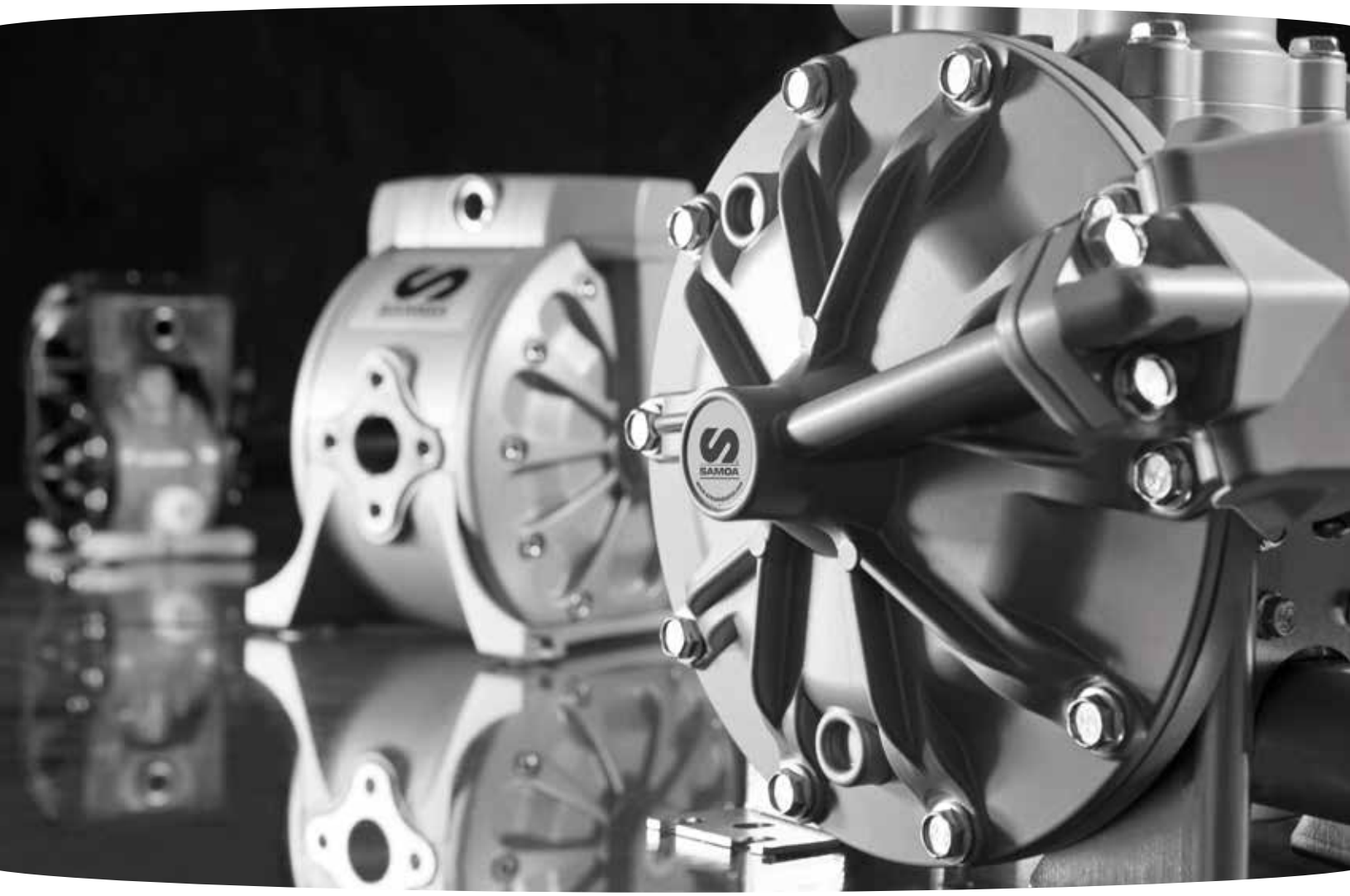
SAMOA
LEADING THROUGH INNOVATION

FLOW
DIVISION

Air Flo Spray Equipment Company
Innovative Thinking Producing Significant Results

6050 Stetson Hills Drive, #321
Colorado Springs, CO 80922
866.567.5804 toll free ph.
719.490.8070 fax
info@airfloeq.com

AIR OPERATED DOUBLE DIAPHRAGM PUMPS



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

Air Flo Spray Equipment Company
Innovative Thinking Producing Significant Results

6050 Stetson Hills Drive, #321
Colorado Springs, CO 80922
866.567.5804 toll free ph.
719.490.8070 fax
info@airfloeq.com

directflo
Central flow technology

Headquarters Offices and Technical Center in Gijón (Spain)

SAMOA QUALITY AND LEADERSHIP

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 60 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.

Research & Development and Manufacturing facility in Gijón (Spain)

FLOW DIVISION

SAMOA: Leading Through Innovation

- RESEARCH & DEVELOPMENT
- PRODUCT DESIGN & ENGINEERING
- PRODUCT PROTOTYPING & TESTING
- ROBOTIZED CNC MANUFACTURING
- QUALITY CONTROL INCLUDING FUNCTIONAL TESTING
- RAPID & RELIABLE ORDER FULFILLMENT
- EFFICIENT AFTER-SALES SERVICE

DIRECTFLO® PUMPS APPLICATIONS

Process industry.

Wood varnish spraying.

Printing industry.

Ink additive dosing.

Cutting oil solution transfer.

Submersed pump application.

Cement additive dosing.

Leather industry.

Flexographic ink.

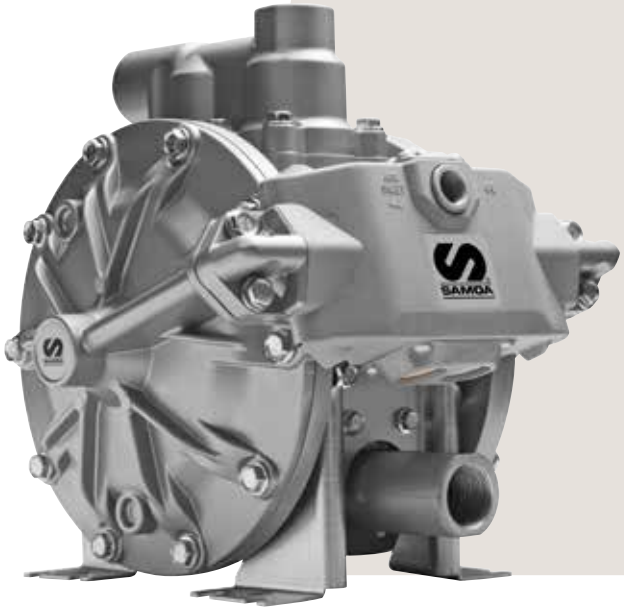
Chemical products dosing.

Paint application.

Gravure ink.

DIRECTFLO® PUMPS

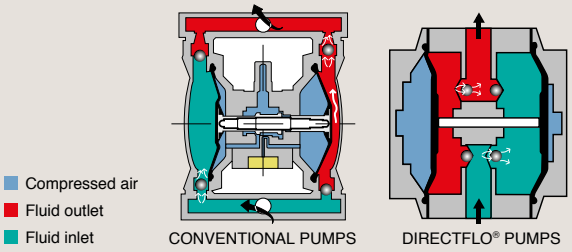
Air operated double diaphragm pumps for dosing, spraying, transfering, evacuating and distributing a wide variety of fluids.



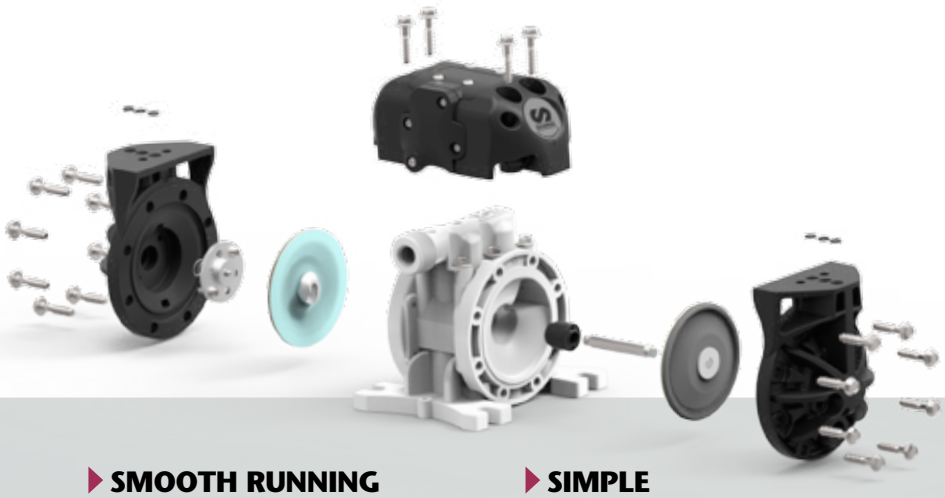
REVOLUTIONARY DIRECTFLO® TECHNOLOGY

Directflo® pumps are based in an "inside-out" technology: the fluid is pumped through the center of the pump and the compressed air acts on outside face of the diaphragms.

- EXTREMELY FAST CHANGE OVER
- DIAPHRAGMS DO NOT FULLY FLEX WHICH GREATLY EXTENDS LIFE



directflo®



Better by design

PROVEN SUPERIOR PERFORMANCE

- Superior dry suction
- Non icing
- Reduced pulsation
- Variable flow rate and pressure by adjusting the air pressure

RELIABLE

- Superior start up reliability
- No stalling
- Tolerates dry, damp, dirty or oily air.
- Leak free operation through the pump's life

SMOOTH RUNNING

- Gentle pumping
- Reduced pulsation
- Fewer vibrations

COST EFFICIENT

- Reduced air consumption
- Reduced internal pressure drop

COMPACT

- One-piece fluid section
- Integrated muffler

SIMPLE

- Fast and easy maintenance
- Easy operation
- Orientable air inlet

DURABLE

- First quality materials
- Long diaphragm life
- Short stroke and robust construction

WIDE CHOICE OF MATERIALS

SAMOA offers a wide range of materials to withstand abrasion, temperature and chemical compatibility satisfying the most demanding applications.

DIRECTIONAL AIR VALVE AND AIR CHAMBER COVERS

Polypropylene
Aluminum
Conductive polypropylene is used in groundable ATEX pumps.

WETTED PUMP BODY

Polypropylene
Acetal
PVDF (Kynar® or Solef®) - Polyvinylidene Fluoride
Aluminum
Stainless Steel - AISI 316
Conductive plastic materials are used in groundable ATEX pumps.

PUSH ROD

Stainless Steel - AISI 420
Hastelloy® C

SEALS

EPDM - Ethylene Propylene Diene Monomer Rubber
FKM (Viton®) - Fluoroelastomer
PTFE (Teflon®) - Polytetrafluoroethylene
Buna-N - Nitrile Butadiene Rubber

CHECK VALVE SEATS

Polypropylene
Acetal
PVDF (Kynar® or Solef®) - Polyvinylidene Fluoride
Buna-N - Nitrile Butadiene Rubber
TPE (Hytrel®) - Thermoplastic Elastomer
Santoprene®
Aluminum
Stainless Steel - AISI 316

CHECK VALVE BALLS

PTFE (Teflon®) - Polytetrafluoroethylene
Acetal
Buna-N - Nitrile Butadiene Rubber
Stainless Steel - AISI 316

LONG LIFE DIAPHRAGMS

PTFE (Teflon®) - Polytetrafluoroethylene
TPE (Hytrel®) - Thermoplastic Elastomer
Santoprene®
Buna-N - Nitrile Butadiene Rubber

Not all materials listed are available for all models and sizes. Check materials available to each model.

DIAPHRAGM PUMP OPTIONS

EXTERNALLY DRIVEN PUMP

EXTERNALLY DRIVEN PUMP

DF pumps without the air valve module and end of stroke sensors to be controlled with an external device like a PLC for their use in dosing applications.

INDUCTIVE SENSORS

Used with externally self-driven pumps, the sensor sends a signal to a PLC to reverse the air direction. Sensors assure that the diaphragms complete their stroke and they allow to regulate the pump speed. The sensors are available with NPN, PNP or ATEX (NAMUR) connectors.

END OF STROKE SENSOR

It allows counting the number of cycles of a pump.

REMOTE AIR EXHAUST

Threaded connection replaces the standard bronze sintered muffler for connecting a hose for remote air exhaust. 3/8" connection for DF30, DF50, DF100, DC20, DC30 and DC50 pumps; 3/4" for DP200 pumps and 1" for DF250 pumps.

REDUCED NOISE MUFFLER

REDUCED NOISE MUFFLER

Replaces the standard brass disc muffler to further reduce the noise produced by compressed air expansion.

UV INK

Special conductive PTFE sleeve that allows the pump to be used with UV inks.

MARKETS SERVED

- CHEMICAL, PETROCHEMICAL AND REFINERIES
- VEHICLE PRODUCTION AND MAINTENANCE
- CONSTRUCTION AND MINING
- CERAMIC
- SURFACE TREATMENTS
- PAINT AND COATINGS
- PRINTING AND PACKAGING
- PULP AND PAPER CONVERTERS
- HYGIENIC-SANITARY APPLICATIONS
- WATER PROCESS
- WASTEWATER
- METALWORKING

*For further details of markets served and applications please see page 35.

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.

Abrasive
Corrosive
Hazardous
Flammable
Solids in suspension
Shear sensitive
Medium viscosity

SAMOA DIRECTFLO® PUMPS

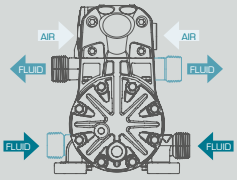
CUSTOM

Plastic: DC20 - DC30 - DC50

Reliable Compact Design

1/4" to 1/2"
Up to 14 US gal/min
(50 l/min)

- **Ideal for dosing applications**
- **New air motor with an unbalanced spool valve design**
  - Low Start up pressure reliability.
  - Adjustable fluid flow rate by regulating the air pressure.
- **Compact**
  - For OEM installation applications and industrial processes.
- **Built-in air exhaust**
  - Possibility to connect a hose for remote exhaust or super-silent muffler.
- **Orientable ports**
  - DC20 inlet and outlet ports can be rotated.



FUNCTION

Plastic: DF30 - DF30T - DF50 - DF50T - DF100
Metal: DF50 - DF100 - DF250

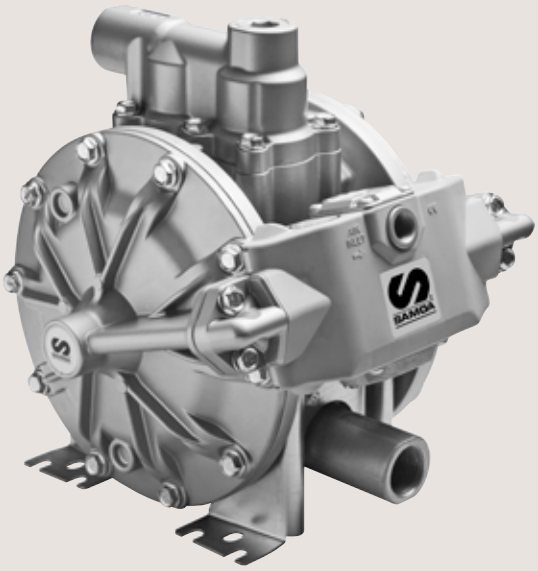
Original Directflo® Technology

1/2" to 1 1/2"
Up to 66 US gal/min
(250 l/min)

- **Ideal for standard applications**
- **Wide range of sizes available**
- **Improved ball valve guides design**
- **In line servicing**
  - Easy.
  - Quick.
  - Cost saving.
- **Reach higher flow rates - Up to 66 US gal/min (250 l/min)**

PERFORMER

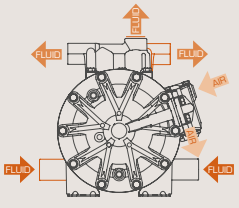
Plastic: DP200
Metal: DP200



Enhanced Leading Technology

1"
Up to 53 US gal/min
(200 l/min)

- **Designed for maximum performance and efficiency with high flow rates**
- **Improved frictionless pivot valve module**
  - Reduced air consuption.
- **Orientable inlet and outlet ports**
  - Increased installation versatility.



Vertical fluid outlet, only in metal version

Directflo® PUMP RANGE

PLASTIC PUMPS

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.



