

**PROTECTOR**  
FENCE

# Product Catalog



Razor wire | Entanglements | Fencing systems



1.	Table of contents	2
2.	Structure of the fence	3
3.	Technology	4
4.	Concertina spatial entanglements	5
5.	Spiral spatial entanglements	6
6.	Flatwrap entanglements	7
7.	Welded razor mesh	8
8.	Straight razor wire	9
9.	Mobile barriers / Double entanglements	10
10.	Mounting clips	11
11.	Accessories for entanglements	12
12.	Accessories for installing panels	13
13.	Extensions for razor wire	14
14.	Fencing panels	15
15.	Concrete components	16
16.	About us	17





4. Concertina entanglements

5. Spiral entanglements

6. Flat entanglements

10. Mounting clips

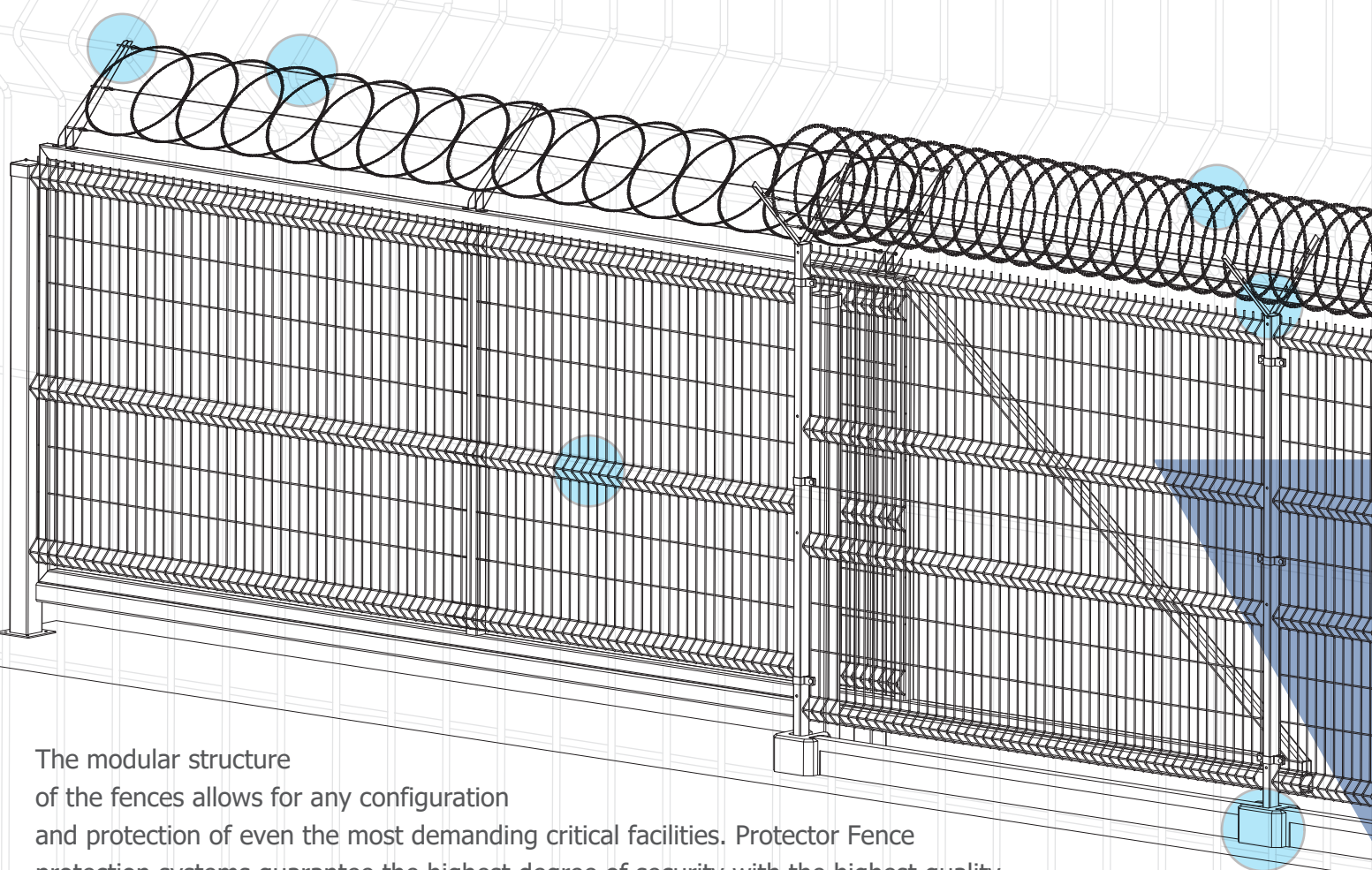
13. Extensions

7. Welded razor mesh

14. Metal components of the modular fencing

12. Accessories

15. Concrete components of the modular fencing

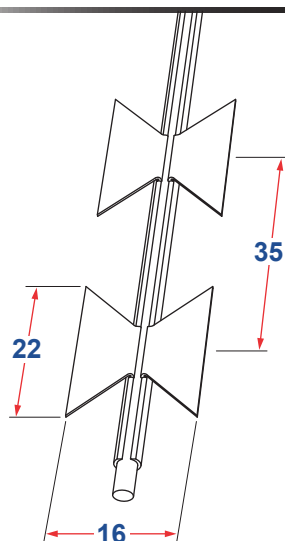


The modular structure of the fences allows for any configuration and protection of even the most demanding critical facilities. Protector Fence protection systems guarantee the highest degree of security with the highest quality.

