

Bypass Assembly Pressure Adjust Screw Bypass Spring and Check No Pressure Switch Discharge Check Valve Only

COMMON USES

Applications with a set flow and pressure requirement. Example: Spray wands on spot sprayers.

HOW IT WORKS

When the operator shuts off the wand, pressure in the line increases to a set point and the pressure switch shuts off the motor. A check valve inside the pump keeps trapped pressure in the line. When the wand is turned back on, pressure in the line decreases. The pressure falls below the set point then restarts the pump

SIZING THE PUMP

Select a pump with a pressure and flow point that is matched to the orifice size in the wand

PRO

- Saves wear and tear on the pump
- Extends the service life of the battery

CON

- Can be difficult to use with variable rate
- Hand operated spray wands and guns

COMMON USES

Applications where a wide range of flows and pressures my be required. Examples: Spray bar with multiple nozzles, all controlled independently.

HOW IT WORKS

The pump continues to run regardless of pressure in the system. For the spray bar example, the flow rate is different when one nozzle is turned on as opposed to having two or more turned on. As nozzles are turned off, excess flow is bypassed within the pump.

SIZING THE PUMP

Size the pump for the maximum flow rate required with all nozzles spraying

PR₀

 Prevents on/off cycling of pump which can lead to early failure

CON

- If discharge valve is closed for too long, overheating and damage can occur
- Constant amp draw can reduce battery power life

5 GPM Bypass and Automatic-Demand Pumps 12 VDC





The field-proven Shurflo 5.3 GPM [20.1 L/min] pump delivers 3.8 GPM at 40 psi [14.4 L/min at 2.75 bar] with current draw of 14 amps. This pump is designed with a Santoprene® diaphragm for chemical resistance and maximum life, as well as Viton® valves for maximum chemical resistance. Also included is a built-in pressure switch, set at 60 PSI [4.14 bar], which protects the pump in the event of dead-heading. The pump is available in the same footprint as other Shurflo pumps, allowing users to upgrade to a higher performance on existing installations.

- Field-proven pump head design
- Driven by a 12-volt, sealed motor
- Self-priming up to 8 feet [2.4 m]
- Santoprene diaphragm for chemical resistance and maximum life
- Viton valves provide maximum chemical resistance
- Automatic demand versions with built-in pressure switch, set at 60 psi [4.14 bar], protects the pump in the event of dead-heading
- Bypass versions set at 90 psi (5.86 bar), protects the pump in the event of dead heading
- Available in the same footprint as other Shurflo pumps, allowing users to upgrade to a higher performance on existing installations

BYPASS 12VDC: ORDERING INFORMATION

Part Number	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw
5059-3611-D011	5.3	20.1	90	6.2	1/2" npsm*	20.9
5059-3610-D011	5.3	20.1	90	6.2	1/2" NPTF	20.9

^{* 1/2&}quot; -14 American National Standard Straight Pipe Thread

BYPASS 12VDC

Model	PSI	GPM	BAR	L /min	Amps
	0	5.3	0	20.1	6.5
	10	4.7	.7	17.8	9.0
	20	4.3	1.4	16.3	10.2
	30	4.1	2.1	15.5	12.0
5059-3611-D011	40	3.4	2.8	12.9	13.5
5059-3610-D011	50	2.6	3.4	9.8	15.2
	60	1.8	4.1	6.8	16.9
	70	1.1	4.8	4.2	18.5
	80	0.4	5.5	1.5	20.1
	90	0.0	6.2	0.0	20.9

DEMAND 12VDC: ORDERING INFORMATION

Part Number	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw
5059-1311-D011	5.3	20.1	60	3.4	1/2" NPSM*	17.0
5059-1310-D011	5.3	20.1	60	3.4	1/2" NPTF	17.0

^{* 1/2&}quot; -14 American National Standard Straight Pipe Thread

DEMAND 12VDC

Model	PSI	GPM	BAR	L /min	Amps
	0	5.3	0	20.1	6.5
	10	4.7	.69	17.8	9.0
	20	4.3	1.38	16.3	11.8
5059-1311-D011 5059-1310-D011	30	4.1	2.07	15.5	12.4
	40	3.8	2.75	14.4	14.0
	50	3.6	3.45	13.6	15.4
	60	3.4	4.14	12.9	17.0

^{**} For retail box: change "-D011" to "-D012"

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Automatic-Demand Pumps 12 VDC



The 8000 Series diaphragm pump is Shurflo's most widely used agriculture pump. Viton® valve material assures maximum chemical resistance. The unique conical valve design delivers high flow rates at maximum discharge pressures, making the 8000 Series the pump of choice for sprayers used on the farm or around the yard. These 12 VDC pumps deliver up to 1.8 GPM [6.8 L/min] providing maximum performance in a wide range of applications.

- Self-priming up to 8 vertical feet [2.4m]
- Chemical-resistant materials
- Designed for heavy-duty spraying and fluid transfer applications
- Can run dry without damage
- Built-in check valve

