



FINISH THOMPSON INC.

# DRUM/BARREL PUMPS



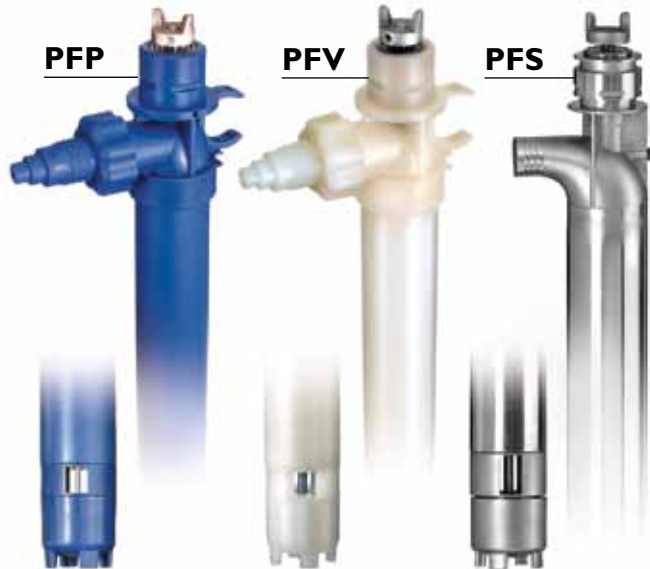


## PF Series Pump Tubes

### Sealless, High Performance

Unique double suction impeller provides high flow and high head. Handles acids, caustics, chemicals and flammables†.

Applications: Acids, bases, solvents†, water treatment chemicals, cleaners, plating solutions, kidney dialysis solutions, diesel exhaust fluid (DEF)/ AdBlue



### Construction Specifications

Pump Series	Construction Materials		Tube Dia.	Max. Temp.*	
	Outer Tube	Internals	in (cm)	°F	°C
PFM	Polypro	316 SS, Polypro, FKM, PVDF	2 (5.1)	160	71
PFP	Polypro	Alloy 625, Polypro, FKM, PVDF		120	49
PFV*	PVDF	Alloy 625, FKM, PVDF		220	105
PFS	316SS	316SS, FKM, ETFE			

\*PFV-72 = 115°F (46°C)

### Tube Lengths

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

### Performance Data

Pump Series	Hose Size	Maximum Flow**		Maximum Head**		Max. Sp Gravity	Max. Viscosity - cP	
		Electric gpm (lpm)	Air gpm (lpm)	Electric ft (m)	Air ft (m)		Electric	Air
PFP, PFM PFV, PFS†	1"	40 (151)	22 (83)	80 (24)	38 (11.6)	1.8	2,000	330

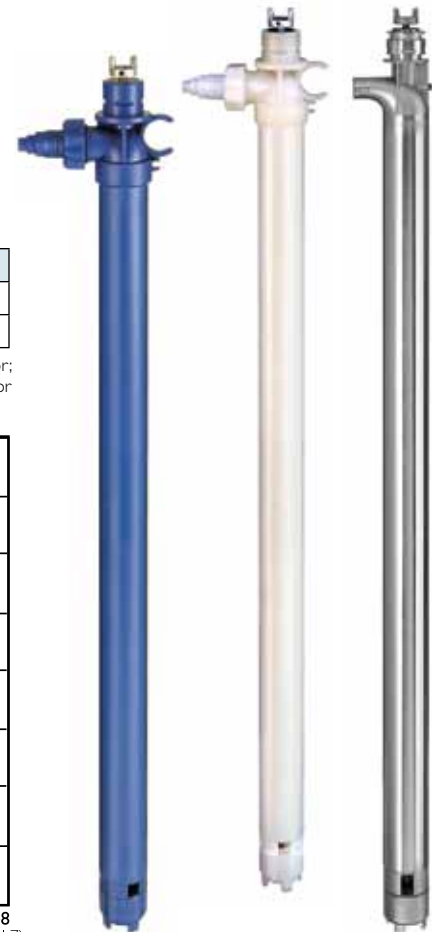
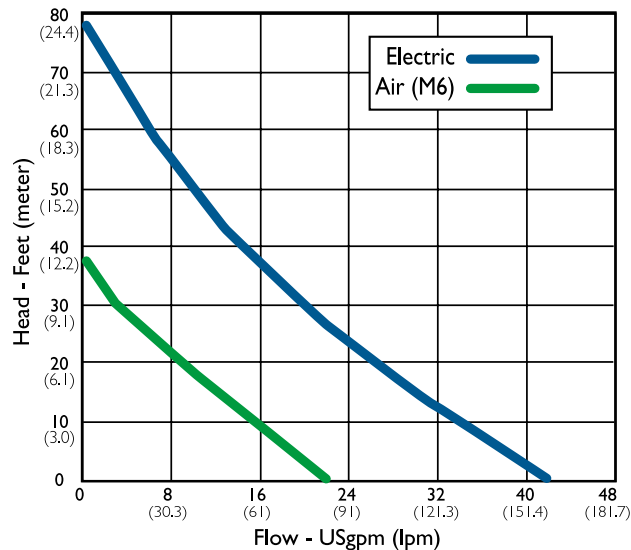
### Viscosity Data

