

UP05 - PIVOT Series

1/2" Air-operated double diaphragm pump



UP05 Non-Metallic

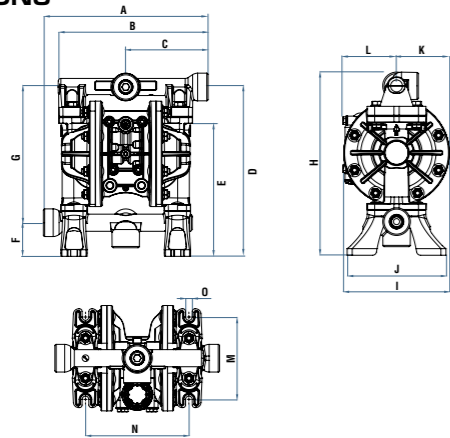
PIVOT SERIES

TECHNICAL DATA

	NON-METALLIC
PRESSURE RATIO	1:1
MAXIMUM FREE DELIVERY	54 l/min (14.3 US gal/min)
AIR PRESSURE OPERATING RANGE*	1,5 to 7 bar (20 to 100 psi)
MAX. SIZE SOLIDS IN SUSPENSION	2,5 mm (3/32")
MAXIMUM DRY SUCTION LIFT	5 m (16')
MAXIMUM WET SUCTION LIFT	8 m (26')
DISPLACEMENT PER CYCLE**	0,15 l (0,04 gal)
FLUID INLET AND OUTLET CONNECTIONS (MULTIPOINTS)	1/2" NPT (F) Threaded / 1/2" 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	2,7 kg (6 lb)
CONDUCTIVE POLYPROPYLENE	3 kg (6.6 lb)
PVDF	3,7 kg (8.2 lb)
CONDUCTIVE ACETAL	3,3 kg (7.3 lb)

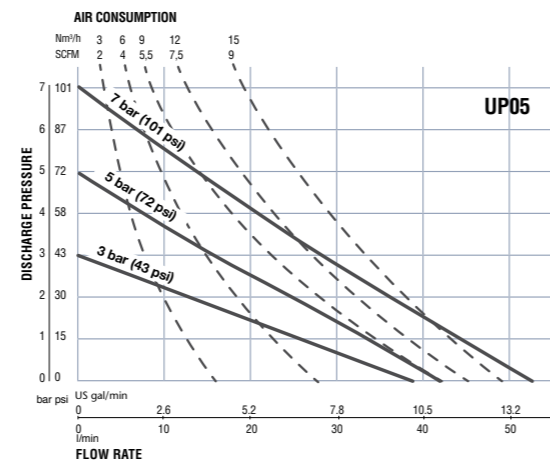
* Minimum working air pressure may vary depending on the diaphragm material.
 ** Delivery per cycle depends on the diaphragms material, air inlet pressure and fluid viscosity.

DIMENSIONS



DIMENSIONS (mm)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
UP05 PUMP	250	228	125	257	200	51	206	278	161	150	80	81	125	157	10
DIMENSIONS (inches)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
UP05 PUMP	9.84	8.98	4.92	10.12	7.87	2.01	8.11	10.95	6.34	5.91	3.15	3.19	4.92	6.18	0.39

PERFORMANCE CURVES



1/2"
Air-Operated
Double Diaphragm Pump

NON-METALLIC
UP05

THREADED PUMPS



POLYPROPYLENE CONDUCTIVE POLYPROPYLENE PVDF CONDUCTIVE ACETAL



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

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UP05 - PIVOT Series

1/2" Air-operated double diaphragm pump

54 l/min
14.3 gal/min

The new SAMOA UP05 pump combines a Universal design with a unique frictionless Pivot-Shaft Air Valve to provide maximum performance and **energy efficiency**, exceeding market expectations.

UP05 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. Multi-port manifolds: central and lateral openings.
- **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.

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.

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

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

Compact pump to fit any application

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 (3rd).
 - 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.

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

PIVOT
SERIES
UNIVERSAL DESIGN

Exclusive frictionless PIVOT-SHAFT Air Valve

Patented®



Incredibly fast changeover shift:

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

Patented Smooth Start Shifter (3rd):

- 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:

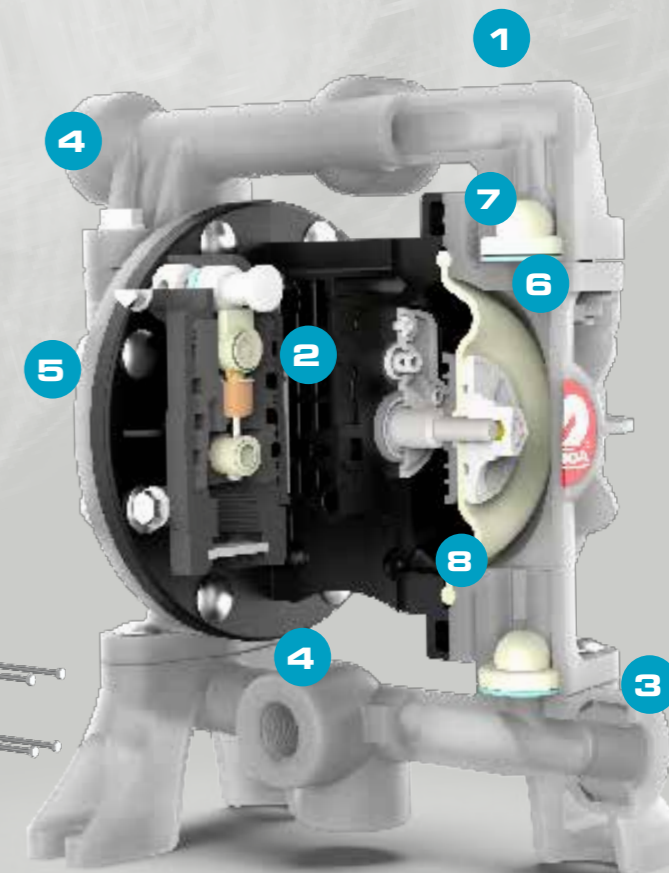
- Pivot-Shaft cartridge design
- Precision machined cartridge and Pivot-Shaft.
- Quick teardown for cleaning and repair.

No dynamic seals:

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



3rd
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: **UP05X-XXX-XXX**

UP05X		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
UP05 Universal Pump (Bolted)	ATEX Certified B* = Conductive Polypropylene (black)	B = 1/2" BSP threaded ports N = 1/2" 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®)	H = Hytrel® M = Santoprene® N = Nitrile (Buna-N) T = PTFE (Teflon®) V = FKM (Viton®)	A = Santoprene® C = Hytrel® G = Nitrile (Buna-N) V = FKM (Viton®) Two piece Z = PTFE (Teflon with Santoprene® backer)

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

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Contact us for more information about connected pumps' configuration.