# GNEE CORTEN

# Corten Steel Finished Products Catalogue

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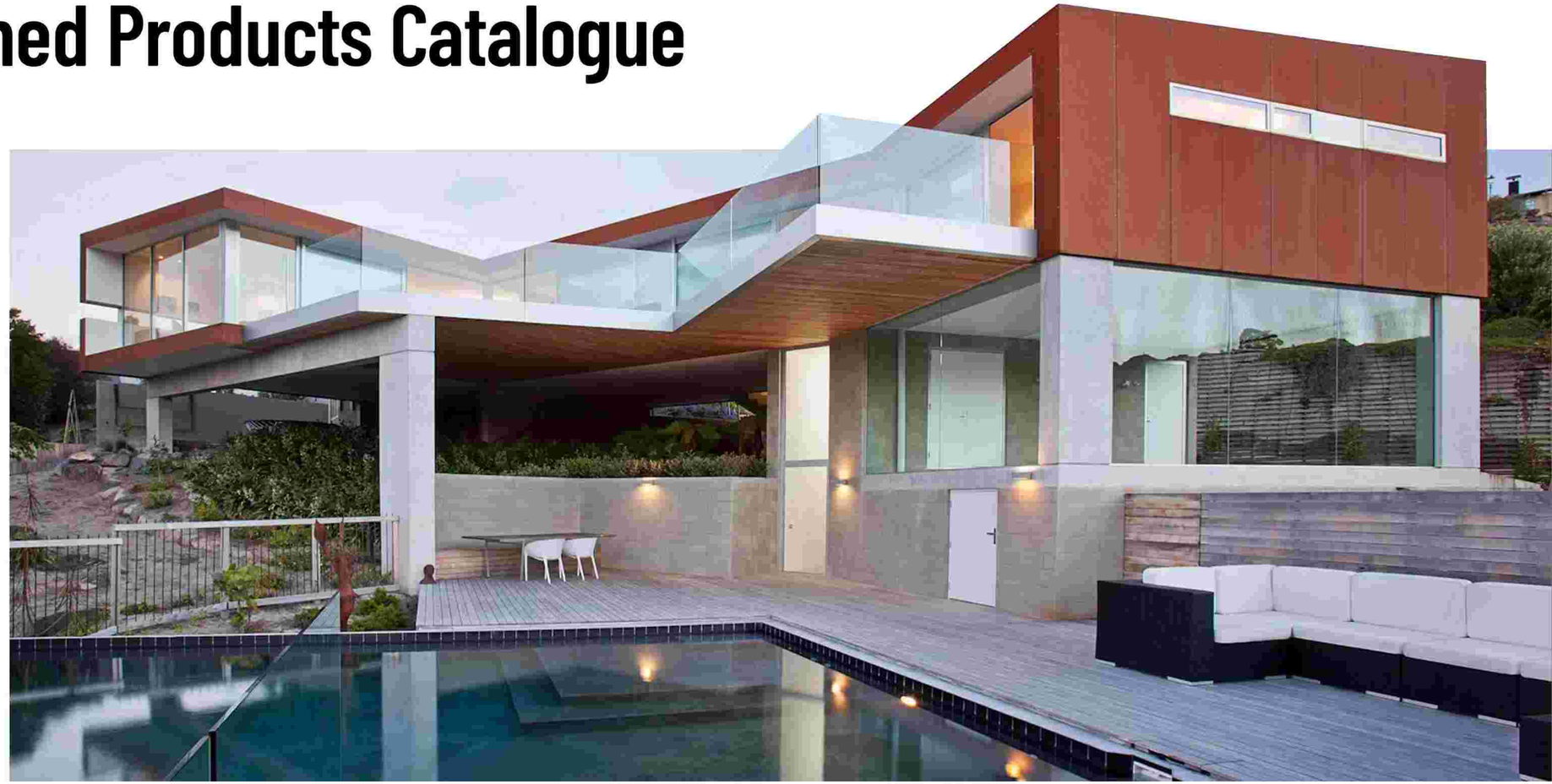

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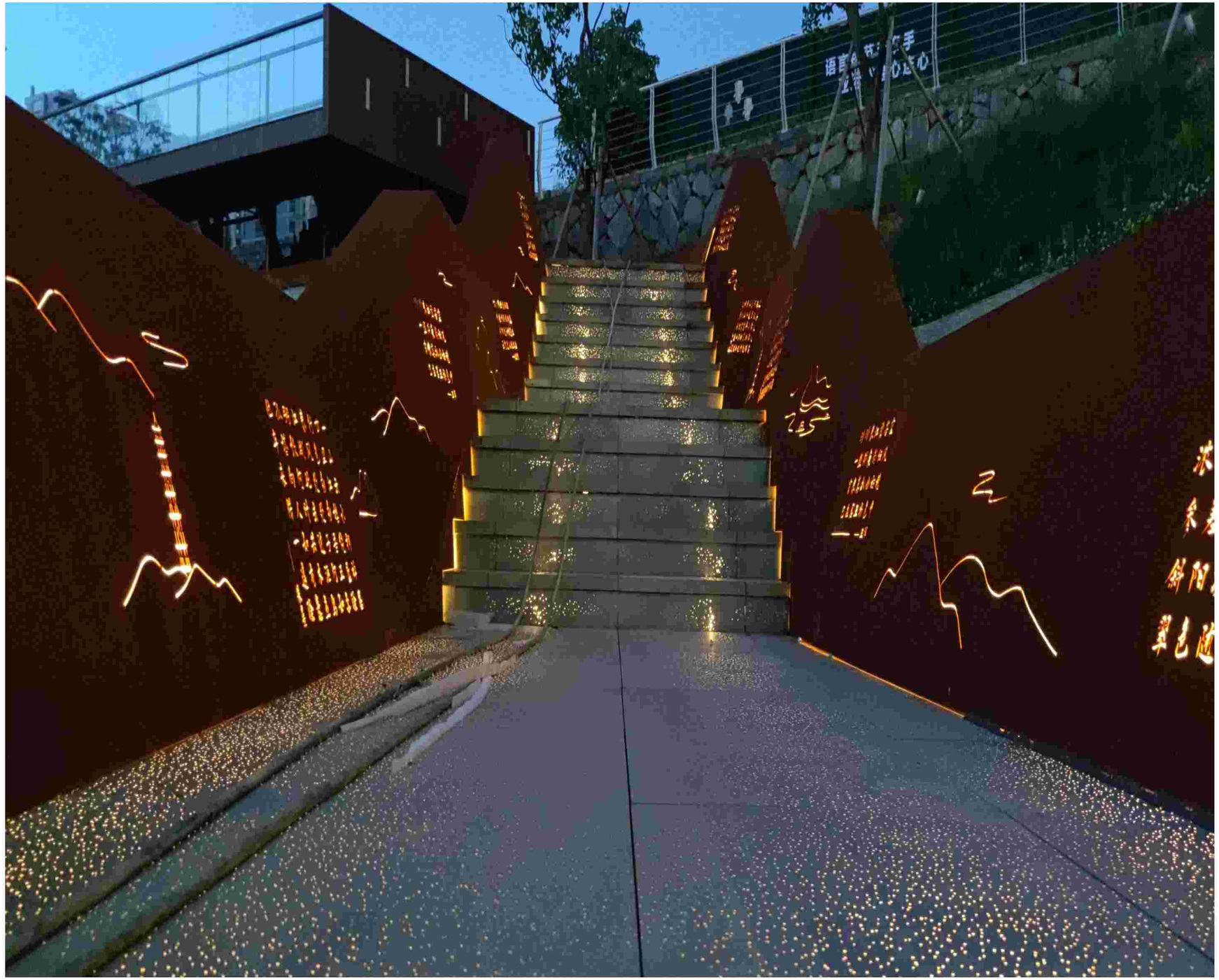
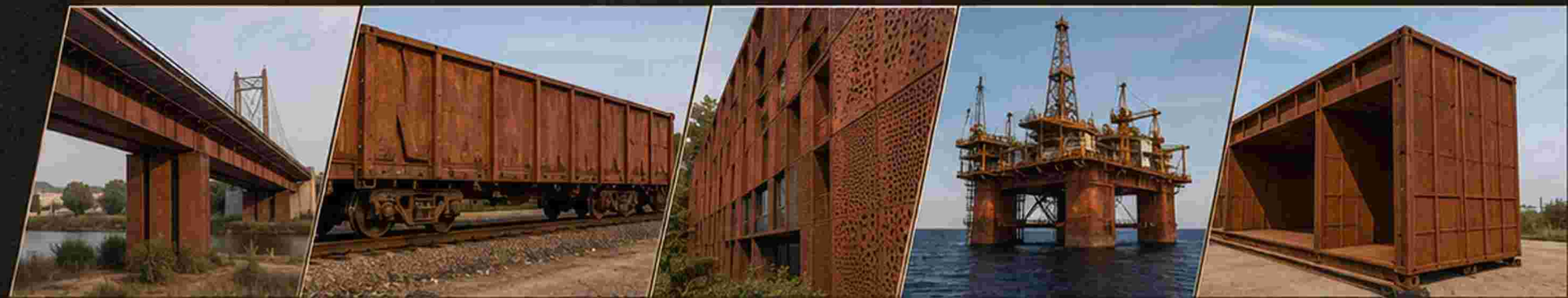


# What is Corten Steel?

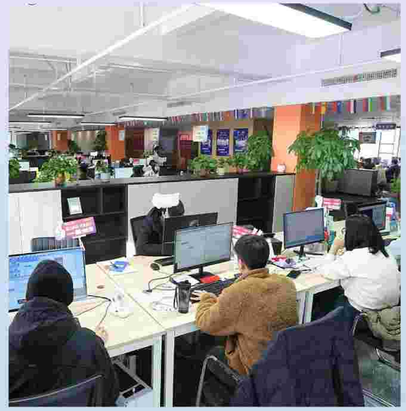
Corten steel (Q235NH/Q355NH), governed by the national standard GB/T 4171-2008, is a series of low-alloy steels that falls between ordinary carbon steel and stainless steel. Corten steel is produced by adding small amounts of corrosion-resistant elements such as copper and nickel to ordinary carbon steel; it possesses the characteristics of high-quality steel, including strength, toughness, formability, weldability, resistance to abrasion, high-temperature performance and fatigue resistance; Its weather resistance is 2 to 8 times that of ordinary carbon steel, and its paintability is 1.5 to 10 times that of ordinary carbon steel. Furthermore, it offers rust resistance, thereby extending the service life of components, allowing for thinner sections and reduced material consumption, as well as saving labour and energy. Weathering steel is primarily used in steel structures that are exposed to the atmosphere for extended periods, such as in railways, rolling stock, bridges, pylons, photovoltaic installations and motorway projects. It is used to manufacture structural components such as container railway wagons, oil derricks, seaport structures, oil production platforms, and containers for hydrogen sulphide-corrosive media in chemical and petroleum equipment. Through the integration of new mechanisms, technologies and processes in modern metallurgy, weathering steel has achieved sustainable development and innovation, and is one of the steel grades at the forefront of global advanced steel technology.

