

# PORTABLE FLUID TRANSFER SOLUTIONS DRUM/BARREL PUMPS



**FINISH THOMPSON INC.**

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PUMPING SOLUTIONS **AROUND THE WORLD**

# PF SERIES PUMP TUBES

## Sealless, High Performance

Unique double suction impeller provides high flow and high head. Sealless design improves reliability. Model PFS offers FDA-compliant material and ATEX certified options.

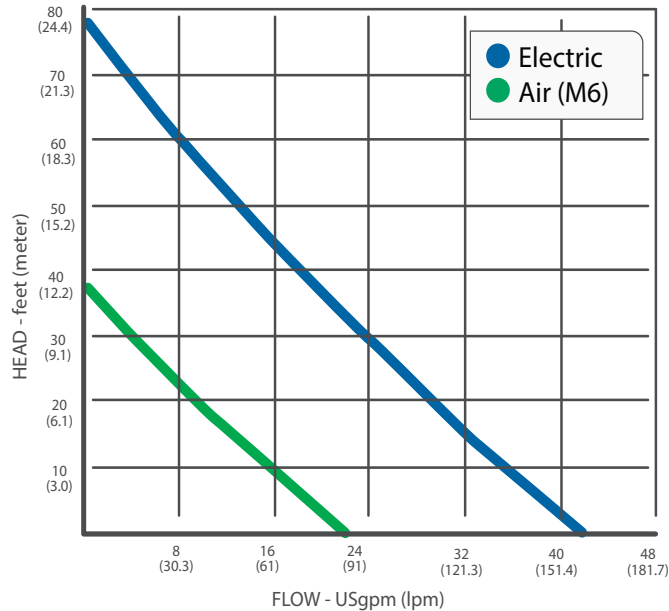


### APPLICATIONS

Acids, bases, solvents<sup>1</sup>, flammables<sup>1</sup>, water treatment chemicals, cleaners, plating solutions, kidney dialysis solutions, sanitary, diesel exhaust fluid (DEF)/AdBlue

### PF SERIES SPECIFICATIONS

- Maximum flow\*: up to 40 gpm (151 lpm)
- Maximum head\*: up to 80 ft (24 m)
- Maximum temperature:
  - Polypropylene 160° F (71°C)
  - PVDF\*\* 120° F (49°C)
  - 316SS 220° F (105°C)
- Maximum specific gravity: 1.8
- Maximum viscosity: up to 2,000 cP with electric motor up to 330 cP with air motor
- 2 in (5.1 cm) tube diameter
- 1 in (2.5 cm) discharge
- Pat. US D658, 274S; Pat. ZL 201130042124.3; OHIM Pat. 001839002-0003



See **MOTOR DATA** pages for applicable motor models.

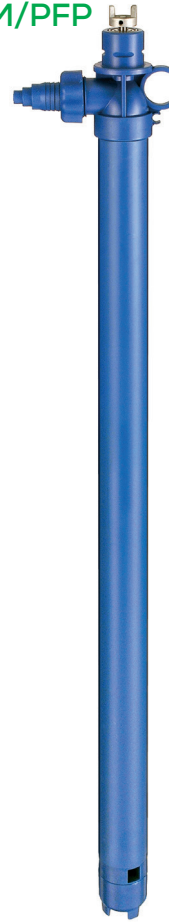
<sup>1</sup>When pumping flammables or combustibles, use explosion proof electric or air drive motors on stainless steel tubes with static protection kit.

\*All testing performed with water at 68° F (20° C) in a full container with the discharge barb at maximum opening. Actual performance may vary by +/- 10%.

\*\*PFV-72 = 115° F (46° C) maximum temperature

Actual performance will decrease with increased fluid viscosity and specific gravity.

PFM/PFP



PFV



PFS



### TUBE LENGTHS

27" (69cm), 40" (102cm), 48" (122cm), 60" (152cm), 72" (183cm)

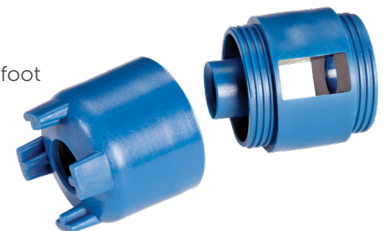


### DOUBLE-SUCTION CENTRIFUGAL IMPELLER

Double suction impeller provides both high flow rates and high discharge pressure.

### THREADED FOOT

Heavy duty threaded foot prevents breakage.



