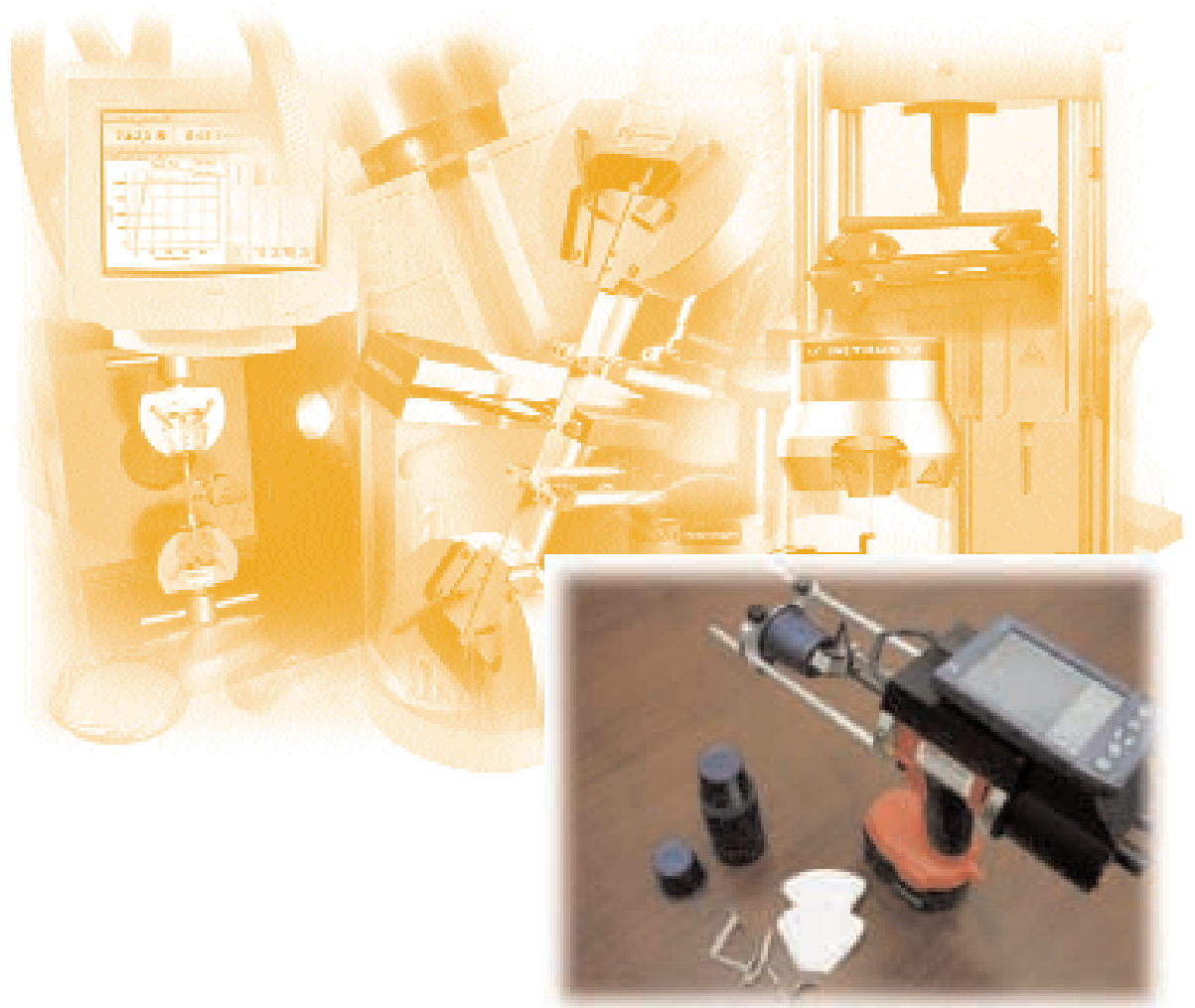


Application Report

Peel Tests On Paper Filter Welds



General

The purpose of this test was to assess the ability of the In-Spec 2200 Mechanical Tester to perform peel tests on paper filter welds. This was done without any special fixturing, for demonstration purposes only.

Peel Testing

Four peel tests were performed on the bonded edge of the filters. The samples were created by cutting off the bonded edge to form a strip approximately 1/2" wide. The top of the strip was separated to form two tabs; each tab was inserted into a grip and the sample was torn apart. Force, displacement, and time were measured continuously throughout the test.

Results

The graph illustrates the results obtained on the In-Spec 2200 HandHeld for the three best data sets. Once or twice the peel resulted in a tear of the paper, pointing to the need to establish some technique to refine the test results. The "incremental" nature of the data reveals the need for higher resolution load measurement if the "steps" are too coarse for QC purposes.

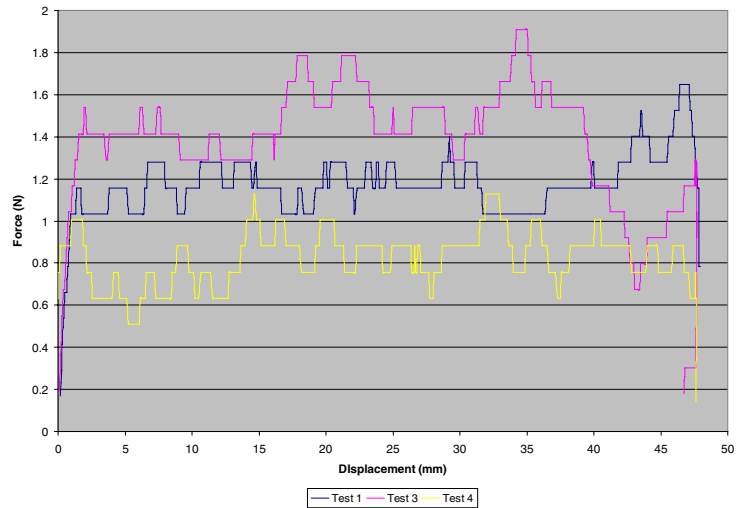
Conclusion

With proper fixturing, the In-Spec 2200 is suitable for performing peel testing of paper filter welds. Time would need to be spent developing techniques and test protocols to optimize test conditions, but even

without these the instrument provides meaningful, repeatable information on the mechanical properties of these products.



Filter Weld Peel Tests



▲ The Bench-Top version of the In-Spec 220 shown with Lap Top/Series IX data acquisition instead of PDA.