

2860 SERIES STUD PULL FIXTURE

2860-300

The stud pull technique requires accurate specimen preparation and good test alignment. The stud pull test fixture incorporates swivels in both upper and lower sections and is self-aligning which ensures excellent test alignment. The specimen preparation fixture is a precision jig, which ensures the correct positioning of test specimen on the studs and maintains a constant load during the curing of the adhesive.

FEATURES

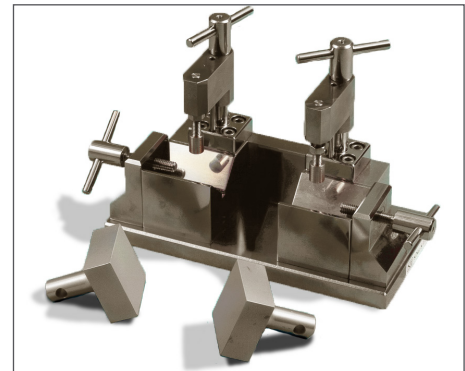
- 2860-300 stud pull fixture
 - Capacity: 5 kN (1000 lb, 500 kgf)
 - Self-aligning swivels in both upper and lower sections
 - Temperature range: -20°C to +70°C (-4°F to +150°F)
 - Upper and Lower fittings: Type Om (12 mm connection with 6 mm clevis pin)
- 2860-301 specimen preparation fixture
 - Ensures correct alignment of studs
 - Load applied throughout adhesive curing
 - Designed for use with high temperature adhesive up to +350°C (+662°F)
- Studs
 - 2860-310: 7 mm × 7 mm (five sets)
 - 2860-311: 10 mm × 10 mm (five sets)
 - Other sizes available on request

APPLICATION

The stud pull fixture and the associated specimen preparation fixture are designed specifically for stud pull testing of semiconductor die bonds. Measuring the strength of a semiconductor die bond can be extremely difficult due to the brittleness of the materials involved and the sensitivity of adhesion testing to local peel stresses. In the stud pull method, two metal studs are glued to the specimen, one to the package and one to the semiconductor die. A monotonically increasing force is then applied normal to the bond and the failure force of the die/package interface joint is recorded. Compared to other methods of measuring bond strength, this approach avoids the problem of bending on the package.



2860-300 stud pull fixture



2860-301 specimen preparation fixture

www.instron.com