### AIR-OPERATED DOUBLE-DIAPHRAGM PUMPS FTI AIR



PUMPING SOLUTIONS AROUND THE WORLD

**FTIAIR.COM** 

Finish Thompson started in 1951 in Erie, Pennsylvania. It is a USA leading designer and manufacturer of chemical transfer pumps sold around the world to a variety of industries. FTI Air expands the reach of the company's expertise from centrifugal and barrel pumps to the markets of the versatile, portable air-operated double-diaphragm pumps.

The FTI Air product line was carefully designed by Finish Thompson engineers from the ground up, using all of the state-of-the-art computer-aided design resources available today. Each pump and material component was run-tested for thousands of hours at Finish Thompson and in the field during development. And every pump is tested prior to packaging and shipping. The result is one of the most reliable, rugged and affordable air-operated double diaphragm pumps on the market today.

Besides excellent products, what makes Finish Thompson stand apart is its unrivaled reputation for world-class customer service. FTI Air will enjoy this same level of service, so that you can rest assured that with every FTI Air pump, Finish Thompson's global sales force, inhouse application engineers and after-sales technical support will be standing behind it.



### TYPICAL INDUSTRIES:

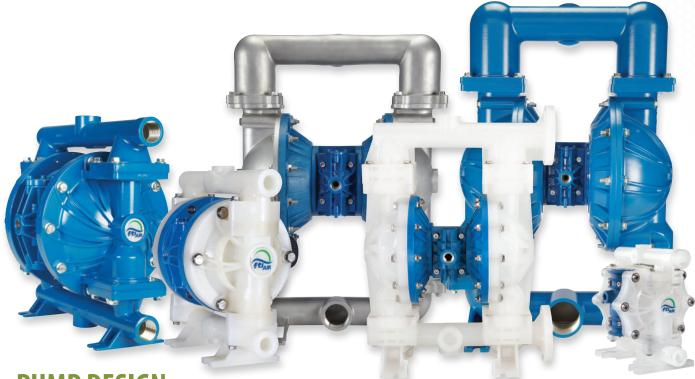
MINING PAINTS & COATINGS CERAMICS

PULP & PAPER ELECTROPLATING & ANODIZING

WASTEWATER MARINE OEM'S CHEMICAL MANUFACTURING & DISTRIBUTION

### Why use an air-operated double diaphragm pump?





### **PUMP DESIGN**

**RUGGED, DURABLE PARTS:** Our engineers are experts at designing robust and reliable pumping solutions for industrial environments. This ensures all parts are capable of reliable operation in the harshest applications and installation locations.

**SIMPLICITY OF DESIGN:** Fewer number of parts for easy maintenance and improved reliability.

**MODULAR DESIGN:** Modular design simplifies maintenance with individually replaceable, lower cost wear parts and requires no special tools.

**QUALITY BUILT:** Single piece flow assembly procedures utilizing assembly fixtures and automated calibrated torque tools to validate every pump is built to quality specifications.

**100% FACTORY TESTED:** Every pump is factory tested with an automated three point test for vacuum, leakage and run ability. Only air is used during testing to ensure no residual water is present when received.

**FIVE YEAR WARRANTY:** Backed by a five year warranty on materials and workmanship and outstanding after sales support.

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Advantages of AODD pumps over other positive displacement pump type

Application Issue	AODD	Rotary Lobe	Gear	Progressive Cavity	Peristaltic (hose)	Piston- Plunger
Dry Priming (lift condition)	Best	NR	NR	NR	NR	NR
Dry Running	Best	NR	NR	NR	NR	NR
Dead Heading	Best	NR	NR	NR	NR	NR
No Electricity	Best	NR	NR	NR	NR	NR
Submersion Application	Best	NR	NR	NR	NR	NR
Thin Fluids	Best	Fair	Fair	Fair	Fair	Fair
Adjustable Head and Flow	Best	Fair	Fair	Fair	Fair	Fair
Portability Required	Best	Fair	Fair	Fair	Fair	Fair
Sealless (no packaging/seals)	Best	Fair	Fair	Fair	Fair	Fair
Low Shear Required	Best	Fair	Fair	Fair	Fair	Fair



#### **BOLTED CONSTRUCTION**

Leak-free fluid handling, bolt holes provide superior part alignment during maintenance

UNIQUE STALL FREE AIR VALVE DESIGN Simple, rugged and reliable lube free design

#### LIQUID CHAMBERS

Finite Element Analysis (FEA) was used as part of the design process for maximum strength and mechanical integrity. Available in unfilled polypropylene, unfilled PVDF, 316 stainless steel and powder coated aluminum to handle the widest variety of applications.

