304			
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)			
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V			
Maximum power consumption	55 W			
Enclosure rating*	IP 41 – 54			
MCBF, cycles	1 500 000			

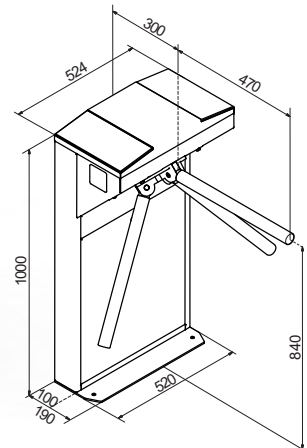


Bastion

| Bastion Twin



| Bastion



Bastion is one leg base tripod turnstile gate. Enlarged housing allows getting extra strength and robust benefits which are enough to keep pedestrian traffics of high intensity.

Advantages:

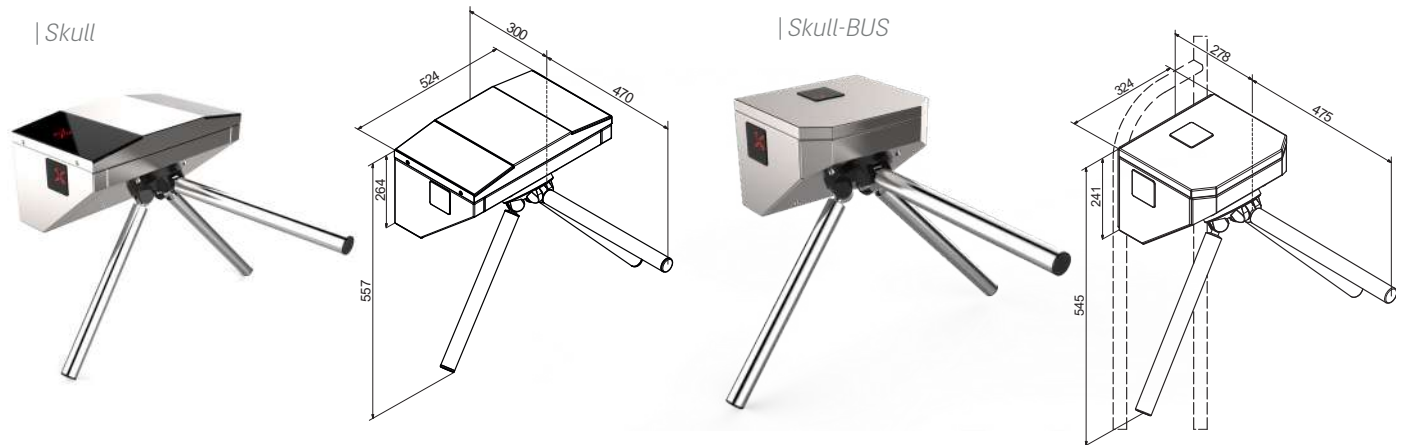
- Bi-direconal motorized tripod turnstile with panic / bar drop function
- High quality at a cost effective price
- Integration with any type of access control and ID systems
- Low power consumption
- Panic / bar drop function with automac reset
- Whisper quiet, low noise operation
- Optional indoor or outdoor housing types
- Wide range of accessories
- Availability of a back up battery connection
- Any additional devices could be integrated (e.g. passage counter, RFID/Proximity/BioMetric readers, coin acceptor, push buon, barcode and QR-code reader)

Product specifications:

	Bastion	Bastion Twin	Bastion-M	Bastion-M Twin
Unit dimensions (H×L×W), mm	1000×745×770	1000×745×1440	1000×793×815	1000×793×1530
Crossing capacity in free access mode, person/min	60	120	60	120
Crossing capacity in single access mode, person/min	25	50	25	50
Passage width, mm	550	550 (each pass)	600	600 (each pass)
Mechanism	Motorized		Motorized (Triservo-M)	
Blocking mechanism	Single electromagnetic brake (general locking system)		Two electromechanical stop catches (separate locking system)	
Emergency mode (when power goes off)	Free rotation in both direction when power goes off		Arm drops when power goes off	
Drop arm function	Drop arm function can be activated when power is available only (or within using super capacitor module)		Drop arm function can be activated when power is on Drop arm function activates automatically when power goes off	
Fail safe	+ (free rotation)		+ (drop arm)	
Standard housing	Brushed SS AISI 304			
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)			
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V			
Maximum power consumption	55 W			
Enclosure rating*	IP 41 – 54			
MCBF, cycles	1 500 000			



Skull



Skull is a gate barrier with a special wall mounting design. Special fastening principle gives the option of fitting to up standing surfaces. Widely used as public transport turnstile entry.

Advantages:

- Bi-direconal motorized tripod turnstile with panic / bar drop function
- High quality at a cost effective price
- Integration with any type of access control and ID systems
- Low power consumption
- Panic / bar drop function with automac reset
- Whisper quiet, low noise operation
- Optional indoor or outdoor housing types
- Wide range of accessories
- Availability of a back up battery connection
- Any additional devices could be integrated (e.g. passage counter, RFID/Proximity/BioMetric readers, coin acceptor, push buon, barcode and QR-code reader)

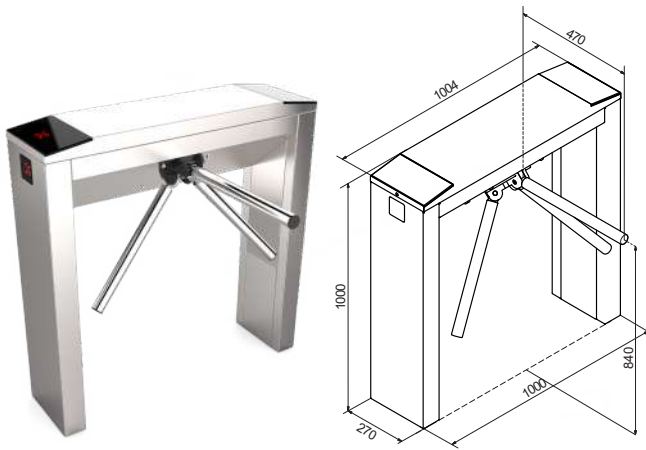
Product specifications:

	Skull	Skull -M	Skull-BUS
Unit dimensions (H×L×W), mm	557×745×770	616×793×833	545×745×758
Crossing capacity in free access mode, person/min	60		
Crossing capacity in single access mode, person/min	25		
Passage width, mm	550	600	550
Mechanism	Motorized	Motorized (Triservo-M)	Motorized
Blocking mechanism	Single electromagnetic brake (general locking system)	Two electromechanical stop catches (separate locking system)	Single electromagnetic brake (general locking system)
Emergency mode (when power goes off)	Free rotation in both direction when power goes off	Arm drops when power goes off	Free rotation in both direction when power goes off
Drop arm function	Drop arm function can be activated when power is available only (or within using super capacitor module)	Drop arm function can be activated when power is on Drop arm function activates automatically when power goes off	Drop arm function can be activated when power is available only (or within using super capacitor module)
Fail safe	+ (free rotation)	+ (drop arm)	+ (free rotation)
Standard housing	Brushed SS AISI 304		
Available housing	Brushed SS AISI 316; Polished SS AISI 304; Polished SS AISI 316; Powder coated (any RAL up on request)		
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V		
Maximum power consumption	55 W		
Enclosure rating*	IP 41 – 54		
MCBF, cycles	1 500 000		

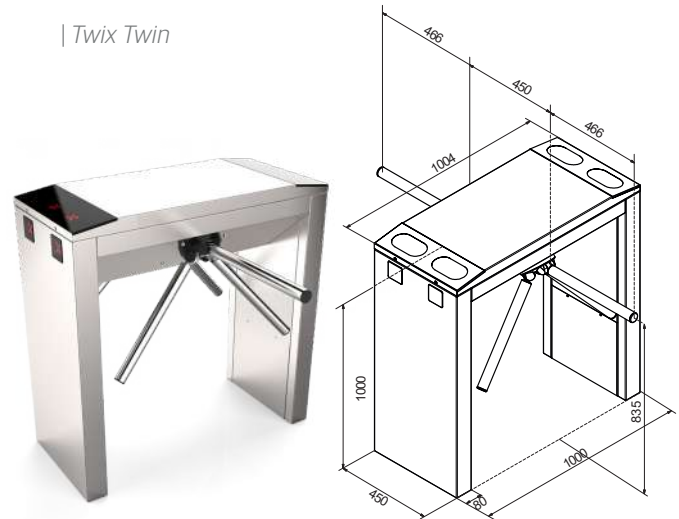


Twix

| Twix



| Twix Twin



Twix is a two legs based modification of tripod access system. Extra rigidity and additional space for ID solutions integration are the main characteristics which make this type different from one leg turnstile entry systems.

Advantages:

- Bi-direconal motorized tripod turnstile with panic / bar drop function
- High quality at a cost effective price
- Integration with any type of access control and ID systems
- Low power consumption
- Panic / bar drop function with automac reset
- Whisper quiet, low noise operation
- Optional indoor or outdoor housing types
- Wide range of accessories
- Availability of a back up batery connection
- Any additional devices could be integrated (e.g. passage counter, RFID/Proximity/BioMetric readers, coin acceptor, push buon, barcode and QR-code reader)

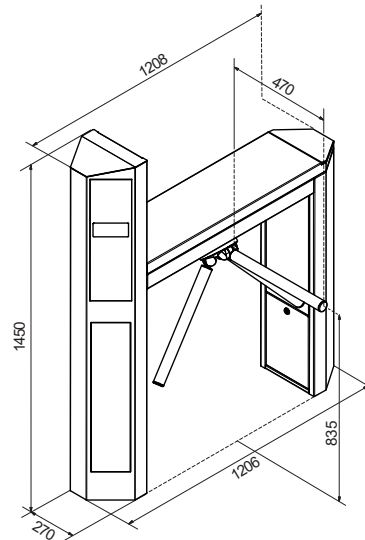
Product specifications:

	Twix	Twix Twin	Twix-M	Twix-M Twin
Unit dimensions (H×L×W), mm	1000×1000×740	1000×1000×1382	1000×1000×785	1000×1000×1520
Crossing capacity in free access mode, person/min	60	120	60	120
Crossing capacity in single access mode, person/min	25	50	25	50
Passage width, mm	550	550 (each pass)	600	600 (each pass)
Mechanism	Motorized		Motorized (Triservo-M)	
Blocking mechanism	Single electromagnetic brake (general locking system)		Two electromechanical stop catches (separate locking system)	
Emergency mode (when power goes off)	Free rotation in both direction when power goes off		Arm drops when power goes off	
Drop arm function	Drop arm function can be activated when power is available only (or within using super capacitor module)		Drop arm function can be activated when power is on Drop arm function activates automatically when power goes off	
Fail safe	+ (free rotation)		+ (drop arm)	
Standard housing	Brushed SS AISI 304			
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)			
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V			
Maximum power consumption	55 W			
Enclosure rating*	IP 41 – 54			
MCBF, cycles	1 500 000			



Twix All-in-one

| Twix All-in-one



Twix All-in-One is a two legs based turnstile door. The main idea devoted to availability of additional metal case within standard housing. It meets the demand of projects which require turnstiles to be integrated with coin acceptors, ticket printers and other large-sized types of validation equipment.

Advantages:

- Bi-direconal motorized tripod turnstile with panic / bar drop function
- High quality at a cost effective price
- Integration with any type of access control and ID systems
- Low power consumption
- Panic / bar drop function with automac reset
- Whisper quiet, low noise operation
- Optional indoor or outdoor housing types
- Wide range of accessories
- Availability of a back up battery connection
- Any additional devices could be integrated (e.g. passage counter, RFID/Proximity/BioMetric readers, coin acceptor, push buon, barcode and QR-code reader)

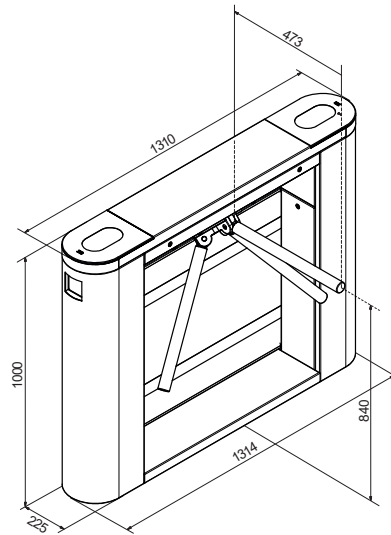
Product specifications:

	Twix All-in-one	Twix All-in-one -M
Unit dimensions (HxLxW), mm	1450×1208×740	1450×1208×786
Crossing capacity in free access mode, person/min	60	60
Crossing capacity in single access mode, person/min	25	25
Passage width, mm	550	600
Mechanism	Motorized	Motorized (Triservo-M)
Blocking mechanism	Single electromagnetic brake (general locking system)	Two electromechanical stop catches (separate locking system)
Emergency mode (when power goes off)	Free rotation in both direction when power goes off	Arm drops when power goes off
Drop arm function	Drop arm function can be activated when power is available only (or within using super capacitor module)	Drop arm function can be activated when power is on Drop arm function activates automatically when power goes off
Fail safe	+ (free rotation)	+ (drop arm)
Standard housing	Brushed SS AISI 304	
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)	
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V	
Maximum power consumption	55 W 115 W (with a block for advertising)	
Enclosure rating*	IP 41 – 54	
MCBF, cycles	1 500 000	



Galaxy

| Galaxy



Galaxy is a turnstile access solution that intends to combine advantages of regular motorized tripod with the requirement of elegant appearance. LED lighted glass panel and special design benefits you with sophisticated look on affordable price.

