



## The assurance of product integrity

*With life-saving plasma, vaccines or cell lines, delivering precise refrigeration control goes well beyond equipment and system design*



*Precise low-temperature environments for life science applications*

### **Systems as part of your process**

The right engineered solution for pharmaceutical and life science applications goes beyond equipment and systems. It may begin with the environment surrounding the product, but it must also incorporate an understanding of procedural compliance, quality assurance and financial goals. The right refrigerated solution will align with and support your internal control processes. Turn-key systems from Trane® Industrial Refrigeration provide these comprehensive solutions.

### **End-to-end support**

At Trane, we develop, install and maintain low-temperature environments for storing and processing pharmaceutical materials. Our solutions provide the system redundancy necessary to ensure your product is reliably maintained to precise standards. Our team excels in all phases of project development—feasibility studies, risk assessment and process compliance to energy modeling and life-cycle cost analysis. Our comprehensive services extend to project management, installation and commissioning. Ongoing service, maintenance and remote monitoring programs are available to ensure your assets are protected and performing at the highest level.

### **Unique expertise**

With more than forty years of experience providing custom-engineered designs to the pharmaceutical market, we bring a depth of knowledge and practical experience to every project—CO<sub>2</sub>, halocarbon, synthetic, ammonia and secondary systems. We are leaders in developing innovative custom solutions defined by stringent quality control protocols and regulatory compliance.

### **Lowest total cost of ownership**

A new pharmaceutical facility, retrofit or upgrade must be a sound investment. Our proprietary solutions, including Trane, Ingersoll Rand® or third-party components, are designed for the lowest life cycle cost. Where applicable, Trane CenTraVac® liquid chillers provide Trane's legendary reliability and long equipment life.

## Full support and fast response

Our service commitment aligns perfectly with your quality assurance commitment.

- Comprehensive detection, diagnostic, maintenance and analysis
- Advanced, customized controls
- Predictive services including leak detection, vibration analysis and remote diagnostics
- Fast and economical remote servicing
- Worry-free, 24/7/365 technical and service support
- Two-hour rapid response from anywhere in the continental U.S.



### Future-ready

Biotechnology and life sciences operations need not be impacted by evolving refrigeration technologies. As low global warming potential (GWP) refrigerants are adopted, Trane guarantees refrigerant availability regardless of market demand and provides replacement refrigerants as mandated by new regulations. Our proven technology also enables us to warranty CenTraVac chillers against refrigerant leaks and offer monitoring, service and upgrade programs that demonstrate our active long-term support of each custom refrigeration solution.

**To discuss facility design and construction, functional upgrades, preventive maintenance or monitoring, get in touch with your local Trane office or visit [Trane.com/buildingservices](http://Trane.com/buildingservices).**

### PROJECT PROFILE

The Client: Blood plasma distribution network

#### The Challenge: Reduced downtime

The company has more than 80 plasma service centers throughout the U.S. Each center extracts and stores close to \$1 million in product. Its operations are regulated by the FDA and EMA, which mandate handling protocols and critical temperatures required for this product. This customer requires a two-hour response time on HVAC/R service calls.

#### The Solution:

Trane Industrial Refrigeration delivered a turn-key HVAC/R controls solution with 24-hour remote monitoring and preventive maintenance service plan.

#### The Result: Reduced Risk

Trane Industrial Refrigeration provides continuous monitoring for every new and retrofitted center in the U.S., enabling Trane to facilitate service quickly.



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