ORDERING INFORMATION

Part Number	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw	Description	Model	PSI	BAR	GPM	L/ min	Amps
					3/8"		All Viton [®] Pump:		20	1.4	0.93	3.5	3.9
8000-343-236	1.2	4.5	60	4.1	NPT-	5.8	Viton [®] valves, Viton [®] diaphragm,	8000-343-236	40	2.8	0.84	3.2	4.9
		Female 60 PSI (4.1 bar) dema		60 PSI (4.1 bar) demand switch		50	3.4	0.80	3.0	5.3			
					3/8"		Lawn and Garden Pump:		60 20	4.1 1.4	0.76	2.9 3.0	5.8 2.3
8000-541-236*	1.0	3.8	60	4.1	NPT-	3.8	Viton valves, Santoprene diaphragm, 60 PSI (4.1 bar)		30	2.1	0.75	2.8	2.8
			Female demand switch		8000-541-236	40	2.8	0.70	2.6	3.2			
					Low Flow Standard Pump:		60	4.1	0.62	2.3	3.8		
8000-542-136	1.2	4.5	60	4.1	1/2" MSPT-	6.0	Viton [®] valves, Santoprene [®]		20	1.4	1.11	4.2	4.1
0000 042 100	1.2	7.0	00	7.1	Male	0.0	diaphragm, 60 PSI (4.1 bar) demand switch		40	2.8	0.98	3.7	5.1
								8000-542-136	50	3.4	0.93	3.5	5.6
					1/2"		Standard Pump: Viton [®] valves, Santoprene [®]		60	4.1	0.90	3.4	6.0
8000-543-136	136 1.8 6.8 60 4.1 MSP1- 7.3 diaphragm, 60 PSI (4.1 bar)		20	1.4	1.26	4.7	5.0						
					1 laic		demand switch		40	2.8	1.14	4.3	6.2
					3/8"		Standard Pump:	8000-543-136	50	3.4	1.08	4.1	6.8
8000-543-236*	1.8	6.8	50	3.4	NPT-	6.4	Viton valves, Santoprene diaphragm, 60 PSI (4.1 bar)		60	4.1	1.02	3.9	7.3
					Female		demand switch		30	1.4	1.47	5.5	5.7
					7 (0)		High Pressure Pump:	8000-543-236	40	2.8	1.41	5.3	5.8
8000-543-238	1.8	6.8	100	6.9	3/8" NPT-	8.7	Viton valves, Santoprene		50	3.4	1.36	5.1	6.4
0000 0 10 200		0.0		0.0	Female	01,	diaphragm, 100 PSI (6.9 bar) demand switch		20	1.4	1.45	5.5	4.2
								0000 5/7 070	40	2.8	1.31	5.0	5.5
					1/2"		High Pressure Pump: Viton valves, Santoprene	8000-543-238	60	4.1	1.22	4.6	6.5
8000-543-138	1.8	6.8	100	6.9	MSPT- Male	8.7	diaphragm,		100	6.9	0.96	3.6	8.7
					Tidic .		100 PSI (6.9 bar) demand switch		20	1.4	1.45	5.5	4.2
					7.0"		Standard Pump w/Wire Harness:	0000 5/7 170	40	2.8	1.31	5.0	5.5
8000-543-936*	1.8	6.8	50	3.4	3/8" NPT-	6.4	Viton valves, Santoprene diaphragm, prewired with two	8000-543-138	60	4.1	1.22	4.6	6.5
					Female		wire molded connectors, 60 PSI		100	6.9	0.96	3.6	8.7
							(4.1 bar) demand switch		30	1.4	1.47	5.5	5.7
					1/2"		High Pressure Pump: Viton valves, Santoprene	8000-543-936	40	2.8	1.41	5.3	5.8
8000-547-189	1.8	6.8	107	7.4	MSPT	7.0	diaphragm, 100 PSI (6.9 bar)		50	3.4	1.36	5.1	6.4
					Male		demand switch with internal		20	1.4	1.44	5.4	4.1
							bypass	8000-643-236	40	2.8	1.33	5.0	5.4
					3/8"		Transfer Pump:	0000 040 200	50	3.4	1.27	4.8	6.1
8000-643-236	1.8	6.8	60	4.1	NPT-	6.8	Buna valves, Geolast [®] diaphragm, 60 PSI(4.1 bar) demand switch		60	4.1	1.22	4.6	6.8
					Female		00 F31(4.1 par/uemanu Switch		20	1.4	1.55	5.9	5.5
				High Pressure Pump:		30	2.1	1.49	5.6	6.2			
8030-813-239		12.0	Viton valves, Santoprene diaphragm, 150 PSI (10.3 bar)	8030-813-239	40	2.8	1.43	5.4	6.8				
		0.1			Female		demand switch	0000 010 200	80	5.4	1.20	4.5	9.1
									100	6.9	1.10	4.2	10.1
ackaged in quantiti	es of 6. F	or single	packs,	replace	"8000-" w	ith "8009.	п		150	9.5	0.83	3.1	12.0

Bypass Pumps 12 VDC



8000-543-250

8000 Series internal bypass pumps are ideal for applications where an automatic demand switch is not desired. Pumps with bypass will continue to run without damage once the bypass pressure is reached. They incorporate a triple chamber design with Viton® elastomers to withstand the toughest applications. Perfect for spot sprayers, foam markers and transfer applications where smooth, consistent flow is needed.

- Self-priming up to 8 vertical feet [2.4m]
- Chemical-resistant materials
- Internal bypass
- Can run dry without damage

ORDERING INFORMATION

Part Number	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw	Description
8000-543-250*	1.8	6.8	50	3.4	3/8" NPT- Female	5.5	Standard Bypass Pump: Viton* valves, Santoprene* diaphragm, 45 PSI(3.1 BAR) internal bypass
8000-543-210	1.3	4.9	40	2.8	3/8" NPT- Female	5.5	Standard Bypass Pump: Viton* valves, Santoprene* diaphragm, 35 PSI (2.4 BAR) internal bypass
8000-543-220	1.5	5.7	60	4.1	3/8" NPT- Female	7.1	Standard Bypass Pump: Viton" valves, Santoprene" diaphragm, 60 PSI(4.1 BAR) internal bypass
8006-543-250	1.4	5.3	50	3.4	3/8" NPT- Female	5.5	Bypass Pump with Reversed Pumphead: Viton" valves, Santoprene" diaphragm, 45 PSI (3.1 BAR) internal bypass

Model	PSI	BAR	GPM	L/min	Amps
	20	1.4	1.30	4.9	4.0
8000-543-250	30	2.1	1.11	4.2	4.7
6000-545-250	40	2.8	0.69	2.6	5.2
	50	4.1	0.18	0.7	5.5
	10	0.7	1.28	4.8	3.8
8000-543-210	20	1.4	1.19	4.5	4.4
0000-543-210	30	2.1	1.07	4.0	5.0
	40	2.8	0.05	0.19	5.5
	10	0.7	1.52	5.7	3.8
8000-543-220	20	1.4	1.45	5.5	4.5
0000-040-220	30	2.1	1.39	5.3	5.2
	60	4.1	1.12	4.2	7.1
	10	0.7	1.40	5.3	3.4
8006-543-250	20	1.4	1.30	4.9	4.0
8006-543-250	40	2.8	0.69	2.6	5.2
	50	4.1	0.18	0.7	5.5

SHURFLO® 8000 SERIES DIAPHRAGM PUMPS

Bypass Pumps 12 VDC



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Designed to accommodate applications that have external pressure valves plumbed into the system.