Advantages:

- Bi-direconal motorized tripod turnstile with panic / bar drop function
- High quality at a cost effective price
- Integration with any type of access control and ID systems
- Low power consumption
- Panic / bar drop function with automac reset
- Whisper quiet, low noise operation
- Optional indoor or outdoor housing types
- Wide range of accessories
- Availability of a back up batery connection
- Any additional devices could be integrated (e.g. passage counter, RFID/Proximity/BioMetric readers, coin acceptor, push buon, barcode and QR-code reader)

Product specifications:

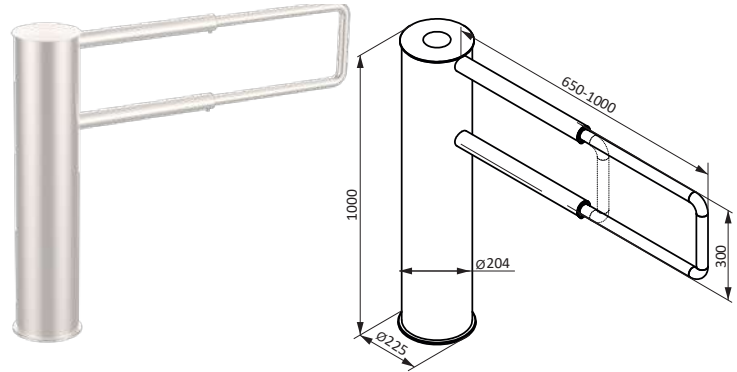
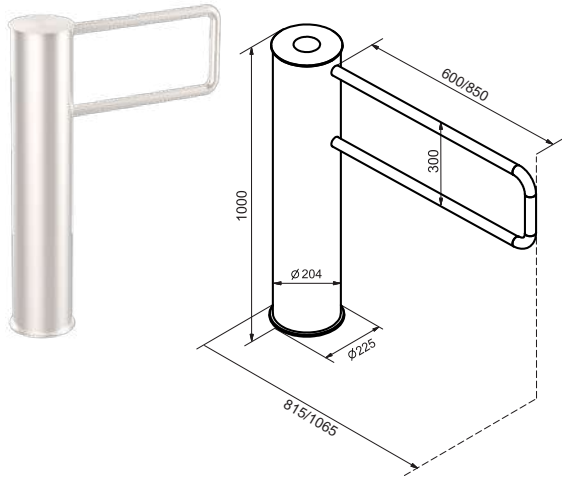
	Galaxy	Galaxy -M
Unit dimensions (HxLxW), mm	1000×1315×680	1000×1314×745
Crossing capacity in free access mode, person/min	60	60
Crossing capacity in single access mode, person/min	20	20
Passage width, mm	600	600
Mechanism	Motorized	Motorized (Triservo-M)
Blocking mechanism	Single electromagnetic brake (general locking system)	Two electromechanical stop catches (separate locking system)
Emergency mode (when power goes off)	Free rotation in both direction when power goes off	Arm drops when power goes off
Drop arm function	Drop arm function can be activated when power is available only (or within using super capacitor module)	Drop arm function can be activated when power is on Drop arm function activates automatically when power goes off
Fail safe	+ (free rotation)	+ (drop arm)
Standard housing	Brushed SS AISI 304	
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)	
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V	
Maximum power consumption	55	
Enclosure rating*	IP 41 - 54	
MCBF, cycles	1 500 000	



Gate-TS, TTS, SPR

| Gate-TS

| Gate-TTS



Advantages for motorized gates:

- Motorized;
- Bi-directional;
- High quality at a cost effective price;
- Integration with any type of access control and ID systems;
- Low power consumption;
- Whisper quiet, low noise operation;
- Possibility of a barrier gate customization;
- Wide range of accessories;
- Complete supply set as a standard;
- Fial safe.

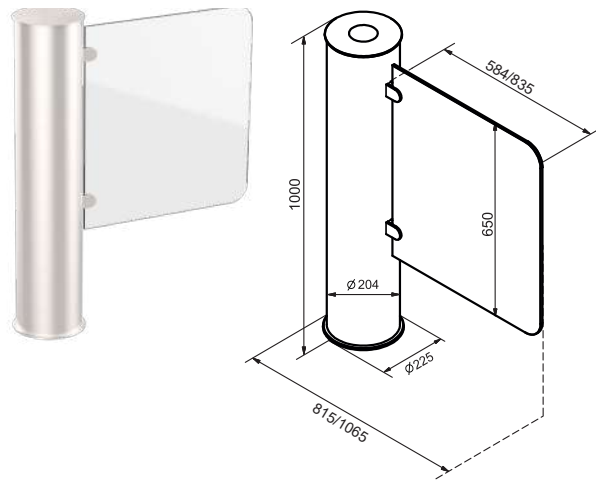
Product specifications:

	Gate-TS	Gate-TTS	Gate-SPR
Unit dimensions (H×L×W), mm	1000×225×815-1065	1000×225×865-1215	1000×225×865-1215
Crossing capacity in free access mode, person/min	60		
Passage width, mm	650/900	650-1000	650-1000
Mechanism	Motorized		Mechanical
Operation mode	CW (100 °) and CCW (100 °)		CW (100 °) or CCW (100 °)
Blocking mechanism	Single electromagnetic brake		Can be locked manually by key
Emergency mode	Gate is open		Can be unlocked manually by key
Power fail	Fail safe – free rotation (standard) Automatically open - super capacitor (option)		—
Standard housing	Brushed SS AISI 304		
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated RAL		
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V		—
Maximum power consumption	55 W		—
Enclosure rating*	IP41-54		—
MCBF, cycles	1 500 000		

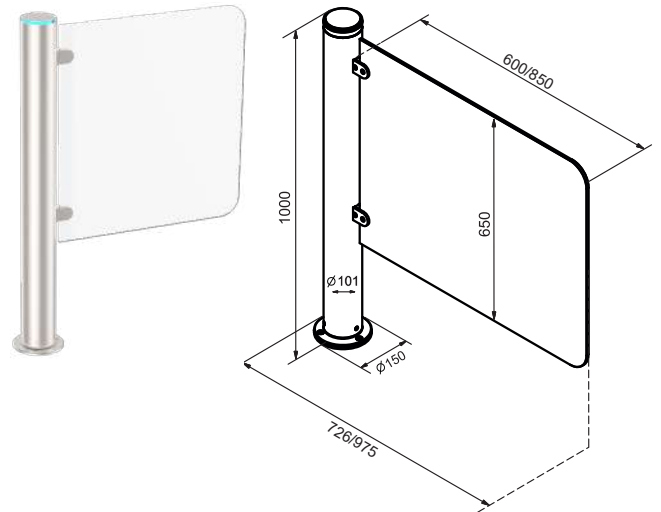


Gate-GS, GSH, GS Slim

| Gate-GS



| Gate-GS Slim



Advantages:

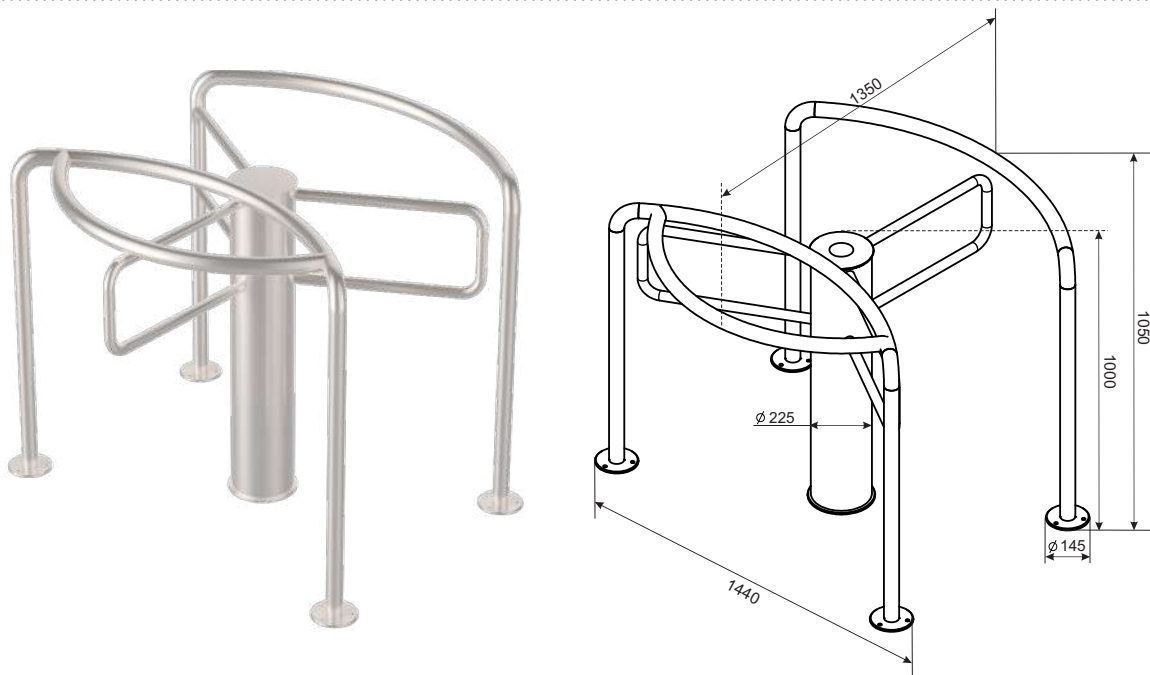
- Motorized;
- Bi-directional;
- High quality at a cost effective price;
- Integration with any type of access control and ID systems;
- Low power consumption;
- Whisper quiet, low noise operation;
- Possibility of a barrier gate customization;
- Wide range of accessories;
- Complete supply set as a standard;
- Fial safe.

Product specifications:

	Gate-GS	Gate-GSH	Gate-GS Slim
Unit dimensions (H×L×W), mm	1000×225×815/1065	1540×225×815/1065	1000×150×746/996
Crossing capacity in free access mode, person/min	60		
Passage width, mm	650/900		
Mechanism	Motorized		
Operation mode	CW (100 °) and CCW (100 °)		
Blocking mechanism	Single electromagnetic brake		
Emergency mode	Gate is open		
Power fail	Fail safe – free rotation (standard) Automatically open - super capacitor (option)		
Standard housing	Brushed SS AISI 304		
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated RAL		
Voltage	from the AC (100–240) V, 50/60 Hz from a DC source 12 V		
Maximum power consumption	55 W		
Enclosure rating*	IP41-54		
MCBF, cycles	1 500 000		



Star-TS



Star-TS is a half height product with metal type of wings. Elegant design make it suitable for installation at entrances with the requirements of sophisticated product appearance. The range of modifications includes three and four wing types as well as different type of metal finishing. Indoor application by default.

Advantages:

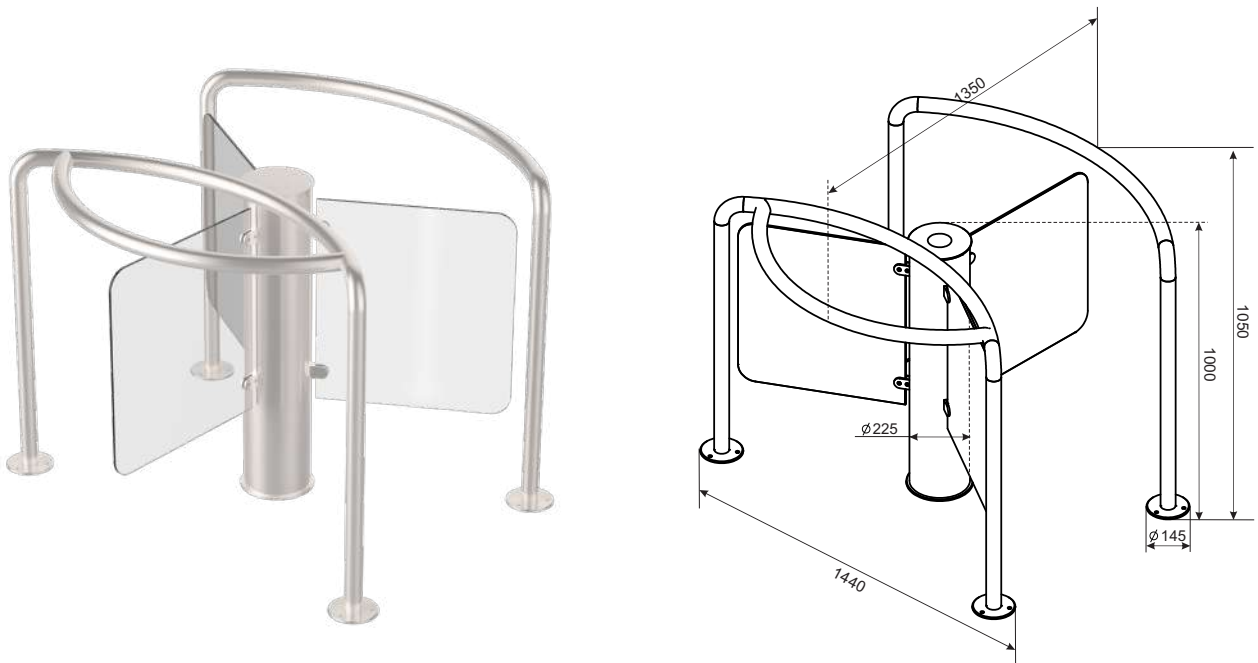
- Bi-directional motorized tripod turnstile with panic / bar drop function
- High quality at a cost effective price
- Integration with any type of access control and ID systems
- Low power consumption
- Panic / bar drop function with automatic reset
- Whisper quiet, low noise operation
- Optional indoor or outdoor housing types
- Wide range of accessories
- Availability of a back up battery connection
- Any additional devices could be integrated (e.g. passage counter, RFID/Proximity/BioMetric readers, coin acceptor, push button, barcode and QR-code reader)

Product specifications:

	Star-TS
Unit dimensions (H×L×W), mm	1050×1440×1350
Crossing capacity in free access mode, person/min	60
Crossing capacity in single access mode, person/min	20
Passage width, mm	560
Mechanism	Motorized
Blocking mechanism	Single electromagnetic brake (general locking system)
Emergency mode	Free pass in both direction
Fail safe	Fail safe (free rotation)
Standard housing	Brushed SS AISI 304
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V
Maximum power consumption	55
Enclosure rating*	IP41-54
MCBF, cycles	1 500 000



Star-GS



Star-GS is a type of security turnstiles with glass type of wings. Elegant desing make it suitable for installation at entrances with the requirements of sophisticated product appearance. The range of modifications includes three and four wing types as well as different type of metal finishing. Indoor application by default.

