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FURNACE OVERVIEW

We've expanded our vacuum furnace lines! From industrial to lab applications, there is an ECM vacuum furnace that fits your heat treating needs. With more than 200 installations worldwide and more than 1000 heating cells produced in the world today, let our expertise guide your new or updated heat treat production goals. Not sure which product is best for your heat treating process? Contact us today and we will help you determine which furnace is right for you.

	ECO	MONO	FLEX	JUMBO	NANO	PFTH	CRISTAL	FULGURA	TURQUOISE	LILLIPUT	VESUVE	JIPELEC
ADDITIVE MFG							●	●	●	●		
ANNEALING	●	●	●	●	●	●	●	●	●	●		●
AGEING	●	●	●	●	●	●	●	●	●	●	●	
BRAZING	●	●	●	●	●	●	●	●	●	●		
CARBONITRIDING	●	●	●	●	●	●		●				
CARBURIZING	●	●	●	●	●	●		●				
DEGASSING							●	●	●	●	●	
DEPOSITION (RTCVD)												●
HARDENING	●	●	●	●	●	●	●	●				
NITRIDING		●	●	●				●			●	
RAPID THERMAL (RTP)												●
SINTERING	●	●	●	●	●		●	●	●	●		
STRESS RELIEVING							●	●	●	●	●	●
TEMPERING	●	●	●	●	●	●	●	●	●	●	●	●

NEW FURNACE LINE



ECO eco-friendly

Eco-friendly sustainable carburizing alternative for sealed quench-batch IQ lines. No CO2 emissions and no open flames with increased productivity. *Vacuum carburizing, vacuum carbonitriding, hardening, precipitation hardening, annealing, brazing, sintering*



MONO single chamber

Ideal for smaller production facilities to bring heat treating in-house. The cooling phase is performed with inert gas in the heating chamber. *Vacuum carburizing, carbonitriding, quenching, neutral hardening, nitriding, annealing, brazing, sintering*



FLEX modular

Oil quenching cells (hot or cold), simple gas or reversible dual stream (up to 20 bar) quenching and heating cells, adjustable for production capacity. *Vacuum carburizing, carbonitriding, hardening, high temp. tempering, annealing, brazing, sintering*



FULGURA multi-flow

Multi-flow quenching furnace displaying heating elements (1 to several elements) to produce low amplitude homogeneities. *Tool steel quenching, stainless steel hyper quench, brazing, low pressure carburizing, tempering, nitriding, annealing, ageing, sintering*



TURQUOISE horizontal

Primary or secondary vacuum heat treat for oxidation-prone alloys: Nickel, Titanium, Cobalt, Chrome, Molybdenum as well as Tungsten. *Stress relieving, annealing, ageing, solution treatment, brazing, sintering, 3D additive manufacturing treatments*



LILLIPUT lab & testing

These furnaces are particularly adapted to laboratory uses as well as university and R&D applications. *Brazing, glass to metal sealing, annealing, magnetic annealing, sintering, degassing*



JUMBO high volume

Modular for high volume of parts treated in a low pressure carburizing installation - the length of the load can reach 1200mm. *Vacuum carburizing, vacuum carbonitriding, hardening, high temperature tempering, vacuum annealing, brazing, sintering*



NANO compact

One module with 3 stacked heating cells (up to 6 heating cells with 2 heating modules) and gas quenching cells. *Vacuum carburizing, vacuum carbonitriding, hardening, high temperature tempering, vacuum annealing, brazing, sintering*



PFTH vertical oil quench

Vertical vacuum oil quenching furnace particularly adapted to the treatment of large size parts mainly found in aeronautical applications, such as landing gears. *Low pressure carburizing, oil quenching under pressure, tempering*



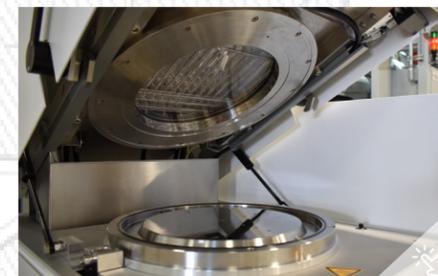
CRISTAL bell furnace

The enclosure is insulated with specific metals (choice of molybdenum or tungsten) resistors & is the perfect tool for clean treatments at high temperature. *Tempering, magnetic/bright annealing, hyper gas quench hardening, degassing, sintering, glass to metal sealing, brazing*



VESUVE nitriding

The Vesuve hot wall forced convection furnace is designed for nitriding applications to increase gaseous exchange in a tight heat-resistant steel muffle. *Ageing, degassing, nitriding, stress relieving, tempering*



JIPELEC RTP/RTA

Jipelec™ rapid thermal processing and annealing semiconductor manufacturing for rapid sample heating to high temperatures with short processes. *Annealing, nitridation, oxidation, diffusion, crystallization, densification, stress relieving, RTCVD processes*

ABOUT ECM USA

ECM USA, the US subsidiary of ECM Technologies of Grenoble, France, is the leading manufacturer of vacuum furnaces and heat treat automated solutions for the automotive, aerospace, industries, and more. ECM's complete heat treat systems work on one PLC based system, which includes: preheating, automation, heat treating (low pressure carburizing, carbonitriding, neutral hardening with oil or gas quenching) and tempering equipment.

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