

YTS®

Air Operated Double Diaphragm Pumps

Most comprehensive range of AODD pumps



YTS is a **Japanese** manufacturer of
Air Operated Double Diaphragm
pumps with **Superior Quality** and **Finish**



Most Comprehensive range of AODD pumps



Pure Polypropylene (Pure PP)



Conductive Polypropylene (Conductive PP)



Glass Fiber Reinforced Polypropylene (GFRPP)



Acetal (POM)



PVDF



Industrial PTFE



Conductive PTFE



High Purity PTFE



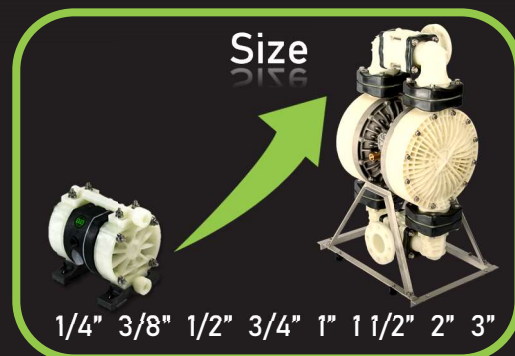
Aluminum



Stainless Steel



Cast Iron



Specialty Pumps



FDA Compliant



Electro-Polished



Solenoid Controlled



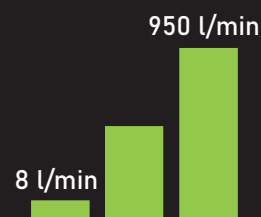
Powder



Heavy-Duty



High Pressure



Max Flow



Max Head

Note:
up to
170m
for High
Pressure
Pumps

Specialty Pumps



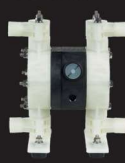
Passive Dampener



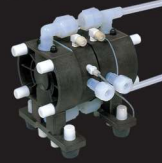
Flap Valve Solids



PTFE or Nickel Coated



Split Manifold



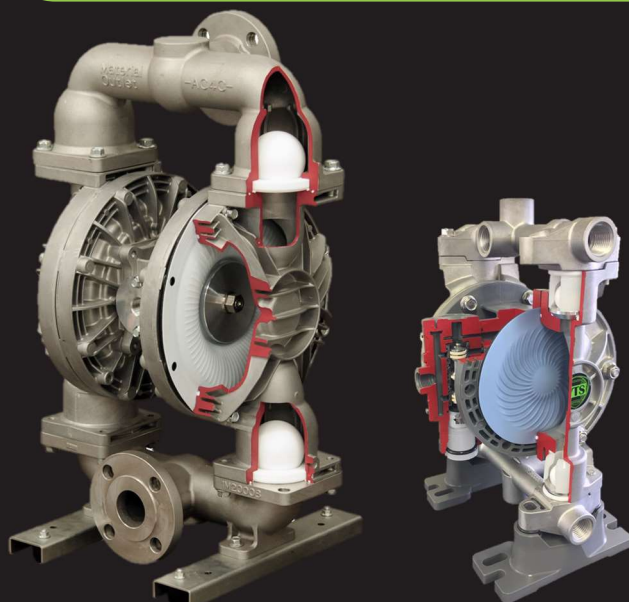
High Temperature PTFE



Wine



Barrel



Accessories & Spare Parts



Specialty Diaphragms



Active Pulsation Dampeners



Spare Parts

- Pneumatic Liquid Level Controller
- Electric Proximity Sensor
- Diaphragm Rupture Sensor Kit
- Pneumatic Cycle Counter Kit

Most Comprehensive range of AODD pumps

Plastic Pumps



Liquid Connections	Max Flow Rate l/min	Pump Model	Pure Polypropylene (Pure PP)	Conductive Polypropylene (Conductive PP)	Glass Fiber Reinforced Polypropylene (GFRPP)	Polyoxymethylene (Acetal POM)	Polyvinylidene Fluoride (PVDF)
1/4"	8,0	D030					✓ ATEX
	11,5	D050	✓	✓ ATEX	✓	✓ ATEX	✓ ATEX
3/8"	18,0	D100	✓		✓		
	24,0	D102			✓		
1/2"	28,0	D150			✓	✓ ATEX	
	50,0	D151			✓	✓ ATEX	✓ ATEX
	56,0	D152	✓	✓ ATEX		✓ ATEX	✓ ATEX
3/4"	120,0	D202			✓		✓ ATEX
1"	170,0	D252		✓ ATEX	✓		✓ ATEX
1 1/2"	380,0	D400HD			✓		✓ ATEX
	390,0	D401			✓		✓ ATEX
2"	620,0	D500HD			✓		✓ ATEX
	630,0	D501			✓		✓ ATEX
3"	760,0	D800HD			✓		
	820,0	D801			✓		



