

Shuttle-Driven PTFE Pumps for High-Temperature Applications

AT Series pumps are discontinued. Please upgrade to PSU Series pumps for better performance, improved reliability, shorter lead times, extended pump life, and increased warranty periods. See pump comparison information below or online at: https://wkfluid.com/at-series/

Proven reliable recirculation of the harshest chemicals at up to 210°C (4100°F)



Overview

AT Series pumps were the world's first metal-free PTFE/PFA pumps capable of recirculating high-purity chemicals at up to 210°C (410°F) in constant or thermal cycling applications. The pumps perform safely and reliably running continuously throughout their one-year warranty. The pumps are available in AT50, AT100 and AT300 models, which are capable of flow rates up to 20, 40, and 110 lpm, respectively.





AT SERIES PUMPS

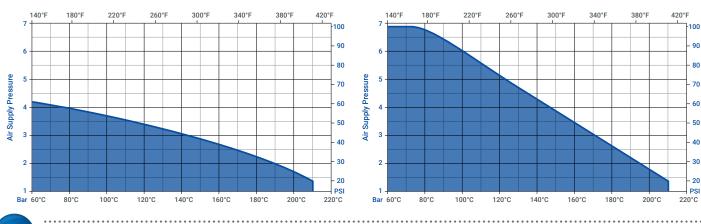
Features & Benefits

- PTFE heads with Synchro-Thread[™]
- Nonmetal PTFE/PFA design for leak-free operation
- · No elastomer O-rings, no leaks, never retorque
- Pneumatic Logic[™] minimizes pulsation and vibration
- · Ceramic in air shuttle valve
- No lubrication in shift mechanisms
- Minimal parts for durable design
- · Various liquid connection options
- Class 100 cleanroom assembly, testing, and packaging
- No preventative maintenance during one-year warranty

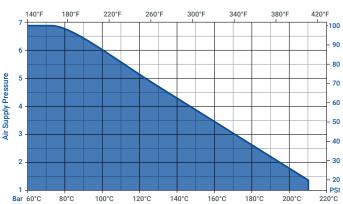


Temperature Limits

AT Series



PSU Series





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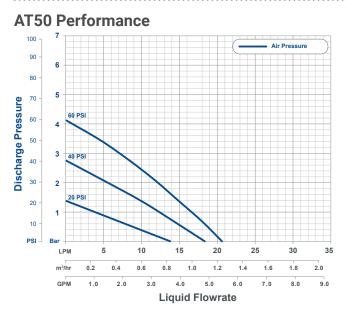


ULTRA HIGH





AT50 - PSU030 COMPARISON



[mm] in

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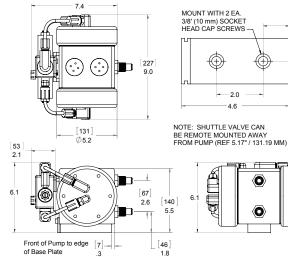
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AT50 Dimensions



Specifications

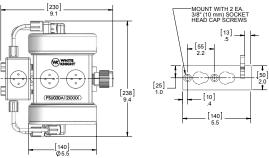
Mod	lel	AT50	PSU030
Max Flow Rate*		20 lpm 5 gpm	26.3 lpm 6.92 gpm
	lacement Cycle*	0.056 liters 0.015 gal	0.074 liters 0.019 gal
Cycles per min		≤ 400	≤ 333
Air Connection		1/4 in FNPT	1/4 in FNPT
Weight		5.8 kg 12.9 lb	6.4 kg 14.1 lb
Sound	Pressure**	70.36 dB(a) 74.91 dB(a)	74.00 dB(a) 79.90 dB(a)
	Power**	59.79 dB(a) 64.91 dB(a)	63.01 dB(a) 69.90 dB(a)

