Q. What is stainless steel used for?

A. Stainless steel is an iron alloy that is used in a wide range of everyday applications because of its exceptional resistance to stain and rust. There are more than 57 types of stainless steels that are used in an extensive number of applications and industries, such as building exteriors and roofing, water supply piping, bulk materials handling equipment, sporting goods, infrastructure such as railways and bridges, and many more.

The food processing industry in North America is one of the largest users of stainless steel, utilizing about 200,000 tons per year on a variety of products, such as commercial stainless steel sinks, stainless steel kitchen shelves, and stainless steel work tables. Because of its durability, economy, sanitary design, easy cleaning, and good corrosion resistance, stainless steel is used in many food processing and cooking equipment applications.

Q. What raw materials are used to make stainless steel?

A. Stainless steel is made up of some of the most common and basic elements found in the earth: iron ore, silicon, nickel, chromium, carbon, manganese, and nitrogen. Nitrogen is an important element since it improves ductility and corrosion resistance, which makes it valuable for use in duplex stainless steels that are commonly used in products like NSF sinks and utility sinks.

Q. Why are so many things made of stainless steel?

A. Stainless steel (also known as “inox steel”) is used in many modern applications because of its remarkable strength, temperature resistance, and ability to resist corrosion and rust. These qualities make stainless steel ideal for use in a wide variety of products, from kitchen knives to construction materials. The stainless steel industry has grown an average of 5% between 1980 and today, and production of stainless steel has increased by over 4000% since its introduction in the 1950s! You can read more statistics about stainless steel on the International Stainless Steel Forum Website.

Q. How is stainless steel made?

A. Stainless steel goes through many steps before it becomes the metal we’re all familiar with. To start, raw metals (see the previous question) are melted down with high heat until they combine to become a single material. When the melting is finished, the molten steel is cast into preliminary molds that aid in getting the steel from its molten form to its end shape. Once they’re removed from the molds, these raw steel shapes can be fashioned into many forms, from thin wires to massive slabs. This versatility is one of the reasons that stainless steel is one of the most widely used materials in the world. You can read more details about the process at Encyclopedia.com.

Q. Is stainless steel recyclable?

A. Yes! Stainless steel is 100% recyclable. At Aero Manufacturing, we are committed to protecting the environment using green manufacturing practices, which is why over 70% of the material that we use to manufacture our stainless steel products is recycled. Check out our Green Policy for more details on our environmental protection efforts.

Q. Is stainless steel magnetic?

A. Stainless steel is an iron alloy, which means that iron is combined with other materials to form a new metal. This means that different combinations can have different properties, and be used for different things. Stainless steel can be magnetic in some cases, when these materials are combined in different ways. One of the most common types of stainless steel is called “ferritic” stainless steel, and it is magnetic, while other common types of stainless steel are not. Check out this article in Scientific American to learn more.