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PRECISION TOOLS SINCE 1918

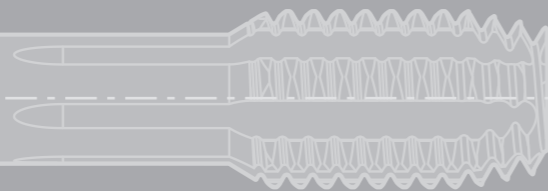
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CONDOR

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Developed by ToolDesign

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CONDOR

Thread Forming in High-Strength Materials



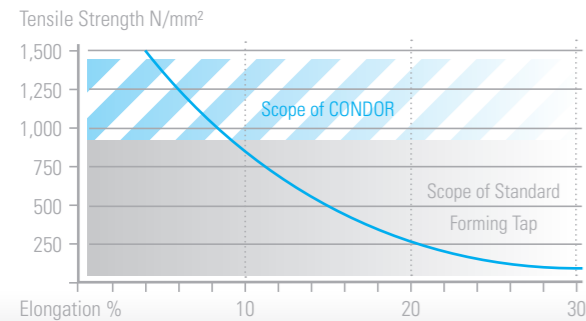
Thread Forming in High-Strength Materials – the Domain of CONDOR

There are various advantages of thread forming compared to conventional thread cutting. However, there is a very limited range of workpiece materials which can be processed reliably with standard forming tap geometries. The objective of the CONDOR project was to significantly increase this range and integrate high-strength steels of up to 1,400 N/mm².

Advantages of the Thread Forming Process:

- High process reliability
- Higher stability of the thread
- Exceptional surface quality
- Reduced processing time

Maximum precision in high-strength workpiece materials:



The R&D Project:

SCHUMACHER engineers have developed an all-new geometry in a two-year project. Critical parameters in this development included:

- HSS-E/PM substrate with increased Cobalt alloy
- Increased red hardness and wear resistance
- Modified polygon geometry of forming tap
- Innovative coating procedure

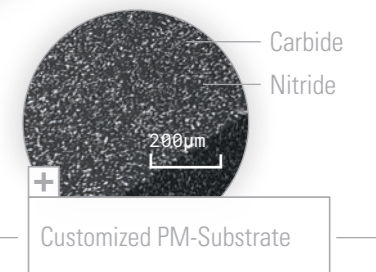
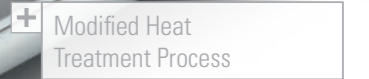
The R&D project was supported by several expert institutes – including the Research Association FGW, Germany (Forschungsgemeinschaft Werkzeuge und Werkstoffe).

High-Strength Steels in extended range of application:

Materials:

- Cold Work Steel 1.2080 + 1.2379
- Hot Work Steel 1.2343 + 1.2344
- Mould and Die Steel 1.2085 + 1.2312

The Properties of CONDOR:



The Advantages of CONDOR:

- Thread forming in a sophisticated range of workpiece materials
- Increased durability compared to thread cutting
- Significant improvement of cutting speeds
- Higher wear resistance against thermal stress
- Higher tool life = lower production cost

Service + Support:

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