

# UP03 Non-Metallic PIVOT SERIES



**3/8"**  
**Air-Operated**  
**Double Diaphragm Pump**

NON-METALLIC  
**UP03**

**PIVOT**  
**S E R I E S**  
UNIVERSAL DESIGN

 **SAMOA**  
LEADING THROUGH INNOVATION

# UPO3 - PIVOT Series

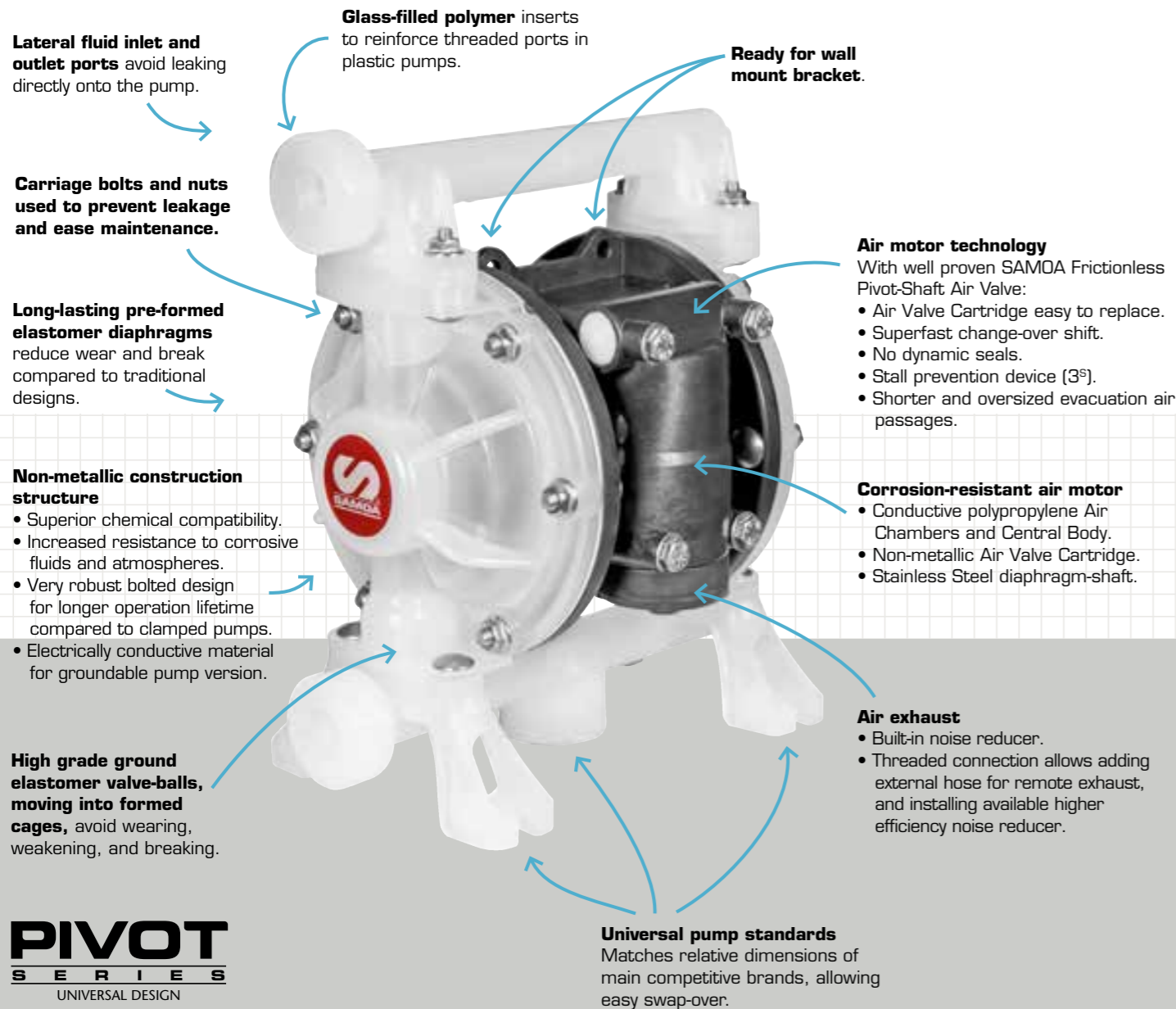
## 3/8" Air-operated double diaphragm pump

