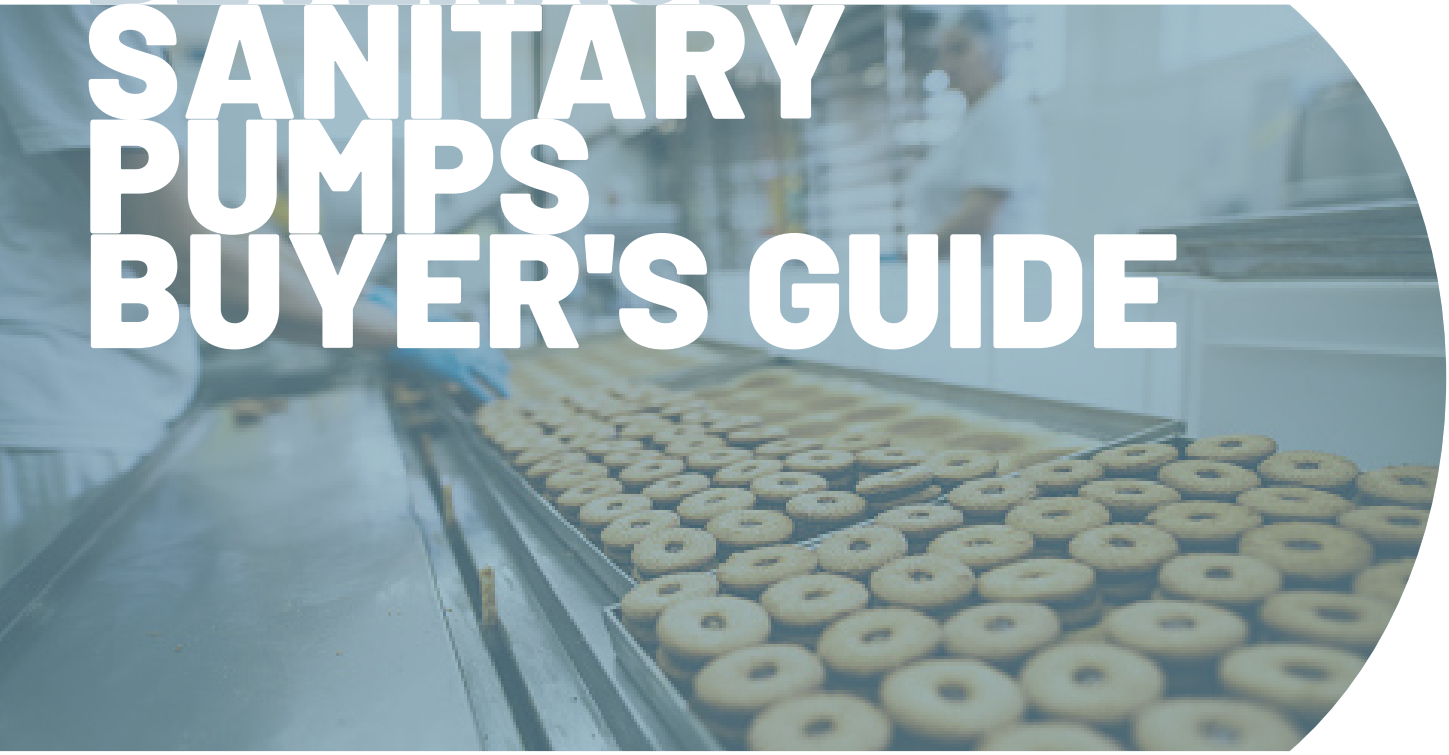
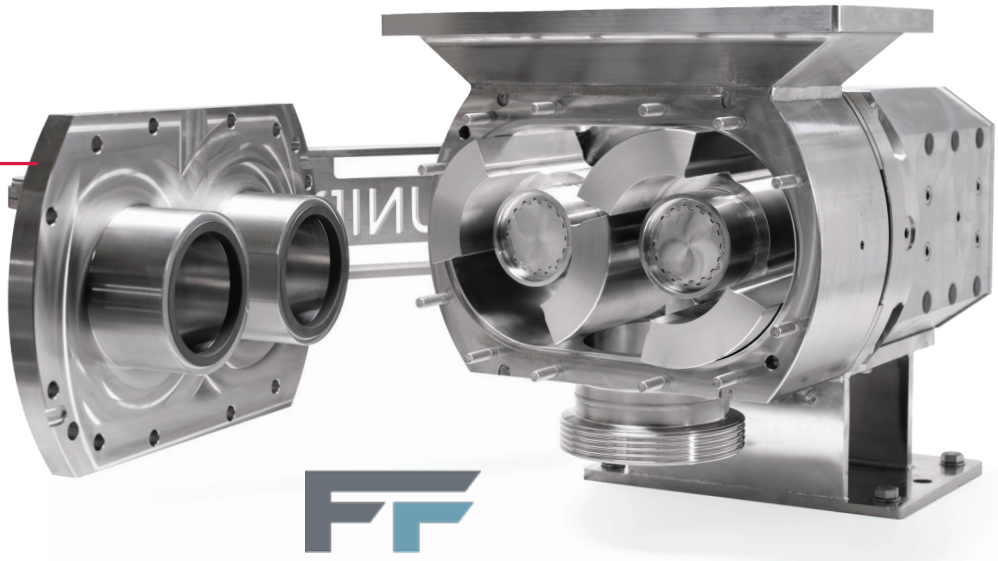
UNIBLOC®
PUMPS

FOOD & BEVERAGE SANITARY PUMPS BUYER'S GUIDE



When it counts, count on Unibloc®.

- Wide range of patented food and beverage pumping solutions
- Elegant design
- Sanitary focus
- Easier to maintain



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UNIBLOC®
Hygienic Technologies

MEETING TODAY'S SANITATION REQUIREMENTS FOR FOOD SAFETY

As a food producer, you're already familiar with the Food and Drug Administration's (FDA) Food Safety Modernization Act (FSMA) and how it changed the food and beverage industry from farm to fork. Identifying potential hazards and implementing protocols to prevent foodborne illnesses along every point of the supply chain is included – and critical for the health and safety of humans and animals.

Implementing proper sanitation in food processing is just one of many FDA/FSMA requirements. It involves everything from building design and layout utilities to cleaning methods to storage and distribution – and more.

The Food and Drug Administration defines sanitize as: "To adequately treat food-contact surfaces by a process that is effective in destroying vegetative cells of microorganisms of public health significance, and in substantially reducing numbers of other undesirable microorganisms, but without adversely affecting the product or its safety for the consumer."
That broad description applies to a long list of cleaning protocols and checkpoints in the FDA's Current Good Manufacturing Practices (CGMP). When it comes to your food processing equipment, selecting the right sanitary pump that helps you meet these requirements while maintaining product integrity is a crucial consideration. Highlights of the CGMP are listed below:

PERSONNEL

You are required to provide training on food handling and food protection techniques for employees. Any employee with signs of illness or infection should be excluded from working near food and food-contact areas. Hazard Analysis Critical Control Point (HACCP) uniforms, including hairnets, coveralls, and gloves, protect food and surfaces from outside contaminants.

Expect personnel to practice good personal hygiene and leave personal belongings and jewelry at home or in lockers.

BUILDINGS AND FACILITIES

Both the interior and exterior of the facility must be kept clean and in good repair. Proper drainage, litter control, and grounds management can help prevent contaminants from making their way into the facility and help control unwanted insects and rodents.

The layout of equipment and utilities in your plant also matters. Separating equipment and processes using partitions/enclosures, air-flow management, or scheduling can prevent cross-contamination. Avoid obstructing or narrowing aisles to prevent accidental touching of food-contact surfaces. Leave enough space to clean walls, ceilings, and floors properly, and be mindful of pipes and ducts that may drip onto food and food-contact surfaces.

Provide adequate ventilation to minimize odors or vapors and locate fans in a way that reduces the potential for contamination. Finally, provide sufficient lighting to follow proper sanitary procedures and easily identify exceptions.

SANITARY OPERATIONS

FDA regulations state that all food-contact surfaces, including equipment and utensils, are to be cleaned as often as necessary to prevent contamination. Additionally, you are required to dismantle equipment as needed to facilitate thorough cleaning. If an item is already clean and sanitized, it should be stored or held in a way that keeps it clean.

The types of cleaning and sanitizing products to use are not specified, although many are registered by the Environmental Protection Agency (EPA). Your janitorial supplier can help you identify the right detergents and antimicrobials to use. The regulatory requirements only include that the products used are effective, safe for food contact, accurately labeled, and properly stored.

SANITARY FACILITIES AND CONTROLS

Water quality, temperature, and pressure must be sufficient to conduct proper sanitation procedures. Drains are required anywhere normal operations discharge water or liquid waste onto the floor. Wastewater should be moved away from the plant, and backflow prevention must be in place.

