

# Furon<sup>®</sup> A2 Pumps

## Air Operated, High Purity Fluoropolymer Bellows Pump (15 lpm/4 gpm; 30 lpm/8 gpm; 60 lpm/16 gpm)

### Description

Furon A2 Pumps are pneumatically-operated, driven by two reciprocating PTFE bellows. Their oscillation frequency is much lower than an equivalent diaphragm pump, resulting in an extended life and reduced cost of ownership.

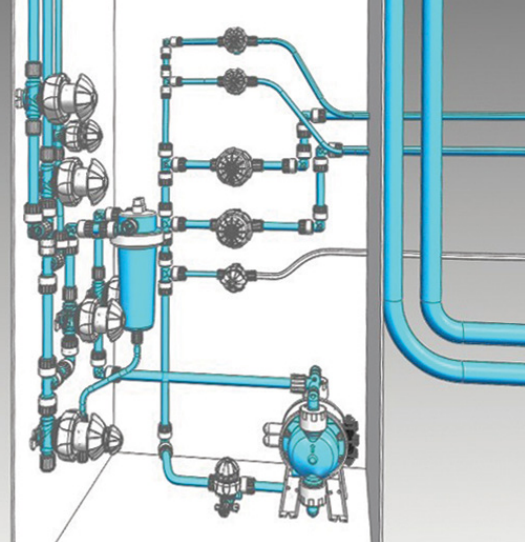
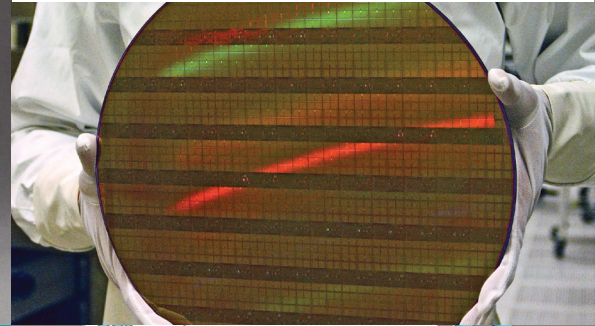
All Furon A2 Pump wetted components are manufactured from high purity PTFE and PFA, making the pumps suitable for handling even the most aggressive concentrated chemicals. All other (non-wetted) components are manufactured from advanced engineering thermoplastics such as ETFE and PEEK to ensure no possibility of ionic contamination, even in the event of a bellows failure. Furon A2 Pumps are also 100% elastomer free, using our highly reliable No O-Ring sealing technology throughout. This substantially reduces the chance of contamination due to a failed O-Ring as well as reduces the maintenance costs.

Our pumps are self-priming, providing an easy installation and setup. In addition, the Furon A2 Pumps feature our innovative shuttle valve fixation technology, allowing us to provide three different driving systems to adapt our pumps to the customer's requirements.

### Applications

- Transfer of ultrapure acids and solvents used in the semiconductor industry
- Transfer of abrasive slurries
- Recirculation, dispensing, and filtration with controlled flow rates and volumes
- Bulk chemical delivery

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### Features and Benefits

- No metal parts
- 100% high purity PFA and PTFE wetted flow path
- 100% elastomer free
- Worldwide service center for preventive maintenance
- Unique recirculating pilot air concept to improve system uptime
- Stall-proof twin shuttle option available
- Low pulsation level with the use of Furon A2 Dampener technology
- Furon A2 Pumps have been tested for more than 130 millions cycles
- ATEX compliant

