



## ABOVE GROUND STORAGE TANK REPAIR IN-SERVICE

### THE SITUATION

The repairs as illustrated in this case study were performed at major refineries in Texas, California and a Mid-Stream company on the east coast. These repairs were done while the **Tank Was IN-SERVICE**. At these three locations, the tanks could not be taken out of service to repair a tank shell leak. The companies faced spending 100's of thousands of dollars to take the tank out of service. The main costs included planning and re-route of the product, de-gassing, hot-work permitting, and welding.

### THE ForgeTech SOLUTION

These expensive problems were avoided by completing the repair using Forge Tech's (FTI) **FORGE BONDING** technology. FTI's equipment is intrinsically safe because it is entirely operated by compressed air and hydraulics. There is no electricity, so there is no opportunity to provide an ignition source for volatile fuel. The process is designed to prevent any sparks, flame or hot slag in the area where we bond two metals. The point of bonding where the FTI attachment is positioned is always shrouded in an inert atmosphere. The atmosphere is protected by either a vacuum or blanket of inert gas like argon.

### THE RESULT

The result was a permanent, mechanical repair with a 5-year warranty. The Forge Tech repair is an **Engineered Structural Repair** and typically includes a stress analysis explaining how the process meets **API** or other specified repair requirements. The result was an engineered mechanical repair.

#### THE FORGE TECH SOLUTION: MECHANICAL REPAIRS IN-SERVICE

**Mechanical Repairs = No Emissions**

**No Sparks, No Flames = No Ignition Source**

**No Shutdowns, No Decommissioning = Lower Costs**

**Significant Lifecycle Cost Savings = Improved Cash Flow**

**5-Year Warranty**

#### CASE STUDY SIDE WALL TANK REPAIR

Contact Forge Tech, Inc.  
(888) 854-8414  
[www.forgetechinc.com](http://www.forgetechinc.com)

#### 3 EXAMPLES OF TANKS REPAIRED USING FORGE TECH TECHNOLOGY

*SEE REVERSE SIDE FOR REPAIR DETAILS*



**GULF COAST TANK  
ON-LINE REPAIR**

*The assests structural integrity was restored  
instead of being allowed to degrade.*



**MAJOR WEST COAST  
REFINERY TANK ON-LINE REPAIR**



**EAST COAST STORAGE  
TANK ON-LINE REPAIR**



### GULF COAST REFINERY EXAMPLE



### WEST COAST REFINERY EXAMPLE