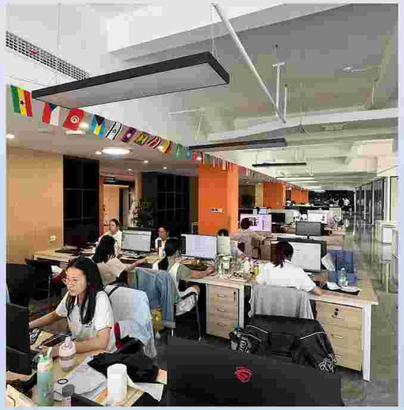
## Wide range of applications

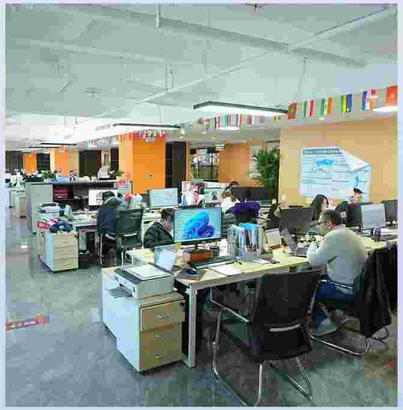
- Bridges
- Railways & Rolling Stock
- Pylons
- Photovoltaic Installations
- Motorway Projects
- Industrial Structures



# About GNEE

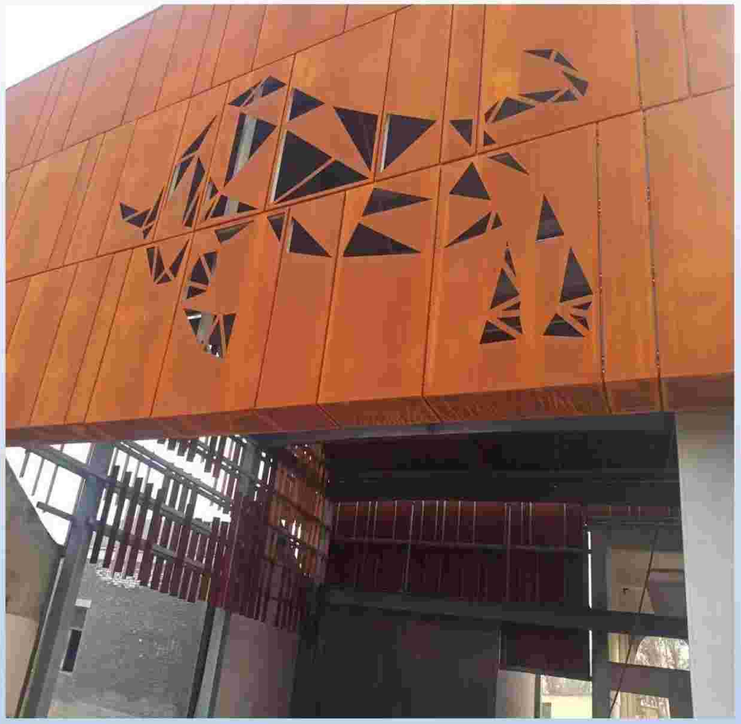


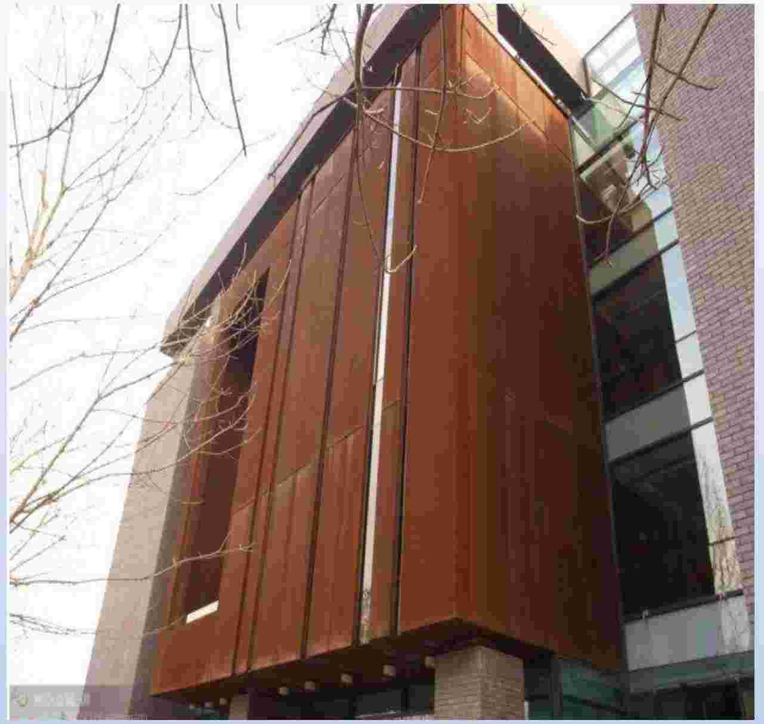




Gnee Steel is a comprehensive supply chain enterprise specialising in the production and sale of laser-cut components, sheet metal fabrication, stamping, casting, welding and cold forming. The company specialises in: weathering steel screens, weathering steel planters and fire pits, weathering steel landscaping, weathering steel sculptures, weathering steel railings, and bespoke weathering steel projects. Since its establishment in 2008, the company has achieved significant progress and growth in the steel market through the team’s years of tireless effort.

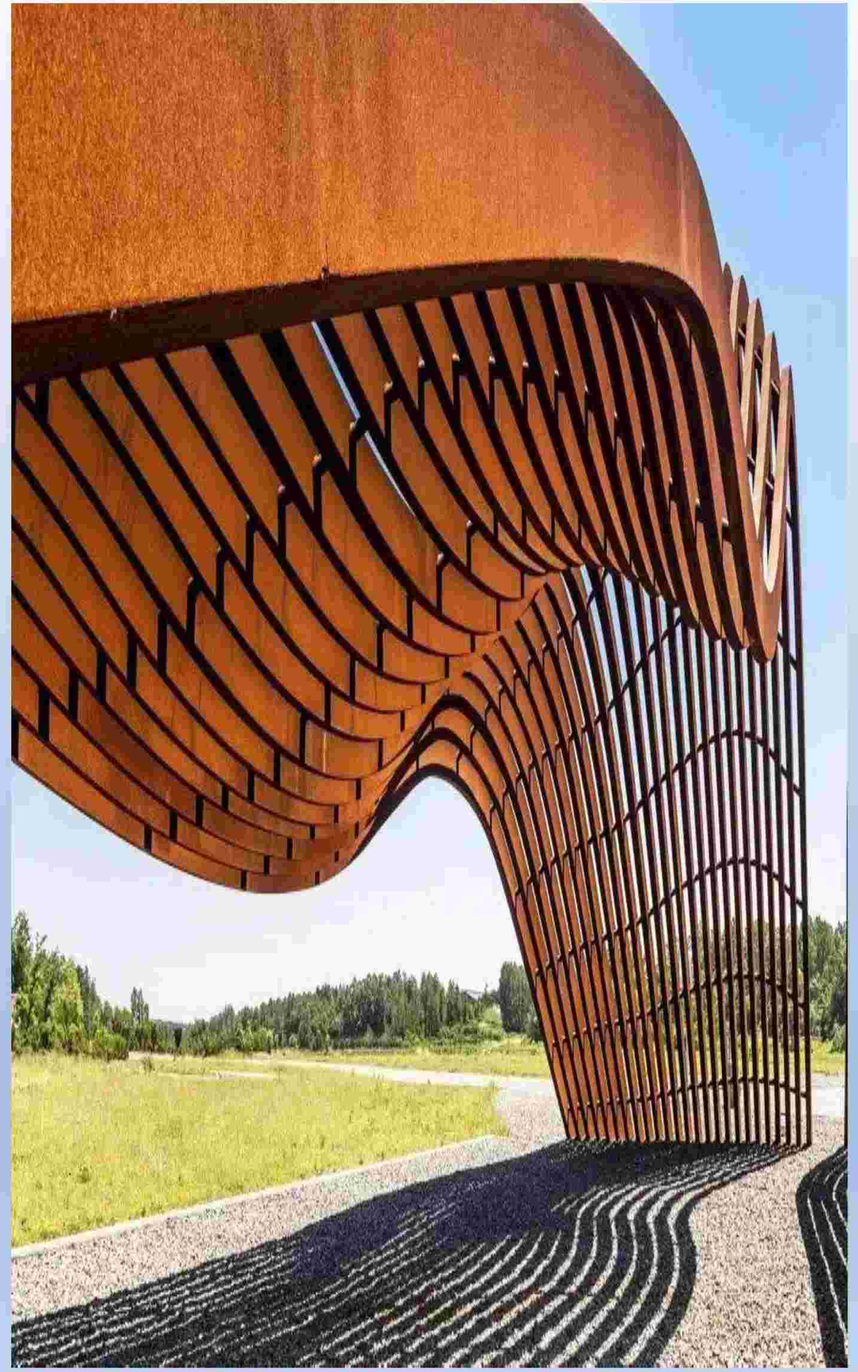
Currently, Gnee has a total investment of 30 million RMB and occupies a factory floor space of over 35,000 square metres. The facility is equipped with five large-scale laser cutters, five press brakes, as well as supporting equipment such as sandblasting machines, shearing machines, punching machines, MIG welding machines and TIG welding machines, and employs a workforce of over 150 staff. With a clear strategic framework, an integrated governance structure, a solid management foundation, and robust financial and human resources, Gnee is steadily developing into the leading and most professional international steel supply chain enterprise in China’s Central Plains region.

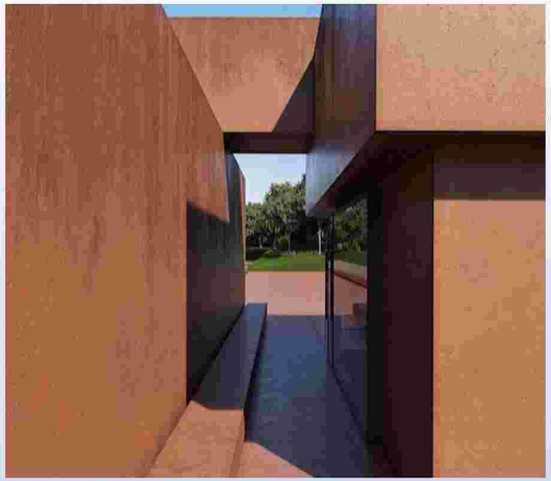


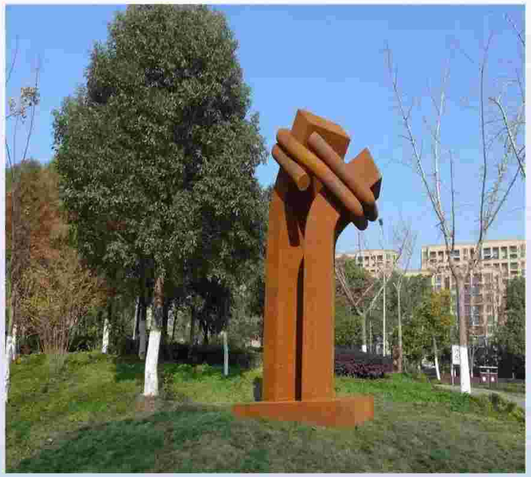


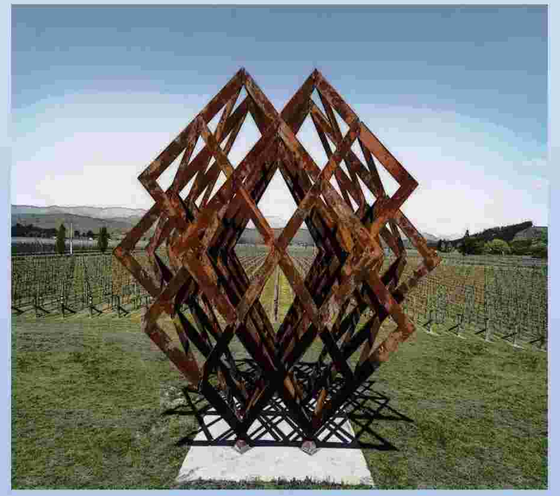
## Corten Steel Curtain Walls

Depending on the composition of the weathering steel sheets and the operating environment of the steel components, the atmospheric corrosion resistance of weathering steel can be 5 to 8 times greater than that of ordinary weathering steel. This is because the special, dense oxide layer that forms on the surface of weathering steel sheets develops a stable, uniform rust-red colour, making it an attractive material for building facades. It is also a revolutionary material for a new generation of curtain wall cladding, offering better value for money than stainless steel.









