

Universal[®] 1 Series

ROTARY POSITIVE DISPLACEMENT PUMPS



For more than half a century, Waukesha Cherry-Burrell® has been a leader in the design, manufacturing and application of external circumferential piston (ECP) style, rotary positive displacement pumps. Waukesha Cherry-Burrell PD pumps are in service around the world in food, dairy, canning, bakery, beverage and pharmaceutical processing, as well as difficult chemical and industrial applications.

Users of Waukesha Cherry-Burrell PD 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.

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. From its headquarters in Charlotte, North Carolina, 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. Its expert engineering capability also makes 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 timescales 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.

Setting the standard of performance for the sanitary industry for over 50 years.

PRODUCT FEATURES AND BENEFITS

Sanitation features

- 316L stainless steel body, cover, and shaft
- Easy disassembly for COP cleaning
- Elastomers that comply with FDA requirements
- Aseptic models available
- Meets 3-A sanitary standards

Long-life features

- Up to 200 psi (13.8 bar) pressure capability*
- No bearings in product zone
- Heavy duty bearing frame with large diameter shafts
- Grease lubed bearings for positive lubrication of all bearing over entire speed, temperature and pressure range
- Non-galling Waukesha "88" alloy rotors standard; permits running at tighter clearances and pumping a wide range of viscosities
- Remanufacturing and Inspect and Advise programs to extend life and reduce costs

Available options

*High strength 17-4 PH shafts and hex cover nuts for higher pressure applications

- Stainless steel gear case
- Stainless steel bearing retainers
- Bearing isolators protect bearings from contamination
- Body retaining screws
- Steel-It paint
- Single wing rotors for reduced damage of particulates.
- Jacketed or vented covers
- Rectangular flange inlet for high viscosity products
- Tru-Fit® close coupled pump design

Installation Features

- Bidirectional flow. Rotors, locked with double jam nuts, rotate securely in either direction.
- No flow direction/shaft position specifications
- Versatile 3-Way mounting of gear case, including vertical alignment of ports
- Upper or lower shaft position
- Easy to install or convert single o-ring to mechanical seals
- Interchangeable installation dimensions with Universal 2 and Universal Lobe PD pumps



Shown with optional stainless steel gearcase



Typical product applications

Bakery

Batters
Flavorings
Frostings
Fruit Fillings
Fats & Oils
Sweeteners
Yeast Slurry



Beverage

Beer, Wort, Yeast
Soft Drinks
Juice
Fruit Concentrates
Fruit Drinks
Wine
High Fructose Corn Syrups (HFCS)



Canning

Baby Foods, Soups, Stews
Tomato Paste/Sauces
Fruit Puree
Vegetables, Diced, Slurries
Puddings, Jams, Jellies
Salad Dressings, Mayonnaise



Confectionery

Syrups
Cream Fillings
Chocolate



Cosmetics

Face Creams & Lotions
Hair Styling Gels & Liquids
Essential Oils
Dyes & Alcohols
Shampoos



Dairy

Cream, Milk, Butter
Cheese Curd & Whey
Cottage Cheese
Yogurt



Meat Packing

Meat-Emulsions
Ground Meats
Pet Foods
Ruffle & Caul Fat
Mechanically Deboned Meat (MDM)



Pharmaceutical/Health Care

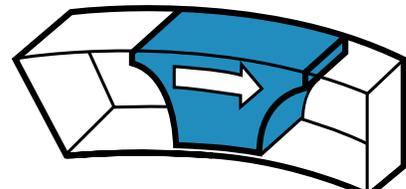
Pill Pastes
Syrups
Extracts
Emulsions
Slurries
Tooth Paste



Time-tested Waukesha Cherry-Burrell® rotary pump; external circumferential piston (ECP) operating principle.

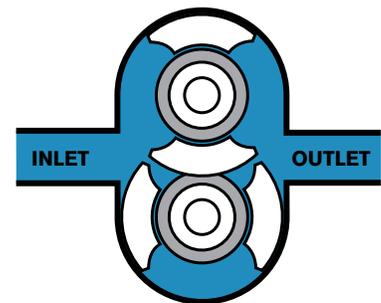
THEORY OF OPERATION

In the Waukesha Cherry-Burrell design, arc-shaped “pistons” (rotor wings) travel in annular-shaped cylinders machined in the pump body; the resulting long sealing path reduces slippage and produces a smooth flow of product without destructive pulses or pressure peaks and without valves or complex parts.



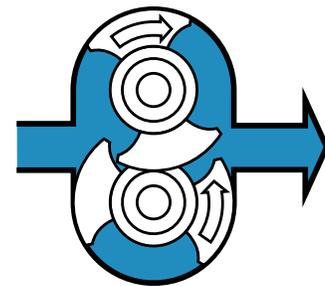
FOR LOW VISCOSITY FLUIDS

Rotors, made of Waukesha “88” alloy, can be run with close clearance to the 316L stainless steel fluid head, without galling or seizing should inadvertent pressure surges cause contact. The close clearances combined with the rotor geometry, which gives a long sealing path between the pump inlet and outlet, means low slip operation. As a result, you achieve: high volumetric efficiency, good priming ability, metering capability and good flow control.



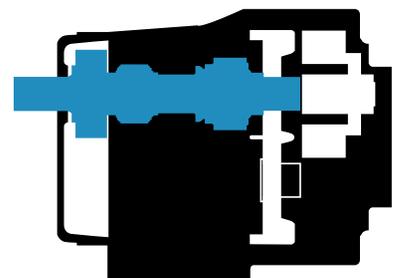
FOR HIGH VISCOSITY FLUIDS

The large fluid cavities of the rotors, plus the large easy entry anti-cavitation ports, allow efficient pumping of high viscosity fluids, slurries or even liquids with large chunks or particles.



FOR NON-LUBRICATING AND ABRASIVE FLUIDS

The unique Waukesha Cherry-Burrell design has no bearings in the fluid being pumped, no sliding or rolling contact and no rotor-to-rotor contact. This produces EXCELLENT SERVICE LIFE even under severe operating conditions.



PRODUCT SPECIFICATIONS

UNIVERSAL 1 MODELS

MODEL	DISPLACEMENT PER REVOLUTION	NOMINAL CAPACITY* TO	INLET/OUTLET	OPTIONAL INLET/OUTLET	PRESSURE RANGE UP TO**	MAXIMUM RPM	TEMP RANGE**
006-U1	.0082 GAL. (.031 Liter)	6 GPM (1.3 m ³ /hr.)	1"	1 1/2"	200 PSI (13.8 bar)	800	Std. Rotors: -40°F (-40°C) to 180°F (82°F) Hot Clearance Rotors: -40°F (-40°C) to 300°F (149°C)
015-U1	.0142 gal. (.054 liter)	9 GPM (2.0 m ³ /hr.)	1 1/2"	--	200 PSI (13.8 bar)	700	
018-U1	.029 gal. (.110 liter)	17 GPM (3.8 m ³ /hr.)	1 1/2"	2"	200 PSI (13.8 bar)	600	
030-U1	.060 gal. (.227 liter)	36 GPM (8.2 m ³ /hr.)	1 1/2"	2"	200 PSI (13.8 bar)	600	
040-U1	.076 gal. (.288 liter)	45 GPM (10.2 m ³ /hr.)	2"	2 1/2"	150 PSI (10.3 bar)	600	
060-U1	.153 gal. (.579 liter)	90 GPM (20.4 m ³ /hr.)	2 1/2"	3"	200 PSI (13.8 bar)	600	
130-U1	.254 gal. (.961 liter)	150 GPM (34.1 m ³ /hr.)	3"	--	200 PSI (13.8 bar)	600	
220-U1	.522 gal. (1.976 liter)	310 GPM (70.4 m ³ /hr.)	4"	--	200 PSI (13.8 bar)	600	
320-U1	.754 gal. (2.854 liter)	450 GPM 102 m ³ /hr.)	6"	--	200 PSI (13.8 bar)	600	

RECTANGULAR FLANGE MODELS

MODEL	DISPLACEMENT PER REVOLUTION	NOMINAL CAPACITY* TO	INLET W X L INCHES	OUTLET	PRESSURE RANGE UP TO**	MAXIMUM RPM	TEMP RANGE**
014-U1	.0142 GAL. (.054 LITER)	5 GPM (1.1 m ³ /hr.)	1.5 X 4.75	1 1/2"	200 PSI (13.8 bar)	400	Std. Rotors: -40°F (-40°C) to 180°F (82°F) Hot Clearance Rotors: -40°F (-40°C) to 300°F (149°C)
024-U1	.029 GAL. (.110 LITER)	11 gpm (2.5 m ³ /hr.)	1.31 X 4.93	1 1/2" (2")	200 PSI (13.8 bar)	400	
034-U1	.060 GAL. (.227 LITER)	24 gpm (5.4 m ³ /hr.)	1.75 X 6.75	2"	200 PSI (13.8 bar)	400	
064-U1	.153 GAL. (.579 LITER)	60 gpm (13.6 m ³ /hr.)	2.24 x 8.82	2 1/2" (3")	200 PSI (13.8 bar)	400	
134-U1	.254 GAL. (.961 LITER)	100 gpm (22.7 m ³ /hr.)	2.97 x 9.25	3"	150 psi (10.3 bar)	400	
224-U1	.522 GAL. (1.976 LITER)	200 gpm (45.4 m ³ /hr.)	3.87 x 11	4"	200 PSI (13.8 bar)	400	
324-U1	.754 GAL. (2.854 LITER)	300 gpm (68.1 m ³ /hr.)	5 x 17.38	6"	200 PSI (13.8 bar)	400	

ASEPTIC MODELS

MODEL	DISPLACEMENT PER REVOLUTION	NOMINAL CAPACITY* TO	INLET/OUTLET	PRESSURE RANGE UP TO**	MAXIMUM RPM	TEMP RANGE**
033	.051 GAL. (.193 LITER)	30 GPM (6.8 m ³ /hr.)	1 1/2"	225 PSI (15.5 bar)	600	Std. Rotors: -40°F (-40°C) to 180°F (82°F) Hot Clearance Rotors: -40°F (-40°C) to 300°F (149°C)
133	.205 GAL. (.776 LITER)	120 gpm (27.3 m ³ /hr.)	3"	225 PSI (15.5 bar)	600	
223	.440 GAL. (1.666 LITER)	260 gpm (59.1 m ³ /hr.)	4"	225 PSI (15.5 bar)	600	
323	.616 GAL. (2.332 LITER)	360 gpm (81.8 m ³ /hr.)	6"	225 PSI (15.5 bar)	600	

*For capacities above 450 to 935 GPM (102 to 212 m³/hr), see bulletin FH-1725 on 420/520 UHC (ECP Rotors) and FH-1733 on 420/520 UHCL (Lobe Rotors).

**Contact application engineering for higher pressure or higher temperature applications.

Note: Universal 2 (Bulletin FH-1723) and Universal Lobe (Bulletin FH-1733) models are available for CIP installations, applications up to 500 psi (34 bar), and extended run services not needing frequent tear down for cleaning.

Time-Tested Waukesha Cherry-Burrell® Rotary Pump.

The Waukesha Cherry-Burrell Universal 1 Series gives you...

High pressure capability; up to 200 psi/13.8 bar*.

