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Diamante Pull-off Test

Specification

The customer was a supplier to major UK clothing retailer Marks & Spencer, who stipulate that all fasteners and attachments must be tested to failure.

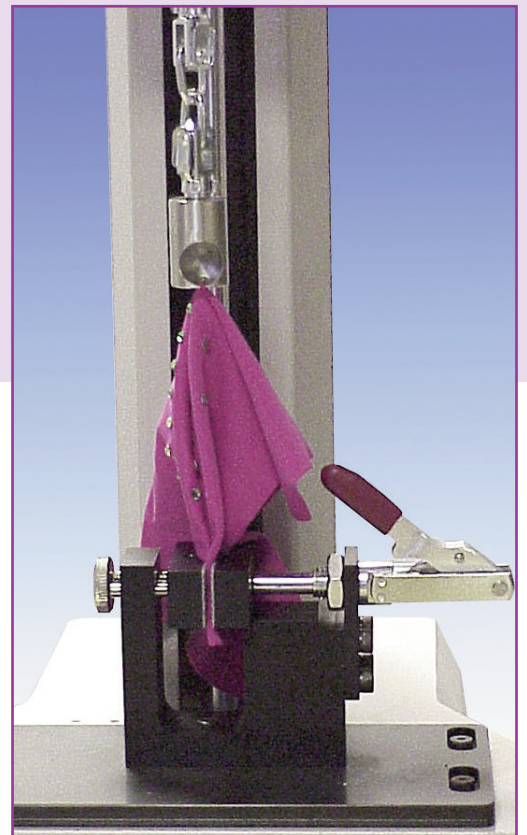
The strength of the joint/diamante was critical to ensure that it met the design tolerance and safety levels. A motorised unit with a test speed was defined at 200mm/min as the system needed to be simple to use in a production environment and provide consistent results.



Solution

The cloth material was clamped in a 'Double Action Vice Grip' with 50mm wide faces coated with non-slip rubber to enhance gripping strength. The diamante attachment was loaded from the front into a slotted claw fixture, ready for testing.

For ease of loading the diamante into the fixture and also to help maintain a straight-pull, the 'Diamante Fixture' was connected to the force gauge via a flexible chain link. The peak tension load to remove/break the diamante was recorded at the fast data-acquisition speed of 1200Hz.



System

- 1000N UltraTest motorised test stand
- 500N AFG
- Diamante fixture
- Double action vice grip

Supplied to

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Coats Viyella

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