- Self-priming up to 8 vertical feet [2.4m]
- Chemical-resistant materials
- 1/4" adapter for external bypass hook-up
- Can run dry without damage

ORDERING INFORMATION

Part Number	Ma x GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw	Description
8000-543-290	1.8	6.8	100	6.9	3/8" NPT- Female	8.8	Front Adapter Pump: Viton® valves, Santoprene® diaphragm, 1/4" FNPT adapter mounted on switch ports

Model	PSI	BAR	GPM	L/min	Amps
	20	1.4	1.26	4.7	5.0
	40	2.8	1.14	4.3	6.2
8000-543-290	60	4.1	1.02	3.9	7.3
	80	5.5	0.93	3.5	8.0
	100	6.9	0.84	3.2	8.8

^{*} Packaged in quantities of 6. For single packs, replace "8000-" with "8009."

SHURFLO® 8000, 8090 AND 8020 SERIES DIAPHRAGM PUMPS SHURFLO PUMPS

Bypass and Automatic-Demand Pumps 115 VAC and 230 VAC



These Shurflo 8000, 8090 and 8020 Series bypass and demand pumps provide the same reliability as the 12 VDC version, except in a 115 VACor 230 VAC capacity. They are ideal in agricultural applications that require high pressure with flow rates up to 1.6 GPM [6.1 L/min] and low amp draw. They can be mounted in any position, are compact, and are designed for easy maintenance.

- Self-priming up to 8 vertical feet [2.4m]
- Built-in check valve
- Chemical-resistant materials
- Corded pump optional
- Can run dry without damage

BYPASS 115 VAC: ORDERING INFORMATION

Part Number	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw	Description
8000-533-250	1.4	5.3	50	3.4	3/8" NPT- Female	0.54	Bypass Pump: Viton [®] valves, Santoprene [®] diaphragm, 45 PSI(3.1 bar) Internal Bypass
8020-503-250)-503-250 1.5 E		40	2.8	3/8" NPT- Female	0.56	Bypass Pump with 6' Power Cord: Viton' valves, Santoprene' diaphragm, 45 PSI (3.1 bar) Internal Bypass

BYPASS 115 VAC

Model	PSI	PSI BAR		L/min	Amps
	10	0.7	1.36	5.1	0.34
8000-533-250	30	2.1	1.05	4.0	0.46
0000-555-250	40	2.8	0.65	2.5	0.51
	50	3.4	0.19	0.7	0.54
	10	0.7	1.40	5.3	0.37
8020-503-250	20	1.4	1.30	4.9	0.44
0020-503-250	30	2.1	1.10	4.2	0.50
	40	2.8	0.80	3.0	0.56

DEMAND 115 VAC: ORDERING INFORMATION

Part Numbers	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw	Description
8000-533-236	1.4	5.3	60	4.1	3/8" NPT- Female	0.64	Standard Demand Pump: Viton® valves, Santoprene® diaphragm, 60 PSI(4.1bar)demand switch
8020-513-236	1.5	5.7	60	4.1	3/8" NPT- Female	0.57	Standard Demand Pump: Viton° valves, Santoprene° diaphragm, 60 PSI(4.1bar) demand switch with 6 ft(1.8 m) power cord
8020-833-238	1.6	6.1	100	6.9	3/8" NPT- Female	0.95	High Pressure Pump with 6 ft. Power Cord: Viton" valves, Santoprene" diaphragm, 100 PSI (6.9 bar) demand switch
8030-863-239	1.5	5.7	150	9.7	3/8" NPT- Female	1	High Pressure Pump: Viton* valves, Santoprene* diaphragm,150 PSI (10.3bar) demand switch

Model	PSI	BAR	GPM	L/min	Amps
	20	1.4	1.15	4.3	0.46
8000-533-236	40	2.8	0.97	3.7	0.55
6000-555-256	50	3.4	0.91	3.4	0.60
	60	4.1	0.85	3.2	0.64
	20	1.4	1.15	4.8	0.40
8020-513-236	40	2.8	0.96	4.1	0.49
0020-313-230	50	3.4	0.90	3.6	0.54
	60	4.1	0.84	3.5	0.57
	20	1.4	1.32	5.0	0.45
8020-833-238	40	2.8	1.14	4.3	0.58
0020-033-236	60	4.1	1.07	4.0	0.70
	100	6.9	0.91	3.4	0.95
	20	1.4	1.24	4.7	0.45
8030-863-239	60	4.1	1.04	3.9	0.66
0030-003-239	120	8.3	0.77	2.9	0.92
	150	9.7	0.63	2.4	1.00

BYPASS 230 VAC: ORDERING INFORMATION

Part Numbers	Max GPM	Max LPM	Max PSI	Max Bar	Port Size	Max Draw	Description
8090-802-289	1.2	4.5	80	5.5	3/8" NPT Female	0.56	Bypass Pump: Viton* valves, Santoprene* diaphragm, 80 PSI (5.5 bar) Internal Bypass
8095-902-260	1.5	5.7	100	6.9	3/8" NPT Female	0.56	Bypass Pump: EPDM valves, Santoprene® diaphragm,100 PSI (6.9 bar) Internal Bypass

DEMAND & DEMAND/BYPASS 230 VAC: ORDERING INFORMATION

Part Numbers	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw	Description
8090-212-246	1.2	4.5	60	4.1	3/8" NPT Female	0.34	Standard Demand Pump: EPDM valves, Santoprene" diaphragm, 80 PSI(4.1bar) demand switch
8090-801-278	1.3	4.9	100	6.9	3/8" NPT Female	0.56	Demand/Bypass Pump: Viton* valves, Santoprene* diaphragm, *0 PSI (5.5 bar) Internal Bypass, 100 PSI (6.9 bar) demand switch
8090-902-278	1.4	5.3	100	5.5	3/8" NPT Female	0.56	Demand/Bypass Pump: EPDM valves, Santoprene® diaphragm, 80 PSI (5.5 bar) Internal Bypass, 100 PSI (6.9 bar) demand switch

Bypass and Automatic-Demand 12 VDC with Electrical Package



8007-543-850 (Front and Back Shown)

These models include an aesthetically-pleasing molded assembly, housing a rocker-type manual switch with international on/off switch symbols. Wiring is neatly routed into the molded assembly through form fitting entries and strain relieved inside the housing. Fused versions come with an automotive-type fuse housed under a snug fitting cap marked "fuse." Non-fused versions have a raised section.

