



**JINBIAC**   
**金标建科**

*"Quality Materials For  
Your Construction Needs"*

**NOISE CONTROL BARRIER | WIRE MESH FENCE | GABION**



## Director's message.

To our much-appreciated customers,

For 4 years, Hebei Jinbiao, as a manufacturer, has been defined by its unwavering commitment to providing our customers with satisfaction through tailored solutions that meets functionality and economies of scale. We have worked tirelessly to create a business culture that prioritizes quality product, highest of service excellence as well as respect and trust among business partners like yourself and our staffs. It is my honor and privilege to introduce you the 2nd edition of our product brochure.

The broad range of the products we offered is tailored to assist industry players to meet the Construction Standard of Singapore as well as South East Asia market. We are thankful for your belief and trust you placed in us; allowing us to develop further and continue supporting your construction needs.

To navigate through the brochure with ease, we have organized it in orders of:

About Us | Page 3

Noise Mitigation products | Page 4 to Page 8

Wire Mesh products | Page 9 to Page 17

Gabion products | Page 18

Project References | Page 19 to Page 23

Our dedicated staff is fully committed to assisting you, our customer, attain the highest level of satisfaction with our products. Do feel free to contact us for any query you may have.

I enjoy building relationship and offering to be the solutions to customers. I hope to personally welcome you to our showroom one day, soon.

Regards,

**Ricky Thng**

Managing Director for  
Hebei Jinbiao Construction Pte Ltd

# About us

Providing gold standard materials for your construction needs for over 30 years.

## Full Potential Fabricator

**We fabricate our own products, choosing only accepted materials for production**

## Value as service

**We pledge to only provide our clients with value on top of products that meet their needs**

## Excellent Portfolio

**Our products have been used by numerous private & government projects**

The genesis of Hebei Jinbiao Construction Materials Pte Ltd was a humble and an inspiring one. Hebei Jinbiao was formerly known as SONES Consultancy LLP, amongst the pioneer in the nascent market of Noise Mitigation products. Through its commitment to deliver quality results for clients, SONES Consultancy LLP managed to establish itself as the leader in the first generation noise mitigation products market. Its efforts were capped off by being recognized by the environmental agency of the Singapore government.

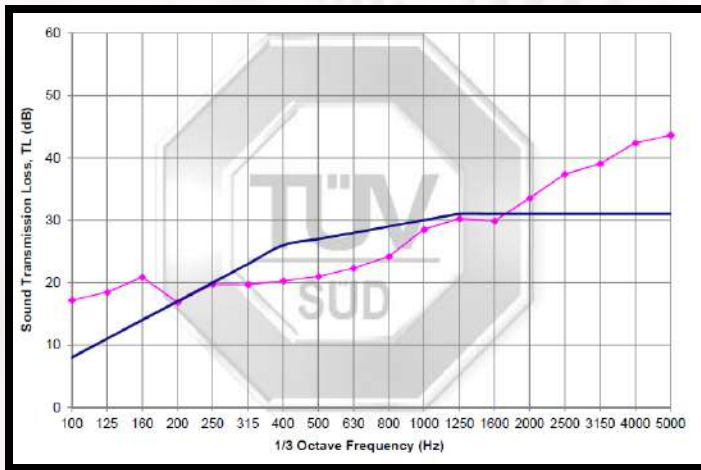
As client requirements got increasingly stringent, SONES Consultancy heightened its product performance through timely innovation. To meet the increased demand, SONES Consultancy LLP collaborated with Hebei Jinbiao Construction Material Tech Corp Ltd. The joined initiative gave life to a newly founded company named '*Hebei Jinbiao Construction Materials Pte Ltd*' - focused on tapping the growing Noise Mitigation products sector in South East Asia.

Hebei Jinbiao Construction Materials is setting off where SONES Consultancy LLP left and have been recognized by many for its products. Jinbiao's product was the trusted product when Singapore's Environment Agency launched the Quieter Construction Fund campaign. Hebei Jinbiao Construction Materials Pte Ltd product continues to be used by many looking to achieve proven end results.

Today Hebei Jinbiao Construction Material Pte Ltd continues to provide extra value in its product - be it for new or existing customers.

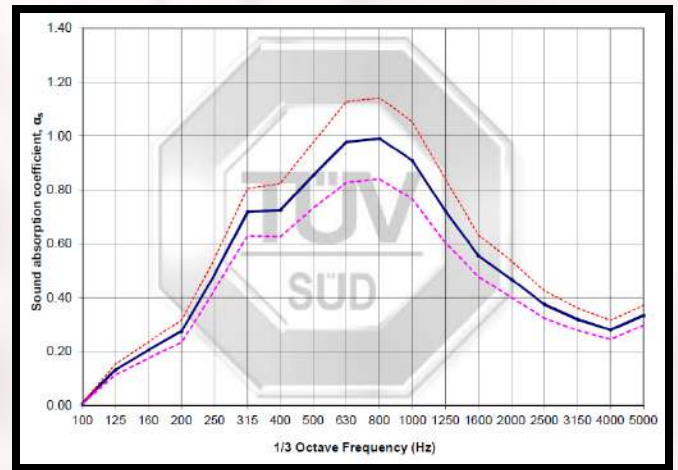


## TEMPORARY NOISE CONTROL BARRIER



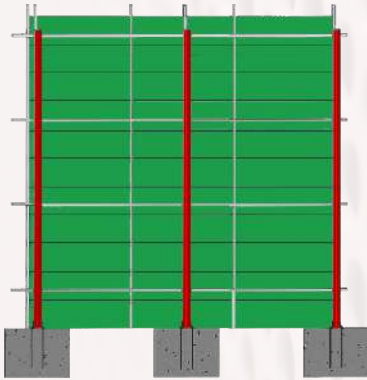
**STC = 27**

[An STC rating is a unit measurement of how much noise is stopped. The STC ratings allow accurate 'apple to apple' comparisons.]



