



Specializing In Heat Transfer Solutions

Temperature
Control Units

Portable
Chillers

Central
Chillers

Evaporative
Cooling Towers



since 1977



Proudly Made In The USA



Your Cooling System Partner

EXPERIENCE

We offer more than 40 years of process cooling experience. Our knowledgeable application, product and service specialists are always available to discuss your needs and help you find the best solution for your specific requirements.

INFORMATION AT YOUR FINGERTIPS

Our web site provides detailed information on all of our products and applications. Research and learn at your convenience

- Get PRICES for our equipment 24-7. Simply fill out the form and prices are immediately displayed. There is no waiting for a return email!
- Download literature and manuals at any time. There are more than 200 detailed product and application documents available for your reference.
- An easy to use search feature allows you to find a local representative.
- Our application sizing tools for plastics processors, breweries, and once through cooling systems are simple to use and always there whenever you need them.

UNDERSTANDING YOUR PROCESS

We have experience in a wide range of industries that require process cooling including plastics processing, die casting, machine tool, vessel cooling and many others. You can trust our knowledgeable people will understand your specific needs and provide the optimal solution.

PRODUCTS THAT FIT YOUR UNIQUE NEEDS

While we offer a wide range of standard products, these products may not always fit your unique requirements. Our application specialists can explore with you ways to customize our standard products so they precisely fit your specific needs or applications.

SPECIALIZED CONTROLS

System controls make the difference in your process repeatability, efficiency and reliability. We build our own system controls from a combination of tailor made embedded microprocessor products and PLC options. This allows us to configure the perfect purpose built control system to meet your needs.

ENERGY EFFICIENT SOLUTIONS

Our specialists are constantly striving to find solutions that address rising energy costs and promote reduced energy consumption. We offer many energy saving products that favor lifetime costs – specifically, energy efficient, variable speed pump/fan packages and refrigeration products.

ENVIRONMENTALLY SUSTAINABLE SOLUTIONS

In our products, we select and use only ozone-friendly refrigerants that have low Global-warming potential. Being environmentally responsible is always at the forefront when we are engineering our products.



Temperature Control Units

ADVANTAGE temperature control units circulate fluid through the system for the heating or cooling of a process. **Sentra** water temperature control units have a temperature range of 30-300°F while the **Regal** oil temperature control units range from 100-500°F. Both **Sentra** and **Regal** units are available in a wide range of heating/cooling capacities and configurations to meet your processing needs.

SENTRA TEMPERATURE CONTROLLER

SENTRA – WATER TEMPERATURE CONTROL UNITS

circulate water to heat or cool the process and are used for applications where the required temperature range is from 30° to 300°F.

The **Sentra** units use an electric immersion heater to warm the recirculated water to the desired operating temperature. The **Sentra** continues to warm the water in order to maintain temperature or it changes modes and becomes a cooling device by exchanging the proper amount of recirculated water with cooling water supplied by a chiller, cooling tower or other external water source. The cooling water is precisely metered into the system by a modulating or solenoid cooling valve so proper fluid temperature is always maintained.

Sentra units are portable and only require power and a source for cooling water. These units come with your choice of control instruments allowing you to tailor a unit to meet your specific needs.



REGAL TEMPERATURE CONTROLLER

REGAL – OIL TEMPERATURE CONTROL UNITS circulate heat transfer oil through the process and are used for applications where the required temperature range is from 100° to 500°F.

Regal units are available as heating only or heating/cooling units. The **Regal** units use an electric immersion heater to heat fluid and recirculate it through the system until the desired operating temperature is reached. The **Regal** continues to add heat to maintain fluid temperature or can become a cooling device by allowing cooling water to flow through the optional heat exchanger.

Regal units are portable and only require a power and cooling water supply source. A variety of control instrument options are available so a unit can be tailor fit to meet your specific needs.

