



## Low-pressure plasma PVD coater for powders, fibers and loose parts



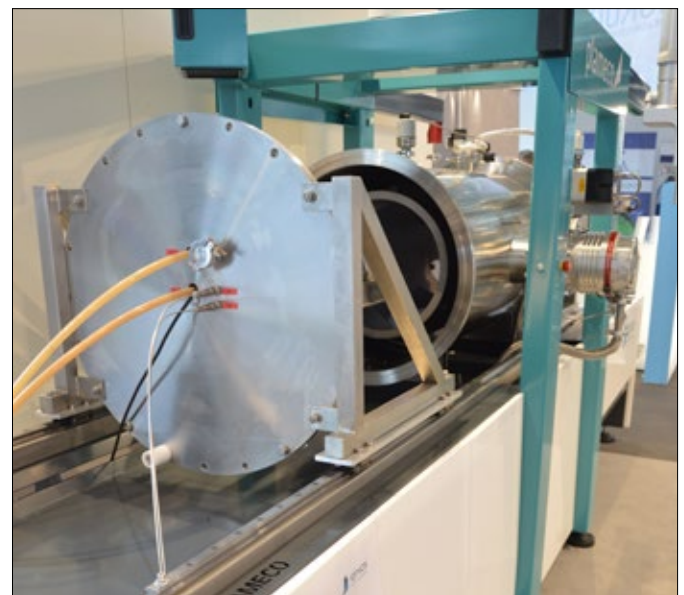
Designed by ionics

The Plameco equipment allows the deposition of thin coatings on powders and small parts using a plasma magnetron sputtering process. The system is equipped with two large cathodes and a rotating barrel to ensure the efficiency and homogeneity of the treatment. Different targets and gases might be used to obtain the required coating.

TECHNICAL DATA	
Power supply	General power : 400 V / 32 A DC, AC or pulsed power supply 5 Kw (2x5 Kw) Input 400 V Output 325-800 V 2x15 A
Gas flow	from 0 to 100 Sccm
Vacuum chamber level	below 1.3 10 <sup>-6</sup> mbar
Cathode size	63 x 750 mm (rectangular) 2-inch / 51 mm (circular)
Substrat size	from few microns to few centimeters
Processing capacity	batches up to 5 liters
Dimensions of the machine	L4150xW1300xH2100 mm
Weight	+/- 750 kg
Water cooling system	Yes – water chiller 1.5 m <sup>3</sup> /h – cold power of 4525 W for water at 15°C

### Features

- ▲ Coating sources: PVD plasma sputtering
- ▲ Two magnetron cathodes
- ▲ Fully integrated automated control system
- ▲ Barrels supplied
- ▲ Any gas can be used: Ar, He, N<sub>2</sub>, O<sub>2</sub>, SiH<sub>4</sub> and mixtures



### Applications

#### ▲ On powders/diamonds

- ▲ Core shells
- ▲ Pseudo alloying

#### ▲ On fibers

- ▲ Core shells

#### ▲ On loose parts/balls

- ▲ Amorphous alloys
- ▲ Ion implantation

Powder modification for AM, catalyst, injection and sintering molding, thermal spraying,...

Fibers treatment for composites, filtration, GO polymers and batteries.

Loose parts treatment for new surface functionalities and enhanced durability.

The project was co-financed by the Walloon Research Administration, DGO6.