- Self-priming up to 8 vertical feet [2.4m]
- Chemical-resistant materials
- Internal bypass option
- Can run dry without damage
- Built-in on/off switch included
- 2 pin connector on power leads
- Available with or without integral fuse
- Rocker switch protected from the elements by a clear boot

BYPASS 12VDC: ORDERING INFORMATION

Part Number	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw	Description
8007-543-850	1.8	6.8	50	3.4	3/8" NPT-Female	5.5	Bypass Pump w/Electrical Package: Viton® valves, Santoprene® diaphragm, 45 PSI (3.1 bar) bypass, Manual on/off switch 2 pin connector and fuse

DEMAND 12VDC: ORDERING INFORMATION

Part Number	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw	Description
8007-591-236	1.0	3.8	50	3.4	3/8" NPT-Female	3.7	
8007-593-836	1.8	6.8	50	3.4	3/8" NPT-Female	6.4	Demand Pump w/Electrical Package: Viton° valves, Santoprene° diaphragm, 60 PSI (4.1 bar) Demand Switch Manual on/off switch 2 pin connector (8007-543-836 includes fuse)
8007-543-836	1.8	6.8	50	3.4	3/8" NPT-Female	6.4	Haridal off/off switch 2 pin conflector (0007-040-000 includes ruse)

DEMAND 12VDC

Model	PSI	BAR	GPM	L/min	Amps
	30	2.1	0.74	2.8	2.9
8007-591-236	40	2.8	0.69	2.6	3.2
	50	3.4	0.65	2.5	3.7
	30	2.1	1.47	5.5	5.3
8007-593-836	40	2.8	1.41	5.3	5.8
	50	3.4	1.36	5.1	6.4
	30	2.1	1.47	5.5	5.3
8007-543-836	40	2.8	1.41	5.3	5.8
	50	3.4	1.36	5.1	6.4

BYPASS 12VDC

Model	PSI	BAR	GPM	L/min	Amps
	10	0.7	1.40	5.3	3.4
	20	1.4	1.30	4.9	4.0
8007-543-850	30	2.1	1.11	4.2	4.7
	40	2.8	0.69	2.6	5.2
	50	3.4	0.18	0.7	5.5

Automatic-Demand Pump 12 VDC with Electrical Package



These models include an aesthetically-pleasing molded assembly, housing a rocker-type manual switch with international on/off switch symbols. Wiring is neatly routed into the molded assembly through form fitted entries and strain relieved inside the housing.

- Self-priming up to 12 vertical feet [3.7m]
- Chemical-resistant materials
- Can run dry without damage
- Rocker switch protected from the elements by a clear boot
- Built-in on/off switch included
- 2 pin connector on power lead

ORDERING INFORMATION

Part Number	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw	Description
2087-593-135 †	3	11.4	50	3.4	1/2" MSPT* Male	8	Standard Demand Pump: Viton* valves, Santoprene* diaphragm, 45 PSI (3.1 bar) demand switch

Model	PSI	BAR	GPM	L/min	Amps
	10	0.7	2.80	10.6	5.3
	20	1.4	2.69	10.2	5.5
2087-593-135	30	2.1	2.36	8.9	6.7
	40	2.8	2.05	7.8	7.7
	50	3.4	1.42	5.4	8.0

SHURFLO® 2088 SERIES DIAPHRAGM PUMPS

Automatic-Demand Pump 12 VDC



Shurflo 2088 Series diaphragm pumps deliver reliable performance in high flow, moderate pressure applications. They are used in a variety of spot spraying, multinozzle spraying and fertilizer drip applications that require flows of up to 3.6 GPM [13.6 L/min]. They are available in a variety of chemical-resistant materials.

- Self-priming up to 12 vertical feet [3.7m]
- Chemical-resistant materials
- Can run dry without damage
- Automatic demand
- Built-in check valve (varies by model) prevents back flow of fluid into the solution tank
- Continuous duty motor on fin-cooled version

ORDERING INFORMATION

Part Number	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw	Description
2088-313-145	3.6	13.6	40	2.8	1/2" MSPT* Male	9.5	Standard Pump: with fin cooled motor Viton* valves, Santoprene* diaphragm, 45 PSI (3.1 bar) demand switch
2088-443-144	3.5	13.2	45	3.1	1/2" MSPT* Male	9.1	Standard Pump: Santoprene® valves, Santoprene® diaphragm, 45 PSI(3.1 bar) demand switch
2088-343-135†	3	11.4	40	2.8	1/2" MSPT* Male	7.7	Standard Pump: Viton® valves, Santoprene® diaphragm, 45 PSI (3.1 bar) demand switch

* 1/2" - 14 National American Straight Pipe Thread
† Packaged in quantities of 6. For single pack, replace "135" with "435."

Model	PSI	BAR	GPM	L/min	Amps
2088-313-145	10	0.7	3.09	11.7	6.4
	20	1.4	2.82	10.7	7.6
	30	2.1	2.49	9.4	8.7
	40	2.8	2.15	8.1	9.5
2088-443-144	10	0.7	2.83	10.7	5.8
	20	1.4	2.56	9.7	7.0
	30	2.1	2.31	8.7	8.0
	40	2.8	2.02	7.6	9.1
2088-343-135	10	0.7	2.80	10.6	5.3
	20	1.4	2.69	10.2	5.5
	30	2.1	2.36	8.9	6.7
	40	2.8	2.05	7.8	7.7

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^{* 1/2&}quot; - 14 National American Straight Pipe Thread

[†] Packaged in quantities of 6. For single pack, replace "135" with "435."

No Control Pumps 12 VDC



Shurflo 2088 Series diaphragm pumps deliver reliable performance in high flow, moderate pressure applications. They are used in a variety of spraying and transferring applications that require flows of up to 3.3 GPM [12.5 L/min]. They are available in a variety of chemical-resistant materials. They can be mounted in any position and are designed for easy maintenance.