Viscosity (cP)	100	250	500	1,000	2,000
Max Flow gpm (lpm)	24 (91)	16 (61)	11 (42)	7 (26)	4 (15)
Max Head feet (meter)	52 (16)	51 (16)	48 (15)	45 (14)	28 (9)

Note: 100-500 cP results using M3/M5V motor;  
500-2,000 cP results using M58/M59P motor

### Motor Model

Pump	Uses Model
PF	M3V, M5V, M5V-US
	M3T, M5T
	M3X, M5X, M10X
	M58P, M59P
	M6, M6X



†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.



## EF Series Pump Tubes

Sealless, Best Value

This pump provides an economical choice for light duty transfer. Ideal replacement for hand pumps.

**Applications:** Light acids and bases, solvents<sup>†</sup>, plating solutions, sodium hypochlorite, cleaners, coolants, diesel exhaust fluid (DEF)/ AdBlue 



### Construction Specifications

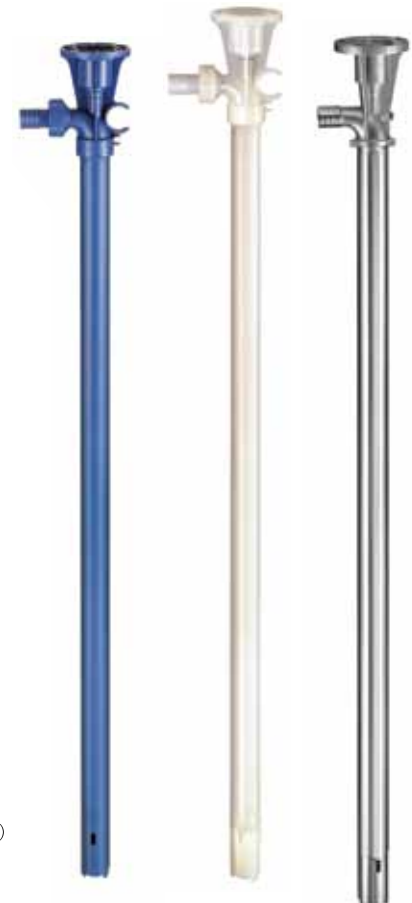
Pump Series	Construction Materials		Tube Dia. in (cm)	Max. Temp.	
	Outer Tube	Internals		°F	°C
EFP	Polypro	316SS, FKM, PTFE, PP	1-1/4 (3.18)	150	66
EFV	Pure PP/ PVDF	Alloy 625, FKM, PTFE, ETFE, PP		160	71
EFS	316SS	316SS, FKM, PTFE, ETFE		212	100

### Performance Data

Pump Series	Hose Size	Maximum Flow*		Maximum Head*		Max. Sp Gravity	Max. Viscosity - cP	
		Electric gpm (lpm)	Air gpm (lpm)	Electric ft (m)	Air ft (m)		Electric	Air
EFP, EFV EFS	3/4"	17 (64.4)	15 (56.8)	20 (6.1)	17 (5.2)	1.2	300	300

