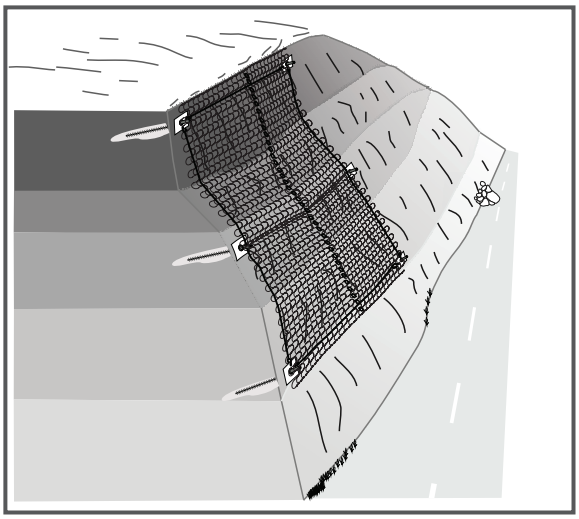
Slope retention system

Omega-Net - Data Sheet



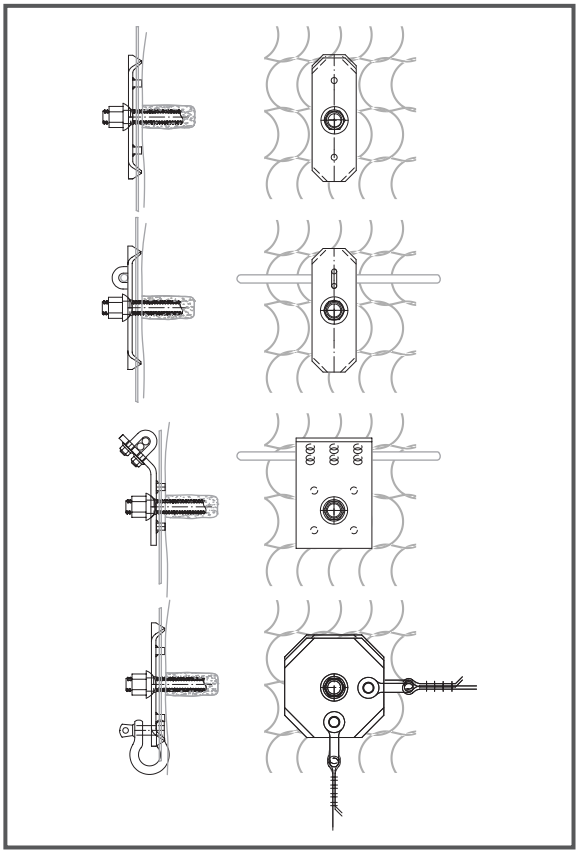
Area of Application:
TRUMER Omega-Net products are developed for the highest tensile strength applications. It can be used for stabilizing slopes by pinning them with a combination of mesh and rock or soil anchors, as well as installed as a drape to control erosion. Thus, the frequency and magnitude of events such as rockfall and shallow slumps can be reduced. In addition this versatile product is also used for the protection from natural hazards, such as snow avalanches or debris flows.

Material:
TRUMER Omega-Net products consist of galvanized high grade corrosion prevention using Zinc or Zinc-Aluminium coating. The individual, pre-formed wave and interwoven strands of the rope are not connected to each other, since no clamps are used. This creates the highest flexibility and tensile strength characteristics.

Installation:
The TRUMER Omega-Net is delivered in compact packages that can be pulled apart like a curtain during installation. The different net layers are connected by shackles or sewing them together.

Advantages:
Under most conditions, the Omega-Net can be easily and quickly installed, thereby considerably reducing costs. It is primarily used where large blocks are to be secured but can be installed with a finer mesh layer. Furthermore, corrosion protection is assured by a high-quality of metallic coating that increases the life and durability of the net.

Anchor Connection Plate*



* Anchor plates with two rope connections, i.e. in vertical and horizontal directions are also available

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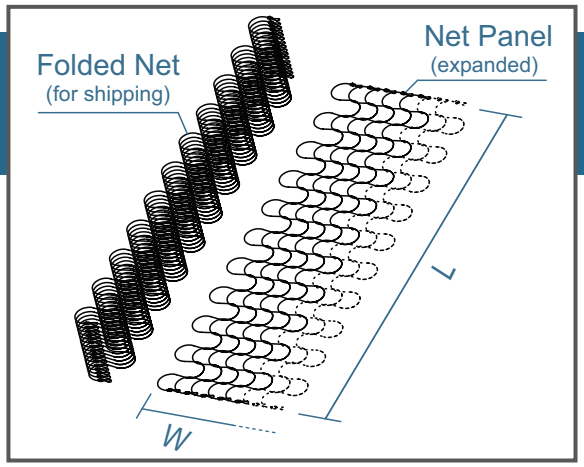
Omega-Net Characteristics