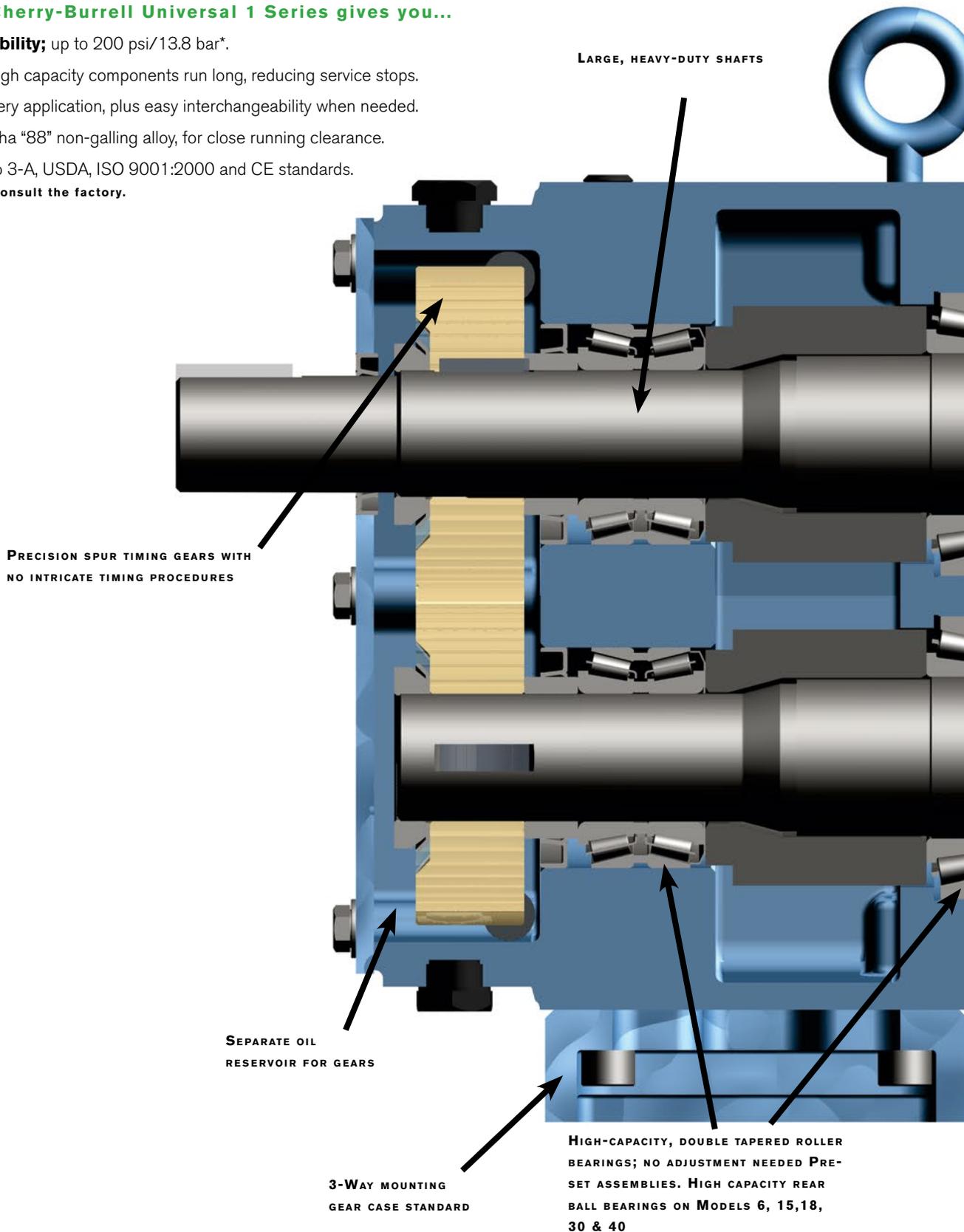
Long service life: High capacity components run long, reducing service stops.

The right seal for every application, plus easy interchangeability when needed.

Metal rotor: Waukesha "88" non-galling alloy, for close running clearance.

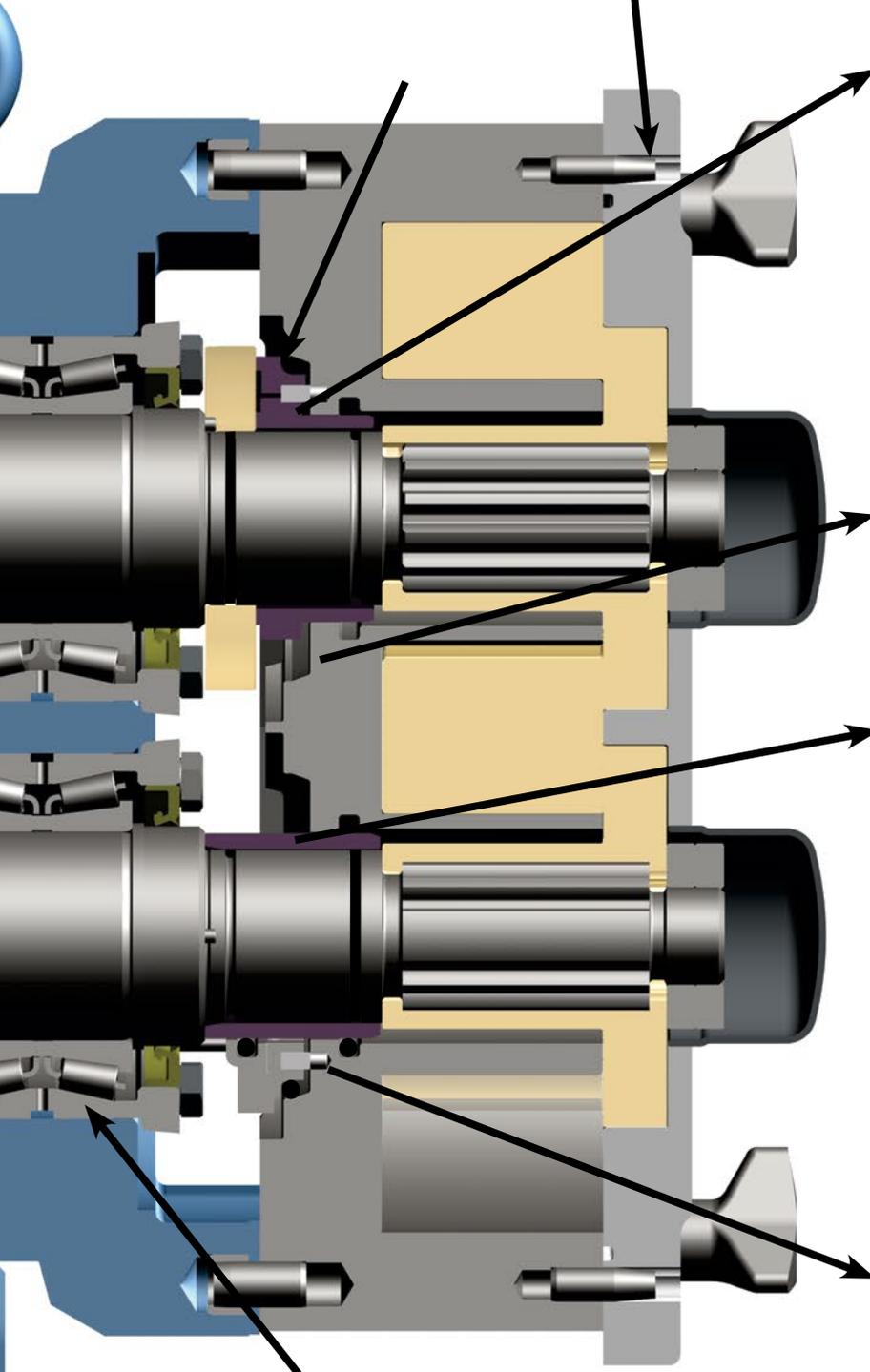
Design conforms, to 3-A, USDA, ISO 9001:2000 and CE standards.

*For higher pressures, consult the factory.



316L STAINLESS STEEL BODY AND COVER; DESIGN CONFORMS TO USDA STANDARDS

FIELD INTERCHANGEABLE SEAL OPTIONS FOR EVERY SERVICE. COMPACT DESIGN KEEPS SHAFT LENGTH TO A MINIMUM.

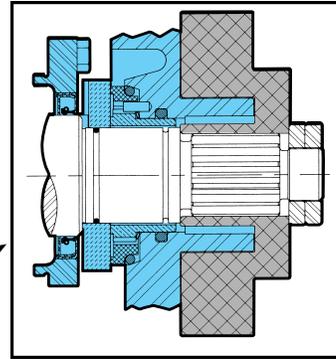


FRONT BEARING FIXED; REAR BEARING FLOATING. BETTER CONTROL OF THERMAL EXPANSION WHEN HANDLING HOT PRODUCTS

Seal Options

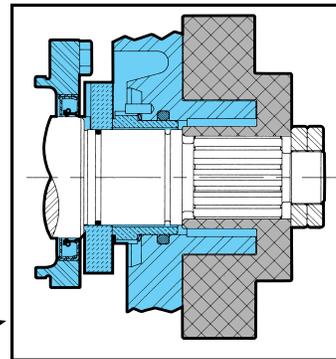
Double Concentric Mechanical Seal†

Used with flushing fluid to cool, lubricate, flush away residue. Best arrangement for severe service.



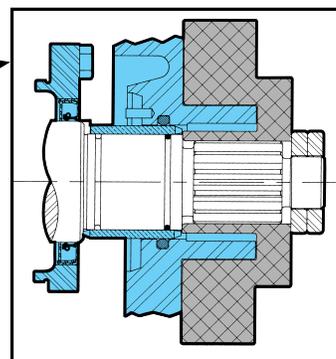
Single Mechanical Seal†

Longer life, wider pressure-temperature, and speed range than O-ring seal. Alternate materials available for abrasive service.



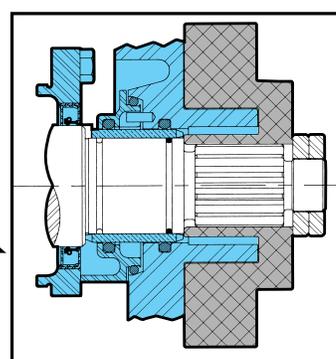
“O” Ring Seal*

Waukesha Cherry Burrell's traditional general purpose seal. Low cost and easy to service.



Double “O” Ring Seal*

The double, flushed version of the “O” ring seal. Used with flushing fluid to cool, lubricate, flush away residue.



Elastomer choices for “O” rings:

- Buna-N
- Fluoroelastomer (FKM)
- EPDM
- Silicone
- Perfluoroelastomer (FFKM)
- PTFE Encapsulated

*Not available for model 320

† Mechanical seal material options:

- Carbon
- Ceramic
- Silicon Carbide
- Tungsten Carbide

Standard & Options

Body

316L SS standard

Optional:

- Flush taps for future double seals
- Body retaining screws

Ports

S-Line standard

Optional:

- Bevel Seat, I-Line, Q-Line; European DIN, SMS or RJT
- Male NPT, 150 lb. & 300 lb. Flanges. (150 lb. standard on Model 320)
- Rectangular Flange Inlet or Aseptic ports
- Extended ports
- Optional port sizes on 6, 18, 30 and 60 Models

Covers

316L SS plain cover with 3-Wing cover nuts standard

Optional:

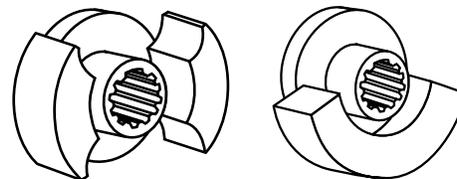
- Vent or drain connections
- Aseptic, jacketed or vented
- Hex cover nuts

Rotors

Alloy 88 Twin Wing standard. Standard clearance for up to 180° F (82° C)

Optional:

- Hot clearance to 300° F (149° C)
- Clearance above 300° F (149° C) on application
- Special & front face clearances and slotted rotor hub for special applications
- Single wing for 30, 60, 130 and 220 models for minimal particulate damage



Twin Wing

Single Wing

O-Rings

Buna-N Standard

Optional: **Fluoroelastomer (FKM), EPDM, Silicone, Perfluoroelastomer (FFKM), FEP Encapsulates**

Single Buna-N O-Rings with Zirconia sleeve is standard

Optional:

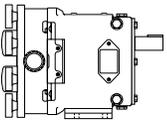
- 316L SS sleeve
- Double O-Ring Seal with Flush Connection
- Single Mechanical Seal with Carbon (One Piece) vs. Ceramic Seal Faces
- Double Mechanical Seal with outer Carbon Seal Face & Flush Connections
- Chrome Oxide, Silicon Carbide, & Tungsten Carbide Seal Faces
- Two piece carbon inner seal

Seals

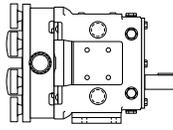
Cast iron powder coated, 316L SS shafts, top shaft position is Standard.

Options:

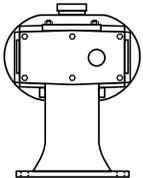
- Stainless Steel gearcase
- Steel-It paint
- 17-4 PH shafts
- Lower shaft position
- Bearing Isolators
- Stainless Steel bearing retainers
- Pedestal shims for side mounted pumps. **Left hand shaft position standard**
- Right hand shaft position on side mounted gearcase



Top Shaft Position Standard



Lower Shaft Position Optional



**Standard left hand shaft position shown
(right hand optional)**

Note: Pedestal foot is optional on Standard and Rectangular Flange models. Various standard heights are available and must be specified on order.

Optional Side Mount Gear Case for vertical fluid entry

Flat plate, epoxy painted, with adjustable feet, SS coupling guard, and Lovejoy or Woods coupling standard.

Options:

- 304 SS unpolished plate base with adjustable feet
- Portable base with rubber wheels
- SS tubular bases

WCB ISR Integral Speed Reducer Sizes 49, 79 and 239.

Direct connected gear motors.

Mechanical and Electronic Variable Speed Drives.

Hydraulic Motor Drives.

Close coupled Tru-Fit® pump mounted on Epoxy-painted open base.

