



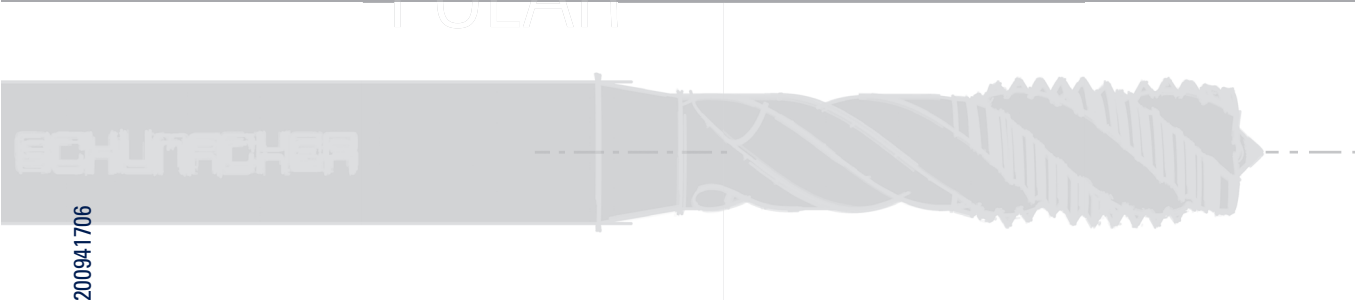
SCHUMACHER Precision Tools GmbH
Küppelsteiner Str. 18 – 20
42857 Remscheid
Germany

Phone: +49 (0) 21 91 97 04-0
Fax: +49 (0) 21 91 97 04-30

info@schumachertool.de
www.schumachertool.de



POLAR



W1200941706

Developed by ToolDesign



POLAR

The Specialist for Stainless Steel



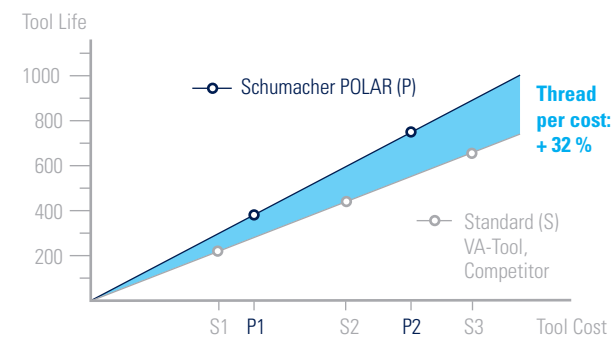
Serial Production of Stainless Steels – the Domain of POLAR

During an 18-month project, SCHUMACHER's R+D team has developed a new geometry for stainless materials. The result is a new specialized tool for advanced serial threading in stainless steel.

Steps of the Project

1. Digital design of new geometry variants and simulation procedure in digital work piece material
2. Start of sample production to verify performance of new geometry designs in long-term test applications
3. Selection of advanced customers to thoroughly check upon suitability of POLAR under actual operating conditions.

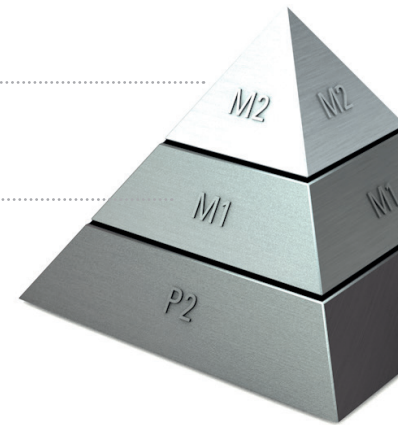
Cost Benefit Ratio: + 30 % Increase with Schumacher POLAR



Austenitic - Ferritic
x2 CrNiMoN25 [Duplex]
x2 CrNiMoN22

Austenitic
x5 CrNi [1.4301]
x6 CrNiMoTi 1712-2 [1.4571]

**Ferritic
Martensitic**



Targeting ISO-material groups P2, M1, M2

Drawing upon a technical university from Germany, the following characteristics were defined:

- Process stability throughout defined tool life duration
- Improved Wear Resistance of Tool
- Increase of tool life
- Increase of cutting speed
- Reduction of chip problems and avoidance of disproportionate increase of torsional moment

The Properties of Polar

- Advanced PM-Substrate
- Geometry with new combination of cutting angle and relief
- 45° spiral flute and extended flute length for optimized performance in deep blind holes
- Special flute design facilitates cutting off process in target materials (long, tough chips)
- Improved conicity of guiding thread part
- Core diameter and width of land optimized to target materials.
- Wear-resistant PVD coating (TiCN)



FOR
STAINLESS
MATERIALS

Service + Support:

SCHUMACHER Service-Hotline: +49 (0) 21 91 97 04-0 | info@schumachertool.de

P2 M1 M2

