

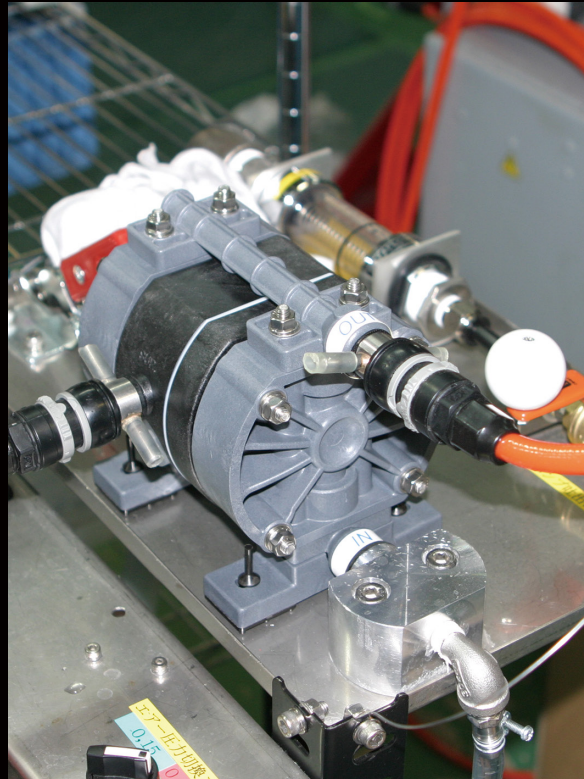
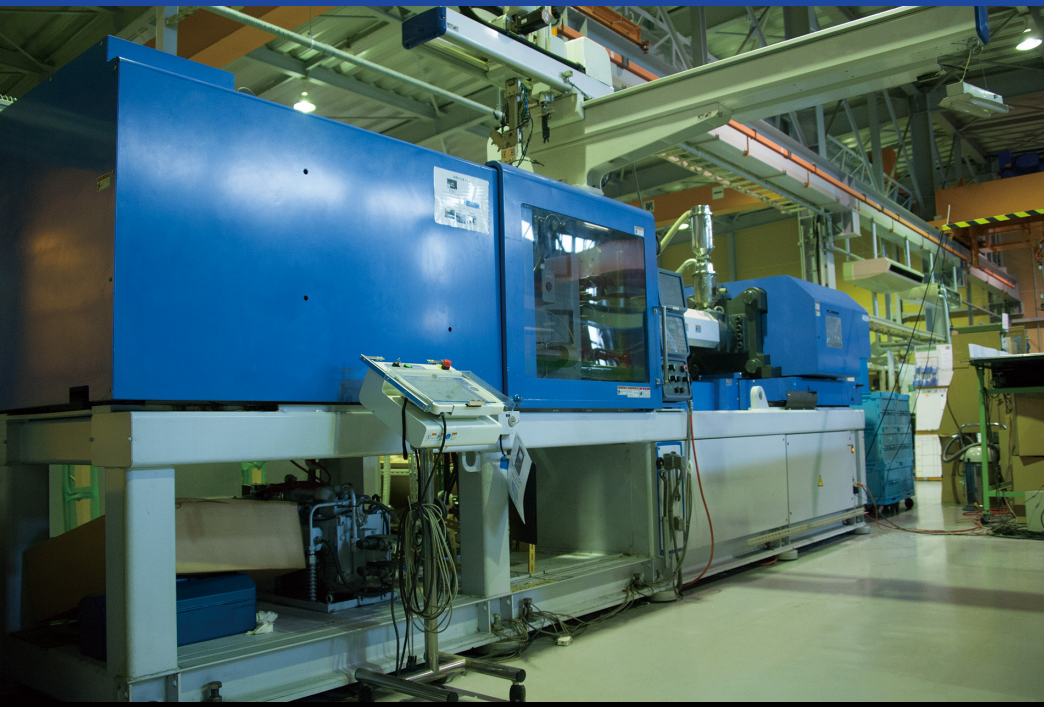
TC-X

2017

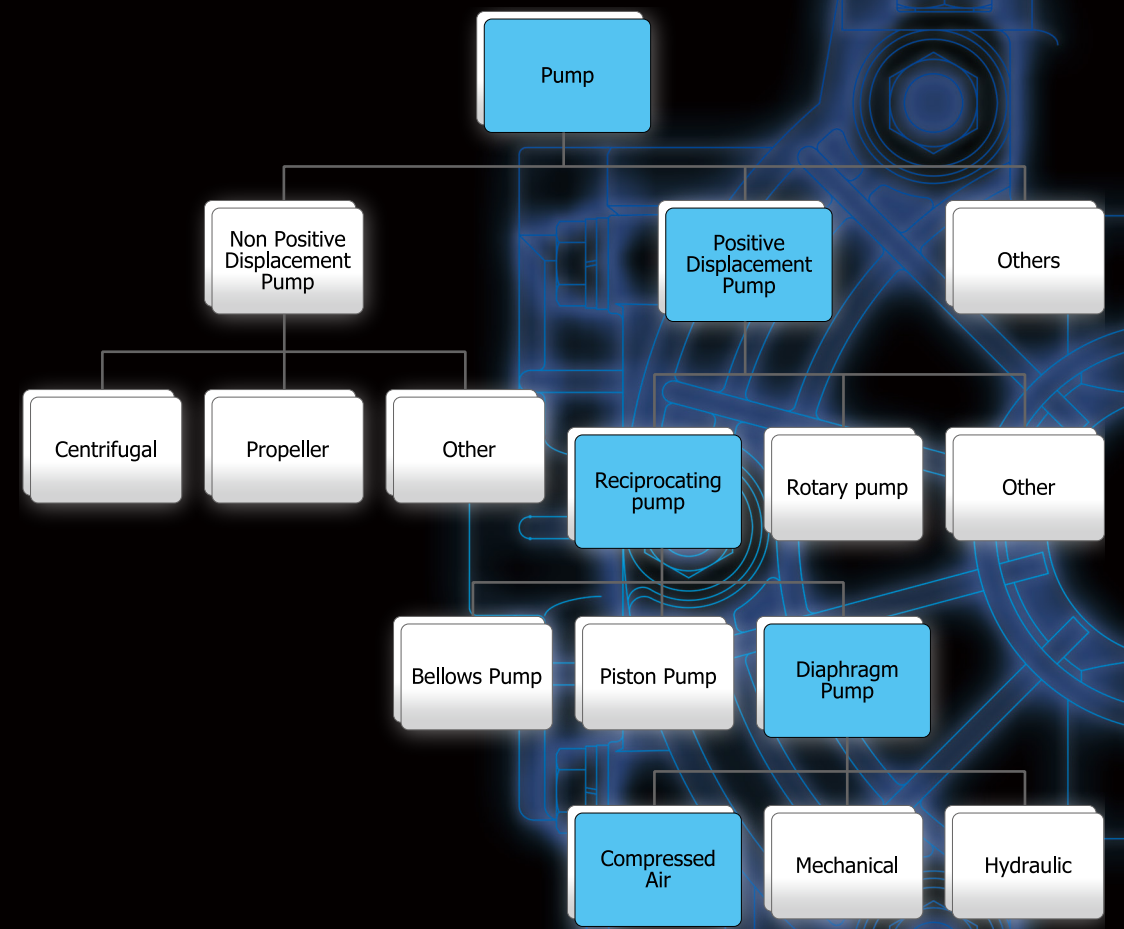
PRODUCT GUIDE



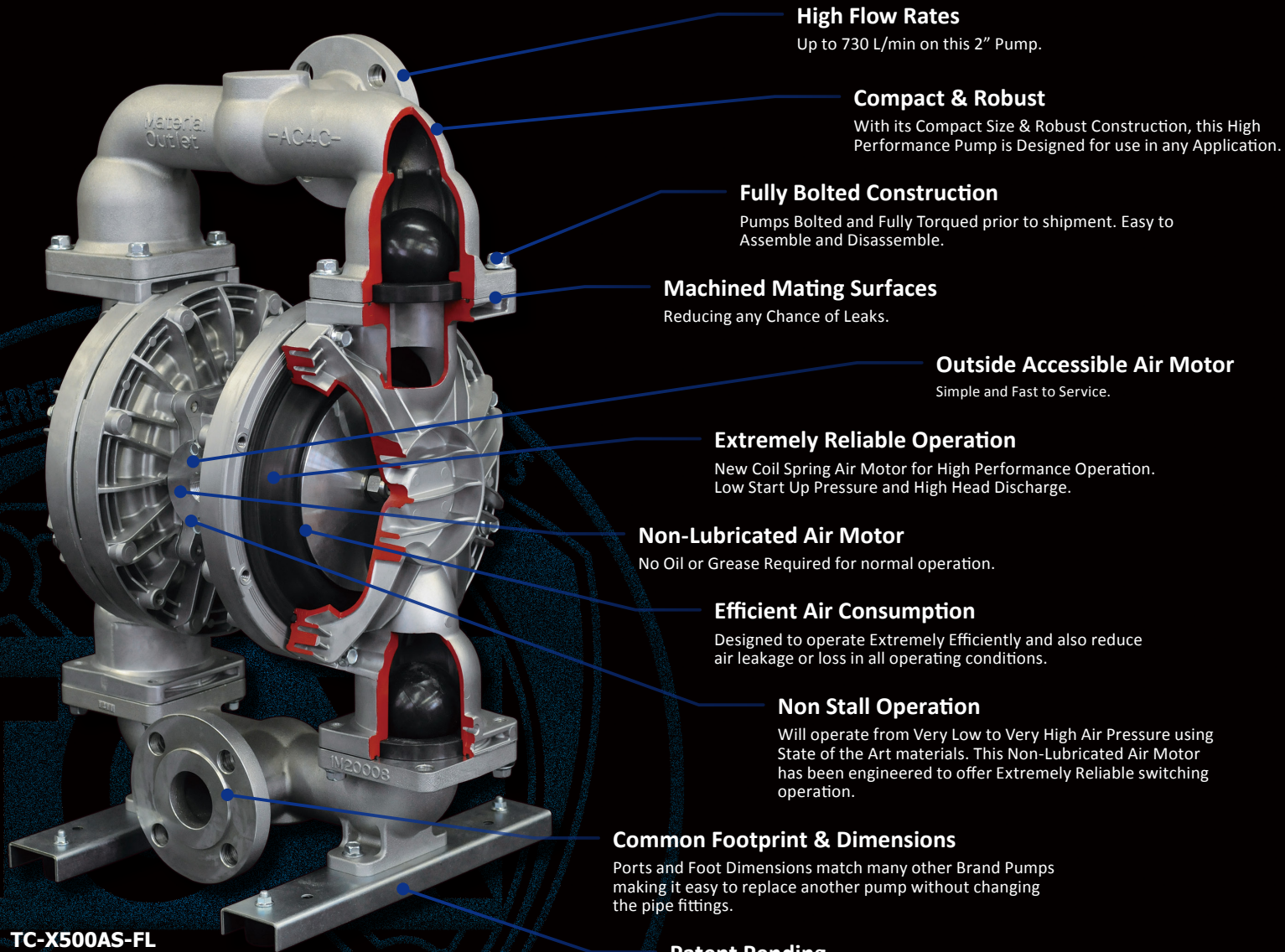
AIR POWERED DOUBLE DIAPHRAGM PUMPS



Diaphragm Pump Characteristics



Presenting TC-X Double Diaphragm Pumps



High Flow Rates

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.