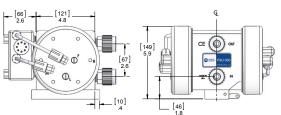
Model	AT50	PSU030
Max Fluid	210°C	210°C
Temperature	410°F	410°F
Max Supply	4 Bar	7 Bar
Air Pressure	60 psi	100 psi
Min Startup	1.4 Bar	1.4 bar
Air Pressure	20 psi	20 psi
Max Suction	1 m	1 m
Lift*	3 ft	3 ft
Fluid Path Materials	PTFE, PFA	PTFE, PFA
Non-Fluid Path	PTFE, PFA,	PTFE, PFA,
Materials	Ceramic	Ceramic
Warranty	1 Year	2 Years

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PSU030 Performance 100 7 100 PSI Air Pressure 90 ---- Air Consumptio 6 80 PS 80 SCFM 5 70 **Discharge Pressure** 60 PS 60 4 CDA lo sc 50 3 40 PSI 40 30 2 20 PS 5 60 20 10 PSI Bar 5 10 15 20 25 30 35 LPM 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 m³/hr GPN 20 3 0 4.0 5.0 6 0 7 0 ຮ່ດ 9 0 1 0 **Liquid Flowrate**

PSU030 Dimensions [mm] in





All AT & PSU Series Models	
Stroke Detection	Fiber optic with or without D10 sensor, or solid state pressure switch (NPN or PNP)
Leak Detection	Fiber optic with or without sensor, or conductivity
Electronic Control	CPC, CPT, or custom. Call for details.

*May vary by configuration. Suction lift diminishes over time. Recommended installation level less than 3 ft above source. **dB at 60 psi 50 CPM (top) and 60 psi max. CPM (bottom). Sound levels measured in accordance with ISO9614-2:1997.

*AT Series pumps are discontinued. Recommended replacements are PSU Series pumps. Comparison: https://wkfluidhandling.com/at-series/ PSU Series: https://wkfluidhandling.com/psu-series/



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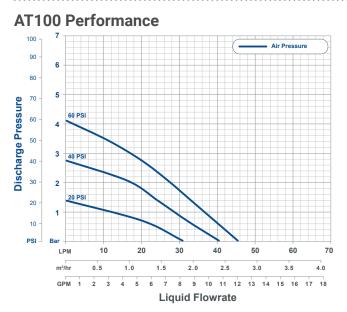
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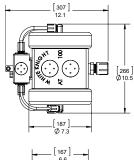


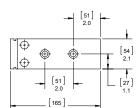
AT100 - PSU060 COMPARISON



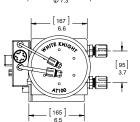
[mm] in

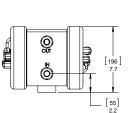
AT100 Dimensions





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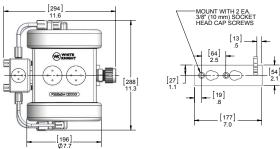
Specifications

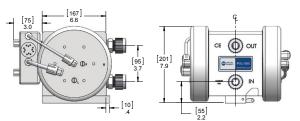
Mod	el	AT100	PSU060
Max Flow Rate*		40 lpm 10 gpm	62.2 lpm 16.43 gpm
	lacement Cycle*	0.151 liters 0.040 gal	0.178 liters 0.047 gal
Cycles per min		≤ 275	≤ 348
Air Connection		1/4 in FNPT	1/4 in FNPT
Weight		13.0 kg 28.6 lb	15.2 kg 33.4 lb
Sound	Pressure**	72.38 dB(a) 79.12 dB(a)	73.11 dB(a) 82.50 dB(a)
	Power**	64.31 dB(a) 71.98 dB(a)	64.29 dB(a) 74.11 dB(a)

Model	AT100	PSU060
Max Fluid	210°C	210°C
Temperature	410°F	410°F
Max Supply	4 Bar	7 Bar
Air Pressure	60 psi	100 psi
Min Startup	1.4 Bar	1.4 bar
Air Pressure	20 psi	20 psi
Max Suction	1 m	1 m
Lift*	3 ft	3 ft
Fluid Path Materials	PTFE, PFA	PTFE, PFA
Non-Fluid Path	PTFE, PFA,	PTFE, PFA,
Materials	Ceramic	Ceramic
Warranty	1 Year	2 Years

PSU060 Performance 100 7 100 PSI Air Pressure 90 ---- Air Consumpti 6 80 PS 80 5 70 **Discharge Pressure** 60 PS 60 4 50 3 40 PSI 40 30 2 20 PS 20 1 10 PSI 10 20 30 40 50 60 70 LPM 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 m³/hr 9 10 11 12 13 14 15 16 17 18 7 GPM 2 3 ά 5 6 8 Liquid Flowrate

PSU060 Dimensions [mm] in





All AT & PSU Series Models	
Stroke Detection	Fiber optic with or without D10 sensor, or solid state pressure switch (NPN or PNP)
Leak Detection	Fiber optic with or without sensor, or conductivity
Electronic Control	CPC, CPT, or custom. Call for details.

