

GRAND LINE[®]

PANEL FENCING CATALOG



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Grand Line is a modern enterprise, producing a full range of products both for construction and exterior finishing of residential and industrial buildings at its production sites.
Grand Line's product range is constantly increasing.

At a present moment the following products are manufactured under the Grand Line® trademark:

- | | | |
|-------------------|---------------------|------------------------|
| ⇒ Roofing sheets | ⇒ Vinyl siding | ⇒ Modular fencing |
| ⇒ Corrugated iron | ⇒ Vinyl soffits | ⇒ Plasterboard profile |
| ⇒ Metal siding | ⇒ Rainwater systems | ⇒ Roof safety products |
| ⇒ Seam roofing | ⇒ Panel fencing | |

2012 saw the start of the operation of a new plant to manufacture fencing systems in Vorsino Industrial Park in Kaluga Oblast, Russia.
Modern equipment, high-grade raw materials, and skilled specialists – all these allow Grand Line® fencing systems to stay on top in sales.
Grand Line plant is ISO 9001-2011 certified.



Grand Line® panel fencing is one of the most common types of fencing systems for residential or industrial facilities.
Production of Grand Line® panel fencing is a high-technology process, including:

- ⇒ ERW on high-speed automatic wire mesh welding machines
- ⇒ stamping
- ⇒ steel forming
- ⇒ polymer coating application including high-tech surface treatment



Quality

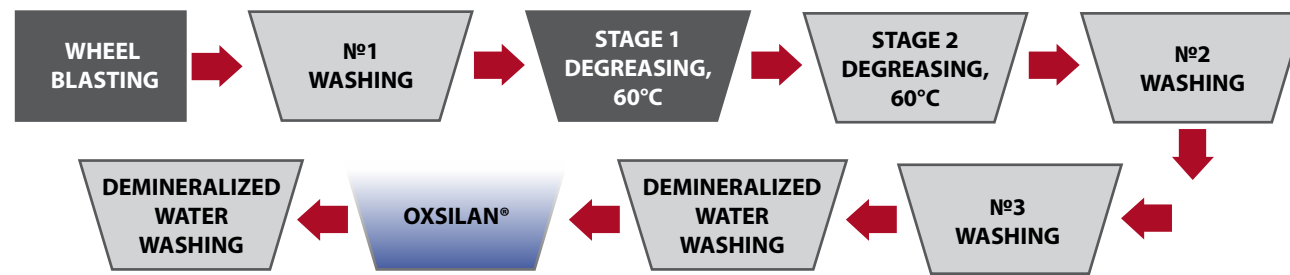
GRAND LINE®

Grand Line® is responsible for the high quality of its products at each production step. Corrosion resistance serves as the most significant quality index of Grand Line® fencing systems. Grand Line uses OXSILAN® technology, recognized and widely used in automotive industry, which helps to protect products when preparing a hot-galvanized surface for polymer coating application. The technology greatly increases corrosion resistance of the products.

OXSILAN® is a nanolayer of organosilicon polymers to create a virtually pore-free coating, which tightly adheres to the metal surface. It ensures good adhesion of the paint coating and maximum corrosion resistance.

High-technology surface treatment before the polymer coating application is a necessary condition for corrosion resistance. 80% of a perfect corrosion resistance is ensured by the treatment itself and just 20% by the type of paint coatings used and their application methods.

Thanks to the 9-stage tunnel line of surface treatment, Grand Line ensures the highest quality of the products.



Quality

GRAND LINE®

Panel fencing systems are covered by a brand-name written warranty from the manufacturer. The warranty period is based on the objective criteria.

- ⇒ The products are all galvanized
- ⇒ 9-stage surface treatment before applying OXSILAN® nanolayer
- ⇒ The QUALICOAT approved, weather-resistant architectural polymer coating

OXSILAN



THE HIGHEST LEVEL OF EXCELLENCE

Laboratory tests prove that Grand Line® fence panels meet European standards.

- ⇒ Polymer coating thickness $\geq 80\mu\text{m}$ guaranteed
- ⇒ ISO 2409 Cross Cut AdhesionTest- 0 points
- ⇒ ISO 9227Salt Spray Test – $\leq 2\text{mm}$ after 1500 hrs in a salt spray chamber



Warranty



Appearance warranty

The manufacturer assures the following defects will not occur during the warranty period:

- ⇒ Peeling and cracking of the coating
- ⇒ Irregular or severe color change
- ⇒ Rust stains



Performance warranty

The manufacturer assures that fencing systems will not suffer from rust-through corrosion during the warranty period.

GRAND LINE®
долговечный профиль

ГРАНТИЙНЫЙ ТАЛОН

№ заказа _____ дата продажи* _____

Изделие _____ покрытие _____

Фирма-продавец _____

Адрес фирмы-продавца _____

Телефон фирмы-продавца _____

подпись продавца _____ / М.П. продавца _____

*Указанная дата продажи является датой отгрузки продукции с завода-производителя

Гарантийные обязательства

Гарантия распространяется на металлоочерепицу, металлический сайдинг, фальцевую кровлю, профнастил, доборные элементы к ним, панельные и модульные ограждения, металлические штапелки, водосточные системы, изготовленные из стали с алюминиевым и полимерным покрытием (толщина стали 0,5 мм), а также из оцинкованной стали толщиной 0,5 мм.

Покрытие	Гарантия на сохранность внешнего вида		Срок гарантии (лет)	
	Внутренняя зона (всего 3 м от берега моря)	Внешняя зона (всего 3 м от берега моря)	Внутренняя зона (всего 3 м от берега моря)	Внешняя зона (всего 3 м от берега моря)
Солано®	25	10	10	5
Океан®	20	10	10	5
Океан®-20	15	10	10	5
Вальс®	20	10	10	5
Вальс®-20	15	10	10	5
Солар®-Print	10	10	10	5
Сайл®	10	10	10	5
Фр®	10	10	10	5
Панельная	10	10	10	5
Центр GL	5	2	5	2
Водосточные системы GL	10	5	10	5
Секционные ограждения GL	10	5	10	5
Модульные ограждения GL	10	5	10	5

Сматривайте выбранные изделия/покрытия/системы.



'MEDIUM' FENCING SYSTEM FOR PRIVATE HOUSING



'Medium' fencing system for private housing



Turnkey solutions for:

- ⇒ Private houses
- ⇒ Schools
- ⇒ City infrastructure
- ⇒ Kids playgrounds
- ⇒ Railway terminals
- ⇒ Parking areas

Main issues

The key requirements for private housing fencing are: **reliability, aesthetic design, easy installation, reasonable price.**

Saving time, efforts, and costs

The assembly package makes it possible to install a fence **rapidly with no welder. No additional painting is needed** when in service.

Adding to the quality

All fencing elements go through 9 stages of surface treatment, including the application of OXSILAN® conversion nanolayer, which considerably **increases corrosion resistance**.

Quality mark

We give a **written warranty** on the product.

Panel colors always in stock:

RAL 6005 RAL 8017

Standard RAL colors:

RAL 1014

RAL 1021

RAL 3005

RAL 3020

RAL 5005

RAL 7040

RAL 9005

RAL 9016



'Medium' fencing system for private housing

Panels: 'Light', 'Medium'

Wire: Ø 3.5 mm, 4 mm

Cells: 200 x 55 mm

Panel width: 2.51 m; 3.01 m, 3.11 m

Panel height: 0.63 – 2.43 m

Quality starts with the material

The panels are made of a GOST 3282 hot-galvanized steel wire.

