

PROTEC EDGE-LINE

Protec ST provides a turnkey solution that ensures clients can start production without having to source components separately or deal with integration and setup issues. Protec ST has developed a lean solution that includes cleaning, coating, and quality control, together with all the equipment needed for a smart start in in-house PVD coating.

COATING LIST

Coating name	Technology	Color	Hardness [GPa]
TiN	Pulsed arc	Gold	24-26
TiCN	Pulsed arc	Grey-blue	34-36
ZrN	Pulsed arc	Pale gold	20-22
AlTiSiN	Pulsed arc	Blue-violet	32-36
AlTiN-TiSiN	Pulsed arc	Copper	38-42
AlTiCrN	Pulsed arc	Grey	34-36
AlCrN	Pulsed arc	Grey	36-38
BoroNova	HiPIMS	Grey-blue	34-38
ObSidian	HiPIMS	Gold	32-36
ObSidian +	HiPIMS	Copper	38-42
AluTern	HiPIMS	Silver	36-40
a-C	HiPIMS	Black	32-36



PVD coating equipment
for your tools



Protec Surface Technologies S.r.l.
Via Benaco, 88
25081 Bedizzole (BS), Italia
+39 030 6871703 · info@protectim.com
www.protectim.com

POWERFLEX 350

Your first step into advanced surface technology

The ideal entry point into advanced coating: a compact and efficient system designed to bring high-performance coatings in-house, improving tool life and cutting performance.



SPECIFICATION

General information

Technology	Pulsed ARC
Available sources	Two (2) rectangular planar
Four (4) axes carousel (D.130mm)	Four (4) axes carousel (D.130mm)
Power installed	56 kW
Software	Protec unique system
Foot print	2.600 x 1.400 x 2.200 mm

Available etching technologies

Argon etching, Glow discharge

Metal Ion Etching

Coating volume and productivity

Coating Volume	D.350mm x H.350 mm
Tools dimensions	Number of pieces
Shank Tools D.10 x 70 mm	269
Hobs D.100 x 100 mm	12
Insert 12 x 4 mm	2.520

POWERFLEX 500 CG

When every micron counts, choose Protec HiPIMS

HiPIMS technology for next-level performance: a compact and flexible system delivering smoother surfaces, high density and excellent adhesion.



SPECIFICATION

General information

Technology	HiPIMS
Available sources	Four (4) rectangular planar
Four (4) axes carousel (D.130mm)	Eight (8) axes carousel (D.130mm)
Power installed	90 kW
Software	Protec unique system
Foot print	3.900 x 1.200 x 2.200 mm

Available etching technologies

Argon etching, Glow discharge

Metal Ion Etching

SIDE etching

Coating volume and productivity

Coating Volume	D.500 mm x H.350 mm
Tools dimensions	Number of pieces
Shank Tools D.10 x 70 mm	528
Hobs D.100 x 100 mm	24
Insert 12 x 4 mm	5.040

POWERFLEX 700 CR

Where volume meets precision

Engineered for high-volume production, delivering consistent quality, process stability and optimized performance through advanced Pulsed Arc technology.



SPECIFICATION

General information

Technology	Pulsed ARC
Available sources	Four (4) rectangular planar
Four (4) axes carousel (D.130mm)	Ten (10) axes carousel (D.130mm)
Power installed	90 kW
Software	Protec unique system
Foot print	3.900 x 1.200 x 2.200 mm

Available etching technologies

Argon etching, Glow discharge

Metal Ion Etching

SIDE etching

Coating volume and productivity

Coating Volume	D.700mm x H.700 mm
Tools dimensions	Number of pieces
Shank Tools D.10 x 70 mm	1430
Hobs D.100 x 100 mm	70
Insert 12 x 4 mm	12.600