Features:

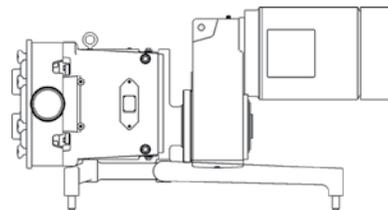
- No shaft alignment necessary. No coupling guard required
- Special base design enhances cleanability
- Reduces overall length of complete unit by an average of 20-25%
- Average of 20-25 gear ratios available per horsepower
- Separate oil sump for gear reducer and timing gears

Options:

- 304 SS unpolished plate base
- 304 SS polished plate base
- NEMA or IEC frames available. Right angle reducer also available for additional space savings
- 1/2 through 60 horsepower drive options available
- Horizontal or vertical porting

Gear Cases

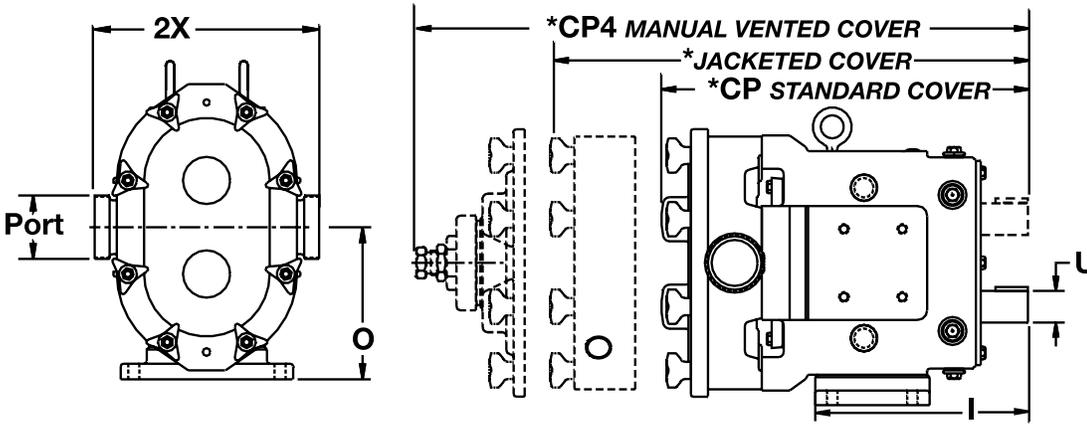
Tru-Fit®



Bases

Drives

DIMENSIONAL DATA



Size Model		CP	CP4	I	O	PORT Size	U + .000 - .001	2X	WT LBS/KG
006-U1	IN	12.04	15.25	7.66	4.21	1 1/2"	.875	6.97	52
	mm	306	387	194	107	---	22.23	177	24
015-U1	IN	12.04	15.25	7.66	4.21	1 1/2"	.875	6.97	52
	mm	306	387	194	107	---	22.23	177	24
018-U1	IN	12.46	15.67	7.66	4.21	1 1/2"	.875	7.09	54
	mm	316	398	194	107	---	22.23	180	24
030-U1	IN	14.58	17.67	8.83	5.21	1 1/2"	1.250	8.50	100
	mm	370	449	224	132	---	31.75	216	45
040-U1	IN	14.96	18.05	8.83	5.21	2"	1.250	8.62	106
	mm	380	458	224	132	---	31.75	219	48
060-U1	IN	18.91	22.07	10.99	7.31	2 1/2"	1.625	10.75	225
	mm	480	561	279	186	---	41.28	273	116
130-U1	IN	19.85	23.01	10.99	7.31	3"	1.625	10.75	260
	mm	504	584	279	186	---	41.28	273	118
220-U1	IN	23.37	27.87	14.80	9.38	4"	2.000	13.25	450
	mm	594	708	376	238	---	50.80	337	204
320-U1	IN	30.17	---	17.80	10.38	6" 150# FLG	2.375	16.00	795
	mm	766	---	452	264	---	60.45	406	361

NOTE: Dimension "2X" applies for Bevel Seat, "S-Clamp", "Q-Clamp", 15I and 14I fittings (except 320U1).

***NOTE:** CP4 is the maximum dimension for all vented and jacketed cover options.

Contact Application Engineering for Universal 1 Series Aseptic Models.

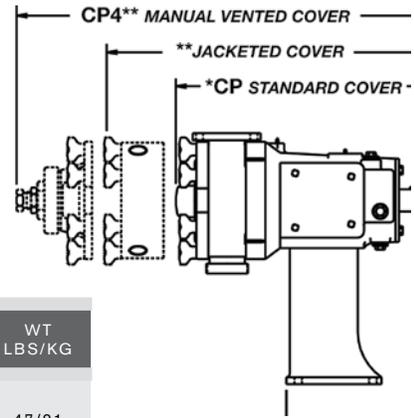
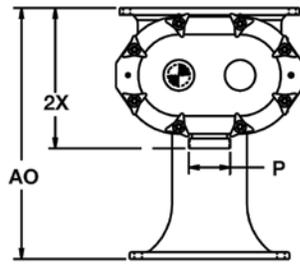
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UNIVERSAL 1 MODELS - RECTANGULAR FLANGE



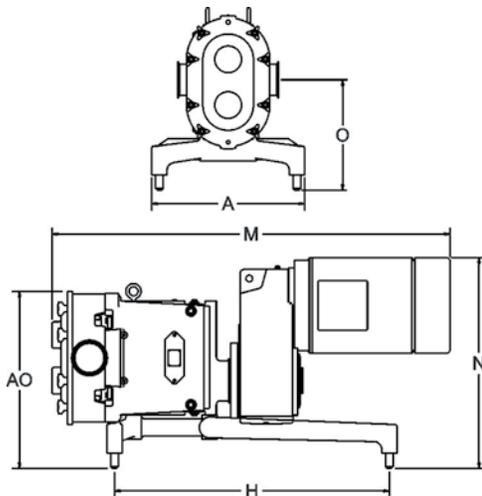
Size Model		AO*	CP	CP4	I	PORT Size	U + .000 - .001	2X	WT LBS/KG
014-U1	IN	12.50	12.04	15.25	7.66	1 1/2"	.875	7.11	47/21
	mm	318	306	387	195	---	22.23	181	
024-U1	IN	12.50	12.46	15.67	7.66	1 1/2"	.875	7.11	49/22
	mm	318	316	398	195	---	22.23	181	
034-U1	IN	14.25	14.58	17.67	8.49	2"	1.250	8.12	100/45
	mm	362	370	449	216	---	31.75	206	
064-U1	IN	19.18	18.91	22.07	10.77	2 1/2"	1.625	10.31	255/116
	mm	487	480	561	274	---	41.28	262	
134-U1	IN	19.18	19.85	23.01	10.77	3"	1.625	10.31	280/127
	mm	487	504	584	274	---	41.28	262	
224-U1	IN	23.75	23.37	27.87	13.74	4"	2.000	12.87	505/229
	mm	603	594	708	349	---	50.80	327	
324-U1	IN	36.00	30.17	---	16.86	6" 150# FLG	2.375	17.88	775/352
	mm	914	766	---	428	---	60.33	454	



*NOTE: Dimension AO is with tallest pedestal. Optional heights are available.

**NOTE: CP4 is the maximum dimension for all vented and jacketed cover options.

UNIVERSAL 1 MODELS - TRU-FIT®



Size Model		A	AO	H	M	PORT Size	N	O
006-U1	IN	12	13.25	18	27.60	1 1/2"	15.56	9.15
	mm	305	37	457	701	---	395	232
015-U1	IN	12	13.25	18	27.60	1 1/2"	15.56	9.15
	mm	305	37	457	701	---	395	232
018-U1	IN	12	13.25	18	28.02	1 1/2"	15.56	9.15
	mm	305	37	457	712	---	395	232
030-U1	IN	14	15.11	20	33.67	1 1/2"	18.65	10.02
	mm	356	384	508	855	---	474	255
040-U1	IN	14	15.11	20	34.04	2"	18.65	10.02
	mm	356	384	508	865	---	474	255
060-U1	IN	18	20.00	28	43.77	2 1/2"	22.02	12.00
	mm	457	508	711	1112	---	559	305
130-U1	IN	18	20.00	28	44.71	3"	22.02	12.00
	mm	457	508	711	1136	---	559	305
220-U1	IN	20	23.25	36	52.25	4"	27.68	14.50
	mm	508	591	914	1327	---	703	368



When it is time to repair ...

SPX FLOW offers the following options – you pick the one that meets your needs.

Factory Remanufacturing Program

- No need to return your pump until you receive your new replacement pump.
- Substantial savings over new pump.
- All remanufactured pumps must pass a 25 point inspection process and undergo performance testing.
- Only OEM genuine parts are used in the remanufacturing process and you receive a guaranteed warranty and quality certificate with each pump.
- New pumps eligible for Remanufacturing Program twice.

Factory Inspect and Advise Program

- Return your pump for extensive factory inspection.
- Cost effective options to match your performance/budget needs.
- Your pump body may be remachined up to 6 times.
- Replacement rotors and parts available.
- Factory warranty.

SPX FLOW Certified Pump Repair Centers

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



Scan the code to view our **Global Standard Terms and Conditions** or visit www.spxflow.com/terms-and-conditions/

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

SPX FLOW

611 Sugar Creek Road
Delavan, WI 53115
P: (262) 728-1900 or (800) 252-5200
E: wcb@spxflow.com

SPX FLOW, Inc. reserves the right to incorporate our latest design and material changes without notice or obligation.

Design features, materials of construction, dimensional data and certifications as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing. Please contact your local sales representative for product availability in your region. For more information visit www.spxflow.com.

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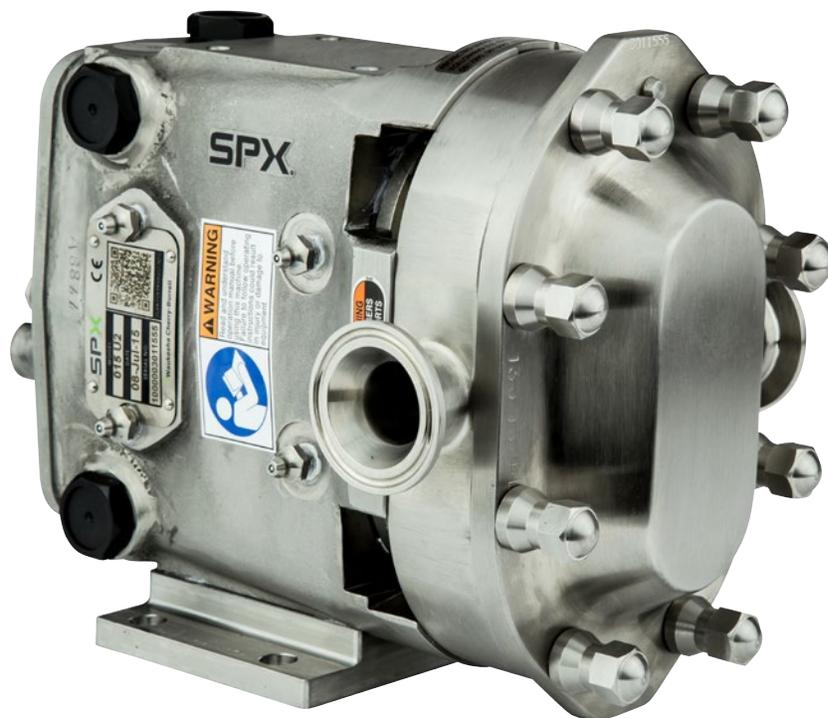
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Universal[®] 2 Series

ROTARY POSITIVE DISPLACEMENT PUMPS



Users of Waukesha Cherry-Burrell® PD 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 UNIVERSAL® 2 SERIES of pumps is the latest expression of this tradition. They combine 3-way mounting versatility introduced by the Universal 1 with new features that extend pump life and improve sanitary performance. Pump is available in CIPable configurations.

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. From its headquarters in Charlotte, North Carolina, 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. Its expert engineering capability also makes 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 timescales 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.

New levels of sanitary performance.

Long-life engineering features.

PRODUCT FEATURES AND BENEFITS

Sanitary Features

- CIP capability available. Pump body has optional internal flat body profile and will free drain with vertical ports. Optional rotor and body hub drilling provided for difficult CIP cleaning applications.
- Cover is free draining in horizontal or vertical port positions.
- Rotor/shaft connection sealed from product zone.
- Single mechanical seals standard. Optional double mechanical seals also available.
- Seal flush optional: seal areas interconnected to improve circulation and draining of seal flush fluid. Steam-In-Place also is optional.
- Stainless steel bearing frame optional on models 006 to 370.
- Aseptic design (Option)

Long-life Features

- Up to 500 psi (34.5 bar) pressure capability.
- Special rotor nut designed for extended service without loosening.
- No bearings in the product zone.
- Large diameter 17-4 PH shafts for greater strength and stiffness. Helps reduce vibration; extends seal life.
- Heavy duty bearing frame (stainless steel available as an option).
- Double tapered roller bearings.
- Greased lubed bearings for positive lubrication to all bearings over entire speed, temperature and pressure range.
- Body retaining screws for maintaining mechanical seal contact during inspection.
- Extended outer seal life. A wave spring, instead of an O-ring, mechanically loads the seal.
- O-Ring on inner seal, seals on clean surface as seal moves due to wear.
- Unique mechanical seal design utilizes 3 pin stationary seal and special design shaft for rotary seal.

Installation Features

- Bidirectional flow. Rotors, locked with belleville washers and torqued nuts, rotate securely in either direction. No more flow direction/shaft position specifications.
- Interchangeable installation dimensions with Universal 1 and Universal Lobe PD pumps. (Except for 320 and 324 sizes)
- Versatile 3-Way mounting of gear case, including vertical alignment of ports.
- Upper or lower shaft position.
- Jacketed or vented cover optional.
- Non-galling Waukesha "88" alloy rotors standard; permits running at tighter clearances and pumping a wide range of viscosities. 316L stainless steel lobe rotors also available.
- 316L stainless steel pump body and cover.
- Electro-polish of product contact surfaces, optional.



