



# WALCOOM

Walcoom Corporation



# ROCKFALL BARRIER

[www.walcoom.com](http://www.walcoom.com)  
E-mail: [sales@walcoom.com](mailto:sales@walcoom.com)



## "The best rockfall barrier for slope or mountain protection"



For over 20 years, Walcoom Corporation has been offering the strong and durable rockfall barrier products to a wide range of places. We are specialized in rockfall barriers producing and exporting, and our products include steel ring net, wire rope net, tecco mesh, spider spiral wire mesh, chain link mesh and hexagonal wire mesh . With high strength and firm structure, they are popular for slope or mountain

protection. Advanced production equipment, skilled workers, professional sale representatives and considerate after sale service contribute our high quality products and long term cooperation with our customers.

**Rockfall barriers** are made of high quality carbon steel or stainless steel, including steel wire rope net, steel ring net, tecco mesh, spider spiral rope mesh, chain link wire mesh and hexagonal wire mesh. With galvanized, powder coated or PVC coated surface, they're corrosion and rust resistant. The common rockfall barrier combination is steel wire rope net with chain link mesh, it can be used as active or passive rockfall barrier for slope or mountain protection to minimize the impact of natural disasters, such as landslide, debris flow and so on.

**Compared with other rockfall barriers, our rockfall barriers** has various types for choice. with the features of high strength, corrosion resistance ad long service life, they are widely used for slope protection, mountain protection, vegetation protection and road protection.

## Feature of rockfall barriers

- High tensile strength.
- Various types for choice.
- Corrosion and rust resistance.
- Anti harsh environment.
- Durable and long service life.

## Specification of rockfall barriers

- **Material:** high carbon steel, stainless steel.
- **Surface treatment:** galvanized, powder coated, PVC coated.
- **Type:** wire rope net, steel ring net, tecco mesh, spider spiral rope mesh, chain link wire mesh, hexagonal wire mesh.
- **Common combination:** wire rope net with chain link mesh, steel ring net with chain link mesh, steel ring net with hexagonal wire mesh.
- **Package:** can be packaged in bulk, plastic film, pallet and wooden case.
- **Fitting:** decompression ring, steel wire rope anchor, supporting rope, prestressed anchor, anchor plate, sewing rope, metal column, foundation base.



Anchor plate



Foundation base



Sewing rope



Supporting rope



## Application of rockfall barrier

- Slope protection.
- Mountain protection.
- Vegetation protection.
- Road protection.



## Chain link mesh



Chain link mesh is made of high quality carbon steel or stainless steel. With galvanized or PVC coated surface, it is corrosion and rust resistant. Chain

link mesh features the perfect buffering performance, beautiful appearance, easy installation and long service life. With high strength, it is widely used individually or combined with steel wire rope net or steel wire ring net for slope protection or mountain protection.



## Advantage of chain link mesh

- Perfect buffering performance.
- Corrosion and rust resistance.
- Beautiful appearance.
- Easy installation.
- Durable and long service life.

## Specification of chain link mesh

- **Material:** carbon steel, stainless steel.
- **Surface treatment:** galvanized, PVC coated.
- **Wire diameter:** 2 mm – 3 mm.
- **Mesh hole size:** 5 cm × 5 cm.
- **Mesh roll size:** 2 m × 10 m, 2 m × 20 m.



## Hexagonal wire mesh

Hexagonal wire mesh is made of high quality galvanized or galfan steel wires. The wires are double twisted and the edge of the mesh is reinforced by a thicker wire – selvedge wire. It can be used individually or combined with other meshes for active or passive rockfall barrier. Fastened by anchors, bolts and steel cables, hexagonal wire mesh is strong and firm enough to block the rocks or debris and minimize the damage of natural disasters.



## Advantage of hexagonal wire mesh

- High tensile strength.
- Corrosion and rust resistance.
- Anti harsh environment.
- Environmental friendly.
- Easy to install and uninstall.

## Specification of hexagonal wire mesh

- **Material:** galvanized wire, galfan wire.
- **Zinc coating weight:**  $\geq 260$  g/m<sup>2</sup>.
- **Wire diameter:** 2.7 mm, 3.0 mm.
- **Mesh size:** 6 cm  $\times$  8 cm, 8 cm  $\times$  10 cm.
- **Mesh roll width:** 0.8 m, 1.0 m, 1.2 m, 1.5 m, etc.
- **Mesh roll length:** 50 m, 100 m.
- **Packaging:** the hexagonal wire mesh can be packed in bulk or be packed into pallet. (bulk package is economical and pallet package can supply better protection)



Spider spiral rope mesh

## Advantage of spider spiral rope mesh

- High tensile strength.
- Rigid and solid to bear the collapsing force.
- Perfect adaptability.
- Corrosion resistance.
- Low maintenance cost.
- Environmental friendly.