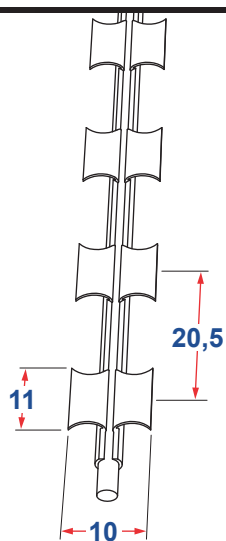


### Available blades of razor wire products

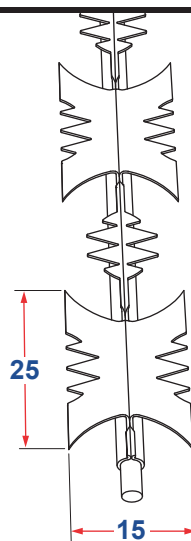
**BASIC  
(B)**



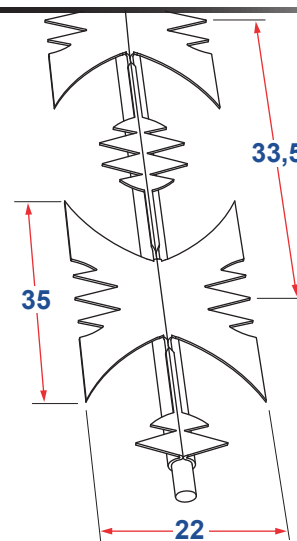
**TINY  
(T)**



**ULTRA  
SHORT  
(US)**



**ULTRA  
MEDIUM  
(UM)**



Workmanship:

Galvanized steel

Stainless steel

Wire specifications:

- wire diameter:

Ø2.5 mm

Ø2.5 mm

- material:

DX52 Z100 (galvanization min. 100 g/m<sup>2</sup>)

AISI 304

- tensile strength:

Rm 1650 - 1750 MPa

Rm 900 MPa

Tape specifications:

- tape thickness:

0.5 mm

0.4 mm

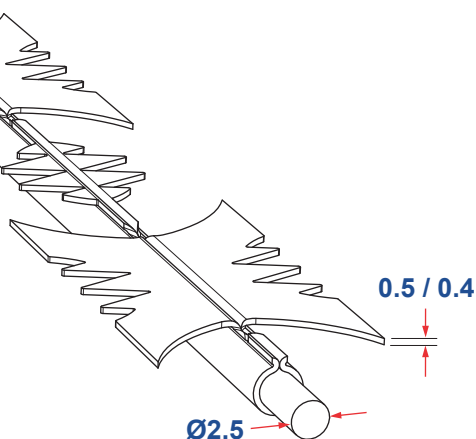
- material:

DX52 Z270 (galvanization min. 270 g/m<sup>2</sup>)

AISI 304

Optional workmanship:

- products made from AISI 316 stainless steel;
- products made of stainless steel tape and galvanized wire (SS/ZN);
- barbed wire entanglement clamped on the signal wire in an aluminum braid,
- for detection systems.









## Do you know that?

Protector Fence products are guaranteed for:

**5 years**

galvanized steel products

**10 years**

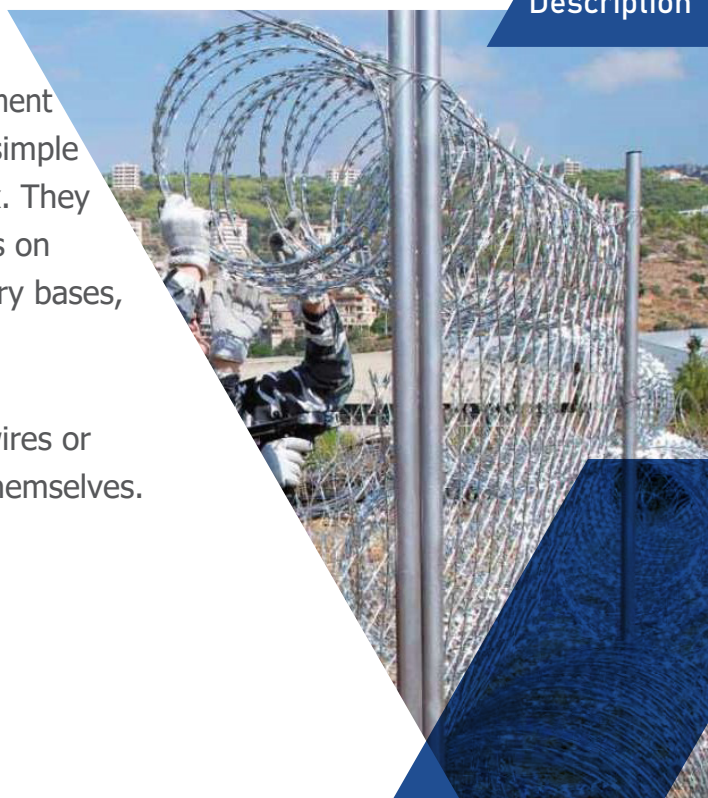
stainless steel products



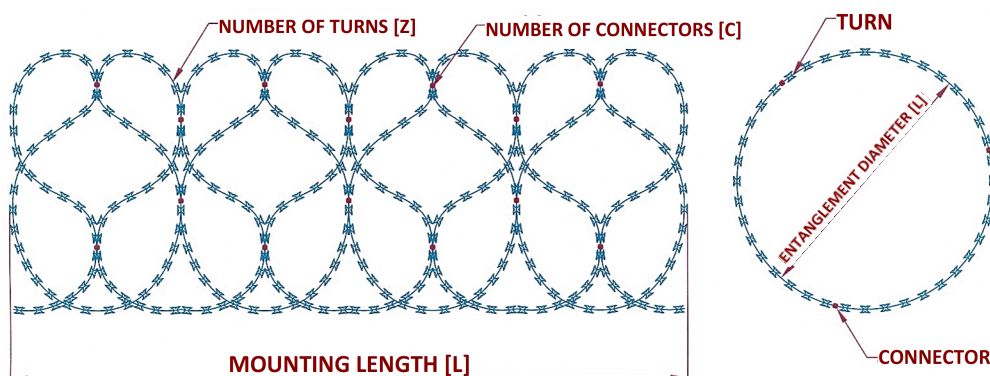
## Description

Concertina spatial entanglement is a type of entanglement that was created as a result of connecting the loop of a simple spiral entanglement, creating the shape of a double helix. They are used in the crown of fences, with particular emphasis on critical infrastructure facilities, including airports or military bases, as well as in prisons.

Concertina can be fixed in the crown of the fence on wires or steel cords, directly to the jibs or to the fencing panels themselves.