#### MANIFOLDS

Single piece construction reduces chance of leakage. Computational Fluid Dynamics (CFD) optimized fluid velocities.

### FTI AIR VALVE DESIGN

Simple, rugged and reliable design

#### **FTI AIR VALVE DESIGN FEATURES**

- Painted die cast aluminum or glass fiber reinforced polypropylene plastic valve body.
- Internal Components:

Aluminum valve: Carbon filled PTFE slide valve, polished alumina ceramic valve plate and hard anodized aluminum valve carrier.

Plastic valve: Carbon filled PTFE slide valve, polished alumina ceramic valve plate and UHMW polyethylene valve carrier with permanently lubricated seals for long wear life.

- Low friction PTFE slide valve on ceramic valve plate allows for longest life and superior sealing.
- Molded Buna gasket ensures total sealing and eliminates flat gasket tearing.
- Turned diaphragm shaft shifts the valve eliminating need for separate pilot or mechanically operated pilot valve.
- · Fewer air valve parts than the competition
- Non-stalling design
- Only 3 moving parts (carrier, slide valve, & turned shaft)
- Outside mounting
- Lube free design
- Individually replaceable components easily restore valve to brand new condition.

#### **5** CENTER SECTION

Plastic pumps feature glass-fiber reinforced polypropylene (GFRPP) center section construction. Metal pumps offer either powder coated aluminum or GFRPP center sections.

#### SHAFT BUSHINGS & DIAPHRAGM SHAFT

Bushing utilizes internal seals manufactured from a proprietary TPE material with low friction and high resiliency to provide incredibly long wear life. The stainless steel diaphragm shaft shifts in the bushing over these special seals. A turned diameter in the shaft pilots the air valve.

#### DIAPHRAGMS

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Precision manufactured diaphragms available in a variety of materials including neoprene, Buna-N, EPDM, FKM, Santoprene <sup>™</sup>, Hytrel<sup>®</sup>, polyurethane and PTFE.

#### 8 BALLS & SEATS

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Check valve balls and seats are available in a wide range of materials to provide reliable operation in a wide variety of applications.

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#### **9** CONNECTIONS

Depending upon the model, features NPT or BSP threads or universal/Vanstone ANSI 150/ISO-DIN PN40 flanges. Connection locations include end, center horizontal and center vertical.

10 EXTERNAL FLANGED HARDWARE

Eliminates washers simplifying maintenance and reduces the total number of parts.

#### MO MO

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**MOUNTING FEET** 

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Slotted feet with flat bottom surfaces allow for secure installation bolting.

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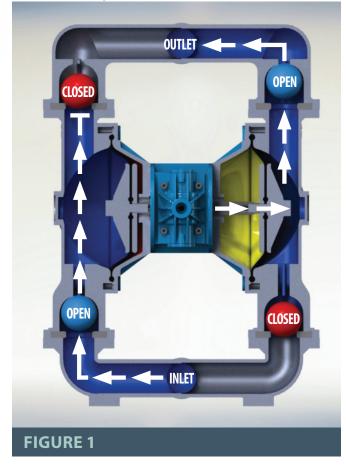


# How It Works

### **OVERVIEW**

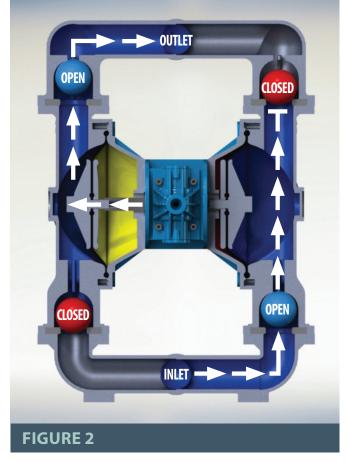
Air operated double diaphragm pumps are positive displacement pumps that use a combination of the reciprocating action of two flexible diaphragms, two inlet and two outlet ball check valves to pump a fluid. There are two pump chambers which are divided by the diaphragms into air and fluid regions. The two diaphragms are connected to a common shaft located in the center section. This creates the effect that during a cycle one side is pumping fluid while the other side is filling.

