

# Multipurpose PVD Coating System

## HIGH PERFORMANCE COATINGS

### MpE 500



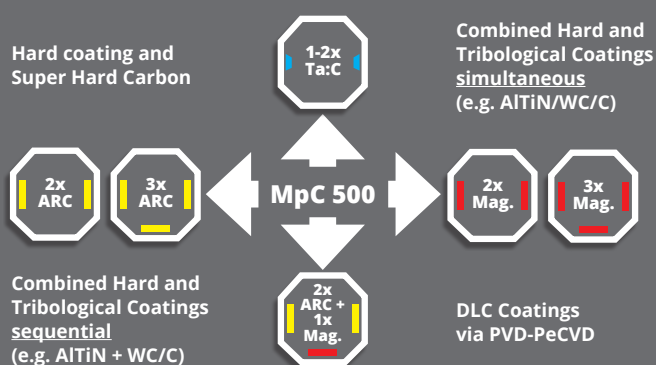
Focused on application -  
Customizing to meet  
your needs

#### 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

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

for:

#### INDIVIDUAL APPLICATIONS

- 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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