## General view



## Specifications

Entanglement dimension D [mm]	Recommended assembly length L [m]	Number of turns in the entanglement Z [pcs]	Number of connectors per turn C [pcs]	Entanglement weight [kg]			
				B	T	US	UM
400	7 - 8	54	3	5.2	5.7	6.9	7.6
450	7 - 8		3	5.8	6.4	7.6	8.6
500	7 - 8		3	6.4	7.0	8.5	9.4
550	8 - 9		3	7.0	7.7	9.2	10.3
600	8 - 9		3	7.6	8.3	10.0	11.1
650	8 - 9		5	8.4	9.2	10.9	12.3
730	9 - 10		5	9.4	10.3	12.3	13.6
850	9 - 10		5	10.7	11.8	14.2	15.8
980	10 - 11		7	12.6	13.8	16.4	18.5





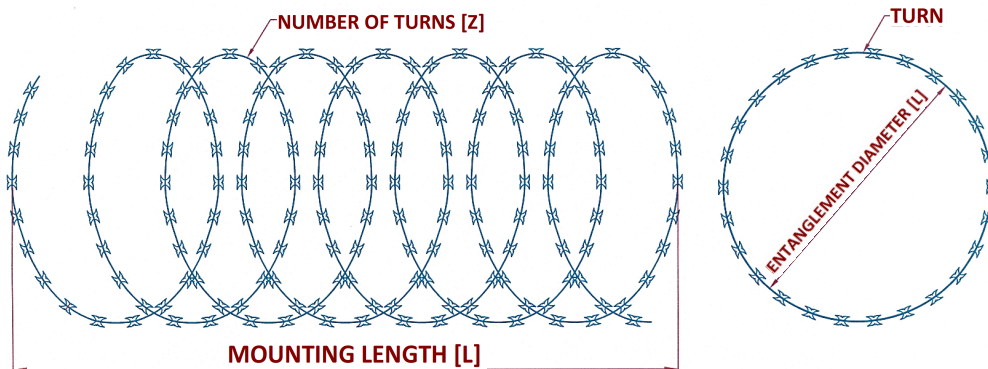




Spatial spiral entanglement is a type of entanglement in the shape of a spring, subsequent loops are not fastened together. This solution allows for convenient arrangement of the entanglement on the fence. They are used in the crown of the fence where basic protection of the facility is required.

We offer spiral entanglements with diameters from 400 to 980 mm. Like all our products, they can be made of galvanized steel, stainless steel or in a mixed version: galvanized wire (core) and stainless steel blades.

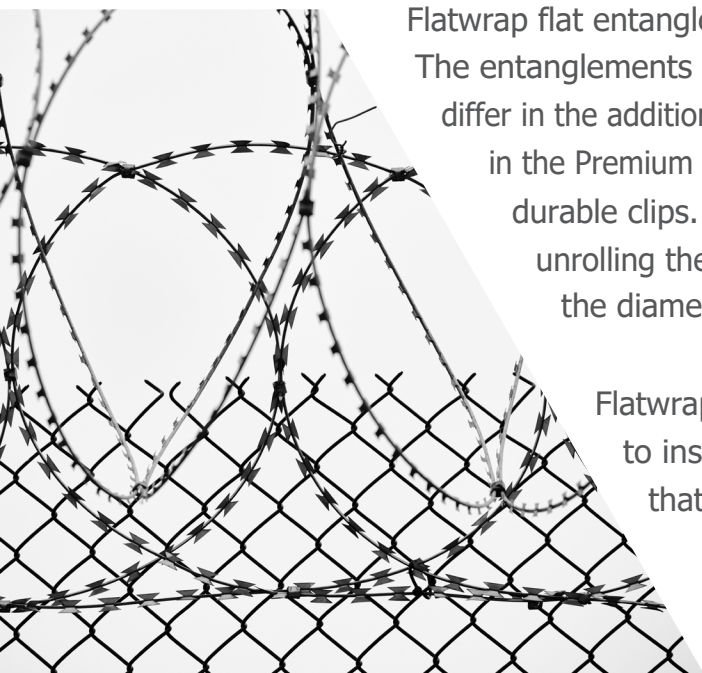
## General view



## Specifications

Entanglement dimension D [mm]	Recommended assembly length L [m]	Number of turns in the entanglement Z [pcs]	Entanglement weight [kg]			
			B	T	US	UM
400	7 - 8	54	4.9	5.4	6.6	7.3
450	7 - 8		5.6	6.1	7.3	8.3
500	7 - 8		6.1	6.7	8.2	9.1
550	8 - 9		6.7	7.4	8.9	10.0
600	8 - 9		7.3	8.0	9.7	10.8
650	8 - 9		7.9	8.7	10.4	11.8
730	9 - 10		8.9	9.8	11.8	13.1
850	9 - 10		10.3	11.3	13.7	15.3
980	10 - 11		11.9	13.1	15.7	17.8

