

PRODUCT GUIDE

AIR POWERED DOUBLE DIAPHRAGM PUMPS

2019



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Presenting YTS Double Diaphragm Pumps.

YTS has been producing a large range of Air Operated Double Diaphragm Pumps in Japan since 1978 and now offers a huge line-up of standard & customized pumps available in many different sizes & materials.

All YTS pumps are specifically designed to be used in process type liquid transfer applications and offer various engineered design features enabling efficient high performance liquid transfer & high operational reliability. They can be easily and quickly serviced and maintained even without pulling the pump from the process line. All serviceable wear components are modular and fully replaceable offering simple low cost replacement over a long lifetime of use.

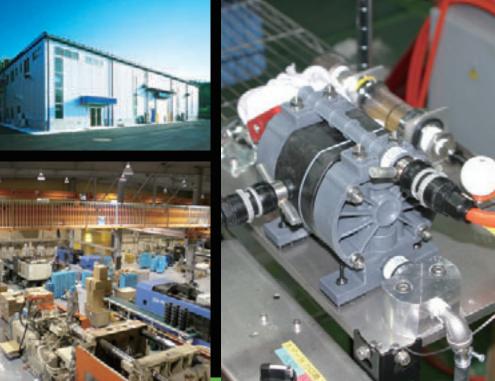
Due to their engineered design, and due to the specific utilization of modern high tech materials, all YTS pumps can be operated without the need for Air Line Oil or Grease Lubricants. They therefore offer safe, clean zero emissions pump operation, protecting people, processes and work environments from dangerous airborne vaporized contaminants.

The new generation Looped C[®] Spool and the third generation Coil-Spring Air Valve offer much improved pumping performance, air consumption, operational reliability & reduced maintenance. Pumps fitted with the new patent pending Air EcoRing offer on average, 16% better air consumption figures without any negative effects to overall pumping performance.

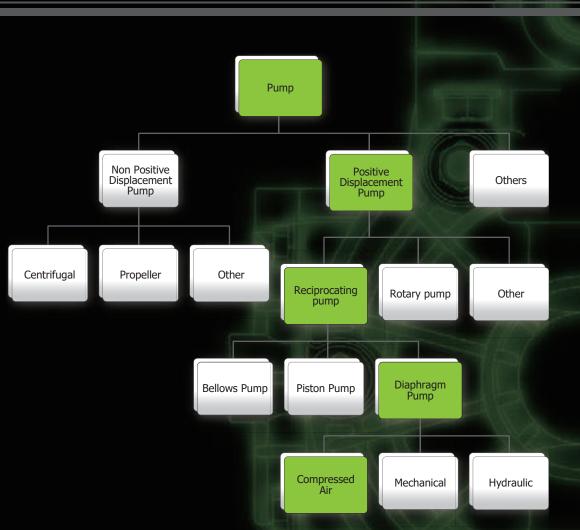
All pumps incorporate independent high performance Pilot Valves for unrivalled reliability and high speed short stroke operation. YTS pumps utilize large diameter air porting and will resist stalling and resist freezing in nearly all conditions. They have leak resistant design features such as; fully bolted construction, machined liquid mating surfaces and registered fit body assembly. All YTS pumps are fully torqued and rigorously tested prior to shipment.







Diaphragm Pump Characteristics



Air Powered Double Diaphragm Pumps Manufactured in Japan with Superior Quality & Finish. Designed for High Performance Operation & Long Life Expectancy. Engineered with Design Features Not Often Found in Other Brand Pumps.

Contact YTS or your local distributor for more information.



yts-pump.com

Diaphragm Pump Capabilities

Dry Run

Diaphragm Pumps can Run Dry for extended periods with no damage to the pumps moving parts. Also when running dry the pump will not overheat. #1. Dry running pumps will speed up and will consume higher amounts of air. #2. Dry Running can negatively affect the life of PTFE Diaphragms.

Transfer Solids

Due to their unique design, liquid slurries as well as large sized solids such as beads, stones etc. can be pumped with ease.

#1 the allowable solid size is different for each pump and is determined by the ball valve dimensions.#2 Abrasive slurries can be pumped however care should be taken that the wetted materials of construction are abrasion resistant.

Variable Flow Rates and Discharge Pressure

By adjusting either the air regulator or a liquid discharge valve, it's possible to operate the pump anywhere between 0 liters per minute to full capacity. Liquid discharge pressure can be adjusted from less than 1 bar up to 8.4 bars, on some larger pumps.

Dead Head

A Diaphragm Pump can run against a semi closed or fully closed liquid discharge valve "Dead Head" without damage or wear to the pump. Therefore the Discharge Line may be closed fully at any time and even closed repeatedly. There will be no Power consumed, no Temperature increase and no damage to the pump, it will simply stop. #1 Discharge Pressure cannot exceed Air Pressure so there is no need for a Pressure Relief System.

Self-priming

Diaphragm Pumps can operate dry and they also generate relatively high Vacuum Pressure, thus allowing the pump to Self-Prime.

#1 There is no need to use special mechanisms, equipment or special startup procedures to prime the pump. #2 Pumps can operate both wet and dry and can self-prime repeatedly without damage.

Safely Transfer Flammable and Hazardous materials.

Diaphragm pumps are powered by compressed air and do not have any kind of electrical connections. They cannot overheat and they are cooled naturally during operation by the supply of compressed air. When correctly earthed, they are considered safe to use when pumping flammable liquids or when used in Explosive Environments.

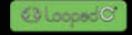
Made in Japan

All YTS Pumps are designed engineered and manufactured in Japan. Every pump is torqued and tested prior to dispatch to ensure correct performance and optimal leak proof operation.

The Looped C[®] Spool

The new Looped C[®] Spool offers improved switching reliability and longer parts life expectancy. The Looped C[®] Spool has fully replaceable Seal Rings and a new lightweight Shaft. The Sleeve has been redesigned offering increased wear resistance and increased surface smoothness. Spool & Sleeve are both outside accessible and completely Non-lubricated.





The Air EcoRing

When installed can decrease actual Air Volume requirements by up to 25% with no decrease in liquid low rates. (Compared to an old equivalent model pump. (Average 16%).





High Flow Ball Guide

The revolutionary Patented High Flow Ball Guide is designed to achieve very high flow rates (up to 220 l/min) and also allows for the passage of very large solids (up to 6.5mm). Fitted as standard to all 203 & 253 series, ¾" & 1" metallic pumps, the High Flow Ball Guide is fully modular & replaceable helping to reduce the overall long term costs of service & repair.



D030 Plastic Pump Series

PVDF Diaphragm Pump with ¹/₄" **Connections** 8 L/min Max Flow Rate.





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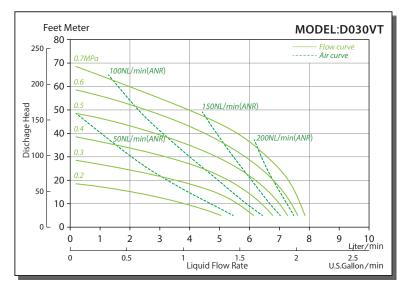
¹/₄" Air Powered Double Diaphragm Pumps Max flow rate: 8 L/min.

Special low flow 1/4" Plastic Pump Model available in PVDF.

Looped C[®] Air Spool. Ryton (PPS) Plastic Air Motor Section. Internal Silencer. Female Threaded Side Port Liquid Connections. Fully bolted body. Compact size. Small footprint. Non-Lubricated design. Torqued, leak & operation tested prior to shipment.

Special ¼" PVDF Pump model fitted with the Looped C[®] Air Spool for increased performance, reliability & extended parts life expectancy. PTFE Diaphragms & Flat Check Valves as standard. Extra Low flow rates. Typically, an Export Licence is not required.

D030 Plastic Pump Series							
Max Flow Rate:	8 L/min.						
Max Solids Size:	0 mm.						
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa						
Max Suction Lift:	Dry: 3.5 meters		Wet (Primed): 8.0 meters				
Liquid Connections:	1/4" (6mm) Threade	d Connecti	ons. (Side Ports)				
Wetted Body Materials:	PVDF.						
Diaphragm / Check Valve Materials:	: PTFE.						
Certification:	CE.	ATEX.					



D050 Pump Series

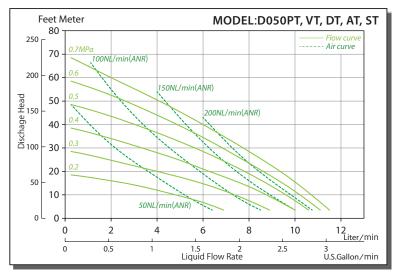
Compact ¼"Pumps available in a large range of materials.

Looped C[®] Air Spool. Ryton (PPS) Plastic Air Motor Section. Internal Silencer. Female Threaded Side Port Liquid Connections. Fully bolted body. Compact size. Small footprint. Non-Lubricated design. Torqued, leak & operation tested prior to shipment.

Small compact ¼" pumps fitted with the Looped C® Air Spool for increased performance, reliability & extended parts life expectancy. Available with a large range of metal and plastic materials of construction. PTFE Diaphragms & Flat Check Valves as standard. Other options also available.

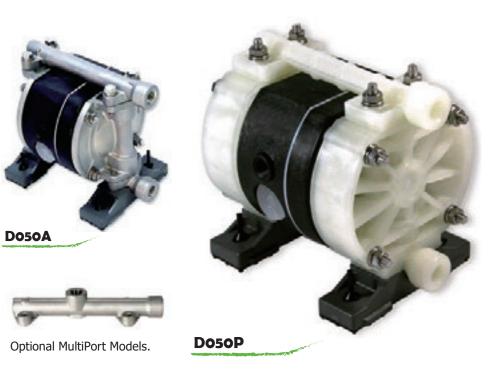
D050 Pump Series							
Max Flow Rate:	11.5 L/mir	11.5 L/min.					
Max Solids Size:	Flat Valve:	Flat Valve: 0 mm. Ball Valve: 0.5 mm.					
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa						
Max Suction Lift:	Dry: 3.5 meters Wet (Primed): 8.0 meters						
Liquid Connections:	1⁄4" (6mm) Multi Ports		ons. (Side Ports or optional			
Wetted Body Materials:	Pure PP, GFRPP, Conductive PP, PVDF, SUS, Aluminium, POM.						
Diaphragm / Check Valve Materials:	s: PTFE.						
Certification:	CE.	ATEX. (Some Mode	els)	FDA. (Some Models)			

Note. factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration.



