

ROAD EQUIPMENT





Modern road should provide not only safety, but also comfort for drivers. Since the number of motor transport has been recently increasing, traffic management equipment plays more and more important role in saving lives and health of drivers and pedestrians.

"EUROFORMAT" Company offers a wide range of activities, regarding traffic safety organization and enforcement, as well as road objects arrangement.

Company principal directions are delivery and instalation of road and bridge guardrail, noise screens, road signs, charts of route orientation, individual planning signs, and other objects of road infrastructure.

Our goal lies in improving safety level of the road users. With this aim in mind, the Company employs innovative engineering solutions, relying on the experience of the best European producers.

The production of the company is tested, certified and undergoes constant improvements. Our product guarantees your safety and comfort.







ROAD SAFETY BARRIER

"EUROFORMAT" produces all types and elements of the guardrail according to GOST 26804-86, GOST 26804-2012, ST-RK 1278-2004, ST-RK GOST R 52607-2010, TU U B. 2.3-28.1-32453930-004:2009,EN 1317.

In 2008 "EUROFORMAT" Company devised new technical specifications TS U V. 2.3-28.1-32453930-004:2009. New engineering solutions were employed. Also the experience of the best European producers was taken into account while protection development. All types of constructions have been tested at the training ground and have been found compliant with European standards EN 1317-1/98 and EN 1317-2/98.

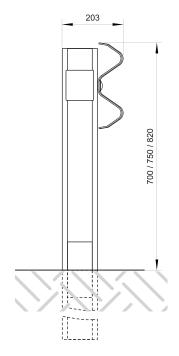
NOT	NOTATION OF THE CONTAINMENT LEVELS ACCORDING TO THE EN 1317-1 / 98 i EN 1317-2 / 98								
Level N1 N2 H1 H2 H3									
Value (kJ) ≥ 43 ≥ 82 ≥ 128 ≥ 280 ≥ 460									

Main advantages:

• All elements of the safety barrier have undergone hot dip galvanization, which secures maximum possible life cycle in comparison with other methods of anticorrosion treatment.

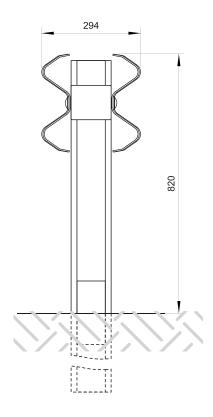
• Production facilities and stock resources of finished products allow prompt supply.

Single-sided barriers



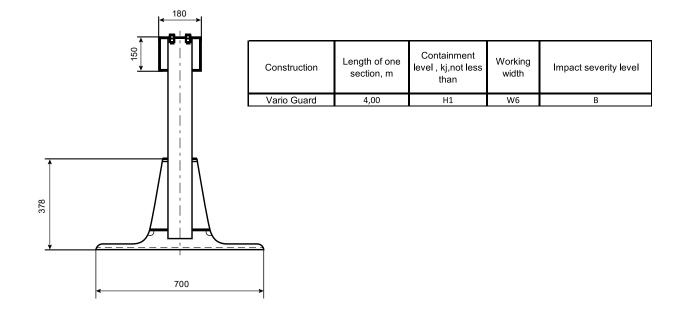
Construction	Post distance, m	Containment level, kJ, not less than	Working width	Impact severity level
BMS2PR	2,00	N2	W2(0,8)	А
BMS4PR	4,00	N2	W3(1,0)	А
BMS4PRL	4,00	N2	W4(1,3)	А
BMS4L	4,00	N2	W5(1,7)	А
BMS1PLS	1,33	H1	W2(0,8)	А
BMS2PRL	2,00	H1	W3(1,0)	A
BMS4PLS	4,00	H1	W4(1,3)	А
BMS4PRL	4,00	H1	W5(1,7)	А
BMS1L	1,33	H2	W4(1,3)	А
BMS2L	2,00	H2	W5(1,7)	А

Double-sided barriers

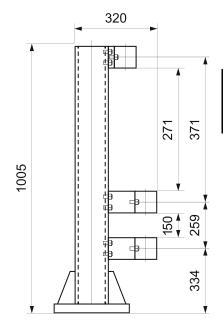


Construction	Post distance, m	Containment level, kJ, not less than	Working width	Impact severity level
BMD4R	4,00	H1	W4(1,3)	А
BMD1R	1,33	H2	W4(1,3)	А

