



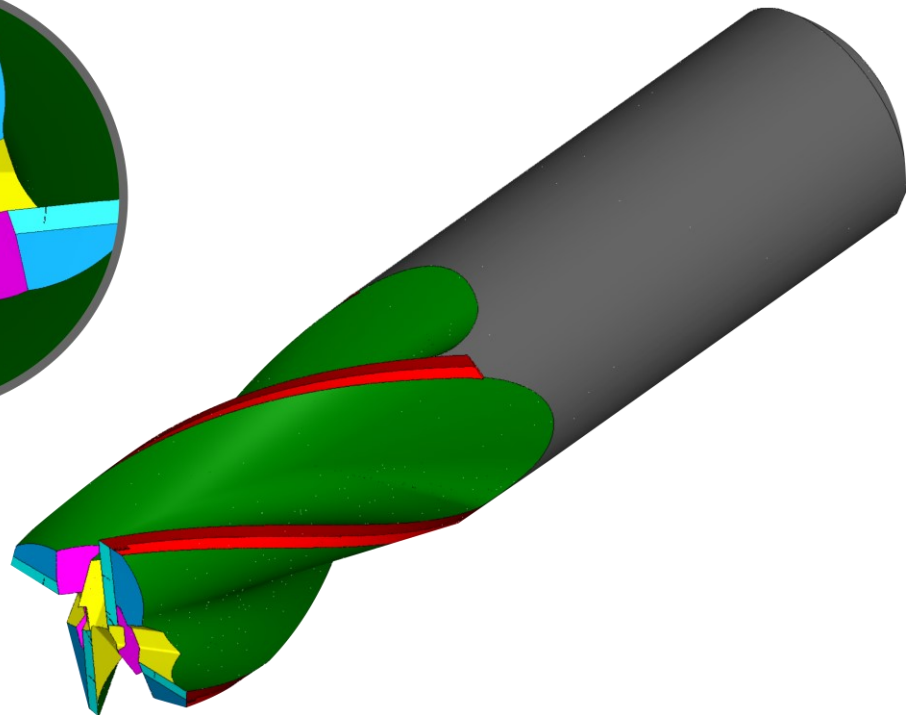
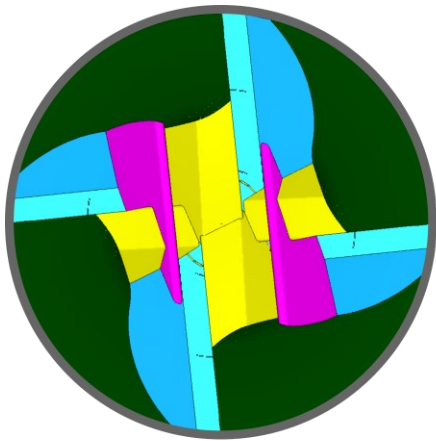
MTS AG
Mathematisch-Technische-Software

tool-kit PROFESSIONAL by MTS AG

Software-Modul

Spezifikation „Endmills/FMENU“

Stand: 07.06.23



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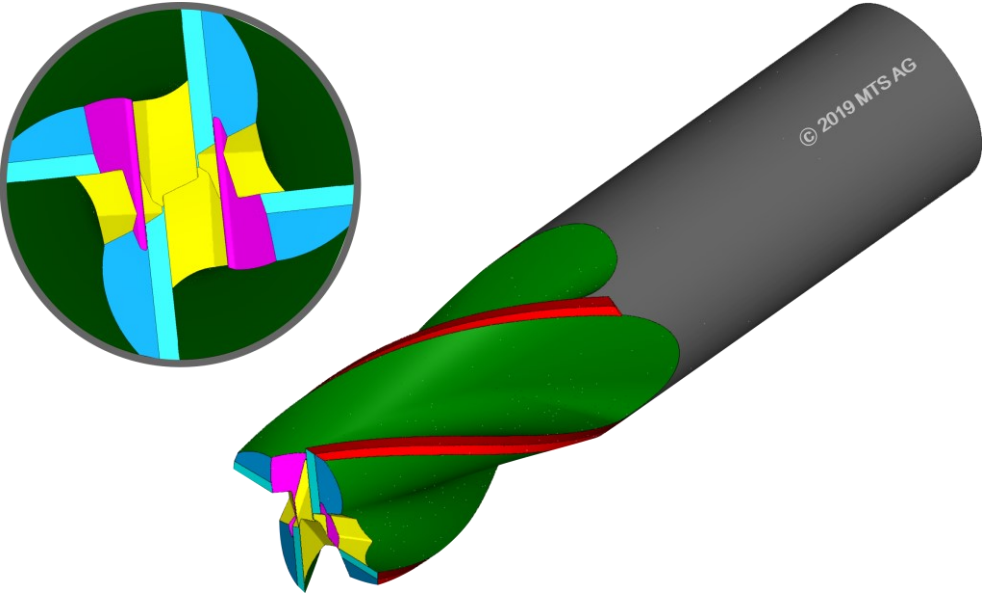


