

# UP20 - PIVOT Series

## 2" Air-operated double diaphragm pump



# UP20 Non-Metallic

## PIVOT SERIES

### TECHNICAL DATA

PRESSURE RATIO
MAXIMUM FREE DELIVERY
AIR PRESSURE OPERATING RANGE
MAXIMUM SIZE SOLIDS IN SUSPENSION
MAXIMUM DRY SUCTION LIFT
MAXIMUM WET SUCTION LIFT
DISPLACEMENT PER CYCLE*
FLUID INLET AND OUTLET CONNECTIONS
AIR INLET CONNECTION
AIR EXHAUST CONNECTION
SOUND LEVEL
WEIGHT

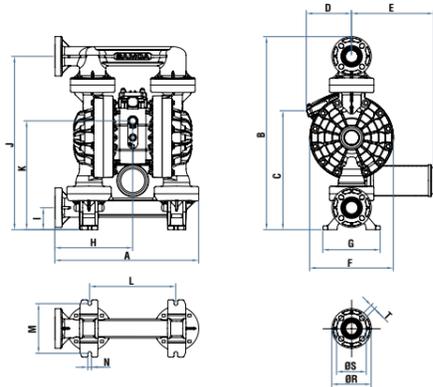
### NON-METALLIC UP20 - PIVOT SERIES

1:1
650 l/min (172 US gal/min)
1,5 to 7 bar (20 to 100 psi)
6,4 mm (1/4")
5 m (16')
8 m (26')
4,5 l (1.2 gal)
2" ANSI/DIN (Flange)
3/4" NPT (F)
1 1/2" NPT (F)
85 dB (A) @ 50 cycles/min @ 5 bar
42 kg (92 lb) - Polypropylene
46 kg (102 lb) - Conductive Polypropylene
54 kg (119 lb) - PVDF

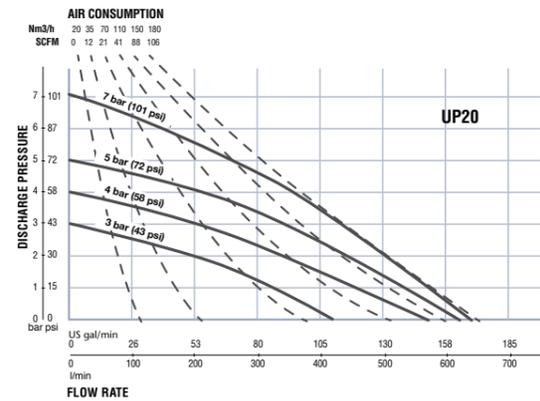
\*Delivery per cycle depends on the diaphragms material, air inlet pressure and fluid viscosity.

### DIMENSIONS

Non-metallic flanged pumps



### PERFORMANCE CURVES



DIMENSIONS (mm)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	R	S	T
UP20 FLANGED PUMP	602	808	497	189	344	350	240	326	92	725	455	360	208	15	165	120,5-125	19
DIMENSIONS (inches)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	R	S	T
UP20 FLANGED PUMP	23.70	31.81	19.57	7.44	13.54	13.78	9.45	12.84	3.62	28.54	17.91	14.17	8.19	0.59	6.50	4.74-4.92	3/4

### FLANGED PUMPS



POLYPROPYLENE



CONDUCTIVE POLYPROPYLENE



PVDF



**2"**  
**Air-Operated**  
**Double Diaphragm Pump**

NON-METALLIC  
**UP20**



CONTACT US TODAY!  
Visit: [www.samoaindustrial.com](http://www.samoaindustrial.com) for more information.



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# UP20 - PIVOT Series

## 2" Air-operated double diaphragm pump

650 l/min  
172 gal/min

The new SAMOA UP20 pump combines a Universal design with a unique frictionless Pivot-Shaft Air Valve to provide maximum performance and **energy efficiency**, exceeding market expectations.

### UP20 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 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. Components designed for long life and reliability.
- **CONNECTIVITY.** Can be configured to connect a Smart Pump-Controller System to actuate, control and monitor your pumps.

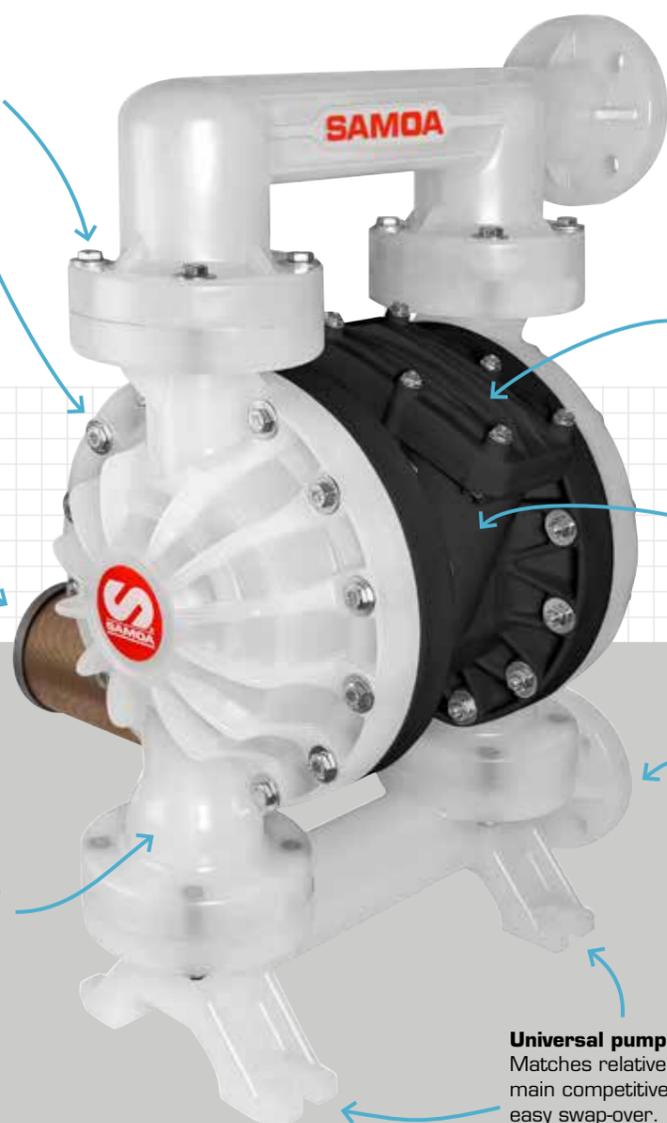
**Stainless Steel hardware (bolts, nuts and threaded inserts) reinforce the plastic structure of the pump, reducing the risk of leakage and the unreliability of plastic parts over time.**

