



Universal Centrifugal Pump (UC)

CENTRIFUGAL PUMPS



Waukesha Cherry-Burrell®

Engineering excellence, allied to stringent quality control, ensures that SPX's unrivalled range of Waukesha Cherry-Burrell products complies with the highest international standards for hygiene. In the light of growing pressure worldwide to deliver safe, high quality food, all SPX products are designed for easy cleanability, while minimizing the use of valuable resources, such as energy. The Waukesha Cherry-Burrell product portfolio includes a wide range of pumps and valves designed for use in the food, dairy and brewing industries, as well as in chemical, health care, pharmaceutical processing and heavy industries.

Based in Charlotte, North Carolina, SPX Corporation (NYSE: SPW) is a global Fortune 500 multi-industry manufacturing leader. The company's highly-specialized, engineered products and technologies serve customers in three primary strategic growth markets: infrastructure, process solutions, and diagnostic systems. Many of SPX's innovative solutions are playing a role in helping to meet rising global demand, particularly in emerging markets, for electricity, processed foods and beverages and vehicle services. The company's products include thermal heat transfer equipment for power plants; power transformers for utility companies; process equipment for the food & beverage industry; and diagnostic tools and equipment for the vehicle service industry. For more information, please visit www.spx.com.

Flexibility with the Reliability of a Waukesha Cherry-Burrell

The Universal Centrifugal Pump (UC) is the latest addition to the Waukesha Cherry-Burrell pump family. Following the tradition of quality, reliability and ease of maintenance, the UC fills the high efficient centrifugal pump sector complementing the Universal PD pump product line.

PRODUCT FEATURES AND BENEFITS

Sanitary Features

- Fully CIP Capability with options available for aseptic processing
- Flow directed to the seal area assures cleaning and sanitation
- Seal spring is located outside the product contact area to maintain cleanliness
- Ease of seal maintenance with very little disassembly required for replacement

Product Features

- Adapter is all stainless steel, no painted parts near the product zone
- Easy to maintain front loaded pump seals
- Direct visual access to the pump shaft for inspection for leaks
- Large product range, over 17 pumps, to allow for the best fit to application
- Spiral Volute positioned in the back plate to increase efficiency and lower vibration
- Improved impeller design enhances the pump efficiency
- Outlet design of the pump allows for a constant velocity and less turbulence at the pump outlet
- Housing is held in place by a clamp ring allowing for ease of maintenance and positioning of the outlet
- Multiple leg options to allow for the best fit during installation

Seal Features

- Robust seal with the number of parts minimized to allow for easy maintenance and reliability
- Only two sizes of seal will cover the entire range of the UC pump
- Conversion from a single to a double mechanical seal is simple and the seal faces for both the seals in the double mechanical seal are the same
- Large selection of seal materials are available to fit the application



Typical product applications

Beverage

- Beer
- Cider
- Fruit Drinks
- Liquid Sugar and Glucose
- Soft drinks
- Wine
- Wort



Food

- Animal oils
- Flavourings
- Pet food
- Soups & Sauces
- Vegetable juice
- Vegetable oils
- Vinegars



Dairy

- Cream
- Milk
- Milk concentrate
- Raw milk
- Skimmed milk
- Whey
- Whey concentrate



