

CIRCUMFERENTIAL PISTON PUMP



# Revolution<sup>®</sup>

*Increase your expectations!*



**wright flow**  
TECHNOLOGIES<sup>®</sup>

**Capacity** to 190 m<sup>3</sup>/hr / 836 USGPM

**Pressure** to 31 BAR / 450 PSI

**Viscosity** to 440,000 cSt / 2,000,000 SSU

**Temperature** to 150°C / 300°F

HYGIENIC PUMP SOLUTIONS

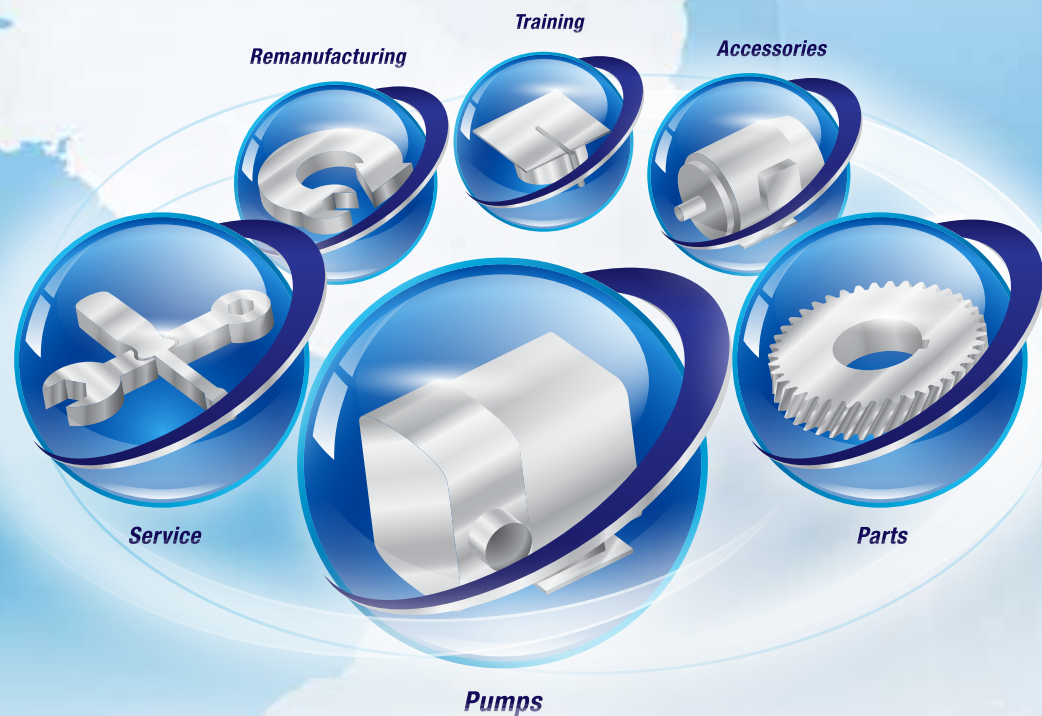
**IDEX**  
CORPORATION

**YOUR COMPLETE  
Hygienic Solutions Provider**

- GLOBAL PRESENCE WITH LOCALIZED SERVICE
- BROADEST PD PUMP OFFERING IN THE INDUSTRY
- COMPLETE PARTNER FOR YOUR HYGIENIC PROCESS



Around the world, Wright Flow Technologies provides solutions for challenges in fluid handling. You can count on the reliability of Wright Flow hygienic positive displacement (PD) pumps. Matching the right pump with your fluid processing needs is easy with innovative, robust designs, cleanability & an extensive product offering.

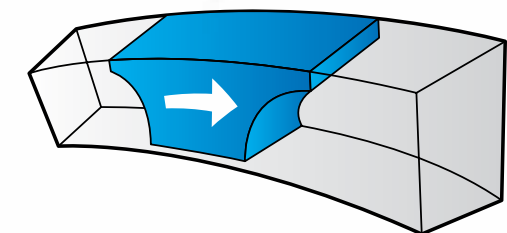


**Revolution<sup>®</sup>**  
Increase your expectations!

Raise the bar on performance & ease of maintenance with the Revolution. Revolution is the most advanced circumferential piston pump in the industry with front loading seals. Also, it is the only pump available with patented hybrid technology, allowing CPP or RLP technologies.

