High-Efficiency Micro Heat Treatment Receiving Equipment

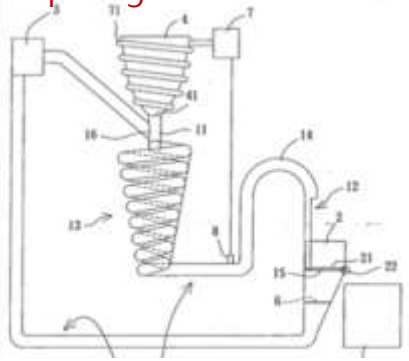
MIRDC

Use patented technologies to improve production efficiency of equipment, reach a high quality of micro parts and derive the added value.

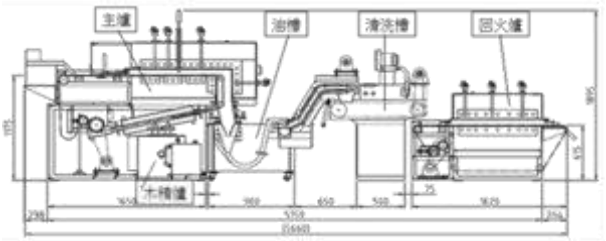
Introduction

- Solve the problem with micro parts less than φ2mm which has low receiving yield and low quality during the heat treatment.
- Patented receiving equipment solves the conventional problems which micro parts floating when using quenching oil, and the receiving yield can achieve more than 95%.
- Control the quenching and tempering consistency of inner and outer layers of micro parts. Improve the product yield by 99%.

- Customize high-efficiency heat treatment equipment according to required specifications.
- Module replacement to reduce the cost of conventional equipment and minimize the size of equipment.
- Incorporate intelligent control systems to build manufacturing parameters database for surface carburization and hardening, tempering heat treatment and precipitation hardening.



Heat Treatment Receiving Device (patented)



Schematics of high-efficiency heat treatment equipment
Total length: about 5.6 m

Honors / Patents

- 2018 Taiwan Innotech Expo Taipei Innovation Award Platinum Award (Patent No.: I504551)
- The Taiwan Society for Metal Heat Treatment 2017 High Heat Furnace Industry Thesis Award

Industrial Applications and Case Studies

Micro gears treated by infiltration and tempering (applied to Bosch related parts)

Micro-probe after heat treatment (the probe has been gold-plated)

Carburized micro screws (applied to mobile phones)

Carburized and tempered micro gears (applied to Tesla car door handles)