Quality preservation and improvement

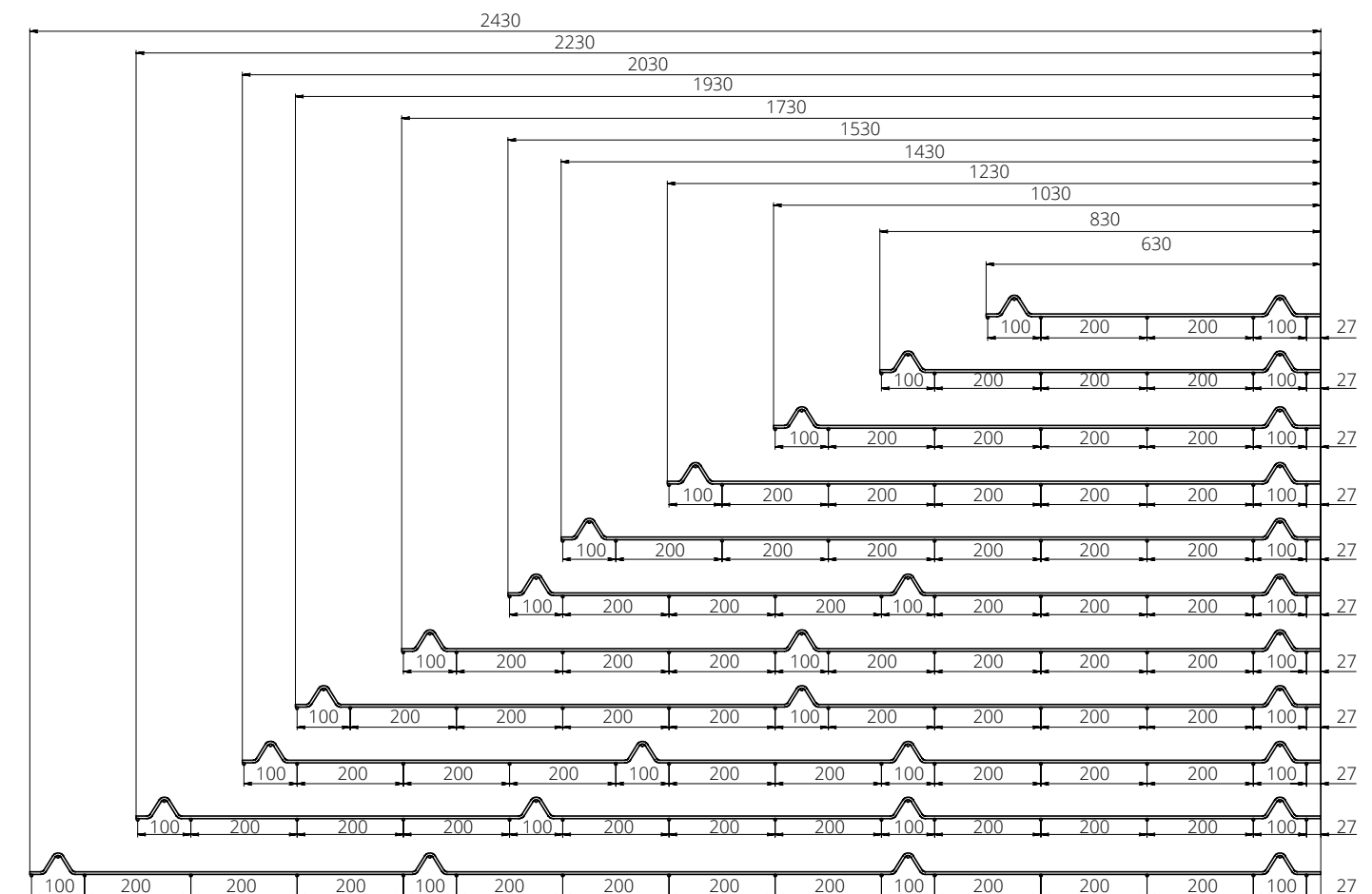
Welding joints are made with a Cold Metal Transfer (CMT) technology, which ensures maximum performance of a zinc layer at the welding points.

Improving products

Compared to the other manufacturers, our reinforced stiffening ribs double panel strength.



Typical sizes and geometry



'Medium' fencing system for private housing

Posts

- ⇒ 51 x 1,2 mm
- ⇒ 62 x 55 x 1,4 mm

Quality starts with the material
The 62 x 55 mm square-cut posts are made of 1.4 mm steel; the half-round 51 mm posts – of 1.2 mm steel, both hot-galvanized.

Quality preservation and improvement
The interlocking joint of the posts is made with a unique seam-lock technology. The technology needs no welding and protects galvanized coating, i.e. increases durability of each post.

Custom solutions
Each post is ready to be produced for various types of fasteners and installation methods, such as: concreting, to concrete foundation, to screw piles.

51 mm half-round post

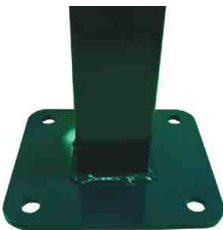


62 x55 mm post



Post with welded flange

square-cut flange



triangle flange



reinforced flange



Post with two-base flanges



used for fences ≤2 m tall

Panel height	Post	Post height		
		With flange	For concreting	
			Fixator fastener	Collar fastener
0,63 m	Ø 51 62x55	- 0,665 m	2,0 m 1,1 m	1,5 m
0,83 m	Ø 51 62x55	- 0,865 m	2,0 m 1,3 m	1,5 m
1,03 m	Ø 51 62x55	- 1,065 m	2,0 m 1,5 m	2,0 m
1,23 m	Ø 51 62x55	- 1,265 m	2,0 m 1,7 m	2,0 m
1,43 m	Ø 51 62x55	- 1,465 m	2,0 m 1,9 m	2,0 m
1,53 m	Ø 51 62x55	- 1,565 m	2,0 m	2,0 m
1,73 m	Ø 51 62x55	- 1,765 m	2,5 m 2,2 m	2,5 m
1,93 m	Ø 51 62x55	- 1,965 m	2,5 m 2,4 m	2,5 m
2,03 m	Ø 51 62x55	- 2,065 m	2,5 m	2,5 m
2,23 m	62x55	2,265 m	2,7 m	3,0 m
2,43 m	62x55	2,465 m	3,0 m	3,0 m

'Medium' fencing system for private housing

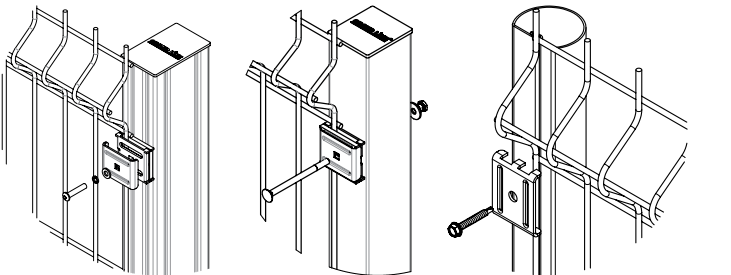
Furniture

- ⇒ fixator + bolt
- ⇒ fixator + screw
- ⇒ fixator + self-tapping screw
- ⇒ collar for 51 mm post
- ⇒ collar for 62 x 55 mm post

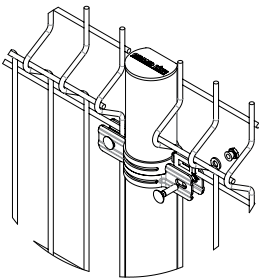
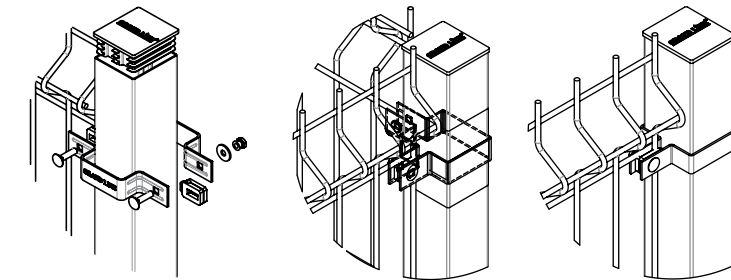
Pay attention when ordering:
Perforated posts fit to a 'fixator + bolt' fastener. Posts with thread bush (stack bolts) fit to a 'fixator + screw' fastener. For a 'fixator + self-tapping screw (or collar)' fastener no perforation of posts is needed.