**NRC = 0.7**

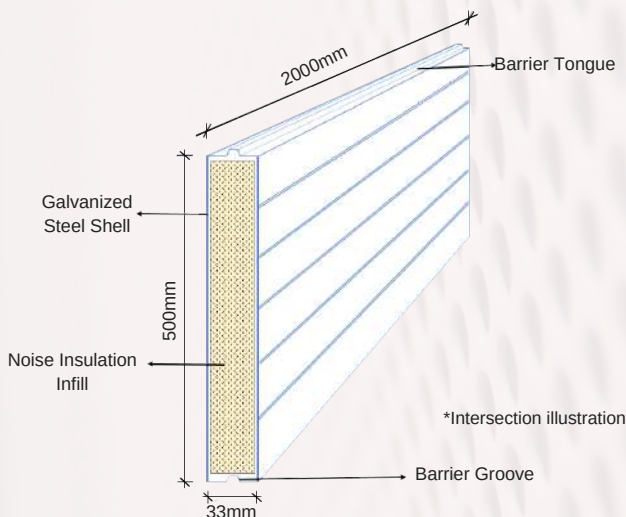
[A Noise Reduction Coefficient is an average rating of how much sound an acoustic product can absorb.]



Typical Elevation Of Noise Control Barrier System

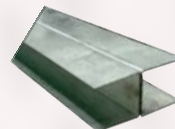
Hebei Jinbiao's Noise Mitigation system is cleverly engineered to fit the needs of most site situation. The usage of C-Channel and Fixed Coupler allows the fixtures on the system to be adjusted on site.

The typical design shows how the system is being supported by I-Beams and it may go as high as 15 meters, subjected to P.E calculation. (as done by us for an LTA project in Bedok)



### Cost Effective System

Our Temporary Noise Control Barriers are suitable to be reused for consecutive projects once the need is fulfilled. Most of our panels on site will still produce acceptable mitigation performance capability and is an investment good for future usage - a cost-effective plan.



C Channel



Fixed Coupler

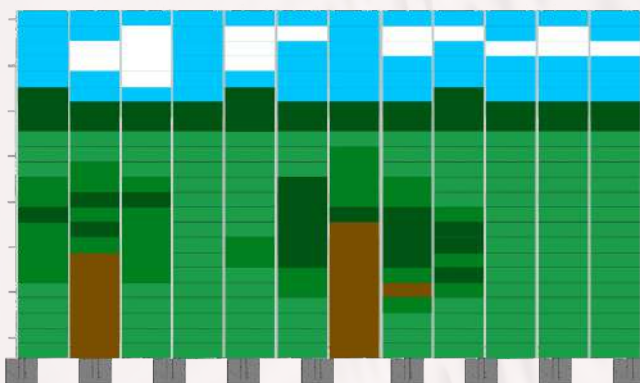
### Inspirational Ideas

Where the mitigation wall has to be high due to close work proximity to dwellers, arts are infused into the barrier to create a view that could please the 'affected' people.

**Panel Nominal Thickness: 33mm**

**Panel Shell Thickness: 0.5mm (Galvanized Steel)**

**Nominal Dimension: 2000mm x 500mm  
2000mm x 750mm**



## PORTABLE NOISE CONTROL BARRIER

The portable noise control barrier was designed and engineered to eliminate the hassle of dismantling and re-erecting. Such hassle contributes to excess manpower and time that can be used to fully utilize on other parts of the project.

Even though the design of the Portable Noise Control Barrier is simple, its advantages clearly brings benefit to its end-user, clocking in the same amount of performance that the Temporary Noise Control Barrier offers.



**Type 1**

**Panel Nominal Thickness:** 33mm  
**Panel Shell Thickness:** 0.5mm (Galvanized Steel)  
**Dimension:** 2000mm x 2500mm (H)  
**Usage:** Attached on wheels, it allows the mitigation system to be movable with minimal effort.



**Type 2**

**Panel Nominal Thickness:** 33mm  
**Panel Shell Thickness:** 0.5mm (Aluminum)  
**Dimension:** 1500mm x 2000mm (H)  
**Usage:** The Aluminum shell makes the whole system light. Where it needs to be shifted, minimum manpower is needed.



**Type 3**

**Panel Nominal Thickness:** 33mm  
**Panel Shell Thickness:** 0.5mm (Galvanized Steel)  
**Dimension:** 2000mm x [2000mm - 3000mm] (H)  
**Usage:** The provided stand allows the system to be placed on the ground firmly. This system allows the customer to customized height as needed.