### **Suction Sequence**



As the common shaft located in the center section moves to the right, the diaphragm in the left chamber moves towards the center section. This movement creates a vacuum on the liquid side of the left diaphragm, lifting the lower ball check valve, allowing liquid to flow through the suction manifold into the liquid chamber. At the same time, any fluid in the right chamber is discharged.

### **Discharge Sequence**



The air distribution system senses that the diaphragm in the right chamber reaches the end of its discharge stroke and causes the common shaft to shift. This moves the diaphragm to the left pressurizing the liquid, lifting the upper ball check valve, allowing fluid to flow though the discharge manifold and out of the pump.

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# INSTALLATION VERSATILITY

FTI Air pumps have outstanding installation flexibility. While flooded suction is the most common installation, they can also be used in suction lift applications where the pump is installed above the liquid or even submerged in the liquid.

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### • Most common installation

- Best for higher viscosity applications

### 2 SUCTION LIFT • Self priming (dry and wet)

- Run dry capable
- Installed above liquid
- High vacuum capable

- 3 SUBMERGED Capable of full submersion
  - Materials of construction must be compatible with liquid
  - Muffler must be installed above liquid level

FOR MORE INFORMATION, PLEASE VISIT **FTIAIR.COM** 



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#### Specifications

Suction & Discharge Size:	I.D.: 1/4"
	0.D.: 3/4"
Standard Porting Location*:	End
Connection Types:	FNPT/FBSPT & MNPT/MBSPT
Air Inlet Size:	1/8" FNPT or FBSPT

\*Optional NPT/BSPT threaded center port location in either horizontal or vertical position

#### Construction

Wetted Materials:	Polypropylene, PVDF, ** Conductive Polypropylene
Diaphragm Materials:	Santoprene <sup>®</sup> , PTFE
Air Valve:	GFRPP, Conductive Acetal
Ball Materials:	Santoprene <sup>®</sup> , PTFE
Seat Materials:	Polypropylene, PVDF, Carbon Filled PTFE
O-ring Materials:	Santoprene <sup>®</sup> , FEP/FKM
Options:	Groundable/ATEX

#### **Capabilities**

Maximum Flow Rate:	5.8 gpm (22 lpm)
Maximum Air Supply Pressure:	120 psi (8.3 bar)
Displacement Per Stroke:	0.005 gal (0.02 liters)
Minimum Air Inlet Pressure:	10 psig (0.7 bar) - PTFE
	20 psig (1.4 bar) - Santoprene $^{\ensuremath{ extsf{\$}}}$
Maximum Particle Size:	0.06 in (1.8 mm)
Sound Pressure:	65.3 dB(A)

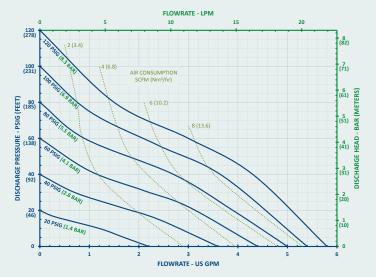
#### **Dimensions**

Max Height: Max Width: Max Depth:

#### 6-7/8 in (174 mm) 5 in (127 mm) 6-5/8 in (168 mm)



#### FT025 PERFORMANCE



Full stroke diaphragm allows performance to be equal for all diaphragm materials

#### Weight

Polypropylene & 2.3 lb (1.0 kg) **Conductive Polypropylene: PVDF 3.1 lb (1.4 kg) **ATEX Certification (conductive polypropylene only) II 2GD Ex h IIB T6T3 Gb II 2GD Ex h IIIC T6T3 Db	CIGIL		
**ATEX Certification (conductive polypropylene only) II 2GD Ex h IIB T6T3 Gb	Polypropylene &	2.3 lb (1.0 kg)	
II 2GD Ex h IIB T6T3 Gb	PVDF	3.1 lb (1.4 kg)	
	II 2GD Ex h IIB T6T3 Gb	olypropylene only)	

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## **MODEL FT05**

#### Specifications

Suction & Discharge Size:1/2" x 1/2"\*Porting Location:End†Connection Types:FNPT, FBSPT, ANSI/DIN/ISO flangeAir Inlet &Air Exhaust Size:1/4" FNPT x 1/2" FNPT

\*Optional NPT or BSPT threaded center port location in either horizontal or vertical position.