Quality in details
Specially designed fasteners for fencing systems wholly meet the working conditions; prove to be anti-vandal, and have all the necessary elements included (e.g. plastic inserts for collars).

fixator + screw fixator + bolt fixator + self-tapping screw



62 x 55 collar 62 x 55 angular collar 62 x 55 end collar



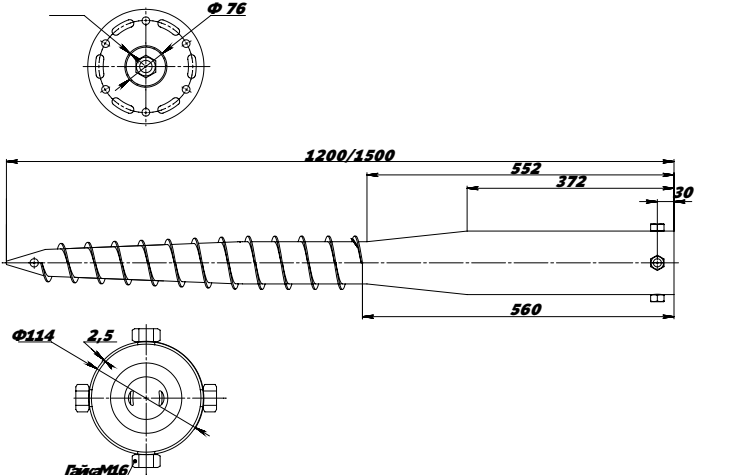
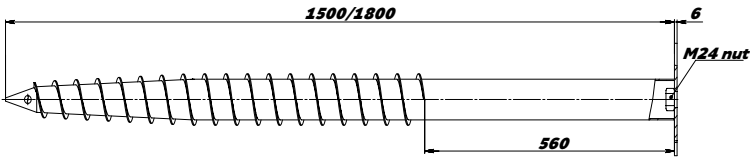
Additional elements

- Screw type base**
- ⇒ With flange
 - ⇒ Without flange

Screw type base with flange
1.5 m, 1.8 m



Screw type base without flange
1.2 m, 1.5 m



'Medium' fencing system for private housing

'Medium' wicket doors and gates

- ⇒ **Width:**
wicket – 1 m
gate – 3.5 m
- ⇒ **Height:**
1.03 m; 1.53 m; 1.73 m; 2.03 m
- ⇒ **Gate posts:**
wicket door – 60 x 60 mm
gate – 80 x 80 mm
- ⇒ **Frame:**
post – 51 mm
- ⇒ **Filling:**
'Medium' panel, no stiffening ribs
- ⇒ **Furniture:**
Locinox hinges GAM12
Locinox LAKZ P1 lock
beam
stop molding



'PROFI' FENCING SYSTEM FOR INDUSTRIAL OBJECTS

'Profi' fencing system for industrial objects



Turnkey solutions for:

- ⇒ Airports
- ⇒ Industrial enterprises
- ⇒ Schools
- ⇒ Kids playgrounds
- ⇒ Railway terminals
- ⇒ Parking areas

Main issues

All 'Profi' fencing elements for industrial objects meet the major clients' requirements: **strength, reliability, and aesthetic design.**

Saving time, efforts, and costs

Fencing systems need neither extra investment nor maintenance during the service life – **no additional painting and servicing are needed.**

Adding to the quality

All fencing elements go through 9 stages of surface treatment, including the application of OXSILAN® conversion nanolayer, which considerably **increases corrosion resistance.**

Quality mark

We give a **written warranty** on the product.

Panel colors always in stock

RAL 6005

Standard RAL colors

RAL 1014

RAL 1021

RAL 3005

RAL 3020

RAL 5005

RAL 7040

RAL 8017

RAL 9005

RAL 9016



'Profi' fencing system for industrial objects

Panels: 'Profi', 'Expert'

Wire: Ø 5 mm, 6 mm
Cells: 200 x 55 mm
Panel width: 2.51 m; 3.01 m; 3.11 m
Panel height: 0.63 – 3.33 m

Quality starts with the material

The panels are made of a GOST 3282 hot-galvanized steel wire.

Quality preservation and improvement

Welding joints are made with a Cold Metal Transfer (CMT) technology, which ensures maximum performance of a zinc layer at the welding points.

Flexible solutions

The welding joints are made with a Cold Metal Transfer (CMT) technology, which ensures maximum performance of a zinc layer at the welding points.

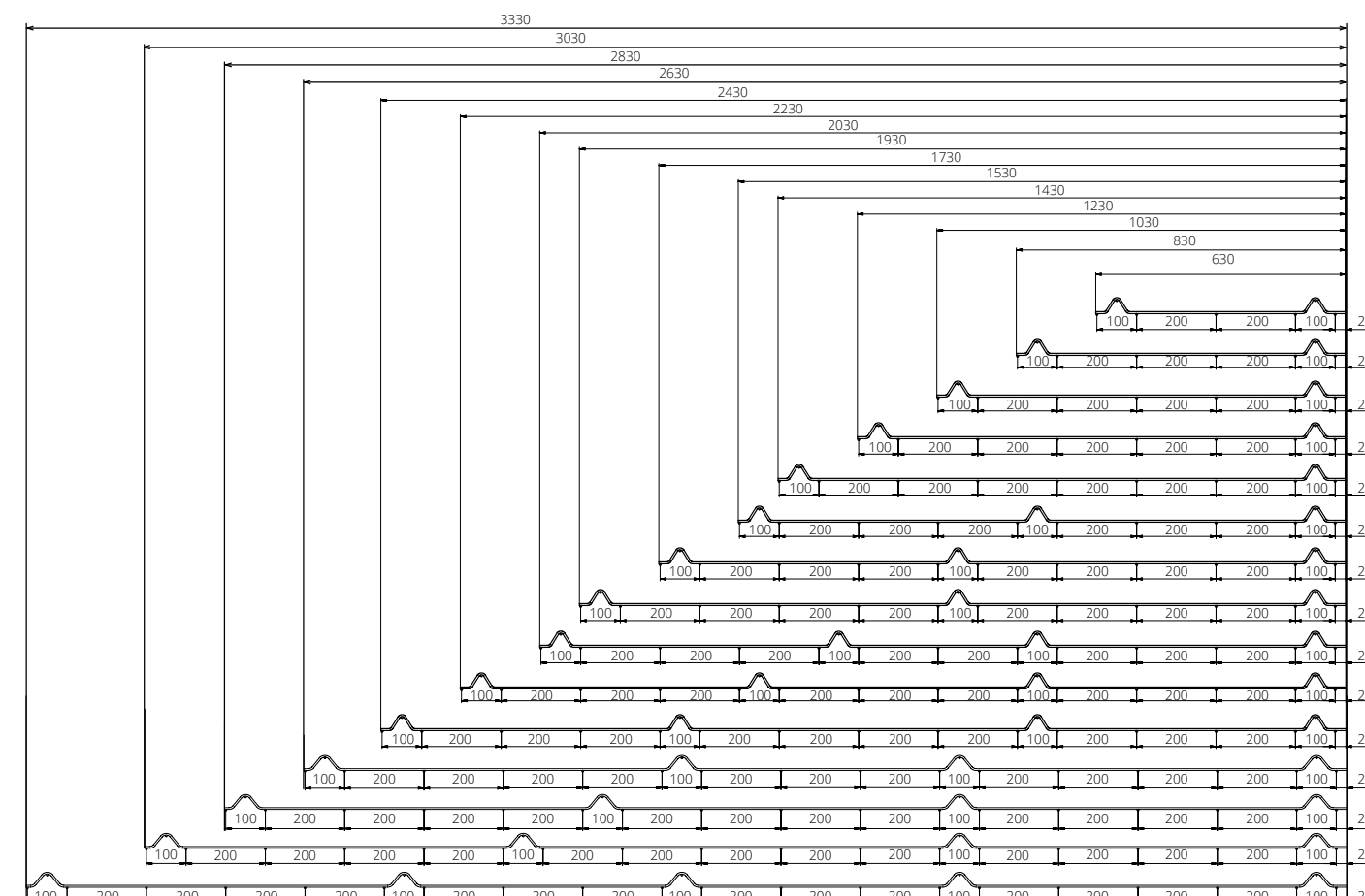


Improving products

Compared to the other manufacturers, our reinforced stiffening ribs double panel strength.



