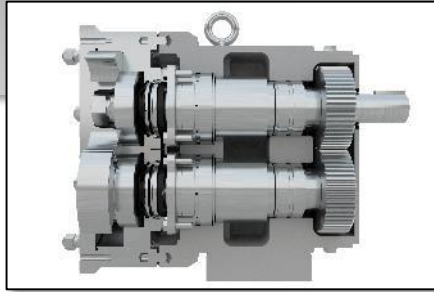
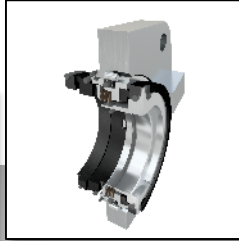


# SPXFLOW

FOOD + BEVERAGE



## Universal 3 Series Rotary Positive Displacement Pumps

## 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

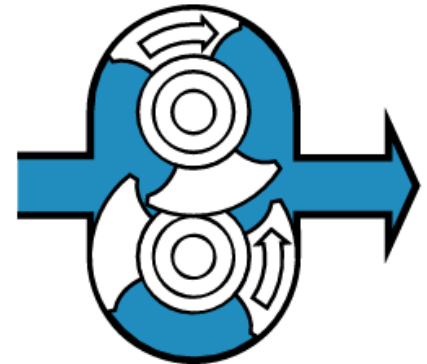
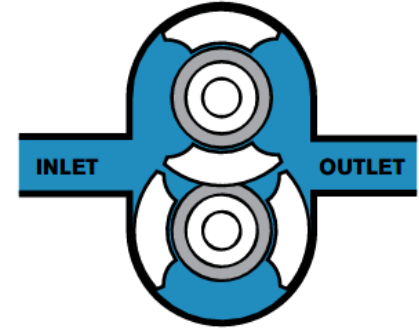
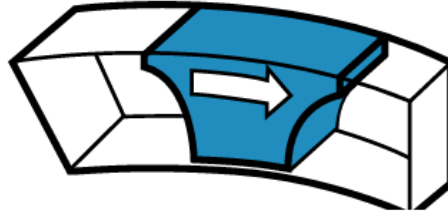
- Solvents, Paints
- Fuels
- Resins, Polymers, Sludge
- Oil & Lubricants
- Soaps



# External Circumferential Piston Design

Arc-shaped rotor wings travel in annular-shaped cylinders machined in the pump body; the resulting long sealing path reduces slip, producing a smooth flow of product without destructive pulses.

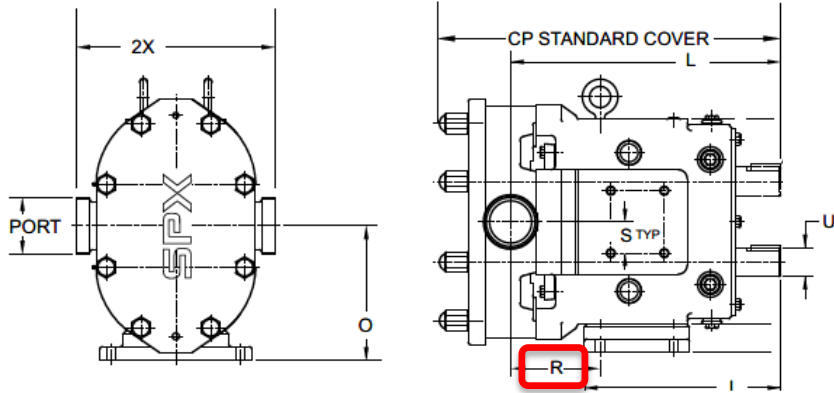
Rotors cross over against a static hub, which allows tighter tolerances and eliminates timing issues.



