



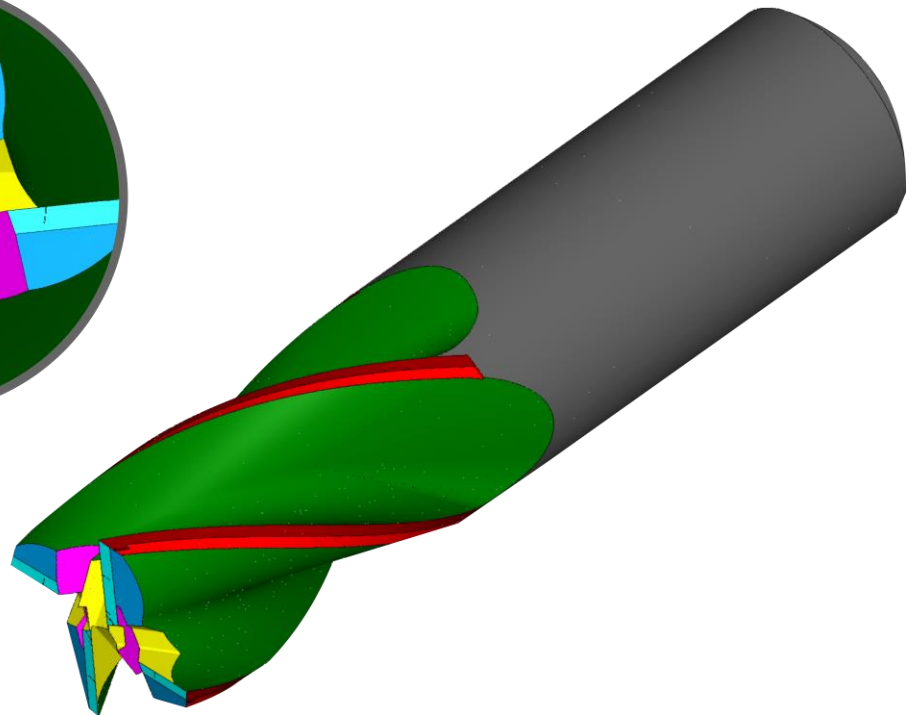
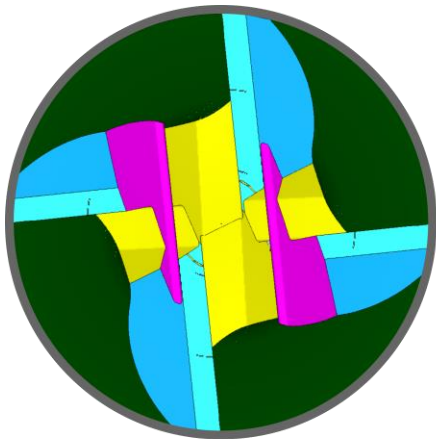
MTS AG
Mathematisch-Technische-Software

tool-kit PROFESSIONAL by MTS AG

Software-Modul

Spezifikation „Endmills/FMENU“

Stand: 10.01.20



MTS AG
Rheinstraße 81
CH-4133 Pratteln 1
Tel.: 0041 / 61 81 59 130
Fax.: 0041 / 61 81 59 139
e-mail: info@mtsag.net
www.mtsag.net



