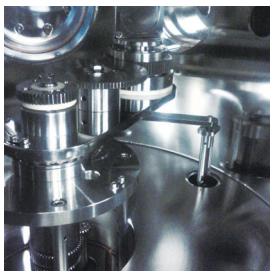
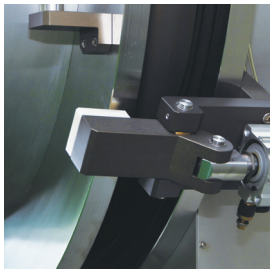
www.jnltech.co.kr



CARBOZEN™-C SERIES



Plasma Enhanced CVD System

Solutions for high purity and hard coating

J&L Tech
Advanced Plasma Technology

CARBOZEN™-C SERIES

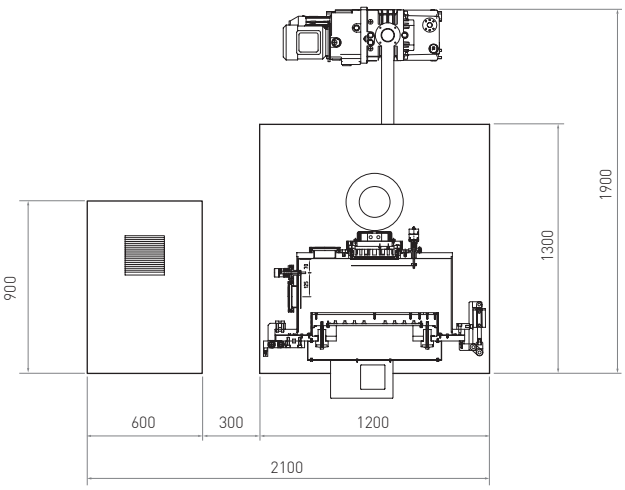
Solutions for high purity and hard coating

CARBOZEN™-C(PECVD: Plasma Enhanced CVD)SERIES is in the CVD method which uses plasma and it demands decompose ion gas, utilizing a generated glow discharge.

System Specification

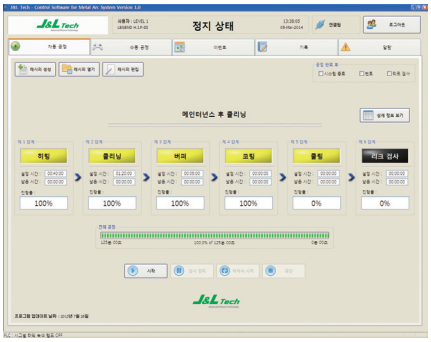
Chamber Size	Custom-made
Working Gas	Mass flow control system Ar, O_2, C_2H_2, CH_4, C_6H_6, etc
The Initial Vacuum Degree	~ 10^{-6} Torr
Bias Power	13.56 MHz (RF)
Device Operation	Automatic / Semi-automatic
Cooling System	Water cooled

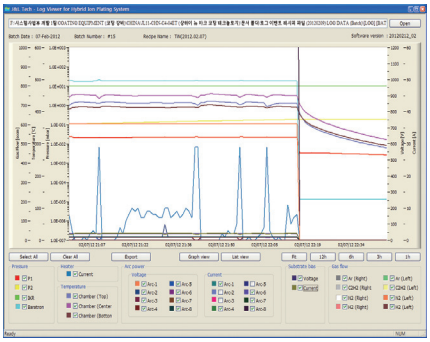
System Lay-Out



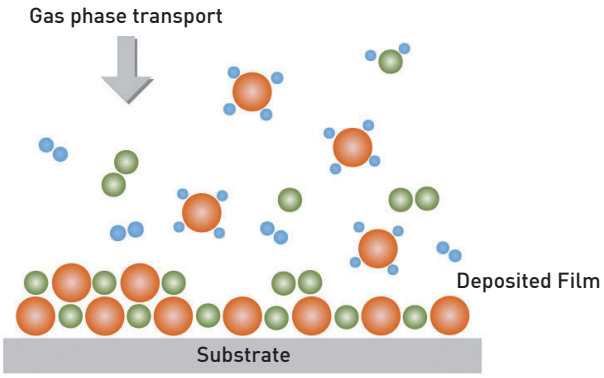
Software of System Operation

- Safety lock for the equipment and operator
- The process can be controlled easily by MS Windows
- Enables automatic recording of the work diary during the coating process
- The entire coating process can be made into data





Principles of CARBOZEN™-C



Advantages of CARBOZEN™-C

- Enable to form a of high purity coating layer
- Possible to form various coating layers by source gas
- High deposition rate and uniformity to large–areas
- Easy to control and possible mass production
- Lowtemperature for ion plating

DLC Characteristics deposited by CARBOZEN™-C

Ion Plating Rate	Max. 70 nm/min (depending on the process parameters)
Residual Stress	~ 2.0 GPa
Hardness	~ 18 GPa
Friction Coefficient	~ 0.1
Surface Roughness	< 0.1 nm

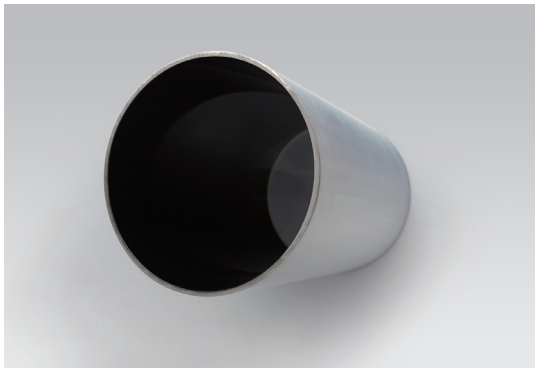
Applications

Plane-DLC

- Light guide plates, CD molds, and Coin heads for specular display components.

Inner-DLC

- Compressor parts for refrigerators and chemical plant pipes.



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