

## HARD METALS DRILLING & REAMING PER AEROSPACE SPEC BAC5008

Testing or machining aerospace components is often considered invalid if the test conditions and parameters do not strictly follow published specifications. One such specification is BAC 5008, which sets the requirements for the application of machining coolants.

OMIC R&D conducted tests on machining coolants according to BAC 5008 by drilling and reaming in 4340M steel plates. We inspected the holes for the formation of tempered martensite, which would indicate that the work piece material has been overheated and tempered, thereby making the selected coolant ineffective.

This work ensures that aerospace component manufacturers can meet their strict quality requirements. Additionally, it allows machining coolant manufacturers to provide value-added solutions to their aerospace customers.



Fig 1 - Example of drill after cutting 20 holes

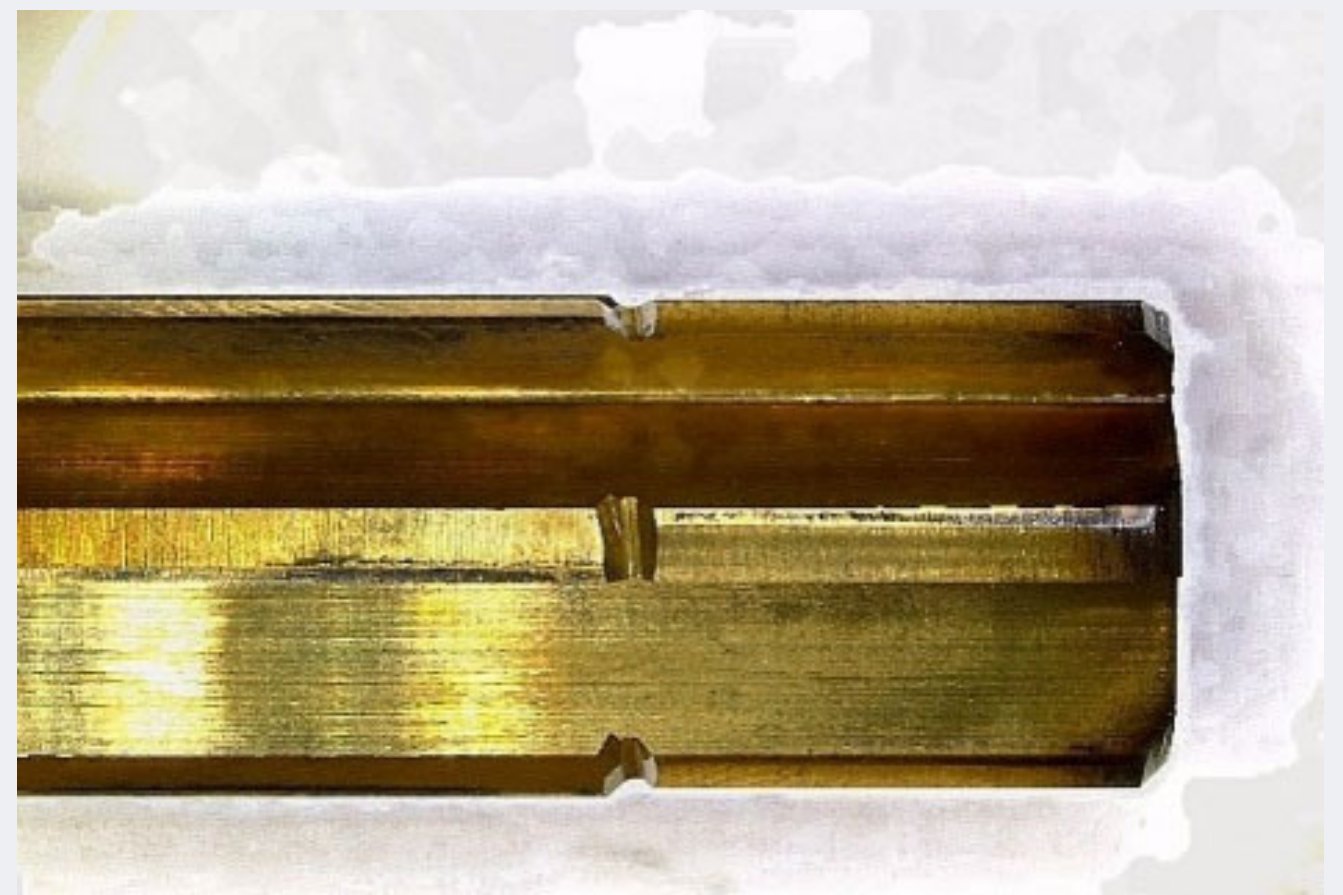


Fig 2 - Example of reamer after drilling 20 holes

Research was conducted primarily by  
Dr. Chien Wern of Portland State  
University

Industry participants include:  
Mitsubishi  
Hangsterfers  
Boeing