<sup>†</sup> Optional ANSI/DIN/ISO Vanstone split flange option for end port location (available on stainless steel pumps only)

#### Construction

Wetted Materials:	Polypropylene, PVDF, **Conductive polypropylene, Aluminum, Stainless Steel
Diaphragm Materials:	Neoprene, Santoprene <sup>®</sup> , FKM, EPDM, PTFE, Buna, Hytrel <sup>®</sup> , Polyurethane
Air Valve:	GFRPP, Aluminum, Conductive Acetal
Ball Materials:	Neoprene, Buna, EPDM, FKM, Santoprene <sup>®</sup> , PTFE, 316SS
Seat Materials:	Aluminum, 316SS, Polypropylene, PVDF, PTFE
0-ring Materials:	Neoprene, Buna, EPDM, FKM, PTFE, Polyurethane, FEP/FKM, Santoprene®
Options:	FDA-compliant; Groundable/ATEX

#### Capabilities

Maximum Flow Rate: Maximum Air Supply Pressure: Displacement Per Stroke: Minimum Air Inlet Pressure: Maximum Particle Size: Sound Pressure:

#### Dimensions

	PLASTIC	METAL
Max Height:	10-27/32 in (276 mm)	9-27/32 in (250 mm)
Max Width:	10-3/16 in (259 mm)	9-5/8 in (246 mm)
Max Depth:	8-1/16 in (204 mm)	8-1/16 in (204 mm)

20 gpm (77 lpm)

120 psi (8.3 bar)

10 psig (0.7 bar)

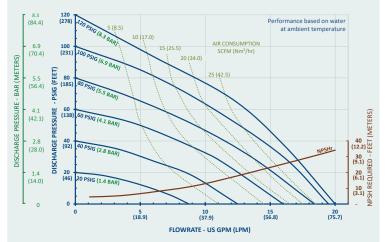
0.19 in (4.7 mm)

72.1 dB(A)

0.02 gal (0.08 liters)



#### FT05 PERFORMANCE



Full stroke diaphragm allows performance to be equal for all diaphragm materials

Weight		
Polypropylene & **Conductive Polypropylen	8.3 lb (3.8 kg) Ie	
PVDF	11.9 lb (5.4 kg)	
Aluminum	11.7 lb (5.3 kg)	
Stainless Steel	15.5 lb (7.0 kg)	
**ATEX Certification (metallic II 2GD Ex h IIB T6T3 Gb II 2GD Ex h IIIC T6T3 Db	and conductive polypropylene only)	



#### Specifications

Suction & Discharge Size: \*Porting Location: †Connection Types: Air Inlet x Air Exhaust Size: 1" x 1" End FNPT, FBSPT, ANSI/DIN/ISO flange 1/2" FNPT x 1/2" FNPT

\*Optional FNPT or FBSPT threaded center port location in either horizontal or vertical position

† Optional ANSI/DIN/ISO Vanstone split flange option for end port location (available on stainless steel pumps only)

#### Construction

Wetted Materials:	Polypropylene, PVDF, Aluminum, Stainless Steel
Diaphragm Materials:	Neoprene, Santoprene <sup>®</sup> , FKM, EPDM, PTFE, Buna, Hytrel <sup>®</sup> , Polyurethane
Air Valve:	GFRPP, Aluminum
Ball Materials:	Neoprene, Buna, EPDM, FKM, Santoprene <sup>®</sup> , PTFE, 316SS
Seat Materials:	Aluminum, 316SS, Polypropylene, PVDF, PTFE
O-ring Materials:	Neoprene, Buna, EPDM, FKM, PTFE, Polyurethane, FEP/FKM, Santoprene®
Options:	FDA-compliant; Groundable/ATEX