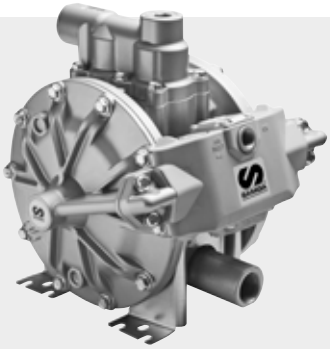

	DC20	DC30	DC50	DF30
Pressure ratio	1:1	1:1	1:1	1:1
Maximum free delivery (1)	5 US gal/min (20 l/min)	10 US gal/min (38 l/min)	14 US gal/min (50 l/min)	10 US gal/min (38 l/min)
Delivery per stroke approx. (1) (2)	0.008 US gal (0,03 liters)	0.02 US gal (0,07 liters)	0.026 US gal (0,1 liters)	0.02 US gal (0,07 liters)
Delivery per cycle (2 x strokes) (1) (2)	0.016 US gal (0,06 liters)	0.04 US gal (0,14 liters)	0.05 US gal (0,2 liters)	0.04 US gal (0,14 liters)
Air pressure operating range	22 to 100 psi (1,5 to 7 bar)	22 to 100 psi (1,5 to 7 bar)	22 to 100 psi (1,5 to 7 bar)	22 to 115 psi (1,5 to 8 bar)
Solids in suspension max. size	3/32" (2 mm)	1/8" (3 mm)	1/8" (3 mm)	1/8" (3 mm)
Maximum dry suction lift (1)	6 1/2' (2 m)	13' (4 m)	20' (6 m)	13' (4 m)
Maximum wet suction lift (1)	23' (7 m)	26' (8 m)	26' (8 m)	26' (8 m)
Weight	2.65 lb (1,2 kg)	4.19 lb (1,9 kg)	4.85 lb (2,2 kg)	4.19 lb (1,9 kg)
Fluid inlet connection	Int.:1/4" NPT/BSP (F) Ext.: 3/4" NPT (M)	1/2" NPT/BSP (F)	1/2" NPT/BSP (F)	1/2" NPT/BSP (F)
Fluid outlet connection	Int.:1/4" NPT/BSP (F) Ext.: 3/4" NPT (M)	1/2" NPT/BSP (F)	1/2" NPT/BSP (F)	1/2" NPT/BSP (F)
Air inlet connection	3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)
Wetted part materials	See recommended models on next pages.			

(1) Data measured with water, air inlet pressure 100 psi (7 bar) with DC models (115 psi (8 bar) with DF and DP models), 68 °F (20 °C) and flooded fluid inlet.
(2) Approximate value; real value may vary depending on working conditions, fluid pumped and pump materials.

METAL PUMPS

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



	DF50	DF100	DF250	DP200
Pressure ratio	1:1	1:1	1:1	1:1
Maximum free delivery (1)	14 US gal/min (50 l/min)	28 US gal/min (100 l/min)	66 US gal/min (250 l/min)	53 US gal/min (200 l/min)
Delivery per stroke approx. (1) (2)	0.026 US gal (0,1 liters)	0.07 US gal (0,25 liters)	0.16 US gal (0,6 liters)	0.13 US gal (0,5 liters)
Delivery per cycle (2 x strokes) (1) (2)	0.05 US gal (0,2 liters)	0.13 US gal (0,5 liters)	0.32 US gal (1,2 liters)	0.26 US gal (1 liter)
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)	3/16" (4 mm)	1/4" (6 mm)	1/4" (6 mm)
Maximum dry suction lift (1)	20' (6 m)	15' (4,5 m)	16.4' (5 m)	16' (5 m)
Maximum wet suction lift (1)	26' (8 m)	23' (7 m)	26' (8 m)	26' (8 m)
Weight	7.72 lb (3,5 kg)	16 lb (7,2 kg)	45 lb (20 kg)	23.35 lb (11,5 kg)
Fluid inlet connection	1/2" NPSM (F)	1" NPT/BSP (F)	1 1/2" NPT (F) and ANSI 1" B16.5 150 lb flange or 1 1/2" BSP (F) and DIN PN-10 DN40 flange	1" NPT/BSP (F)
Fluid outlet connection	1/2" NPSM (F)	1" NPT/BSP (F)	1 1/2" NPT (F) and ANSI 1" B16.5 150 lb flange or 1 1/2" BSP (F) and DIN PN-10 DN40 flange	1" NPT/BSP (F)
Air inlet connection	3/8" NPSM (F)	3/8" NPSM (F)	1/2" NPSM (F)	3/8" NPSM (F)
Wetted part materials	See recommended models on next pages.			

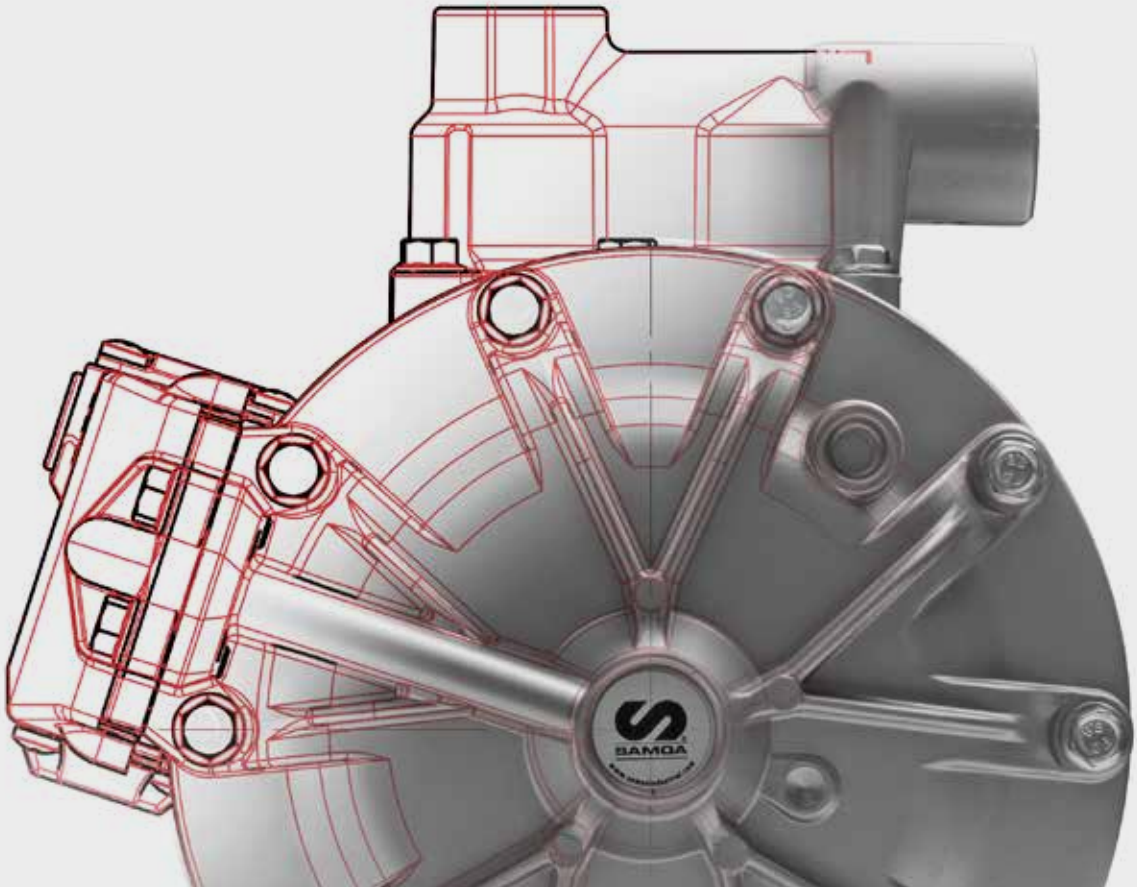
(1) Data measured with water, air inlet pressure 100 psi (7 bar) with DC models (115 psi (8 bar) with DF and DP models), 68 °F (20 °C) and flooded fluid inlet.
(2) Approximate value; real value may vary depending on working conditions, fluid pumped and pump materials.

PLASTIC PUMPS





DF30T	DF50	DF50T	DF100	DP200
1:1	1:1	1:1	1:1	1:1
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)	53 US gal/min (200 l/min)
0.02 US gal (0,07 liters)	0.026 US gal (0,1 liters)	0.026 US gal (0,1 liter)	0.07 US gal (0,25 liters)	0.13 US gal (0,5 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 (0,5 liters)	0.26 US gal (1 liter)
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)
1/8" (3 mm)	1/8" (3 mm)	1/8" (3 mm)	3/16" (4 mm)	1/4" (6 mm)
13' (4 m)	20' (6 m)	20' (6 m)	15' (4,5 m)	16' (5 m)
26' (8 m)	26' (8 m)	26' (8 m)	23' (7 m)	26' (8 m)
4.19 lb (1,9 kg)	4.85 lb (2,2 kg)	4.85 lb (2,2 kg)	11.24 (5,1 kg)	23.15 lb (10,5 kg)
2 x 3/8" NPT/BSP (F)	1/2" NPT/BSP (F)	2 x 3/8" NPT/BSP (F)	1" NPT/BSP (F)	1" DIN PN-10 DN25 flange and ANSI B16.5 1" 150 lb flange
1/2" NPT/BSP (F)	1/2" NPT/BSP (F)	1/2" NPT/BSP (F)	1" NPT/BSP (F)	1" DIN PN-10 DN25 flange and ANSI B16.5 1" 150 lb flange
3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)	3/8" NPSM (F)
See recommended models on next pages.				



Reliable Compact Design

1/4"
5 US gal/min
20 l/min

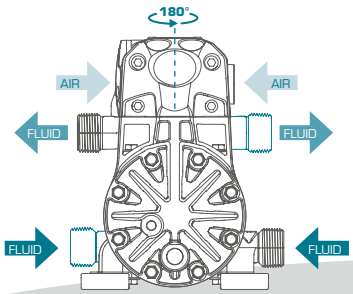
DC20 PLASTIC PUMPS

Air operated double diaphragm pumps for dosing and transferring a wide variety of fluids.

For OEM applications and industrial processes with lower flow rates. Unbalanced spool valve air motor requires lower start-up pressure for finer flow adjustment using regulating air pressure.

Pump wetted materials are compatible with the most aggressive fluids and are suitable for use in corrosive environments. Air motor (directional air valve and air chamber covers) is made of polypropylene.

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



Orientable ports, increased installation flexibility.

ATEX certified versions available
Ex II2 GD IIB/IIC 95 ˚C

RECOMMENDED MODELS

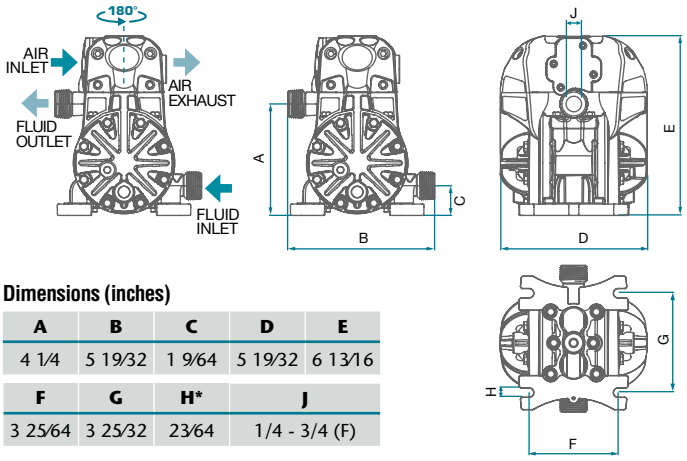
MODEL	PUMP BODY	DIAPHRAGMS	BALLS	SEATS	OTHER WETTED MATERIALS	RECOMMENDED APPLICATIONS
DC20PPSEPTMBAS	Polypropylene	Santoprene®	PTFE	Polypropylene	Stainless Steel, EPDM	Water based fluids and adhesives, diluted alkalis and acids, alcohols and water based coatings.
DC20PPSVPTHBAS	Polypropylene	TPE	PTFE	Polypropylene	Stainless Steel, FKM	Non aggressive aqueous chemical solutions, water.
DC20PPSTPTTBAS	Polypropylene	PTFE	PTFE	Polypropylene	Stainless Steel	Wide chemical compatibility. Good with acids and alkalis.
DC20PPYTPTTBAS	Polypropylene	PTFE	PTFE	Polypropylene	Hastelloy® C	CIPs chlorinated cleaning agents and home industrial cleaning agents. Acids and alkalis.
DC20PWYTWTTBAS	PVDF	PTFE	PTFE	PVDF	Hastelloy® C	Almost universal chemical pump, including strong acids and alkalis above room temperature. Not recommended for some strong alkalis or concentrated nitric acid.
DC20PDSTCTTBAS	Conductive Acetal	PTFE	PTFE	Acetal	Stainless Steel	ATEX pump. Solvents (most ketones, acetates, aldehydes, aromatic and chlorinated hydrocarbons), solvent and water based flexo and gravure inks, varnishes and paint.

1/4"
5 US gal/min
20 l/min

DC20 PLASTIC PUMPS

TECHNICAL DATA	
Pressure ratio	1:1
Maximum free delivery (1)	5 US gal/min (20 l/min)
Delivery per stroke approx. (1)	0.008 US gal (0,03l)
Delivery per cycle (2 x strokes) (1)	0,06 liters (0.016 US gal)
Air pressure operating range	22 to 100 psi (1,5 to 7 bar)
Solids in suspension max. size	2 mm (3/32")
Maximum dry suction lift (1)	6 1/2' (2 m)
Maximum wet suction lift (1)	23' (7 m)
Weight	2.65 lb (1,2 kg)
Fluid inlet connection	Int.: 1/4" NPT/BSP (F) / Ext.: 3/4" NPT (M)
Fluid outlet connection	Int.: 1/4" NPT/BSP (F) / Ext.: 3/4" NPT (M)
Air inlet connection	3/8" NPSM (F)
Wetted part materials	See recommended models

(1) Data measured with water, air inlet pressure 100 psi (7 bar), 68 ºF (20 ºC).



Dimensions (inches)

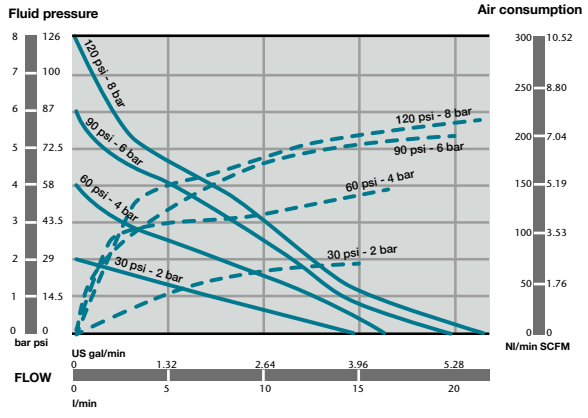
A	B	C	D	E
4 1/4	5 19/32	1 9/64	5 19/32	6 13/16

F	G	H*	J
3 25/64	3 25/32	23/64	1/4 - 3/4 (F)

** Diameter of the holes for fasteners in each of the four pump feet.*
Flange connection: 2 bolts - M 5 (1 39/64" between centers).

PERFORMANCE CURVES

Tested at room temperature, with water and flooded pump with 31 1/2" (800 mm) height of water above the pump inlet.



DC20 PLASTIC PUMP CODING SYSTEM

1	2	3	4	5	6	7	8	9	10
DC20	P	P	S	E	P	T	M	B	AS

1 PUMP SIZE
DC20

2 AIR MOTOR: DIRECTIONAL VALVE & AIR CHAMBER COVERS
P = Polypropylene

3 WETTED PUMP BODY
P = Polypropylene
B = Conductive Polypropylene (ATEX pump)
D = Conductive Acetal (ATEX pump)
W = PVDF
K = Conductive PVDF

4 PUSH ROD
S = Stainless Steel AISI 420
Y = Hastelloy® C

5 SEALS
V = FKM (Viton®)
E = EPDM
T = PTFE (Teflon®)

6 CHECK VALVE SEATS
P = Polypropylene
C = Acetal
W = PVDF

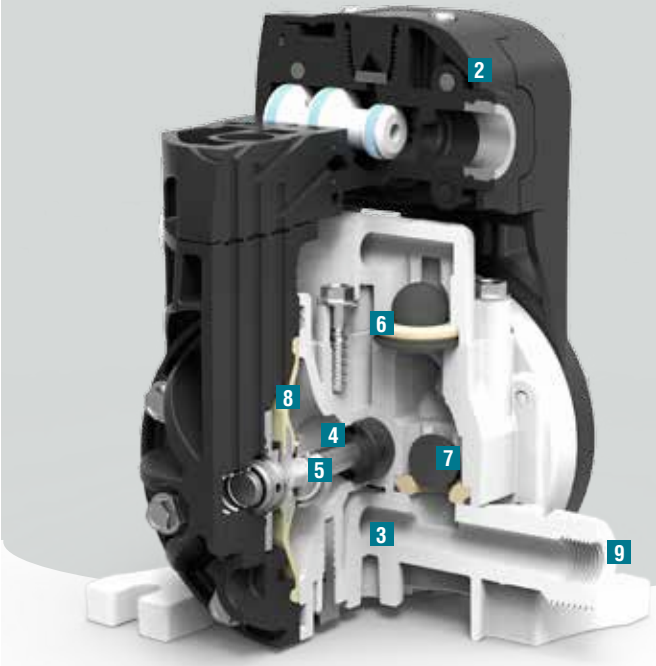
7 CHECK VALVE BALLS
T = PTFE (Teflon®)
C = Acetal

8 DIAPHRAGMS
T = PTFE (Teflon®)
M = Santoprene®
H = TPE (Hytrel®)

9 FLUID CONNECTION THREADS
B = BSP
N = NPT

10 OPTIONS
AS = Standard pump
BS = Remote air exhaust *
DS = Stroke sensor
FS = Extra muffler

** Included in all DC20 pumps*



Reliable Compact Design

1/2"
10 US gal/min
38 l/min

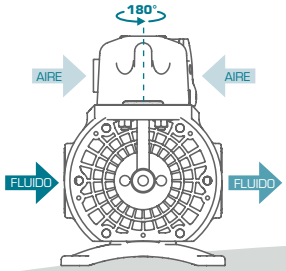
DC30 PLASTIC PUMPS

Air operated double diaphragm pumps for dosing and transferring a wide variety of fluids.

For OEM applications and industrial processes with lower flow rates. Unbalanced spool valve air motor requires lower start-up pressure for finer flow adjustment using regulating air pressure.