TC-X500AS-FL

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

Air Powered Double Diaphragm Pumps Manufactured in Japan with Superior Quality and Finish.

Designed for High Performance Operation and Long Life Expectancy.

Fully Engineered with Design Features Not often Found in Other Brand Pumps.



AODD Pump Abilities

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 0.1 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 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 Looped C[®] Spool



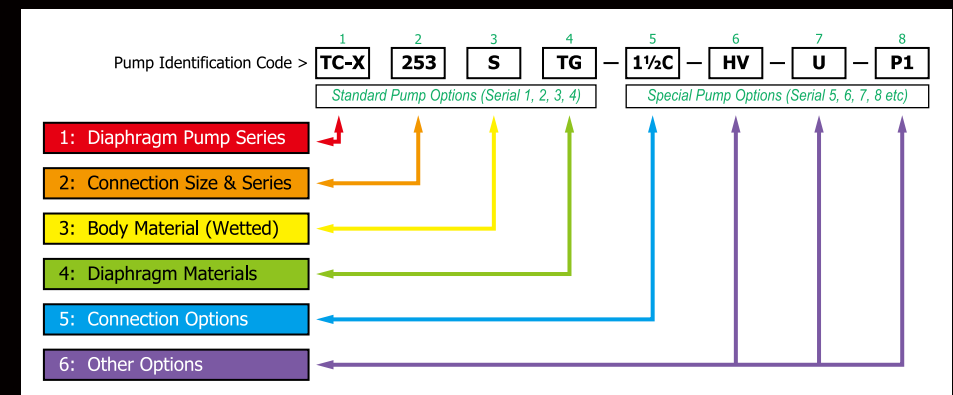
When installed can decrease Air Volume requirements by up to 25% Compared to an old equivalent model pump. (Average 16%). Also when using an EcoRing fitted pump, there is no decrease in liquid low rates.



The Air EcoRing



Pump Model Nomenclature



TC-X030 Series

Diaphragm Pumps with 1/4" Connections



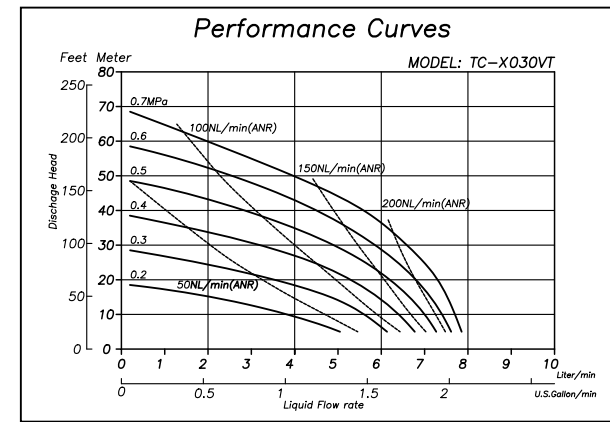
TC-X030V

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

New special low flow 1/4" pump model available in PVDF.

Ryton (PPS) Plastic Air Motor. New Looped C[®] Air Spool for increased performance, operation reliability & improved parts life expectancy. Non-Lubricated design technology. Compact size. Small footprint. Internal Silencer. Fully bolted body, torqued, leak & operation tested prior to shipment.

TC-X030 Pump Series	
Max Flow Rate:	8 L/min.
Max Solids Size:	0 mm.
Max Air Inlet Pressure:	0.2 ~ 0.7 Mpa
Description:	Ryton [®] Plastic Air Motor (PPS), Looped C [®] Spring Air Spool, Flat Check Valves, Side Port Liquid Connections. Internal Silencer. Fully Bolted Body.
Liquid Connections:	1/4" (6mm) Threaded Connections. (Side Ports)
Wetted Body Materials:	PVDF.
Diaphragm / Check Valve Materials:	PTFE.
Certification:	CE. ATEX.
Common Options & Accessories:	Filter Regulator. Bolt Caps. NPT Liquid Connections. Air Side Service Kit.



TC-X050 Series

Diaphragm Pumps with 1/4" Connections

Newly redesigned 1/4" pump series available in a full range of materials including Pure Polypropylene.

Ryton (PPS) Plastic Air Motor. New Looped C® Air Spool for increased performance, operation reliability & improved parts life expectancy. Non-Lubricated design technology. Compact size. Small footprint. Internal Silencer. Fully bolted body, torqued, leak & operation tested prior to shipment.



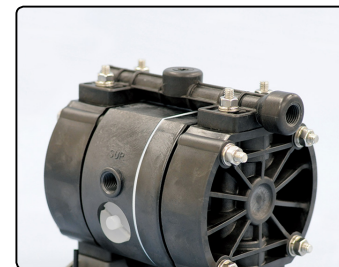
TC-X050 Pump Series		
Max Flow Rate:	11.5 L/min.	
Max Solids Size:	Flat Valve = 0 mm.	
Max Air Inlet Pressure:	0.2 ~ 0.7 Mpa	
Description:	Ryton® Plastic Air Motor (PPS), Looped C® Spring Air Spool, Flat Check Valves, Side or Multi Port Liquid Connections. Internal Silencer. Fully Bolted Body.	
Liquid Connections:	1/4" (6mm) Threaded Connections. (Side Ports or optional Multi Ports)	
Wetted Body Materials:	Pure PP, PPG, PVDF, SUS, Aluminium, POM.	
Diaphragm / Check Valve Materials:	PTFE.	
Certification:	CE.	ATEX. (Some Models) FDA. (Some Models)
Common Options & Accessories:	E Series Pump. Drum Pump. Multiport Connections. Ball check valves on metallic pumps. FKM, EDPM, CR, NBR Diaphragms. High Performance Spool. Filter Regulator. Bolt Caps. NPT Liquid Connections. 2 In 2 Out connections. Air Side Service kit.	



TC-X050A

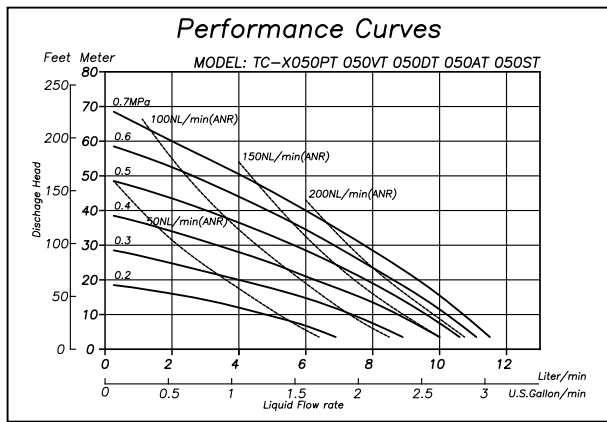


TC-X050P



Optional MultiPort Model.

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

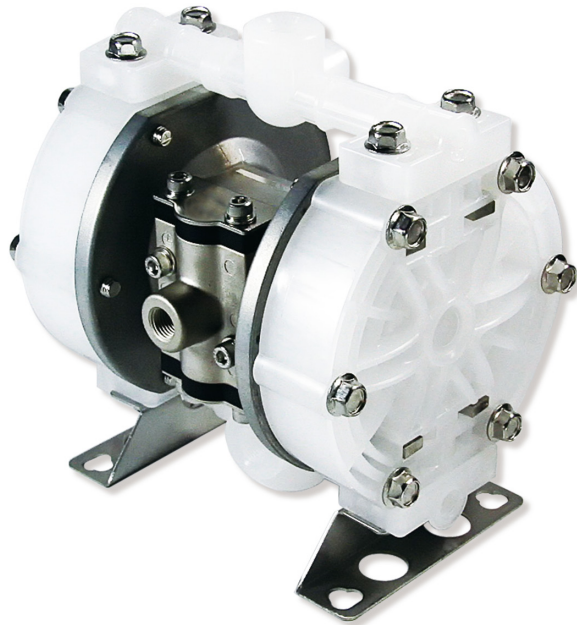


TC-X100 Series

Diaphragm Pumps with 3/8" Connections

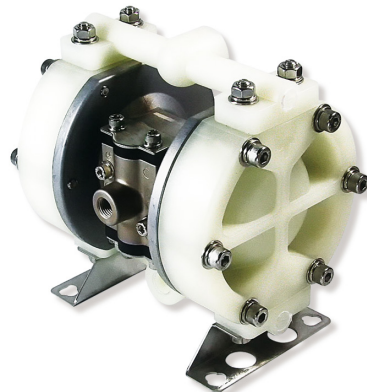
Old style 3/8" pump series available in PPG & New Pure Polypropylene.

