

UP20 - PIVOT Series

2" Air-operated double diaphragm pump

PIVOT
S E R I E S
UNIVERSAL DESIGN

UP20 Metallic

PIVOT SERIES

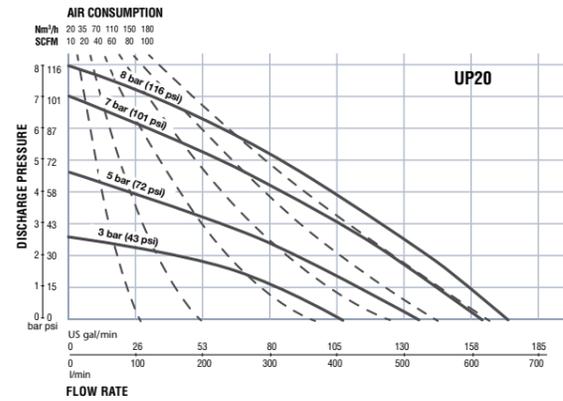
TECHNICAL DATA

METALLIC UP20 - PIVOT SERIES

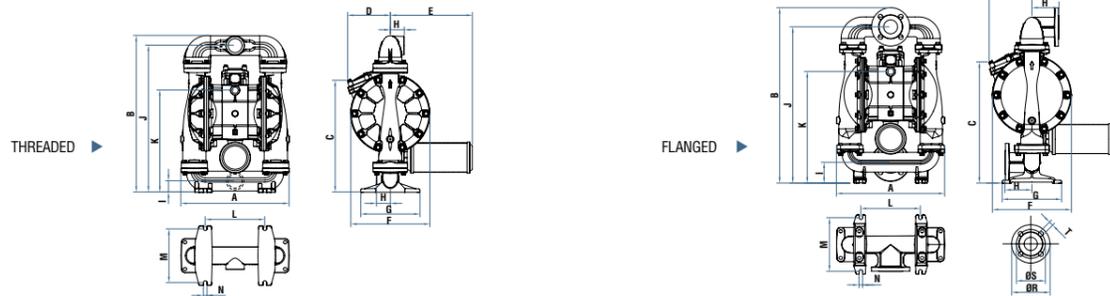
PRESSURE RATIO	1:1
MAXIMUM FREE DELIVERY	650 l/min (172 US gal/min)
AIR PRESSURE OPERATING RANGE	1,5 to 8 bar (20 to 120 psi)
MAX. SIZE SOLIDS IN SUSPENSION	6,4 mm (1/4")
MAXIMUM DRY SUCTION LIFT	5 m (16')
MAXIMUM WET SUCTION LIFT	8 m (26')
DISPLACEMENT PER CYCLE*	5,1 l (1.35 gal)
FLUID INLET AND OUTLET CONNECTIONS	2" NPT (F) - Threaded 2" BSP (F) - Threaded 2" ANSI - DIN Flange
AIR INLET CONNECTION	3/4" NPT (F)
AIR EXHAUST CONNECTION	1 1/2" NPT (F)
SOUND LEVEL	85 dB (A) @ 50 cycles/min @ 5 bar
Weight:	Threaded: Flanged:
ALUMINIUM	46 kg (101 lb) 48 kg (106 lb)
DUCTILE IRON	74 kg (163 lb) 78 kg (172 lb)
STAINLESS STEEL (Central body: Stainless Steel)	98 kg (216 lb) 102 kg (225 lb)
STAINLESS STEEL (Central body: Conductive PP)	85 kg (187 lb) 90 kg (198 lb)
STAINLESS STEEL (Central body: Aluminium)	76 kg (168 lb) 82 kg (181 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
UP20 FLANGED PUMP	465	754	521	184	353	340	255	116	89	671	479	256	230	15	165	120,6-125	19
UP20 THREADED PUMP	465	672	480	184	353	340	255	60	48	630	438	256	230	15	-	-	-
DIMENSIONS (inches)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	R	S	T
UP20 FLANGED PUMP	18.31	29.61	20.5	7.24	13.90	13.39	10.04	4.57	3.50	26.42	18.86	10.08	9.05	0.59	6.50	4.74-4.92	3/4
UP20 THREADED PUMP	18.31	26.46	18.90	7.24	13.90	13.39	10.04	2.36	1.89	24.80	17.24	10.08	9.05	0.59	-	-	-