- Self-priming up to 12 vertical feet [3.7m]
- Chemical-resistant materials
- Can run dry without damage
- Built-in check valve (may vary by models) prevents back flow of fluid through the pump
- Relief valve in the system required.

ORDERING INFORMATION

Part Number		Max LPM				Max Draw	Description
2088-343-170	3.3	12.5	50	3.4	1/2" MSPT* Male	9.1	Front Adapter Pump with Electrical Package: Viton° valves, Santoprene° diaphragm, 1/4" FPT adapter mounted on switch port, built-in on/off power switch, fuse holder pre-wired w/2-wire molded connector, no demand switch
2088-343-500	3.3	12.5	50	3.4	1/2" MSPT* Male	10.1	Front Adapter Pump: Viton" valves, Santoprene" diaphragm, 1/4" FPT adapter mounted on switch port, no demand switch

Model	PSI	BAR	GPM	L/min	Amps
	10	0.7	3.00	11.3	5.0
2088-343-170	30	2.1	2.38	9.0	7.5
2088-343-170	40	2.8	2.14	8.1	8.3
	50	3.4	1.86	7.0	9.1
	10	0.7	2.79	10.6	5.8
2088-343-500	30	2.1	2.26	8.6	8.3
2000-040-000	40	2.8	1.99	7.5	9.3
	50	3.4	1.69	6.4	10.1

DCI DAD CDM I (min Amm

SHURFLO® 2088 SERIES DIAPHRAGM PUMPS

Automatic-Demand Pumps 115 & 230 VAC



2088-394-144

These Shurflo 2088 Series pumps offer the same reliability as the 12 VDC version except in 115 or 230 VAC capacity. They are used in a variety of spot spraying, mini-bulk transfer and fertilizer applications that require flows of up to 3.2 GPM [12.1 L/min]. They are available in a variety of chemical-resistant materials.

- Self-priming up to 12 vertical feet [3.7m]
- Chemical-resistant materials
- Can run dry without damage
- Automatic demand
- Built-in check valve (may vary by model) prevents back flow of fluid into the solution tank

ORDERING INFORMATION

Part Number		Max LPM	Max PSI	Max BAR	Port Size	Max Draw	Description
2088-394-144	3	11.4	40	2.8	1/2" MSPT* Male	0.7	115 VACPump with 6' power cord: Viton° valves, Santoprene° diaphragm, 45 PSI (3.1 bar) demand switch
2088-394-154	3.2	12.1	40	2.8	1/2" MSPT* Male	0.98	115 VAC Pump: Viton® valves, Santoprene® diaphragm, 45 PSI (3.1 bar) demand switch
2088-564-144	3.0	11.3	50	3.4	1/2" MSPT* Male	0.6	230 VAC Pump: Santoprene® valves, Santoprene® diaphragm, 45 PSI (3.1 bar) demand switch

* 1/2" - 14	National	American	Straight	Pipe	Thread

Model	PSI	BAR	GPM	L/min	Amps
	10	0.7	2.40	9.1	.55
2088-394-144	20	1.4	2.20	8.3	.60
2000-394-144	30	2.1	1.90	7.2	.65
	40	2.8	1.60	6.0	.70
	10	0.7	2.71	10.2	.65
2088-394-154	20	1.4	2.41	9.1	.77
2000-394-134	30	2.1	2.10	8.0	.89
	40	2.8	1.84	7.0	.98
	10	0.7	2.80	10.6	0.35
	20	1.4	2.50	9.5	0.45
2088-564-144	30	2.1	2.20	8.3	0.50
	40	2.8	2.00	7.6	0.55
	50	3.4	1.70	6.4	0.60

^{* 1/2&}quot; - 14 National American Straight Pipe Thread

Air-Driven Pumps



166-200-36

The Shurflo 166 air-operated demand pumps employ a dual diaphragm design, with a patented fast action switching mechanism allowing for consistent flow and pressure. They are built for the toughest pumping applications and are available in a variety of elastomers that allow them to be compatible with most caustic or acidic fluids. Ideal for chemical transfer, liquid fertilizer injection and agricultural spraying. 2 chamber dual diaphragm.

- Positive displacement
- On-demand operation
- Chemical-resistant polypropylene body
- 30 to 60 PSI [2.1-4.1 bar]

ORDERING INFORMATION

Part Number	Max GPM	Max LPM	Max PSI	Max BAR	Description
166-200-36	0.6	2.3	30-60	2.1-4.1	Viton® valves and diaphragm
166-200-46	0.6	2.3	30-60	2.1-4.1	Buna valves and diaphragm
166-200-56	0.6	2.3	30-60	2.1-4.1	EPDM valves and diaphragm
166-200-57	0.6	2.3	30-60	2.1-4.1	Santoprene® valves and diaphragm

SHURFLO® POWER TWIN PUMP

Demand Pumps 12VDC



4211-035

Take all the performance and features of the time-tested 2088 series, double it, and the result is the high-flow Power Twin. Delivers an open flow of 6.25 GPM [23.7 L/min] at a mere 8.7 amps. At 40 PSI [2.8 bar], it delivers 3.5 GPM [13.2 L/min] and draws only 17.2 amps. One of the most efficient high-flow self-priming pumps available today, the Power Twin is excellent for transferring, light-duty spraying, and use as a 1:1 proportioning pump.

