



“MOGUL BARS” NTK’S HIGHLY RIGID I.D. BORING BAR SERIES

NTK offers an extensive line of high precision boring tooling designed for Swiss machines. One of these produce lines is called “Mogul Bar”. The Mogul Bar system provides the user outstanding chip control and higher rigidity than most conventional tooling on the market.

Outstanding chip evacuation

The most notable characteristics of the Mogul Bar is excellent chip evacuation and chip control. Mogul Bars outfitted with NTK’s “F” or “FG” chipbreaker inserts will evacuate chips backwards. This means that when a Mogul Bar machines an I.D. bore, chips comes out towards the bore entrance. The majority of boring processes on Swiss machines are done on the main spindle side and thus the bore itself is

a blind hole. This machining process creates many issues if you use conventional boring bars designed for CNC lathes. Typical difficulties incurred during a boring process on Swiss machines are either chips remaining in the bore and rough surfaces caused by inconsistent chip control. However, Mogul Bars equipped with NTK uniquely designed chipbreakers, evacuate chips straight backwards and solves both of these problems at once.

NTK also engineered a larger clearance area behind the insert for chip evacuation on the bar itself. This feature was designed without losing rigidity and though coolant capability.

Excellent rigidity

Another important feature of the Mogul Bar series is high rigidity. Mogul Bars increased rigidity is a result of a newly designed bar head configuration and a minimal flat width on the bar. Steel shank Mogul Bars can machine as deep as $L/D=5$, a depth which normally requires expensive carbide shank boring bars. NTK carbide shank Mogul Bars can machine up to $L/D=7$ depth and this gives users flexibility of machining deeper bores in a single process. Rigidly and minimal flat widths reduce vibration.

Variety of insert grades

NTK offers both coated carbide grades and cermet insert grades for Mogul Bars. As most tooling engineers know, cermet grades can machine at faster speeds with higher productivity, provide better surface finishes and can achieve more accurate dimension control, than carbide grades. These benefits come from the fact that the primary substrate of cermet grades, TiN/TiC, are chemically stable compared with WC of carbide grades and have better adhesion resistance.

Mogul Bars are available from a minimum machining diameter of 5 mm. With the combination of NTK unique chipbreakers, you can enjoy better chip control and highly rigid boring bars. In comparison with solid carbide boring tools, Mogul Bars has cost advantage as well. If you are facing chip control or chattering issues, NTK believes that Mogul Bars can be the answer to your problems.

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