ALD Product Overview
Vacuum Metallurgy

VIM / VIDP
Vacuum Induction Melting Plants
1 - 30,000 kg
Melting, alloying and casting under vacuum of oxidation prone metals and alloys

VIGA
Vacuum Induction Plants for Melting and Gas Atomization
1 - 300 l crucible volume
Production of metal powder (braze powder, hydrogen storage alloys, Ni-base alloy powder, plasma spray powder)

VID
Vacuum Induction Degassing Plants
1 - 30,000 kg
Alloying and degassing of small batches of special steels casting under atmosphere or inert gas pressure

EIGA
Vacuum Induction-Melting Furnaces for Ceramic-Free Melting and Gas Atomization
Ceramic-free production of powders from reactive, refractory and precious metals (Ti, Zr, Hf, V, Cr, Mo, Nb, Pt, Pd, Ru) for MIM, rapid prototyping or sputtering targets

ESR
Electroslag Remelting Plants
200 mm - 2,300 mm ingot diameter
Remelting of tool steels, cold rolls, engineering steel as well as steels and super alloys for aircraft or energy application

EB / PVD
Vacuum Turbine Blade Coating
Electron beam/physical vapor deposition (EB/PVD) of protective (McAlP) and thermal barrier coating (TBC)

VAR
Vacuum Arc Remelting Plants
70 - 1,600 mm ingot diameter
Remelting of reactive metals like Ti or Zr, engineering steel as well as steels and super alloys for aircraft or energy application

SCU400plus
Vacuum Furnaces for Melting and Crystallization of Silicon Ingots
Production of directionally solidified ingots from polycrystalline solar-grade silicon for solar cells

VAR
Vacuum Arc Remelting Plants
70 - 1,600 mm ingot diameter
Remelting of reactive metals like Ti or Zr, engineering steel as well as steels and super alloys for aircraft or energy application

EB
Electron Beam Melting Plants
10 - 3,600 kW
Melting and refining of refractory and reactive metals as well as high performance metals

HIF
Vacuum Plants for Hot Isothermal Forging
Up to 8,000 t press capacity for the production of large rotating components from Titanium or superalloys

VIM-IC
Vacuum Investment Casting
Vacuum induction melting & casting with ceramic crucibles and (liquid metal) cooling devices for DS (directionally solidified)/SC (single crystal) solidification
Vacuum arc melting and casting

IWQ
Induction-Heated Quartz-Tube-Furnaces
Quartz tube diameter up to 1,000 mm
Heat-treatment, melting, distillation and reduction of reactive materials

LEICOMELT
Induction Cold Crucible Melting
1 - 30 l copper crucible volume
For melting and casting of reactive materials such as Ti/Zr

WI
High Vacuum Resistance Furnaces
For special high-temperature processes like annealing, sintering, impregnation and brazing