Typical sizes and geometry



'Profi' fencing system for industrial objects

Posts

- ⇒ 62 x 55 x 1,4 mm
- ⇒ 80 x 80 x 2 mm
- ⇒ 80 x 80 x 3 mm
- ⇒ 90 x 55 x 1,4 mm

Quality starts with the material
The 1.4 mm posts are made of 320 grade steel; the 2 and 3 mm posts - of 220 grade steel.

Quality preservation and improvement
The interlocking joint of the 62 x 55 and 90 x 55 posts is made with a unique seam-lock technology. The technology needs no welding and protects galvanized coating, i.e. increases durability of each post.

Flexible solutions
Optionally, posts may be produced of non-galvanized steel with the further GOST 9.037-89 hot-dip galvanization.

62 x 55 post 80 x 80 post 80 x 80 post



Post with welded flange

square-cut flange triangle flange reinforced flange



Post with two-base flanges

used for ≤2 m tall fences



Panel height	Post	Fasteners per post	Post height		
			With flange	For concreting	
				Fixator fastener	Collar fastener
0,63 m	62x55	2	0,665 m	1,1 m	1,5 m
0,83 m		2	0,865 m	1,3 m	1,5 m
1,03 m		2	1,065 m	1,5 m	2,0 m
1,23 m		2	1,265 m	1,7 m	2,0 m
1,43 m		2	1,465 m	1,9 m	2,0 m
1,53 m		3	1,565 m	2,0 m	2,0 m
1,73 m		3	1,765 m	2,2 m	2,5 m
1,93 m		3	1,965 m	2,4 m	2,5 m
2,03 m		4	2,065 m	2,5 m	2,5 m
2,23 m		4	2,265 m	2,7 m	3,0 m
2,43 m	80x80 90x55	4	2,465 m	3,0 m	3,0 m
2,63 m		4	2,665 m	3,5 m	3,5 m
2,83 m		4	2,865 m	3,5 m	3,5 m
3,03 m		4	3,065 m	4,0 m	4,0 m
3,33 m		5	3,365 m	4,5 m	4,5 m
2,03 + 1,03 m		6	3,095 m	4,0 m	4,0 m
2,03 + 2,03 m		8	4,095 m	5,0 m	5,0 m

'Profi' fencing system for industrial objects

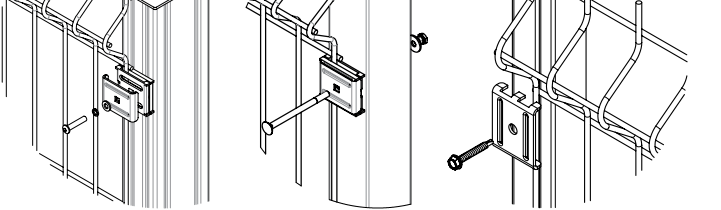
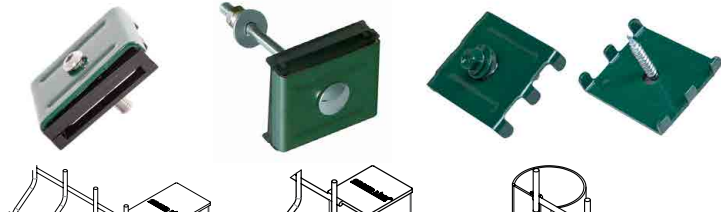
Fasteners

- ⇒ fixator + bolt
- ⇒ fixator + screw
- ⇒ fixator + self-tapping screw
- ⇒ collar for 62 x 55 post
- ⇒ collar for 80 x 80 post

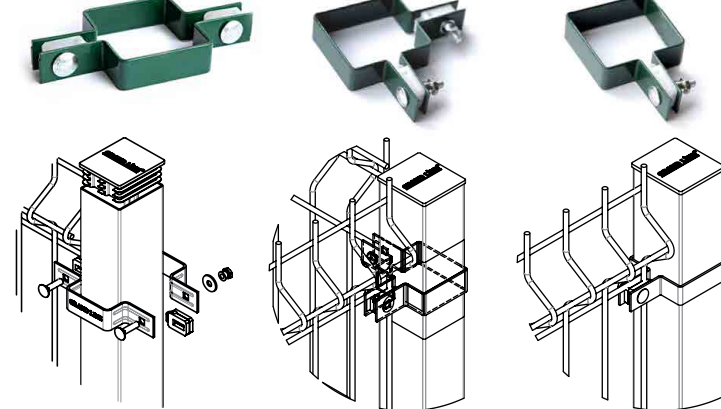
Pay attention when ordering:
Perforated posts fit to a 'fixator + bolt' fastener. Posts with thread bush (stack bolts) fit to a 'fixator + screw' fastener. For a 'fixator + self-tapping screw (or collar)' fastener no perforation of posts is needed.

Quality in details
Specially designed fasteners for fencing systems wholly meet the working conditions; prove to be anti-vandal, and have all the necessary elements included (e.g. plastic inserts for collars).

fixator + screw staple + bolt staple + self-tapping screw



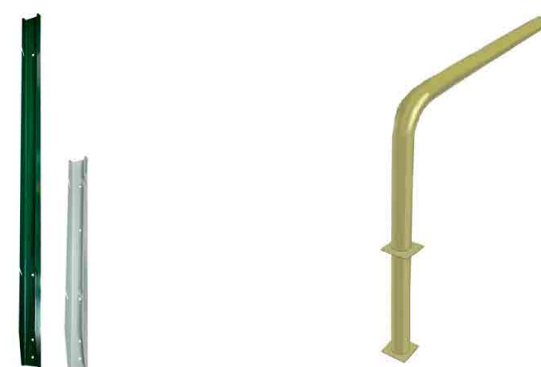
62 x 55 / 80 x 80 collar 62 x 55 angular collar 62 x 55 end collar



V-cap L-cap Multiuse cap



Straight cap Streetlight cap



Additional elements

- Security barrier caps**
- ⇒ V-cap for 62 x 55 post
 - ⇒ L-cap for 62 x 55 post
 - ⇒ Straight cap
 - ⇒ Multiuse cap
 - ⇒ Streetlight cap

- Screw type base**
- ⇒ With flange
 - ⇒ Without flange

Screw type base with flange, 1.5 m, 1.8 m



Screw type base without flange 1.2 m, 1.5 m



'Profi' fencing system for industrial objects

'Profi' wicket doors and gates

- ⇒ **Width:**
wicket – 1 m; 1.25 m
gate – 3.0 - 9.0 m (0.5 m increments)
- ⇒ **Height:**
wicket – 1.03 m; 1.53 m; 1.73 m; 2.03 m; 2.43 m
gate – 1.53 m; 1.73 m; 2.03 m; 2.43 m
- ⇒ **Gate posts:**
80x80 mm; 100x100 mm; 140x140 mm
depends on gate weight
- ⇒ **Frame:**
post – 60 x 60 mm
- ⇒ **Filling:**
'Profi' panel
- ⇒ **Furniture:**
Locinox hinges GBMU4DSHIELD
Locinox LAKQ U2 lock
VSF ground beam for gate, 2 pcs
stop molding for wicket and gate



'Profi' sliding gate:

- ⇒ **Width:**
3.0 - 9.0 m (0.5 m increments)
- ⇒ **Height:**
2.03 m; 2.23 m; 2.43 m
- ⇒ **Gate frame, support frame, and slamming frame**
60 x 60 mm / 80 x 80 mm post
depends on gate weight
- ⇒ **Filling:**
'Profi' panel
- ⇒ **Furniture – Alutech rolling system for sliding gate:**
roller ways, 2 pcs.
guide bar
support roller
lower catch mechanism
upper catch mechanism
support rollers bar
roller ways support stand, 2 pcs.
frontal stop end of the bar
anchor bolts



