

## CASE STUDY:

# Learn How Campbell Fittings Helped an Oil Refinery Save Over \$1.5M Annually



**Industry**  
Oil & Gas

**Customer Overview**  
US-based Oil Refinery

**Campbell Fittings Crimped Steam Technology**  
Campbell Fittings offers a hand-tight, leak-free solution resulting in a large cost savings.

**About Campbell Fittings**  
Campbell Fittings, part of the Ideal Tridon Group, has been engineering and manufacturing superior quality industrial hose fittings, couplings, ferrules, and sleeves for generations. The premier manufacturer in hose system technology, Campbell introduced the industry leading Crimpology™ System in the 1990s. Crimpology guarantees unmatched hose system safety and performance for fluid and material transfer hoses. They develop and test safe, innovative products at their headquarters in Boyertown, PA. Learn more at [CampbellFittings.com](http://CampbellFittings.com).

**For more information on how Campbell Fittings can help you eliminate leaks, improve safety, and save money, please call 800-367-3678.**



### Problem

Campbell Fittings' experience shows that over 50% of an oil refinery's hoses are installed incorrectly, or they use inferior products. Campbell Fittings' engineers have calculated that an average steam leak costs a plant approximately \$1,250 per month. Additionally, many hoses have no electrical continuity, creating possible electrical static discharge that has the dangerous potential to kill an operator.

An inspection of the steam hoses at a U.S. oil refinery revealed significant cost inefficiencies and operational risks, which could lead to potentially catastrophic safety issues in over 100 steam hoses. Those findings included leaking bolt clamps, leaking interfaces between spud and hose stem, broken ears on bolt clamps, and missing bolts.

### Solution

Campbell Fittings' distributor account manager showed the oil refinery's operational team the issues and presented the advantages of a crimped steam hose system, utilizing Campbell Fittings' one-piece couplings with ContiTech's steam hose. Campbell's crimped steam couplings create a hand-tight, leak-free, permanent attachment. With the change, they had no more leaking bolt clamps and eliminated the need for constant re-torquing. Campbell's stem and spud solution created a metal-to-metal seal, backed up by a Viton™ O-Ring as a secondary seal. These crimped steam couplings also have a staked-on ferrule with internal serrations that when crimped, "bite to the wire" providing electrical continuity throughout the life of the hose.

Twenty-five crimped steam hoses were ultimately put to test in the refinery. Throughout the testing, no leaks were recorded. At the completion of testing, they rapidly moved to the recommended solution. The new Campbell crimped steam hoses created significant cost savings by eliminating leaks, all while making the refinery safer.

### Results

**The oil refinery saved over \$1.5M annually with Campbell Fittings Crimped Steam Technology.**

Cost Component		Dollar Type		Saving Type	
Steam loss/yr per leak		Hard Savings		Ongoing	
<b>Past Cost</b>	<b>Past Freq.</b>	<b>New Cost.</b>	<b>New Freq.</b>	<b>Savings</b>	
\$15,000/yr per leak	100	\$0	0	\$1,500,000/yr	

### Conclusion

Campbell Fittings' crimped steam system eliminated leaks resulting in verifiable savings of \$1,250 per leak per month. This results in real savings of an astonishing \$1,500,000 per year. The Campbell Fittings solution also cuts down on maintenance time (no re-torquing of bolt clamps) and creates a permanently grounded safe steam hose assembly. Safer employees and huge cost savings are an unbeatable combination! Contact us to learn how we can help your business.