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

**Air exhaust**  
High efficiency noise reducer included.

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

**PIVOT**  
SERIES  
UNIVERSAL DESIGN



**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<sup>S</sup>).
- 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.

## 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<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.

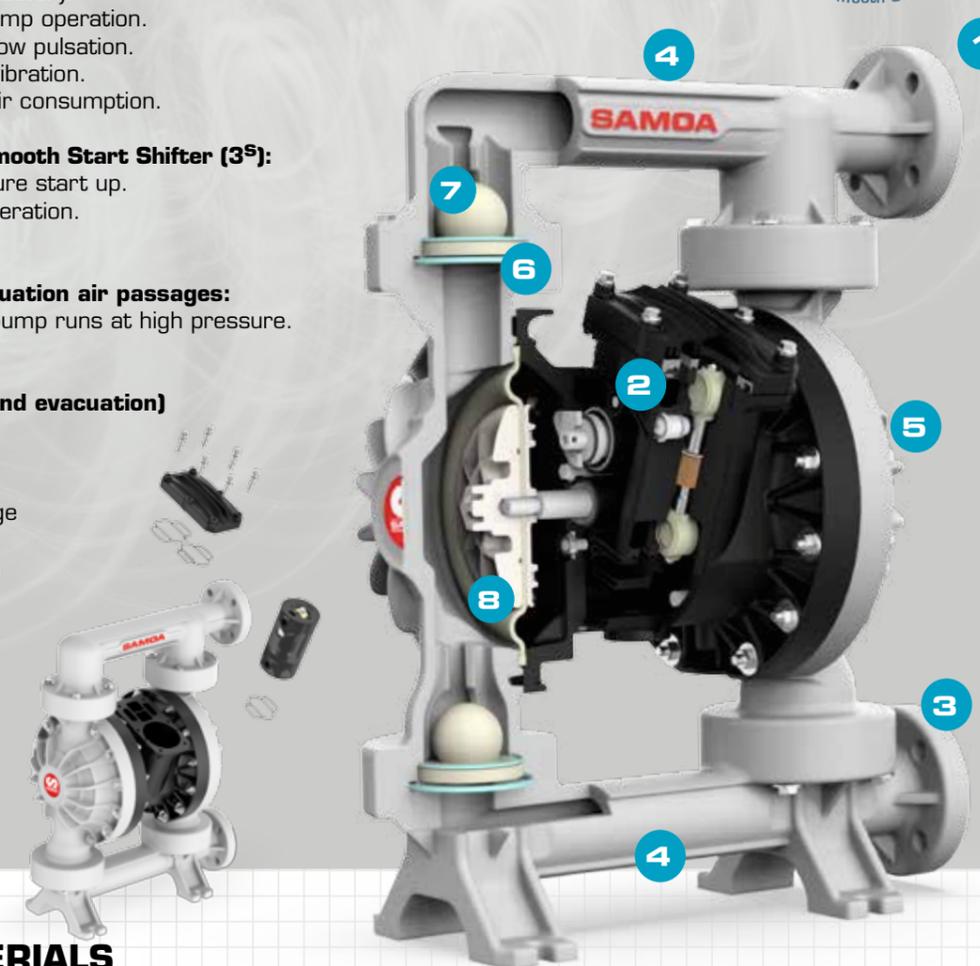
### Long-life Pivot-Pads (shift and evacuation)

### 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<sup>S</sup>  
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: UP20X-XXX-XXX

UP20X		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
UP20 Universal Pump (Bolted)	Ⓜ ATEX Certified B* = Conductive Polypropylene (black)	F = 2" ANSI/DIN Flanged Ports / Side Ends.	P = Polypropylene (white) W = PVDF (Kynar®) (white)  Ⓜ ATEX Certified B* = Conductive Polypropylene (black)	S = Stainless Steel	P = Polypropylene T = PTFE (Teflon®)	H = Hytrel® M = Santoprene® N = Nitrile (Buna-N) T = PTFE (Teflon®) V = FKM (Viton®)	<b>Conventional</b> A = Santoprene® C = Hytrel® G = Nitrile (Buna-N) V = FKM (Viton®)  <b>Two-piece</b> Z = PTFE (Teflon® with Santoprene backer)  <b>Overmolded</b> H = Hytrel® N = Nitrile (Buna N) T = PTFE / EPDM (Bonded)

\* Ⓜ 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.