



**Educational** | Solutions  
in Action  
Solutions for Energy Recovery  
& Dehumidification

**Barbara Bennett  
Elementary School  
Alvin Independent School District  
Manvel, Texas**

**The Project:**

Carolina Heat Pipe was contracted to incorporate a Thermosyphon Run Around Heat Pipe system into a 7,000 CFM Trane Air Handler. This AHU will process 100% outside air in Manvel Texas where the average humidity is 60-80%.

**The Solution:**

Carolina Heat Pipe designed and installed their 2-Row ST Mach 1 controllable Thermosyphon Run Around Heat Pipe (TRAHP™). The TRAHP™ absorbs sensible heat from the incoming outside air and then passively transfers that heat around the cooling coil. This process provides latent enhancement and improved dehumidification capacity from the air handler.

*“Carolina Heat Pipe is superb to use and great communicators. I will definitely be using their services again. Keep up the great work!”*

**Oscar Flores, Inside Sales Engineer** Hunton Trane

**Performance Results:**

At design conditions, the TRAHP™ system provides cooling load reduction of 7.7 tons while simultaneously providing 91.8 MBH free reheat for improved dehumidification.



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The incorporation of Carolina Heat Pipe TRAHP™ System typically provides a 2–3-year payback period. The heat pipe requires only simple maintenance of periodic coil cleaning for the life of the air handler.

**Commercial • Educational • Governmental • Industrial • Medical**

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