Sliding gate automation package (option)

- ⇒ manual unlock
- ⇒ smooth operation
- ⇒ location memory
- ⇒ obstacle detection
- ⇒ automatic lock
- ⇒ photocell system
- ⇒ lighting system
- ⇒ moisture protection



'BASTION' FENCING SYSTEM FOR INDUSTRIAL OBJECTS

'Bastion' fencing system for industrial objects



Turnkey solutions for:

- ⇒ Industrial enterprises
- ⇒ Airports
- ⇒ Railway terminals
- ⇒ Parking areas
- ⇒ Schools
- ⇒ Kids playgrounds

Panel colors always in stock

RAL 6005

Standard RAL colors

RAL 1014

RAL 1021

RAL 3005

RAL 3020

RAL 5005

RAL 7040

RAL 8017

RAL 9005

RAL 9016

The strongest

The strongest Grand Line panels for the toughest usage conditions. Both the construction of welded panels and thickness of the wires ensure the **highest rigidity** of fence panels.

Flexible solutions

Technical characteristics and easy installation with no welding make it possible to use **fencing systems** at **any territory**.

Adding to the quality

All fencing elements go through 9 steps of surface treatment, including OXSILAN® nanolayer application, which considerably **increases corrosion resistance**.

Quality mark

We provide a **written warranty** on the product.



'Bastion' fencing system for industrial objects

Panels: 'Bastion' 5/6, 'Bastion' 6/8

Bar:

⇒ horizontal (dual bar): Ø 6 mm/8 mm

⇒ vertical: Ø 5 mm/6 mm

Cells: 200 x 55 mm

Panel width: 2.51 m, 3.01 m, 3.11 m.

Panel height: 1.03 – 3.43 m (increments 0.2mm)

Quality starts with the material

The panels are made of a GOST 3282 hot-dip galvanized steel wire.

Quality preservation and improvement

An extended number of bars in a single fence panel makes the process of welding more important. Welding joints are made with a Cold Metal Transfer (CMT) technology, which ensures maximum performance of a zinc layer at the welding points.

Flexible solutions

Optionally, panels may be produced from a GOST 9.037-89 hot-dip galvanized steel wire.

'Bastion' 5/6 panels



'Bastion' 6/8 panels



'Bastion' fencing system for industrial objects

Posts

- ⇒ 62 x 55 x 1,4 mm
- ⇒ 80 x 80 x 2 mm
- ⇒ 80 x 80 x 3 mm
- ⇒ 90 x 55 x 1,4 mm

Quality starts with the material
The 1.4 mm posts are made of 320 grade steel; the 2 and 3 mm posts are made of 220 grade steel.

Quality preservation and improvement
The interlocking joint of the 62 x 55 and 90 x 55 posts is made with a unique seam-lock technology. The technology needs no welding and protects galvanized coating, i.e. increases durability of each post.

Flexible solutions
Optionally, posts may be produced of non-galvanized steel with the further coating application by the GOST 9.037-89 hot-dip galvanization.



Post with welded flange



Panel height	Post	Fasteners per post	Post		
			With flange	For concreting	
				Fixator fastener	Collar fastener
1,03 m	62x55	2	1,065 m	1,5 m	2,0 m
1,23 m		2	1,265 m	1,7 m	2,0 m
1,43 m		2	1,465 m	1,9 m	2,0 m
1,53 m		3	1,565 m	2,0 m	2,0 m
1,73 m		3	1,765 m	2,2 m	2,5 m
1,93 m		3	1,965 m	2,4 m	2,5 m
2,03 m		4	2,065 m	2,5 m	2,5 m
2,23 m	80x80 90x55	4	2,265 m	2,7 m	3,0 m
2,43 m		4	2,465 m	3,0 m	3,0 m
2,63 m		4	2,665 m	3,5 m	3,5 m
2,83 m		4	2,865 m	3,5 m	3,5 m
3,03 m		4	3,065 m	4,0 m	4,0 m
3,23 m		4	3,265 m	4,0 m	4,5 m
3,43 m		5	3,465 m	4,5 m	4,5 m
2,03 + 1,03 m		6	3,095 m	4,0 m	4,0 m
2,03 + 2,03 m		8	4,095 m	5,0 m	5,0 m

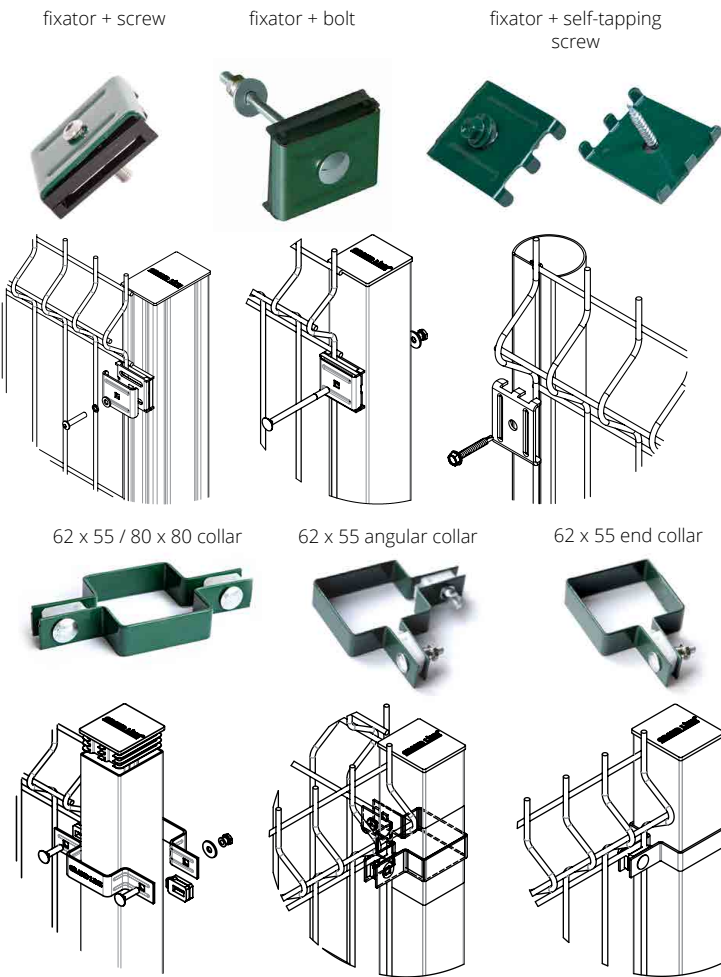
'Bastion' fencing system for industrial objects

Fasteners

- ⇒ fixator + bolt
- ⇒ fixator + screw
- ⇒ fixator + self-tapping screw
- ⇒ collar for 62 x 55 post
- ⇒ collar for 80 x 80 post

Pay attention when ordering:
Perforated posts fit to a 'fixator + bolt' fastener. Posts with thread bush (stack bolts) fit to a 'fixator + screw' fastener. For a 'fixator + self-tapping screw (or collar)' fastener no perforation of posts is needed.

Quality in specialization
Specially designed fasteners for fencing systems wholly meet the working conditions, prove to be anti-vandal, and have all the necessary elements included (e.g. plasticinserts for collars).



