

# Vasculoy<sup>®</sup>

by MeKo

## The Nickel Free Vascular Alloy for Implants

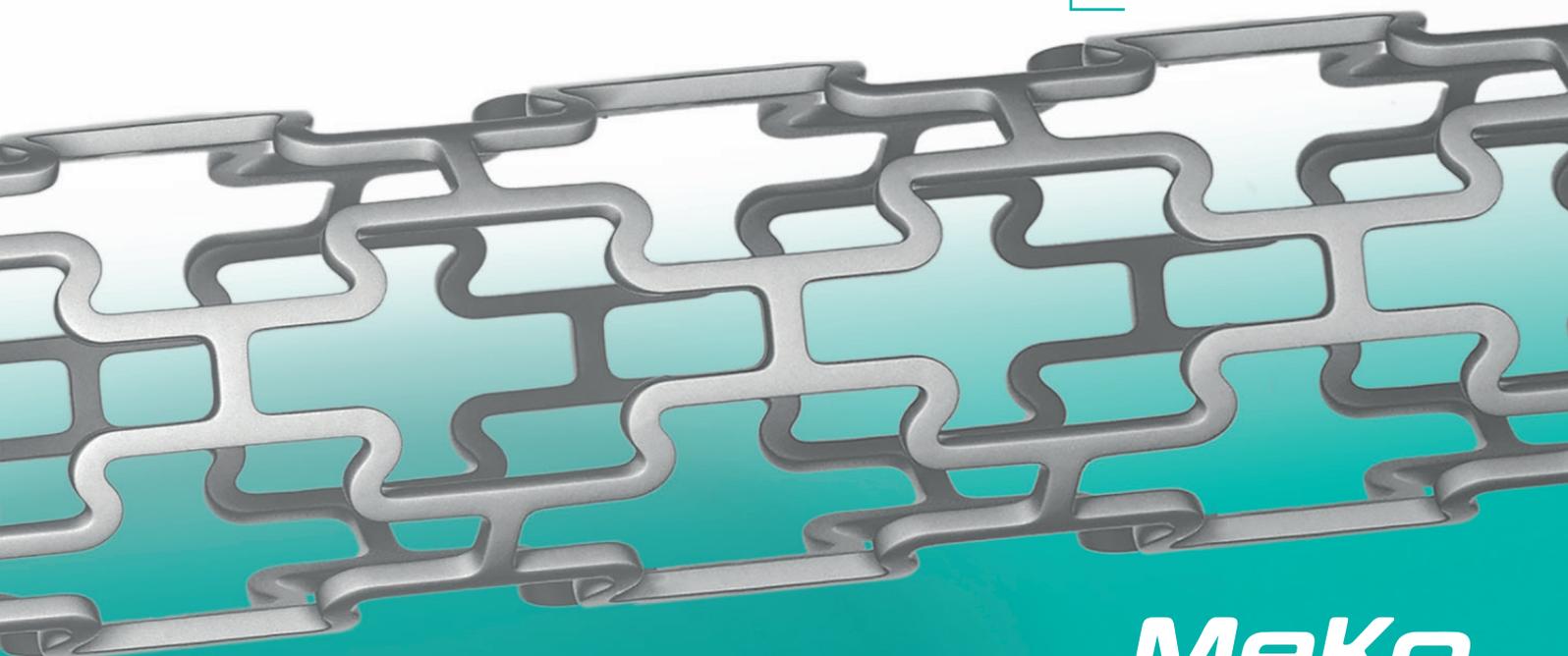
Studies show that approximately 13% of the population are allergic to nickel with a strong upward trend. Other people suffer from cobaltism. Therefore, MeKo has developed an implant alloy especially dedicated to vascular applications like stents. **Vasculoy<sup>®</sup>** improves the biocompatibility through freedom of nickel and freedom of cobalt.

**Vasculoy<sup>®</sup>** - The vascular alloy you can rely on.

### Facts about Vasculoy<sup>®</sup>

- ✓ The only nickel free alloy applicable to stents
- ✓ Best performing biocompatibility with significant benefits, especially for nickel sensitive patients
- ✓ Mechanical properties superior to conventional 316L (316LVM) stainless steel and comparable to L605
- ✓ Excellent MRI compatibility, with significant reduced artifacts in comparison to 316L
- ✓ Best corrosion resistance in comparison to 316L and L605
- ✓ Lower restenosis rates for nickel sensitive patients

✓ NICKEL FREE  
✓ COBALT FREE



# Vasculoy® | For Reduced Restenosis Rates

The **mechanical properties** of **Vasculoy®** like strength and break elongation are superior to 316L and comparable to L605. As a matter of principle the recent L605 stent designs can be switched to **Vasculoy®** without design changes. Therefore, stent designs with thin struts, high flexibility and positive clinical results are ensured.

The **corrosion resistance** of **Vasculoy®** far better in comparison to L605 and 316L. The Protection Potential, an important attribute for stents, is significantly higher. The reduced ion release of **Vasculoy®** is a great advantage for stents.

**Vasculoy®** is **MRI compatible**. Compared to 316L, the artifacts are reduced by 55 %.

The biocompatibility of **Vasculoy®** has been proven with no limitation or restrictions.



**Truly nickel free, Vasculoy® is superior to all commonly used implant materials. For nickel-allergic persons the restenosis rate will be reduced.**

## Production

**Vasculoy®** is produced utilizing high quality melting processes to assure microstructural integrity and cleanliness. These features facilitate brilliant products with a high-quality surface finish. In combination with the excellent mechanical properties, superior corrosion resistance, MRI-compatibility and unrestricted biocompatibility outstanding stent performances are ensured, differentiating **Vasculoy®** from other stent materials.

## Available Information for Vasculoy®

### Mechanical Properties

- ✓ Ultimate Strength  $R_m$
- ✓ Yield Strength  $R_{p0.2}$
- ✓ Break Elongation  $A_t$

Corrosion test data from cyclic potentiodynamic polarization measurements

- ✓ Breakdown Potential  $E_b$
- ✓ Rest Potential  $E_r$
- ✓ Protection Potential  $E_p$

### MRI compatibility

- ✓ Magnetic Displacement Force
- ✓ Radio Frequency Induced Heating
- ✓ MR Image Artifacts

Biocompatibility investigations according to ISO 10993

- ✓ Cytotoxicity Test
- ✓ Hemolysis Test
- ✓ Chemical Analysis (metal ion quantification)

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