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Tube Pull-Out Test

By The Instron Application Team

Summary

The purpose of this test was to determine the force required to break a pressed connection between four tubes and an aluminum part. Two assemblies were tested.

Test Description

Opposing tubes were gripped around the ridge in the tube and pulled at 0.5 in/min until one of the tubes released. After four tests, the holes where the tubes were pulled out were drilled out. An M6 screw was inserted into the drilled hole and threaded into a nut inside the aluminum casting. The bolt head was gripped in one grip and the opposing tube in the other for the final four tests.

Conclusions

The maximum force recorded was 1,316 lb. A 5565 10 kN (2,000-LB)universal testing machine and is recommended for this test.

Apparatus

- Model 5582 with 100 kN load cell
- 20 kip wedge action grips with serrated V-faces (7 mm to 12.7 mm)
- Tension software module