## Specification of spider spiral rope mesh

- **Material:** high tensile spring wire.
- **Wire diameter:** 3 mm.
- **Strand:** 3 strands.
- **Mesh size:** 250 mm – 300 mm inner circle diameter.
- **Tensile strength:** 1770 N/m<sup>2</sup>.
- **Surface treatment:** galvanized.
- **Zinc coating weight:** 150 g/m<sup>2</sup>.
- **Mesh roll width:** 3.5 m.
- **Mesh roll length:** 10 m, 30 m.
- **Common combination:** spider spiral rope mesh with chain link mesh.
- **Fitting:** prestressed anchor, anchor plate, boundary rope, sewing rope.
- **Prestressed anchor:** reinforcing steel bar anchor, and one side has threads of 25 mm or 28 mm diameter.
- **Anchor plate:** claw type anchor plate with four bending sides, the size of anchor plate is larger than 320mm × 180 mm and the plate thickness is thicker than 10 mm.
- **Boundary rope:** the diameter is thicker than the 12 mm, and the most common diameter is 14 mm or 16mm; the length of single boundary rope is shorter than 40 m.

## Steel ring net

Steel ring net system, made of high tensile steel wires, is a kind of passive rockfall barriers. There are four contiguous ring and six contiguous ring types. The steel ring net is more flexible than the steel rope net. With high loading capacity and excellent buffering performance, passive rockfall barrier is often combined with chain link or hexagonal wire fence and installed at the bottom of mountains or slopes to block the stones then reduce the impact of the rockfalls and protect the safety and property of people.

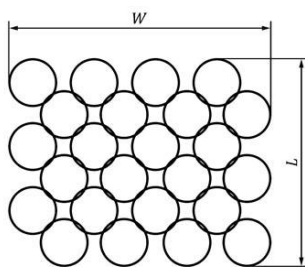


## Advantage of steel ring net

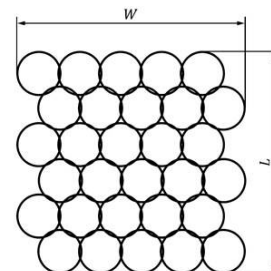
- High loading capacity and flexibility.
- Excellent buffering performance.
- Corrosion and rust resistance.
- Quick and easy installation.
- Durable and long service life.
- Combined with chain link or hexagonal wire mesh fence.

## Specification of steel ring net

- **Material:** high carbon steel, stainless steel.
- **Surface treatment:** galvanized, powder coated.
- **Main type:** steel wire rope net, steel wire ring net.
- **Type of steel wire ring net:** four contiguous ring type, six contiguous ring type.
- **Fitting:** decompression ring, supporting rope, steel column, foundation base.



Four contiguous ring type steel wire ring net



Six contiguous ring type steel wire ring net



# ROCKFALL BARRIER

- **Common combination:** steel ring net with chain link fence, steel ring net with hexagonal wire mesh.



Steel ring net with chain link fence



Steel ring net with hexagonal wire mesh

**Table 1: Specifications of Steel Ring Net**

Type	RXI-025	RXI-050	RXI-075	RXI-100	RXI-150	RXI-200	RXI-300
Energy Absorption Capacity (kJ)	250	500	750	1000	1500	2000	3000
Ring Net Size	R5/3/300	R7/3/300	R7/3/300	R9/3/300	R12/3/300	R16/3/300	R16/3/300
Strands of Wire	5	7	7	9	12	16	16
Wire Diameter (mm)	3	3	3	3	3	3	3
Ring Diameter (mm)	300	350/300	350/300	350/300	300	350/300	300
Supporting Rope Diameter (mm)	16 - 18	18 - 22	14 - 16	16 - 18	18 - 20	18 - 22	22
Distance between Posts (m)	8 - 12	8 - 12	8 - 12	8 - 12	8 - 12	8 - 12	8 - 12
Min./Max. Barrier Height (m)	3/6	4/7.5	4/7.5	5/9	6/10.5	5/9	6/10.5
Max. Deflection Distance (m)	4.36	5.8	<7	8.15	8.45	8.15	8.45
Usable Height Remaining in Impact Section	>50% (Cat.A)	>50% (Cat.A)	>50% (Cat.A)	>50% (Cat.A)	>50% (Cat.A)	>50% (Cat.A)	>50% (Cat.A)

## Tecco mesh



Tecco mesh is made of high carbon steel wire. Tecco mesh system is a kind of active rockfall barrier system, including tecco mesh, wire rope anchor, spike plate, boundary rope, sewing rope and steel clips. With the wire ropes and steel clips, the tecco mesh is fastened onto the mountain or slope surface tightly and firmly to block the large stones and reduce the damage of landslide or debris flow.



