NexGen Cutting Tools with Superfinishing

MMP® TECHNOLOGY

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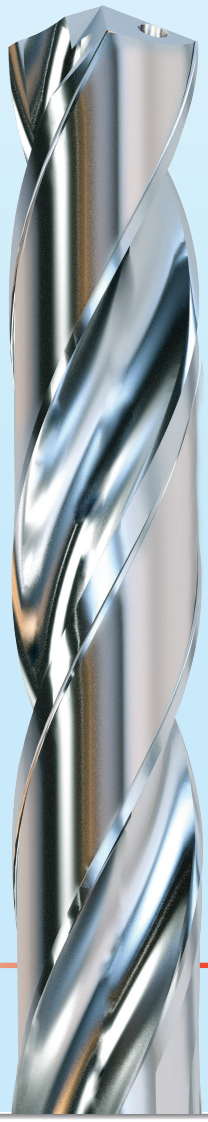


AXIS+ Tools bring a distinct and differentiated value proposition for high productive machining applications.

These are not only specifically designed and crafted for the intended applications but are finely honed and super finished for enhanced performance and superior machining outcomes.

The cutting edge of the tool is very vital for smooth cutting and longer life of the tool. By using a mix of technologies, including the MMP Superfinishing technology, the cutting edges of the AXIS+ series of tools are well honed. A well prepared cutting edge is strong and stable and amplifies machining productivity and also enhances tool life.

Further the flutes - carriers of the chip - are rendered with engineered superfinish to facilitate smoother and faster chip evacuation there by aiding faster cutting and achieving higher MRR.

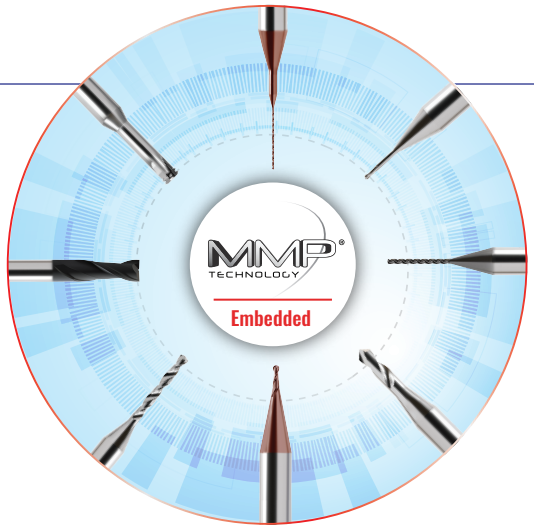
Thus the collective and combined strength of :

***E**ngineered **D**esign* | ***C**alibrated **E**dge **P**reparation* | ***C**ontrolled **F**lute **F**inishing*

is a potent combination in AXIS+ series of tools that make them a **preferred choice** for New Generation machining.

AXIS+ Range of Tools

- mICRO Drills
- mICRO End Mills
- Ultra Long Drills
- Super Long Drills
- AXIS Macro
- HiPIMS / PVD / DLC Coated Tools
- CVD Diamond Coated Tools



MMP Superfinishing maps and characterises surface roughness into different frequency ranges and filters them to deliver application specific surface objectives, with a degree of precision that is unique and unmatched in the market. Such consistent and high level of surface characterisation and calibration and stabilisation of the cutting edges elevates the tools performance to the next level in high precision and micro machining applications.

Features & Benefits

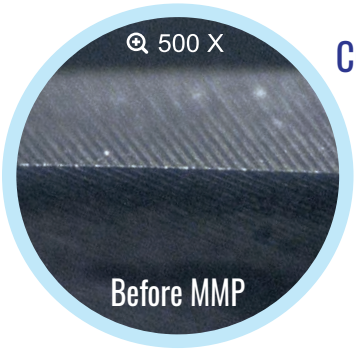
Engineered Design
- Application specific tool geometry
- Appropriate Carbide substrate

Controlled and repeatable edge preparation
- Prolonged edge stability
- Consistent and reliable performance

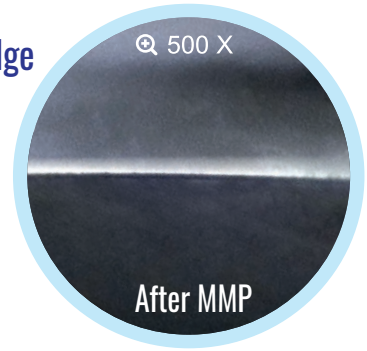
Optimised surface preparation before
PVD HiPIMS | Diamond Coated | DLC COAT
- Improved Coating adhesion
- Enhanced coated surface quality and integrity

Superfinished Flutes
- Reduced coefficient of friction and faster chip flow
- Reduced heat concentration and thermal fatigue

Stabilised cutting edges ensure higher tool life and MRR with improved workpiece finishes



Tool
Cuting Edge



Technical Benefits

- Increased cutting edge strength
- Increased operating parameters- cutting speed and feed rate
- Reduced cutting forces
- Enhanced tool life

Operational Benefits of AXIS+

Higher MRR (Material Removal Rate)	Better Machined Surfaces	Lesser Tool Changes and Setups	Higher Productivity	Better Cost Economics

AXIS+ Suitable for Applications

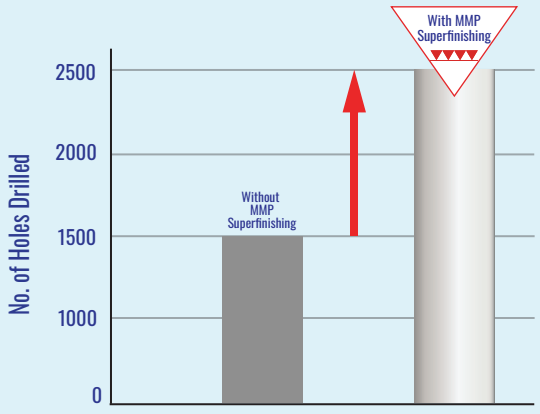
Stainless Steel	Nickel Alloys	Titanium Alloys	Platinum	Hardened Steels	Thin Walled Components

.... Many Emerging Materials

Tool Performance

Tool	T6991 - Solid Carbide Drill
Hole depth mm	1.3
Drill Dia	ø 0.40 mm
Machine	Drilling SPM
Application Material	SS 302
Speed RPM	10000
Feed Rate mm/rev	0.007

Results



AXIS

Tools for mICRO mACHINING

IND-SPHINX PRECISION LTD (Unit B)
1 Taksal Road Parwanoo - Kasauli Marg
Parwanoo Himachal Pradesh India 173220
+91 1792 232860 / 352600
info@axis-microtools.com www.axis-microtools.com

AXIS Europe GmbH
Danziger Str. 3, 88250 Weingarten
+49 (0)751 560 1589 - 0
info@axis-europe.eu www.axis-europe.eu

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