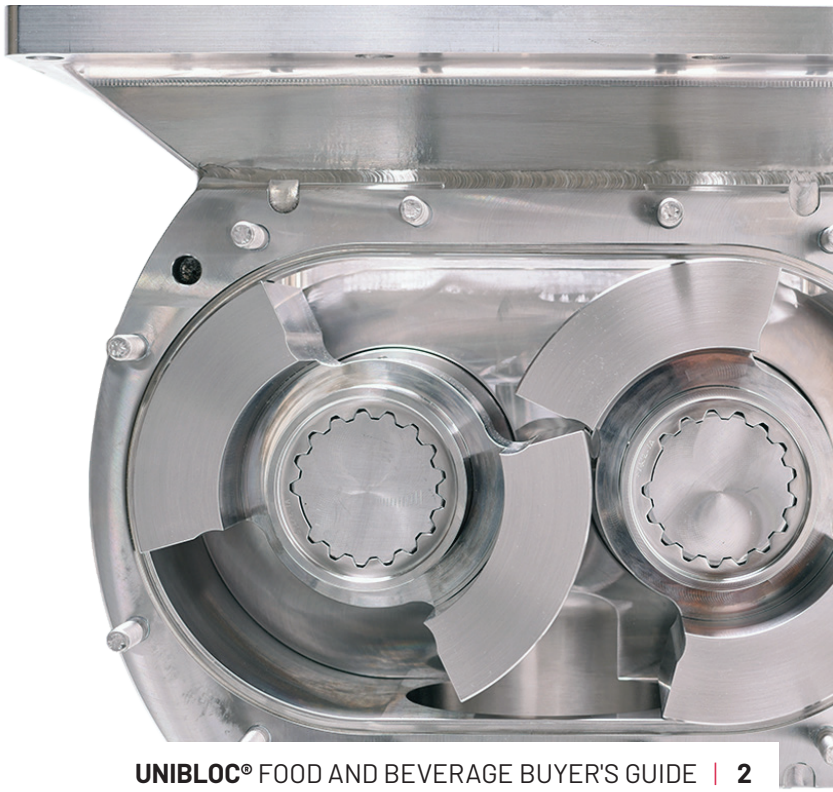
Additionally, these regulations call for clean restroom facilities with self-closing doors and hand-washing facilities placed strategically throughout the plant. Protocols for trash and offal management are also required.

EQUIPMENT

When installing equipment in food processing facilities, you must do so in a way that enables proper sanitation of both the equipment and nearby surfaces. Materials that come into contact with food should be corrosion-resistant and non-toxic. Equipment design and construction should preclude lubricants and metal fragments from entering the food supply, and seams should be bonded or non-existent.

Instruments and controls that regulate or record temperature, pH, acidity, and other sanitary conditions must be in use and kept in good working order, as well.

To ensure you meet all the FDA/FSMA CGMP requirements, refer to the FDA's Code of Federal Regulations Title 21.



WHAT TO LOOK FOR IN SANITARY PUMP DESIGN AND COMPONENTS

Nearly every food and beverage operation utilizes sanitary pumps to move products during processing. There are four main sanitary pumps, including centrifugal, positive displacement, jet, and airlift. The style you choose depends on your product, processes, operational requirements, and budget.

Positive Displacement (PD) pumps are often preferred for their ability to maintain a consistent flow rate despite variations in pressure. Product is moved through a Positive Displacement pump by repeatedly trapping and moving a fixed volume of material from the inlet to a discharge valve. Positive Displacement pumps are ideal for high viscosity liquids, solids, and products sensitive to shear.

> No matter which pump style is suitable for your application, certain design considerations and materials are better suited to sanitary pumping applications. Consider these features as you search for solutions:

- **Efficiency** – Consistent volume, pressure, and velocity at a wide range of viscosities
- **Solid stainless-steel construction** – Corrosion resistant, abrasion resistant, and easy to clean
- **Fully-machined** – No welds, seams, or crevices to harbor bacteria
- **Separate gear housing** – To prevent product contamination from lubricants, oils, and emollients.
- **Easy CIP/COP/SIP** and reassembly
- **Simple and reliable pressure adjustment** – Easy to set without risk of pump damage
- **Versatile mounting** – Installs horizontally or vertically, depending on need
- **Helical gears** – Promote quiet, low-vibration operation
- **Tapered bearings** – Eliminate pump and motor misalignment
- **Universal seal mounting** – For fast and easy product changeovers
- **Metal and X-ray detectable parts** – To ensure product safety
- **Safe design** – Few or no exposed moving parts

Unibloc's **QuickStrip® FoodFirst** series pumps are the first of their kind designed to **MINIMIZE FOREIGN MATERIAL RISK** and maximize food and worker safety—top priorities among food processing professionals.

Much of the damage sustained by pump components occurs during the daily sanitation process, resulting in expensive repairs and re-machining. Our QuickStrip rotors and wear pads withstand wear and tear by providing plastic on metal contact, not metal on metal. They also offer tool-free disassembly, resulting in decreased downtime, and an easier to maintain pump, and a lower cost of ownership.

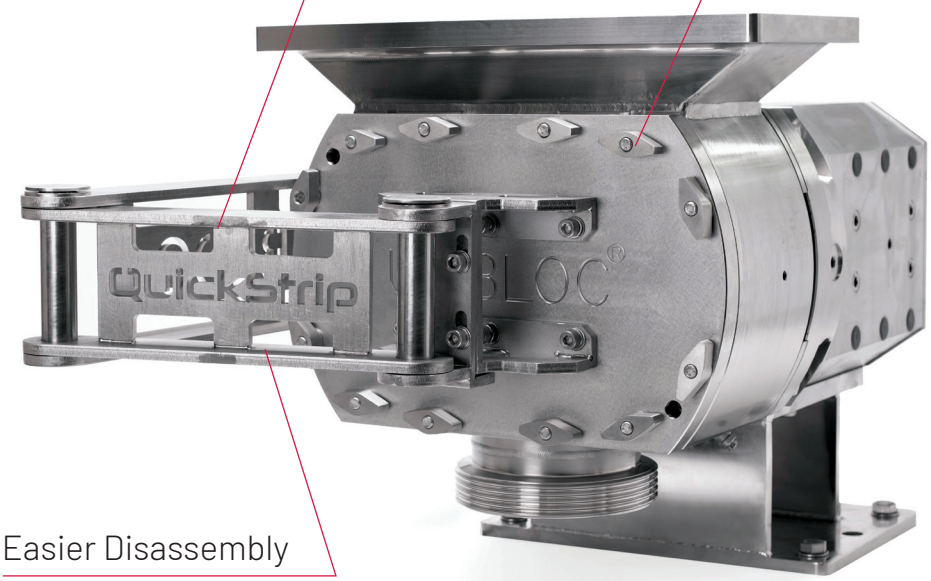
Built upon decades of innovation, the new, all-stainless **QuickStrip FoodFirst** is designed to simplify sanitation and reduce wear and tear during cleaning. The tool-free design requires no tools for disassembly, reducing damage and minimizing foreign material risk for unmatched ease of sanitation.

Improving Food Safety

No plastics, no O-rings, and no rotor bolts*

No Tools Needed

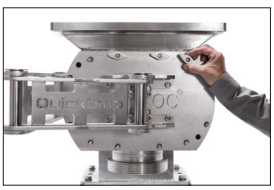
Unmatched ease of sanitation

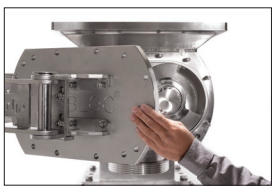


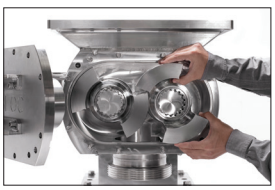
Easier Disassembly

Swing arm supports the cover during sanitation, improving worker safety and efficiency

**Consult a Unibloc representative to configure best FoodFirst pump option for your needs.*







ELIMINATE FOREIGN MATERIAL

Fewer components and greater detectability help ensure the highest level of food safety. **No plastics, no O-rings*, and no rotor bolts help eliminate foreign material at their source** and ensure maximum metal and X-ray detectability.

SANITATION CREW-FRIENDLY

Unibloc's patented and proven QuickStrip design targets the sanitation cycle, the cause of most damage to equipment and common source of foreign material. Simple, repeatable, one-way assembly guarantees proper performance and reduces foreign material from improper handling.

IMPROVED WORKER SAFETY

The innovative Safety Swing Arm makes disassembly for cleaning easier and safer than ever. The swing arm supports the cover during sanitation, improving worker safety and efficiency.

