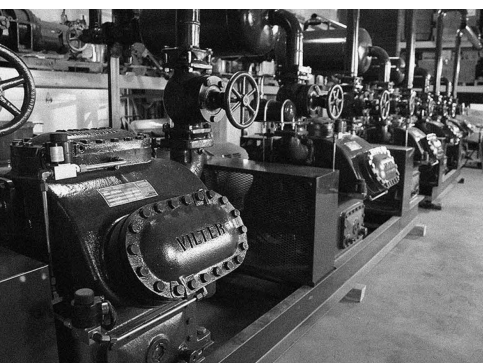




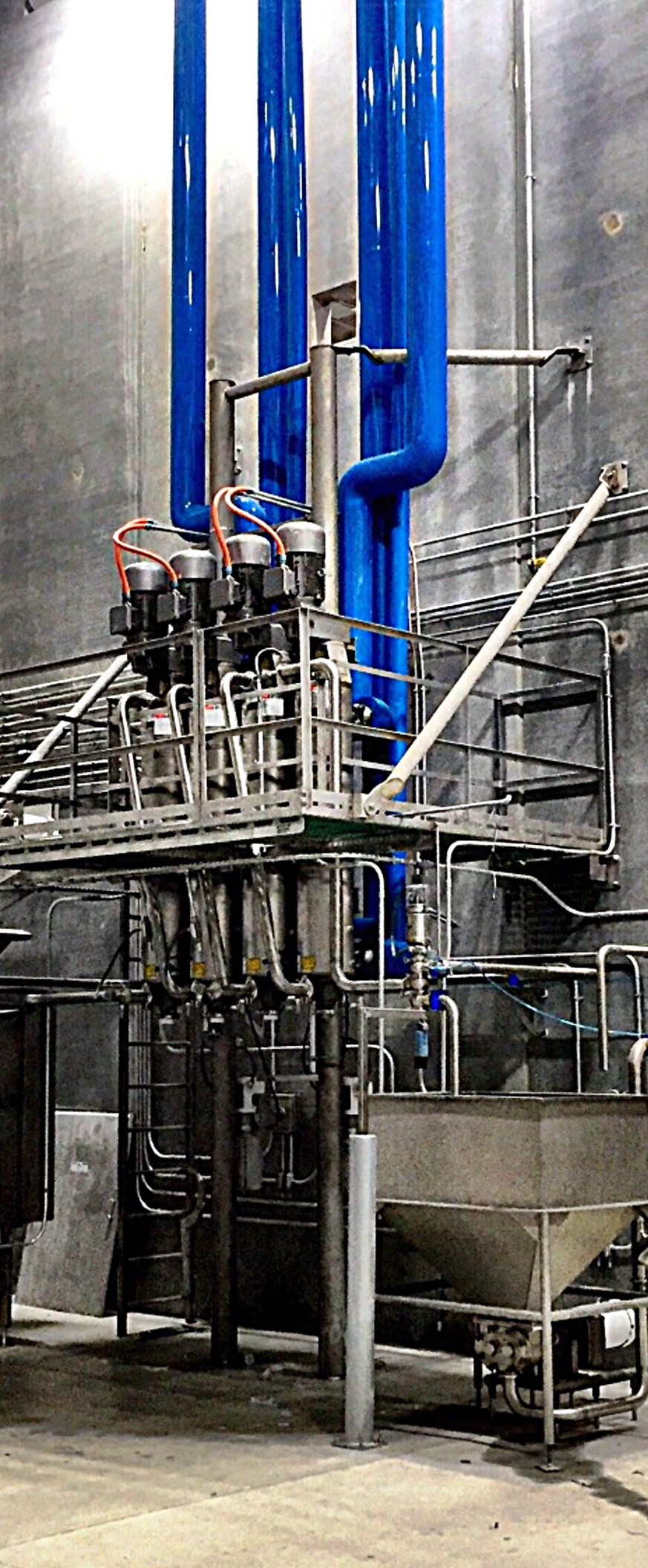
The WILLIAMS - CARVER CO.

