

# WELDED WIRE MESH GABIONS AND GABION MATTRESSES

EASY INSTALLATION, LESS COST



## About LANE

As a full-line manufacturer of metal and plastic drainage products, Lane Enterprises, Inc. operates 11 plants in the Mid-Atlantic and Northeastern states producing corrugated metal and plastic drainage pipe for the construction industry.

For more than 75 years, Lane has partnered with contractors, engineers and municipalities to supply reliable products that provide the highest service life, strength, versatility and economy. Our focus on quality products, responsive customer service and technical expertise has afforded us a long history of successful partnerships within the industries we serve.

### Lane Welded Wire Mesh Gabions

Lane is one of the few manufacturers of pre-assembled welded wire mesh gabions and gabion mattresses. Lane engineers the highest-quality welded wire mesh products for earth retention, soil stabilization, erosion control, flood management and various architectural applications.

Welded wire mesh means that each point of contact in the grid is welded to form a rigid connection, making this type of gabion material indispensable in achieving a flat, sharp appearance. The added stiffness provided by welded wire mesh also makes rock filling less cumbersome - resulting in less time and cost for installation.

Lane gabions are shipped flat, are easily assembled and provide better shape control giving your project the strength you need while reducing installation costs.

# Less Costly Than Concrete

Gabions and gabion mattresses are used in applications which require earth retention, soil stabilization or scour protection. A gabion system is a network of interconnected, rock-filled, heavy-duty rectangular wire mesh containers. Individually, the filled baskets are building blocks. Integrated into a unit, the gabion system becomes a flexible, permeable and monolithic structure for a number of applications that provide a less costly alternative to reinforced concrete.









### **Common Gabion Applications**

- Retaining Walls
- Earth Retention
- Slope Protection
- Rock-Fall Mitigation
- Earth Dams
- Erosion Control
- Revetments
- Groins and Jetties
- Channel Linings

- Stream Bank Protection
- Levees and Weirs
- Culvert Headwalls
- Culvert Outlets
- Wing Walls
- Scour Aprons
- Energy Dissipaters
- Bridge Abutments

<sup>1</sup> GABIONS (GALVANIZED 9 or 11 GAUGE, PVC 12 GAUGE)			
Standard Sizes L x W x H	Cells	Capacity (yd <sup>3</sup> )	
12' x 3' x 3'	4	4.00	
9' x 3' x 3'	3	3.00	
6' x 3' x 3'	2	2.00	
12' x 3' x 1H'	4	2.00	
9' x 3' x 1H'	3	1.50	
6' x 3' x 1H'	2	1.00	
12' x 3' x 1'	4	1.33	
9' x 3' x 1'	3	1.00	
6' x 3' x 1'	2	0.67	

<sup>1</sup>Made from a wire mesh with a 3" x 3" grid.



<sup>1</sup> MATTRESSES (GALVANIZED 13.5 GAUGE, PVC 13.5 GAUGE)		
Standard Sizes L x W x H	Cells	Capacity (yd <sup>3</sup> )
12' x 6' x 9''	4	2.00
9' x 6' x 9''	3	1.50
12' x 6' x 6''	4	1.33
9' x 6' x 6''	3	1.00
12' x 6' x 12''	4	2.67
9' x 6' x 12''	3	2.00

<sup>1</sup>Made from a wire mesh with a 3" x 1H" grid.

### Strong, Stable, Efficient

Gabions are most often used in areas where ground conditions are inherently unstable and prone to shifting and sliding. Gabions provide a needed alternative to concrete walls that would crack or buckle under pressure.

### **Benefits of Gabions**

- Flexibility, strength and permeability
- No cure times, rebar schedules, etc.
- Low cost installation
- Rarely requires separate footings or foundations
- Locally available fill materials

- Bioengineering potentials
- Minimal equipment needs
- Easily shipped and unloaded
- No maintenance demands
- Field customizable

#### PRE-ASSEMBLED

Lane gabions are shipped flat (i.e. collapsed) with hinged panels that easily fold into a rectangular basket. Sides are raised and the seams temporarily fastened. The basket is placed and adjacent edges permanently laced.

#### **QUICKER ASSEMBLY**

Once expanded and placed, Lane gabions are simply and securely interconnected with corkscrew spiral binders at each vertical junction. Lane's welded wire mesh gabions are assembled, placed and filled considerably faster than woven wire baskets.

#### **BETTER SHAPE CONTROL**

Welded wire mesh provides shape control superior to twisted or woven wire fabric. Diaphragms and preformed stiffeners brace adjacent panels and provide added stiffness for more shape control.

#### **ASTM A974**

Lane gabions and mattresses meet ASTM A974 in regard to the material used and the method of manufacture. ASTM A974 also establishes minimum requirements for preassembly of the baskets and mattresses for shipping. The wire mesh used is galvanized or PVC coated. PVC-coated gabions are used in applications where greater durability or an environmentally-blended appearance is desired.

Studies have shown that welded wire baskets install at a rate that reduces labor by at least 40%.



#### **RELATED INFORMATION AVAILABLE FROM LANE:**

• Gabion and Mattress Construction Guide

To view this guide visit: lane-enterprises.com/GabionMattressConstrGuide.

Welded Wire Mesh Gabion Design Manual

To view this manual visit: **lane-enterprises.com/GabionMattressDesignManual**.

#### **RELATED SERVICES AVAILABLE FROM LANE:**

- CAD Design and Drawings
- Engineering Design and Calculations
  For more information, visit: lane-enterprises.com/GabionMattress.





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### **LANE Products**

**Corrugated Metal Pipe Spiral Rib Pipe Corrugated HDPE Pipe Corrugated Polypropylene Pipe Structural Plate Pipe and Arches** Structural Plate Box Culverts Storm Water Collection Chambers Storm Water Management Systems **Storm Water Filters** CFT (HDPE) Water Quality Unit **CMP Sandfilter Open Top Slotted Drain** Welded Wire Mesh Gabions Structural Plate Headwall-Culvert Systems Custom Fabrications (Pond Kits, Trash Racks, etc.) Long Span Bridge & Culvert Services **Rebar and Custom Powder Coatings** 



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