Steel mobile guardrails Vario Guard



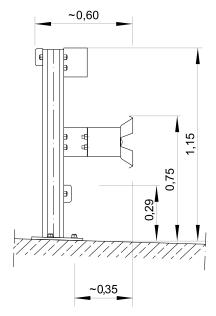
Bridge metal barriers



Construction <i>№</i>	Post distance, m	Containment level, kJ, not less than	Working width	Impact severity level
№ 4 (a)	3,00	H2	W3 (1,0)	А

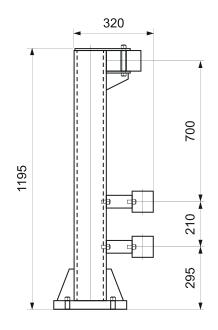


Bridge metal barriers



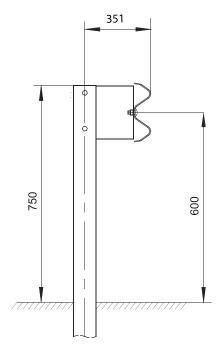
Construction <i>№</i>	Post distance, m	Containment level, kJ, not less than	Working width	Impact severity level
№ 5 (a)	1,33	H4b	W7	В

Bridge metal barriers



Construction <i>№</i>	Post distance, m	Containment level, kJ, not less than	Working width	Impact severity level
№ 6 (a)	1,50	H4b	W1 (0,6)	В

Single-sided barriers



Construction <i>№</i>	Post section	Beam thickness, mm	Post distance, m	Containment level, kJ, not less than			Diflection, m, no more than
		4	4,0	130		U1	1,1
	2)	3	3,0	130	Н1	U1	1,3
	a)	3	2,0	190		U2	1,1
	[№ 12	4	2,0	250		U3	1,1
		4	1,0	300	H2	U4	1,1
	L-1	3	3,0	190	H1	U2	1,22
№ 7 (a,b,c,d)	b) [Nº 16	4	3,0	250	HI	U3	1,2
	[Nº 16	4	2,0	300	H2	U4	1,3
	c) I №16	4	2,0	300	H2	U4	0,8
	d)	3	2,0	190	114	U2	
	C120x55x18x5	4	2,0	250	H1	U3	1,0

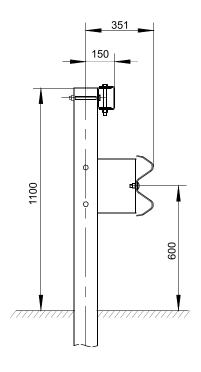
Note:

[- Channel bar

I - I-Beam

C - C profile

Single-sided barriers



Construction <i>№</i>	Post section	Beam thickness, mm	Post distance, m	Containment level, kJ, not less than		Diflection, m, no more than	
	a) I №12	4	2,0	350	H2	U5	1,2
№ 8 (a,b,c,)	b) I № 14	4	2,0	400	112	U6	1,2
	c)][2x(120x80x5]	4	2,0	460	НЗ	U7	1,13

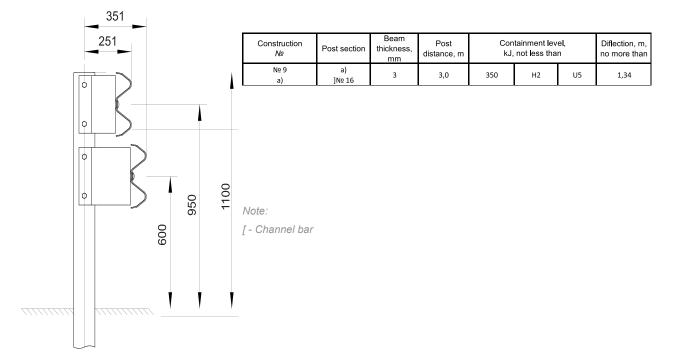
Note:

I - I-Beam

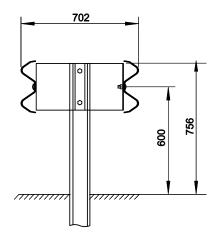
][- Bent double profile



Single-sided barriers



Double-sided barriers



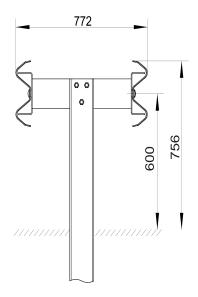
Construction <i>№</i>	Post section	Beam thickness, mm	Post distance, m	Containment level, kJ, not less than			Diflection, m, no more than
	a)	3	4,0	150	H1	U1	
	[№ 12	3	2,0	190		1 U2	1,1
	b)	3	2,0	250		U3	
Nº 10	[№ 14	4	2,0	300			1,1
Nº 10 (a,b,c,d)	c) [№ 14	3	3,0	300	H2 U4		
	d) C120x55x18x5	4	4,0	300	112	04	1,0

Note:

[- Channel bar

C - C profile

Double-sided barriers



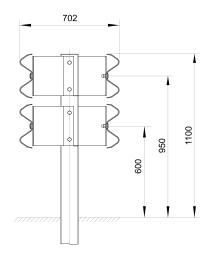
Construction <i>№</i>	Post section	Beam thickness, mm	Post distance, m	Containment level, kJ, not less than		Diflection, m, no more than	
b)	a) [120x80x5	3	1,0	300		U4	1,0
	b) [№ 16	3	2,0	300	H2	U4	1,1
	c) C140x90x25x5	3	2,0	300		U4	1,0

Note:

[- Channel bar

C - C profile

Double-sided barriers



Construction <i>№</i>	Post section	Beam thickness, mm	Post distance, m	Containment level, kJ, not less than		Diflection, m, no more than	
	a) INº 12	3	2,0	350		U5	1,1
№ 12 (a,b,c,)	b) INº14	3	2,0	400	H2	U6	1,1
	c) [№ 16	3	3,0	350		U4	1,2

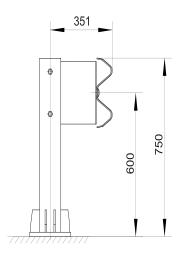
Note:

I - I-Beam

[- Channel bar



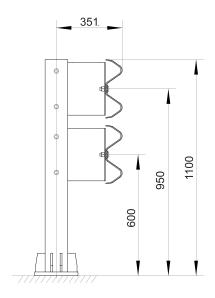
Bridge metal barriers



Construction <i>№</i>	Post section	Beam thickness, mm	Post distance, m	Containment level, kJ, not less than			Diflection, m, no more than
a)	2	1,0	190		U2		
	a)	a) 5	2,0	130	H1 U1 U3		
No 12 (5 b)	I № 12	4	1,0	250		U3	0,75
№ 13 (a,b)	4	2,0	190		U2	0,75	
	b) I № 14	4	1,0	300	H2	U4	

Note: I - I-Beam

Bridge metal barriers



Construction <i>№</i>	Post section	Beam thickness, mm	Post distance, m		tainment lev not less tha		Diflection, m, no more than
	a)	3	1,0	300	H2	U4	1.0
	I №12	4	1,0	350	пг	U5	1,0
№ 14 (a,b)		2	1,0	400	H2	U6	1,0
Nº 14 (a,D)	b)	5	2,0	250	H1	U3	1,0
	I Nº14	4	1,0	450	H3	U7 1,1	1.1
		4	2,0	350	H2	U5	1,1

Note:

I - I-Beam







• Crush Cushion is specially designed to reduce the consequences of frontal collisions of any type of vehicles with stationary structures on the road;

• Absorbs energy released during a collision, slowing the vehicle down to a standstill with minimal damage to road users;

• High retention capacity increases road safety, making the system indispensable in high traffic environments;

- After an accident, systems are more than 70% repaired for reuse;
- Installation locations:
- bridges and tunnels;
- interchanges on high-speed roads;
- road construction sites;
- barrier railings;
- overhanging parts of concrete structures.





	General View	Marking	Efficiency class
		AIR-H120P	110 km/h
		AIR-H110P	110 km/h
Parallel		AIR-H100P	100 km/h
		AIR-H80P	80 km/h
		AIR-H50P	50 km/h
Three-cornered		AIR-H110V	110 km/h
		AIR-H100V	100 km/h
		AIR-H80V	80 km/h
		AIR-H50V	50 km/h
A surrous stails		AIR-H110A	110 km/h
		AIR-H100A	100 km/h
Asymmetric		AIR-H80A	80 km/h
		AIR-H50A	50 km/h









Guard railing is a technical means of road, street or artificial structure beautification for prevention of a pedestrian's exit to a danger zone.