PUMP MODEL	CONSTRUCTION MATERIALS	
	OUTER TUBE	INTERNALS
PFM	Polypropylene	316SS, PP, FKM, PVDF, PTFE
PFP	Polypropylene	Alloy 625, PP, FKM, PVDF, PTFE
PFV	PVDF	Alloy 625, FKM, PVDF, PTFE
PFS	316SS	316SS, FKM, ETFE, PTFE

# EF SERIES PUMP TUBES

## Sealless, Best Value

This pump provides an economical choice for light duty transfer. Ideal replacement for hand pumps. ATEX certified options available.

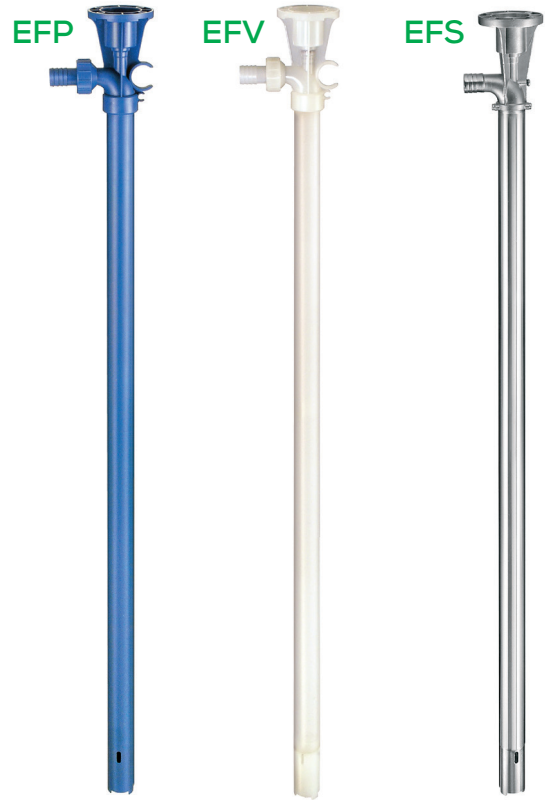


### APPLICATIONS

Light acids and bases, solvents†, flammables†, plating solutions, sodium hypochlorite, cleaners, coolants, diesel exhaust fluid (DEF)/AdBlue

### EF SERIES SPECIFICATIONS

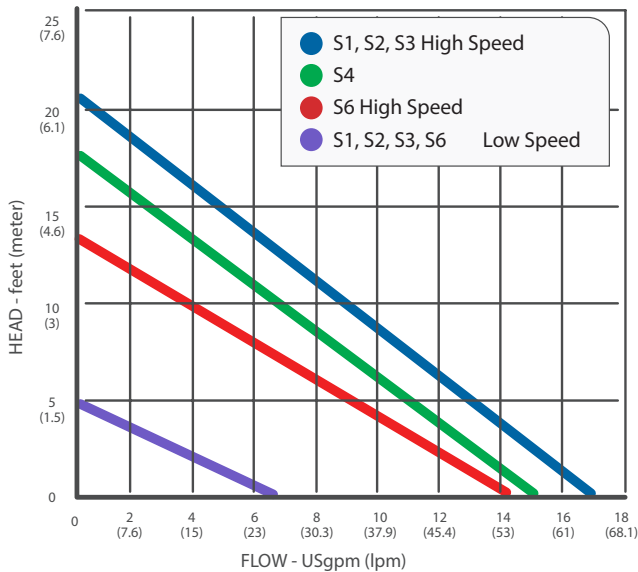
- Maximum flow\*: up to 17 gpm (64.4 lpm)
- Maximum head\*: up to 20 ft (6.1 m)
- Maximum temperature:
  - Polypropylene 150° F (66° C)
  - PVDF 160° F (71° C)
  - 316SS 212° F (100° C)
- Maximum\*\* specific gravity: 1.6
- Maximum\*\* viscosity: 300 cP with electric/air motor  
100 cP with 12V motor
- 1-1/4 in (3.2 cm) tube diameter (EFP, EFS)  
1-5/16 in (3.3 cm) tube diameter (EFV)
- 3/4 in (1.9 cm) discharge
- Pat. US D658,273 S; Pat. US D657,849 S; Pat. ZL 201130042121.X; Pat. ZL 201130042107.X; OHIM Pat. 001839002-0002; OHIM Pat.001839002-0001



### TUBE LENGTHS

EFP/EFV: 16" (41cm), 27" (69cm), 40" (102cm), 48" (122cm), 54" (137 cm)

EFS: 16" (41cm), 27" (69cm), 40" (102cm), 48" (122cm)



See **MOTOR DATA** pages for applicable motor models.

†When pumping flammables or combustibles, use air drive motors on stainless steel tubes with static protection kit.