- Static hubs in the cover, not the body, improving flow and reducing “dead spots”
  - Shorter shafts, reduces overhung load, improves seal and bearing life
  - O-ring & Lip seals available
  - Gasket on front cover, results in higher level of cleanability for products with small particulates
  - Flat body profile & CIP flats on rotor hubs are standard for all sizes
  - Stainless steel case only
- 
- For most sizes, the U3 pump is a drop-in replacement for the U2 pump



# U3 Dimension Review

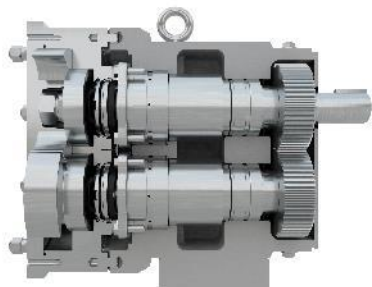


- “R” Dimension highlights the dimensional difference between the U2 and U3 pumps
- Pumps sizes where the “R” difference is “SAME” in the table are drop-in replacements

MODEL		CP	I	L	O	PORT SIZE	U +0.000 -0.001	2X	R*		
									U2	U1/U2	DIFF. BETWEEN U2 AND U1/U2 "R" DIM.
006-U3	<b>IN</b>	<b>12.42</b>	<b>7.61</b>	<b>10.04</b>	<b>4.21</b>	<b>1.00</b>	<b>0.88</b>	<b>6.97</b>	<b>3.23</b>	<b>2.79</b>	<b>0.40</b>
	mm	315	193	255	107	--	22	177	82	71	11
015-U3	<b>IN</b>	<b>12.69</b>	<b>7.61</b>	<b>10.04</b>	<b>4.21</b>	<b>1.50</b>	<b>0.88</b>	<b>6.97</b>	<b>3.23</b>	<b>2.79</b>	<b>0.40</b>
	mm	322	193	255	107	--	22	177	82	71	11
018-U3	<b>IN</b>	<b>13.35</b>	<b>7.61</b>	<b>10.28</b>	<b>4.21</b>	<b>1.50</b>	<b>0.88</b>	<b>7.09</b>	<b>3.47</b>	<b>3.02</b>	<b>0.50</b>
	mm	339	193	261	107	--	22	180	88	77	11.1
030-U3	<b>IN</b>	<b>15.16</b>	<b>8.80</b>	<b>12.05</b>	<b>5.21</b>	<b>1.50</b>	<b>1.25</b>	<b>8.50</b>	<b>4.26</b>	<b>3.84</b>	<b>0.40</b>
	mm	385	224	306	132	--	32	216	108	98	10.2
040-U3	<b>IN</b>	<b>15.54</b>	<b>8.80</b>	<b>12.21</b>	<b>5.21</b>	<b>2.00</b>	<b>1.25</b>	<b>8.64</b>	<b>4.43</b>	<b>4.00</b>	<b>0.40</b>
	mm	395	224	310	132	--	32	219	113	102	10.5
045-U3	<b>IN</b>	<b>19.11</b>	<b>11.00</b>	<b>14.84</b>	<b>7.31</b>	<b>2"</b>	<b>1.63</b>	<b>10.75</b>	<b>4.72</b>	<b>4.73</b>	<b>SAME</b>
	mm	485	279	377	186	--	41	273	120	120	
060-U3	<b>IN</b>	<b>19.66</b>	<b>11.00</b>	<b>15.13</b>	<b>7.31</b>	<b>2.50</b>	<b>1.63</b>	<b>10.75</b>	<b>5.01</b>	<b>5.01</b>	<b>SAME</b>
	mm	499	279	384	186	--	41	273	127	127	
130-U3	<b>IN</b>	<b>20.68</b>	<b>11.00</b>	<b>15.76</b>	<b>7.31</b>	<b>3.00</b>	<b>4.63</b>	<b>10.75</b>	<b>5.64</b>	<b>5.65</b>	<b>SAME</b>
	mm	525	279	400	186	--	118	273	143	144	
180-U3	<b>IN</b>	<b>23.48</b>	<b>14.80</b>	<b>19.03</b>	<b>9.38</b>	<b>3.00</b>	<b>2.00</b>	<b>13.06</b>	<b>4.21</b>	<b>4.20</b>	<b>SAME</b>
	mm	596	376	483	238	--	51	332	107	107	
210-U3	<b>IN</b>	<b>27.07</b>	<b>17.72</b>	<b>21.85</b>	<b>10.38</b>	<b>4.00</b>	<b>2.38</b>	<b>14.73</b>	<b>5.64</b>	<b>4.70</b>	<b>0.90</b>
	mm	688	450	555	264	--	60	374	143	119	24.3
220-U3	<b>IN</b>	<b>24.22</b>	<b>14.80</b>	<b>18.49</b>	<b>9.38</b>	<b>4.00</b>	<b>2.00</b>	<b>13.25</b>	<b>4.45</b>	<b>4.44</b>	<b>SAME</b>
	mm	615	376	470	238	--	51	337	113	113	
320-U3	<b>IN</b>	<b>27.66</b>	<b>17.72</b>	<b>22.34</b>	<b>10.38</b>		<b>2.38</b>	<b>16.00</b>	<b>6.02</b>	<b>5.09</b>	<b>0.90</b>
	mm	703	450	567	264	6.00 150# FLG	60	406	153	129	23.9