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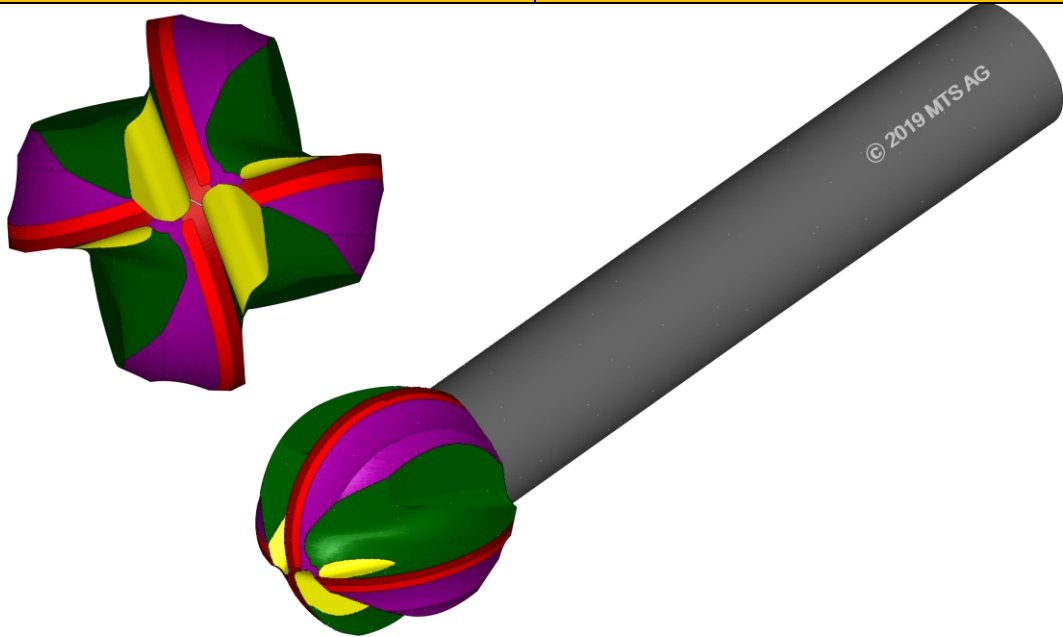
1.1 End Mills	FMENU
	
1.1 Basic Modul End Mills	
<ul style="list-style-type: none"> • Workpiece: Cylinder Taper Angular Cutter • Point: Plan Face Chamfer Corner Radius Ball Nose Circular Arc Double Radius • Geometry: Regulare 2 at Center 1 above Center Centring Point 3 at Center 4 at Center • Cutting Edge Combination: right helix/right cutting left helix/left cutting right helix/left cutting left helix/right cutting • Division: Equal / unequal division of teeth • Periphery Linear relief: 1st/ 2nd /3rd relief angle Radial relief: Cross-/ longitudinal Roughing Grind direction: Forward / backward Optional spark out grinding 	<ul style="list-style-type: none"> • Production / Regrinding: Production by different infeed (several steps) Regrinding with calculation of removal length, periphery and rake. Regrinding, finishing with different wheels • Main Fluting Meas. definition: Point-/ normal cut Grind direction: Forward / backward Optional spark out grinding • Taper: Constant angle / constant helix Regrinding with undefined helix • Notching Radius at entry and exit Variable entry- and aperture angle • Profile Simulation Simulation of intersection at all operations Wheel/workpiece-simulation Machining simulation • Shank Reducing the shank diameter Clamping area
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1.2 End Mill Ball