Liquid Connections	Max Flow Rate l/min	Pump Model	Industrial PTFE	Conductive PTFE	High Purity PTFE
1/4"	8,0	DFS030TT	✓		
	8,0	DFH030TTD			✓
	11,0	DFS050TT	✓		
	11,0	DFC050TT		✓ ATEX	
	11,0	DFH050TTD			✓
3/8"	27,0	DFH100TTD			✓
1/2"	50,0	DFS152TT	✓		
		DFC152TT		✓ ATEX	
3/4"	54,0	DFH200TTD			✓
	55,0	DFS203TT	✓		
1"	64,0	DFH250TTD			✓
	95,0	DFH400TTD			✓
	150,0	DFS253TT	✓		
	150,0	DFC253TT		✓ ATEX	

2" GFRPP pump model D501



Most Comprehensive range of AODD pumps

Metallic Pumps



Liquid Connections	Max Flow Rate l/min	Pump Model	Aluminum	Stainless Steel (SUS)	Cast Iron
1/4"	11,5	D050	✓ ATEX	✓ ATEX	
3/8"	23,0	D101	✓ ATEX	✓ ATEX	
1/2"	54,0	D151	✓ ATEX	✓ ATEX	
	60,0	D152	✓ ATEX	✓ ATEX	
3/4"	200,0	D203	✓ ATEX	✓ ATEX	
1"	220,0	D253	✓ ATEX	✓ ATEX	✓ ATEX
1 1/2"	430,0	D400HD	✓ ATEX	✓ ATEX	✓ ATEX
	600,0	D401	✓ ATEX	✓ ATEX	✓ ATEX
2"	730,0	D500HD	✓ ATEX	✓ ATEX	✓ ATEX
	780,0	D501	✓ ATEX	✓ ATEX	✓ ATEX
3"	800,0	D800HD	✓ ATEX	✓ ATEX	✓ ATEX
	950,0	D801	✓ ATEX	✓ ATEX	✓ ATEX

3" Aluminum pump D801



Barrel Plastic and Metallic Pumps



FDA Compliant Metallic Pumps



High Pressure Metallic Pumps

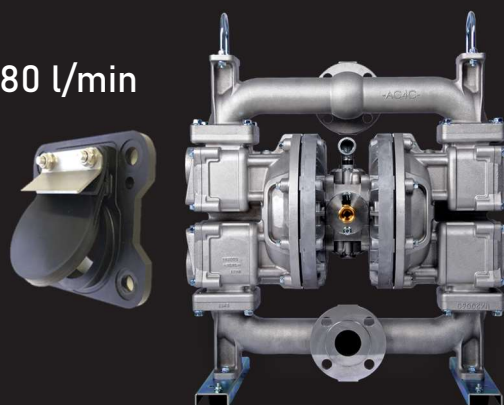


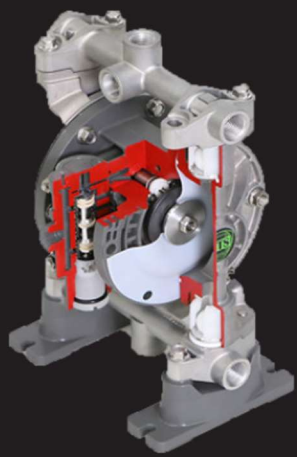
3/4"	⇒	100 l/min
1"	⇒	110
1 1/2"	⇒	300
2"	⇒	390
3"	⇒	475

