

COMMERCIAL PRODUCTS

**envirosep**  
A TILTECH™ COMPANY

we create  
**SOLUTIONS**

Integrating modular solutions for your fluid handling, heat transfer & commercial facility energy management

## WHO WE ARE

*Every problem is unique,  
so is the solution.*

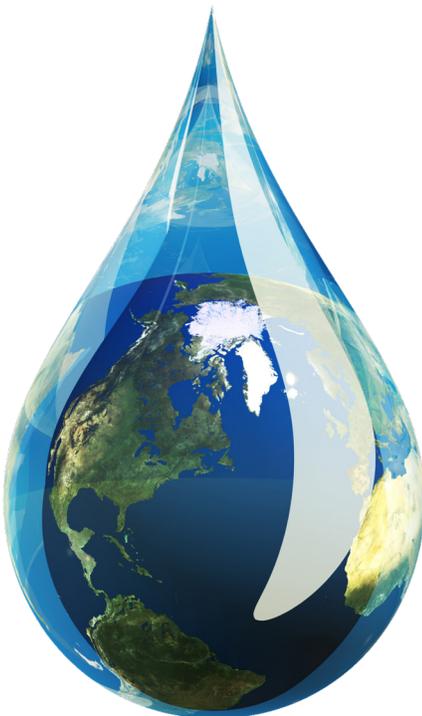
**S**ome suppliers can offer a packaged system, and some system integrators can offer custom solutions, but Envirosep's flexibility and problem-solving skills give you the best solutions for any fluid handling or heat transfer system. Envirosep is uniquely able to offer highly competitive pre-engineered systems from an extensive library of standard designs, as well as a consultative approach to difficult commercial and industrial applications.

Envirosep is a full service engineering and manufacturing firm that provides a complete spectrum of cost effective, engineering and manufacturing services specializing in complete, integrated engineered systems. Our engineered systems are custom designed to meet the on site challenges where standard "one size fits all" designs cannot be integrated.



Envirosep uses the latest technologies to reduce operating costs and enhance environmental responsibility, resulting in truly unique solutions that go beyond normal functionality. By combining advanced components such as variable frequency drives and high speed controls with cutting edge fluid handling and thermodynamics, our systems recover valuable waste energy and fluids. Envirosep helps you avoid environmental liabilities and improve corporate citizenship while reducing your energy expenses.

We believe in offering products which meet or exceeds industry standards. Authorizations from internationally recognized organizations, such as American Society of Mechanical Engineers and Underwriters Laboratories, confirm that quality is a foremost focus in our company.



## VALUE COMMITMENT

*We stand committed to our customers and the environment.*

**E**nvirosep promotes a company culture that focuses on customer satisfaction and commitment. We strive to not only meet but exceed our customers expectations through support, innovation, service and on-time delivery. We are a solutions driven organization. Envirosep continues to care for its customers after project completion offering local support and service, delivering the best life cycle support.

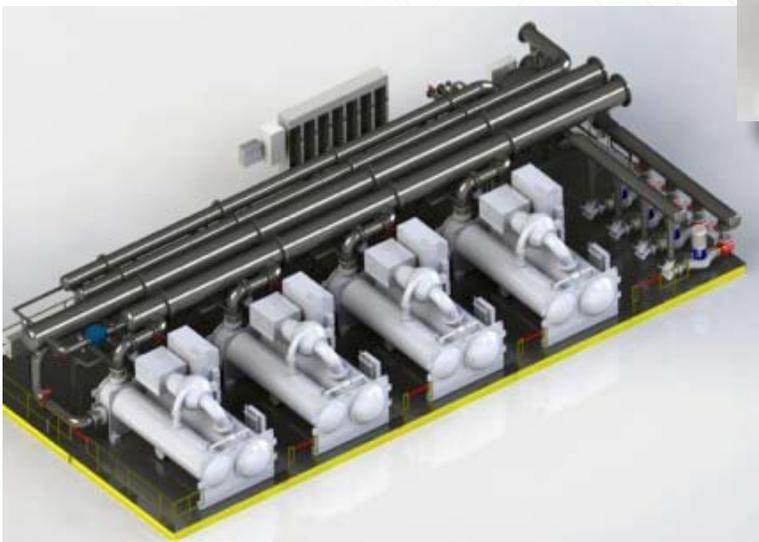
Our company believes in sustainable solutions. Conserving energy and natural resources are ingrained in our company practices. Providing environmentally responsible technologies is a high priority in our designs and manufacturing.

