

AIR OPERATED DOUBLE DIAPHRAGM PUMPS

INNOVATIVE | UNIQUE | SIMPLE | RELIABLE | DURABLE | COMPACT | EFFICIENT | QUIET | VERSATILE

MARKETS SERVED



APPLICATIONS

- Fluid transfer and dispensing
- Fluid evacuation
- Dosing / Blending / Formulation
- Fluid recirculation
- Supply for low pressure spray
- Fluid flushing / Clean in place (CIP)
- Pumping samples
- Filter & filter press feeding
- Slurry handling
- Tank / Barrel filling & emptying

FLUIDS

- Acids
- Alkalis
- Alcohols
- Solvents
- Water based fluids
- Chemicals
- Fuels & oils
- Inks, paints & varnishes
- Additives
- etc.

FLUID CHARACTERISTICS

- Abrasives
- Corrosives
- Hazardous
- Flammables
- Solids in suspension
- Shear-sensitive
- Medium viscosity



Vehicle production & maintenance



Construction & mining



Print & packaging / Pulp & paper converters



Paint & coatings



Process water / Surface treatments / Wastewater



Metalworking



Chemical, petrochemical & refineries



Hygienic applications

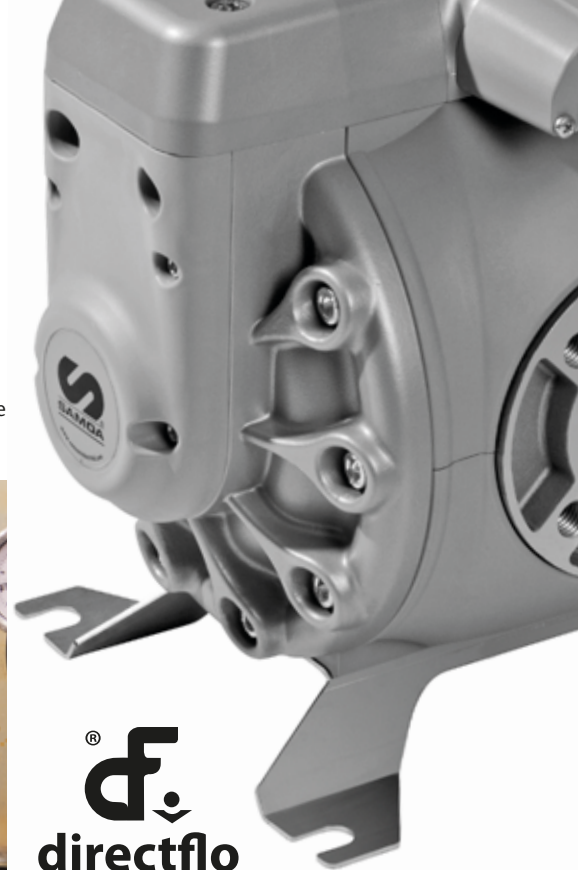


Ceramic

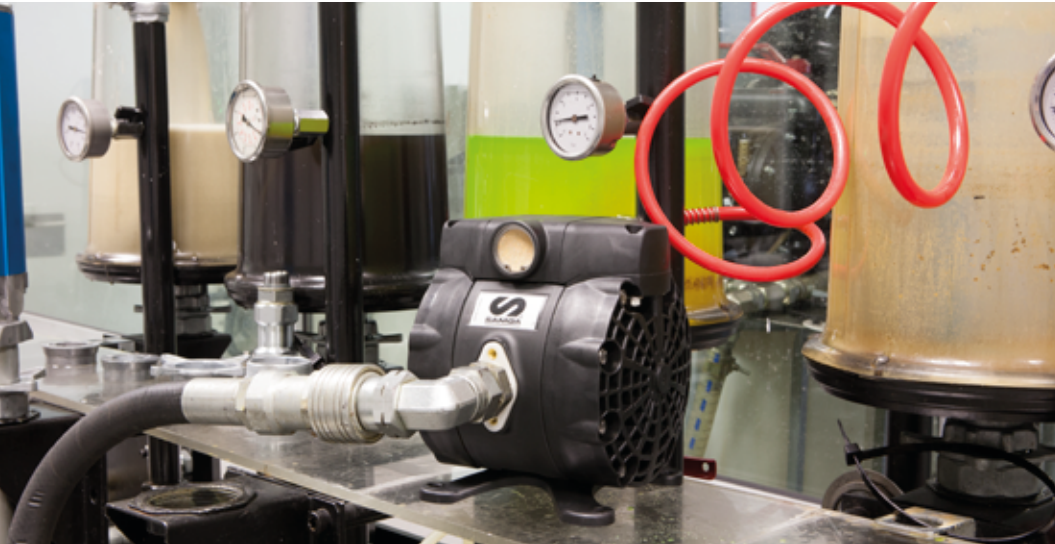