Additional components

- Security barrier caps**
- ⇒ V-cap for 62 x 55 post
 - ⇒ L-cap for 62 x 55 post
 - ⇒ Straight cap
 - ⇒ Multiuse cap
 - ⇒ Streetlight cap

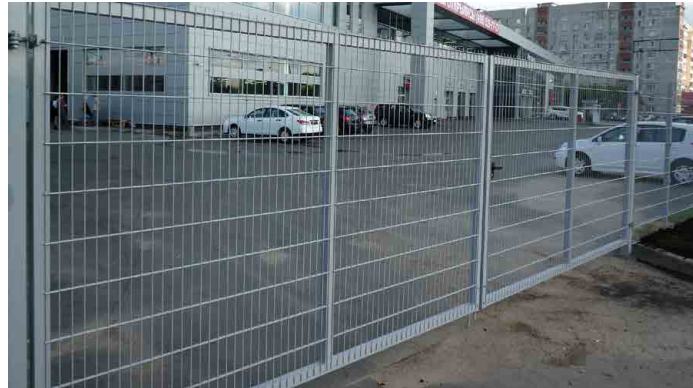
- Screw type base**
- ⇒ With flange
 - ⇒ Without flange



'Bastion' fencing system for industrial objects

'Bastion' wicket doors and gates

- ⇒ **Width:**
wicket – 1 m; 1.25 m
gate – 3.0 - 9.0 m (0.5 m increments)
- ⇒ **Height:**
wicket door – 1.03 m; 1.53 m; 1.73 m; 2.03 m; 2.43 m
gate – 1.53 m; 1.73 m; 2.03 m; 2.43 m
- ⇒ **Gate posts:**
80 x 80 mm, 100 x 100 mm, 140 x 140 mm
depends on gate weight
- ⇒ **Frame:**
post – 60 x 60 mm
- ⇒ **Filling:**
'Bastion' panel 5/6
- ⇒ **Furniture:**
Locinox hinges GBMU4DSHIELD
Locinox LAKQ U2 lock
VSF ground beam for gate, 2 pcs.
stop molding for wicket door and gate



'Bastion' sliding gate:

- ⇒ **Width:**
gate – 3.0 - 9.0 m (0.5 m increments)
- ⇒ **Height:**
2.03 m; 2.23 m; 2.43 m
- ⇒ **Gate frame, support frame, and slamming frame**
60 x 60 mm / 80 x 80 mm post
depends on gate weight
- ⇒ **Filling:**
'Bastion' panel
- ⇒ **Furniture – 'Alutech' rolling system for sliding gate:**
roller ways, 2 pcs.
guide bar
support roller
lower catch mechanism
upper catch mechanism
support rollers bar
roller ways support stand, 2 pcs.
frontal stop end of the bar
anchor bolts



Sliding gate automation package (option)

- ⇒ Manual unlock
- ⇒ Smooth operation
- ⇒ Location memory
- ⇒ Hurdle detection
- ⇒ Automatic lock
- ⇒ Photocell system
- ⇒ Lighting system
- ⇒ Moisture protection



SPORTS FENCING SYSTEM

Sports fencing system



Before installation:

- ⇒ Pay special attention to the safety of the sports object
- ⇒ Design in elements of the enhanced strength
- ⇒ Use safety nettings to avoid direct kicks to fencing and other elements of the ground

Sports in focus

Grand Line® sports fencing include a variety of features and nuances of a fenced object: **safety** panels and fasteners, **increased** fencing **height**, **enhanced strength** of the posts and panels.

Victory in specialization

Safety and strength of the fencing create **comfortable conditions for players**. A **see-through visibility** of fencing **allows spectators to comfortably watch** sports events.

Quality mark

We give a **written warranty** on the product.

Panel colors always in stock

RAL 6005

Standard RAL colors

RAL 1014

RAL 1021

RAL 3005

RAL 3020

RAL 5005

RAL 7040

RAL 8017

RAL 9005

RAL 9016



Sports fencing system

Panels:

Panels: 'Profi', 'Expert'

Wire: Ø 5 mm, 6 mm

Cells: 200 x 55 mm

Panel width: 2,51 m; 3,01 m; 3,11 m

Panel height: 0,63 - 3,33 m

Panels: 'Bastion' 5/6, 'Bastion' 6/8

Bar:

⇒ horizontal (dual bar): Ø 6 mm/8 mm

⇒ vertical: Ø 5 mm/6 mm

Cells: 200 x 55 mm

Panel width: 2,51 m; 3,01 m; 3,11 m

Panel height: 1,03 - 3,43 m (increments 0.2 mm)

Quality starts with the material

The panels are made of a GOST 3282 hot-galvanized steel wire.

Quality preservation and improvement

Welding joints are made with a Cold Metal Transfer (CMT) technology, which ensures maximum performance of a zinc layer at the welding points.

'Profi' panels



'Expert' panels



'Bastion' 5/6 panels



'Bastion' 6/8 panels



Sports fencing system

Posts

- ⇒ 62 x 55 x 1,4 mm
- ⇒ 80 x 80 x 2 mm
- ⇒ 80 x 80 x 3 mm
- ⇒ 90 x 55 x 1,4 mm

Quality is height

A common feature of sports fencing is a high height. 2-3 panels one above the other are installed at 4-5 m tall posts.

Quality preservation and improvement

The interlocking joint of the 62 x 55 and 90 x 55 posts is made with a unique seam-lock technology. The technology needs no welding and protects galvanized coating, i.e. increases durability of each post.

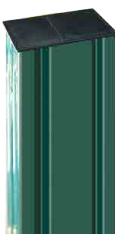
62 x 55 post



80 x 80 post

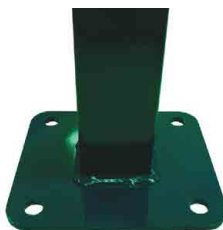


90 x 55 post



Post with welded flange

square-cut flange



triangle flange



reinforced flange



Panel type	Panel height	Post	Fasteners per post	Post height		
				With flange	For concreting	
					Fixator fastener	Collar fastener
3D	0,63 m	62x55	2	0,665 m	1,1 m	1,5 m
3D	0,83 m	62x55	2	0,865 m	1,3 m	1,5 m
3D, 2D	1,03 m	62x55	2	1,065 m	1,5 m	2,0 m
3D, 2D	1,23 m	62x55	2	1,265 m	1,7 m	2,0 m
3D, 2D	1,43 m	62x55	2	1,465 m	1,9 m	2,0 m
3D, 2D	1,53 m	62x55	2	1,565 m	2,0 m	2,0 m
2D	1,63 m	62x55	3	1,665 m	2,1 m	2,0 m
3D	1,73 m	62x55	3	1,765 m	2,2 m	2,5 m
2D	1,83 m	62x55	3	1,865 m	2,3 m	2,5 m
3D	1,93 m	62x55	3	1,965 m	2,4 m	2,5 m
3D, 2D	2,03 m	62x55	3	2,065 m	2,5 m	2,5 m
3D, 2D	2,23 m	62x55	4	2,265 m	2,7 m	3,0 m
3D, 2D	2,43 m	62x55	4	2,465 m	3,0 m	3,0 m
3D, 2D	2,63 m	62x55	4	2,665 m	3,5 m	3,5 m
3D, 2D	2,83 m	80x80 90x55	4	2,865 m	3,5 m	3,5 m
3D, 2D	3,03 m		4	3,065 m	4,0 m	4,0 m
2D	3,23 m		4	3,265 m	4,0 m	4,5 m
3D	3,33 m		5	3,365 m	4,5 m	4,5 m
2D	3,43 m		5	3,465 m	4,5 m	4,5 m
3D, 2D	2,03 + 1,03 m		6	3,065 m	4,0 m	4,0 m
3D, 2D	2,03 + 2,03 m		8	4,065 m	5,0 m	5,0 m

Sports fencing system

Fasteners

⇒ Fixator + screw

We use safe fasteners:

A screw is fixed to the core inside the post so there are no extension parts.