Metallic Air Motor. Spring-Less Air Spool suited to frequent start stop, Dead Head & high back pressure type applications. Non-Lubricated design technology. Compact size. External Silencer. Fully bolted body, torqued, leak & operation tested prior to shipment.



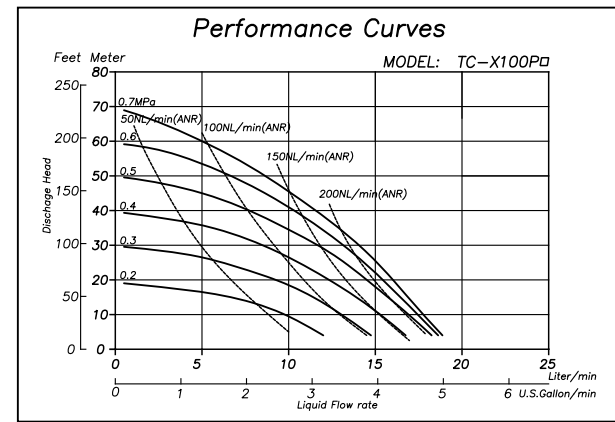
TC-X100P-PP

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



TC-X100P

TC-X100 Pump Series	
Max Flow Rate:	18 L/min.
Max Solids Size:	1.0 mm.
Max Air Inlet Pressure:	0.2 ~ 0.7 Mpa
Description:	Aluminium Air Motor, Spring-less Air Spool, Ball Check Valves, Side or Multi Port Liquid Connections. Internal Silencer. Fully Bolted Body.
Liquid Connections:	3/8" (10mm) Threaded Connections. (Centre Port & Multi Ports on PP pump)
Wetted Body Materials:	Pure PP, PPG.
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR, TPEE, TPO.
Certification:	CE.
Common Options & Accessories:	Filter Regulator. 1/2" Centre Ports. PTFE Check Valves. PTFE Coated Air Section. Rubber Feet Kit. Liquid Pulsation Dampener. Drum Pump. NPT Liquid Connections. Air Side Service kit.



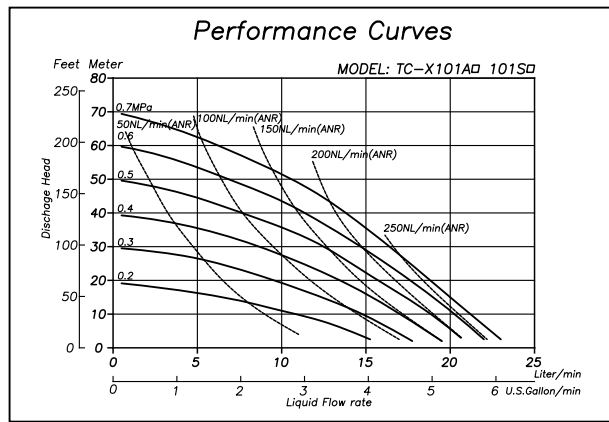
TC-X101 Series

Diaphragm Pumps with 3/8" Connections

Old style 3/8" pump series available in Aluminium & Stainless steel.

Metallic Air Motor. Spring-Less Air Spool suited to frequent start stop, Dead Head & high back pressure type applications. Non-Lubricated design technology. Compact size. External Silencer. Fully bolted body, torqued, leak & operation tested prior to shipment.

TC-X101 Pump Series			
Max Flow Rate:	23 L/min.		
Max Solids Size:	1.0 mm.		
Max Air Inlet Pressure:	0.2 ~ 0.7 Mpa		
Description:	Aluminium Air Motor, Spring-less Air Spool, Ball Check Valves, Side or Multi Port Liquid Connections. Internal Silencer. Fully Bolted Body.		
Liquid Connections:	3/8" (10mm) Threaded Connections. (Multi Ports)		
Wetted Body Materials:	SUS, Aluminium.		
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR, TPEE, TPO.		
Certification:	CE.	ATEX.	FDA. (Some Models)
Common Options & Accessories:	Filter Regulator. 1/2" Centre Ports. PTFE Check valves. SUS Check Valves, Guides & Seats. PTFE Coated Air Section. Rubber feet kit. Liquid Pulsation Dampener. Drum Pump, FDA Pump. Air Side Service kit.		



TC-X101S

TC-X101A

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

TC-X102 Series

Diaphragm Pumps with 3/8" Connections

Old style 3/8" pump series available in PPG.

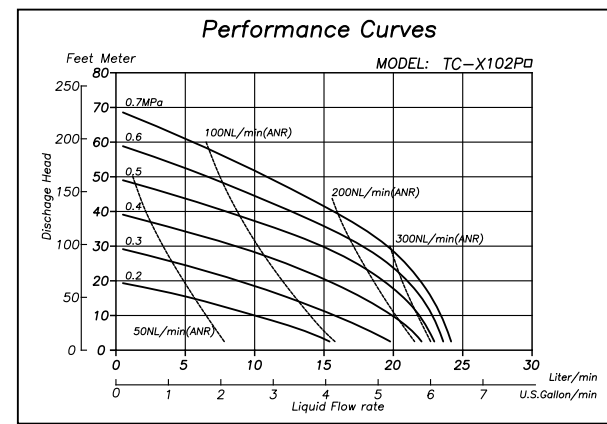
Ryton (PPS) Air Motor for increased chemical compatibility. C-Spool Air motor as standard. Non-Lubricated design technology. Compact size. Internal Silencer. Fully bolted body, torqued, leak & operation tested prior to shipment.



TC-X102P

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

TC-X102 Pump Series	
Max Flow Rate:	24 L/min.
Max Solids Size:	1.0 mm.
Max Air Inlet Pressure:	0.2 ~ 0.7 Mpa
Description:	Ryton Plastic Air Motor (PPS), C-Spring Air Spool, Ball Check Valves, Side Port Liquid Connections. Internal Silencer. Fully Bolted Body.
Liquid Connections:	3/8" (10mm) Threaded Connections. (Side ports)
Wetted Body Materials:	PPG.
Diaphragm / Check Valve Materials:	PTFE, TPO, TPEE, NBR, CR, EPDM.
Certification:	CE.
Common Options & Accessories:	Filter Regulator. PTFE Check valves. Liquid Pulsation Dampener. NPT Liquid Connections. Air Side Service Kit.



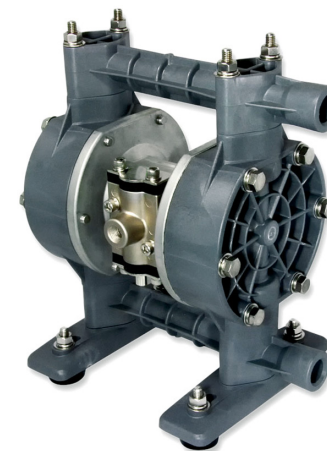
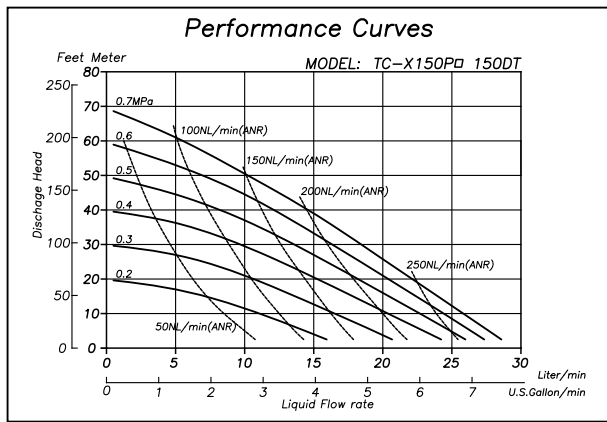
TC-X150 Series

Diaphragm Pumps with 1/2" Connections

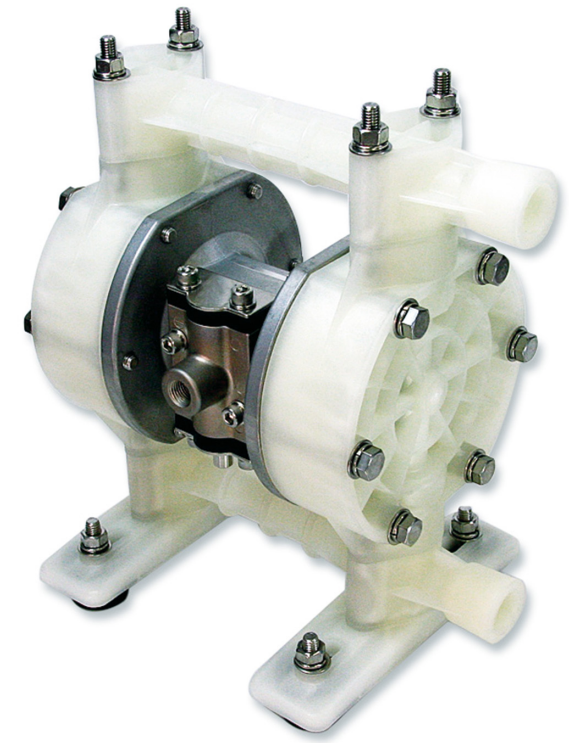
Old style 1/2" pump series available in PPG & POM.

Metallic Air Motor. Spring-Less Air Spool suited to frequent start stop, Dead Head & high back pressure type applications. Non-Lubricated design technology. External Silencer. Fully bolted body, torqued, leak & operation tested prior to shipment.

TC-X150 Pump Series	
Max Flow Rate:	28 L/min.
Max Solids Size:	Flat Valve = 0 mm. Ball Valve = 1.0 mm.
Max Air Inlet Pressure:	0.2 ~ 0.7 Mpa
Description:	Aluminium Air Motor, Spring-Less Air Spool, Flat or Ball Check Valves, Side Port Liquid Connections. External Silencer. Fully Bolted Body.
Liquid Connections:	1/2" (15mm) Threaded Connections. (Side ports)
Wetted Body Materials:	PPG, POM.
Diaphragm / Check Valve Materials:	PTFE, TPO, TPEE, NBR, CR, EPDM.
Certification:	CE. ATEX. (Some models)
Common Options & Accessories:	Filter Regulator. PTFE coated Air Section. NPT Liquid Connections. Air Side Service Kit.