31 l/min  
8.2 gal/min

The new SAMOA UPO3 pump combines a Universal design with a unique frictionless Pivot-Shaft Air Valve to provide maximum performance and **energy efficiency**, exceeding market expectations.

### UPO3 Non-metallic pumps make the difference through:

- **HIGHER EFFICIENCY.** Maximum fluid flow with reduced air consumption.
- **INCREASED RELIABILITY.** No stall, no icing, reliable start-up and longer air valve and diaphragms life.
- **MAXIMUM VERSATILITY.** Polypropylene, Conductive Polypropylene, PVDF and Conductive Acetal pumps with a wide range of diaphragms, seats and balls options offer broad fluid and application compatibility. Highly suitable for aggressive chemicals with presence of abrasives.
- **EASY SERVICING.** Simplified maintenance and cleaning. The pump is held together by carriage bolts and nuts allowing to accomplish a much faster strip down and rebuild.
- **ULTRA-COMPACT DESIGN.** Ready to meet any OEM application needs. Perfect for spraying and small dispensing applications.
- **CONNECTIVITY.** Can be configured to connect a Smart Pump-Controller System to actuate, control and monitor your pumps.



**PIVOT**  
SERIES  
UNIVERSAL DESIGN

## Exclusive frictionless PIVOT-SHAFT Air Valve

3<sup>s</sup>  
Smooth-Start-Shifter



### Incredibly fast changeover shift:

- High flow delivery.
- Smooth pump operation.
- Reduced flow pulsation.
- No pump vibration.
- Reduced air consumption.

### Patented Smooth Start Shifter (3<sup>s</sup>):

- Low-pressure start up.
- No stall operation.

### Shorter and oversized evacuation air passages:

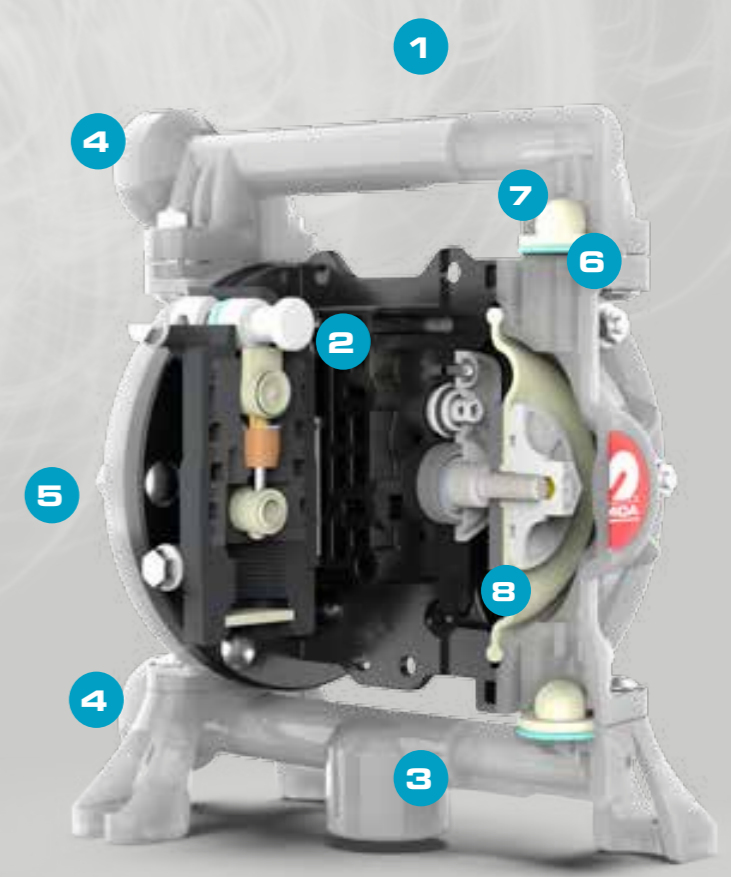
- No icing, even during long pump runs at high pressure.
- No whistle noise.
- Long-life shift and evacuation Pivot-Pads.

