

Thermal Evaporator System



Specification

Chamber

Cylindrical or Rectangular Type Chamber

Material : SUS 304

Single or Two (Multi) Chamber Type

Chamber internal shield cover
(Easy exchange & easy cleaning type)

Easy sample loading type



Thermal Evaporator System

Vacuum pump

Turbo pump or Cryo pump (Optional)

Rotary pump (Optional : Dry scroll or Dry pump)

High Vacuum valve : Gate or Angle type (Optional)

Substrate

Sample Size : Piece ~ 2", 4", 6" (Optional)

Shadow Mask (Customer define)

Rotation speed : 0 ~ 30 R.P.M

Heating temperature : Normal 300°C
(High temperature : Optional (Up to 800°C))

Substrate Shutter



Thermal Source (Boat or Crucible)

Power Supply : A.C or D.C Power

For Metal or Organic process

Thermal Source : 1 ~ 3 ea (Optional : Up to 6 ea)

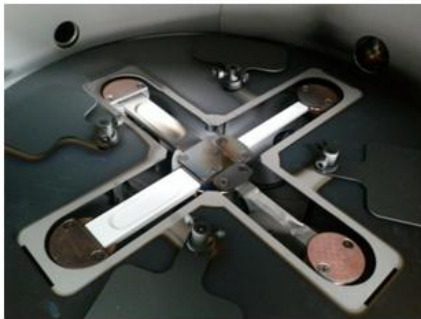
Thermal Boat

For Al → PBN Boat (No broken, no reaction to Al)

For Organic → Crucible Heater & Crucible

Between Boat Isolation Shield Cover

Source Shutter



Thermal Source (Effusion cell)

Power Supply : D.C Power

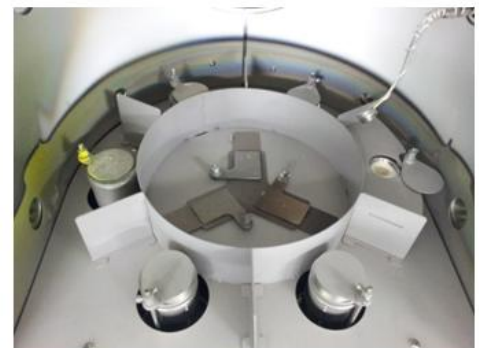
For Metal or Organic process

Effusion Source : 1~6 ea (Optional)

Crucible liner (Graphite, Al₂O₃, PBN)

Between cell Isolation Shield Cover

Source Shutter



Thickness Monitor



Thickness deposition Monitor
(Optional : Deposition rate controller (Rate control type))

Single sensor or Dual sensor (Optional ; 6 sensor)

Rate Resolution (monitoring : 0.1Å/Sec)

Thickness sensor installation kit : 1 set

Co-deposition available (Optional)

(Metal + Metal, Metal + Organic, Organic + Organic)

Feature & Advantage

Low cost & Compact type (Small foot-print)

(Glove box inside & outside)

Fast process & High throughput time

About 30minute for one batch process.

(Include sample loading, pumping, deposition time)

High speed vacuum pumping time

(About 5 minute for reach 5×10^{-6} Torr
after sample loading)

Convenient to use

Easy Boat replace, Source Refill, Easy Sample loading/ Unloading

Easy maintenance

Continuously to use Al deposition without boat replace

Safety

Electrical, Utility (Water, Air, etc)

Vacuum pump, Valve, Power , etc Safety interlock

Remark

Chamber Ultimate Pressure (One Chamber type)

; Below than 2×10^{-7} Torr

Chamber Ultimate Pressure (Two Chamber type)

; Below than 10^{-8} Torr

Pumping speed (One Chamber type) : Below than 5×10^{-6} Torr

; Below than 3×10^{-6} Torr (Within 30 minute after sample loading)

Pumping speed (Two Chamber type)

; Below than 3×10^{-6} Torr (Within 10 minute after sample loading)

Film deposition Uniformity : Below than $\pm 5\%$

Provides operating & maintenance manual

Training

Warranty : 1 Year (Exclude consumables parts)