

Seamless Steel Pipe Knowledge

Steel pipe is a kind of hollow long steel, which is used as a pipeline for conveying fluids, such as petroleum, natural gas, water, gas, steam, etc. In addition, when the bending and torsional strength are the same, the weight is light, so it is also widely used. Used in the manufacture of mechanical parts and engineering structures. Also used to produce a variety of conventional weapons, barrels, shells and so on.

Classification of steel pipes: steel pipes are divided into two categories: [seamless steel pipes](#) and [welded steel pipes](#) (with seam pipes). According to the shape of the section, it can be divided into round tubes and special-shaped tubes. Circular steel tubes are widely used, but there are also some special-shaped steel tubes such as square, rectangular, semi-circular, hexagonal, equilateral triangle and octagonal.

For steel pipes subjected to fluid pressure, hydraulic tests shall be carried out to test the pressure resistance and quality. No leakage, wetting or expansion shall occur under the specified pressure. Some steel pipes shall be subjected to the crimping test according to the standard or the requirements of the purchaser. , flaring test, flattening test, etc.

Seamless steel pipe: Seamless steel pipe is made of steel ingot or solid pipe blank through perforation, and then made by hot rolling, cold rolling or cold drawing. The specifications of the seamless steel pipe are expressed by the outer diameter * wall thickness in millimeters. Seamless steel tubes are divided into two types: hot rolled and cold rolled (dial) seamless steel tubes.

Hot-rolled seamless steel pipes are divided into general steel pipes, low and medium pressure boiler steel pipes, high pressure boiler steel pipes, alloy steel pipes, stainless steel pipes, petroleum cracking pipes, geological steel pipes and other steel pipes. Cold-rolled (dial) seamless steel pipe in addition to general steel pipe, low and medium pressure boiler steel pipe, high pressure boiler steel pipe, alloy steel pipe, stainless steel pipe, petroleum cracking pipe, other steel pipes, also includes carbon thin-walled steel pipe, alloy thin-walled steel pipe, Stainless thin-walled steel pipe and special-shaped steel pipe.

The outer diameter of hot-rolled seamless pipe is generally larger than 32mm, the wall thickness is 2.5-75mm, the diameter of cold-rolled seamless steel pipe can reach 6mm, the wall thickness can reach 0.25mm, the outer diameter of thin-walled pipe can reach 5mm, the wall thickness is less than 0.25mm, cold Rolling is more accurate than hot rolling.

Generally, the seamless steel pipe is formed by hot-rolled or cold-rolled low-alloy structural steels such as 10, 20, 30, 35, 45, etc., such as 16Mn and 5MnV, or 40Cr, 30CrMnSi, 45Mn2, 40MnB, and the like. Seamless pipes made of low carbon steel such as 10 and 20 are mainly used for fluid conveying pipes. 45, 40Cr and other medium carbon steel seamless pipes are used to make mechanical parts, such as the force parts of automobiles and tractors. Generally, seamless steel pipes are required to ensure strength and flattening test.

The hot rolled steel pipe is delivered in a hot rolled state or a heat treated state; the cold rolling is delivered in a heat treated state by heat. Seamless steel tubes for low and medium pressure boilers: used in the manufacture of various low and medium pressure boilers, superheated steam pipes, boiling water pipes, water wall pipes and superheated steam pipes for locomotive boilers, large smoke pipes, small smoke pipes and arch brick pipes.