Shown with optional flat body profile



Shown with optional stainless steel gearcase



Typical product applications

Food and Beverage

Soups, Stews, Tomato Paste
Vegetables, Dressings
Chocolate, Fats & Oils
Batters, Cream Fillings
Brewery, Wort
Soft/Fruit Drinks



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



Chemical/Industrial

Solvents, Paints
Fuels
Resins, Polymers & Sludges
Oil & Lubricants
Soaps



Adding a Powerful New Tool to Your Maintenance Program

SPX FLOW has recently launched its SPX Connect App allowing users the ability to access product support information 24/7 using a smart device with internet access.

A quick scan of the product's QR code will provide you with immediate access to:

- Product descriptions and general operating specifications
- Maintenance manuals and documentation
- Maintenance videos and product animations
- Distributor look-up feature
- Submit quote requests



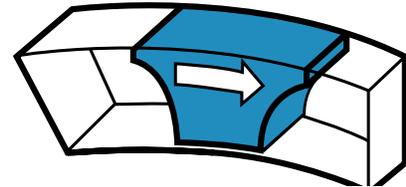
SPX FLOW is committed to providing you with innovative products and technologies to help keep your process flowing.

Plan your next scan and download the Free SPX Connect App today.

Time-tested Waukesha Cherry-Burrell® rotary pump; circumferential-piston operating principle

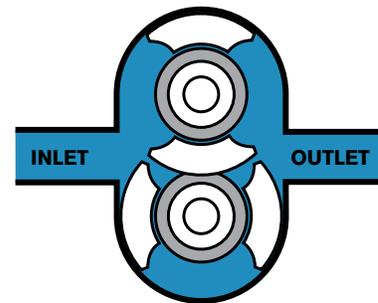
THEORY OF OPERATION

In the Waukesha Cherry-Burrell design, arc-shaped “pistons” (rotor wings) travel in annular-shaped cylinders machined in the pump body; the resulting long sealing path reduces slippage and produces a smooth flow of product without destructive pulses or pressure peaks and without valves or complex parts.



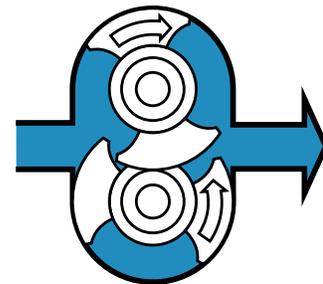
FOR LOW VISCOSITY FLUIDS

Rotors, made of Waukesha “88” alloy, can be run with close clearance to the 316L stainless steel fluid head, without galling or seizing should inadvertent pressure surges cause contact. The close clearances combined with the rotor geometry, which gives a long sealing path between the pump inlet and outlet, means low slip operation. As a result, you achieve: high efficiency, good priming ability, metering capability and good flow control.



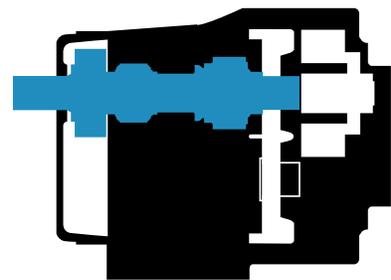
FOR HIGH VISCOSITY FLUIDS

The large fluid cavities of the rotors ... plus the large, easy entry anti-cavitation ports, allow efficient pumping of high viscosity fluids, slurries or even liquids with large chunks or particles.



FOR NON-LUBRICATING AND ABRASIVE FLUIDS

The unique Waukesha Cherry-Burrell design has no bearing in the fluid being pumped, no sliding or rolling contact and no rotor-to-rotor contact. This produces EXCELLENT SERVICE LIFE even under severe operating conditions.



PRODUCT SPECIFICATIONS



UNIVERSAL 2 MODELS

MODEL	DISPLACEMENT PER REVOLUTION	NOMINAL CAPACITY* TO	INLET/OUTLET	OPTIONAL INLET/OUTLET	PRESSURE RANGE UP TO**	MAXIMUM RPM	TEMP RANGE
006-U2	.0082 GAL. (.031 LITER)	8 GPM (1.8 m ³ /hr.)	1"	1½"	300 PSI (20.7 bar)	1000	Std. Rotors: -40°F (-40°C) to 180°F (82°C) Hot Clearance Rotors: -40°F (-40°C) to 300°F (149°C)
015-U2	.0142 GAL. (.054 LITER)	11 GPM (2.5 m ³ /hr.)	1½"	-	250 PSI (17.2 bar)	800	
018-U2	.029 GAL. (.110 LITER)	20 GPM (4.5 m ³ /hr.)	1½"	2"	200 PSI (13.8 bar)	700	
030-U2	.060 GAL. (.227 LITER)	36 GPM (8.2 m ³ /hr.)	1½"	2"	250 PSI (17.2 bar)	600	
040-U2	.076 GAL. (.288 LITER)	46 GPM (10.4 m ³ /hr.)	2"	-	150 PSI (10.5 bar)	600	
045-U2	.098 GAL. (.371 LITER)	58 GPM (13.2 m ³ /hr.)	2"	-	450 PSI (31.0 bar)	600	
060-U2	.153 GAL. (.579 LITER)	90 GPM (20.4 m ³ /hr.)	2½"	3"	300 PSI (20.7 bar)	600	
130-U2	.253 GAL. (.958 LITER)	150 GPM (34.1 m ³ /hr.)	3"	-	200 PSI (13.8 bar)	600	
180-U2	.380 GAL. (1.438 LITER)	230 GPM (52.2 m ³ /hr.)	3"	-	450 PSI (31.0 bar)	600	
210-U2	.502 GAL. (1.900 LITER)	300 GPM (68.1 m ³ /hr.)	4"	-	500 PSI (34.5 bar)	600	
220-U2	.521 GAL. (1.972 LITER)	310 GPM (70.4 m ³ /hr.)	4"	-	300 PSI (20.7 bar)	600	
320-U2	.752 GAL. (2.847 LITER)	450 GPM (102 m ³ /hr.)	6"	-	300 PSI (20.7 bar)	600	
370-U2	1.099 GAL (4.160 LITER)	660 GPM (150 m ³ /hr.)	6"	-	200 PSI (13.8 bar)	600	



RECTANGULAR FLANGE MODELS

MODEL	DISPLACEMENT PER REVOLUTION	NOMINAL CAPACITY* TO	INLET/ W X L Inches	OUTLET	PRESSURE RANGE UP TO**	MAXIMUM RPM	TEMP RANGE
014-U2	.0142 GAL. (.054 LITER)	5.68 GPM (1.3 m ³ /hr.)	1.44 X 4.94	1½"	250 PSI (17.2 bar)	400	Std. Rotors: -40°F (-40°C) to 180°F (82°C) Hot Clearance Rotors: -40°F (-40°C) to 300°F (149°C)
034-U2	.060 GAL. (.227 LITER)	24 GPM (5.5 m ³ /hr.)	1.81 X 6.84	2"	250 PSI (17.2 bar)	400	
064-U2	.153 GAL. (.579 LITER)	61 GPM (13.9 m ³ /hr.)	2.44 X 9.0	2½"	300 PSI (20.7 bar)	400	
134-U2	.253 GAL. (.958 LITER)	101 GPM (22.9 m ³ /hr.)	3.19 X 9.38	3"	200 PSI (13.8 bar)	400	
184-U2	.380 GAL. (1.483 LITER)	152 GPM (34.5 m ³ /hr.)	3.28 X 11.25	3"	450 PSI (31.0 bar)	400	
214-U2	.502 GAL. (1.90 LITER)	200 GPM (45.4 m ³ /hr.)	3.45 X 12.70	4"	500 PSI (34.5 bar)	400	
224-U2	.521 GAL. (1.972 LITER)	208 GPM (47.2 m ³ /hr.)	4.06 X 11.25	4"	300 PSI (20.7 bar)	400	
324-U2	.752 GAL. (2.847 LITER)	300 GPM (68.1 m ³ /hr.)	4.25 X 12.70	6"	300 PSI (20.7 bar)	400	

*For capacities above 830 to 935 GPM (189 to 212 m³/hr), see bulletin FH-1725 on 420/520 UHC (ECP Rotors).

**Contact application engineering for higher pressure or higher temperature applications.

Performance and Long Life Through Engineering.

The Waukesha Cherry-Burrell Universal 2 Series gives you...

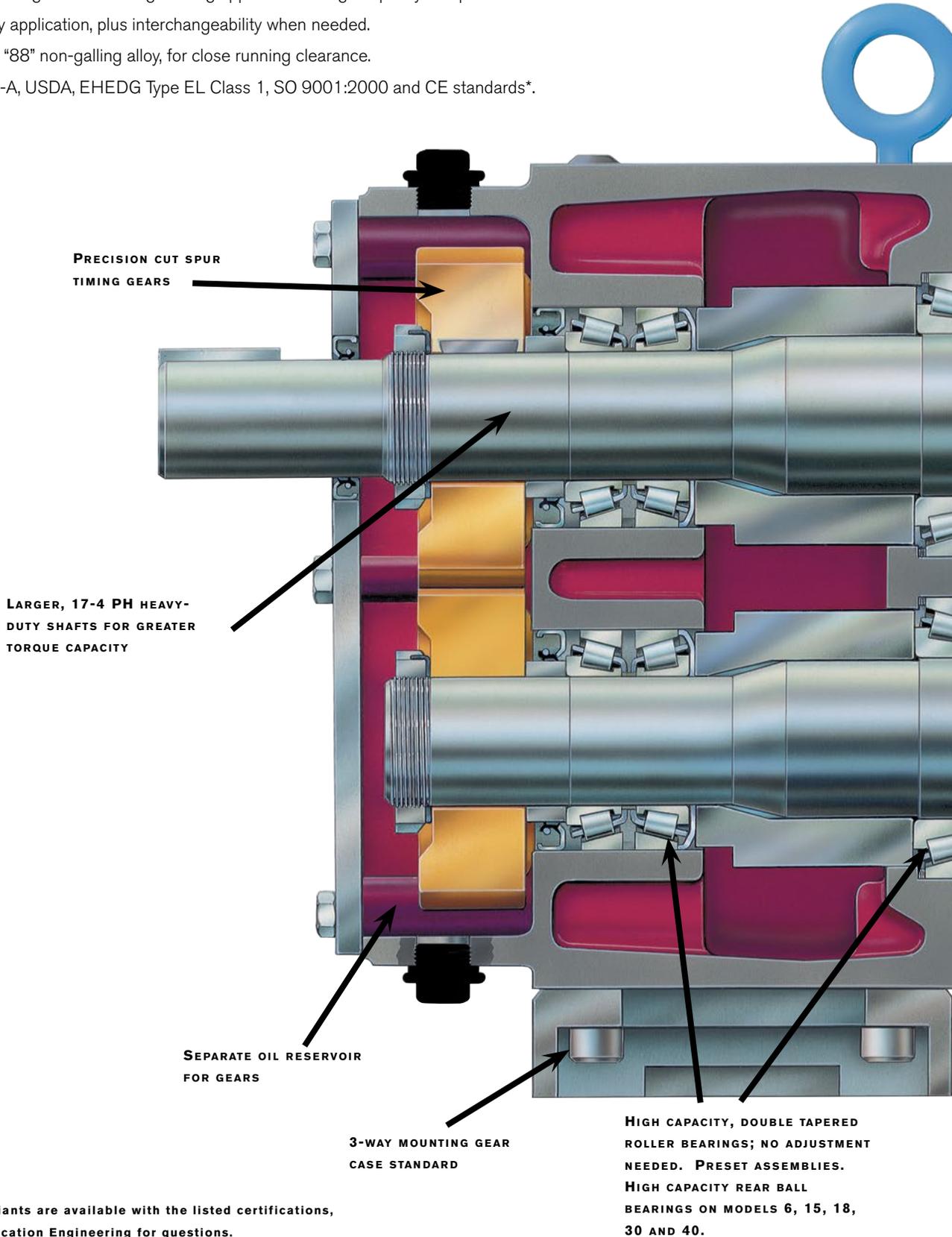
High pressure capability, up to 500 psi/34.5 bar, for more demanding jobs.

Longer service life, resulting from fresh engineering approach and high capacity components.

The right seal, for every application, plus interchangeability when needed.

Metal rotor: Waukesha "88" non-galling alloy, for close running clearance.

Design conforms, to 3-A, USDA, EHEDG Type EL Class 1, SO 9001:2000 and CE standards*.

