

UP05 - PIVOT Series

1/2" Air-operated double diaphragm pump

PIVOT
S E R I E S
UNIVERSAL DESIGN

TECHNICAL DATA

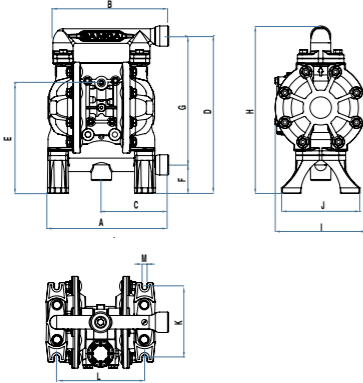
METALLIC UP05 - PIVOT SERIES

PRESSURE RATIO	1:1
MAXIMUM FREE DELIVERY	54 l/min (14.3 US gal/min)
AIR PRESSURE OPERATING RANGE*	1,5 to 8 bar (20 to 120 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: ALUMINIUM	Threaded 3,9 kg (8,6 lb)
STAINLESS STEEL	6,5 kg (14,3 lb)

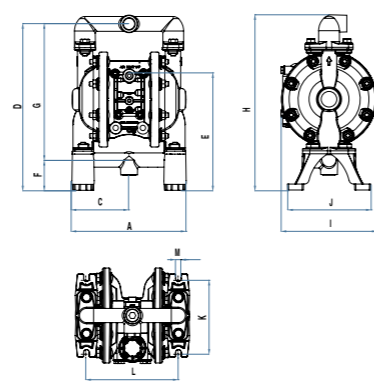
* Minimum working air pressure may vary depending on the diaphragm material.
** Delivery per cycle depends on the diaphragms material, air inlet pressure and fluid viscosity.

DIMENSIONS

ALUMINIUM

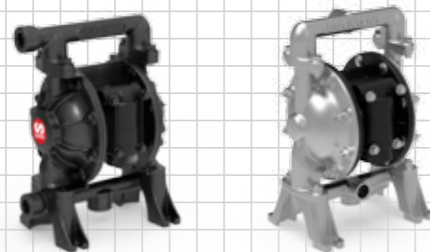


STAINLESS STEEL



DIMENSIONS (mm)	A	B	C	D	E	F	G	H	I	J	K	L	M
ALUMINIUM	216	207	120	281	197	51	230	299	162	140	124	155	9
STAINLESS STEEL PUMP	193	-	96	281	198	51	230	295	161	140	124	155	9
DIMENSIONS (inches)	A	B	C	D	E	F	G	H	I	J	K	L	M
ALUMINIUM	8.50	8.15	4.72	11.06	7.76	2.01	9.06	11.77	6.38	5.52	4.88	6.10	0.35
STAINLESS STEEL PUMP	7.60	-	3.78	11.06	7.80	2.01	9.06	11.61	6.34	5.52	4.88	6.10	0.35

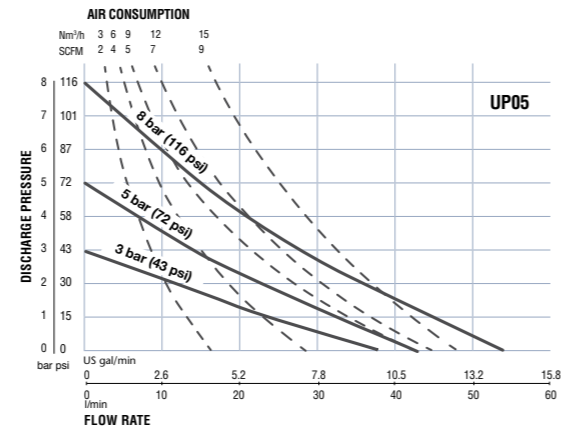
THREADED PUMPS



ALUMINIUM

STAINLESS STEEL

PERFORMANCE CURVES



1/2"
Air-Operated
Double Diaphragm Pump

METALLIC
UP05



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 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.** Aluminium and Stainless Steel pumps with a wide range of diaphragms, seats and balls options offer broad fluid and application compatibility. Highly suitable for outdoors and general applications 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.
- **COMPACT DESING.** Ready to meet any OEM application needs.
- **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.