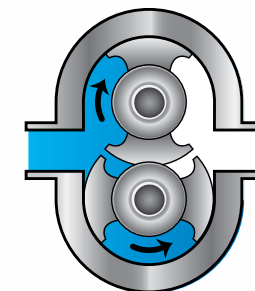


**How it Works**



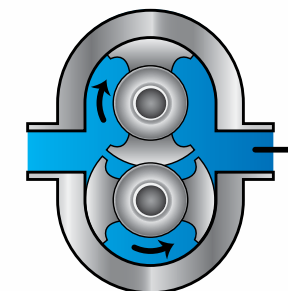
The deep channels in which the rotors travel provide large voids to minimize shear and bruising of solids.

**Suction**



Wright Flow Technologies rotor wings (pistons) rotate around the circumference of the channel in the pump casing. This continuously generates a partial vacuum at the suction port as the rotors unmesh, causing fluid to enter the pump.

**Discharge**



The fluid is transported around the channel by the rotor wings, and is displaced as the rotor wings re-mesh, generating pressure at the discharge port. Pump output is directly proportional to speed, and direction of flow is reversible.

**CHEMICAL**  
Raw Ingredients, Chemical Transfer, Solvent Recovery

**PERSONAL CARE**  
Skin Care Products, Toothpastes, Cosmetics, Shower & Shaving Liquids, Hair Care Products

**BEVERAGES**  
Distillers & Vinters, Fruit & Vegetable Purees, Carbonated Drinks, Juices

**FOOD**  
Baby Food, Edible Oils, Soft Fruits & Vegetables, Soups & Sauces, Egg, Fish, Meat, Poultry, Whey Proteins, Confectionary

**DAIRY**  
Butter, Cheese, Cream, Milk, Yogurt, Yogurt Fruits

**BIO PHARMACEUTICAL**  
Creams & Ointments, Ferment, Injectables, Ultra Filtration, Blood & Plasma Processing



**CLEANABILITY**

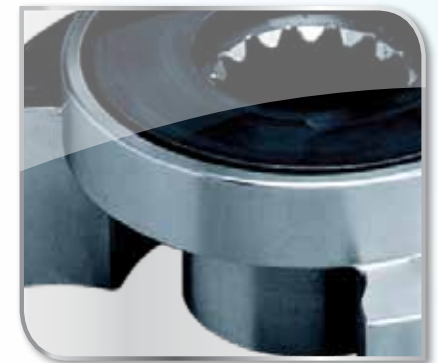
- Efficient CIP (Clean In Place) ability is standard for all Revolution pumps
- Self draining pump head from innovative cusps & cusp reliefs
- Innovative seal design with no dead zones & a dynamic leak path
- No dead zones on front cover

**EASE OF MAINTENANCE**

- Fast, front loading seal changes while pump is still in line
- Easy front access shimming for setting rotor clearance
- Convenient preventive maintenance parts kits available