TC-X150D



TC-X150P

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

TC-X151 Series

Diaphragm Pumps with 1/2" Connections



TC-X151A

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

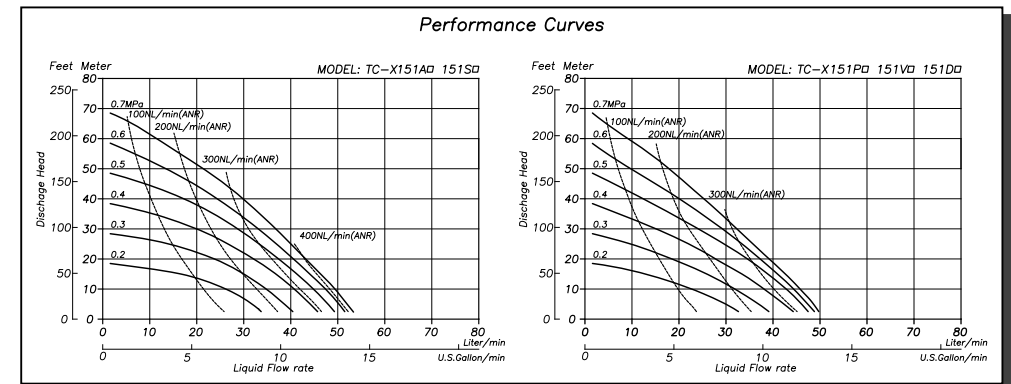


TC-X151V

Old style 1/2" pump series available in a full range of materials.

Ryton (PPS) Plastic Air Motor for increased chemical compatibility. C-Spool Air motor as standard. Non-Lubricated design technology. Internal Silencer. Fully bolted body, torqued, leak & operation tested prior to shipment.

TC-X151 Pump Series	
Max Flow Rate:	54 L/min.
Max Solids Size:	Flat Valve = 0 mm. Ball Valve = 1.0 mm.
Max Air Inlet Pressure:	0.2 ~ 0.7 Mpa
Description:	Ryton Plastic Air Motor (PPS), C-Spring Air Spool, Flat or Ball Check Valves, Side Port Liquid Connections. Internal Silencer. Fully Bolted Body.
Liquid Connections:	1/2" (15mm) Threaded Connections. (Side ports)
Wetted Body Materials:	PPG, PVDF, SUS, Aluminium, POM.
Diaphragm / Check Valve Materials:	PTFE, TPO, TPEE, NBR, CR, EPDM.
Certification:	CE. ATEX. (Some models)
Common Options & Accessories:	Filter Regulator. MP, Z, I, O, Liquid Connections. PTFE Check Valves. Liquid Pulsation Dampener. FDA Pumps. NPT Liquid Connections. Air Side Service Kit.



TC-X152 Series

Diaphragm Pumps with 1/2" Connections

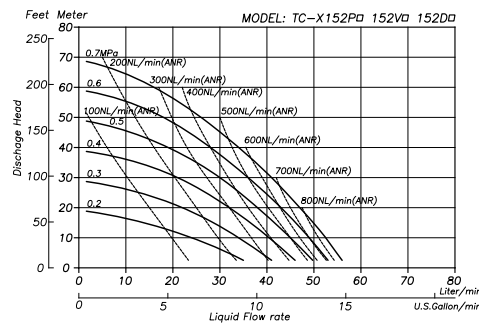
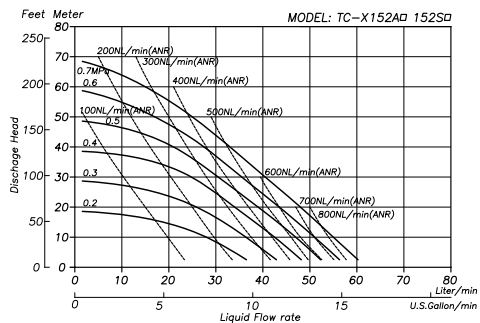


New 1/2" high performance pump series available in a full range of materials including Pure Polypropylene & Conductive Polypropylene.

PPG air motor for increased chemical resistance. New Looped C® Air Spool for increased performance, operation reliability & improved parts life expectancy. Non-Lubricated design technology. Very high flow rates, large solids size & improved air consumption. Internal Silencer. Fully bolted body, torqued, leak & operation tested prior to shipment. Multi-port connections with Drop-in dimensions and Multi-position footprint.

TC-X152 Pump Series		
Max Flow Rate:	60 L/min.	
Max Solids Size:	Flat Valve = 0 mm.	Ball Valve = 2.0 mm.
Max Air Inlet Pressure:	0.2 ~ 0.7 Mpa	
Description:	Polypropylene Plastic Air Motor (PPG), Looped C® Spring Air Spool, Flat or Ball Check Valves, Multi Port Liquid Connections (as standard). Internal Silencer. Fully Bolted Body. Multi Footprint options.	
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. (Some Models) FDA. (Some Models)
Common Options & Accessories:	Filter Regulator. SUS Check Valves, Guides & Seats. PTFE Check Valves. PC Air Motor. Liquid Pulsation Dampener. Rubber Feet Kit. FDA pumps. TPO Backup Diaphragms. NPT Liquid Connections. Drum pump. E Series Pump. Bolt Caps. Air Side Service Kit.	

Performance Curves



TC-X152A



TC-X152P-PP

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.

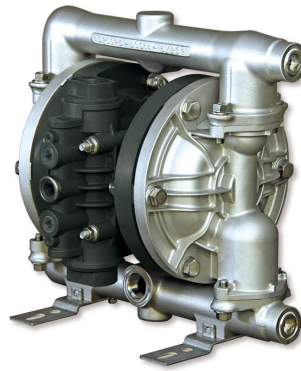
TC-X202 Series

Diaphragm Pumps with 3/4" Connections



TC-X202P-FL

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



TC-X202S

New Improved Eco Ring Model!



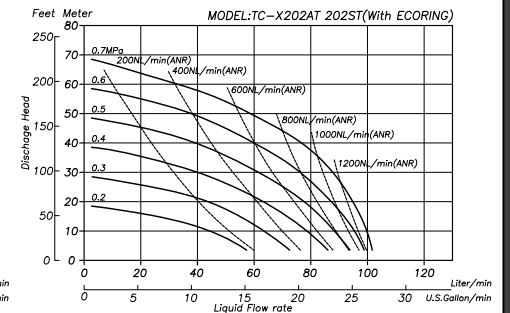
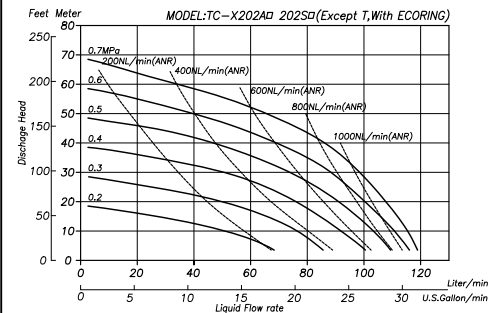
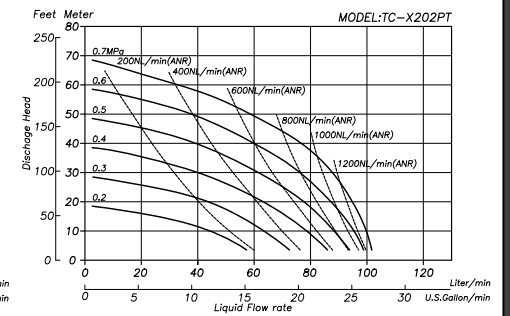
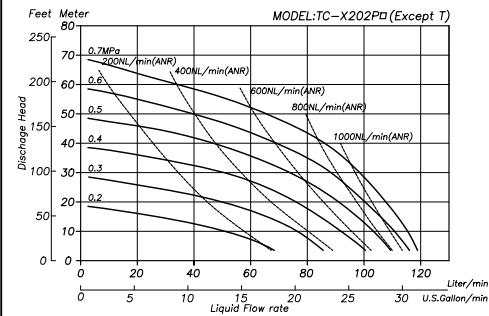
New redesigned 3/4" pump series available in a full range of materials.

Choice of either PPG Plastic or an optional Aluminium air motor. New Looped C® Air Spool for increased performance, operation reliability & improved parts life expectancy. New 3/4" high performance Metallic pumps with high flow rates, large solids size & lowered air consumption utilizing the new Eco-Ring & High Flow Ball Guides. Non-Lubricated design technology. External Silencer, Fully bolted body, torqued, leak & operation tested prior to shipment. Drop-in dimensions and footprint.

TC-X202 Pump Series

Max Flow Rate:	120 L/min.	
Max Solids Size:	Plastic = 2.0 mm.	Metal = 6.5 mm.
Max Air Inlet Pressure:	0.2 ~ 0.7 Mpa	
Description:	Polypropylene Plastic Air Motor (PPG), Looped C® Spring Air Spool, Ball Check Valves, Side Port Liquid Connections. External Silencer. Fully Bolted Body. EcoRing & High Flow Ball Valves on Metallic pumps.	
Liquid Connections:	Plastic = 3/4" (20mm) Flange or Threaded Connections. (Side Port) Metal = 3/4" (20mm) Threaded Connections PT. (Centre Port)	
Wetted Body Materials:	PPG, PVDF, SUS, Aluminium.	
Diaphragm / Check Valve Materials:	PTFE, TPO, FKM, EPDM, TPEE, CR, NBR.	
Certification:	CE.	ATEX. (Some Models) FDA. (Some Models)
Common Options & Accessories:	MT Metallic Air Motor. Filter Regulator. PTFE Check Valves. U. J. PC Air Motor. Santoprene Backup Diaphragms. ONE-UP® Diaphragms. Abrasion Pads. Electro Polished SUS. E-Series. Drum Pump. NPT/ANSI liquid Connections. Air Side Service Kit.	

Performance Curves



TC-X252 Series

Diaphragm Pumps with 1" Connections

Newly redesigned 1" Plastic Pump Series available in PPG & PVDF.

