Universal TS Series

ROTARY POSITIVE DISPLACEMENT TWIN SCREW PUMPS

Waukesha Cherry-Burrell®
Users of Waukesha Cherry-Burrell brand pumps benefit from decades of continuing product improvement. Steady advances in design, metallurgy and fabrication techniques have yielded progressively higher levels of performance and service life.

The new Universal Twin Screw (TS) Series pump from SPX FLOW runs with the same reliability you’ve come to expect from SPX FLOW. Its versatile design improves processing time and maximizes productivity.

You can count on Universal TS Series pumps for:

**RELIABLE PERFORMANCE**

Screws made from Waukesha Alloy 88 non-galling material allow the pump to run through incidental contact and reduce risk of pump damage if screws make contact.

**GENTLE PRODUCT HANDLING**

Pumps large particulates without degradation.

**RESPONSIVE SERVICE**

Extensive global distribution network with certified repair centers provide quick response times for parts and service.

**EASY MAINTENANCE**

Front loaded access to product side seals.

**PROCESS FLEXIBILITY**

Low inlet pressure requirement and a wide range of operating speeds allow for multiple duties including process and CIP supply. Bi-directional flow capability without making modifications to the pump.

**SMOOTH OPERATION**

Reduces slip pulse in low inlet pressure, low viscosity, and high pressure conditions.

**REDUCED NOISE LEVELS**

Operating principle virtually eliminates pressure fluctuations.

SPX FLOW, Inc. (NYSE:FLOW) is a leading manufacturer of innovative flow technologies, many of which help define the industry standard in the market segments they serve. It operates a sales and support network, centers of manufacturing excellence, and advanced engineering facilities throughout the world. Its cutting-edge flow components and process equipment portfolio includes a wide range of pumps, valves, heat exchangers, mixers, homogenizers, separators, filters, UHT, and drying technology that meet many application needs. Expert engineering capabilities also make it a premium supplier of customized solutions and complete, turn-key packages to meet the most exacting of installation demands.

Incorporating many leading brands, SPX FLOW has a long history of serving the food and beverage, power and energy, and industrial market sectors. Its designs and engineered solutions help customers drive efficiency and productivity, increase quality and reliability, and meet the latest regulatory demands. In-depth understanding of applications and processes, state-of-the-art Innovation Centers, and advanced pilot/testing technology further assist in optimizing processes and reducing time lines to reliably meet production targets.

To learn more about SPX FLOW capabilities, its latest technology innovations and complete service offerings, please visit www.spxflow.com.
Choose the right screw pitch for your process

Three screw pitch options for all models offer a wide selection of capacities, pressures, flow rate profiles, and particle sizes. SPX FLOW pump specialists can advise you on the optimal pitch for your application.

**Option 1:** Wide pitch for applications requiring lower pressures with higher flow rates or a need to accommodate larger particulates

**Option 2:** Midrange pitch - offers a balance in pressure and flow velocities between the larger and smaller screw profiles

**Option 3:** Narrow pitch applications requiring higher pressures with lower flow rates

Typical product applications

**Food and Beverage**
- Soups, Stews, Tomato Paste
- Vegetables, Dressings
- Chocolate, Fats & Oils
- Batters, Cream Fillings
- Brewery, Wort
- Soft/Fruit Drinks
- Meat Processing

**Dairy**
- Cream, Milk
- Cheese Curd & Whey
- Cottage Cheese
- Yogurt

**Pharmaceutical/Cosmetics**
- Pill Pastes
- Syrups, Extracts, Slurries
- Face Creams & Lotions
- Hair Styling Gels & Liquids
- Dyes & Alcohols
- Soaps
- Cosmetics

**Chemical/Industrial**
- Solvents, Paints
- Fuels
- Resins, Polymers & Sludges
- Oil & Lubricants

Minimize extra pumps, valves, and controls from your process

With its high suction capability, the Universal TS Series pump is both process and CIP capable, allowing you to reduce the number of pumps, valves, and control systems in your process and save capital equipment costs.
New levels of sanitary performance. Long-life features.

