



# **PF Series Pump Tubes**

# Sealless, High Performance

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

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

### **Construction Specifications**

Pump	Со	nstruction Materials	Tube Dia.	Max.7	emp.*
Series Outer Tube		Outer Tube Internals		۰F	°C
PFM	Polypro	316 SS, Polypro, FKM, PVDF			
PFP	Polypro	Alloy 625, Polypro, FKM, PVDF	2 (5.1)	160	71
PFV*	PVDF	Alloy 625, FKM, PVDF		120	49
PFS	316SS	316SS, FKM, ETFE		220	105

\*PFV-72 = 115°F (46C)



### **Tube Lengths**

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

### **Performance Data**

Duman	Шааа	Maximur	n Flow**	Maximur	n Head**	Max. Sp	Max.Visc	osity-cP
Pump Series	Hose Size	Electric gpm (lpm)	<u>Air</u> gpm (lpm)	Electric ft (m)	Air ft (m)	Gravity	Electric	Air
PFP, PFM PFV, PFS <sup>†</sup>	1"	40 (151)	22 (83)	80 (24)	38 (11.6)	1.8	2,000	330

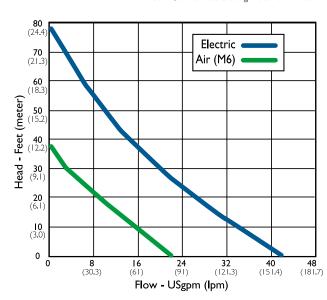
### **Viscosity Data**

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





P.H.A.

†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.

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# **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†, plating solutions, sodium hypochlorite, cleaners, coolants, diesel exhaust fluid (DEF)/ AdBlue



### **Construction Specifications**

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



### **Performance Data**

Direct	Uaaa	Hose Maximum Flow		Maximur	n Head*	May Ca	Max.Viso	osity-cP
Pump Series	Size	Electric gpm (lpm)	<u>Air</u> gpm (lpm)	Electric ft (m)	<u>Air</u> ft (m)	Max. Sp Gravity	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** 

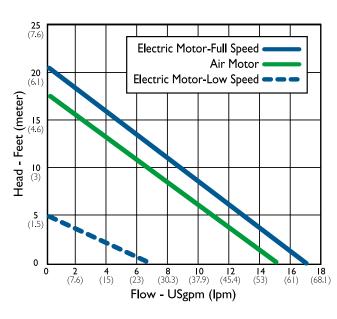
16" (41cm), 27" (69cm), 40" (102cm), 48" (122cm)

### **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	\$1, \$2, \$3
EFV EFS	S4

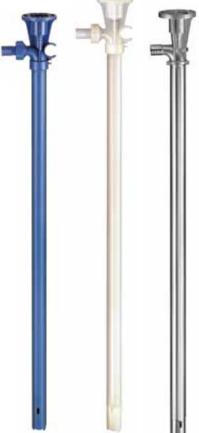




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†When pumping flammables or combustibles, use air drive motors on stainless steel tubes with static protection kit.

<sup>\*</sup>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.

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



### **Construction Specifications**

Pump	Constructio	n Materials	Tube Dia.	Max.	Temp.
Series	Outer Tube	Internals	in (cm)	۰F	°C
TTS	316SS	316SS, PTFE	1-1/2 (3.8)		
TTC	CPVC	Alloy 625, PTFE	1-5/8 (4.1)	150	66
STTS	316SS	316SS, PTFE	1-1/2 (3.8)		





### **Performance Data**

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

### **Tube Lengths**

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

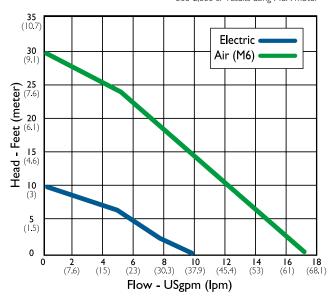
### **Viscosity Data**

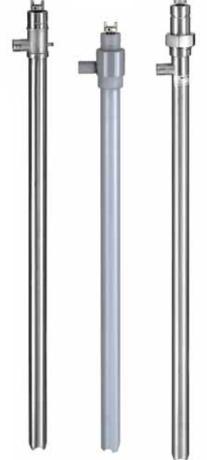
•					
Viscosity (cP)	100	250	500	1,000	2,000
Max Flow gpm (lpm)	7 (26)	6 (23)	3 (11)	4 (15)	3 (11)
Max Head feet (meter)	25 (8)	35 (11)	48 (15)	60 (18)	28 (9)

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







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# **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†, waxes, adhesives, gear lube, glycerin, silicone, lotions, polymers, honey, juice concentrate, hair & bath gel, corn syrup, etc.





### **Construction Specifications**

Pump	Constructi	on Materials	Tube Dia.	Max.Temp.		
Series Outer Tube Internals		in (cm)	۰F	°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,					
DIS	M18, M19, M20					
HDVP-HR	M58H, M59H					
HDVP-LR	M60, M61, M62, M63, M64, M65, M66					

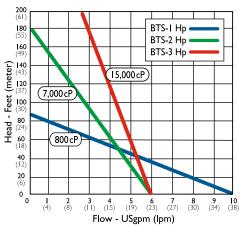
### **Tube Lengths**

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

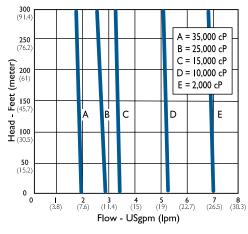
### **Performance Data**

Dump	Hose	Maximum Flow*		Maximun	n Head*	Max. Sp	Max.Viscosity-cP		
Pump Series	Size	Electric gpm (lpm)	Air gpm (lpm)	Electric ft (m)	<u>Air</u> ft (m)	Gravity	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**



