

# Additive Manufacturing, 3D-Printing



Retort furnace NR 150/11 for annealing of metal parts of 3D- printing

Additive manufacturing allows for the direct conversion of design construction files fully functional objects. With 3D-printing objects from metals, plastics, ceramics, glass, sand or other materials are built-up in layers until they have reached their final shape.

Depending on the material, the layers are interconnected by means of a binder system or by laser technology.

In most cases, these objects must be heat treated after printing. Nabertherm offers solutions from curing for conservation of the green strength up to vacuum furnaces in which the objects of metal are annealed or sintered.



Oven TR 240 for drying of powders



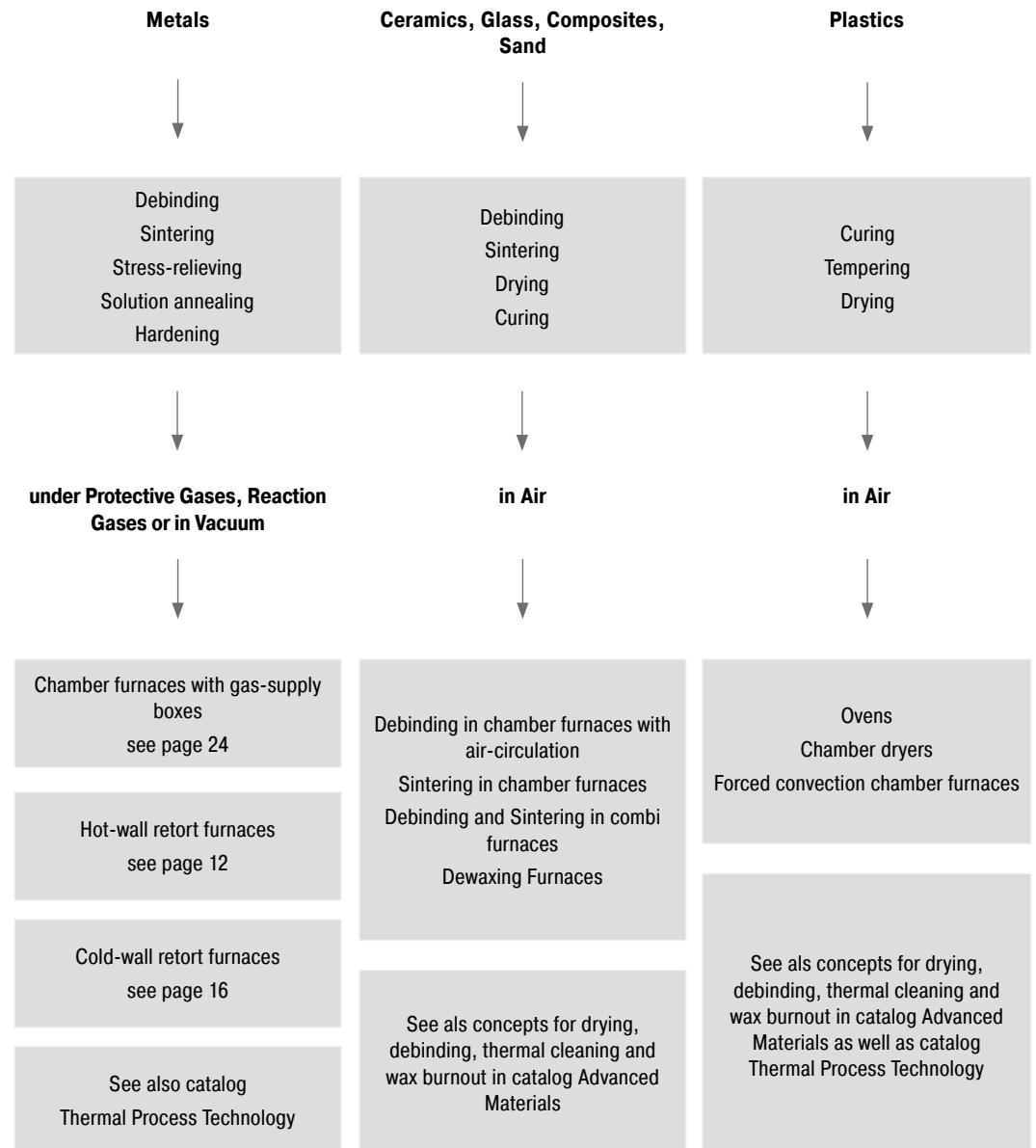
Chamber oven KTR 2000 for curing after 3D-printing



Compact tube furnace for sintering or annealing under protective gases or in a vacuum after 3D-printing



HT 160/17 DB200 for debinding and sintering of ceramics after 3D-printing



Also, concomitant or upstream processes of additive manufacturing require the use of a furnace in order to achieve the desired product properties, such as heat treatment or drying the powder.