Diaphragm Pumps with 1/4" Connections 11.5 L/min Max Flow Rate.





¹/₄" Air Powered Double Diaphragm Pumps Max Flow Rate: 11.5 L/min Material Options: Pure PP, GFRPP, Conductive PP, PVDF, SUS, Aluminium, POM.

D100 Plastic Pump Series

Diaphragm Pumps with 3%" Connections 18 L/min Max Flow Rate.



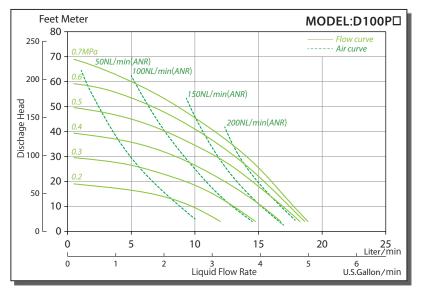
3/8" Air Powered Double Diaphragm Pumps Max Flow Rate: 18 L/min Material Options: Pure PP, GFRPP.

Original ³/₈" Plastic Pumps available in GFRPP & Pure Polypropylene.

Spring-Less Air Spool. Aluminium Air Motor Section. Externally mounted Silencer. Female Threaded Centre Port Liquid Connections. Fully bolted body. Compact size. Non-Lubricated design. Torqued, leak & operation tested prior to shipment.

Compact %" plastic pumps fitted with the Spring-Less Air Spool. Particularly suited to frequent start stop, Dead Head & high backpressure type applications. Available with a wide range of Diaphragm elastomer options. Ball Check Valves as standard.

D100 Plastic Pump Series								
Max Flow Rate:	18 L/min.							
Max Solids Size:	1.0 mm.							
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa							
Max Suction Lift:	Dry: 2.0 meters Wet (Primed): 8.0 meters							
Liquid Connections:	³ ∕ ₈ " (10mm) Threaded Connect Ports on PP pump)	tions. (Centre Port & Multi						
Wetted Body Materials:	Pure PP, GFRPP.							
Diaphragm / Check Valve Materials:	s: PTFE, CR, EPDM, NBR, TPEE, TPO.							
Certification:	CE.							



D101 Metallic Pump Series

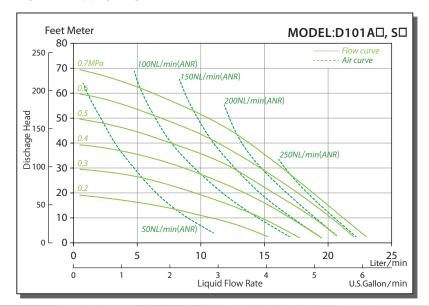
Original ³/₈" Metallic Pumps available in Aluminium & Stainless Steel.

Spring-Less Air Spool. Aluminium Air Motor Section. Externally mounted Silencer. Female Threaded Multi-port Liquid Connections. Fully bolted body. Compact size. Non-Lubricated design. Torqued, leak & operation tested prior to shipment.

Compact ³/₆" metal pumps fitted with the Spring-Less Air Spool. Particularly suited to frequent start stop, Dead Head & high backpressure type applications. Available with a wide range of Diaphragm elastomer options. Ball Check Valves as standard. Heavy-duty construction.

D101 Metallic Pump Series							
Max Flow Rate:	23 L/min.	23 L/min.					
Max Solids Size:	1.0 mm.	1.0 mm.					
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa						
Max Suction Lift:	Dry: 2.0 meters Wet (Primed): 8.0 meters						
Liquid Connections:	³⁄₀″ (10mm	n) Threaded Connect	tions. ((Multi Ports)			
Wetted Body Materials:	SUS, Alum	iinium.					
Diaphragm / Check Valve Materials:	: PTFE, CR, EPDM, NBR, TPEE, TPO.						
Certification:	CE.	ATEX.		FDA. (Some Models)			

Note. factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration.



Diaphragm Pumps with ³/₈" **Connections** 23 L/min Max Flow Rate.





Optional 1/2" Connections.



3/8" Air Powered Double Diaphragm Pumps Max Flow Rate: 23 L/min Material Options: SUS, Aluminium.

D102 Plastic Pump Series

Diaphragm Pumps with ³/₈" **Connections** 24 L/min Max Flow Rate.



D102P

3/8" Air Powered Double Diaphragm Pumps Max Flow Rate: 24 L/min Material Options: GFRPP.

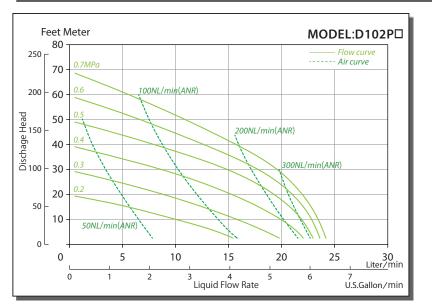
Note. factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration.

Original ³/₈" Plastic Pumps available in GFRPP with PPS Air Motor.

C-Spool Air Motor. Ryton (PPS) Plastic Air Motor Section. Internal Silencer. Female Threaded Side Port Liquid Connections. Fully bolted body. Compact size. Non-Lubricated design. Torqued, leak & operation tested prior to shipment.

Compact ³/₆" plastic pumps fitted with the C-Spool Air Motor. Based on the D100 plastic pump design however utilizing the Ryton Plastic Air Motor Section for better chemical compatibility. Available with a wide range of Diaphragm elastomer options. Ball CheckValves as standard.

D102 Plastic Pump Series								
Max Flow Rate:	24 L/min.							
Max Solids Size:	1.0 mm.							
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa							
Max Suction Lift:	Dry: 2.0 meters Wet (Primed): 8.0 meters							
Liquid Connections:	3/8" (10mm) Threaded Connections. (Side ports)							
Wetted Body Materials:	GFRPP.							
Diaphragm / Check Valve Materials:	PTFE, TPO, TPEE, NBR, CR, EPDM.							
Certification:	CE.							



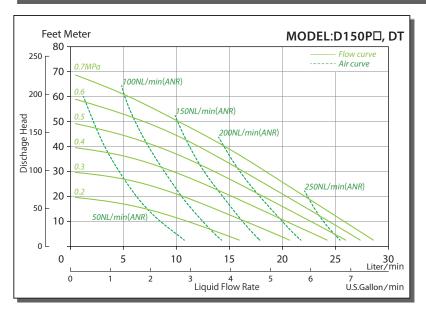
D150 Plastic Pump Series

Original ¹/₂" Plastic Pumps available in GFRPP & POM.

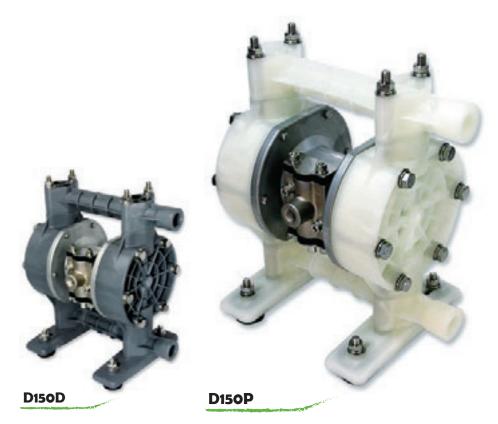
Spring-Less Air Spool. Aluminium Air Motor Section. Externally mounted Silencer. Female Threaded Side Port Liquid Connections. Fully bolted body. Non-Lubricated design. Torqued, leak & operation tested prior to shipment.

¹/₂" plastic pumps fitted with the Spring-Less Air Spool air motor. Based originally on the D151 pump design, the Spring-less spool is more suited to frequent start stop, Dead Head & high backpressure type applications. Available with a wide range of Diaphragm elastomer options. A choice of Flat or Ball Check Valves.

D150 Plastic Pump Series							
Max Flow Rate:	28 L/min.						
Max Solids Size:	Flat Valve: 0 mm. Ball Valve: 1.0 mm.						
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa						
Max Suction Lift:	Flat Valve Dry: 2.0 meters Ball Valve Dry: 1.5 meters Wet (Primed): 8.0 meter						
Liquid Connections:	1/2" (15mm) Threade	ed Conne	ctions. (Side	e ports)			
Wetted Body Materials:	GFRPP, POM.						
Diaphragm / Check Valve Materials:	PTFE, TPO, TPEE, NBR, CR, EPDM.						
Certification:	CE.	A	FEX. (Some	e models)			



Diaphragm Pumps with 1/2" Connections 28 L/min Max Flow Rate.



1/2" Air Powered Double Diaphragm Pumps Max Flow Rate: 28 L/min Material Options: GFRPP, POM, Flat & Ball Check Valve Versions Available.

D151 Pump Series

Diaphragm Pumps with 1/2" Connections 54 L/min Max Flow Rate.



D151A



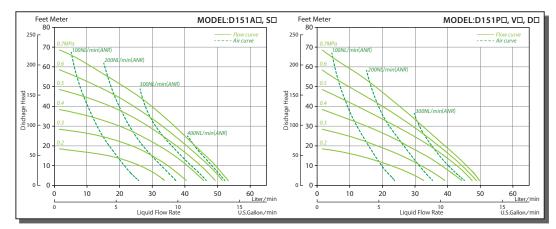
1/2" Air Powered Double Diaphragm Pumps Max Flow Rate: 54 L/min Material Options: GFRPP, PVDF, SUS, Aluminium, POM Flat & Ball Check Valve Versions Available.

Original ¹/₂" Pumps available in a wide range of materials.

C-Spool Air motor. Ryton (PPS) Plastic Air Motor Section. Internal Silencer. Female Threaded Side Port Liquid Connections. Fully bolted body. Non-Lubricated design. Torqued, leak & operation tested prior to shipment.

¹/₂" pumps fitted with the C-Spool Air motor. Available with a wide range of metal and plastic materials of construction. Available with a wide variety of Diaphragm elastomer options. A choice of Flat or Ball Check Valves.

