





HIGHLY CORROSION RESISTANT, AUSTENITIC, NICKEL-FREE STEEL

www.voestalpine.com/hpm/schweiz voestalpine High Performance Metals Schweiz AG



BÖHLER P558JA – NICKEL-FREE AUSTENITIC STEEL FOR MEDICAL APPLICATIONS WITH OUSTANDING PROPERTIES

| C [%] | Si [%] | Mn [%] | Cr [%] | Mo [%] | Ni [%] | N [%] |
|--------|--------|---------|---------|--------|----------|--------|
| ~ 0,20 | ~ 0,45 | ~ 10.50 | ~ 17.25 | ~ 3.30 | max.0,05 | ~ 0,53 |



Example of use: component for vascular endoscopy

Due to the fact that the steel is nickel-free and as excellent biocompatibility in combination with a very high corrosion resistance, **BÖHLER P558JA**, according to **ASTM F2581**, is primarily used in **medical applications** and in **dentistry** as well as in **jewellery industries**.

Examples of use are:

Medical uses: Pins and brackets for fixing bones, prosthetics, catheter wires, tweezers.

Dentistry: Orthodontic brace wire, brackets, crown posts.

Jewellery: Rings, chains, pendants.

Oustanding properties:

The high nitrogen and carbon contents ensure a high purity, a combination of high strength, excellent toughness. **BÖHLER P558JA** has a stable austenitic microstructure, completely free from ferrite and boundary precipitates.

The biocompatibility, proved in testing, in combination with the very good corrosion resistance, provides the optimum condition and necessary safety for **use in or in contact with the human body**. An excellent polishability is ensured by the by the homogeneous microstructure and the high purity of the material.

A high potential for work-hardening, enabling strengths of over 2000 MPa / hardnesses of over 50 HRC to be achieved, allows **the use in high strength applications**.

INFLUENCE OF REMELTING TECHNOLOGY



OUSTANDING MICROSTRUCTURE



Steel mill voestalpine BÖHLER Edelstahl GmbH & Co KG, Kapfenberg, Autriche



P558JA - WORK HARDENING POTENTIAL





Wire in coils

IMPORTANT

Sustainable development (ISO 9001, etc) | Code of Conduct | RoHS | Nickel release according to current standards