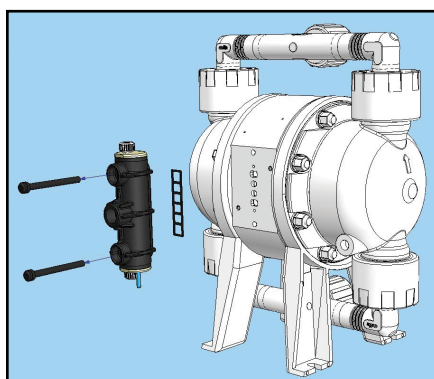
## Specifications

Pump Size	Maximum Flow Rate	Maximum Suction Head	Maximum Air Pressure*	Maximum Air Consumption	Maximum Back Pressure	Temperature Range**	Weight
1	4 gpm - 15 lpm	10 ft - 3 m	80 psi - 5.5 bar	4.5 SCFM - 7 m <sup>3</sup> /h	80 psi - 5.5 bar	30 - 212°F 0 - 100°C	5 lbs - 2.26 kg
2	8 gpm - 30 lpm	12 ft - 3.5 m	80 psi - 5.5 bar	6 SCFM - 9 m <sup>3</sup> /h	80 psi - 5.5 bar	30 - 212°F 0 - 100°C	9 lbs - 4.08 kg
3	16 gpm - 60 lpm	14 ft - 4 m	80 psi - 5.5 bar	9 SCFM - 14 m <sup>3</sup> /h	80 psi - 5.5 bar	30 - 212°F 0 - 100°C	16 lbs - 7.25 kg

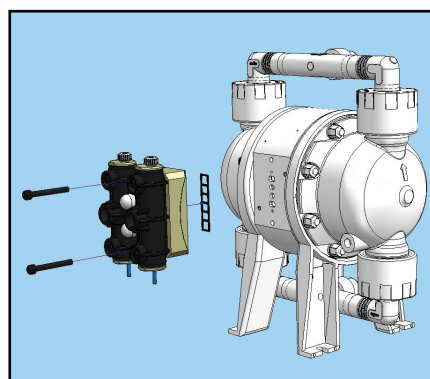
\* Please consult factory for use with higher pressure

\*\* High-temperature version available for media temperatures greater than the one indicated here  
Max. Ambient Temperature: 140°F (60°C)

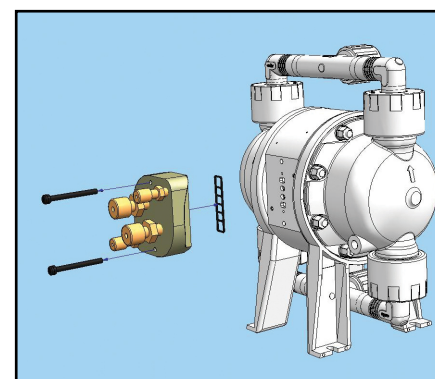
Tested for more than 130 millions cycles



Single shuttle valve driving system



Twin shuttle valve driving system  
(Anti-stalling system)



External driving  
(Allow a direct driving through a PLC system)

## Ordering Information

Base Part Number	Media	Pump Size	End Connection Type	End Connection Size	Driving System		
					Single Standard Driving Shuttle Valve	TWIN Shuttle Valve Driving System	External Driving
A2CH1 F8	Chemical	1	FlareGrip® II	1/2"	<b>Nothing</b> to add to the base Part Number	<b>Add TWIN</b> at the end of the base Part Number	<b>Add EXT</b> at the end of the base Part Number
A2CH1 T8			Tube End				
A2CH2 F12		2	FlareGrip® II	3/4"			
A2CH2 T12			Tube End				
A2CH3 F16		3	FlareGrip® II	1"			
A2CH3 T16			Tube End				
A2SY1 F8	Slurry	1	FlareGrip® II	1/2"			
A2SY1 T8			Tube End				
A2SY2 F12		2	FlareGrip® II	3/4"			
A2SY2 T12			Tube End				
A2SY3 F16		3	FlareGrip® II	1"			
A2SY3 T16			Tube End				

