

ENGINEERING COMBINED WITH PERFORMANCE TECHNOLOGY

ALD Vacuum Technologies is the world's leading manufacturer of vacuum equipment for vacuum metallurgy and heat treatment. The roots of ALD Vacuum Technologies lie in the companies Heraeus and Leybold as well as in Degussa. Today it supplies equipment and systems for thermal and thermochemical treatment of metallic materials in solid and liquid form. From vacuum remelting over turbine blade coating to solar silicon crystallization: ALD's technologies and know-how enable cost reduction and a lower carbon footprint in high growth industries, such as automotive, aerospace, energy, specialty metals/chemicals and solar energy.

Coating of Turbine Blades - Additive Manufacturing Innovation

ALD is the global leader in electron beam technology for coating of turbine blades, which enables the blades to withstand the heat of the engine. In Hanau, ALD Vacuum Technologies operates the world's largest powder bed melting system (see picture below).

- The vacuum metallurgical processes allow large-scale mass production of turbine blades, which reduce fuel consumption by up to 30% and emissions by 15% or more.
- A special powder application system, highly efficient electron beam technology and heat-reflecting materials make it possible to increase the efficiency of end products such as turbines.
- High flexibility, in-depth process control and optimized resource management allow individual solutions for a broad range of industrial applications.



ALD Vacuum Technologies, Hanau, Germany

Individual Solutions for Industrial Applications

- Applications in high growth industries: More than 2,400 systems sold worldwide.
- Worldwide care and maintenance service of ALD high-quality equipment for their entire lifecycle.
- 820 employees, more than 35% engineers.
- Engineering facilities in Germany, France, U.S., India and China.
- Four heat treatment service centers in Germany, the U.S., Mexico and China.
- ALD Vacuum Engineering owns 63 patent families.



"ALD is noted for its superb know-how, high investments in research and development and its strategic alliances. Close collaborations with well-known manufacturers in operator companies have strengthened our position as a supplier of key technologies to major growth markets."

Michael Hohmann, CEO ALD Vacuum Technologies