*May vary by configuration. Suction lift diminishes over time. Recommended installation level less than 3 ft above source. **dB at 60 psi 50 CPM (top) and 60 psi max. CPM (bottom). Sound levels measured in accordance with ISO9614-2:1997.

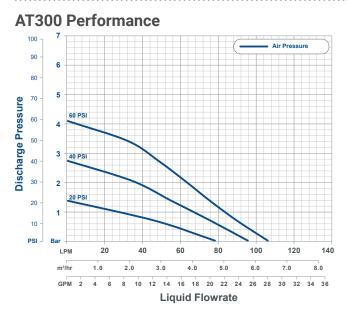
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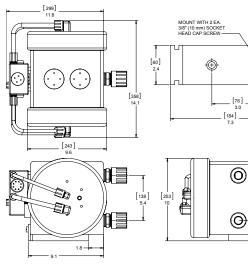


AT300 - PSU140 COMPARISON



[mm] in

AT300 Dimensions



Specifications

Mod	lel	AT300	PSU140
Max Flow Rate*		110 lpm 30 gpm	123 lpm 32.5 gpm
	lacement Cycle*	0.606 liters 0.16 gal	0.500 liters 0.132 gal
Cycles per min		≤ 175	≤ 273
Air Connection		3/8 in FNPT	3/8 in FNPT
Weight		28.3 kg 62.4 lb	22.7 kg 50.0 lb
Sound	Pressure**	74.80 dB(a) 82.31 dB(a)	81.98 dB(a) 91.60 dB(a)
	Power**	69.24 dB(a) 77.17 dB(a)	76.37 dB(a) 83.16 dB(a)

Model	AT300	PSU140
Max Fluid	210°C	210°C
Temperature	410°F	410°F
Max Supply	4 Bar	7 Bar
Air Pressure	60 psi	100 psi
Min Startup	1.4 Bar	1.4 bar
Air Pressure	20 psi	20 psi
Max Suction	1 m	1 m
Lift*	3 ft	3 ft
Fluid Path Materials	PTFE, PFA	PTFE, PFA
Non-Fluid Path	PTFE, PFA,	PTFE, PFA,
Materials	Ceramic	Ceramic
Warranty	1 Year	2 Years

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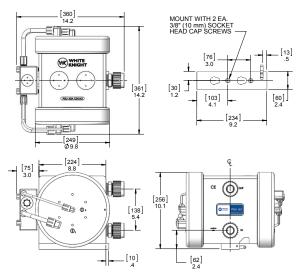
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PSU140 Performance 100 7 100 PSI Air Pressure 90 ---- Air Consumption 6 80 PS 80 5 70 **Discharge Pressure** SCFN 60 PS 60 4 50 3 40 PSI 40 30 2 20 PS 20 10 PSI Ba 20 40 60 80 100 120 140 LPM 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 m³/hr 10 12 14 16 18 20 22 24 26 28 30 32 34 36 GPM à 6 . 8 2 Liquid Flowrate

PSU140 Dimensions [mm] in



All AT & PSU Series Models		
Stroke Detection	Fiber optic with or without D10 sensor, or solid state pressure switch (NPN or PNP)	
Leak Detection	Fiber optic with or without sensor, or conductivity	
Electronic Control	CPC, CPT, or custom. Call for details.	

*May vary by configuration. Suction lift diminishes over time. Recommended installation level less than 3 ft above source. **dB at 60 psi 50 CPM (top) and 60 psi max. CPM (bottom). Sound levels measured in accordance with ISO9614-2:1997.

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