Chillers

ADVANTAGE chillers circulate cooled fluid to provide process cooling. Chillers use mechanical refrigeration to supply fluid between 20° and 80°F and are available in ¼ to 180 ton capacities. Chillers are available in water and air condensed styles, can be portable or centrally located and come equipped with or without an integral reservoir & pump(s).

MAXIMUM PORTABLE CHILLERS

MAXIMUM – PORTABLE CHILLERS supply fluid temperatures between 20° and 80°F and are self-contained units utilizing a refrigerant system to chill the fluid.

The Maximum units are indoor units and can be configured as air or water-cooled units. An air-cooled chiller uses indoor ambient air to dissipate heat from the refrigeration system. Water-cooled units rely on a secondary source of water to dissipate the heat from the refrigeration system. The secondary source can be from a cooling tower or other water source. Chilled fluid is stored in an internal reservoir and is circulated through the process using the unit's circulating pump. Portable chillers can service single or multiple process cooling points. The Maximum line was specifically designed to move, as needed, between use points throughout the plant.

A purpose built microprocessor instrument is used to control the unit's operation. Maximum portable chillers can be customized to meet your specific needs and range from ¼ to 40 tons of cooling capacity.



TITAN CENTRAL CHILLER

TITAN – CENTRAL CHILLER systems feature a large capacity reservoir and pumping system with multiple refrigeration zones for redundancy and capacity staging to meet plant wide cooling needs. The Titan chiller can be configured as air or water cooled units.

An air-cooled chiller includes an outdoor remote condenser to dissipate heat from the refrigeration system. Water-cooled units rely on a secondary source of water to dissipate the heat from the refrigeration system.

Titan systems are available with 1, 2 or 3 independent refrigeration zones for energy efficient capacity staging and to provide partial or full redundancy. Titan range from 20 to 180 tons of cooling capacity.



Chillers

OACS CENTRAL CHILLER

OACS systems provide chilled process water between 20° and 80°F and are designed for outdoor installation, reserving valuable indoor floor space for other equipment or processes.

Standard systems are engineered as a complete package, including fluid reservoir and pumping system but can be configured for use with external reservoirs and pumps. All systems are fully factory tested before shipping and once they arrive at their destination, require minimal installation.

OACS systems are available with 1 or 2 independent refrigeration zones for energy efficient capacity staging and to provide partial or full redundancy. OACS cooling capacities range from 5 to 210 tons.



WPT

CENTRAL CHILLER



APT-RC CENTRAL CHILLER



APT-RC & WPT CENTRAL CHILLER systems feature single or multiple refrigeration zones for redundancy and capacity staging to meet plant-wide cooling needs for chilled process water between 20° to 80°F.

APT-RC & WPT chillers rely on external reservoirs and pumping systems so are often used to expand the capacity of a previously purchased Titan central chiller system. APT-RC chillers are air-cooled and include an outdoor remote condenser to dissipate heat from the refrigeration system. WPT chillers are water-cooled units and rely on a secondary source of water to dissipate the heat from the refrigeration system. APT-RC & WPT systems are available with 1, 2 or 3 independent refrigeration zones for energy efficient capacity staging and to provide partial or full redundancy. APT-RC & WPT chillers range in cooling capacity from 5 to 180 tons.

Cooling Towers



POWER TOWER EVAPORATIVE COOLING TOWER CELLS

are part of a central cooling system. In most climates, Power Towers supply cooling water temperatures between 5°F and 10°F above the ambient wet bulb conditions or 85°F or colder.

These units evaporate a small portion of re-circulated water from the cooling system in order to provide cooling water to multiple processes including machine hydraulics, chiller condensers, temperature control units and other equipment. These cells are simple to install and are located outdoors on a stand, pad or roof.

Power Towers are made of durable UV resistant fiberglass, feature a counter airflow design and have only one moving part, so are easy to maintain. Power Tower cells range in capacity from 45 to 540 tons of cooling capacity.



Pump Tank Stations



PTS

PUMP TANK STATION

PUMP TANK STATIONS support evaporative cooling towers or chilling modules to circulate cooled fluid in support of plant wide cooling needs.