Depending on the railing functionality, two main types can be named:

- holding

- limiting

Holding structures are used in cases when pedestrian traffic across the road must be organized, and for prevention of a pedestrian's falling from a bridge structure, embankment, and any other object with a big level difference.

Limiting structures are installed along the road as an obstacle against the accidental person's exit to a highway, crossing a carriageway in a non-intended place, collision with a pedestrian.

EUROFORMAT manufactures railing both under standard drawings and by drawings provided by a customer.







Modern highways are a source of noise of very high frequency (in the range of 63 to 8000 Hz), which considerably exceeds acceptable sanitary and hygienic norms for adjacent territories. A lot of scientific work confirms the significant impact of noise pollution on the living environment; therefore, the presence of noise screens near settlements, recreation areas and other adjacent residential areas is mandatory.

EUROFORMAT developed and produces noise screens for automobile roads in accordance with technical specifications TU 28.1-32453930-005:2009 «noise screens Euroformat» which successfully passed mechanical and acoustic tests.

In developing noise screens, our specialists adhere to the requirements of national standards for noise exposure in different areas and European norms (EN 14388:2005,EN 14389:2004, EN 1794-1:2003, EN 1794-2:2003); they also cooperate with Ukrainian and foreign scientists.

To obtain effective noise protection it is necessary to work out an acoustic project which determines geometrical dimensions, configuration and positioning of the screens.

Main advantages:

- Maximum efficiency of noise protection.
- High operational characteristics, durability of construction.
- Easy and quick installation.





Our company provides a full range of services for the construction of noise screens, namely:

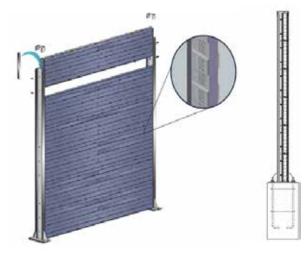
- Consultations and recommendations of specialists in the solution of problems with noise;
- Visit of specialists on the object, analysis of the situation by making measurements of the output data;
- Implementation of the acoustic project;
- Design and development of working documentation of the project for the implementation of the installation;
- · Production of all components for noise screens;
- · Delivery of the components of the structure on object;
- Installation of noise screens;

Specialists of our company have extensive experience and ways to solve diverse problems at a high level in a short time.

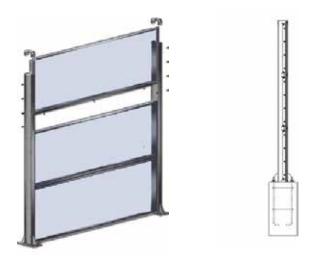


TYPES OF NOISE SCREENS

Noise absorbing screens



Noise chops cassette

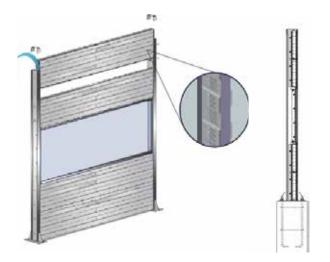


The main structural element of the screen is the noise absorbing. The panel is made of galvanized metal or aluminum alloys with a thickness of 0.7-1.2 mm with subsequent application of polymer coating (any color according to RAL).

Noise absorbing panel can be without perforations, as well as perforated front wall, which increases the effectiveness of accumulation (coefficient of accumulation). Panel is box-shaped and filled with mineral wool (solidity 75-175 kg/m3) in a moisture-proof material.

The main constructional element of the screen is the noise chops cassette, which is made of of glass or monolithic polycarbonate (with a viscosity range of at least 60 MPa and a permeability of at least 88 and a light transmission capacity of at least 88%). Due to the high permeability of light, the noise chops windows have the ability to look through and prevent the tunnel effect from occurring.

Combined screens



The design of the combined screens includes noise absorbing screens in conjunction with noise-chops cassettes.





