



# **Solutions Table**

This table represents some of our more popular brands. Don't see what you need? Contact us for more details.

### **PUMPS, BLOWERS & HX**

- Abaque
- Almatec
- AMT Pumps
- Borger Lobe Pumps
- Duroflow
- Elmo Rietschle
- Flotronic
- Gardner-Denver
- Griswold

- Iwaki

- Grundfos
- Gusher
- Magnatex

#### MTH

- Peerless
- Pulsafeeder
- RotoPumps
- Standard Xchange
- Sutorbilt
- Truflo
- Unibloc
- Verder
- Viking Pump
- Wilden
- Wrightflow Technologies

# **INSTRUMENTATION**

- Ashcroft
- Clark Reliance
- Det-Tonics
- Dvnisco
- Endress+Hauser
- Gems Sensors
- Hardy Process

MUNICIPAL PRODUCTS

DeZURIK/APCO/Hilton

Endress+Hauser

Gardner Denver

General Rubber

Hydrovision

Kinetrol

Intertec

Asco

Eaton

EIM

Ashcroft

K-Patents

- Macurco Gas
- Pepperl+Fuchs
- Thermon **Heat Trace**
- Vaisala
- Watlow

Latanick

Plastifab

Red Valve

Syneco

Thermon

Tideflex

Trumbull

Roto Pump

Smith & Loveless

Pulsafeeder



#### **VALVES**

- A+R
- Amresist
- Asco
- Atomac
- Automax
- Delval
- DeZURIK
- DFT
- Durco
- Evoguard

- Flowserve Inline
- NAF
- QTRCO
- Kammer
- Strahman
- SVF
- Tretter (TMC)
- Valtek
- Velan



# **FILTRATION**

- Carotek Filtration Solutions
- Eaton Filtration
- Eaton/BECO Sanitary
- Unibloc Hygenitec
- Viking Pump



# **FABRICATION & MECHANICAL**

- Pipe Fabrication
- Process Skids
- Pump & Blower Skids
- Seal Pots



# **STEAM & HYDRONICS**

- Amtrol Tank
- Armstrong International
- Donaldson
- Everactive
- FlowTech Grundfos
- KEP
- LJ Wing Macurco
- Paco
- SeeWater Pump Controls
- Shannon Enterprises



#### SERVICES

- Field Service
- Grundfos Warranty Service
- Instrumentation Calibration
- Valve Automation
- Pump and **Blower Repair**
- Steam System Services



#### **ELECTRICAL INTEGRATION SYSTEMS**

- Custom Control Panels
- Pfannenberg Cooling Systems
- Gas & Water Analytical Panels



#### **TRAINING**

- Filtration
- Instrumentation
- Steam/Hydronics
- Process Solutions Summit
- Valves
- Pumps



Some product lines are not available in all states. Please contact us for more details.





North Carolina • South Carolina • Virginia • Georgia • Tennessee





For Additional Information

Call 704.844.1100 or





# PUMPS, BLOWERS, VACUUM PUMPS, HX

Carotek has been serving the process equipment industry since 1965, with pumps being a key mechanical equipment component. Carotek offers a wide range of pump types and brands to meet your application needs. We also offer fabrication of Pump Skids, Blower Skids, Complete Process Skids, Control Panels & Seal Pots

For more information, visit carotek.com/pumps or call us for expert assistance.

		NC	SC	VA	GA	TN
	POSITIVE DISPLACEMENT PUMPS					
VIKING PUMP	Internal Gear, Spur Gear, Mag-Drive, Rotary Vane Pumps for Low to High Viscosity Applications	•	•	•	•	•
WILDEN	AODD Pumps – Ball Valve and Flap Valve Designs, High Pressure Designs and Aodd Accessories	•	•	•		
SPULSAFEDER® ENGINEERED PRODUCTS	Diaphragm Metering Pumps for High Pressure, Dosing Accuracy	•	•		•	•
<b>ECLIPSE®</b>	Rotary External Gear, Mag Drive Pumps - Metallic & Non-Metallic	•	•	•	•	•
ALMATEC.	Stainless and Solid Block Plastic Aodd Pumps for the Biopharma, Food and Beverage, and Chemical Applications	•	•	•		
Roto Numerica Nc.	Progressing Cavity Pumps, Parts for Moyno Pumps	•	•	•	•	•
IWAKIAIR	AODD Pumps				•	
BÖRGER.  EXCELLENCE - MADE TO LAST	Lined abrasive-duty rotary lobe pumps	•	•	•		•
GRANZOW,	Heavy Duty Hose Pumps	•	•	•	•	•
	CENTRIFUGAL PUMPS					
Grswold	ANSI Process Pumps and Goulds Parts, Cast Iron, Bronze Fitted Water Pumps	•	•	•		
GRUNDFOS	Multi-Stage Centrifugal, Booster Systems, Machine Tool Pumps, Pump Controls	•	•	•		
PEERLESS	Centrifugal: Horizontal, End-Suction, Vertical Turbine, Split Case, Fire Pump Systems	•	•	•		•
PHATON	Self Priming Solids Handling Pumps and Gormann Rupp Replacements	•	•	•	•	•
A Gorman-Rupp Company	Engine Driven, Electric and Self-Priming Utility Pumps	•	•	•	•	•









