



热处理

氮化& 渗碳淬火处理

为满足客户的需要，无锡凯彼齿轮技术有限公司投资了两种不同的热处理，即氮化和渗碳淬火。在此基础上，在生产齿圈的过程中，我们可以和客户一起选择最合适的热处理方式。

与此同时，我们也作为热处理供应商为客户提供高质量的热处理服务。

氮化炉

我公司的氮化炉可以处理的零件重量从0.5kg至200kg，装炉量达5吨。我们专注于气体氮化技术的研究，为解决氮化前的清洗问题，WGT引进国内第一台并式真空碳氢溶剂清洗机，使得氮化前的清洗完全符合要求。我们能氮化的材料有：42CrMo, 20CrMn, QT600, C45, 38CrMoAl, 等...

- 1 GAS NITRIDING FURNACE
capacity = 5ton
- 1 HYDROCARBON CLEANING MACHINE
- 1 CARBURIZING, QUENCHING AND TEMPERING PLANT
capacity = 1ton

- 1气体氮化炉
容量=5吨
- 碳氢清洗机
- 1渗碳，淬火与回火设备
容量=1吨

渗碳炉

采用目前最先进的多用炉，装炉量为一吨，与其配套了相应的真空水剂清洗机，回火炉，冷处理炉。

氮化处理VS 渗碳淬火处理

(环齿轮):

根据多年的经验，渗碳淬火处理是一项成熟的处理技术，但也面临着一个重要的问题。为促进化学反应需升高至温度（825°-925°C），而高温引起工件显著变形，而且这种变形往往是无规律的，这就需要通过重新加工使其恢复原状。相反，在较低的温度下（500°-550°C）进行的氮化处理不会面临这些问题，而在耐疲劳和硬度方面又确保了和渗碳淬火具有相同的特性。

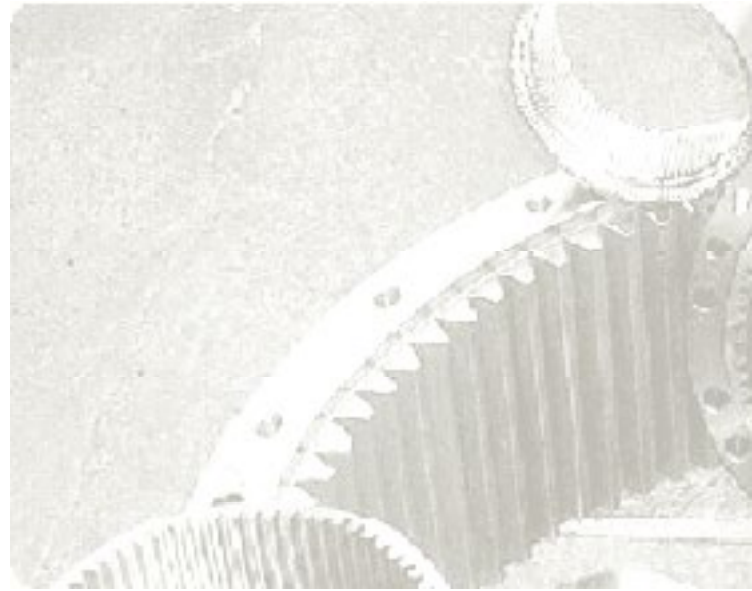
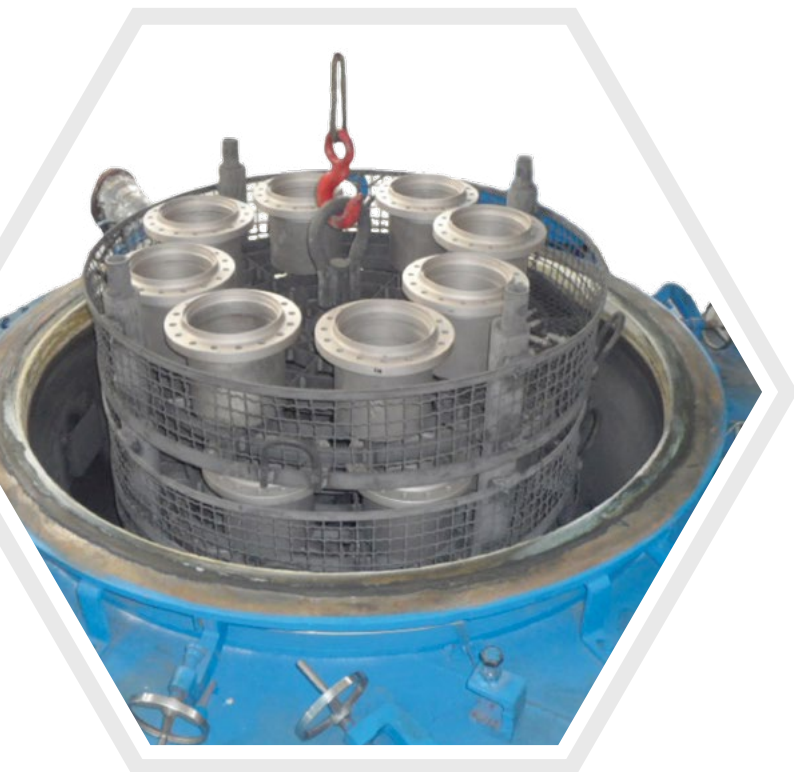


Heat Treatments

Nitriding & Carburizing

To cover the needs of its customers, Wuxi Gear Tech invested in two different kind of heat treatment. In this way, it is able to complete the production process of ring gears inside choosing the best process according to specification. Meanwhile it is also available as supplier of heat treatment for any other kind of product, ensuring the best quality control.

The nitriding furnace
The nitriding furnace can deal with pieces from 0,5kg to 200kg, vaunting a capacity of 5ton. Knowing the importance of cleanliness before this treatment, WGT installed the first hydrocarbon cleaning machine in China: the “state of art” technology to remove any trace of oil. Some materials: 42CrMo, 20CrMn, QT600, C45, 38CrMoAl, others...



The carburizing furnace
The carburizing plant is composed by two multi-purpose chamber furnaces with a capacity of 1ton each, two tempering furnaces , one vacuum cleaning machine and a subzero treatment furnace.

Nitriding vs Carburizing (for ring gears):
Carburizing is a well-known process, thanks to years of experience, but suffers from an important problem. The elevated temperatures (825°-925°C), needed to activate the chemical reactions, cause significant deformation on the workpiece, that has to be reworked to return to tolerance. This, however, means not only removing part of the hardened layer but, as often it occurs unevenly, creating inhomogeneity in the surface characteristics of the workpiece.
On the contrary, nitriding, that works at lower temperatures (500°-550°C), is not subject to these problems, while ensuring the same characteristics in term of resistance to fatigue and hardness.