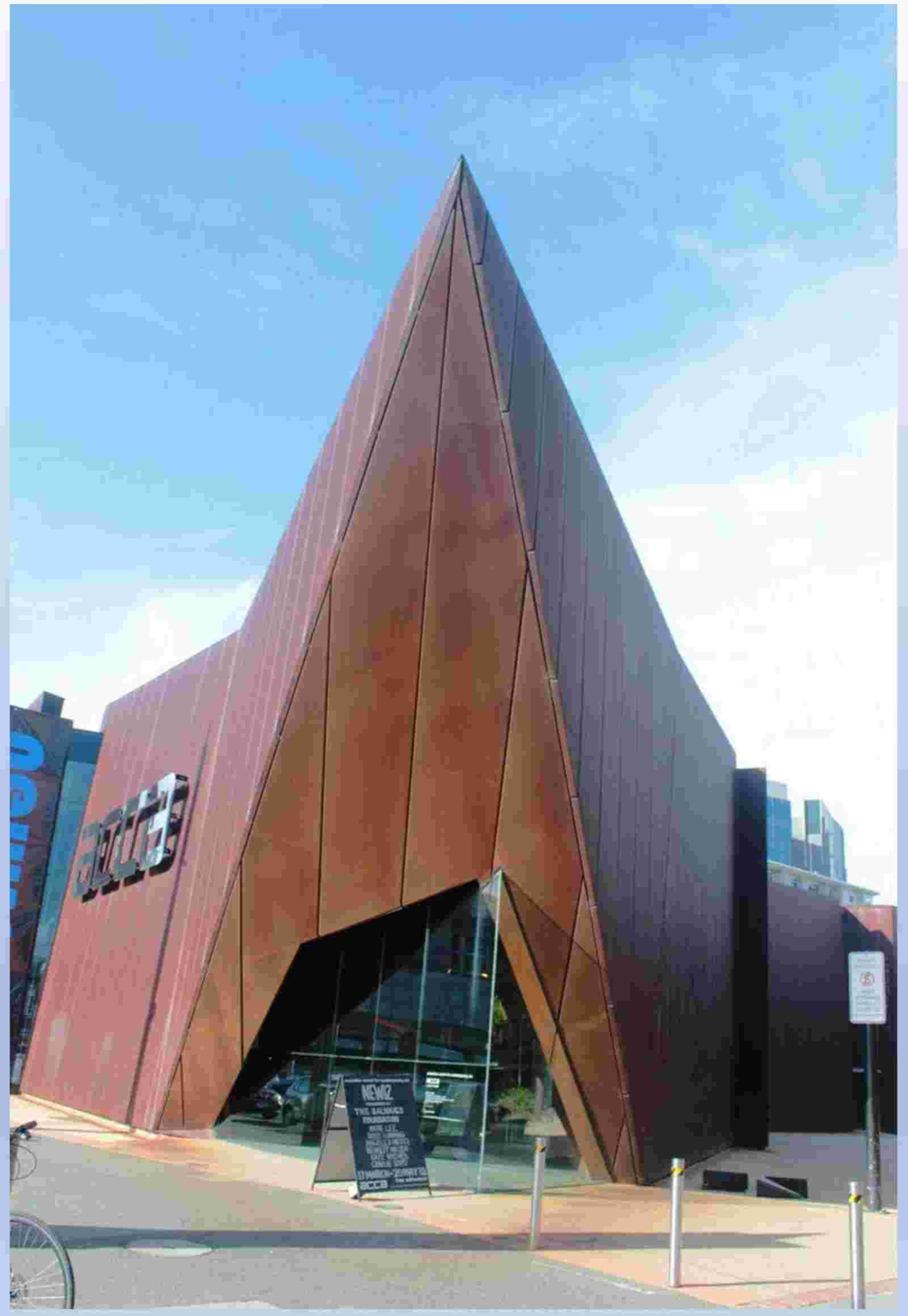
## Corten Steel in Landscaping

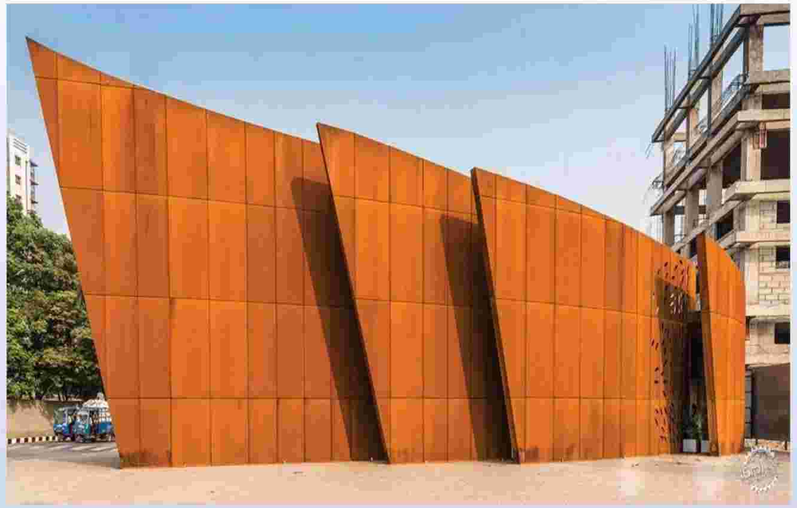
Corten steel offers striking visual appeal in landscape design. Rusted steel panels undergo a gradual transformation over time.Their colour brightness and saturation are higher than those of typical building materials, allowing them to stand out clearly against a backdrop of greenery.

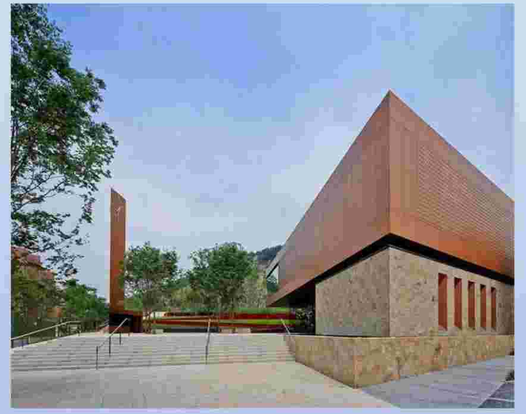
Furthermore, the rough surface created by the rusting process lends structures a greater sense of volume and mass.

## Corten Steel Sculpture

When exposed to natural weather conditions, steel forms a dense layer of oxide between the rust layer and the substrate. This dense oxide film prevents oxygen and moisture in the atmosphere from penetrating the steel substrate, thereby enhancing its resistance to atmospheric corrosion. Such sculptures combine aesthetic appeal with adaptability to the climate and are recyclable; they are not only highly artistic but also align with contemporary concepts of environmental protection and sustainability.

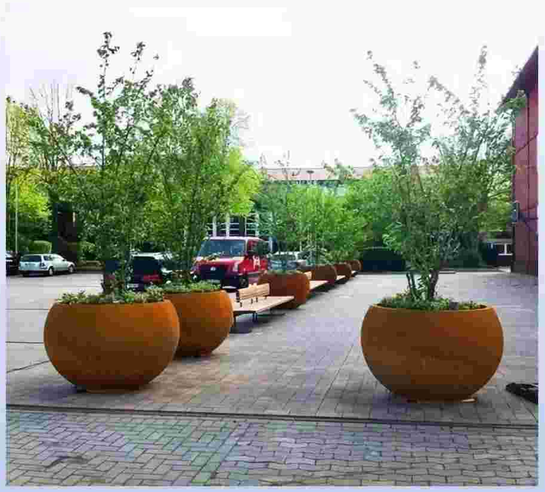






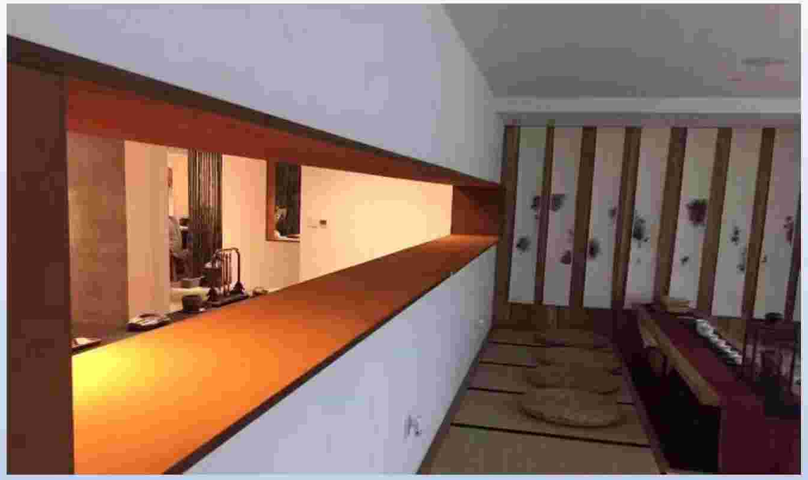
## Corten Steel Building

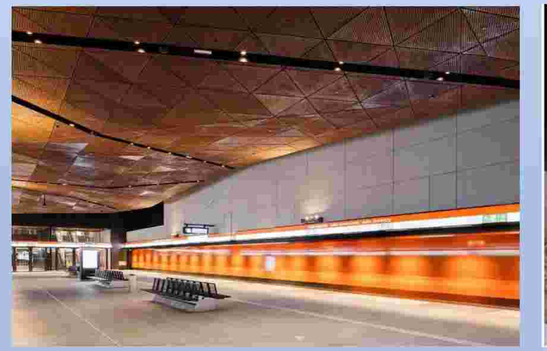
The decorative surface of building facades features a distinctive reddish-brown oxide layer, making it an ideal decorative material for building exteriors that enhances the building’s aesthetic appeal. Owing to its excellent properties, corten steel is widely used in the construction industry. It can be applied to various types of structures, such as bridges, high-rise buildings and ships.



## Corten Steel Planters and Flower Boxes

The aesthetic appeal of corten steel planters and flower boxes in the realm of design has directly spurred the use of this material in landscape architecture. Weathering steel embodies significant cultural, aesthetic and engineering value; furthermore, its distinctive form and expressive qualities have undoubtedly played a major positive role in shaping public aesthetic sensibilities and fostering a respect for history through its application in landscape design.





## Corten Steel Interior Finishes

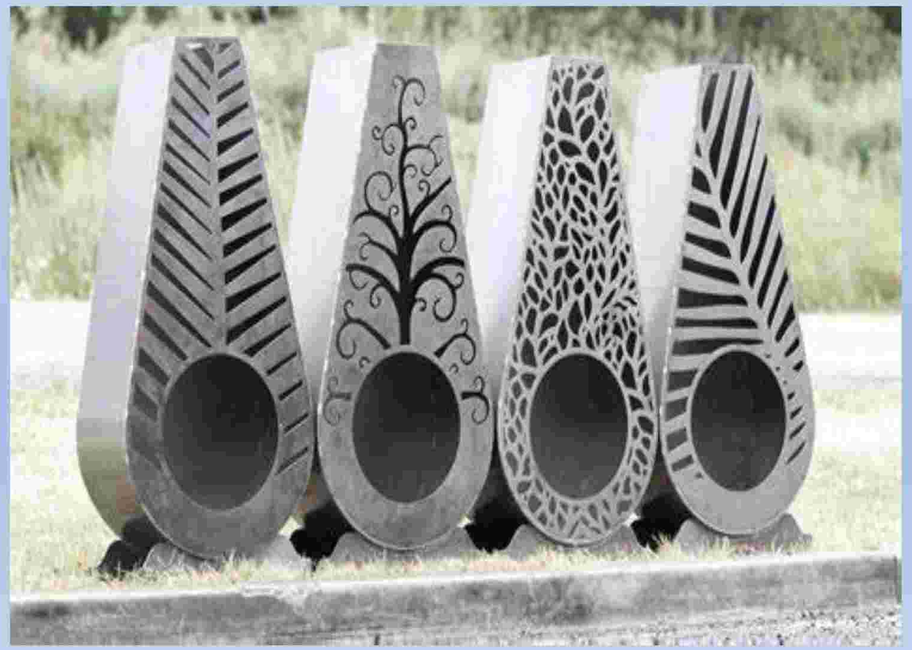
Nowadays, rust-coloured materials are frequently used in interior design, evoking an industrial and contemporary artistic style that is highly favoured by modern consumers. With their striking visual appeal and corrosion resistance, these materials align perfectly with today's 'green' ethos—emphasising efficiency, longevity, energy conservation and environmental protection—as well as national development policies!

## Corten Steel Bridges

Corten Steel bridges possess striking visual appeal. Rusted steel plates undergo a transformation over time. Their colour brightness and saturation are higher than those of typical construction materials, making them stand out clearly against a backdrop of landscaping and greenery. Furthermore, the rough surface created by the rusting of the steel plates lends the structure a greater sense of volume and texture.

## Corten Steel Barbecue

Depending on the composition of the corten steel sheets and the operating environment of the steel components, the atmospheric corrosion resistance of weathering steel can be 5 to 8 times greater than that of ordinary corten steel. This is because the special, dense oxide layer that forms on the surface of weathering steel sheets develops a stable, uniform rust-red colour, making it an attractive material for building facades. It is also a revolutionary material for a new generation of curtain wall cladding, offering better value for money than stainless steel.