Aluminum, Stainless Steel, Cast Iron

Aluminum Flap Pumps

780 l/min

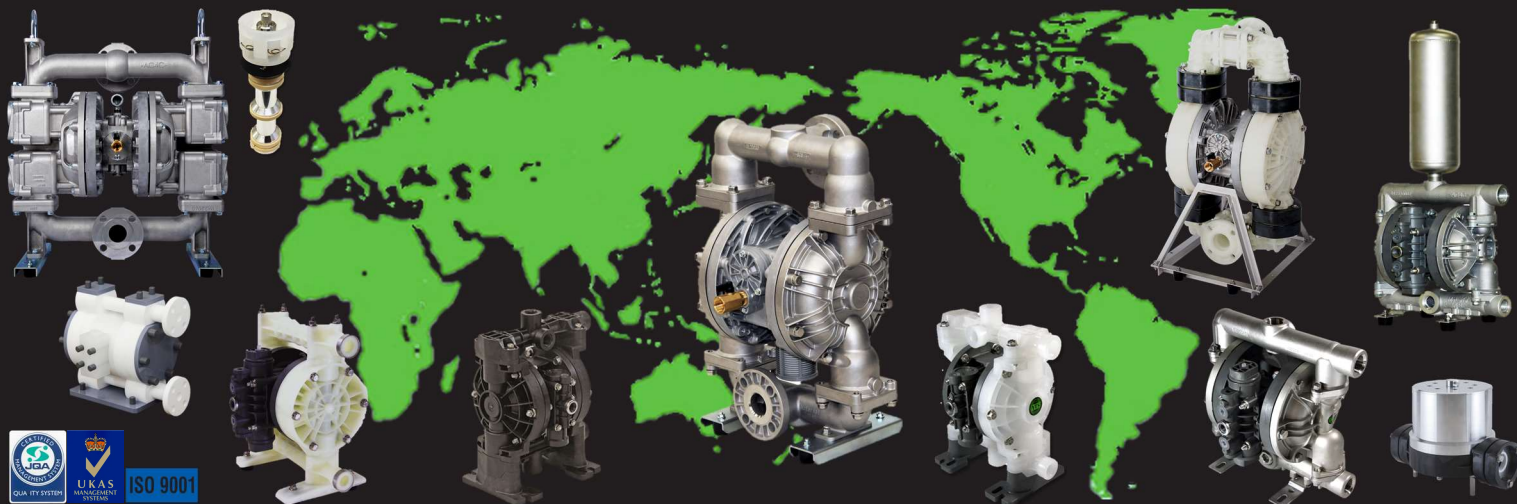




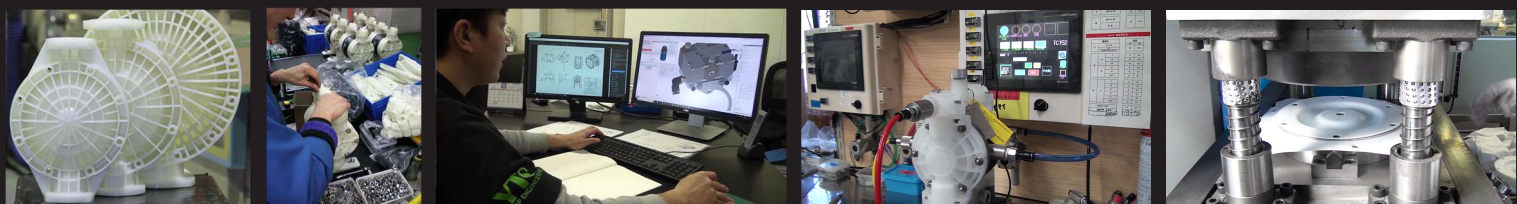
YTS pumps are designed for High Performance Operation and Long Life Expectancy. Engineered with various design features not often found in other brand AODD pumps.



YTS has been engaged in the design of diaphragms pumps for over 30 years, and has produced pumps used in just about every application throughout the entire world.



The know-how accumulated through an integrated system of design, development, manufacturing, assembly, and sales as well as following customers opinions and feedback have been inherited by our engineers and applied directly to all current or new design concepts.



History of YTS®

YTS was founded in Tokyo, Japan in 1966 by Mr. Shotaro Yamada Senior, who was a long-term (since 1923) president of the parent company Yamada Corporation. Originally, the company was called Howa Keiki Seizousho. In 1976, the company name was changed to YTS Co., Ltd. YTS stands for Yamada Technical Service.