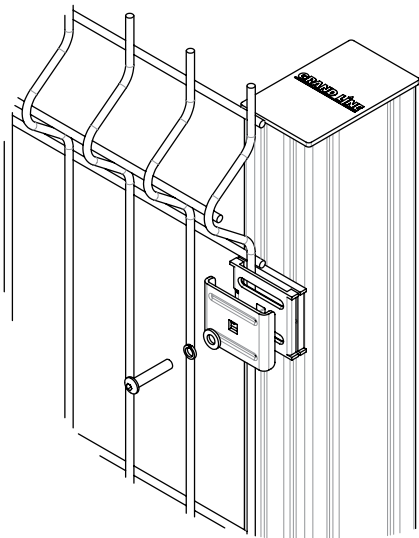
Quality in specialization

Specially designed fasteners for fencing systems wholly meet the working conditions, prove to be anti-vandal, and have all the necessary elements included.

fixator + screw



connecting clip



Additional elements

Safety nettings are recommended

Use a special cap, wire string, and wire furniture in the cap.

Victory in details

Lighting of sports grounds is also a significant aspect of the object's operation. The product range includes caps for 80 x 80 posts for street lights.

multiuse cap



streetlight cap



wire fixing furniture



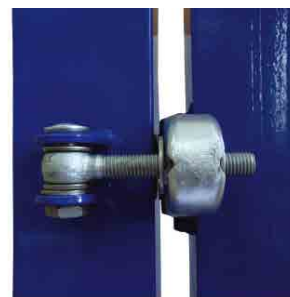
string for barbed wire fixing



Sports fencing system

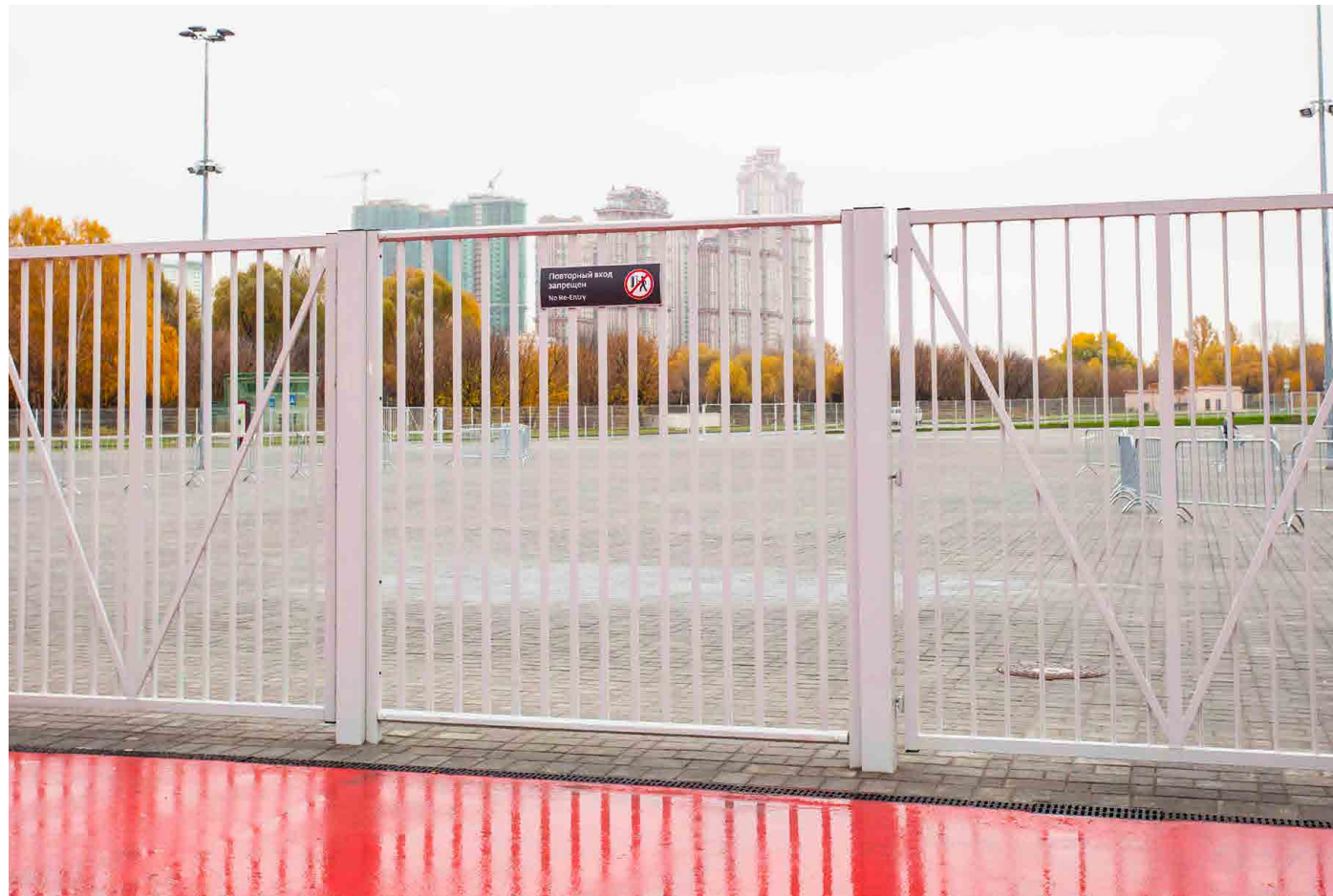
'Profi' and 'Bastion' wicket doors and gates

- ⇒ **Width:**
wicket door - 1 m; 1,25 m
gate - 3,0-9,0 m (0.5 m increments)
- ⇒ **Height:**
wicket door - 1,03 m; 1,53 m; 1,73 m; 2,03 m;
2,43 m
gate - 1,53 m; 1,73 m; 2,03 m; 2,43 m
- ⇒ **Gate posts:**
80x80 mm; 100x100 mm; 140x140 mm
depends on gate weight
- ⇒ **Frame:**
post - 62x55 mm
- ⇒ **Filling:**
'Profi' panel, 'Bastion' 5/6 panel
- ⇒ **Hardware:**
Locinox hinges GBMU4DSHIELD
Locinox LAKQ U2 lock
VSF ground beam for gate, 2 pcs.
stop molding for wicket door and gate



'PROTECT' FENCING SYSTEM FOR INDUSTRIAL OBJECTS

'Protect' fencing system for industrial objects



Turnkey solutions for:

- ⇒ Residential areas
- ⇒ Public spaces
- ⇒ Industrial areas

Taking the lead

All fencing elements for industrial objects from the 'Protect' profiled pipe are made of hot-galvanized steel with polymer coating, which ensures an **unequal fencing lifetime up to 50 years**.

Preserving quality

Thanks to the unique seam-lock technology, **no welding** is used when forming pipes and posts.

Quality mark

We give a **written warranty** on the product.

Panel colors always in stock

RAL 6005		
Standard RAL colors		
RAL 1014	RAL 1021	RAL 3005
RAL 3020	RAL 5005	RAL 7040
RAL 8017	RAL 9005	RAL 9016



'Protect' fencing system for industrial objects

Fence sections:

Horizontal profile: 60 x 20 mm
Vertical profile: 40 x 20 mm
Panel width: 2,5 m
Panel height: 1,0 m; 1,5 m; 2,0 m

Quality preservation and improvement

Fencing sections are made of a hot-galvanized shaped pipe with a Cold Metal Transfer (CMT) technology and further coating application, which ensures maximum performance of a zinc layer at the welding points.



Posts

- ⇒ 62 x 55 x 1,4 mm
- ⇒ 90 x 55 x 1,4 mm

Panel height	Post	Post for concreting, height
1,0 m	62x55x1,4 mm	1,5 m
1,5 m		2,0 m
2,0 m	90x55x1,4 mm	2,5 m

62 x 55 post



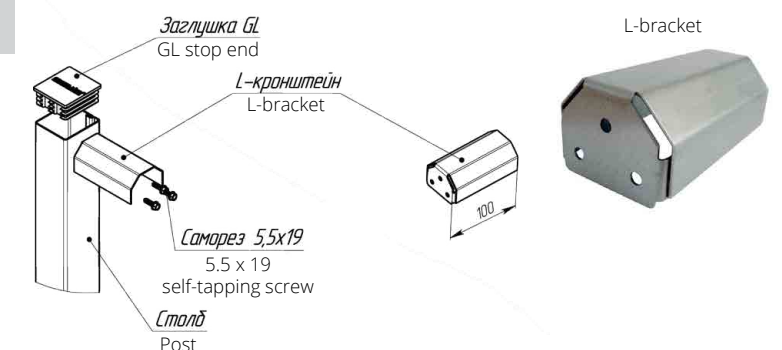
90 x 55 post



Fasteners

L-bracket

A specially designed element to fasten fence sections to the posts to make them vandal resistant.