Advantages:

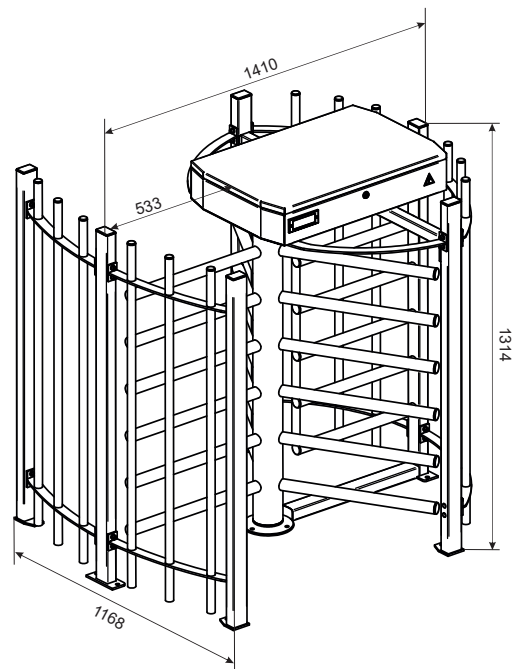
- Bi-direconal motorized tripod turnstile with panic / bar drop function
- High quality at a cost effective price
- Integration with any type of access control and ID systems
- Low power consumption
- Panic / bar drop function with automac reset
- Whisper quiet, low noise operation
- Optional indoor or outdoor housing types
- Wide range of accessories
- Availability of a back up batery connection
- Any additional devices could be integrated (e.g. passage counter, RFID/Proximity/BioMetric readers, coin acceptor, push buon, barcode and QR-code reader)

Product specifications:

	Star-GS
Unit dimensions (H×L×W), mm	1050×1440×1350
Crossing capacity in free access mode, person/min	60
Crossing capacity in single access mode, person/min	20
Passage width, mm	560
Mechanism	Motorized
Blocking mechanism	Single electromagnetic brake (general locking system)
Emergency mode	Free pass in both direction
Fail safe	Fail safe (free rotation)
Standard housing	Brushed SS AISI 304
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V
Maximum power consumption	55
Enclosure rating*	IP41-54
MCBF, cycles	1 500 000



Cyclone-L



Cyclone-L is a type of outdoor half height turnstile with metal wings. Wings' design may be straight as well as Ushaped. By default it has electromechanical drive. The range of modifications includes three and four wing types as well as different type of metal finishing.

Advantages:

- Motorized;
- Bi-directional;
- High quality at a cost effective price;
- Integration with any type of access control and ID systems;
- Low power consumption;
- Whisper quiet, low noise operation;
- Possibility of a barrier gate customization;
- Wide range of accessories;
- Complete supply set as a standard;
- Fail safe.

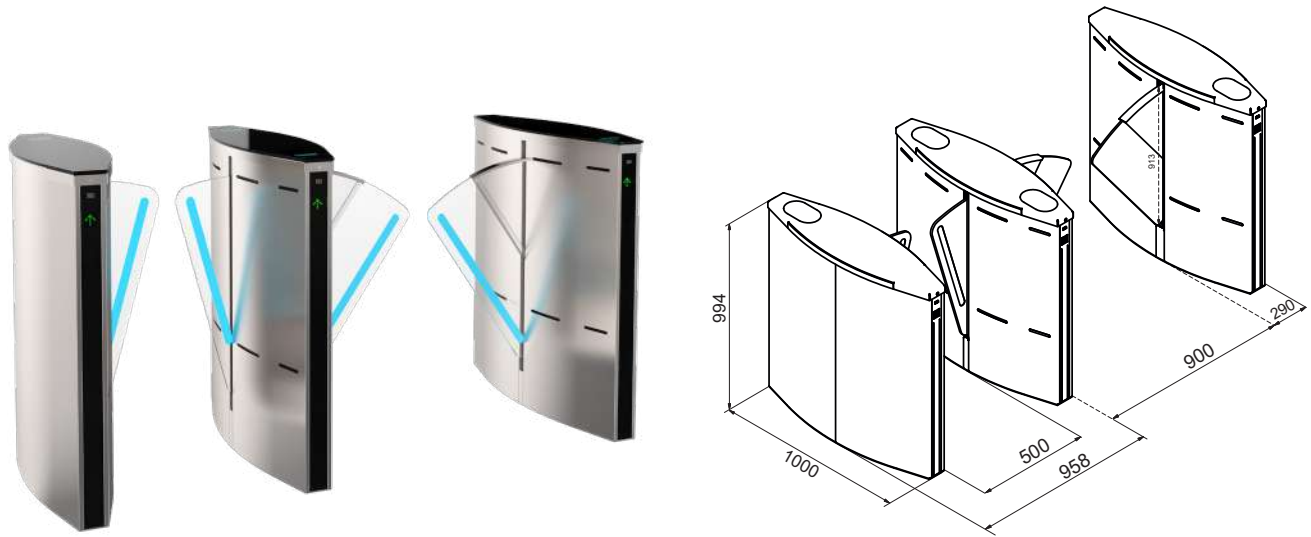
Product specifications:

	Cyclone-L
Unit dimensions (H×L×W), mm	1310×1220×1410
Crossing capacity in free access mode, person/min	60
Crossing capacity in single access mode, person/min	20
Passage width, mm	530
Mechanism	Motorized
Rotor types	Y-type – 120° X-type – 90°
Blocking mechanism	Two electromechanical stop catches (separate locking system)
Emergency mode	Free pass in both direction
Fail safe	Fail safe (free rotation)
Standard housing	Brushed SS AISI 304
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V
Maximum power consumption	55
Enclosure rating*	IP41 (For indoor in installation) IP51 (For outdoor installation)
MCBF, cycles	1 500 000



Speedblade

| Speedblade + Speedblade 900



Speedblade is a type of motorized turnstile featured with sliding flaps operation principle. Housing materials and light weight cabinets' shape make Speedblade turnstile universal for large variety of facilities with heightened requirements to esthetic equipment appearance. As well as other turnstiles of freeway series

Advantages:

- Bi-direconal motorized tripod turnstile with panic / bar drop function
- High quality at a cost effective price
- Integration with any type of access control and ID systems
- Low power consumption
- Panic / bar drop function with automac reset
- Whisper quiet, low noise operation
- Optional indoor or outdoor housing types
- Wide range of accessories
- Availability of a back up batery connection
- Any additional devices could be integrated (e.g. passage counter, RFID/Proximity/BioMetric readers, coin acceptor, push buon, barcode and QR-code reader)

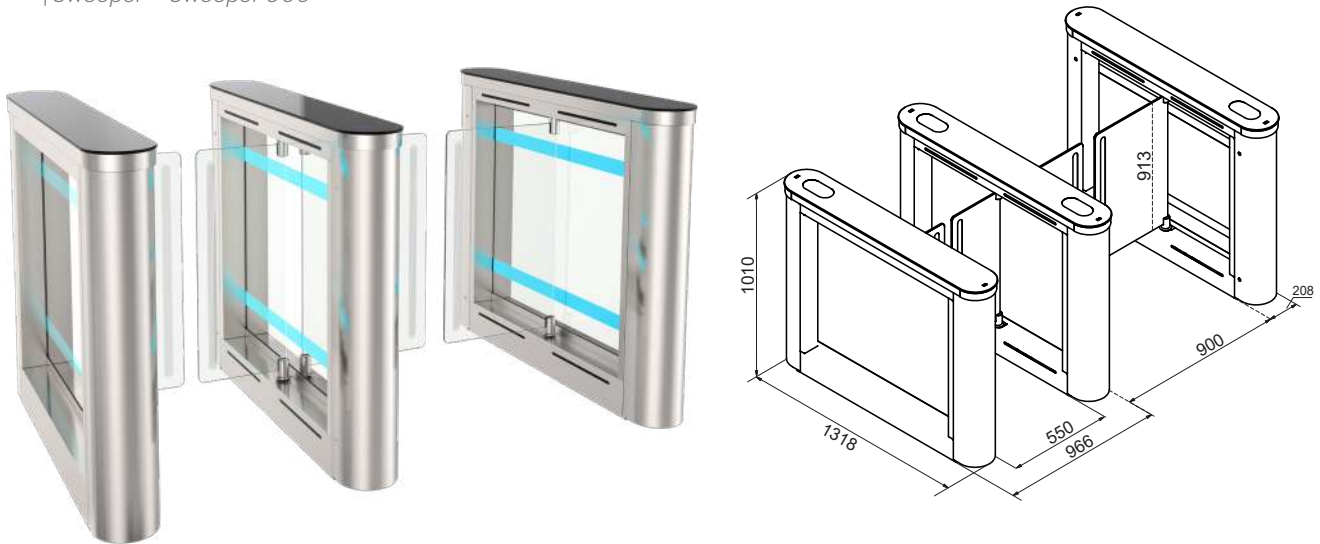
Product specifications:

	Speedblade	Speedblade 900
Unit dimensions (H×L×W), mm	1000×1000×1080	1000×1000×1480
Crossing capacity in single access mode, person/min	37	31
Opening/closing time	0,6	0,9
Passage width, mm	500	900
Mechanism	Motorized	
Tailgating function	+	
Blocking mechanism	Locked by motor	
Emergency mode	Free entry/exit (gates are opened automatically)	
Power fail	Fail safe (gates could be opened manually)	
Standard housing	Brushed SS AISI 304	
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)	
Top lid	Stainless steel top (with glass inserts) Solid glass top	
Voltage	AC (100-240)V, 50/60Hz; DC source 12 W	
Maximum power consumption	155 W	
Enclosure rating*	IP41	
MCBF, cycles	1 500 000	



Sweeper

| Sweeper + Sweeper 900



Sweeper speedgate is a perfect solution where contemporary aesthetics and functionality are required. The glass top and side panels provide a feeling of transparency and make it ideal for the most demanding building entrances.

Advantages:

- Sweeper equipped with sensors that allows to detect tailgating;
- Successful combination of affordable price and high quality;
- Customized surface finish and top lid;
- Steadfast housing suitable for high traffic areas;
- Solution for disabled and trolley access;
- Can be integrated with any type of access control systems;
- Low power consumption;
- Low noise system operation;
- Can be mounted on a mobile platform (TiSO Frame-M).

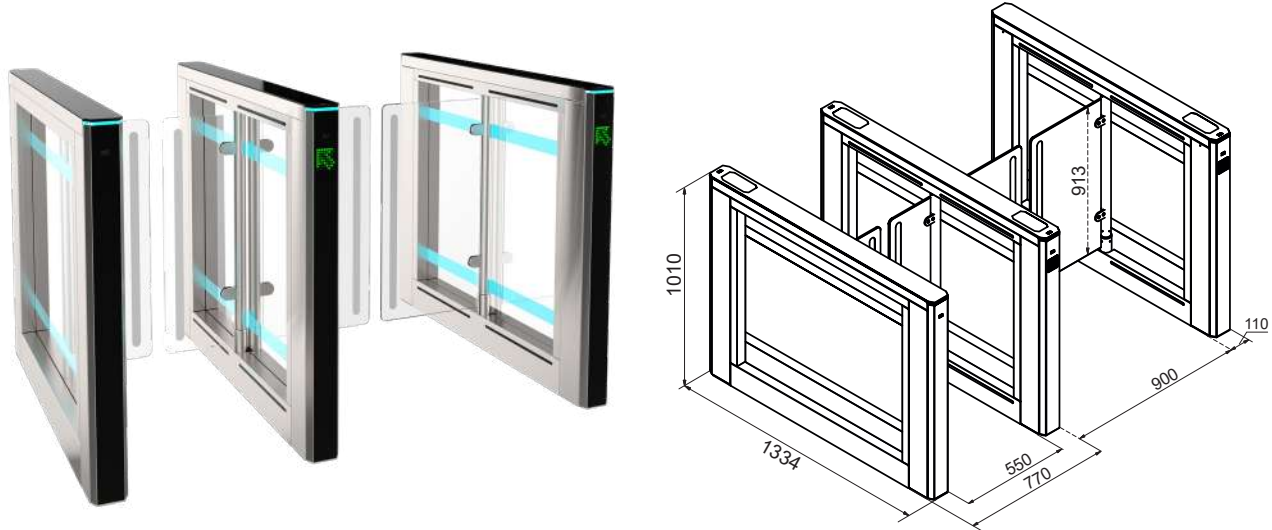
Product specifications:

	Sweeper	Sweeper 900
Unit dimensions (H×L×W), mm	1000×1310×950	1000×1310×1300
Crossing capacity in single access mode, person/min	33	23
Opening/closing time	0,8	1,6
Passage width, mm	550	900
Mechanism	Motorized	
Tailgating function	+	
Blocking mechanism	Electromechanical locking pin	
Emergency mode	Free entry/exit (gates are opened automatically)	
Power fail	Fail safe (gates could be opened manually)	
Standard housing	Brushed SS AISI 304	
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)	
Top lid	Stainless steel top (with glass inserts) Solid glass top	
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V	
Maximum power consumption,	155 W	
Enclosure rating*	IP41	
MCBF, cycles	1 500 000	



Sweeper-S

| Sweeper-S+ Sweeper-S 900



Sweeper-S fuses together all advantages of Sweeper model and new engineering solutions. Redesigned housing is huge advantage among other turnstiles in freeway turnstiles series. The width of one side housing is just 110 mm.

Advantages:

- The width of Sweeper-S cabin is only 110 mm;
- Sweeper-S equipped with sensors that allows to detect tailgating;
- Successful combination of affordable price and high quality;
- Customized surface finish and top lid;
- Steadfast housing suitable for high traffic areas;
- Solution for disabled and trolley access;
- Can be integrated with any type of access control systems;
- Low power consumption;
- Low noise system operation;
- Can be mounted on a mobile platform (TiSO Frame-M).

