**How can nitrogen effectively reduce the cost of electronic products**



It is no secret that the prices of electronic products have fallen sharply in the past few years. TVs that used to cost more than $1000 can now be purchased for hundreds of dollars. So what exactly caused the price of electronic products to drop? It all boils down to a simplified manufacturing process. Although the price reduction involves multiple components， a lot of credit can be attributed to the introduction of nitrogen into the surface mount technology process.

The role of nitrogen in reducing manufacturing costs

As you know， surface mount technology is a fine process that requires extremely high precision. In this process， solder paste is used to apply each tiny component to the plate. However， in order for the solder paste to become hot enough to melt， it must be placed in a reflow furnace. The problem is that the solder is metal based， so when it is exposed to heat and oxygen in the oven， the possibility of corrosion is high.

This corrosive solder paste， also known as welding slag， is the most common cause of waste in surface mount technology. The damaged solder paste must be removed from the plate， the connection must be reworked， and the process must be restarted. This makes the company's material and labor costs increase rapidly.

If oxygen can be removed from the atmosphere， the amount of wasted solder and bad connections will drop sharply， which is the use of nitrogen. By covering the whole circuit board with nitrogen， there is no room for oxygen， so damage can be greatly reduced in the process of manufacturing the circuit board. In addition， nitrogen will reduce the surface tension， so when the circuit board is completed， the solder can fall off cleanly.

On site nitrogen generator saves more

Adding nitrogen to the manufacturing process saves electronics manufacturers millions of dollars in labor and materials， but there is another way to save more. With the help of the on-site nitrogen generator， the company can produce its own nitrogen on demand without handling the delivery of nitrogen cylinders. There is no risk of nitrogen depletion， and there is no additional cost to pay for natural gas each month. In fact， most companies can recover the cost of a nitrogen generator within oneortwo years.