### Tube Lengths

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

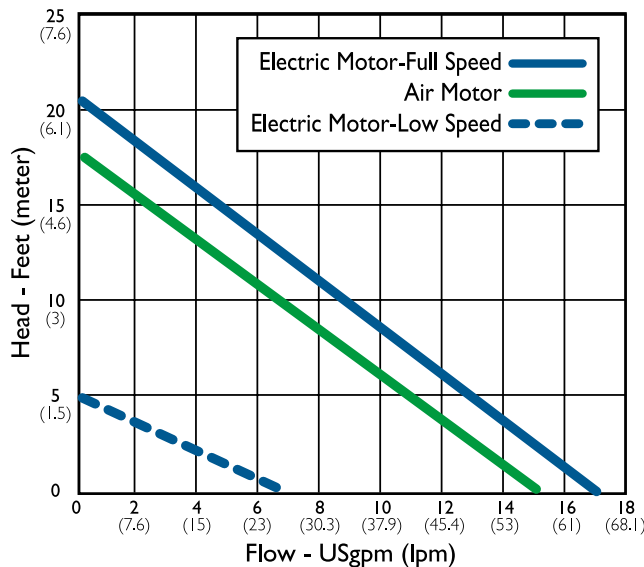


### Viscosity Data

Viscosity (cP)	100	200	300
Max Flow gpm (lpm)	7 (26)	5 (19)	4 (14)
Max Head feet (meter)	16 (5)	16 (5)	16 (5)

### Motor Model

Pump	Uses Model
EFP EFV EFS	S1, S2, S3
	S4




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

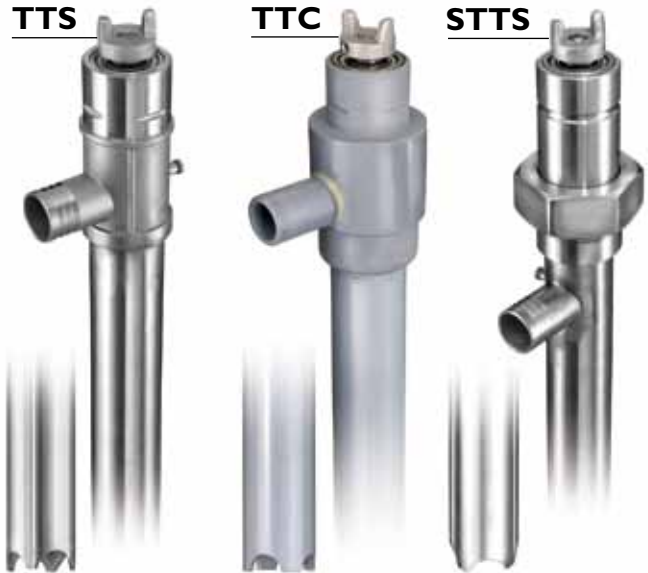
\*All testing performed with water at 68°F (20°C). Actual performance can vary by +/- 10%. Actual performance will decrease with increased fluid viscosity and specific gravity.

## 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 is sanitary construction.

**Applications:** Inks, paints, solvents<sup>†</sup>, sodium hypochlorite, food products 



### Construction Specifications

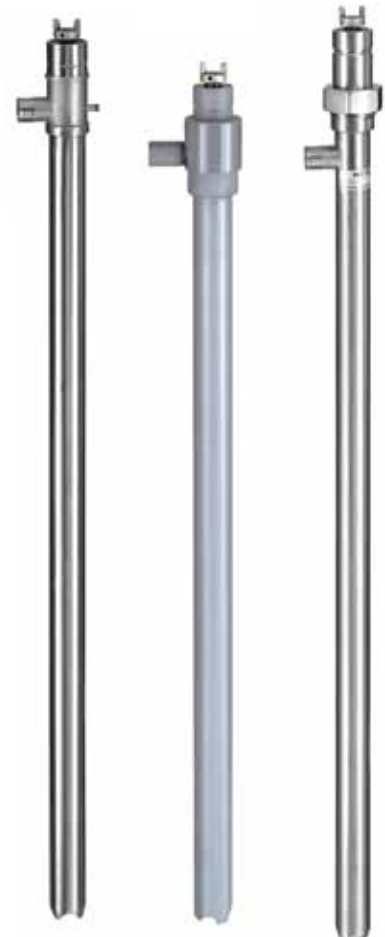
Pump Series	Construction Materials		Tube Dia. in (cm)	Max. Temp.	
	Outer Tube	Internals		°F	°C
TTS	316SS	316SS, PTFE	1-1/2 (3.8)	150	66
TTC	CPVC	Alloy 625, PTFE	1-5/8 (4.1)		
STTS	316SS	316SS, PTFE	1-1/2 (3.8)		

### Performance Data

Pump Series	Hose Size	Maximum Flow*		Maximum Head*		Max. Sp Gravity	Max. Viscosity - cP	
		Electric gpm (lpm)	Air gpm (lpm)	Electric ft (m)	Air ft (m)		Electric	Air
TTS	1"	10 (38)	16 (61)	10 (3)	30 (9)	1.8	500	2,000
TTC								
STTS								