CASE STUDIES

APPLICATION:
Breading/Batter

Process Conditions
25-30 GPM Flow;
< 20 PSIG Pressure; Ambient Temperature

Customer Concerns
Pumps for multiple purposes, including transfer through plant, recirculation through mixer, and transfer from mixer to breading line applicator. Excessive wear required continuous seal replacement, rotor and rotor housing repairs and long downtimes. Excessive parts removal needed for routine cleaning and maintenance resulted in lost parts for reassembly. Painted pump gearbox chipping during high-pressure cleaning. Poor support from existing supplier and large number of spare parts required for repair.

Solution
Unibloc PD350 and Unibloc PD450 pumps installed featuring fully machined stainless steel housings and hard face mechanical seals. Pumps and motors installed on skids. Seal life and required maintenance greatly improved. Fewer parts in wetted section led to less complicated maintenance and easier handling. Productivity improvements led to all pumps being replaced with Unibloc at this facility and others nationwide.

APPLICATION:
Corn Syrup/Distillery

Process Conditions
700 cPs Viscosity; 250 GPM Flow;
300 PSIG Pressure; 90° F Ambient Temperature

Customer Concerns
Redesign of plant piping changed pressure load requirement that current gear pumps could not handle - velocities required to meet throughput resulted in premature wear and increased maintenance cost. Product integrity compromised by shearing.

Solution
Several Unibloc PD650 lobe pumps installed with 300# ANSI flanges and 50 HP gearmotors onto stainless baseplates. Actual operating pressure of ~180 PSIG with pump speed decreased to 125 RPM in normal operating conditions. Pumps sufficient for future expansions and additional redesign.

APPLICATION:
Refried Beans, Chili, and Salsa

Process Conditions
20-30 GPM Flow;
20-30 PSIG Pressure; Ambient Temperature

Customer Concerns
Non-metallic parts of sine pumps wearing prematurely, resulting in a loss of pressure and flow - different wear from application to application, requiring changes to pump configurations for changeover.

Solution
Unibloc PD450 lobe pump installed with 3 HP gearmotor onto stainless baseplate. Efficient operation and product integrity maintained for all applications. Additional pumps purchased for larger capacity operations.

APPLICATION:
Poultry

Customer Concerns
Product not flowing through sinusoidal pumps requiring additional staff over two shifts to monitor and plunge product from hopper to the pump to maintain flow.

Solution
Unibloc QuickStrip® pump installed for three-week demo. Easy one-way assembly required no line modifications for installation. The result was consistent distribution of product onto the conveyor belt without air pockets and open areas. Reduced shear maintained high moisture content resulting in a better quality product and higher yield. Multiple QuickStrip pumps subsequently installed.

GEAR AND LOBE PUMP DIMENSIONS

Model	Rotary Style	Displacement gal (l)/100 Rev	Max Flow Rate gpm (m^3/hr)*	Max Pressure psig (bar)	Inlet/Outlet Size Standard**	Max Speed rpm	Max Temp. °F (°C)
GP 200/07	Gear	0.2 (0.8)	2.8 (0.6)	150 (10.3)	0.5"	1400	180°F (82°C)
GP 175/22		0.23 (0.9)	3.2 (0.7)	150 (10.3)	0.75"	1400	
GP 200/10		0.3 (1.1)	4.2 (1.0)	150 (10.3)	0.75"	1400	
GP 175/38		0.4 (1.5)	5.6 (1.3)	150 (10.3)	1.0"	1400	
GP 275/22		0.7 (2.6)	9.8 (2.2)	150 (10.3)	1.0"	1400	
GP 275/38		1.0 (3.8)	14.0 (3.2)	150 (10.3)	1.5"	1400	
GP 300/28		1.6 (6.1)	19.2 (4.4)	150 (10.3)	1.0"	1200	
GP 350/40		2.3 (8.7)	27.6 (6.3)	150 (10.3)	1.5"	1200	
GP 375/52		3.0 (11.4)	36.0 (8.2)	150 (10.3)	2.0"	1200	
PD 200-0	Lobe	0.4 (1.5)	5.6 (1.3)	150 (10.3)	0.375"	1400	400°F (204°C)
PD 200		0.8 (3.0)	11.2 (2.5)	150 (10.3)	0.5" or 0.75"	1400	
PD 250		1.1 (4.2)	13.2 (3.0)	150 (10.3)	0.75"	1200	
PD 275		1.4 (5.3)	16.8 (3.8)	130 (9.0)	0.75" or 1.0"	1200	
PD 300		2.8 (10.6)	28.0 (6.4)	200 (13.8)	1.0" or 1.5"	1000	
PD 350		4.0 (15.1)	40.0 (9.1)	200 (13.8)	1.5" or 2.0"	1000	
PD 400		8.1 (30.7)	72.9 (16.6)	250 (17.2)	1.5"	900	
PD 450		10.9 (41.3)	98.1 (22.3)	250 (17.2)	2.0"	900	
PD 500		22.1 (83.7)	176.8 (40.2)	300 (20.7)	2.5"	800	
PD 501		22.1 (83.7)	176.8 (40.2)	300 (20.7)	2.5"	800	
PD 550		28.5 (107.9)	228.0 (51.8)	300 (20.7)	3.0"	800	
PD 551		28.5 (107.9)	228.0 (51.8)	300 (20.7)	3.0"	800	
PD 575		34.0 (128.7)	252.7 (57.4)	300 (20.7)	3.0" or 4.0"	700	
PD 576		34.0 (128.7)	231.0 (52.5)	300 (20.7)	3.0" or 4.0"	700	
PD 600		46.0 (174.1)	276.0 (62.7)	400 (27.6)	4.0"	600	
PD 602		53.0 (200.6)	318.0 (72.2)	400 (27.6)	4.0"	600	
PD 650		70.0 (265.0)	420.0 (95.4)	400 (27.6)	4.0" or 6.0"	600	
PD 652		80.0 (302.8)	480.0 (109.0)	400 (27.6)	4.0" or 6.0"	600	
PD 677		100.0 (378.5)	500.0 (113.6)	250 (17.2)	6.0"	500	

*Based on water (1cPs) Capacity varies +/- 5%
**Tri-clamp fittings standard

PD PUMP DIMENSIONS

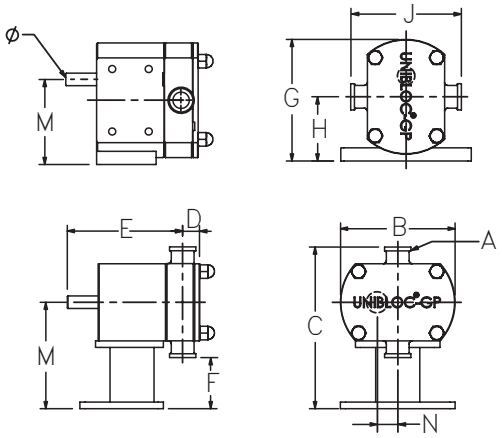
Model	A in (mm)	B in (mm)	C in (mm)	D in (mm)	E in (mm)	F in (mm)	G in (mm)	H in (mm)
PD 200/0	0.375 (9.525)	4.330 (110.000)	6.100 (155.000)	0.550 (14.000)	4.650 (118.000)	1.930 (49.000)	6.180 (157.000)	4.020 (102.000)
PD 200	0.500 (12.700)	4.330 (110.000)	6.100 (155.000)	0.790 (20.000)	4.800 (122.000)	1.930 (49.000)	6.180 (157.000)	4.020 (102.000)
PD 250	0.750 (19.050)	4.330 (110.000)	6.100 (155.000)	0.870 (22.000)	5.040 (128.000)	1.930 (49.000)	6.180 (157.000)	4.020 (102.000)
PD 275	0.750 (19.050)	4.330 (110.000)	6.100 (155.000)	1.020 (26.000)	5.200 (132.000)	1.930 (49.000)	6.180 (157.000)	4.020 (102.000)
PD 275	1.000 (25.400)	4.330 (110.000)	6.570 (167.000)	1.020 (26.000)	5.200 (132.000)	1.460 (37.000)	6.180 (157.000)	4.020 (102.000)
PD 300	1.000 (25.400)	6.060 (154.000)	7.240 (184.000)	1.260 (32.000)	7.520 (191.000)	1.570 (40.000)	6.380 (162.000)	3.350 (85.000)
PD 350	1.500 (38.100)	6.060 (154.000)	7.240 (184.000)	1.540 (39.000)	7.720 (196.000)	1.570 (40.000)	6.380 (162.000)	3.350 (85.000)
PD 400	1.500 (38.100)	8.070 (205.000)	9.760 (248.000)	1.650 (42.000)	9.610 (244.000)	2.200 (56.000)	8.460 (215.000)	4.450 (113.000)
PD 450	2.000 (50.800)	8.070 (205.000)	9.760 (248.000)	1.970 (50.000)	9.840 (250.000)	2.200 (56.000)	8.460 (215.000)	4.450 (113.000)
PD 450/52	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)
PD 500	2.500 (63.500)	11.500 (291.000)	13.300 (338.000)	2.360 (60.000)	13.000 (331.000)	3.070 (78.000)	11.800 (299.000)	6.020 (153.000)
PD 501	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)
PD 550	3.000 (76.200)	11.500 (291.000)	13.300 (338.000)	2.680 (68.000)	13.300 (339.000)	3.070 (78.000)	11.800 (299.000)	6.020 (153.000)
PD 551	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)
PD 575	3.000 (76.200)	11.500 (291.000)	13.300 (338.000)	2.910 (74.000)	13.900 (352.000)	3.070 (78.000)	11.800 (299.000)	6.020 (153.000)
PD 575	4.000 (101.600)	11.500 (291.000)	13.300 (338.000)	2.910 (74.000)	13.700 (349.000)	3.070 (78.000)	11.800 (299.000)	6.020 (153.000)
PD 576	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)
PD 600	4.000 (101.600)	17.300 (440.000)	22.500 (573.000)	3.460 (88.000)	22.600 (574.000)	3.860 (98.000)	17.500 (445.000)	8.860 (225.000)
PD 602	4.000 (101.600)	17.300 (440.000)	22.500 (573.000)	3.460 (88.000)	22.600 (574.000)	3.860 (98.000)	17.500 (445.000)	8.860 (225.000)
PD 650	6.000 (152.400)	17.300 (440.000)	22.500 (573.000)	4.450 (113.000)	23.600 (599.000)	3.860 (98.000)	17.500 (445.000)	8.860 (225.000)
PD 652	6.000 (152.400)	17.300 (440.000)	22.500 (573.000)	4.450 (113.000)	23.600 (599.000)	3.860 (98.000)	17.500 (445.000)	8.860 (225.000)
PD 675	6.000 (152.400)	17.300 (440.000)	22.500 (573.000)	5.430 (138.000)	24.600 (624.000)	3.860 (98.000)	17.500 (445.000)	8.860 (225.000)
PD 677	6.000 (152.400)	17.300 (440.000)	22.500 (573.000)	5.430 (138.000)	24.600 (624.000)	3.860 (98.000)	17.500 (445.000)	8.860 (225.000)