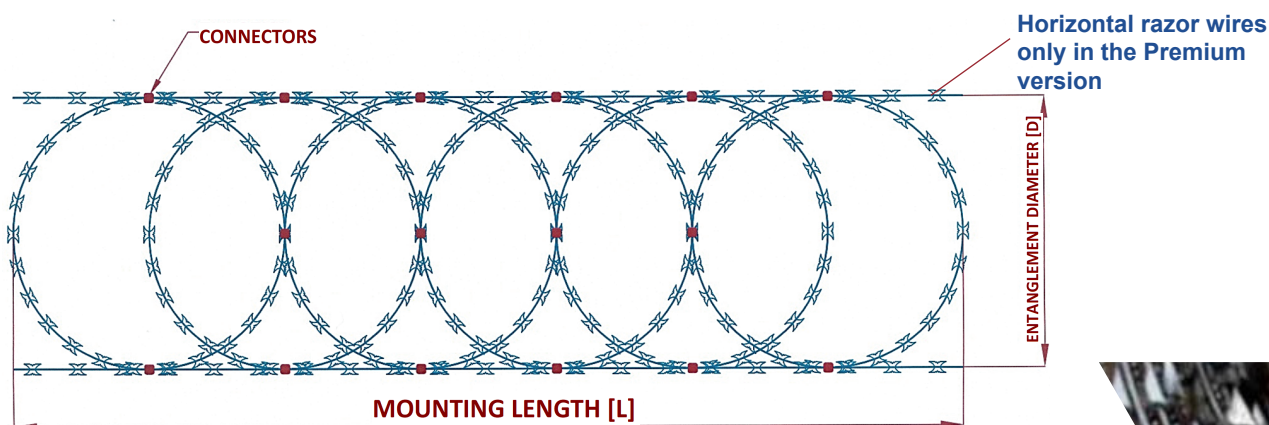
## Description



Flatwrap flat entanglements are made of razor wire in the shape of joined rings. The entanglements are offered in two variants: Standard and Premium, which differ in the additional straight section at the top and bottom of the entanglement in the Premium version. The components are connected with each other using durable clips. For transport, the entanglements are rolled into coils, after unrolling they form a barrier with a width of 15 to 15.4 m, depending on the diameter of a single coil.

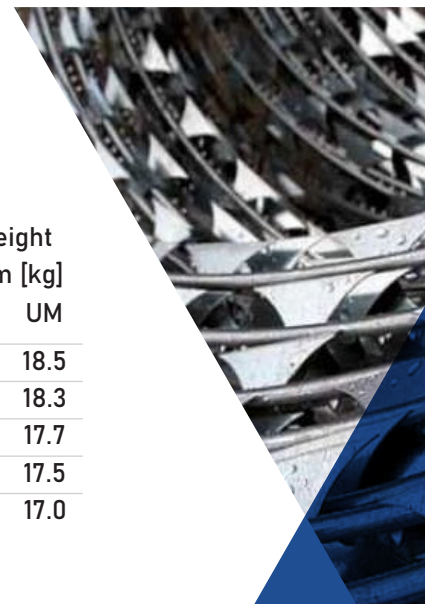
Flatwraps are used wherever, for various reasons, it is not possible to install spatial entanglements, e.g. on sliding gates or wickets that cannot be moved away from the fence.

## General view

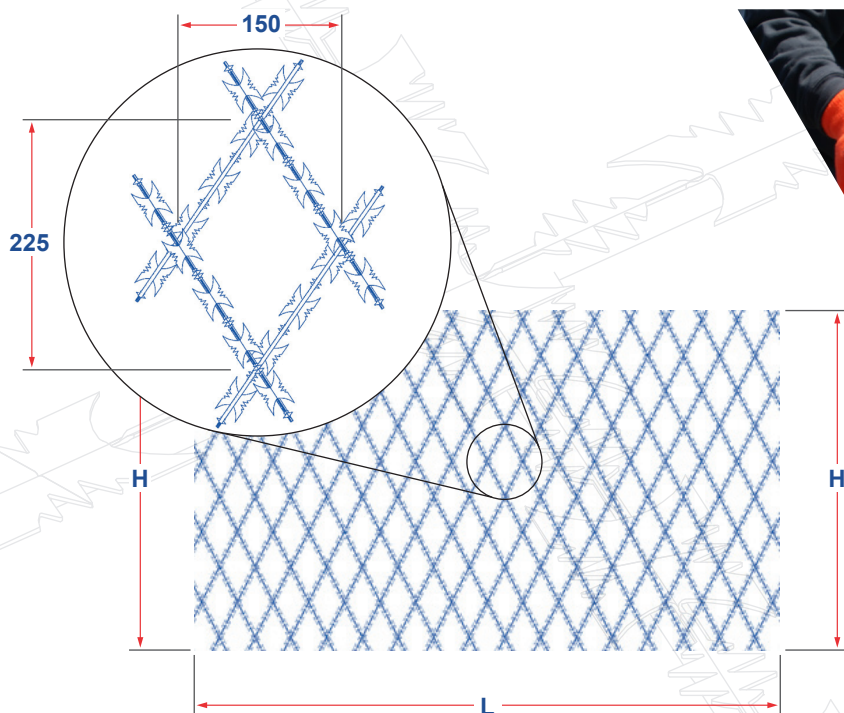


## Specifications

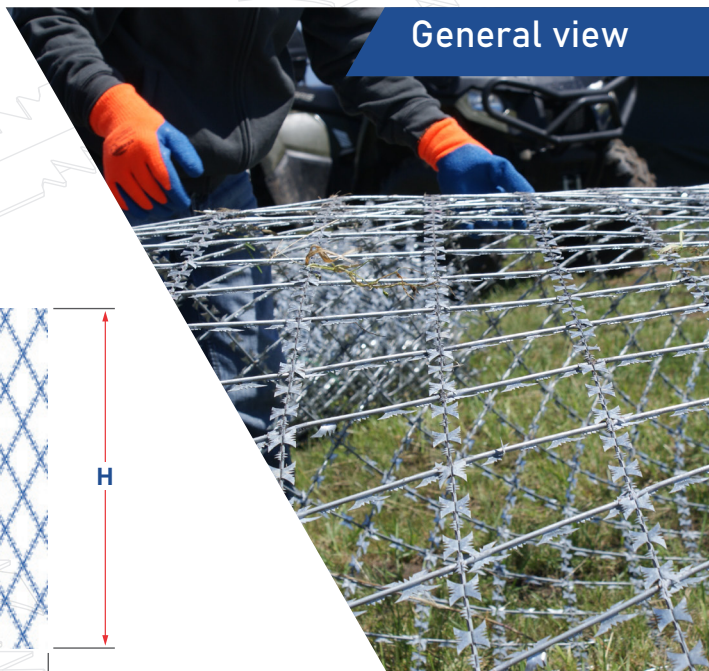
Entanglement dimension D [mm]	Recommended assembly length L [m]	Entanglement weight Flatwrap Standard [kg]				Entanglement weight Flatwrap Premium [kg]			
		B	T	US	UM	B	T	US	UM
400	15.2	11.1	12.2	14.8	15.4	13.2	14.6	17.7	18.5
450	15.3	11.0	12.1	14.6	15.2	13.1	14.5	17.6	18.3
500	15.0	10.6	11.6	14.0	14.6	12.7	13.9	16.9	17.7
700	15.4	10.2	11.2	13.7	14.4	12.3	13.6	16.7	17.5
900	15.3	9.8	10.8	13.3	13.9	11.9	13.2	16.3	17.0







