

UP10 Non-Metallic PIVOT SERIES



1"
**Air-Operated
Double Diaphragm Pump**

NON-METALLIC
UP10

PIVOT
S E R I E S
UNIVERSAL DESIGN

 **SAMOA**
LEADING THROUGH INNOVATION

UP10 - PIVOT Series

1" Air-operated double diaphragm pump

200 l/min
53 gal/min

The new SAMOA UP10 pump combines a Universal design with a unique frictionless Pivot-Shaft Air Valve to provide maximum performance and **energy efficiency**, exceeding market expectations.

UP10 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.** Threaded or flanged Polypropylene, Conductive Polypropylene and PVDF 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.
- **COMPACT DESIGN.**
- **CONNECTIVITY.** Can be configured to connect a Smart Pump-Controller System to actuate, control and monitor your pumps.

Stainless Steel hardware (carriage bolts, nuts and inserts) reinforce the plastic structure of the pump, reducing the risk of leakage and the unreliability of plastic parts over time.

Undersized pump to fit in any application or reduced space.

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

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 and air pistons.

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.

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

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

Air exhaust

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

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

PIVOT
SERIES
UNIVERSAL DESIGN

Exclusive frictionless PIVOT-SHAFT Air Valve

3^s
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^s):

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

Shorter and oversized evacuation air passages:

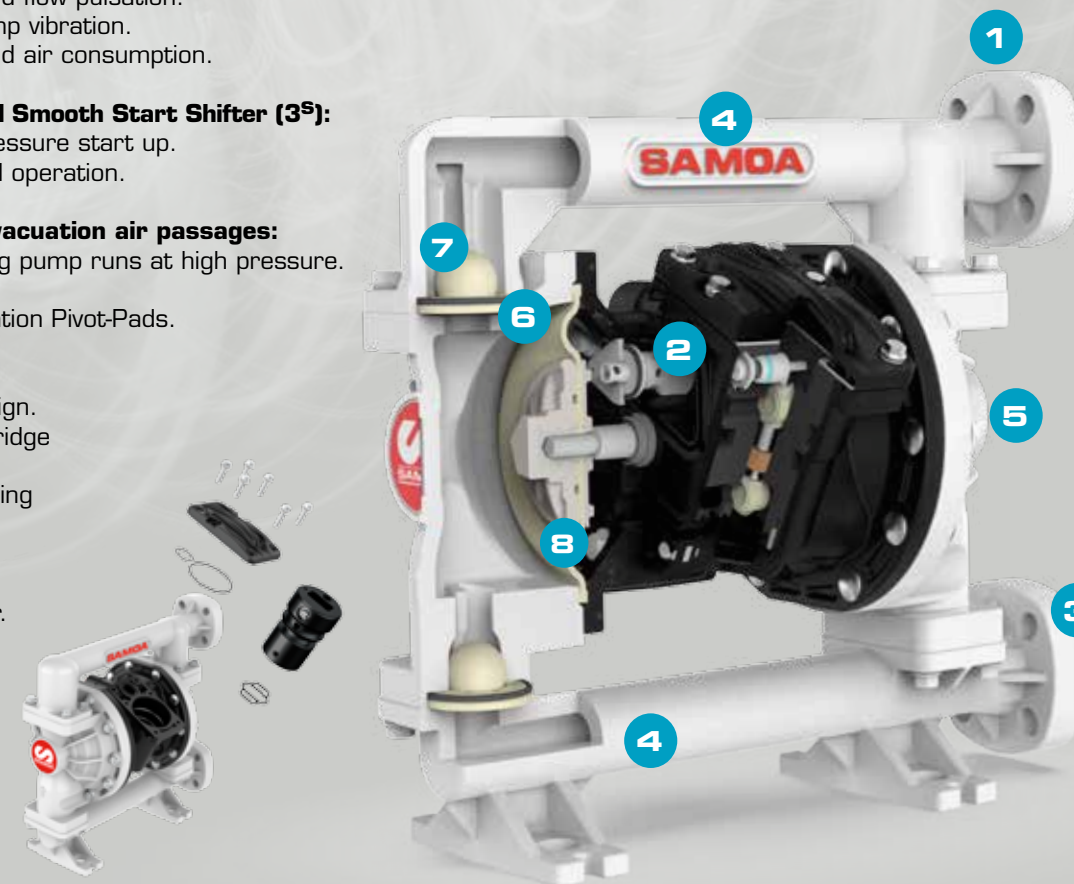
- No icing, even during long pump runs at high pressure.
- No whistle noise.
- Long-life shift and evacuation Pivot-Pads.

