

ZY-1313 Electronic Products Magnetron Multi-Arc Vacuum Coating Machine



Overview

ZY-1313 decorative PVD coating machine is our self-developed multi-arc ion magnetron sputtering coating machine which has various advantages of both ion plating and magnetron sputtering. The combination of two technologies greatly improves the film uniformity and adhesion, and then expands the scope of application. ZY-1313 is equipped with latest PLC intelligent program and touch screen automatic control system to ensure simple operation and stable performance. With energy saving design, it is the ideal choice for decorative coating.

Introduction

After years of research and technological innovation, ZY-1313 multi-arc ion magnetron sputtering coating machine integrates planar cathode arc ion plating technology, DC magnetron sputtering technology, mid-frequency magnetron sputtering technology and pulsed bias technology, and uses high power mid-frequency sputtering power supply as well as mid-frequency magnetron cylindrical targets to greatly improve the utilization ratio and sputtering rate of targets. ZY-1313 is an advanced decorative PVD coating machine with good configuration, high efficiency and stable performance.

Adopting high quality stainless steel body and hidden cooling water system, ZY-1313 multi-arc ion magnetron sputtering coating machine concerns both quality and appearance. As the latest developed pulse bias power system ensures excellent film adhesion and smooth finish, it is good at depositing high quality film in various colors such as IP black, rose gold, IP gold, sapphire blue, champagne, silver, coffee, gun black, zirconium gold, rose red, etc. And the coating layer is extremely dense and uniform with strong adhesion. The machine is widely used in digital products, watches and clocks(watchband, dial etc.) jewelry, luggage accessories, glasses frames, lamps and lanterns, golf clubs, mobile phone shell, tableware, stainless steel hardware (sanitary ware, door handle, door lock) and other fields of the decorative coating.

Specification

Vacuum Chamber	φ1300 × H1300	Effective Coating Space	φ1150 × H900
Voltage/Hz	380V/50Hz	Actual Power	70KW
Max Diameter of Work-Piece×Quality	φ150 × 18PCS	Target	4 Mid-Frequency Magnetron Cylindrical Targets /10 Arc Targets/2 Planar Target
Technology	Mid-Frequency + ARC Planar Target + Ion Source (Optional)	Leak Rate	<10 ⁻³ Pa.L/s
Ultimate Pressure	5.0×10 ⁻⁴ Pa	Occupation Space	L3600×W3500×H2500MM
Pump Down Time	(from atm. to 4X10 ⁻³ Pa) ≤20 mins	Vacuum Chamber Structure	Vertical Single Open
Work-Piece Turntable	Lower Frame Structure	Vacuum System	Molecular Pump, Roots Pump, Rotary Vane Pump
Power Source	DC Inverter Power Source, Pulse-Bias Power Supply, Mid-Frequency Magnetron Power Supply, DC Magnetron Power Supply	Necessary Conditions	Circulating Water Pressure: 2-3KG/CM ³ Flow: 10T/H Compressed Air: 4-6KG/CM ³
Coating Cycle	0.5~2 Hours/Furnace	Working Gas	Ar, N ₂ , O ₂ , C ₂ H ₂ , etc
Operational Mode	Manual + Semi-Auto + Full-Automatic/Torch Screen + PLC	Application	Decorative PVD Plating
Remarks	The Furnace, Outlook and Other Parameters Can be Customized According to Your Requirement		

Features

- Large size furnace design ensures large output and high efficiency, and helps save the cost.
- Compact structure, stable performance, simple operation and wide range of applications.
- With good repeatability and controllability of film thickness, the coating layer is smooth, dense and lustrous.

Characters of Decorative Coatings

IP Series

Color	Gold	Champagne	Brown	Rosy	Sapphire	Chromium White	Silver Gray	Gun Black	Ultra Black
Thickness(μm)	0.3~2.0	0.3~2.0	0.3~2.0	0.3~2.0	0.3~2.0	0.3~2.0	0.3~2.0	0.3~2.0	0.3~2.0
Hardness (HV)	300~900	300~900	300~900	300~900	300~900	300~900	300~900	300~900	300~900
Salt fog Test	> 48H	> 48H	> 48H	> 48H	> 48H	> 48H	> 48H	> 48H	> 48H

DH Series

Hardness (HV)	Thickness (μm)	Abrasion Test	Salt Fog Test	Color
800~1000	0.8~2.5	>1000 times	>48H	Decorative Coating color

Sample Pictures



