



## **The Application of Thermal Spray Coating in Remanufacturing (1)**

Remanufacturing engineering is a general designation of all techniques and engineering treatments to maintain and rebuild worn products, which takes the productive whole life period design and management as instruction, takes the great upgrade of the performance of waste productions as goal, takes the good quality, high efficiency, energy-saving, environment-protecting as rule, and takes the advanced techniques and industrializing process as measures. As a word, remanufacturing engineering is the industrialization of high technology maintenance to the waste productions.

The important character of remanufacturing engineering is that the quality of the remanufactured productions is the same as or superior to that of the new productions, and the cost is only a half of the new one, saving energy 60%, saving materials 70%, generating no solid waste, and the emissions of air pollutants decreasing 80%, which has a significant contribution to the protection of the environment. The remanufactured productions belong to new productions, not the second ones.

Remanufacturing is different from equipment maintenance, also different from equipment recycling. Maintenance is the process combined with technical measures which are taken into in-use products in order to keep in good condition, often with randomness, In-situ resistance, emergency. While remanufacturing is the process of removal waste products, testing, based on the parts with potential value as blanks, to repair in mass and improve performance with the advanced surface engineering technology and other high-tech, to obtain remanufactured new products that meet or exceed the original products.