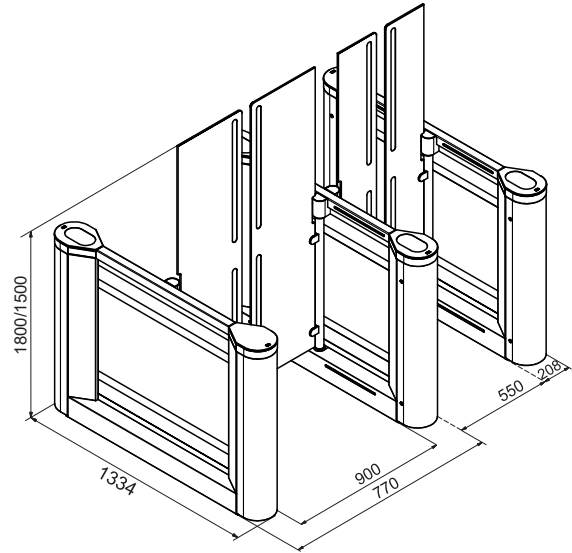
Product specifications:

	Sweeper-S	Sweeper-S 900
Unit dimensions (H×L×W), mm	1010×1334×770	1010×1334×1120
Crossing capacity in single access mode, person/min	33	23
Opening/closing time	0,8	1,6
Passage width, mm	550	900
Mechanism	Motorized	
Tailgating function	+	
Blocking mechanism	Electromechanical locking pin	
Emergency mode	Free entry/exit (gates are opened automatically)	
Power fail	Fail safe (gates could be opened manually)	
Standard housing	Brushed SS AISI 304	
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)	
Top lid	Stainless steel top (with glass inserts) Solid glass top	
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V	
Maximum power consumption	155 W	
Enclosure rating*	IP41	
MCBF, cycles	1 500 000	



Sweeper-HG

| Sweeper-HG + Sweeper-HG 900



Sweeper-HG is a special version of Sweeper, with high glasses available up to 1800 mm from the floor. It helps to avoid transfer of anything above the turnstile, as well as over-jumping it. Special design allows to arrange even 900 mm passage which can be used for people with special needs.

Advantages:

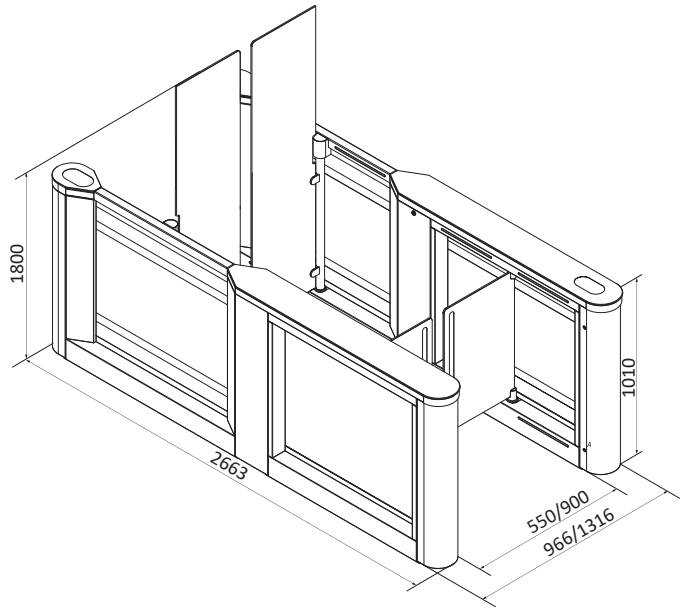
- Sweeper-HG equipped with sensors that allows to detect tailgating;
- Successful combination of affordable price and high quality;
- Customized surface finish and top lid;
- Steadfast housing suitable for high traffic areas;
- Solution for disabled and trolley access;
- Can be integrated with any type of access control systems;
- Low power consumption;
- Low noise system operation;
- Can be mounted on a mobile platform (TiSO Frame-M).

Product specifications:

	Sweeper-HG	Sweeper-HG 900
Unit dimensions (H×L×W), mm	1800/1500×1440×932	1800/1500×1440×1282
Crossing capacity in single access mode, person/min	27	21
Opening/closing time	1,2	1,8
Passage width, mm	550	900
Mechanism	Motorized	
Tailgating function	+	
Blocking mechanism	Electromechanical locking pin	
Emergency mode	Free entry/exit (gates are opened automatically)	
Power fail	Fail safe (gates could be opened manually)	
Standard housing	Brushed SS AISI 304	
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)	
Top lid	Stainless steel top (with glass inserts) Solid glass top	
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V	
Maximum power consumption	155 W	
Enclosure rating*	IP41	
MCBF, cycles	1 500 000	



Sweeper-AL



This is a “double-identification stage” or “migration” system. Based on Sweeper and Sweeper-HG models. It is like “constructor” so you can order system you need: with both waist-height glasses; with both full-height glasses; with one waist-height and one full-height glasses.

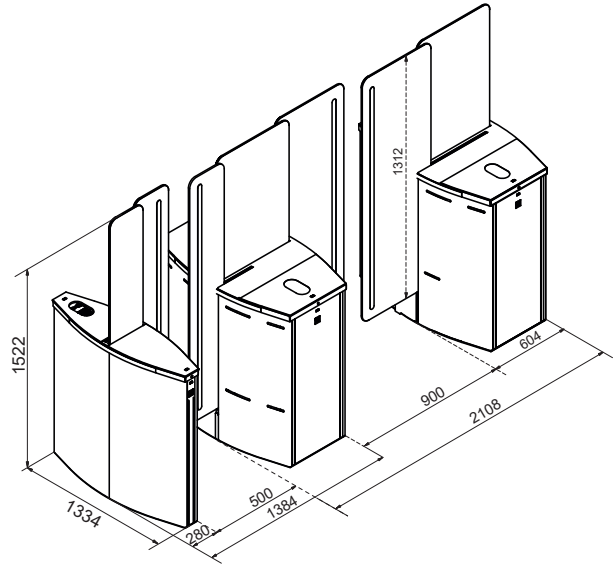
Product specifications:

	Sweeper-AL
Unit dimensions (H×L×W), mm	1800×2663×966/1316
Crossing capacity in single access mode, person/min	18
Opening/closing time	1,2
Passage width, mm	550/900
Mechanism	Motorized
Tailgating function	+
Blocking mechanism	Electromechanical locking pin
Emergency mode	Free entry/exit (gates are opened automatically)
Power fail	Fail safe (gates could be opened manually)
Standard housing	Brushed SS AISI 304
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)
Top lid	Stainless steel top (with glass inserts)
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V
Maximum power consumption	155 W
Enclosure rating*	IP41
MCBF, cycles	1 500 000



Jetpan

| Jetpan + Jetpan 900



Jetpan is ideally suited in areas where there is unmanned security the higher wings prevent vaulting over the turnstile. The Jetpan is also fitted with optical sensors to prevent tailgating. The contemporary design, appearance and functionality makes the Jetpan suitable for a variety of building entrances, such as banks, utility companies and high end commercial buildings. Access can be controlled by a variety of measures including card readers, bio metrics or the manual control panel. Optional customisation includes modification for lift designation screens, card collectors and bar code readers.

Advantages:

- Jetpan equipped with sensors that allows to detect tailgating;
- Successful combination of affordable price and high quality;
- Customized surface finish and top lid;
- Steadfast housing suitable for high traffic areas;
- Solution for disabled and trolley access;
- Can be integrated with any type of access control systems;
- Low power consumption;
- Low noise system operation;
- Can be mounted on a mobile platform (TiSO Frame-M).

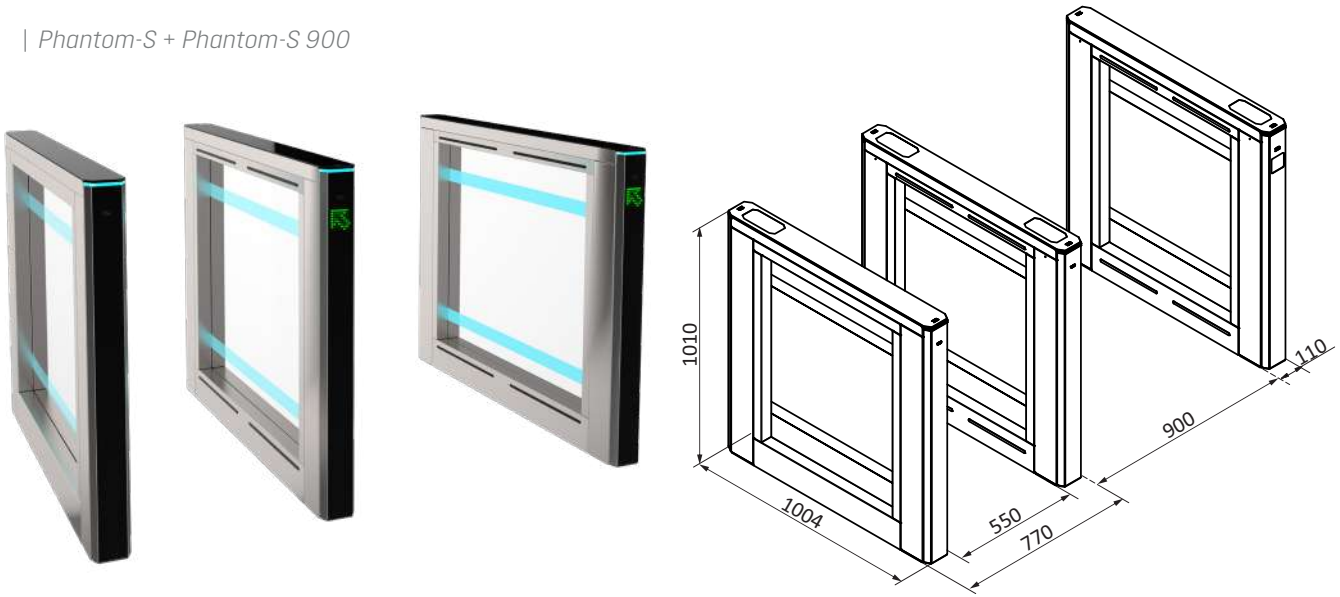
Product specifications:

	Jetpan	Jetpan-HG	Jetpan 900	Jetpan-HG 900
Unit dimensions (H×L×W), mm	1522×1000×1080	1800×1000×1080	1522×1000×2122	1522×1000×2122
Crossing capacity in single access mode, person/min	30	27	18	18
Opening/closing time	1,0	1,2	2,2	2,2
Passage width, mm	500	500	900	900
Mechanism	Motorized			
Tailgating function	+			
Blocking mechanism	Electromagnetic brake			
Emergency mode	Free entry/exit (gates are opened automatically)			
Power fail	Fail safe (gates could be opened manually)			
Standard housing	Brushed SS AISI 304			
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)			
Top lid	Stainless steel top (with glass inserts) Solid glass top		Stainless steel top (with glass inserts)	
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V			
Maximum power consumption	155 W			
Enclosure rating*	IP41			
MCBF, cycles	1 500 000			



Phantom-S

| Phantom-S + Phantom-S 900



This is a "double-identification stage" or "migration" system. Based on Sweeper and Sweeper-HG models. It is like "constructor" so you can order system you need: with both waist-height glasses; with both full-height glasses; with one waist-height and one full-height glasses.

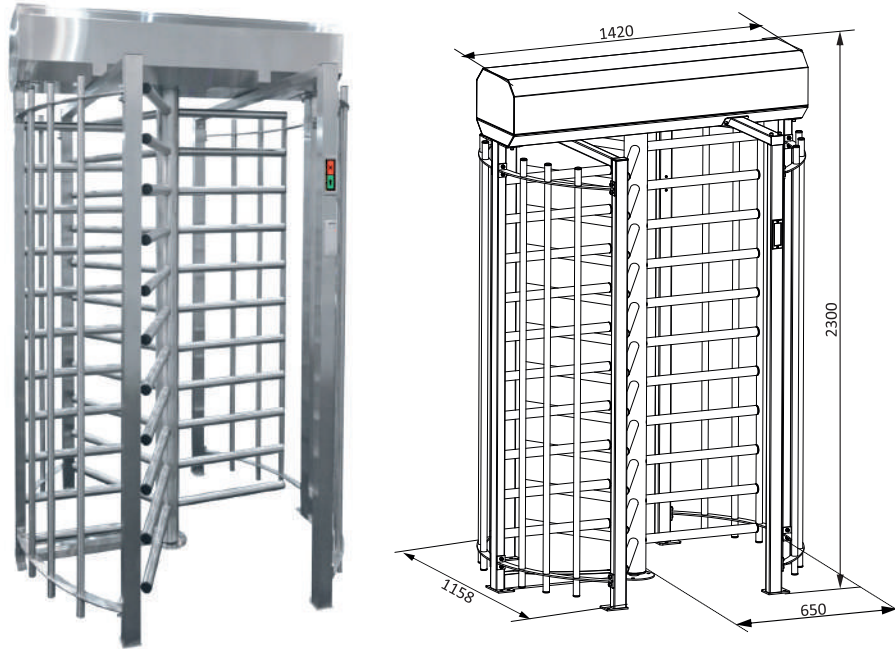
Product specifications:

	Phantom-S
Unit dimensions (H×L×W), mm	1010×1004×770/1120
Crossing capacity in single access mode, person/min	60
Passage width, mm	500-900
Mechanism	Motorized
Standard housing	Brushed SS AISI 304
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)
Top lid	Stainless steel top Solid glass top
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V
Maximum power consumption	155 W
Enclosure rating*	IP41



Sesame

| Sesame Y type



Sesame is a one lane type of full height turnstile gate. It ensures vandal proof security level to large variety of possible applications: stadiums, factories, parks, premises with highest security requirements etc. Strength and durability is granted by robust fully welded design. On the other hand, attractive for shipment assembly modification of automatic barrier gate is also available.

Advantages:

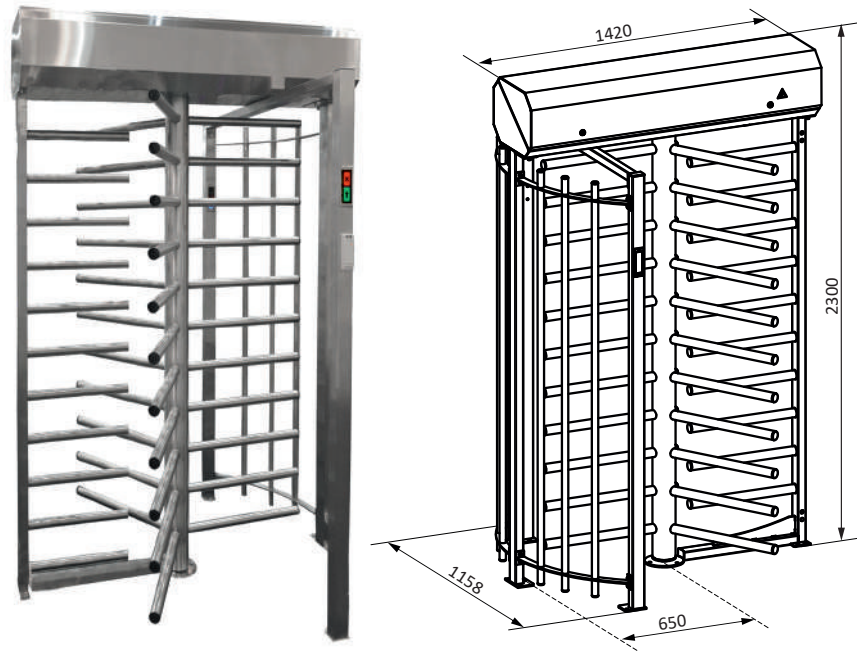
- Can be supplied as fully welded or in disassembled condition which has perfect effect to transportation cost;
- Turnstile is bi-directional;
- Depending on installation place conditions and Customer's requirements can be produced of different types of material;
- Y-type or X-type of rotor for your choice available;
- Easy integration with any type of ACS;
- Low power consumption as well as low noise operation;
- Possibility of customization;
- Fail safe or fail secure for your choice;
- Indoor/outdoor application.