#### Capabilities

Maximum Flow Rate: Maximum Air Supply Pressure: Displacement Per Stroke: Minimum Air Inlet Pressure: Max Particle Size: Sound Pressure:

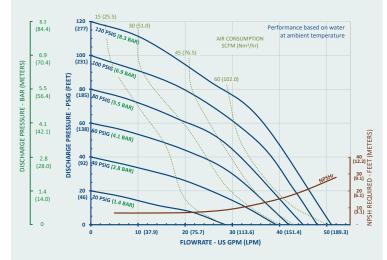
#### 56 gpm (212 lpm) 120 psi (8.3 bar) 0.05 gal (0.19 lit) 10 psig (0.7 bar) 0.25 in (6.4 mm) 73.6 dB(A)

#### Dimensions

	PLASTIC	METAL
Max Height:	17-7/8 in (454 mm)	14-13/32 in (366 mm)
Max Width:	16-13/16 in (427 mm)	14-3/4 in (375 mm)
Max Depth:	10-11/16 in (271 mm)	10-11/16 in (271 mm)



#### FT10 PERFORMANCE



Full stroke diaphragm allows performance to be equal for all diaphragm materials

Weight	
Polypropylene	41.0 lb (18.6 kg)
PVDF	60.0 lb (27.2 kg)
Aluminum	52.0 lb (23.6 kg)
Stainless Steel	98.0 lb (44.5 kg)
**ATEX Certification (metallic only) II 2GD Ex h IIB T6T3 Gb II 2GD Ex h IIIC T6T3 Db	

# MODEL FT15Z

#### **Specifications**

Suction & Discharge Size: \*Porting Location: †Connection Types:

#### 1-1/2″ x 1-1/2″

End, Center Horizontal FNPT, FBSPT (metal pumps) ANSI/DIN/ISO flange w/ FNPT or FBSPT Threads (plastic pumps)

1/2" FNPT x 3/4" FNPT

Air Inlet & Air Exhaust Size:

\*Plastic pumps - End ports standard / Metal pumps - Center ports standard. Optional NPT or BSPT threaded center port location in either horizontal or vertical position (plastic and metal pumps)

† Optional ANSI/DIN/ISO Vanstone split flange (SS pumps only) or 2" tri-clamp connection upgrade available upon request (SS pumps only)

#### Construction

Wetted Materials:	Polypropylene, PVDF, Aluminum, Stainless Steel
Diaphragm Materials:	Neoprene, Santoprene <sup>®</sup> , FKM, EPDM, PTFE, Buna, Hytrel <sup>®</sup> , Polyurethane
Air Valve:	GFRPP, Aluminum
Ball Materials:	Neoprene, Buna, EPDM, FKM, Santoprene <sup>®</sup> , PTFE, 316SS
Seat Materials:	Aluminum, 316SS, Polypropylene, PVDF, PTFE, Neoprene, Buna, EPDM, FKM, Santoprene <sup>®</sup> , Hytrel <sup>®</sup> , Polyurethane
O-ring Materials:	Neoprene, Buna, EPDM, FKM, PTFE, Polyurethane, FEP/FKM, Santoprene®
Options:	FDA-compliant; Groundable/ATEX

#### Capabilities

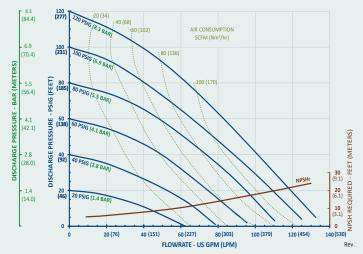
Maximum Flow Rate:	133 gpm (503 lpm)
Maximum Air Supply Pressure:	120 psi (8.3 bar)
Displacement Per Stroke:	0.24 gal (0.91 lit)
Minimum Air Inlet Pressure:	10 psig (0.7 bar)
Maximum Particle Size:	0.32 in (8.2 mm)
Sound Pressure :	77 dB(A)

#### Dimensions

	PLASTIC	METAL
Max Height:	26-5/8 in (677 mm)	18-31/32 in (482 mm)
Max Width:	18-11/16 in (475 mm)	19-7/16 in (494 mm)
Max Depth:	11-13/32 in (290 mm)	11-13/32 in (290 mm)