Pump wetted materials are compatible with the most aggressive fluids and are suitable for use in corrosive environments. Air motor (directional air valve and air chamber covers) is made of polypropylene.

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



Orientable air inlet, increased installation flexibility.

ATEX certified versions available
Ex II2 GD IIB/IIC 95 ˚C

RECOMMENDED MODELS

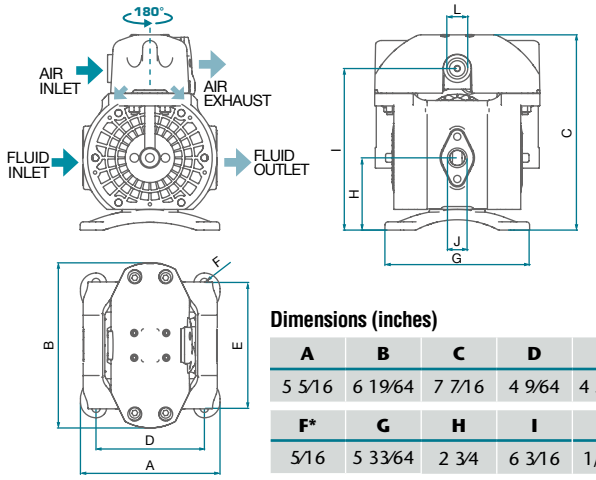
MODEL	PUMP BODY	DIAPHRAGMS	BALLS	SEATS	OTHER WETTED MATERIALS	RECOMMENDED APPLICATIONS
DC30PPSESTMBAS	Polypropylene	Santoprene®	PTFE	Stainless Steel	EPDM	Water based fluids and adhesives, diluted alkalis and acids, alcohols and water based coatings.
DC30PPSTSTTBAS	Polypropylene	PTFE	PTFE	Stainless Steel	Stainless Steel	Wide chemical compatibility. Good with acids and alkalis.
DC30PPYTWTTBAS	Polypropylene	PTFE	PTFE	PVDF	Hastelloy® C	CIPs chlorinated cleaning agents and home & industrial cleaning agents. Acids and alkalis.
DC30PDSTSTTBAS	Conductive Acetal	PTFE	PTFE	Stainless Steel	Stainless Steel	ATEX pump. Solvents (most ketones, acetates, aldehydes, aromatic and chlorinated hydrocarbons), solvent and water based flexo and gravure inks, varnishes and paint.

1/2"
10 US gal/min
38 l/min

DC30 PLASTIC PUMPS

TECHNICAL DATA	
Pressure ratio	1:1
Maximum free delivery (1)	10 US gal/min (38 l/min)
Delivery per stroke approx. (1)	0.02 US gal (0,07 liters)
Delivery per cycle (2 x strokes) (1)	0.04 US gal (0,14 liters)
Air pressure operating range	22 to 100 psi (1,5 to 7 bar)
Solids in suspension max. size	1/8" (3 mm)
Maximum dry suction lift (1)	13' (4 m)
Maximum wet suction lift (1)	26' (8 m)
Weight	4.19 lb (1,9 kg)
Fluid inlet connection	1/2" NPT/BSP (F)
Fluid outlet connection	1/2" NPT/BSP (F)
Air inlet connection	3/8" NPSM (F)
Wetted part materials	See recommended models

(1) Data measured with water, air inlet pressure 100 psi (7 bar), 68 ºF (20 ºC).



Dimensions (inches)

A	B	C	D	E
5 5/16	6 19/64	7 7/16	4 9/64	4 51/64

F*	G	H	I	J	L
5/16	5 33/64	2 3/4	6 3/16	1/2 (F)	3/8 (F)

** Diameter of the holes for fasteners in each of the four pump feet.*

DC30 PLASTIC PUMP CODING SYSTEM

1	2	3	4	5	6	7	8	9	10
DC30	P	P	S	E	S	T	M	B	AS

1 PUMP SIZE
DC30

2 AIR MOTOR: DIRECTIONAL VALVE &AIR CHAMBER COVERS
P = Polypropylene

3 WETTED PUMP BODY
P = Polypropylene
D = Conductive Acetal (ATEX pump)

4 PUSH ROD
S = Stainless Steel AISI 420
Y = Hastelloy® C

5 SEALS
E = EPDM
T = PTFE (Teflon®)

6 CHECK VALVE SEATS
S = Stainless Steel AISI 316
W = PVDF

7 CHECK VALVE BALLS
T = PTFE (Teflon®)
C = Acetal

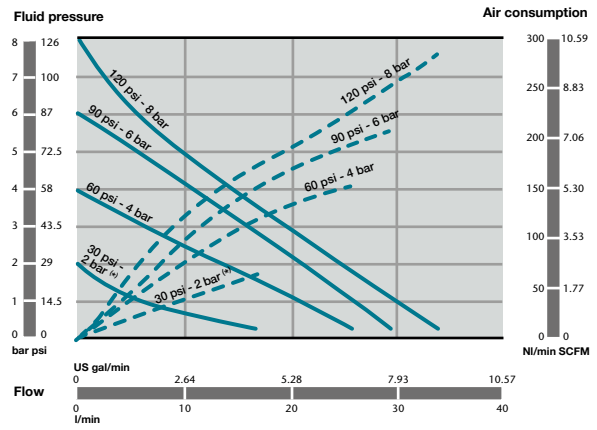
8 DIAPHRAGMS
T = PTFE (Teflon®)
M = Santoprene®

9 FLUID CONNECTION THREADS
B = BSP
N = NPT

10 OPTIONS
AS = Standard pump
BS = Remote air exhaust
FS = Extra muffler
US = Special UV Ink pump

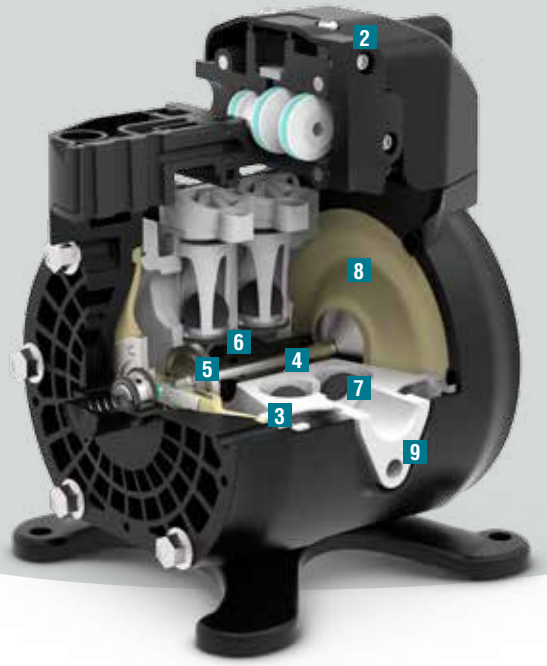
PERFORMANCE CURVES

Tested at room temperature, with water and flooded pump with 31 1/2" (800 mm) height of water above the pump inlet.



(*) 30 psi test with a PTFE (Teflon®) diaphragms pump.

Outlet pressure Air consumption



Reliable Compact Design

1/2"
14 US gal/min
50 l/min

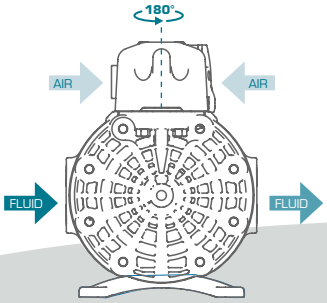
DC50 PLASTIC PUMPS

Air operated double diaphragm pumps for dosing and transferring a wide variety of fluids.

For OEM applications and industrial processes with lower flow rates. Unbalanced spool valve air motor requires lower start-up pressure for finer flow adjustment using regulating air pressure.

Pump wetted materials are compatible with the most aggressive fluids and are suitable for use in corrosive environments. Air motor (directional air valve and air chamber covers) is made of polypropylene.

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



Orientable air inlet, increased installation flexibility.

ATEX certified versions available
Ex II2 GD IIB/IIC 95 ˚C

RECOMMENDED MODELS

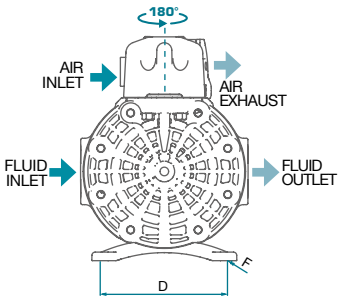
MODEL	PUMP BODY	DIAPHRAGMS	BALLS	SEATS	OTHER WETTED MATERIALS	RECOMMENDED APPLICATIONS
DC50PPSESTMBAS	Polypropylene	Santoprene®	PTFE	Stainless Steel	EPDM	Water based fluids and adhesives, diluted alkalis and acids, alcohols and water based coatings.
DC50PPSTSTTBAS	Polypropylene	PTFE	PTFE	Stainless Steel	Stainless Steel	Wide chemical compatibility. Good with acids and alkalis.
DC50PPYTWTTBAS	Polypropylene	PTFE	PTFE	PVDF	Hastelloy® C	CIPs chlorinated cleaning agents and home & industrial cleaning agents. Acids and alkalis.
DC50PDSTSTTBAS	Conductive Acetal	PTFE	PTFE	Stainless Steel	Stainless Steel	ATEX pump. Solvents (most ketones, acetates, aldehydes, aromatic and chlorinated hydrocarbons), solvent and water based flexo and gravure inks, varnishes and paint.

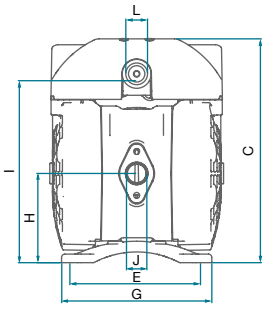
1/2"
14 US gal/min
50 l/min

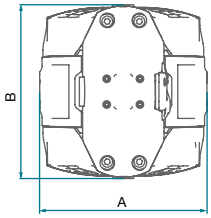
DC50 PLASTIC PUMPS

TECHNICAL DATA	
Pressure ratio	1:1
Maximum free delivery (1)	14 US gal/min (50 l/min)
Delivery per stroke approx. (1)	0.026 US gal (0,1 liters)
Delivery per cycle (2 x strokes) (1)	0.05 US gal (0,2 liters)
Air pressure operating range	22 to 100 psi (1,5 to 7 bar)
Solids in suspension max. size	1/8" (3 mm)
Maximum dry suction lift (1)	20' (6 m)
Maximum wet suction lift (1)	26' (8 m)
Weight	4.85 lb (2,2 kg)
Fluid inlet connection	1/2" NPT/BSP (F)
Fluid outlet connection	1/2" NPT/BSP (F)
Air inlet connection	3/8" NPSM (F)
Wetted part materials	See recommended models

(1) Data measured with water, air inlet pressure 100 psi (7 bar), 68 ºF (20 ºC).







Dimensions (inches)

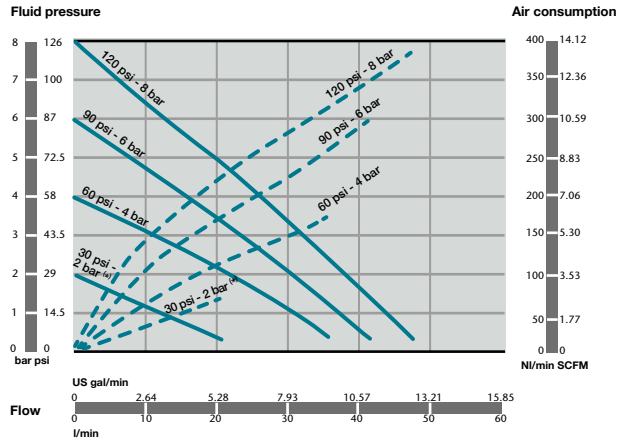
A	B	C	D	E
6 9/64	6 3/8	8 15/64	4 9/64	4 51/64

F*	G	H	I	J	L
5/16	5 33/64	3 17/64	6 59/64	1/2 (F)	3/8 (F)

** Diameter of the holes for fasteners in each of the four pump feet.*

PERFORMANCE CURVES

Tested at room temperature, with water and flooded pump with 31 1/2" (800 mm) height of water above the pump inlet.



(*) 30 psi test with a PTFE (Teflon®) diaphragms pump.

Outlet pressure **Air consumption**

DC50 PLASTIC PUMP CODING SYSTEM

1	2	3	4	5	6	7	8	9	10
DC50	P	P	S	E	S	T	M	B	AS

1 PUMP SIZE
DC50

2 AIR MOTOR: DIRECTIONAL VALVE & AIR CHAMBER COVERS
P = Polypropylene

3 WETTED PUMP BODY
P = Polypropylene
D = Conductive Acetal (ATEX pump)

4 PUSH ROD
S = Stainless Steel AISI 420
Y = Hastelloy® C

5 SEALS
E = EPDM
T = PTFE (Teflon®)

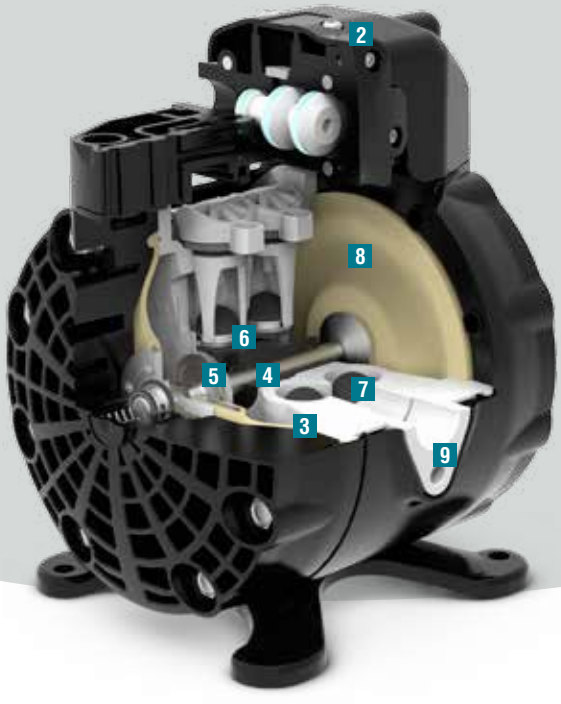
6 CHECK VALVE SEATS
S = Stainless Steel AISI 316
W = PVDF

7 CHECK VALVE BALLS
T = PTFE (Teflon®)
C = Acetal

8 DIAPHRAGMS
T = PTFE (Teflon®)
M = Santoprene®

9 FLUID CONNECTION THREADS
B = BSP
N = NPT

10 OPTIONS
AS = Standard pump
BS = Remote air exhaust
FS = Extra muffler
US = Special UV Ink pump



Original Directflo® Technology

1/2"
10 US gal/min
38 l/min

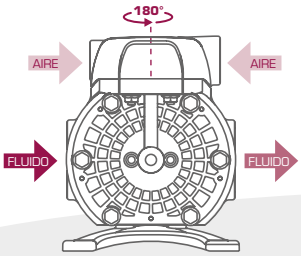
DF30 & DF30T PLASTIC PUMPS

Air operated double diaphragm pumps for dosing, spraying, transferring and distributing a wide variety of fluids in small flow rates applications.

Pump wetted parts are compatible even with the most aggressive fluids and are suitable for use in corrosive environments. Air motor (directional air valve and air chamber covers) is made of polypropylene.

DF30T are dual inlet pumps for 1:1 ratio mixing of fluids with similar viscosity. Both, the initial fluids and the resulting mixture, must be compatible with the pump's wetted materials.

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



Orientable air inlet, increased installation flexibility.

ATEX certified versions available
Ex II2 GD IIB/IIC 95 ˚C

RECOMMENDED MODELS

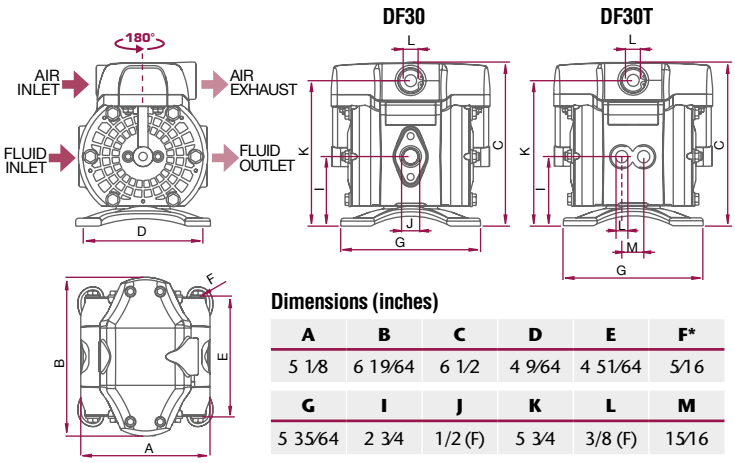
MODEL	PUMP BODY	DIAPHRAGMS	BALLS	SEATS	OTHER WETTED MATERIALS	RECOMMENDED APPLICATIONS	
DF30PPSESTMBAS	Polypropylene	Santoprene®	PTFE	Stainless Steel	EPDM	Water based fluids, coatings and adhesives, diluted mild alkalis and acids, alcohols.	
DF30PPSVSTHBAS	Polypropylene	TPE	PTFE	Stainless Steel	FKM	Water and some aqueous chemicals. General application pump for lubricants.	
DF30PPYTWTTBAS	Polypropylene	PTFE	PTFE	PVDF	Hastelloy® C	Wide compatibility, including acids and alkalis for water treatment and CIPs chlorinated cleaning agents for home & industrial cleaning processes.	
DF30PPSTSTTBAS	Polypropylene	PTFE	PTFE	Stainless Steel	-	Wide chemical compatibility.	
DF30PKYTWTTBAS	Conductive PVDF	PTFE	PTFE	PVDF	Hastelloy® C	ATEX pump. Strong acids (some above room temperature) and alkalis. Not recommended for some strong alkalis or concentrated nitric acid.	Ex
DF30PDSTSTTBAS	Conductive Acetal	PTFE	PTFE	Stainless Steel	-	ATEX pump. Solvents (most ketones, acetates, aldehydes, aromatic and chlorinated hydrocarbons, toluene) and solvents based inks, paints and varnishes.	Ex

1/2"
10 US gal/min
38 l/min

DF30 & DF30T PLASTIC PUMPS

TECHNICAL DATA	
Pressure ratio	1:1
Maximum free delivery (1)	10 US gal/min (38 l/min)
Delivery per stroke approx. (1)	0.02 US gal (0,07 liters)
Delivery per cycle (2 x strokes) (1)	0.04 US gal (0,14 liters)
Air pressure operating range	22 to 115 psi (1,5 to 8 bar)
Solids in suspension max. size	1/8" (3 mm)
Maximum dry suction lift (1)	13' (4 m)
Maximum wet suction lift (1)	26' (8 m)
Weight	4.19 lb (1,9 kg)
Fluid inlet connection	1/2" NPT/BSP (F) 2 x 3/8" NPT/BSP (F) (DF30T)
Fluid outlet connection	1/2" NPT/BSP (F)
Air inlet connection	3/8" NPSM (F)
Wetted part materials	See recommended models

(1) Data measured with water, air inlet pressure 100 psi (7 bar), 68 ºF (20 ºC).