MTS AG

Mathematisch- Technische Software

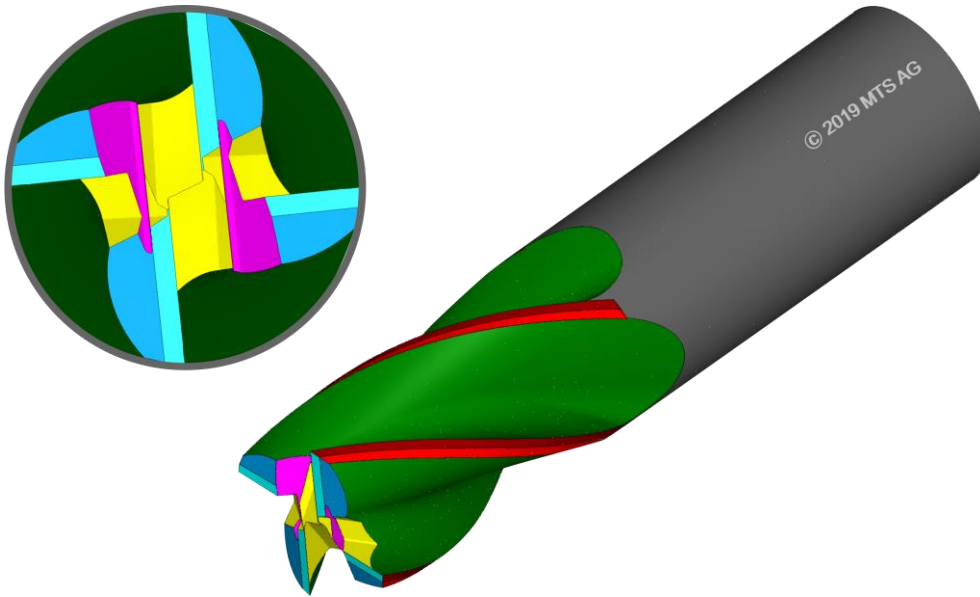


MTS AG

Mathematisch-Technische-Software

1.1 End Mills

FMENU



1.1 Basic Modul End Mills

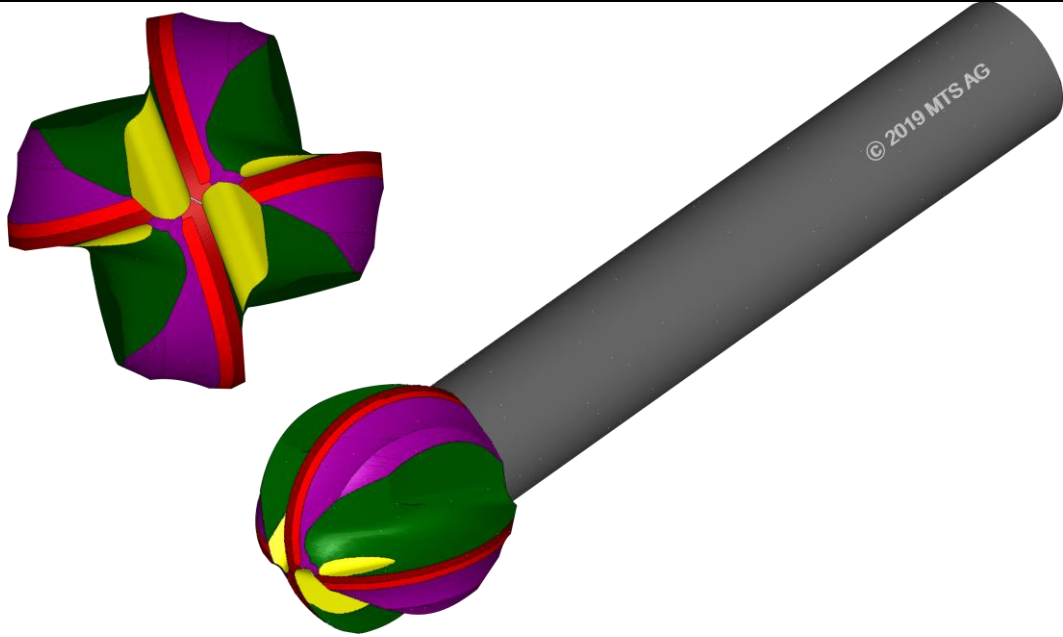
- **Workpiece:**
Cylinder
Taper
Angular Cutter
- **Point:**
Plan Face
Chamfer
Corner Radius
Ball Nose
Circular Arc
Double Radius
- **Geometry:**
Regulare
2 at Center
1 above Center
Centring Point
3 at Center
4 at Center
- **Cutting Edge Combination:**
right helix/right cutting
left helix/left cutting
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

