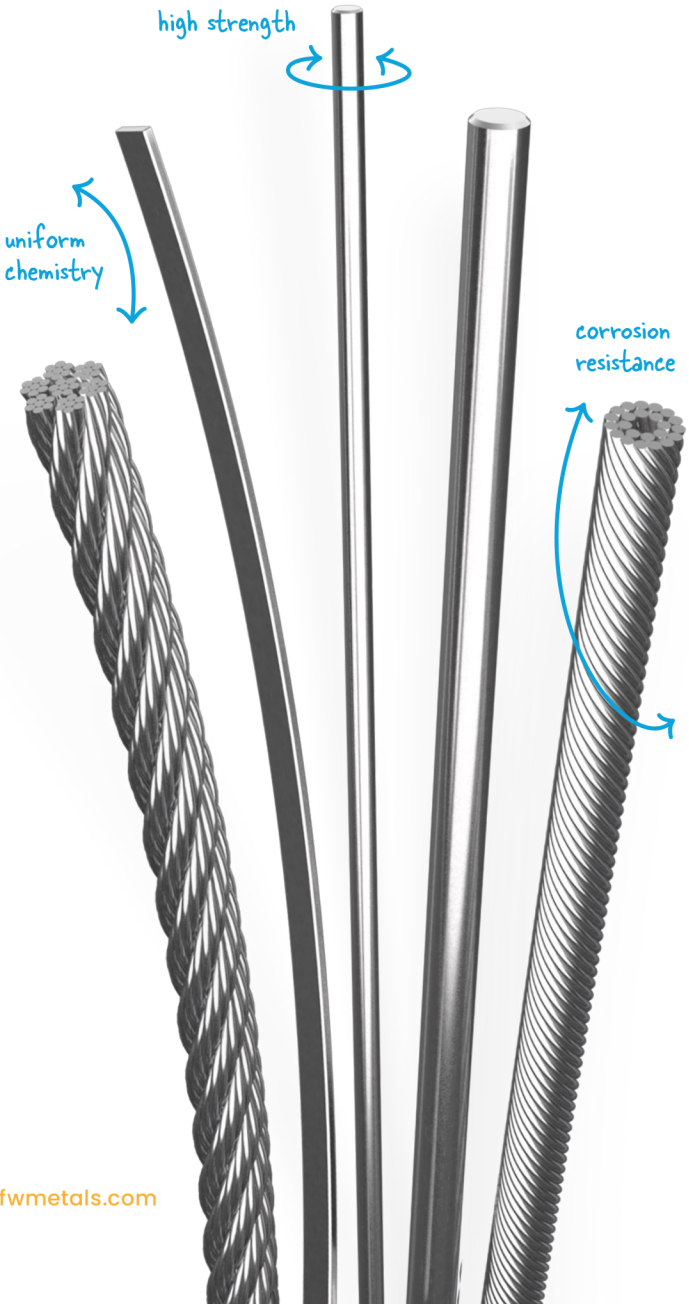




Stainless steel

Premium surgical grade material
for optimized performance



Exploring stainless steel

A versatile industry favorite for applications requiring strength and corrosion resistance, stainless steel can be tailored to fit a variety of medical and industrial uses. With grades ranging from hard 302 to reduced carbon 316LVM, this material is the workhorse of the medical device industry. Even as novel materials open up new possibilities, stainless steel remains the backbone of many critical applications.

Understanding the benefits

To be considered a stainless steel, an alloy must contain at least 10.5% chromium and no more than 1.2% carbon. Generally speaking, higher chromium content means greater corrosion resistance. Austenitic stainless steels are characterized by their microstructure and have little to no hardening response during heat treatment, which offers greater versatility for processing and end applications.

At Fort Wayne Metals, we routinely process a number of stainless steel alloys.

- › 302
- › 304V
- › 304LV
- › 316LVM
- › Custom 455* alloy

Surface finishes and material conditions

While the exact finish and condition of your stainless steel depend on the alloy, product form, and other important factors, generally it will have a highly polished appearance, especially at small diameters. The condition, or temper, relates to the tensile strength of the material. Our 304V ultra strength condition offers the highest tensile strength of all our stainless steel options. The annealed condition typically offers the lowest.

- › ¼ Hard
- › ½ Hard
- › ¾ Hard
- › Full hard
- › Annealed
- › Double spring
- › Hyten
- › Spring
- › Ultra spring
- › Ultra strength

Reliable performance for every application

When stainless steel is used in critical applications, such as surgical implants or medical devices, reliable performance is of the utmost importance. We carefully select 300 series stainless steel that is melted to provide uniform chemistry, which supports reliable mechanical specifications. Whether our own 316LVM, which meets the requirements of 316LS, or a standard 302, we take great pride in providing wire products made from high-quality stainless steel.

Typical end uses

Once stainless steel is in your chosen product form, you can do just about anything with it. We've seen customers use our stainless steel products in:

- › Bone pins
- › Catheters
- › Guidewires
- › Needles
- › Orthodontics
- › Orthopaedic cables
- › Skin closure staples
- › Springs
- › Stylets

Product forms and capabilities

Stainless steel can be processed into a variety of wire, bar, or complex constructions, and used in secondary operations such as coating.

BAR polished bar made to tight tolerances

COATING electrical insulation or chemical separation with custom coatings

COIL loosely wound coil in large diameters

DFT* WIRE two dissimilar materials in a single wire construction

FLAT WIRE wire with a rectangular cross section

HHS* TUBE improved torqueability and kink resistance, plus an open working channel

MECHANICAL ASSEMBLY custom crimps, fittings, and specialized parts

ROUND WIRE wire with a circular cross section

SHAPED WIRE wire with specialty shaped cross sections

SLT* WIRE straightness, straight-off-the-spool wire to eliminate processing steps

STRANDS AND CABLES complex constructions for advanced applications

STRIP continuous lengths up to 12.7mm [0.500 in] wide



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