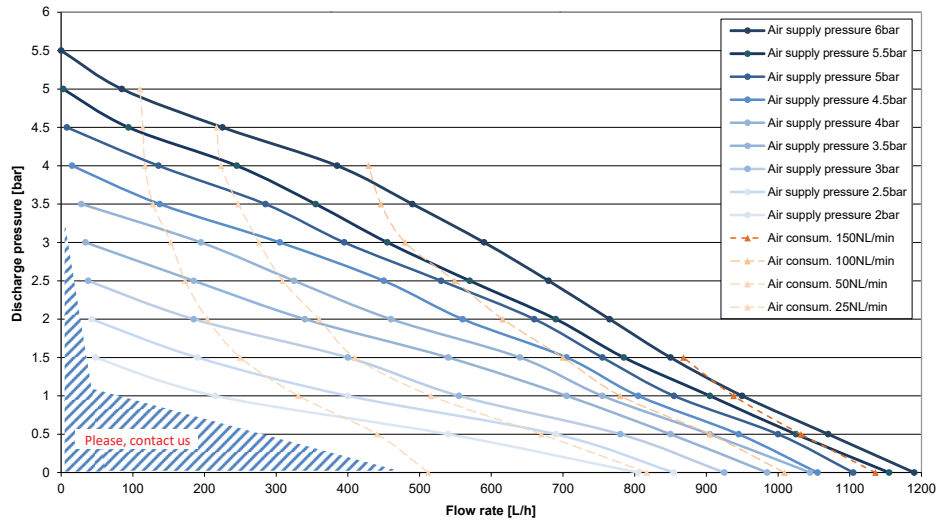
## Options

- Optic fiber for stroke counting (5 m standard)
  - PN = 9475
- Fiber optic converter
  - PN = 8319
- Metal free leak detection system
  - LD1 for size 1 & 2 pump
  - LD2 for size 3 pump
- Other manifold orientations than the standard horizontal/horizontal
- Various combinations of end connections available (Flare, tube, pipe, NPT).  
[Please consult our engineers](#) for details.

## Flow Rate Curves

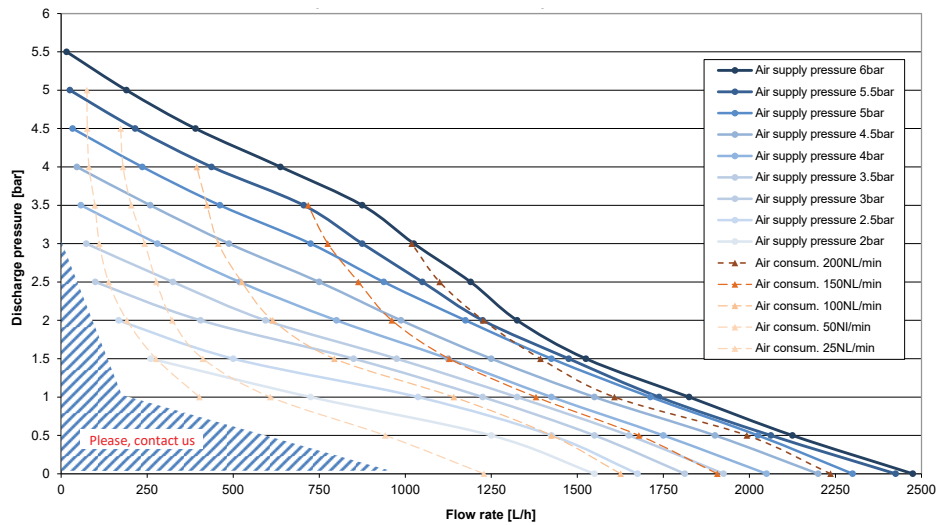
### Pump Size 1

Air supply pressure (bar) and air consumption (NL/min) as a function of fluid flow rate (L/h) and discharge pressure (bar) Pump chemical A2 Size 1, Ø4x6 air pressure tube



