

Enerflex in Action

5,733 TR PROPYLENE REFRIGERATION FOR A PETROCHEMICAL PLANT USING MONOCHLOROBENZENE PROCESS CHILLING

Freeport, Texas USA

Modular solution using nine (9) close coupled modules.

Enerflex engineered, designed, and manufactured a completely modular propylene refrigeration system for a monochlorobenzene (MCB) chilling process as part of a major ethylene propylene diene monomer expansion project, providing cooling capacity for two sets of users. All modules were trial-fitted in the Enerflex shop. The system included:

- One centrifugal compressor drivetrain, rated at 11,822 BHP, and driven by a 13,500 HP electric motor; and
- Two chillers that provided a total of 5,733 TR (tons of refrigeration).



OUTCOME

At the time in 2003, this project was one of the heaviest and most sizable modular solutions manufactured by Enerflex in Houston. It was completed in 12 months, working within strict customer specifications. When completely assembled, without the drive train, the unit stood 73'L x 60'W x 43'H.

During trial-fit, all modules were match-marked for easy reassembly in the field, minimizing site construction installation time, costs, schedule, and footprint — while also maximizing safety and reliability.