FT15Z PERFORMANCE



Full stroke diaphragm allows performance to be equal for all diaphragm materials

#### Weight

WCIGIIC	
Polypropylene	41.0 lb (18.6 kg)
PVDF	60.0 lb (27.2 kg)
Aluminum	52.0 lb (23.6 kg)
Stainless Steel	98.0 lb (44.5 kg)

\*\*ATEX Certification (metallic only) II 2GD Ex h IIB T6...T3 Gb II 2GD Ex h IIIC T6...T3 Db



#### **Specifications**

Suction & Discharge Size:2" x 2"\*Porting Location:End, Center†Connection Types:FNPT, FBSPT, ANSI/DIN/ISO flangeAir Inlet x Air Exhaust Size:3/4" FNPT x 3/4" FNPT

\*Plastic pumps feature end ports, metal pumps feature center ports † Optional ANSI/DIN/ISO Vanstone split flange option for center port location (available on stainless steel pumps only)

#### Construction

Wetted Materials:	Polypropylene, PVDF, Aluminum, Stainless Steel
Diaphragm Materials:	Neoprene, Santoprene <sup>®</sup> , FKM, EPDM, PTFE, Buna, Hytrel <sup>®</sup> , Polyurethane
Air Valve:	GFRPP, Aluminum
Ball Materials:	Neoprene, Buna, EPDM, FKM, PTFE, Santoprene <sup>®</sup> , 316SS
Seat Materials:	Aluminum, 316SS, Polypropylene, PVDF, PTFE, Neoprene, Buna, Hytrel <sup>®</sup> , EPDM, FKM, Santoprene <sup>®</sup> , Polyurethane
O-ring Materials:	Neoprene, Buna, EPDM, FKM, PTFE, Polyurethane, FEP/FKM, Santoprene®
Options:	FDA-compliant; Groundable/ATEX

#### Capabilities

Maximum Flow Rate: Maximum Air Supply Pressure: Displacement Per Stroke: Minimum Air Inlet Pressure: Maximum Particle Size : Sound Pressure:

#### Dimensions

	PLASTIC	METAL
Max Height:	31-11/16 in (805 mm)	30-3/32 in (733 mm)
Max Width:	23-19/32 in (600 mm)	20-7/8 in (530 mm)
Max Depth:	12-27/32 in (326 mm)	12-27/32 in (326 mm)

156 gpm (590 lpm)

120 psi (8.3 bar)

0.31 gal (1.2 lit)

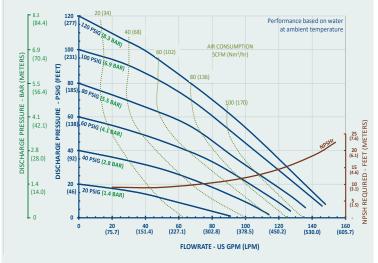
10 psig (0.7 bar)

0.35 in (8.9 mm)

77 dB(A)



#### FT20 PERFORMANCE



Full stroke diaphragm allows performance to be equal for all diaphragm materials

Weight

Polypropylene	67.0 lb (30.4 kg)
PVDF	97.5 lb (44.2 kg)
Aluminum	87.0 lb (39.5 kg)
Stainless Steel	130.0 lb (59.9 kg)

\*\*ATEX Certification (metallic pumps only) II 2GD Ex h IIB T6...T3 Gb II 2GD Ex h IIIC T6...T3 Db

#### Specifications

Suction & Discharge Size:	3″ x 3″
Porting Location:	Center
†Connection Types:	FNPT, FBSPT, ANSI/DIN/ISO flange
Air Inlet & Air Exhaust Size:	3/4" FNPT x 3/4" FNPT

† Optional ANSI/DIN/ISO Vanstone split flange option for center port location (available on stainless steel pumps only).