### Modular air valve:

- Pivot-Shaft cartridge design
- Precision machined cartridge and Pivot-Shaft.
- Quick teardown for cleaning and repair.

### No dynamic seals:

- No parts subject to wear.
- Reliably work with dry or humid air.
- No lubrication required.



## AVAILABLE MATERIALS

SAMOA offers a wide range of material options for chemical compatibility and to withstand abrasion, temperature and fatigue caused by demanding conditions.

Example: **UPO3X-XXX-XXX**

UPO3X		XXX			XXX		
PUMP TYPE	AIR MOTOR	HOUSINGS		WETTED PARTS			
1 Pump Type & Size	2 Central Body & Air Chambers	3 Fluid Ports / Location Multiport manifolds: central and lateral	4 Fluid Chambers & Manifolds	5 Hardware Bolts & Inserts	6 Valve Seats	7 Valve Balls	8 Diaphragms Type & Material
UPO3 Universal Pump (Bolted)	⚠️ ATEX Certified B* = Conductive Polypropylene (black)	B = 3/8" BSP threaded ports N = 3/8" NPT threaded ports	P = Polypropylene (white) W = PVDF (Kynar®) (white) ⚠️ ATEX Certified B* = Conductive Polypropylene (black) C* = Conductive Acetal (black)	S = Stainless Steel	C = Acetal P = Polypropylene T = PTFE (Teflon®)	C = Acetal T = PTFE (Teflon®)	A = Santoprene® C = Hytrel® G = Nitrile (Buna-N) Two piece Z = PTFE (Teflon with Santoprene® backer)

\* ⚠️ ATEX Certified pumps for use in hazardous locations ATEX Group II 2GDx.

Hytrel® is a registered trademark of the DuPont Company, Viton® & Teflon® of the Chemours Company and Santoprene® of the Monsanto Company, licensed for Advanced Elastomer Systems, L.P. Kynar® is a registered trademark of Arkema, Inc.

Contact us for more information about connected pumps' configuration.

**NO VIBRATION | PROVEN SUPERIOR PERFORMANCE | RELIABLE | DURABLE | LOWER CONSUMPTION | UNIVERSAL**

Product pictures and specifications are subject to change without prior notice.

NON-METALLIC  
**UPO3**

# UPO3 - PIVOT Series

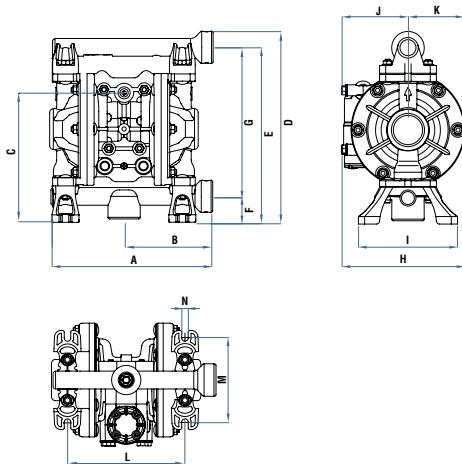
## 3/8" Air-operated double diaphragm pump

