

Chemical Manufacturing Facility

St. Gabriel, Louisiana

Date of Service: March 2017

Equipment

York multi-stage chiller

Model #

OM355B8

Problem:

Customer owns and operates a York OM355 multi-stage chiller containing 7,000 lbs. of R-134, to cool a brine solution as part of their manufacturing process. The machine was experiencing excessive low suction pressure problems and high evaporator approach causing production issues.

Recommendation:

Troubleshooting revealed that the charge of R-134a was severely oil logged with most of the oil trapped in the evaporator. Being as this was a time critical project, we recommended pulling the refrigerant from the system evaporator, passing it thorough ChillCo's recovery and refrigerant processing machine (The Ox), and pumping the reclaimed refrigerant into the system storage tank.

Project notes:

After receiving approval and the proper permits, the equipment was delivered to the site and set up for operation. The 7,000 lbs. of refrigerant was pulled, processed (cleaned), and pumped into the system storage tank. This process was completed in 20 hours and over 90 gallons of excess oil was removed from the system.

Results:

The reclaimed refrigerant was transferred back into the chiller and the system was put back into service. The evaporator approached dropped from 20° down to design at 3° and suction pressure (under normal operation) was found to be within manufactures specifications. Refrigerant analysis results indicated oil residue by weight (HBR) was lowered from 7% down to .49%.