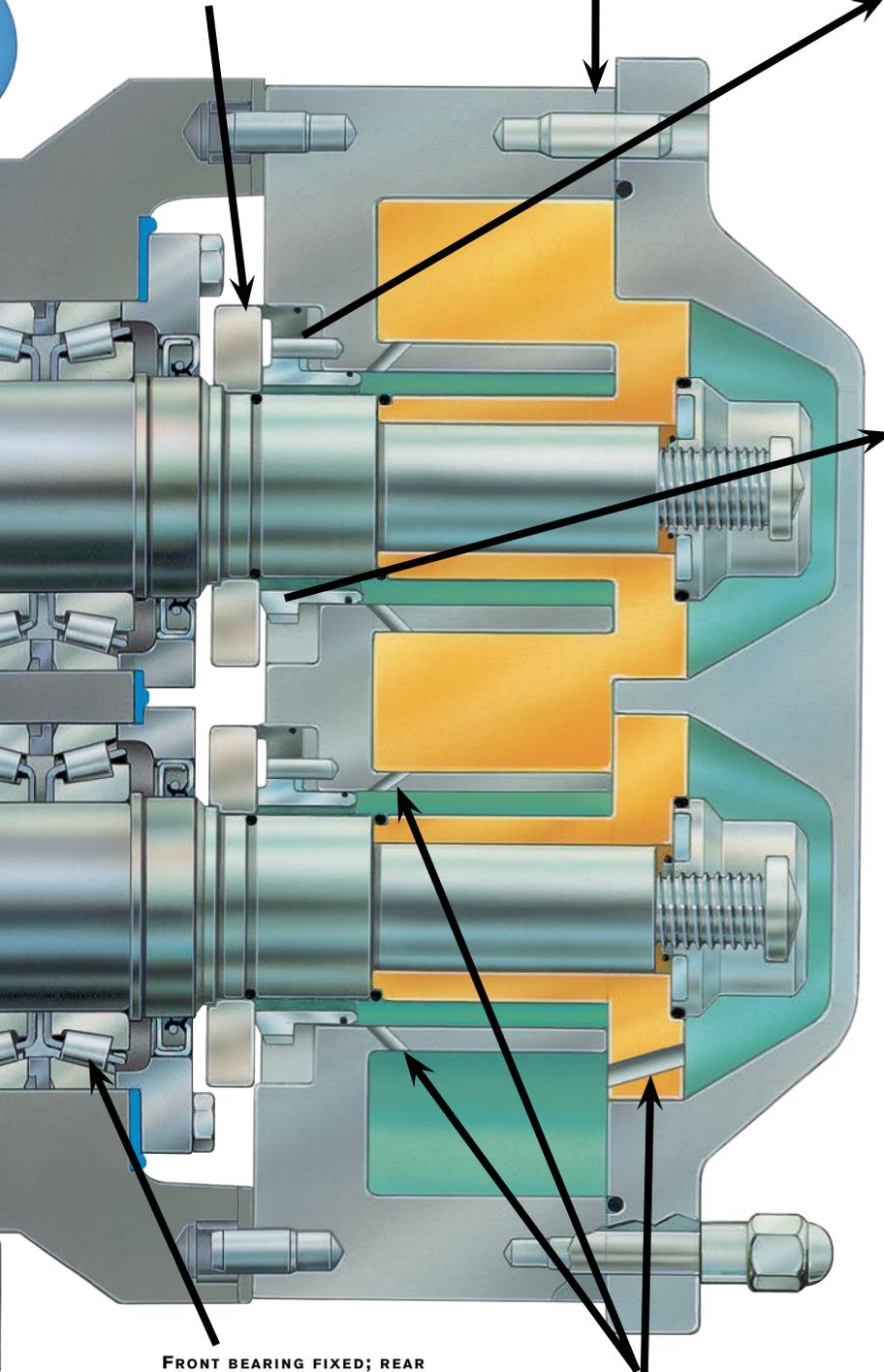


*Not all versions or variants are available with the listed certifications, contact SPX Flow Application Engineering for questions.

Seal Options

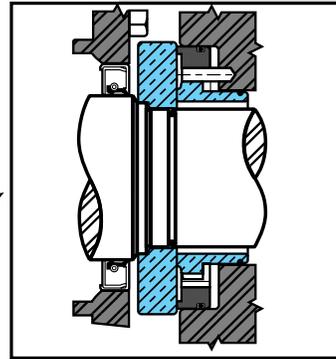
316L STAINLESS STEEL; DESIGN CONFORMS TO 3-A, USDA, EHEDG TYPE EL CLASS 1, CE, ASME STANDARDS*

FIELD INTERCHANGEABLE SEAL OPTIONS FOR EVERY SERVICE



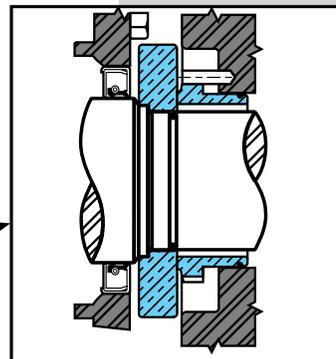
FRONT BEARING FIXED; REAR BEARING FLOATING. BETTER CONTROL OF THERMAL EXPANSION WHEN HANDLING HOT PRODUCTS

OPTIONAL DRILLING SHOWN FOR CIP MODELS



Double Concentric Mechanical Seal*

Used with flushing fluid to cool, lubricate, flush away residue. Best arrangement for severe service.



Single Mechanical Seal*

Carbon-to-ceramic faces standard. Alternate materials available for abrasive service.

Elastomer choices for "O" rings:

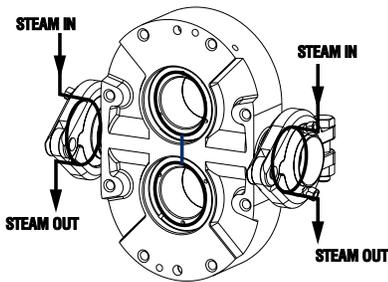
- Buna-N
- Fluoroelastomer (FKM)
- EPDM
- Silicone
- Perfluoroelastomer (FFKM)
- PTFE Encapsulated

*Mechanical seal material options:

- Carbon
- Ceramic
- Silicon Carbide
- Tungsten Carbide

Standard & Options

Ports

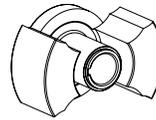


Optional Aseptic Ports

Rotors

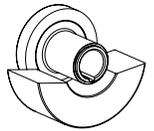
Twin Wing

Standard; suitable for most applications.



Single Wing

For reduced breakage on fluids with discrete particles, such as diced tomato products.



Rotor Clearance

Standard for most applications up to 180°F (82°C).

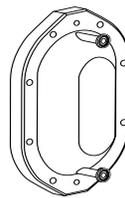
Hot clearance rotors option for applications up to 300°F (149°C).

Other special clearances available.

O-Rings

Buna-N Standard

Optional: Fluoroelastomer (FKM), EPDM, Silicone, Per Fluoroelastomer (FFKM), FEP Encapsulates.



Optional drain and/or vent connections



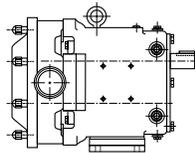
Shown with optional 3-wing cover nuts

Cover & Gearcase

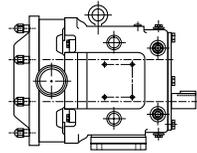
Standard: cast iron powder coated gearcase, 17-4 stainless steel shafts.

Options:

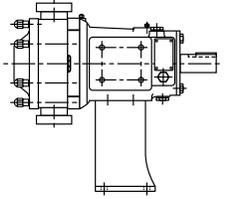
- Stainless steel gearcase
- 316L stainless steel shafts
- Steel-It paint
- 17-4 PH shafts
- Lower shaft position
- Stainless steel bearing retainers
- Bearing Isolators
- Pedestal shims for side mounted pumps. **Left hand shaft position standard**
- Right hand shaft position on side mounted gearcase



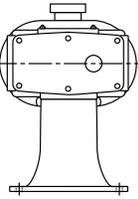
Top Shaft Position
Standard



Lower Shaft Position
Optional



Optional Side Mount Gear Case for vertical fluid entry and free draining of body



Standard left hand shaft position shown (right hand optional)

Flat plate, epoxy painted, with adjustable feet, SS coupling guard, and Lovejoy or Woods coupling standard.

Options:

- 304 SS unpolished plate base with adjustable feet.
- Portable base with rubber wheels.
- SS tubular bases.

WCB ISR Integral Speed Reducer Sizes 49, 79 and 239.

Direct connected gear motors.

Mechanical and Electronic Variable Speed Drives.

Hydraulic Motor Drives.

Close coupled Tru-Fit[®] pump mounted on Epoxy-painted open base.

Features:

- No shaft alignment necessary. No coupling guard required.
- Special base design enhances cleanability.
- Stainless steel adaptors
- Reduces overall length of complete unit by an average of 20-25%.
- Average of 20-25 gear ratios available per horsepower.
- Separate oil sump for gear reducer and timing gears.

Options:

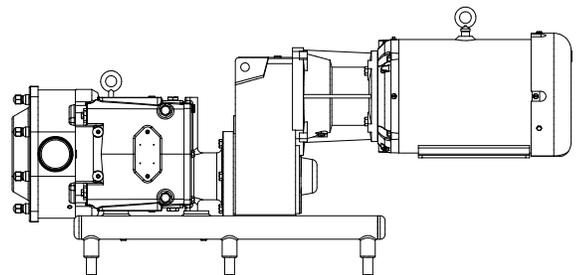
- 304 SS unpolished plate base.
- 304 SS polished plate base.
- NEMA or IEC frames available. Right angle reducer also available for additional space savings.
- 1/2 through 60 horsepower drive options available.
- Horizontal or vertical porting.

Shaft Position

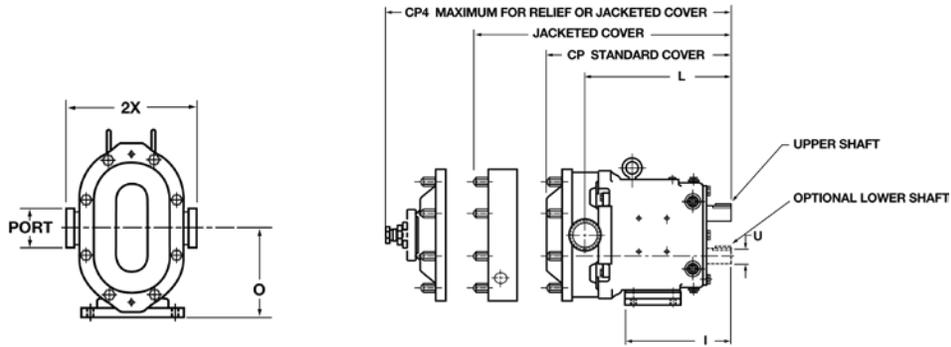
Mounting

Bases and Drives

Tru-Fit[®]



DIMENSIONAL DATA



MODEL		CP	I	L	O	PORT SIZE	U +.000 -.001	2X	CP4
006-U2	IN	11.71	7.66	9.61	4.21	1"	0.875	6.97	14.92
	mm	297	194	244	107	---	22.23	177	379
015-U2	IN	11.71	7.66	9.61	4.21	1-1/2"	0.875	6.97	14.92
	mm	297	194	244	107	---	22.23	177	379
018-U2	IN	12.37	7.66	9.84	4.21	1-1/2"	0.875	6.97	15.58
	mm	314	194	250	107	---	22.23	177	396
030-U2	IN	14.49	8.83	11.61	5.21	1-1/2"	1.25	8.5	17.58
	mm	368	224	295	132	---	31.75	216	447
040-U2	IN	14.87	8.83	11.99	5.21	2"	1.25	8.62	17.96
	mm	378	224	305	132	---	31.75	219	456
045-U2	IN	18.59	10.99	14.86	7.31	2"	1.625	10.75	22.28
	mm	472	279	377	186	---	41.28	273	566
060-U2	IN	19.14	10.99	15.14	7.31	2-1/2"	1.625	10.75	22.83
	mm	486	279	385	186	---	41.28	273	580
130-U2	IN	20.15	10.99	15.77	7.31	3"	1.625	10.75	23.84
	mm	512	279	401	186	---	41.28	273	606
180-U2	IN	23.26	14.8	18.25	9.38	3"	2	13.06	28.51
	mm	591	376	464	238	---	50.8	332	724
210-U2	IN	27.08	17.8	21.24	10.38	4"	2.375	14.73	---
	mm	688	452	539	264	---	60.45	374	---
220-U2	IN	24	14.8	18.49	9.38	4"	2	13.25	29.25
	mm	610	376	470	238	---	50.8	337	743
320-U2	IN	27.66	17.8	21.63	10.38	6" 150# FLG	2.375	16	---
	mm	703	452	549	264	---	60.45	406	---
370-U2	IN	29.16	17.8	22.32	10.38	6" 150# FLG	2.38	17	---
	mm	741	452	567	264	---	60.5	432	---

NOTE: Dimension "2X" applies for Bevel Seat, "S"-Clamp, "Q"-Clamp, 15I and 14I fittings on Models 006 through 220.