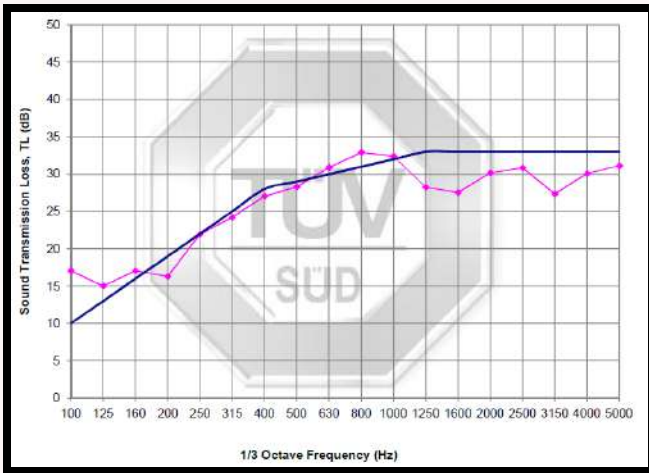


**Type 4**

**Panel Nominal Thickness:** 33mm  
**Panel Shell Thickness:** 0.5mm (Galvanized Steel)  
**Dimension:** 2000mm x 6000mm (H) - max  
**Usage:** The most rigid system, it allows the whole module to be shifted as a whole on site. Our project team will always be innovating the type 4 barrier according to site needs.

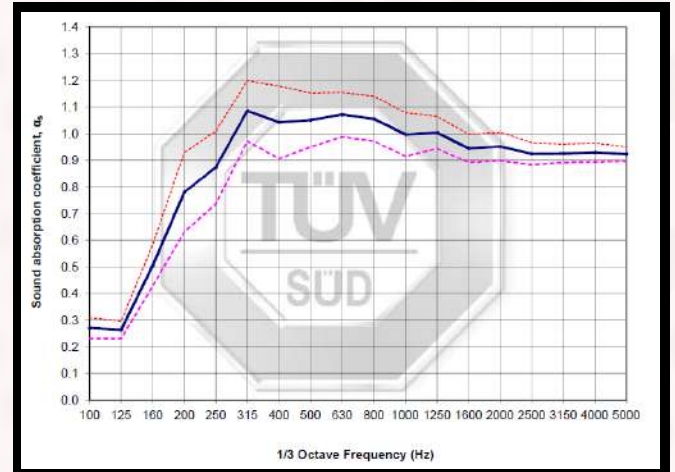


## PERMANENT NOISE CONTROL BARRIER



**STC = 29dBA**

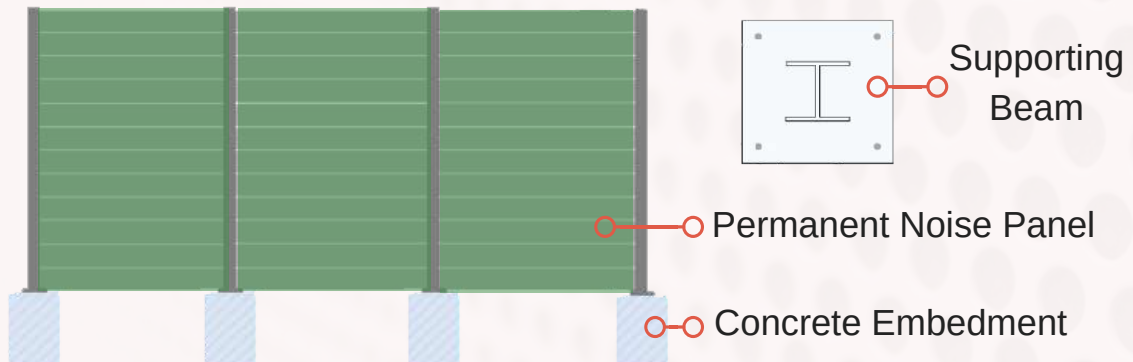
[An STC rating is a unit measurement of how much noise is stopped. The STC ratings allow accurate 'apple to apple' comparisons.]



**NRC = 0.95**

[A Noise Reduction Coefficient is an average rating of how much sound an acoustic product can absorb.]

### Typical Permanent Noise Barrier Design



The Permanent Noise Control Barrier are permanently placed on the premises. The P.N.C.B consist of High-Density Mineral Wool between its metal shell. The combination of both elements allow a great absorptive and reflective properties. Its high-density insulation accounts for the performance of the product.

The material of the Permanent Noise Barrier shell is made from either Aluminum Alloy (lighter weight advantage) or Galvanized Steel (cost advantage) material. The shell thickness is at 1.0mm which helps to prolong the lifespan of the product as a whole.

### Standard Size

**Panel Nominal Thickness: 80mm**

**Panel Shell Thickness: 1.0mm**

**Shell Finishing: Two-Sided Powder Coated**

## TRANSPARENT PMMA PANEL

With any design finish of the Permanent Noise Control Barrier, the PMMA Transparent panel will still be a great supplement to the mitigation system. The customized dimension would allow the PMMA Transparent panel to be applied whichever way possible.



General Properties	Standard	Typical Index
<b>Physical</b>		
Water Absorption, 24hrs	ISO 1794 – 1	0.3
Noise Reflection Index, 20mm	ISO 10140 – 2	DLR: 31dBA, Class B3*
<small>*Most highway projects would require B3 giving a DLR of at least 24dBA. For low barriers (&lt;2m high), B2 can be sufficient but it is important to specify a DLR of at least 20dBA</small>		
<b>Mechanical</b>		
Tensile Strength (Mpa)	ISO 1794 – 1	70.1
Modulus of Elasticity (Mpa)	ISO 178	3220
<b>Optical Properties</b>		
Light Transmittance (%)	ASTM D1003	93.5



The PMMA Transparent Panel has a varying thickness of 8mm to 20mm. Its total panel thickness equates to 80mm, accompanied by a surrounding aluminum profile framing.

The combination offers a reflective capability that proves to be an effective permanent noise mitigation supplementary product for machinery and sites near to noise sensitive areas.