	DI OMERICA MACHINA RUMBA	NC	SC	VA	GA	TN
	BLOWERS & VACUUM PUMPS					
Gardner Denver	PD Blowers: Sutorbilt, Duroflow, Cycloblower, Heliflow, Blower Package Systems	•	•	•		•
Elmo Rietschle	Vacuum Pumps	•	•	•		•
EDWARDS	Vacuum & Dry Pumps				•	
	SANITARY & HYGIENIC PUMPS					
wright flow TECHNOLOGIES	Rotary Lobe, Hygienic & Circumferential Piston Pumps	•	•	•	•	•
WILDEN	Hygienic And Sanitary AODD Pumps for Food and Beverage, Biopharma and Personal Care Applications	•	•	•		
ALMATEC:	Stainless and Solid Block Plastic Aodd Pumps for the Biopharma, Food and Beverage, and Chemical Applications	•	•	•		
FLOTRONICO ONE-NUT-PUMPS	Hygienic One Nut AODD Pump	•	•	•	•	•
	HEAT EXCHANGERS					
Standard Xchange a xylem brand	Heat Exchangers - Shell and Tube/Plate and Frame/Brazed Pack	•	•	•		
	FILTRATION, STRAINERS & MECHANICAL SEALS					
FAT•N	Pipeline Strainers, Depth & Bag Filtration, Gas/Liquid Separators, Self-Cleaning Filter Systems	•	•	•	•	•
VIKING PUMP	Inline Basket Strainers for Pump Protection	•	•		•	•
////////// Flex-A-Seal	Mechanical Seals for centrifugal and PD pumps	•	•		•	•

For more information on the following offerings, please reference the respective brochures.

#### PROCESS SKIDS

Integrated pre-piped and pre-wired process systems. Complete piping design, fabrication and Factory Acceptance Testing.

#### **ADDITIONAL PRODUCT LINES**

- Instrumentation
- Valves
- Pumps
- Blowers

#### **CONTROL PANELS**

Custom control cabinets and integration. PLCs, HMIs, VFDs, complete design, software development & startup.

#### **SERVICE & REPAIR**

- Pump Repair
- Valve Automation
- Instrumentation Calibration

#### **SEAL POTS**

ANSI and API mechanical seal support systems. ASME section VIII (U), (UM) code vessels.

- System Start-Up
- Steam System Services
- Field Repair

For Additional Information Call **704.844.1100** or

Training

Filtration

Steam & Hydronics

Heat Exchangers

Control Panels

a SunSource Company

Visit carotek.com





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# **SEAL POTS**

Carotek manufactures Seal Pot Pressure Vessel Tanks in our Charlotte facility in Matthews, NC. As a premier industrial seal pot manufacturer, we offer standard and custom built ANSI / API mechanical seal support systems for industrial, chemical, and petrochemical applications.

#### We offer:

- ANSI Seal Pot Pressure Vessels
- API Seal Pot Pressure Vessels
- Seal Support Systems
- Custom Seal Pot Pressure Vessels

Learn More at Carotek.com/sealpots

# WHY BUY CAROTEK SEAL POT PRESSURE VESSELS?

- Made in America
- Quick Quotes
- Quick Delivery
- Expert application assistance
- Millwright quality
- TIG and MIG welded
- Designed to ASME Section VIII, Division 1, E2007, 2008, Addenda
- Available with (U) and (UM) code stamps, registered with ASME national board
- Leak free seal service on chemical applications for pumps and mixers
- Meet all the requirements of ANSI and API specifications
- Adaptable modular designs can be combined with cooling coils, level switch/ transmitters, pressure switch/transmitters, air coolers, and circulating pumps for a wide variety of applications
- Durable, flexible, and offer reliable performance for your demanding operations
- Perfect for toxic, expensive hazardous and EPA regulated fluids



Tank Capacity	2 Gallon, 3 Gallon, or 5 Gallon; 6" & 8" DIA
Operating Pressure	400 PSI @ 200°F
Tank Material	304/304L SCH 10
Cooling Coil	½" x 0.065" wall seamless tube; 20' long 316/316L
Level Gauge	Weld Pad – Size 3, 5 ¾" Visibility
Hydrostatic Test Pressure	525 PSI
Allowable Temp	-20° F to 200° F
Fill Port	3/4" NPT
Seal Connections	1/2" NPT
Level Switch Connections	3/4" NPT
Options	Pressure Regulator Pressure Indicator Explosion Proof Ultrasonic Level Switch Code Stamp available either (U) or (UM)















# CAROTEK SEAL POT SPECIFICATIONS FORM

Use this form to plan your seal pot specifications prior to requesting a quote.

QUANTITY SEAL POTS?	LEVEL GAUGE
DATE NEEDED?	
Pump Application  O ANSI O API  O OTHER - DESCRIBE	FRESSORE GAGGE
SIZE NEEDED?  O 2 gallon  O 3 gallon (for pump shaft dia. < 2.5")  O 5 gallon (for pump shaft dia. < 2.5")  O 0ther	O Yes - state range: O No  PRESSURE REGULATOR O Yes - state range:
TANK MATERIAL OF CONSTRUCTION  O Standard comes 304 Stainless Steel schedule 10  O Other Material (Eg. 316SS, Duplex SS, Monel Alloy-400)	<ul><li>○ Yes - state range:</li><li>○ No</li><li>LEVEL SWITCH</li><li>High Level ○ Yes ○ No</li></ul>
DESIGN TEMPERATURE  ○ Standard Temperature Rating is 200 degrees F  ○ Other Temperature	Low Level O Yes O No PRESSURE SWITCH
DESIGN PRESSURE  ○ Standard Pressure Rating is 400 PSI (27.5 BAR)  ○ Other Pressure	HAZARDOUS AREA CLASSIFICATION  O Yes - Describe:
COOLING COIL NEEDED?  ○ Yes (Standard: 1/2" OD x 0.065" Thk. x 20' 316/L SS Tube)  ○ No	O No STAND O Yes O No
SEAL CONNECTIONS  O Standard is Threaded 1/2" NPT  O Other	ISOLATION BALL VALVES O Vent O Drain O Seal Connections (In/Out) O Coil Connections (In/Out) O No
ASME CODE STAMP	

Submit this form online, visit Carotek.com/sealpots

For more information on the following offerings, please reference the respective brochures.

#### **PROCESS SKIDS**

O Yes O No

Integrated pre-piped and pre-wired process systems. Complete piping design, fabrication and Factory Acceptance Testing. Control Panel integration available.