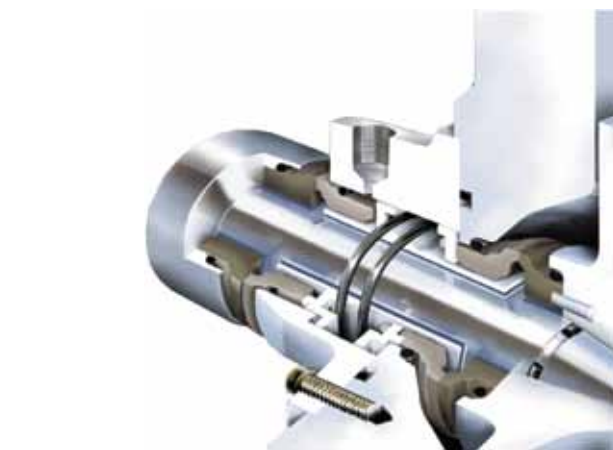
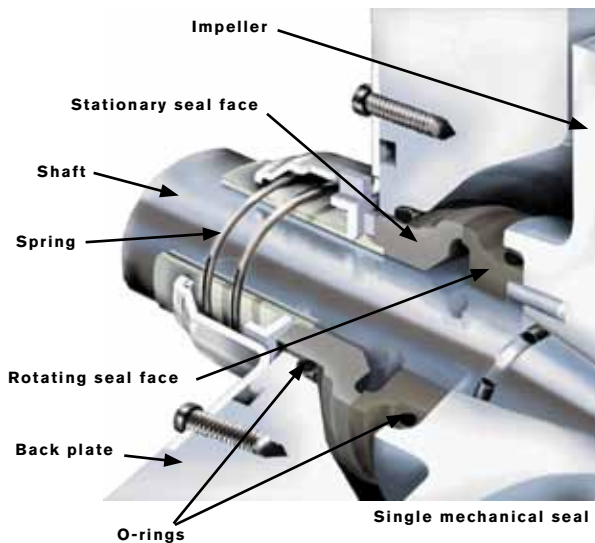
Pharmaceutical and Toiletries

- Emulsions
- Extracts
- Lotions
- Perfumes
- WFI (Water for Injection)
- High Purity Water
- Pure water



Chemical

- Additives
- Adhesives
- Coatings
- Contaminated liquids
- Detergents
- Emulsions
- Paint



Double mechanical seal prepared for flushing or a steam barrier

MODULARITY AND FLEXIBILITY – PRODUCT VARIANTS

The UC pump is a highly modular product with a variety of product alternatives to meet the application requirements.

UCi Inducer Pump

The UCi is a variant of the UC pump that includes a modified case and an inducer installed in place of the impeller nut. This allows the pump to reduce NPSH requirements by 50 to 70% while maintaining the same pump curve as the corresponding UC pump. This lowers the cavitation risk and allows the pump to operate with fluids closer to their vapor pressure and in processes that have vacuum conditions. The addition of the inducer also extends the operational viscosity range of the pump allowing for a larger application potential. The inducer provides the capability to also pump gas laden liquids with a lower risk of damage to the pump and system.

UCh High Pressure Pump

The UCh is a high pressure model of the standard UC range. The pump is designed to endure system pressures up to 60 bar and can the solid construction increases stability and reliability.

UC Multistage Pump

The UC 50/200 can provide pressures up to 15 bar while operating within a system that can be up to 60 bar. Unlike other multistage pumps, the UC 50/200 is CIP friendly, so can be used in systems that are use CIP as a standard operating procedure. The pump is mounted to a bearing frame, so any motor can be coupled with the pump without worry of motor bearing failure due to the radial and axial loading of the pump.

UCa Aseptic Pump

The UCa is the aseptic version of the UC pump and is designed to fit the modern food and pharmaceutical production process. All seals within the pump are designed to be sterile flushed, including the special fittings that are standard. Even with this capability, the UCa still retains the same basic seal construction and parts, so there are no “special” mechanical seals required to maintain.

UCs Self Priming Pump

The UCs is unique in the self-priming pump market with the innovative eccentric air screw and standard UC impeller. This design allows for the pump to have far less noise than traditional liquid ring pumps plus be significantly more efficient once flow is established due to the pump performing like a standard UC pump. Other result of the innovative design includes the ability to limit the risk of damage during operation from particulate matter.