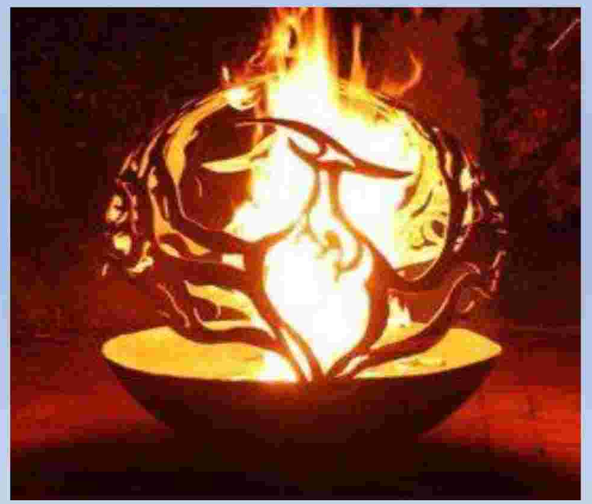


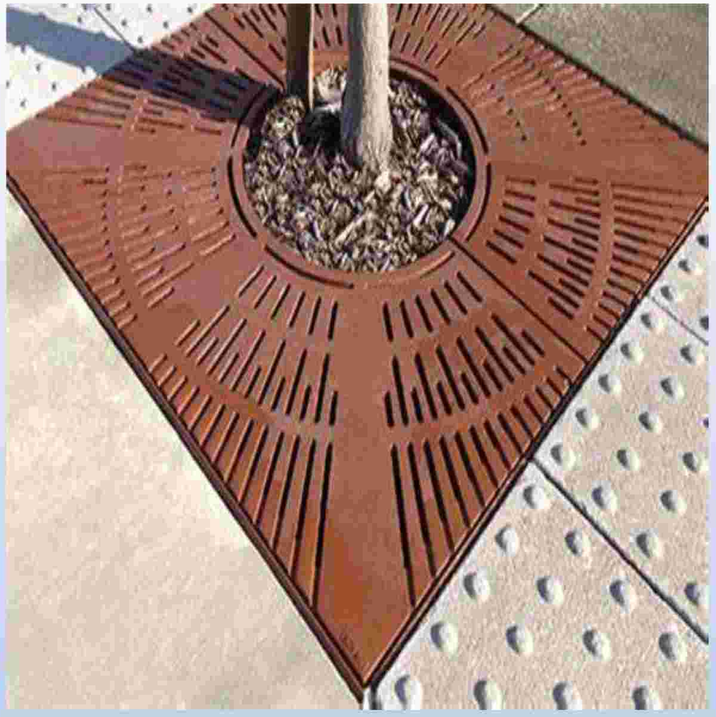
## Corten Steel Fire Pit

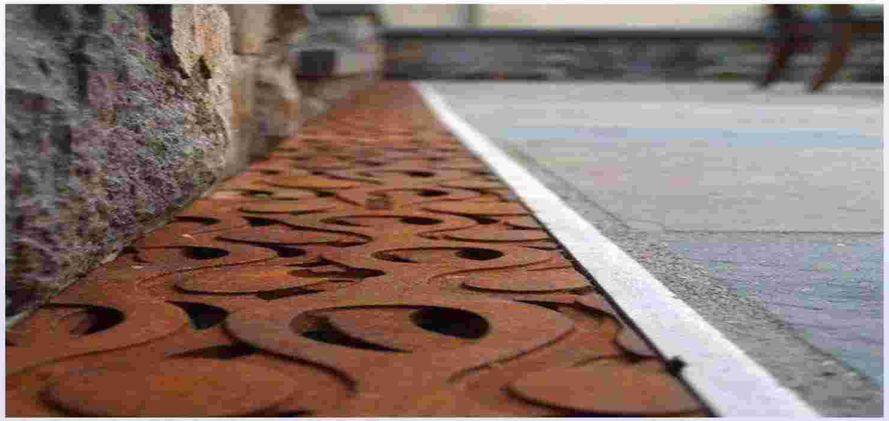
In everyday life, we often encounter a unique material with a rust-coloured finish. Its colour and texture are striking, and its austere appearance blends seamlessly with the surrounding environment, evoking a sense of industrial and modern artistic beauty. This is corten steel—a steel material that has recently become a social media sensation.

# Corten Steel Fire Bowl

Corten steel fire bowls boast exceptional corrosion resistance, fatigue resistance, high toughness and heat resistance. As they are exposed to sunlight and subjected to the elements 365 days a year, these corten steel fire bowls fundamentally resolve the issue of ordinary materials being susceptible to weathering and corrosion.

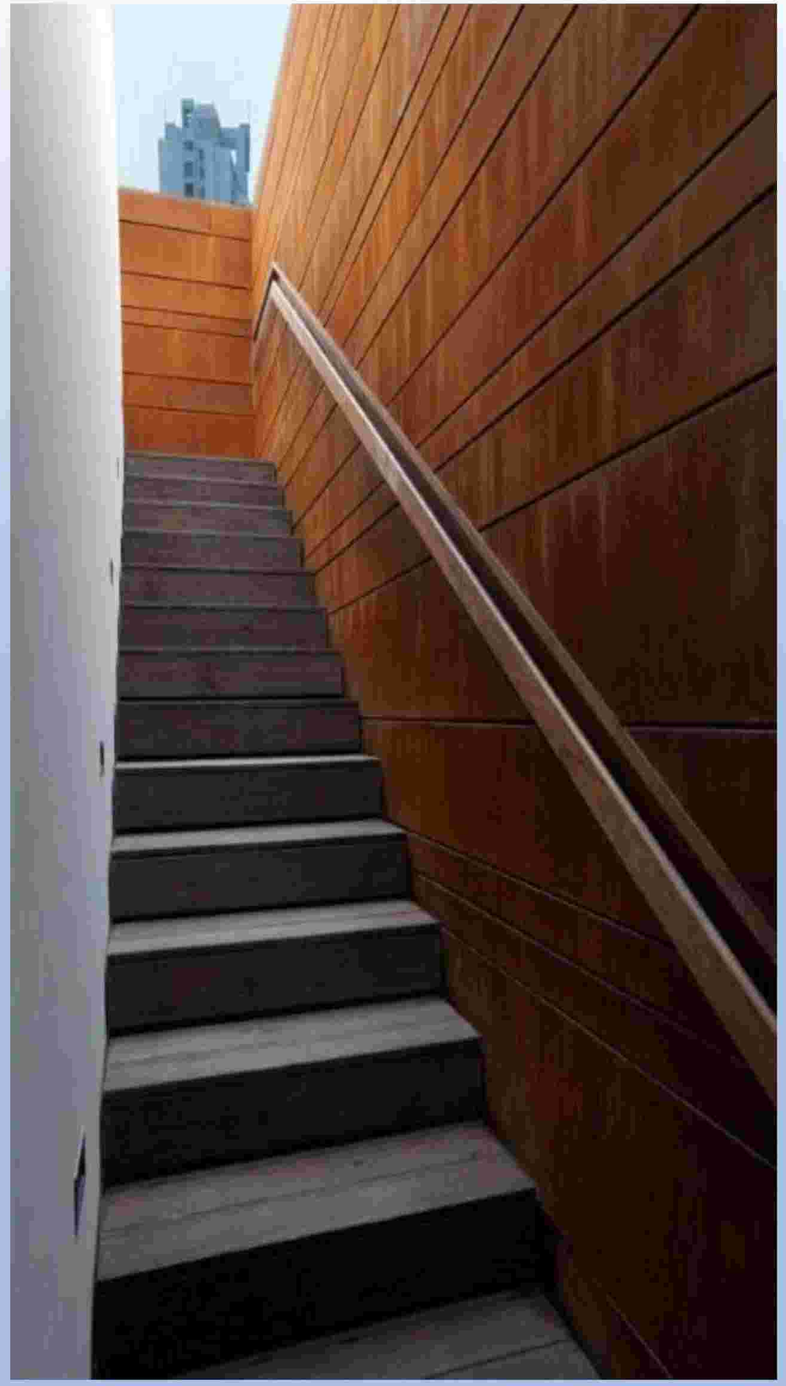


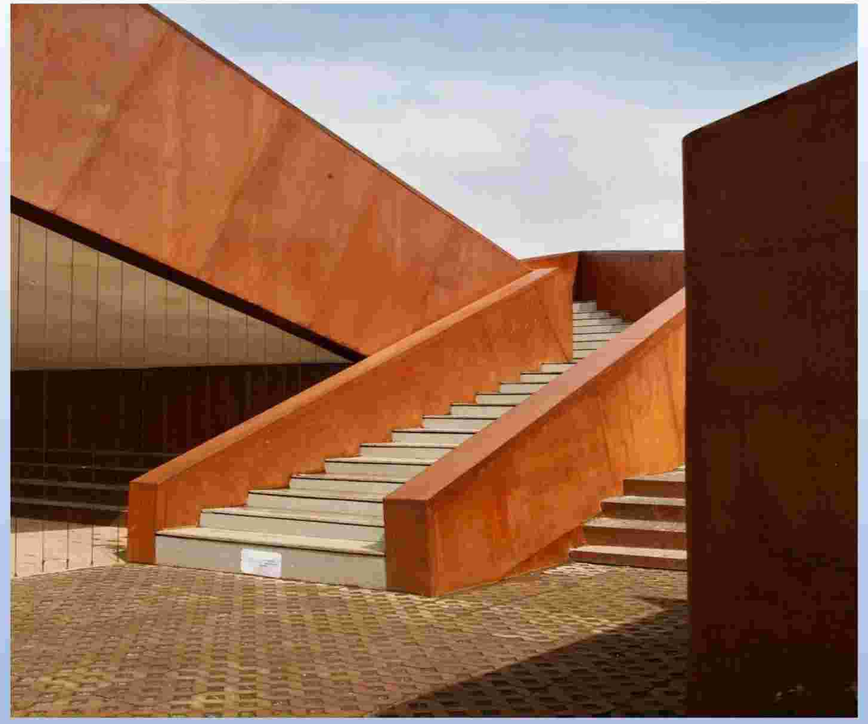


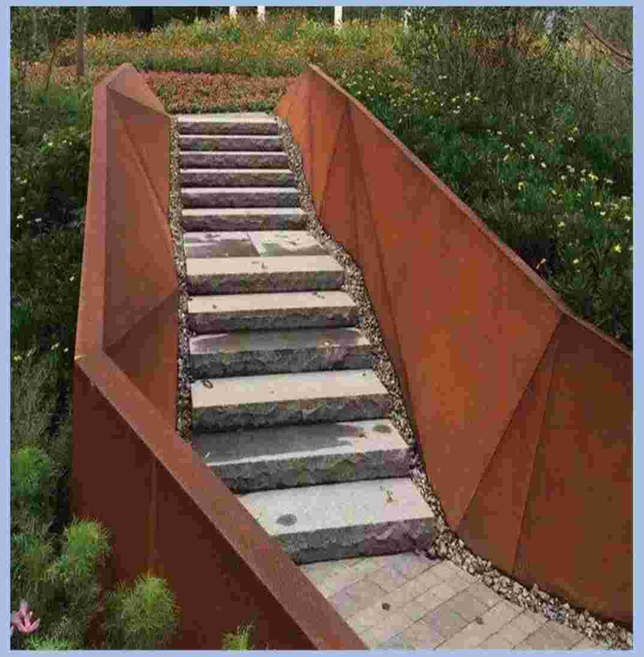


## Corten Steel Tree Grates

Corten steel tree grates offer outstanding toughness and strength, whilst boasting an elegant and imposing appearance. They are an essential component of modern landscaping projects, highlighting their eco-friendly and sustainable qualities.