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: **UP10X-XXX-XXX**

UP10X		XXX			XXX		
PUMP TYPE	AIR MOTOR	HOUSINGS		WETTED PARTS			
1 Pump Type & Size	2 Central Body & Air Chambers	3 Fluid Ports / Location central or lateral	4 Fluid Chambers & Manifolds	5 Hardware Bolts & Inserts	6 Valve Seats	7 Valve Balls	8 Diaphragms Type & Material
UP10 Universal Pump (Bolted)	ATEX Certified B* = Conductive Polypropylene (black)	Central ports C = 1" ANSI/DIN flanged ports B = 1" BSP threaded ports N = 1" NPT threaded ports Lateral ports F = 1" ANSI/DIN flanged ports P = 1" BSP threaded ports T = 1" NPT threaded ports	P = Polypropylene (white) W = PVDF (Kynar®) (white) ATEX Certified B* = Conductive Polypropylene (black)	S = Stainless Steel	P = Polypropylene T = PTFE (Teflon®) V = FKM (Viton®)	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.

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.

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

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

Contact us for more information about connected pumps' configuration.

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1" Air-operated double diaphragm pump

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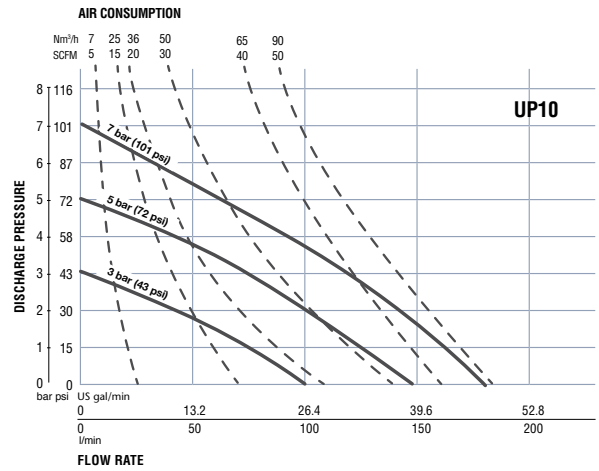
TECHNICAL DATA

