PVD SPUTTERING 2.0 The best of PVD Sputtering range metallic and non-chemical chrome plating superior performance to traditional sputtering and arc completely green technology

KOLZER PVD 2.0 Sputtering coating technology produces morphologically dense and defect-free coatings. The control of the microstructure guarantees perfect adhesion to surfaces.

The result is a dense and extremely smooth coating at the atomic level, and significantly exceeds the quality and tenacity of the classic Sputtering and Arco coatings.
PVD 2.0 technology thanks to KOLZER know-how is particularly suitable for the automotive sector and where you want to get the maximum performance from a PVD.
PVD 2.0 uses long pulses (up to 3.0 msec) with power of the order of hundreds of KW on the cathode. This imparts high energies to the atoms so as to project them into the surface layers of the substrate, depositing dense, adherent coatings, free from surface defects and very hard (> 30 GPa) and with an increase in Young's modulus (> 368 GPa).

Examples of PVD 2.0 coatings:

Corrosion resistance: CrN / NbN
Resistance to oxidation: CrAlYN / CrN, Ti-Al-Si-N, Cr-Al-Si-N
Optical systems: Ag, TiO2, ZnO, InSnO, ZrO2, CuInGaSe
MAX phases: TiSiC
Microelectronics: Cu, Ti, TiN, Ta, TaN
Hard Coatings: carbon nitride CNx, Ti – C
Hydrophobic surfaces: HfO2
PVD 2.0 has been successfully applied with KOLZER machines for thin film deposition in industry, particularly on functional components, where the requirements are high.

Some technical data:

average power: 20 kW
peak power up to 3 MW
maximum power: 1500 V / 2000 A
pulse length: 50-1500 ms

contact
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