Dimensions (inches)

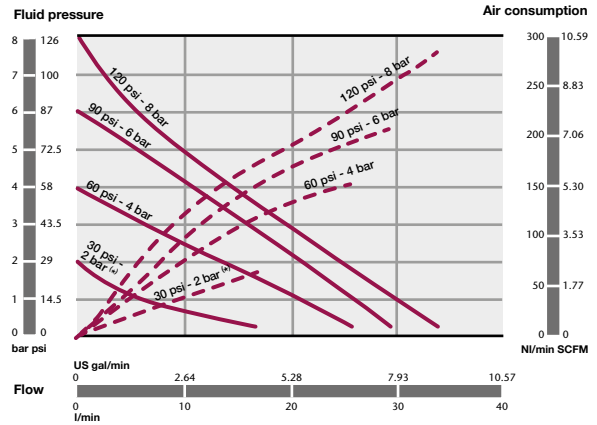
A	B	C	D	E	F*
5 1/8	6 19/64	6 1/2	4 9/64	4 51/64	5/16

G	I	J	K	L	M
5 35/64	2 3/4	1/2 (F)	5 3/4	3/8 (F)	15/16

* Diameter of the holes for fasteners in each of the four pump feet.

PERFORMANCE CURVES

Tested at room temperature, with water and flooded pump with 31 1/2" (800 mm) height of water above the pump inlet.



(*) 30 psi test with a PTFE (Teflon®) diaphragms pump.

Outlet pressure Air consumption

DF30 & DF30T PLASTIC PUMP CODING SYSTEM

1	2	3	4	5	6	7	8	9	10
DF30	P	P	S	E	S	T	M	B	AS

1 PUMP SIZE
DF30
DF30T (Dual inlet)

2 AIR MOTOR: DIRECTIONAL VALVE & AIR CHAMBER COVERS
P = Polypropylene

3 WETTED PUMP BODY
P = Polypropylene
B = Conductive Polypropylene (ATEX pump)
D = Conductive Acetal (ATEX pump)
W = PVDF *
K = Conductive PVDF (ATEX pump) *

4 PUSH ROD
S = Stainless Steel AISI 420
Y = Hastelloy® C *

5 SEALS
V = FKM (Viton®)
E = EPDM
T = PTFE (Teflon®)

6 CHECK VALVE SEATS
S = Stainless Steel AISI 316
W = PVDF *

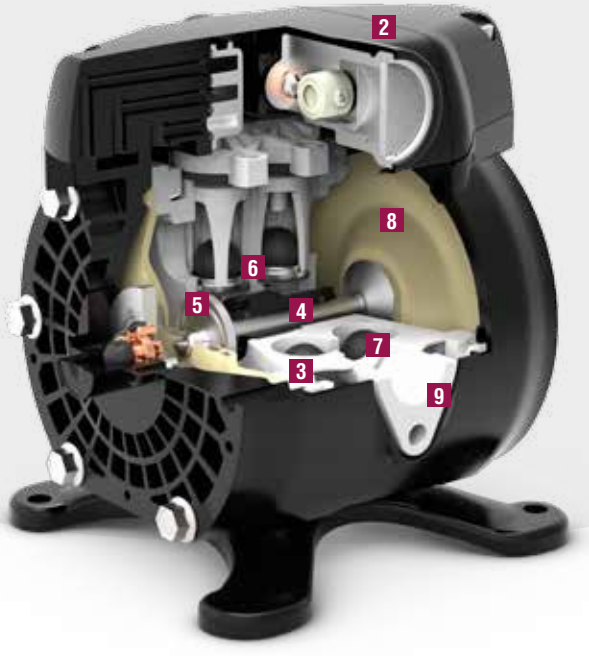
7 CHECK VALVE BALLS
T = PTFE (Teflon®)
C = Acetal
S = Stainless Steel AISI 316

8 DIAPHRAGMS
T = PTFE (Teflon®)
M = Santoprene®
H = TPE (Hytrel®)

9 FLUID CONNECTION THREADS
B = BSP
N = NPT

10 OPTIONS
AS = Standard pump
BS = Remote air exhaust
ES = Externally driven
FS = Extra muffler
US = Special UV Ink pump
GS = NPN inductive external pump control sensor
IS = ATEX inductive external pump control sensor
JS = PNP inductive external pump control sensor

(*) Not for DF30T pumps



Original Directflo® Technology

1/2"
14 US gal/min
50 l/min

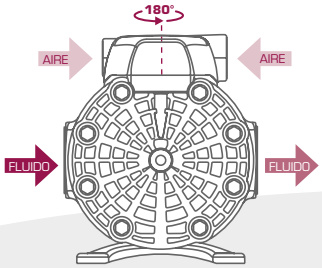
DF50 & DF50T PLASTIC PUMPS

Air operated double diaphragm pumps for dosing, spraying, transferring and distributing a wide variety of fluids in small to medium flow rates applications.

Pump wetted parts are compatible even with the most aggressive fluids and are suitable for use in corrosive environments. Air motor (directional air valve and air chamber covers) is made of polypropylene.

DF50T are dual inlet pumps for 1:1 ratio mixing of fluids with similar viscosity. Both, the initial fluids and the resulting mixture, must be compatible with the pump's wetted materials.

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



Orientable air inlet, increased installation flexibility.

ATEX certified versions available
Ex II2 GD IIB/IIC 95 ˚C

RECOMMENDED MODELS

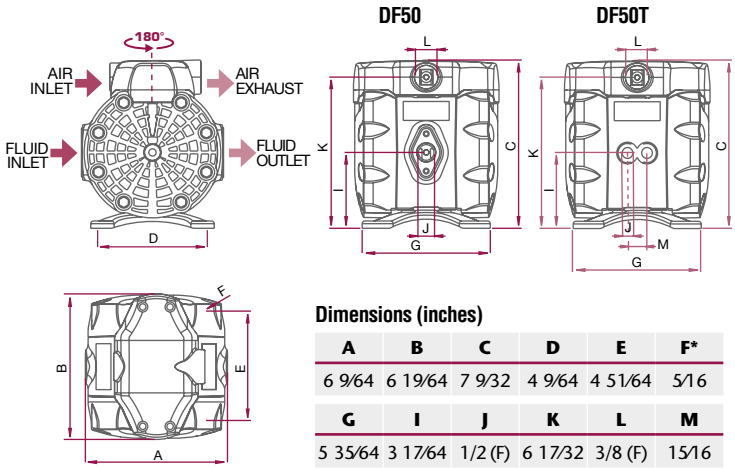
MODEL	PUMP BODY	DIAPHRAGMS	BALLS	SEATS	OTHER WETTED MATERIALS	RECOMMENDED APPLICATIONS	
DF50PPSESTMBAS	Polypropylene	Santoprene®	PTFE	Stainless Steel	EPDM	Water based fluids, coatings and adhesives, diluted mild alkalis and acids, alcohols.	
DF50PPSVSTHBAS	Polypropylene	TPE	PTFE	Stainless Steel	FKM	Water and some aqueous chemicals. General application pump for lubricants.	
DF50PPYTWTTBAS	Polypropylene	PTFE	PTFE	PVDF	Hastelloy® C	Wide compatibility, including acids and alkalis for water treatment and CIPs chlorinated cleaning agents for home & industrial cleaning processes.	
DF50PPSTSTTBAS	Polypropylene	PTFE	PTFE	Stainless Steel	-	Wide chemical compatibility.	
DF50PKYTWTTBAS	Conductive PVDF	PTFE	PTFE	PVDF	Hastelloy® C	ATEX pump. Strong acids (some above room temperature) and alkalis. Not recommended for some strong alkalis or concentrated nitric acid.	Ex
DF50PDSTSTTBAS	Conductive Acetal	PTFE	PTFE	Stainless Steel	-	ATEX pump. Solvents (ketones, acetates, aldehydes, aromatic and chlorinated hydrocarbons, toluene) and solvent based inks, paints and varnishes.	Ex

1/2"
14 US gal/min
50 l/min

DF50 & DF50T PLASTIC PUMPS

TECHNICAL DATA	
Pressure ratio	1:1
Maximum free delivery (1)	14 US gal/min (50 l/min)
Delivery per stroke approx. (1)	0.026 US gal (0,1 liters)
Delivery per cycle (2 x strokes) (1)	0.05 US gal (0,2 liters)
Air pressure operating range	22 to 115 psi (1,5 to 8 bar)
Solids in suspension max. size	1/8" (3 mm)
Maximum dry suction lift (1)	20' (6 m)
Maximum wet suction lift (1)	26' (8 m)
Weight	4.85 lb (2,2 kg)
Fluid inlet connection	1/2" NPT/BSP (F) - 2 x 3/8" NPT/BSP DF50T
Fluid outlet connection	1/2" NPT/BSP (F)
Air inlet connection	3/8" NPSM (F)
Wetted part materials	See recommended models

(1) Data measured with water, air inlet pressure 100 psi (7 bar), 68 ºF (20 ºC).



Dimensions (inches)

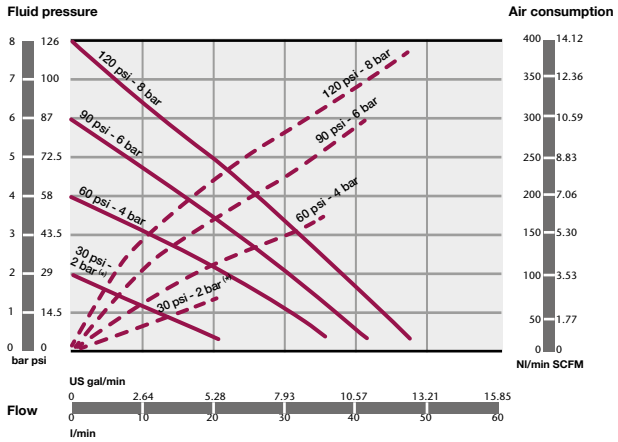
A	B	C	D	E	F*
6 9/64	6 19/64	7 9/32	4 9/64	4 51/64	5/16

G	I	J	K	L	M
5 35/64	3 17/64	1/2 (F)	6 17/32	3/8 (F)	15/16

* Diameter of the holes for fasteners in each of the four pump feet.

PERFORMANCE CURVES

Tested at room temperature, with water and flooded pump with 31 1/2" (800 mm) height of water above the pump inlet.



(*) 30 psi test with a pump fitted with PTFE (Teflon®) diaphragms.

Outlet pressure Air consumption

DF50 & DF50T PLASTIC PUMP CODING SYSTEM

1	2	3	4	5	6	7	8	9	10
DF50	P	P	S	E	S	T	M	B	AS

1 PUMP SIZE
DF50
DF50T (Dual inlet)

2 AIR MOTOR: DIRECTIONAL VALVE & AIR CHAMBER COVERS
P = Polypropylene

3 WETTED PUMP BODY
P = Polypropylene
B = Conductive Polypropylene (ATEX pump)
D = Conductive Acetal (ATEX pump)
W = PVDF *
K = Conductive PVDF (ATEX pump) *

4 PUSH ROD
S = Stainless Steel AISI 420
Y = Hastelloy® C *

5 SEALS
V = FKM (Viton®)
E = EPDM
T = PTFE (Teflon®)

6 CHECK VALVE SEATS
S = Stainless Steel AISI 316
W = PVDF *

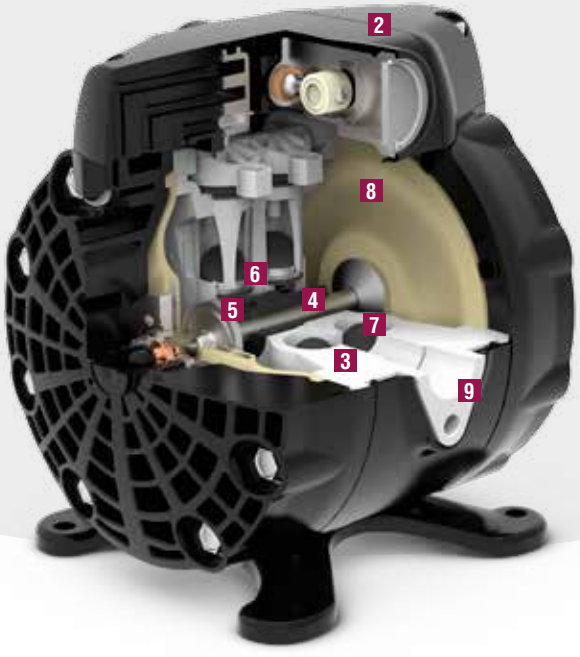
7 CHECK VALVE BALLS
T = PTFE (Teflon®)
C = Acetal
S = Stainless Steel AISI 316

8 DIAPHRAGMS
T = PTFE (Teflon®)
M = Santoprene®
H = TPE (Hytrel®)

9 FLUID CONNECTION THREADS
B = BSP
N = NPT

10 OPTIONS
AS = Standard pump
BS = Remote air exhaust
ES = Externally driven
FS = Extra muffler
GS = NPN inductive external pump control sensor.
IS = ATEX inductive external pump control sensor.
JS = PNP inductive external pump control sensor
US = Special UV ink pump

(*) Not for DF50T pumps



Original Directflo® Technology

1"
28 US gal/min
100 l/min

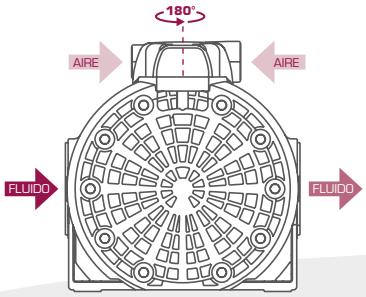
DF100 PLASTIC PUMPS

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

Ideal for standard applications with medium flow rates.

Pump wetted parts are compatible even with the most aggressive fluids and are suitable for use in corrosive environments. Air motor (directional air valve and air chamber covers) is made of polypropylene.

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



Orientable air inlet, increased installation flexibility.

ATEX certified versions available
Ex II2 GD IIB/IIC 95 ˚C

RECOMMENDED MODELS

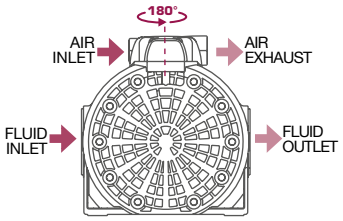
MODEL	PUMP BODY	DIAPHRAGMS	BALLS	SEATS	OTHER WETTED MATERIALS	RECOMMENDED APPLICATIONS	
DF100PPSESTMBAS	Polypropylene	Santoprene®	PTFE	Stainless Steel	EPDM	Water based fluids, coatings and adhesives, diluted mild alkalis and acids, alcohols.	
DF100PPSVSTHBAS	Polypropylene	TPE	PTFE	Stainless Steel	FKM	Water and some aqueous chemicals. General application pump for lubricants.	
DF100PPYTWTTBAS	Polypropylene	PTFE	PTFE	PVDF	Hastelloy® C	Wide compatibility, including acids and alkalis for water treatment and CIPs chlorinated cleaning agents for home & industrial cleaning processes.	
DF100PPSTSTTBAS	Polypropylene	PTFE	PTFE	Stainless Steel	-	Wide chemical compatibility.	
DF100PKYTWTTBAS	Conductive PVDF	PTFE	PTFE	PVDF	Hastelloy® C	ATEX pump. Strong acids (some above room temperature) and alkalis. Not recommended for some strong alkalis or concentrated nitric acid.	Ex
DF100PDSTSTTBAS	Conductive Acetal	PTFE	PTFE	Stainless Steel	-	ATEX pump. Solvents (ketones, acetates, aldehydes, aromatic and chlorinated hydrocarbons, toluene) and solvent based inks, paints and varnishes.	Ex

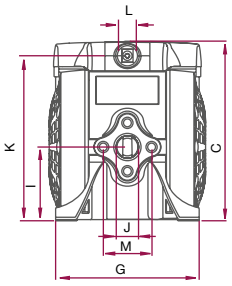
1"
28 US gal/min
100 l/min

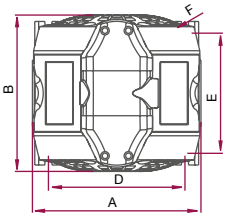
DF100 PLASTIC PUMPS

TECHNICAL DATA	
Pressure ratio	1:1
Maximum free delivery (1)	28 US gal/min (100 l/min)
Delivery per stroke approx. (1)	0.07 US gal (0,25 liters)
Delivery per cycle (2 x strokes) (1)	0.13 US gal (0,5 liters)
Air pressure operating range	22 to 115 psi (1,5 to 8 bar)
Solids in suspension max. size	3/16" (4 mm)
Maximum dry suction lift (1)	15' (4,5 m)
Maximum wet suction lift (1)	23' (7 m)
Weight	11.24 lb (5,1 kg)
Fluid inlet connection	1" NPT/BSP (F)
Fluid outlet connection	1" NPT/BSP (F)
Air inlet connection	3/8" NPSM (F)
Wetted part materials	See recommended models

(1) Data measured with water, air inlet pressure 100 psi (7 bar), 68 ºF (20 ºC).