Established 1955

WILLIAMS-CARVER CO. | CAPABILITY OVERVIEW



WILLIAMS
WC
CARVER CO.



INDEX

WCC Overview.....	1
WCC PROCESSING CAPABILITIES	
<u>PRODUCT LINE HIGHLIGHTS</u>	
SPX FLOW TECHNOLOGY	
Waukesha Cherry Burrell	2
APV	3
Bran+Luebbe	4
Seital.....	4
GRACO	5
ITT ENGINEERED VALVES	6
QSM (Tru-Flo)	8
SANITARY FLEXIBLE HOSES	9
SANI-MATIC	9
ELASTOMERS/ FITTINGS	10
FULL PRODUCT LINE CARD	11
CERTIFIED PUMP & VALVE REPAIR CENTER	12

WILLIAMS
WC
CARVER CO.

The Williams-Carver Company, Inc. was established in 1955 to serve the food & beverage, dairy, and pharmaceutical industries. As a third-generation mechanical engineering contractor, Williams-Carver is a leading supplier of both process stainless steel, sanitary processing, and industrial refrigeration equipment. Our corporate office and distribution center is located in Kansas City, KS, USA. This central location allows us to ship our products throughout the United States and the world. Our large inventory of both sanitary stainless steel and industrial components, equipment, and parts allows us to be a single source supplier for all your processing requirements. Quality and Personal Service is what has allowed The Williams-Carver Company, Inc. to grow into the industry leader it is today.









For over 70 years, The Williams-Carver Company, Inc. has provided innovative solutions in the sanitary/industrial processing, dairy, brewery, pharmaceutical, animal health, and food & beverage industries.

To learn more about our company as well as the products and services we provide, please visit www.williamscarver.com



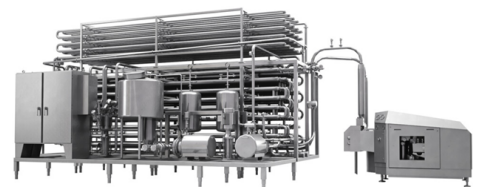
Common Applications: Food, Dairy, Beverage, Brewery, Pharmaceutical, Personal Care, Pulp & Paper, Automotive Paint, Hydro-Carbon Processing, Films, Coatings, Adhesives, etc.

PRODUCT	UNIVERSAL 1 AND 2 SERIES - POSITIVE DISPLACEMENT PUMPS	
	<ul style="list-style-type: none"> Models available in rectangular flange or aseptic configurations with non-galling 88 alloy rotors Pumps can be remanufactured Close-coupled Tru-Fit mounting options available 	<ul style="list-style-type: none"> Universal II - Pressures up to 500 psi (34.5 bar), CIP design Universal I - Pressures up to 200 psi (14 bar), COP design Multiple seal configurations available
	UNIVERSAL 3 SERIES - POSITIVE DISPLACEMENT PUMP	
	<ul style="list-style-type: none"> Rotor/shaft connection is completely sealed from product zone Front loading seal design Stainless steel gear case standard 	<ul style="list-style-type: none"> Universal III - Pressures up to 500 psi (34.5 bar), CIP design Many sizes are a direct drop in for Universal 1 and Universal 2 size pumps
	UNIVERSAL TWIN SCREW PUMP (UTS) PUMP	
	<ul style="list-style-type: none"> Dual functionality. Both product and CIP pump Extensive range of applications and viscosity Easy maintenance and servicing 	<ul style="list-style-type: none"> Foreign and domestic support From low viscosity substances to high viscous materials, this exceptional pump meets the demands of various applications where hygiene and operational efficiency are paramount
	CENTRIFUGAL PUMPS	
	<ul style="list-style-type: none"> High efficiency, minimal vibration, longer life pumps One size seal fits all 200 Series models Designed for low viscous applications 	<ul style="list-style-type: none"> Available models include 200 Series, C-Series, Multi-Stage, Self-Priming, Water for Injection, and stub shaft pump versions
	VALVES	
	<ul style="list-style-type: none"> Sanitary, hygienic valves manufactured of stainless steel Mix Proof Valves: To provide separation of dissimilar products within same valve body 	<ul style="list-style-type: none"> Heavy-duty construction for long service life Easy to maintain, can be remanufactured Designed to be cleaned in place or out
	VOTATOR SCRAPE SURFACE HEAT EXCHANGERS	
	<ul style="list-style-type: none"> Models available for processing moderate to ultra high viscosity products Options for controlling residence time and for maintaining product integrity 	<ul style="list-style-type: none"> Material selection to meet specific process requirements Horizontal and Vertical mounting choices