NON-METALLIC UP10 - PIVOT SERIES

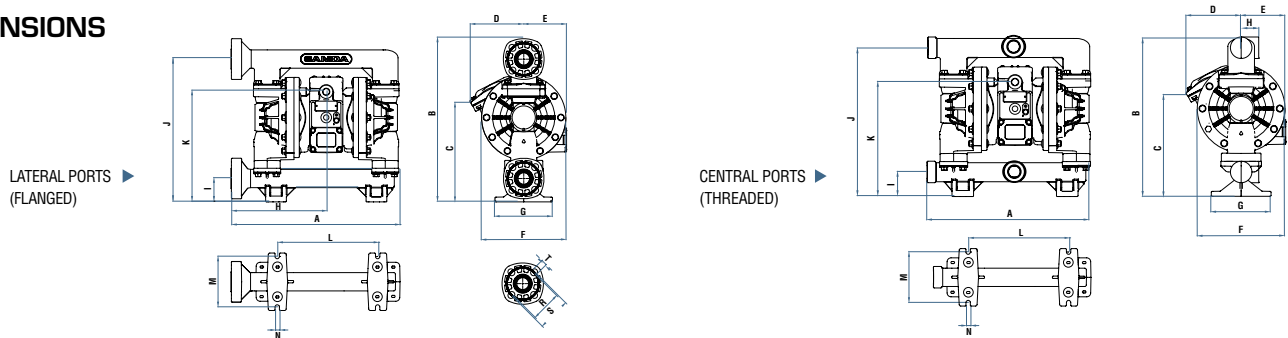
PRESSURE RATIO	1:1	
MAXIMUM FREE DELIVERY	200 l/min (53 US gal/min)	
AIR PRESSURE OPERATING RANGE	1,5 to 7 bar (20 to 100 psi)	
MAX. SIZE SOLIDS IN SUSPENSION	6,4 mm (1/4")	
MAXIMUM DRY SUCTION LIFT	5 m (16')	
MAXIMUM WET SUCTION LIFT	8 m (26')	
DISPLACEMENT PER CYCLE*	0,85 l (0,2 gal)	
FLUID INLET AND OUTLET CONNECTIONS (CENTRAL OR LATERAL)	1" BSP or NPT (F) Threaded FLANGE DIN DN25 or ANSI 1"	
AIR INLET CONNECTION	1/2" NPSM (F)	
AIR EXHAUST CONNECTION	1" NPT (F)	
SOUND LEVEL	75 dB (A) @ 50 cycles/min @ 5 bar	
WEIGHT: POLYPROPYLENE CONDUCTIVE POLYPROPYLENE PVDF	Threaded	Flanged
	10,2 kg (22.5 lb)	10,5 kg (23.1 lb)
	11,6 kg (25.6 lb)	12 kg (26.4 lb)
	13,5 kg (29.8 lb)	14,1 kg (31.1 lb)

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

PERFORMANCE CURVES



DIMENSIONS



DIMENSIONS (mm)

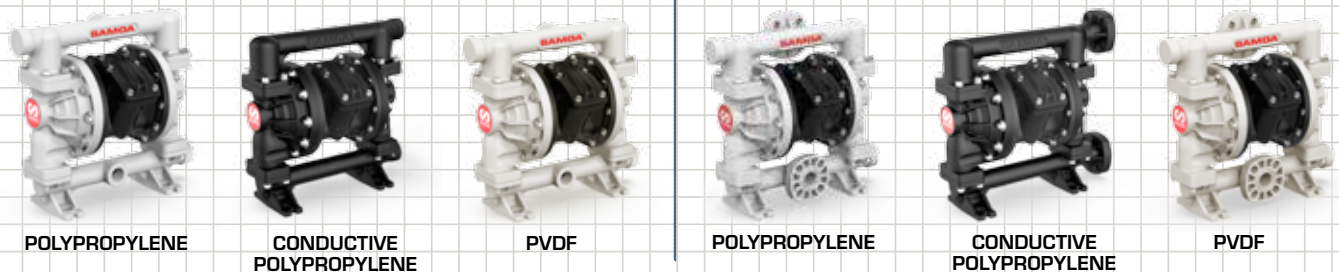
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	R	S	T
LATERAL-FLANGED PUMP	425	415	250	135	108	214	146	241	59	363	280	255	128	11	77,5	83,5	15
CENTRAL-FLANGED PUMP	399							56									
LATERAL-THREADED PUMP	399	386	250	135	108	214	146	211	59	363	280	255	128	11			
CENTRAL-THREADED PUMP								40									

DIMENSIONS (inches)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	R	S	T
LATERAL-FLANGED PUMP	16 47/64	16 11/32	9 27/32	5 5/16	4 1/4	8 27/64	5 3/4	9 31/64	2 21/64	14 19/64	11 1/32	10 3/64	5 3/64	7/16	3 3/64	3 9/32	1 9/32
CENTRAL-FLANGED PUMP	15 45/64							2 13/64									
LATERAL-THREADED PUMP	15 45/64	15 13/64	9 27/32	5 5/16	4 1/4	8 27/64	5 3/4	8 5/16	2 21/64	14 19/64	11 1/32	10 3/64	5 3/64	7/16			
CENTRAL-THREADED PUMP								1 37/64									

THREADED PUMPS

FLANGED PUMPS



POLYPROPYLENE

CONDUCTIVE
POLYPROPYLENE

PVDF

POLYPROPYLENE

CONDUCTIVE
POLYPROPYLENE

PVDF



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