

## **Case Study**

**Pavements** 

**REV 02/23** 

## Delpatch Runway Repairs Refuse to Crack Under Six-Ton Breaker

## Klamath Falls Runway Project Proves Patch Impact Resisitance

In 2009, the Klamath Falls Airport removed and replaced concrete pavement on Taxiway C leading to Runway 14-32. Damaged sections of the taxiway and adjacent apron had previously been repaired with Delpatch™ Elastomeric Concrete manufactured by D.S. Brown Company. The pavement and patches needed to be broken into manageable pieces to accommodate excavation and removal.

The demolition contractor began his work by repeatedly dropping an eight-foot wide, six-ton guillotine hammer onto the Delpatch repairs and surrounding concrete. The pavement readily broke into small pieces under the blows of a 12,000 lb. breaker, but Delpatch would not crack. D.S. Brown's high performance concrete patches never lost their structural integrity and were eventually removed intact by an excavator.

## Delpatch did not break under the hammer

D.S. Brown combines a two-part polyurethane material with specialty aggregates to produce a resilient compound patch. After curing, Delpatch remains flexible enough to withstand a strong impact and tough enough to handle heavy psi pressure without shattering like typical concrete patches.

"In one area, the concrete buckled next to a long application of Delpatch after being struck repeatedly by the hammer," said Bill Hancock, Klamath Falls Airport Operations Manager. "Not only did the D.S. Brown product not crack, it actually retained its adhesion to the concrete and conformed to match the pavement's new shape. Other repairs with the product remain in use at the airport and I have confidence they will hold up as well."

Delpatch has been installed on airport runways and highways worldwide to fill conduit trenches and repair cracks and spalls. This innovative patch cures quickly and its high-load bearing capacity can typically handle traffic as heavy as a Boeing 747 in less than two hours after installation.

Airport pavement must withstand heavy traffic, climate extremes, fuel spillage and de-icing chemicals. Maintaining runway surfaces requires innovative products that extend service life and reduce construction closures. "Our Delpatch concrete patching system minimizes traffic downtime and maximizes runway service life," commented Ryan Sypherd, National Sales Manager, Pavement Products, D.S. Brown Company. "Delpatch is the preferred repair solution for high use pavements and runway lighting retrofits."

Delpatch was specified for the 14-32 Runway Reconstruction Project by Mead and Hunt, an industry leading aviation consulting company with locations nationwide. Engineers from the firm's Santa Rosa, CA, Madison, WI and Vancouver, WA offices worked closely with the civilian operator and



Six-ton guillotine hammer used for breaking concrete

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Oregon Air National Guard at the Klamath Falls joint use facility. "We needed a patch that would expand and contract in the extreme conditions of the airport's high desert climate," said Jon Faucher, Mead and Hunt Aviation Business Unit Leader. "The service life of a Delpatch repair typically lasts longer than other conventional patch material. Knowing this, I was still surprised that a six-ton hammer couldn't break it."

More information about Delpatch™ Elastomeric Concrete and the full line of innovative D.S. Brown pavement products is available online at www.dsbrown.com.



Original Delpatch repair before demolition



Delpatch repair after being struck by the breaker