PD PUMP DIMENSIONS

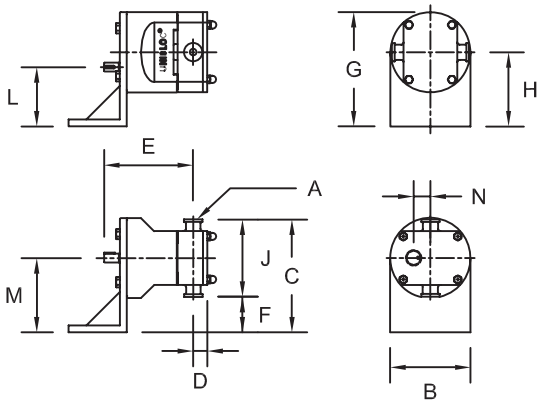
Model	J in (mm)	L in (mm)	M in (mm)	N in (mm)	O in (mm)	**Weight** lbs (kb) Stainless Gearbox	**Weight** lbs (kb) Aluminum Gearbox
PD 200/0	4.170 (106.000)	3.230 (82.000)	4.020 (102.000)	0.830 (21.000)	0.470 (12.000)	17.0 (7.7)	n/a
PD 200	4.170 (106.000)	3.230 (82.000)	4.020 (102.000)	0.830 (21.000)	0.470 (12.000)	18.0 (8.2)	n/a
PD 250	4.170 (106.000)	3.230 (82.000)	4.020 (102.000)	0.830 (21.000)	0.470 (12.000)	18.0 (8.2)	n/a
PD 275	4.170 (106.000)	3.230 (82.000)	4.020 (102.000)	0.830 (21.000)	0.470 (12.000)	20.0 (9.1)	n/a
PD 275	5.120 (130.000)	3.230 (82.000)	4.020 (102.000)	0.830 (21.000)	0.470 (12.000)	20.0 (9.1)	n/a
PD 300	5.670 (144.000)	2.240 (57.000)	4.410 (112.000)	1.100 (28.000)	0.750 (19.000)	39.0 (17.7)	27.0 (12.2)
PD 350	5.670 (144.000)	2.240 (57.000)	4.410 (112.000)	1.100 (28.000)	0.750 (19.000)	40.0 (18.1)	29.0 (13.2)
PD 400	7.560 (192.000)	2.910 (74.000)	5.980 (152.000)	1.540 (39.000)	0.940 (24.000)	79.0 (35.8)	59.0 (26.8)
PD 450	7.560 (192.000)	2.910 (74.000)	5.980 (152.000)	1.540 (39.000)	0.940 (24.000)	83.0 (37.6)	63.0 (28.6)
PD 450/52	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)
PD 500	10.200 (260.000)	3.860 (98.000)	8.190 (208.000)	2.170 (55.000)	1.650 (42.000)	226.0 (103.0)	179.0 (81.0)
PD 501	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)
PD 550	10.200 (260.000)	3.860 (98.000)	8.190 (208.000)	2.170 (55.000)	1.650 (42.000)	235.0 (107.0)	188.0 (85.0)
PD 551	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)
PD 575	10.200 (260.000)	3.860 (98.000)	8.190 (208.000)	2.170 (55.000)	1.650 (42.000)	245.0 (111.0)	198.0 (90.0)
PD 575	10.200 (260.000)	3.860 (98.000)	8.190 (208.000)	2.170 (55.000)	1.650 (42.000)	245.0 (111.0)	198.0 (90.0)
PD 576	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)	TBD (TBD)
PD 600	17.100 (435.000)	5.510 (140.000)	12.200 (310.000)	TBD (TBD)	2.760 (70.000)	410.0 (900.0)	310.0 (680.0)
PD 602	17.100 (435.000)	5.510 (140.000)	12.200 (310.000)	TBD (TBD)	2.760 (70.000)	410.0 (900.0)	310.0 (680.0)
PD 650	17.100 (435.000)	5.510 (140.000)	12.200 (310.000)	TBD (TBD)	2.760 (70.000)	441.0 (970.0)	341.0 (750.0)
PD 652	17.100 (435.000)	5.510 (140.000)	12.200 (310.000)	TBD (TBD)	2.760 (70.000)	441.0 (970.0)	341.0 (750.0)
PD 675	17.100 (435.000)	5.510 (140.000)	12.200 (310.000)	TBD (TBD)	2.760 (70.000)	226.0 (103.0)	179.0 (81.0)
PD 677	17.100 (435.000)	5.510 (140.000)	12.200 (310.000)	TBD (TBD)	2.760 (70.000)	226.0 (103.0)	179.0 (81.0)

GEAR PUMP DIMENSIONS

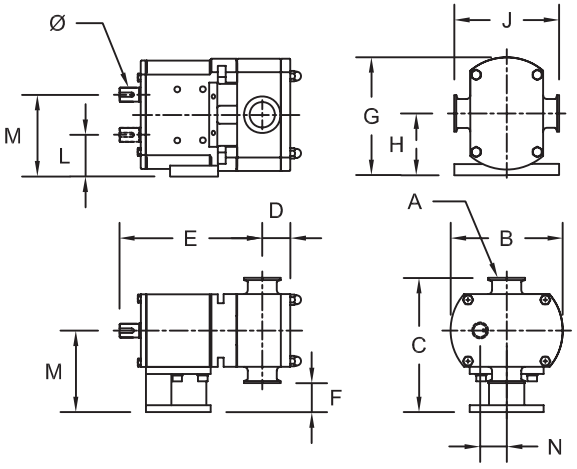
Model	A		B		C		D	
	mm	in	mm	in	mm	in	mm	in
GP 200/07	37.000	1.460	13.000	0.510	36.000	1.420	12.700	0.500
GP 200/10	35.000	1.380	17.000	0.670	32.000	1.260	50.800	2.000
GP 275/22	57.000	2.240	21.000	0.830	56.000	2.200	25.400	1.000
GP 275/38	54.000	2.130	26.000	1.020	51.000	2.010	38.100	1.500
GP 300	52.000	2.050	32.000	1.260	58.000	2.270	25.400	1.000
GP 300/28	TBD	TBD	TBD	TBD	TBD	TBD	#VALUE!	TBD
GP 350	58.000	2.260	39.000	1.520	63.000	2.480	38.100	1.500
GP 350/40	TBD	TBD	TBD	TBD	TBD	TBD	#VALUE!	TBD
GP 375	62.000	2.440	46.000	1.810	68.000	2.660	50.800	2.000
GP 375/52	TBD	TBD	TBD	TBD	TBD	TBD	#VALUE!	TBD



