

# Atotech Electronics

## Nordson DAGE Case Study

Nordson DAGE is the market leading provider of award winning bond testing systems for destructive and non-destructive mechanical testing of electronic components. This case study demonstrates our commitment to providing solutions that help our customers succeed.

Atotech is one of the world's leading suppliers of integrated production systems, chemistry, equipment, know-how and service for decorative and functional electroplating, semiconductor and printed circuit board (PCB) manufacturing. Employing over 3,200 people worldwide, the company has two main divisions: Electronics (PCB production) and General Metal Finishing.

The Electronics division's research and development laboratory, located in Berlin at Atotech's international R&D center, has used Nordson DAGE bond testing equipment since 1997 in the development of their PCB plating and packaging.

### Why Nordson DAGE?

When Atotech first selected Nordson DAGE for its laboratories in 1997, it was the clear market leader and over the years it has continually proved its worth. "Back in the mid nineties when we were looking to invest in a bond tester, Nordson DAGE was by far the obvious choice and has continued to be so over time" said Sebald.



**Nordson DAGE 4000 bondtester. Used by Amkor Technology China to perform solder ball shear, wire pull, die shear, bump pull and zone shear tests.**

“ The Nordson DAGE machines are an essential part of our laboratory and have proven to be extremely reliable. I would highly recommend Nordson DAGE and its equipment to anyone looking to purchase bond testing equipment. ”

**Christian Sebald**  
**Technical Engineer**  
**Research and Development Laboratory**

## In Action

Atotech use the Nordson DAGE 4000 machine to test wire bond reliability and solder ball integrity on their range of nickel gold, nickel palladium gold, immersion silver and immersion tin plating. The various applications range from gold and aluminium wire pull tests, ball shear tests to cold ball pull tests (on balls ranging from 300 to 760 microns in diameter). The R&D team also uses the Nordson DAGE tester to investigate the integrity of the inner layer adhesive to ensure that there is good adhesion between the copper layer and the laminate on the board.

Christian Sebald, Technical Engineer in the Research and Development Laboratory, explains, "The Nordson DAGE 4000 machine is ideal as we can perform our full range of tests with a single machine. The sample preparation takes just a few minutes and the entire system is very intuitive."

In 2006 the Laboratory acquired a Nordson DAGE 4000HS machine specifically to aid the development of new PCB packaging. Operating at speeds of up to 4m/s for shear and 1.3m/s for pull, the 4000HS machine enabled the team to simulate the high strain rate of a drop test.

## Outstanding Service

Sebald has been continually impressed with the service and support offered by Nordson DAGE: "I am always very impressed with the responsive and friendly manner of the Nordson DAGE team and think that the Nordson DAGE technical support is probably one of the best around."

**For more information,  
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