# ENGINEERING SOLUTIONS

Designing **integrated solutions** to meet the demands of any application.

**E**nvirosep's engineering staff has the versatility and experience to perform projects for virtually any industry. Our in house engineering staff includes the following disciplines:

- Mechanical Engineering
- Electrical Engineering
- Structural Engineering
- Process Engineering
- Chemical Engineering
- Controls & Automation



**E**nvirosep engineers and designer use SOLIDWORKS 3D CAD modeling for their drawing platform. This allows 3D views of systems and easy integration into plans and specifications. A full Revit model can be provided on all projects as part of the final construction package.

# MANUFACTURING QUALITY

We make **certain** your projects are **done right**.

For over 20 years, Envirosep has been a custom engineering and manufacturing company specializing in design and fabrication of pre-packaged modular systems. Envirosep's manufacturing and engineering corporate office is located in Georgetown, SC. Our facility extends over 20 acres and six buildings of various sizes, includes multiple cranes up to 60 tons, an ASME fabrication shop, and a UL 508A control panel shop.



Envirosep maintains licenses and certifications that keep us current with the latest industry standards and ensure first class quality. A sampling of our licenses and certifications include:

- Professional Engineers Licenses (PE)
- Certified Project Management Professional (PMP)
- AWS Certified Welding Inspector (CWI)
- Mechanical Contractors Licenses
- ASME Certificate of Authorization
- Underwriters Laboratories Listings
- National Board Certificate of Authorization
- TSSA Certificate of Authorization
- Leadership in Energy & Environmental Design (LEED)



UL Listed Packaged Pumping Systems



UL Listed Controls



European Conformity



OSHA Complaint Safety Program



NIST Certified Testing Equipment



State of New York OTCR (NY)



Unfired Pressure Vessels



Pressure Piping



Miniature Unfired Pressure Vessels



National Board



Repairs and/or Alterations



Process Piping & Power Piping



LEED AP expertise



The background of the page is a photograph of an industrial facility, likely a water treatment plant or a large-scale HVAC system. It features a complex network of white pipes, valves, and large grey pumps. The scene is brightly lit, with overhead fluorescent lights visible. The overall aesthetic is clean and technical. At the top of the page, there are decorative geometric shapes: a green triangle on the left and a blue trapezoid on the right.

## WHAT WE DO

*Engineering systems to meet the on-site challenges for our customers.*

**E**nvirosep specializes in commercial HVAC, plumbing and industrial applications. We offer custom, complex engineered systems and modular plants as well as packaged pre-engineered pumping systems. Our systems offer advantages to field-constructed systems by reducing overall construction cost, improving implementation schedule, and minimizing risk. Our unique background provides creative solutions to ensure the lowest achievable energy consumption (kW/ton). In-house design and manufacturing, with single source responsibility, provides a risk free option that ensures engineering intent through construction and commissioning is realized.

Choosing a custom-engineered system by Envirosep enables the client to specify key components from a range of manufacturers that meet their performance needs. Envirosep factory service personnel are available to perform on-site start-up and commissioning. Contact [sales@envirosep.com](mailto:sales@envirosep.com) for more information on any of the following products.