Common Applications: Food, Dairy, Beverage, Brewery, Healthcare, Marine, Power, Chemical, Biotechnical, Industrial


PRODUCT	HEAT EXCHANGERS
	<ul style="list-style-type: none"> Invented Plate Heat Exchanger in 1923 Wide portfolio including Gasket, Brazed, and Semi-Welded Plate, Tubular, Scraped Surface, Hybrid and District Heating Units Heat exchangers suitable for <u>Hygienic, Ammonia, and Industrial applications</u> Large range of plate, gasket, material and configurations available
	HOMOGENIZERS
	<ul style="list-style-type: none"> Rannie & Gaulin Brands High Performance Modular design for greater flexibility Innovative service and maintenance concepts Laboratory Testing Services Quiet stability with low noise, low vibrations Lower cost of ownership
	PUMPS
	<ul style="list-style-type: none"> Centrifugal Pumps, Positive Displacement Pumps, Self-Priming Pumps Extensive product range including high capacity, aseptic, water for injection, high pressure Energy efficient Highest hygienic standards. EHEDG, 3A, FDA approved. Designed for CIP and SIP Easy maintenance Low noise and vibration levels Low NPSH requirements
	VALVES
	<ul style="list-style-type: none"> Includes Butterfly, Single-Seat, Mixproof, Aseptic, Regulating and Process Valves Highest hygienic and aseptic standards. 3A, EHEDG, PMO, FDA approved Designed for CIP Easy maintenance, adaptable and modular Different control unit options

APV, an established centennial engineering legacy, is an important part of the SPX FLOW brand, integrated over a decade ago. Addressing the food/beverage, dairy, pharmaceutical and healthcare markets, **APV** offers highly effective turnkey automation and process engineering solutions. These industrial solutions combine the extensive array of heat exchangers (for evaporation, pasteurization and UHT), pumps (rotary, centrifugal, inducer, etc.), valves, mixers, dissolvers and homogenizers that we manufacture with numerous services which will maximize the effectiveness of systems throughout the whole of their life-cycle. These services cover original system inception, equipment deployment, upgrades and eventual decommissioning, as well as plant optimization.



ULTRA HIGH TEMPERATURE (UHT) SYSTEM


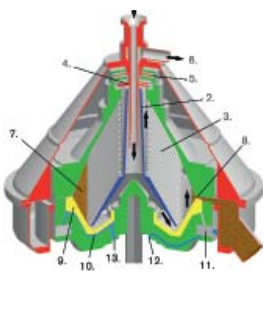
Common Applications: Oil & Gas, Petrochemical, Chemical, Food, Beverage, Personal Care, Pharmaceutical, Pulp & Paper, Water Treatment

