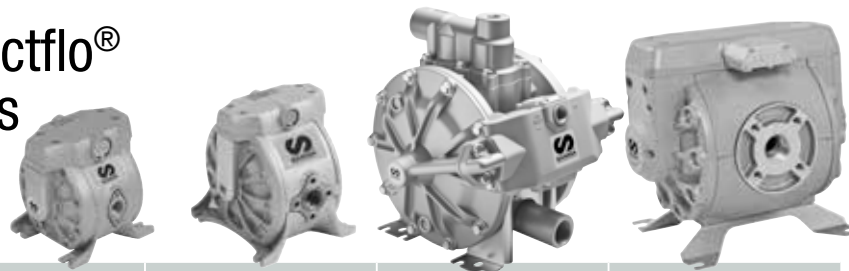


SAMOA Directflo®
Plastic Pumps



	DC20	DF30	DF50	DF100	DP200
Pressure ratio	1:1	1:1	1:1	1:1	1:1
Maximum free delivery ⁽¹⁾	20 l/min (5 US gal/min)	38 l/min (10 US gal/min)	50 l/min (14 US gal/min)	100 l/min (28 US gal/min)	200 l/min (53 gal/min)
Delivery per stroke ^{(1) (2)}	0,03 litres (0.008 US gal)	0,07 litres (0.02 US gal)	0,1 litres (0.026 US gal)	0,25 litres (0.07 US gal)	0,5 litres (0.13 US gal)
Air pressure operating range	1,5 to 7 bar (22 to 100 psi)	1,5 to 8 bar (22 to 115 psi)	1,5 to 8 bar (22 to 115 psi)	1,5 to 8 bar (22 to 115 psi)	1,5 to 8 bar (22 to 115 psi)
Solids in suspension max. size	2 mm (3/32")	3 mm (1/8")	3 mm (1/8")	4 mm (3/16")	6 mm (1/4")
Maximum dry suction lift ⁽¹⁾	2 m (6 1/2')	4 m (13')	6 m (20')	4,5 m (15')	5 m (16')
Maximum wet suction lift ⁽¹⁾	7 m (23')	8 m (26')	8 m (26')	7 m (23')	8 m (26')
Fluid inlet connection	Int.:1/4" BSP/NPT (F) Ext.: 3/4" NPT (M)	1/2" BSP/NPT (F)	1/2" BSP/NPT (F)	1" BSP/NPT (F)	1" DIN PN-10 DN25 flange and ANSI B16.5 1" 150 lb flange
Fluid outlet connection	Int.:1/4" BSP/NPT (F) Ext.: 3/4" NPT (M)	1/2" BSP/NPT (F)	1/2" BSP/NPT (F)	1" BSP/NPT (F)	1" DIN PN-10 DN25 flange and ANSI B16.5 1" 150 lb flange
Air inlet connection	3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)
Pump body materials	Polypropylene, conductive acetal, PVDF, conductive polypropylene, conductive PVDF				

