

Packaged refrigeration systems



Vilter


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Climate Technologies

Vilter specializes in designing custom refrigeration packages that meet exact temperature requirements for cooling liquids or gases. These complete, factory-engineered and assembled systems can be equipped for hazardous environments, outdoor duty or other special environments.

Benefits

Significant cost savings

Vilter™ packaged refrigeration systems save you on-site assembly costs.

Vilter's expertise

Vilter's technical and engineering staff design a complete system specific to your requirements. Fabrication and assembly is done by a veteran workforce with quality tools to ensure exact alignment and a clean, leak-free system.

Automatic controls

Master electrical control panels are mounted directly on your system. Completely factory-wired and tested, the unit is ready to go when it arrives at the job site.

Space savings

The compact design of the packaged system permits you to design a smaller mechanical equipment room because the required components have been factory-built onto a single structural steel base.

Mobility

With rapidly changing process requirements, the need to change or expand your mechanical room means you need easy mobility. With all the equipment mounted on a single base, your system can be moved as a single skidded package.

Time savings

As your machine room foundation is being constructed, your Vilter system is simultaneously being built in our state-of-the-art manufacturing facility, saving you on total project time in the field.

Served markets

- Hydrocarbon production
- Midstream processing
- Gas plant refrigeration
- Petrochemical gas cooling
- Food & beverage
- Air conditioning
- Air drying
- Ammonia fertilizer plants
- Anodizing processes
- CO₂ recovery

Fabrication

Packages include all components of a complete refrigeration system and are mounted on structural steel bases complete with interconnecting piping per ANSI B31.5 Refrigeration Piping Code. We offer ANSI B31.3 Process Piping Code when required. All systems are pressure tested per ANSI B31.3. Our pressure vessels are built to ASME Section VIII, Unfired Pressure Vessel requirements and with shell and tube heat exchangers to TEMA Standards when specified. We can supply carbon and stainless steels, copper, cupro-nickel, and titanium tube materials. Tubes are double-groove rolled and seal welded as required for the application.

Vilter offers a standard line of cold packages – thermosyphon liquid recirculating, direct expansion or flooded systems (or any combination) for all popular and alternative refrigerants, including R-507, R404A, R-407A, R-717 (Ammonia), R-290 (Propane), R-134a, R-123, R-410A, R-410B, and R-407C.



Representative applications

Aqueous solutions

- Acetic acid
- Beer
- Calcium chloride
- Dowtherm
- Ethanol
- Ethylene glycol
- Methanol
- Orange juice
- Propylene glycol
- Sodium chloride
- Sodium hydroxide
- Sodium nitrate
- Sugar solutions
- Sulfuric acid

Hydrocarbons processing and petrochemical

- NGL recovery
- Acetone/nitrogen
- Benzene
- Butadiene
- Butane
- Ethylene
- Ethane
- Gasoline
- Hexane
- Kerosene
- Linseed oil
- Methane
- Pentane
- Propane
- Styrene
- Toluene

Paints and coatings

Vilter furnishes paints, coatings, and surface preparations to your specifications. Our standard paint is an alkyd resin base enamel. Our standard outdoor and chemical coating specification features a three coat system including inorganic zinc primer and polyamide epoxy finishes. Vilter also can provide special paint and coating systems to meet your unique conditions and specifications.

Controls and wiring

Our systems are designed using state-of-the-art control systems including our own micro-controllers, programmable controllers (PLCs) or PC based control systems. We also offer interfacing with customer's existing control systems. The units are completely wired and given a factory live area continuity test. We offer wiring to meet your specific area of installation requirements including those shown in Table 1.

Special environments

Standard outdoor trim options can include:

- Larger crankcase heaters
- Constant liquid pressure control systems
- Special surface preparation and paint
- Weatherproof gauges
- Weatherproof wiring
- Weatherproof control panels
- Heater in control cabinet to prevent condensation
- Weather resistant covering for insulated vessels and lines
- Heat tracing on oil lines and filters



Class	Description
NEMA 1	Indoor
NEMA 3	Weather resistant
NEMA 3S	Weather resistant
NEMA 3R	Outdoor
NEMA 4 *	Watertight (weatherproof)
NEMA 4X *	Watertight (corrosion resistant)
NEMA 7	Hazardous (gases)
NEMA 9	Hazardous (dust)
NEMA 12	Indoor (oil, dust, rust resistant)

* Air purging is available for Division II hazardous areas and/or corrosive areas

Table 1



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