- Up to 6.25 GPM [23.7 L/min]
- Thermally-protected motor with heat sink
- Self-priming up to 7 vertical feet (2.13 m)
- Quiet, balanced operation
- Long-life pressure switch
- Intake/Discharge manifold optional

ORDERING INFORMATION

Part Number		Max LPM	Max PSI		Port Size	Max Draw	Description			
4111-035	6.25	23.7	40	2.8	1/2" MPT	17.2	Viton° valves, Santoprene° diaphragm, 45 PSI (3.1 bar) demand switch, manifold with 5/8" barb ports			
4211-035	6.25	23.7	40	2.8	1/2" MPT	17.2	Viton® valves, Santoprene® diaphragm, 45 PSI (3.1 bar) demand switch			
4311-035	6.25	23.7	40	2.8	1/2" MPT	17.2	3/4" manifold kit included.			
94-389-00	Manifold Kit 5/8" barb (2) per pump									
94-389-01	Manifold Kit 3/4″ barb (2) per pump									

Model	PSI	BAR	GPM	L/min	Amps
	0	0	6.25	23.5	8.7
	10	0.7	5.7	21.6	12.2
4111-035	20	1.4	5.0	19.0	14.5
	30	2.1	4.3	16.2	16.1
	40	2.8	3.5	13.2	17.2
	0	0	6.25	23.5	8.7
	10	0.7	5.7	21.6	12.2
4211-035	20	1.4	5.0	19.0	14.5
	30	2.1	4.3	16.2	16.1
	40	2.8	3.5	13.2	17.2

24 VDC



902-100 CONTROLLER FEATURES:

Boost your DC solar pump's performance by up to 30%. Controller optimizes your solar water pumping system by translating the current and voltage available from your photovoltaic panels, into a combination that is better matched to that needed by the pump. With the optional float switch installed, the controller will automatically stop pumping when the reservoir is full.

- Operates on 24 VDC
- Increases daily water output up to 30%

Max Max Max

- System starts pumping earlier in the morning
- System stops pumping later in the evening
- Protects pump from low or high volume conditions
- Terminals for float switch

The Shurflo 9300 series pump offers a solution to your remote water pumping needs. It's rugged, durable and built to last. This pump delivers a steady 1.0 GPM [3.8 L/min] operating at 100 PSI [6.9 bar] maximum at 230 feet [70.1m]. It incorporates a unique, waterblocked cable connector that is impervious to water leakage and condensation problems preventing waterwicking. Great for applications in livestock watering, irrigation, ponds, islands, remote homes and cabins

- Fits wells 4 inches [10.2 cm] in diameter and larger
- Accepts a variety of jacketed cables from your power source
- Runs dry without damage
- Corrosion-proof housing with stainless steel fasteners
- ◆ Long-life, 24 VDC operation
- Quick disconnect for easy installation and service

902-200 CONTROLLER FEATURES:

Includes all 902-100 features plus:

- Switch selectable for 12 VDC or 24 VDC operation
- Manual Pump On / Off switch for easy pump maintentance
- Watertight enclosure and cable inlets
- Includes high/low water level monitor mode with probes and cable so the pump will not run when the well water is too low

ORDERING INFORMATION

Part Number	GPM	LPM	Draw			Des	scription				
9325-043-101	1.8	6.8	4.1	EPDM valves, Santoprene				e° diaphr	iaphragm		
				M							
Model		Description		Arı İnp	Max. Array Input Voltage		Min. Startup Voltage		Max. Output Cur-		
				12V	24V	12V	24V	age	rent		
902-100 (LCB-GO)	9	300 DC Contro		45 V	N/A	25 V	N/A	28 V	5 Amps		
902-200 (LCB-G)	9	300 DC Contro		45 V	N/A	25 V	12.5 V	28 V	7 Amps		

Model		Vertic	Solar Array	Current		
	Feet	Meters	GPH	LPH	Watts	Amps
	20	6.1	117	443	58	1.5
	60	18.3	109	413	78	2.1
9325-043-101	100	30.5	103	390	99	2.6
9325-043-101	140	42.7	99	375	115	3.1
	180	54.9	93	352	135	3.6
	230	70.1	82	310	155	4.1

SHURFLO® 3000 SERIES PUMPS

12 VDC



ORDERING INFORMATION

Part Number	Max GPM	Max LPM	Max PSI	Max BAR	Max Draw
3000-350	2.5	9.5	10	0.7	7.4
3000-100 (115 Volt)	2.5	9.5	10	0.7	7.4

Model	PSI	BAR	Dischg. Ft of Head	GPM	L/ min	Amps
	0	0.0	0.0	3.8	14.4	6.5
3000-350	5	0.3	11.5	3.4	12.9	7.1
	10	0.7	23.0	2.5	9.5	7.4

The 3000 Series is suitable for a variety of uses from pumping water to changing oil in cars, trucks and farm equipment. Pumps incorporate thermal overload protection.

Not intended for use with flammable liquids or in flammable environments.

- Self-priming to 7.5 feet [2.3m] vertical
- Maximum head of 28 feet [8.5m] (12 PSI [.83 bar])
- Liquid temps from 40° F to 185° F [4.4°C to 85°C]
- Thermal overload protection
- Stainless steel shaft
- ◆ BUNA-N impeller and lip seal
- Built-in reverse switch and 8 foot [2.4m] cable with battery clips
- ◆ Ports: 3/4"(M) GHT

12 and 24 VDC Demand Pumps



The Shurflo SLV is ideal for low volume, intermittent-duty applications requiring a compact pump with low power consumption. Unique design has no metals in the fluid path for maximum chemical resistance. Pump features include automatic demand operation and elastomers that handle a wide variety of chemicals.

Perfect for low volume spraying and transfer. Cost effective yet with high performance and reliability; the SLV offers tremendous value.

- Automatic demand; 25 PSI [1.72 bar] on/40 PSI [2.8 bar]
- Self-priming up to 2.5 vertical feet [.76 m]
- Long-life pressure switch
- Thermally-protected ball bearing motor with splash-proof housing
- Internal fan radiates heat; external heat sink not required
- Integral on/off switch optional

AUTOMATIC DEMAND PUMPS 12 VDC: ORDERING INFORMATION

Part Number	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw	Description
SLV10-AA40	1	3.8	30	2.1	3/8" Barb	2.5	Viton° valves, Santoprene° diaphragm, 40 PSI (2.8 bar) demand switch, Integral on/off switch included
SLV10-AA41	1	3.8	30	2.1	3/8" Barb	2.5	Viton" valves, Santoprene" diaphragm, 40 PSI (2.8 bar) demand switch
SLV10-AA48*	1	3.8	30	2.1	3/8" Barb	2.5	Viton" valves, Santoprene" diaphragm, 40 PSI (2.8 bar) demand switch, Manual switch and 2 pin connector 12VDC

^{*} Packaged in quantities of 6, for single pack, add suffix "AB" (i.e.: SLV10-AA48AB).