\*All testing performed with water at 68°F (20°C). Actual performance can vary by +/- 10%. Actual performance will decrease with increased fluid viscosity and specific gravity.

\*\*Maximum specific gravity is dependent on fluid viscosity; maximum fluid viscosity is dependent upon specific gravity.



### AXIAL FLOW IMPELLER

Designed to produce higher flow rates.

### BUILT-IN STRAINER

Prevents solids from entering the tube and damaging the pump.



PUMP MODEL	CONSTRUCTION MATERIALS	
	OUTER TUBE	INTERNALS
EFP	Polypropylene	316SS, FKM, PTFE, PP
EFV	Pure PP/PVDF	Alloy 625, FKM, PTFE, ETFE, PP
EFS	316SS	316SS, FKM, PTFE, ETFE

## TT SERIES PUMP TUBES

### Sealed, Medium Viscosity/Flow

Sealed pump with PTFE screw-type lifting compressors. Ideal for liquids containing small particulate or solvents. Model STTS constructed of FDA-compliant materials.

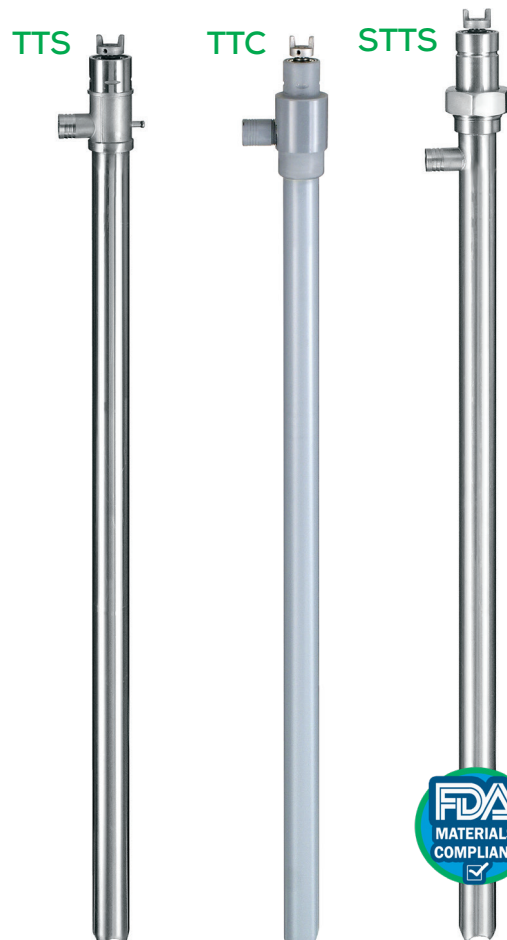
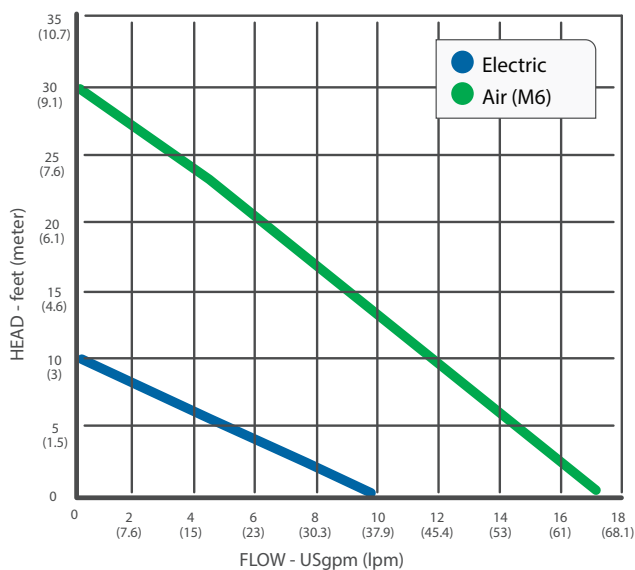


#### APPLICATIONS

Inks, paints, solvents†, sanitary, sodium hypochlorite, food products

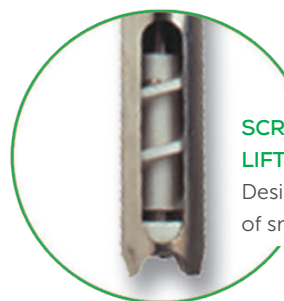
#### TT SERIES SPECIFICATIONS

- Maximum flow\*: up to 16 gpm (61 lpm)
- Maximum head\*: up to 30 ft (9 m)
- Maximum temperature: 150° F (66° C)
- Maximum specific gravity: 1.8
- Maximum viscosity: up to 500 cP with electric motor  
up to 2,000 cP with air motor
- 1-1/2 in (3.8 cm) tube diameter (TTS, STTS)  
1-5/8 in (4.1 cm) tube diameter (TTC)
- 1 in (2.5 cm) discharge



#### TUBE LENGTHS

TTC, TTS - 27" (69cm), 40" (102cm), 48" (122cm)  
STTS - 40" (102cm)



#### SCREW-TYPE LIFTING COMPRESSOR

Designed to allow passage of small solids.