PRODUCT	PROCAM METERING PUMPS	
	<ul style="list-style-type: none"> Modular, single and multi-stream pump configurations to match process requirement Double Diaphragm and Plunger Pumps Pressures up to 20 bar (300 PSI) (Diaphragm) and 80 bar (1200 PSI) (Plunger) Flow rates up to 3000 l/h (790 GPH) per pump head 	
	<th data-bbox="560 646 1487 695">NOVADOS METERING PUMPS</th>	NOVADOS METERING PUMPS
	<ul style="list-style-type: none"> Horizontal and vertical metering pumps Modular, single and multi-stream pump configurations to match the process requirements Pressures up to 1000 bar (15,000 PSI) Flow rates up to 22600 l/h (6000 GPH) per pump head Variable speed drive & variable stroke adjustment for manual or automatic flow control Double diaphragm and plunger pumps, API 675 complaint Remote condition monitoring with the NOVALINK-CSM online diagnostic system 	






SEITAL SEPARATION

THE WILLIAMS-CARVER COMPANY, INC.

Common Applications: Chemicals, Dairy, Food & Beverage, Brewery, Pharma & Biotech

PRODUCT	VERTICAL DISK STACK CENTRIFUGES	
  <ol style="list-style-type: none"> Product inlet Distributor Disk Stack Centrifugal pump Hydraulic sealing Outlet pipe Solids/impurities Discharge holes Moving ram Water closing chamber Bowl valve Operating water inlet for bowl opening Operating water inlet for bowl closing 	<ul style="list-style-type: none"> Solids-retaining and self-cleaning centrifuges Self-cleaning nozzle centrifuges Wide range of hydraulic capacities, from 132 to 2641 g/h (500 to 10,000 l/h) for solids-retaining models and from 132 to 18,492 g/h (500 to 70,000 l/h) for self-cleaning models Hygienic & Gas-tight design Most common applications: corn oil recovery from bioethanol production, milk skimming and bacteria clarification, tea clarification, wine & beer clarification, yeast and bacteria recovery 	
	<th data-bbox="560 1627 1487 1675">TECHNOLOGY SOLUTIONS</th>	TECHNOLOGY SOLUTIONS
	<ul style="list-style-type: none"> High performance Centrifuges Focused on R&D for continuous improvement on performance and materials Excellence in design, mechanical and hydraulic analysis and testing Internal manufacturing of all components and parts that are strategic for separators efficiency, quality and safety Standards conformity checked by CMM machine on all strategic parts On-site testing available with complete separation units or in SPX lab and/or pilot plant 	

Common Applications: Food & Beverage, Dairy, Personal Care, Pharma, Chemical Transfer

PRODUCT	AIR-OPERATED DIAPHRAGM PUMPS
	<ul style="list-style-type: none"> Designed for rigorous, continuous use with quick knockdown for easy cleanability and sanitation Ideal for applications requiring high flow rates and portability Higher flow rates give flexibility to process more applications with ranging viscosities Increased durability and reduced repair time with fewer moving parts
PRODUCT	ELECTRIC-OPERATED DIAPHRAGM PUMPS
	<ul style="list-style-type: none"> Electric drive to reduce energy consumption and accurately meter fluid Quieter and cleaner work environment Built in controls Reduces energy consumption up to 8x compared to traditional air-operated diaphragm pumps Reduce or eliminate high energy consuming air compressors
PRODUCT	PISTON PUMPS
	<ul style="list-style-type: none"> Move materials faster and increase efficiency Pump high viscosity materials Various lengths to fit multiple container sizes Maximize unloading
PRODUCT	DRUM UNLOADERS
	<ul style="list-style-type: none"> Unload materials from straight-sided or tapered drums Inflatable wiper seals for increased efficiency and faster change-out of drums Over 99% evacuation rate Liner guard to prevent bags from entering pump Sanitary flange clamps for quick disassembly
PRODUCT	BIN UNLOADERS
	<ul style="list-style-type: none"> Extremely fast evacuation with flow rates up to 300 gpm Designed with inflatable wiper seals for increased efficiency and faster change-out bins Unique floating ram plate eliminates the need for exact positioning of bin under the ram plate Available in manual and electronic control options

ITT ENGINEERED VALVES

THE WILLIAMS-CARVER COMPANY, INC.