INNOVATIVE CENTRAL FLOW TECHNOLOGY

Directflo® pumps are inside out pumps, the fluid is pumped through the center of the pump and compressed air acts on the outside face of the diaphragms.

Important innovations were necessary to realize the central flow concept and, while developing Directflo®, further inventions were made that built on the central flow concept. A few highlights are described below.



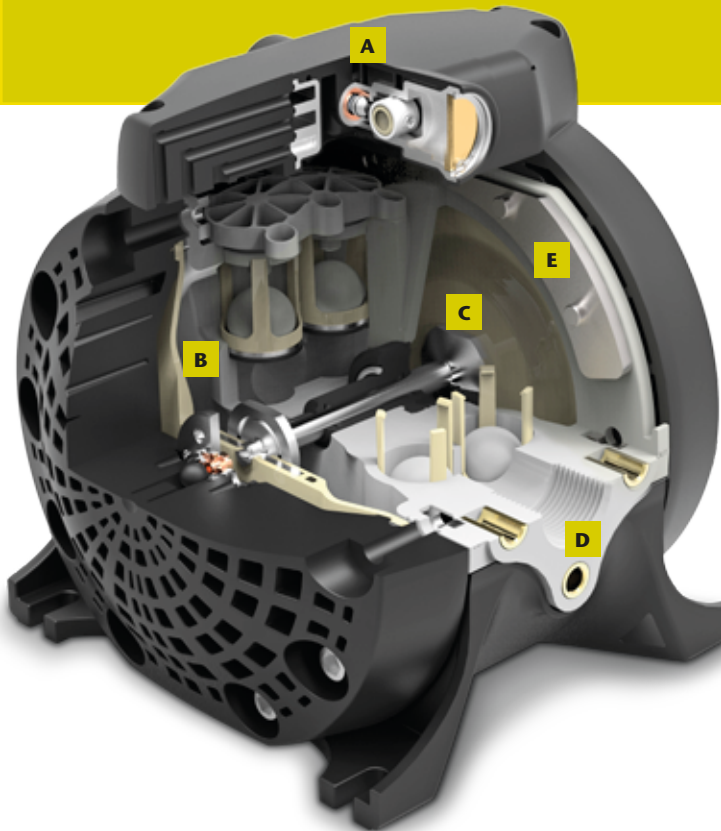
directflo
Central flow technology



BETTER BY DESIGN



- REDUCED AIR CONSUMPTION
- SUPERIOR ALL-ROUND PUMPING PERFORMANCE
- COMPACT DESIGN
- SIMPLE, RELIABLE & DURABLE
- SMOOTH RUNNING
- ROBUST



QUICK AND SIMPLE MAINTENANCE



- A** Frictionless pivoting air valve
- B** Ball check valves adjacent to diaphragms
- C** Stress free diaphragm couplings
- D** Single part moulded pump body
- E** Flange fastening plates



Directflo® PUMP RANGE - PLASTIC PUMPS

Air operated double diaphragm pumps for dosing, spraying, transferring, evacuating and distributing a wide variety of fluids.