SAMOA Directflo®
Metal Pumps



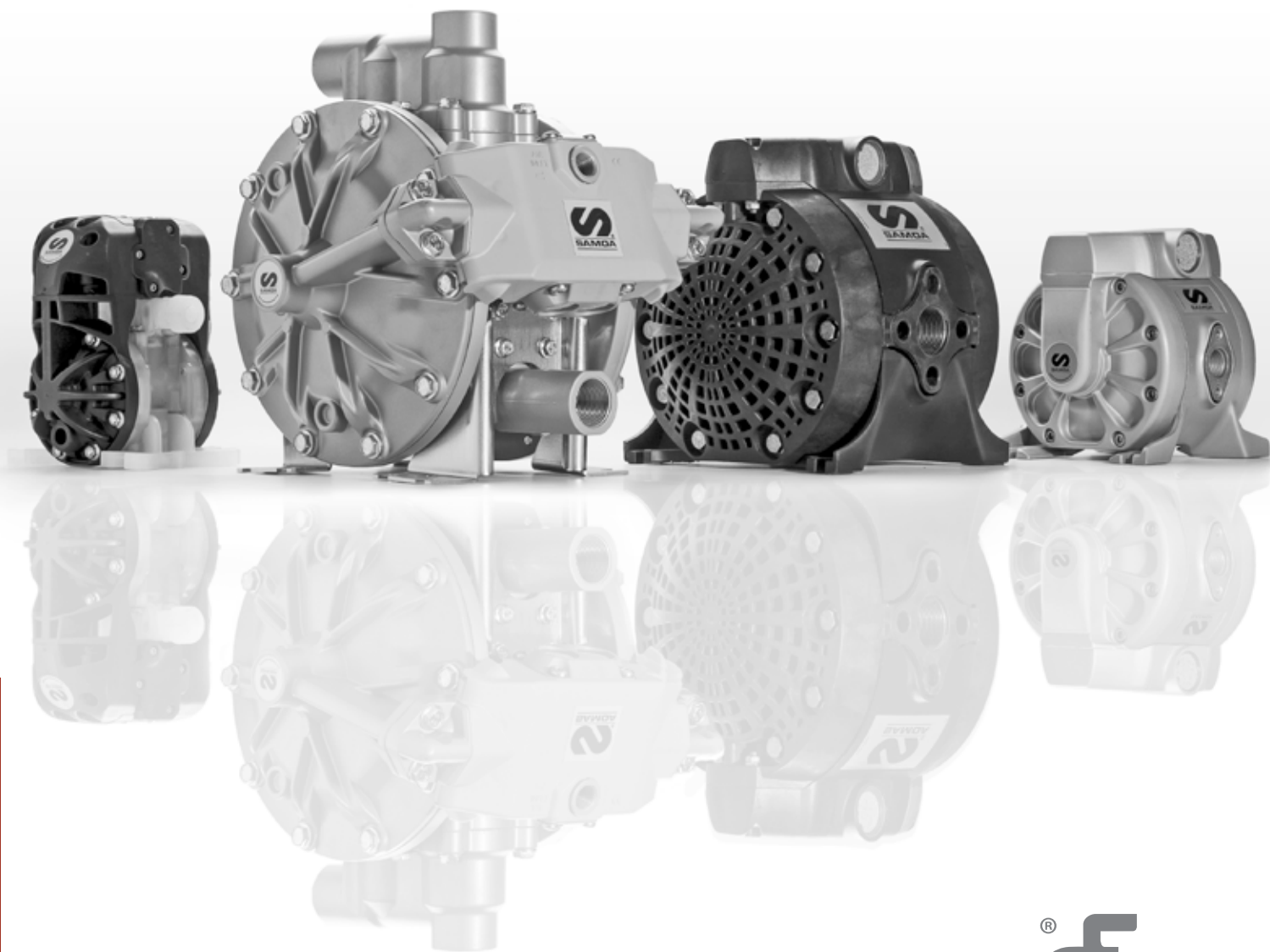
	DF50	DF100	DP200	DF250
Pressure ratio	1:1	1:1	1:1	1:1
Maximum free delivery ⁽¹⁾	50 l/min (14 US gal/min)	100 l/min (28 US gal/min)	200 l/min (53 gal/min)	250 l/min (66 US gal/min)
Delivery per stroke approx. ^{(1) (2)}	0,1 litres (0.026 US gal)	0,25 litres (0.07 US gal)	0,5 litres (0.13 US gal)	0,6 litres (0.16 US gal)
Air pressure operating range	1,5 to 8 bar (22 to 115 psi)	1,5 to 8 bar (22 to 115 psi)	1,5 to 8 bar (22 to 115 psi)	1,5 to 8 bar (22 to 115 psi)
Solids in suspension max. size	3 mm (1/8")	4 mm (3/16")	6 mm (1/4")	6 mm (1/4")
Maximum dry suction lift ⁽¹⁾	6 m (20')	4,5 m (15')	5 m (16')	5 m (16.4')
Maximum wet suction lift ⁽¹⁾	8 m (26')	7 m (23')	8 m (26')	8 m (26')
Fluid inlet connection	1/2" NPSM (F)	1" BSP/NPT (F)	1" BSP/NPT (F)	1 1/2" BSP (F) and DIN PN-10 DN40 flange or 1 1/2" NPT (F) and ANSI 1" B16.5 150 lb flange
Fluid outlet connection	1/2" NPSM (F)	1" BSP/NPT (F)	1" BSP/NPT (F)	1 1/2" BSP (F) and DIN PN-10 DN40 flange or 1 1/2" NPT (F) and ANSI 1" B16.5 150 lb flange
Air inlet connection	3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)	1/2" NPSM (F)
Pump body materials	Aluminium, AISI 316 stainless steel	Aluminium, AISI 316 stainless steel	Aluminium, AISI 316 stainless steel	Aluminium

(1) Data measured with water, 8 bar inlet pressure, 20°C and flooded fluid inlet
(2) Approximate value; real value may vary depending on working conditions, fluid pumped and pump materials.
(3) 1" DIN PN-10 DN25 and ANSI b16 5 1" 150 lb flange.