Dimensions (inches)

A	B	C	D	E	F*
8 1/2	8 37/64	9 1/16	6 57/64	6 1/16	5/16

G	I	J	K	L	M
7 1/4	3 23/32	1 (F)	8 21/64	3/8 (F)	2 7/16

* Diameter of the holes for fasteners in each of the four pump feet.

DF100 PLASTIC PUMP CODING SYSTEM

1	2	3	4	5	6	7	8	9	10
DF100	P	P	S	E	S	T	M	B	AS

1 PUMP SIZE
DF100

2 AIR MOTOR: DIRECTIONAL VALVE & AIR CHAMBER COVERS
P = Polypropylene

3 WETTED PUMP BODY
P = Polypropylene
B = Conductive Polypropylene (ATEX pump)
D = Conductive Acetal (ATEX pump)
W = PVDF
K = Conductive PVDF (ATEX pump)

4 PUSH ROD
S = Stainless Steel AISI 420
Y = Hastelloy® C

5 SEALS
V = FKM (Viton®)
E = EPDM
T = PTFE (Teflon®)

6 CHECK VALVE SEATS
S = Stainless Steel AISI 316
W = PVDF

7 CHECK VALVE BALLS
T = PTFE (Teflon®)
C = Acetal
S = Stainless Steel AISI 316

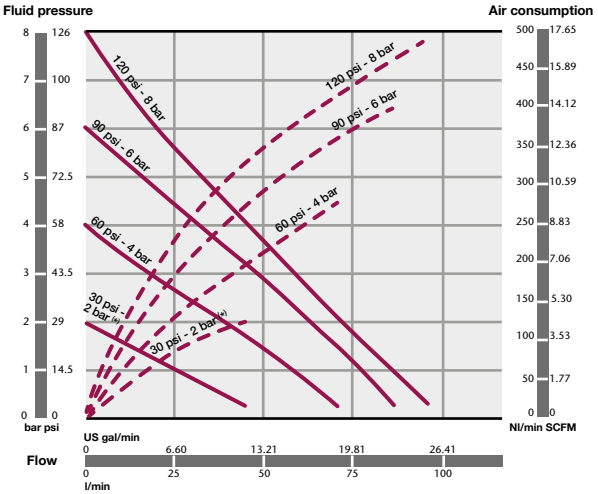
8 DIAPHRAGMS
T = PTFE (Teflon®)
M = Santoprene®
H = TPE (Hytrel®)

9 FLUID CONNECTION THREADS
B = BSP
N = NPT

10 OPTIONS
AS = Standard pump
BS = Remote air exhaust
ES = Externally driven
FS = Extra muffler
GS = NPN inductive external pump control sensor.
IS = ATEX inductive external pump control sensor.
JS = PNP inductive external pump control sensor
US = Special UV ink pump

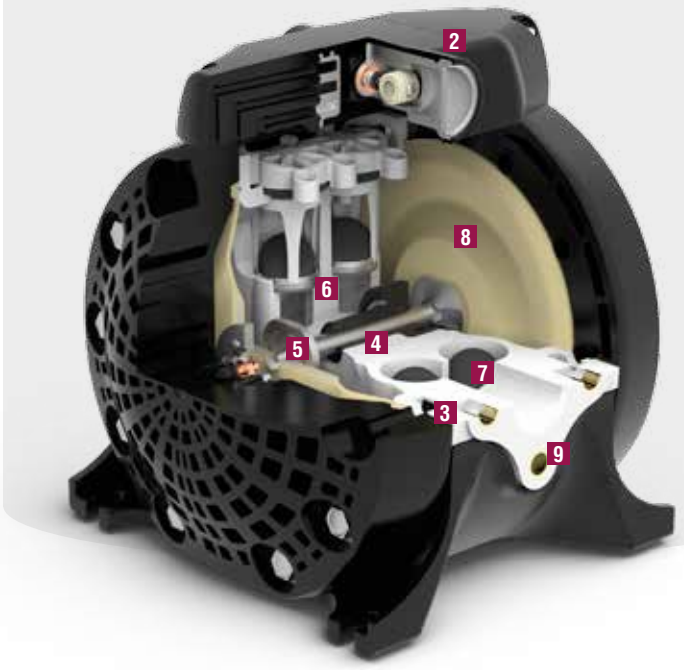
PERFORMANCE CURVES

Tested at room temperature, with water and flooded pump with 31 1/2" (800 mm) height of water above the pump inlet.



(*) 30 psi test with a pump fitted with PTFE (Teflon®) diaphragms.

Outlet pressure ----- Air consumption



Enhanced Leading Technology

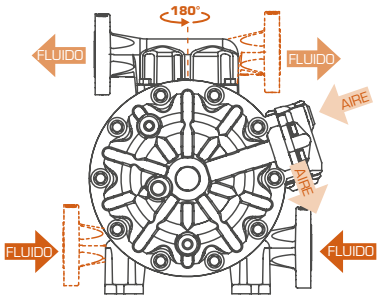
DP200 PLASTIC PUMPS

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

Designed for maximum performance and efficiency in high flow applications.

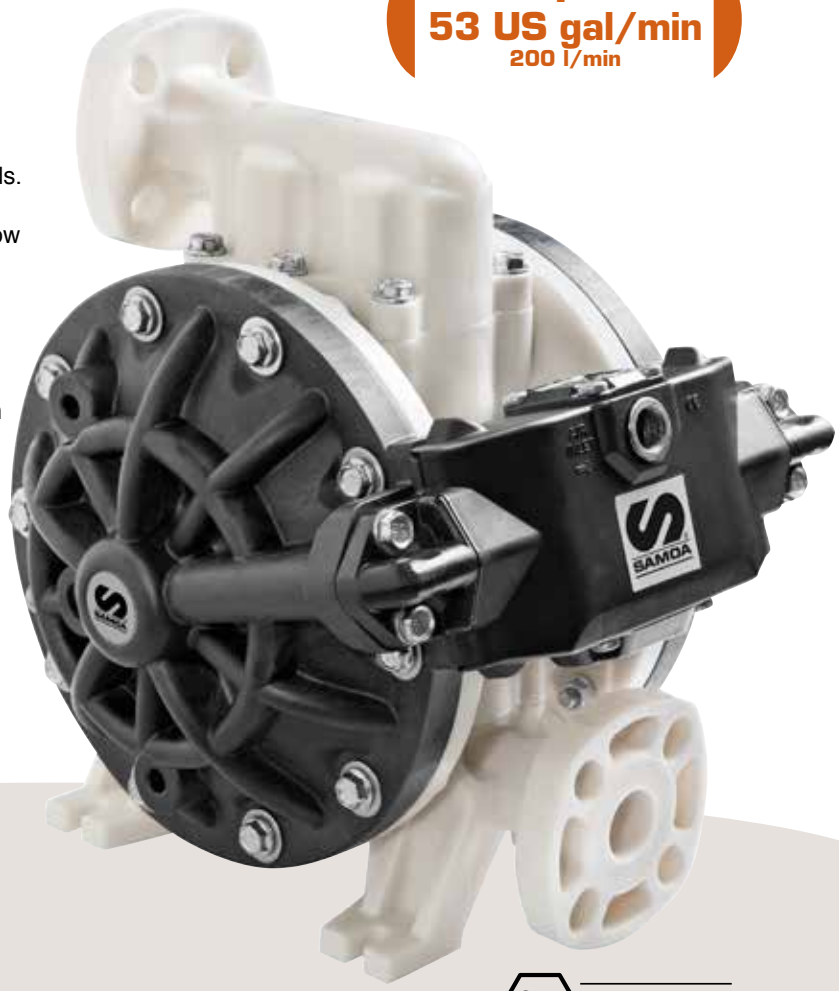
Plastic pumps are recommended for some submersible applications and aggressive atmospheres.

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



Orientable ports, increased installation versatility.

1"
53 US gal/min
200 l/min



ATEX certified versions available
Ex II2 GD IIB/IIC 95 ˚C

RECOMMENDED MODELS

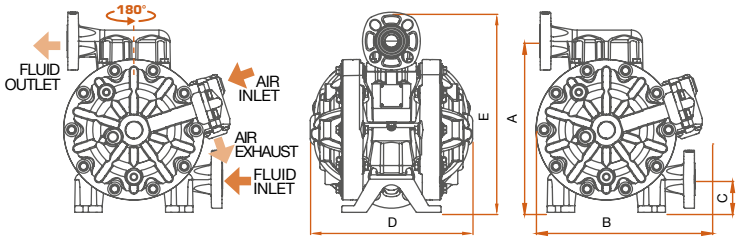
MODEL	PUMP BODY	DIAPHRAGMS	BALLS	SEATS	OTHER WETTED MATERIALS	RECOMMENDED APPLICATIONS	
DP200PPSEMTMFAS	Polypropylene	Santoprene®	PTFE	Santoprene®	EPDM	Water based fluids, coatings and adhesives, diluted mild alkalis and acids, alcohols.	
DP200PPSVHTHFAS	Polypropylene	TPE	PTFE	TPE	FKM	Water and some aqueous chemicals. General application pump for lubricants.	
DP200PPYTPTTFAS	Polypropylene	PTFE	PTFE	Polypropylene	Hastelloy® C	Wide compatibility, including acids and alkalis for water treatment and CIPs chlorinated cleaning agents for home & industrial cleaning processes.	
DP200PPSTPTTFAS	Polypropylene	PTFE	PTFE	Polypropylene	-	Wide chemical compatibility.	
DP200PKYTWTTFAS	Conductive PVDF	PTFE	PTFE	PVDF	Hastelloy® C	ATEX pump. Strong acids (some above room temperature) and alkalis. Not recommended for some strong alkalis or concentrated nitric acid.	Ex
DP200PDSTCTTFAS	Conductive Acetal	PTFE	PTFE	Acetal	-	ATEX pump. Solvents (ketones, acetates, aldehydes, aromatic and chlorinated hydrocarbons, toluene) and solvent based inks, paints and varnishes.	Ex

1"
53 US gal/min
200 l/min

DP200 PLASTIC PUMPS

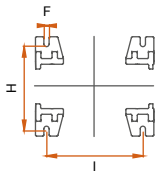
TECHNICAL DATA	
Pressure ratio	1:1
Maximum free delivery (1)	53 US gal/min (200 l/min)
Delivery per stroke approx. (1)	0.13 US gal (0,5 liters)
Delivery per cycle (2 x strokes) (1)	0.26 US gal (1 liter)
Air pressure operating range	22 to 115 psi (1,5 to 8 bar)
Solids in suspension max. size	1/4" (6 mm)
Maximum dry suction lift (1)	16' (5 m)
Maximum wet suction lift (1)	26' (8 m)
Weight	23.15 lb (10,5 kg)
Fluid inlet connection	1" DIN PN-10 DN25 flange and ANSI B16.5 1" 150 lb flange
Fluid outlet connection	1" DIN PN-10 DN25 flange and ANSI B16.5 1" 150 lb flange
Air inlet connection	3/8" NPSM (F)
Wetted part materials	See recommended models

(1) Data measured with water, air inlet pressure 100 psi (7 bar), 68 ºF (20 ºC).



Dimensions (inches)

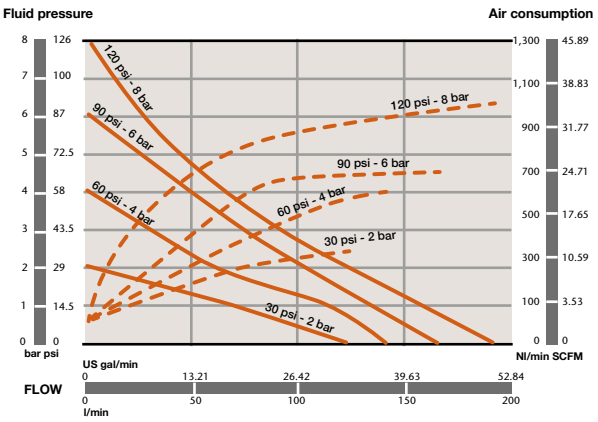
A	B	C	D
1 21/4	12 19/32	2 23/64	11 39/64
E	**F***	**H**	**I**
14 21/64	23/64	6 1/16	6 57/64



* Diameter of the holes for fasteners in each of the four pump feet.

PERFORMANCE CURVES

Tested at room temperature, with water and flooded pump with 31 1/2" (800 mm) height of water above the pump inlet.



(*) 30 psi test with a pump fitted with PTFE (Teflon®) diaphragms.

Outlet pressure Air consumption

DP200 PLASTIC PUMP CODING SYSTEM

1	2	3	4	5	6	7	8	9	10
DP200	P	P	S	E	M	T	M	F	AS

1 PUMP SIZE
DP200

2 AIR MOTOR: DIRECTIONAL VALVE & AIR CHAMBER COVERS
P = Polypropylene

3 WETTED PUMP BODY
P = Polypropylene
B = Conductive Polypropylene (ATEX pump)
D = Conductive Acetal (ATEX pump)
W = PVDF
K = Conductive PVDF (ATEX pump)

4 PUSH ROD
S = Stainless Steel AISI 420
Y = Hastelloy® C

5 SEALS
V = FKM (Viton®)
E = EPDM
T = PTFE (Teflon®)

6 CHECK VALVE SEATS
P = Polypropylene
C = Acetal
W = PVDF
M = Santoprene®
H = TPE (Hytrel®)

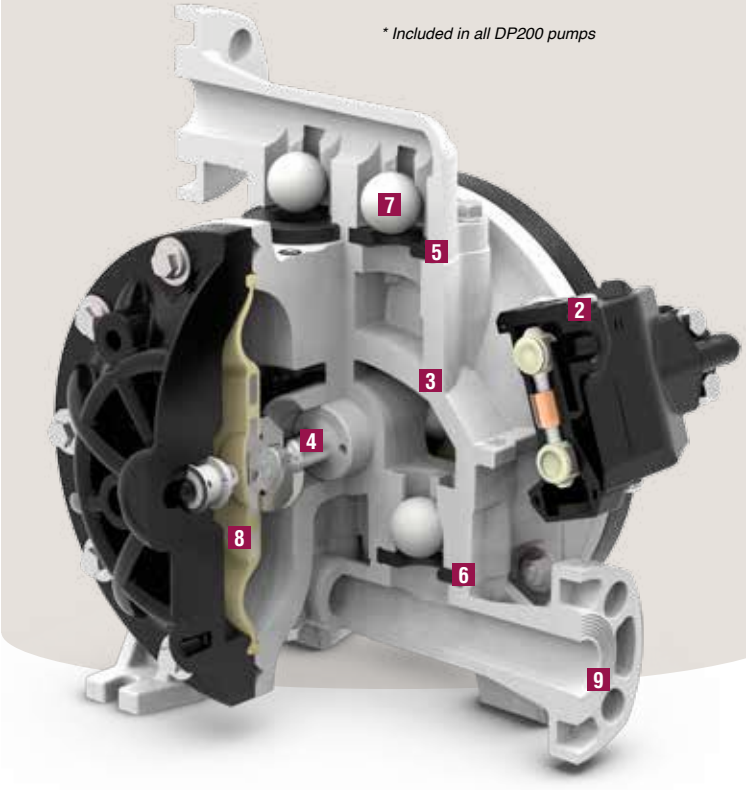
7 CHECK VALVE BALLS
T = PTFE (Teflon®)
C = Acetal
S = Stainless Steel AISI 316

8 DIAPHRAGMS
T = PTFE (Teflon®)
M = Santoprene®
H = TPE (Hytrel®)

9 FLUID CONNECTION THREADS
F = Flange

10 OPTIONS
AS = Standard pump
BS = Remote air exhaust *
DS = Stroke sensor
FS = Extra muffler

** Included in all DP200 pumps*



Original Directflo® Technology

1/2"
14 US gal/min
50 l/min

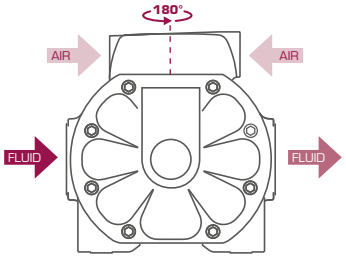
DF50 METAL PUMPS

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

Ideal for standard applications with small to medium flow rates.

Very robust metal pumps designed for the toughest applications.