Product specifications:

	Sesame Y type	Sesame X type	Sesame-L Y type	Sesame-L X type
Unit dimensions (H×L×W), mm	2300×1158×1420	2300×1300×1254	2300×1158×1420	2300×1300×1254
Crossing capacity in single access mode, person/min	20			
Passage width, mm	650	535	650	535
Rotor type	angle between arms 120°	angle between arms 90°	angle between arms 120°	angle between arms 90°
Mechanism	Electromechanical (standard) Servo-drive (option)		Servo-drive (standard)	
Blocking mechanism	Two electromechanical stop catches (separate locking system)			
Emergency mode	Free pass in both direction			
Power fail	Fail secure (standard) Fail safe (option)		Fail safe (standard)	
Construction features	Disassembled (standard). Full welded (option). Could be installed by a crane.			
Standard housing	Brushed SS AISI 304			
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)			
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V			
Maximum power consumption	For electromechanical – 155 W For servo-drive – 155 W		For servo-drive – 55W	
Enclosure rating*	IP 41 (for indoor installation) IP54 (for outdoor installation)			
MCBF, cycles	1 500 000	1 500 000	1 000 000	1 000 000

Sesame Basic

| Sesame Basic Y type



Sesame Basic is a lighter version of Sesame pedestrian turnstile gate. Less metal capacity allows significant cost reducing. At the same time, all core functions and features are available. Gate barrier will be a perfect fit for applications like temporary construction sites. Can be supplied both in fully welded or assembly (attractive for transportation) desing.

Advantages:

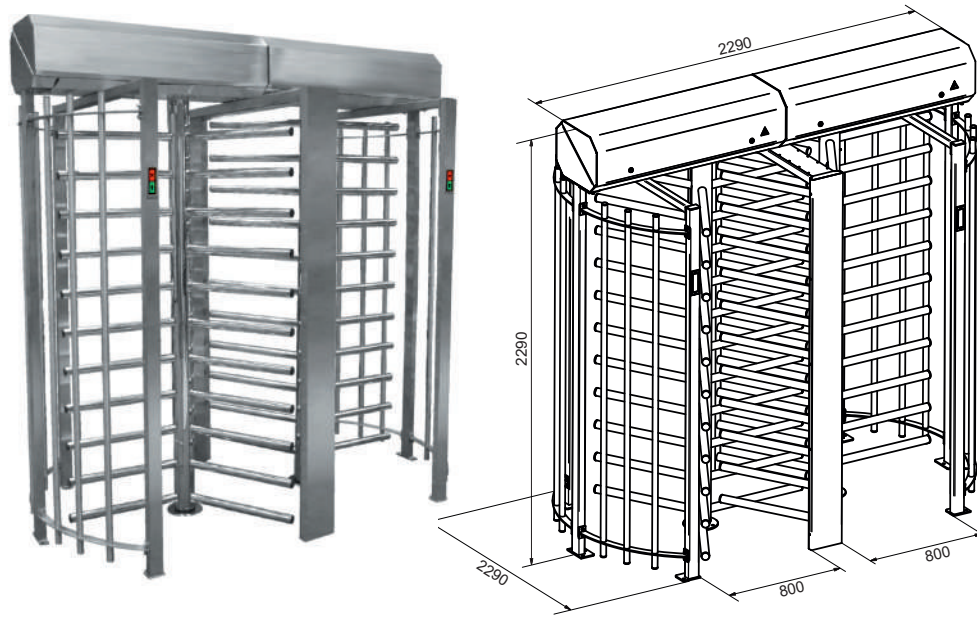
- Can be supplied as fully welded or in disassembled condition which has perfect effect to transportation cost;
- Turnstile is bi-directional;
- Depending on installation place conditions and Customer`s requirements can be produced of different types of material;
- Y-type or X-type of rotor for your choice available;
- Easy integration with any type of ACS;
- Low power consumption as well as low noise operation;
- Possibility of customization;
- Fail safe or fail secure for your choice;
- Indoor/outdoor application.

Product specifications:

	Sesame Basic Y type	Sesame Basic X type	Sesame Basic -L Y type	Sesame Basic -L X type
Unit dimensions (H×L×W), mm	2300×1158×1420	2300×1104×1244	2300×1158×1420	2300×1104×1244
Crossing capacity in single access mode, person/min	20			
Passage width, mm	650	510	650	510
Rotor type	angle between arms 120°	angle between arms 90°	angle between arms 120°	angle between arms 90°
Mechanism	Electromechanical (standard) Servo-drive (option)		Servo-drive (standard)	
Blocking mechanism	Two electromechanical stop catches (separate locking system)			
Emergency mode	Free pass in both direction			
Power fail	Fail secure (standard) Fail safe (option)		Fail safe (standard)	
Construction features	Dissembled (standard). Full welded (option). Could be installed by a crane.			
Standard housing	Brushed SS AISI 304			
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)			
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V			
Maximum power consumption	For electromechanical – 155 W For servo-drive – 155 W		For servo-drive – 55W	
Enclosure rating*	IP 41 (for indoor installation) IP54 (for outdoor installation)			
MCBF, cycles	1 500 000	1 500 000	1 000 000	1 000 000

Sesame Twin

| Sesame Twin Y type



Sesame Twin is a so called double turnstile. This pedestrian security gate benefits with significant space and cost saving in comparison to two single turnstiles installed one near another. It is a perfect fit for applications with highest intensity of pedestrian traffic, like stadiums or large factories. Can be supplied both in fully welded or assembly (attractive for transportation) design.

Advantages:

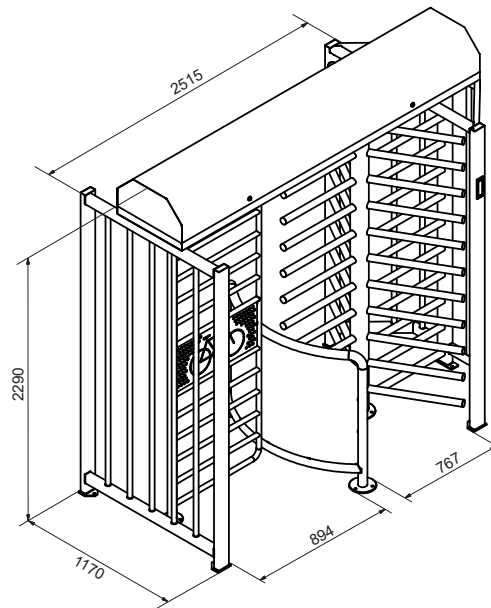
- Can be supplied as fully welded or in disassembled condition which has perfect effect to transportation cost;
- Turnstile is bi-directional;
- Depending on installation place conditions and Customer's requirements can be produced of different types of material;
- Y-type or X-type of rotor for your choice available;
- Easy integration with any type of ACS;
- Low power consumption as well as low noise operation;
- Possibility of customization;
- Fail safe or fail secure for your choice;
- Indoor/outdoor application.

Product specifications:

	Sesame Twin Y type	Sesame Twin X type	Sesame Twin -L Y type	Sesame Twin -L X type
Unit dimensions (H×L×W), mm	2300×1158×2234	2300×1341×2060	2300×1158×2234	2300×1341×2060
Crossing capacity in single access mode, person/min	20			
Passage width, mm	650	570	650	570
Rotor type	angle between arms 120°	angle between arms 90°	angle between arms 120°	angle between arms 90°
Mechanism	Electromechanical (standard) Servo-drive (option)		Servo-drive (standard)	
Blocking mechanism	Two electromechanical stop catches (separate locking system)			
Emergency mode	Free pass in both direction			
Power fail	Fail secure (standard) Fail safe (option)		Fail safe (standard)	
Construction features	Dissembled (standard). Full welded (option). Could be installed by a crane.			
Standard housing	Brushed SS AISI 304			
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)			
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V			
Maximum power consumption	For electromechanical – 155 W For servo-drive – 155 W		For servo-drive – 55W	
Enclosure rating*	IP 41 (for indoor installation) IP54 (for outdoor installation)			
MCBF, cycles	1 500 000	1 500 000	1 000 000	1 000 000

Bicyclone

| Bicyclone 900



Bicyclone turnstile barrier gate designed as a combination extended passage with regular single pedestrian entry point within one full height turnstile. Extended passage ensures smoothless entry of bicycles, wheelchairs, large volume belongings and materials. Can be supplied both in fully welded or assembly (attractive for transportation) design.

Advantages:

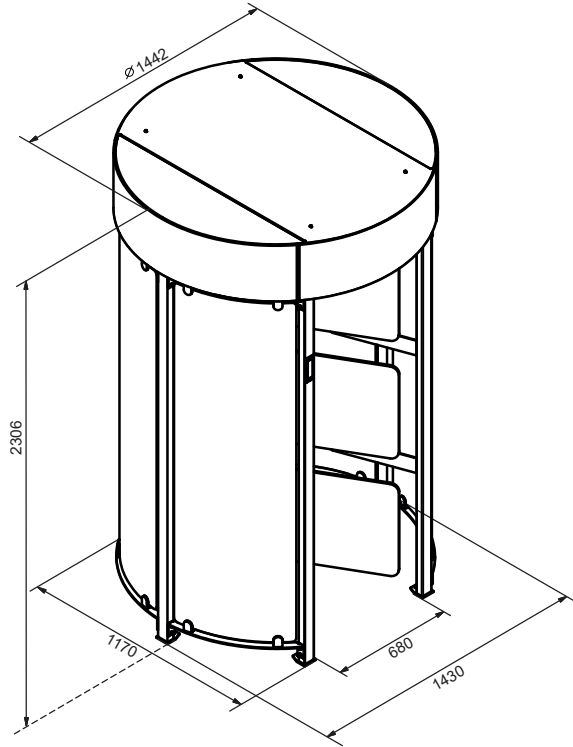
- Can be supplied as fully welded or in disassembled condition which has perfect effect to transportation cost;
- Turnstile is bi-directional;
- Depending on installation place conditions and Customer`s requirements can be produced of different types of material;
- Y-type or X-type of rotor for your choice available;
- Easy integration with any type of ACS;
- Low power consumption as well as low noise operation;
- Possibility of customization;
- Fail safe or fail secure for your choice;
- Indoor/outdoor application.

Product specifications:

	Bicyclone 700	Bicyclone 900	Bicyclone-L 700	Bicyclone-L 900
Unit dimensions (H×L×W), mm	2300×1170×2315	2300×1170×2515	2300×1170×2315	2300×1170×2515
Crossing capacity in single access mode, person/min	20			
Passage width, mm	For rotor 650 For gate 700	For rotor 650 For gate 900	For rotor 650 For gate 700	For rotor 650 For gate 900
Rotor type	angle between arms 120°			
Gate type	For wheelchairs For bicycles			
Rotor mechanism	Electromechanical (standard) / Servo-drive (option)		Servo-drive (standard)	
Gate Mechanism	Servo-drive (standard)		Servo-drive (standard)	
Blocking mechanism	Two electromechanical stop catches (separate locking system)			
Emergency mode	Free pass in both direction			
Power fail for rotor	Fail secure (standard) / Fail safe (option)		Fail safe (standard)	
Power fail for gate	Fail safe (standard)			
Construction features	Dissembled (standard). Full welded (option). Could be installed by a crane.			
Standard housing	Brushed SS AISI 304			
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)			
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V			
Maximum power consumption	For electromechanical – 155 W For servo-drive – 155 W		For servo-drive – 55W	
Enclosure rating*	IP 41 (for indoor installation) IP54 (for outdoor installation)			
MCBF, cycles	1 500 000	1 500 000	1 000 000	1 000 000

GlassGO

| GlassGO (modification 1)



GlassGO is a glass turnstile intended for inside applications with the requirement of access control system integration. This motorized pedestrian gate combined of glass and stainless steel design elements. As an outcome, we have space and cost saving product of aesthetic performance. This type can be a perfect alternative to revolving doors.