UCi



UCh



UC Multistage



Aseptic fitting



UCs

PRODUCT SPECIFICATIONS

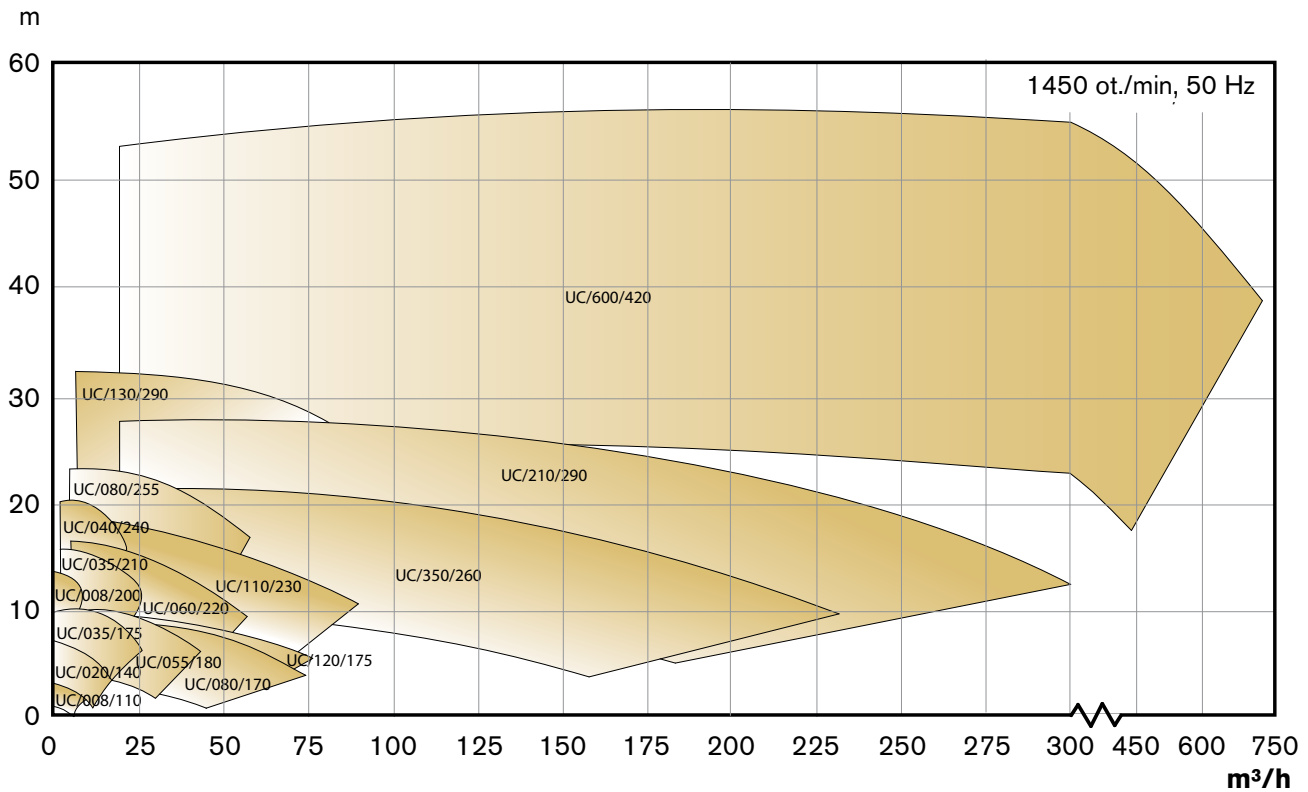
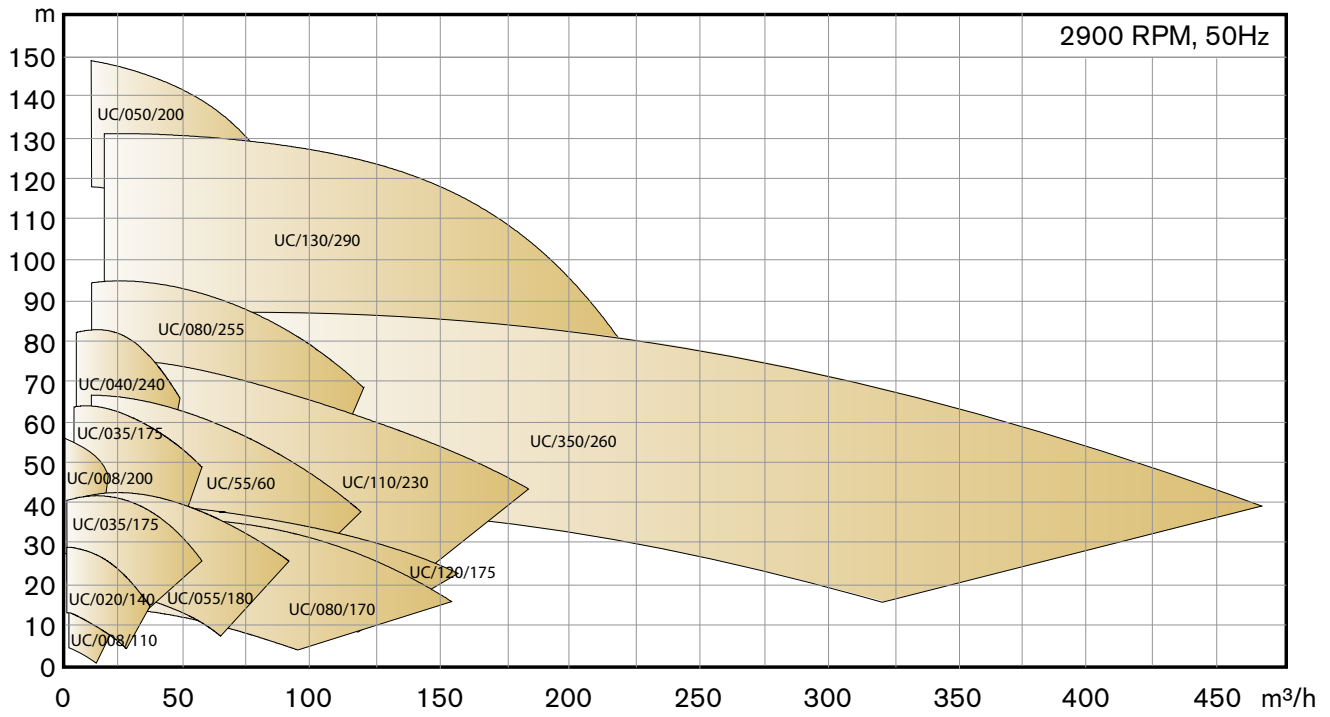
MATERIALS	
Casing	SS316L
Impeller	SS316L
Impeller Nut	SS316L
Back Plate	SS316L
Shaft	SS316L
Clamp Ring	SS304
Adaptor	SS304
Support	SS304
Shaft Seal	Carbon/Silicon Carbide Optional: Silicon Carbide/Silicon Carbide
Elastomers	EPDM Optional: FKM, PTFE
TECHNICAL DATA	
Max. Discharge Pressure	18 bar: UC/008/110, UC/020/140, UC/080/170, UC/055/180, UC/035/175, UC/130/290 14 bar: UC/210/290, UC/120/175, UC/008/200, UC/035/210, UC/060/220, UC/110/230, UC/350/260, UC/040/240, UC/080/255 Heavy Duty Clamp Ring Available, Contact SPX Flow Technology for Information
Max. Operating Temperature	95°C as Standard, >209°C, contact SPX Flow Technology
PORT CONNECTIONS	
S-Line Standard Bevel Seat, I-Line, ISO and other fittings available, aseptic fittings available on UCa Pumps	
MOTOR	
Standard: ABB motor, 50/60 Hz, IP55, Insulation Class F, IE2 efficiency level Other motor options are available, Contact SPX Flow Technology for Information	