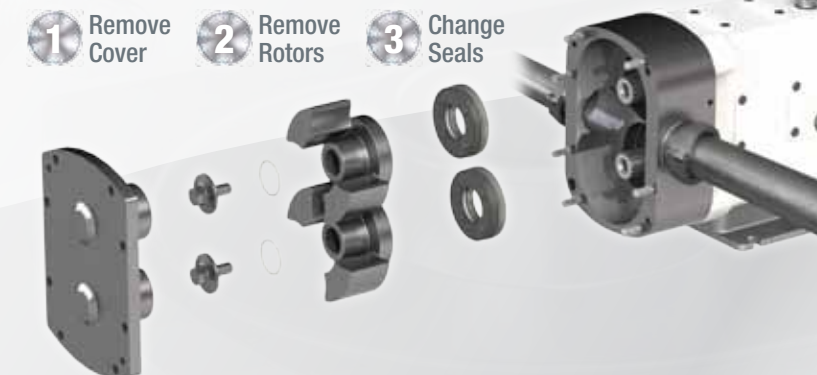
**PERFORMANCE**

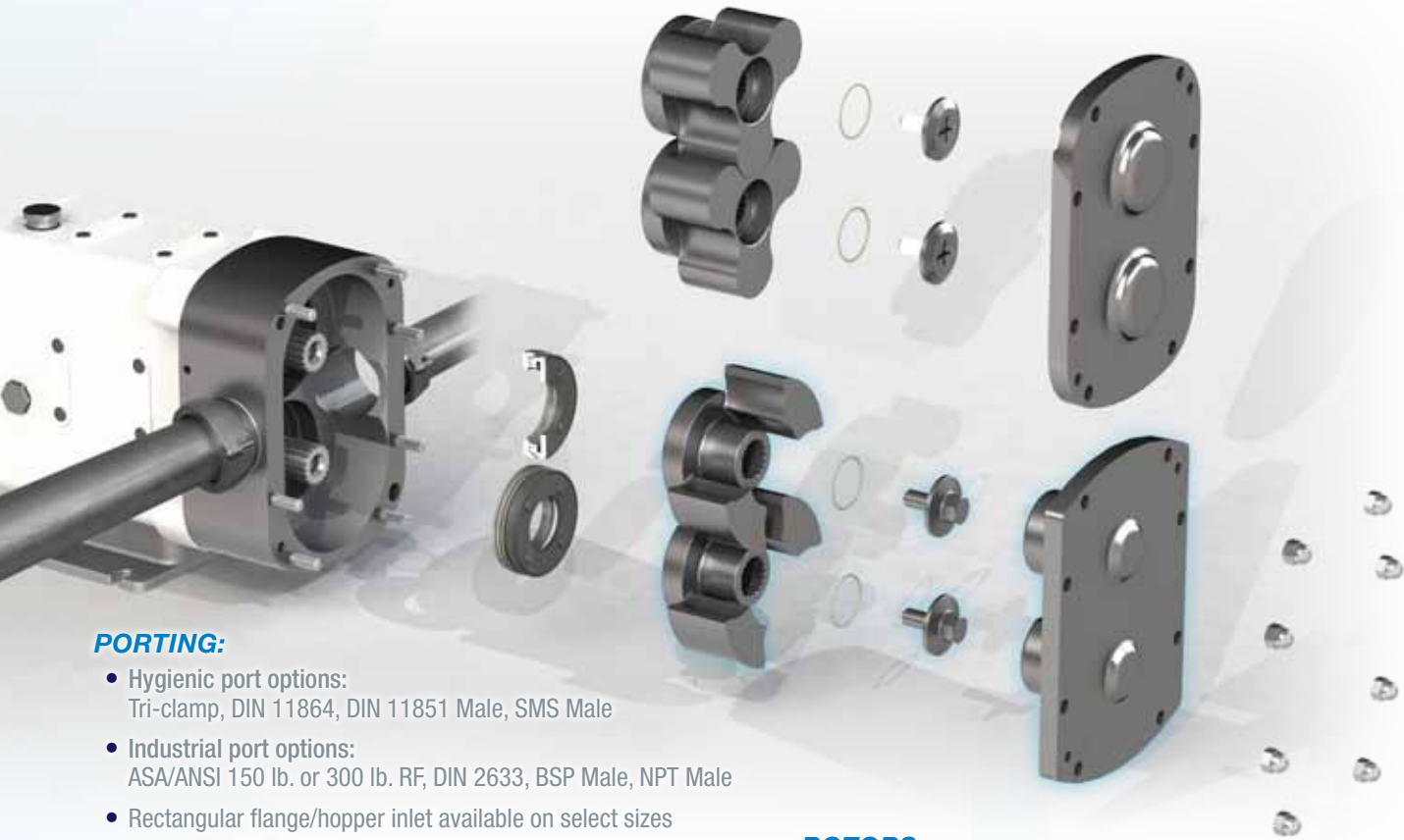
- Improved volumetric efficiency in low & high viscosity applications
- Up to 15% better flow performance than competitors' CIP configuration
- Exclusive, non-galling WFT 808® alloy rotors standard; permits running at tighter clearances
- Long-life durability from heavy duty shafts, bearings & helical gears



**EASY ACCESS FRONT LOADING SEAL CHANGES**

Change seals more efficiently with just three steps to access the seals while the pump is still in line! And for maximum utility, the Revolution comes "out of the box" with interchangeable O-ring and mechanical seals (including single or double seals).





**PORTING:**

- Hygienic port options:  
Tri-clamp, DIN 11864, DIN 11851 Male, SMS Male
- Industrial port options:  
ASA/ANSI 150 lb. or 300 lb. RF, DIN 2633, BSP Male, NPT Male
- Rectangular flange/hopper inlet available on select sizes
- Pumps may be fitted with front cover and rotor case jackets when required

**SEALS:**

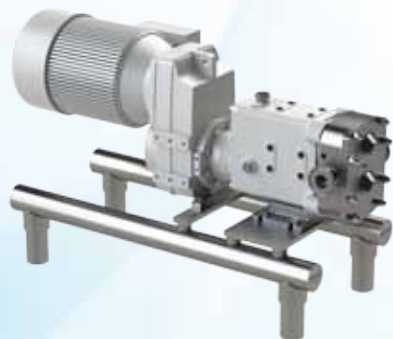
- Single mechanical
- Double mechanical w/ flush
- Single O-ring running on a replaceable sleeve
- Double O-ring w/ flush running on a replaceable sleeve
- Complete range of material options

**GEAR BOX:**

- Powder coated cast iron standard
- Stainless steel optional
- Oil lubrication standard, grease optional