## Advantage of tecco mesh

- High safety and tensile strength.
- Rhomboid mesh structure for stability.
- Corrosion and rust resistance.
- Environmental friendly for plant growth.
- Easy to install and transport.
- Durable and long service life.

## Specification of tecco mesh

- **Material:** high carbon steel wire.
- **Corrosion treatment:** hot dipped galvanized, zinc-aluminum coated.
- **Zinc thickness:** no less than 150 g/m<sup>2</sup>.
- **Wire diameter:** 3 mm, 4 mm.
- **Mesh type:** rhomboid hole
- **Mesh size:** 65 mm inscribed circle diameter.
- **Tensile strength:** minimum 1770 MPa.
- **Braking load of single wire:** 12.5 kN.
- **Mesh roll width:** 1 m – 3.5 m.
- **Mesh roll length:** 10 m – 30 m.
- **Fitting:** steel anchor, claw type spike plate, soil or rock nails, clips, sewing rope, boundary rope.  
(The steel anchor is made of deformed steel bar of 25 mm diameter)



## Wire rope net



Steel wire rope net is the most common type of rockfall barrier, including galvanized wire rope net and PVC coated wire rope net. The wire ropes are intersected and fixed by clips and they have higher tensile strength than the steel



wires. The steel wire rope can be used individually to block large stones. However, it's often used with chain link fence or hexagonal wire mesh together to block both large and small rocks. In addition to, steel wire rope net can also decorate the dull mountains or surrounding environments and give people a beautiful view.

## Advantage of wire rope net

- High tensile strength and load capacity.
- Environmental friendly for excellent adaptability.
- Anti harsh environment, maintain good condition.
- Corrosion and rust resistant.
- Durable and long service life.

## Specification of wire rope net

- **Material:** high carbon steel, stainless steel.
- **Surface treatment:** galvanized, PVC coated.



Galvanized wire rope net



PVC coated wire rope net

- **Wire rope diameter:** 8 mm.
- **Wire rope mesh size:** 300 mm × 300 mm.
- **Mesh roll size:** 4 m× 4 m, 4.5 m× 4.5 m.
- **Supporting rope diameter:** 12 mm, 16 mm.
- **Sewing rope diameter:** 8 mm.
- **Anchor diameter:** 25 mm × 25 mm.
- **Anchor bearing plate size:** 320 × 170 mm, 320 × 180 mm.

## Strict quality controlling systems

- **Raw material system**

All the materials of the rockfall barrier are purchased from large factories, which has mill certificate and test report. Before the production, we will test again to ensure all the materials are qualified.

- **Production management system**

All the workers are trained systematically, including operating machine, hygienic standard and so on. And all our workers are skilled and experienced to improve the production efficiency and the product precision.

- **Quality inspection system**

When the products are completed, they will be delivered to the inspection department. The inspection personnel will test the products strictly according to the industrial standard.

- **Product package system**

The rockfall barriers can be packaged in bulk, plastic film, pallet and wooden case. The perfect package can protect the products from rain or sea water. Besides, it can resist the impact from external forces.

- **Stock storage system**

When the products are packaged, they will be delivered into the warehouse. Our warehouse are clean and dry, which can protect the products from dust and water. And the warehouse is large for easy and fast loading.



## • Re-inspection system

All the products will be inspected again before loading, including the product properties and product package. Only the qualified products can be delivered to our customers.

## • After-sale system

If you have any problems or questions during the usage, our servers will contact technicians, and they will give you professional instruction and suggestion. If the products are broken or other product questions, they will contact the sales department and give the solutions as soon as possible.