#### **ADDITIONAL PRODUCT LINES**

- Instrumentation
- Valves
- Pumps
- Blowers
- Steam & Hydronics
- Heat Exchangers
- Filtration
- Control Panels

#### **SERVICE & REPAIR**

- Pump Repair
- Valve Automation
- Instrumentation Calibration
- System Start-Up
- Steam System Services
- Field Repair
- Training





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# INSTRUMENTATION

Carotek has been serving the process equipment industry since 1965, with industry leading instrumentation, control, and analytical solutions to meet your application requirements.

Below you will find a listing of the instrumentation we offer, as well as general information on additional Carotek products and services.

For more information, visit Carotek.com/ic or contact us for expert assistance.

		NC	SC	VA	GA	TN
■ ASHCROFT	Process Gauges & Switches	•	•	•	•	•
BOREAL	Open Path Gas Detection	•	•	•	•	•
Clark-Reliance°	Boiler Trim, Magnetic Level Gauges, Sight Flow Indicators			•		
<b>Dynisco</b>	Melt Pressure Transducers			•		
	Flow, Level, Pressure, Temperature, and Analysis	•	•	•	•	•
Endress+Hauser 🖽	Raman Spectroscopy for Life Science and Process Chemical Analysis	•	•	•	•	•
Gems Sensors & Controls	Magnetic Level Gauge, Conductivity	•	•	•	•	•
PROCESS SOLUTIONS Measurement - Automation - Productivity	Process Weighing equipment	•	•	•	•	•
K-PATENTS® PROCESS INSTRUMENTS	Concentration/Density Refractometers	•	•	•	•	
Macurco	Gas and Flame Detection Systems	•	•	•	•	•
PEPPERL+FUCHS	Isolation Barriers, Purge, HMIs, Wireless	•	•	•	•	•
(THERMON)	Heat Trace Solutions	•	•	•		•
VAISALA	Humidity & Dew Point Sensors	•	•	•	•	•
WATLOW & Powered by Possibility	Thermal Heaters, Sensors and Controllers	•	•	•	•	•











# **SERVICES**

Carotek offers a full range of services for most makes of instrumentation. Our highly trained certified staff can help extend the longevity of your equipment, optimize process run conditions, and save you money. Turnaround times are the best in the industry, and we guarantee our work.

#### We offer:

- Startup assistance
- Field service and repair 24/7
- On-site accredited instrument calibration with certificates for ISO17025 and NIST traceability
- SWAS Panel fabrication for real time analysis of steam and water
- Site audits for process automation enhancements
- Training Hands-on in our working Process Training Unit, year round classes for PDH credits



#### **PROCESS SKIDS**

Integrated pre-piped and pre-wired process systems. Complete piping design, fabrication and Factory Acceptance Testing.

#### ADDITIONAL PRODUCT LINES

- Instrumentation
- Valves
- Pumps
- Blowers
- Steam & Hydronics
- Heat Exchangers
- Filtration
- Control Panels

#### **CONTROL PANELS**

Custom control cabinets and integration. PLCs, HMIs, VFDs, complete design, software development & startup.

#### **INDUSTRIES WE SERVE**

- Chemical
- Plastics
- Food & Beverage
- Industrial, Municipal & Commercial
- Automotive & Tire
- Energy, Power & Utilities
- Pulp & Paper
- Paint, Solvents
   Adhesives
- Pharmaceutical, Personal Care & Bio

#### **SEAL POTS**

ANSI and API mechanical seal support systems. ASME section VIII (U), (UM) code vessels.

#### SERVICE & REPAIR

- Pump Repair
- Valve Automation
- Instrumentation Calibration
- System Start-Up
- Steam System Services
- Field Repair
- Training





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# **VALVES**

Carotek has been serving the process equipment industry since 1965, with industry leading valves to meet your application requirements.

Below you will find a listing of the valves we offer, as well as general information on additional Carotek products and services.

For more information, visit Carotek.com/valves or contact us for expert assistance.

or more imormation, visit	Carotek.com/valves or contact us for expert assistance.	NC	sc	VA	GA	TN
	Metal Seated Ball Valves	•	•	•	•	•
Amrēsist <sup>®</sup> ABray Company	PFA lined Butterfly Valves and Ball Valves					•
AZCΔ°	Solenoid Valves, Manifolds, Air Filter/Regulators	•	•	•	•	•
DelVal Flow Controls	Resilient Seated and High Performance Butterfly Valves	•	•	•	•	•
<b>DeZURIK</b>	Knife Gate, Plug, Butterfly and Rotary Control Valves	•	•	•		
DFT INC.	Check Valves	•	•	•	•	•
) EVOGUARD	Sanitary and Aseptic Valves	•	•	•	•	•
FLOWSERVE	<b>Durco</b> Plug & Butterfly Valves, <b>Atomac</b> Lined Ball Valves, <b>Automax</b> Pneumatic Actuators	•	•	•	•	•
FLOWSERVE Kammer Control Valves	Kammer Linear Control Valves - low flow, special, & severe service. Bellows seals, high alloy materials, and lined globe valves.	•	•	•		
FLOWSERVE NAF Control Valves	NAF Contol Valves Metal Seated, High Performance, Rotary Control Valves	•	•	•	•	•
O INLINE	Alloy Ball Valves	•	•	•	•	•













		NC	SC	VA	GA	TN
QTRCO	Stainless Steel Actuators	•	•	•	•	•
O Strahman	Washdown Equipment	•	•	•	•	•
SVF Flow Controls	Alloy Ball Valves, Sanitary Valves and Automation	•	•	•	•	•
THE	Sample and Drain Valves	•	•	•		
<b>SVALTEK</b>	Linear and Rotary Control Valves for General and Severe Service Applications, Analog and Digital Positioners	•	•	•		
YELAN	Ball, Gate, Globe & Check Valves	•	•	•	•	•

# **VALVE AUTOMATION**

Carotek's valve automation center creates assemblies in our facilities to significantly save time in the field.