### Tube Lengths

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



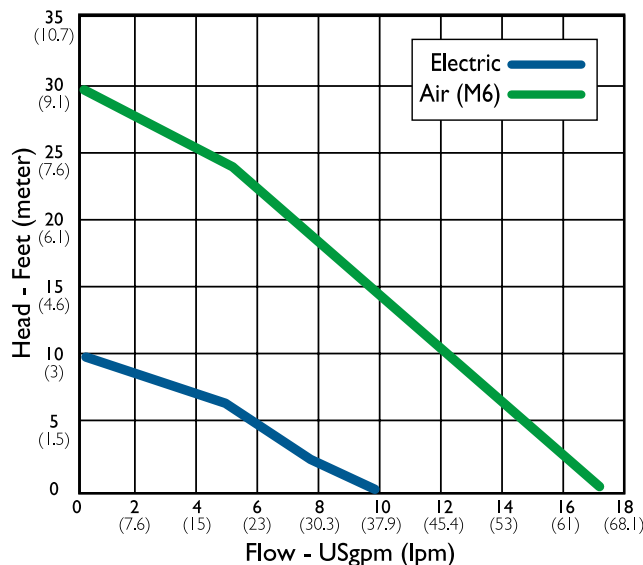
### Viscosity Data

Viscosity (cP)	100	250	500	1,000	2,000
Max Flow gpm (lpm)	7 (26)	6 (23)	3 (11)	4 (15)	3 (11)
Max Head feet (meter)	25 (8)	35 (11)	48 (15)	60 (18)	28 (9)

Note: 100-500 cP results using M7T/M8T motor;  
500-2,000 cP results using M6X motor

### Motor Model

Pump	Uses Model
TTS	M7T, M8T
TTC	M7X
STTS	M6, M6X



<sup>†</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). Actual performance can vary by +/- 10%. Actual performance will decrease with increased fluid viscosity and specific gravity.

## 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) or 100,000 cP (LR model)

**Applications:** Oils, resins, solvents<sup>†</sup>, waxes, adhesives, gear lube, glycerin, silicone, lotions, polymers, honey, juice concentrate, hair & bath gel, corn syrup, etc.



### Construction Specifications

Pump Series	Construction Materials		Tube Dia. in (cm)	Max. Temp.	
	Outer Tube	Internals		°F	°C
BTS	316SS	PTFE, 316SS	2 (5.1)	200	93
HVDP	316SS	316SS, Buna N, FKM, PTFE	2 (5.1)	180	82

### Motor Model

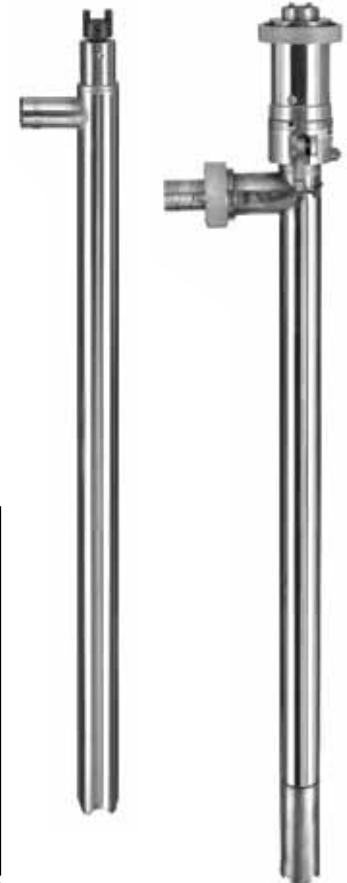
Pump	Uses Model
BTS	M15, M16, M17, M18, M19, M20
HDVP-HR	M58H, M59H
HDVP-LR	M60, M61, M62, M63, M64, M65, M66

### Tube Lengths

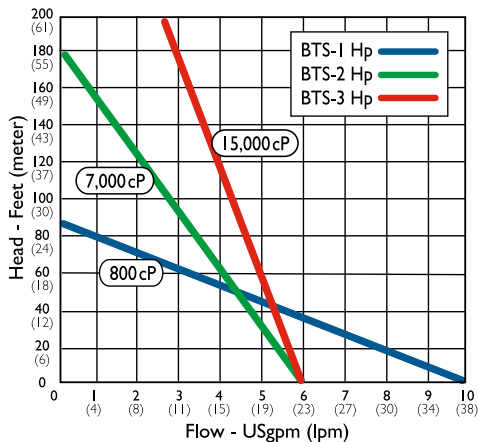
BTS: 40"(102cm)  
HVDP: 27"(69cm), 40"(102cm), 48"(122cm)