FMENU



1.2 Ball Extension to 1.1:

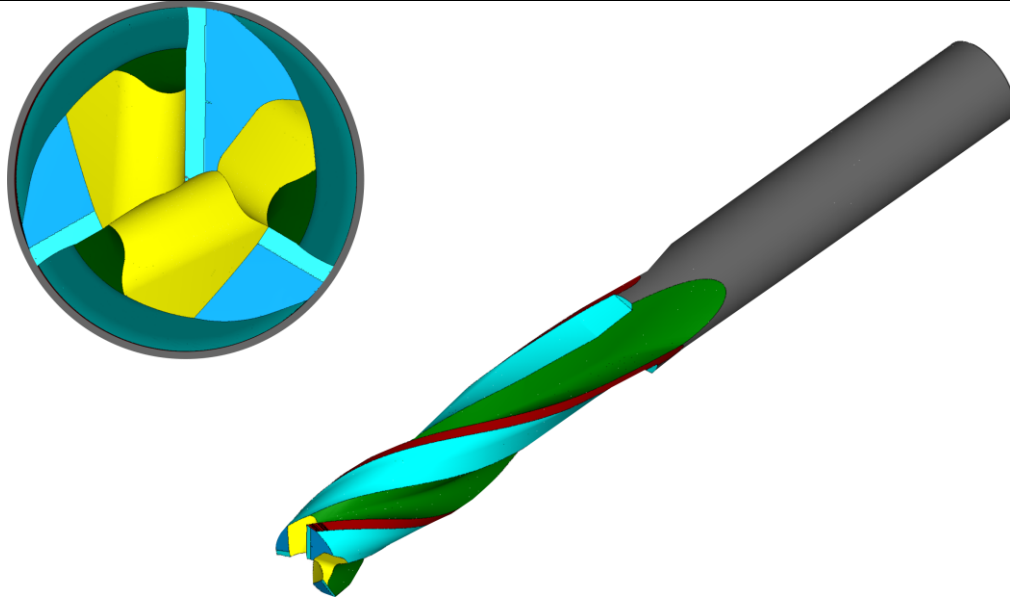
- Ball



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1.3 End Mill Variably Helix

FMENU



1.3 Variably Helix Extension to 1.1:

- **Variably Helix of Fluting:**
- Cylindrical and tapered tools

- Front and rear angle of helix
- 3 sections: Constant angle within 1. and 3. section; transition between front and rear helix-angle within 3. section
- Rising or falling helix

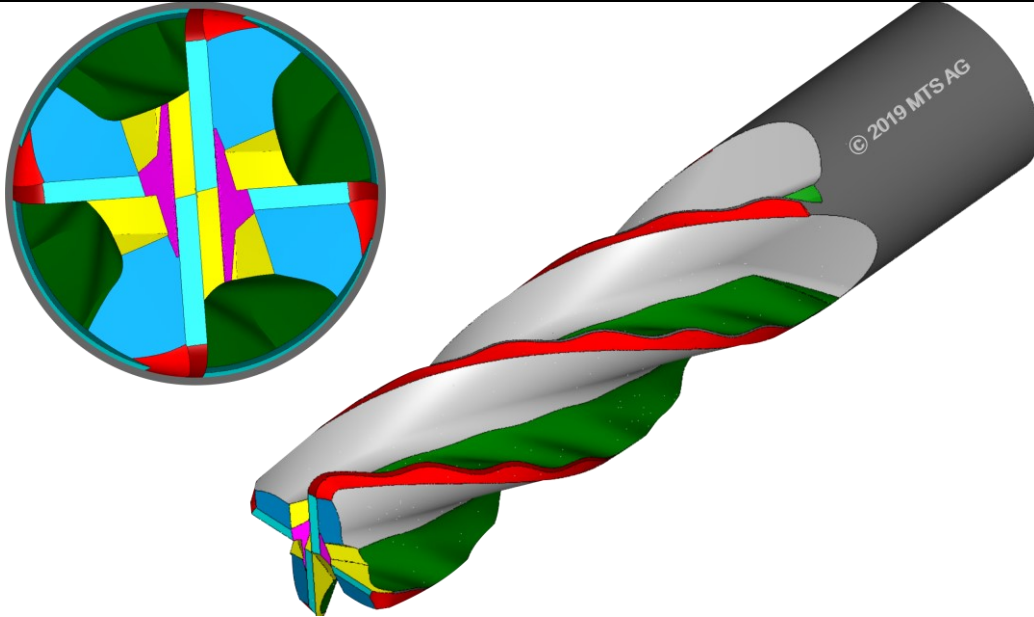


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1.4 End Mill Wave Cut

4FMENU



1.4 Wave Cut(Crest-cut)

Extension to 1.1:

(Production only; regrinding on demand)

- Cylindrical tools**
 Roughing cutting corresponding to a sinusoidal cutting edge along the helix
 Period and amplitude of wave according to sinus-function
 Starting point offset at every tooth
 Orientation of wave to the tool-center or to the cutting edge