Surgical steel V4A 1.4404
According to medical standard

The article explains the differences between the stainless steel generic terms V2A and V4A as well as the materials 1.4401 and 1.4404 (AISI 316/316L). It demonstrates why truu uses exclusively surgical steel V4A 1.4404 according to medical standard for all refinement units and the 3D micro-swirl hose.

Generic terms for stainless steel

In Germany, two generic terms for stainless steel are used: V2A and V4A. V2A is a stainless steel that frequently occurs in everyday applications, used for example in the construction of railings, vehicles, and sink basins, and is applied in the beverage, pharmaceutical, and cosmetics industries. V4A is similar to V2A stainless steel and has a higher quality grade, but is additionally alloyed with 2% Mo. This results in the stainless steel becoming more resistant to corrosion in chloride-containing media. V4A stainless steel is used in saltwater, swimming pools, the chemical industry, and medical technology.

Material number 1.4401 (X5CrNiMo17-12-2), AISI 316, (V4A)

Austenitic stainless steel with excellent corrosion resistance. Application: According to DVGW worksheet W541 (basis for the requirements for pipes made of non-rusting steels for drinking water house installations), the steel material 1.4401 (in addition to 1.4404, 1.4521, and 1.4571) is most frequently used. This is a chromium-nickel steel with molybdenum addition. This steel is easily cold-formable (bending, stamping, deep drawing), but not easily machinable. Due to its strong work hardening, it requires appropriate tools.

Material number 1.4404 (X2CrNiMo17-12-2), AISI 316L, (V4A, A4L)

Austenitic, stainless steel. Due to the lower carbon content, it is easier to machine than the otherwise equivalent stainless steel 1.4401. Use: Mechanical components with elevated requirements for corrosion resistance, particularly in chloride-containing media and for hydrogen. AISI 316L is used in the most diverse areas, in the pharmaceutical industry (manufacture of RDTs = cleaning, disinfection, and drying machines), in medical and dental technology, as well as in swimming pool construction, as a ring collar in building technology, and for the manufacture of press fittings for gas and water installations.

Safety comes first

As a manufactory for high-tech products, we at truu also place special value on the details. Safety comes first for us, which is why we use exclusively V4A stainless steel according to medical standard for all our refinement units and also for our special 3D micro-swirl hose, specifically the further development of the 1.4401 with material number 1.4404. Every batch is additionally subjected to its own quality check. Through the selection of the highest quality V4A stainless steel 1.4401 combined with continuous quality control, we can guarantee that no substances are released into our pure, clean, and cell-available water. Good to be truu.

Stay safe. Stay truu.

It's good.
to be truu.