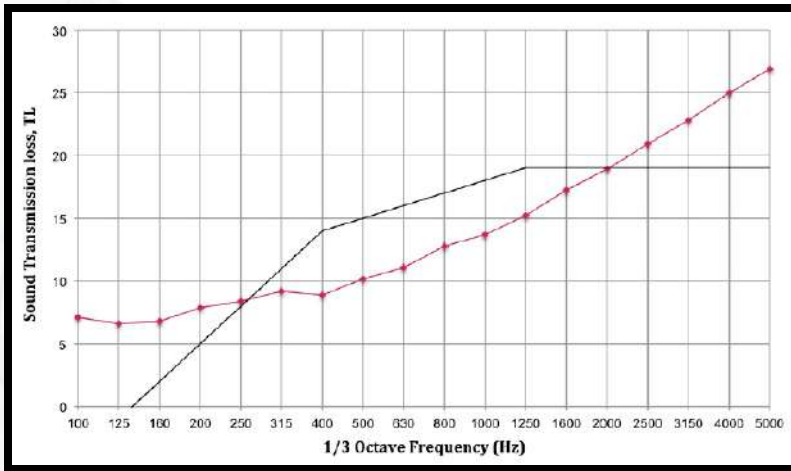
This product is applied to areas where it needs constant attention beyond the barrier.

### Standard Size

**Panel Nominal Height: 500mm - 1000mm**

**Panel Shell Thickness: 1.0mm**

## NOISE REDUCTION NET

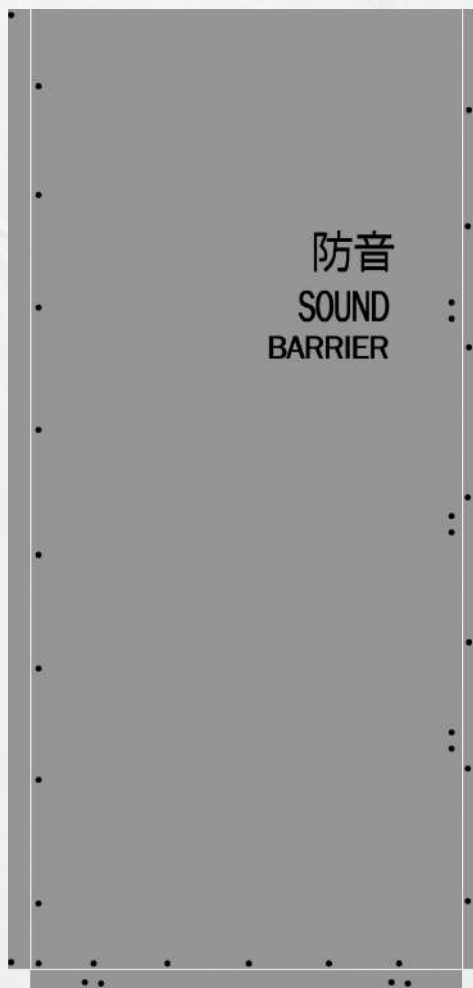


**STC = 15dBA**

[An STC rating is a unit measurement of how much noise is stopped. The STC ratings allow accurate 'apple to apple' comparisons.]

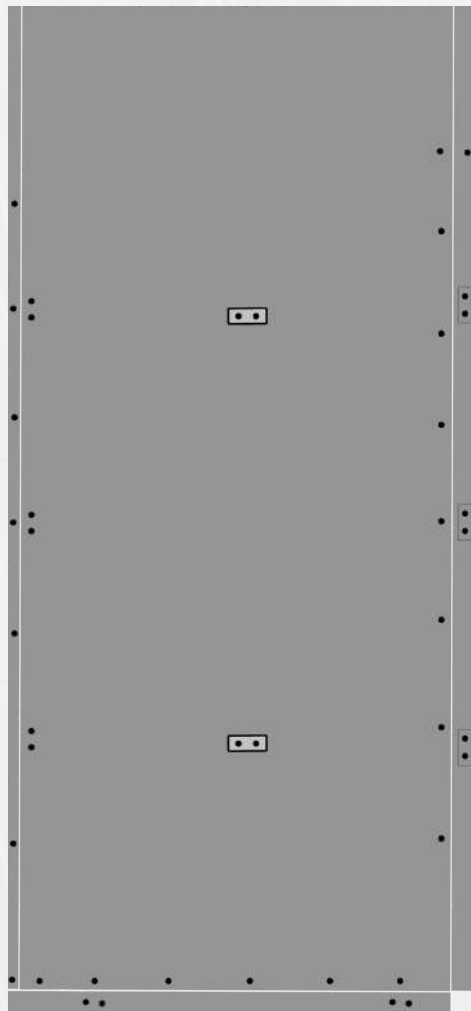
The Noise Reduction Net is a multi-function Noise Mitigation product and used by mostly demolition companies. It is usually secured to scaffolding units or around the building.

The flexibility of this product allows it to be used to 'wrap' the building during demolition, which then allows dust to be trapped within. Along with its noise reduction capability, the Noise Reduction Net acts as a dust net as well.