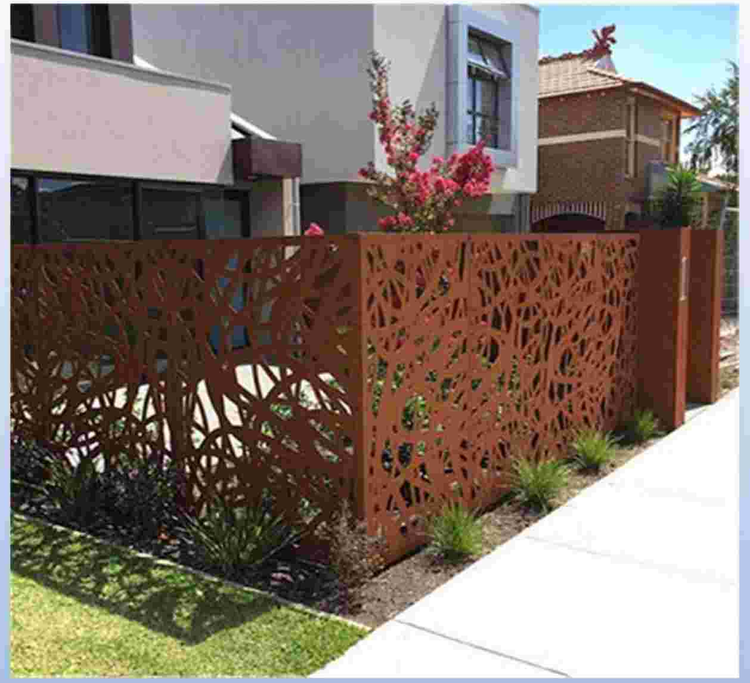


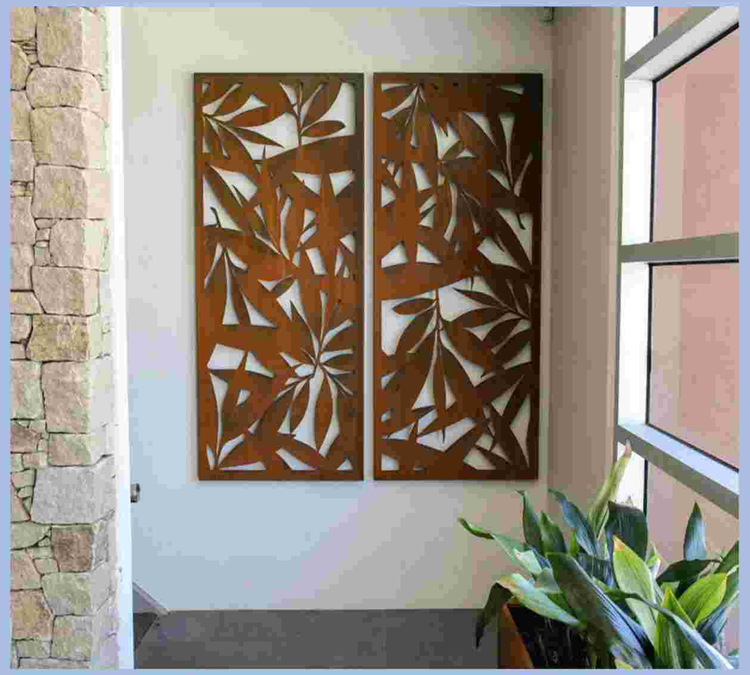




## Corten Steel Staircases

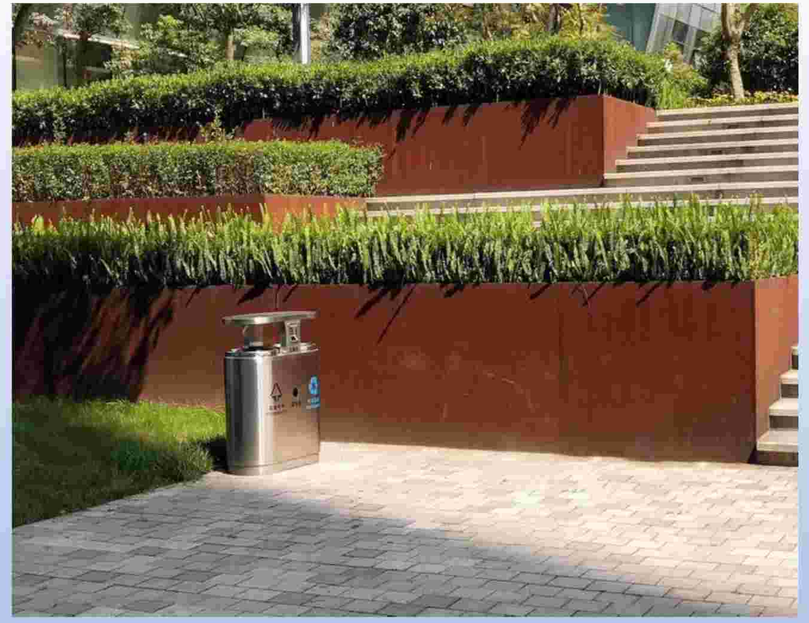
1. Rust-resistant and corrosion-resistant, with atmospheric corrosion resistance 4–8 times greater than that of ordinary steel.
2. The steel components offer extended service life, reduced thickness and lower material consumption, as well as labour and energy savings (with weathering resistance 2–8 times that of ordinary carbon steel).
3. The material is recyclable, extremely low-carbon and environmentally friendly, and requires no initial coating (in areas with severe air pollution or where humidity is not particularly high).

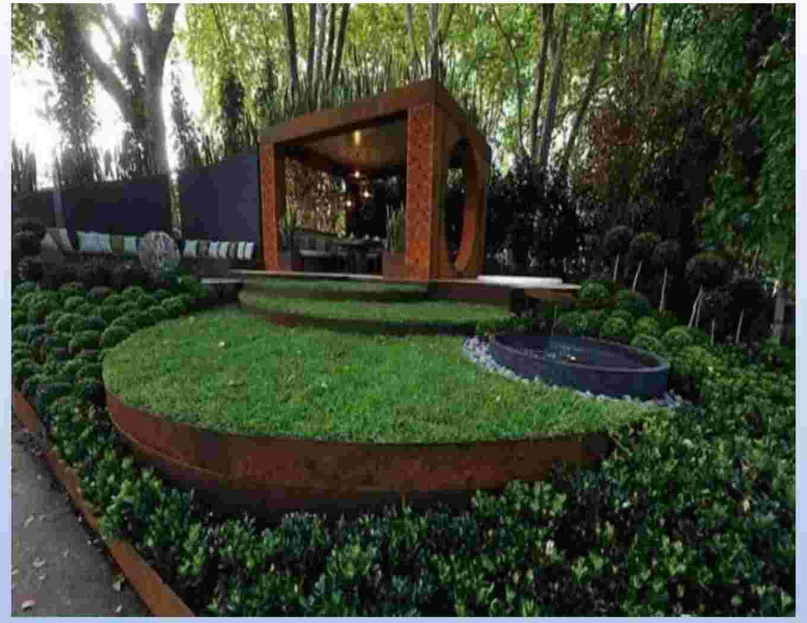


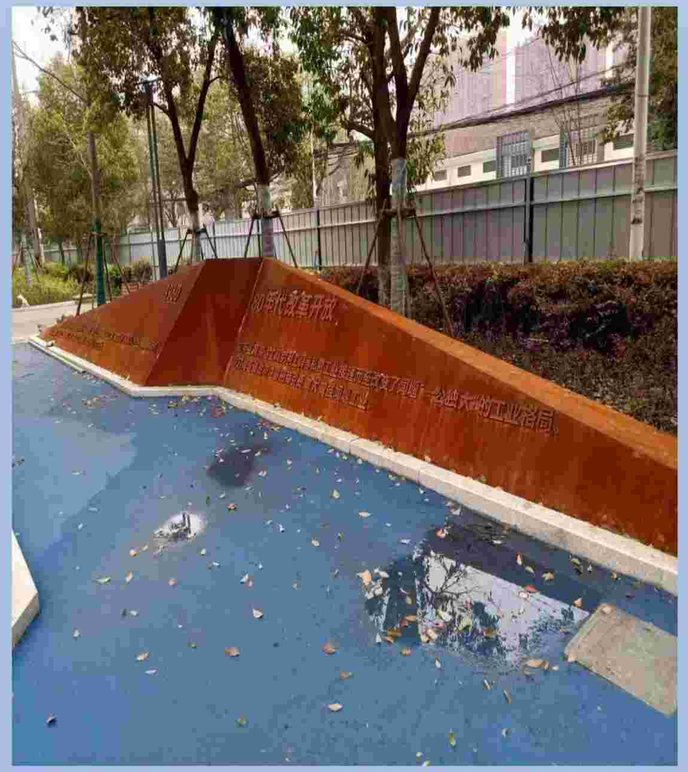


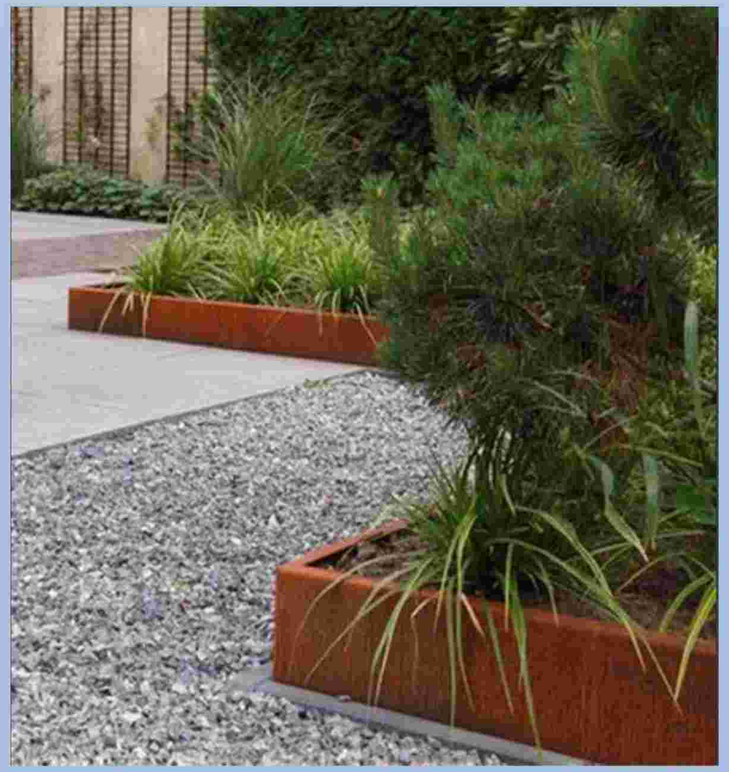
## Corten Steel Screens

Weather resistance, also known as climatic resistance, refers to a material's ability to retain its original properties when subjected to the combined effects of light, heat, wind, rain and atmospheric pollution under natural environmental conditions. Generally, when building materials are exposed to atmospheric conditions, their physical and mechanical properties undergo changes; however, measures such as the use of additives, surface coatings or gel-coat encapsulation during the production or construction process can enhance their weather resistance.