Fully groundable ATEX certified pumps for use in potentially explosive atmospheres (Ex II2 GD IIB/IIC 95 ˚C).



Orientable air inlet, increased installation flexibility.

ATEX certified
Ex II2 GD IIB/IIC 95 ˚C

RECOMMENDED MODELS

MODEL	PUMP BODY	DIAPHRAGMS	BALLS	SEATS	OTHER WETTED MATERIALS	RECOMMENDED APPLICATIONS	
DF50AASNSNNBAS	Aluminum	Buna-N	Buna-N	Stainless Steel	-	ATEX pump. Coolant, new and waste oil cutting, fluids, diesel.	Ex
DF50AASVSTHBAS	Aluminum	TPE	PTFE	Stainless Steel	FKM	ATEX pump. Coolant, oil, cutting fluids. Water and Ph neutral aqueous solutions. Bilge water.	Ex
DF50AASESTMBAS	Aluminum	Santoprene®	PTFE	Stainless Steel	EPDM	ATEX pump. Water based flexo and gravure inks and paints. Some types of glue.	Ex
DF50AASTSTTBAS	Aluminum	PTFE	PTFE	Stainless Steel	-	ATEX pump. Chemicals compatible with stainless steel and aluminum. Solvents (ketones, acetates and aldehydes, aliphatic and aromatic hydrocarbons) and solvent based paint, inks and varnishes. NOT FOR CHLORINATED HYDROCARBON SOLVENTS.	Ex
DF50AASTSSTBAS	Aluminum	PTFE	Stainless Steel	Stainless Steel	-	ATEX pump. Chemicals compatible with stainless steel and aluminum. Solvents (ketones, acetates and aldehydes, aliphatic and aromatic hydrocarbons) and solvent based paint, inks and varnishes. Stainless steel balls allow its use with higher viscosity fluids. NOT FOR CHLORINATED HYDROCARBON SOLVENTS.	Ex
DF50ASSTSTTBAS	Stainless Steel	PTFE	PTFE	Stainless Steel	-	ATEX pump. Chemicals compatible with stainless steel. Solvent based paint, inks and varnishes.	Ex
DF50ASSTSSTBAS	Stainless Steel	PTFE	Stainless Steel	Stainless Steel	-	ATEX pump. Chemicals compatible with stainless steel. Solvent based paint, inks and varnishes. Stainless steel balls allow its use with higher viscosity fluids.	Ex

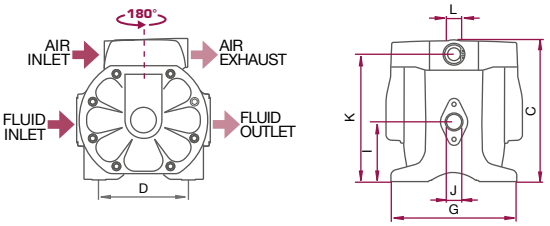
WARNING: DO NOT USE aluminum body pumps with halogenated hydrocarbon solvents.

1/2"
14 US gal/min
50 l/min

DF50 METAL PUMPS

TECHNICAL DATA	
Pressure ratio	1:1
Maximum free delivery (1)	14 US gal/min (50 l/min)
Delivery per stroke approx. (1)	0.026 US gal (0,1 liters)
Delivery per cycle (2 x strokes) (1)	0.05 US gal (0,25 liters)
Air pressure operating range	22 to 115 psi (1,5 to 8 bar)
Solids in suspension max. size	1/8" (3 mm)
Maximum dry suction lift (1)	20' (6 m)
Maximum wet suction lift (1)	26' (8 m)
Weight	7.72 lb (3,5 kg)
Fluid inlet connection	1/2" NPSM (F)
Fluid outlet connection	1/2" NPSM (F)
Air inlet connection	3/8" NPSM (F)
Wetted part materials	See recommended models

(1) Data measured with water, air inlet pressure 100 psi (7 bar), 68 ºF (20 ºC).



Dimensions (inches)

A	B	C	D	E	F*
6 9/64	6 19/64	6 37/64	4 9/64	4 51/64	5/16

G	I	J	K	L
5 3/4	2 3/4	1/2 (F)	5 29/32	3/8 (F)

* Diameter of the holes for fasteners in each of the four pump feet.

DF50 METAL PUMP CODING SYSTEM

1	2	3	4	5	6	7	8	9	10
DF50	A	A	S	N	S	N	N	B	AS

1 PUMP SIZE
DF50

2 AIR MOTOR: DIRECTIONAL VALVE & AIR CHAMBER COVERS
A = Aluminum

3 WETTED PUMP BODY
A = Aluminum
S = Stainless Steel AISI 316

4 PUSH ROD
S = Stainless Steel AISI 420

5 SEALS
N = Buna-N
V = FKM (Viton®)
E = EPDM
T = PTFE (Teflon®)

6 CHECK VALVE SEATS
S = Stainless Steel AISI 316

7 CHECK VALVE BALLS
T = PTFE (Teflon®)
N = Buna-N
S = Stainless Steel AISI 316

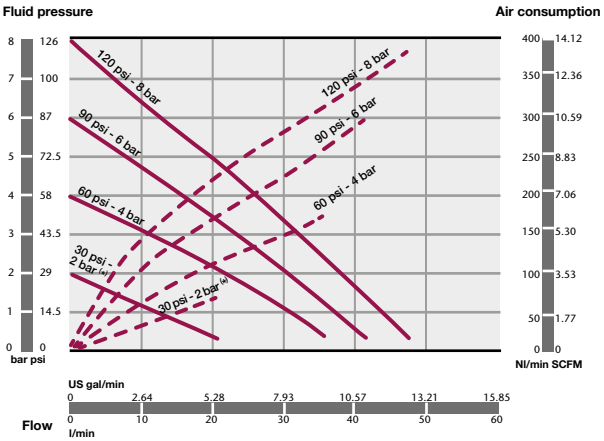
8 DIAPHRAGMS
T = PTFE (Teflon®)
N = Buna-N
H = TPE (Hytrel®)
M = Santoprene®

9 FLUID CONNECTION THREADS
B = BSP
N = NPT

10 OPTIONS
AS = Standard pump
BS = Remote air exhaust
ES = Externally driven
FS = Extra muffler
GS = NPN inductive external pump control sensor.
IS = ATEX inductive external pump control sensor.
JS = PNP inductive external pump control sensor
US = Special UV ink pump

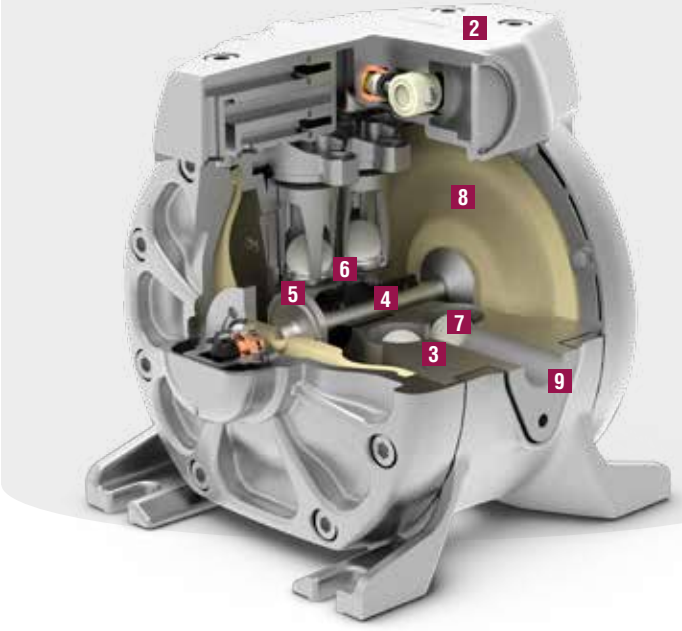
PERFORMANCE CURVES

Tested at room temperature, with water and flooded pump with 31 1/2" (800 mm) height of water above the pump inlet.



(*) 30 psi test with a pump fitted with PTFE (Teflon®) diaphragms.

Outlet pressure ----- Air consumption



Original Directflo® Technology

1"
28 US gal/min
100 l/min

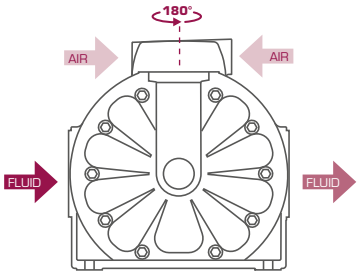
DF100 METAL PUMPS

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

Ideal for standard applications with medium flow rates.

Very robust metal pumps designed for the toughest applications.

Fully groundable ATEX certified pumps for use in potentially explosive atmospheres (Ex II2 GD IIB/IIC 95 ˚C).



Orientable air inlet, increased installation flexibility.

ATEX certified
Ex II2 GD IIB/IIC 95 ˚C

RECOMMENDED MODELS

MODEL	PUMP BODY	DIAPHRAGMS	BALLS	SEATS	OTHER WETTED MATERIALS	RECOMMENDED APPLICATIONS	
DF100AASNSNNBAS	Aluminum	Buna-N	Buna-N	Stainless Steel	-	ATEX pump. Coolant, new and waste oil, cutting fluids, diesel.	Ex
DF100AASVSTHBAS	Aluminum	TPE	PTFE	Stainless Steel	FKM	ATEX pump. Coolant, oil, cutting fluids. Water and Ph neutral aqueous solutions. Bilge water.	Ex
DF100AASESTMBAS	Aluminum	Santoprene®	PTFE	Stainless Steel	EPDM	ATEX pump. Water based flexo and gravure inks and paints. Some types of glue.	Ex
DF100AASTSTTBAS	Aluminum	PTFE	PTFE	Stainless Steel	-	ATEX pump. Chemicals compatible with stainless steel and aluminum. Solvents (ketones, acetates and aldehydes, aliphatic and aromatic hydrocarbons) and solvent based paint, inks and varnishes. NOT FOR CHLORINATED HYDROCARBON SOLVENTS.	Ex
DF100AASTSSTBAS	Aluminum	PTFE	Stainless Steel	Stainless Steel	-	ATEX pump. Chemicals compatible with stainless steel and aluminum. Solvents (ketones, acetates and aldehydes, aliphatic and aromatic hydrocarbons) and solvent based paint, inks and varnishes. Stainless steel balls allow its use with higher viscosity fluids. NOT FOR CHLORINATED HYDROCARBON SOLVENTS.	Ex
DF100ASSTSTTBAS	Stainless Steel	PTFE	PTFE	Stainless Steel	-	ATEX pump. Chemicals compatible with stainless steel. Solvent based paint, inks and varnishes.	Ex
DF100ASSTSSTBAS	Stainless Steel	PTFE	Stainless Steel	Stainless Steel	-	ATEX pump. Chemicals compatible with stainless steel. Solvent based paint, inks and varnishes. Stainless steel balls allow its use with higher viscosity fluids.	Ex

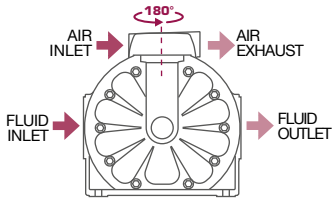
WARNING: DO NOT USE aluminum body pumps with halogenated hydrocarbon solvents.

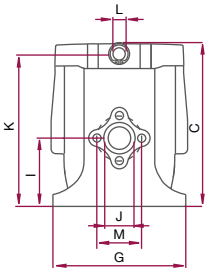
1"
28 US gal/min
100 l/min

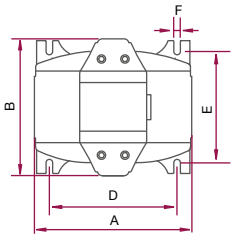
DF100 METAL PUMPS

TECHNICAL DATA	
Pressure ratio	1:1
Maximum free delivery (1)	28 US gal/min (100 l/min)
Delivery per stroke approx. (1)	0.07 US gal (0,25 liters)
Delivery per cycle (2 x strokes) (1)	0.13 US gal (0,5 liters)
Air pressure operating range	22 to 115 psi (1,5 to 8 bar)
Solids in suspension max. size	3/16" (4 mm)
Maximum dry suction lift (1)	15' (4,5 m)
Maximum wet suction lift (1)	23' (7 m)
Weight	16 lb (7,2 kg)
Fluid inlet connection	1" NPT/BSP (F)
Fluid outlet connection	1" NPT/BSP (F)
Air inlet connection	3/8" NPSM (F)
Wetted part materials	See recommended models

(1) Data measured with water, air inlet pressure 100 psi (7 bar), 68 ºF (20 ºC).







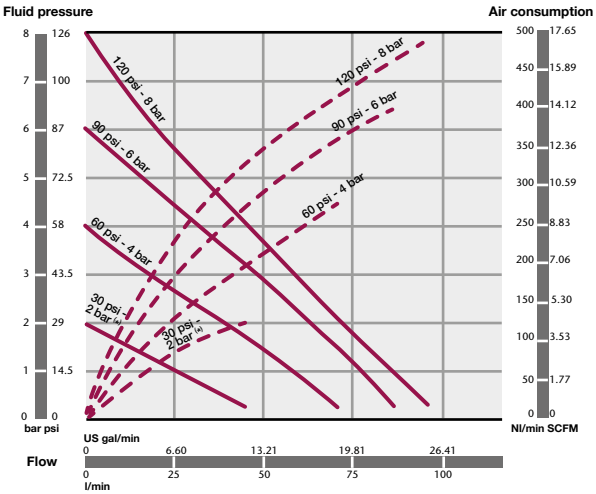
Dimensions (inches)

A	B	C	D	E	F*
8 1/2	6 19/64	8 15/16	6 57/64	6 1/16	23/64
G	**I**	**J**	**K**	**L**	**M**
7 1/4	3 23/32	1 (F)	8 17/64	3/8 (F)	2 7/16**

* Diameter of the holes for fasteners in each of the four pump feet.
** Flange connection: 2 bolts - M 5 (1 39/64" between centers).

PERFORMANCE CURVES

Tested at room temperature, with water and flooded pump with 31 1/2" (800 mm) height of water above the pump inlet.



(*) 30 psi test with a PTFE (Teflon®) diaphragms pump.

Outlet pressure — Air consumption

DF100 METAL PUMP CODING SYSTEM

1	2	3	4	5	6	7	8	9	10
DF100	A	A	S	N	S	N	N	B	AS

1 PUMP SIZE
DF100

2 AIR MOTOR: DIRECTIONAL VALVE & AIR CHAMBER COVERS
A = Aluminum

3 WETTED PUMP BODY
A = Aluminum
S = Stainless Steel AISI 316

4 PUSH ROD
S = Stainless Steel AISI 420

5 SEALS
N = Buna-N
V = FKM (Viton®)
E = EPDM
T = PTFE (Teflon®)

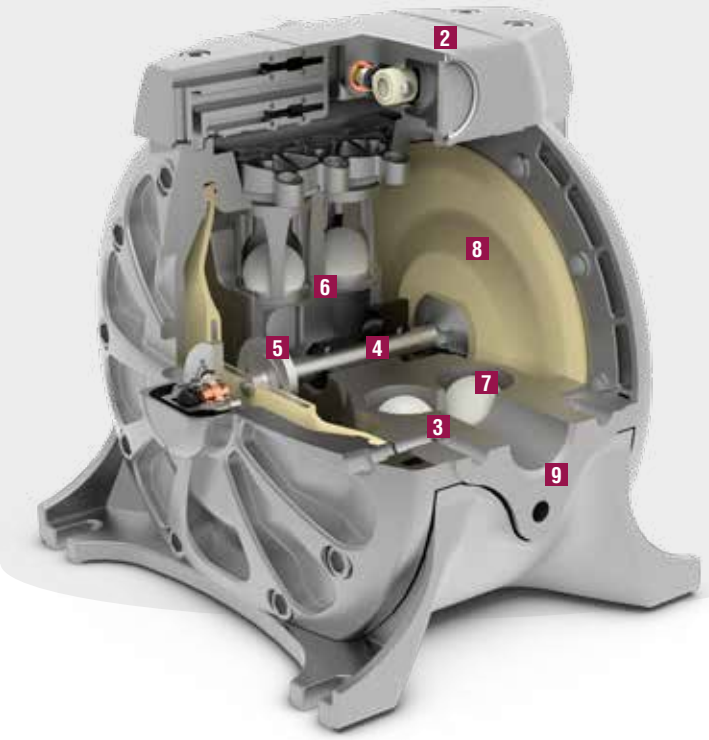
6 CHECK VALVE SEATS
S = Stainless Steel AISI 316

7 CHECK VALVE BALLS
T = PTFE (Teflon®)
N = Buna-N
S = Stainless Steel AISI 316

8 DIAPHRAGMS
T = PTFE (Teflon®)
N = Buna-N
H = TPE (Hytrel®)
M = Santoprene®

9 FLUID CONNECTION THREADS
B = BSP
N = NPT

10 OPTIONS
AS = Standard pump
BS = Remote air exhaust
DS = Stroke sensor
ES = Externally driven
FS = Extra muffler
GS = NPN inductive external pump control sensor.
IS = ATEX inductive external pump control sensor.
JS = PNP inductive external pump control sensor
US = Special UV ink pump



Original Directflo® Technology

1 1/2"
66 US gal/min
250 l/min

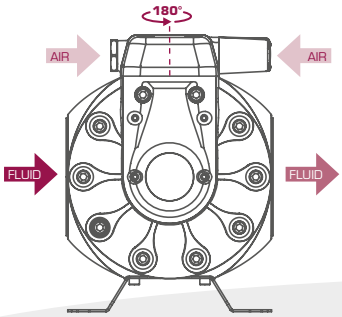
DF250 METAL PUMPS

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

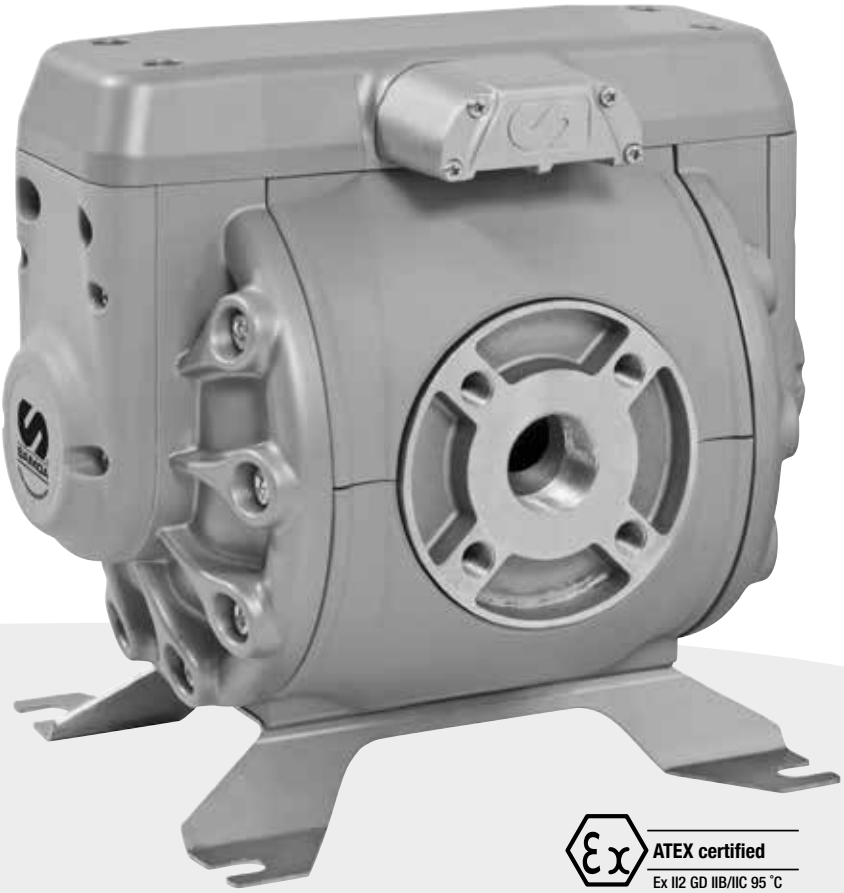
Ideal for standard applications with high flow rates.