#### BOTTOM BEARING/STRAINER

PTFE bottom bearing/strainer prevents potentially damaging large solids from entering the pump.

See **MOTOR DATA** pages for applicable motor models.

†When pumping flammables or combustibles, use explosion proof electric or air drive motors on stainless steel tubes with static protection kit.

\*All testing performed with water at 68°F (20°C). Actual performance can vary by +/- 10%. Actual performance will decrease with increased fluid viscosity and specific gravity.

PUMP MODEL	CONSTRUCTION MATERIALS	
	OUTER TUBE	INTERNALS
TTS	316SS	316SS, PTFE
TTC	CPVC	Alloy 625, PTFE
STTS	316SS	316SS, PTFE



# BT/HVDP PUMP TUBES

## High Viscosity/High Head

**BT Series** - High viscosity sealed design with PTFE screw-type lifting compressors for liquids up to 15,000 cP

**HVDP Series** - Progressive cavity, positive displacement, mechanically sealed pump for high viscosity liquids up to 20,000 cP (HR model - pictured) or 100,000 cP (LR model). FDA-compliant material options.



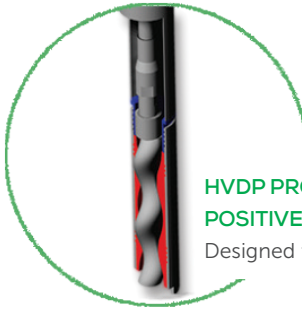
### APPLICATIONS

Oils, resins, solvents†, waxes, adhesives, gear lube, glycerin, silicone, lotions, polymers, honey, juice concentrate, hair and bath gel, corn syrup, etc.

## BT & HVDP SERIES SPECIFICATIONS

- Maximum flow\*: up to 10 gpm (38 lpm)
- Maximum head\*:
  - BTS 200 ft (61 m)
  - HVDP over 300 ft (91 m)
- Maximum temperature:
  - BTS 200° F (93° C)
  - HVDP 180° F (82° C)
- Maximum specific gravity: 1.8
- Maximum viscosity:
  - BTS 15,000 cP
  - HVDP-HR 20,000 cP
  - HVDP-LR 100,000 cP
- 2 in (5.1 cm) tube diameter
- BTS discharge: 1-1/2 in (3.8 cm)
- HVDP discharge: 1-1/2 in (3.8 cm) or 2 in (5 cm)

**BT SCREW-TYPE LIFTING COMPRESSOR**  
Designed to allow passage of small solids.



**HVDP PROGRESSIVE CAVITY POSITIVE DISPLACEMENT**  
Designed for high viscosities.

**BTS**



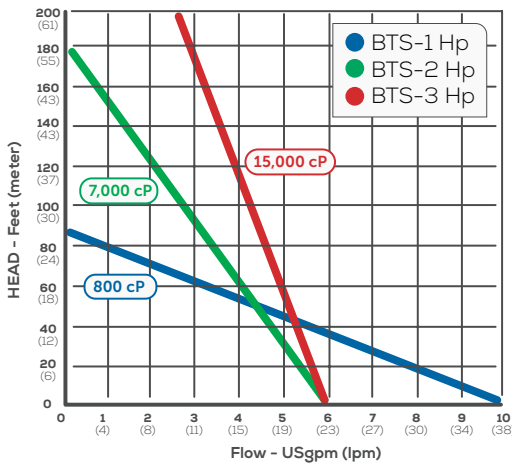
**HVDP**



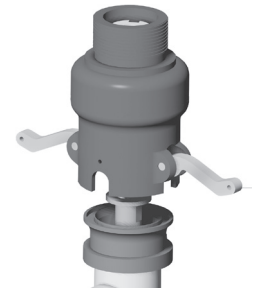
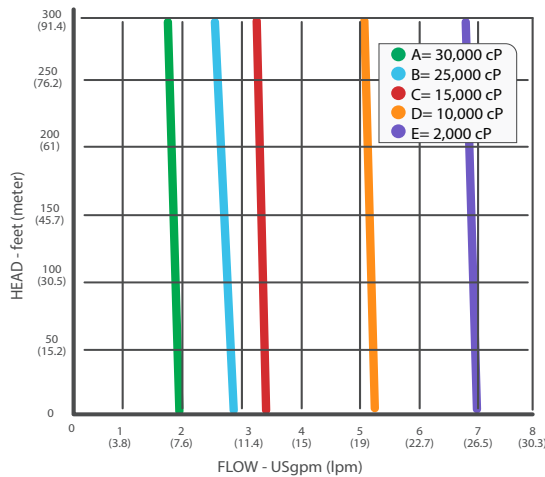
### TUBE LENGTHS