General view

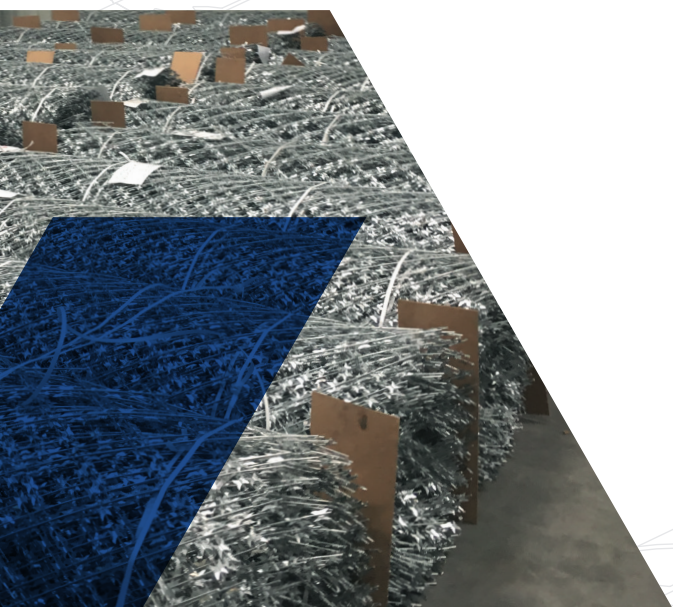


## Description

Welded razor mesh is used in places with an increased risk of breaking the mesh and/or acts of vandalism, especially in prisons and closed centers. The welded razor mesh is made of wire and galvanized sheet. Finished products are rolled into a cylinder shape and secured for transport. The basic variant is Ultra Medium welded razor mesh, and mesh with any razor type from the Protector Fence range can be supplied on request.

## Specifications

Mesh width L [mm]	Mesh height H [m]	Mesh weight [kg]			
		B	T	US	UM
6080	1015	8.0	8.4	9.2	10.4
	1240	9.7	10.2	11.2	12.6
	1465	11.4	12.1	13.2	14.9
	1690	13.1	13.8	15.2	17.1
	1915	14.9	15.7	17.2	19.4
	2140	16.6	17.5	19.2	21.6
	2365	18.3	19.3	21.2	23.9
	2590	20.0	21.1	<u>23.2</u>	<u>26.1</u>
	2815	21.8	23.0	25.2	28.4
	3040	23.5	<u>24.8</u>	27.2	30.6
	3265	25.2	26.6	29.2	<u>32.8</u>
	3490	26.9	28.4	31.2	35.1
	3715	28.6	30.2	33.2	37.3
	3940	22.7	24.0	26.3	29.6
	4165	32.1	33.8	37.2	41.8





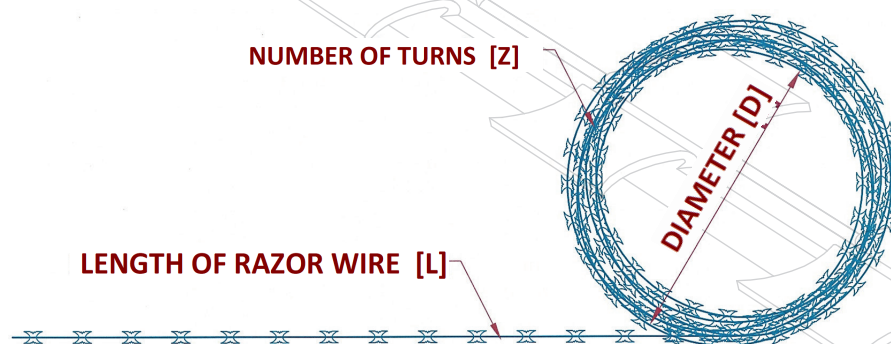
## Description

In modern solutions, razor wire replaces the well-known barbed wire. Like other razor wire products, it consists of a carrier wire that is inside the profiled razor tape. The straight razor wire can be used as a single protection in the fencing crown, but it can also be a base as a tension (carrier) wire for spatial entanglements (spiral and Concertina).

The offered wire is delivered in rolls of lengths: 100, 150, 200, 250 or 300 meters, with any razor from the Protector Fence palette. The razor wire, like other entanglements, can be made of galvanized steel, stainless steel or in a mixed version (galvanized steel wire, stainless steel tape).

It is also possible to order only the razor tape without the wire.

## General view



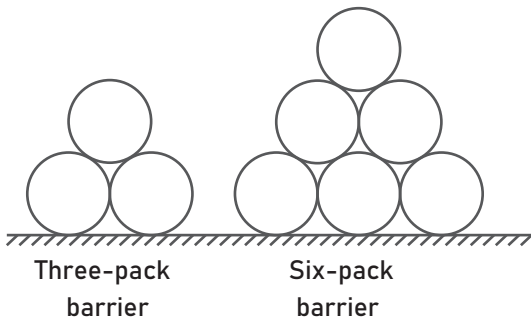
## Specifications

Coil diameter D [mm]	No. of turns Z [pcs]	Length of razor wire L [m]	Wire weight [kg]			
			B	T	US	UM
800	40	100	6.9	7.8	9.7	10.2
	60	150	10.3	11.7	14.6	15.3
	80	200	13.7	15.6	19.4	20.4
	100	250	17.1	19.5	24.3	25.5
	120	300	20.6	23.4	29.2	30.6

## Mobile barriers

Mobile barriers are entanglements composed of 3 or 6 connected entanglements for very quick protection of the area where there are no other components of the fence. Barriers can be present separately or as part of a set on a trailer for unrolling and retracting entanglements.

The barriers are a combination of the entanglements we produce, so we can deliver them in any configuration, taking into account the diameter of the entanglements, their number and the material from which they were made.