**PRODUCT FEATURES AND BENEFITS**

**Sanitary Features**
- CIP capability standard. Pump body and cover are free draining
- Screw/shaft connection sealed from product zone
- Single and Double mechanical seal options
- All models include seal flush ports for optional double seal
- Steam-In-Place capable
- Stainless steel gear case standard

**Installation Features**
- Indexed splined shafts and screws provide positive engagement and ease installation of the screws
- Capable of bi-directional flow without having to change bearings or body orientation
- Non-galling Waukesha "88" alloy screws standard; permits running at tighter clearances and pumping a wide range of viscosities
- 316L stainless steel pump body and cover

**PRODUCT DIMENSIONS**

<table>
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<tr>
<th>MODEL</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D ±.001</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>COVER PORT</th>
<th>BODY PORT</th>
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*NOTE: Dimensions are for guidance purposes only. Contact your SPX FLOW Representative for more detailed measurements.*
**PRODUCT SPECIFICATIONS**

**UNIVERSAL TS MODELS**

<table>
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<tr>
<th>MODEL</th>
<th>SCREW PITCH</th>
<th>DISPLACEMENT PER REVOLUTION</th>
<th>NOMINAL CAPACITY (MAX)</th>
<th>COVER PORT</th>
<th>BODY PORT</th>
<th>MAXIMUM PARTICULATE PRESSURE RANGE (MAX)</th>
<th>MAXIMUM RPM</th>
<th>TEMP RANGE</th>
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* Double start screws limit particulate size.

**NOTE:** Running for extended periods of time at high RPMs may require external gear box cooling equipment. If operation is required near the maximum allowable RPM, please contact SPX FLOW application engineering for confirmation of the correct pump configuration.

**OPTIONS AND ACCESSORIES**

**Ports**

- **Sanitary Clamp** (S-Line*, I-Line and Q-Line)
- **Bevel Seat**
- **Optional European Types; DIN, SMS, RJT**
- **Optional Aseptic Ports**

* S-Line standard

Contact factory for available rectangular flange inlets.

**Screw Pitches**

- **Narrow**
- **Medium**
- **Wide**

**O-Rings**

- **FKM Standard**
  Fluoroelastomer (FKM), EPDM, Fluoroelastomer (FFKM)
Engineered for Performance and Long Life.

**Waukesha Cherry-Burrell Universal TS Series provides:**

- **High pressure capability** - up to 375 psi/25.5 bar
- **Optimal seals** - for most applications, plus interchangeability when needed
- **Compliant design** - 3-A, USDA, EU Machinery Directive, EHEDG¹

¹ EHEDG (Type EL Class I) certification applies for UTS pump sizes 015 to 220 with EPDM, FKM or FFKM gaskets and SiC, TC or C mechanical seal material.
**Elastomer choices for “O” rings:**
- Fluoroelastomer (FKM)
- EPDM
- FFKM

**Mechanical seal material options:**
- Carbon
- Silicon Carbide
- Tungsten Carbide

**Seal Options**
**Single or Double Mechanical Seal***
Used with flushing fluid to cool, lubricate, and flush away residue. Ideal arrangement for severe service applications.
For pump repair, choose the SPX FLOW maintenance program to meet your needs.

**SPX FLOW Certified Pump Repair Centers**

- Local distributors with factory trained service technicians
- Quick local response
- Genuine WCB parts
- Flexible repair programs to meet your needs
- Product warranty

Assembled and tested in Delavan, WI

**CONTACT A SPX FLOW PUMP EXPERT TODAY AND FIND THE RIGHT PUMP FOR YOUR PROCESS**

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E: wcb@spxflow.com

Based in Charlotte, North Carolina, SPX FLOW, Inc. (NYSE: FLOW) is a multi-industry manufacturing leader. For more information, please visit www.spxflow.com

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