Plastic Directflo® pump wetted bodies are compatible with even the most aggressive chemicals, and the plastic directional air valve and air chamber covers are suitable for use in corrosive environments.

DF30T and DF50T are dual inlet pumps for 1:1 ratio mixing of fluids with similar viscosity.

Fully groundable ATEX certified pumps are available, for use in potentially explosive atmospheres (these pumps are marked Ex II2 GD IIB/IIC 95 °C).

DF PUMPS	10	10	14	14	28
	gal/min	gal/min	gal/min	gal/min	gal/min
DF PUMPS	DF30	DF30T	DF50	DF50T	DF100
PRESSURE RATIO	1:1	1:1	1:1	1:1	1:1
MAXIMUM FREE DELIVERY ⁽¹⁾	10 US gal/min (38 l/min)	10 US gal/min (38 l/min)	14 US gal/min (50 l/min)	14 US gal/min (50 l/min)	28 US gal/min (100 l/min)
DELIVERY PER STROKE APPROX. ⁽¹⁾	0.02 US gal (0,07 liters)	0.02 US gal (0,07 liters)	0.026 US gal (0,1 liters)	0.026 US gal (0,1 liters)	0.07 US gal (0,25 l)
DELIVERY PER CYCLE (2 X STROKES) ⁽¹⁾	0.04 US gal (0,14 liters)	0.04 US gal (0,14 liters)	0.05 US gal (0,2 liters)	0.05 US gal (0,2 liters)	0.13 US gal (0,50 l)
AIR PRESSURE OPERATING RANGE	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 (1,5 to 8 bar)	22 to 115 psi (1,5 to 8 bar)
SOLIDS IN SUSPENSION MAX. SIZE	1/8" (3 mm)	1/8" (3 mm)	1/8" (3 mm)	1/8" (3 mm)	3/16" (4 mm)
MAXIMUM DRY SUCTION LIFT ⁽¹⁾	13' (4 m)	13' (4 m)	20' (6 m)	20' (6 m)	15' (4,5 m)
MAXIMUM WET SUCTION LIFT ⁽¹⁾	26' (8 m)	26' (8 m)	26' (8 m)	26' (8 m)	23' (7 m)
WEIGHT	4.19 lb (1,9 kg)	4.19 lb (1,9 kg)	4.85 lb (2,2 kg)	4.85 lb (2,2 kg)	11.24 lb (5,1 kg)
FLUID INLET CONNECTION	1/2" NPT/BSP(F) and flange	2 x 3/8" NPT/BSP (F) and flange	1/2" NPT/ BSP (F) and flange	2 x 3/8" NPT/BSP (F) and flange	1" NPT/BSP (F) and flange
FLUID OUTLET CONNECTION	1/2" NPT/BSP (F) and flange	1/2"NPT/BSP (F) and flange	1/2" NPT/BSP (F) and flange	1/2" BSP/NPT (F) and flange	1" NPT/ BSP(F) and flange
AIR INLET CONNECTION	3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)

(1) Data measured with water, air inlet pressure 7 bar (100 psi), 20 °C (68 °F).

Directflo® PUMP RANGE - METAL PUMPS

Air operated double diaphragm pumps for dosing, spraying, transferring, evacuating and distributing a wide variety of fluids.

Metal Directflo® pumps are extremely robust and thanks to a wide range of wetted materials are compatible with many fluids.

DF50T are dual inlet pumps for 1:1 ratio mixing of fluids with similar viscosity.

Fully groundable ATEX certified pumps are available, for use in potentially explosive atmospheres (these pumps are marked Ex II2 GD IIB/IIC 95 °C).