Additional elements

Screw type base:

- ⇒ With flange
- ⇒ Without flange

Screw type base with flange
1,5 m, 1,8 m



Screw type base without flange
1,2 m, 1,5 m



'Protect' fencing system for industrial objects

'Protect' wicket doors and gates:

- ⇒ **Width:**
wicket door - 1 m; 1.25 m
gate - 3.0-9.0 m (0.5 m increments)
- ⇒ **Height:**
wicket door - 1.03 m; 1.53 m; 1.73 m; 2.03 m;
2.43 m
gate - 1.53 m; 1.73 m; 2.03 m; 2.43 m
- ⇒ **Gate posts:**
80x80 mm; 100x100 mm; 140x140 mm
depends on gate weight
- ⇒ **Frame:**
post - 60x60 mm
- ⇒ **Filling:**
40x20 mm shaped pipe
- ⇒ **Furniture:**
Locinox hinges GBMU4DSHIELD
Locinox LAKQ U2 lock
VSF ground beam for gate, 2 pcs.
Locinox SAKL QF stop molding for wicket and gate



'Protect' sliding gate:

- ⇒ **Gate:**
3.0-9.0 m (0.5 m increments)
- ⇒ **Height:**
2.03 m; 2.23 m; 2.43 m
- ⇒ **Gate frame, support frame, and slamming frame:**
60 x 60 mm / 80 x 80 mm post
depends on gate weight
- ⇒ **Filling:**
'Profi' panel with stiffening ribs
- ⇒ **Furniture - 'Alutech' rolling system for roller gates:**
roller ways, 2 pcs.
guide bar
support roller
lower catch mechanism
upper catch mechanism
support rollers bar
roller ways support stand, 2 pcs.
frontal stop end of the bar
anchor bolts



Sliding gate automation package (option)

- ⇒ manual unlock
- ⇒ smooth operation
- ⇒ location memory
- ⇒ obstacle detection
- ⇒ automatic lock
- ⇒ photocell system
- ⇒ lighting system
- ⇒ moisture protection



LAWN FENCING SYSTEM

Lawn fencing system



Turnkey solutions for:

- ⇒ Yard areas
- ⇒ Lawns and sidewalks
- ⇒ Parking areas

Meeting human needs

Perimeter fencing perfectly fits the city infrastructure. The fences are of a high see-through visibility so they **do not disturb the cityscape**. They are **secure, vandal-resistant, easy in assembly and installation, and do not need scheduled service**.

Technologies create durability

The pipes and posts are formed with a unique seam-lock technology, which needs no welding.

Quality status

We give a **written warranty** on the product.

Panel colors always in stock

RAL 6005

Standard RAL colors

RAL 3005

RAL 8017



Lawn fencing system

'Grass' lawn fencing system:

Panels: 'Profi', 'Medium'

Wire: Ø 4 mm, 5 mm

Cells: 200 x 55 mm

Panel width: 2,51 m

Panel height: 0,63 m

Fasteners

Two fixators + M6x40 bolt

Posts

'Premium' 84 x 48 mm posts with multiuse caps

Flexible solutions

Optionally, panels may be produced from a welded bright wire with the further GOST 9.037-89 hot-dip galvanization

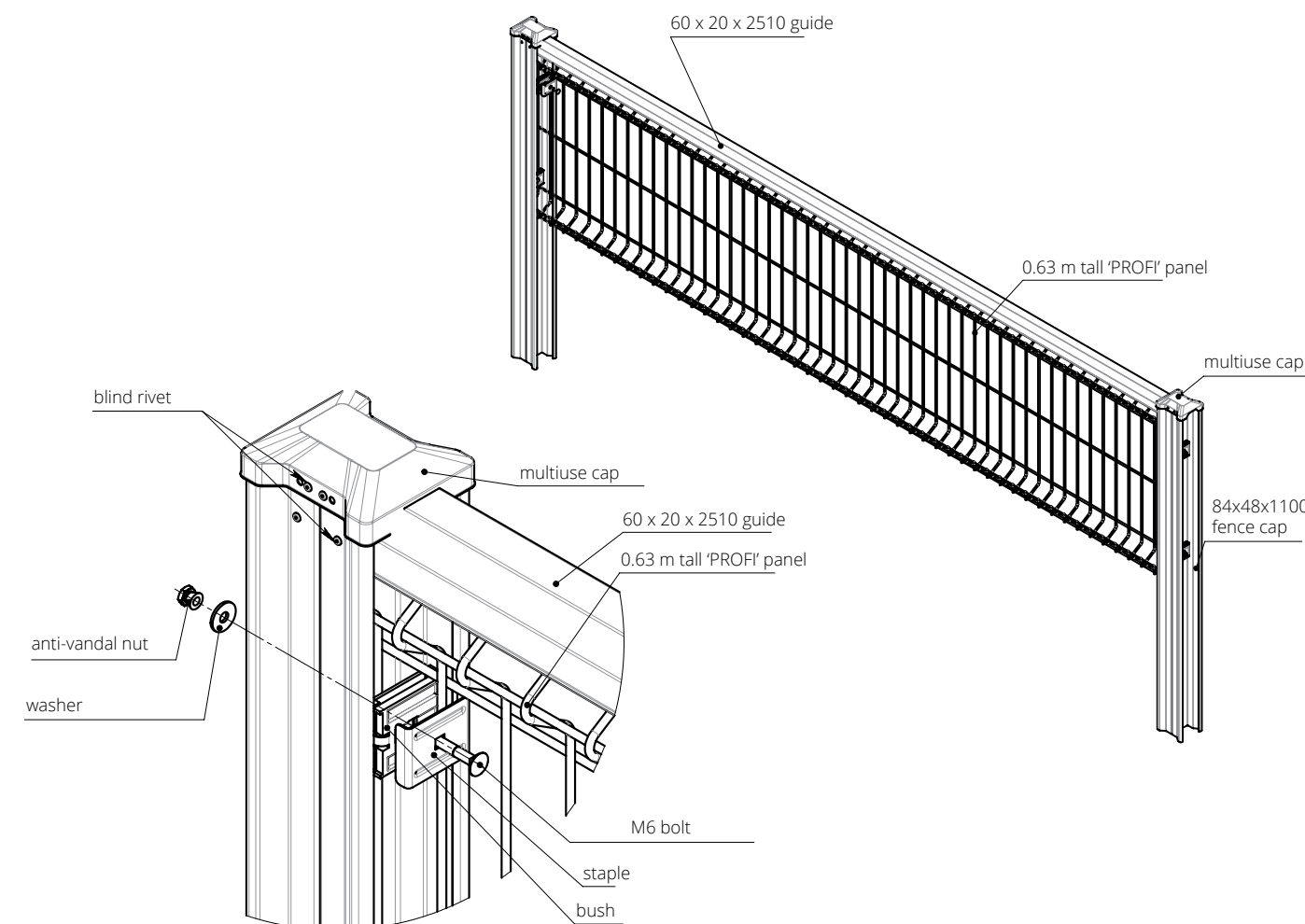
84 x 48 fence post

guide



cap

2 fixators + bolt



Lawn fencing system

'Barrier' lawn fencing system:

'Barrier' panels

Wire: Ø 4 mm, 5 mm

Cells: 200x55 mm

Panel width: 2,51 m

Panel height: 0,63 m

The panels are welded to a 40 x 20 mm pipe

Fasteners

2 fixators + M6x100 bolt

Posts

62 x 55 x 1.4 mm post