**Popular models of rockfall barrier:** see table 2 and table 3.

**Table 2: Popular Models of Active Rockfall Barrier System**

Model	Wire Net Size	Supporting Rope Size	Sewing Rope Size	Note
<b>GAR1</b>	<b>Steel wire rope net:</b> Diameter: 8 mm. Mesh size: 300 mm × 300 mm.	Boundary rope diameter: 16 mm. Supporting rope diameter: 12 mm. Wire rope anchor diameter: 16 mm.	8 mm steel wire rope	Single layer of steel wire rope net. Length of the wire rope anchor is 2 m - 3 m.
<b>GAR2</b>	<b>Steel wire rope net:</b> Diameter: 8 mm. Mesh size: 300 mm × 300 mm.	Wire rope anchor diameter: 16 mm. Horizontal supporting rope: 16 mm. Vertical supporting rope: 12 mm or 16 mm.	8 mm steel wire rope	Single layer of steel wire rope net. Length of the wire rope anchor is 2 m - 3 m.
<b>GPS1</b>	<b>Steel wire rope net:</b> Wire diameter: 8 mm. Mesh size: 300 mm × 300 mm. <b>Chain link mesh:</b> Wire diameter: 2.2 mm. Hole size: 50 mm × 50 mm. Roll size: 2.25 m × 10.2 m.	Margin rope diameter: 16 mm. Supporting rope diameter: 12 mm. Wire rope anchor diameter: 16 mm.	8 mm steel wire rope	Double layers structure (chain link meshes and wire rope net) Length of the wire rope anchor is 2 m - 3 m.

# ROCKFALL BARRIER

<b>GPS2</b>	<b>Steel wire rope net:</b> Wire diameter: 8 mm. Mesh size: 300 mm × 300 mm. <b>Chain link mesh:</b> Wire diameter: 2.2 mm. Hole size: 50 mm × 50 mm. Roll size: 2.25 m × 10.2 m.	Wire rope anchor diameter: 16 mm. Horizontal supporting rope: 16 mm. Vertical supporting rope: 12 mm or 16 mm.	8 mm steel wire rope	Double layers structure (chain link meshes and wire rope net) Length of the wire rope anchor is 2 m - 3 m.
<b>GER1</b>	<b>Chain link mesh:</b> Wire diameter: 2.2 mm. Hole size: 50 mm × 50 mm. Roll size: 2.25 m × 10.2 m.	Margin rope diameter: 16 mm. Supporting rope diameter: 12 mm. Wire rope anchor diameter: 16 mm.	2.2 mm steel wire	Single layer of chain link mesh. Length of the wire rope anchor is 2 m - 3 m.
<b>GER2</b>	<b>Chain link mesh:</b> Wire diameter: 2.2 mm. Hole size: 50 mm × 50 mm. Roll size: 2.25 m × 10.2 m.	Wire rope anchor diameter: 16 mm. Horizontal supporting rope: 12 mm.	2.2 mm steel wire	Single layer of chain link mesh. Length of the wire rope anchor is 2 m - 3 m.
<b>GTC-65A</b>	<b>Tecco mesh:</b> Wire diameter: 3 mm or 4 mm. Mesh size: 65 mm × 65 mm. Roll width: 1 m - 3.5 m. Roll length: 10 m - 30 m.	Prestressed anchor diameter: 16 mm.	8 mm steel wire rope	Single layer structure of tecco mesh
<b>GTC-65B</b>	<b>Tecco mesh:</b> Wire diameter: 3 mm or 4 mm. Mesh size: 65 mm × 65 mm. Roll width: 1 m - 3.5 m. Roll length: 10 m - 30 m.	Steel anchor diameter: 16 mm. Boundary rope: 16mm. Supporting rope diameter: 16mm.	8 mm steel wire rope	Single layer of tecco mesh Length of the wire rope anchor is 2 m - 3 m.
<b>GSS2A</b>	<b>Spider spiral rope mesh:</b> Wire diameter: 3 × 3 mm. Mesh size: 250 mm - 300 mm. Roll size: 3.5 m × 10 m. <b>Chain link mesh:</b> Wire diameter: 2.2 mm. Hole size: 50 mm × 50 mm. Roll size: 2.25 m × 10.2 m.	Steel anchor diameter: 16 mm. Boundary rope: 12 mm or 16 mm.	8 mm steel wire rope	Double layers structure (chain link meshes and spider spiral rope mesh) Length of the wire rope anchor is 2 m - 3 m.
<b>HWM-01</b>	<b>Hexagonal wire mesh</b> Wire diameter: 2.7 mm / 3.0 mm. Mesh size: 6 cm × 8 cm, 8 cm × 10 cm. Roll width: 0.8 m, 1.0 m, 1.2 m, 1.5 m, etc. Roll length: 50 m or 100 m.	Margin rope diameter: 16 mm. Supporting rope diameter: 12 mm. Wire rope anchor diameter: 16 mm.	2.2 mm steel wire	Single layer of hexagonal wire mesh.