DF PUMPS	14	14	28	66
	gal/min	gal/min	gal/min	gal/min
DF PUMPS	DF50	DF50T	DF100	DF250
PRESSURE RATIO	1:1	1:1	1:1	1:1
MAXIMUM FREE DELIVERY ⁽¹⁾	14 US gal/min (50 l/min)	14 US gal/min (50 l/min)	28 US gal/min (100 l/min)	66 US gal/min (250 l/min)
DELIVERY PER STROKE APPROX. ⁽¹⁾	0.026 US gal (0,1 liters)	0.026 US gal (0,1 liters)	0.07 US gal (0,25 l)	0.16 US gal (0,6 l)
DELIVERY PER CYCLE (2 X STROKES) ⁽¹⁾	0.05 US gal (0,2 liters)	0.05 US gal (0,2 liters)	0.13 US gal (0,5 l)	0.32 US gal (1,2 l)
AIR PRESSURE OPERATING RANGE	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 (1,5 to 8 bar)
SOLIDS IN SUSPENSION MAX. SIZE	1/8" (3 mm)	1/8" (3 mm)	3/16" (4 mm)	1/4" (6 mm)
MAXIMUM DRY SUCTION LIFT ⁽¹⁾	20' (6 m)	20' (6 m)	15' (4,5 m)	16.4' (5 m)
MAXIMUM WET SUCTION LIFT ⁽¹⁾	26' (8 m)	26' (8 m)	23' (7 m)	26' (8 m)
WEIGHT	7.72 lb (3,5 kg)	7.72 lb (3,5 kg)	16 lb (7,2 kg)	45 lb (20 kg)
FLUID INLET CONNECTION	1/2" NPSM (F) and flange	2 x 3/8" NPSM (F) and flange	1" BSP/NPT (F) and flange	1 1/2" NPT (F) and ANSI B16.5 150 lb flange 1 1/2" BSP (F) and DIN PN-10 flange or
FLUID OUTLET CONNECTION	1/2" NPSM (F) and flange	1/2" NPSM (F) and flange	1" BSP/NPT (F) and flange	1 1/2" NPT (F) and ANSI B16.5 150 lb flange 1 1/2" BSP (F) and DIN PN-10 flange or
AIR INLET CONNECTION	3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)	1/2" NPSM (F)

(1) Data measured with water, air inlet pressure 7 bar (100 psi), 20 °C (68 °F).



FLUID HANDLING TECHNOLOGY

SAMOA, a privately owned company, is a leading European manufacturer of equipment for fluid transfer, dispensing, dosing, recovery and inventory control. SAMOA designs and manufactures volume flow meters, hose reels, air operated piston pumps and air operated diaphragm pumps, including innovative Directflo® diaphragm pumps.

PRODUCT DEVELOPMENT

Product research and development is a fundamental part of SAMOA's philosophy. We are in permanent contact with the market to identify new customer needs, that we satisfy with product improvements and new products.

MANUFACTURING

SAMOA's headquarters have been in Gijón, on the Spanish North Coast, for over 55 years. SAMOA's manufacturing facilities are modern and equipped with the latest state-of-the-art production equipment and technology. We are committed to design and manufacturing excellence, environmental sustainability and a healthy and safe workplace; our work processes and facilities are consequently ISO 9001, ISO 14001 and OHSAS 18001 certified.

DISTRIBUTION

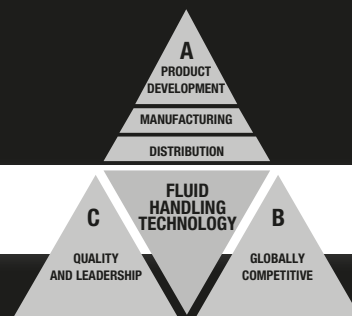
Our products are available through a network of knowledgeable distributors. This global network provides a sales and consulting service, to identify the products that best meet

each customer's needs, and when required offers after sales service to ensure the long and satisfactory use of our equipment.

GLOBALLY COMPETITIVE

Our continuous product improvement process ensures that our products meet customer requirements worldwide, including in even the most demanding applications and environments. As a result, we are proud to say that SAMOA products are reliably working away, night and day, in more than 100 countries.

SAMOA QUALITY AND LEADERSHIP



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Product Design & Engineering



Product Prototyping & Testing



Quality Control including functional testing



Rapid & Reliable order fulfilment
Efficient after-sales services



Headquarters Offices & Technical Center



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