These units feature heavy-duty centrifugal pumps matched to the application needs so they provide the required flow and pressure to each use point. Systems are configured with a process pump or process & re-circulating pump with optional stand-by. Systems can be equipped with starting, monitoring and diagnostic components as well as a variable speed drive system that saves energy and maintains constant fluid flow and pressure.

Pump Tank Stations range in size from 275 to 3,000 gallon capacities and are available in epoxy coated mild steel or stainless steel welded sheet.



TOUGH TANK is an Advantage pump tank station using polyethylene reservoirs. Polyethylene reservoirs are used in both tower and chiller systems and are available in 400, 800, 1500 & 3000 gallon capacities.

The Tough Tank is a one-piece, cylindrical, seamless, rotationally molded linear low density polyethylene tank that will not rust or corrode. Heavy-duty centrifugal pumps are matched to the application and provide the required flow and pressure to each use point. Systems are configured with starting, monitoring and diagnostic components as well as a variable speed drive system that saves energy and maintains constant fluid flow and pressure.



Additional System Components

To complete your process cooling system Advantage provides quality constructed filters, heat exchangers & energy saving variable speed drive systems.

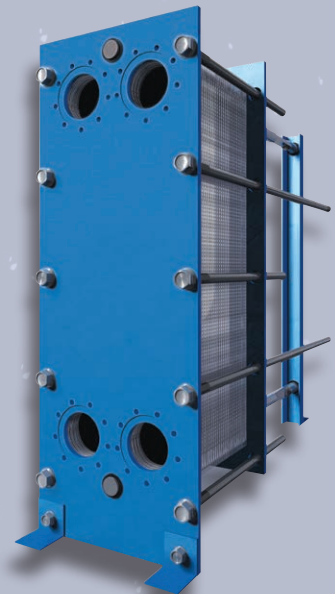
MLS HIGH FLOW FILTERS are the perfect alternative to expensive, automatic filtering systems and are more dependable than many other intricate filters. Connection sizes from 2" to 10" are available for process flow rates up to 2,000 gpm. MLS filters are most often used to filter the entire process flow and operate with a clean pressure drop of less than 1 psi but can be configured for side stream duty. The filter housing is constructed of stainless steel and the filter screen is available in a wide range of filtration levels. Available options include an automatic timed flush valve, pressure differential alarm and a 3-valve bypass.



PM SERIES SAND & GRAVEL FILTERS have a media that removes free floating solids from plant circulating liquids that could cause blockages in manifolds and orifices in process equipment. Three sizes are offered so it can be configured to specific process requirements. Manual/automatic backflush and side stream pump options are available.

PLATE & FRAME HEAT EXCHANGERS are used in many applications where process cooling or heating is required between two fluids that must not mix together. Heat exchangers are often used to isolate cooling tower water from the water that comes into contact with your processing equipment. This keeps your processing equipment clean and maintenance to a minimum.

Plate & Frame Heat Exchangers consist of stainless steel heat transfer plates that are held in place between a fixed plate and a movable pressure plate. Plates are corrugated, which creates turbulence in the fluids as they flow through the unit. A gasket arrangement allows primary and secondary fluids to flow in a counter-current pattern within their own channel, preventing them from mixing. Heat exchangers allow for plate cleaning without disconnecting process piping.



VARIABLE SPEED DRIVE SYSTEMS for pumps & fans adjust the pump or fan output to meet the system requirements. As the system requires less water from the pump or less air from the fan, a system equipped with a variable speed drive delivers less water or slows the fan speed accordingly. This efficient method of control reduces energy costs and extends pump and fan life.

We can provide an engineered solution for your new water system or retrofit a drive system to replace an existing, less efficient on/off motor starter.





ADVANTAGE ENGINEERING, INC.

525 East Stop 18 Road

Greenwood, IN 46142

Phone: 317.887.0729

www.AdvantageEngineering.com



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