BTS: 40"(102cm)  
HVDP: 27"(69cm), 40"(102cm), 48"(122cm)

## BTS FLOW DATA



## HVDP FLOW DATA



**UNIQUE CAMLOCK FEATURE**  
For quick disassembly of the HVDP.

See **MOTOR DATA** pages for applicable motor models.

†When pumping flammables or combustibles, use explosion proof electric or air drive motors on stainless steel tubes with static protection kit.

\*Actual performance can vary by +/- 10%. Actual performance will decrease with increased fluid viscosity and specific gravity.

PUMP MODEL	CONSTRUCTION MATERIALS	
	OUTER TUBE	INTERNALS
BTS	316SS	PTFE, 316SS
HVDP	316SS	316SS, Buna N, FKM, PTFE

## TB SERIES PUMP TUBES

### Sealed, Lightweight Economy Drum Pump

Lightweight pumps suitable for low to medium viscosity mild corrosives, solvents, and chemicals. Fits smaller bung openings.

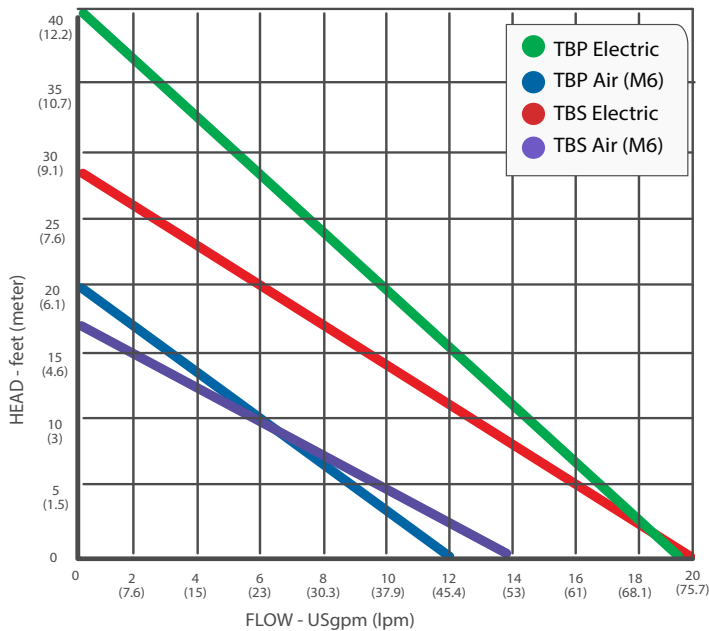


#### APPLICATIONS

Acids, bases, solvents†, water treatment chemicals, bleach, swimming pool chemicals, cleaners

#### TB SERIES SPECIFICATIONS

- Maximum flow\*: up to 20 gpm (75.7 lpm)
- Maximum head\*:
  - TBS 28ft (8.53 m)
  - TBP 39.5 (12 m)
- Maximum temperature: 150° F (66° C)
- Maximum specific gravity: 1.4
- Maximum viscosity: 200 cP
- 1-1/2 in (3.8 cm) tube diameter (TBS)
- 1-21/32 in (4.1 cm) tube diameter (TBP)
- 1 in (2.5 cm) discharge



See **MOTOR DATA** pages for applicable motor models.

†When pumping flammables or combustibles, use explosion proof electric or air drive motors on stainless steel tubes with static protection kit.

\*All testing performed with water at 68°F (20°C). Actual performance can vary by +/- 10%. Actual performance will decrease with increased fluid viscosity and specific gravity.



#### TUBE LENGTHS

TBS - 40" (102cm)  
TBP - 27" (69cm), 40" (102cm), 48" (122cm)



#### SCREW-TYPE LIFTING COMPRESSOR

Designed to allow passage of small solids.

#### VARIABLE ORIFICE

The TBP variable flow barb allows flow to be increased by removing steps on barb.



PUMP MODEL	CONSTRUCTION MATERIALS	
	OUTER TUBE	INTERNALS
TBS	316SS	316SS, PTFE
TBP	Pure polypropylene	Pure PVDF, Alloy 625, PTFE

# TM SERIES PUMP MIXER

## Sealed, Light/Medium Viscosity

Sealed mixer with 4-blade turbine mixing/blending capability. Ideal for mixing drums with settled materials.