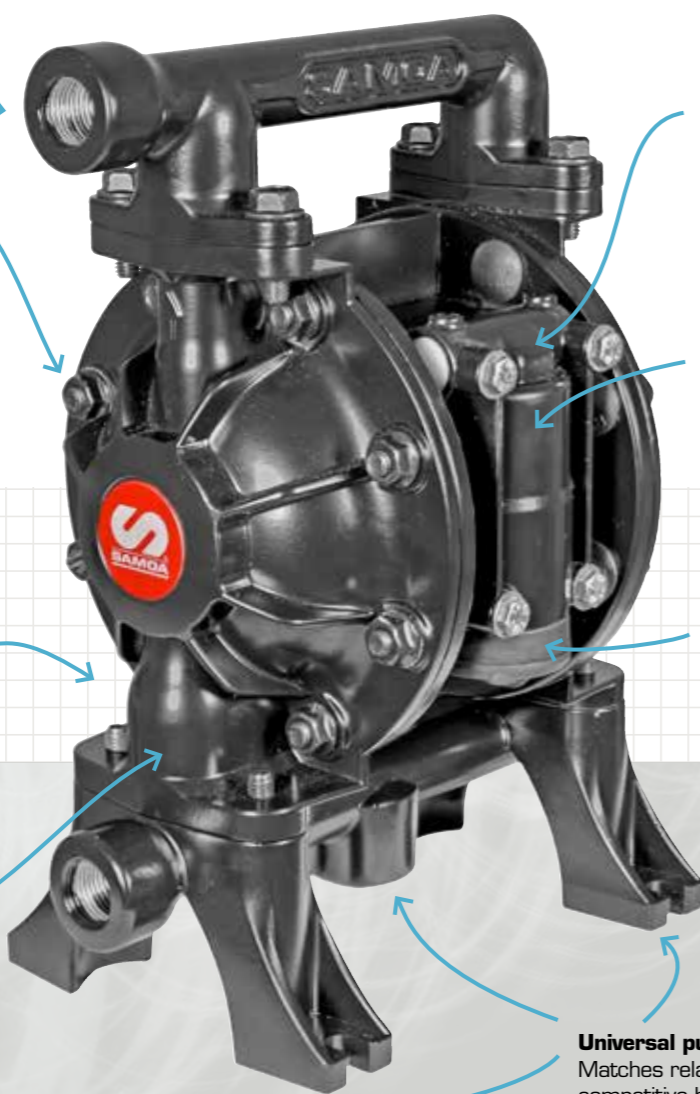
Long-lasting pre-formed elastomer diaphragms reduce wear and break compared to traditional designs.

Metallic construction structure

- Superior abrasion resistance.
- Stainless Steel versions for increased resistance to corrosive fluids, harsh atmospheres, high tensile, and aggressive temperatures.
- Very robust design for longer operation lifetime compared to clamped pumps.

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

PIVOT SERIES
UNIVERSAL DESIGN



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.

Robust air motor

- One piece central body and air chambers.
- Cartridge holder protects valve as a shield.
- Fully groundable ATEX versions.
- Durable diaphragms 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.

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 (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:

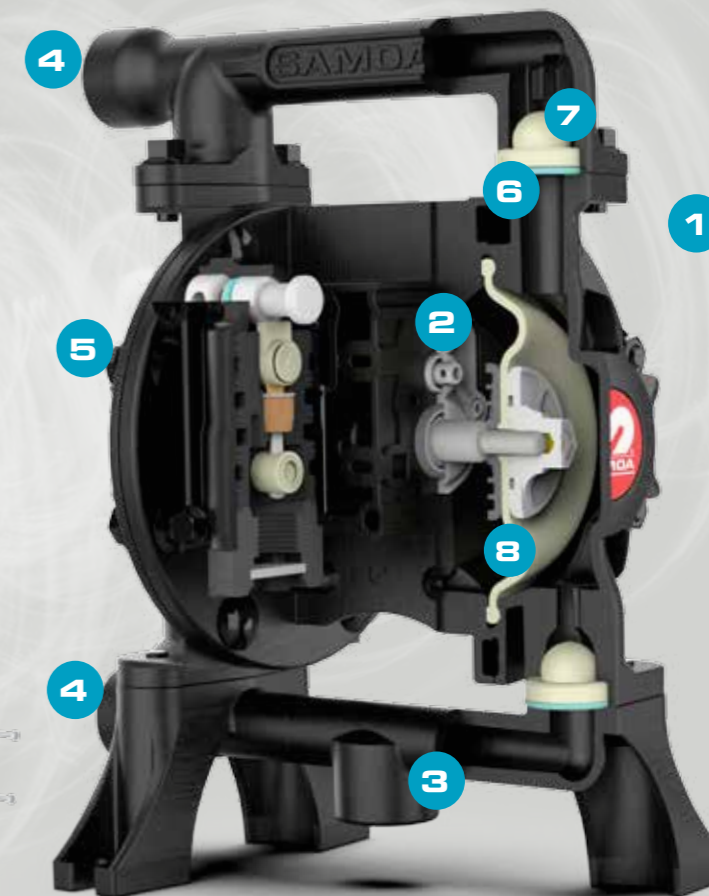
- Pivot-Shaft cartridge design
- Precision machined cartridge and Pivot-Shaft.
- Quick teardown for cleaning and repair.

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: 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 A* = Aluminium B* = Conductive Polypropylene <i>(only for pumps with Stainless Steel Fluid Chambers & Manifolds)</i>	B = 1/2" BSP threaded ports N = 1/2" NPT threaded ports	ATEX Certified A* = Aluminium S* = AISI 316 Stainless Steel	C = Carbon Steel S = Stainless Steel	A = Aluminium S = AISI 316 Stainless Steel	H = Hytrel® M = Santoprene® N = Nitrile (Buna-N) T = PTFE (Teflon®) S = AISI 316 Stainless Steel 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.