- **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



1.2 End Mill Ball

FMENU



1.2 Ball
Extension to 1.1:

- Ball

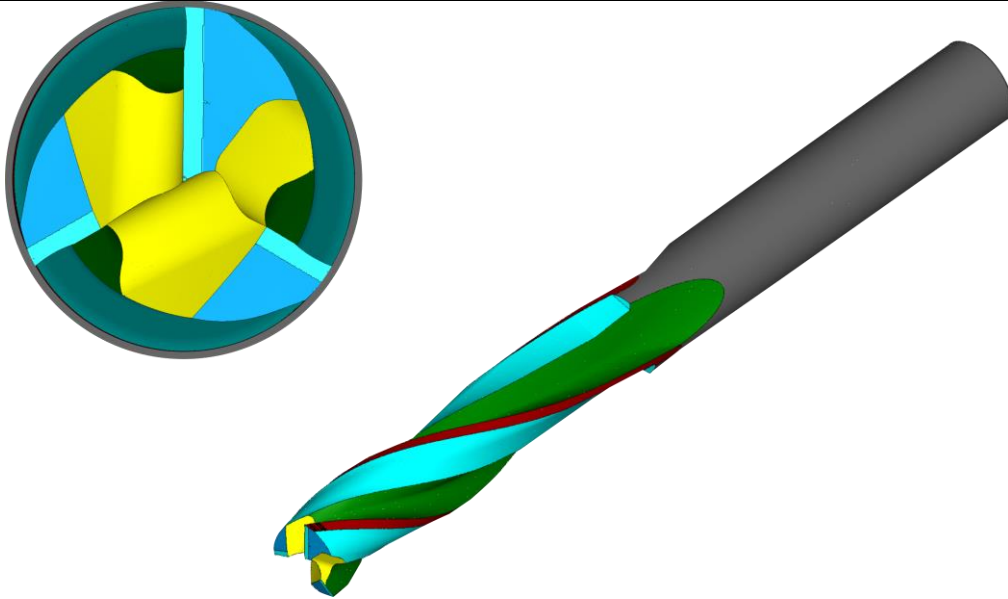


MTS AG

Mathematisch-Technische-Software

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

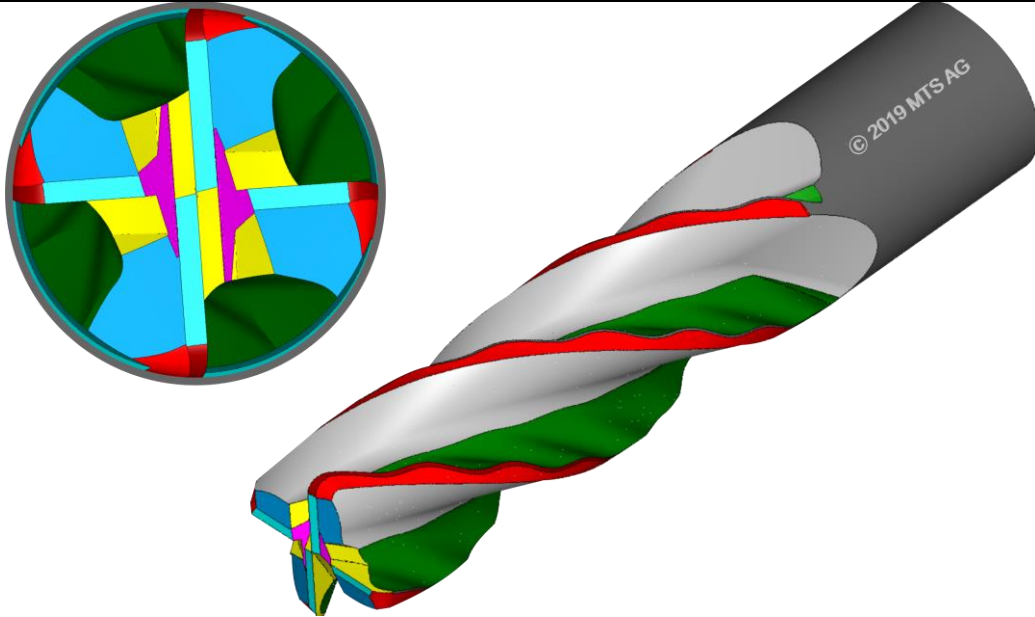


MTS AG

Mathematisch-Technische-Software

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