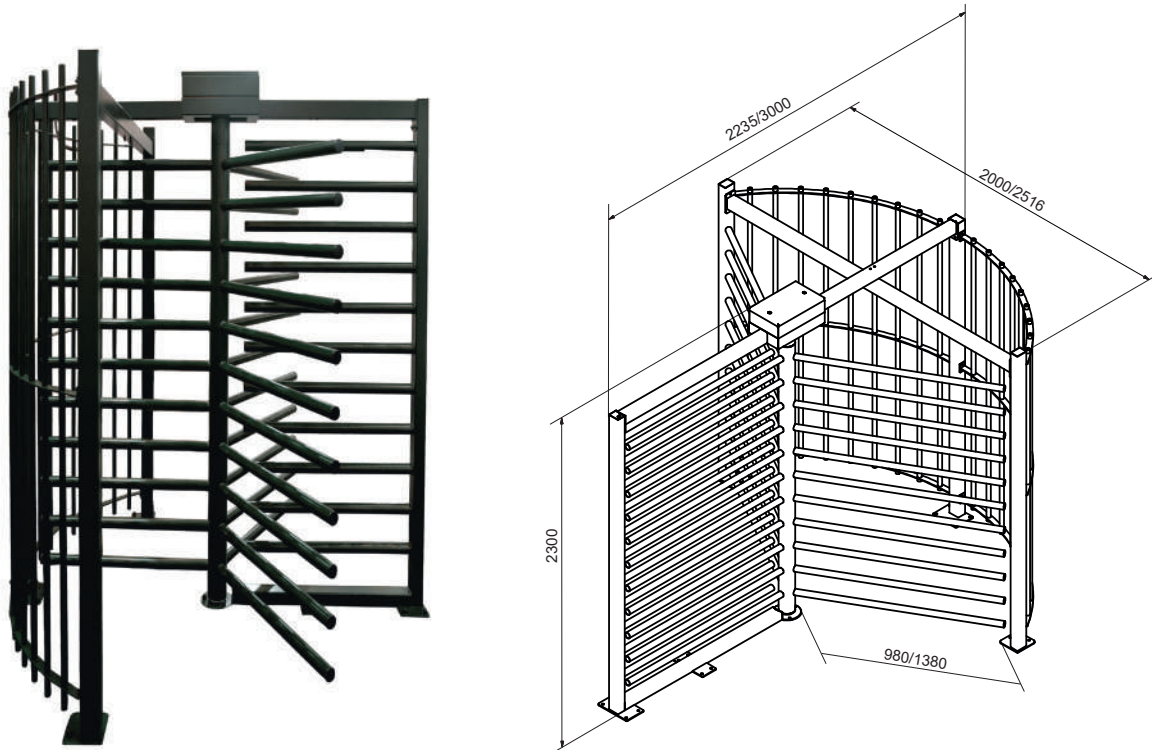
Advantages:

- Can be supplied as fully welded or in disassembled condition which has perfect effect to transportation cost;
- Turnstile is bi-directional;
- Depending on installation place conditions and Customer's requirements can be produced of different types of material;
- Easy integration with any type of ACS;
- Low power consumption as well as low noise operation;
- Possibility of customization;
- Fail safe or fail secure for your choice;
- Indoor/outdoor application.

Product specifications:

	GlassGO (modification 1)	GlassGO (modification 2)	GlassGO-S
Unit dimensions (H×L×W), mm	2310×1430×1442		2306×1430×1175
Crossing capacity in single access mode, person/min	20		
Passage width, mm	650		
Rotor type	Nine glass leaves angle between arms 120°	Tree shaped glass leaves angle between arms 120°	Three solid glass leaves angle between arms 120°
Wrong way prevention	Fencing		Motion sensors (with sound alarm)
Blocking mechanism	Two electromechanical stop catches (separate locking system)		
Emergency mode	Free pass in both direction		
Power fail	Fail secure (standard) Fail safe (option)		
Standard housing	Brushed SS AISI 304		
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)		
Voltage	AC (100-240)V, 50/60Hz; DC source 12 V		
Maximum power consumption	155W		
Enclosure rating*	IP41		
MCBF, cycles	1 500 000		

Push&GO



Push&Go is fully mechanical type of a full height turnstile. This type of security barriers mostly applied at installations for one direction pedestrian access management. Cost effective solution which does not require any power supply. Can be supplied both in fully welded or assembly (attractive for transportation) desing.

Advantages:

- Robsut construction;
- Fully mechanical;
- One directional or Bi-directional;
- High quality at a cost effective price;
- Whisper quiet, low noise operation.

Product specifications:

	Push&Go	
Unit dimensions (H×L×W), mm	2300×2000×2235	2300×2586×3000
Crossing capacity, person/min	60	
Passage width, mm	980	1380
Operation mode	CW or CCW	
Blocking mechanism	One way clutch	
Standard housing	Brushed SS AISI 304	
Available housing	Brushed SS AISI 316 / Polished SS AISI 304 / Polished SS AISI 316 / Powder coated (any RAL up on request)	

Additional equipment

Emergency door

Emergency Door with Magnetic Lock is designed for installation as a part of a full-height turnstile to provide a free exit in an emergency case for evacuation or in case of unavailable power to the turnstile. Also the door is used for pulling through big-sized items.



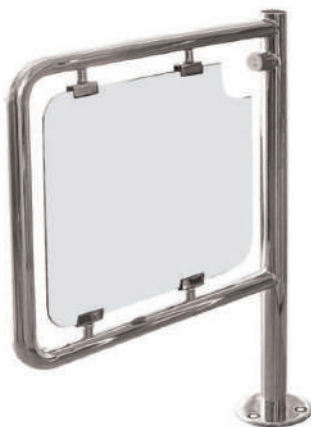
Enclosure

Stylish enclosure (balustrade) from TISO is now becomes unseparatable accessory for any our turnstiles. Its design is very simple but really efficient and easy-to install. You can purchase any combination of side or middle posts with different width of glass.



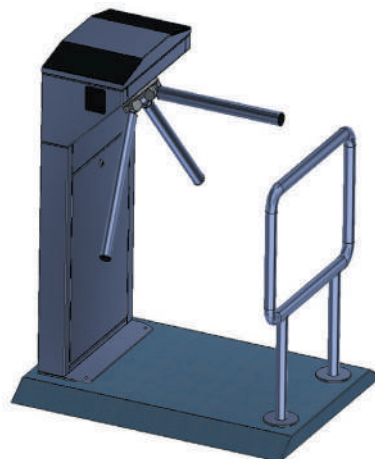
Emergency gate

Emergency gate is designed for installation at the entry points in enterprises, administrative facilities, banks and other sites to provide a free exit in an emergency case for evacuation or for pulling through big-sized items.



Mobile Platform

Mobile Platform consists of landing, enclosure, and can have any tripod turnstile attached to it. The main purpose of the Mobile Platform is to ensure quick and easy displacement of an installed tripod turnstile to a place of temporary usage.



Additional equipment

TWiC

TWiC manages and controls large group of turnstiles and road blockers. The user friendly 8" touch screen display graphics requires minimal training for proficiency in navigating the various pages, remotely controlling the lanes and understanding the real time feedback such as alarm events when unauthorized access is detected.



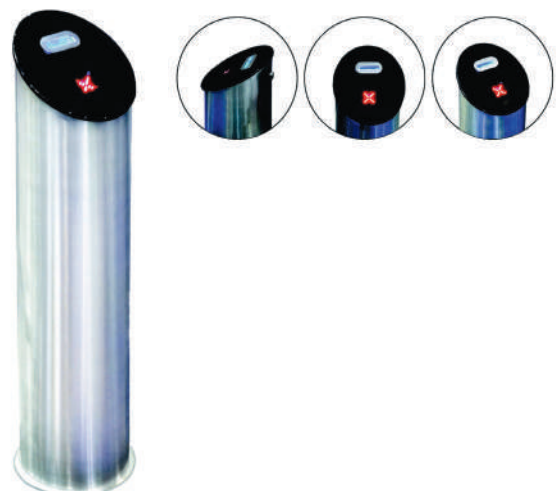
Card reader

Reader Post is designed for installation as a part of an access control system for enterprises, administrative facilities, banks and other sites. Elegance, lightness and simplicity make this model very popular as part of access control system.

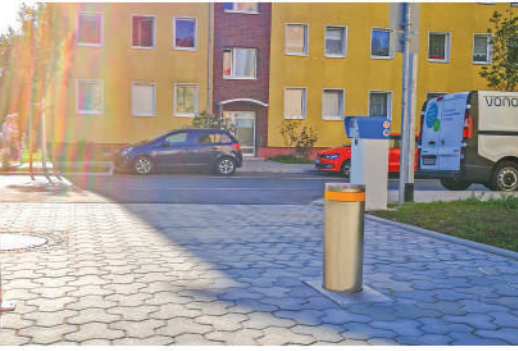


Card collector

Brand new card-collector from TiSO is great and modern solution to organize solution of temporary visitors card collection. Modern and throughout design allows to implement simple and understandable collection of cards, as well as "encashment" of these cards. LED indication under beautiful glass top lid shows status of the system (access denied or granted).



BOLLARDS



Fixed/Removable bollards



Traffic fixed bollards

TiSO fixed and removable traffic bollards are widely used as static barriers in order to provide vehicle access control and parking management of secured areas. Due to bollards' design and wide variety of available models, this type of solution becomes a good addition to different urban architectural concepts.

Product specifications:

	RB344-13	RB344-16	RB344-19	RB344-21	RB344-30	RB344-36	RB344-39	RB344-31	RB344-37	RB344-40
Type	Traffic fixed bollards									
Tube diameter, mm	324				114	220	273	114	220	273
Tube height, mm	600	800	1000	1200	600			800		
Installation depth, mm	300									
Tube materials	Brushed stainless steel AISI 304 Galvanized and powder coated tube (any RAL up on request)									



High security fixed/removable bollards

TiSO high security fixed and removable bollards are the most cost effective solution for vehicle unauthorized access prevention. Being pedestrian friendly, TiSO high security bollards correspond to the requirements of anti-terroristic protection. Installation simplicity and absence of necessity in service maintenance are the main features to be outlined. On the other hand, the greatest advantage related to its mobility, when free access is required. Advanced technologies and large manufacturing experience allow TiSO high security fixed bollards to be simple, reliable, and wellfitting equipment.

Product specifications:

	RB343-62	RB343-65	RB343-68
Type	High security fixed / removable bollards		
Security class	Designed to keep ASTM F2656 M30	Designed to keep ASTM F2656 M40	ASTM F2656/F2656 M-15, M50, P2 (-3.8m) IWA 14-1:2013 BollardV/7200 [N2B]/80/90:4.1
Tube diameter, mm	325		
Tube height, mm	800	900	1000
Wall thickness, mm	20		
Tube materials	Galvanized and powder coated tube (any RAL up on request) Stainless steel sleeve / casing up on request		

Removable bollards



Traffic removable bollards

TISO removable traffic bollards is one more solution for vehicle access control management. The main difference to regular fixed/static bollards determined by mobility which provides free driveway in case of necessity. To get bollard unlocked, the only thing which has to be done is a simple turn of a key. The range of removable bollards available in different dimensions, blocking heights, tube's materials, and diameters. Intended for vehicle access control with little traffic intensity.

Product specifications:

	RB345-03	RB345-02	RB345-15	RB345-01	RB345-06	RB345-05	RB345-04	RB345-18
Type	Traffic removable bollards							
Tube diameter, mm	114	170	220	273	114	170	220	273
Tube height, mm	600				800			
Wall thickness, mm	3	4			3	4		
Installation depth, mm	300							
Tube materials	Brushed stainless steel AISI 304 Brushed stainless steel AISI 316. Galvanized and powder coated tube (any RAL up on request)							



Traffic manual retractable bollards

Manually retractable bollard intends to be used as a static obstacle in order to secure pedestrian or other areas from unauthorized vehicle traffic. Herewith these bollards can be a perfect choice for installations which require temporary free driveways during certain hours of a day, night time for instance. As for other advantages, these bollards do not need power supply.

Product specifications:

	RB345-62	RB345-51	345-52	RB345-65	RB345-54	345-55
Type	Traffic manual retractable bollards					
Tube diameter, mm	140	220	273	140	220	273
Tube height, mm	600			800		
Wall thickness, mm	4					
Installation depth, mm	880			1080		
Tube materials	Brushed stainless steel AISI 304 Brushed stainless steel AISI 316. Galvanized and powder coated tube (any RAL up on request)					

Semi-automatic bollards



With gas-spring mechanism

TiSO semi-automatic bollards is a perfect solution for effective vehicle access control under the circumstances of unavailable power supply. Semi-automatic bollards have gas spring mechanism which is locked at down position and rise rapidly when released. Being complete and independent solution, semi-automatic bollards require manual impact for driveway opening or closing.

Product specifications:

	RB343-60	RB343-61	RB343-63	RB343-64
Drive	Gas-spring mechanism			
Tube diameter, mm	220	273	220	273
Tube height, mm	600		800	
Wall thickness, mm	4			
Axle load, t	10			
Tube materials	Brushed stainless steel AISI 304 Brushed stainless steel AISI 316. Galvanized and powder coated tube (any RAL up on request)			



With drill drive mechanism

The same like semi-automatic, TiSO drill drive bollards intend to fit installations without power supply availability. The operation principle determined by the drill impact, which gets blocking segment up or down according to screw direction. This solution intends to manage traffic of low intensity and featured with outstanding lifetime, due to lack of consumables in its operation and design concept.

Product specifications:

	RB343-03	RB343-01	RB343-02	RB343-06	RB343-04	RB343-05
Drive	Drill drive mechanism					
Tube diameter, mm	114	220	273	114	220	273
Tube height, mm	600			800		
Wall thickness, mm	3	4		3	4	
Axle load, t	10					
Tube materials	Brushed stainless steel AISI 304 Brushed stainless steel AISI 316 Galvanized and powder coated tube (any RAL up on request)					

Automatic bollards



High-security automatic bollards

TiSO automatic high security bollards intend to prevent vehicles unauthorized access to secured areas and keep the highest level of antiterrorism protection. It demanded for installation sites with high risk of heavy vehicle attack: public places (stadiums, fairgrounds), governmental institutions, or military infrastructures etc. This type of equipment can be easily connected with ACS and other vehicle access control equipment (arm barriers etc.).

Product specifications:

	RB348	RB342
Type	High security hydraulic bollards	
Security class	ASTM F2656-07, M30, P1(-1.2m)	ASTM F2656-07, M50, P1(-0.6m)
Tube diameter, mm	325	325
Tube height, mm	1000	1200
Wall thickness, mm	20	20
Impact resistance, J	679 900	1845 000
Axle load, t	15	
Rising/Lowering time, s (+/- 1s)	4,0/3,5	
Operating temperature*, °C	-40 / +60	
Power supply	3 phase 400V, 50/60 Hz	
Protection level	IP 67 (for bollard) IP54 (for control box)	
Tube materials	Galvanized and powder coated tube (any RAL up on request) Stainless steel sleeve / casing up on request	

*for temperatures lower than -10 °C use the heating device / for temperatures higher than +40 °C use the cooler device.