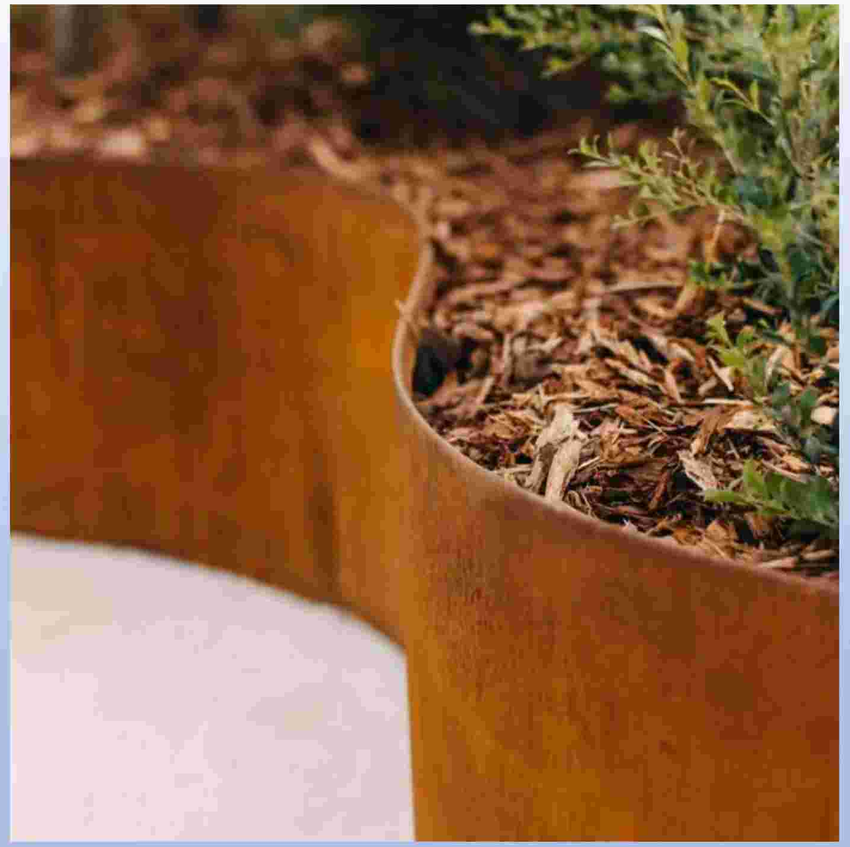


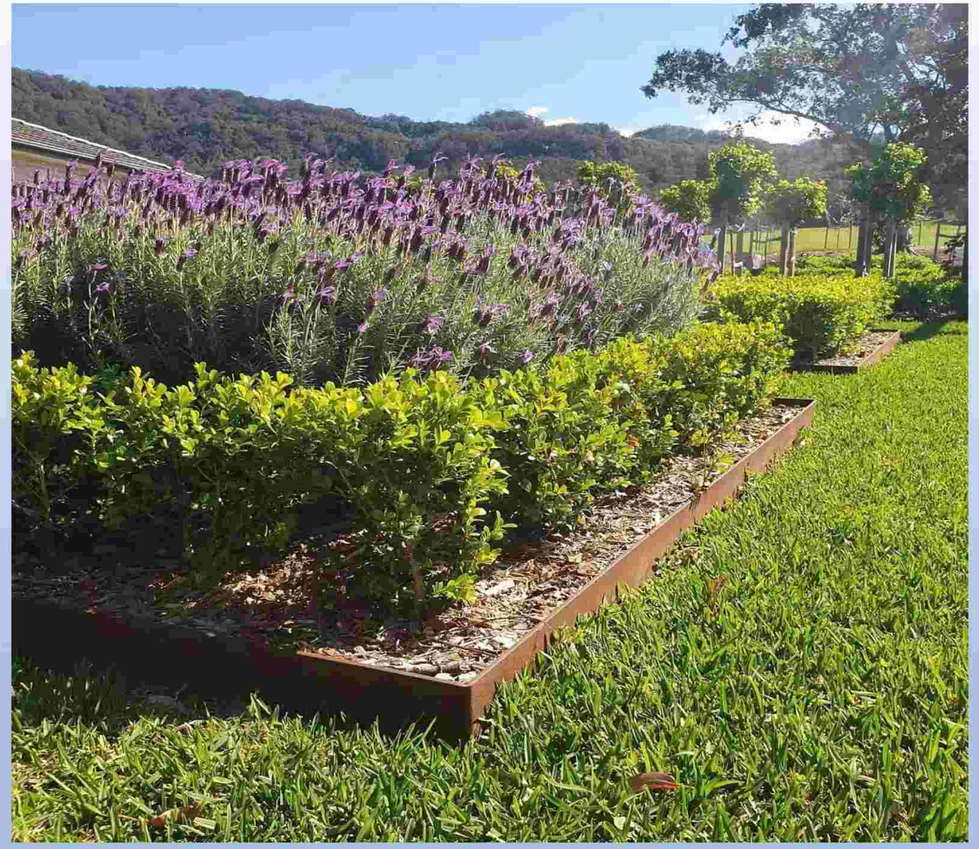


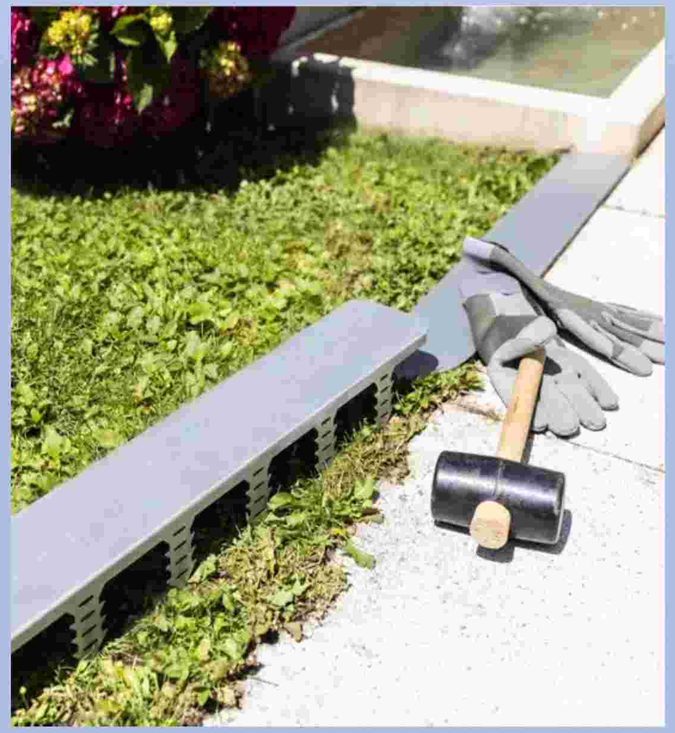


## Corten Steel Planters

The aesthetic appeal of corten steel in sculptural art has directly spurred the use of this material in landscape design. Having undergone both industrial fabrication and the forces of nature, corten steel embodies industrial heritage, the passage of time, and a fusion of art and technology. When expressed through landscape design, this context demonstrates significant cultural, aesthetic and engineering value.

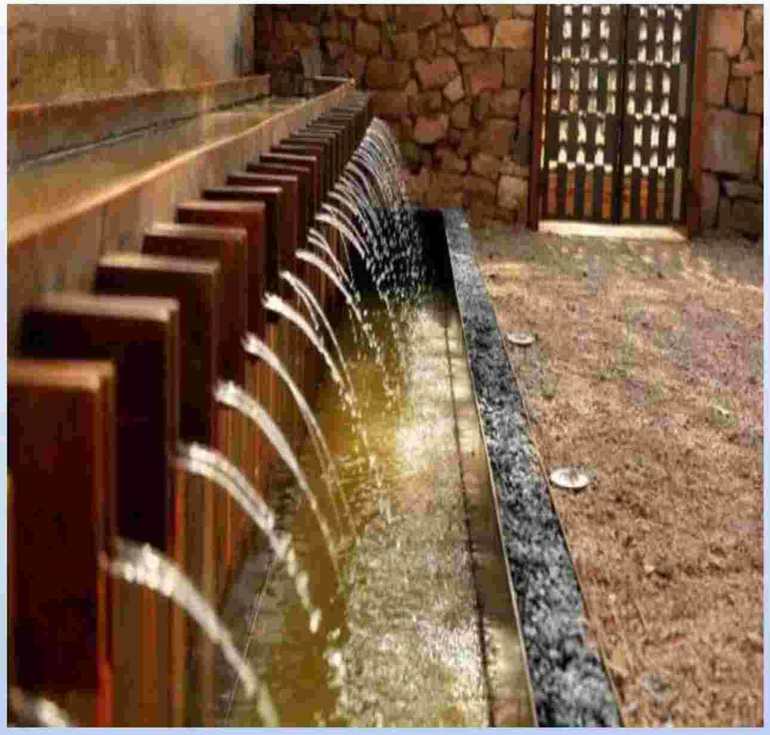






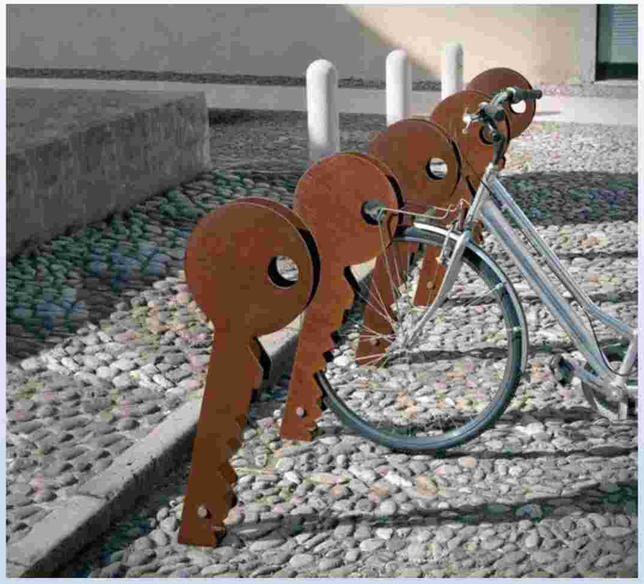
## Corten Steel Garden Edging

Corten steel flowerbed edging is an indispensable feature of any garden; not only does it provide sturdy protection for flowerbeds, but it also serves as a striking visual element in landscape design. Its natural texture and eco-friendly properties lend the garden a rustic and natural atmosphere. This article will provide a detailed introduction to the characteristics of corten steel flowerbed railings, design inspiration, and how to create an elegant flowerbed in your garden.



## Corten Steel Water Features

Corten steel water features add a touch of elegance to your garden, creating a striking contrast between the ruggedness of the steel and the gentle flow of water. As time passes, the flowing water leaves its mark on the steel, telling a story within the garden. With the growing popularity of corten steel, it has become a common sight in our daily lives. The thin sheets produced can be cut with precision, allowing for the creation of a wide variety of products.

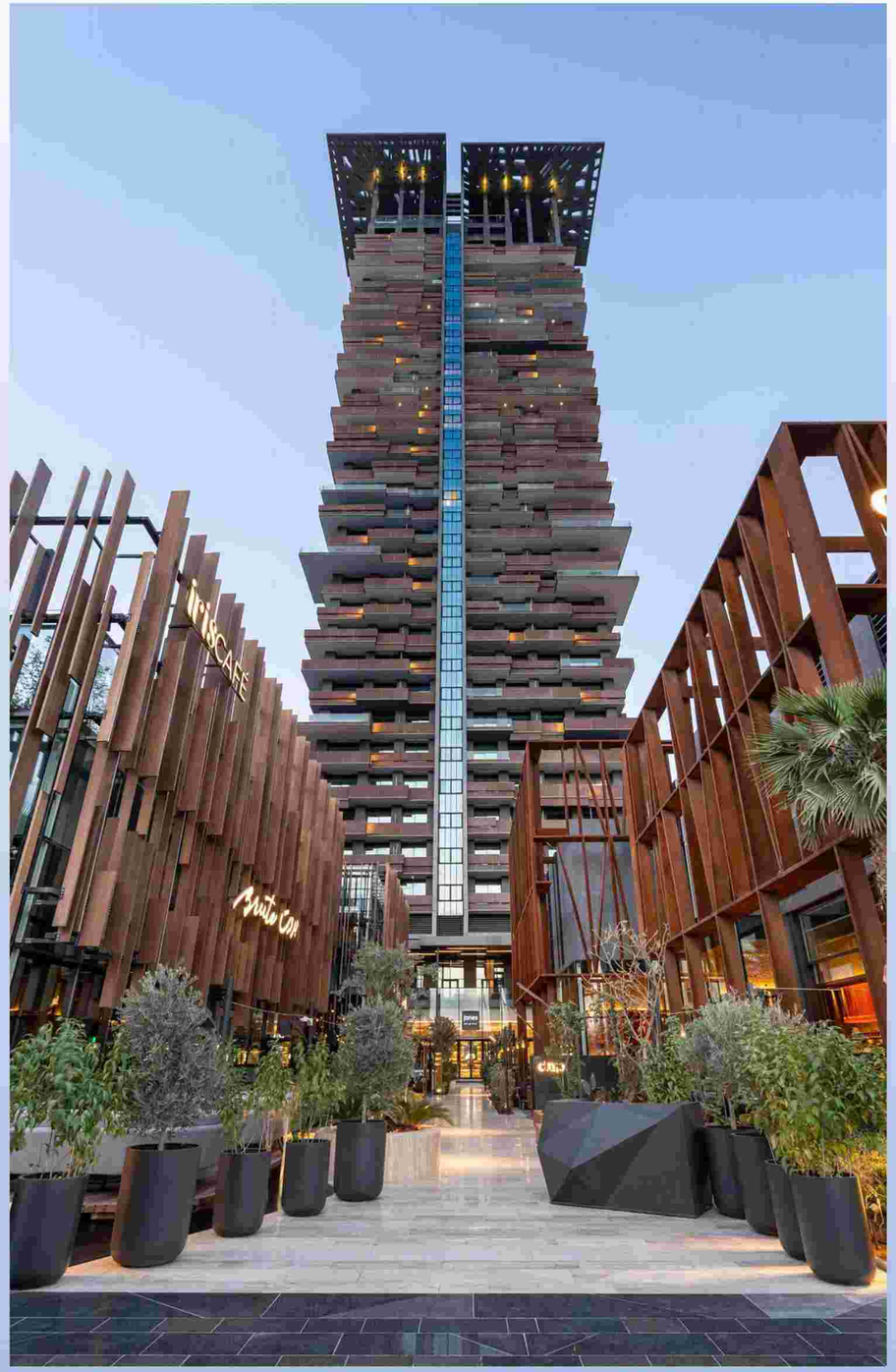


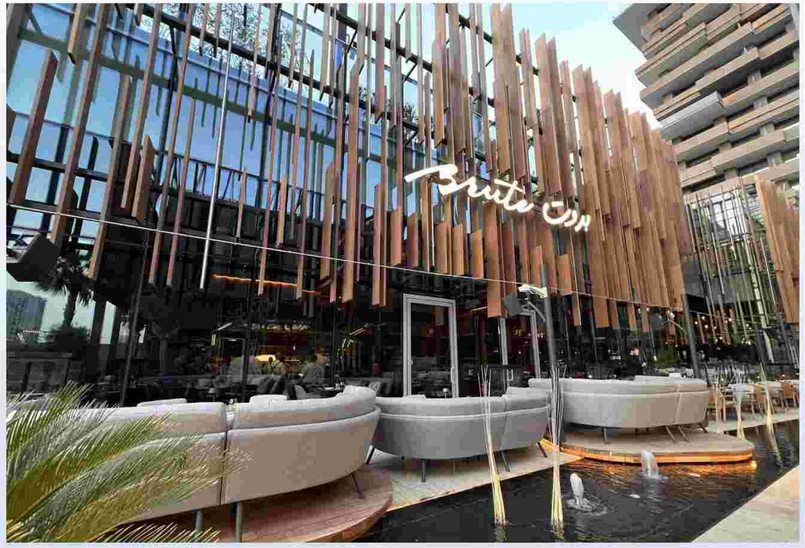
## Other Corten Steel Products

Applications of high-weathering-resistance structural steel: As it offers better resistance to atmospheric corrosion than corten steel for welded structures, it is primarily used for bolted, riveted and welded structural components in vehicles, shipping containers, construction towers and other structures. When used for welded structural components, the steel thickness should not exceed 16 mm. Corten steel for welded structures has better weldability than high-weathering structural steel and is primarily used for welded structural components in bridges, buildings and other structures.