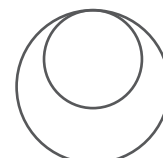


◀ See the video  
how rapidly our  
barriers are  
unrolled

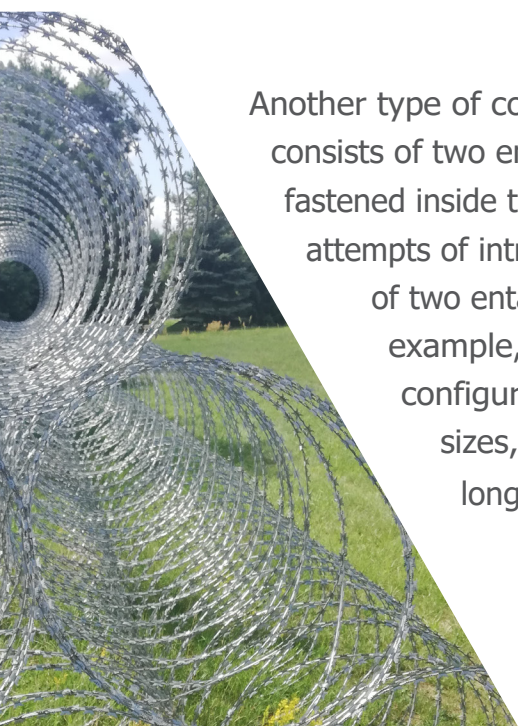


## Double entanglement

Another type of combined barriers are barbed-in-barbed connections. The protection consists of two entanglements of two different diameters, where one entanglement is fastened inside the other. It is a protection of very sensitive objects, especially against attempts of intrusion with a hand or an object (e.g. with a gripper). The combination of two entanglements allows you to protect a sensitive entanglement, which, for example, has a perimeter wire inside. As in the case of mobile barriers, any configuration of two different entanglements is possible: choosing any two sizes, execution (stainless steel or galvanized steel). It is possible to make longer entanglements than the standard ones.


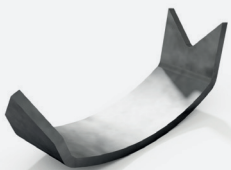


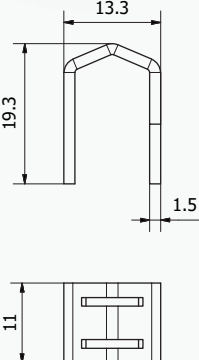
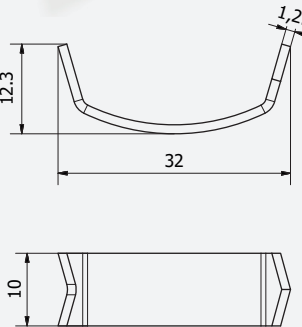
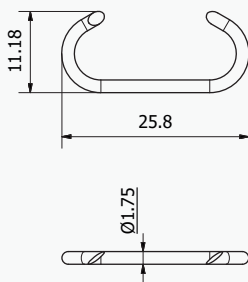
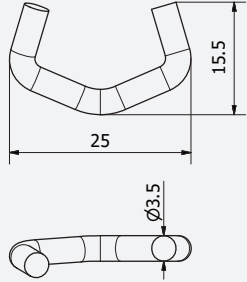






An entanglement in an entanglement





Mounting clips are designed to connect fencing components, e.g.: entanglement with carrier wire, carrier wire for diagonals or other fencing components, mesh, etc. We offer 4 types of mounting clips in various executions (galvanized steel or stainless steel). The technical parameters of the offered clips are presented in the table below.

Clip type	PZ	CR	CA	CN
3D view				
Dimensions				
Workmanship	Th. 1.5 galvanized or stainless sheet (Grade 304)	Th 1.25 galvanized sheet	Ø1.75 galvanized wire	Ø3.5 galvanized wire (Grade 304)
Mass	4 g	4.5 g	1 g	3 g
Packing	24 pcs magazine connected with a string. Collective packaging 100 x 24 pcs.	Collective packaging. Carton 1 kg (220 pcs) or 5 kg (1100 pcs.)	50 pcs. magazine connected with a tape. Collective packaging 40 x 50 pcs.	Collective packaging. Carton 1 kg or 5 kg
Assembling tool	Pneumatic crimper	Manual crimper	Manual crimping pliers	Manual crimping pliers
				

### Carrier wire

The carrier or tension wire is used indirectly to fix the entanglements on the slants or fencing panels. It is available in galvanized and stainless steel. The diameter of the wire is 2.5 mm.



### Wire accessories

Wire accessories allow the carrier wire to be properly installed and tensioned to posts or sways. All accessories are available in galvanized and stainless steel versions.



### Clip crimper

Crimpers are useful during assembly. We offer crimping tools suitable for the offered connectors, presented in section 10. The crimping tools are dedicated to specific connectors, thanks to which they always perform their task reliably. Manual tools, manual feeder (magazine) and automatic tools are available.



### OHS

#### Gloves, short



They protect the fitter's hands from being cut by the entanglement razors. Made of material reinforced with metal threads. The gloves have a cut-proof and puncture-proof certificate in accordance with EN 420:2003+A1:2009, EN 388:2016 (4X43D).

#### Gloves, long

The long version of the gloves is used in places where the entanglements are densely spaced or there are other obstacles that make assembly difficult. They protect both hands and forearms of the fitter. The gloves are made of SuperFabric® material, which provides 360° ANSI / ISEA cut resistance at A9 level. CE level protection 4X34F according to EN 388.



#### Visor headgear

Visor headgears are recommended when assembling products made of razor wire in order to protect the face and eyes from razors. They ensure safe installation and handling of entanglements.

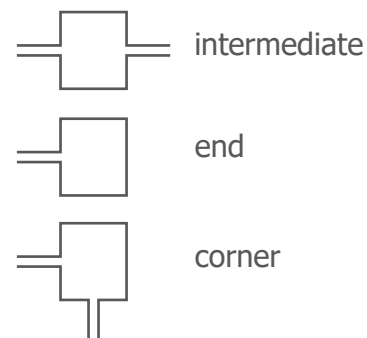




## Mounting clamps



Mounting clamps are used to mount panels on poles. They are available in galvanized, powder coated or galvanized and powder coated versions. Mounting screws and a plastic retaining insert are included.