D151 Pump Series								
Max Flow Rate:	54 L/min.							
Max Solids Size:	Flat Valve: 0 mm. Ball Valve: 1.0 mm.							
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa							
Max Suction Lift:	Flat Valve Dry: 2.0 meters Ball Valve Dry: 1.5 meters Wet (Primed): 8.0 meters							
Liquid Connections:	1/2" (15mm) Threade	ed Connect	tions. (Side	e ports)				
Wetted Body Materials:	GFRPP, PVDF, SUS, Aluminium, POM.							
Diaphragm / Check Valve Materials:	PTFE, TPO, TPEE, NBR, CR, EPDM.							
Certification:	CE.	ATEX.	(Some m	nodels)				



D152 Pump Series

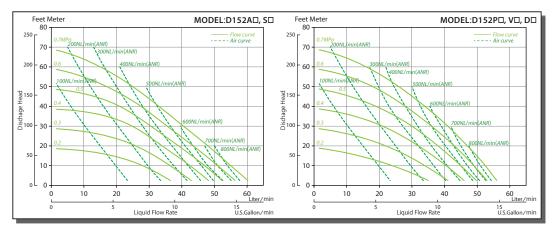
¹/₂" High Performance Pumps available in a large range of materials.

Looped C[®] Air Spool. Choice of both GFRPP and CFPP Plastic Air Motor Section. Internal Silencer. Female Threaded Multi-port Liquid Connections. Fully bolted body. Non-Lubricated design. Drop-in dimensions & Multi-point footprint. Torqued, leak & operation tested prior to shipment.

¹/₂" pumps fitted with the Looped C[®] Spool Air Motor. Available with a wide range of metal and plastic materials of construction. Available with a wide variety of Diaphragm elastomer options. A choice of Flat or Ball Check Valves.

D152 Pump Series							
Max Flow Rate:	60 L/mii	60 L/min.					
Max Solids Size:	Flat Valv	/e: 0 mm.		Ball Val	ve: 2.0 mm.		
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa						
Max Suction Lift:	Flat Valve Dry: 2.0 meters Ball Valve Dry: 1.5 meters Wet (Primed): 8.0 meters						
Liquid Connections:	1/2" (15mm) Threaded Connections PT (Multiport)						
Wetted Body Materials:	Pure PP, PVDF, SUS, Aluminium, POM, Conductive PP.						
Diaphragm / Check Valve Materials:	: PTFE, TPO, FKM, TPEE, CR, EDPM, NBR.						
Certification:	CE.	ATEX. (Sor	ne Models)	FDA	. (Some Models)		

Note. factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration.



Diaphragm Pumps with ¹/₂" **Connections** 60 L/min Max Flow Rate.





Optional Conductive PP Air Motor Section (-PC)

¹/₂" Air Powered Double Diaphragm Pumps Max Flow Rate: 60 L/min Material Options: Pure PP, PVDF, SUS, Aluminium, POM, Conductive PP Flat & Ball Check Valve Versions Available.

D202 Plastic Pump Series

Diaphragm Pumps with ³/₄" Connections 120 L/min Max Flow Rate. (Rubber) 100 L/min Max Flow Rate. (PTFE)





D202P-FL

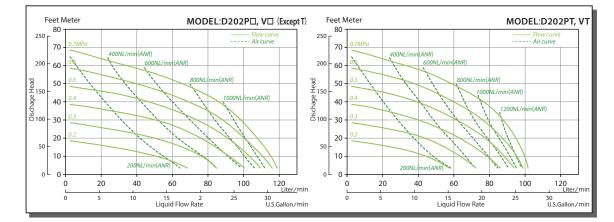
3/4" Air Powered Double Diaphragm Pumps Max Flow Rate: 120 L/min Material Options: GFRPP, PVDF Flange & Threaded Versions Available.

³/₄" Plastic Pumps available in GFRPP & New PVDF.

Looped C[®] Air Spool. Choice of both GFRPP & CFPP Plastic Air Motor Section. Externally mounted Silencer. Choice of both Flanged & Female Threaded Side Port Liquid Connections. Fully bolted body. Non-Lubricated design. Drop-in dimensions and footprint. Torqued, leak & operation tested prior to shipment.

 $\frac{3}{4}$ " plastic pumps fitted with the Looped C[®] Air Spool for increased performance, reliability & improved parts life expectancy. High flow rates. A choice of both Threaded and Flanged Liquid connections. GFRPP Plastic Air Motor Section as standard with an optional CFPP Air motor for ATEX type applications. Available with a large range of Diaphragm elastomer options. Ball Check Valves as standard.

D202 Plastic Pump Series								
Max Flow Rate:	120 L/min. (Rubber) 100 L/min. (PTFE)							
Max Solids Size:	2.0 mm.							
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa							
Max Suction Lift:	PTFE Dry: 1.5 meters Rubber Dry: 3.0 meters Wet (Primed): 8.0 meters							
Liquid Connections:	3/4" (20mm) Flange or Threaded Connections. (Side Port)							
Wetted Body Materials:	GFRPP, PVDF.							
Diaphragm / Check Valve Materials:	: PTFE, TPO, FKM, EPDM, TPEE, CR, NBR.							
Certification:	CE.	ATEX. (S	Some Models)	FDA	A. (Some Models)			





Optional Conductive PP Air Motor Section (-PC)

D203 Metallic Pump Series

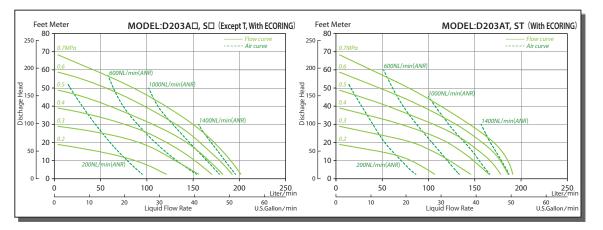
³/₄" High Performance Metallic Pumps available in Aluminium & SUS.

Looped C[®] Air Spool. Choice of GFRPP Plastic, CFPP Plastic or an Aluminium Air Motor Section. Externally mounted Silencer. Female Threaded Centre Port Liquid Connections. Fully bolted body. Non-Lubricated design. Drop-in dimensions and footprint. Torqued, leak & operation tested prior to shipment.

New high performance ³/⁴" metal pumps fitted with the Looped C[®] Air Spool for increased performance, reliability & improved parts life expectancy. Very High flow rates. Very large solids size due to the Patented High Flow Ball Guides. Improved air consumption utilizing the new Air Eco-Ring[®]. GFRPP Air Motor Section as standard. Optional Aluminium & CFPP Air Motor sections are also available. Available with a large range of Diaphragm elastomer options. Ball Check Valves as standard. Special compact size with Drop-in dimensions and common footprint. Very heavy-duty construction.

D203 Metallic Pump Series							
Max Flow Rate:	200 L/min. (200 L/min. (Rubber) 190 L/min. (PTFE)					
Max Solids Size:	6.5 mm.	6.5 mm.					
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa						
Max Suction Lift:	PTFE Dry: 1.5 meters Rubber Dry: 4.5 meters Wet (Primed): 8.0 meter						
Liquid Connections:	¾″ (20mm)	Threade	d Connections	s. (Centre	Ports)		
Wetted Body Materials:	SUS, Alumin	ium.					
Diaphragm / Check Valve Materials:	PTFE, EPDM, TPEE, FKM, TPO, NBR, CR.						
Certification:	CE.	ATEX.	(Some Models	s) FD	A. (Some Models)		

Note. factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration.



Diaphragm Pumps with ¾" Connections 200 L/min Max Flow Rate. (Rubber) 190 L/min Max Flow Rate. (PTFE)







3/4" Air Powered Double Diaphragm Pumps Max Flow Rate: 200 L/min Material Options: SUS, Aluminium.



Optional Aluminium Air Motor Section (-MT)



Optional Conductive PP Air Motor Section (-PC)

D252 Plastic Pump Series

Diaphragm Pumps with 1" Connections 170 L/min Max Flow Rate. (Rubber) 170 L/min Max Flow Rate. (PTFE)





D252V-FL

1" Air Powered Double Diaphragm Pumps Max Flow Rate: 170 L/min Material Options: GFRPP, PVDF, Conductive PP Flange & Threaded Versions Available.



Optional Threaded Connections



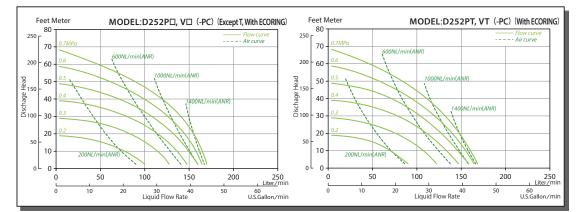
Optional Conductive PP Air Motor Section (-PC)

1" Plastic Pumps available in GFRPP, PVDF & CFPP.

Looped C[®] Air Spool. Choice of both GFRPP & CFPP plastic Air Motor Section. Externally mounted Silencer. Choice of both Flanged & Female Threaded Side Port Liquid Connections. Fully bolted body. Non-Lubricated design. Drop-in dimensions & New Multi-point footprint. Torqued, leak & operation tested prior to shipment.

1" plastic pumps fitted with the Looped C[®] Air Spool for increased performance, reliability & improved parts life expectancy. High flow rates. Improved air consumption utilizing the new Air Eco-Ring[®]. GFRPP Air Motor Section as standard with an optional CFPP air motor for ATEX type applications. Available with a large range of Diaphragm elastomer options. Ball Check Valves as standard.

D252 Plastic Pump Series							
Max Flow Rate:	170 L/min. (Rubber) 170 L/min. (PTFE)						
Max Solids Size:	3.0 mm.						
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa						
Max Suction Lift:	PTFE Dry: 2.5 meters Rubber Dry: 5.5 meters Wet (Primed): 8.0 meters						
Liquid Connections:	1" (25mm) Flange or Threaded Connections. (Side Ports)						
Wetted Body Materials:	GFRPP, PVDF, Conductive PP.						
Diaphragm / Check Valve Materials:	: PTFE, EPDM, TPEE, FKM, TPO, NBR, CR.						
Certification:	CE. ATEX. (Some Models)						



D253 Metallic Pump Series

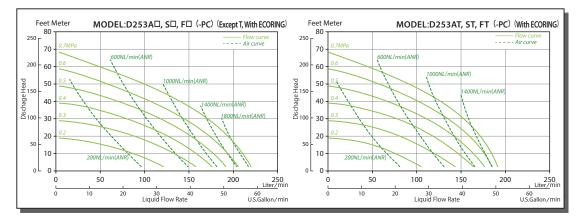
1" High Performance Metallic Pumps available in Aluminium, SUS & Cast Iron.

Looped C[®] Air Spool. Choice of GFRPP Plastic, CFPP Plastic or an Aluminium Air Motor Section. Externally mounted Silencer. Female Threaded Multi-Port Liquid Connections. Fully bolted body. Non-Lubricated design. Drop-in dimensions & adjustable Multi-point footprint. Torqued, leak & operation tested prior to shipment.

1" metal pumps fitted with the Looped C[®] Air Spool for increased performance, reliability & improved parts life expectancy. Very high flow rates. Very large solids size due to the Patented High Flow Ball Guides. Improved air consumption utilizing the new Air Eco-Ring[®]. GFRPP Air Motor Section as standard with optional Aluminium & CFPP Air Motor sections available. Available with a large range of Diaphragm elastomer options. Ball Check Valves as standard. Special compact size with Drop-in dimensions and common footprint. Very heavy-duty construction.

D253 Metallic Pump Series							
Max Flow Rate:	220 L/min. (Rubber)			190 L/m	in. (PTFE)		
Max Solids Size:	6.5 mm.						
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa						
Max Suction Lift:	PTFE Dry: 1.5 meters Rubber Dry: 4.5 meters Wet (Primed): 8			Wet (Primed): 8.0 meters			
Liquid Connections:	1" (25mm)	Threaded	l Connectior	ns. (Multij	port)		
Wetted Body Materials:	SUS, Alum	inium, Cas	st Iron.				
Diaphragm / Check Valve Materials:	PTFE, EPDM, TPEE, FKM, TPO, CR, NBR.						
Certification:	CE.	ATEX. (S	ome Models	;) Fl	DA. (Some Models)		

Note. factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration.



Diaphragm Pumps with 1" Connections 220 L/min Max Flow Rate. (Rubber) 190 L/min Max Flow Rate. (PTFE)







1" Air Powered Double Diaphragm Pumps Max Flow Rate: 220 L/min Material Options: SUS, Aluminium, Cast Iron.



Optional Aluminium Air Motor Section (-MT)



Optional Conductive PP Air Motor Section (-PC)



Optional 11/2" Connections

D401 Plastic Pump Series

Diaphragm Pumps with 1¹/₂" Connections 390 L/min Max Flow Rate. (Rubber) 360 L/min Max Flow Rate. (PTFE)





D401P-FL

1¹/₂" Air Powered Double Diaphragm Pumps Max Flow Rate: 390 L/min Material Options: GFRPP, PVDF.

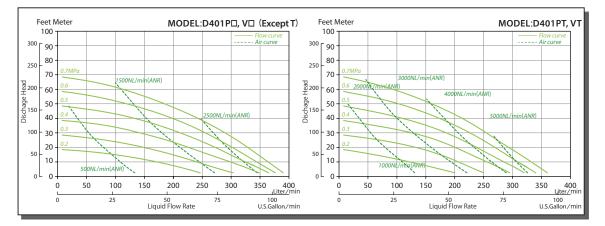
Note. factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration.

1¹/₂" High Performance Plastic AODD Pumps available in GFRPP & PVDF.

Looped C[®] Air Spool, non-lubricated aluminium air motor section. Externally mounted silencer. Flanged centre port liquid connections. Fully bolted body, compact drop-in dimensions and common footprint. Fully torqued, leak & operation tested prior to shipment. 401 pump models are available with a large range of diaphragm elastomer options with ball check valves as standard.

High performance 401 Series Plastic Pumps fitted with the Looped C[®] Air Spool with Ekonol[®] Seal Rings & fully independent Pilot Valves for superior performance, reliability & serviceability. Capable of high cyclic speeds & very high flow rates, these pumps are particularly suited to liquid transfer, tank loading /unloading, & many common process type applications. Easily maintainable with modular & replaceable wear parts, outside accessible Looped C[®] Air Spool & manual Spool Reset Switch. 100% oil & grease lubrication free design, offering clean, emissions free & environmentally friendly operation. * When used under normal operating conditions & when using clean dry & oil free compressed air.

D401 Plastic Pump Series								
Max Flow Rate:	390 L/min. (Rubber) 360 L/min. (PTFE)			n. (PTFE)				
Max Solids Size:	7.0 mm.							
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa							
Max Suction Lift:	Rubber Dry: 5.0 meters PTFE Dry: 2.0 meters Wet (Primed)			Wet (Primed): 8.0 meters				
Liquid Connections:	1 ¹ / ₂ " (40mm) Flange Co	nnections. (Centre por	ts)				
Wetted Body Materials:	GFRPP, PVDF.							
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR. TPEE, FKM, TPO.							
Certification:	CE.	ATEX.	(Some Mo	dels)				



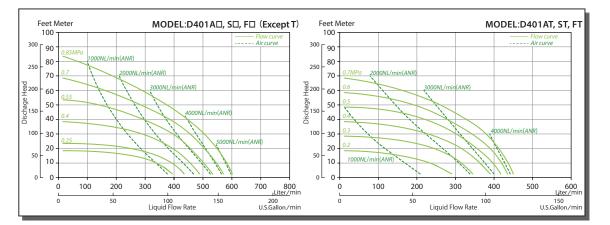
D401 Metallic Pump Series

1¹/₂" High Performance Metallic AODD Pumps available in Aluminium, Stainless steel and Cast iron.

Looped C[®] Air Spool, non-lubricated aluminium air motor section. Externally mounted silencer. Flanged centre port liquid connections. Fully bolted body, compact drop-in dimensions and common footprint. Fully torqued, leak & operation tested prior to shipment. 401 pump models are available with a large range of diaphragm elastomer options with ball check valves as standard.

High performance 401 Series Metallic Pumps fitted with the Looped C[®] Air Spool with Ekonol[®] Seal Rings & fully independent Pilot Valves for superior performance, reliability & serviceability. Capable of high cyclic speeds & very high flow rates, these pumps are particularly suited to liquid transfer, tank loading /unloading, & many common process type applications. Easily maintainable with modular & replaceable wear parts, outside accessible Looped C[®] Air Spool & manual Spool Reset Switch. 100% oil & grease lubrication free design, offering clean, emissions free & environmentally friendly operation. * When used under normal operating conditions & when using clean dry & oil free compressed air.

D401 Metallic Pump Series							
Max Flow Rate:	600 L/min. (Rubber)		450 L/mi	n. (PTFE)		
Max Solids Size:	8.0 mm.	8.0 mm.					
Supply Air Pressure Range:	0.2 ~ 0.85 Mpa 0.2 ~ 0.7 Mpa				' Мра		
Max Suction Lift:	Rubber Dry: 5	5.5 meters	PTFE Dry: 3	.0 meters	Wet (Primed): 8.0 meters		
Liquid Connections:	1 ½″ (40mm	n) Threade	d or Flange	Connectio	ons. (Centre Ports)		
Wetted Body Materials:	SUS, Alumin	ium, Cast	Iron.				
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR. TPEE, FKM, TPO.						
Certification:	CE.	ATEX.		FDA	(Some Models)		



Diaphragm Pumps with 1½" Connections 600 L/min Max Flow Rate. (Rubber) 450 L/min Max Flow Rate. (PTFE)





11/2" Air Powered Double Diaphragm Pumps Max Flow Rate: 600 L/min Material Options: SUS, Aluminium, Cast Iron.

Note. factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration.

D401A-FL

D501 Plastic Pump Series

Diaphragm Pumps with 2" Connections 630 L/min Max Flow Rate. (Rubber) 580 L/min Max Flow Rate. (PTFE)



2" Air Powered Double Diaphragm Pumps Max Flow Rate: 630 L/min Material Options: GFRPP, PVDF.

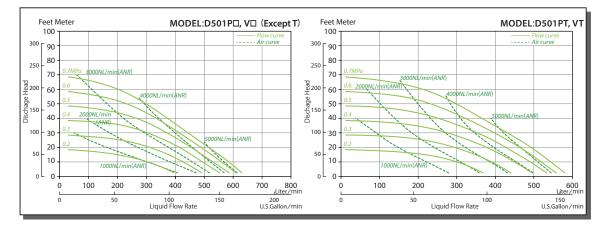
Note. factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration.

2" High Performance Plastic AODD Pumps available in GFRPP & PVDF.

Looped C[®] Air Spool, non-lubricated aluminium air motor section. Externally mounted silencer. Flanged centre port liquid connections. Fully bolted body, compact drop-in dimensions and common footprint. Fully torqued, leak & operation tested prior to shipment. 501 pump models are available with a large range of diaphragm elastomer options with ball check valves as standard.

High performance 501 Series Plastic Pumps fitted with the Looped C[®] Air Spool with Ekonol[®] Seal Rings & fully independent Pilot Valves for superior performance, reliability & serviceability. Capable of high cyclic speeds & very high flow rates, these pumps are particularly suited to liquid transfer, tank loading /unloading, & many common process type applications. Easily maintainable with modular & replaceable wear parts, outside accessible Looped C[®] Air Spool & manual Spool Reset Switch. 100% oil & grease lubrication free design, offering clean, emissions free & environmentally friendly operation. * When used under normal operating conditions & when using clean dry & oil free compressed air.

D501 Plastic Pump Series								
Max Flow Rate:	630 L/min. (Rubber) 580L/min. (PTFE)			n. (PTFE)				
Max Solids Size:	8.0 mm.							
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa							
Max Suction Lift:	Rubber Dry: 5.0 meters PTFE Dry: 2.0 meters Wet (Primed):			Wet (Primed): 8.0 meters				
Liquid Connections:	2" (50mm) Flange Con	nections. (C	entre Por	ts)				
Wetted Body Materials:	GFRPP, PVDF.							
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR. TPEE, FKM, TPO.							
Certification:	CE.	ATEX. (S	Some Moo	lels)				



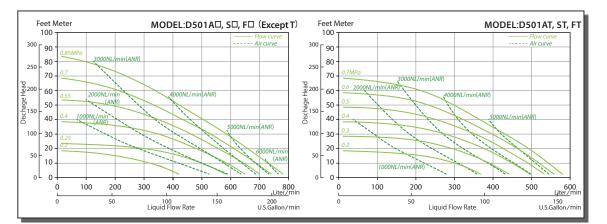
D501 Metallic Pump Series

2" High Performance Metallic AODD Pumps available in Aluminium, Stainless steel and Cast iron.

Looped C[®] Air Spool, non-lubricated aluminium air motor section. Externally mounted silencer. Choice of threaded or flanged centre port liquid connections. Fully bolted body, compact drop-in dimensions and common footprint. Fully torqued, leak & operation tested prior to shipment. 501 pump models are available with a large range of diaphragm elastomer options with ball check valves as standard.

High performance 501 Series Metallic Pumps fitted with the Looped C[®] Air Spool with Ekonol[®] Seal Rings & fully independent Pilot Valves for superior performance, reliability & serviceability. Capable of high cyclic speeds & very high flow rates, these pumps are particularly suited to liquid transfer, tank loading /unloading, & many common process type applications. Easily maintainable with modular & replaceable wear parts, outside accessible Looped C[®] Air Spool & manual Spool Reset Switch. 100% oil & grease lubrication free design, offering clean, emissions free & environmentally friendly operation. * When used under normal operating conditions & when using clean dry & oil free compressed air.

D501 Metallic Pump Series								
Max Flow Rate:	780 L/min. (Rubber)		580 L/m	in. (PTFE)			
Max Solids Size:	8.0 mm.							
Supply Air Pressure Range:	0.2 ~ 0.85 Mpa 0.2 ~ 0.7 Mpa							
Max Suction Lift:	Rubber Dry: 5	5.5 meters	PTFE Dry: 3	3.0 meters Wet (Primed): 8.0 me				
Liquid Connections:	2″ (50mm) T	Threaded o	or Flange Co	nnections	s. (Centre Ports)			
Wetted Body Materials:	SUS, Alumin	ium, Cast	Iron.					
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR. TPEE, FKM, TPO.							
Certification:	CE.	ATEX. (So	ome Models)	FDA. (Some Models)			



Diaphragm Pumps with 2" Connections 780 L/min Max Flow Rate. (Rubber) 580 L/min Max Flow Rate. (PTFE)





D801 Plastic Pump Series

Diaphragm Pumps with 3" Connections 820 L/min Max Flow Rate. (Rubber) 640 L/min Max Flow Rate. (PTFE)



D801P-FL

3" Air Powered Double Diaphragm Pumps Max Flow Rate: 820 L/min Material Options: GFRPP.

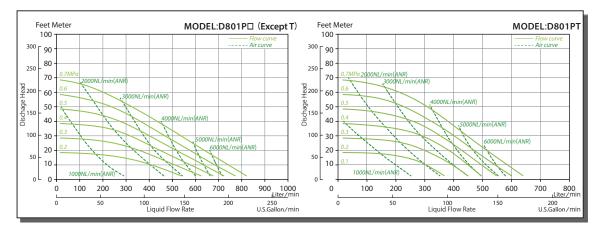
Note. factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration.

3" High Performance Plastic AODD Pumps available in GFRPP.

Looped C[®] Air Spool, non-lubricated aluminium air motor section. Externally mounted silencer. Flanged centre port liquid connections. Fully bolted body, compact drop-in dimensions and common footprint. Fully torqued, leak & operation tested prior to shipment. 801 pump models are available with a large range of diaphragm elastomer options with ball check valves as standard.

High performance 801 Series Plastic Pumps fitted with the Looped C[®] Air Spool with Ekonol[®] Seal Rings & fully independent Pilot Valves for superior performance, reliability & serviceability. Capable of high cyclic speeds & very high flow rates, these pumps are particularly suited to liquid transfer, tank loading /unloading, & many common process type applications. Easily maintainable with modular & replaceable wear parts, outside accessible Looped C[®] Air Spool & manual Spool Reset Switch. 100% oil & grease lubrication free design, offering clean, emissions free & environmentally friendly operation. * When used under normal operating conditions & when using clean dry & oil free compressed air.

D801 Plastic Pump Series								
Max Flow Rate:	820 L/min. (Rubber) 640 L/min. (PTFE)							
Max Solids Size:	10.0 mm.							
Supply Air Pressure Range:	0.2 ~ 0.7 Mpa							
Max Suction Lift:	Rubber Dry: 5.0 meters	PTFE Dry: 2	.0 meters	Wet (Primed): 8.0 meters				
Liquid Connections:	3" (80mm) Flange Con	nections. (C	entre Port	ts)				
Wetted Body Materials:	GFRPP.							
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR. TPEE, FKM, TPO.							
Certification:	CE.							



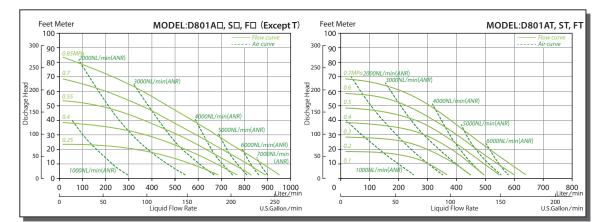
D801 Metallic Pump Series

3" High Performance Metallic AODD Pumps available in Aluminium, SUS & Cast iron.

Looped C[®] Air Spool, non-lubricated aluminium air motor section. Externally mounted silencer. Choice of threaded or flanged centre port liquid connections. Fully bolted body, compact drop-in dimensions and common footprint. Fully torqued, leak & operation tested prior to shipment. 801 pump models are available with a large range of diaphragm elastomer options with ball check valves as standard.

High performance 801 Series Metallic Pumps fitted with the Looped C[®] Air Spool with Ekonol[®] Seal Rings & fully independent Pilot Valves for superior performance, reliability & serviceability. Capable of high cyclic speeds & very high flow rates, these pumps are particularly suited to liquid transfer, tank loading /unloading, & many common process type applications. Easily maintainable with modular & replaceable wear parts, outside accessible Looped C[®] Air Spool & manual Spool Reset Switch. 100% oil & grease lubrication free design, offering clean, emissions free & environmentally friendly operation. * When used under normal operating conditions & when using clean dry & oil free compressed air.

D801 Metallic Pump Series							
Max Flow Rate:	950 L/min. (Rubber)			640 L/min.(PTFE)			
Max Solids Size:	10.0 mm.	10.0 mm.					
Supply Air Pressure Range:	0.2 ~ 0.85 Mpa 0.2 ~ 0.7 Mpa						
Max Suction Lift:	Rubber Dry: 5	5.5 meters	PTFE Dry: 3	3.0 meters Wet (Primed): 8.0 me			
Liquid Connections:	3″ (80mm) T	Threaded o	or Flange Co	nnections	s. (Centre Ports)		
Wetted Body Materials:	SUS, Alumin	ium, Cast	Iron.				
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR, TPEE, FKM, TPO.						
Certification:	CE.	ATEX. (So	ome Models)	FDA. (Some Models)		



Diaphragm Pumps with 3" Connections 950 L/min Max Flow Rate. (Rubber) 640 L/min Max Flow Rate. (PTFE)



Max Flow Rate: 950 L/min Material Options: SUS, Aluminium, Cast Iron.

Note. factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration.

D8015-FL

Heavy Duty Plastic Pump Series

Diaphragm Pumps with 1¹/₂" 2" & 3" Connections Up to 760 L/min Max Flow rate.



A Range of Heavy-duty Plastic AODD Pumps available in GFRPP & PVDF.

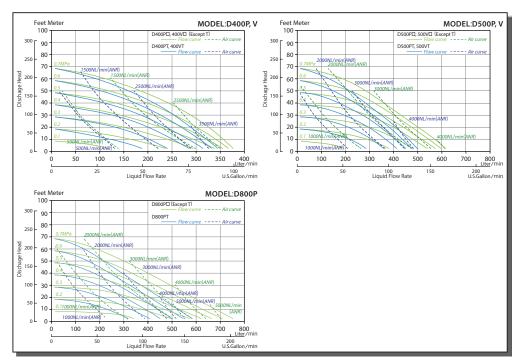
Powerful Plastic AODD Pumps fitted with the new heavy-duty mechanical coil-spring air motor, designed specifically for use in very tough & demanding chemical transfer applications.

These pumps utilize a mechanically actuated shifting mechanism with spring assisted non-centering air spools, offering superior performance, extreme reliability, serviceability & longevity. They will resist spool stalling & freezing in nearly all operating conditions and also offer very efficient air consumption ratings. They are easily maintainable with modular, replaceable wear parts & outside accessible air spools. They have a large air porting capability and are dirt and moisture friendly. 100% oil & grease lubrication free, with zero exhaust air emissions for safe & environmentally friendly operation. * When used under normal operating conditions & when using clean dry & oil free compressed air.

These pumps are particularly suited to the following applications;

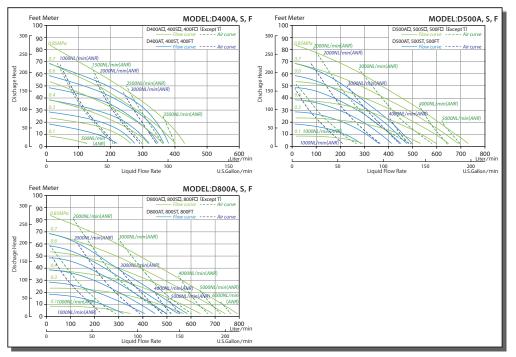
Very low air pressure start-up capability. Operating against very high discharge heads. Running very slowly against high backpressure. Frequent or extended deadheading. Frequent & repeated start-stop applications. Operating with very low air inlet pressures. Operating with high sustained discharge pressures. Pumping out to very long discharge lines. Operating with very slow spool switching speeds. Operated continuously for extended periods. Where pump icing / freezing is a common occurrence. When energy efficiency is a critical factor. Minimal air blow through at deadhead. Typically with extended air motor service life intervals.

D400 / 50	D400 / 500 / 800 HD Plastic Pump Series									
Model Code:	D400	D500	D800							
Max Flow Rate:	380 L/min. (Rubber) 345 L/min. (PTFE)	620 L/min. (Rubber) 500 L/min. (PTFE)	760 L/min. (Rubber) 580 L/min. (PTFE)							
Connection Size:	11⁄2″ (40mm)	3″ (80mm)								
Connections Type:	Flange Connections. (Centre ports)									
Max Solids Size:	7.0 mm. 8.0 mm.		10.0 mm.							
Supply Air Pressure Range:	0.15 ~ 0.7 Mpa									
Max Suction Lift:	PTFE Dry: 2.0 meters, R	Rubber Dry: 5.0 meters, W	/et (Primed): 8.0 meters.							
Wetted Body Materials:	GFRPP, PVDF.		GFRPP.							
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR, TPEE, FKM, TPO.									
Certification:	CE. ATEX. (Some Mo	dels)	CE.							



D400 / 500 / 800 HD Metallic Pump Series									
Model Code:	D400	D500	D800						
Max Flow Rate:	430 L/min. (Rubber) 380 L/min. (PTFE)	730 L/min. (Rubber) 500 L/min. (PTFE)	800 L/min. (Rubber) 580 L/min. (PTFE)						
Connection Size:	11⁄2″ (40mm)	3″ (80mm)							
Connections Type:	Threaded or Flange Connections. (Centre Ports)								
Max Solids Size:	8.0 mm.	10.0 mm.							
Supply Air Pressure Range:	0.1 ~ 0.85 Mpa (Rubb	oer) 0.15 ~ 0.7 Mpa (P	IFE)						
Max Suction Lift:	PTFE Dry: 3.0 meters, R	Rubber Dry: 5.5 meters, W	/et (Primed): 8.0 meters.						
Wetted Body Materials:	SUS, Aluminium, Cast Iron.								
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR, TPEE, FKM, TPO.								
Certification:	CE. ATEX. (Some Mo	dels) FDA. (Some Mode	els)						

Note. factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration.



Heavy Duty Metallic Pump Series

Diaphragm Pumps with 11/2" 2" & 3" Connections Up to 800 L/min Max Flow rate.



A Range of Heavy-duty Metallic AODD Pumps available in Aluminium, SUS & Cast iron.

Powerful Metallic AODD Pumps fitted with the new heavy-duty mechanical coil-spring air motor, designed specifically for use in very tough & demanding liquid transfer applications.

These pumps utilize a mechanically actuated shifting mechanism with spring assisted non-centering air spools, offering superior performance, extreme reliability, serviceability & longevity. They will resist spool stalling & freezing in nearly all operating conditions and also offer very efficient air consumption ratings. They are easily maintainable with modular, replaceable wear parts & outside accessible air spools. They have a large air porting capability and are dirt and moisture friendly. 100% oil & grease lubrication free, with zero exhaust air emissions for safe & environmentally friendly operation. * When used under normal operating conditions & when using clean dry & oil free compressed air.

These pumps are particularly suited to the following applications;

Very low air pressure start-up capability. Operating against very high discharge heads. Running very slowly against high backpressure. Frequent or extended deadheading. Frequent & repeated start-stop applications. Operating with very low air inlet pressures. Operating with high sustained discharge pressures. Pumping out to very long discharge lines. Operating with very slow spool switching speeds. Operated continuously for extended periods. Where pump icing / freezing is a common occurrence. When energy efficiency is a critical factor. Minimal air blow through at deadhead. Typically with extended air motor service life intervals.

DFS PTFE Pump Series

Diaphragm Pumps with 1/4" 1/2" 3/4" **& 1**" **Connections** Up to 150 L/min Max Flow rate.



Industrial Grade PTFE Pumps available in five different sizes.

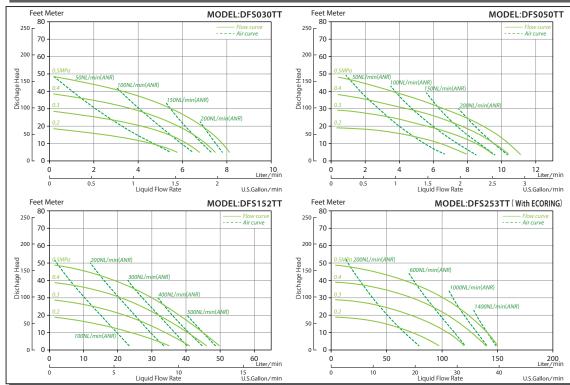
DFS050TT

DF\$253TT-FL

Looped C[®] Air Spool. Choice of both GFRPP & PPS Air Motor Section. Choice of both Flanged & Female Threaded liquid connections. Fully bolted body. Non-Lubricated design. Drop-in dimensions and common footprint. Torqued, leak & operation tested prior to shipment.

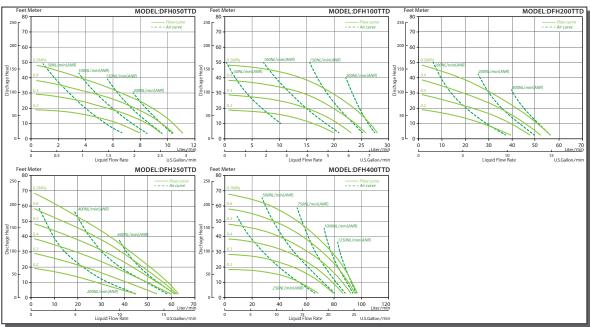
A wide range of industrial grade PTFE pumps specifically designed to transfer highly corrosive chemicals in processes such as in the manufacture of microelectronic components, solar panels and for some lower-grade Semiconductorrelated applications. Able to transfer solid laden chemicals and can achieve reasonably high flow rates. Also available with a wide range of specialist options and accessories. # 030TT Pump model with especially low flow rates where an Export Licence is typically not required.

	Industrial PTFE Pump Models										
Model Code:	DF\$030TT	DF\$050TT DF\$152T1 DF\$152T1		DF\$152TT-\$P20 DF\$152TT-\$P20-FL	DF\$253TT DF\$253TT-FL						
Max Flow Rate:	8.2 L/min.	11.0 L/min.	50 L/min.	50 L/min.	150 L/min.						
Connection Size:	¼″ (6mm)	¼″ (6mm)	1⁄2″ (15mm)	³ ⁄4″ (20mm)	1″ (25mm)						
Connection Type:	Threaded	Threaded	Thread or Flange	Thread or Flange	Thread or Flange						
Check Valves:	Flat Valve	Flat Valve	Ball Valve	Ball Valve	Ball Valve						
Max Slurry Solids Size:	0 mm.	0 mm.	2 mm.	2 mm.	3 mm.						
Supply Air Pressure Range:	0.2 ~ 0.5 MPa			•							
Description:		chemicals or for us		flow rates designe of clean industries							
Wetted Body Materials:	PTFE										
Diaphragm / Valve Materials:	PTFE on all Mode	els									
Certification:	CE.										



	High Purity PTFE Pump Models									
Model Code:	DFHo3oTTD	DFH050TTD	DFH100TTD DFH100TTD-FL	DFH200TTD DFH200TTD-FL	DFH250TTD-FL	DFH400TTD-FL				
Max Flow Rate:	8.2 L/min.	11.0 L/min.	27 L/min.	54 L/min.	65 L/min.	95 L/min.				
Connection Size:	¼″ (6mm)	¼″ (6mm)	¾″ (10mm)	¾″ (20mm)	1" (25mm)	1″ (25mm)				
Connection Type:	Threaded	Threaded	Thread or Flange	Thread or Flange	Flange	Flange				
Check Valves:	Flat	Flat	Ball or Flat	Ball or Flat	Ball or Flat	Ball or Flat				
Max Slurry Solids Size:	0 mm.	0 mm.	1 mm.	3mm (Ball valve)	3mm (Ball valve)	3mm (Ball valve)				
Supply Air Pressure Range:	0.2 ~ 0.5 MPa	a			0.2 ~ 0.7 MPa					
Description:	Micro-Electro Assembled Te	nics and Semi	conductor Industr 1. Available with T	ies. Available in 6	fically for use in t sizes. Class 1000 Liquid Connectic	Clean Room				
Wetted Material:	High Purity P	TFE / PFA.								
Diaphragm / Valve Materials:	PTFE on all Models									
Certification:	CE.									

Note. factors affecting a pumps stated liquid flow rate, suction lift & solids handling capabilities include but are not limited to; pump size, diaphragm, ball valve & ball seat, type & materials of construction, air inlet pressure & air flow capability, liquid viscosity, specific gravity, slurry content, ambient & liquid temperature, liquid inlet & liquid outlet width, piping type, piping length & overall piping configuration.



DFH Virgin High Purity PTFE Pump Series

Diaphragm Pumps with 1/4" 3/8" 3/4" & 1" Connections Up to 95 L/min Max Flow rate.



DFH100TTD-FL



Composed O

High Purity Virgin PTFE Pumps available in six different sizes.

Looped C[®] Air Spool. Choice of PPS / PP / HDPP Air Motor Section. Choice of both Flanged & Female Threaded Liquid Connections. Fully bolted body. Non-Lubricated design. Drop-in dimensions and common footprint. Torqued, leak & operation tested prior to shipment. Designed and manufactured to ensure Low Particle Counts and Reduced Chance of Metallic Ion Contamination within a clean process. Class 1000 clean room assembled, tested and packed.

A wide range of virgin high purity PTFE pumps specifically designed to transfer highly corrosive chemicals for the manufacture of Semiconductors or for use in some laboratories & Clean Rooms. Able to transfer slurry laden chemicals and can achieve reasonably high flow rates. Also available with a wide range of specialist options and accessories.

030TTD Pump model with low flow rates. Typically, an Export Licence is not required.

Drum Pumps

Air Powered Drum Syphon Double Diaphragm Pumps available in a wide range of sizes and materials. Suitable for pumping directly from 200 litre Barrels.

For the safe clean and efficient transfer of all kinds of liquids including corrosive chemicals, oils, lubricants, waste liquids, solvents and fuels. Can be used to pump flammable liquids and in explosive environments. Available with ¹/₄" ³/₈" ¹/₂" ³/₄" and 1" Liquid connections. Available Materials: PP, GFRPP, CFPP, PVDF, PTFE, CFPTFE, Aluminium, SUS, FDA & Electro Polished SUS. Max Flow Rate: 220 L/min. Max Slurry Size: 6.5mm on a 1" pump





Drum Bung Pipe 👌 Adapter (SUS)

FDA Grade Sanitary Diaphragm Pumps

FDA Grade Sanitary Double Diaphragm Pumps for Food, Beverage, Pharmaceutical, Cosmetics & Chemical applications where 3A, USDA or EHEDG standards are not required.

Available in all sizes ¹/₄" through to 3" in Stainless Steel. Manufactured from FDA Compliant Materials. 316 Electro Polished Stainless Steel Housings & Hardware with Oversized Sanitary Flange Connections Welded Directly to the Pump. Electro Polished Inside and Out.

ISO Type Sanitary Flanges Shipped as Standard. Optional 3A Type Connections are Also Available. # FDA Compliant Drum Pumps & FDA Pulsation Dampeners are also available.

D253ST-FDA

FDA Type Electro Polished HD SUS Pump.
1½" Sanitary Flange Connections.
190 L/min Max Flow Rate. (PTFE Diaphragms)
6.5mm Max Solids Size.







D500ST-FDA

FDA Type Electro Polished SUS Pump.2½" Sanitary Flange Connections.500 L/min Max Flow Rate. (PTFE Diaphragms)8mm Max Solids Size.

Sanitary Flange Connections

Shipped as standard on all FDA compliant pumps. Welded and Oversized Stainless Steel. Available in either Standard ISO or optional 3A sizes. # Suitable Sanitary Type Clamp fittings and gaskets sold separately

E Series Pumps

Compressed air powered AODD pumps with an electrically actuated air switching mechanism. E Series electric double diaphragm pumps used in critical process type applications and can be fully integrated into control systems and process machinery while still offering all the major benefits of an AODD pump.

Used for liquid transfer, metering, batching, or cycle speed control. Can also be connected to warning devices to monitor pump stroke rate or pump stoppages etc.

E Series Pumps have extremely reliable "non stall" operation in all operating conditions. Utilizing electric spool actuation & stroke sensor for full (intelligent) pump controllability. Very low start up pressure capability. More accurate liquid flow rates and lower liquid pulsation. Increased life expectancy of the pumps moving parts and generally lower maintenance requirements overall. The E type design allows for quieter operation & lower air consumption and is a much more reliable and efficient way to transfer liquids.

DFS050TT-E

1/4" PTFE E Type Pump 12 L/min Max Flow Rate



D400VS-FL-E 1 ½" PVDF E Type Pump (Flanged) 380 L/min Max Flow Rate



Specialty Pump Models

Conductive Polypropylene Pumps

Electrically Conductive Polypropylene Double Diaphragm Pumps used for the safe transfer of flammable chemicals or for use in explosive environments.

Carbon filled Polypropylene used to manufacture all major body components including both the Liquid and Air Side on the pump. Available with ¹/₄" ¹/₂" & 1" Connections. Offering high Chemical Resistance and a fully Bolted Design with inbuilt engineering features designed to resist material creep so reducing the chance of leaks forming over time.

D252C -PC-FL 1" Carbon PP Pump (Flanged) 170 L/min Max Flow Rate

D152C -PC ¹⁄₂" Carbon PP Pump 56 L/min Max Flow Rate



D152C -PC-D ¹⁄₂" Carbon PP Drum Pump 56 L/min Max Flow Rate



D050CT ¹/₄" Carbon PP Pump 11.5 L/min Max Flow Rate

Conductive PTFE Pumps

Electrically Conductive PTFE Double Diaphragm Pumps used for the safe transfer of highly corrosive & flammable chemicals or for use in explosive environments.

Carbon filled PTFE used to manufacture all major body components including both the Liquid and Air Side on the pump. 3 models available with 1/4" 1/2" & 1" Connections. Offering Very High Chemical Resistance and a Fully Bolted Design with inbuilt engineering features designed to resist material creep and so reducing the chance of leaks forming over time.



DFC152TTC-PC 1/2" Conductive PTFE Pump 50 L/min Max Flow Rate



DFC050TT ¼" Conductive PTFE Pump 11 L/min Max Flow Rate

Powder Transfer Pumps

Specially Designed Powder Pumps to syphon and transfer very fine, dry, bulk powders effectively throughout a process and help create a safe, efficient and dust free environment. Powder Transfer Pumps can eliminate the need for intensive manual labour, heavy lifting or mechanical Augers & Conveyors.

To operate correctly, the Powder must be completely dry and typically free flowing. Convening distance will depend entirely on the type of powder, its weight, size, shape and bulk density. Typically powders such as Pigments, Activated Carbon, Powder Coatings, Carbon Black, Fumed Silica, Talc, Toners & Powdered Plastics can all be transferred successfully. However it is always recommended that a trial is firstly carried out to determine the pump-ability of a certain type of powder.

Powder Pumps are available in the following Sizes & Materials

³/₄" 1" 1¹/₂" 2" & 3" Aluminium or Stainless Steel. Shipped with factory fitted Compressed Air Induction System. The standard model utilizes 4 inlets however custom models are available. Many more options and accessories are also available. # please consult YTS for more information about pumping powders and Powder Pumps.

Compressed Air Induction System.

Power Pumps are fitted with an Air Induction System to fluidize the powder and help stop clumping and sticking. Pre Fluidization before operating the pump will also help reduce the chance of pump damage caused by settled and compacted powders.



D253AS-PDR 1" Powder Pump.



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Flap Valve Solids Transfer Pumps

New 2" Flap Valve Solids Transfer Pumps for the Transfer of Large Solid Laden Liquids Up to 40mm in size.

Typically operated in water evacuation, process and waste type applications, Flap Valves Pumps utilize a reversed top down liquid flow path and with 4 large heavy duty flap valves to facilitate to transfer of liquids containing large sized solids. For ease of use & ease of maintenance, each pump is fitted with 4 externally accessible inspection panels allowing for each individual Flap Valve to be inspected cleaned or replaced simply and easily without having to remove the pump for service. This special externally accessible design also allows for the inspection & cleaning of the pumps diaphragms and other moving parts.

Fitted with the heavy duty Mechanical Coil-Spring Air Motor, each pump is designed for high performance operation, extreme reliability & extended parts life expectancy. They can operate anywhere from very low to very high air pressures with extremely efficient air consumption ratings. These pumps are particularly suited to frequent start stop, Dead Head & high backpressure type applications and can easily handle High Heads & very Long Discharge Lines with ease.



Externally Accessible Flap Valves. Special outside accessible design. Inspect, Clean and Service in Place. Maintain Inline. No need to pull the pump from service.

D500AN-HV-FL

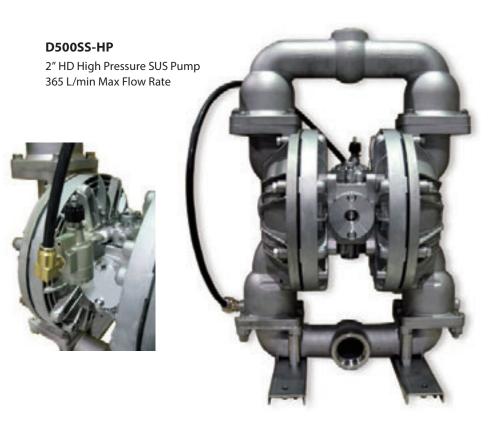
2" Aluminium HD Flap Valve Pump. Heavy Duty Mechanical Air Motor. 600 L/min Max Liquid Flow Rate. 7 Bar Max Liquid Discharge Pressure. Max Slurry Size: Φ30mm Spherical. Φ15mm × 45mm Oblong. Net Weight: 73 kg.



High Pressure Pumps

High Pressure Double Diaphragm Pumps for applications where high liquid discharge pressures are required to overcome system requirements.

Often utilized in filter press type applications and can easily handle High Heads, very Long Discharge Lines and Frequent Dead Head type processes. Pressure output is roughly doubled however the flow rate is roughly halved. 2:1 discharge pressure ratio is achieved by utilizing twice the surface area (driving both diaphragms) to double the discharge pressure output. High Pressure 2:1 pumps are available with $\frac{3}{4}$ " 1" $\frac{1}{2}$ " & 3" connections with aluminium stainless steel and cast iron construction.



Common Accessories & Options

Liquid Pulsation Dampeners

A comprehensive range of high Performance Liquid Pulsation Dampeners in various sizes and Materials. Reduce Liquid Pulsation by up to 95%.



Air Filter Regulators

Built in moisture and particulate removal of up to 5 micron. Analogue type pressure gauge with locking function. Manual drain system. Provides optimal pump control and helps improve compressed air efficiency.

Stroke Counter Option

Pneumatically actuated mechanical stroke counter. Non electrical. Fitted to the pump via an air hose. Used for measuring stroke life of pump or diaphragms. Can be used to measure and calculate liquid volume over time.



High Performance Exhaust

Reduce exhaust particulate contamination by up to 99.9%. Reduce Exhaust Noise by up to 35%. High corrosion resistance. Built in reservoir and drain for accumulated oil & condensation. Available in various sizes. Easy to fit and easy to service.



Specialty Diaphragm Options

A full range of high performance Pump Diaphragms available in all sizes and materials. Optional TPO rubber Back up Diaphragms. One Up[®] Brand Specialty Diaphragms. Bonded Rubber PTFE Diaphragms. New One piece solid type PTFE diaphragms are also available.



PTFE Coatings

PTFE Coated Air motor Assembly for increased chemical resistance. Used to protect air motor assembly from ruptured Diaphragms, chemical spills or for use in corrosive environments.



Common Accessories & Options

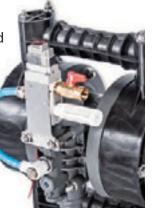
Automatic Liquid Level Controller

The HLC Automatic Liquid Level Controller is a pneumatically controlled system designed to automatically start and stop an AODD Pump when the liquid level within a tank reaches a predetermined Hi or Low level. The HLC is available in 4 different models.