The current President - Mr. Hirokazu Yamada, is the third generation of the Yamada family that has been managing the company since its founding in 1966. YTS Presidents:

2012 - ...	Hirokazu Yamada
1969 - 2012	Kazumasa Yamada
1966 - 1969	Shotaro Yamada Senior



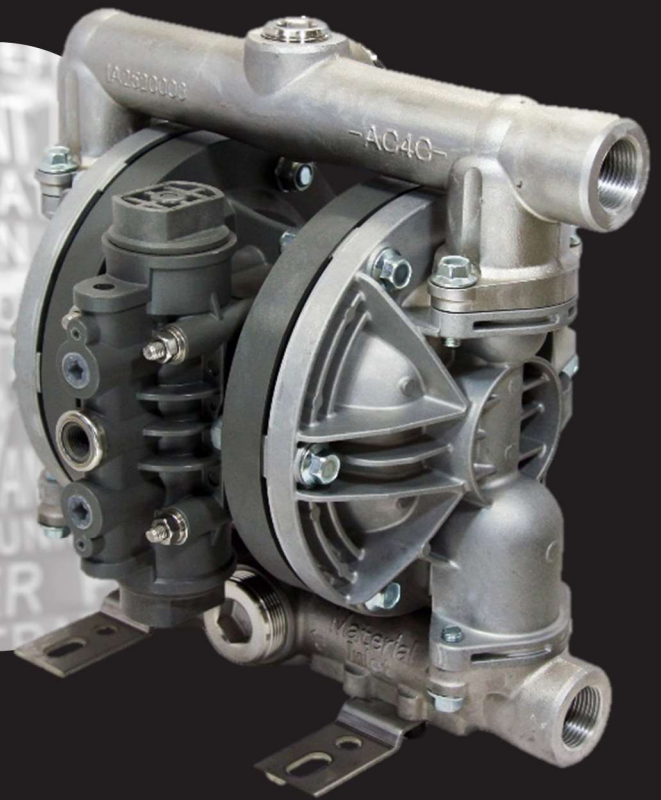
Hirokazu Yamada
President
YTS Co., Ltd.

Industries served



YTS®

place where innovations are born



Most Important Patents

→ 1987

A new High-Temperature Double Diaphragm pump was developed. (Japanese patent jointly owned with Fujitsu).

Patent Number #2518842

→ 1993

A new Long-life C-Spool Valve for 1 ½" 2" and 3" Double Diaphragm Pumps with a special sealing structure enabling fully lubrication free operation.

Patent Number #3150012

→ 1995

A new method of manufacturing Metal free PTFE Diaphragms was developed.

Patent Number #2726014

→ 1997

An Electric Pump Controller with an emergency stop function was designed and manufactured.

Patent Number #3083275

→ 2001

A Special Diaphragm pump, Automatic Self-Start Recovery Valve for the use in the semiconductor industry was designed. (Differential-Pressure Type).

Patent Number #3416656

→ 2012

A new range of high-performance ½" Diaphragm Pumps available in Pure PP, PVDF, aluminum, & stainless steel.

Patent Number #1493139, #1494339, #1494140

→ 2013

A new range of high-performance 1" Diaphragm Pumps available in aluminum cast iron & stainless steel.

Patent Number #1493116, #1493474

→ 2014

A new mechanical Air Spool with increased switching reliability and lower air consumption. New Looped C® Spool Air Valve Developed and introduced for sale.

Patent Pending

High Performance Metallic Pumps



ISO 9001

LoopedC[®]
Patent Pending

3/4"	⇒	200 l/min
1"	⇒	220
1 1/2"	⇒	600
2"	⇒	780
3"	⇒	950

Cast Iron
Aluminum
Stainless Steel



Rugged YTS pumps

3" D801



950 l/min

2" D501



780 l/min

1 1/2" D401



600 l/min

1" D253



220 l/min

3/4" D203



200 l/min



Glass Fiber Reinforced Polypropylene



GFRPP

Glass Fiber Reinforced Polypropylene pumps have improved:

➔ Stiffness

Adding glass fiber reinforcement to Polypropylene significantly increase stiffness in molded pump's elements. Polypropylene has internal network of modulus uniform walls combined with underlying ribs and gussets, instead of thick wall cross-sections.