Common Applications: Biopharm, Animal Health, Sterile and Aseptic Processing.

PRODUCT	PURE-FLO DIAPHRAGM VALVES
	<ul style="list-style-type: none"> Engineered for cleanability & drainability Industry proven high-purity diaphragm technology Bonnet isolation: isolating working parts of valve from process fluids Precision manufacturing ensures reliable sealing Full traceability for regulatory compliance Long diaphragm life reduces maintenance frequency
PRODUCT	INTEGRATED MULTI PORT BLOCK BODY VALVES
	<ul style="list-style-type: none"> Minimizes dead legs for higher product purity Improves drainability & reduces hold-up volume Reduces CIP cycle times, boosts process efficiency, & enhances system yield Lowers installation, validation, and long-term operating costs Custom configurations engineered to meet exact process needs
PRODUCT	AUTOMATED TOPWORKS
	<ul style="list-style-type: none"> Advantage 2.1 actuator allows diaphragm interchangeability without disassembly Compact, lightweight design ideal for bio-process and pharmaceutical space constraints Multiple closure modes for flexible valve operation 33 Series actuators provide major size and weight reductions for 3"-4" valves ACS stainless actuator delivers maintenance-free, high-cycle durability for demanding SIP environments, and compact design to reduce holdup volume
PRODUCT	ENVIZION VALVES
	<ul style="list-style-type: none"> Tool-less diaphragm replacement in minutes Mount-and-turn design eliminates loose fasteners and bolts Active sealing maintains consistent compression No re-torquing required after thermal cycling Enhanced cleanability reduces contamination risk See page 7 for more information
PRODUCT	INSTRUMENTATION & CONTROLS
	<ul style="list-style-type: none"> Integrated Sensing Platform (ISP) <ul style="list-style-type: none"> ISP provides smart, auto-calibrating valve sensing with reliable position feedback. Broad range of feedback switches and sensors integrate easily with ITT actuators 73 Series Positioners <ul style="list-style-type: none"> Offers precise pneumatic control with fast, accurate valve response.
PRODUCT	DIAPHRAGMS
	<ul style="list-style-type: none"> EPDM PTFE Enhanced Backing Buna Black/White Butyl Rubber Engineered for long diaphragm life USP-compliant, fully traceable materials Precision molding for reliable sealing Fast, repeatable installation (Envizion)

EnviZion Valve

Experience the Future with EnviZion

The Biopharm industry relies on hygienic diaphragm valves for demanding process applications due to their unique balance of clean-ability, drain-ability and pressure/temperature capability. For more than 40 years the technology of these valves has changed very little. Advances in performance have been nominal as the basic design concept has remained the same: body, diaphragm, topworks, and four fasteners. This design requires experienced personnel and stringent maintenance practices to assure consistent, reliable valve performance. All while the industry is forced to increase productivity, extend preventative maintenance intervals, and reduce operating costs.

ITT's breakthrough technology, the EnviZion valve, sets a new standard for the future of hygienic diaphragm valves. The EnviZion valve is designed specifically to help customers install, operate, and maintain their valves more efficiently. This unique design provides a significant reduction in total cost of ownership while supporting the industries' goals to increase productivity, improve reliability and enhance clean-ability.

The **EnviZion** valve utilizes a breakthrough mount and turn design that allows for quick and easy valve disassembly.

- Tool-less maintenance - no tools required for valve installation and diaphragm replacement, simplifying the maintenance process.
- Fasteners eliminated - no more handling loose parts or accessing fasteners in tight spaces.
- Save time - diaphragm changes reduced from an industry average of 23 minutes to 3 minutes, resulting in a 90% reduction in maintenance time.



TOOL-LESS
ASSEMBLY



SEALING SYSTEM
3RD PARTY
CERTIFIED



CONTAMINATION
FREE



LEAK FREE
SEAL INTEGRITY



FASTENER FREE



ZERO
RETORQUES



Common Applications: Dairy, Beverage, Brewery, Pharmaceutical, Personal Care, Pulp & Paper, Automotive Paint, Industrial, Chemical, etc.