AUTOMATIC DEMAND PUMPS 12 VDC

Model	PSI	BAR	GPM	L/min	Amps
	3	0.2	0.90	3.4	1.8
SLV10-AA40	10	0.7	0.73	2.8	2.1
SLVIU-AA4U	20	1.4	0.62	2.3	2.3
	30	2.1	0.49	1.9	2.5
	3	0.2	0.90	3.4	1.8
SI V10-AA41	10	0.7	0.73	2.8	2.1
3LV 10-AA41	20	1.4	0.62	2.3	2.3
	30	2.1	0.49	1.9	2.5
	3	0.2	0.90	3.4	1.8
SI V10-AA48	10	0.7	0.73	2.8	2.1
SLV IU-AA40	20	1.4	0.62	2.3	2.3
	30	2.1	0.49	1.9	2.5

AUTOMATIC DEMAND PUMP 24 VDC: ORDERING INFORMATION

Part Number	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw	Description	
SLV10-AB41	1	3.8	30	2.1	3/8" Barb	1.23	Viton® valves, Santoprene® diaphragm, 40 PSI (2.8 bar) demand switch	

AUTOMATIC DEMAND PUMP 24 VDC

Model	PSI	BAR	GPM	L/min	Amps
	3	0.2	0.90	3.4	0.89
OL V/10 A D / 1	10	0.7	0.73	2.8	1.00
SLV10-AB41	20	1.4	0.62	2.3	1.15
	30	2.1	0.49	1.9	1.23

NO CONTROL TRANSFER PUMP 12 VDC: ORDERING INFORMATION

Part #	Max GPM	Max LPM	Max PSI	Max BAR	Port Size	Max Draw	Description
SLV10-HA01	1	3.8	30	2.1	3/8" Barb	2.5	Viton" valves, Geolast" diaphragm, No demand switch

NO CONTROL TRANSFER PUMP 12 VDC

PSI	BAR	GPM	L/min	Amps
3	0.2	0.90	3.4	1.8
10	0.7	0.73	2.8	2.1
20	1.4	0.62	2.3	2.3
30	2.1	0.49	1.9	2.5
	3 10 20	3 0.2 10 0.7 20 1.4	3 0.2 0.90 10 0.7 0.73 20 1.4 0.62	3 0.2 0.90 3.4 10 0.7 0.73 2.8 20 1.4 0.62 2.3





DRILL PUMP

Attaches to any standard 1/4" [6.35 mm] drill motor. Ideal for pumping water from appliances, aquariums, water beds, sinks, toilets or drums. Includes a 1/4" [6.35 mm] oil probe that easily allows the transfer of oil from cars, trucks, lawn and garden equipment. Not intended for use with flammable liquids or in flammable environments.

- Self-priming to 8 feet [2.4m] vertical
- Pumps liquids 40° F to 120° F [4.4° C to 48.8° C]
- BUNA impeller and seals
- 1/4" [6.35 mm] shaft fits standard drills

ORDERING INFORMATION

Part Number	Max GPH	Max LPH	Port Size	Shaft Size
3010-000	200	757	3/4"(M)GHT	1/4"

SHURFLO ACCESSORIES



OIL CHANGE SYSTEM

Makes a messy job clean and easy. Simply install the oil probe in the engine oil dipstick tube, attach the battery clips, and flip the switch. Oil is safely removed and stored in the easy to carry container. Oil should be heated to 140°F for maximum pump efficiency.

- Complete with necessary tubing and oil storage container
- 8 foot cable with battery clips
- Thermal overload protection

ORDERING INFORMATION

Model	Description
8050-305-426	Oil Change System

HEAT SINK



BOWL-STYLE STRAINERS



ORDERING INFORMATION

Model	Description
34-007	5" [12.7 cm] Heat Sink to assist cooling in Continuous-duty applications
34-006	3"[7.6 cm] Heat Sink to assist cooling in Continuous-duty applications

Model	Description
255-223	50 Mesh screen, 1/2" Barb Inlet x 1/2 NPSM Female Outlet
255-313	50 Mesh screen, 1/2" NPSM Male Inlet x 1/2 NPSM Female Outlet, EPDM 0-ring
255-323	50 Mesh screen, 1/2" Barb Inlet x 1/2 NPSM Female Outlet, EPDM 0-ring
255-646	50 Mesh screen, 3/8" x 3/8" MNPT Poly/Nylon, Viton® 0-ring
255-568	50 Mesh screen, 3/8" x 3/8" MNPT Poly/Nylon, EPDM 0-ring
255-613	50 Mesh screen, 1/2" NPSM Male Inlet x 1/2 NPSM Female Outlet, Viton 0-ring
255-623	50 Mesh screen, 1/2" Barb Inlet x 1/2 NPSM Female Outlet, Viton O-ring
255-413	50 Mesh screen, 1/2" NPSM Male Inlet x 1/2 NPSM Female Outlet, Buna 0-ring

SHURFLO FITTINGS



BARBED X PIPE ELBOW

Part Number	Description
244-6128	3/8"[10mm]NPT-Male x 1/2"[12 mm]Barb - Poly



BARBED X PIPE STRAIGHT

Part Number	Description
244-5126	1/2"[12mm] NPT-Male x 1/2"[12 mm] Barb - Nylon

BARB TEE X PIPE

Part Number	Description
T3812T	3/8"[10mm] MNPT-Male x 1/2" Barb Tee - Nylon



SWIVEL HEX NUT ELBOW (USE WITH 2088 SERIES)

Part Number	Description				
234-3926	1/2"[12mm] NPT-Female x 1/2"[12 mm] Barb Swivel Hexnut Elbow - Polypro				
244-3366	1/2"[12mm]NPT-Female x 1/2"[12 mm]NPT Male Swivel Hex nut Elbow Adaptor - Nylon				



SWIVEL HEX WINGNUT STRAIGHT (USE WITH 2088 SERIES)

Part Number	Description
234-2926	1/2"[12mm]NPT-Female x 1/2"[12 mm]Barb - Polypro



The Shurflo AG Runner Transfer Pump System is designed to safely and accurately transfer bulk chemicals to the point

- Industry leading pump
- Portable
- Can be used with a variety of bulk containers
- Built for rugged service with a heavy-duty welded frame
- Simple and accurate flow indicator

ORDERING INFORMATION

Part Number	Flow Meter Type	Description
SF-1100-PTS	Pump-mounted (FM-1100)	
SF-1100-PTSi	Inline (FM-1100i)	Chemical Transfer Pump with 12 VDC motor, 20 ft. (6 m) cable, alligator clips and in-line fuse (Part # SF-1100 -
SF-1100-PTSi-00	No Flow Meter	EPDM valves or SF-1105 - Viton® valves), electronic flow meter, 1-in. NPT x 12 ft. (3.7 m) EPDM discharge hose with ball valve/spout, and 1-in. NPT x 12 ft. (3.7 m) EPDM inlet
SF-1105-PTS	Pump-mounted (FM-1100)	hose with 1-in. elbow/ball valve/fitting assembly with locking cam arms
SF-1105-PTSi	Inline (FM-1100i)	



See Mini-Bulk Pump for performance information.