- We assemble valve systems from 1/2" 48"
- Rotary and linear valve automation for On/Off and modulating service
- Smart positioner configuration
- Retrofit kits for existing valves in the field
- All valve assemblies are functionally tested, quality checked, serialized and tagged before shipment

For more information on the following offerings, please reference the respective brochures.

#### **PROCESS SKIDS**

Integrated pre-piped and pre-wired process systems. Complete piping design, fabrication and Factory Acceptance Testing.

#### ADDITIONAL PRODUCT LINES

- Instrumentation
- Valves
- Pumps
- Blowers
- Steam & Hydronics
- Heat Exchangers
- Filtration
- Control Panels

#### **CONTROL PANELS**

Custom control cabinets and integration. PLCs, HMIs, VFDs, complete design, software development & startup.

#### **INDUSTRIES WE SERVE**

- Chemical
- Plastics
- Food & Beverage
   Industrial Municipa
- Industrial, Municipal & Commercial
- Automotive & Tire
- Energy, Power
   Utilities
- Pulp & Paper
- Paint, Solvents
   Adhesives
- Pharmaceutical, Personal Care & Bio

## SEAL POTS

ANSI and API mechanical seal support systems. ASME section VIII (U), (UM) code vessels.

#### SERVICE & REPAIR

- Pump Repair
- Valve Automation
- Instrumentation Calibration
- System Start-Up
- Steam System Services
- Field Repair
- Training





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# **MUNICIPAL PRODUCTS**

Carotek has been serving the process equipment industry since 1965, with municipal water 8 wastewater being a specialty we serve well with a wide range of diverse products. As public water and wastewater systems become more complex, our municipal specialists solve your equipment selection and sourcing for any project.

Below you will find a listing of the municipal products we offer, as well as general information on additional Carotek products and services. For more information, visit Carotek.com/municipal or contact us for expert assistance.

		NC	SC	VA	GA	TN
AZCΔ°	Solenoid Valves, Manifolds, Air Filter/Regulators	•	•	•	•	•
S ASHCROFT*	Process Gauges & Switches	•	•	•	•	•
Pamily of 7 trusted brands	Eccentric Plug, AWWA Butterfly, High Performance Butterfly, and Knife Gate Valves	•	•			
APCO A DeZURIK Brand	Swing Check, Air Release, Surge Relief, Cone, Ball, and Control Valves	•	•			
Red Valve	Pinch Valves, Pressure Sensors, Expansion Joints, AIS CI/DI Body Knife Gate	•	•			
Tideflex: A DeZURIK Brand	Rubber or Elastomeric Check and Back Pressure Valves, Tank Mixing, Effluent Diffuser, Aeration, and Hydraulic Re-Circulation Systems	•	•			
<b>BETTIS</b>	Electronic and Electro-Mechanical Actuators meeting AWWA C-542-21, NEMA and IP Rated	•				
Endress+Hauser 🖽	Flow, Level, Pressure, Temperature, and Analysis	•	•	•	•	•
S&D	Grit Removal, FAST, and MBR Waste Treatment Equipment	•	•			
SYNECO SYSTEMS INCORPORATED	Dry Bed Control Systems and Manhole Inserts for Odor Control	•	•			
Gardner Denver	PD Blowers: Sutorbilt, Duroflow, Cycloblower, Heliflow, Blower Package Systems	•	•	•		•











		NC	SC	VA	GA	TN
SAPULSAFEEDER® ENGINEERED PRODUCTS	Diaphragm Metering Pumps for High Pressure, Dosing Accuracy	•	•		•	•
scientific A WATTS Brand	Online Turbidity, Chlorine, Monochloromine, Total Ammonia and Calculated Free Ammonia Analyzers	•	•	•	•	•
THERMON	Heat Tracing Products and System Control Panels	•	•	•	•	•
KINETROL®	Vane Style Pneumatic Actuators	•	•	•	•	•
ATANICK EQUIPMENT, INC	Telescoping Valves	•	•			
FATON	Pipeline Strainers, Depth & Bag Filtration, Gas/Liquid Separators, Self-Cleaning Filter Systems	•	•	•	•	•
ROTO PLAMPS NORTH AMERICA INC.	Ultra Progressive Cavity Pumps and Replacement Parts for Competing Manufacturers	•	•	•	•	•
TRUMBULL	Cast Stainless Steel/Cast Iron/Iron Mud Valves and Treatment Plant Accessories	•	•			
Planti-Fal®	FRP Gates, Flumes, Decanters & Weirs	•	•			

For more information on the following offerings, please reference the respective brochures.

#### **PROCESS SKIDS**

Integrated pre-piped and pre-wired process systems. Complete piping design, fabrication and Factory Acceptance Testing.

#### ADDITIONAL PRODUCT LINES

- Instrumentation
- Valves
- Pumps
- PullipsBlowers
- Steam & Hydronics
- Heat Exchangers
- Filtration
- Control Panels

### **CONTROL PANELS**

Custom control cabinets and integration. PLCs, HMIs, VFDs, complete design, software development & startup.

#### **INDUSTRIES WE SERVE**

- Chemical
- Plastics
- Food & BeverageIndustrial, Municipal
- 8 CommercialPharmaceutical, Personal Care 8 Bio
- Energy, Power& Utilities
- Pulp & Paper
- Paint, Solvents
   Adhesives
- Sanitary & Hygienic
- Automotive & Tire

#### SEAL POTS

ANSI and API mechanical seal support systems. ASME section VIII (U), (UM) code vessels.

#### SERVICE & REPAIR

- Pump Repair
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# STEAM, HYDRONICS, FILTRATION

Carotek has served the Institutional, Commercial, and Process Industries with hydronic heating products, steam & condensate systems, and filtration since 2001. We offer the finest manufacturer's products, with a focus on energy conservation and optimum system performance.

Below you will find a list of our Steam, Hydronics & Filtration products. Combined with our full process equipment lines, control panels and process skids, Carotek offers you the Power of Solutions. Contact us today.