PRODUCT	SANITARY BALL VALVES
	<ul style="list-style-type: none"> 2-way, 3-way, and 3-way multiport ball valves Live loaded, self-adjusting packing and Belleville washers provide better sealing and defense against leaking 316L stainless steel 3-PC body design facilitates inspection and easy inline repair Available in standard or cavity filled seats
PRODUCT	SANITARY BUTTERFLY VALVES
	<ul style="list-style-type: none"> 316L mirror finish disc provides even flow preventing restrictions Opposing body bolt design prevents loosening between body sections due to vibration and operation, and provides positive sealing 316L stainless steel Multi-position, 304SS, spring loaded lock handle Up to 12" connection available for immediate delivery
PRODUCT	ACTUATORS
	<ul style="list-style-type: none"> Ideal for high cycle applications Compact design utilizes the same body for double acting and spring return units Stainless steel fasteners Pneumatic Aluminum Actuators Pneumatic Stainless Actuators Electric Actuators
PRODUCT	AUTOMATION & ACCESSORIES
	<ul style="list-style-type: none"> Limit switches Indication Specialty switches Positioners Solenoids Proximity switches



SANITARY FLEXIBLE HOSE ASSEMBLIES

THE WILLIAMS-CARVER COMPANY, INC.

PRODUCT LINE	ACE SANITARY: HOSE ASSEMBLIES / SEAL-RITE
	<ul style="list-style-type: none"> Food grade rubber, fluoropolymer, silicone, PVC, jacketed and heated hose assemblies Washdown Reusable and molded ends, molded labels Clamps, gauge reducers, hose supports, hose bumpers, SS hose racks, mobile hose racks, wash down stations, crimping & testing equipment
	RUBBERFAB: HOSE ASSEMBLIES
 <p>a Garlock Hygienic Technologies company</p>	<ul style="list-style-type: none"> Food grade rubber, fluoropolymer, silicone, PVC, washdown hose supports, vibration isolators, washdown spray nozzles, sight gauges

SANI-MATIC

THE WILLIAMS-CARVER COMPANY, INC.

PRODUCT LINE	SANI-MATIC CIP SYSTEMS & EQUIPMENT
	<ul style="list-style-type: none"> CIP Skids COP Immersion Washers Vat & Tunnel Washers Strainers Spray Devices Tank Components & Accessories 

SANITARY FITTINGS


THE WILLIAMS-CARVER COMPANY, INC.

PRODUCTS	S-LINE FITTINGS
<ul style="list-style-type: none"> Clamps Elbows Tees Reducers End Caps Adapters Customized Fittings Polished Tubing 	
	I-LINE & Q-LINE FITTINGS
	
	WELD FITTINGS
	
	OTHER SANITARY FITTING OPTIONS
	



GASKETS & ELASTOMERS

THE WILLIAMS-CARVER COMPANY, INC.

PRODUCT	GASKETS & ELASTOMERS
	<ul style="list-style-type: none"> Buna, Teflon, Viton, EPDM, Silicone, etc. Gaskets for S-Line, I-line, Q-Line, & bevel fittings. Assorted o-rings Screen gaskets



THE WILLIAMS-CARVER COMPANY, INC.

