

CF3 stainless steel casting

CF3 stainless steel is an equivalent type of 304L stainless steel and is used exclusively in the investment casting process. CF8 and CF3 have very similar chemical and mechanical properties. CF3 is a variant of CF8 with a lower carbon content to improve weldability and reduce the risk of reduced corrosion resistance around the weld. CF3 outperforms CF8 when there is no post weld heat treatment. Solution annealing is necessary for maximum corrosion resistance and prevention of intergranular attack. CF3 is used in applications up to 345 ° C in industries such as food and beverage, nuclear energy, petroleum and detergent manufacturing. Stainless steel castings produced from CF3 stainless steel include impellers, manifolds, and valve bodies, among others.

What does CF3 mean?

C - The first letter indicates it is designed for corrosion resistant service. It may also indicate foundry use, as the letter F in F316 indicates the forging process.

F——The second letter indicates the approximate position of the alloy in the iron-chromium-nickel (FeCrNi) ternary diagram.

3 - The unique number indicates the maximum allowable carbon content in 0.01%. For example, CF3 has a maximum carbon content of 0.03%.

CF3 Stainless Steel Investment Casting Process

Stainless steel investment casting, also known as stainless steel lost wax casting, is a manufacturing process in which wax patterns are made and then coated with ceramic slurry to make molds. The wax is then melted out of the ceramic mold and the molten metal is poured into the cavity. The molten metal solidifies, and then the ceramic shell cracks or bursts, forming a metal casting. The stainless steel investment casting process has no minimum order quantity requirements and can cast CF3 stainless steel parts from 0.05kg to 50kgs, so it can be a fabrication solution no matter what size project you are working on.

Advantages of CF3 Stainless Steel Castings

The advantages of CF3 stainless steel castings are impressive. As a professional stainless steel foundry, CFS can provide CF3 stainless steel investment casting services as well as several value-added services to provide our customers with finished parts. The detailed advantages of cast CF3 stainless steel are summarized as follows:

Reduce secondary operations

create stronger parts

produce less waste

maintain extremely tight tolerances

Thinner walls reduce weight

maintain excellent repeatability

Reduce tooling costs with multiple production runs

Design highly detailed surfaces and stamps

In addition to CF3 stainless steel, CFS can also invest in casting other stainless steel alloys, such as CF8, CF3M, CF8M stainless steel alloys. Any inquiries about stainless steel castings, please contact us!