

UP03 - PIVOT Series

3/8" Air-operated double diaphragm pump

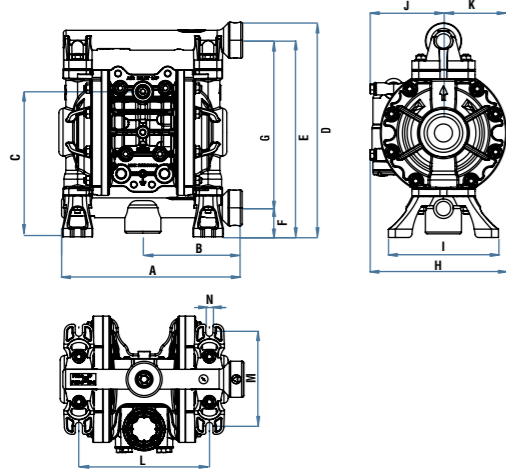


TECHNICAL DATA

	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)

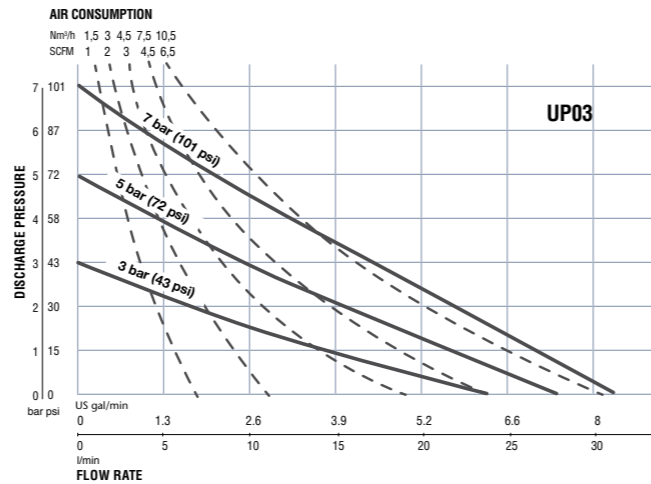
* Delivery per cycle depends on the diaphragms material, air inlet pressure and fluid viscosity.

DIMENSIONS



DIMENSIONS (mm)	A	B	C	D	E	F	G	H	I	J	K	L	M	N
UP03 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
UP03 PUMP	7.95	4.33	6.34	9.33	8.54	1.26	7.28	5.95	4.80	3.19	2.76	5.71	4.09	0.32

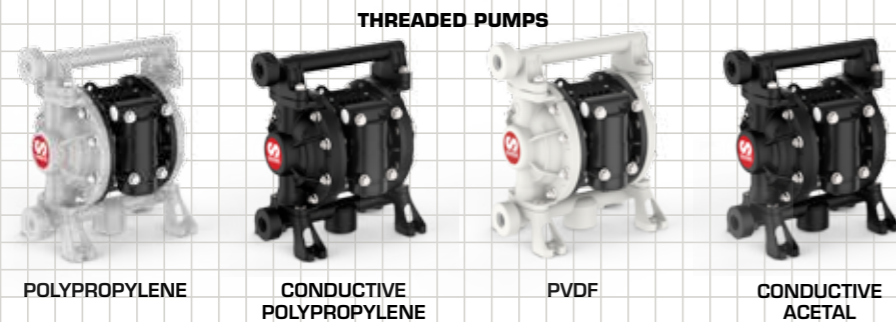
PERFORMANCE CURVES



3/8"
Air-Operated
Double Diaphragm Pump

NON-METALLIC
UP03

NON-METALLIC
UP03



POLYPROPYLENE CONDUCTIVE POLYPROPYLENE PVDF CONDUCTIVE ACETAL



CONTACT US TODAY!
Visit: www.samoaindustrial.com for more information.

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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 tear 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.

Lateral fluid inlet and outlet ports avoid leaking directly onto the pump.

Glass-filled polymer inserts to reinforce threaded ports in plastic pumps.

Ready for wall mount bracket.

Carriage bolts and nuts used to prevent leakage and ease maintenance.

Long-lasting pre-formed elastomer diaphragms reduce wear and break compared to traditional designs.

Non-metallic construction structure

- Superior chemical compatibility.
- Increased resistance to corrosive fluids and atmospheres.
- Very robust bolted design for longer operation lifetime compared to clamped pumps.
- Electrically conductive material for groundable pump version.

Air motor technology
With well proven SAMOA Frictionless Pivot-Shaft Air Valve:

- Air Valve Cartridge easy to replace.
- Superfast change-over shift.
- No dynamic seals.
- Stall prevention device (3^s).
- Shorter and oversized evacuation air passages.

Corrosion-resistant air motor

- Conductive polypropylene Air Chambers and Central Body.
- Non-metallic Air Valve Cartridge.
- Stainless Steel diaphragm-shaft.

Air exhaust

- Built-in noise reducer.
- Threaded connection allows adding external hose for remote exhaust, and installing available higher efficiency noise reducer.

High-grade and grinded elastomer valve-balls, moving into formed cages, avoid wearing, weakening, and breaking.

Universal pump standards
Matches relative dimensions of main competitive brands, allowing easy swap-over.

PIVOT SERIES
UNIVERSAL DESIGN

Exclusive frictionless PIVOT-SHAFT Air Valve



Incredibly fast changeover shift:

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

Patented Smooth Start Shifter (3^s):

- 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.

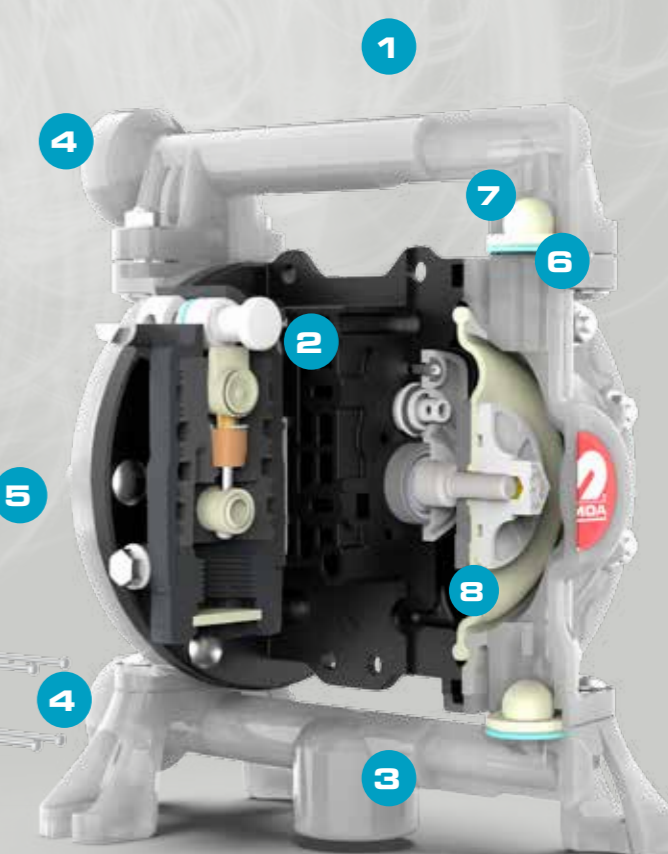
Long-life Pivot-Pads (shift and evacuation)

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.



3^s
Smooth-Start Shifter

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) D* = 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.
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NON-METALLIC
UPO3