GP (Gear Pump) Series

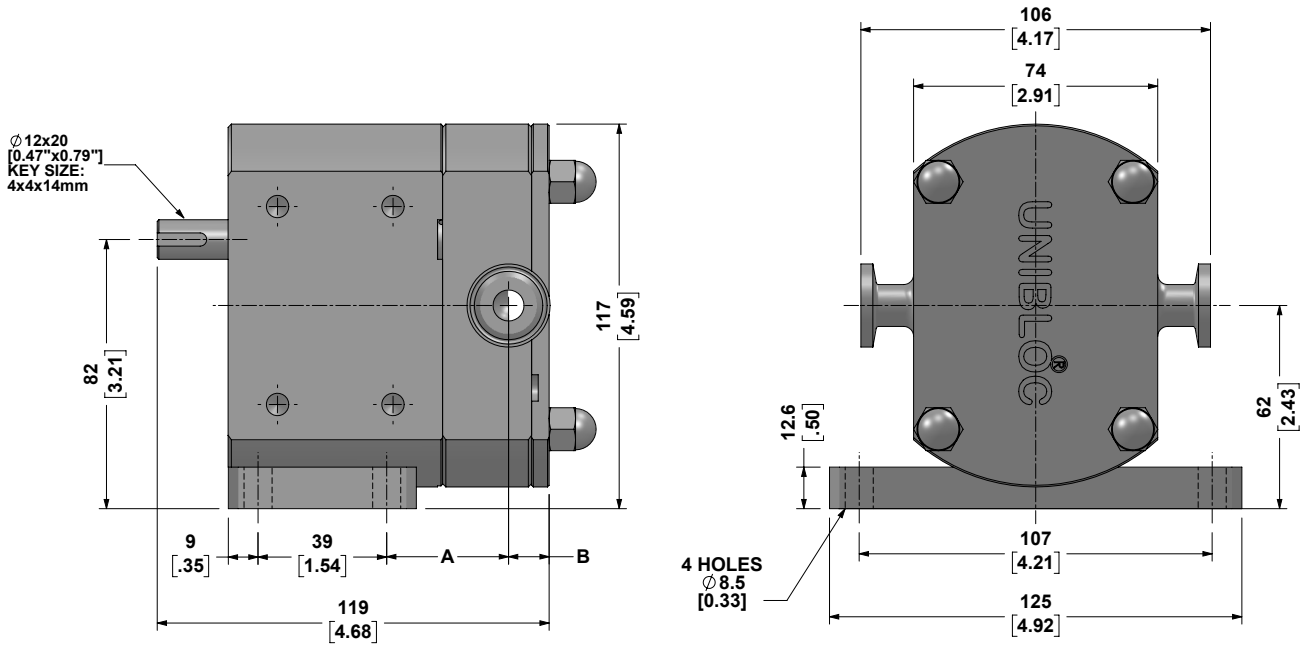


PD (Lobe Pump) Series: 200-275

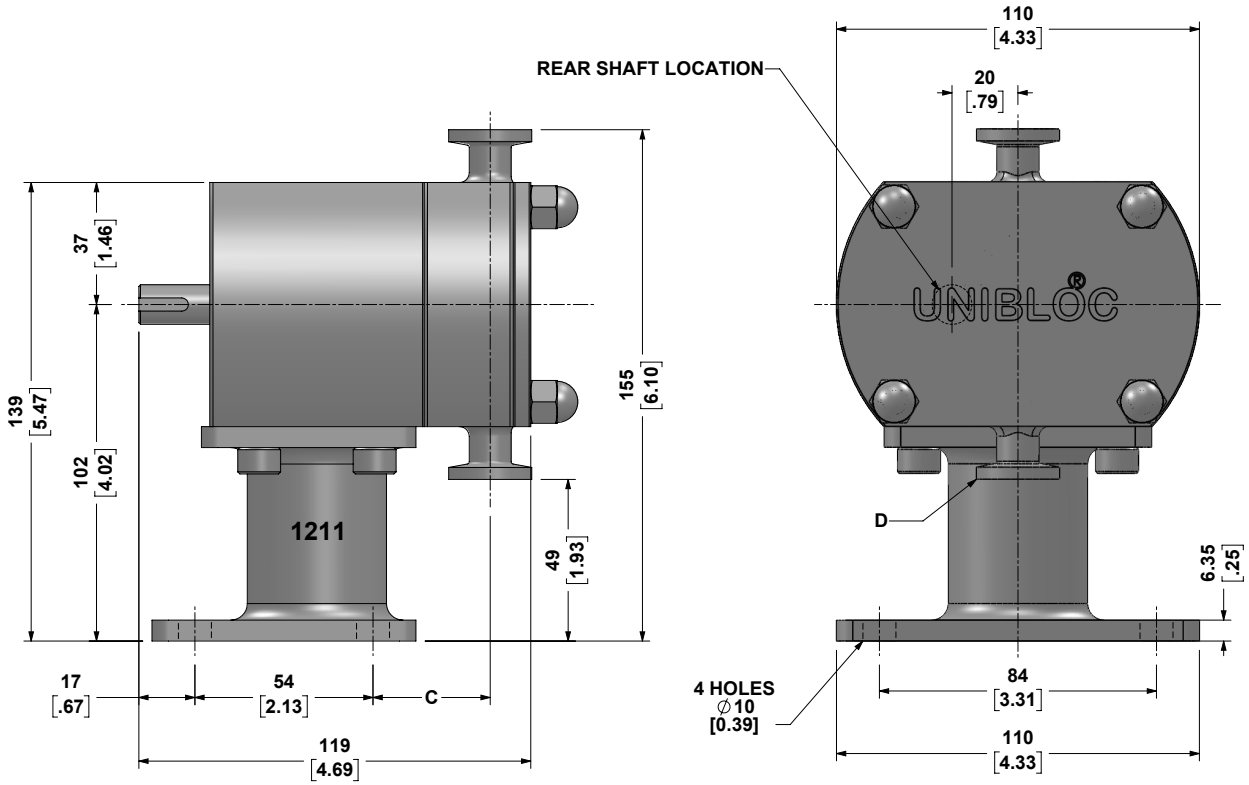


PD (Lobe Pump) Series: 300-677

REGISTERED DESIGN. PATENTS PENDING



HORIZONTAL THROUGH-PUT



VERTICAL THROUGH-PUT

	GP200/07	GP200/10
A	37 [1.46]	35 [1.38]
B	13 [0.51]	17 [0.67]
C	36 [1.42]	32 [1.26]
D	0.5" TRI-CLAMP	0.75" TRI-CLAMP

ALL DIMENSIONS IN MM, INCHES IN [ ]. TRI-CLAMP CONNECTION SHOWN

	BY	DATE
DRAWN	KL	6/26/12
CHECKED		
APP'D		
SCALE		

ALL DIMENSIONS IN MM

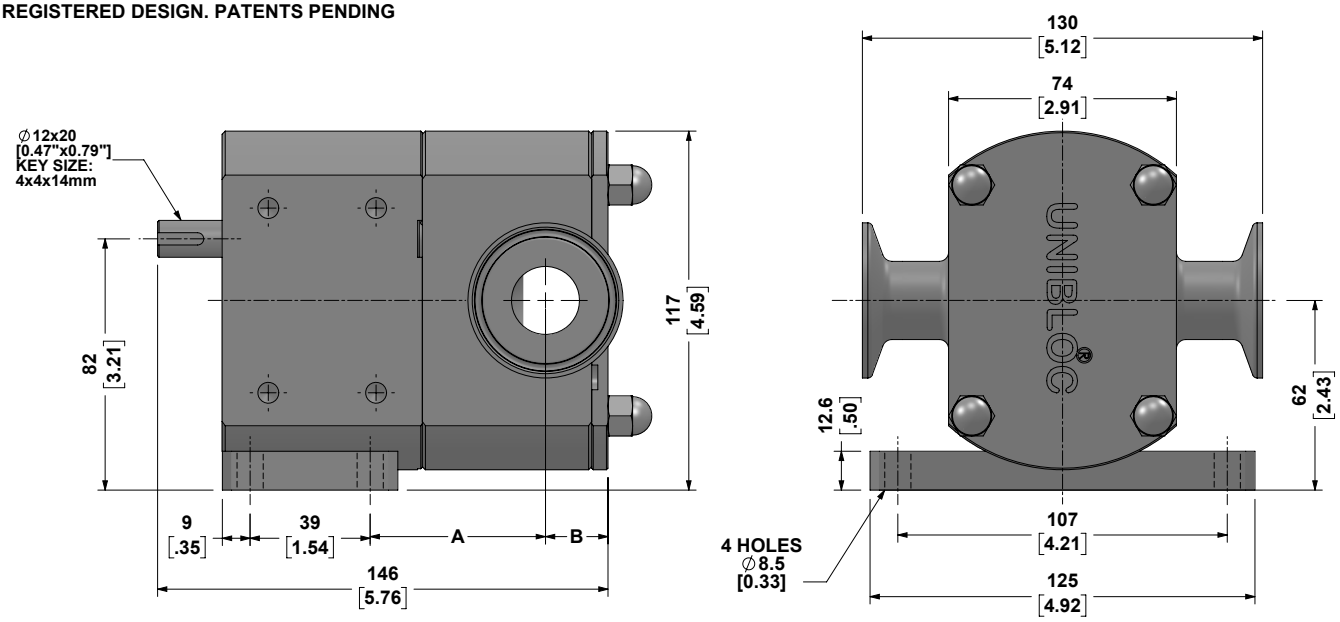
UNIBLOC PUMPS

DWG. TITLE
GENERAL DIMENSIONS

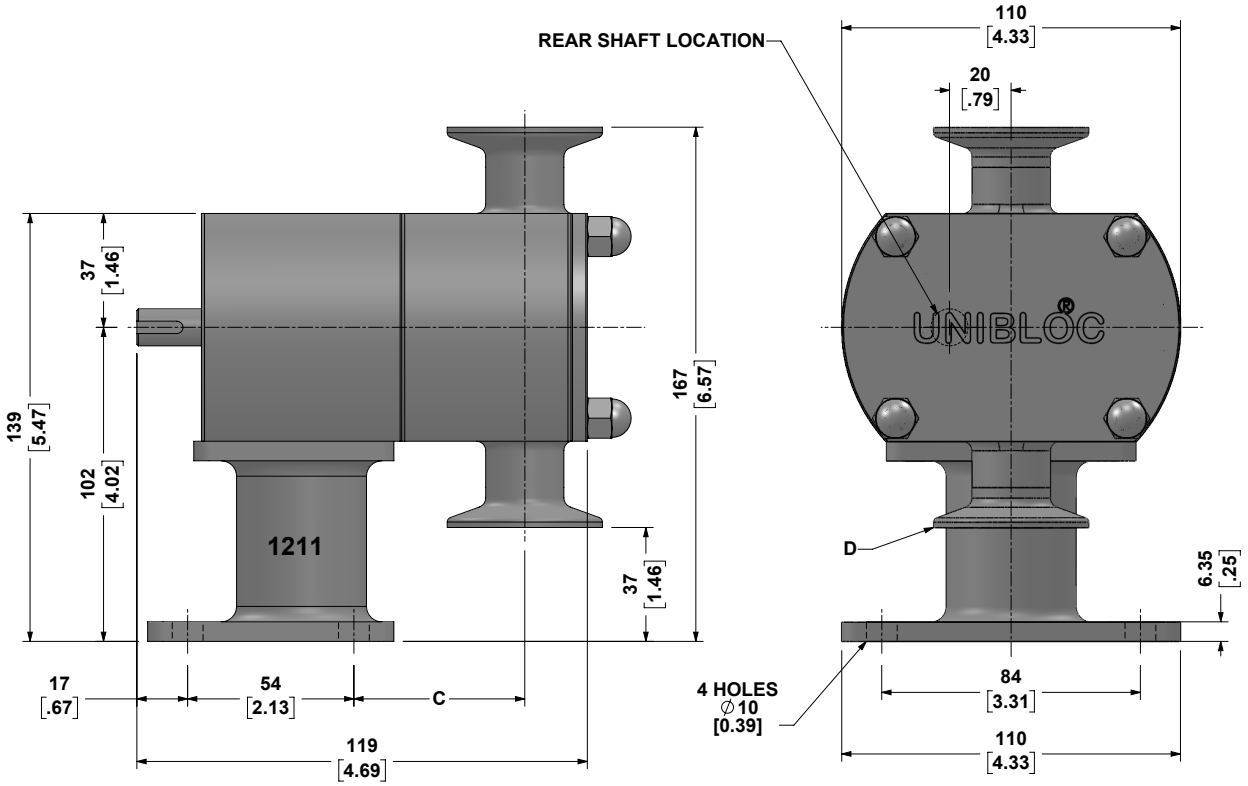
SIZE **GP200** | DWG. NO. **DGP200**

RELEASE DATE | SHEET 1 OF 1

REGISTERED DESIGN. PATENTS PENDING



HORIZONTAL THROUGH-PUT



VERTICAL THROUGH-PUT

	GP275/22	GP275/38
A	57 [2.24]	54 [2.13]
B	21 [0.83]	26 [1.02]
C	56 [2.20]	51 [2.01]
D	1.0" TRI-CLAMP	1.5" TRI-CLAMP

ALL DIMENSIONS IN MM, INCHES IN [ ]. TRI-CLAMP CONNECTION SHOWN

	BY	DATE
DRAWN	KL	6/26/12