## Wrought-iron Planters

Originally used as flower pots or vases, planters were typically made from materials such as stainless steel, galvanised sheet metal or corten steel. To meet the requirements of street landscaping, they are now crafted from more robust, durable and aesthetically pleasing materials, and have become an indispensable feature of urban streetscapes.

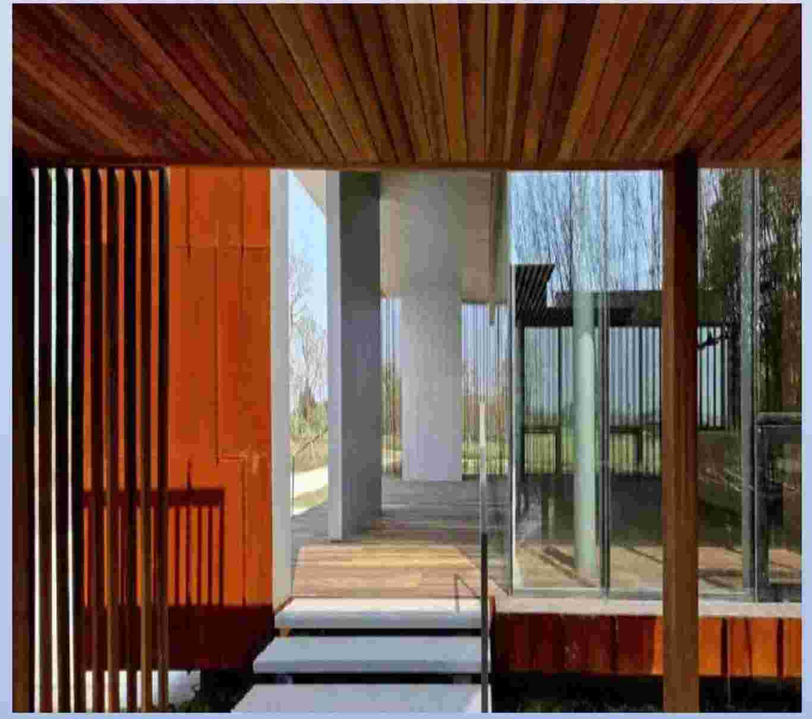


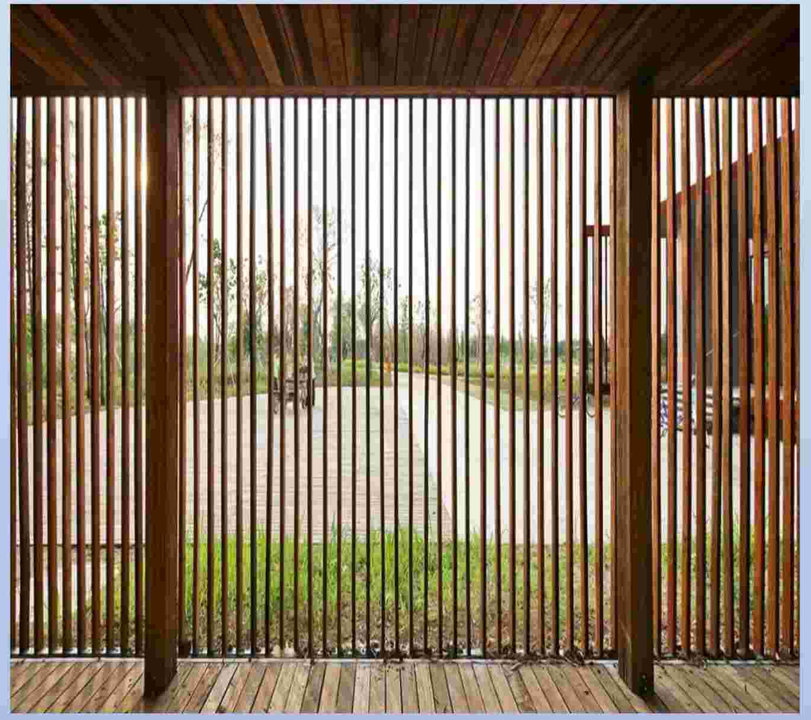


## Corten Ssteel Landscaping Projects

Fairmont Ramla Serviced Residences

Kingdom of Saudi Arabia

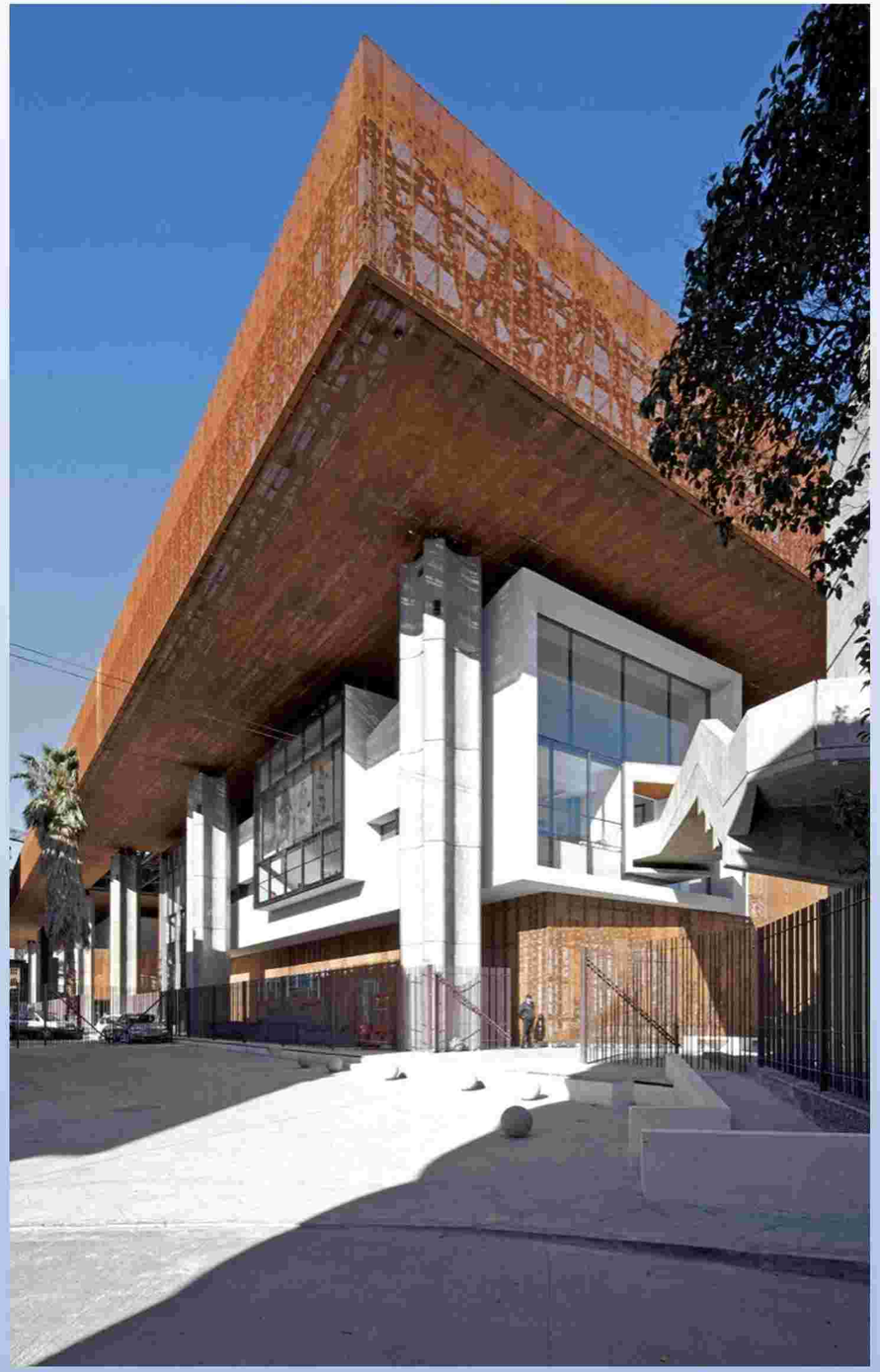


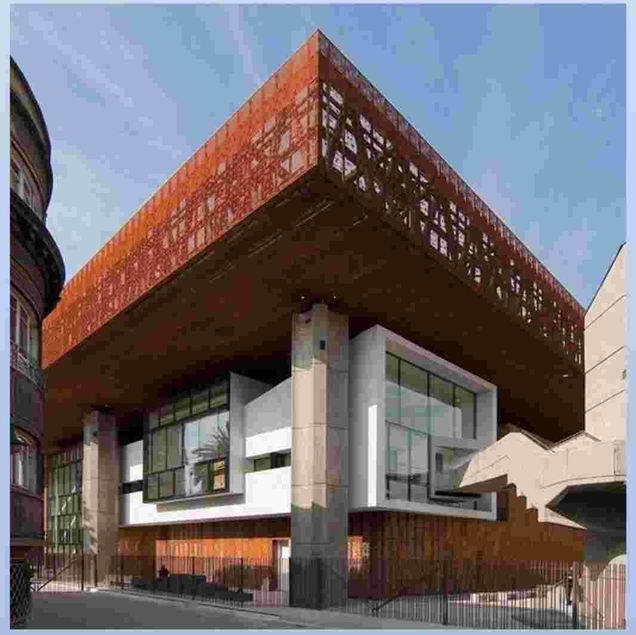


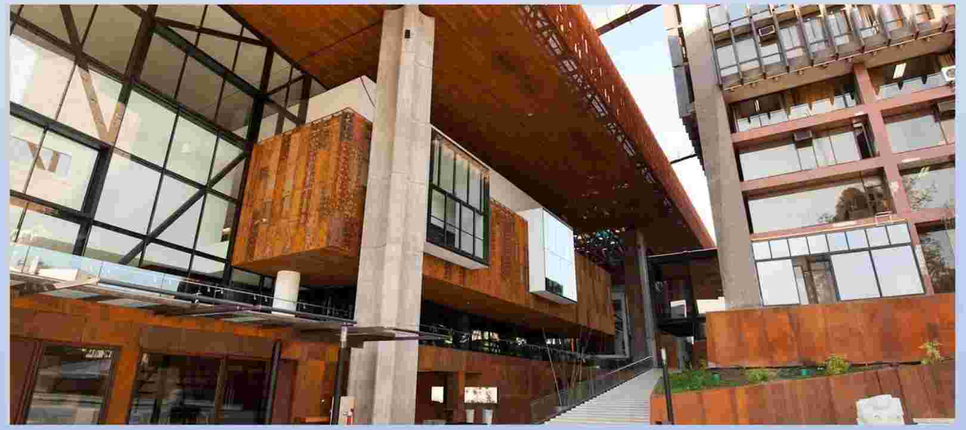
## Corten Steel Landscaping Projects

Kunshan Organic Farm Series

Kunshan,Jiangsu







## Corten Steel Landscaping Projects

Gabriela Mistral Cultural Center

Santiago, Chile

## Corten Ssteel Landscaping Projects

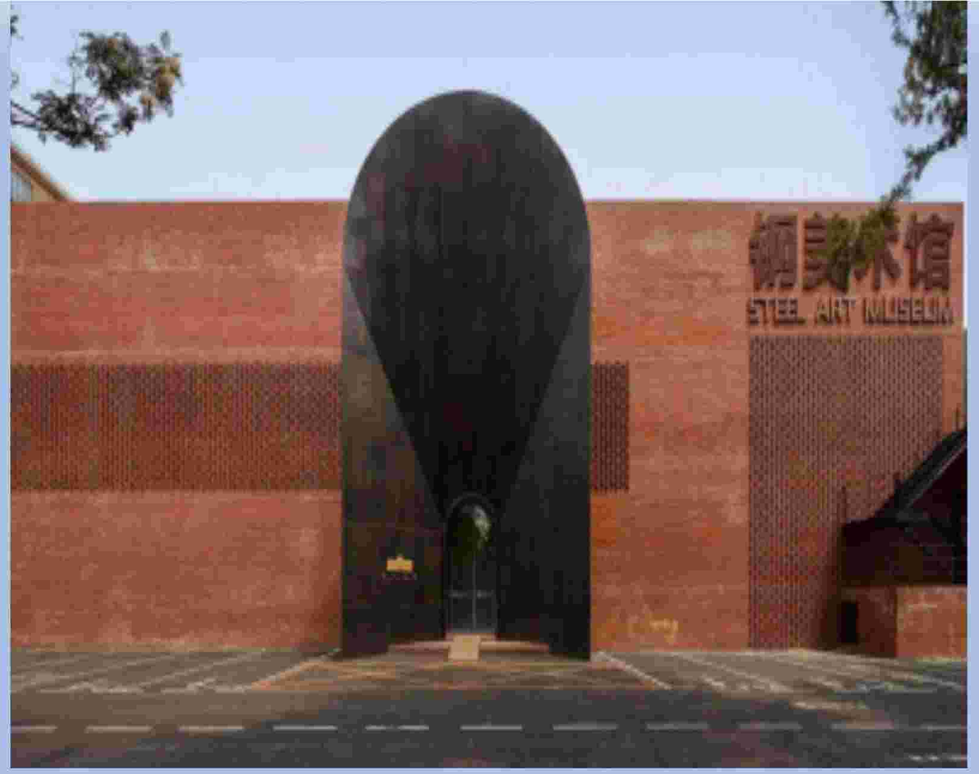
SUBEI WAR Heritage Park (South area)

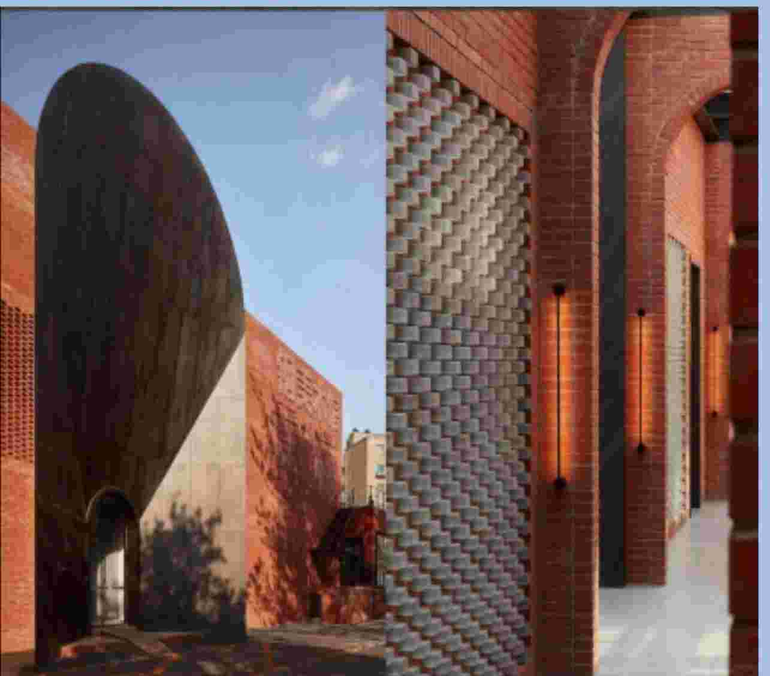
Suqian,Jiangsu

## Corten Steel Landscaping Projects

Tianjin Vanke Triangle V-Gallery