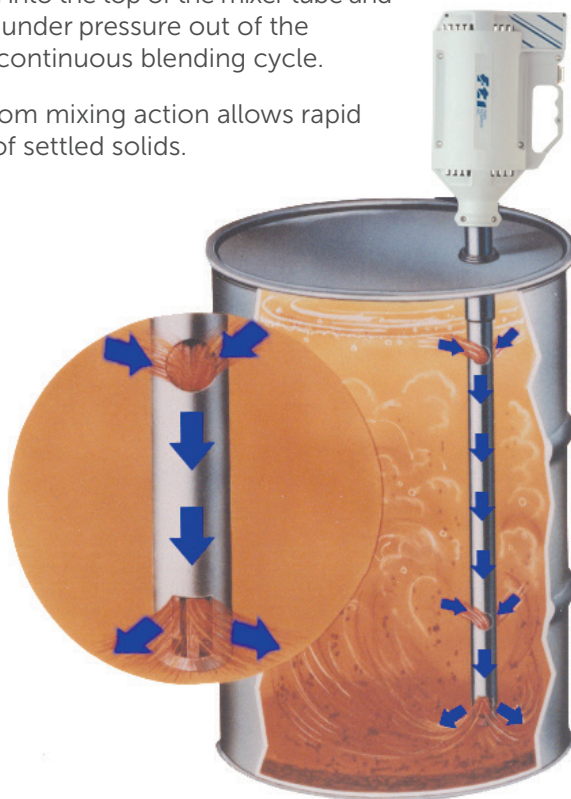
### APPLICATIONS

Dyes, inks, paints, stains, mild corrosives, solvents†, flammables†

### TM SERIES SPECIFICATIONS

- Maximum circulation: 14 gpm (53 lpm)
- Maximum temperature: 200° F (93° C)
- Maximum specific gravity: 1.8
- Maximum viscosity: 1000 cP
- 2 in (5.1 cm) tube diameter
- 1 in (2.5 cm) discharge

- Fluid is pulled into the top of the mixer tube and is discharged under pressure out of the bottom in a continuous blending cycle.
- Top-to-bottom mixing action allows rapid suspension of settled solids.

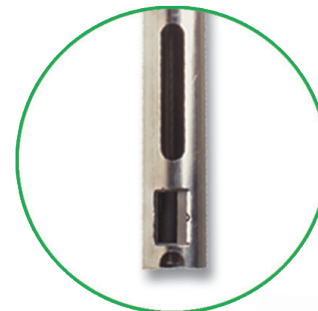


TMS



### TUBE LENGTHS

40" (102cm)



### TURBINE

Provides high intensity mixing and suspension of settled solids.



See **MOTOR DATA** pages for applicable motor models.

†When pumping flammables or combustibles, use explosion proof electric or air drive motors on stainless steel tubes with static protection kit.

PUMP MODEL	CONSTRUCTION MATERIALS	
	OUTER TUBE	INTERNALS
TMS	316SS	316SS, PTFE

## MOTOR DATA

For Drum/Barrel Pumps



M3V, M5V, M5V-US, M3V-UK



S1, S2, S3, S6



M3TV, M5TV, M7TV, M8TV



M15, M16, M17



M73, M74, M75, M76

### ODP (OPEN DRIP PROOF), SPLASHPROOF, IP24 MOTORS

MODEL	DESCRIPTION	CERTIFICATION	ELECTRICAL REQUIREMENTS	INPUT	OUTPUT	RPM	MAXIMUM VISCOSITY cP	PUMP SERIES
				W	W			
M3V	Quick connects to pump without tools. Downdraft cooling system and double wall housing. Continuous duty, variable speed. 12 ft. (3.5 m) cord and integral circuit breaker included.	QPS	115VAC/50-60 Hz	650	400	3,500-10,000	500	PF, TB
M5V		CE	230VAC/50-60 Hz	650	400	3,500-10,000	500	PF, TB
M5V-US		CE	230VAC/50-60 Hz	650	400	3,500-10,000	500	PF, TB
M3V-UK		CE	115VAC/50-60 Hz	650	400	3,500-10,000	500	PF, TB
S1	Ergonomic, lightweight design with downdraft cooling. Continuous duty, dual speed, double insulated. 12 ft. (3.5 m) cord and manual reset circuit breaker included.	QPS	115VAC/60 Hz	230	110	8,000 / 14,000	300	EF
S2		CE	230VAC/50-60 Hz	230	110	8,000 / 14,000	300	EF
S3			115VAC/50-60 Hz	230	110	8,000 / 14,000	300	EF
S6*	Lightweight, cordless, dual speed, built-in rechargeable li-ion battery, overload protection. Charging jack w/ flip cover.	CE	12V (10.8V w/ work load)	150	100	8,000/12,000	100	EF