Framed metal supports are intended for installation of information road signs, traffic lights, electronic displays, motion and weather sensors over the carriageway of all categories of roads. Framed metal supports allow to ensure safety on roads, create a proper comfort level for drivers and passengers, bring them necessary information about works and facilities location using the most accessible and convenient way.

Framed metal supports are made by standard project 3. 503. 9-80 "Supports for Road Signs on Motorways". Depending on the frame configuration, there are three types of supports (each type has several standard dimensions):

Framed metal L-shaped supports (FML): the support height is up to 6.05 m; span width is within 4.5-6.3 m.

Framed metal T-shaped supports (FMT) have the same dimensions as FML supports, but their design is more massive since the cross beam is hanged over both sides of the support.

Framed metal U-shaped supports (FMU): the support height is within 5.95-6.6 m; span width is within 15.75-28 m.

EUROFORMAT has developed and manufactures lightweight framed metal supports. All structures comply with current regulatory documents.

Main advantages:

• Significantly lower metal consumption under the same functional performance characteristics. The weight savings is 4-58%;

• More efficient cross-section is applied in the direction of the main effective forces thus reducing the structure weight as a whole;

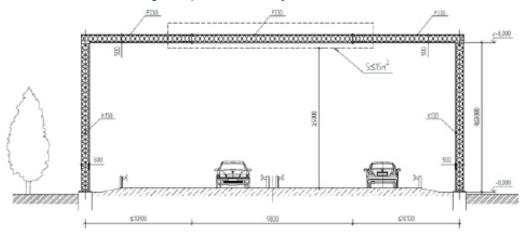
• The ability to manufacture U-shaped metal frames (FMU) up to 32 m wide.L-shaped (FML) and T-shaped (FMT) metal frames are made with span width up to 6.5 m and up to 8 m high.

• Application of narrow and more accessible range of the profiled section schedule (scarce round pipes with diameter 159-219 mm are not used);

• Welding is not required at the installation site thus reducing installation time, decreasing the assembly cost and leaving the zinc coating intact;

• Modern architectural appearance and the "lightness" of the structure. Reduced overall dimensions of the whole structure and its individual elements, absence of shaped elements, angle iron bulky flange connections

• The structural unit with less weight requires less bulky foundations.







Welded H-beam is used in construction industry for assembly of support structures; it is an analogue of hot-rolled beam manufactured by welding of steel sheets.

The main application fields of H-beams:

- · construction of framed residential, industrial and agricultural buildings and facilities;
- at construction sites, in crane beams, floor slabs;
- bridges, racks and other steel structures.

Application of welded H-beams has the following advantages:

• allows to considerably decrease the weight of framed steelwork elements, which have overstated safety factor.

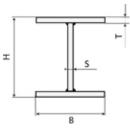
• allows to create efficient support shapes that, in turn, decreases the overall steelwork weight.

• rolled steel manufacturers do not produce rolled beams over 60B. So, welded beams are applied, when one requires the structures, which stiffness and bearing capacity exceeds the capacity of rolled sections;

• ease of use allows to create buildings of various architectural trends;

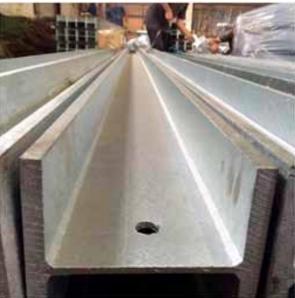
EUROFORMAT is able to fabricate welded H-beams with the following dimensions:

- H beam wall height, mm 132–1500;
- L beam length, mm 2000–12000;
- B beam flange width, mm 100–800;
- S beam wall thickness, mm -5-30;
- T beam flange thickness, mm 6–50.



H-beams are manufactured using the modern automatic hardware trains thus providing superior shape and dimensions, complete weld penetration and faultless appearance of finished welded beams.











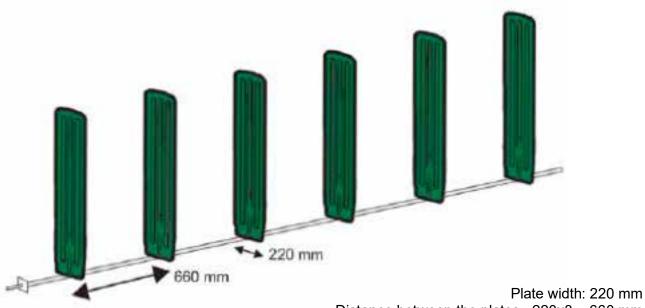
Anti-glare screens are installed on the roads and designed to prevent a driver against glare from headlights of an oncoming vehicle. The role of anti-glare screens cannot be overemphasized when the question is the safety and life sustaining of the driver.

