

Multipurpose PVD Coating System

HIGH PERFORMANCE COATINGS

MpE 500



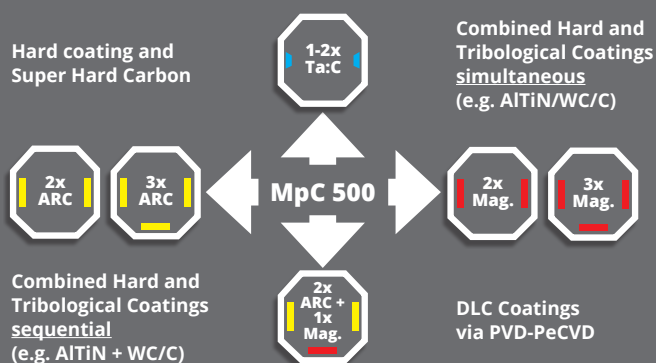
Focused on application -
Customizing to meet
your needs

HIGHLIGHTS

- HPIES High Performance Ion Etching System
- Flexible and productive
- Up to 3 different target materials
- Rapid target exchange
- Negligible coating thickness tolerance +/- 0,2
- Low running costs
- Various evaporation configuration

THROUGHPUT

- Useful coating volume: Ø 350 x H 500 mm
- Up to 4 batches / day – Cycle time 3 to 4 hrs
- Qty / batch:
 - end mills Ø10 x 70 mm: 360 pieces
 - drills Ø12 x 150 mm: 270 pieces
 - inserts: 1.980 pieces



INDIVIDUAL COATING PORTFOLIO

for:

INDIVIDUAL APPLICATIONS

- Monolayers
- Multilayers
- Gradient layers
- Nano layers
- Nanocomposites
- Duplex

- Cutting
- Gearing
- Precision components
- Forming
- Molding

A perfect combination for cutting applications

Easy to operate



Local support



Affordable



Low running cost



Precise



Short cycle time



Producing – HIGH PERFORMANCE COATINGS

| Materials | Applications | Turning | Milling | Drilling | Tapping | Microtools |
|---------------------------------------|--------------|--------------|--------------|--------------|-----------------|----------------|
| Steels < 35 HRC | Multipurpose | ALTiN Nano | ALTiN Nano | ALTiN Nano | TiN S / TiCN HP | ALTiN Micro |
| | Dedicated | MpC+3 Insert | MpC+4 | MpC Drill | TiCN Taps | MpC+4 Micro |
| Steels > 35 HRC to < 52 HRC cast iron | Multipurpose | MpC+3 | MpC+3 | MpC Drill | MpC TiN/TiCN | ALTiN Micro |
| | Dedicated | MpC+2 Insert | Micral Cast | HardDrill | MpC Taps | Micral Nano |
| Steels > 52 HRC | Multipurpose | Micral Cast | Micral Cast | Micral Cast | Micral Cast | |
| | Dedicated | HardInsert | HardMill | HardDrill | | HardMill Micro |
| Stainless Steels | Multipurpose | MpC+4 | MpC+4 | MpC+4 | TiCN Taps | |
| | Dedicated | Micral Plus | Micral Plus | Micral Titan | MpC+4 | MpC+4 Micro |
| Titanium | Multipurpose | MpC+4 | MpC+4 | MpC+4 | TiCN Taps | |
| | Dedicated | Micral Titan | Micral Titan | Micral Titan | Micral Titan | MpC+4 Micro |
| Super Alloys | Multipurpose | Micral Plus | Micral Plus | Micral Plus | Micral Plus | |
| | Dedicated | Micral Titan | Micral Titan | Micral Titan | Micral Titan | MpC+4 Micro |
| Aluminum < 12% | Multipurpose | ZrN | ZrN | ZrN | ZrN | ZrN |
| | Dedicated | Micral Alu | Micral Alu | Micral Alu | Micral Alu Top | Micral Alu |
| Aluminum > 12% | Multipurpose | Micral Alu | Micral Alu | Micral Alu | Micral Alu | |
| | Dedicated | Ta:C | Ta:C | Ta:C | Ta:C | Ta:C |
| Bronze, Brass | Multipurpose | CrN | CrN | CrN | CrN | |
| | Dedicated | Micral Alu | Micral Alu | Micral Alu | Micral Alu | Micral Nano |

| Tool Steel <=> Application | Condition | Gear Cutting |
|----------------------------|-----------|--------------|
| HSS / PM <=> Steel | Dry | HardGearCut |
| | Wet | MpC+5 |
| Carbide <=> Steel | Dry | HardGearCut |

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