Tianjin

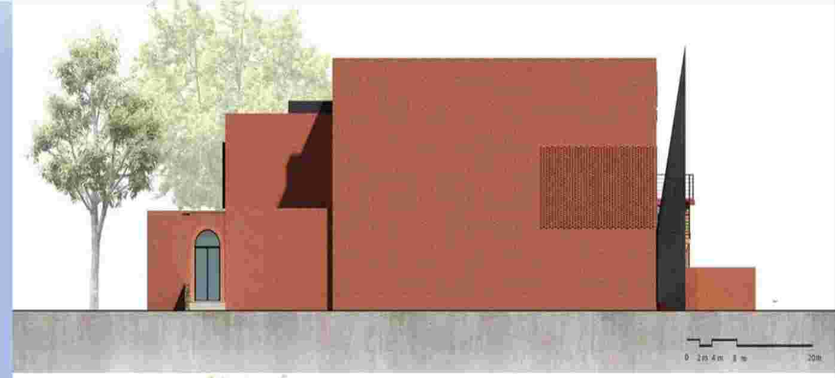


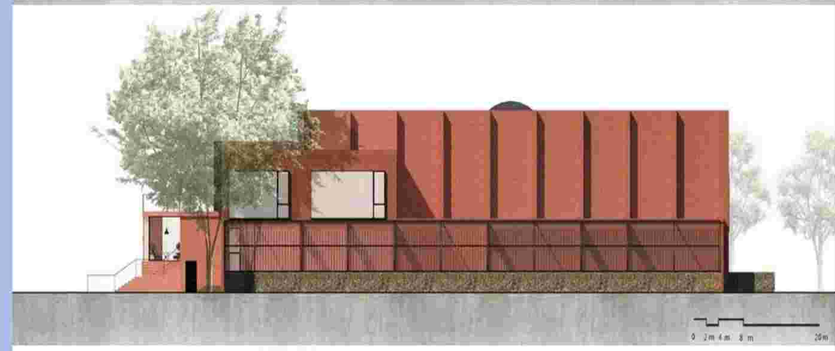



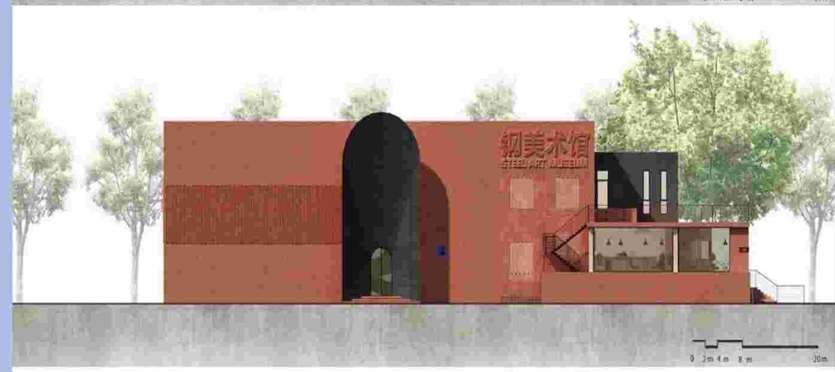
# Corten Steel Landscaping Projects

Ansteel Art Museum

Anshan,Liaoning





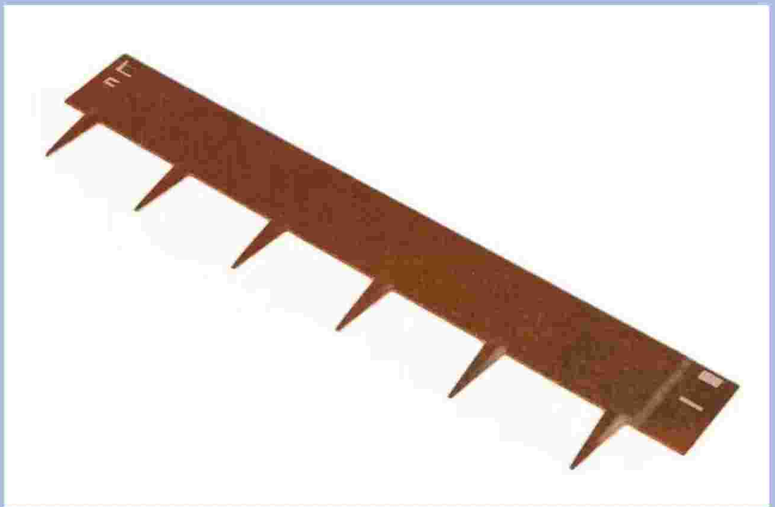


## Foreign Trade Export Series

The compary has strong procesing capacity and can meet al kinds of **OEM/ODM** needs.Is products are exported to 150 overseas countriesand regions, and have beenunanimously praised by customers

Corten Steel Screen

Corten Steel Barbecue



Corten Steel Garden Edging

Aluminum Alloy Fence

Corten Steel Flower Box

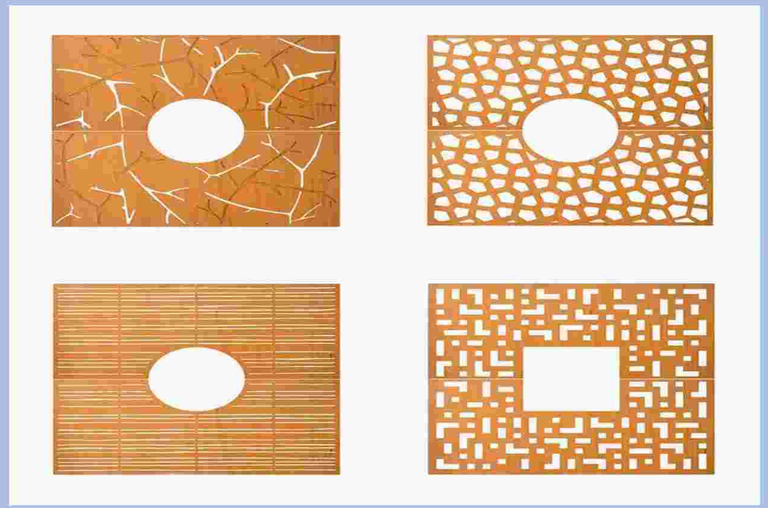
Corten Steel Fireball

# Foreign Trade Export Series

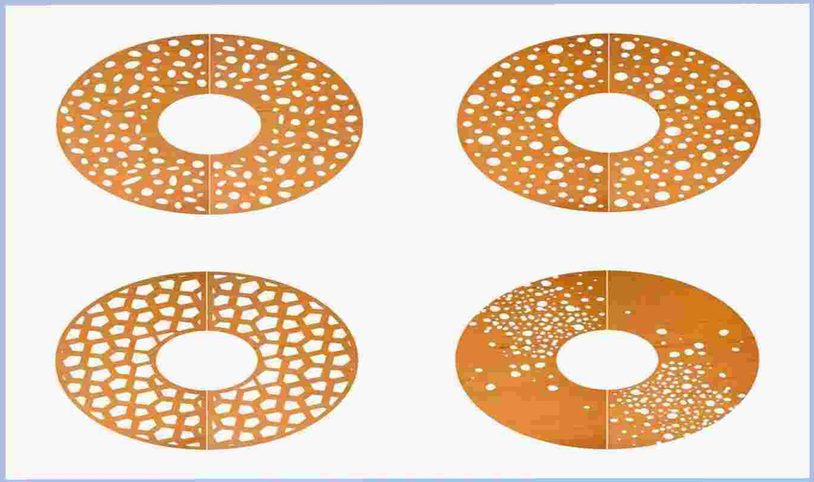
The compary has strong procesing capacity and can meet al kinds of **OEM/ODM** needs.Is products are exported to 150 overseas countriesand regions, and have beenunanimously praised by customers

Corten Steel Waterscape

Corten Steel Screen



Corten Steel Grate



Corten Steel Grate

Corten Steel Retaining Wall

Corten Steel Landscape Wall