For more information, visit carotek.com/SHF or call us for expert assistance.

	NC	SC	VA	GA	TN
STEAM AND CONDENSATE SYSTEM PRODUCTS					
Steam Traps & Condensate Pumps and Packages Steam/Water Washdown Hose Stations	•	•	•	•	
Pressure Reducing Valves & Control Valves & Temperature Regulators	•	•	•	•	
Steam Injection Mixing Valves, Air Vents & Liquid Drainers	•	•	•	•	
Steam Fired, Gas Fired, Electric and Adiabadic Humidifiers	•	•	•	•	
Veris Accelabar, Verabar, Vortex, Ultrasonic & Magnetic Flowmeters	•	•	•	•	
Process Instrumentation	•	•	•	•	•
Gauges & Thermometers	•	•	•	•	•
Insultech Insulation Blankets for Energy Savings, Noise Reduction and Safety	•	•	•	•	•
LIQUID FILTRATION & STRAINERS					
Pipeline Strainers, Depth & Bag Filtration, Gas/Liquid Separators, Self-cleaning	•	•	•		•
Air, Steam, Liquid filtration process housings and elements			•		
Sanitary Steam Filters	•	•	•	•	
HYDRONIC AND PLUMBING SYSTEM PRODUCTS					
Booster Packages, Circulator Pumps, Heat Exchangers & Accessories, Boiler Feed & Dosing Pumps	•	•	•		
Steam and Gas Fired Hot Water Generation, Digital Mixing Valves	•	•	•	•	
	Steam Traps & Condensate Pumps and Packages Steam/Water Washdown Hose Stations  Pressure Reducing Valves & Control Valves & Temperature Regulators  Steam Injection Mixing Valves, Air Vents & Liquid Drainers  Steam Fired, Gas Fired, Electric and Adiabadic Humidifiers  Veris Accelabar, Verabar, Vortex, Ultrasonic & Magnetic Flowmeters  Process Instrumentation  Gauges & Thermometers  Insultech Insulation Blankets for Energy Savings, Noise Reduction and Safety  LIQUID FILTRATION & STRAINERS  Pipeline Strainers, Depth & Bag Filtration, Gas/Liquid Separators, Self-cleaning  Air, Steam, Liquid filtration process housings and elements  Sanitary Steam Filters  HYDRONIC AND PLUMBING SYSTEM PRODUCTS  Booster Packages, Circulator Pumps, Heat Exchangers & Accessories, Boiler Feed & Dosing Pumps  Steam and Gas Fired Hot Water	STEAM AND CONDENSATE SYSTEM PRODUCTS  Steam Traps & Condensate Pumps and Packages Steam/Water Washdown Hose Stations  Pressure Reducing Valves & Control Valves & Temperature Regulators  Steam Injection Mixing Valves, Air Vents & Liquid Drainers  Steam Fired, Gas Fired, Electric and Adiabadic Humidifiers  Veris Accelabar, Verabar, Vortex, Ultrasonic & Magnetic Flowmeters  Process Instrumentation  Gauges & Thermometers  Insultech Insulation Blankets for Energy Savings, Noise Reduction and Safety  LIQUID FILTRATION & STRAINERS  Pipeline Strainers, Depth & Bag Filtration, Gas/Liquid Separators, Self-cleaning  Air, Steam, Liquid filtration process housings and elements  Sanitary Steam Filters  HYDRONIC AND PLUMBING SYSTEM PRODUCTS  Booster Packages, Circulator Pumps, Heat Exchangers & Accessories, Boiler Feed & Dosing Pumps  Steam and Gas Fired Hot Water	STEAM AND CONDENSATE SYSTEM PRODUCTS  Steam Traps & Condensate Pumps and Packages Steam/Water Washdown Hose Stations  Pressure Reducing Valves & Control Valves & Temperature Regulators  Steam Injection Mixing Valves, Air Vents & Liquid Drainers  Steam Fired, Gas Fired, Electric and Adiabadic Humidifiers  Veris Accelabar, Verabar, Vortex, Ultrasonic & Magnetic Flowmeters  Process Instrumentation  Gauges & Thermometers  Insultech Insulation Blankets for Energy Savings, Noise Reduction and Safety  LIQUID FILTRATION & STRAINERS  Pipeline Strainers, Depth & Bag Filtration, Gas/Liquid Separators, Self-cleaning  Air, Steam, Liquid filtration process housings and elements  Sanitary Steam Filters  HYDRONIC AND PLUMBING SYSTEM PRODUCTS  Booster Packages, Circulator Pumps, Heat Exchangers & Accessories, Böiler Feed & Dosing Pumps  Steam and Gas Fired Hot Water	STEAM AND CONDENSATE SYSTEM PRODUCTS  Steam Traps & Condensate Pumps and Packages Steam/Water Washdown Hose Stations  Pressure Reducing Valves & Control Valves & Temperature Regulators  Steam Injection Mixing Valves, Air Vents & Liquid Drainers  Steam Fired, Gas Fired, Electric and Adiabadic Humidifiers  Veris Accelabar, Verabar, Vortex, Ultrasonic & Magnetic Flowmeters  Process Instrumentation  Gauges & Thermometers  Insultech Insulation Blankets for Energy Savings, Noise Reduction and Safety  LIQUID FILTRATION & STRAINERS  Pipeline Strainers, Depth & Bag Filtration, Gas/Liquid Separators, Self-cleaning  Air, Steam, Liquid filtration process housings and elements  Sanitary Steam Filters  HYDRONIC AND PLUMBING SYSTEM PRODUCTS  Booster Packages, Circulator Pumps, Heat Exchangers & Accessories, Boiler Feed & Dosing Pumps  Steam and Gas Fired Hot Water	Steam Traps & Condensate Pumps and Packages Steam/Water Washdown Hose Stations  Pressure Reducing Valves & Control Valves & Temperature Regulators  Steam Injection Mixing Valves, Air Vents & Liquid Drainers  Steam Fired, Gas Fired, Electric and Adiabadic Humidifiers  Veris Accelabar, Verabar, Vortex, Ultrasonic & Magnetic Flowmeters  Process Instrumentation  Gauges & Thermometers  Insultech Insulation Blankets for Energy Savings, Noise Reduction and Safety  Liquid Filtration & Strainers  Pipeline Strainers, Depth & Bag Filtration, Gas/Liquid Separators, Self-cleaning  Air, Steam, Liquid filtration process housings and elements  Sanitary Steam Filters  HYDRONIC AND PLUMBING SYSTEM PRODUCTS  Steam and Gas Fired Hot Water