2"
Air-Operated
Double Diaphragm Pump

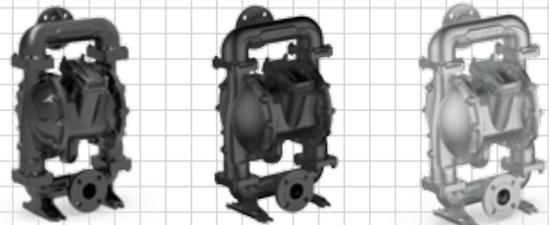
METALLIC
UP20

THREADED PUMPS



ALUMINIUM DUCTILE IRON STAINLESS STEEL

FLANGED PUMPS



ALUMINIUM DUCTILE IRON STAINLESS STEEL



CONTACT US TODAY!
Visit: 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 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 Aluminium, Stainless Steel and Ductile Iron 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. 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.

Larger section manifolds reduce flow speed and **minimize wear** caused by abrasion.

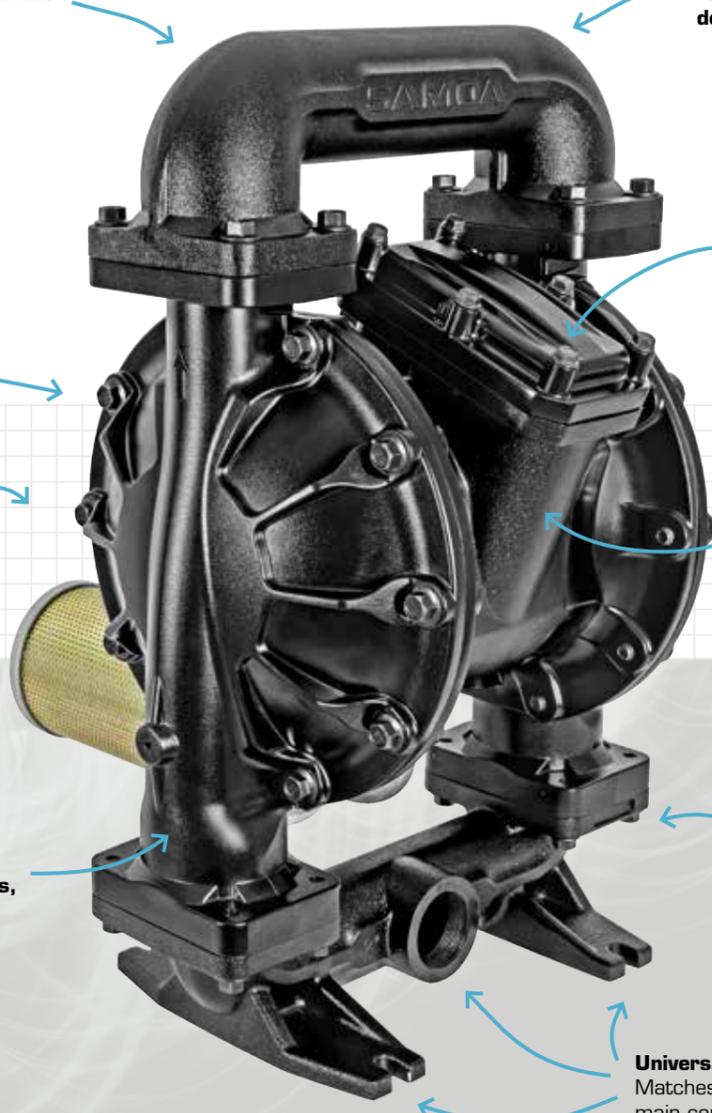
Bolted construction utilizing same bolts for covers and manifolds for optimum sealing to **prevent leakage** and **ease maintenance**.

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



Optimized flow path results in a **larger flow delivery**.

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

- Threaded and bolted construction.
- Air cap protects valve as a shield.
- Fully groundable ATEX versions.
- Durable diaphragms shaft.