DIMENSIONS

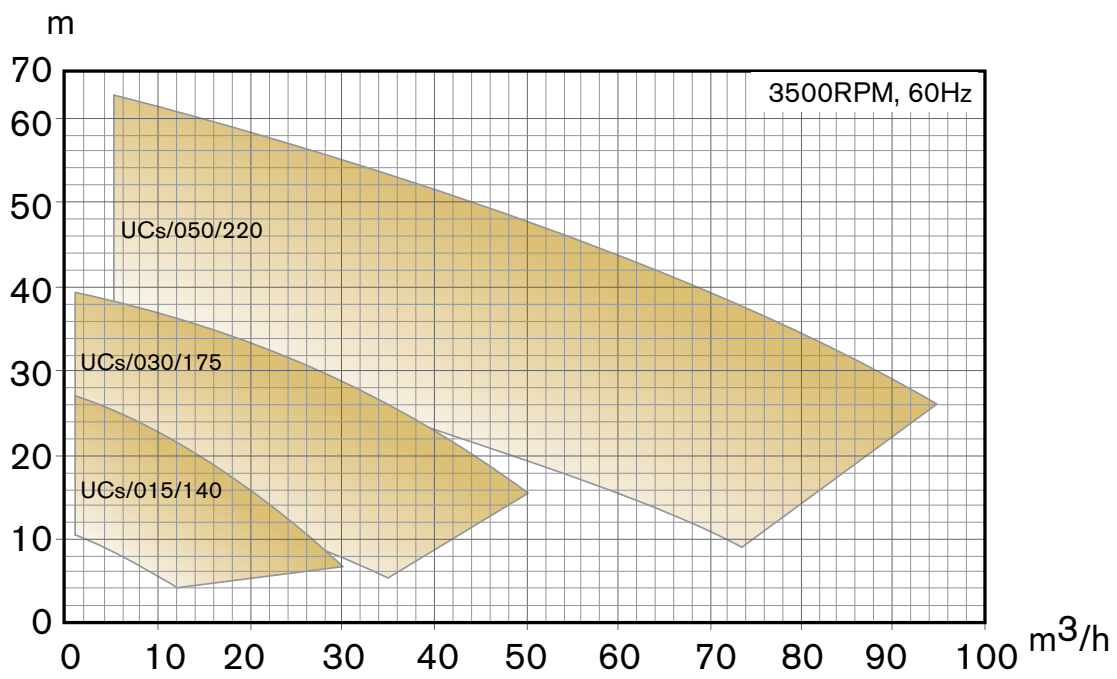
MODEL	INLET SIZE MM	OUTLET SIZE MM	MAX. IMPELLER MM	MAX. CAPACITY (M ³ /H)		MAX. HEAD (MWC)	
				1450 RPM	2900 RPM	1450 RPM	2900 RPM
UC/008/110	38	25	110	-	12	-	10
UC/008/200	38	25	200	8	16	14	55
UC/020/140	51	51	142	18	33	7	28
UC/035/175	65	51	175	27	55	10	42
UC/035/210	65	38	210	26	46	16	63
UC/040/240	65	38	240	21	44	21	82
UC/055/180	76	65	180	43	88	10	42
UC/060/220	76	51	220	57	116	17	66
UC/080/170	102	76	170	59	122	9	36
UC/080/255	76	51	255	58	61	23	94
UC/110/230	102	76	230	89	183	19	75
UC/120/175	102	76	175	77	152	10	40
UC/130/290	102	76	290	108	198	31	126
UC/210/290	152	102	290	303	-	28	-
UC/350/260	152	102	260	235	433	21	84

CAPACITY CURVES

Universal Centrifugal



UC Self Priming





Global locations

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Based in Charlotte, North Carolina, SPX Corporation (NYSE: SPW) is a global Fortune 500 multi-industry manufacturing leader. For more information, please visit www.spx.com

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