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		NC	SC	VA	GA	TN
PACO GRUNDFOS: X	End-suction, Split Case, Turbine & Submersible Pumps	•		•		
	MISCELLANEOUS PRODUCTS					
Macurco	Building Gas Detection Solutions	•	•	•	•	
KEP	Flow & Energy Computers	•	•	•	•	•
SEE WATER Inc.	Pump Controls, Alarms and Panels	•	•	•	•	•
AMTROL.	Expansion Tanks & Air Separators	•	•	•		
THERMON	Electric Heat Tracing	•	•	•		•
everactive	Wireless & Batteryless Steam Trap and Machine Health Monitoring	•	•	•	•	•

## STEAM SYSTEM SERVICES

Carotek, through close association with Armstrong International, offers a variety of products and services to ensure your steam system is operating at peak efficiency. From training to on-site services such as energy audits and steam trap surveys, to online steam trap monitoring and hot water systems monitoring, Carotek and Armstrong provide the assistance and expertise that is unmatched in the industry.

- Steam Trap Surveys and Audits to prevent failures and save costs
- Wireless Steam Trap Monitoring in Real-time to prevent energy loss and safety issues
- Hot Water Monitoring to prevent service interruptions
- Comprehensive System Energy Audit with detailed report recommending energy conservation measures and efficiency improvements
- Utility Systems Management from turnkey installation to ongoing maintenance, including custom engineering and financing
- Training On-Site, in our Matthews facility or On-line

For more information on the following offerings, please reference the respective brochures.

#### PROCESS SKIDS

Integrated pre-piped and pre-wired process systems. Complete piping design, fabrication and Factory Acceptance Testing.

#### ADDITIONAL PRODUCT LINES

- Instrumentation
- Valves
- Pumps
- Blowers
- Steam & Hydronics
- Heat Exchangers
- Filtration
- Control Panels

#### CONTROL PANELS

Custom control cabinets and integration. PLCs, HMIs, VFDs, complete design, software development & startup.

#### **INDUSTRIES WE SERVE**

- Chemical
- Plastics
- Food & Beverage
- Industrial, Municipal & Commercial
- Automotive & Tire
- Pulp & Paper
- Energy, Power & Utilities
- Paint, Solvents
- & Adhesives Sanitary & Hygienic
- Pharmaceutical, Personal Care & Bio

#### SEAL POTS

ANSI and API mechanical seal support systems. ASME section VIII (U), (UM) code vessels.

#### SERVICE & REPAIR

- Pump Repair
- Valve Automation
- Instrumentation Calibration
- System Start-Up
- Steam System Services
- Field Repair
- Training





The Power of Solutions

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For Additional Information Call **704.844.1100** or









# **CONTROL PANELS &** SYSTEM INTEGRATION GROUP

Carotek's Control Panels and Systems Integration Group offers complete Control System integration including fabrication of control panels and assist with start-up on your next automation project.

For more information, visit carotek.com/control-panels or call us for expert assistance.

## WHY CAROTEK CONTROL PANELS?

#### We offer:

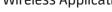
- Complete Control Fabrication
- UL/CUL 508A, 698 and 1203 Certified
- Authorized Integrator for most major PLC and HMI Manufacturers
- Experience with all major brands of DC Drive and AC Variable **Frequency Drives**
- Systems fabricated to your design, drawings and programs
- AutoCAD Electrical generated drawings
- Software Development can be arranged with 3rd party suppliers
- All systems tested prior to shipment
- On site Start-Up Assistance and Training
- Existing production process automation

## **Industry Applications**

- Pulp & Paper
- Plant Process Control
- Pharmaceutical
- Process Instrumentation
- Food Processing
- Variable Speed Applications
- Plastics

- Power Generation
- Petro Chemical/Chemical
- Wireless Applications
- Automotive
- Bio-Diesel
- Water & Wastewater





# **CONTROL SYSTEM SERVICES**

We start by taking the time to completely understand your requirements and the goals for the control system. For large systems, each control panel is fabricated with the system operators in mind.

- PLC/HMI authorized integrator All major brands supported
- Report generation
- Complete annotated documentation
- Installation and operator documentation and training
- Multiple drawing formats (size & color)















# **CONTROL SYSTEM CALIBRATION & TRAINING**

Carotek offers unparalleled startup assistance to get your control panel system up and running quickly, operator training to ensure system integrity, and 24/7 services when needed. This includes:

- Factory qualified technicians
- Start-Up services
- Operator/User training
- Instrument calibration & repair
- Field Troubleshooting
- Plant & system audits

We will come to your facilities with our control panels and provide startup assistance to ensure that everything is working correctly. This includes startup testing to ensure compliance with any required standards. Our team also will ensure all instruments are calibrated correctly and repair/replace any existing instrumentation as needed. We will troubleshoot to ensure complete system integrity before leaving the job site.



## CONTROL PANEL UL CERTIFICATIONS

Carotek offers several certifications on all of our control systems according to your particular process requirements. We are a UL 508A, 698 and 1203 certified panel shop for industrial control panels (standard and hazardous). We can do certification testing for your existing control panels - only in our facility. Testing in your facility must be conducted by UL.