PPG Air Motor. New Looped C® Air Spool for increased performance, operation reliability & improved parts life expectancy. Non-Lubricated design technology. Lowered air consumption utilizing the new Eco-Ring. External Silencer. Fully bolted body, torqued, leak & operation tested prior to shipment. Drop-in dimensions and new Multi-position footprint.

New Improved Eco Ring Model!



TC-X252 Pump Series	
Max Flow Rate:	170 L/min.
Max Solids Size:	4.8 mm.
Max Air Inlet Pressure:	0.2 ~ 0.7 Mpa
Description:	Polypropylene Plastic Air Motor (PPG), Looped C® Spring Air Spool, Ball Check Valves, Side Port Liquid Connections. External Silencer. Fully Bolted Body. Multi Footprint Design. Eco Ring Model.
Liquid Connections:	1" (25mm) Flange or Threaded Connections. (Side Ports)
Wetted Body Materials:	PPG, PVDF, Conductive PP.
Diaphragm / Check Valve Materials:	PTFE, EPDM, TPEE, FKM, TPO, NBR, CR.
Certification:	CE. ATEX. (Some Models)
Common Options & Accessories:	Filter Regulator. PTFE Check Valves. U, J. Santoprene Backup Diaphragms. ONE-UP® Diaphragms. PC Air Motor. Liquid Pulsation Dampener. E-Series Pumps. NPT/ ANSI Liquid Connections. Bolt Caps. Air Side Service Kit.



TC-X252V

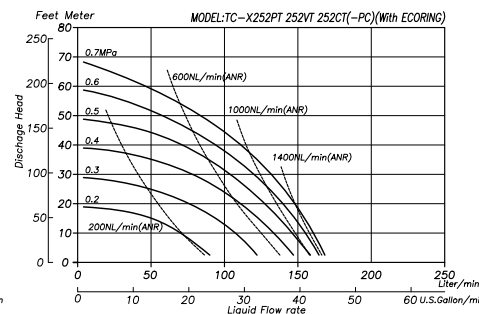
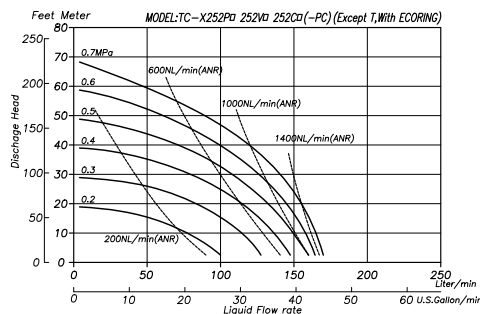
Optional Threaded Connections



TC-X252P-FL

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

Performance Curves



TC-X253 Series

Diaphragm Pumps with 1" Connections

New Improved Eco Ring Model!



TC-X253A

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

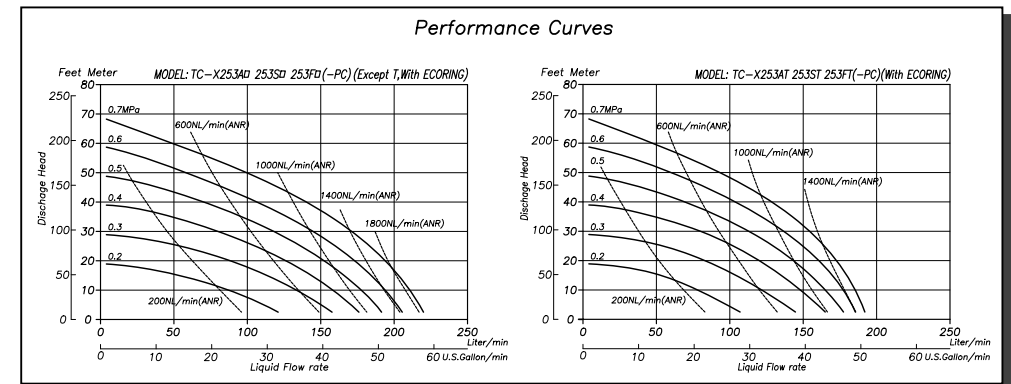


TC-X253S

New 1" high performance Metallic pump series available in Aluminium, Stainless steel, and Cast iron.

Choice of either PPG plastic or an optional Aluminium Air Motor. New Looped C® Air Spool for increased performance, operation reliability & improved parts life expectancy. Non-Lubricated design technology. Very high flow rates, large solids size & lowered air consumption utilizing the new Eco-Ring & High Flow Ball Guides. External Silencer. Multi-port connections. Drop-in dimensions with an adjustable 9 position Multi-footprint. Fully bolted body, torqued, leak & operation tested prior to shipment.

TC-X253 Pump Series		
Max Flow Rate:	220 L/min.	
Max Solids Size:	6.5 mm.	
Max Air Inlet Pressure:	0.2 ~ 0.7 Mpa	
Description:	Polypropylene Plastic Air Motor (PPG), Looped C® Spring Air Spool, High Flow Ball Check Valves, Multi Port Liquid Connections. External Silencer. Fully Bolted Body. New Multi Footprint Design. Eco Ring® Model.	
Liquid Connections:	1" (25mm) Threaded Connections. (Multiport)	
Wetted Body Materials:	SUS, Aluminium, Cast Iron.	
Diaphragm / Check Valve Materials:	PTFE, EPDM, TPEE, FKM, TPO, CR, NBR.	
Certification:	CE.	ATEX. (Some Models) FDA. (Some Models)
Common Options & Accessories:	MT Metallic Air Motor. Filter Regulator. 1¼" & 1½" Centre Ports. SP-25 drop-in model. SP-32 drop-in model. Rubber Feet Kit. SUS Check Valves & Seats. PTFE Check Valves. High Spec SUS Guides. Santoprene Backup Diaphragms. ONE-UP® Diaphragms. Abrasion Pads. PC Air Motor. Electro Polished SUS. Liquid Pulsation Dampener. E. Drum, FDA, High Pressure, Powder pump Models. NPT Liquid Connections. Air Side Service Kit.	



TC-X400 Plastic Series

Diaphragm Pumps with 1 1/2" Connections

New 1 1/2" high performance Plastic pump series available in PPG & PVDF.

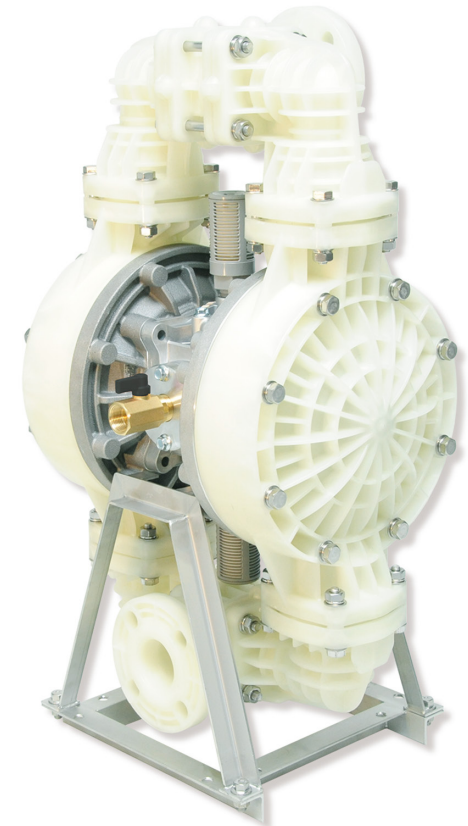
Metallic Air Motor. New Coil-Spring Mechanical Air Spool designed for high performance operation, improved reliability & longer parts life expectancy. Non-Lubricated design technology. Able to achieve high flow rates & can easily handle High Heads, very Long Discharge Lines and Dead Head type processes. Improved air consumption. External Silencers (2). New Heavy Duty SUS Foot Assembly. Drop-in dimensions and common footprint. Fully bolted body, torqued, leak & operation tested prior to shipment.

Mechanical Coil Spring Spool

TC-X400 Plastic Pump Series	
Max Flow Rate:	380 L/min.
Max Solids Size:	7.0 mm.
Max Air Inlet Pressure:	0.15 ~ 0.7 Mpa
Description:	Aluminium Air Motor Section, Mechanical Coil-Spring Air Motor, Ball Check Valves, External Silencers (2). Fully Bolted Body. Heavy Duty SUS Legs. Multi Footprint.
Liquid Connections:	1 1/2" (40mm) Flange Connections. (Centre ports)
Wetted Body Materials:	PPG, PVDF.
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR, TPEE, FKM, TPO.
Certification:	CE. ATEX. (Some Models)
Common Options & Accessories:	Filter Regulator. PTFE Coated Air Motor. Santoprene Backup Diaphragms. ONE-UP® Diaphragms. High Performance Muffler. Destroke. Carry Handles. Air motor Service Kit.



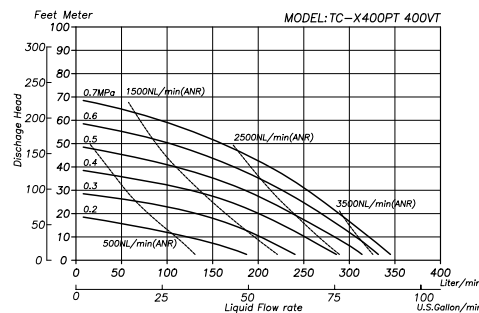
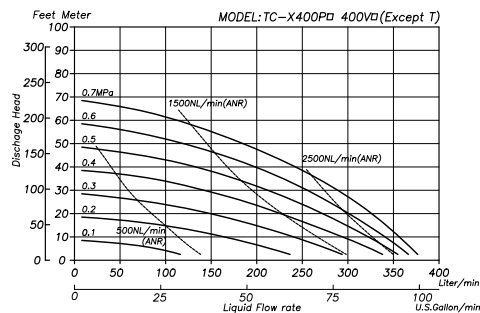
TC-X400V-FL



TC-X400P-FL

1 1/2" Air Powered Double Diaphragm Pumps
 Max Flow Rate: 380 L/min
 Material Options: PPG, PVDF.