Air operated double
diaphragm pumps

Innovative | Unique | Simple | Reliable | Durable | Compact | Efficient | Quiet | Versatile



SAMOA Directflo® pumps: Reduced pulsation and efficient flow

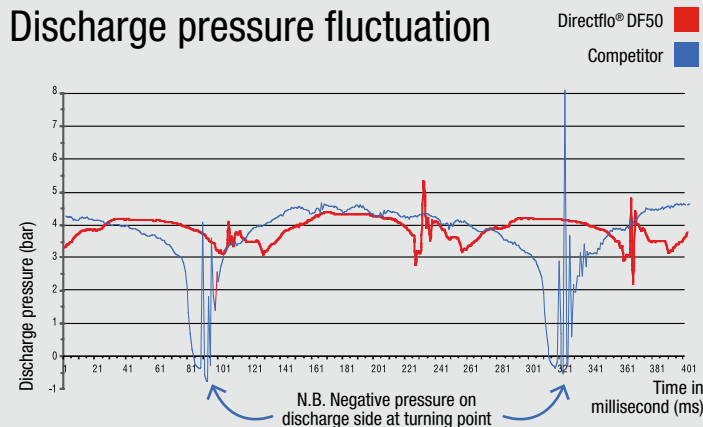
Revolutionary Directflo® technology

SAMOA Directflo® pumps, with a unique central flow design, result in a compact and robust air operated diaphragm pumps with lower pulsation and minimum vibration that gives better performance at a lower life cycle cost.

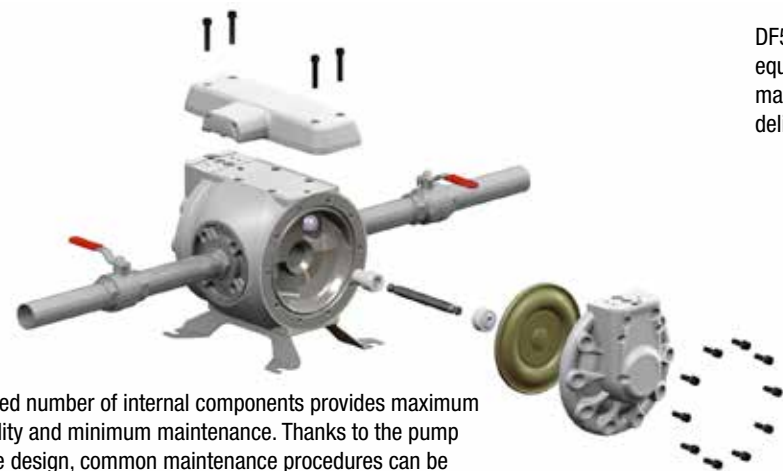
The Frictionless Pivoting Valve patented technology provides the very fast switches in direction of air distribution that are needed to keep the diaphragms in overlapping motion. This new self-cleaning and non-stalling pneumatic air motor works with any kind of air - dry or moist, dirty or oily.



