JAMES BOND TEST™ MK IV

NDT JAMES INSTRUMENTS
Non Destructive Test Equipment
TEST WELL, BUILD WELL.

For Testing Tensile Strength of Overlays, and Overlayments

Product Information

The **James Bond Tester™ MK IV** or pull off adhesion test measures the bond strength or tensile strength of concrete, asphalt, tile, concrete repair, or other overlay material by the direct tension or pull off method.
By pulling a 50 mm (2 inch) steel disk attached to the material under the unit can,

- Measure the near surface strength of a substrate in order to determine the substrates quality before applying an overlay
- Determine the bond strength of a repair or overlay material after it is applied to the substrate
- Determine the tensile strength of a repair, overlay or adhesive after the material is applied to the surface.

The **James Bond Tester™ MK IV** has been successfully used to verify the quality of existing materials, determine the adhesion strength of shotcrete, tile, epoxies, paint and other repair materials or coatings.

Features & Benefits

- Accurate bond strength of repair mortars, epoxy resins, laminates, overlays, and other coatings.
- Calibrated gauge with maximum load indicator and mechanical damping.
- Ball Joint Design for rapid testing as well as assuring direct tensile loading
- Adjustable alignment plate with built in leveling facility for both vertical and horizontal pulls.
- Compact design.
- Easy to use.

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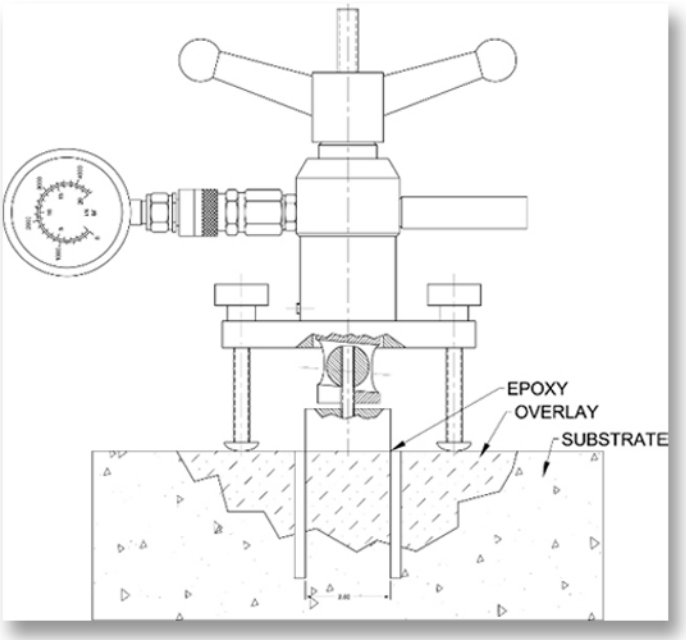

James Bond Tester™ MK IV Core Diagram

Core Indicating Failure at the Bond Between the Overlay and Substrate

Proper testing

It is first necessary to cut through the overly under test directly to the substrate underneath. In the case of paints, thin coatings and overlays this can simply be accomplished with a fine exacto knife or similar sharp tool. In the case of concrete overlays, asphalts, tiles or similar repair mortars this can only be accomplished by coring saw or drill.

Failure can typically occur in either one of three modes:

- in substrate
- at the substrate overlay interface
- in the overlay.

Sales Numbers

- P-C- 7400: James Bond Tester MK IV
- P-C- 7400-EXT: James Bond Tester MK IV Extended Warranty

Optional/ Accessories

- P-081-10700-002: 2" Steel Disk Assembly
- P-081-10700-005: 3" Steel Disk Assembly
- P-081-10700-012: 2" Aluminum Disk Assembly

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Standards

- *ISO 4624 Paints and varnishes -- Pull-off test for adhesion*
- *EN 1015-12 Methods of test for mortar for masonry. Determination of adhesive strength of hardened rendering and plastering mortars on substrate*
- *EN 1348 Determination of Tensile Adhesion Strength for Cementitious Adhesives*
- *ASTM C 1583 Standard Test Method for Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials by Direct Tension (Pull-off Method)*
- *ASTM D 4541 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers*
- *ACI 548-30 Guide for the Application of Epoxy and Latex Adhesives for Bonding Freshly Mixed and Hardened Concretes*
- *DIN 1048 Part 2 Testing concrete; testing of hardened concrete (specimens taken in situ)*
- *ASTM D 7234 Standard Test Method for Pull-Off Adhesion Strength of Coatings on Concrete Using Portable Pull-Off Adhesion Testers*

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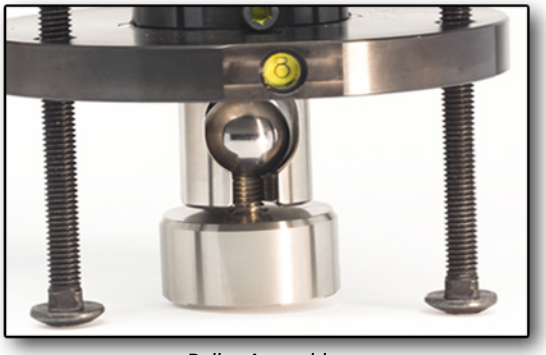

Puller Assembly

Alignment Plate

9KN gauge

Specifications

Bond Test Puller Assembly		
Diameter	Height	Maximum Load
60 mm / 2.5"	210 mm / 8.125"	30 KN / 6675 lbf

Bond Test Assembly		
Height	Width	Weight
240 mm / 9.375"	3010 mmt / 12.5"	5 Kg / 11 lbs.

Alignment Plate		
Diameter	Horizontal & Vertical Level	Easy Thumb Screw Adjustmtent Knobs
150 mm / 6"	Yes	Yes

James Bond Tester™ MK IV in Case			
Height	Width	Depth	Weight
410 mm / 16"	508 mm / 20"	205 mm / 8"	14 Kg / 31 lbs.

James Bond Test™consists of:

- Bond Test Puller Assembly PN: P-081-10700-004
- Alignment PlateAssembly with built in leveling facility PN:P-081-10700-003
- 5 KN / 1124 lbfGauge for Bond Test Puller Assembly PN: P-089-10987-003
- 25KN / 5600lbf Gauge for Bond Test Puller Assembly PN: P-089-10987-007
- Oil fillreservoir PN: P-089-10987-001
- 10 50mm / 2 inch diameter Ball Joint steel disks PN: P-081-10701-002
- Tube Epoxy PN: P-C-7255
- Carrying case

Gauge Specification				
Range	Increments	Maximun Load Indicator	Mechanical Dampened Movement	Diameter
0-9KN / 0-2000 lbf	0.2 KN	Yes	Yes	70 mm / 2.5"
0-25 KN / 0-6000 lbf	0.5 KN / 200 lbf	Yes	Yes	70 mm / 2.5"

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