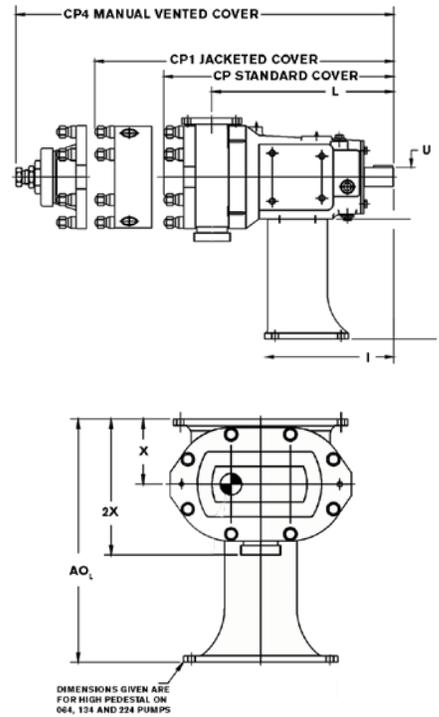
Dimension "2X" applies for 6" 150 lb. RF Flange on Model 320.

Consult factory for available rectangular flange inlets.

NOTE: Dimensions are for guidance purposes only. Contact your SPX FLOW Representative if more detailed measurements are needed.

UNIVERSAL 2 MODELS - RECTANGULAR FLANGE

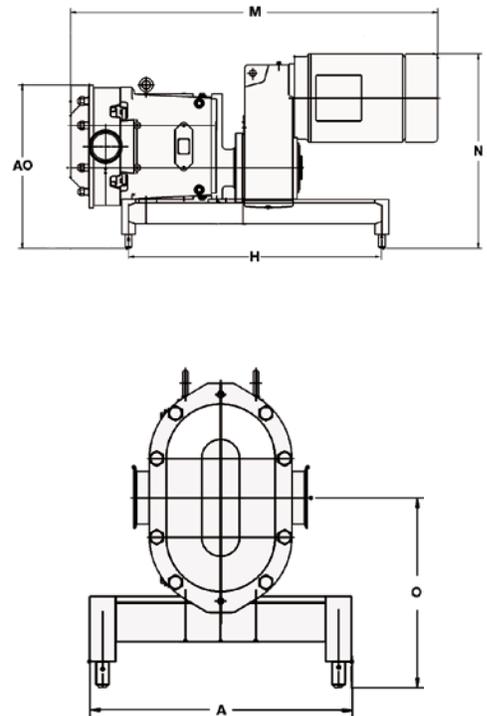
MODEL		AO*	CP	CP4	I	PORT SIZE	U +.000 -.001	2X	WT LBS/ KG
014-U2	IN	12.5	11.71	14.92	7.66	1-1/2"	0.875	7.11	47
	mm	318	297	379	195	---	22.23	181	21
034-U2	IN	12.75	14.49	17.58	8.49	2"	1.25	8.12	100
	mm	324	368	447	216	---	31.75	206	45
064-U2	IN	13.94	19.14	22.83	10.77	2-1/2"	1.625	10.31	255
	mm	354	486	580	274	---	41.28	262	116
134-U2	IN	13.94	20.15	23.84	10.77	3"	1.625	10.31	280
	mm	354	512	606	274	---	41.28	262	127
184-U2	IN	35.94	23.26	28.51	13.74	3"	2	13.78	414
	mm	913	591	724	349	---	50.8	350	225
214-U2	IN	35.94	27.08	---	16.86	4"	2.375	16.17	759
	mm	913	688	---	428	---	60.33	411	345
224-U2	IN	19.75	24	29.25	13.74	4"	2	12.87	505
	mm	502	610	743	349	---	50.8	327	229
324-U2	IN	35.94	27.66	---	16.86	6"	2.375	17.81	775
	mm	913	703	---	428	---	60.33	452	352



NOTE: Dimensions are for guidance purposes only. Contact your SPX FLOW Representative if more detailed measurements are needed.
 *Optional Pedestal sizes are available please contact factory for more details.

UNIVERSAL 2 MODELS - TRU-FIT®

MODEL		A	AO	H	M	PORT SIZE	N	O
006-U2	IN	12	13.25	18	27.31	1-1/2"	15.56	9.15
	mm	305	37	457	694	---	395	232
015-U2	IN	12	13.25	18	27.31	1-1/2"	15.56	9.15
	mm	305	37	457	694	---	395	232
018-U2	IN	12	13.25	18	27.31	1-1/2"	15.56	9.15
	mm	305	37	457	712	---	395	232
030-U2	IN	14	15.11	20	33.57	1-1/2"	18.65	10.02
	mm	356	384	508	853	---	474	255
040-U2	IN	14	15.11	20	33.94	2"	18.65	10.02
	mm	356	384	508	862	---	474	255
045-U2	IN	18	20	28	43.72	2"	22.02	12
	mm	457	508	711	1112	---	559	305
060-U2	IN	18	20	28	44	2-1/2"	22.02	12
	mm	457	508	711	1118	---	559	305
130-U2	IN	18	20	28	45.01	3"	22.02	12
	mm	457	508	711	1143	---	559	305
180-U2	IN	20	23.25	36	50.02	3"	25.91	14.5
	mm	508	591	914	1270	---	658	368
220-U2	IN	20	23.25	36	50.76	4"	25.91	14.5
	mm	508	591	914	1289	---	658	368



NOTE: Dimensions are for guidance purposes only. Contact your SPX FLOW Representative if more detailed measurements are needed.



When it is time to repair ...

SPX FLOW offers the following options – you pick the one that meets your needs.

Factory Remanufacturing Program

- No need to return your pump until you receive your new replacement pump.
- Substantial savings over new pump.
- All remanufactured pumps must pass a 25 point inspection process and undergo performance testing.
- Only OEM genuine parts are used in the remanufacturing process and you receive a guaranteed warranty and quality certificate with each pump.
- New pumps eligible for Remanufacturing Program twice.

Factory Inspect and Advise Program

- Return your pump for extensive factory inspection.
- Cost effective options to match your performance/budget needs.
- Your pump body may be remachined up to 6 times.
- Replacement rotors and parts available.
- Factory warranty.

SPX FLOW Certified Pump Repair Centers

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



Scan the code to view our **Global Standard Terms and Conditions** or visit www.spxflow.com/terms-and-conditions/

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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E: wcb@spxflow.com

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SPXFLOW

Serie Universal 3

POMPE VOLUMETRICHE ROTATIVE



Design con tenuta a caricamento frontale



> Waukesha Cherry-Burrell®

Gli utilizzatori delle pompe Waukesha Cherry-Burrell PD traggono beneficio da decenni di miglioramento continuo del prodotto. Grazie a costanti progressi nel design, nella metallurgia e nelle tecniche di fabbricazione sono stati raggiunti livelli sempre più elevati di prestazioni e ciclo di vita.

LA SERIE UNIVERSAL 3 di pompe è l'ultima espressione di questa tradizione. Abbinano la versatilità introdotta dalla Universal I di 3 modalità di montaggio a nuove caratteristiche che prolungano la durata della pompa e migliorano le prestazioni sanitarie.

SPX FLOW, Inc. (NYSE:FLOW) è un'azienda leader nella produzione di tecnologie di flusso innovative, molte delle quali contribuiscono a definire lo standard di settore nei segmenti di mercato a cui sono destinate. Dalla sede centrale di Charlotte in North Carolina (USA), gestisce una rete commerciale e di assistenza, centri di eccellenza manifatturiera e strutture di progettazione avanzate in tutto il mondo. I suoi componenti di flusso all'avanguardia e le sue attrezzature di processo comprendono un'ampia gamma di pompe, valvole, scambiatori di calore, miscelatori, omogeneizzatori, separatori, filtri, tecnologie UHT e di essiccazione che rispondono alle esigenze applicative più diverse. Inoltre, la sua esperienza nel campo della progettazione ne fa un'azienda fornitrice di soluzioni personalizzate e complete di alta qualità, nonché di pacchetti "chiavi in mano" rispondenti alle più elevate esigenze di installazione.

Titolare di numerosi marchi leader, SPX FLOW rifornisce da anni i settori alimentare, delle bevande e dell'energia nonché il mercato industriale. Le sue concezioni e soluzioni di progettazione consentono ai clienti di migliorare l'efficienza e la produttività, di incrementare la qualità e l'affidabilità e di soddisfare le ultime norme in vigore. Una comprensione approfondita delle applicazioni e dei processi, centri di innovazione all'avanguardia e avanzate tecnologie pilota e di test permettono di ottimizzare i processi e di ridurre le tempistiche, al fine di conseguire in modo affidabile gli obiettivi di produzione.

Per maggiori informazioni sulle capacità di SPX FLOW, sulle sue ultime innovazioni tecnologiche e sull'offerta completa dei suoi servizi, visitare il sito www.spxflow.com.

Un nuovo livello di prestazioni sanitarie. Caratteristiche tecniche di lunga durata.

CARATTERISTICHE E VANTAGGI DEL PRODOTTO

Caratteristiche sanitarie

- Design con tenuta a caricamento frontale
- Pulizia CIP standard. Il rotore della pompa ha superfici interne piane ed esegue il drenaggio con le porte verticali.
- Il coperchio è a drenaggio libero sulla porta in posizione orizzontale o verticale.
- Il collegamento rotore/albero è completamente sigillato dall'area del prodotto e riduce il rischio di corrosione.
- Tenute meccaniche singole come standard. Disponibili anche tenute meccaniche doppie opzionali, o-ring e tenute a labbro. Possibilità di cambiare il tipo di tenuta senza lavorazione aggiuntiva.
- La tenuta del coperchio è progettata per migliorare la pulizia ed evitare che il particolato venga "schiacciato" e intrappolato.
- Scatola ingranaggi in acciaio inossidabile e telaio del cuscinetto standard.
- Raccordi asettici disponibili.
- Lavaggio tenuta e vapore in loco opzionali.

Caratteristiche di lunga durata

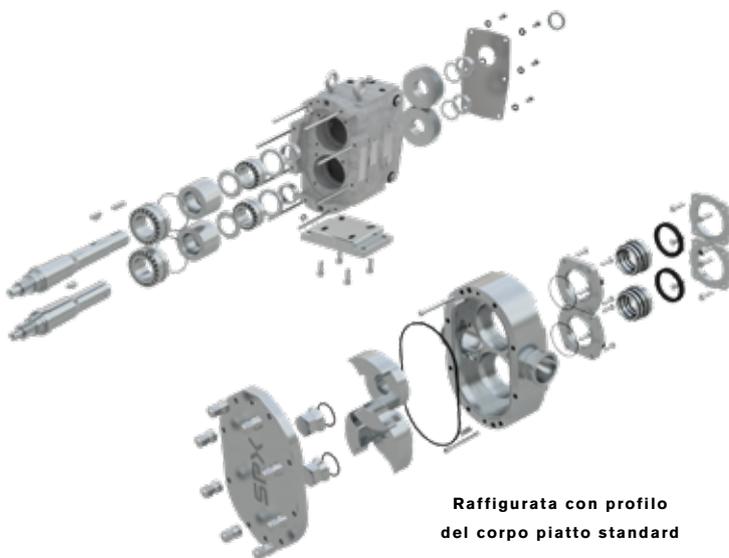
- Pressione fino a 34,5 bar.
- Pompe classificate a 149 °C come standard.
- Dado del rotore speciale progettato per un uso prolungato senza allentarsi.
- Assenza di cuscinetti nell'area di prodotto.
- I nuovi alberi sono più corti e gli alberi 17-4 PH hanno un diametro più largo:
 - » Riduce il carico in eccesso migliorando l'allineamento dell'albero e diminuisce l'usura della tenuta e del cuscinetto, in modo da prolungare la durata della tenuta.
 - » Migliora la resistenza e la rigidità dell'albero, consentendo l'eliminazione delle vibrazioni.
- Telaio cuscinetto standard in acciaio inossidabile per usi gravosi.
- Doppi cuscinetti a rulli rastremati.
- Cuscinetti lubrificati a grasso per avere una buona lubrificazione di tutti i cuscinetti nell'intera gamma di velocità, temperatura e intervallo pressione.
- Viti di ritegno sul corpo per la manutenzione delle tenute meccaniche durante il controllo.
- Durata prolungata della tenuta esterna. Una molla ondulata, invece di un O-ring, carica meccanicamente la tenuta.
- L'esclusivo design della tenuta meccanica utilizza una tenuta fissa con 2 perni e un albero dal design speciale per tenuta rotativa.

Caratteristiche di installazione

- Flusso bidirezionale. I rotori, bloccati con dadi serrati, girano in modo sicuro in entrambe le direzioni. Non sono richieste specifiche per la direzione del flusso/posizione dell'albero.
- Montaggio versatile in 3 modalità della scatola ingranaggi, allineamento verticale delle porte incluso.
- Posizione dell'albero superiore o inferiore.
- I rotori standard in lega Waukesha "88" antigrippaggio consentono un funzionamento con gioco più ristretto e il pompaggio di un'ampia selezione di viscosità. Disponibili anche rotori in acciaio inossidabile.
- Corpo della pompa e coperchio in acciaio inossidabile 316L.
- Elettrolucidatura delle superfici a contatto con il prodotto, opzionale.



