The surface of the workpiece or part to short-term or transient to high temperat

The main methods of surface treatment, laser heat treatment, quenching flame and induction heat treatment, commonly used heat source with oxygen acetylene and oxygen propane flame, the induced current, laser and electron beam.
The chemical treatment is through the metal heat treatment process to change the microstructure and properties of the workpiece, the surface chemical composition. Chemical heat treatment and surface heat treatment difference is that the latter changes the chemical composition of the workpiece surface. Chemical heat treatment is the workpiece on the carbon, nitrogen and other alloying elements of the media (gas, liquid and solid) heating, heat preservation longer time, so that the workpiece surface infiltration of carbon, nitrogen, boron and chromium. Infiltration of elements, sometimes to other heat treatment processes such as quenching and tempering. The main methods of chemical heat treatment carburizing, nitriding, alloying, composite permeability etc..
Heat treatment is one of the important process of mechanical parts and tool and die manufacturing process. In general, it can guarantee and improve the performance of various workpieces, such as wear and corrosion resistance etc.. You can also improve the blank of the organization and the stress state of a variety of cold and hot processing for. For example white cast iron after a long time of annealing can obtain malleable iron, the plastic; gear adopts the correct heat treatment technology, life can be more than doubled without heat treatment of gear or a few times to improve; in addition, the performance of the low cost of carbon alloy steel through the infiltration of some alloy element has certain expensive. Can replace some heat resistant steel, stainless steel; die almost all need to go through heat treatment can be used.