CHECKED		
APP'D		
SCALE		

ALL DIMENSIONS IN MM

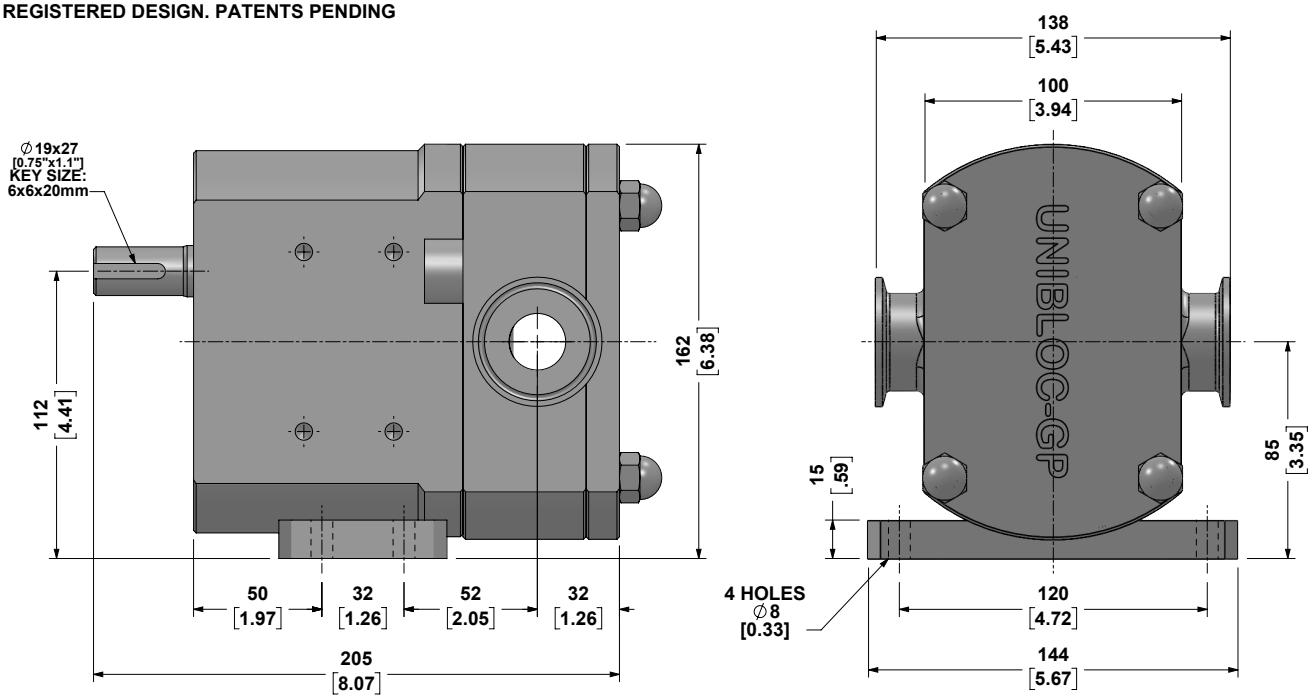
UNIBLOC PUMPS

DWG. TITLE: GENERAL DIMENSIONS

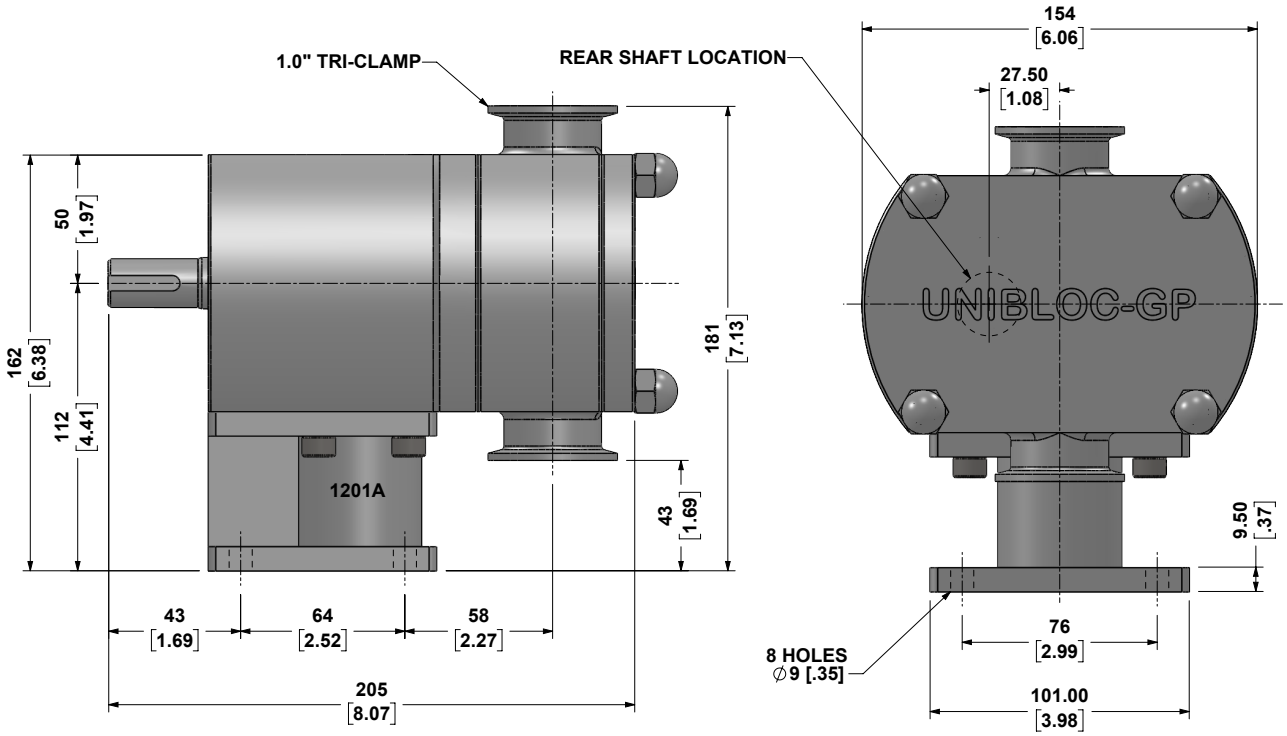
SIZE: GP275 | DWG. NO.: DGP275

RELEASE DATE | SHEET 1 OF 1

REGISTERED DESIGN. PATENTS PENDING



HORIZONTAL THROUGH-PUT



VERTICAL THROUGH-PUT

ALL DIMENSIONS IN MM, INCHES IN [ ]. TRI-CLAMP CONNECTION SHOWN

	BY	DATE
DRAWN	KL	6/27/12
CHECKED		
APP'D		
SCALE	ALL DIMENSIONS IN MM	

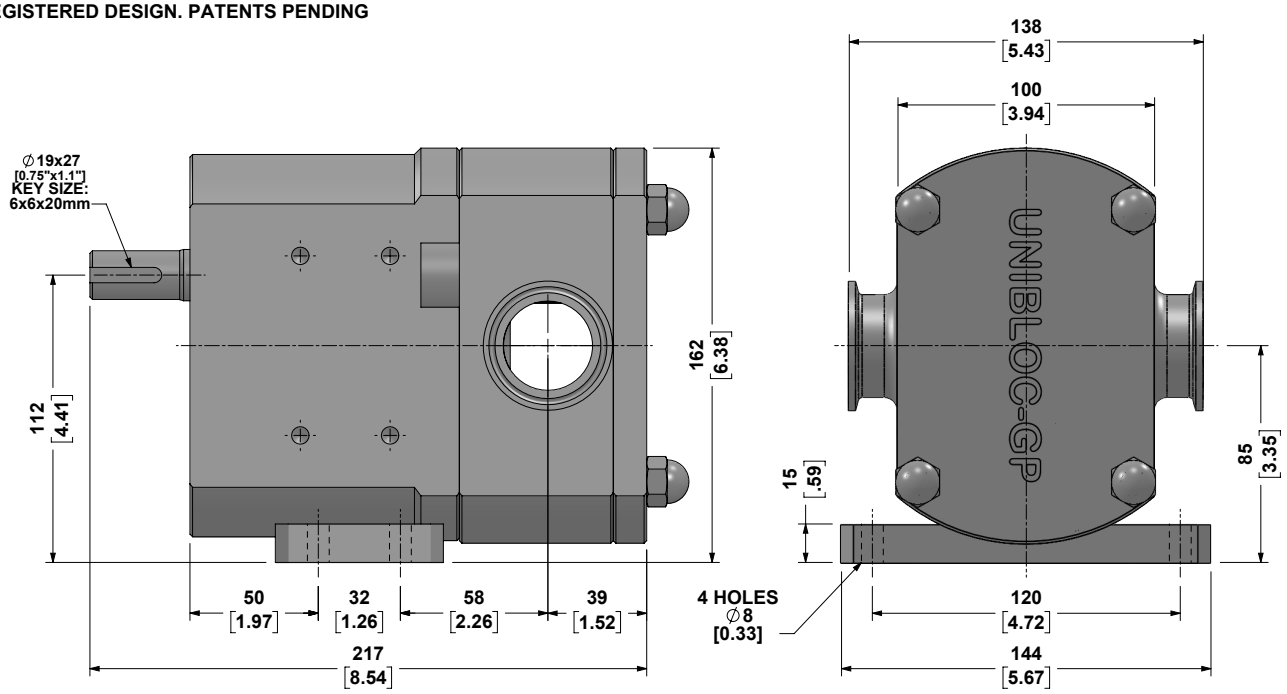
UNIBLOC PUMPS

DWG. TITLE
GENERAL DIMENSIONS

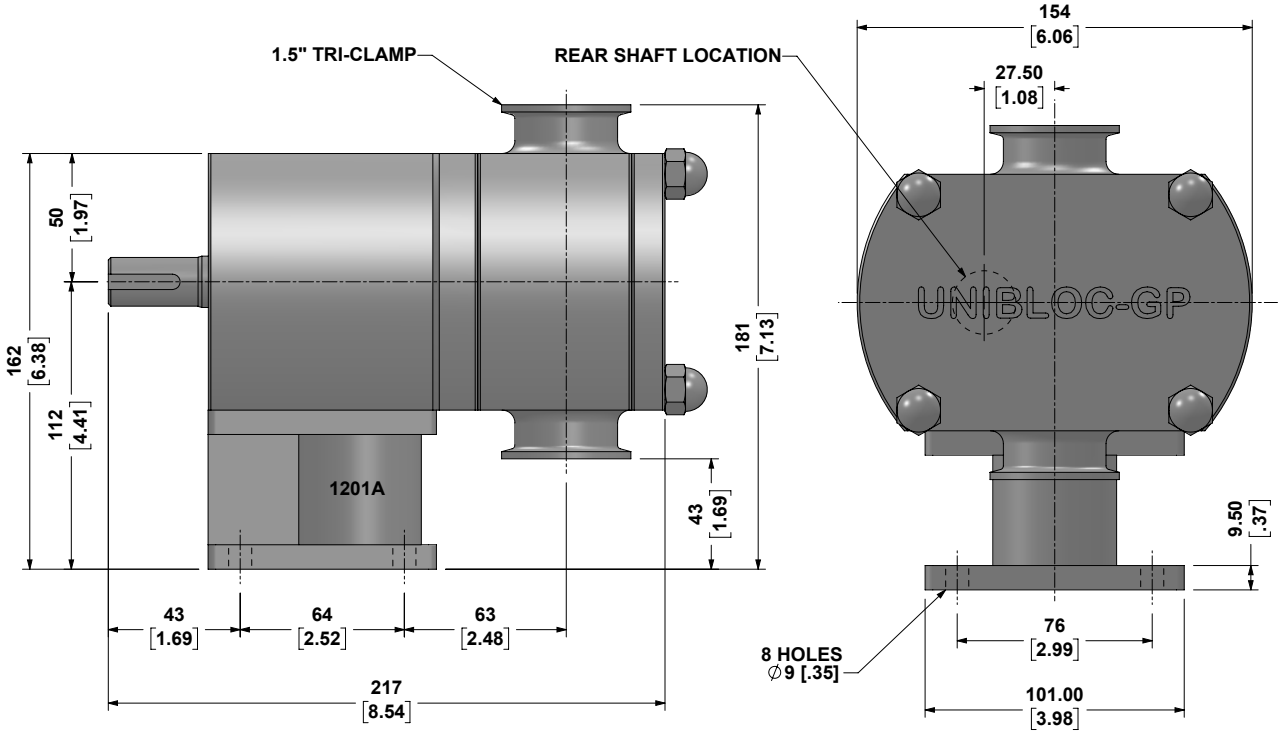
SIZE	DWG. NO.
GP300	DGP300

RELEASE DATE | SHEET 1 OF 1

REGISTERED DESIGN. PATENTS PENDING



HORIZONTAL THROUGH-PUT



VERTICAL THROUGH-PUT

ALL DIMENSIONS IN MM, INCHES IN [ ]. TRI-CLAMP CONNECTION SHOWN

	BY	DATE
DRAWN	KL	6/27/12
CHECKED		
APP'D		
SCALE		
ALL DIMENSIONS IN MM		

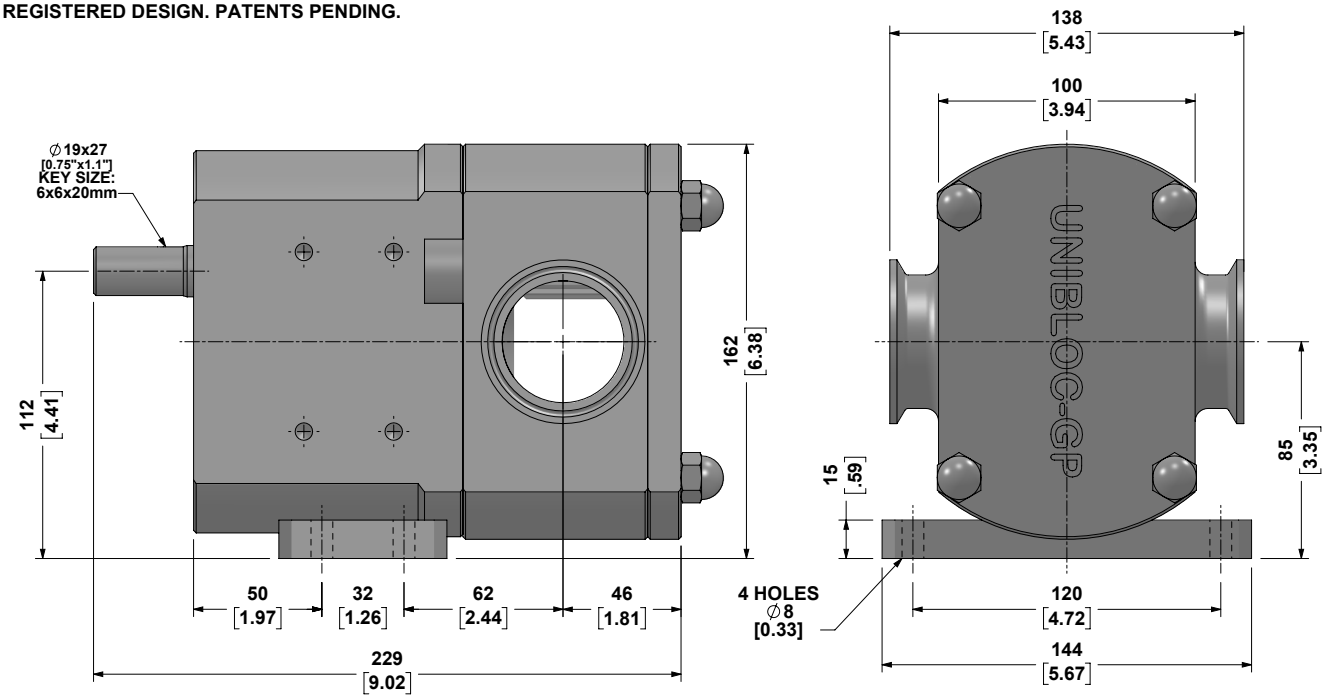
UNIBLOC PUMPS

DWG. TITLE
GENERAL DIMENSIONS

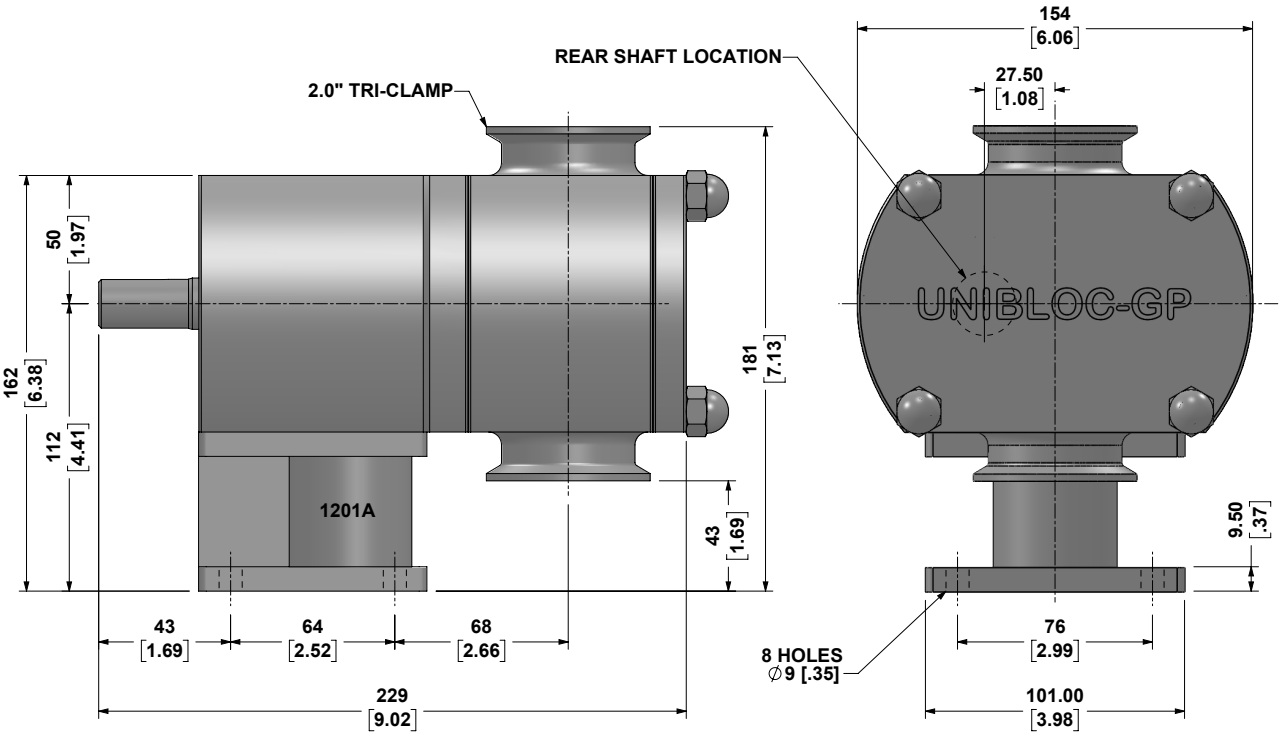
