

Title (en)  
HEAT TREATMENT OF METALS

Publication  
**EP 0075438 B1 19871216 (EN)**

Application  
**EP 82304867 A 19820915**

Priority  
• GB 8128392 A 19810919  
• GB 8217338 A 19820615

Abstract (en)  
[origin: EP0075438A1] Workpieces to be heat treated (for example to be annealed or sintered) are passed through a continuous furnace having in sequence, an entrance, a thermal treatment region, a cooling region and an exit. Ingress of air into the furnace through the entrance and exit is prevented. Typically the cooling region is provided at its exit end with one or more curtains or partitions providing a physical obstruction to the flow of air into the furnace and a flow of non-reactive gas (eg nitrogen) also to inhibit ingress of air. The curtains or partitions may form one or more chambers with the furnace and the nitrogen supplied to such chamber or chambers. Non-reactive gas and reducing gas (eg hydrogen) are introduced into the furnace to provide substantially non-oxidising conditions therein. The flow regimen is such that atmosphere or different compositions are created in the thermal treatment and cooling regions. By severely limiting ingress of air into the furnace and creating eg differential hydrogen concentrations along the furnace overall consumptions of gas may be considerably reduced.

IPC 1-7  
**C21D 1/74**; **C21D 9/56**

IPC 8 full level  
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