Traffic automatic bollards

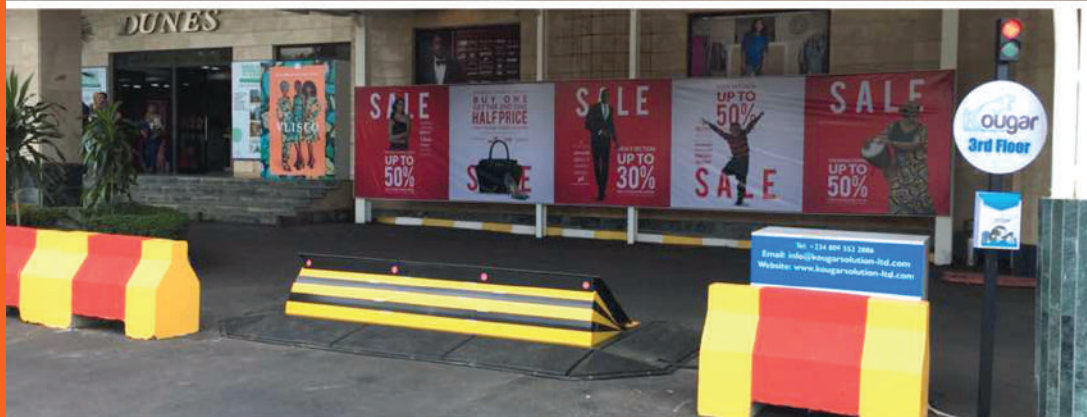
TiSO automatic bollards are engineered in order to provide maximum operation durability. Parking bollards is the perfect choice for installations at private and other areas without strict requirement to antiterrorism protection. All equipment is designed and tested for high intensity operation.

Product specifications:

	RB343-21	RB343-23	RB349-11	RB349-12	RB343-24	RB343-26	RB349-14	RB349-15
Type	Traffic hydraulic bollards							
Tube diameter, mm	114	170	220	273	114	170	220	273
Tube height, mm	600				800			
Wall thickness, mm	3	5	4	8	3	5	4	8
Axle load, t	15							
Rising/Lowering time, s (+/- 1s)	7,0/5,5				9,0/8,0			
Operating temperatures*, °C	-40 / +60							
Power supply	1 phase 230V, 50/60 Hz							
Protection level	IP 67 (for bollard) IP 54 (for control box)							
Tube materials	Brushed stainless steel AISI 304 Brushed stainless steel AISI 316. Galvanized and powder coated tube (any RAL up on request)							

*for temperatures lower than -10 °C use the heating device / for temperatures higher than +40 °C use the cooler device.

ROAD BLOCKERS



City-light Cyclopes



City-light Cyclopes is an outstanding part of TiSO traffic barriers range. This type of equipment intends to manage pedestrian friendly vehicle access control. In difference to bollards, Cyclope does not require big installation depth. This kind of approach is a good solution to simplify installation and service maintenance procedures. All features in common make Cyclope well applicable solution to the widest range of projects with large scope of requirements.

Product specifications:

	RB319-01
Installation type	Shallow mounted
Drive	Hydraulic
Width (W), mm	265
Height (H), mm	600
Foundation case dimensions, mm (L×K×h)	1137x360x246
Axle load, t	15
Rising time, s (+/- 1s)	5,0
Lowering time, s (+/- 1s)	4,0
Operating temperatures*, °C	-40/ +60
Power supply	1 phase 230V, 50/60 Hz
Protection level	IP 67 (for road blocker) IP 54 (for control box)
Materials	Brushed stainless steel AISI 304; Structural steel C22 (powder coated)

**for temperatures lower than -10 °C use the heating device. or temperatures higher than +40 °C use the cooler device*

High security Cyclopes



High security Cyclopes ensure highest level of anti-terrorism protection. As far as it was certified according to ASTM F2656/F2656-15, M40, P1(-1.7) & IWA14-1, Blocker V/7200[N2B]/64/90:12.1 standards. The blocking segment is operated from outside control box with HPU and PLC in it. Interconnection between two elements provided via connection and power/oil hoses.

Product specifications:

	RB320-01	RB320-02	RB320-03
Security class	Designed to keep ASTM F2656, M30 (K4) standard	ASTM F2656/F2656 M-15, M40, P1(-1.7m) IWA 14-1:2013 Blocker V/7200 [N2B]/64/90:-0,2	Designed to keep ASTM F2656, M50 (K12) standard
Installation type	Shallow mounted		
Drive	Hydraulic (HPU)		
Width (W), mm	500	500	500
Height (H), mm	800	900	1000
Foundation case dimensions, (L×K×h), mm	1910×724×400	1910×724×500	1910×724×600
Impact resistance, J	656 000	1 110 000	1 680 000
Axle load, t	15		
Rising time, s (+/- 1s)	5,5	5,6	6,0
Lowering time, s (+/- 1s)	3,3	3,4	3,6
Operating temperatures*, °C	-40/ +60		
Power supply	3 phase 400V, 50/60 Hz		
Protection level	IP 67 (for road blocker) IP 54 (for control box)		
Materials	Structural steel C22 (powder coated)		

*for temperatures lower than -10 °C use the heating device. For temperatures higher than +40 °C use the cooler device

City-light Speedbumps



Its biggest advantage relates to installation type options, including both surface/ above the ground and shallow mounting/ground level installations, with frequent use at high intensity mode all the same. Dealing with surface / above the ground installation, at raised position TiSO serves like a regular wedge barrier. When closed, it performs the function of a speed hump. In this case, we also get the benefit of equipment mobility, as user is able to remove it from the driveway if necessary.

Product specifications:

	RB357-02	RB357-03	RB357-04
Installation type	Shallow mounted / Above the ground (with ramps)		
Drive	Hydraulic (HPU)		
Width (W), mm	2000	3000	4000
Height, mm	350		
Axle load, t	15		
Rising time, s (+/- 1s)	5,0	7,5	10,0
Lowering time, s (+/- 1s)	4,0	4,7	4,8
Operating temperatures*, °C	-40 / +60		
Power supply	1 phase 230 V, 50/60 Hz		
Protection level	IP 67 (for road blocker) IP 54 (for control box)		
Materials moving part	Structural steel C22 (powder coated)		
Materials ramps	Structural rubber		

**for temperatures lower than -10 °C use the heating device. or temperatures higher than +40 °C use the cooler device*

High security Speedbumps



This type of equipment has the same engineering principle and optional functionality as previously described City-Light Speedbumps. However, being certified according to ASTM F2656/F2656-15, M30, P1(-0.67m) & IWA14-1, Blocker V/7200[N2B]/48/90:0,3 standards, this access control equipment is useful to provide anti-terroristic protection level. The standard delivery set includes blocking segment, control box with HPU and PLC, connection cable, power/oil hoses, and push button control unit. Herewith large list of accessories enables its adapting to various severe weather and environment conditions. Well selected list of available blocking widths, together with availability of customized solutions, installation simplicity, and high security are useful to get a wide extension of successful projects.

Product specifications:

	RB359-02	RB359-03	RB359-04
Security class	Designed to keep ASTM F2656 M30 (K4) standard		ASTM F2656/F2656 M-15, M30, P1(-0.67m) IWA 14-1:2013 Blocker V/7200 [N2B]/48/90:-0,3
Installation type	Shallow mounted / Above the ground (with ramps)		
Drive	Hydraulic (HPU)		
Width (W), mm	2000	3000	4000
Height (H), mm	500		
Impact resistance, J	656 000	1 110 000	1 843 900
Axle load, t	15		
Rising time, s	4,5		
Lowering time, s	4,5		
Operating temperatures*, °C	-40 / +60		
Power supply	3 phase 400V, 50/60 Hz		
Protection level	IP 67 (for blocker) IP 54 (for control box)		
Materials moving part	Structural steel C22 (powder coated)		
Materials ramps	Structural rubber		

**for temperatures lower than -10 °C use the heating device. For temperatures higher than +40 °C use the cooler device*

High security Mobile Speedbumps



TISO high security Mobile Speedbumps are reliable compact solution to provide security of your territory. It does not require any installation to the ground. High security Mobile Speedbump was tested and certified according to ASTM F2656/F2656-18a and IWA14-1:2013 standards. Key advantages of Mobile Speedbumps M30:

- full mobility of crash-rated, automatic wedge barrier;
- easy application: setting up within 10 minutes: simply by delivering to the site — unloading — plug in to the power;
- no civil works required: no anchors/no bolts.

High security Mobile Speedbump has warning LED indication and warning painting. Also can be interfaced with any ACS. Ideal for organising temporary protection of driveways during public events (fairs, festivals, weekly markets, public holidays etc.).

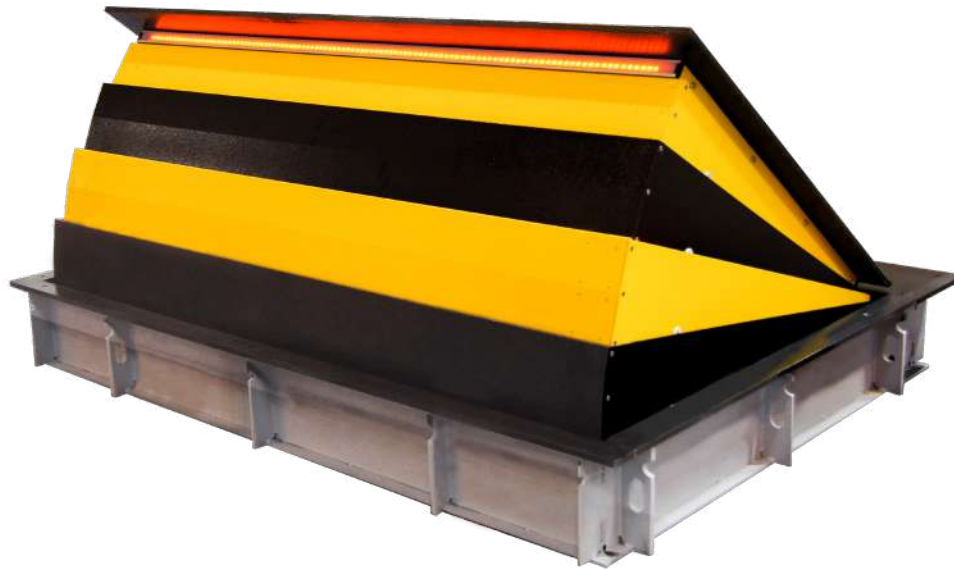
Product specifications:

	RB358-06	RB358-07	RB358-08
Security class	ASTM F2656/F2656M-18a, M30, P2 (4.6 m) IWA 14-1:2013, Blocker V/7200[N2B]/48/90:5.3		
Installation type	Above the ground		
Drive	Hydraulic (build-in)		
Width, mm	2000	3000	4000
Height, mm	570		
Impact resistance, J	673 000		
Axle load, t	15		
Rising time, s	5,0	7,5	8,0
Lowering time, s	4,0	6,0	6,0
Operating temperatures*, °C	-40 / +60		
Power supply	3 phase 400V, 50/60 Hz (standart) 1 phase 230**V, 50/60 Hz (optional)		
Protection level	IP 67 (for road blocker) IP 54 (for control box)		
Materials	Structural steel (galvanized and powder coated)		

*for temperatures lower than -10 °C use the heating device

**depend on type of hydraulic unit

High security Road Blockers



High security road blockers engineered and designed to prevent unauthorized access of vehicles to a secured area and keep the standards of antiterrorism protection. This is heavy duty equipment for projects with appropriate requirements. TiSO road blockers has successfully passed crash test and certified according to ASTM F2656-07, M50, P1 (-2,4m) and ASTM F2656-07, M30, P1 (-2,1m). Being developed by engineers with extensive background in appropriate field, this type of wedge barriers is featured with installation simplicity, easy service, reliability, durability, and multi functionality.

Product specifications:

	RB312	RB313	RB314	RB322	RB323	RB324	RB332	RB333	RB334
Security class	Certified ASTM F2656-07, M30, P1(-2.1m)			Designed to keep ASTM F2656 M40 standard			Certified ASTM F2656-07, M50, P1(-2.4m)		
Installation type	Shallow mounted								
Drive	Hydraulic (HPU)								
Width, mm	2000	3000	4000	2000	3000	4000	2000	3000	4000
Height, mm	800			1000			1200		
Impact resistance, J	656 000			1 110 000			1 680 000		
Axle load, t	15								
Rising time, s (+/- 1s)	3,5 (1,5 with EFO)			3,6 (1,5 with EFO)			3,5 (1,8 with EFO)		
Lowering time, s (+/- 1s)	3,5			2,0			3,5		
Operating temperatures*, °C	-40 / +60								
Power supply	3 phase 400V, 50/60 Hz								
Protection level	IP 67 (for road blocker) IP 54 (for control box)								
Materials	Structural steel C22 (powder coated)								

*for temperatures lower than -10 °C use the heating device. For temperatures higher than +40 °C use the cooler device

Automatic tire-killers



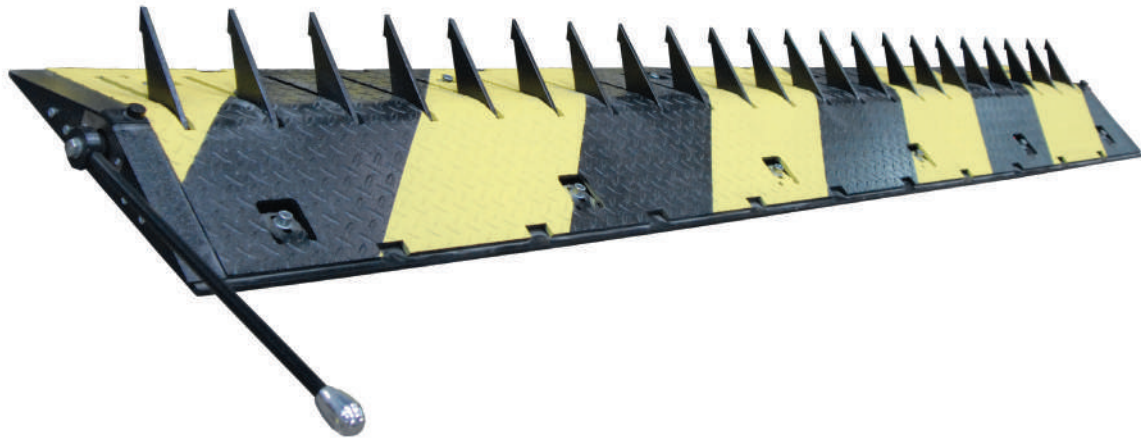
TiSO Tire-Killers are affordable and at the same time efficient solution for vehicle access control management. Among available configurations, we should stress out installation type options (surface /above the ground or shallow/ground level), one or two directional driveway control, and spikes of varied lengths. The diversity of options enables this traffic barriers to be widely applicable for projects at different sorts of area. The concept of built-in hydraulic unit advances equipment to be suitable for installations under severe climate conditions, as well as for projects which require large distances between PLC and blocking segment.