		Net Type					
		4.5/100	6.0/135	7.5/135	7.5/200	9.0/185	10.5/180
Strand	Spiral Rope Strand Type	1x7					1x19
	Rope Diameter *mm (in)*	4.5 (0.18)	6.0 (0.24)	7.5 (0.30)	7.5 (0.30)	9.0 (0.35)	10.5 (0.41)
	Single Wire Diameter *mm (in)*	1.5 (0.06)	2.0 (0.08)	2.5 (0.10)	2.5 (0.10)	3.0 (0.12)	2.1 (0.08)
	Coating Type*	Zn	Zn, ZnAl				ZnAl
Mesh	Arc Diameter *X* *mm (in)*	100 (3.94)	130 (5.12)	130 (5.12)	200 (7.87)	185 (7.28)	180 (7.09)
	Number of Meshes N_H *per m (per ft)*	9.0 (2.7)	7.8 (2.4)	7.8 (2.4)	5.8 (1.8)	6.8 (2.1)	8.0 (2.4)
	Number of Meshes N_V *per m (per ft)*	10.4 (3.2)	8.3 (2.5)	8.3 (2.5)	5.1 (1.6)	5.9 (1.8)	5.9 (1.8)
Seam	Sewing Rope Diameter *mm (in)*	8.0 (0.31)	8.0 (0.31)	10.0 (0.39)	10.0 (0.39)	12.0 (0.47)	16.0 (0.63)
	or						
	Shackles	1/4"	5/16"	3/8"	3/8"	7/16"	1/2"

Other diameters of strands from 100 mm (3.94 in) to 250 mm (9.84 in) are possible on request!
* in accordance with European Standard EN 10244-2, class A

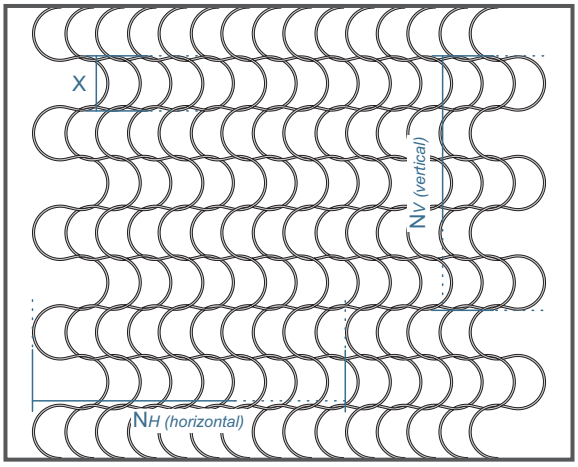
Panel Dimensions



Minimum Strength Properties

Net Type	4.5/100	6.0/135	7.5/135	7.5/200	9.0/185	10.5/180
Break Load per Strand *kN (lbf)*	20 (4,496)	35 (7,868)	55 (12,364)	55 (12,364)	76 (17,085)	105 (23,605)
Mesh Tensile Strength *kN/m (lbf/ft)*	154 (10,552)	246 (16,856)	386 (26,449)	287 (19,665)	465 (31,862)	756 (51,802)

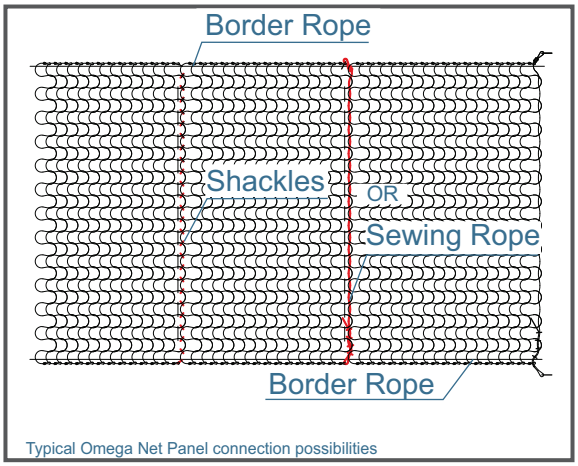
Net Dimensions



Sizing Options

Net Type	4.5/100	6.0/135	7.5/135	7.5/200	9.0/185	10.5/180
Width *m (ft)*	made to order					
Length *m (ft)*	made to order					
Weight *kg/m² (lb/ft²)*	~2.7 (~0.55)	~3.6 (~0.73)	~5.6 (~1.15)	~4.2 (~0.86)	~6.8 (~1.39)	~10.5 (~2.15)

Seam Connection



Typical Omega Net Panel connection possibilities