FRONT

BACK



**Standard Size**

**Net Dimension:** 1800mm x 3400mm

**Grams per sqm:** 1200

**Approx. Total Weight:** 9.2kg

**Material:** Polyvinyl Chloride

Method of manufacture: Draw  
Texture Yard

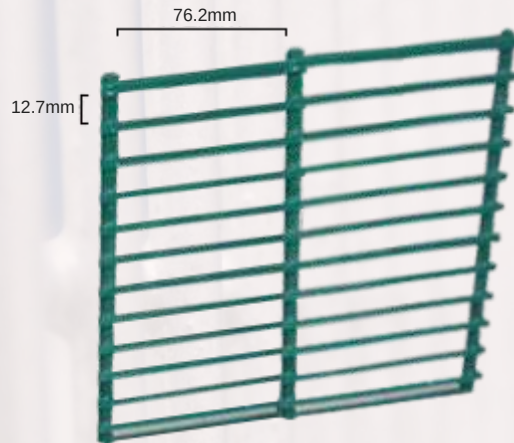


## 358 ANTI CLIMB SAFETY MESH

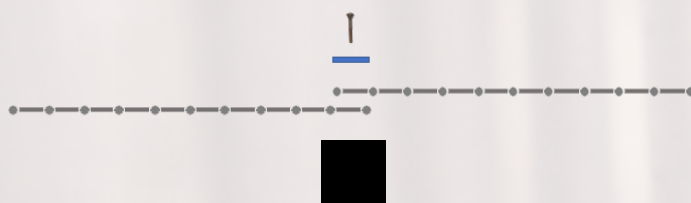
The 358 fence refers to its dimension of **3"** (76.2mm) by **5"** (127mm) by **8 gauge** wire (4mm). The 358 Fence also has other names like Anti-Climb Fence and Security Fence adopted from its unique design.

This specific design creates a minimal space between the steel wires thus not allowing normal adult fingers to squeeze through it. Such fences are favorable in high security areas.

Normally used at:  
 Custom Checkpoint  
 Power plant  
 Public transport Depot



Panels		Post	
Opening	Dimension	Dimension	Finishing
Millimeters (mm)			
12.7 x 76.2  12.5 x 75	2400 x 2400	75 x 75 x 6(T)	PVC HDG Powder Coated
	1800 x 2400		
	2400 x 3000		



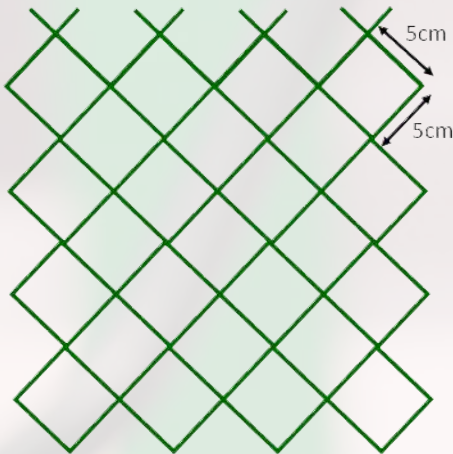
The probable system of installing the 358 fence would be to overlap the consecutive panels in an alternate manner. The flat bar is then used to secure both panels onto the post.

With this manner, it eliminates the usage of clips that would enable the panels to be pried open.



## CHAIN LINK FENCE

Chain Link Fence, sometimes known as chicken wire fence, hurricane fence, and cyclone fence is a type of woven fence made from steel wires. The finishing of wire differs by the project to suit the needs.



Where cost is a concern but security still need to be observed, the Chain Link Fence would be a preferable choice. However, such fence system can be matched with other variables combined to the post to heighten security as well.

WIRE DIAMETER	OPENING	HEIGHT	LENGTH	TYPES OF EDGES	FINISHING
3MM 4MM 5MM	3cm x 3cm	1.7 – 3m	10 – 20m per roll	Common Edge Flat Edge Wrap Edge	Hot Dip Galvanized
	4cm x 4cm				
	5cm x 5cm				Galvanized PVC
	6cm x 6cm				



The fixing of the Chain Link Fence may vary with angle post being the most favorable assembly. To add on to the security of the post, either a Y-Top, Single Arm or excess of the straight pole are made available to be fixed. Such addition will be equipped with concertina wires or barbed wires normally.



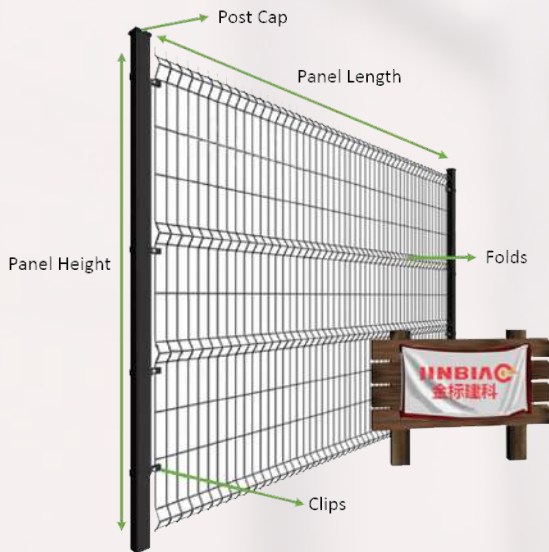
Single-Arm Round Post



L - Angle Post



## WELDED WIRE MESH



**Airport Fence Illustration**  
(excess wire after top fold)

Welded Mesh is made from steel wires welded together to form a strong mesh. Its structure is enforced by the folds placed normally on its top, bottom and middle part of the mesh.

The Welded Wire Mesh is also known as Airport Fences by some in the market. The major difference between them is its mesh opening and its top finishing - excess wires after the top fold.

Airport Fences have rather long vertical spaces with a slim horizontal opening. However, the technique and process of fabrication are the same.