4001 Mission Road | Kansas City, KS 66103

Phone: 913-236-4949 | Toll Free: 800-736-4411

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--- PRODUCT LIST ---

SANITARY PROCESS AND INDUSTRIAL EQUIPMENT

- **SPX FLOW:** Heat Exchangers, Votators, Pasteurizing Systems
 - **WAUKESHA/CHERRY BURRELL:** Positive Displacement & Centrifugal Pumps, (Sanitary & Industrial), Manual & Automatic Valves, Replacement Parts,
 - **APV:** Positive Displacement & Centrifugal Pumps, Manual & Automatic Valves, Replacement Parts, Heat Exchangers, Homogenizers (Gaulin & Rannie)
 - **JOHNSON PUMP:** Lobe, Centrifugal, Gear, Flexible Impeller Pumps
 - **BRAN+LUEBBE:** High Pressure & Metering Pumps
 - **SEITAL:** Separation Technology (Centrifuges)
- **GRACO:** Diaphragm Pumps, Piston Pumps, Tote Unloaders & Bin Evacuation Systems
- **ITT:** Pure-Flo and EnviZion High Purity Diaphragm Valves, Actuators, & Components for pharmaceutical, animal health, and biopharm.
- **FLEXIBLE HOSE ASSEMBLIES:** ACE Manufacturing, Rubberfab
- **TRU-FLO:** Stainless Steel Manual & Automatic Butterfly & Ball Valves
- **REOTEMP:** Temperature & Pressure Instrumentation
- **ANDERSON INSTRUMENTATION:** Pressure Gauges, Level Transmitters, Digital Thermometers, Recorders, Controllers & Flowmeters
- **DCI:** Food & Pharmaceutical Stainless Steel Tanks, Silos & Processors
- **PROVISUR TECHNOLOGIES:** Grinding Systems and Equipment
- **METTLER-TOLEDO:** Metal Detection Systems and Equipment
- **LACROSSE BRUSH:** Plant Sanitation Equipment
- **SANI-MATIC:** CIP/COP Systems, Equipment Washers, and Spray Assemblies
- **GASKETS:** Buna, Teflon, Viton, EPDM, and Silicone for S-Line, Bevel Seat, Q & I Line Fittings
- **SANITARY TUBING & FITTINGS:** Custom Designed Sanitary Fittings, 304 & 316L Stainless Fittings and Tubing: S-Line, Bevel Seat, I-Line & Q-Clamp Style, and Flow Panels.
- **GOULDS:** Industrial Centrifugal Pumps & Parts
- **CONTINENTAL:** Industrial Progressive Cavity Pumps
- **NETZSCH:** Twin Screw Pumps, Peristaltic Pumps, and Progressive Cavity Pumps

*** **FACTORY CERTIFIED WAUKESHA PUMP & VALVE REPAIR CENTER**

REFRIGERATION SYSTEMS AND EQUIPMENT

- **US COOLER:** Refrigeration Walk-In Cooler Boxes
- **COMPRESSORS:** VILTER, GEA, FRICK, M&M, MYCOM
- **VILTER:** Refrigeration Compressors, Condensers, Vessels, Air Units and Parts
- **HANSEN TECHNOLOGIES:** Refrigeration Valves- Regulators, Solenoids, Reliefs, Liquid Level Controllers, Auto Purger Systems, Parts
- **REFRIGERATION SPECIALTIES:** Refrigeration Valves - Regulators, Solenoids, Reliefs, Parts
- **HENRY:** Refrigeration Valves, Regulators, Solenoids, Relief, Parts
- **KRACK:** Refrigeration Air Coils
- **EVAPCO:** Refrigeration Condensers & Air Coils
- **BALTIMORE AIRCOIL (BAC):** Refrigeration Condensers & Air Coils
- **PHILLIPS:** Liquid Level Controls & Systems
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- **AMMONIA PLATE HEAT EXCHANGERS**