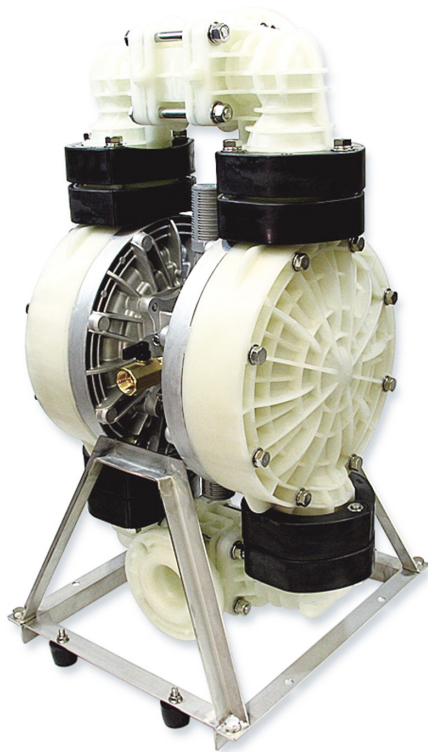
Performance Curves



TC-X500 Plastic Series

Diaphragm Pumps with 2" Connections

Mechanical Coil Spring Spool



TC-X500P-FL

2" Air Powered Double Diaphragm Pumps
Max Flow Rate: 620 L/min
Material Options: PPG, PVDF.



TC-X500V-FL

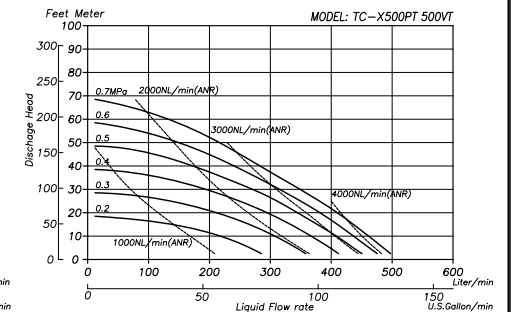
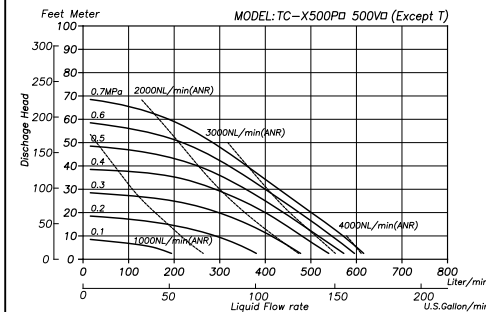
New 2" high performance Plastic pump series available in PPG and PVDF.

Metallic Air Motor. New Coil-Spring Mechanical Air Spool designed for high performance operation, improved reliability & longer parts life expectancy. Non-Lubricated design technology. Able to achieve very high flow rates & can easily handle High Heads, very Long Discharge Lines and Dead Head type processes. Improved air consumption. External Silencers (2). New Heavy Duty SUS Foot Assembly. Drop-in dimensions and common footprint. Fully bolted body, torqued, leak & operation tested prior to shipment.

TC-X500 Plastic Pump Series

Max Flow Rate:	620 L/min.	
Max Solids Size:	8.0 mm.	
Max Air Inlet Pressure:	0.15 ~ 0.7 Mpa	
Description:	Aluminium Air Motor Section, Mechanical Coil-Spring Air Motor, Ball Check Valves, External Silencers (2). Fully Bolted Body. Heavy Duty SUS Legs. Multi Footprint.	
Liquid Connections:	2" (50mm) Flange Connections. (Centre Ports)	
Wetted Body Materials:	PPG, PVDF.	
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR. TPEE, FKM, TPO.	
Certification:	CE.	ATEX. (Some Models)
Common Options & Accessories:	Filter Regulator. PTFE Coated Air Motor. Santoprene Backup Diaphragms. HB Conductive PTFE Diaphragms. ONE-UP® Diaphragms. Liquid Pulsation Dampener. High Performance Muffler. Destroke. Carry Handles. Air Motor Service Kit.	

Performance Curves



TC-X500 Metallic Series

Diaphragm Pumps with 2" Connections

New 2" high performance Metallic pump series available in Aluminium, Stainless steel and Cast iron.

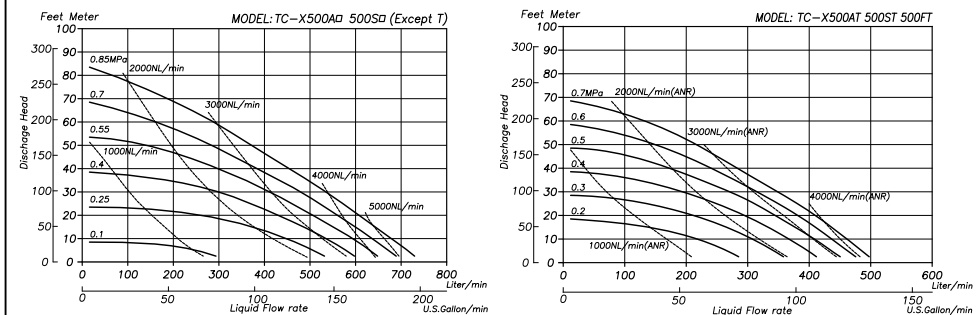
Metallic air motor. New Coil-Spring Mechanical Air Spool designed for high performance operation, improved reliability & longer parts life expectancy. Non-Lubricated design technology. Able to achieve very high flow rates & can easily handle High Heads, very Long Discharge Lines and Dead Head type processes. Improved air consumption. External Silencers (2). Compact heavy duty construction with Drop-in dimensions and common footprint. Fully bolted body, torqued, leak & operation tested prior to shipment.

Mechanical Coil Spring Spool

TC-X500 Metallic Pump Series

Max Flow Rate:	730 L/min.		
Max Solids Size:	8.0 mm.		
Max Air Inlet Pressure:	0.1 ~ 0.85 Mpa		
Description:	Aluminium Air Motor Section, Mechanical Coil-Spring Air Motor, Ball Check Valves, External Silencers (2). Fully Bolted Body. Compact heavy duty with Multi Footprint.		
Liquid Connections:	2" (50mm) Threaded or Flange Connections. (Centre Ports)		
Wetted Body Materials:	SUS, Aluminium, Cast Iron.		
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR. TPEE, FKM, TPO.		
Certification:	CE.	ATEX. (Some Models)	FDA. (Some Models)
Common Options & Accessories:	Filter Regulator. SP-40 Drop-in pump with 1 1/2" connections. SP-50 drop-in pump. Santoprene Backup Diaphragms. Conductive PTFE Diaphragms. ONE-UP® Diaphragms. Abrasion Pads. SUS Parabolic Guides. SUS Check valves & Seats. PTFE Coated Air Motor. Liquid Pulsation Dampener. Electro Polished SUS. Powder pump. High pressure pump. FDA pump. Air Motor Service Kit.		

Performance Curves



TC-X500S-FL



TC-X500A-FL

2" Air Powered Double Diaphragm Pumps
 Max Flow Rate: 730 L/min
 Material Options: SUS, Aluminium, Cast Iron.

TC-X800 Plastic Series

Diaphragm Pumps with 3" Connections

Mechanical Coil Spring Spool



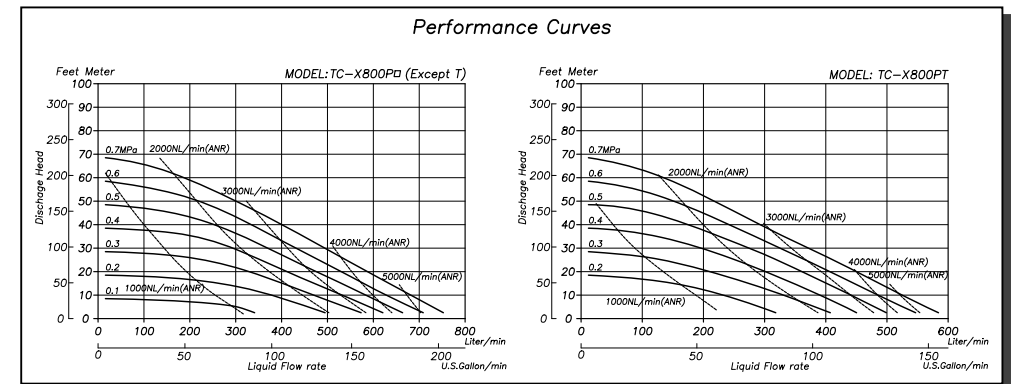
TC-X800P-FL

3" Air Powered Double Diaphragm Pumps
 Max Flow Rate: 760 L/min
 Material Options: PPG.

New 3" high performance Plastic pump series available in PPG.

Metallic air motor. New Coil-Spring Mechanical Air Spool designed for high performance operation, improved reliability & longer parts life expectancy. Non-Lubricated design technology. Able to achieve high flow rates & can easily handle High Heads, very Long Discharge Lines and Dead Head type processes. Improved air consumption. External Silencers (2). New Heavy Duty SUS Foot Assembly. Drop-in dimensions and common footprint. Fully bolted body, torqued, leak & operation tested prior to shipment.

TC-X800 Plastic Pump Series	
Max Flow Rate:	760 L/min.
Max Solids Size:	10.0 mm.
Max Air Inlet Pressure:	0.15 ~ 0.7 Mpa
Description:	Aluminium Air Motor Section, Mechanical Coil-Spring Air Motor, Ball Check Valves, External Silencers (2). Fully Bolted Body. Heavy Duty SUS Legs. Multi Footprint.
Liquid Connections:	3" (80mm) Flange Connections. (Centre Ports)
Wetted Body Materials:	PPG.
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR. TPEE, FKM, TPO.
Certification:	CE.
Common Options & Accessories:	Filter Regulator. PTFE Coated Air Motor. Santoprene Backup Diaphragms. HB Conductive PTFE Diaphragms. ONE-UP® Diaphragms. Liquid Pulsation Dampener. High Performance Muffler. Destroke. Carry Handles. Air Motor Service kit.