Panel Height	Panel Length	Wire Diameter	Mesh Size	Folds No.
1.5m	2.0m 2.5m	GI + PVC Coated (- 0.15mm)	50 x 100mm 50 x 150mm 50 x 200mm 60 x 150mm 75 x 100mm	3
1.7m				3
1.8m		4		
2.0m		4		
2.4m		4		

### Typical reference:



Welded Wire Mesh



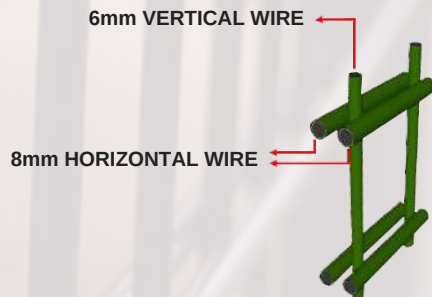
Airport Fence

Fences like this might be popular for premises security even though it might not seem rigid enough to withstand intruders. However, with additional prefixed linking accessories, it does bring up the security level.

## DOUBLE WIRE MESH

Made up of a Vertical wire between 2 Horizontal wires, the Double Wire Fence is much stronger than the normal welded mesh. The Horizontal wires are much thicker than the vertical wire to make the whole system more rigid.

Mesh Size	Wire Thickness	Finishing	Panel Width	Panel Height	Panel Weight
50 x 200mm (vertical)	1 x Ø5mm (vertical wire)	Galvanized Powder Coated	2.5m	1.23m	16.8kg
	&			1.63m	21.9kg
	2 x Ø6mm (horizontal wire)			2.03m	27.10kg
				2.43m	31.7kg
50 x 200mm (vertical)	1 x Ø6mm (vertical wire)	Galvanized Powder Coated	2.5m	1.23m	27.10kg
	&			1.63m	35.40kg
	2 x Ø8mm (horizontal wire)			2.03m	43.70kg
				2.43m	52.00kg



The design of this system allows more pressure load to be taken by a single panel. However, the probable mesh opening of the Double Wire Fence would be 50 x 200mm(vertical).





## TRIANGULAR BEND MESH

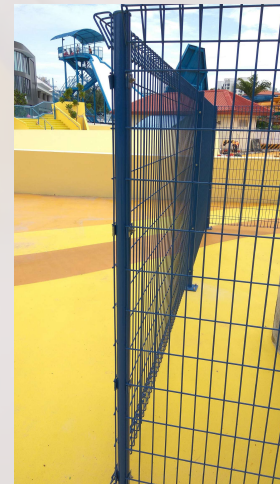


The Triangular Bended Fence not only creates an aesthetic impression, its Triangular design creates more horizontal strength for each panel of mesh.

The Triangular design is available to be positioned at both top and bottom or either one, according to requested design.

Panel Height	Panel Length	Wire Diameter	Mesh Size	Folds Position	
1.5m	2.0m 2.5m 3.0m	GI + PVC Coated (- 0.15mm)	50 x 100mm 50 x 150mm 50 x 200mm 60 x 150mm 75 x 100mm	Top / Bottom / Both	
1.7m					
1.8m		GI + Powder Coated (- 1mm)			
2.0m					4mm / 5mm / 6mm
2.4m					

A unique welded mesh fences, formed by the normal arrangement of iron wires. It is first bent to the suitable angle, after which, galvanized or hot dipped galvanized according to its end product. Where the end product is powder coated, an extra process to apply the PVC or powder coat is done.



## DOUBLE LOOP MESH



The Double Loop Fence consists of unique shaped loops formed by the wire mesh. It is another way to improve aesthetics of the premises and provide strength horizontally.

Panel Height	Panel Length	Wire Diameter	Mesh Opening	Loop Dimension (outer wire)
1.5m	1.5m - 3m	GI + PVC Coated (-0.15mm)	50 x 100mm	55mm
1.6m			50 x 150mm	
1.7m		GI + Powder Coated (-1mm)	50 x 200mm	
2.0m			60 x 150mm	
2.5m			75 x 100mm	

The placement of the loops for the mesh fence varies from projects. When aesthetics are the sole objective of the project, some customers would prefer for two mesh panels on top of another, creating a section of loops between the two panels.





# WIRE MESH FENCE

## INSTALLATION ACCESSORIES



Choose from the variety of accessories to meet your project needs. With special requirement needed for the project, our team is able to recommend you the best option. Contact us for more information.

# WIRE MESH FENCE

## POLE & GATE

Spade



Square



Sparrow



Round



L - Angle



Rectangle





# WIRE MESH FENCE

## BARBED WIRE



Material	Wire Diameter (cm)	Barb Distance (cm)	Barb Length (cm)	Finishing
Low Carbon Iron	1.4 – 2.5	7.5 - 15	1.5 - 3	Hot Galvanized PVC Coated
	1.6 – 2.8			
	2.0 – 4.0			

# WIRE MESH FENCE

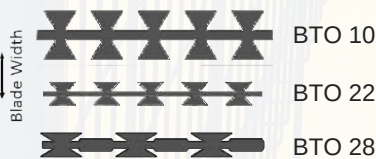
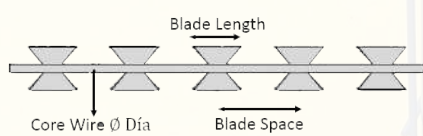
## CONCERTINA WIRE



