

3D?

SECO/WARWICK GROUP
a leading global manufacturer
of heat treatment furnaces and equipment

SECO/WARWICK is a technological leader in innovative heat treatment furnaces. Expertise includes end-to-end solutions in 5 categories: vacuum heat treatment, atmosphere, and aluminum thermal processing, controlled atmosphere brazing of aluminum heat exchangers and vacuum metallurgy. SECO/WARWICK Group with 9 companies located on 3 continents with customers in nearly 70 countries, has its production facilities in Poland and China. In addition, the Group operates a number of service and sales offices in countries such as Germany or Russia. The company provides standard or customized state-of-the-art heat processing equipment and technologies to leading companies in the following industries: automotive, aerospace, electronics, tooling, medical, recycling, energy including nuclear, wind, oil, gas, solar and production of steel, titanium, and aluminum.

Heat Treatment for Additive Manufacturing

debinding

sintering

stress relieving

aging

...and many more

industry 4.0

user friendly control system

**COMPLETE POST PROCESSING
SOLUTIONS FOR METAL 3D PRINTING**

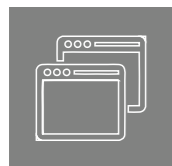
VECTOR 3D

VACUUM FURNACE SYSTEM

VECTOR 3D

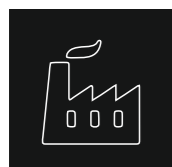
VACUUM FURNACE SYSTEM

APPLICATIONS:



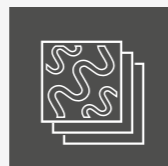
additive manufacturing post-printing solutions and traditional heat treatment processes

INDUSTRIES:



aerospace, automotive, medical, prototyping, other AM applications, commercial heat treatment

MATERIALS:



speciality alloys based on nickel, chromium, cobalt base alloys, copper... also reactive materials like aluminum or titanium base alloys

TECHNOLOGIES:



debinding, sintering, stress relieving, aging, solution heat treatment hardening, carburizing, annealing, brazing, coating, tempering and many more...

PARAMETERS

Size and efficiency can be adjusted to customer needs. Standard working zones are: 250x250x400 (max load 50kg), 400x400x600 (max load 200kg), 600x600x900 (max load 800kg), 900x900x1200 (max load 1500kg). SECO/WARWICK is open to design and manufacture also tailor made solution according to customer requirements.

SELECTED FURNACE ADVANTAGES DEMANDED BY ADDITIVE MANUFACTURER USERS:

- 4 different types of binder removal system, that guarantee long life of the furnace
- temperature range up to 2300°C
- great heating uniformity meets the highest requirements of aerospace industry
- graphite or all metal chamber helps to achieve expected results and ensure quality for high demand markets such as aerospace, automotive or medical...
- adjustable cooling system that helps in processing different shapes and size of parts
- high efficiency pumping system helps to save time and money during processing
- equipment dedicated for mass production profile as well as prototyping and R&D centers
- world brand components and local support guarantee fast service reaction
- intuitive control system makes furnace operations easy to handle
- besides processing of AM parts, Vector 3D can be also used to heat treat traditional parts, what makes it a very versatile piece of equipment