TC-X800 Metallic Series

Diaphragm Pumps with 3" Connections

New 3" high performance Metallic pump series available in Aluminium, Stainless steel and Cast iron.

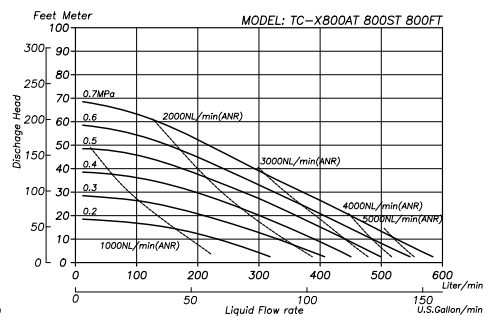
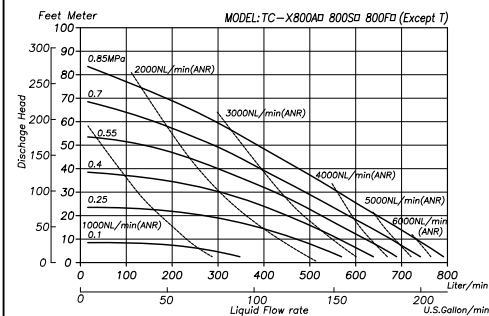
Metallic air motor. New Coil-Spring Mechanical Air Spool designed for high performance operation, improved reliability & longer parts life expectancy. Non-Lubricated design technology. Able to achieve high flow rates & can easily handle High Heads, very Long Discharge Lines and Dead Head type processes. Improved air consumption. External Silencers (2). Compact heavy duty construction with Drop-in dimensions and common footprint. Fully bolted body, torqued, leak & operation tested prior to shipment.

Mechanical Coil Spring Spool

TC-X800 Metallic Pump Series

Max Flow Rate:	800 L/min.		
Max Solids Size:	10.0 mm.		
Max Air Inlet Pressure:	0.1 ~ 0.85 Mpa		
Description:	Aluminium Air Motor Section, Mechanical Coil-Spring Air Motor, Ball Check Valves, External Silencers (2). Fully Bolted Body. Compact, heavy duty with Multi Footprint.		
Liquid Connections:	3" (80mm) Threaded or Flange Connections. (Centre Ports)		
Wetted Body Materials:	SUS, Aluminium, Cast Iron.		
Diaphragm / Check Valve Materials:	PTFE, CR, EPDM, NBR, TPEE, FKM, TPO.		
Certification:	CE.	ATEX. (Some Models)	FDA. (Some Models)
Common Options & Accessories:	Filter Regulator. SP-80 Drop in pump. Santoprene Backup Diaphragms. Conductive PTFE Diaphragms. ONE-UP® Diaphragms. Abrasion Pads. SUS Parabolic Guides. SUS Check Valves & Seats. PTFE Coated Air Motor. Electro Polished SUS. Powder pump. High Pressure Pump. FDA pump. Air Motor Service Kit.		

Performance Curves



TC-X800F-FL



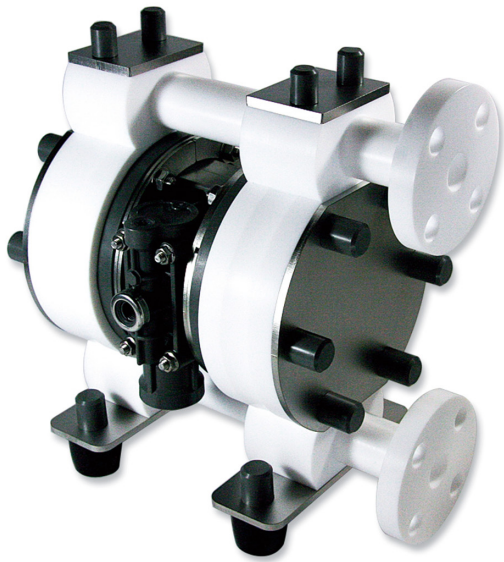
TC-X800A-FL

3" Air Powered Double Diaphragm Pumps
Max Flow Rate: 800 L/min
Material Options: SUS, Aluminium, Cast Iron.

TC-XTT Series

Standard PTFE Double Diaphragm Pumps

6mm (1/4"), 15mm (1/2"), 20mm (3/4"), 25mm (1") Port Connections



TC-X152TT-FL



TC-X050TT



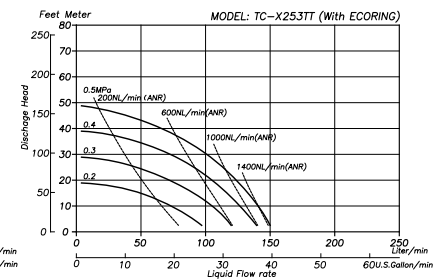
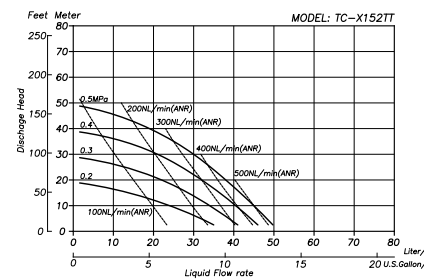
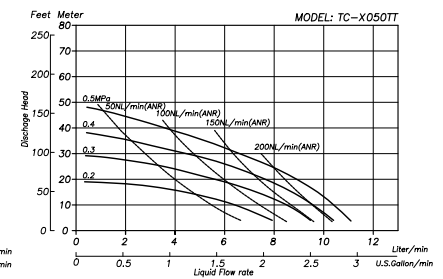
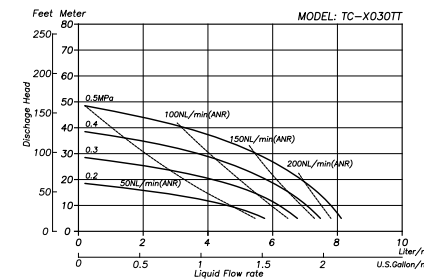
TC-X253TT-FL

Standard Grade PTFE pumps available in 5 sizes with a wide range of options and accessories.

Specifically designed to transfer highly corrosive chemicals and for use in some Clean Room type chemical transfer processes such as in the manufacture of microelectronic components, solar panels and for some Semiconductor related applications. Totally Non-lubricated technology. Fully Bolted and torqued pumps with inbuilt design features to resist material creep and reduced chance of leaks forming over time.

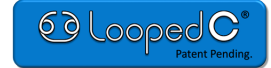
Standard Grade PTFE Pump Models					
Model Code:	TC-X030TT	TC-X050TT	TC-X152TT TC-X152TT-FL	TC-X152TT-SP20 TC-X152TT-SP20-FL	TC-X253TT TC-X253TT-FL
Max Flow Rate:	8.2 L/min.	11.0 L/min.	50 L/min.	50 L/min.	150 L/min.
Connection Size:	1/4" (6mm)	1/4" (6mm)	1/2" (15mm)	3/4" (20mm)	1" (25mm)
Connection 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.
Air Pressure Range:	0.2 ~ 0.5 MPa				
Description:	PTFE Diaphragm Pumps available in 5 sizes with high flow rates designed to transfer highly corrosive chemicals or for use in various types of clean industries. Grease or oil lubrication not required.				
Wetted Body Materials:	PTFE				
Diaphragm / Valve Materials:	PTFE on all Models				
Certification:	CE.				
Specialized Options & Accessories:	Filter Regulator. Flaretek® connections. Leak Sensor. High performance muffler. NPT/ ANSI connections. Automatic Spool reset switch. High performance Spring retainers. Stroke counter. PTFE Coated Tie-rods. PTFE coated SUS reinforcement Plate. Pulsation Dampener. H Series High temperature model for Liquid temperatures up to 150°C. E-Series Electric Solenoid Controlled Pumps with Proximity Sensor. Optional Clean room assembly.				

Performance Curves



TC-XTTD Series

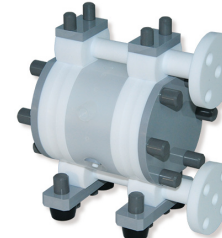
High Purity PTFE Diaphragm Pumps
6mm (1/4"), 10mm (3/8"), 20mm (3/4"), 25mm (1"),
40mm (1") Port Connections



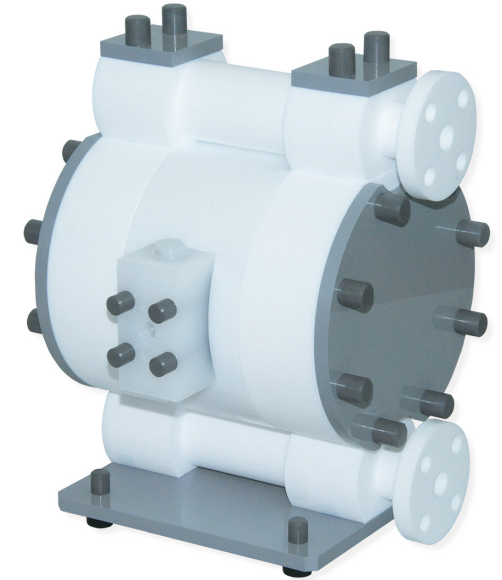
High Purity PTFE Pump Models						
Model Code:	TC-X030TTD	TC-X050TTD	TC-X100TTD TC-X100TTD-FL	TC-X200TTD TC-X200TTD-FL	TC-X250TTD-FL	TC-X400TTD-FL
Max Flow Rate:	8.2 L/min.	11.0 L/min.	27 L/min.	54 L/min.	65 L/min.	95 L/min.
Connection Size:	1/4" (6mm)	1/4" (6mm)	3/8" (10mm)	3/4" (20mm)	1" (25mm)	1" (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)
Air Pressure Range:	0.2 ~ 0.5 MPa				0.2 ~ 0.7 MPa	
Description:	High Purity Virgin PTFE Diaphragm Pumps manufactured specifically for use in the Micro-Electronics and Semiconductor Industries. Available in 6 sizes. Class 1000 Clean Room Assembled Tested & Packed. Available with Threaded & Flange Liquid Connections & Ball & Flat Check Valves on some models.					
Wetted Body Material:	High Purity PTFE					
Diaphragm / Valve Materials:	PTFE on all Models					
Certification:	CE.					
Specialized Options & Accessories:	DFH Series pumps are available with a comprehensive list of specialized options and accessories.					



