PRODUCT INFORMATION

Low Pressure Chemical Vapor Deposition System (LPCVD) is similar to other types of CVD where gaseous species react on a solid surface or wafer. The LPCVD process has a quartz tube co-axially placed in tube furnace. The main advantages of LPCVD are the excellent uniformity of thickness and purity, simple handling, homogeneity of deposited layers and high reproducibility.

This “CVD-handy tube” series is a high temperature CVD system, most successfully applied in deposition of graphene, carbon nanotubes and nanowires (ZnO, GeO).

TECHNICAL SPECIFICATIONS

Ultimate Vacuum Pressure ................................................................. \( \approx 10^{-6} \text{Torr} \)
Quartz Tube Diameter ........................................................................ max. 130 mm
Max. Temperature .................................................................................. 1100°C
Continuous Working Temperature ..................................................... 1050°C
Heating Area Length .............................................................................. 250 mm
Temperature Control System ................................................................. PID method
Cooling .................................................................................................... Rapid cooling with lifting mechanism
Loading ................................................................................................... From one end of the quartz tube
Control ................................................................................................... Fully Automatic (Semi-Automatic is Optional)
Number of MFC’s for different Gas Types .......................................... Max 12

If requested, our CVD-handy tube systems can be combined with Inductively Coupled Plasma (ICP).

SOFTWARE

System operation by user-friendly software. It is not only the automation and control software but also coating management software which allows the user design his/her specific coating experiments, examine the process parameters used in the past, and use the recipes/coatings developed in the past without hassle.

Human and machine safeties are prime importance in the operations performed by the software. A graphical user interface will allow the user to see the status of the system during operation.