



Water Hammer

Customer: Dow Chemical

Location: Freeport, TX

Scope of Work: Armstrong International designed, engineered, and installed a complete condensate return solution to correct the persistent water hammer problem the site encountered. Plant engineering, as well as site contract engineering, had been trying to solve the continuous water hammer problem for years.



- Upgrade Projects:**
- Engineered and installed four separate condensate pumping stations
 - Engineered and installed two separate flash tank stations
 - Insulated all condensate lines
 - Recommended, replaced, and properly sized steam traps
 - Engineered and installed air vents on all heat exchangers

The value of the project was \$850,000.

Project was completed in January 2003.

Investment:

The water hammer problem was corrected. Dow enjoyed energy savings from the project as well as faster heat-up times in the heat exchangers. Additionally, sections of the plant will now receive the same review and effort.

Terms:

Benefits:

