

## Original Directflo® Technology

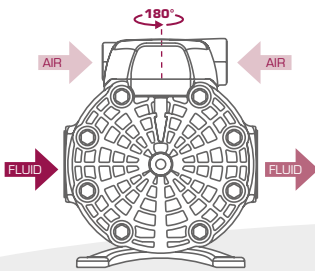
### DF50 & DF50T PLASTIC PUMPS

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.

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



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

### RECOMMENDED MODELS

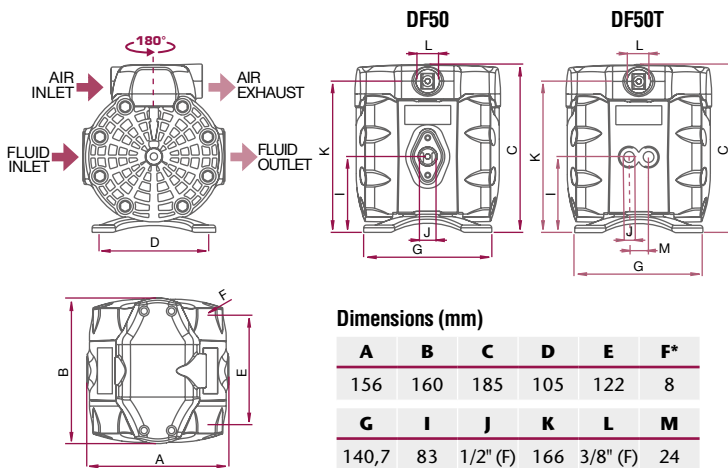
MODEL	PUMP BODY	DIAPHRAGMS	BALLS	SEATS	OTHER WETTED MATERIALS	RECOMMENDED APPLICATIONS
DF50PPSESTMBAS	Polypropylene	Santoprene®	PTFE	Stainless Steel	EPDM	Water based fluids, coatings and adhesives, diluted mild alkalis and acids, alcohols.
DF50PPSVSTHBAS	Polypropylene	TPE	PTFE	Stainless Steel	FKM	Water and some aqueous chemicals. General application pump for lubricants.
DF50PPYTWTBAS	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.
DF50PKYTWTBAS	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. <span style="float: right;">Ex</span>
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. <span style="float: right;">Ex</span>

## DF50 & DF50T PLASTIC PUMPS

### TECHNICAL DATA

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

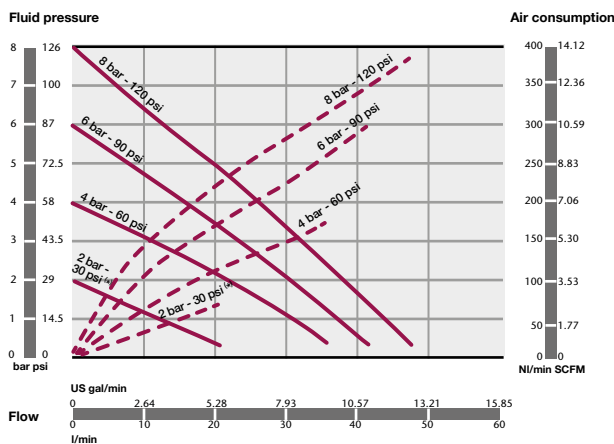
(1) Data measured with water, air inlet pressure 7 bar (100 psi), 20 °C (68 °F).



\* 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 800 mm (31 1/2") height of water above the pump inlet.



— Outlet pressure  
- - - Air consumption

(\*) 2 bar test with a pump fitted with PTFE (Teflon®) diaphragms.

## 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 (Hytre®)

### 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