➔ Strength

Reinforcing glass fibers provide pumps with increased strength, which translates into the ability to resist deformation or creep under loads and higher fatigue endurance with minimal compression. Polypropylene pumps with 30% chemically-coupled glass reinforcement have a 180% improvement in tensile strength over the non reinforced polypropylene pumps and a 50% improvement over conventional glass reinforced pumps.

➔ Toughness (Durability)

Glass fiber reinforcement helps pump's elements resist cracking and impedes crack propagation by forming a robust internal fiber skeleton. Fiber reinforcement also minimizes material fragmentation during failure.
















➔ Dimensional Stability (Shrink, Warp, & Thermal Expansion)

Glass Fiber Polypropylene Pumps retain a significant amount of their durability at low and elevated temperatures. Pumps exhibits reduced thermal expansion compared to pumps made from unreinforced plastics, or glass non fiber reinforced pumps due to their internal network of reinforcing fibers providing resistance to deflection and form changes.

➔ Heat Resistance

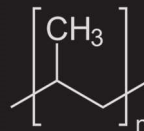
Stiffness gains through fiber reinforcement also translate into increased performance at elevated temperatures. Heat deflection temperatures (HDT - indication of short-term load carrying ability) increase significantly in fiber-reinforced materials over those of unmodified polymers.



	1/4" D050P 11,5 l/min
	3/8" D100P 18 l/min
	1/2" D150P 28 l/min
	3/4" D202P 120 l/min
	1" D252P 170 l/min
	1 1/2" D400P 380 l/min
	2" D500P 620 l/min
	3" D800P 760 l/min
	3/8" D102P 24 l/min
	1/2" D151P 54 l/min
	3/4" D202P-FL 120 l/min
	1" D252-FL 170 l/min
	1 1/2" D401P 390 l/min
	2" D501P 630 l/min
	3" D801P 820 l/min

Pure Polypropylene (PP)

pumps for Chemical transfer



1/4"
D050P-PP
11,5 l/min



3/8"
D100P-PP
18 l/min



1/2"
D152-PP
56 l/min

Pure Polypropylene properties

Good chemical resistance over a wide range of bases and acids



Poor resistance to chlorinated solvents and aromatics

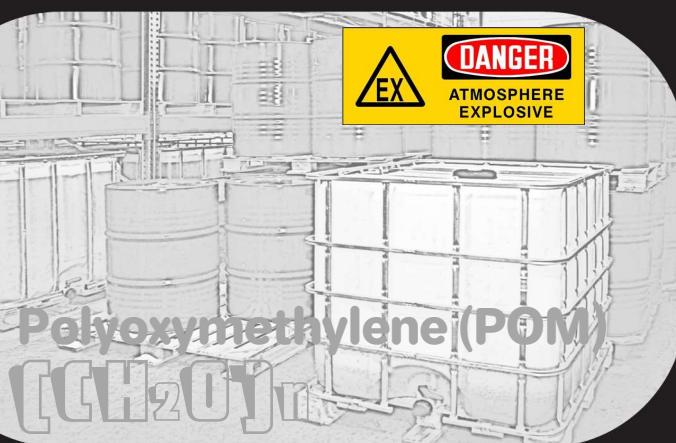
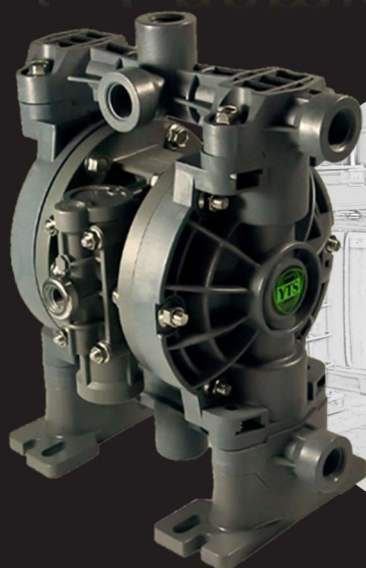
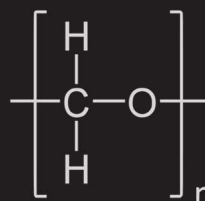