\*"R" dimension shown for customers converting from a U1/U2 pump to a U3 pump. All other dimensions are the same between U1/U2/U3  
 NOTE: Dimension "2X" applies for Bevel Seat, "S"-Clamp, "Q"-Clamp, 151 and 141 fittings (except 320-U3).  
 NOTE: Dimensions are for guidance purposes only. Contact your SPX FLOW Representative if more detailed measurements are needed.

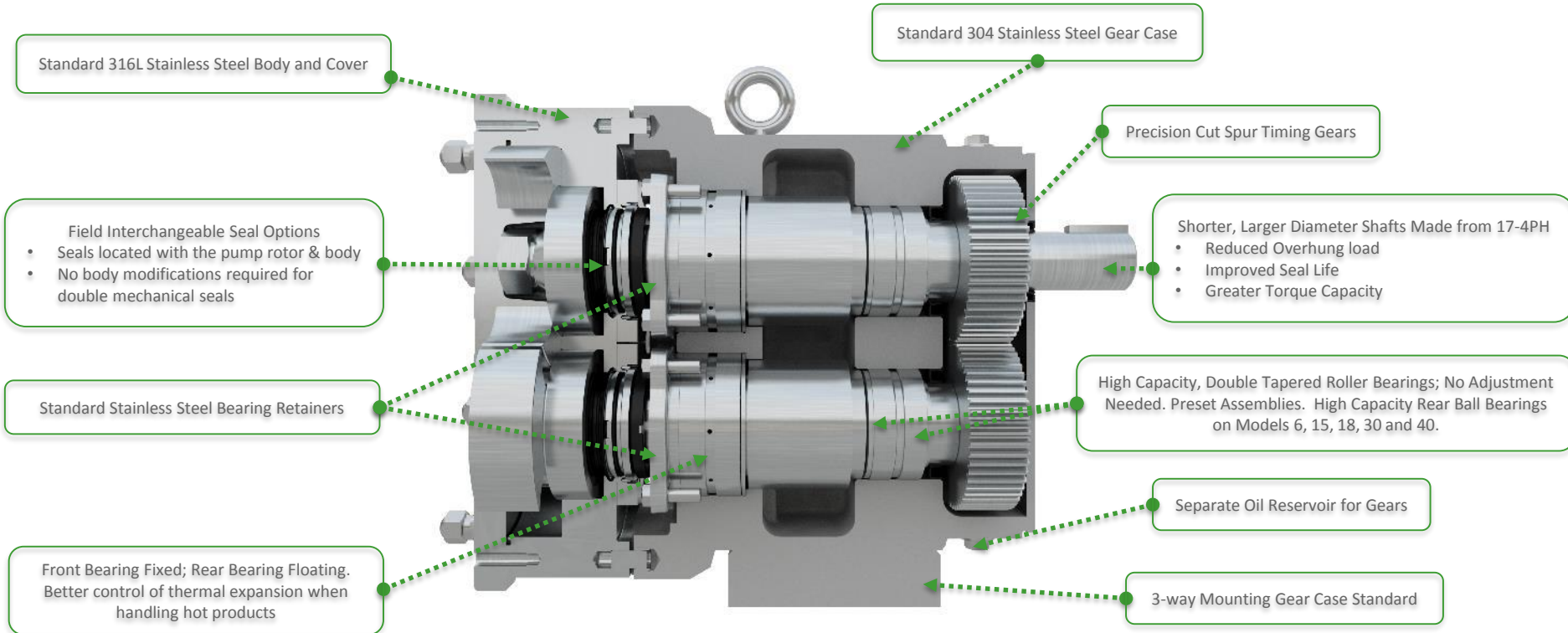
# Product Specifications



MODEL	DISPLACEMENT PER REVOLUTION	NOMINAL CAPACITY TO	INLET/OUTLET	OPTIONAL INLET/OUTLET	PRESSURE RANGE UP TO*	MAXIMUM RPM	APPROX SHIP WT.	TEMP RANGE
006-U3	.0082 GAL. (.031 LITER)	8 GPM (1.8 m3/hr.)	1"	1½"	300 PSI (20.7 bar)	1000	56lb (25kg)	Std Clearance Rotors: -40°F (-40°C) to 300°F (149°C)
015-U3	.0142 GAL. (.054 LITER)	11 GPM (2.5 m3/hr.)	1½"	-	250 PSI (17.2 bar)	800	56lb (25kg)	
018-U3	.029 GAL. (.110 LITER)	20 GPM (4.5 m3/hr.)	1½"	2"	200 PSI (13.8 bar)	700	65lb (30kg)	
030-U3	.060 GAL. (.227 LITER)	36 GPM (8.2 m3/hr.)	1½"	2"	250 PSI (17.2 bar)	600	130lb (59kg)	
040-U3	.076 GAL. (.288 LITER)	46 GPM (10.4 m3/hr.)	2"	-	150 PSI (10.5 bar)	600	140lb (64kg)	
045-U3	.098 GAL. (.371 LITER)	58 GPM (13.2 m3/hr.)	2"	-	450 PSI (31.0 bar)	600	295lb (134kg)	
060-U3	.153 GAL. (.579 LITER)	90 GPM (20.4 m3/hr.)	2½"	3"	300 PSI (20.7 bar)	600	285lb (129kg)	
130-U3	.253 GAL. (.958 LITER)	150 GPM (34.1 m3/hr.)	3"	-	200 PSI (13.8 bar)	600	305lb (138kg)	
180-U3	.380 GAL. (1.438 LITER)	230 GPM (52.2 m3/hr.)	3"	-	450 PSI (31.0 bar)	600	520lb (236kg)	
