SELECTION OF AVAILABLE MATERIALS

We can offer raw material from our stock or manufacture components according to your specifications. We can also give you further informations to the content of this website. The choice of a material in accordance with your application is an important part of the development process and as such is fully under your responsability. UNIMED cannot be held responsible for the consequences of such a choice. This is valid in particular but not limited to medical implants. These may namely need special manufacturing environments which we cannot guarantee.

AISI 302 DIN 1.4310 AFNOR Z10 CN 18-09 UNS S30200 SS 2331	This material has been selected for its excellent mechanical properties for most of our **solid wires and wire components**. A standard austenitic stainless spring steel which combines excellent spring characteristics with high fatigue resistance.
Chemical composition :	C 0.15 max. / Si 1.00 max. / Mn 2.00 max. / P 0.045 max. / S 0.03 max. / Cr 17 to 19 / Ni 8 to 10 / Fe balance

AISI 303 DIN 1.4305 AFNOR Z10 CNF 18-09 UNS S30300 SS 2346	Unimed offers this material in form of **solid wire** in certain diameters and manufactures a **variety of components** from it. This is one of the most popular of all the free machining stainless steels and offers good strength, corrosion resistance and great machinability.
Chemical composition :	C 0.15 max. / Si 1.00 max. / Mn 2.00 max. / P 0.20 max. / S 0.15 min. / Cr 17 to 19 / Ni 8 to 10 / Fe balance

AISI 304 DIN 1.4301 AFNOR Z6 CN 18-09 UNS S30400 SS 2332/33	Unimed offers this material in a wide range of **tubing** sizes and also in certain **solid wire** diameters. It is suitable for a variety of medical and industrial applications where good corrosion resistance is required. A general purpose corrosion and heat resistant stainless steel with excellent mechanical properties as low as -180°C (-300 °F). This type of steel is extensively used for the manufacture of surgical instruments and food processing equipments, etc.
Chemical composition :	C: 0.08 max. Si: 1.00 max. Mn: 2.00 max. P: 0.045 max. S: 0.03 max. Cr: 18 to 20 Ni: 8 to 10.5 Fe: balance

AISI 316L DIN 1.4404 or DIN 1.4435 AFNOR Z2 CND 17-12/13 UNS S31603 SS 2348/2353	This material, available from Unimed in a wide range of **tubing** sizes, is particularly suitable for analytical, chemical and pharmaceutical applications. A low carbon Cr/Ni/Mo alloy that offers the best corrosion resistance of the standard austenistic steels. This material can be heated and welded in the range of 480-870°C (900-1600 °F) without damage to corrosion resistance.
Chemical composition :	C: 0.03 max. Si: 1.00 max. Mn: 2.00 max. P: 0.045 max. S: 0.03 max. Cr: 16 to 18 Ni: 10 to 14 Mo: 2 to 3 Fe: balance

Certain tubing and solid wire dimensions are also available in **other materials**, as listed below, and we can fabricate components from these materials as well :

° Stainless Steel AISI 316 LS (DIN 1.4404+S+Cu)
Particularly suitable for corrosion resistant turned solid wire parts (not available as tubing).

° Stainless Steel AISI 316LVM (DIN 1.4441)
This low carbon alloy has a homogeneous metallurgical structure that ensures it to be superior with respect to corrosion and fatigue resistance (reduced susceptibility to intergranular corrosion). This material has been used for permanent implants for many years.

° Stainless Steel AISI 316Ti (DIN 1.4571)
Shows excellent resistance to heat, cold, corrosion and chemicals in heavy conditions. Its applications are in heating and water plants, pumps, etc.

° Stainless Steel AISI 321 (DIN 1.4541)
This material has a high resistance to intergranular corrosion, due to the titanium that is employed as a stabilizing element. Its strength characteristics are superior to those of AISI 304.

° TITANIUM Grade 2 (DIN 3.7035)
Its characteristics are :
- extremely high resistance to oxidising and exceptional erosion resistance,
- excellent resistance to sea water and solutions polluted by chlorides
- best strength to weight ratio in any corrosion resistant material

° PHYNOX (AFNOR K13C20N16Fe15D07)
This Cobalt-Chromium-Nickel alloy gives a combination of high strength, ductility and good mechanical properties and is age hardenable.Phynox also has an excellent fatigue life, corrosion resistance and is non-magnetic. This material has been used for permanent implants for many years.