Airline Solenoid Valve Kit.

AODD Pumps shipped with a Mounted Electric Solenoid Valve, fixed to the Pump with a bracket, air inlet hose & fittings. Used to remotely control the Pumps air supply, turning the pump on or off. ASV fitted pumps offer all the advantages and versatility of an AODD Pump with the controllability of an Electric Pump. ASV fitted Pumps are commonly installed into process applications and can be easily integrated into process equipment, control systems or in remote pumping locations.



Tools

A full range of standard & specialty pump service tools are available for all model pumps.



Conductive Liquid Leak Sensor Kit

Automatically detect leaks or diaphragm ruptures. Automatically cuts air supply, triggers cut of valves or sounds warning alarms etc.



Electro Polished Stainless Steel

Specifically for ultra-high purity solvents and other non-corrosive liquids compatible with 316 Stainless Steel. A common option for food, pharmaceutical cosmetics, electronics & semiconductor related applications. # Electro polished pulsation dampeners are also available.



Spare Parts & Pump Service Kits

A full Range of Spare Parts and Pump Service Kits are available for all new and old model pumps.



Fully Engineered Diaphragm Pumps



Up to 730 L/min on this 2" Pump.

Compact & Robust

With its Compact Size & Robust Construction, this High Performance Pump is Designed for use in any Application.

Fully Bolted Construction

Pumps Bolted and Fully Torqued prior to shipment. Easy to Assemble and Disassemble.

Machined Mating Surfaces

Reducing any Chance of Leaks.

Outside Accessible Air Motor

Simple and Fast to Service.

Extremely Reliable Operation

New Coil Spring Air Motor for High Performance Operation. Low Start Up Pressure and High Head Discharge.

Non-Lubricated Air Motor

No Oil or Grease Required for normal operation.

Efficient Air Consumption

Designed to operate Extremely Efficiently and also reduce air leakage or loss in all operating conditions.

Non Stall Operation

Will operate from Very Low to Very High Air Pressure using State of the Art materials. This Non-Lubricated Air Motor has been engineered to offer Extremely Reliable switching operation.

Common Footprint & Dimensions

Ports and Foot Dimensions match many other Brand Pumps making it easy to replace another pump without changing the pipe fittings.

Patent Pending

Designed and Manufactured in Japan with various Patents Pending.



Looped C[®] Air Spool.

New Generation Mechanically Assisted Non-Centering Spool

100% Non-Lubricated. Increased Performance. Improved Reliability. Extended Life expectancy. Outside Accessible. Modern Materials of Construction. Common "Drop-in" sizes. Patented Design.



Mechanical Air Spool.

3rd Generation Heavy Duty Mechanically Assisted Non-Centering Air Spool.

For tough & demanding applications. Will resist spool stalling & freezing in nearly all operating conditions. Superior pumping performance. Extreme reliability. Serviceability & Longevity. 100% Non-Lubricated. Outside Accessible.

D500AS-FL

2"Aluminium HD Pump 730L/min Max Flow Rate 8.0mm Max Solids Size

Pump Model Nomenclature	D	152	Ρ	Т	PP -	SB	- NPT
Diaphragm Pump Model		Î	Î	1		1	1
Connection Size / Model No.							
Body Material (Wetted)							
Diaphragm / Valve Materials							
Other Common Code Options							



D152PT-PP-SB-NPT

¹/2" Pure Polypropylene AODD Pump PTFE Diaphragms and Liquid Seals Polypropylene Air Motor Section TPO Rubber Backup Diaphragms NPT Threaded Liquid Connections

Diaphragm Pump Model	Connection Size / Model No.	Body Material (Wetted)	Diaphragm / Valve Materials
 Diaphragm Pump Series DFS Industrial Grade PTFE Pump Series DFC Conductive Industrial PTFE Pump Series DFH High Purity PTFE Pump Series 	030 5mm (1/4") 203 20mm (3/4") 050 5mm (1/4") 252 25mm (1") 100 10mm (3/8") 253 25mm (1") 101 10mm (3/8") 400 40mm (1½") 102 10mm (3/8") 401 40mm (1½") 150 15mm (1/2") 500 50mm (2") 151 15mm (1/2") 501 50mm (2") 152 15mm (1/2") 800 80mm (3") 202 20mm (3/4") 801 80mm (3")	 A AI (Aluminium ADC-12) S SUS (Stainless Steel SCS14/316) (*304) F Fe (Cast Iron S45C) P GFRPP (Glass Reinforced Polypropylene) P PP (Pure Polypropylene using -PP indicator) C CF PP (Carbon Reinforced Polypropylene) V CF PVDF (Reinforced Polyvinylidene Fluoride) D POM (Polyoxymethylene) T PTFE (Polytetrafluoroethylene) 	C Neoprene [™] (CR) E Nordel [™] (EPDM) N Buna N (NBR) H Hytrel [™] (TPE / TPEE) S Santoprene [®] (TPO) V Viton [®] (FPM / FKM) T PTFE

Other Common Code Options

FL	Flanged Liquid Connections DIN (JIS)	VH High Vacuum Ball Guides	HV Hinged Flap Check Valve Fitted Pump	PC	Conductive PP Air Motor Indicator
FLA	Flanged liquid connections ANSI	U High Performance Muffler	HP High Pressure Pump 2:1	MT	Aluminium Air Motor indicator (3/4" & 1")
NPT	NPT Female Threaded Liquid connections	IMR Inlet Manifold Reversed Direction	FDA FDA Compliant Pump	PP	Pure Polypropylene material indicator
	 Multiport Liquid Connections (if not standard) 	OMR Outlet Manifold Reversed Direction	PDR Powder Transfer Pump	CH	Pump with Carry Handles
FT	「 Flaretek [®] fittings for a PTFE Pump	I Split Suction Manifold	E Electrically Actuated AODD Pump	SP25	1" Height Adapter Kit (for 253 Pumps)
SB	TPO Backup Diaphragms for a PTFE Diaphragm	O Split Discharge Manifold	TTC Conductive PTFE Pump	SP40	1 ¹ / ₂ " Height Adapter Kit (500/501 Pumps)
TE	PTFE Diaphragms with Bonded EDPM Backup	MPI Vertical Centre Port Inlet	TTD High Purity PTFE Pump	SP50	2" Height Adapter Kit (for 500/501 Pumps)
TG	One-Up [®] PTFE Diaphragms Bonded Backup	MPO Vertical Centre Port Outlet	D Drum Syphon Pumps	RF100	Rubber Feet Kit (For 100 Pumps)
то	PTFE One Piece Solid PTFE / Bonded Backup	MPZ Vertical Centre Port Inlet & Outlet	H High Temperature PTFE Pump	RF152	Rubber Feet Kit (For 152 Pumps)
HB	Conductive TPEE Backup Diaphragms	CAM Camlock Adapters (Screw in type)	Z Split Manifold Pump	RF253	Rubber Feet Kit (For 203 / 253 Pumps)
AP	Diaphragm Abrasion Pads	SCF Sanitary Clamp fittings (Screw in type)	EP Electro Polished Stainless Steel Pump	Q1	Leak Sensor Conductive (2×Internally Fitted)
BV	Ball Check Valves (If not standard)	STS Surge Tank type Pulsation Dampeners	SC1 Pneumatic Stroke Counter Fitted Pump	DC	Destroke Kit (Long Pilot Valves)
FV	/ Flat Check Valves (If not standard)	S1 304 SUS Ball Check Valves	P1 Electric Prox Sensor Spool Type 10-30 V Dc	BC	External PP Bolt Caps
T1	PTFE Ball Check Valves (If not standard)	SUS Check Valve Seats	P1X Electric Prox Sensor Spool Type 8.2 V (ATEX)	BX	High Performance Throat Bearings
T2	2 PTFE Check Valve Seats	SUS Check Valve Guides	ASV Airline Electric Solenoid Valve Fitted Pump	SX	SUS Air Spool (for an aluminium fitted pump)
T3	B PTFE Check Valve Guides	S6 SUS Balls, Seats & Guides	XS1 PTFE Coated Air Motor (Aluminium Air motor)	OFT	Special Oil-Free & Moisture-Free Cleaning
T6	PTFE Balls Seats & Guides	S7 316 SS PARABOLIC GUIDES	XS2 Lacquer Painted Air Motor (Aluminium Air motor)		
Та	PTFE O-Rings wet side kit	Slurry Ball Guide & Seat Kit	$\frac{1}{2}$ C $\frac{1}{2}$ " Centre ports (for 100 & 101 Pumps)		

Notes

Options, Variations, Add-ons and Accessories listed herein may not be available for all models sizes or materials. ONE-UP[®] is a registered trademark of Garlock[®]. Hytrel[®] is a registered trademark of E.I. du Pont de Nemours and Company. Kynar[®] is a registered trademark of Arkema. Nordel[®] is a registered trademark of DuPont Dow Elastomers. Ryton[®] is a registered trademark of Chevron Phillips Chemical Company. Santoprene[®] is a registered trademark of Monsanto Co. Viton[®] is a registered trademark of DuPont Performance Elastomers.

 $1\frac{1}{2}$ C $1\frac{1}{2}$ " Centre Ports (for 253 Pumps)



Notes:

Products & specifications contained within this catalogue may be changed without notice. Pumps listed are available in various and materials. For each application please take extreme care with pump choice and always consider factors such as chemical compatibility, solids size, abrasion resistance, temperature of the liquid, temperature of the surrounding atmosphere, airline or liquid line pressure etc. Always refer to MSDS and chemical compatibility charts or for more information about chemical compatibility. For more information on choosing the correct pump, please consult with your distributor or contact YTS directly. Note that products contained may be subject to international trade restrictions or embargoes and may require an export permit from the Japan Ministry of Economy and Industry (METI) prior to dispatch. For more information regarding international export control regulations please contact your distributor or YTS directly. For information regarding re-export please contact your local authorities directly. For information regarding ce & ATEX refer to the CE and ATEX certification available separately. Countries where YTS patents were applied : Japan, China, Korea, USA, Italy, Denmark, France, Germany, Netherlands, Sweden, and England.



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