



ULTRA LOW-TEMP REFRIGERATION

Background...

Pharmaceutical production often requires low temperature chilling of preparations. A large manufacturer approached us with the requirement for a minus 30°F leaving fluid temperature, along with seal-less magnetic pumping and ASME storage tank.

Solution...

A four-hundred HP air cooled chiller was engineered using four circuit design, screw compressors, mag-drive pumps and a large -30°F Syltherm tank.

Results...

Since installing the system, the process has worked well without downtime. The low temperature is critical enough to monitor at the process as well.



KEY SOLUTION FEATURES

- Critical cooling of reaction vessels in pharmaceutical production.
- Four discrete R-507 refrigeration circuits of 100 HP per circuit.
- Screw compressors feature slide unloading from 10-100% capacity.
- Designed to deliver minus 30°F Syltherm year-round.
- ASME rated reservoir with heavy insulation and metal jacket.
- Deep-V coils with controls selected to operate in cold climate.
- Dual lead/lag magnetic drive pumps deliver high fluid velocities.
- System included turn-key installation and commissioning.

Critical Duty and Ultra-Low Temp

Few chiller manufacturers would accept this project, however our experience with ultra-low-temp, high horsepower refrigeration and pumping was the deciding factor.

