What can be done with industrial aluminum profiles

Detail Introduction :

What are aluminum profiles? What does it do? Nowadays, people have generally heard of aluminum profiles, but what exactly are aluminum profiles? Where can they be used? ETCN is here today to introduce you to industrial aluminum profiles, hoping to help you understand in more detail.

The meaning of industrial aluminum profile

Aluminum Profile System, also known as industrial aluminum extrusion, industrial aluminum alloy profile, is a kind of alloy material with aluminum as the main component, aluminum bar through hot melt, extrusion to obtain the different cross-sectional shape of aluminum material. But the proportion of the added alloy is different. The mechanical properties and application fields of the produced industrial aluminum profiles are also different. The implementation standard is according to GB/T5237-2008. Application fields, Generally speaking, industrial aluminum profiles refer to all-aluminum profiles other than those for building doors and windows, curtain walls, interior and exterior decoration, and building structures.

The use of industrial aluminum (alloy) profiles is extremely wide and versatile, and it is famous for its environmental protection, easy assembly and disassembly, and saving time and money. Industrial aluminum profiles are available in a wide range of varieties and specifications and are suitable for use in various mechanical devices. No welding is required, easy to adjust the size and easy to change the structure. Strict dimensional tolerance requirements and high surface finish requirements. The assembly work is convenient and fast with high productivity. The surface is anodized, anti-corrosive, spray-free, and beautiful, improving the added value of products. Aluminum profile processing

Suitable for applications: production assembly line, assembly-line operation workbench, office partition, screen, industrial fence, various frames, display shelves, shelves, mechanical dust sealing cover, etc.

After oxidation, the surface of the industrial aluminum profile has a very beautiful appearance. It is resistant to dirt, and it is very easy to clean once it is coated with oil and dirt. When assembled into products, different specifications of profiles are used according to different load-bearing weights, and matching aluminum profile accessories are used. No welding is required, which is more environmentally friendly, and it is extremely convenient to install, disassemble, carry and move.

Typical applications of different grades of aluminum alloys

1050 Extruded coils for the food, chemical, and brewing industries, various hoses, pyrotechnic powder

1060 is typically used for chemical equipment where high corrosion resistance and formability are required but not high strength.

1100 is used for processing parts that require good formability and high corrosion resistance but do not require high strength, such as chemical products, food industry devices and storage containers, thin plate processing parts, deep-drawn or spun sunken vessels, welded parts, heat exchangers, printing plates, nameplates, reflective appliances, etc.

What are the main uses of industrial aluminum profiles?

1. Used as construction material

In construction, it is often necessary to use industrial aluminum profiles to make doors and windows into curtain walls. Because the first material of industrial aluminum profile is aluminum, industrial aluminum profile doors and windows are beautiful and durable and stiff resistance, not easy to deformation, which is a more common material of industrial aluminum profile.

2. Used to manufacture heat sinks

Today, many electronic industries and electronic devices require a variety of heat sinks. Because industrial aluminum profiles have good thermal conductivity. They can be used to make heat sinks for power electronics and perhaps for LED lighting heat sinks and heat sinks for digital computer products to help dissipate heat better in electronic devices.

3. For the production of machinery, equipment, and automotive parts

Industrial aluminum profiles with delicate selections can be used to manufacture skeletons and seals for machinery and equipment and open molds for machinery and equipment such as assembly line conveyors, gluing machines, hoists, testing equipment, and shelves. In addition, delicate industrial aluminum profiles can be made into corresponding accessories, which can also be used on the side of automobiles, and automotive parts can be connectors. Machining of mechanical/automotive parts

Compared with traditional mechanical manufacturing materials such as carbon steel and stainless steel, high-strength industrial aluminum profiles have the following advantages.

Simple manufacturing process.

Only design, cutting/drilling, and assembling can be completed. In contrast, traditional materials usually go through complex processes such as design, cutting/drilling, welding, sandblasting/surfacing, surface coating, surface anodizing, etc. Aluminum profile cutting/drilling

The material can be reused.

Since mechanical parts using industrial aluminum profiles are not heat-welded throughout the production process, the parts are easily disassembled, and all materials and accessories can be reused. In contrast, traditional materials are rarely reused due to high cutting deformation and disassembly costs.

Save person-hours.

Due to the simplicity of the production process, high person-hour costs can be saved. Especially when reworking due to production errors, it can save several times time compared with traditional materials.

High precision.

Since the manufacturing process does not experience heat welding, the material is not deformed and is assembled with high precision. Conventional materials using heat welding are bound to be deformed, which affects the final assembly accuracy.

Gorgeous appearance.

The appearance of the equipment using industrial aluminum profiles is more modern, and its unique anodic oxide coating is more stable than existing coating methods.