Very robust metal pumps designed for the toughest applications.

Fully groundable ATEX certified pumps for use in potentially explosive atmospheres (Ex II2 GD IIB/ IIC 95 ˚C).



Orientable air inlet, increased installation flexibility.



ATEX certified
Ex II2 GD IIB/IIC 95 ˚C

RECOMMENDED MODELS

MODEL	PUMP BODY	DIAPHRAGMS	BALLS	SEATS	OTHER WETTED MATERIALS	RECOMMENDED APPLICATIONS	
DF250AASNSNNBAS	Aluminum	Buna-N	Buna-N	Stainless Steel	-	ATEX pump. Coolant, new and waste oil, cutting fluids, diesel.	Ex
DF250AASVSTHBAS	Aluminum	TPE	PTFE	Stainless Steel	FKM	ATEX pump. Coolant fluids, oil, water and Ph neutral aqueous solutions, bilge water, hydraulic fluids.	Ex
DF250AASESTMBAS	Aluminum	Santoprene®	PTFE	Stainless Steel	EPDM	ATEX pump. Water based flexo and gravure inks and paint. Some types of glue.	Ex
DF250AASTSTTBAS	Aluminum	PTFE	PTFE	Stainless Steel	-	ATEX pump. Chemicals compatible with stainless steel and aluminum. Solvents (ketones, acetates and aldehydes, aliphatic and aromatic hydrocarbons) and solvent based paint, inks and varnishes. NOT FOR CHLORINATED HYDROCARBON SOLVENTS.	Ex
DF250AASTSSTBAS	Aluminum	PTFE	Stainless Steel	Stainless Steel	-	ATEX pump. Chemicals compatible with stainless steel and aluminum. Solvents (ketones, acetates and aldehydes, aliphatic and aromatic hydrocarbons) and solvent based paint, inks and varnishes. Stainless steel balls allow its use with higher viscosity fluids. NOT FOR CHLORINATED HYDROCARBON SOLVENTS.	Ex

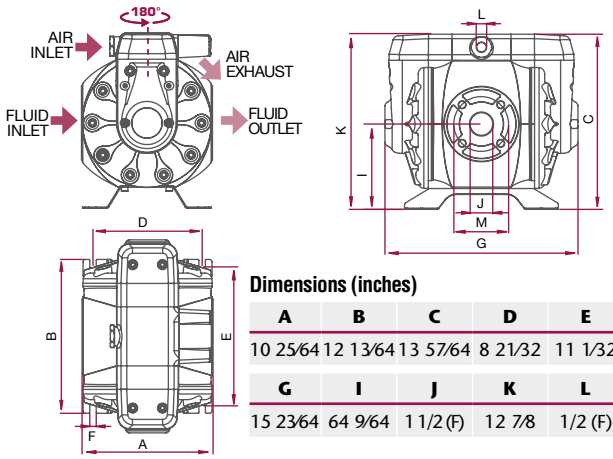
WARNING: DO NOT USE aluminum body pumps with halogenated hydrocarbon solvents.

1 1/2"
66 US gal/min
250 l/min

DF250 METAL PUMPS

TECHNICAL DATA	
Pressure ratio	1:1
Maximum free delivery (1)	66 US gal/min (250 l/min)
Delivery per stroke approx. (1)	0.16 US gal (0,6 liters)
Delivery per cycle (2 x strokes) (1)	0.32 US gal (1,2 liters)
Air pressure operating range	22 to 115 psi (1,5 to 8 bar)
Solids in suspension max. size	1/4" (6 mm)
Maximum dry suction lift (1)	16' (5 m)
Maximum wet suction lift (1)	26' (8 m)
Weight	45 lb (20 kg)
Fluid inlet connection	1 1/2" NPT (F) and ANSI 1" B16.5 150 lb flange or 1 1/2" BSP (F) and DIN PN-10 DN40 flange
Fluid outlet connection	1 1/2" NPT (F) and ANSI 1" B16.5 150 lb flange or 1 1/2" BSP (F) and DIN PN-10 DN40 flange
Air inlet connection	1/2" NPSM (F)
Wetted part materials	See recommended models

(1) Data measured with water, air inlet pressure 100 psi (7 bar), 68 ºF (20 ºC).



Dimensions (inches)

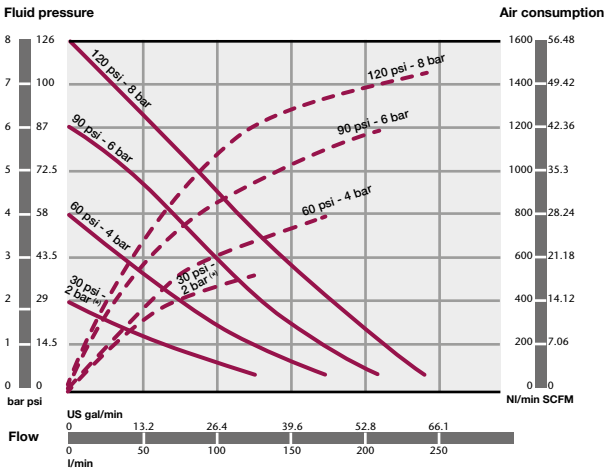
A	B	C	D	E	F*
10 25/64	12 13/64	13 57/64	8 21/32	11 1/32	33/64

G	I	J	K	L	M
15 23/64	64 9/64	1 1/2 (F)	12 7/8	1/2 (F)	4 21/64**

* Diameter of the holes for fasteners in each of the four pump feet.
** DIN PN-10 flange connection: 4 bolts - M 16 (4 21/6" between centers).
** ANSI B16.5 150 lb flange connection: 4 bolts - UNC 1/2" - 13 (3 7/8" between centers).

PERFORMANCE CURVES

Tested at room temperature, with water and flooded pump with 31 1/2" (800 mm) height of water above the pump inlet.



(*) 30 psi test with a pump fitted with TPE (Hytrel®) diaphragms.

Outlet pressure ----- Air consumption

DF250 METAL PUMP CODING SYSTEM

1	2	3	4	5	6	7	8	9	10
DF250	A	A	S	N	S	N	N	B	AS

1 PUMP SIZE
DF250

2 AIR MOTOR: DIRECTIONAL VALVE & AIR CHAMBER COVERS
A = Aluminum

3 WETTED PUMP BODY
A = Aluminum

4 PUSH ROD
S = Stainless Steel AISI 420

5 SEALS
N = Buna-N
V = FKM (Viton®)
E = EPDM
T = PTFE (Teflon®)

6 CHECK VALVE SEATS
S = Stainless Steel AISI 316

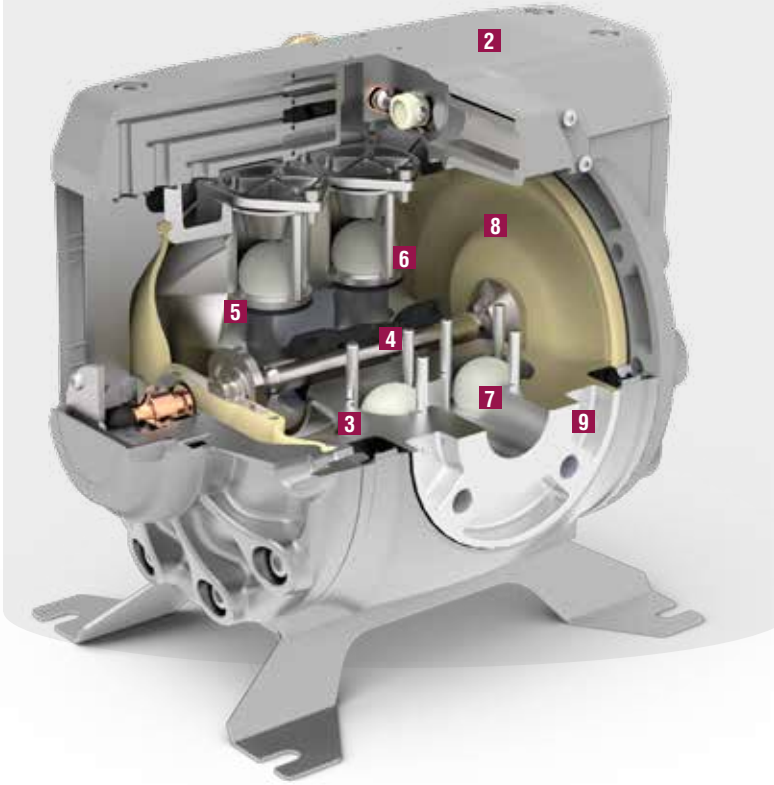
7 CHECK VALVE BALLS
T = PTFE (Teflon®)
N = Buna-N
S = Stainless Steel AISI 316
C = Acetal

8 DIAPHRAGMS
T = PTFE (Teflon®)
N = Buna-N
H = TPE (Hytrel®)
M = Santoprene®

9 FLUID CONNECTION THREADS
B = BSP
N = NPT

10 OPTIONS
AS = Standard pump
BS = Remote air exhaust *
DS = Stroke sensor
FS = Extra muffler

** Included in all DF250 pumps*



Enhanced Leading Technology

1" 53 US gal/min 200 l/min

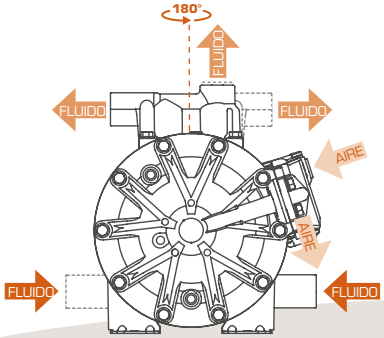
DP200 METAL PUMPS

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

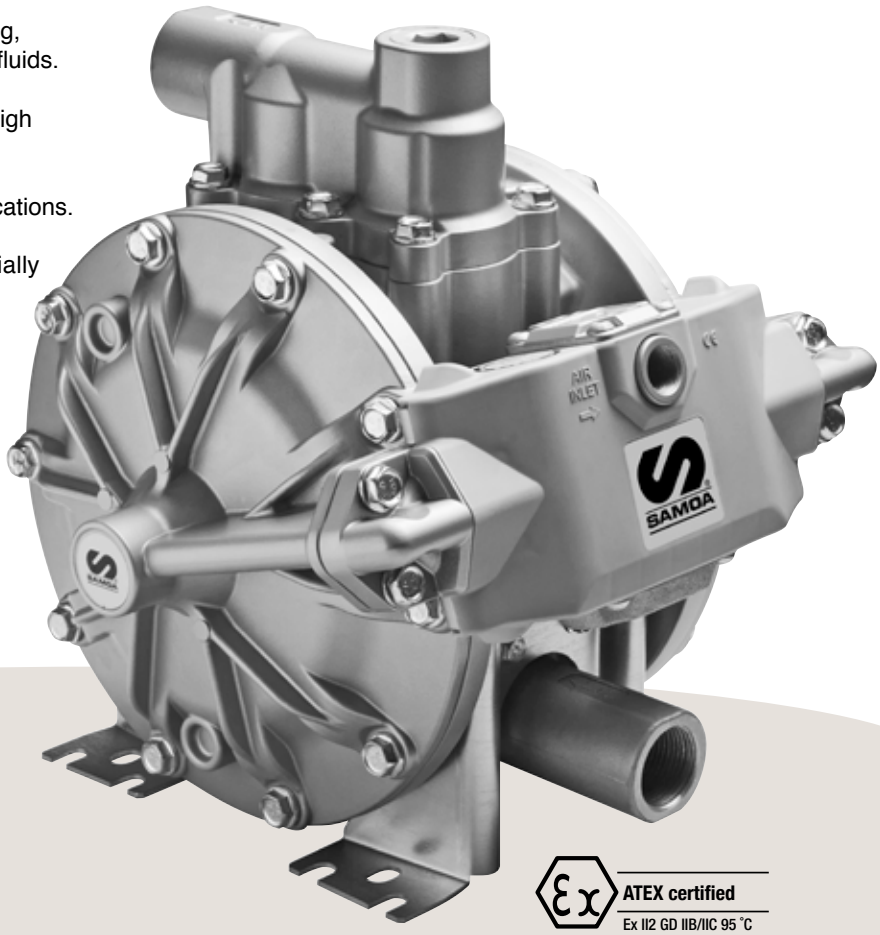
Designed for maximum performance and efficiency with high flow rates.

Very robust metal pumps designed for the toughest applications.

Fully groundable ATEX certified pumps for use in potentially explosive atmospheres (Ex II2 GD IIB/IIC 95 ˚C).



Orientable ports, increased installation versatility.



ATEX certified
Ex II2 GD IIB/IIC 95 ˚C

RECOMMENDED MODELS

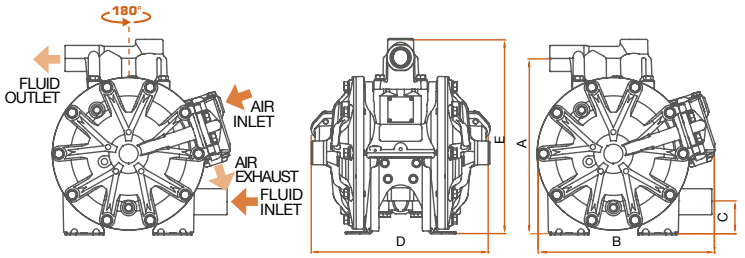
MODEL	PUMP BODY	DIAPHRAGMS	BALLS	SEATS	OTHER WETTED MATERIALS	RECOMMENDED APPLICATIONS	
DP200AASNANNBAS	Aluminum	Buna-N	Buna-N	Aluminum	-	ATEX pump. Coolant, new and waste oil, cutting fluids, diesel.	Ex
DP200AASVHTHBAS	Aluminum	TPE	PTFE	TPE	FKM	ATEX pump. Coolant fluids, water and Ph neutral aqueous solutions, bilge water, hydraulic fluids.	Ex
DP200AASEMTMBAS	Aluminum	Santoprene®	PTFE	Santoprene®	EPDM	ATEX pump. Water based flexo and gravure inks. Water based paint. Some types of glue.	Ex
DP200AASTATTBAS	Aluminum	PTFE	PTFE	Aluminum	-	ATEX pump. Chemicals compatible with stainless steel and aluminum. Solvents (ketones, acetates and aldehydes, aliphatic and aromatic hydrocarbons) and solvent based paint, inks and varnishes. NOT FOR CHLORINATED HYDROCARBON SOLVENTS.	Ex
DP200AASTASTBAS	Aluminum	PTFE	Stainless Steel	Aluminum	-	ATEX pump. Chemicals compatible with stainless steel and aluminum. Solvents (ketones, acetates and aldehydes, aliphatic and aromatic hydrocarbons) and solvent based paint, inks and varnishes. Stainless steel balls allow its use with higher viscosity fluids. NOT FOR CHLORINATED HYDROCARBON SOLVENTS.	Ex
DP200ASSTSTTBAS	Stainless Steel	PTFE	PTFE	Stainless Steel	-	ATEX pump. Chemicals compatible with stainless steel. Solvent based paint, inks and varnishes.	Ex
DP200ASSTSSTBAS	Stainless Steel	PTFE	Stainless Steel	Stainless Steel	-	ATEX pump. Chemicals compatible with stainless steel. Solvent based paint, inks and varnishes. Stainless steel balls allow its use with higher viscosity fluids.	Ex

WARNING: DO NOT USE aluminum body pumps with halogenated hydrocarbon solvents.