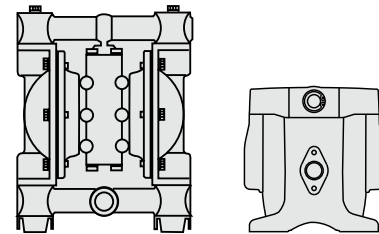
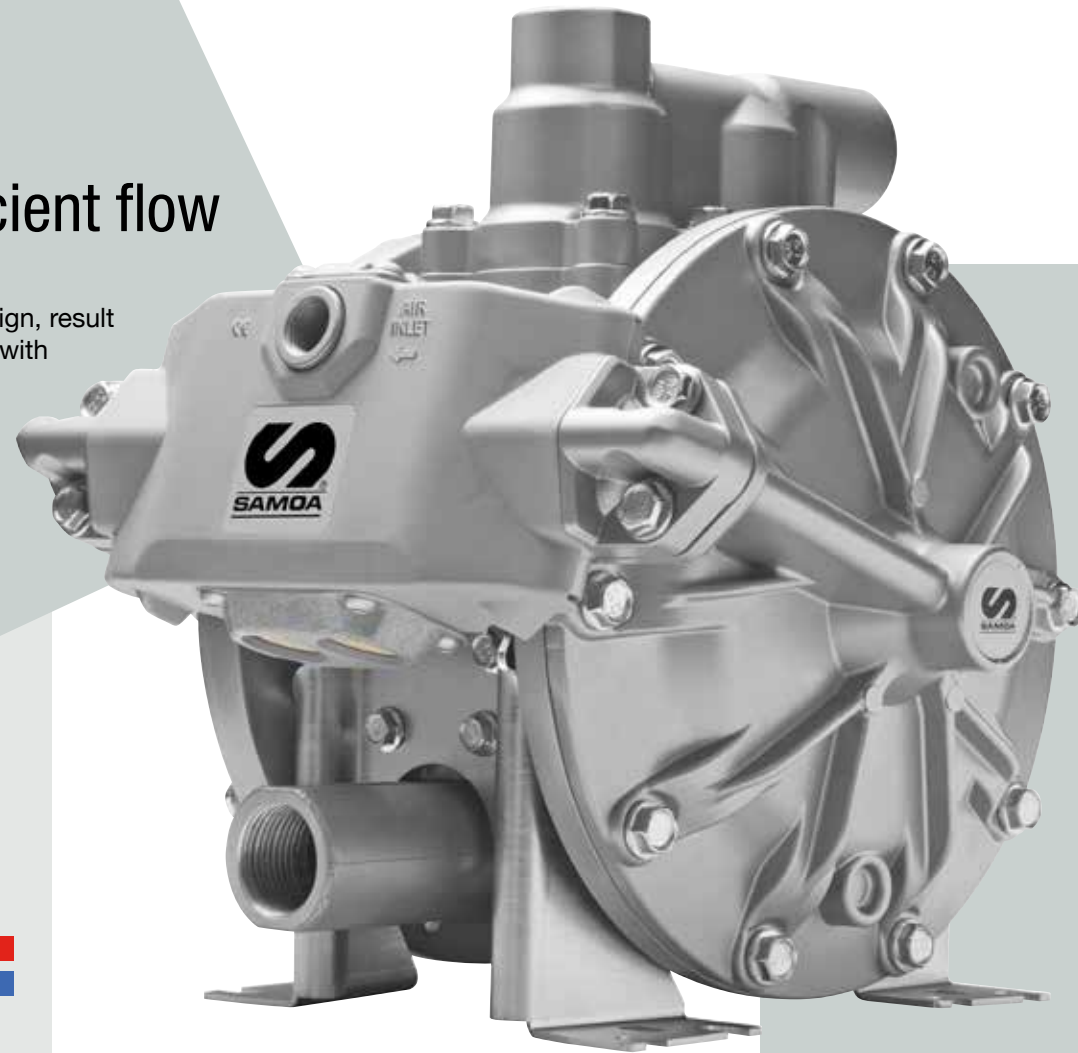
Discharge pressure fluctuation



DF50 flow pulsation compared with the pulsation produced by a competitor's pump with classic design. A faster air valve action combined with the smaller pressure drop inside the pump results in less flow pulsation and absence of vibration.



Reduced number of internal components provides maximum reliability and minimum maintenance. Thanks to the pump on-line design, common maintenance procedures can be done without disconnecting the pump from pipelines.



DF50 pump dimension compared with competitor's equivalent 1/2" pump. The absence of peripheral manifolds results in a more compact pump delivering same volume.

SAMOA Directflo® pumps advantages: Better by design

- Extremely compact design with centre flow, perfect for built in applications
- Reduced pulsation gives a strong, even flow, and less vibration. This results in better performance at a lower cost.
- Superior start up reliability, even with low air pressure.
- Central flow path minimises energy losses and reduces air consumption.
- On-line design - instant change of all wear parts on site.
- Simple design makes servicing, by unskilled personnel, easier and more cost effective and reduces down-time.
- Pneumatic controlled air motor with self-sealing port elements eliminates any demand for cleaned air supply.

ONE PIECE DIAPHRAGMS. Diaphragm available in the following materials:

- PTFE, bonded construction
- BUNA-N
- Hytrel®
- Santoprene®

FRICTIONLESS PIVOTING AIR VALVE. Extremely fast switching between strokes, reduces air consumption and minimizes pulsation.

STRESS FREE DIAPHRAGM COUPLINGS. Non-rigid sliding coupling between push rod and diaphragm reduces stress on diaphragms.

BALL CHECK VALVES ADJACENT TO DIAPHRAGMS. Faster valve action for improved overall pump performance.

SINGLE PART MOLDED PUMP BODY. Minimum energy losses within the pump: compact and leak free design.

