



# Cutting Tools

## > Selective preservation of surface topography

The unique ability of the Micro Machining Process (**MMP**) to selectively target roughness can dramatically impact the performance and tool life of specialized cutting tools.

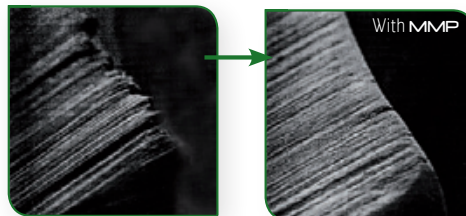
## > Technical benefits of using **MMP**

- Reduces flute friction, dramatically improving chip evacuation
- Improves lubrication retention, reducing heat generation
- Controlled and repeatable edge honing
- Superior surface preparation prior to coating improves adhesion of thin coatings (i.e. PVDs)
- Treating PVD coatings improves cut quality by reducing friction

## > **MMP** advantages

- Increased tool life
- Increased cutting speed
- Increased feed rates
- Superior consistency

## Edge Hone performed with micro burrs removed

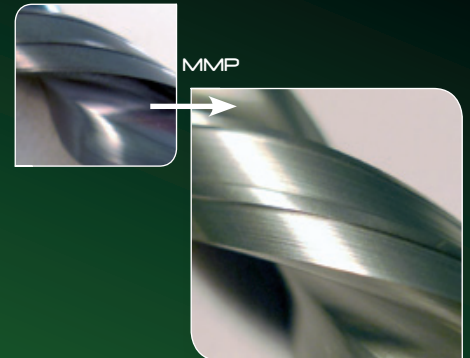


500 x enlargement of cutting edge

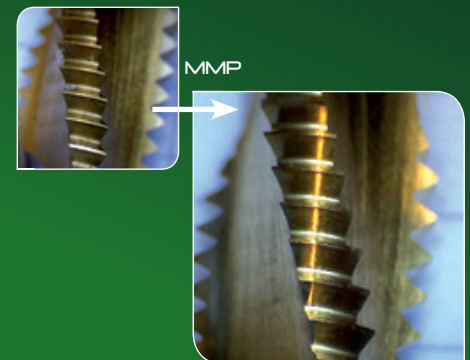


## > Applications

- Deep hole drills
- Forming taps
- High performance inserts
- Milling cutters for nickel and titanium alloys



Solid Carbide Drill



Tap with PVD coating

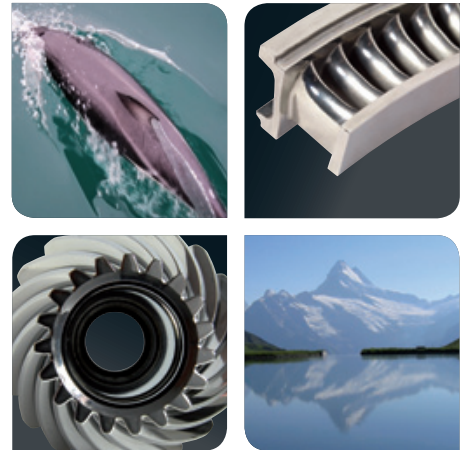


Carbide miller



## > A unique process worldwide

The **MMP TECHNOLOGY®** makes it possible to obtain super-finished surfaces by selective removal of successive "frequency" ranges of surface roughness. This technique enables a level of control that is not possible with traditional polishing methods.

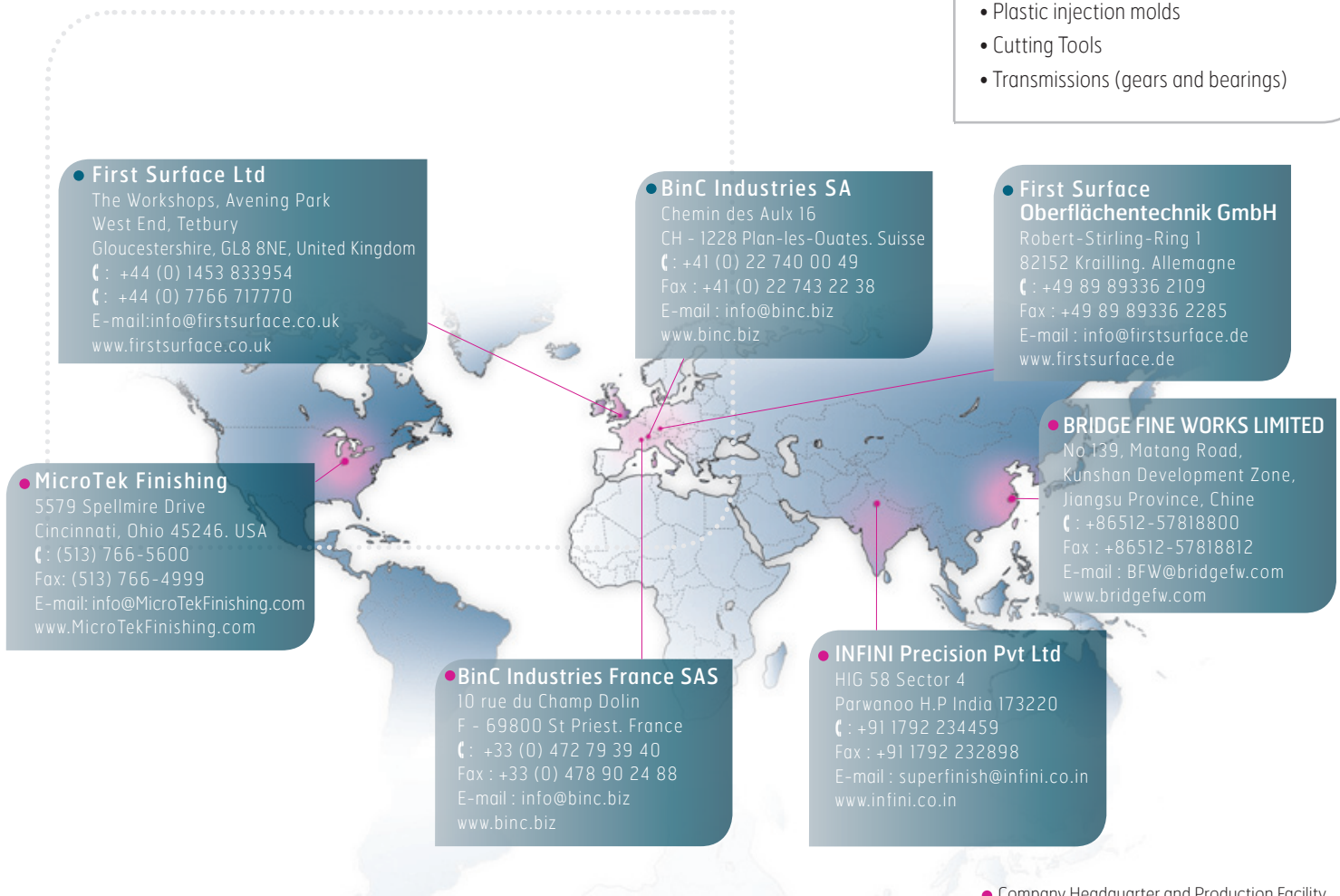


## > A global expansion strategy

The **MMP TECHNOLOGY®** process is available exclusively through 7 companies located in Europe, the United States, India and China, as follows :

### Seven key markets

- Aerospace
- Forging, Stamping, and Die
- Additive manufacturing
- Medical implants and instruments
- Plastic injection molds
- Cutting Tools
- Transmissions (gears and bearings)



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