# PRE-ENGINEERED COMMERCIAL PRODUCTS & CUSTOM SOLUTION CAPABILITIES

Whether your application requires a pre-engineered system or a custom solution, envirosep modular systems will **“plug and play”** thus greatly reducing installation time, space and cost.



## Central Utility Plants

Integration of your choice of equipment manufacturer in an enclosed modular building. May include any of the following equipment:

- Energy-efficient chillers (air or water-cooled)
- Boilers (condensing, non-condensing or steam)
- Evaporative cooling towers (including structure)
- Integrated pumping systems (chilled water, condenser water & hot water)
- Heat exchangers (plate & frame or shell & tube)
- Hydronic accessories such as air separators & expansion tanks
- Chemical treatment
- Optimization controller with touchscreen interface
- Communication interface to Building Management System (BMS)
- Environmentally-controlled building enclosure with single-point power connection
- Specific performance criteria (upon request)



## Modular Chiller Plants & Systems

May include any of the following equipment:

- Energy-efficient centrifugal or screw chillers
- Evaporative cooling towers
- Integrated pumping systems (chilled water & condenser water)
- Hydronic accessories
- Free cooling heat exchangers
- Chemical treatment
- Variable Frequency Drives
- Electrical and wiring
- Optimization Controller with communication interface to BMS
- Environmentally-controlled building enclosure with single-point power connection
- System on a common base without a building enclosure
- Pre-engineered systems available and include chillers, pumping system and optional hydronic accessories.

## Modular Boiler Plants & Systems

May include any of the following equipment:

- Energy-efficient condensing & non-condensing boilers
- Integrated pumping system (hot water pumps using circulator, vertical in-lines or end suction pumps)
- Hydronic accessories-air separators & expansion tanks
- Provisions for all gas piping & ventilation
- Chemical treatment systems for low load
- Variable frequency drives (VFD) & boiler plant controller with touchscreen interface
- Differential pressure, temperature & flow transmitters
- Communication interface to Building Management System (BMS)
- Hybrid systems for low load conditions and dual system operation
- Internet connectivity for remote system monitoring
- Environmentally-controlled building enclosure with single-point power connection
- Pre-engineered systems available and include one to four boilers, pumping system, and optional hydronic accessories.



## Packaged Pumping Systems

May include any of the following equipment:

- Base mounted, end suction or vertical in-line pumps
- Suction diffusers
- Butterfly isolation valves
- Check valves
- Triple duty valves
- Pump common discharge header
- Pump common suction header
- Variable frequency drives (VFD)
- Power distribution
- Control panel & instrumentation
- Air separator- ASME tangential or In-line
- Expansion tank - ASME bladder
- Chemical shot feeder
- Chilled water buffer tank
- Glycol feeder
- Carbon or stainless steel headers
- Adjustable height header supports
- Environmentally-controlled building enclosure with single-point power connection available
- Pre-engineered systems available, includes one to four pumps, optional controls, VFDs and hydronic accessories



## Process Cooling Water Systems

May include any of the following equipment:

- Centrifugal pumps-vertical in-line, end suction or horizontal split-case
- Variable frequency drives (VFD)
- On-demand, auto pump staging, based on actual system demand
- Auto system temperature controls
- Auto system restart
- PLC based system controller (with color touchscreen interface)
- Air separator & bladder expansion tank
- Water storage tanks (steel or polyurethane)
- System conductivity controls with auto blow-down
- System pressure and differential pressure controls
- Carbon or stainless steel main headers
- Heat exchangers
- PED Certification
- Full-stream or side-stream filtration
- Designed with thermal heat transfer fluids for high/low temperature

*“On-time delivery and smooth job-site installations are critical in my business. Envirosep’s thorough engineering approach and timely delivery of quality equipment packages consistently save us time during field installation and give us a competitive advantage.”*

**Tracy Caffey, P.E. / Project Manager / Piedmont Mechanical, Inc.**

## Packaged Air-Cooled Chiller Plants & Systems

May include any of the following equipment:

- Energy-efficient scroll or screw chillers fully mounted on a common base
- Fully designed pumping systems – either for secondary distribution or variable primary
- Hydronic accessories-air separators, expansion tanks, & buffer tanks
- Variable frequency drives (VFD) & multi-chiller controller with touchscreen interface
- Differential pressure, temperature & flow transmitters provided as needed
- Communication interface to Building Management System (BMS)
- Outdoor rated electrical and pumping equipment
- Stand-alone hydronic packages when the pump is integrated with the chiller
- Internet connectivity for remote system monitoring
- Glycol feed systems
- Chemical treatment
- Insulation available
- Environmentally-controlled building enclosure with single-point power connection for outdoor use available



*EnviroSmart System Controllers use adaptive logic to continuously monitor system and weather parameters and make real-time fine adjustments to VFD speeds, system set points, and equipment sequence points to assure the lowest kW per ton of output.*



## Automation & Controls

Whether retrofitting an existing motor control panel or designing a new Building Automation System, Envirosep can engineer, design, and fabricate a solution to meet your specific process needs.

- UL-508A control panel manufacturer
- Interface to BMS
- Variable frequency drives
- PLC controllers
- User-friendly operator graphical interface systems
- Quick estimates and delivery
- BACnet communication interface
- Combination motor starter panels & automation systems
- Human machine interface (HMI) systems
- Various communication protocols available
- Sequence of operations development
- Start-up service
- Factory on-line monitoring via internet connection
- Operational support

## Heat Transfer Systems

May include any of the following equipment:

- ASME shell & tube heat exchanger (u-tube with U-stamp)
- Steam pressure regulator at steam supply inlet
- Steam control valves for supply water temperature control
- Centrifugal pumps end suction
- Variable frequency drives (VFD)
- Tangential air separator or expansion tank
- Triple duty valves & suction guides
- UL listed NEMA 12 industrial control panel
- Make-up water assembly with safety relief valve
- Float & thermostatic steam trap
- Pump differential pressure gauge
- PLC system controller w/touch screen
- NEMA 7/9 explosion-proof rating
- Flexible pump connectors
- Seismic or vibration isolators
- Vertical in-line pumps
- Combination air & dirt separators
- Internet connectivity for remote system monitoring
- Interface w/Building Management System



## Domestic Water Booster Systems

May include any of the following equipment:

- Centrifugal, multi-stage in-line pumps
- Stainless steel headers
- Butterfly isolation valves
- Check valves
- Variable frequency drives (VFD)
- Discharge pressure transmitter
- Automatic Pump staging/alternation
- Touch-screen operator interface
- Components meet NSF/ ANSI 61 & 372 standards
- Bladder hydro-pneumatic expansion tanks connected to unit (6-40 gallons)
- Remote tanks for large water storage capacity
- Close-coupled, end suction pumps
- Discharge pressure regulating valves (PRV)
- System inlet pressure switch
- Victaulic connections
- High pressure pumps and components available (up to 300 PSI)



# envirosep

A TILTECH™ COMPANY

## RESPONSIVE...QUALITY...SOLUTIONS...

Envirosep delivers for its customers

**F**or over 20 years, Envirosep designs and manufactures integrated solutions for fluid handling, heat transfer and energy recovery. Capabilities range from small standardized packaged pumping equipment to complex, engineered systems. Envirosep is a full service, engineering and manufacturing firm that provides a complete spectrum of cost effective, engineering and manufacturing services specializing in totally integrated engineered systems.

Our engineered systems are custom designed to meet the on site challenges where standard "one size fits all" designs cannot be integrated. Our expertise is in HVAC, industrial, plumbing and water utility applications of fluids handling, heat transfer, and commercial facility energy management solutions. Authorizations from internationally recognized organizations, such as American Society of Mechanical Engineers (ASME) and Underwriters Laboratories (UL listed), confirm that quality is a foremost focus in our company.

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