### Performance Data

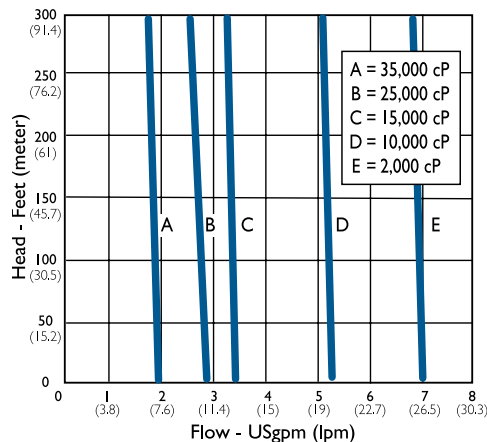
Pump Series	Hose Size	Maximum Flow*		Maximum Head*		Max. Sp Gravity	Max. Viscosity - cP	
		Electric gpm (lpm)	Air gpm (lpm)	Electric ft (m)	Air ft (m)		Electric	Air
BTS	1-1/2"	10 (38)	10 (38)	200 (61)	200 (61)	1.8	15,000	15,000
HVDP-HR	1-1/2", 2"	9 (32)	9 (32)	300 (91)	300 (91)	1.8	20,000	20,000
HVDP-LR	1-1/2", 2"	7 (27)	7 (27)	300 (91)	300 (91)	1.8	100,000	100,000



### BTS Flow Data



### HVDP Flow Data



<sup>†</sup>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.



FINISH THOMPSON INC.

# MOTOR DATA for Drum/Barrel Pumps



M3V, M5V, M5V-US, M3V-UK      S1, S2, S3      M3T, M5T, M7T, M8T      M15, M16, M17      M58H, M59H, M58P, M59P

## ODP (Open Drip Proof), Splashproof, IP24 Motors

Model	Description	Type	Certification	Electrical Requirements	Power		RPM	Max. Viscosity cP	Pump Series
					HP	W			
M3V	Quick connects to pump without tools. Downdraft cooling system and double wall housing. Continuous duty. A 12 ft. (3.5 m) cord with plug and integral circuit breaker are provided.	Universal - Variable speed for precise fluid control	CSA	115VAC/50-60 Hz	4/5	650	3,500-10,000	500	PF
M5V			CE	230VAC/50-60 Hz	4/5	650	3,500-10,000	500	PF
M5V-US*			CE	230VAC/50-60 Hz	4/5	650	3,500-10,000	500	PF
M3V-UK			CE	115VAC/50-60 Hz	4/5	650	3,500-10,000	500	PF
S1	Ergonomic, lightweight design with downdraft cooling. Continuous duty. A 12 ft. (3.5 m) cord with plug and circuit breaker with manual reset are provided.	Universal - two speed double insulated	CSA	115VAC/60 Hz	1/3	250	8,000 / 14,000	300	EF
S2			CE	230VAC/50-60 Hz	1/3	250	8,000 / 14,000	300	EF
S3			CE	115VAC/50-60 Hz	1/3	250	8,000 / 14,000	300	EF