#### Construction

Wetted Materials:	Aluminum, Stainless Steel
Diaphragm Materials:	Neoprene, Santoprene <sup>®</sup> , FKM, EPDM, PTFE, Buna, Hytrel <sup>®</sup> , Polyurethane
Air Valve:	GFRPP, Aluminum
Ball Materials:	Neoprene, Buna, EPDM, FKM, Santoprene <sup>®</sup> , PTFE, 316SS
Seat Materials:	Aluminum, 316SS, Polypropylene, PVDF, PTFE, Neoprene, Buna, EPDM, FKM, Santoprene <sup>®</sup> , Hytrel <sup>®</sup> , Polyurethane
O-ring Materials:	Neoprene, Buna, EPDM, FKM, PTFE, Polyurethane, FEP/FKM, Santoprene®
Options:	FDA-compliant; Groundable/ATEX

#### Capabilities

Maximum Flow Rate: Maximum Air Supply Pressure: Displacement Per Stroke: Minimum Air Inlet Pressure: Maximum Particle Size: Sound Pressure :

#### Dimensions

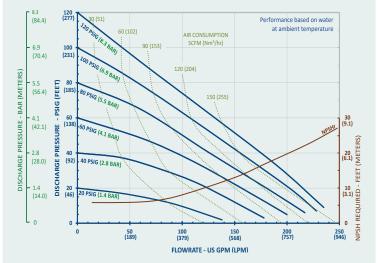
Max Height: Max Width: Max Depth:



36-3/8 in (924 mm) 24-9/32 in (617 mm) 16-3/8 in (416 mm)



#### FT30 PERFORMANCE



Full stroke diaphragm allows performance to be equal for all diaphragm materials

WeightAluminum155 lb (70.3 kg)Stainless Steel235 lb (107 kg)\*\*ATEX Certification235 lb (107 kg)II 3GD Ex h IIC T6...T3 GcII 3GD Ex h IIC T6...T3 Dc\*II 2GD Ex h IIB T6...T3 Gb\*II 2GD Ex h IIB T6...T3 Db\*(for pumps containing Neoprene, Buna, EPDM, or FKM diaphragms only)





**FDA-compliant AODD pumps** are specifically constructed of materials safe for food, beverage, pharmaceutical and cosmetic processes where 3A, USDA, or EHEDG standards are not required.

#### **316 Stainless Steel Pump**

- 316L stainless steel wetted components, passivated with satin finish
- RA 200µ-in/5.1µm finish
- Tri-clamp connections
- Powder coated aluminum or polypropylene non-wetted parts
- Stainless steel hardware
- FDA-grade wetted component options
- ATEX option

#### **Polypropylene Pump**

- FDA compliant unfilled polypropylene wetted components
- Smooth, easy to clean finish
- Polypropylene or powder coated aluminum non-wetted parts
- Stainless steel fasteners
- Threaded or ANSI/DIN/ISO flanged connections (connection options vary by pump size)

#### **Common Applications**

- Wine Vinegar
- Soy sauce Plant oils
- Fruit juice Fish oil
- Mustard 
  Molasses
- Ketchup Spirits
- Gravy 
  Corn syrup
- Shampoo Glycerin
- Liquid soaps
  Honey
- Ointments Fluoride
- Hand cream Glycerin
- Formaldehyde Dyes
- Toothpaste 
  Bath gels



#### **Features**

- Simple, durable design
- Non-stalling air valve
- Lube free operation
- On/Off reliability
- Ease of operation & maintenance
- Delicate/shear-sensitive product handling



FDA DIAPHRAGM OPTIONS: • SANTOPRENE • HYTREL • BUNA (BLACK) • PTFE/SANTOPRENE • PTFE/BUNA (BLACK) FDA CHECK BALL OPTIONS: • SANTOPRENE • PTFE • WEIGHTED • 316 STAINLESS STEEL

## Temperature Chart

MATERIAL	CHEMICAL COMPOSITION	DESCRIPTION	OPERATING MIN.	TEMP °F (°C) MAX
Polypropylene	Pure Polypropylene	Thermoplastic that is resistant to alkali and strong acids.	32°F (0°C)	158°F (70°C)
CFPP	Carbon Filled Polypropylene	Conductive thermoplastic that is resistant to alkali and strong acids.	32°F (0°C)	180°F (82°C)
PVDF	Pure Polyvinylidene Fluoride	Strong fluoropolymer with excellent chemical resistance.	10°F (-12°C)	220°F (104°C)
Stainless Steel	316 Stainless Steel	Excellent chemical resistance, high tensile and impact strength, abrasion resistant.	Limited by other ma	terials used
Aluminum	ADC 12, LM24, LM25	Moderate chemical resistance with good impact strength and abrasion resistance.	Limited by other ma	aterials used
Buna	Acrylonitrile-butadiene Rubber	General purpose elastomer. Resistant to oil, water, solvent and hydraulic fluid.	10°F (-12°C)	190°F (88° <mark>C)</mark>
EPDM	Ethylene Propylene Diene Rubber	Good resistance to mild acids, detergents, alkalis, ketones and alcohols.	-60°F (-51°C)	250°F (121°C)
FKM	Fluorocarbon Rubber	Good chemical resistance and high temperature properties. Resistant to most acids, aliphatic, aromatic and halogenated hydrocarbons, oils, grease and fuels.	-15°F (-26°C)	350°F (177°C)
Neoprene	Chloroprene Rubber	General purpose elastomer with good resistance to moderate chemicals, oils, grease, solvents and some refrigerants.	0°F (-18°C)	212°F (100°C)
Santoprene <sup>®</sup>	Fully cured EPDM rubber particles encapsulated in a polypropylene (PP) matrix	Thermoplastic elastomer with good abrasion resistance with chemical resistance to a wide range of solvents and chemicals. Injection molded with no fabric layer.	-40°F (-40°C)	225°F (107°C)
Hytrel®	Thermoplastic polyester elastomer	Combines resistance and flexibility of elastomers with the strength of plastics. Resistant to acids, bases, amines, and glycols. Injection molded with no fabric layer.	-20°F (-29°C)	220°F (104°C)
Polyurethane	Polyester Urethane	Thermoplastic that exhibits excellent abrasion resistance. Injection molded with no fabric layer.	32°F (0°C)	150°F (66°C)
PTFE	Polytetrafluoroethylene	Chemically inert. Resistant to a wide range of chemicals.	40°F (4°C)	225°F (107°C)
FEP	Fluorinated Ethylene Propylene	Similar to PTFE in composition and chemical resistance. Used to encapsulate FKM o-rings for superior chemical resistance.	40°F (4°C)	225°F (107°C)
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Santoprene<sup>®</sup> is a registered tradename of Exxon Mobil Corp.  $\bullet$  Hytrel<sup>®</sup> is a registered tradename of DuPont<sup>TM</sup>.



## Accessories

A variety of accessories are available to complement your FTI Air AODD pump installation.

#### Drum Pump Kit & Dispensing Packages

Ideal for transferring a wide variety of materials from drums. Options are available to add to existing FT025/FT05 pump models or as a complete package to suit your transferring needs.

#### Key features include:

- Corrosion resistant materials
- Unique self-adjusting intake tube
- Universal NPT/BSP/Buttress bung adapter
- Stainless steel hardware

### Proximity Sensor & Cable -

Provides output signal of the pump strokes; Used with Batch controller or Cycle counter.

#### Solenoid Valve –

Electromechanically operated valve used for controlling pump operation. Available in 115 VAC, 220 VAC, or 24 VDC voltages.

#### Filter/Regulator -

Filters incoming air to five microns. Regulator adjusts air pressure from 7.3 to 120 psi (0.5 to 8.3 bar).





#### **Liquid Level Control**

The FTI Liquid Level Control is a pneumatic/mechanical device that will automatically turn the pump on and off as the liquid level changes.

#### **Pulsation Dampeners**

Removes hydraulic shock to protect piping, valves and fittings from destructive pulsations and surges.

#### Vanstone Split Flanges

Easily add flange connections to Stainless steel manifold.



### Air Batch Controller

The FTI Air Batch Controller is an electronic device that counts pump cycles and controls the output to the air control solenoid based on a user setting for number of cycles per batch (automatically turning the pump on/off). Batch/volume pumped estimates can be made using published displacement per stroke value for each pump size.

#### **Cycle Counter**

The FTI Air Cycle Counter is an electronic device that counts pump cycles by detecting the presence of the valve carrier. The cycle counter can be universally used on any new or existing FTI Air pump with the proper air valve components.





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