**COMPLETE PUMP DRIVE UNITS:**

- Wright Flow Technologies makes it simple to select your pump, drive and base configuration for ordering a complete unit
- Close coupled and long coupled designs available
- Tubular, flat plate and formed metal base designs available



**ROTORS:**

- Non-galling WFT 808® nickel alloy standard for CPP
- 316 L standard for RLP and optional for CPP
- Optional clearances: front face, hot, high temperature/ high viscosity (chocolate)

**SURFACE FINISH:**

- Standard 32 RA internal finish
- Optional mechanical internal finishes:
  - 24 RA
  - 16 RA or better
- Electropolish

**PREVENTIVE MAINTENANCE SIMPLIFIED...**



**PERFORMANCE RANGE:**

- CAPACITY** to 190 m<sup>3</sup>/hr / 836 USGPM
- PRESSURE** to 31 BAR / 450 PSI
- VISCOSITY** to 440,000 cSt / 2,000,000 SSU
- TEMPERATURE** to 150°C / to 300°F

COMPLIANT WITH THE FOLLOWING STANDARDS



Size	Revolution CPP Model*	Max Capacity		Displacement		Max Pressure		Max Speed	Standard Ports		Max Temperature	
		m <sup>3</sup> /hr	USG/min.	l/rev.	USG/rev.	BAR	PSI	RPM	mm	in.	Deg. C	Deg. F
2	R0150X	2.6	11	0.055	0.014	21	305	800	38.1	1.5	150	300
	R0180P	5.3	23	0.11	0.029	14	203	800	38.1	1.5	150	300
3	R0200X	8	34	0.16	0.04	21	305	800	38.1	1.5	150	300
	R0300X	11	48	0.23	0.06	17	247	800	38.1	1.5	150	300
	R0400X	14	62	0.29	0.08	14	203	800	50.8	2	150	300
4	R0450X	15	67	0.42	0.1	31	450	600	50.8	2	150	300
	R0600P	21	92	0.58	0.2	21	305	600	63.5	2.5	150	300
	R0800X	28	122	0.77	0.2	17	247	600	63.5	2.5	150	300
	R1300X	36	159	1	0.3	14	203	600	76.2	3	150	300
5	R1800X, R1830X	53	231	1.46	0.4	31	450	600	76.2	3	150	300
	R2200X, R2230X	71	313	1.98	0.5	21	305	600	101.6	4	150	300
	R2600P, R2630P	91	399	2.52	0.7	14	203	600	101.6	4	150	300
6	R3200P, R3230P	108	476	3.00	.800	21	305	600	152.4	6.0	150	300
	R3800P, R3830P	138	606	3.80	1.00	14	203	600	152.4	6.0	150	300
	R3900P, R3930P	173	761	4.80	1.30	8	116	600	152.4	6.0	150	300
7	R4200P, R4230P	148	652	6.20	1.60	28	400	400	152.4	6.0	150	300
	R5200P, R5230P	190	836	9.00	2.40	14	200	350	203.2	8.0	150	300

\*Models ending with 30 are Aseptic Models

Size	Revolution Rectangular Flange Model	Max Capacity		Displacement		Max Pressure		Max Speed	Inlet (WxL)		Outlet		Max Temperature	
		m <sup>3</sup> /hr	USGPM	l/rev.	USG/rev.	BAR	PSI	RPM	mm	in.	mm	in.	Deg. C	Deg. F
3	0340	11	48	0.23	0.06	17	247	800	47 x 173	1.85 x 6.81	50.8	2	150	300
4	0640	21	92	0.58	0.2	21	305	600	60 x 226	2.36 x 8.90	63.5	2.5	150	300
	1340	36	159	1	0.3	14	203	600	81 x 236	3.19 x 9.29	76.2	3	150	300
5	2240	71	313	1.98	0.5	21	305	600	103 x 285	4.06 x 11.22	101.6	4	150	300

# Revolution<sup>®</sup>

Increase your expectations!



- Exceptional Cleanability
- Ease of Maintenance
- Superior Performance



**FRAME 2**  
1.5 in.  
(38.1 mm)

**FRAME 3**  
1.5 or 2 in.  
(38.1 or 50.8 mm)

**FRAME 4**  
2, 2.5 or 3 in.  
(50.8, 63.5 or 76.2 mm)

**FRAME 5**  
3 or 4 in.  
(76.2 or 101.6 mm)

**FRAME 6**  
6 in. (152.4 mm)  
**CPP ONLY**

**FRAME 7**  
6 or 8 in. (152.4 or 203.2 mm)  
**CPP ONLY**

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TECHNOLOGIES<sup>®</sup>

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