The main reasons for using and installation of anti-glare screens on the roads are road sections with dangerous and sharp turns, accidents at dusk and at night, unfavorable terrain.

EUROFORMAT Company manufactures anti-glare screens according to European standards EN 12676-1, EN 12676-2.

The main structural element is a robust blown plate made of low pressure high molecular weight polymer which is painted with non-fading stain and resistant against UV radiation.





Distance between the plates= 220x3 = 660 mm



Main advantages:

- · Increased traffic safety thanks to protection against glare, which includes the case of overtaking;
- High safety in the event of collision with safety guard;
- The possibility of rescue operations anywhere, the possibility to pass through between barriers with a litter;
- Unlimited through view during the motion along the anti-glare screens;
- · Various options of barrier height and its attachment;
- Simple and quick installation of construction.





Country: Ukraine, Kiev Project: Metro Bridge



Country: Ukraine, Kiev **Project:** Pochtovaya Square





Country: Ukraine **Project:** Kiev-Odessa Motorway



Country: Ukraine Project: Kiev-Kharkiv Motorway





Country: Ukraine, Kiev Project: Most Patona



Country: Ukraine **Project:** Zaporizhya – Donetsk Motorway





Country: Moldowa Project: Kishinev - Soroca



Country: Latvia, Riga Project: South Bridge





Country: Kazakhstan Project: Astana- Borovoe Motorway



Country: Kazakhstan **Project:** Motorway A-3, Almaty-Kapshagaj



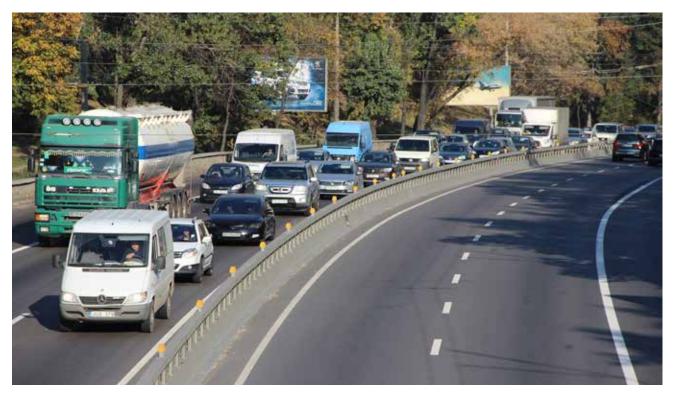


Country: Azerbaijan Project: Baku – Alyat Motorway



Country: Russia, Nizhny Novgorod Project: Metrobridge





Country: Ukraine, Kiev **Project:** O.Telegi str.



Country: Ukraine **Project:** Motorway H-01, Kiev - Znamenca





Country: Ukraine Project: M-06 Kiev – Chop Motorway, Nova Romanivka



Country: Ukraine Project: M-06 Kiev – Czop Motorway





Country: Ukraine Project: Motorway P-01, Kiev - Obuhov



Country: Ukraine **Project:** Motorway P-01, Kiev - Obuhov





Country: Ukraine **Project:** Motorway H-01, Kiev - Znamenca



Country: Poland **Project:** Town Zhabya Wola





Country: Poland **Project:** Motorway S-3, Nova Sul - Legnica



Country: Poland **Project:** Motorway S-5, Radomicko- Kachkovo





Country: Ukraine Project: Motorway M-06 Kiev – Chop, Rivne reg.Molodavo, Verba



Country: Ukraine **Project:** Motorway M-06 Kiev – Chop, Novograd-Volynskyi reg.Pylypovychy





Country: Ukraine Project: Zaporizhya – Donetsk Motorway



Country: Ukraine Project: Motorway Kiev – Chop





Country: Ukraine **Project:** Motorway M-06 Kiev – Chop



Country: Ukraine Project: Motorway M-06 Kiev – Chop













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