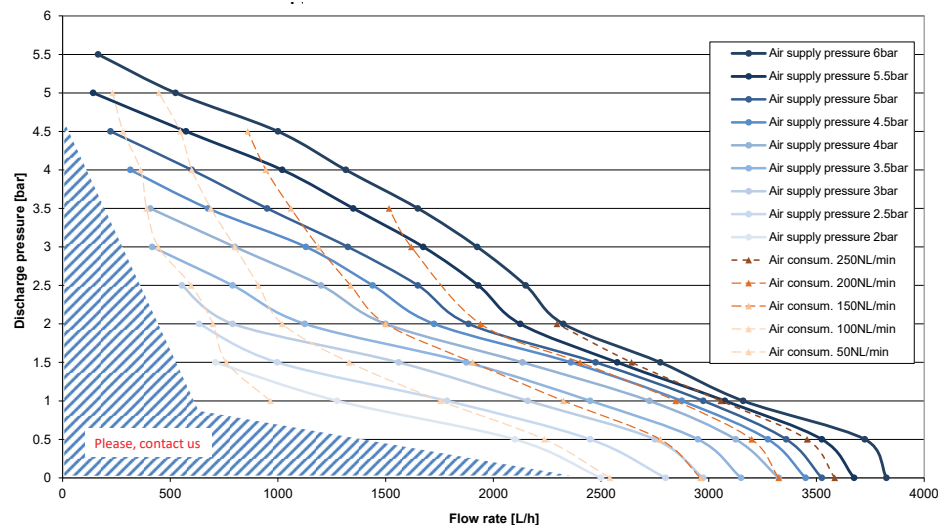
### Pump Size 2

Air supply pressure (bar) and air consumption (NL/min) as a function of fluid flow rate (L/h) and discharge pressure (bar) Pump chemical A2 Size 2, Ø6x8 air pressure tube



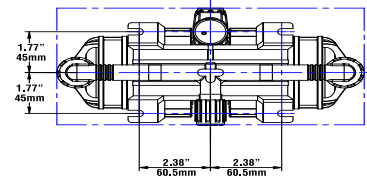
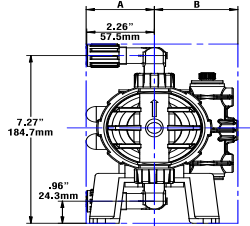
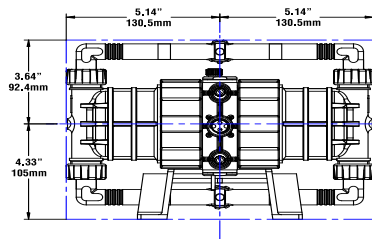
### Pump Size 3

Air supply pressure (bar) and air consumption (NL/min) as a function of fluid flow rate (L/h) and discharge pressure (bar) Pump chemical A2 Size 3, Ø8x10 air pressure tube

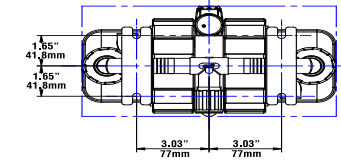
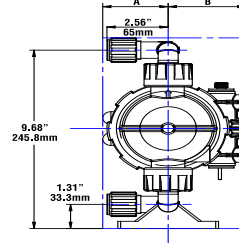
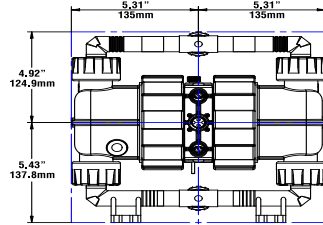


## Dimensions

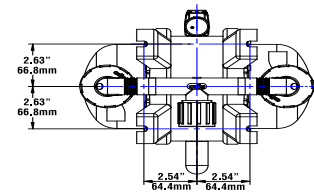
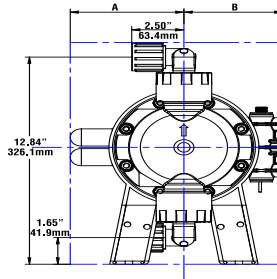
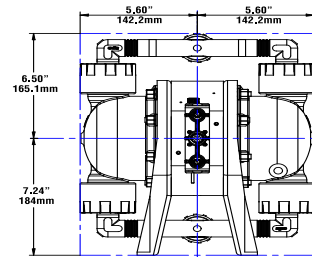
### Pump Size 1



### Pump Size 2



### Pump Size 3



	Pump Size 1		Pump Size 2		Pump Size 3	
	Control Side A	Muffler Side B	Control Side A	Muffler Side B	Control Side A	Muffler Side B
Single Shuttle	71 mm - 2.8"		82.5 mm - 3.25"		120 mm - 4.72"	
Twin Shuttle	129 mm - 5.08"		131 mm - 5.16"		148 mm - 5.84"	
External Shuttle	123 mm - 4.87"		132 mm - 5.21"		148 mm - 5.84"	
Muffler Only		58 mm - 2.28"		69.5 mm - 2.74"		138 mm - 5.43"
Muffler & Leak Detection System		94.5 mm - 3.72"		95.5 mm - 3.72"		165 mm - 6.50"



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