# (30.3)

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# **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	Too	Certi-	Electrical	Power		RPM	Max.	Pump								
riodei	Description	Туре	fication	Requirements	HP	W	KFIT	Viscosity cP	Series								
M3V	Quick connects to pump without	I lab a seed	CSA	115VAC/50-60 Hz	4/5	650	3,500-10,000	500	PF								
M5V	tools. Downdraft cooling system and	Universal - Variable speed	CE	230VAC/50-60 Hz	4/5	650	3.500-10,000	500	PF								
M5V-US*	double wall housing. Continuous duty. A 12 ft. (3.5 m) cord with plug and	for precise fluid control		CE	230VAC/50-60 Hz	4/5	650	3,500-10,000	500	PF							
M3V-UK	integral circuit breaker are provided.		CE	115VAC/50-60 Hz	4/5	650	3,500-10,000	500	PF								
SI	Ergonomic, lightweight design with downdraft cooling. Continuous duty.	Universal - two	CSA	115VAC/60 Hz	1/3	250	8,000 / 14,000	300	EF								
S2	A 12 ft. (3.5 m) cord with plug and	speed double insulated	speed double	speed double	speed double	speed double	speed double	speed double	speed double	speed double	CE	230VAC/50-60 Hz	1/3	250	8,000 / 14,000	300	EF
S3	circuit breaker with manual reset are provided.		CE	115VAC/50-60 Hz	1/3	250	8,000 / 14,000	300	EF								

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

M	D 1.0	<b>-</b>	Certi-	Electrical	Power		DDM	Max.	Pump		
Model	Description	Туре	fication	Requirements	HP	W	RPM	Viscosity cP	Series		
M3T		Universal - Single Speed	CSA	115VAC/50-60 Hz	4/5	640	10,000	500	PF		
M5T	Molded plastic housing features integral handle. Continuous duty. A 12 ft. (3.5 m) cord with plug and	Universal - Single Speed	CE	230VAC/50-60 Hz	4/5	640	10,000	500	PF		
M7T	circuit breaker with manual reset are provided.	Induction	CSA	115VAC/50-60 Hz	2/3	500	2,850/3,450	500	TT		
M8T	, provissor	Induction	CE	230VAC/50-60 Hz	2/3	500	2,850/3,450	500	TT		
MI5		Induction				230/460V/60 Hz	I	746	3,450	800	ВТ
MI6	Continuous duty. A 12 ft. (3.5 m) cord s provided.		CSA, UL	230/460V/60 Hz	2	1,492	1,725	7,000	ВТ		
MI7	ns provided.			230/460V/60 Hz	3	2,238	1,725	15,000	BT		
M58H				115VAC/50-60 Hz	1 1/3	1000	10,000	20,000	HVDP		
M59H	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.	Univeral - Variable		230VAC/50-60 Hz	1 1/3	1000	10,000	20,000	HVDP		
М59НСЕ		speed for precise	CE	230VAC/50-60 Hz	1 1/3	1000	10,000	20,000	HVDP		
M58P		fluid control.		115VAC/50-60 Hz	1 1/3	1000	5,000-10,000	2,000	PF		
M59P	Thandarreset is provided.			230VAC/50-60 Hz	1 1/3	1000	5,000-10,000	2,000	PF		
M59PCE			CE	230VAC/50-60 Hz	1 1/3	1000	5,000-10,000	2,000	PF		

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



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# MOTOR DATA for Drum/Barrel Pumps



### **Explosion Proof Motors**

Model	Description	T	Certi-	Electrical	Power		RPM	Max.	Pump
Plodel	Description	Туре	fication	Requirements	HP	W	KFI'I	Viscosity cP	Series
M3X	Explosion proof design suitable for		CSA	115VAC/50-60 Hz	3/10	230	5,000	10	PF
M5X*	use in hazardous areas and ideal for applications with flammable liquids.	TEFC, explosion proof	CE	230VAC/50-60 Hz	3/10	230	5,000	10	PF
M7X	The TEFC housing protects the motor internals from dust, corrosive vapors		CSA	115VAC/50-60 Hz	2/3	500	2,850-3,450	400	П
MIOX	and water splashes. A 12ft. (3.5m) cord and internal circuit breaker are provided. Continuous duty rated.	explosion proof	CE/ATEX Ex II 2G Ex IIA T4	230VAC/50-60 Hz	4/5	640	10,000	500	PF

### Air Motors \*\*

Model	December	T	Certi-	Air	Power		RPM	Max.	Pump												
Model	Description	Туре	fication	Requirements	HP	W	Krij	Viscosity cP	Series												
M6	_		CE/ ATEX Ex II 5GDc + I CTa+40C	80-100 psi@15-32 cfm	1/2	370	300-9,000	1,500†	PF,TT												
M6X			CE/ ATEX Ex II 5GDc + I CTa+40C	80-100 psi@15-32 cfm	3/4	560	300-6,000	2,000†	PF,TT												
MI8	Lightweight, easy to handle yet powerful.  Operates from customer-supplied	Air		100 psi @ 40-70 cfm	-	746	300-3,000	800	ВТ												
MI9	compressed air source. Variable speed		CE	100 psi @ 80-120 cfm	2	1,492	300-3,000	7,000	ВТ												
M20	via supplied control valve. Motors are provided with muffler and control valve.															100 psi @ 120-170 cfm	3	2,238	300-2,500	15,000	ВТ
M65	provided with marrier and control valve.		CF	100 psi @ 25 cfm	3/4	560	300-3,000	15,000	HVDP												
M66			CE	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.
- $^{\dagger}$  Maximum viscosity for PF Series is 330 cP.