Product specifications:

	RB373-02	RB373-03	RB373-04	RB370-02	RB370-03	RB370-04
Installation type	Shallow mounted / Above the ground (with ramps)					
Drive	Hydraulic (HPU)					
Spikes direction	One-directional			Bi-directional		
Width, mm	2000	3000	4000	2000	3000	4000
Height, mm	170					
Axle load, t	15					
Rising time, s (+/- 1s)	1,5					
Lowering time, s (+/- 1s)	1,0					
Operating temperatures,* °C	-40 / +60					
Power supply	1 phase 230 V, 54/60 Hz					
Protection level	IP 67 (for road blocker) IP 55 (for control box)					
Material	Structural steel C22 (powder coated)					

*for temperatures lower than -10 °C use the heating device. For temperatures higher than +40 °C use the cooler device

Mechanical tire-killers



Mechanical tyre killers is a good choice for vehicle access control projects without available power supply. TiSO offers two types of such devices: springs or lever drive. In the first case, spikes always remain raised and one direction free to pass. Dealing with lever operated tyre killers, you get three operation modes: spikes up and blocked to both directions, spikes down and blocked, spikes up and free to one direction. The range is classified according to variety of blocking widths and spikes lengths. Also, we should mention optional installation configurations: surface / above the ground or submerge / ground level.

Product specifications:

	RB379-06	RB379-07	RB371-02	RB371-03
Installation type	Above the ground (with ramps)			
Drive	Mechanical			
Spikes direction	One-directional			
Width, mm	2000	3000	2000	3000
Foundation case dimensions, mm (L×K×h)	2050×480×85	3050×480×85	2050×600×85	2050×480×85
Height, mm	80		170	
Axle load, t	15			
Material	Structural steel C22 (powder coated)			

	RB379-16	RB379-17	RB371-07	RB371-08
Installation type	Shallow mounted			
Drive	Mechanical			
Spikes direction	One-directional			
Width, mm	2000	3000	2000	3000
Foundation case dimensions, mm (L×K×h)	2070×480×85	3070×480×85	2700×540×85	2070×480×85
Height, mm	80		170	
Axle load, t	15			
Material	Structural steel C22 (powder coated)			

Automatic Boom Barriers



Automatic boom barrier is equipped with a operator of opening and closing blocks. Housing is available in different RAL colors. High speed of operation makes arm barriers providing high territory security. It should be installed nearby exit /entrance gates and operates in complex with a parking system devices to provide high security access.

Product specifications:

	Optimus 40	Optimus 60
Drive	Electro-mechanical	
Arm length* , mm	2000-4000	5000-6000
Opertion mode	Left/right version	
Raising/lowering time, sec	1,5	3,0
Weight, kg (not more)	65	75
Power supply	1phase 230V, 60/60Hz	
Mechanism	Geared AC motor	
Protection class	IP 54	
operation temperature	-20°C to +45°C	
Standard housing	Pewder coated AISI 430	
Available housing	Brushed SS AISI 316	

**Other arm length is available up on request*

Accessories



Radio remote controller kit 433Mhz (one controller, two keyfobs)

Radio remote controller kit, makes it possible to remotely open and close the equipment like bollards, road blockers, tire killers, arm barriers.



LED traffic light (section 95mm diameter Green/Red) and sound alarm

Traffic light has two lights, facing the on-coming traffic, red on top and green below that. Can be installed with support post or wall-mounted.



One-channel induction loop (controller + 30m of cable)

Indicates the appropriate sensitivity setting the vehicle positioned on the loop.



Manual hydraulic pump (for external hydraulic station)

Manual pump use for hydraulic operation in power failure conditions.



E.F.O. (emergency fast operation)

Emergency fast operation system is intended to provide fast rising speed up to 1 sec.



Photocells

Photocells are installed in the kit to exclude the possibility blocker blocker lifting when the vehicle is on it.



High-pressure hydraulic hose

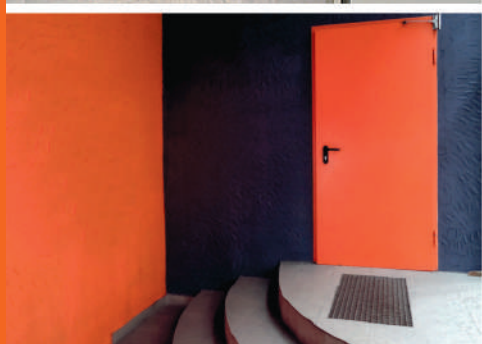
Hose that provide high-pressure supply of power fluids.



Heating device

Heating device is intended to prevent the system freezing (recommended for cold climates). Use for temperatures conditions lower than -10°C.

FIRE – RESISTANT DOORS



Fire – resistant doors

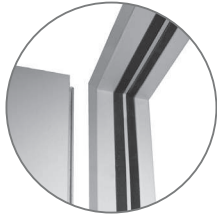


TiSO company presents metal and glass fire-resistant doors; fire-resistant curtains; metal fire-resistant gates and glass fireproof partitions with fire-resistance EI 30 – EI 120. All products are manufactured at our own high – tech facility. All products meet the international quality standards and requirements of the most European countries. The cost effective Europe made fire doors are available from TiSO at any time. That is proved by the fact of getting such certificates as Certificate of Conformity No. OSE –12-1017/02; Certificate of Conformity of Quality Control System to requirements of the standard ISO 9001:2008; SK certificate of constancy of performance of essential characteristics of product according to STN EN 16034:2015 No. SK01-ZSV-0340; Certificate UL No. 20150713-R27834; Certificate DSTU ISO 9001:2009.

Fire – resistant doors



Door closer



Seal with a thermal expansion on the perimeter



3D - adjustable hinge



"Anti-cut" mechanism

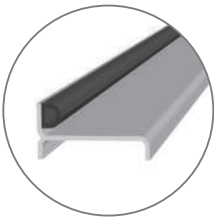


Set of handles and heat-resistant plastic plates with a lock and cylinder

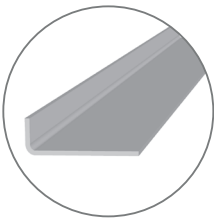
Different profiles of doorsill



Permanent doorsill - 1



Permanent doorsill - 2



Doorsill for installation



Accessories



**ONLY FIRE
RATED HARDWARE**



Accessories

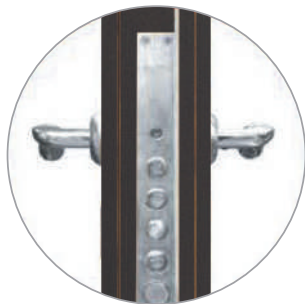
TiSO fire resistant doors can be supplied with the antipanic push bar or electromagnetic lock upon the clients request. Right and left opening are available, reinforced plate for the door closer installation comes standard on each TiSO fire-resistant door. Our fire resistant doors are powder coated according to the RAL scale, which gives our customer a variety of colors to choose from. Our quality fire resistant doors meet high expectations of the most demanding clients.

TiSO produces fire-resistant doors with MDF – cover. Such doors combine high fire – resistance and attractive appearance. We guarantee fire – resistance up to 120 minutes due to the steel leaf with special filler. Customer can choose cover of different shape, color and thickness. Such door is a real combination of reability and design.

Product specifications:

	Standart complete set
Size*	900, 1000×2100
Fire-resistance	EI 30, EI 60
Color	RAL 8017
Dore-frame	«Corner»
Doorsill	For installation
Accessories	Handles and lock “ISEO”; Door-closer “I.B.F.M.”; Seal with thermal expansion; Rubber seal

*Other arm length is available up on request



Secure three-point lock with anti hacking protection



Thickness of cover 6 or 12 mm



3D-adjustable hinge



Any pattern and texture of cover

Reference list

TiSO company provides entrance security solutions at wide range of sites all over the world. More than 20 000 references in 53 countries are equipped with pedestrian and vehicle access control systems manufactured by European brand TiSO. Some of the most significant are outlined below:

FINANCIAL INSTITUTIONS

- Singapore Stock Exchange, Singapore
- Bank of Portugal, Portugal
- The headquarters of BBVA, Spain
- Deutsche bank head office, Romania
- Bank of America Indian HQ, Mumbai, India
- The headquarters of BBVA, Spain

GOVERNMENTAL INSTITUTIONS

- Ministry of Defense, Poland
- Ministry of Defense, Estonia
- City Council, UK
- Ministry of National Development, Singapore
- NATO HQ, Kuwait
- Ministry of defence, Slovakia

PRODUCTION

- Tawazun precision industries, UAE
- Fermator Group, Spain
- Banknote printing factory «De La Rue», Malta
- ALSTOM power plant, Estonia
- LG factory, China
- Mallaghan engineering, Northern Ireland

AIRPORT/TRANSPORT FACILITIES

- Lisbon International Airport, Portugal
- Avis Rent-a-Car in Orly airport, France
- Hertz Rent-a-Car in airport, France
- ASECNA, Dakar, Senegal
- Bus Station, Estonia
- Chisinau International Airport, Moldova

BUSINESS (OFFICE) CENTER

- URA building, Singapore
- DHL office, Germany
- G4S office building, Estonia
- Louvre Abu Dhabi, UAE
- Abu Dhabi Ports, UAE
- Stanislawow office, Poland

SPORT/RECREATION

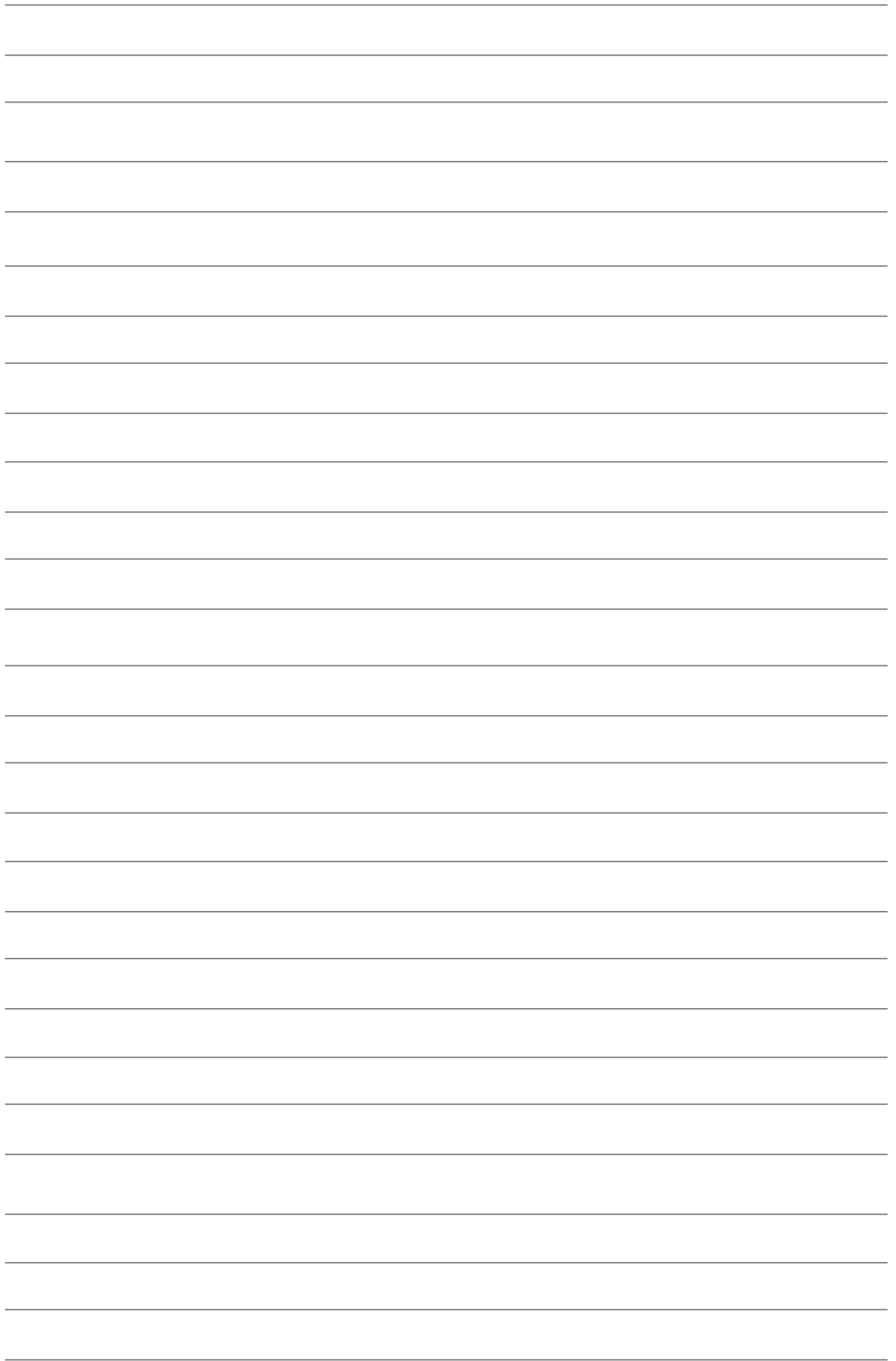
- UFC Gym, UAE
- Zoological Gardens, Czech Republic
- Birmingham central park, UK
- Hydropark in Warsaw, Poland
- «Stade Mayol», France
- Camping in Salou, Spain

OTHERS

- Woodland data center, Singapore
- Southern Water, UK
- Alexandria Library, Egypt
- European forum Congress, Poland
- Sawaeed labour Camp, UAE
- «Ceska Televize» TV channel office, Czech Republic

See all references here





TiSO Global

Kyiv, Ukraine
14 Promyslova Street
02088
e-mail: sales@tiso.global
www.tiso.global

TiSO ME

Dubai, UAE
Dubai South, B4, office 231,
P.O. Box 712990
e-mail: sales.me@tiso.global
www.tiso.global

TiSO UK

Innovation Centre, Highfields Drive,
St Leonards on Sea, TN38 9UH. UK
tel.: +44 (0) 1424 858120
e-mail: sales@tisouk.com
www.tisouk.com

TiSO APAC

78 Bedok North Road
Unit 14-232, Singapore 460078
tel.: +65 6256 05 15
e-mail: enquiry@tisoapac.com
www.tisoapac.com