Raffigurata con scatola ingranaggi standard in acciaio inossidabile



Raffigurata con profilo del corpo piatto standard

ISO 9001
CERTIFIED

Applicazioni tipiche

Alimenti e bevande

Zuppe, stufati, concentrato di pomodoro
Verdure, condimenti
Cioccolato, grassi e oli
Pastelle, ripieni alla crema
Birra, mosto di malto
Bevande analcoliche/alla frutta



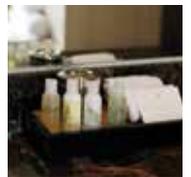
Lattiero-Caseario

Panna, latte
Cagliata di formaggio e siero
Fiocchi di latte
Yogurt



Medici/cosmetici

Pasta base per pillole
Sciroppi, essenze, fondi fangosi
Creme per il viso e lozioni
Gel e sostanze liquide per acconciature
Tinture e alcohol



Chimici/industriali

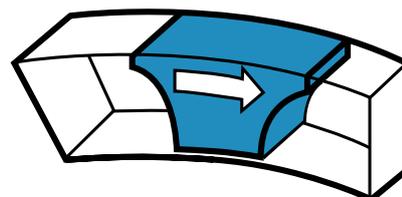
Solventi, pitture
Combustibili
Resine, polimeri e fanghi
Olio e lubrificanti
Saponi



Pompa rotativa Waukesha Cherry-Burrell sottoposta a prove di durata; principi operativi per pistone circonferenziale

TEORIA DI FUNZIONAMENTO

Nel design Waukesha Cherry-Burrell, i "pistoni" ad arco (ali del rotore) si muovono in cilindri ad anello lavorati nel corpo della pompa; il conseguente lungo percorso di tenuta riduce lo scivolamento e produce un flusso senza problemi, senza impulsi dannosi o picchi di pressione e senza valvole o parti complesse.



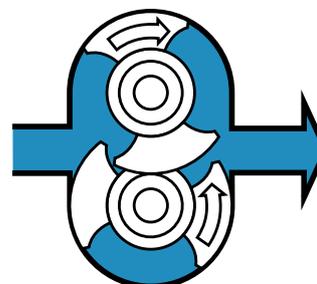
PER LIQUIDI A BASSA VISCOSITÀ

I rotori in lega "88" Waukesha possono essere azionati con un gioco in prossimità della testa del liquido in acciaio inossidabile 316L, senza sfregamento o grippaggio, nel caso improvvisi aumenti di pressione dovessero causare contatto. La vicinanza dei giochi abbinata alla geometria del rotore, che crea un lungo percorso di tenuta tra l'ingresso e l'uscita della pompa, comporta un funzionamento con un ridotto slittamento. Si ottengono di conseguenza: elevata efficienza, buona capacità di avviamento, capacità di dosaggio e buon controllo del flusso.



PER LIQUIDI A ELEVATA VISCOSITÀ

Le grandi cavità dei rotori per i fluidi insieme alle ampie porte con anticavitazione dall'ingresso agevole, consentono di pompare in modo efficiente liquidi a elevata viscosità, fondi fangosi o perfino liquidi con pezzi grossi o particelle.



PER LIQUIDI NON LUBRIFICANTI E ABRASIVI

La struttura Waukesha Cherry-Burrell non ha cuscinetto nel liquido che viene pompato, nessun contatto durante lo scorrimento o il rotolamento e nessun contatto tra rotore e rotore. Ne risulta una MASSIMA DURATA anche in condizioni operative gravose.

SPECIFICHE DEL PRODOTTO



MODELLI UNIVERSAL 3

MODELLO	SPOSTAMENTO PER GIRO	CAPACITÀ NOMINALE FINO A	INGRESSO/ USCITA	INGRESSO/ USCITA OPZIONALI	INTERVALLO PRESSIONE FINO A*	GIRI/MIN MASSIMI	PESO APPROSSIMATIVO SPEDIZIONE	INTERVALLO TEMP.
006-U3	0,031 LITRI	1,8 m3/hr.	1"	1 1/2"	20,7 bar	1000	25 kg	Rotori a gioco standard: da -40 °C a 149 °C
015-U3	0,054 LITRI	2,5 m3/hr.	1 1/2"	-	17,2 bar	800	25 kg	
018-U3	0,110 LITRI	4,5 m3/hr.	1 1/2"	2"	13,8 bar	700	30 kg	
030-U3	0,227 LITRI	8,2 m3/hr.	1 1/2"	2"	17,2 bar	600	59 kg	
040-U3	0,288 LITRI	10,4 m3/hr.	2"	-	10,5 bar	600	64 kg	
045-U3	0,371 LITRI	13,2 m3/hr.	2"	-	31,0 bar	600	134 kg	
060-U3	0,579 LITRI	20,4 m3/hr.	2 1/2"	3"	20,7 bar	600	129 kg	
130-U3	0,958 LITRI	34,1 m3/hr.	3"	-	13,8 bar	600	138 kg	
180-U3	1,438 LITRI	52,2 m3/hr.	3"	-	31,0 bar	600	236 kg	
210-U3	1,900 LITRI	68,1 m3/hr.	4"	-	34,5 bar	600	415 kg	
220-U3	1,972 LITRI	70,4 m3/hr.	4"	-	20,7 bar	600	268 kg	
320-U3	2,847 LITRI	102 m3/hr.	6"	-	20,7 bar	600	406 kg	

*Contattare il tecnico responsabile dell'applicazione per applicazioni con pressione o temperatura superiori.

APP SPX CONNECT

Scansionare i codici QR per consultare rapidamente manuali, ricercare le informazioni per contattare l'assistenza e richiedere preventivi per riparazioni o componenti.

Scaricate subito l'app SPX Connect!



Prestazioni e lunga durata grazie all'eccellente design e alla costruzione di qualità

La serie Universal 3 di Waukesha Cherry-Burrell vi offre...

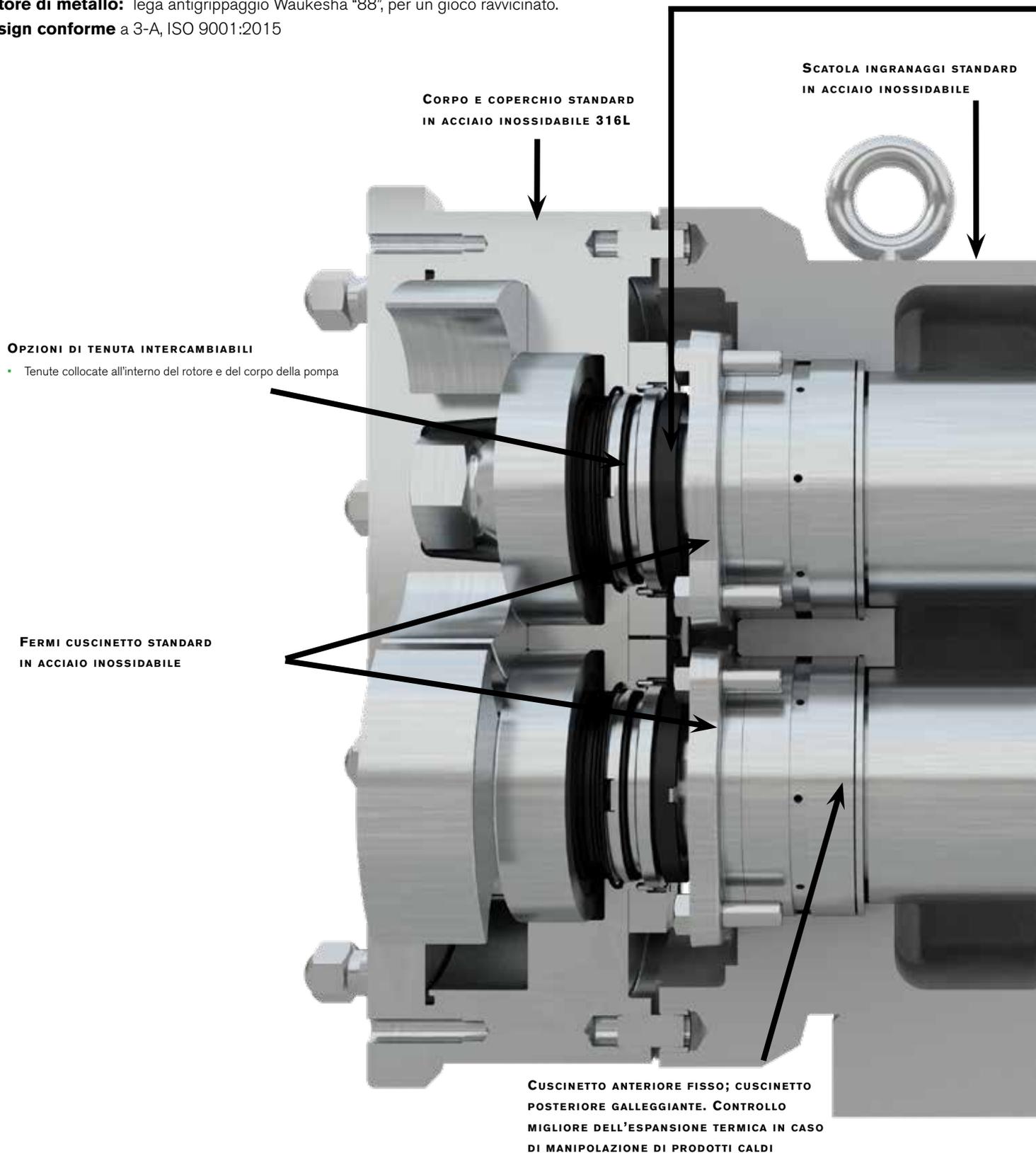
Pressione elevata, fino a 34,5 bar, per lavori più esigenti.

Durata maggiore, dovuta a un approccio tecnico innovativo e a componenti robusti di alta qualità.

La giusta tenuta, per innumerevoli applicazioni, e più intercambiabilità quando è necessaria.

Rotore di metallo: lega antigrippaggio Waukesha "88", per un gioco ravvicinato.

Design conforme a 3-A, ISO 9001:2015



Opzioni tenuta



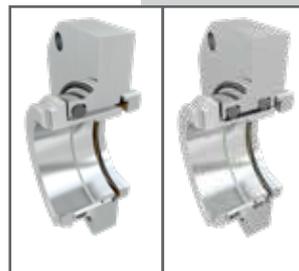
Tenuta meccanica singola*

Configurazione della tenuta standard: superficie rotativa della tenuta in carburo di silicio e superficie stazionaria della tenuta in carbonio. Materiali alternativi disponibili per abrasione.



Doppia tenuta meccanica concentrica*

Utilizzata con liquido di risciacquo per raffreddare, lubrificare, lavare via residui. Il miglior congegno per attività difficili.



Tenuta O-ring singola e doppia

Waukesha Cherry-Burrell è una tenuta tradizionale per finalità generiche. Costo ridotto e facile da revisionare. Adatta ad applicazioni a pressione bassa.

7 bar

INGRANAGGI DI DISTRIBUZIONE A SPERONE DI PRECISIONE

ALBERI DAL DIAMETRO PIÙ CORTO E LARGO IN 17-4PH

- Carico in eccesso ridotto
- Durata della tenuta migliorata
- Capacità di coppia maggiore

DOPPI CUSCINETTI A RULLI RASTREMATI A ELEVATA CAPACITÀ; NON È NECESSARIA ALCUNA REGOLAZIONE. ELEMENTI PREINSTALLATI. CUSCINETTI A SFERA POSTERIORI A ELEVATA CAPACITÀ SUI MODELLI 6, 15, 18, 30 E 40.

SERBATOIO DI OLIO SEPARATO PER INGRANAGGI

SCATOLA A INGRANAGGI STANDARD CON MONTAGGIO IN 3 MODALITÀ

Opzioni in elastomero per O-ring:

- Fluoroelastomero (FKM)
- EPDM
- Perfluoroelastomero (FFKM)

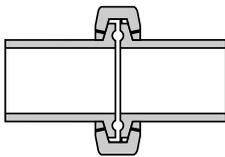
*Opzioni materiale della tenuta meccanica:

- Carbonio
- Carburo di silicio
- Carburo di tungsteno

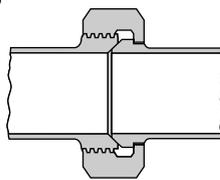
CARATTERISTICHE STANDARD E OPZIONALI

PORTE

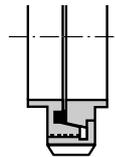
Standard: collegamenti a morsetto sanitario



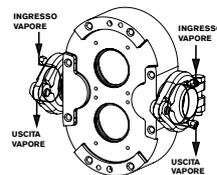
Disponibili in una gamma di stili tra cui Linea S, Linea I e Linea Q



Sede conica disponibile



Modelli europei opzionali; DIN, SMS, RJT



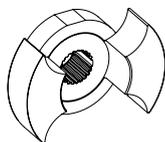
Porte asettiche opzionali

Maschio NPT e flange 150 lb. opzionali su modelli 006 fino a dimensione 220. Flange 150 lb. standard su modello 320.

ROTORI

Standard: ala doppia

Adatto alla maggior parte delle applicazioni.



Gioco rotore

- Standard per la maggior parte delle applicazioni fino a 149 °C.
- Rotori con gioco a bassa viscosità opzionali per applicazioni fino a 93 °C.
- Contattare il tecnico responsabile dell'applicazione per altre opzioni del gioco rotore.