### TEFC (TOTALLY ENCLOSED FAN COOLED) MOTORS

MODEL	DESCRIPTION	CERTIFICATION	ELECTRICAL REQUIREMENTS	INPUT	OUTPUT	RPM	MAXIMUM VISCOSITY cP	PUMP SERIES
				W	W			
M3TV	IP55. 12 ft. (3.5 m) cord w/ plug, downdraft cooling, variable speed, solid state overload protection, zero voltage release. & quick connection to pump without tools.	QPS	115VAC/60 Hz	1000	680	0-12,000	2000	PF, TB
M5TV		CE	230VAC/50-60 Hz	1000	680	0-12,000	2000	PF, TB
M7TV		QPS	115VAC/60 Hz	450	250	0-6,000	500	TT, TM
M8TV		CE	230VAC/50-60 Hz	450	250	0-6,000	500	TT, TM
M15	IP54. A 12 ft. (3.5 m) cord is provided.	Independent Testing Laboratory Approval	230/460V/60 Hz	Varies by mfg.	0.75 kW	3,450	800	BT
M16			230/460V/60 Hz		1.5 kW	1,725	7,000	BT
M17			230/460V/60 Hz		2.2 kW	1,725	15,000	BT
M73	IP55. 12 ft. (3.5 m) cord with plug. Single speed with manual circuit breaker.	QPS	115V/1ph/60 Hz	1000 W	680 W	12,000	10,000	HVDP
M74		CE	230V/1ph/50-60 Hz	1000 W	680 W	12,000	10,000	HVDP
M75	IP55. 12 ft. (3.5 m) cord with plug. Variable speed, solid state overload protection, zero voltage release, downdraft cooling & quick connection to pump w/out tools.	QPS	115V/1ph/60 Hz	1000 W	680 W	0-12,000	20,000	HVDP
M76		CE	230V/1ph/50-60 Hz	1000 W	680 W	0-12,000	20,000	HVDP

\*U.S. Patent No. 9,273,697

Note: Maximum viscosity can vary by pump series.

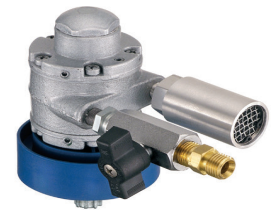
Use the handy online Pump Selector at [www.finishthompson.com](http://www.finishthompson.com) for help choosing a pump.





## MOTOR DATA

### For Drum/Barrel Pumps



M3XV, M5XV, MX7V, M8XV

M6, M6X

M18, M19, M20

M65, M66

S4

### EXPLOSION PROOF MOTORS

MODEL	DESCRIPTION	CERTIFICATION	ELECTRICAL REQUIREMENTS	INPUT	OUTPUT	RPM	MAXIMUM VISCOSITY cP	PUMP SERIES
				W	W			
M3XV	Continuous duty, IP55. 12 ft. (3.5 m) cord without plug. Variable speed, solid state overload protection, zero voltage release, down draft cooling & quick connection to pump w/ out tools.	QPS Class I, Div. 1, Gr D, T4	115VAC/60 Hz	1000	680	0-12,000	2000	PF
M7XV		QPS Class I, Div. 1, Gr D, T4	115VAC/60 Hz	450	250	0-6,000	500	TT, TM
M5XV		CE/ATEX/IECEx Ex II 2G Ex db ib IIB T5 Gb	230VAC/50-60 Hz	1000	680	0-12,000	2000	PF
M5XV-HT		CE/ATEX/IECEx Ex II 2G Ex db ib IIB T4 Gb -20°C ≤ T <sub>amb</sub> ≤ 60°C	230VAC/50-60 Hz	1000	680	0-12,000	2000	PF
M8XV		CE/ATEX/IECEx Ex II 2G Ex db ib IIB T5 Gb	230VAC/50-60 Hz	450	250	0-6,000	500	TT, TM

