

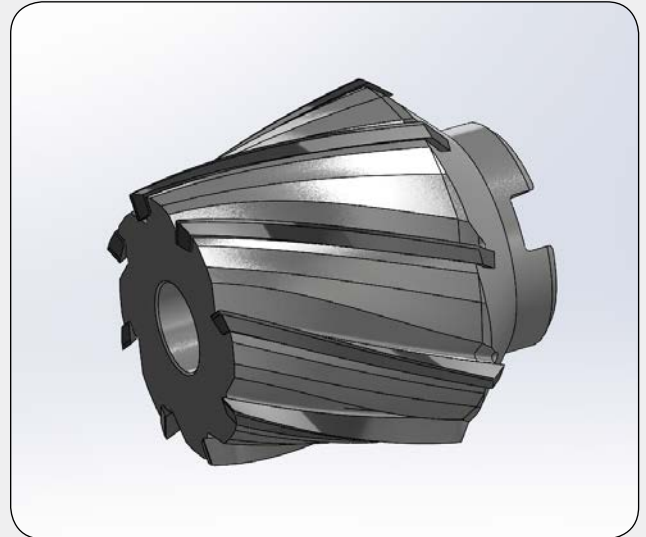
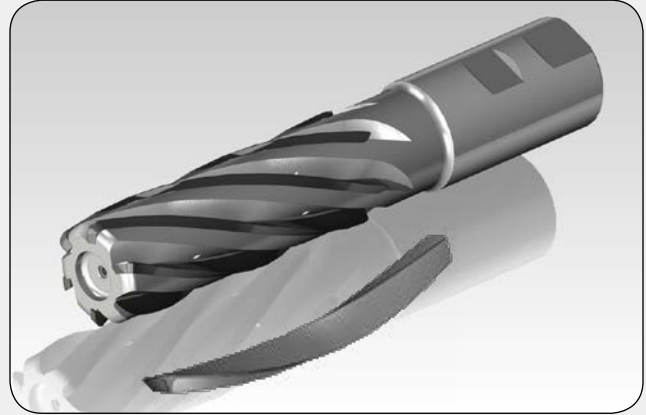
## Twisted Brazed Milling Cutters for Aerospace Industry

### Application:

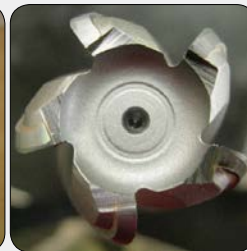
Finishing milling operation of titanium, stainless steel, and aluminum parts in the aerospace industry.

### Advantages:

- Straight or tapered carbide brazed milling cutters
- Special cutting edge preparation
- Much better tool life and surface quality compared to the traditional HSS solution



- Heavily used by AIRBUS, BOEING, etc.
- Very few competitors worldwide
- High quality tool made by OUTILTEC
- Milling tool for aluminum, titanium and stainless steel (TA6V & 15-5PH)
- Suitable for milling long surfaces
- No steps, no mismatch, smooth surface

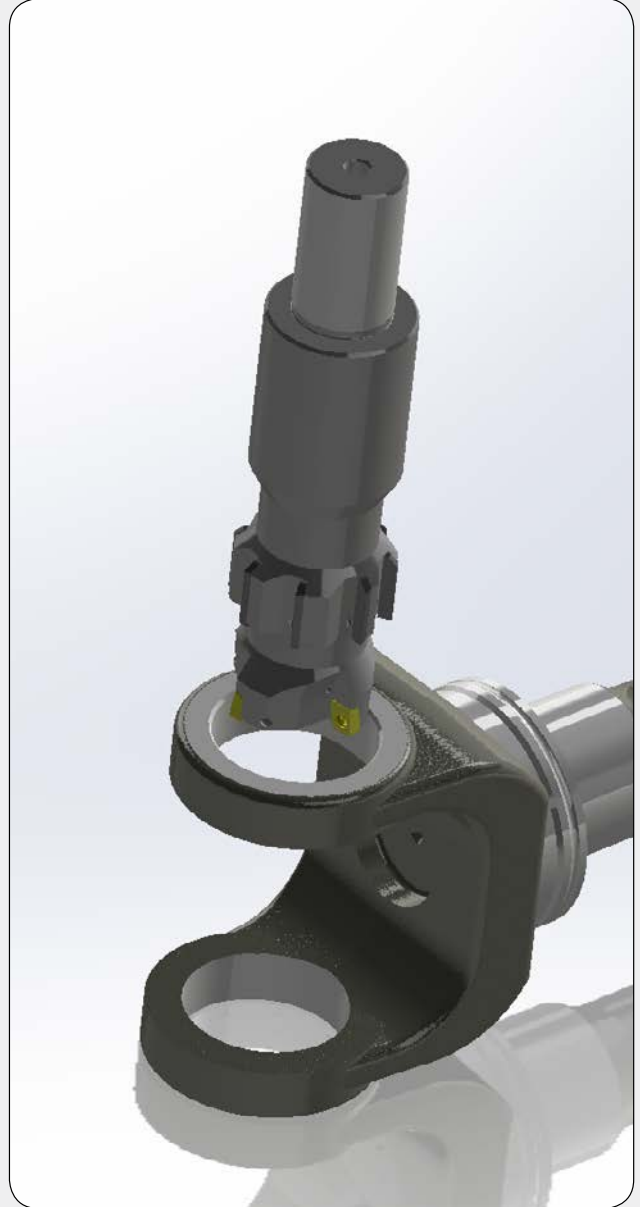


## Milling and Reaming of the Yoke Shaft

Indexable milling cutter combined  
with brazed reamer



Brazed combined cermet reamer for  
higher cutting speed



## BRAZED CERMET REAMERS

OUTILTEC is producing special brazed cermet reamers, which are recommended for all kinds of steel and cast iron.

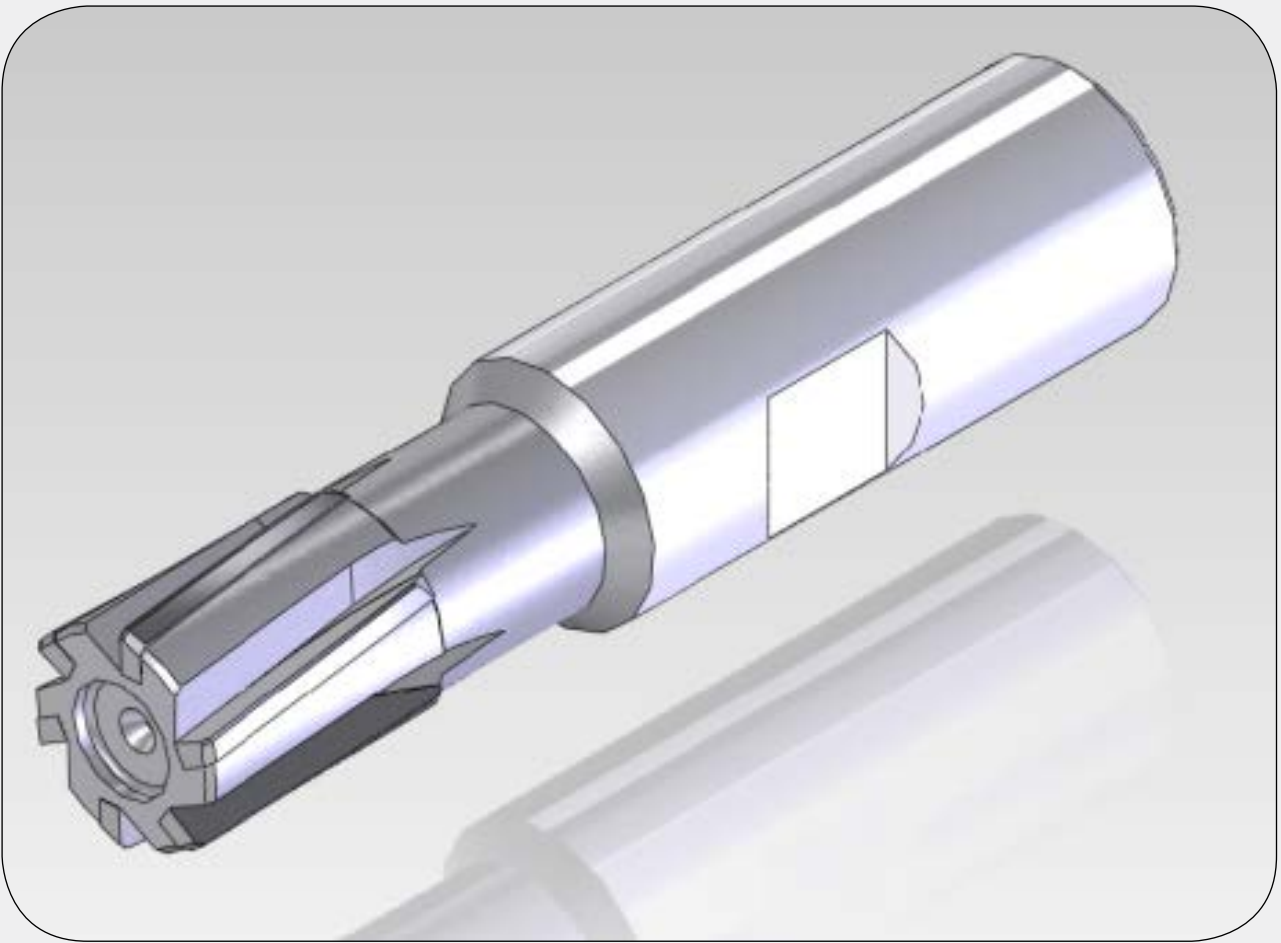
The diameter range starts at Ø14mm up to more than 200mm.  
Through tool coolant is a must.