## Hook bolts and shear nuts



Hook bolts are used for direct mounting of the panel to the fence post. In combination with a shear nut, they ensure permanent and inseparable fastening. They are made of galvanized or stainless steel.

## Clips for joining panels and a crimper



Crimped clip

The fencing panels are connected using connecting clips. We offer clips:

- for crimping with a dedicated crimper,
- riveted clips,
- bolted clips.



Riveted clip

Each solution is available in a galvanized or stainless steel version.



Bolted clip



Crimper

## Description

Razor wire extension arms are used for mounting all types of entanglements on fences, their crowns, walls or poles.

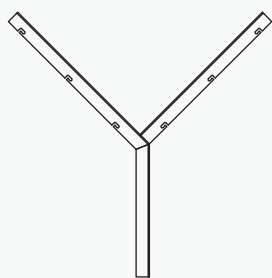
We manufacture extensions in various configurations, taking into account:

- holes for the wire or tension rope (cutout, hole, cutout + hole);
- shape of arms (type V, type 1/2V, type I);
- base (angle bar, closed profile, channel bar, flat bar).

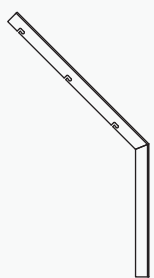
The standard execution is a cold-formed angle bar in the selected finish: galvanizing, painting, galvanizing + painting. the customer's request, the extensions can be made of any material and finish.

## Details

Arm shape



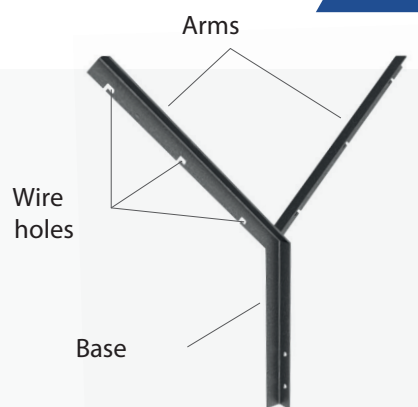
V type



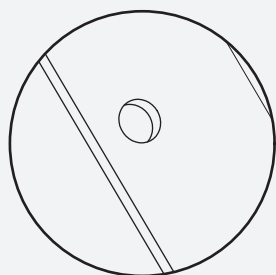
1/2 V type



I type



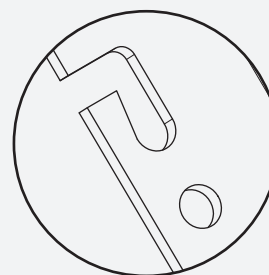
Wire hole type



Hole

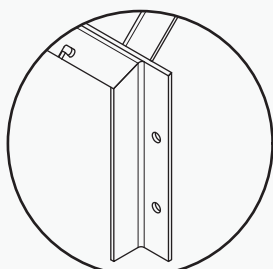


Cutout

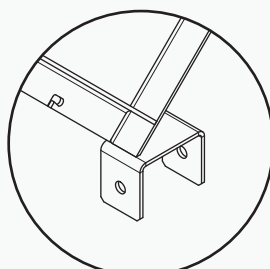


Hole + cutout

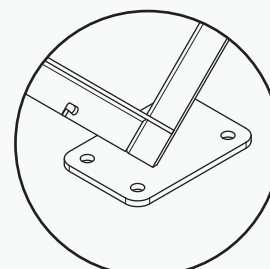
Base type



Angle bar



U bar



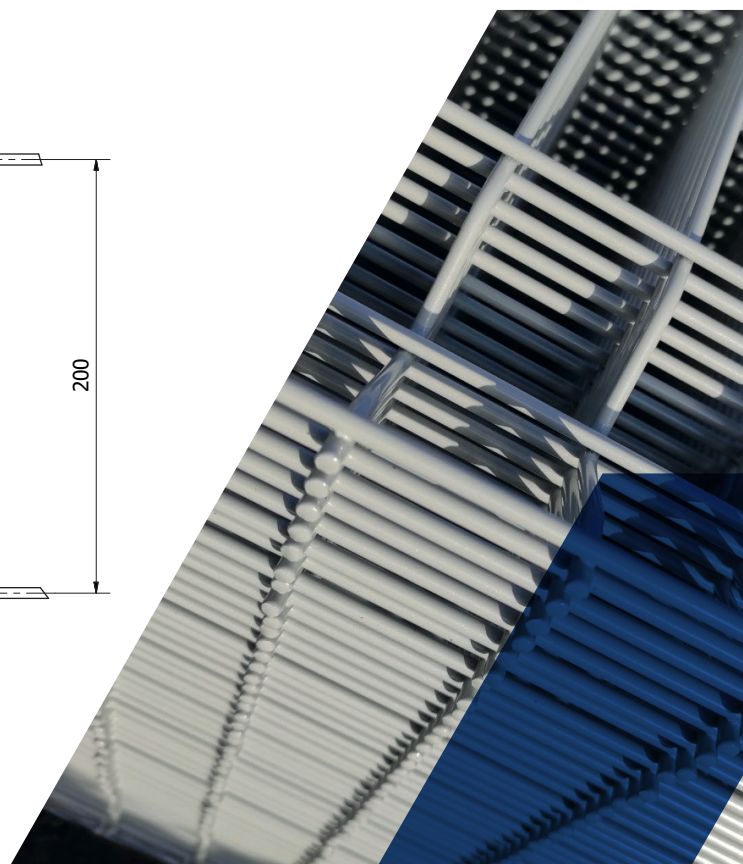
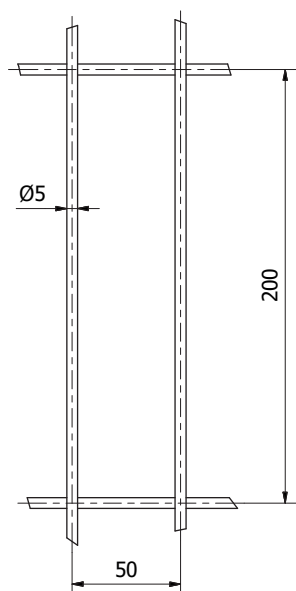
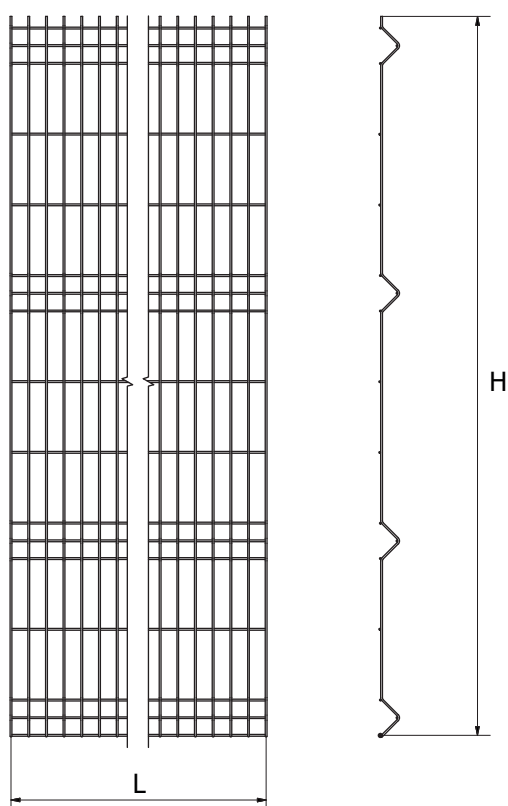
Flat bar