TC-X050TTD

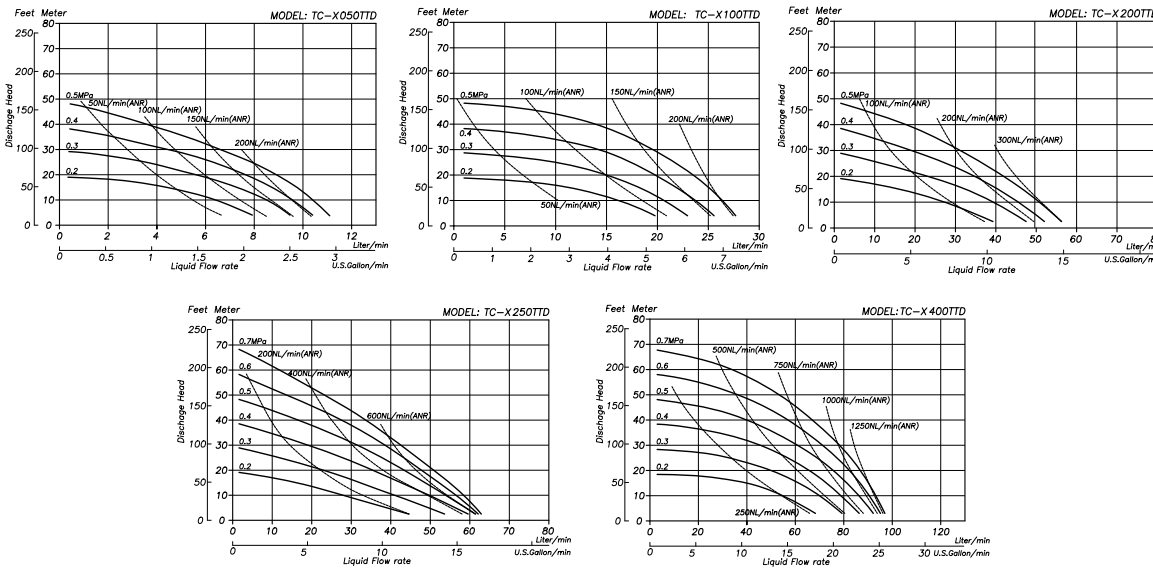


TC-X100TTD-FL



TC-X400TTD-FL

Performance Curves



High purity virgin PTFE pumps available in 6 sizes with a wide range of specialized options and accessories.

Specifically designed to transfer highly corrosive chemicals, including slurries in Clean Room type chemical transfer processes for the manufacture of electronic components, solar panels and also for the manufacture of Semiconductors. Newly improved pump design with Reduced Air Consumption & Incorporating the New Looped C[®] Air Motor for increased reliability and extended Parts Life. Drop-In body dimensions and footprint. Fully bolted and torqued pumps with inbuilt design features to resist material creep and reduced chance of leaks forming over time. Totally Non-lubricated technology. Designed to insure Low Particle Counts and Reduced Chance of Metallic Ion Contamination within a process. Class 100 clean room manufactured, packed and double bagged.

Special pumps

Drum pumps

Drum 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 almost any kind of liquid including; corrosive chemicals, oils, lubricants, waste liquids, solvents and fuels even in explosive environments.



TC-X050S□-D

1/4" Air powered Diaphragm Drum pumps
Max flow rate: 11.5 L/min
Material options: Pure PP, Aluminium, SUS, PVDF, POM.



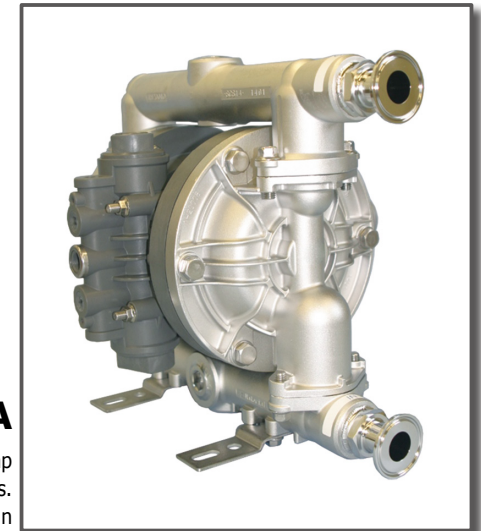
TC-X253S□-D

1" Air Powered Double Diaphragm Drum Pumps
Max flow rate: 220 L/min
Material options: SUS, Aluminium, Cast Iron.

FDA pumps

FDA Pumps for Food, Beverage, and Pharmaceutical & Cosmetic applications where 3A, USDA or EHEDG standards are not required.

Manufactured from FDA compliant materials. 316 stainless steel housings Electro polished inside and out. Oversized sanitary Tri clamp type fittings.



TC-X253ST-FDA

1" Air Powered Double Diaphragm Pump
FDA model with polished SUS & sanitary fittings.
Max flow rate: 220 L/min

E Series Electrically Controlled Pumps

E Series Pumps are used in critical process type applications and can be fully integrated into control systems and process machinery.

Can be used for metering, batching, or cycle speed control and can also be connected to warning devices to monitor pump stroke rate or pump stoppages etc. E Series Pumps have extremely high start stop reliability and accurate liquid flow rates. They ensure increased life expectancy of the pumps moving parts, lower air consumption and generally lower maintenance requirements overall.



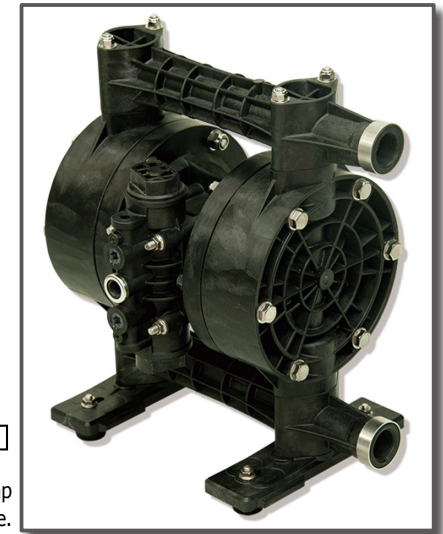
TC-X400P□-FL-E

1½" Air Powered Double Diaphragm Pump
Electric Type pump with integrate electric proximity sensors.

Conductive Polypropylene pumps

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

Carbon filled PP is used to manufacture all major body components including both the Liquid and Air Side. Available with ½" & 1" Connections. High Chemical Resistance. Fully Bolted Design with inbuilt design features to resist material creep and reducing the chance of leaks forming over time.



TC-X252C□

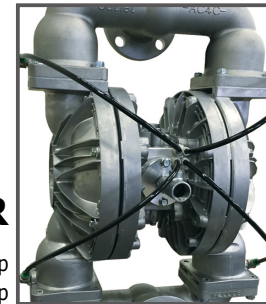
1" Air Powered Double Diaphragm Pump
Carbon filled conductive Polypropylene.



Powder pumps

Powder transfer pumps specifically designed to transfer very fine bulk & dry powder effectively throughout a process and help create a dust free environment.

Are a cost effective replacement for Augers and Conveyors and eliminate unsafe and labour intensive means of moving bulk powders. Powder must be completely dry and typically free flowing.



TC-X500S□-PDR

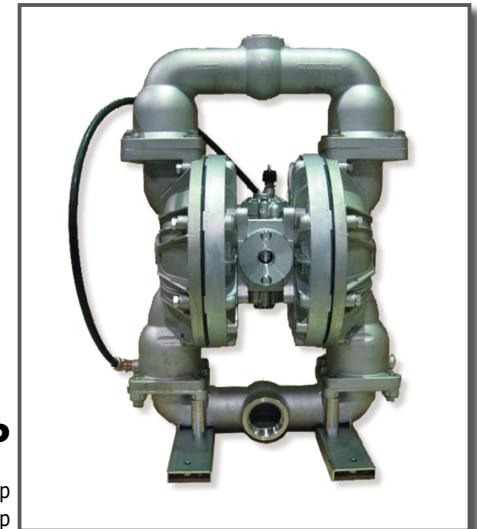
2" Air Powered Double Diaphragm Pump
Dry Powder Transfer Pump



High pressure pumps

High pressure pumps for applications where high liquid discharge pressures are required to overcome system requirements.

Pressure output is roughly doubled however the flow rate is roughly halved. Often utilized in filter press type applications and can easily handle High Heads, very Long Discharge Lines and Dead Head type processes.



TC-X500S□-HP

2" Air Powered Double Diaphragm Pump
High Pressure Pump

Accessories

Liquid Pulsation Dampeners

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



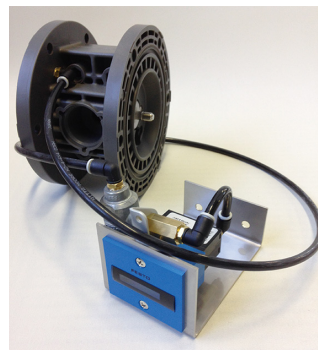
Air Filter Regulators

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

Pneumatic 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.



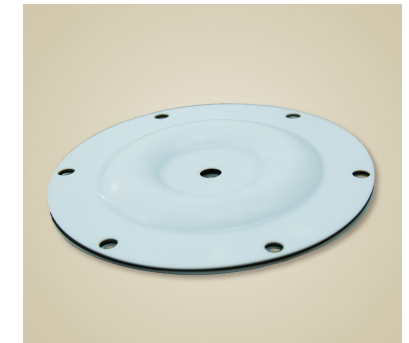
Tools

A full Range of Spare Parts and Service Kits are available for all models as well as a large range of specialty tools.



Specialty Diaphragms

Optional Back up and a full range of Specialty diaphragms are available in various materials and configurations.



Spare Parts & Pump Service Kits

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