210-U3	.502 GAL. (1.900 LITER)	300 GPM (68.1 m3/hr.)	4"	-	500 PSI (34.5 bar)	600	915lb (415kg)	
220-U3	.521 GAL. (1.972 LITER)	310 GPM (70.4 m3/hr.)	4"	-	300 PSI (20.7 bar)	600	590lb (268kg)	
320-U3	.752 GAL. (2.847 LITER)	450 GPM (102 m3/hr.)	6"	-	300 PSI (20.7 bar)	600	895lb (406kg)	

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

# Universal 3 Key Features



## Single Mechanical Seal

Standard seal configuration: silicon carbide rotary seal face and carbon stationary seal face. Alternative materials available for abrasive service.



## Double Concentric Mechanical Seal

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





## Single & Double O-Ring Seal

WCB's traditional general purpose seal. Low cost and easy to service. Suitable for low pressure applications 100 psi, 7 bar.





	<p>WCB Universal 2</p> 	<p>WCB Universal 3</p> 
<p><b>Process Parameters</b></p> <p>Viscosity: &lt; 200 cP Temperature: &lt; 180°F (82°C)</p>	<p>Standard Clearance Rotors</p>	<p>Low Viscosity Rotors</p>
<p>Viscosity: &gt; 200 cP Temperature: &lt; 300°F (149°C)</p>	<p>Hot Clearance Rotors</p>	<p>Standard Clearance Rotors</p>
<p>Viscosity: &gt; 200 cP Temperature: &gt; 300°F (149°C)</p>	<p>Extra Hot Clearance Rotors</p>	<p>Hot Clearance <i>(Expected Q2 2018)</i></p>



Eliminates the need to stock mixed rotor sizes & Keeps your pump operating at peak performance

# SPX<sup>®</sup>FLOW

## Questions?