Cermet reamers achieve 2 to 10 times better tool life compared with coated carbide reamers.

Cermet reamers can also be supplied coated.

Cermet reamers can replace carbide reamers without changing any cutting parameters or with increased cutting speed.

Cermet reamers provide a stable diameter and a high quality hole.



## SPECIAL MULTI-MASTER HEADS

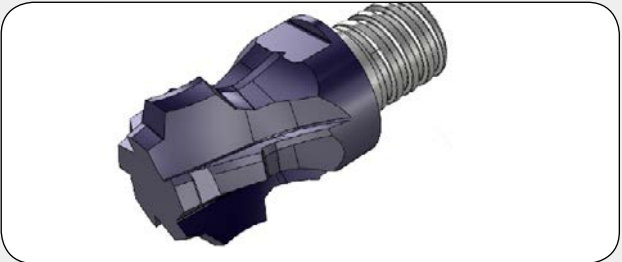
### Milling of the **CONNECTING RODS**



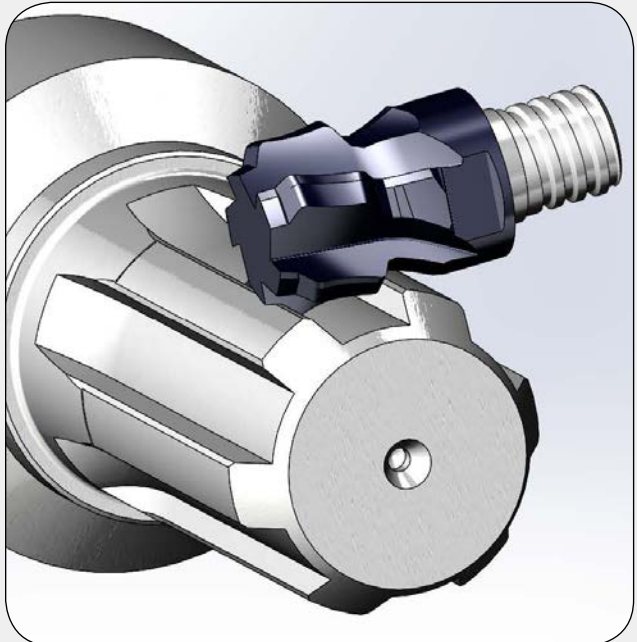
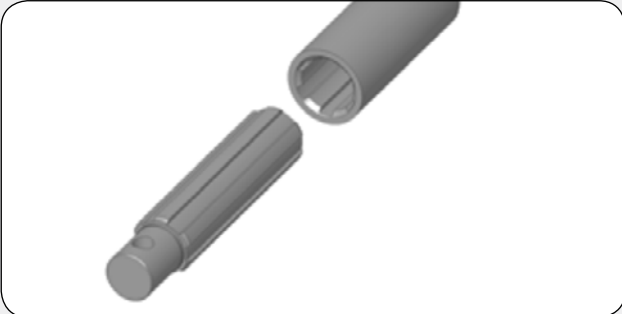
**Material:** Forged steel



### Milling of Spline Shaft



**Material: Steel**



## GUNREAMER REAMING OF VALVE GUIDES

**Material:** Sintered Steel or Brass



### Solid Carbide Gunreamer

Can replace the indexable gunreamer, resulting in much better tool life.

- Indexable reamer: 5000 pieces
- Solid gunreamer: 25000 pieces