**Table 3: Popular Models of Passive Rockfall Barrier System**

Model	Net Size	Supporting Rope	Upper Anchor Rope	Anchor Rope	Sewing Rope	Loading Capacity
<b>RX-025</b>	<b>Wire rope net:</b> Wire diameter: 8 mm. Mesh size: 250 mm × 250 mm.	12 mm double steel wire rope. Each spacer has 3 decompression rings	16 mm single steel wire rope. 1 decompression ring	12 mm single steel wire rope	8 mm	≤ 250 kJ
<b>RX-050</b>	<b>Wire rope net:</b> Wire diameter: 8 mm. Mesh size: 200 mm × 200 mm.	16 mm double steel wire rope. Each spacer has 6 decompression rings	14 mm single steel wire rope. 1 decompression ring	16 mm single steel wire rope	8 mm	≤ 500 kJ
<b>RX-075</b>	<b>Wire rope net:</b> Wire diameter: 8 mm. Mesh size: 150 mm × 150 mm.	18 mm double steel wire rope. Each spacer has 10 decompression rings	18 mm single steel wire rope. 2 decompression ring	18 mm single steel wire rope	8 mm	≤ 750 kJ
<b>RXI-025</b>	<b>Steel ring net:</b> Circle quantity: 5. Wire diameter: 3 mm. Circle diameter: 300 mm.	18 mm single steel wire rope	16 mm single steel wire rope	16 mm single steel wire rope	8 mm	≤ 250 kJ
<b>RXI-050</b>	<b>Steel ring net:</b> Circle quantity: 7. Wire diameter: 3 mm. Circle diameter: 300 mm.	22 mm single steel wire rope	18 mm single steel wire rope	18 mm single steel wire rope	8 mm	≤ 500 kJ
<b>RXI-075</b>	<b>Steel ring net:</b> Circle quantity: 5. Wire diameter: 3 mm. Circle diameter: 300 mm.	16 mm double steel wire rope. Each spacer and each metal column has 1 decompression rings. Total is 6 decompression ring.	14 mm single steel wire rope. 1 decompression ring	14 mm single steel wire rope	8 mm	≤ 750 kJ
<b>RXI-100</b>	<b>Steel ring net:</b> Circle quantity: 9. Wire diameter: 3 mm. Circle diameter: 300 mm.	18 mm double steel wire rope. Each spacer and each metal column has 1 decompression rings. Total is 6 decompression ring.	16 mm single steel wire rope. 1 decompression ring	16 mm single steel wire rope	12 mm	≤ 1000 kJ

<b>RXI-150</b>	<b>Steel ring net:</b> Circle quantity: 12. Wire diameter: 3 mm. Circle diameter: 300 mm.	22 mm double steel wire rope. Each spacer and each metal column has 1 decompression rings. Total is 6 decompression ring.	18 mm single steel wire rope. 1 decompression ring	18 mm single steel wire rope	12 mm	≤ 1500 kJ
<b>RXI-200</b>	<b>Steel ring net:</b> Circle quantity: 19. Wire diameter: 3 mm. Circle diameter: 300 mm.	18 mm double steel wire rope. Each spacer and each metal column has 1/2 decompression rings. Total is 8 decompression ring.	18 mm single steel wire rope. 1 decompression ring	18 mm single steel wire rope	14 mm	≤ 2000 kJ

## Hot products

- Galvanized wire rope net.
- Hexagonal wire mesh.
- Wire rope active rockfall barrier.
- Steel ring passive rockfall barrier.
- Tecco mesh.
- Spider spiral rope mesh.

## Common combination slope protection

- Wire rope net with chain link mesh.
- Steel ring net with chain link mesh.
- Steel ring net with hexagonal wire mesh.

## Information supplied by the purchaser

The following information shall be supplied by the purchaser at the time of inquiry or order:

- Type.
- Size.
- Quantity.



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Walcoom Corporation



Add: No. 3481, Yongxing Road, Hengshui City, Hebei Province, China.  
Tel: +86-15030811699  
Skype: wiremesh@live.com  
E-mail: sales@walcoom.com  
Web: <http://www.walcoom.com>