Razor Type	Thickness (mm)	Wire Diameter (mm)	Razor Length (mm)	Razor Width (mm)	Razor Spacing (mm)
BTO-22	0.5	2.5	22	15	34
BTO-65	0.6		65	21	100
<b>Outside Diameter</b>		<b>No. of Loops</b>		<b>Standard Length Per Coil</b>	
450mm		33 / 56		7 – 8m	
500mm				8 – 10m (3 Clips)	
600mm				9 – 11m (3 Clips)	
700mm				11 – 13m (3 Clips)	

# WIRE MESH FENCE

## RAZOR MESH



Razor Type	Thickness (mm)	Wire Diameter (mm)	Razor Length (mm)	Razor Width (mm)	Razor Spacing (mm)
BTO-10	0.5	2.5	10	13	26
BTO-22			22	15	34
BTO-28			28	15	45



## TEMPORARY FENCES



### PORTABLE SAFETY FENCE

Wire Diameter	Opening	Height	Length	Finishing	Uses
Ø4mm	5cm x 5cm	1.8m	1.8m	Galvanized with Powder Coating	<ul style="list-style-type: none"> <li>Barricade properties</li> <li>Cordon Areas</li> <li>Keep Away Areas</li> </ul>

A simple 'hook & connect' system that requires minimal storage space. A quality portable fence designed for durability when safeguarding.



### TEMPORARY FENCE (METAL STAND)

Wire Diameter	Opening	Height	Length	Finishing	Properties
Ø2.5mm – 4mm	50mm x 100mm 60mm x 120mm	1.8 – 2m	1.8 – 2.5m	Galvanized with Powder Coating	Metal Footing

A simple hook mechanism which allows all portable fence to be connected. Such fence can be used on construction sites or events.



### TEMPORARY FENCE (PLASTIC STAND)

Wire Diameter	Opening	Height	Length	Finishing	Properties
Ø2.5mm – 4mm	50mm x 100mm 60mm x 120mm	1.8 – 2m (Panel only)	1.8 – 2.5m	Galvanized with Powder Coating	Plastic Footing

The plastic footing of this portable fence is available in 2 different type, the hollow footing and another that can be filled with either concrete or water.

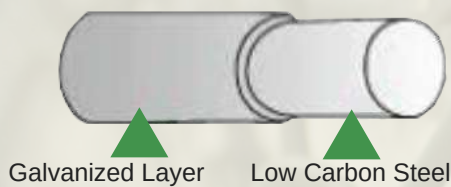


# GABION

Formed from twisted and bounded steel wires, Gabion walls have much to offer especially in the rural environment compared to concrete. Gabion are used for:

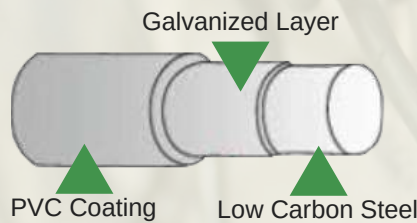
- Water Infiltration
- Shoreline Reinforcement
- Counter Soil erosion
- Water Channeling

Mesh Opening (mm)	Wire Diameter (mm)	PVC Wire Diameter After coated (mm)	Gabion size (m)
60 x 80	Ø 2.0 – 2.8	approx. +1mm	1 x 1 x 0.5
80 x 100	Ø 2.2 – 3.2		1 x 1 x 1
100 x 120	Ø 2.4 – 3.5		2 x 1 x 1
120 x 150	Ø 2.7 – 4.0		4 x 1 x 4



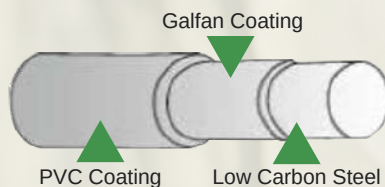
## Galvanized Gabion

Zinc Coating (Max. 300g/m<sup>2</sup>) + Low Carbon Wire  
Life Span: 3 - 5 years



## PVC Coated Gabion

PVC + Zinc Coating (Max. 300g/m<sup>2</sup>) + Low Carbon Wire  
Life Span: 10 - 15 years