O-RING

Standard: fluoroelastomero FKM

Fluoroelastomero (FKM), EPDM, perfluoroelastomero (FFKM)

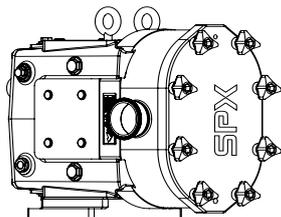
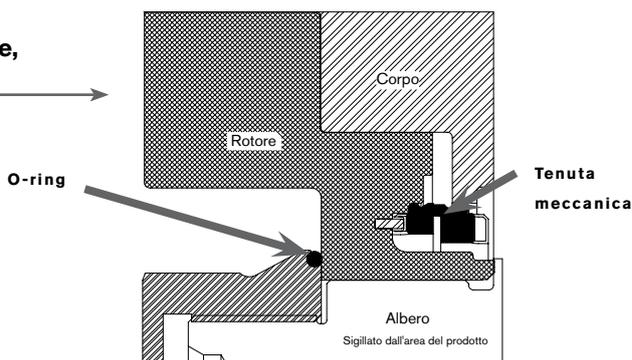
COPERCHIO E SCATOLA

INGRANAGGI

Standard: Alberi 17-4 in acciaio inossidabile, posizione dell'albero superiore, fermi cuscinetto in acciaio inossidabile, albero completamente sigillato dall'area del prodotto.

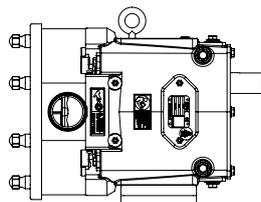
Opzioni:

- Posizione dell'albero inferiore
 - Isolanti del cuscinetto
 - Spessori di supporto per pompe montate lateralmente.
- La posizione dell'albero a sinistra è lo standard.
- L'albero di destra è posizionato sulla scatola ingranaggi montata lateralmente

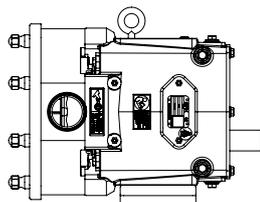


Illustrata con dadi del coperchio a 3 alette opzionali

POSIZIONE DELL'ALBERO



Posizione dell'albero superiore standard



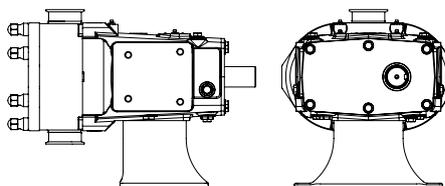
Posizione dell'albero inferiore opzionale

INSTALLAZIONE

Piastra piatta, verniciatura epossidica, con piede regolabile, protezione di accoppiamento SS e accoppiamento standard Lovejoy o Woods.

Opzioni:

- Base piastra 304 SS non levigata con piede regolabile.
- Base mobile con ruote in gomma.
- Basi tubolari SS.



Scatola ingranaggi con montaggio laterale opzionale per ingresso liquidi verticale e drenaggio libero del corpo

È illustrata la posizione dell'albero a sinistra standard (a destra è opzionale)

BASI E TRASMISSIONI

Base tubolare in acciaio inossidabile con piede regolabile, protezione in acciaio inossidabile e accoppiamento standard.

Opzioni:

- Base 304 SS.
- Base piastra epossidica.
- Base mobile.

TRU-FIT®

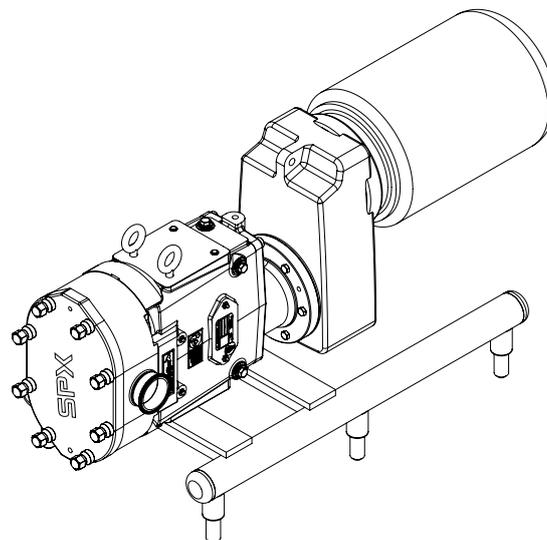
Pompa Tru-Fit® ad accoppiamento chiuso montata su base in acciaio inossidabile con adattatori standard in acciaio inossidabile.

Caratteristiche:

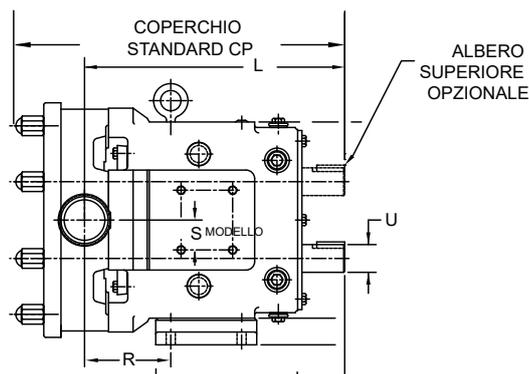
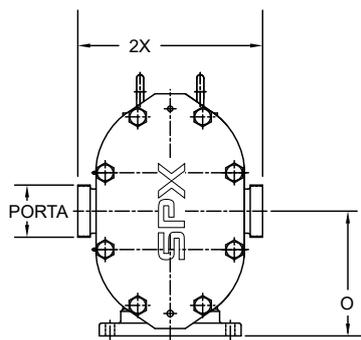
- Allineamento dell'albero non necessario. Protezione accoppiamento non necessaria.
- Design esclusivo della base che migliora la pulizia.
- Riduce la lunghezza totale dell'unità completa in media del 20–25%.
- Una media di 20–25 rapporti disponibili per cavallo di potenza.
- Coppa dell'olio separata per riduttore a ingranaggi e ingranaggi di distribuzione.

Opzioni:

- Base piastra 304 SS levigata.
- Telai NEMA o IEC disponibili. È disponibile anche un riduttore angolare per risparmiare ulteriore spazio.
- Disponibili opzioni di trasmissione da 1/2 a 60 cavalli di potenza.
- Portabilità orizzontale o verticale.



DATI DIMENSIONALI



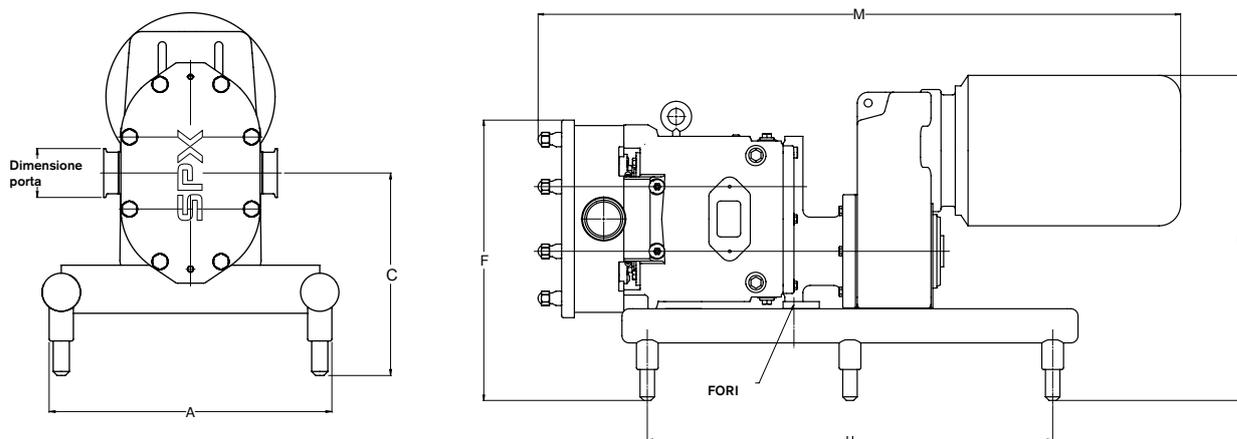
MODELLO		CP	I	L	O	DIMENSIONI PORTA	U +0,000 -0,001	2X	R*		
									U3	U1/U2	DIFFERENZA DELLA DIMENSIONE "R" TRA U3 E U1/U2
006-U3	Pollici	12,42	7,61	10,04	4,21	1,00	0,88	6,97	3,23	2,79	0,40
	mm	315	193	255	107	--	22	177	82	71	11
015-U3	Pollici	12,69	7,61	10,04	4,21	1,50	0,88	6,97	3,23	2,79	0,40
	mm	322	193	255	107	--	22	177	82	71	11
018-U3	Pollici	13,35	7,61	10,28	4,21	1,50	0,88	7,09	3,47	3,02	0,50
	mm	339	193	261	107	--	22	180	88	77	11,1
030-U3	Pollici	15,16	8,80	12,05	5,21	1,50	1,25	8,50	4,26	3,84	0,40
	mm	385	224	306	132	--	32	216	108	98	10,2
040-U3	Pollici	15,54	8,80	12,21	5,21	2,00	1,25	8,64	4,43	4,00	0,40
	mm	395	224	310	132	--	32	219	113	102	10,5
045-U3	Pollici	19,11	11,00	14,84	7,31	2"	1,63	10,75	4,72	4,73	IDENTICO
	mm	485	279	377	186	--	41	273	120	120	
060-U3	Pollici	19,66	11,00	15,13	7,31	2,50	1,63	10,75	5,01	5,01	IDENTICO
	mm	499	279	384	186	--	41	273	127	127	
130-U3	Pollici	20,68	11,00	15,76	7,31	3,00	1,63	10,75	5,64	5,65	IDENTICO
	mm	525	279	400	186	--	41	273	143	144	
180-U3	Pollici	23,48	14,80	19,03	9,38	3,00	2,00	13,06	4,21	4,20	IDENTICO
	mm	596	376	483	238	--	51	332	107	107	
210-U3	Pollici	27,07	17,72	21,85	10,38	4,00	2,38	14,73	5,64	4,70	0,90
	mm	688	450	555	264	--	60	374	143	119	24,3
220-U3	Pollici	24,22	14,80	18,49	9,38	4,00	2,00	13,25	4,45	4,44	IDENTICO
	mm	615	376	470	238	--	51	337	113	113	
320-U3	Pollici	27,66	17,72	22,34	10,38	6,00 150# FLG	2,38	16,00	6,02	5,09	0,90
	mm	703	450	567	264		60	406	153	129	23,9

* Dimensione "R" mostrata per i clienti che passano da una pompa U1/U2 a una pompa U3. Tutte le altre dimensioni sono le stesse nei modelli U1/U2/U3.

NOTA: la dimensione "2X" è valida per sede conica, morsetto a "S", morsetto a "Q", raccordi 151 e 141 (eccetto 320-U3).

NOTA: le dimensioni sono fornite unicamente a scopo indicativo. Contattare il rappresentante SPX FLOW per misurazioni più dettagliate.

MODELLI UNIVERSAL 3 - TRU-FIT®



MODELLO		A	C	F	H	M ¹	DIMENSIONI PORTA	N ¹
006-U3	Pollici	14,38	9,81	13,90	18,00	28,02	1,00	16,22
	mm	365	249	353	457	712	--	412
015-U3	Pollici	14,38	9,81	13,90	18,00	28,29	1,00	16,22
	mm	365	249	353	457	719	--	412
018-U3	Pollici	14,38	9,81	13,90	18,00	28,29	1,50	16,22
	mm	365	249	353	457	719	--	412
030-U3	Pollici	14,38	11,03	16,10	20,00	34,24	1,50	19,68
	mm	365	280	409	508	870	--	500
040-U3	Pollici	14,38	11,03	16,10	20,00	34,61	2,00	19,68
	mm	365	280	409	508	879	--	500
045-U3	Pollici	18,38	12,63	19,51	28,00	44,24	2,00	22,65
	mm	467	321	496	711	1124	--	575
060-U3	Pollici	18,38	12,63	19,51	28,00	44,52	2,50	22,65
	mm	467	321	496	711	1131	--	575
130-U3	Pollici	18,38	12,63	19,51	28,00	45,54	3,00	22,65
	mm	467	321	496	711	1157	--	575
180-U3	Pollici	20,38	14,66	23,41	36,00	50,24	3,00	26,07
	mm	518	372	595	914	1276	--	662
220-U3	Pollici	20,38	14,66	23,41	36,00	50,98	4,00	26,07
	mm	518	372	595	914	1295	--	662

¹ Dimensioni influenzate da quelle della cassa motore

NOTA: le dimensioni sono fornite unicamente a scopo indicativo.

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Serie Universal 3

Pompe volumetriche rotative

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- Risposta rapida in loco.
- Componenti originali WCB.
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- Assistenza con garanzia in loco.



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Il venditore garantisce che i propri prodotti sono privi di difetti di materiali e fabbricazione per un periodo di due (2) anni dalla data di spedizione.

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Con sede a Charlotte in North Carolina (USA), SPX FLOW, Inc. (NYSE: FLOW) è un'azienda leader nella realizzazione di prodotti per vari settori. Per maggiori informazioni, visitare il sito www.spxflow.com

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