DP200 METAL PUMPS

TECHNICAL DATA	
Pressure ratio	1:1
Maximum free delivery (1)	53 US gal/min (200 l/min)
Delivery per stroke approx. (1)	0.13 US gal (0,5 liters)
Delivery per cycle (2 x strokes) (1)	0.26 US gal (1 liter)
Air pressure operating range	22 to 115 psi (1,5 to 8 bar)
Solids in suspension max. size	1/4" (6 mm)
Maximum dry suction lift (1)	16' (5 m)
Maximum wet suction lift (1)	26' (8 m)
Weight	23.35 lb (11,5 kg)
Fluid inlet connection	1" NPT/BSP (F)
Fluid outlet connection	1" NPT/BSP (F)
Air inlet connection	3/8" NPSM (F)
Wetted part materials	See recommended models

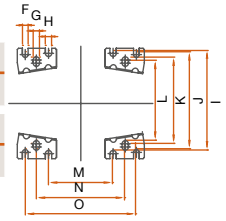
(1) Data measured with water, air inlet pressure 100 psi (7 bar), 68 ºF (20 ºC).



Dimensions (inches)

A	B	C	D	E	F*	G*/H*
10 15/16	11 1/32	2 3/64	11 1/16	12 1/8	23/64	25/64

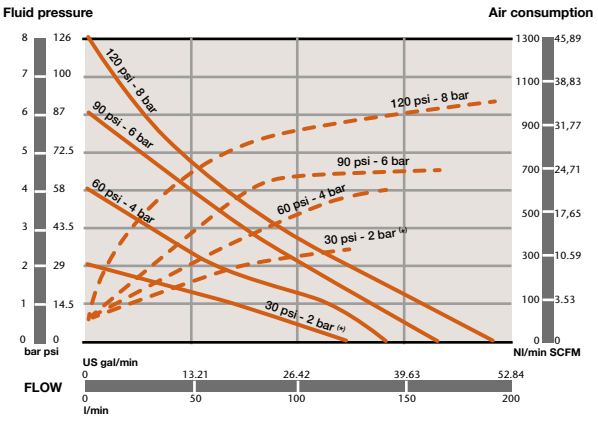
I	J	K	L	M	N	O
6 7/32	6 1/16	5 25/64	13/64	4 1/64	5 33/64	6 57/64



* Diameters of the holes for fasteners in each of the four pump feet.

PERFORMANCE CURVES

Tested at room temperature, with water and flooded pump with 31 1/2" (800 mm) height of water above the pump inlet.



(*) 30 psi test with a pump fitted with PTFE (Teflon®) diaphragms.

Outlet pressure Air consumption

DP200 METAL PUMP CODING SYSTEM

1	2	3	4	5	6	7	8	9	10
DP200	A	A	S	N	A	N	N	F	AS

1 PUMP SIZE
DP200

2 AIR MOTOR: DIRECTIONAL VALVE & AIR CHAMBER COVERS
A = Aluminum

3 WETTED PUMP BODY
A = Aluminum
S = Stainless Steel AISI 316

4 PUSH ROD
S = Stainless Steel AISI 420

5 SEALS
N = Buna-N
V = FKM (Viton®)
E = EPDM
T = PTFE (Teflon®)

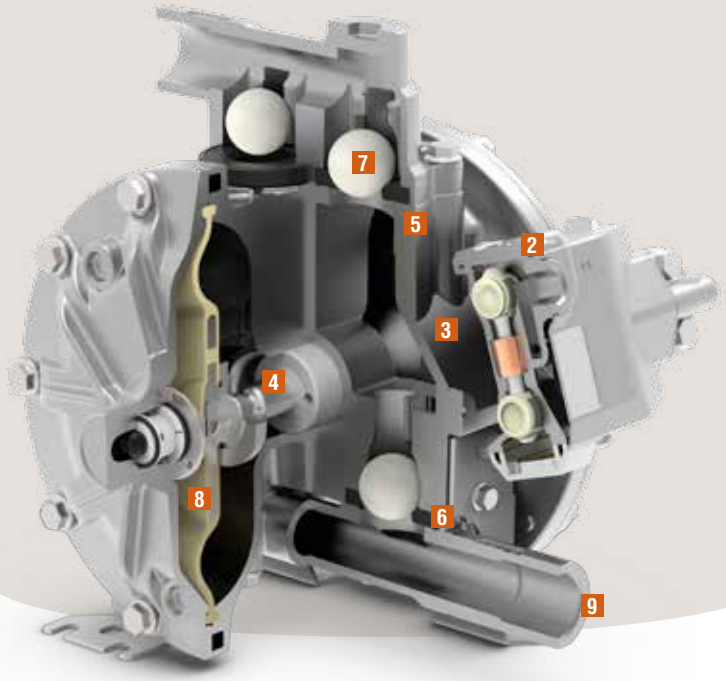
6 CHECK VALVE SEATS
S = Stainless Steel AISI 316
A = Aluminum
N = Buna-N
M = Santoprene®
H = TPE (Hytrel®)

7 CHECK VALVE BALLS
T = PTFE (Teflon®)
N = Buna-N
S = Stainless Steel AISI 316
C = Acetal

8 DIAPHRAGMS
T = PTFE (Teflon®)
N = Buna-N
M = Santoprene®
H = TPE (Hytrel®)

9 FLUID CONNECTION THREADS
B = BSP
N = NPT

10 OPTIONS
AS = Standard pump
BS = Remote air exhaust
DS = Stroke sensor
FS = Extra muffler



DIRECTFLO® PUMP CODING SYSTEM

MODEL EXAMPLE

1	2	3	4	5	6	7	8	9	10
DF50	A	A	S	N	S	N	N	B	AS

1 PUMP SIZE

DC20	1/4" - 3/4"	5.3 US gal/min (20 l/min) pump
DC30	1/2"	10 US gal/min (38 l/min) pump
DC50	1/2"	14 US gal/min (50 l/min) pump
DF30	1/2"	10 US gal/min (38 l/min) pump
DF30T	2 x 3/8"	10 US gal/min (38 l/min) dual inlet pump
DF50	1/2"	14 US gal/min (50 l/min) pump
DF50T	2 x 3/8"	14 US gal/min (50 l/min) dual inlet pump
DF100	1"	27 US gal/min (100 l/min) pump
DF250	1-1/2"	66 US gal/min (250 l/min) pump
DP200	1"	53 US gal/min (200 l/min) pump

2 AIR MOTOR: DIRECTIONAL AIR VALVE & AIR CHAMBER COVERS

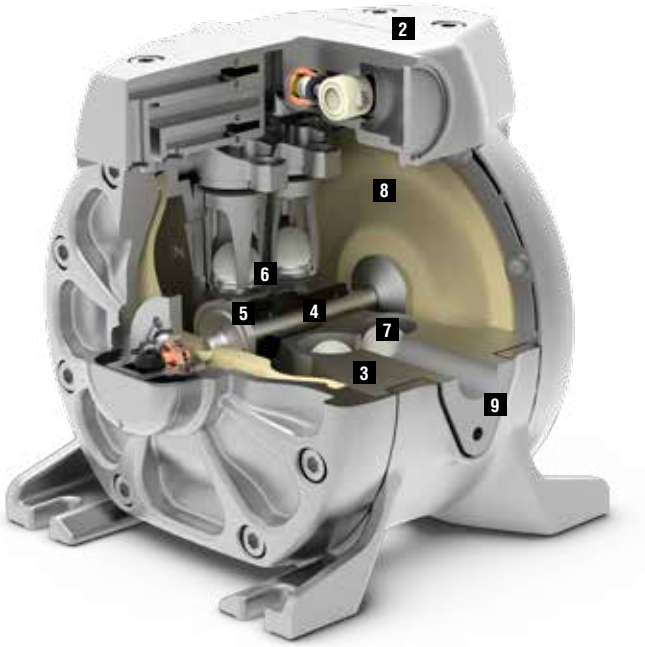
	DC20	DC30	DC50	DF30	DF30T	DF50	DF50T	DF100	DF250	DP200
A = Aluminum						●		●	●	●
P = Polypropylene	●	●	●	●	●	●	●	●		●

3 WETTED PUMP BODY

	DC20	DC30	DC50	DF30	DF30T	DF50	DF50T	DF100	DF250	DP200
A = Aluminum						●		●	●	●
S = Stainless Steel AISI 316						●		●		●
P = Polypropylene	●	●	●	●	●	●	●	●		●
B = Conductive Polypropylene	●			●	●	●	●	●		●
D = Conductive Acetal	●	●	●	●	●	●	●	●		●
W = PVDF	●			●		●		●		●
K = Conductive PVDF	●			●		●		●		●

4 PUSH ROD

	DC20	DC30	DC50	DF30	DF30T	DF50	DF50T	DF100	DF250	DP200
S = Stainless Steel AISI 420	●	●	●	●	●	●	●	●	●	●
Y = Hastelloy® C	●	●	●	●		●		●		●



5 SEALS

	DC20	DC30	DC50	DF30	DF30T	DF50	DF50T	DF100	DF250	DP200
E = EPDM	●	●	●	●	●	●	●	●	●	●
V = FKM (Viton®)	●			●	●	●	●	●	●	●
T = PTFE (Teflon®)	●	●	●	●	●	●	●	●	●	●
N = Buna-N						●		●	●	●

6 CHECK VALVE SEATS

	DC20	DC30	DC50	DF30	DF30T	DF50	DF50T	DF100	DF250	DP200
A = Aluminum										●
C = Acetal	●									●
H = TPE (Hytrel®)										●
M = Santoprene®										●
N = Buna-N										●
P = Polypropylene	●									●
S = Stainless Steel AISI 316		●	●	●	●	●	●	●	●	●
W = PVDF	●	●	●	●		●		●		●

7 CHECK VALVE BALLS

	DC20	DC30	DC50	DF30	DF30T	DF50	DF50T	DF100	DF250	DP200
C = Acetal	●	●	●	●		●		●	●	●
N = Buna-N						●		●	●	●
S = Stainless Steel AISI 316				●	●	●	●	●	●	●
T = PTFE (Teflon®)	●	●	●	●	●	●	●	●	●	●

8 DIAPHRAGMS

	DC20	DC30	DC50	DF30	DF30T	DF50	DF50T	DF100	DF250	DP200
H = TPE (Hytrel®)	●			●	●	●	●	●	●	●
M = Santoprene®	●	●	●	●	●	●	●	●	●	●
N = Buna-N						●		●	●	●
T = PTFE (Teflon®)	●	●	●	●	●	●	●	●	●	●

9 FLUID CONNECTION THREADS

	DC20	DC30	DC50	DF30	DF30T	DF50	DF50T	DF100	DF250	DP200
B = BSP	●	●	●	●	●	●	●	●	●	●
N = NPT	●	●	●	●	●	●	●	●	●	●
F = Flange										●

10 OPTIONS

	DC20	DC30	DC50	DF30	DF30T	DF50	DF50T	DF100	DF250	DP200
AS = Standard pump	●	●	●	●	●	●	●	●	●	●
BS = Remote air exhaust	● (2)	●	●	●	●	●	●	●	● (2)	●
DS = Stroke sensor	●					●		●	●	●
ES = Externally driven				●		●		● (1)		
FS = Extra muffler	●	●	●	●	●	●	●	●	●	●
GS = NPN inductive external pump control sensor						●		● (1)		
IS = ATEX inductive external pump control sensor						●		● (1)		
JS = PNP inductive external pump control sensor						●		● (1)		
US = Special UV ink pump		●	●	●		●		●		

(1) Pumps with PTFE diaphragms only
(2) Included in all DC20 and DF250 pumps

EPDM = Ethylene Propylene Diene Monomer Rubber
FKM = Fluoroelastomer (Viton®)
Buna-N = NBR, Nitrile Butadiene Rubber
PTFE = Polytetrafluoroethylene (Teflon®)
PVDF = Polyvinylidene Fluoride (Kynar® or Solef®)
TPE = Thermoplastic Elastomer (Hytrel®)

THERE'S A DIRECTFLO® PUMP FOR ALMOST EVERY APPLICATION

	MARKETS SERVED / APPLICATIONS	1 FLUID TRANSFER AND DISPENSING	2 FLUID EVACUATION	3 DOSING/BLENDING/ FORMULATION	4 FLUID RECIRCULATION	5 SUPPLY FOR LOW PRESSURE SPRAY	6 FLUID FLUSHING/ CLEAN IN PLACE (CIP)	7 PUMPING SAMPLES	8 FILTER & FILTER PRESS FEEDING	9 SLURRY HANDLING	10 TANK/BARREL FILLING & EMPTYING
A	**VEHICLE PRODUCTION & MAINTENANCE** • Cars, motorbikes & trucks • Construction, mining & agriculture • Ships & airplanes • Railway	O, AF, WS, HF, BF, BL, D, U, W	WO, WA								
B	**CONSTRUCTION & MINING** • Concrete batching plants • Pit dewatering	CA, CS	W	CA, AA, CS	CS					CS	
C	**PRINT & PACKAGING** • Printing presses • Ink dispensers & blenders • Cylinder cleaning • Solvent recovery	FI, GI, GL, S, WC	WC, WW	FI, GI	FI, GI, S, W	S, W	S, W, CF				
D	**PULP & PAPER CONVERTERS** • Paper plants	CO, BC, GL	WW					SW			
E	**PAINT & COATINGS** • Paint & varnish lines • Paint formulation • Colour mixers • Paint gun washers	P, C, S, V, R, ST	WC	P, C, V, R	P, C, V, R	P, C, V, R	S		MO	CS	
F	**PROCESS WATER** • Commercial laundries • Car washes • Power stations	DT, WX, CF, W, WW	WW	SA, DG, BC, FS		DT, WX, CF					
G	**SURFACE TREATMENTS** • Plating lines • Degreasing & treatment lines • Pickling lines	AC, AK, AT, S, DG	WC, WW								AC, AK, S, DG
H	**WASTEWATER TREATMENT** • Industrial water treatment plants • Municipal sewage works	FC, CG, BC, AC, AK	WC, WW	FC, CG, BO, DI				SW	WW		
I	**METALWORKING** • Lathes & machining centers • Waste fluid recovery • Part washing • Corrosion protection	MC, MO, S, CF, DG, W	MC, MO, WW, WC		MC, W, DG, S	O, DG, S, W					
J	**CHEMICAL, PETROCHEMICAL & REFINERIES**	AC, AK, AL, S, LX, CH	WC, W, CH	FA, CH, OA				CH			CH
K	**HYGIENIC** • Food & beverage • Food processing plants • Biotechnology • Pharmaceutical	AC, AK				CF	CF, AC, AK				
L	**CERAMIC** • Ceramic manufacturers	EN, BB, W	WW							EN, BB	

AA: Asphalt Additive
AC: Acid
AK: Alkali
AL: Alcohol
AT: Acetone
AF: Antifreeze, coolant
BB: Barbotine
BC: Bleach
BF: Brake Fluid
BL: Battery Liquid
BO: Biocide
C: Coating
CA: Concrete Admix
CF: Cleaning Fluid
CG: Coagulant
CH: Chemicals
CO: Colour
CS: Colour Slurry
D: Diesel
DG: Degreaser
DI: Disinfectant
DT: Detergent
EM: Emulsions
EN: Enamel (ceramic)
FA: Fuel Additive
FC: Flocculent
FI: Flexo Ink
FS: Fabric Softener
GI: Gravure Ink
GL: Glue
HF: Hydraulic Fluid / Skydrol® (airplane)
LX: Latex
MC: Machine Coolant
MO: Machining (cutting) Oil
O: Oil
OA: Oil Additive
P: Paint
R: Resin
S: Solvent
SA: Soap
ST: Wood Stain
SW: Water based Solution
U: Urea solution (DEF)
V: Varnish
W: Water
WA: Waste Antifreeze
WC: Waste Chemical
WO: Waste Oil
WS: Windshield Washer
WX: Wax
WW: Waste Water

Your Distributor:

Air Flo Spray Equipment Company

Innovative Thinking Producing Significant Results

6050 Stetson Hills Drive, #321
Colorado Springs, CO 80922
866.567.5804 toll free ph.
719.490.8070 fax
info@airfloeq.com

www.airfloeq.com

SAMOA
LEADING THROUGH INNOVATION

SAMOA CORPORATION
NORTH AMERICA
90 Monticello Road
Weaverville, NC 28787, USA
Tel.: 828-645-2258
Fax: 828-645-2607
www.samoacorporation.com

SAMOA INDUSTRIAL, S.A.
EUROPE AND REST OF THE WORLD
Pol. Ind. Porceyo, I-14 - Camino del fontán, 831
E-33392 Gijón (Asturias) SPAIN
Tel.: +34 985 381 488
Fax: + 34 985 147 213
flow@samoaindustrial.com
www.samoaindustrial.com/flow

SAMOA Industrial, S.A. is an ISO 9001, ISO 14001 and OHSAS 18001 certified company.

993956 · R-10/17 · 2.000 u. · Cover Creator Silk 300 gr/m² · Interior Creator Silk 170 gr/m²