### TECHNICAL DATA

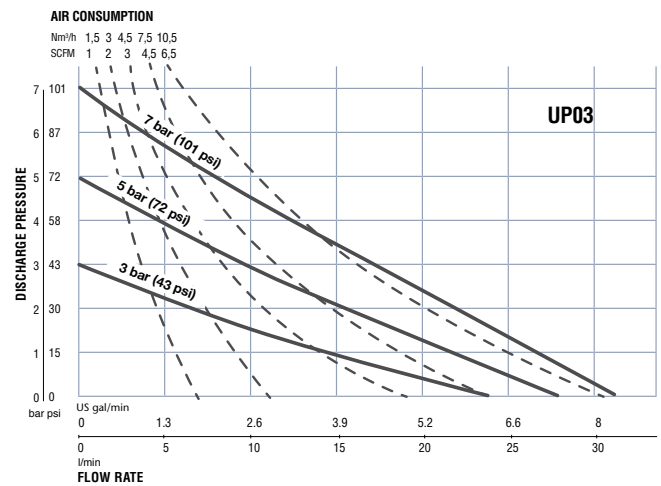
	NON-METALLIC
PRESSURE RATIO	1:1
MAXIMUM FREE DELIVERY	31 l/min (8.2 US gal/min)
AIR PRESSURE OPERATING RANGE	1,5 to 7 bar (20 to 100 psi)
MAX. SIZE SOLIDS IN SUSPENSION	1,6 mm (1/16")
MAXIMUM DRY SUCTION LIFT	3 m (10')
MAXIMUM WET SUCTION LIFT	7 m (23')
DISPLACEMENT PER CYCLE*	0,08 l (0,02 gal)
FLUID INLET AND OUTLET CONNECTIONS (MULTIPORTS)	3/8" NPT (F) Threaded / 3/8" BSP (F) Threaded
AIR INLET CONNECTION	1/4" NPSM (F)
AIR EXHAUST CONNECTION	1/2" NPT (F)
SOUND LEVEL	75 dB (A) @ 50 cycles/min @ 5 bar
WEIGHT: POLYPROPYLENE	1,8 kg (4 lb)
CONDUCTIVE POLYPROPYLENE	2 kg (4.4 lb)
PVDF	2,3 kg (5.1 lb)
CONDUCTIVE ACETAL	2,1 kg (4.6 lb)

\* Delivery per cycle depends on the diaphragms material, air inlet pressure and fluid viscosity.

### DIMENSIONS



### PERFORMANCE CURVES

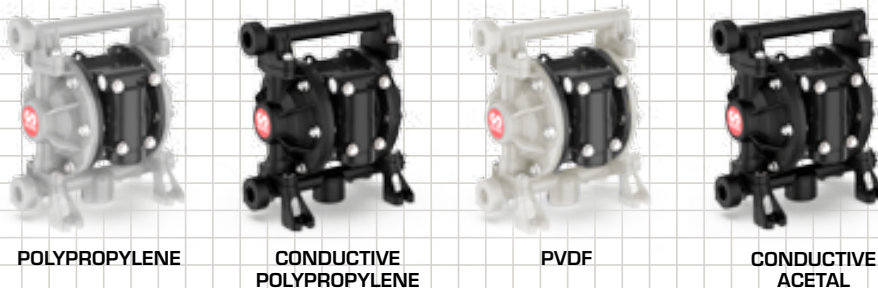


DIMENSIONS (mm)	A	B	C	D	E	F	G	H	I	J	K	L	M	N
UPO3 PUMP	202	110	161	237	217	32	185	151	122	81	70	145	104	8

DIMENSIONS (inches)	A	B	C	D	E	F	G	H	I	J	K	L	M	N
UPO3 PUMP	7 61/64	4 21/64	6 11/32	9 21/64	7 7/8	2 1/64	8 7/64	5 15/16	4 51/64	3 3/16	2 3/4	5 45/64	4 3/32	0 5/16

### THREADED PUMPS



POLYPROPYLENE

CONDUCTIVE POLYPROPYLENE

PVDF

CONDUCTIVE ACETAL



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NON-METALLIC  
**UPO3**