## Description

Fencing panels are used so as to fence facilities of all kinds, the Protector Fence offer includes a wide range of heights: from 830 to 2430 mm. The panels are made of two types of bars: Ø4 for use in fencing objects with a low risk of violation and Ø5 for fencing facilities more at risk of intrusion, ensuring increased protection. The panels are made in three finishes: hot-dip galvanized, powder coating, zinc + painting.

## General view



## Specifications

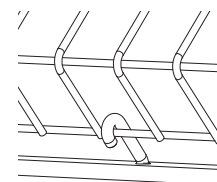
Panel width L [mm]	Panel height H [mm]	Panel weight [kg]		Number of ribs [pcs]
		Ø4 bar	Ø5 bar	
2500	830	6.6	10.4	2
	1030	7.9	12.3	
	1230	9.2	14.3	
	1330	10.4	16.2	
	1530	11.7	18.2	3
	1730	12.9	20.2	
	1830	14.2	22.1	
	2030	15.4	24.1	4
	2230	16.7	26.0	
	2430	17.9	28.0	

## Description

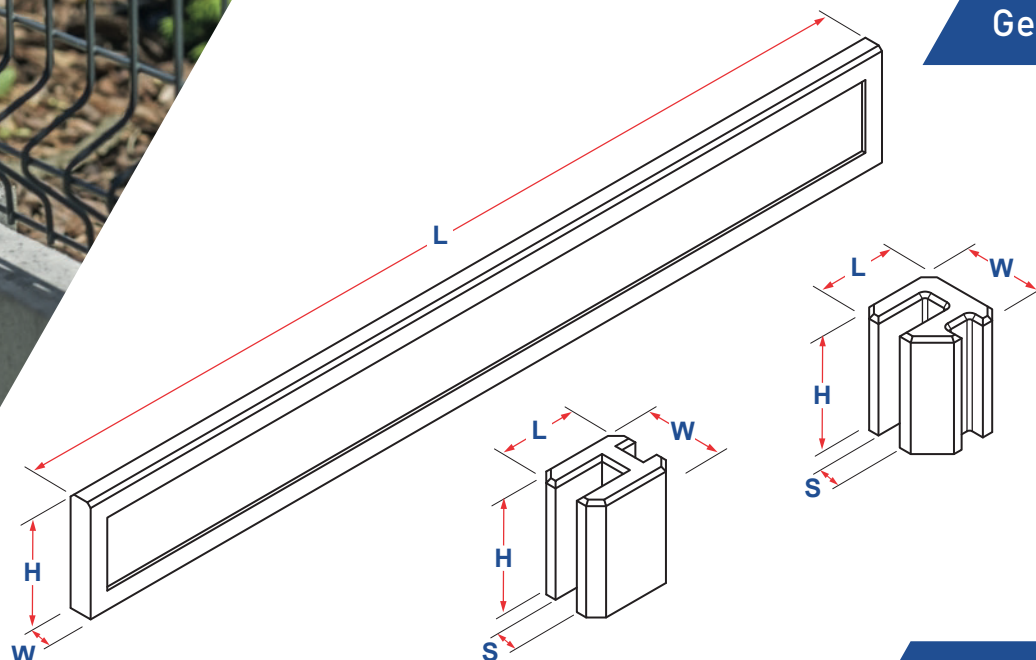
A set of concrete elements allows for simple and quick assembly of fences. Together with the fencing panels and posts offered, it creates a complete set for fencing any objects. The elements are characterized by high durability, nice,

aesthetic design and the possibility of any configuration. The prefabricated elements offered are made of C35 class concrete and meet the F50 frost resistance requirement.

On request, we deliver foundations with prefabricated holes for connection to a fence panel or mesh, in accordance with the requirements of military doctrine. Panels with 3 or 5 holes for mounting elements are available.



## General view



## Specifications

Component	Component length L [mm]	Component width W [mm]	Gap width S [mm]	Component height H [mm]	Component weight [kg]
Straight connector	240	180	64	200	14.3
				250	17.9
				300	21.5
H-type	220	210	64	200	14.9
				250	18.7
				300	22.4
Corner connector	220	210	64	200	61.3
				250	76.7
				300	92.0
Foundation A	2380	60	-	200	64.4
				250	80.5
				300	96.6
Foundation B	2500	60	-	200	64.4
				250	80.5
				300	96.6



Razor wire | Entanglements | Fencing systems

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See our  
production process

We are a Polish manufacturer of razor wire products and system fencing components.

Our production is located in Zagórki near Człuchów. We guarantee the highest quality of workmanship and use.

Our production can be adapted to the customer at every level: when it comes to the size of the entanglements or the material from which the products are made.