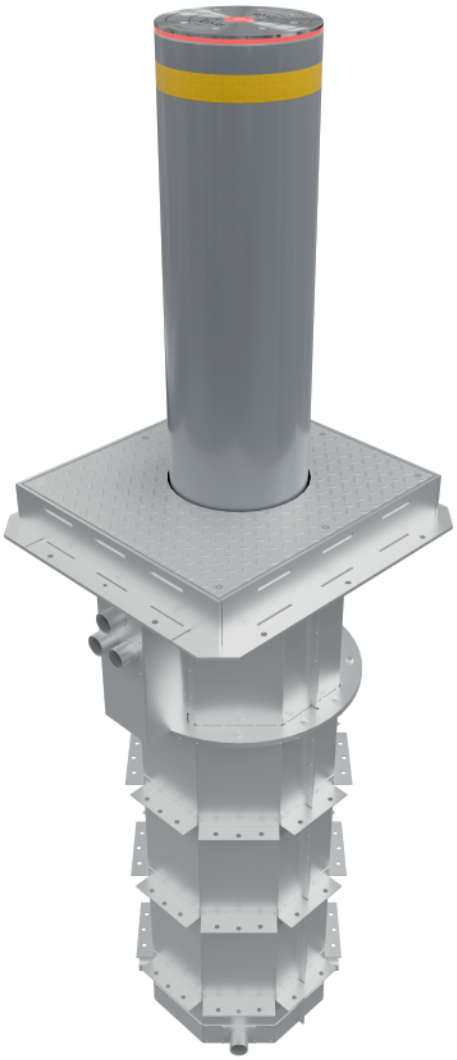
Crash-tested according to

ASTM INTERNATIONAL



HIGH SECURITY AUTOMATIC BOLLARDS M30 (K4) ANTI-RAM CLASS

ASTM F2656-07, M30, P1 (-1.2m)

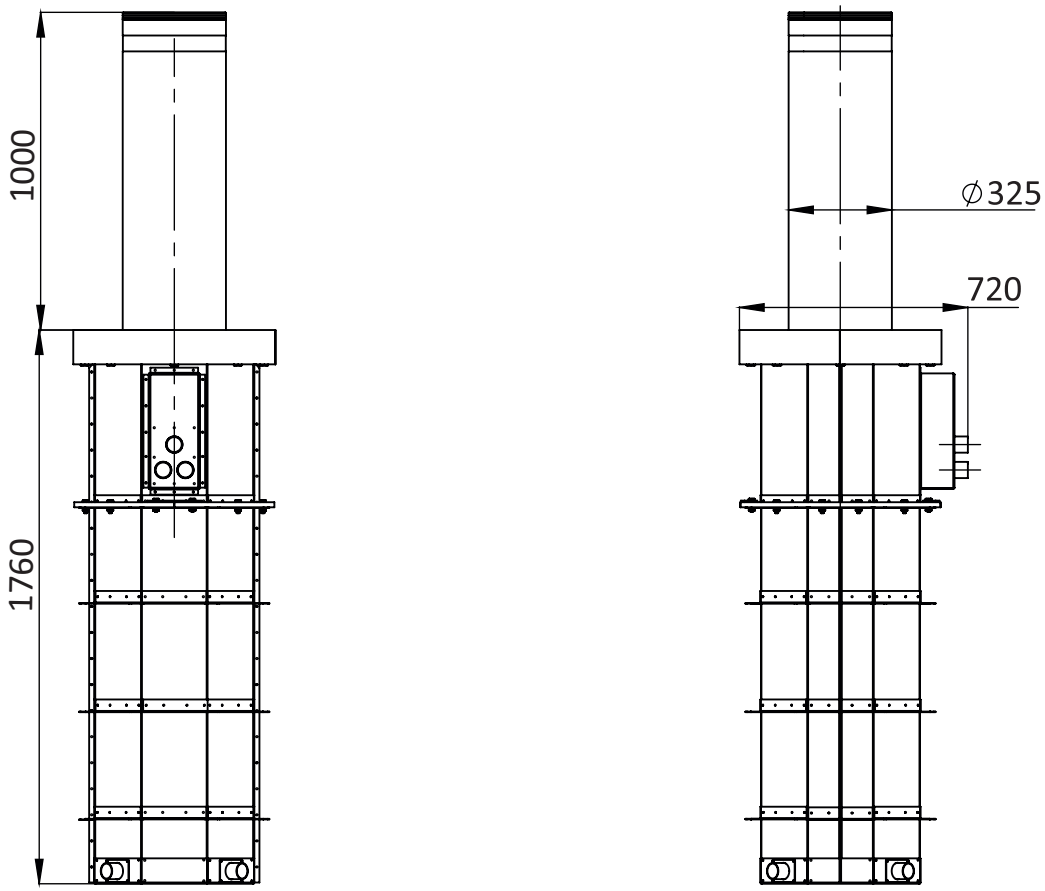
RELIABLE, PRACTICAL AND COST-EFFECTIVE SOLUTION TO PROVIDE 100% SECURITY OF YOUR TERRITORY

TiSO high security automatic bollards RB348 being certified according to ASTM F2656-07, M30, P1 (-1.2m). They are intended to prevent unauthorized access of vehicles to a secured perimeter and provide highest level of anti-terrorist protection. Being developed by engineers with huge background in appropriate fi eld, TiSO anti-ram automatic bollards have the following features: reliability, durability, functionality, and perfect resistance to external impact. All these factors together make this bollard a universal solution for a vehicle access control establishment.

Installation areas

- Governmental Institutions
- Military Bases
- Nuclear Power Plants
- Production sites (Industrial Plants)
- Commercial areas
- Financial institutions
- Airport Premises
- Business (Office) Center
- Hotels
- Sport Complexes
- Recreation areas
- Urban areas
- Education Institutions

www.tiso.global
+380 (44) 291-21-11
e-mail: sales@tiso.global



TECHNICAL SPECS:

Model	RB348
Drive	Hydraulic (external)
Tube diameter, mm	325
Tube height, mm	1000
Wall thickness, mm	20
Impact resistance, kJ	679,9
Load per axle, t	15
Rising speed, cm/sec	~26
Lowering speed, cm/sec	~30
Operating temperatures*, ° C	-40 /+60
Power supply	3 phase 400 V, 50/60 Hz
Protection level	IP 67 for Bollard IP 54 for control box
Tube materials	Epoxy polyurethane coating 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

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e-mail: sales@tiso.global

CTS
crashtest-service.com

Contracting Client:
Tiso Blockers, LLC
72, Yamska str.
03150 Kyiv
Ukraine

Certificate

of passed Barrier Testing Programme

ASTM F 2656-07, M30, 23th October 2015, CTS Test-No: 18249	
Type of product:	Bollard „AUIA – 348"
Vehicle penetration:	-1.2 m (dynamic)
Mass [Target]:	6800 kg (±140 kg)
Mass [Test]:	6868 kg
Impact speed [Target]:	50.0 km/h (45.0 km/h – 60.0 km/h)
Impact speed [Test]:	50.6 km/h
Angle:	90 °
Major debris:	n/a (≥ 25 kg)
Observations	
Vehicle restrained:	yes
Vehicle immobilized:	yes
Bollard still functions after impact:	yes
Penetration Rating:	**P1 (-1.2m)**
	

Sincerely
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