Metallic construction structure

- Electrophoretic epoxy coating in Aluminium and Ductile Iron versions for enhanced corrosion resistance.
- 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.

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

Exclusive frictionless PIVOT-SHAFT Air Valve

3^s
Smooth-Start-Shifter

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.

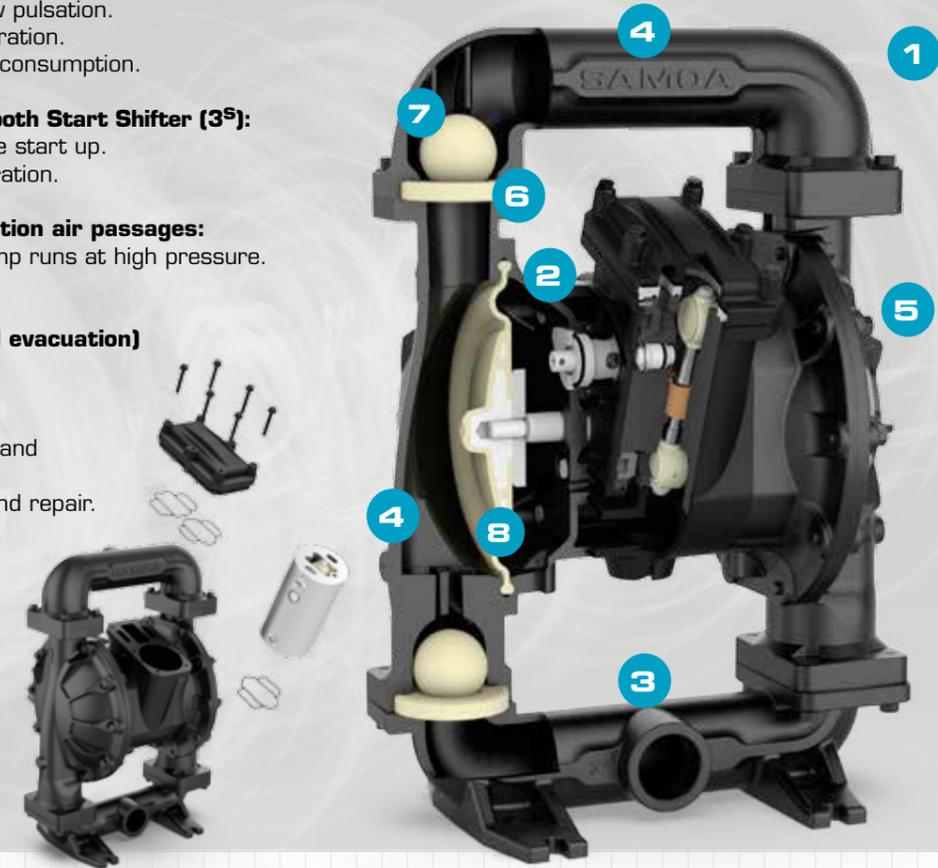
Long-life Pivot-Pads (shift and evacuation)

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.



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 A* = Aluminium L* = Conductive polypropylene with Stainless Steel air chambers S* = Stainless Steel	B = 2" BSP Threaded Ports / Centre horizontal C = 2" ANSI/DIN Flanged Ports / Centre Horizontal N = 2" NPTF Threaded Ports / Centre Horizontal	ATEX Certified A* = Aluminium F* = Ductile Iron S* = Stainless Steel	C = Carbon Steel S = Stainless Steel	A = Aluminium D = AISI 440 Hardened Stainless Steel H = Hytrel® M = Santoprene® N = Nitrile (Buna-N) S = AISI 316 Stainless Steel T = PTFE (Teflon®) V = FKM (Viton®)	H = Hytrel® M = Santoprene® N = Nitrile (Buna-N) S = AISI 316 Stainless Steel T = PTFE (Teflon®) V = FKM (Viton®)	Conventional A = Santoprene® C = Hytrel® G = Nitrile (Buna-N) V = FKM (Viton®) Two-piece Z = PTFE (Teflon® with Santoprene backer) Overmolded 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.