The influence of quenching and tempering of the workpiece quality, the operator

The cause of equipment, materials and other aspects of the quenched and tempered before processing, we think:

1, the workpiece from the heating furnace is transferred to the cooling groove slow speed, the workpiece into the water temperature has dropped to below the Ar3 critical point, produce partial decomposition, the work incomplete quenching organization, is not up to the required hardness. So small parts of the cooling liquid should pay attention to speed, large workpiece cooling time to master.

2, the workpiece loading amount should be reasonable, to the 1~2 layer is appropriate, the workpiece overlap caused by uneven heating, resulting in uneven hardness.

3, the workpiece into the water arrangement should maintain certain distance, too emissary workpiece near vapor membrane rupture caused by blocked, close to the surface of the workpiece hardness.

In 4, quenching, quenching finished can breath, should be considered temperature decrease degree, midway closed furnace heating up again, so that the workpiece quenched hardness consistent before and after.

5, pay attention to the temperature of the cooling liquid and 10% salt water temperature as higher than 60 DEG C, cannot use. The coolant can not have oil, mud and other impurities, otherwise, there will be inadequate or uneven hardness.

6, without processing blank tempering and quenching, hardness is not uniform, if want to get good quality of the quenched and tempered, blank should be rough turning, bar to forging.

7, strictly the quality pass, low hardness after quenching of 1~3 units, can adjust the tempering temperature to achieve the required hardness. But after quenching hardness of workpiece is too low, and some are even only HRC25~35, must be re quenching, must not only with medium or low temperature tempering to reach the requirements of the drawings done, otherwise, lose the quenched and tempered significance, and may have serious consequences.