## TEFC (Totally Enclosed Fan Cooled), IP54 Motors

Model	Description	Type	Certification	Electrical Requirements	Power		RPM	Max. Viscosity cP	Pump Series
					HP	W			
M3T	Molded plastic housing features integral handle. Continuous duty. A 12 ft. (3.5 m) cord with plug and circuit breaker with manual reset are provided.	Universal - Single Speed	CSA	115VAC/50-60 Hz	4/5	640	10,000	500	PF
M5T		Universal - Single Speed	CE	230VAC/50-60 Hz	4/5	640	10,000	500	PF
M7T		Induction	CSA	115VAC/50-60 Hz	2/3	500	2,850/3,450	500	TT
M8T		Induction	CE	230VAC/50-60 Hz	2/3	500	2,850/3,450	500	TT
M15	Continuous duty. A 12 ft. (3.5 m) cord is provided.	Induction	CSA, UL	230/460V/60 Hz	1	746	3,450	800	BT
M16				230/460V/60 Hz	2	1,492	1,725	7,000	BT
M17				230/460V/60 Hz	3	2,238	1,725	15,000	BT
M58H	Molded plastic housing features integral handle. Continuous duty. A 12 ft. (3.5 m) cord with plug and circuit breaker with manual reset is provided.	Universal - Variable speed for precise fluid control.	CE	115VAC/50-60 Hz	1 1/3	1000	10,000	20,000	HVDP
M59H				230VAC/50-60 Hz	1 1/3	1000	10,000	20,000	HVDP
M59HCE				230VAC/50-60 Hz	1 1/3	1000	10,000	20,000	HVDP
M58P				115VAC/50-60 Hz	1 1/3	1000	5,000-10,000	2,000	PF
M59P				230VAC/50-60 Hz	1 1/3	1000	5,000-10,000	2,000	PF
M59PCE				230VAC/50-60 Hz	1 1/3	1000	5,000-10,000	2,000	PF

\* Suitable for 230V, 60 Hz. Includes a NEMA 6-15 plug. Note: Maximum viscosity can vary by pump series.



# MOTOR DATA for Drum/Barrel Pumps



M3X, M5X, M7X, M10X

M6, M6X

M18, M19, M20

M65, M66

S4

## Explosion Proof Motors

Model	Description	Type	Certi- fication	Electrical Requirements	Power		RPM	Max. Viscosity cP	Pump Series
					HP	W			
M3X	Explosion proof design suitable for use in hazardous areas and ideal for applications with flammable liquids. The TEFC housing protects the motor internals from dust, corrosive vapors and water splashes. A 12ft. (3.5m) cord and internal circuit breaker are provided. Continuous duty rated.	TEFC, explosion proof	CSA	115VAC/50-60 Hz	3/10	230	5,000	10	PF
M5X*			CE	230VAC/50-60 Hz	3/10	230	5,000	10	PF
M7X			CSA	115VAC/50-60 Hz	2/3	500	2,850-3,450	400	TT
M10X			CE/ATEX Ex II 2G Ex IIA T4	230VAC/50-60 Hz	4/5	640	10,000	500	PF

## Air Motors \*\*

Model	Description	Type	Certi- fication	Air Requirements	Power		RPM	Max. Viscosity cP	Pump Series
					HP	W			
M6	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.	Air	CE/ ATEX Ex II 5GDc + ICTa+40C	80-100 psi @ 15-32 cfm	1/2	370	300-9,000	1,500†	PF,TT
M6X			CE/ ATEX Ex II 5GDc + ICTa+40C	80-100 psi @ 15-32 cfm	3/4	560	300-6,000	2,000†	PF,TT
M18			CE	100 psi @ 40-70 cfm	1	746	300-3,000	800	BT
M19				100 psi @ 80-120 cfm	2	1,492	300-3,000	7,000	BT
M20				100 psi @ 120-170 cfm	3	2,238	300-2,500	15,000	BT
M65			CE	100 psi @ 25 cfm	3/4	560	300-3,000	15,000	HVDP
M66				100 psi @ 70 cfm	1-1/2	1000	300-3,000	100,000	HVDP
S4			CE	40 psi @ 27 cfm	1/2	370	300 - 11,000	300	EF

Note: Maximum viscosity can vary by pump series.

\* Motor suitable for hazardous areas that do not require independent certification.

\*\* An air motor is a non-electrical device which means the possibility of explosion from igniting flammables or combustibles is reduced. Air motor performance will depend upon user's compressor and system setup.

† Maximum viscosity for PF Series is 330 cP.

Consult FTI's Chemical Resistance Chart (<http://www.finishthompson.com/downloads/drum-pumps/technical-flyers>) before selecting pump material.



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

# 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.



## Nozzles

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



## Filter/ Lubricator Assembly

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



## 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.



## Drum Adapters

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



## Wall Mount Bracket

Allows pump to be stored in an upright position.



### FINISH THOMPSON INC.

921 Greengarden Road • Erie, PA 16501-1591 U.S.A.  
Ph 814-455-4478 • Fax 814-455-8518  
Email [fti@finishthompson.com](mailto:fti@finishthompson.com) • [www.finishthompson.com](http://www.finishthompson.com)

Toll Free U.S.A. & Canada 1-800-934-9384  
Literature ID FT10-1099, 4-16-10