SIZE	DWG. NO.
GP350	DGP350

RELEASE DATE | SHEET 1 OF 1

REGISTERED DESIGN. PATENTS PENDING.



HORIZONTAL THROUGH-PUT



VERTICAL THROUGH-PUT

ALL DIMENSIONS IN MM, INCHES IN [ ]. TRI-CLAMP CONNECTION SHOWN

	BY	DATE
DRAWN	KL	6/27/12
CHECKED		
APP'D		
SCALE		
ALL DIMENSIONS IN MM		

UNIBLOC PUMPS

DWG. TITLE
GENERAL DIMENSIONS

SIZE	DWG. NO.
GP375	DGP375

RELEASE DATE | SHEET 1 OF 1

Unibloc brings Tier 1 performance to the world's most demanding pump processing applications. In the daily battle against downtime and sanitary compliance, Unibloc stands shoulder-to-shoulder alongside its customers to solve their problems. Meet every deadline. And drive total cost of ownership performance better than any other vendor in the plant.

The company's "Four Pillars of Performance" is embedded in every corner of Unibloc, making it possible to achieve this uncommon level of service and product quality:

Proven Under Pressure

Unibloc customers experience less downtime with our precision-engineered products that outperform competitive pumps.

Sanitary Assurance

With a focus on food safety and compliance, Unibloc products are designed around a FoodFirst philosophy to meet the rigorous demands of the food and beverage industry.

Relentless Focus on TCO

Driven by design innovation and outrageous reliability, Unibloc customers enjoy greater total cost of ownership from their Unibloc investment than with any other competitive offering.

Embrace Every Deadline

The "Solve-It-Now" imperative embedded throughout the company gives customers the confidence that they'll get the parts they need, the pumps they need, and the service they have to have from the industry's most dependable pump manufacturer.

Unibloc Hygienic Technologies provides a broad portfolio of powerful solutions for companies around the world.

UNIBLOC Hygienic Technologies | UNIBLOC PUMPS | FLOTRONIC ONE-NUT™ PUMPS | HYGENITEC FLOW CONTROL | STANDARD PUMP

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