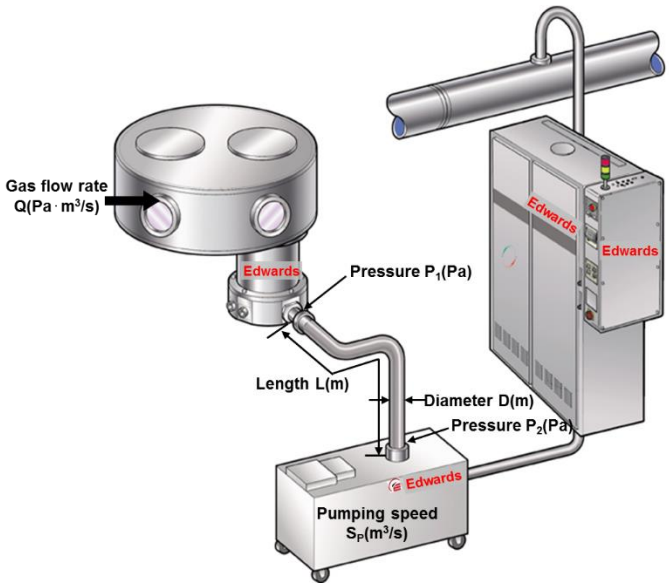
Design of Vacuum Pumping System for Semiconductor/FPD Processes

(Short Course for IVC-20, August, 2016)

The audience can understand the design concept of vacuum pumping system for semiconductor, FPD manufacturing processes, and the like in this course. For the vacuum pumping system for them, the followings have to be considered.

- Difference between vacuum pumps for compressible materials and fluid pumps for non-compressible materials
- Pumping capacity and conductance of forelines in terms of pumpdown time and gas flow rate for the processes
- Relationship between primary vacuum pumps(booster, TMP etc.) and backing pumps including compression ratio and volume ratio
- Process conditions, such as the process chemistries including gas recipe, gas flow rate, process pressure and chemical reactions with by-product formation
- Longer lifetime of vacuum pumping system against phase transitions from vapor(gas) to liquid and/or solid
- Safety assessment to prevent fire and explosion.



After this course, you can have a solid confidence on your own vacuum pumping system to meet your process condition with longer lifetime and Safety assessment.