SHURFLO MINI-BULK CHEMICAL TRANSFER SYSTEM



Shurflo Mini-Bulk Chemical Transfer Pumps and Systems are designed specifically for chemical company tanks where the pump is integral to the tank. The SF-1100-REC system is mounted to any tank with a 9-inch, threaded opening. This system allows the pump to recirculate the suspended chemical components prior to transferring to the point of use.

ORDERING INFORMATION

Part Number Description SF-1100-REC-DT Chemical Transfer Pump with 12 VDC motor, 20 ft. (6 m) cable, alligator clips & in-line fuse (Part # SF-1100 - EPDM valves or SF-1105 - Viton® valves), in-line electronic flow meter (Part # FM-1100i), 1-in. NPT x 12 ft. (3.7 m) EPDM discharge hose with ball valve/spout, 3-way valve, tubing and fittings to allow tank recirculation, and 28" (71 cm) dip tube. (SF-1100-REC-DT only) SF-1105-REC*

See Mini-Bulk Pump (pg. 108) for performance information.



 $^{^{*}}$ Does not come with 28" dip tube. To order dip tube separately use part number 2407-0002



The SF-1100 Series Bulk Chemical Pumps are the industry leader. They are designed for efficiency and power to handle highly viscous fluids. Servicing the SF-1100 series pump is a rare event, but if needed, it can be serviced quickly and easily with only a few hand tools.

- ◆ Specialized EPDM elastics or Viton® option
- 12 volt DC or 110 volt AC motor option
- 20 foot (6 m) cord with alligator clips and in-line fuse (DC version),

6 foot (1.8) cord (AC version)

- Weather protected on/off switch
- Internal bypass to protect the pump at shut-off
- 2" MNPT inlet, 1" FNPT outlet
- Capable of priming up to 12 feet (3.7 m)
- Max Viscosity: 600-880 Centipoise

ORDERING INFORMATION

Part Number	Valves	Motor
SF-1100	EPDM	12 VDC
SF-1100-110V	EPDM	110 VAC
SF-1105	Viton®	12 VDC

Model	PSI	BAR	GPM	L/min	Amps
	0	0.0	10.7	40	9.3
SF-1100 and	5	0.3	10.1	38	10.3
SF-1105	10	0.7	8.7	33	12.3
	15	1.0	7.6	29	13.9

SHURFLO® MINI-BULK FLOW METERS



The FM-1100 Series Electronic Flow Meter is designed for accurate and easy measuring of transferred chemicals. The FM-1100 Series Flow Meter is an integral component for a complete bulk chemical transfer system.

- Max. flow of 20 gpm (76 lpm)(.5% accruacy after calibration)
- Max pressure of 120 psi (8.3 bar)
- Accurate nutating disk design
- Large LCD display makes meter reading easy from a distance
- Simple calibration steps and control button layout
- Long-life lithium battery
- Easy-to-service electronics and batteries
- Available in pump-mounted and hose-end configurations
- Max Viscosity: 600-880 Centipoise

ORDERING INFORMATION

Part Number	Max GPM	Max LPM	Max PSI	Max BAR	Description
FM-1100	20	76	120	8.3	Pump-mounted meter kit- 1" MNPT inlet & outlet
FM-1100i	20	76	120	8.3	Inline meter kit -1" FNPT inlet & outlet







Part# 94-719-00

MINI-BULK PUMP KITS FOR SF-1100 SERIES

Part Number	Description					
94-718-00	Motor assembly kit used in any SF-1100 series pumps. Kit includes a 12 VDC motor with integrated pump lower housing, built-in on-off switch, 20 foot (6 m) cable, alligator clips and in-line fuse (Support bracket part # 84-1038-08)					
94-719-00	Santoprene® diaphragm/lower housing/drive assembly - ready for installation					
94-720-00	EPDM valve housing kits include a complete fully-assembled valve housing with o-ring seal* - ready for installation					
94-720-05	Viton® valve housing kits include a complete fully-assembled valve housing with o-ring seal* - ready for installation					
94-721-00	Polypropylene upper housing - includes o-ring seal* and pump head screws					

^{*} Manufacturer recommends replacing the 0-ring seal whenever the pump has been dismantled.







Part# 94-733-00



Part# 94-734-00

MINI-BULK FLOW METER KITS FOR FM-1100 SERIES

Part Number	Description
94-732-00	Flow meter electronics kit includes the front cover assembly and the electronic display with o-ring and batteries. Kit fits both pump-mounted and in-line meters (0-ring part $\#$ 5-040-154)
94-733-00	Flow meter housing seal cover kit includes the seal cover, o-ring and screws. Kit fits both pump-mounted and in-line meters. (0-ring part #5-040-154)
94-734-00	Nutating chamber assembly, including o-ring seal. Kit fits both pump-mounted and in-line meters
94-735-00	90° meter housing with o-ring seal for pump-mounted flow meter. (0-ring part # 5-043-240)
94-736-00	Meter housing with o-ring seal for in-line flow meter. (0-ring part # 5-043-240)



Part# 3320-0064



Part# 94-724-00



Part# 94-725-00

OTHER MINI-BULK PARTS & ACCESSORIES

Part Number	Description				
3320-0064	Anti-flow back valve for EPA compliance				
94-723-00	Set of red and black alligator clips, including fuse holder				
94-724-00	Replacement recirculation lid (Gasket part # 7-155-00)				
94-725-00	Replacement recirculation cap				