



## Is Fully Automatic Bond Testing Possible? » Non-Destruct Testing and Conclusion

### Non-Destruct Testing

Full automation is beneficial to all bond testing but it truly benefits Non-Destruct Testing (NDT). By its very nature, NDT requires the testing of many bonds. It is critical to account for every bond and to make sure a fatigued operator does not adversely affect a good bond during manual test. Fully automatic testing is by far the best way to achieve this. Automatic grading, in some cases the only obstacle to fully automatic testing, does not apply.

### Conclusion

Apart from fully automatic grading and the occasional debris contamination issue, it has been demonstrated that all the other requirements for full automatic bond testing can be directly achieved. When grading or debris contamination requires some human intervention, this can be implemented with little additional input.

By maintain yield and ensuring best quality, bond testing has always been an essential part of the manufacturing process. Current technology makes fully automatic testing viable, maintaining the advantages it brings but at much lower operating costs.

### Other pages:

1. Introduction
2. What is Required for Automation?
3. What is Possible with Modern Automation?
  - Multiple test heads
  - Accurate tool positioning
  - Automatic load and unload
  - Machine Vision
    - Measurement of gross sample position (fiducial camera alignment)
    - Accurate automatic alignment for variations in bond position
    - Automatic failure mode analysis (auto grading)
  - Test debris management
4. Non-Destruct Testing
5. Conclusion

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## XYZTEC Newsletter

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### **Bond testers**

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- Condor *150HF*

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