



SAMOA

LEADING THROUGH INNOVATION



UP20 PUMP

Frictionless PIVOT Air Valve
Universal Design



UP20

2" air operated double diaphragm pump





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

UP20 pump makes 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 diaphragm life.
- **MAXIMUM VERSATILITY.** Metal pumps and a wide range of diaphragms, seats and balls offer broad fluid and application compatibility.
- **EASY SERVICING.** Simplified maintenance and cleaning. Components designed for long life and reliability.



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UP20

2" Air operated double diaphragm pump

UP20 features

Longer life diaphragms.

One -piece diaphragms provide longer diaphragm life

Bolted construction

Utilizing same bolts for covers and manifolds for optimum sealing to prevent leakage and easier maintenance.

Air exhaust

High efficiency noise reducer included.

Larger delivery

The super-fast changeover air valve and the optimized flow path result in a larger flow delivery



Optimized manifolds

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

No stall, no icing air valve

No icing during long pump runs at high pressure and reliable operation even when the pump is working with very low air pressure.

Smooth operation with no vibration

Exclusive frictionless pivot valve results in minimum pulsation and vibration.

Universal pump standards

Matches relative dimension of main competitive brands.





Exclusive and improved frictionless pivot air valve

UP20 pump includes a patented air valve based on the well proven **SAMOA frictionless Pivot Air Valve**. This valve, that provides an **incredibly fast changeover action**, results larger flow delivery and smooth pump operation with reduced pulsation and no vibration.

The air valve has no dynamic seals and therefore **no parts subject to wear** and it can reliably work with dry or humid air.

No stall operation, even with low air pressures, thanks to the **patented Smooth Start Shifter (3^s)**, a device which activates the pivot valve to prevent stall.





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Modular air valve.

- Simplified maintenance and cleaning.
- Reduced downtime.



UP20 Metal Pumps: Materials available

CENTER SECTION AND AIR CAPS:

Aluminum
ATEX certified

FLUID COVERS AND MANIFOLDS:

Aluminum
Stainless steel

CHECK VALVE BALLS:

Santoprene®
Hytrel®
Nitrile
PTFE (Teflon®)
Viton®

CHECK VALVE SEATS:

Santoprene®
Hytrel®
Aluminum
Buna - N
Stainless Steel (AISI-440 Hard)
Stainless Steel (AISI-316)
PVDF

DIAPHRAGMS:

Santoprene®
Hytrel®
PTFE with Santoprene®
backup (2 piece diaphragm)
Nitrile (single piece)
Santoprene® (single piece)
Hytrel® (single piece)
PTFE bonded with EPDM
(single piece diaphragm)





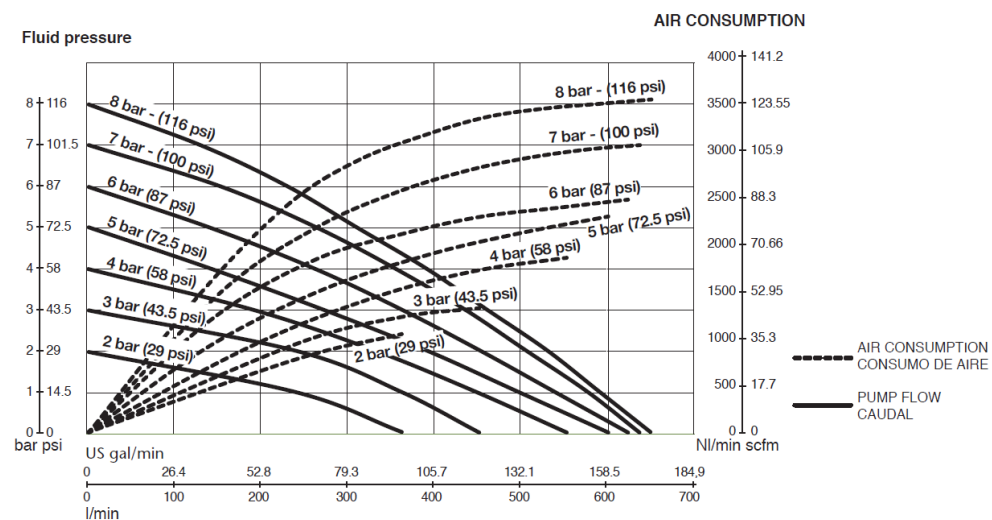
Technical features

PRESSURE RATIO	1:1
MAXIMUM FREE DELIVERY	650 l/min (165 US gal/min)
AIR PRESSURE OPERATING RANGE	1,5 to 7 bar (22 to 100 psi)
SOLIDS IN SUSPENSION, MAXIMUM SIZE	6,4 mm (1/4")
MAXIMUM DRY SUCTION LIFT	5 m (16')
MAXIMUM WET SUCTION LIFT	8 m (26')
FLUID INLET AND OUTLET CONNECTIONS	2" BSPP (F) / 2" NPT (F)
AIR INLET CONNECTION	3/4" BSP (F) / 3/4" NPT (F)
AIR VALVE	Frictionless Pivot valve with Smooth Start Shifter (3s)
WEIGHT	(Aluminium version) 46 kg (101 lb)
WEIGHT	(Stainless steel version) 76 kg (168 lb)
WETTED PARTS	See available materials



Technical features

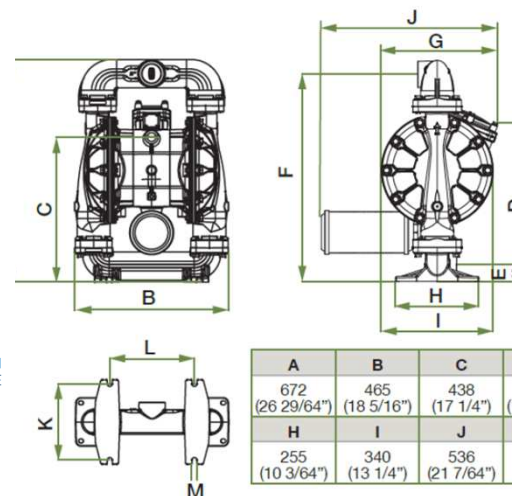
PERFORMANCE CURVES



*Tested at room temperature, using water. Flooded pump with positive suction head.

DIMENSIONS mm (inches)

Aluminium and Stainless steel pumps



A	B	C	D	E	F	G
672 (26 29/64")	465 (18 5/16")	438 (17 1/4")	480 (18 57/64")	48 (1 7/8")	630 (24 51/64")	355 (13 31/32")
H	I	J	K	L	M	
255 (10 3/64")	340 (13 1/4")	536 (21 7/64")	230 (9 1/16")	256 (10 5/64")	15 (19/32")	