### AIR MOTORS \*

MODEL	DESCRIPTION	CERTIFICATION	AIR REQUIREMENTS	OUTPUT	RPM	MAXIMUM VISCOSITY cP	PUMP SERIES
				W			
M6/M6A	Lightweight, easy to handle yet powerful. Operates from customer-supplied compressed air source. Variable speed via supplied control valve. Motors are provided with muffler and control valve.	CE/ATEX II 2G Ex h IIC T4 Gb II 2D Ex h III C T135°C Db +1°C ≤ T <sub>amb</sub> ≤ 40°C†	80-100 psi @ 15-32 cfm	400	300-9,000	1,500‡	PF, TT, TB
M6X/M6XA		CE/ATEX II 2G Ex h IIC T4 Gc II 2D Ex h III C T135°C Dc +1°C ≤ T <sub>amb</sub> ≤ 40°C†	80-100 psi @ 15-32 cfm	600	300-6,000	2,000‡	PF, TT, TB, TM
M18		CE	100 psi @ 40-70 cfm	750	300-3,000	800	BT
M19			100 psi @ 80-120 cfm	1500	300-3,000	7,000	BT
M20			100 psi @ 120-170 cfm	2200	300-2,500	15,000	BT
M65		CE	100 psi @ 25 cfm	560	300-3,000	15,000	HVDP
M66			100 psi @ 70 cfm	1000	300-3,000	100,000	HVDP
S4/S4A		CE/ATEX II 2G Ex h IIC T4 Gb II 2D Ex h III C T135°C Db +1°C ≤ T <sub>amb</sub> ≤ 40°C†	40 psi @ 27 cfm	400	300 -11,000	300	EF

\*An air motor is a non-electrical device which means the possibility of explosion from igniting flammables or combustibles is reduced.

‡M6A/M6XA/S4A motor models only are ATEX certified. M6/M6X/S4 models are CE certified. Maximum viscosity for PF Series is 330 cP.

†Maximum viscosity can vary by pump series.

Note: Air motor performance will depend upon user's compressor and system setup.

## ACCESSORIES

### Flow Meters

- Dispense precise amount of fluids from containers.
- Handles chemicals and corrosive liquids.
- Large LCD display in GPM or LPM, 20 cP maximum +/-1% accuracy and repeatability.
- All models are factory calibrated.
- Some models may be field calibrated.
- Batch control versions available.
- Corrosion resistant polypropylene or PVDF.
- Engineered connections for fast assembly to PFM, PFP and PFV drum pumps.

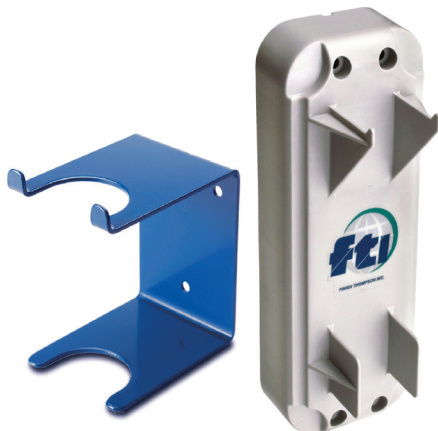


### Discharge Tubing

Flexible tubing connects to the pump discharge. Available in PVC, reinforced PVC and special EPDM for Diesel Exhaust Fluid applications.

### Strainers

Strainers attach to pump tubes preventing foreign objects from entering the pump.



### Wall Mount Bracket

Allows pump to be stored in an upright position.

### Drum Adapters

Secures the pump tube in the barrel's bung opening. Fits standard 2" NPT bung opening. Available in polypropylene, galvanized or stainless steel.



## Chargers

Double insulated with LED charge status indicator for recharging S6 battery motor. Available in 115V with US plug, 230V with Euro plug or 12V for use in most vehicle outlets.



## Static Protection Kit

Increases safety when transferring flammable or combustible liquids. Kit includes cross-linked polyethylene grounded hose, ground wire and clamps.



## Air Hose

15 feet (4.6m) air hose assembly sold separately.

## Filter/ Lubricator Assembly

Conditions compressed air by removing free moisture and solids. Also lubricates the air for longer air motor life.



## Nozzles

Nozzles provide a convenient way to control liquid flow. Available in polypropylene, aluminum and stainless steel.

## OTHER GREAT PRODUCTS FROM FINISH THOMPSON



**UC SERIES**  
ANSI DIMENSIONAL  
MAGNETIC DRIVE PUMPS



**DB & SP SERIES**  
PREMIUM MAGNETIC  
DRIVE SEALLESS  
CENTRIFUGAL PUMPS



**AP SERIES**  
SEALED STAINLESS  
STEEL CENTRIFUGAL  
PUMPS



**VKC SERIES**  
VERTICAL MAGNETIC  
DRIVE SEALLESS  
CENTRIFUGAL PUMPS



**GP SERIES**  
SEALED PLASTIC  
CENTRIFUGAL PUMPS



**MSKC SERIES**  
MULTI-STAGE MAGNETIC  
DRIVE SEALLESS  
CENTRIFUGAL PUMPS



PREMIUM AODD PUMPS



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