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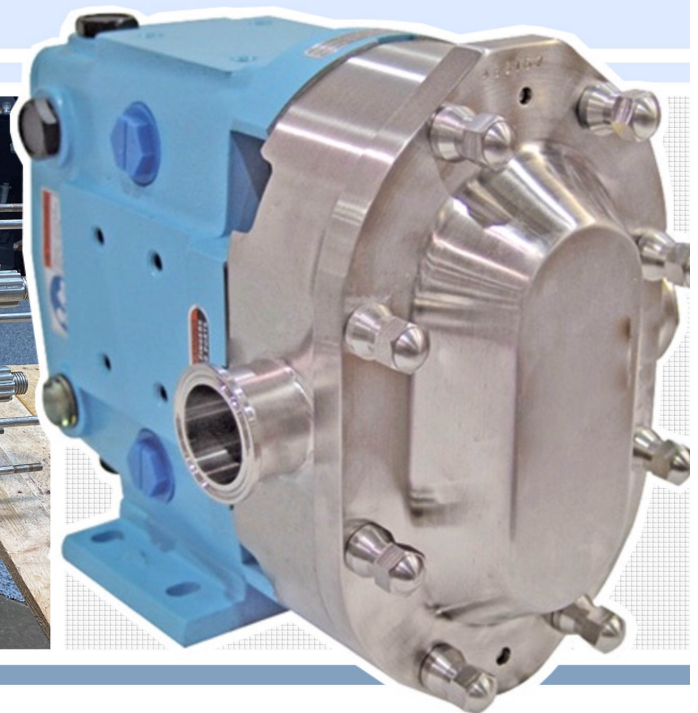
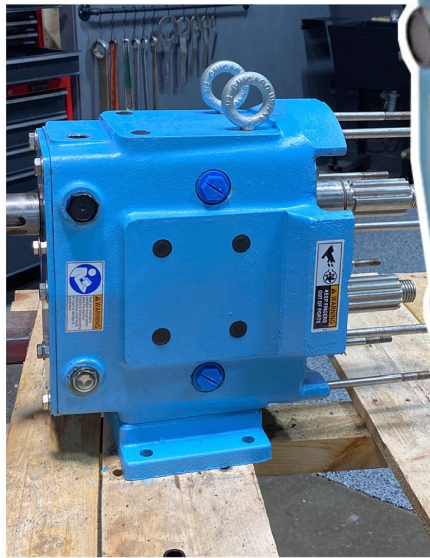
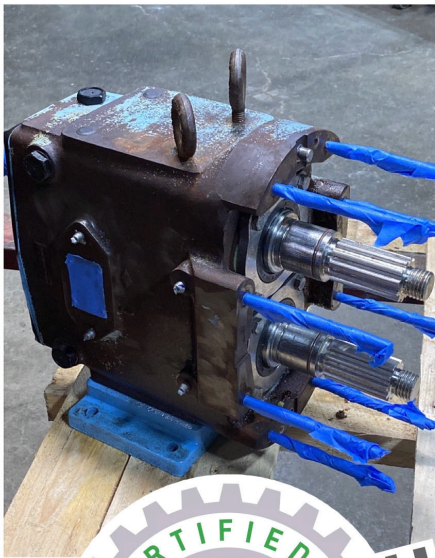
CERTIFIED PUMP & VALVE REPAIR CENTER

SERVICE & REPAIR

OUR SERVICE DEPARTMENT IS TRAINED & AUTHORIZED AS A CERTIFIED SPX FLOW PUMP & VALVE REPAIR CENTER. WE SPECIALIZE IN THE EVALUATION, SERVICE & REPAIR OF ALL WAUKESHA POSITIVE DISPLACEMENT PUMPS & VALVES.

OUR CAPABLE STAFF HAS EXTENSIVE HANDS-ON EXPERIENCE TO PRESENT YOU WITH THE PROPER & MOST COST-EFFECTIVE RECOMMENDATION.

WHETHER IT BE A MINOR ISSUE, MODERATE RECONDITION, OR EXTENSIVE REBUILD; LET WILLIAMS-CARVER HELP GET YOU BACK UP AND RUNNING.



WILLIAMS
WC
CARVER CO.

SPXFLOW

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Williams-Carver offers a full range of after-sales products to ensure that the original equipment continues to operate at its maximum performance. A worldwide network of companies and vendors ensures that you are never far from the help you need to get back up and running quickly and get the ultimate performance from your investment.

Please reach out for more detailed information and inquiries.

The Williams-Carver Company, Inc.

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