High thermal expansion coefficient



Susceptible to UV degradation

Acetal (POM) pumps for Chemical transfer



- Electrically conductive Acetal liquid wetted section
- Conductive PPS/Polypropylene air motor section
- Electrically groundable with ATEX certification
- Safely operate in explosive environments



Acetal properties

High mechanical strength, stiffness and hardness



Good chemical resistance in pH range 4-13. Mostly unaffected by solvents and fuels. Not react well with chlorine



Low thermal expansion



Hardness and rigidity to -40 °C



Excellent dimensional stability



High lubricity which contributes to high abrasion resistance and very low coefficient of friction



1/4"
D050D
11,5 l/min



1/2"
D150D
28 l/min



1/2"
D151D
54 l/min



1/2"
D152D
56 l/min

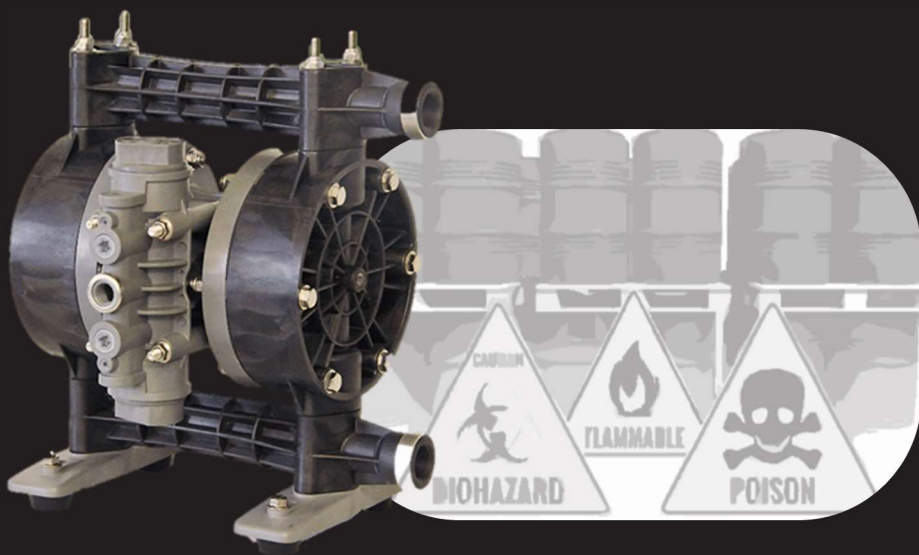


PVDF (Kynar®)

pumps for transfer



Aggressive and Hazardous fluids














PVDF (Polyvinylidene Fluoride) (Kynar®) is often used for applications where there is a need to resist harsh thermal, chemical and ultraviolet environments and is used especially for the production, storage and transfer of corrosive fluids. PVDF pumps are considered safe for the transfer of a large range of highly corrosive chemicals and are also safe for use in explosive environments and can achieve a certain level of ATEX certification.

PVDF (Kynar®) exhibits

- High chemical corrosion resistance
- High temperature resistance
- High mechanical strength
- Low permeability to most gases and liquids
- High abrasion resistance
- Electrical conductivity
- Resistance to ultraviolet radiation
- Light weight

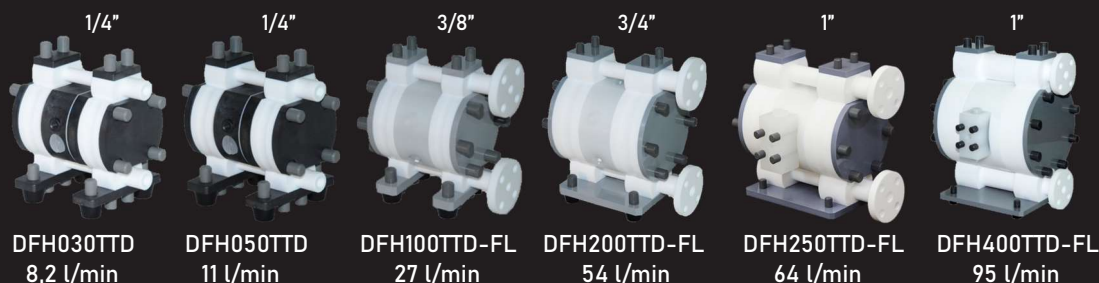


LoopedC®
Patent Pending.

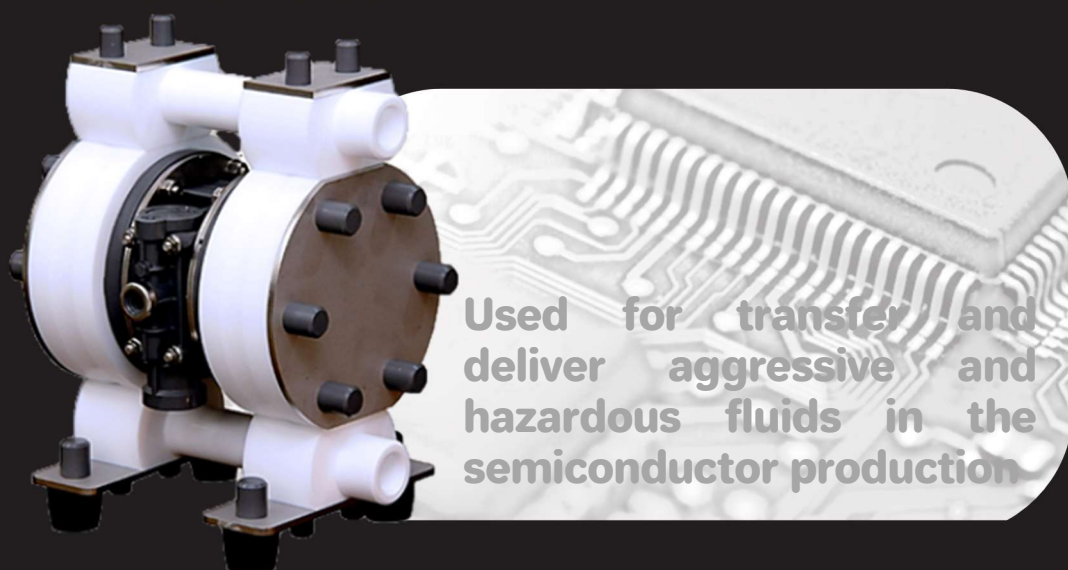
	1/4" D030V 8,2 l/min		1/4" D050V 11 l/min
	1/2" D151V 50 l/min		1/2" D152V 56 l/min
	3/4" D202V 120 l/min		1" D252V 170 l/min
	1" D252V-FL 170 l/min	<div> ELECTRICALLY OPERATED PUMPS  CONTROL BY SOLENOID VALVE OPTION FOR ALL MODELS </div>	
	1 1/2" D400V-FL 380 l/min		
	1 1/2" D401V-FL 390 l/min		
	2" D500V-FL 620 l/min		2" D501V-FL 630 l/min



High Purity Virgin PTFE pumps for Clean Room chemical transfer



Industrial Grade PTFE pumps for Aggressive chemical transfer



Self-priming pneumatic
diaphragms pumps

Consistent and
precision fluid transfer



Specific amounts of
fluid can be transferred
and metered



Pumps can run dry and
work in dead head
applications



Can transfer liquid
laden slurries



100% nonlubricated
design to reduce the
chance of liquid
process contamination
and also offers 100%
clean emissions free
exhaust air



Metal free liquid wetted
section



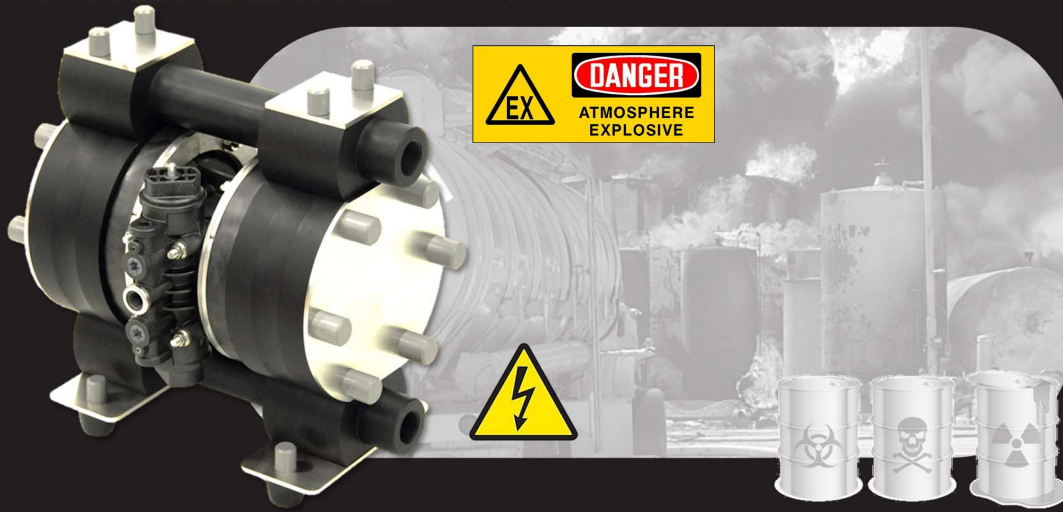
Machined liquid mating
surfaces



Outside accessible air
spool



Electrically Conductive PTFE pumps for Aggressive and Flammable fluids for use in Explosive environments



LoopedC
Patent Pending.

Self-priming pneumatic
diaphragms pumps

Consistent and
precision fluid transfer



Specific amounts of
fluid can be transferred
and metered



Pumps can run dry and
work in dead head
applications



Can transfer liquid
laden slurries
and large sized solids



100% nonlubricated
design to reduce the
chance of liquid
process contamination
and also offers 100%
clean emissions free
exhaust air



Machined liquid mating
surfaces



Outside accessible air
spool



Independent
pilot valves



- ➔ Electrically conductive PTFE liquid wetted section
- ➔ Conductive PPS/Polypropylene air motor section
- ➔ Electrically groundable with ATEX certification
- ➔ Safely operate in explosive environments



1/4"
DFC050TT
11 l/min

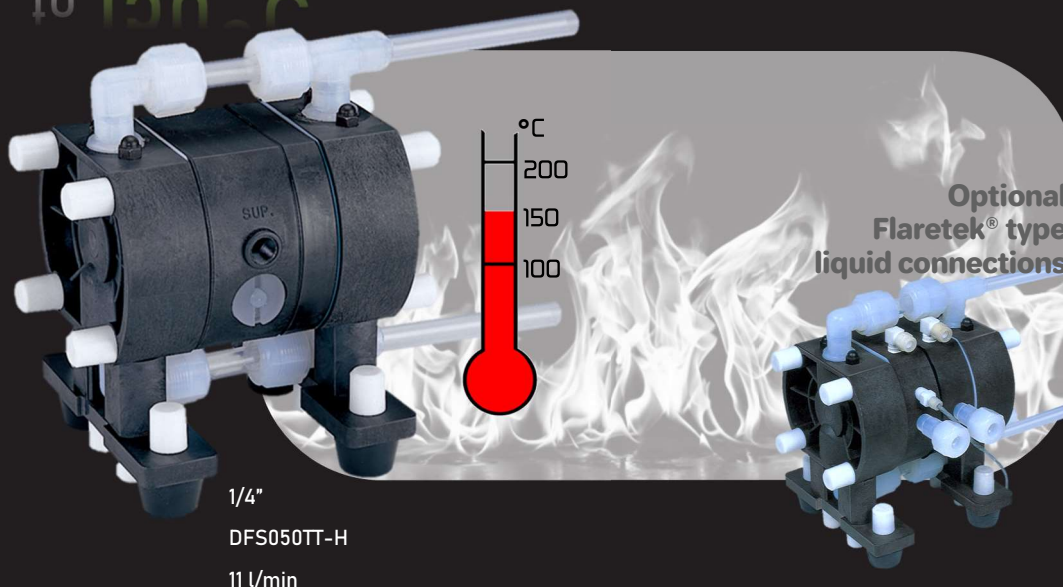


1/2"
DFC152TT-PC
50 l/min



1"
DFC253TT-PC
150 l/min

High Temperature PTFE pump for Aggressive liquids up to 150°C



1/4"
DFS050TT-H
11 l/min



Most comprehensive range of AODD pumps

YTS[®] Pump Engineering
Official Distributor



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