Our latest certification is in the UL's Hazardous Location Industrial Control Panel Program, accepted in every jurisdiction across North America. The industrial control panels covered by these UL services are assemblies of components such as motor controllers, overload relays, fused disconnect switches, circuit breakers and related control devices. These related control devices may include push-button stations, selector switches, pilot lights, control relays, and associated wiring terminals.





## CONTROL PANEL THERMAL MANAGEMENT

Carotek is an authorized stocking Pfannenberg Distributor who specializes in thermal management solutions to maximize up-time and efficiency. Products include Panel Mounted Air Conditioners, Air-to-Water / Air-to-Air Heat Exchangers, Chillers, Exhaust Fans, Heaters, Hydrostats, & Thermostats. Carotek also provides sales, service, and spare parts for all your thermal management needs.



For more information on the following offerings, please reference the respective brochures.

#### **PROCESS SKIDS**

Integrated pre-piped and pre-wired process systems. Complete piping design, fabrication and Factory Acceptance Testing. Control Panel integration available.

#### **ADDITIONAL PRODUCT LINES**

- Instrumentation
- Valves
- PumpsBlowers
- Steam & Hydronics
- Heat Exchangers
- Filtration
- Control Panels

#### **SERVICE & REPAIR**

- Pump Repair
- Valve Automation
- Instrumentation Calibration
- System Start-Up
- Steam System Services
- Field Repair
- Training





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# PROCESS SKIDS

Carotek offers custom integrated process skid fabrication for mechanical and electrical skid mounted process systems that are pre-wired and mounted on a common base to meet your specific design and process requirements.

Carotek is your single source solution for custom integrated process mechanical skid packages including control panels. We are a process skid manufacturer of choice for Power Generation, Chemical Process and Pulp & Paper, general industries and engineering firms.

Contact us today for a customized quote at carotek.com/process-skids.

## WHY CAROTEK PROCESS SKID FABRICATION?

- Skids are built in our state-of-the-art facility in Matthews, NC
- Our indoor fabrication facility means more control over production time with no weather delays
- FAT Tested in our shop for full check out before shipment, to get you online faster with no start-up problems
- Single PO for complete mechanical/electrical skids
- Component research, selection, purchasing and expediting
- On-site inventory of Pumps, Blowers, Heat Exchangers, Instrumentation, Valves, Filtration, Tanks, Seal Pots & Control Panels
- Full 3 D modeling documentation provided for every skid
- Project management for engineering, purchasing, and shop fabrication
- ASME Section IX Welding qualifications
- ASME Section VIII U and UM code stamp available
- QA Program assures you of project standards & documentation
- NDE inspections
- ANSI B 31.1 in accordance with your P+ID





## PROCESS SKID SPECIALTIES

- Fuel Oil Unloading & Transfer Skids
- High Pressure Systems
- Truck Unloading Skids
- Pump & Blower Skid Packages
- Heat Exchanger Skids
- Water Treatment Skids
- Balance of Plant System Skids
- Chemical Process Skids (Metering Skid, Injection Skid, Dosing Skid, Feeding Skid, Transport Skid, Blending Skid, Extraction Skid, Filtration Skid)













## **FABRICATION FACILITIES**

Carotek's process skid fabrication facilities are designed to handle many different types of Process Skids with the highest quality control. Today, our facilities encompass 85,000 SF including:

- 25,000 SF Main Mechanical Fabrication Shop
- 5,000 SF additional fabrication and lay-down facility
- 15,000 SF UL/CSA Panel Fabrication Shop
- 12,000 SF. Warehouse and valve automation center
- 28,000 SF. Office
- 25 Ton / 10 Ton / 5 Ton Cranes
- 2 Paint Booths
- Drive-in & Pull Through Loading Docks
- Complete Testing Electrical, NDE, Hydro, Pneumatic,
   Valve Assemblies, Pump Packages, Mechanical Engineered
   Packages & Electrical Control Systems

# **FABRICATION CAPABILITIES**

- Stainless and Carbon-steel piping and structure
- Electrical layout and design, wiring and testing
- Mechanical assembly
- Instrumentation and Valve installation and calibration
- Pipe fitting/Welding, and installation
- Structural fabrication
- Welding done by certified experienced and highly skilled staff
- Fully equipped for a wide variety of projects involving carbon steel, sanitary piping, aluminum and Hastelloys, Inconell and other exotic metals
- Insulation
- Painting
- FAT testing

For more information on the following offerings, please reference the respective brochures.

#### **CONTROL PANELS**

Custom control cabinets and integration. PLCs, HMIs, VFDs, complete design, software development & startup.

#### **ADDITIONAL PRODUCT LINES**

- Instrumentation
- Valves
- Pumps
- Blowers
- Steam & Hydronics
- Heat Exchangers
- Filtration
- Control Panels

#### **SERVICE & REPAIR**

- Pump Repair
- Valve Automation
- Instrumentation Calibration
- System Start-Up
- Steam System Services
- Field Repair
- Training





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# FOOD & BEVERAGE PROCESS EQUIPMENT

SANITARY PROCESS INSTRUMENTATION

**SPECIALTY VALVES** 

**FOOD GRADE PUMPS** 

**FILTRATION** 

MIXERS & BLENDERS

**BOD REMOVAL** 

**WASH DOWN EQUIPMENT** 

**STEAM & HOT WATER** 

**CONTROL PANELS** 

Carotek offers specialized products to meet the needs of the food and beverage industry - instrumentation, valves, pumps, steam & hydronics as well as complete process skids and control panels for process automation and process control systems.

Carotek understands that process integrity, recipe compliance, and product reliability are basic prerequisites in food processing. Additionally, because most processes must remain closed and contamination of the process media must be prevented in every phase of production, you can rely on our expertise to provide the right solutions.

Our specialized product application engineers are available to help you determine the best products to meet stringent sanitary standards, increase product quality and consistency and enhance the efficiencies of your process.

Whatever your needs, let Carotek help.

