

RTU savings ranged from 23% to 32% after HVAC Armor treatment

Situation

Four Trane package units (each with 2 condenser coil circuits and 3 compressors per circuit) required renovation.

Scope of Project and Product Application

Two services were performed to improve heat transfer, reduce maintenance, and extend the life cycle of these units:

1. **HVAC Armor DX:** coil cleaning, prepping, and coating
2. **HVAC Armor RSO:** refrigerant system optimization including core dryer filter replacement

Results

Final Savings Calculation		
	COP Δ	Total Annual Savings*
Avg Savings - HVAC Armor DX	11.58%	\$4,097.88
Avg Savings - HVAC Armor OF	14.63%	\$5,179.76
* Maintenance Reduction & Life Extension Savings were NOT included in financial calculations.		

Summary

Industry: High Tech

Location: San Jose, California

Project: Restore 4 RTUs

Installation type:
Package Units

Project cost: \$64,537

Annual savings: \$37,110

Payback: 1.74 years

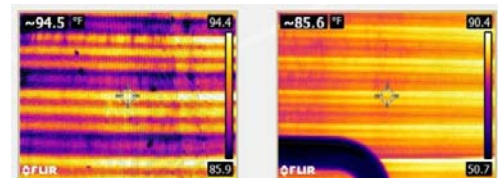
Measurement & Verification

A single circuit was tested on three of the units, and both circuits were tested simultaneously on the fourth unit.

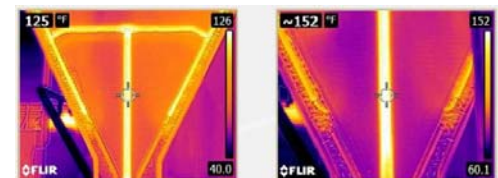
M&V was calculated based on the true COP delta for pre- and post-treatment operations. Cooling load was measured in tons and reported as a % of unit rated capacity.

Enthalpy testing produced raw COP results. Savings calculations were refined by correcting for the temperature differential of Outside Air, and the Temperature and Relative Humidity of Return Air at the Evaporator Coil for both pre- and post-environments. These were used to adjust the baseline according to equipment manufacturer specifications.

Before



Fins transferred heat more efficiently after treatment



Coils provided better sub-cooling after treatment

The client subsequently contracted for a \$3M nationwide rollout to all major U.S. campuses.

HVAC Armor offers state-of-the-art corrosion protection coatings and solutions that save energy, enhance performance, and rejuvenate HVAC equipment. HVAC Armor is part of ECM Holding Group, a collection of conservation technology firms serving North America's leading ESCOs and corporate clients.

For more information, please visit www.hvacarmor.com, or call 920.267.6120.