## Galfan Gabion

Galfan Coating + Low Carbon Wire 5 - 10% Al-Zn Alloy  
Life Span: 70 - 80 years





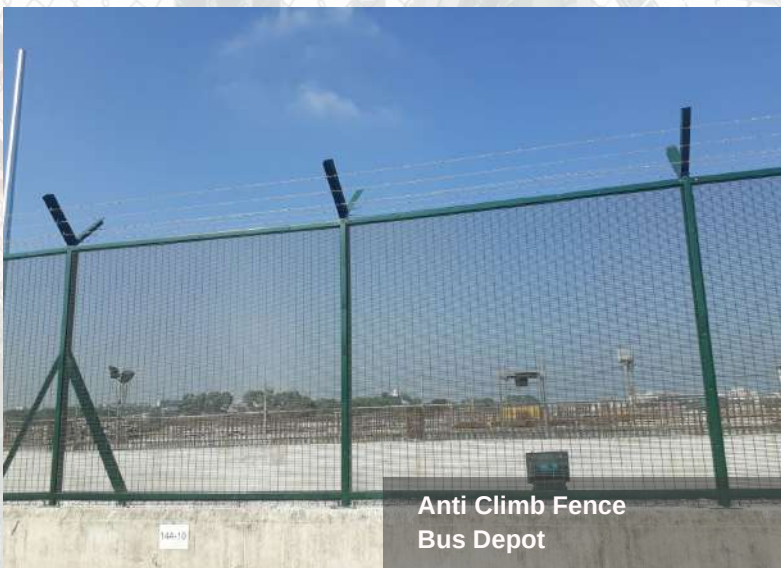
## LOCAL - WIRE MESH FENCE



Triangular Bend Fence  
Wild Wild Wet



Double Wired Fence  
Futsal Court



Anti Climb Fence  
Bus Depot



Triangular Bend Fence  
Downtown East



Welded Mesh Fence  
Perimeter Fence



## LOCAL - NOISE CONTROL BARRIER



Temporary Noise Control Barrier  
Private Condo project



Temporary Noise Control Barrier  
Private project



Temporary Noise Barrier  
LTA project



Temporary Noise Barrier  
HDB project



## LOCAL - NOISE CONTROL BARRIER



Temporary Noise Barrier  
HDB project



Temporary Noise Barrier  
HDB project



Temporary Noise Barrier  
LTA project



Temporary Noise Barrier  
LTA project



## LOCAL - NOISE CONTROL BARRIER

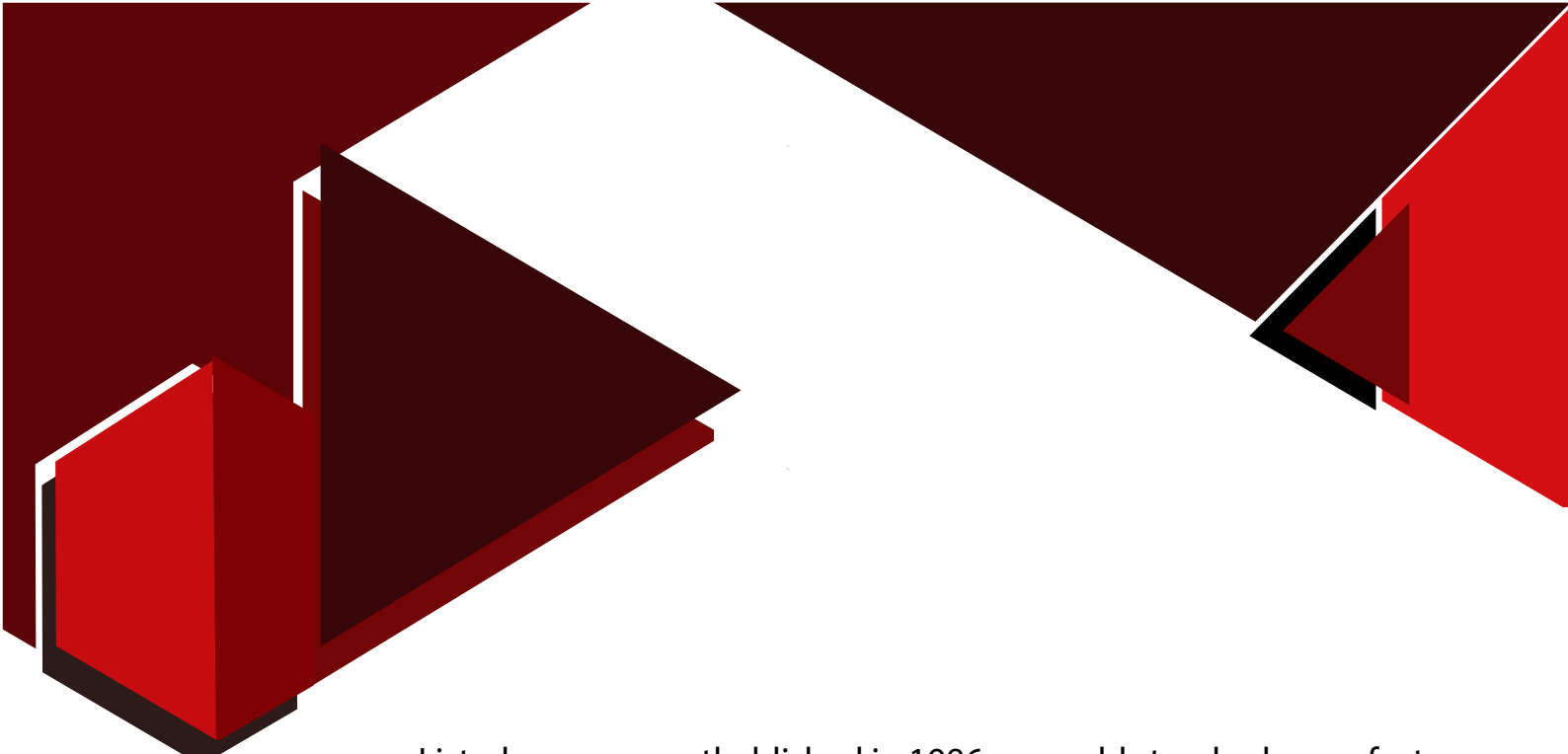




# PROJECT REFERENCES

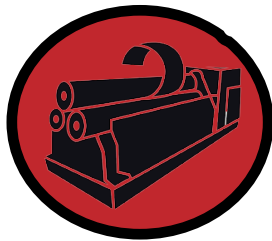
## OVERSEAS





Listed company established in 1986 as a gold standard manufacturer of Wire Mesh Fences, Noise Control Barrier and Gabion products.

Hebei Jinbiao Construction Materials Pte Ltd is the sales Headquarter for South East Asia market.



### **Fabricator**

Over 200 acres, staff count of more than 400 employees



### **Installer**

Experienced in Government and Private project both local and overseas



### **S.E Office**

A point of contact in South East Asia to keep customers at peace of mind

***Learn more about our products now!***

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Singapore 737853  
Tel: +65 6250 3385**

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***sales@jinbiao.com.sg  
www.jinbiao.com.sg***