CONTACT US TODAY.











For Additional Information

# SANITARY PROCESS INSTRUMENTATION

Carotek offers a variety of specialized instrumentation product lines that cater to the food and beverage industry. We understand our customers need to control the quality and safety of their products.

Whether you need to measure and control flow, level, pressure, temperature, density, pH, weight or even color, we have instrumentation and controllers to help with all of your critical process parameters with hygienic connections and food grade approvals.

We understand the importance of managing your inventory and remaining in compliance with regulatory standards. We have instrumentation to help you reduce waste as well as manage energy costs.

We also offer on-site NIST traceable calibration, field service and remote service. Certifications include A2LA, from ISO-17025 accredited labs.



# **SPECIALTY VALVES**

Carotek offers a variety of specialized valves, actuators and controls that meet the needs of the food and beverage industry with 3-A Certifications. We offer a wide range of high-performance, high-quality butterfly valves, ball valves, check valves, and mix proof valves suitable for both hygienic and aseptic applications. We also offer solenoid valves and fluid control solutions for sanitary and steam and hot water applications.

Carotek's Valve Automation Center creates valve assemblies in our facilities that can save you a significant amount of time in the field with faster startups. Our Process Valve expertise combined with our engineered solutions capability can solve the most complex challenges that you bring to us.



# **FOOD GRADE PUMPS**

The food and beverage industry relies on pumping and mixing solutions to manufacture their products. Carotek has various pump product lines that cater to the food and beverage industry's hygienic and sanitary requirements, including 3-A and FDA. We also offer extensive pump parts inventory as well as expert repair by factory certified technicians.



# **FILTRATION**

Maintain quality, consistency, and purity while minimizing maintenance and maximizing throughput with a wide variety of filtration products from Carotek.



## **MIXERS**

Carotek offers the Packo shear mixer pump which is mainly used for in-line mixing, homogenization and dispersion applications. The shear is generated between the rotor and an innovative and optimized perforated stator (patented). The final goal is to achieve a homogeneous solution of two liquids with high difference in viscosity and/or density and to obtain a significant particle size reduction for emulsions and particles leading to a more stable final product.



# **BOD REMOVAL**

The wastewater from food and beverage operations is unique and often contains high levels of BOD, biological oxygen demand. High levels of BOD in the wastewater can put excessive demands on municipal wastewater treatment facilities. In turn, many municipalities are putting that burden back on the food and beverage processors in high surcharges and restrictions on output.

Carotek offers solutions that are a lower cost alternative to other conventional wastewater treatment options and requires much less real estate.



# **WASH DOWN EQUIPMENT**

Carotek offers exceptional washdown solutions made with premium, high-quality parts designed to withstand your most challenging applications. We can supply your needs for mixing unit hose stations, hoses and hose reels and spray nozzles.



# STEAM & HOT WATER

Carotek can supply your steam, hot water, condensate systems, pressure boosters and controls. We also offer steam trap and machine health monitoring with battery less sensors that use only harvested energy.

Our detailed plant utility assessments, thermal audits and steam trap surveys can reveal opportunities for energy savings, decarbonization and reliability improvements.



# **CONTROL PANELS**

Carotek offers control panel fabrication, as well as system integrations for food and beverage processes that have sanitary requirements. Control panels and PLC control cabinets are fully customizable according to your specifications. We design, fabricate, develop software and assist with system startup.



	NC	sc	VA	GA	TN
SANITARY PROCESS INSTRUMENTAT	ION				
Endress+Hauser 🖾	•	•	•	•	
■ ASHCROFT	•	•	•	•	•
Eurotherm. by Schneider Electric	•	•	•	•	•
PROCESS SOLUTIONS	•	•	•	•	•
VAISALA	•	•	•	•	•
K-PATENTS° PROCESS INSTRUMENTS	•	•			•
(THERMON)	•	•	•	•	•
WATLOW Powered by Possibility	•	•	•	•	•
BOREAL	•	•	•	•	•
Macurco	•	•	•	•	•
(). (Iscientific	•	•	•	•	•
SPECIALTY VALVES					
AZCΩ°	•	•	•	•	•
DFT.	•	•	•	•	•
)( EVOGUARD	•	•	•	•	•
FLOWSERVE Kammer Control Valves	•	•			
SVF Flow Controls	•	•	•	•	•
QTRCO	•	•	•		
TRU-FLO				•	
WASH DOWN EQUIPMENT					
Armstrong	•	•	•	•	•
& Strahman	•	•	•	•	•
GRUNDFOS	•	•	•		•

	NC	sc	VA	GA	TN				
FOOD GRADE PUMPS									
VIKING PUMP									
333333									
WILDEN <sup>®</sup>									
VERDER_									
UNIBLOC									
Hygienia Technologias									
Elmo Rietschle									
Filetscrile									
IWAKI AIR				•					
ÉDWARDS									
FILTRATION									
Powering Business Worldwide		•							
Donaldson.									
Filtration Solutions									
NE⊷TECH .									
A Q U A S O U U T I O N S . I N C The Verifit Mest Advanced UV Technology = 183									
CAROTEK* FILTRATION SOLUTIONS									
MIXERS									
<u>Packo</u>									
A VERDER COMPANY	VCEN	A E NIT							
BOD REMOVAL/WASTEWATER MANA	UEIV	TENT							
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STEAM, HOT WATER AND THERMAL									
STEAM, HUT WATER AND THERMAL									
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Armstrong'									
everactive		•	•	•	•				
3									
powerblanket		•	•	•	•				
BRING THE HEAT"									
<b>Shannon</b>		•	•	•	•				
GLOBAL ENERGY SOLUTIONS									
CAROTEK°									
STEAM SYSTEM AUDITS									
CONTROL DAMES OF THE CONTROL	IDS								
CONTROL PANELS AND PROCESS SK					NATIONWIDE				
CONTROL PANELS AND PROCESS SK		NATI	ONV	VIDE					









