

Construction

Steel is essential to modern society. Steel protects and provides strong frameworks for our buildings. It can be found in rails, roads, vehicles and domestic appliances. According to statistics, in 2019, 52% of steel used in the world accounts for building and infrastructure.

Benefits of using steel in construction:

- Steel offers the most economic and the highest strength to weight ratio of any building material, resulting in lighter buildings requiring less extensive and costly foundations.
- Steel buildings are increasingly designed to be reused and are therefore easy to assemble and disassemble, ensuring major environmental savings.
- Steel-framed structures are inherently non-combustible, and do not burn nor contribute to the spread or intensity of a fire.
- Steel is earthquake resistant due to its ductility and flexibility.
- 100% recyclability of steel: reusable and endlessly recyclable.

Application of steel in buildings and infrastructure:

For buildings

- Structural sections: these provide a strong, stiff frame for the building and make up 25% of the steel use in buildings.
- Reinforcing bars: these add tensile strength and stiffness to concrete and make up 44% of steel use in buildings. Steel is used because it binds well to concrete, has a similar thermal expansion coefficient and is strong and relatively cost-effective. Reinforced concrete is also used to provide deep foundations and basements and is currently the world's primary building material.
- Sheet products: 31% is in sheet products such as roofing, purlins, internal walls, ceilings, cladding, and insulating panels for exterior walls.
- Non-structural steel: steel is also found in many non-structural applications in buildings, such as heating and cooling equipment and interior ducting.
- Internal fixtures and fittings such as rails, shelving and stairs are also made of steel.

For infrastructure

- Transport networks: steel is required for bridges, tunnels, rail track and in constructing buildings such as fueling stations, train stations, ports and airports. About 60% of steel use in this application is as rebar and the rest is sections, plates and rail track.
- Utilities (fuel, water, power): over 50% of the steel used for this application is in underground pipelines to distribute water to and from housing, and to distribute gas. The rest is mainly rebar for power stations and pumping houses.

Forus Group provides a wide range of steel products for construction such as hot-rolled coils, hot-rolled sheets, hot-rolled plates and Prepainted Steel Sheets.

For more details, please download our catalogue here:



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Construction of a building on a background of the sky



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从下面的钢结构视图。





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