HIGH SECURITY FIXED BOLLARD

Crash-tested according to

ASTM INTERNATIONAL

IWA 14 IMPACT TESTED

ABSENCE OF H-BEAMS OR PRE-WELDED STRUCTURES, IN ORDER TO MINIMIZE SHIPPING VOLUME AND WEIGHT

High security fixed bollards were designed to protect the perimeter of the protected area. Following model can stop a truck 7 200 kg (7,2 t) mass driving at 80 kph (50 mph) speed. This confirmed by successfully passed tests ASTM F2656/2656M-20 and IWA 14-1:2013.

One of the greates advantage of following model is absence of H-beams or pre-welded structures, in order to minimize shipping volume and weight.

Bollards are installed at a depth of 400 mm only. Minimal installation depth and maximum anti-ram protection - this is the ideal combination that our customers are looking for. This model can be installed at urban areas, because the installation depth of 400 mm ensures that the underground urban communications won't be affected.

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

etc.

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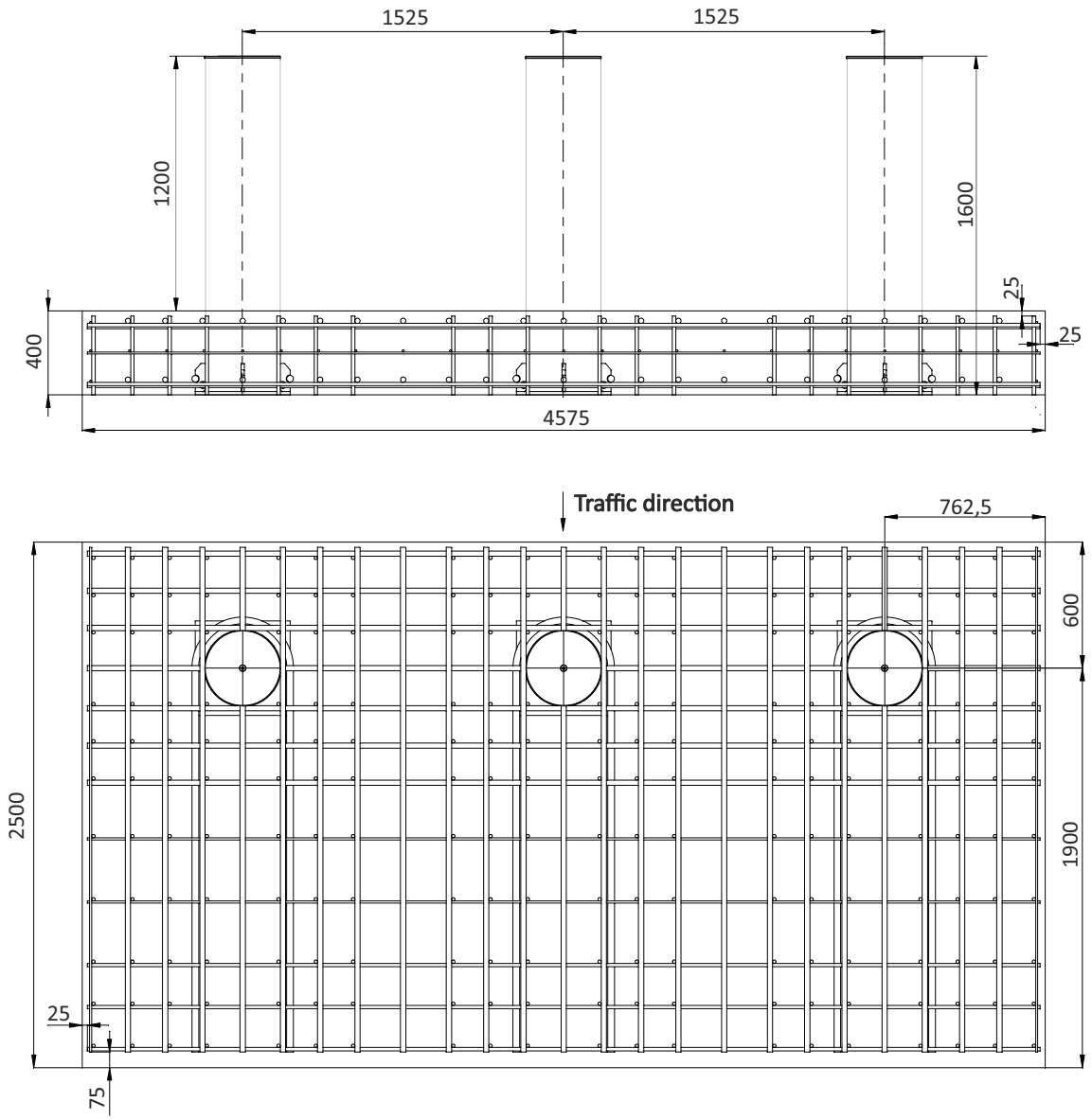
e-mail: sales@tiso.global



TECHNICAL SPECS:

Model	RB345-09-S-035
Security class	ASTM F2656/2656M-20, M50 (K12), P1 IWA 14-1:2013, Bollard V/7200[N2B]/80/90:0.7 Crash-tested: triple bollards set
Impact resistance, J	1 789 000
Diameter, mm	355
Wall thickness, mm	30
Height, mm	1200
Installation depth, mm	400
Material	Galvanized and powder coated tube (any RAL upon request) Stainless steel sleeve / casing up on request
Bollard top lighting (Optional)	LED; UFO-shaped; red, white or yellow

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Certificate

of passed Barrier Testing Programme

CTS crashtest-service

Certificate No.: TC-11523-3621-19412
Date of certification: 17-JULY-2020

Contracting Client:
TISO PRODUCTION LTD
14 Promyslova str.
02088 Kyiv
Ukraine

Type of Product:	Fixed triple Bollard "RB345-09-S-035"	
Test Standard:	ASTM F2656/F2656M-20 IWA 14-1:2013	
Test Standard Classification:	ASTM F2656: C750 IWA 14-1: N2B - 80 km/h	
Test Date:	07-JULY-2020	
Vehicle Restrained:	Yes ☒	No ☐
Vehicle Immobilized:	Yes ☒	No ☐
Vehicle advanced beyond Barrier:	Yes ☐	No ☒
Test Vehicle Kinetic Energy at Impact:	1789 kJ	
Penetration Rating ASTM F2656:	P1 (0.7 m)	
Performance Rating IWA 14-1:	Bollard V/7200[N2B]/80/90:0.7	
Only valid in connection with CTS-Test Report No.:	11523-3621-19412-EN	
If completely changed this certificate will be replaced by certificate No.:	TC-11523-3621-19412-2	

Sincerely

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Dipl.-Ing. Peter Schimmelpfennig (Managing Partner/Head of Laboratory)

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