

DRUM/BARREL PUMPS PF SERIES

ATEX Certified High Performance Drum Pump

Sealless drum pump with unique double suction impeller certified for container-to-container transfer of flammables or combustibles.

- 316 stainless steel tube
- Explosion proof electric or air motors
- FKM or Perlast® (perfluoroelastomer/FFKM) o-rings
- Threaded or hose barb discharge connections
- 1.2 m grounded hose with grounded wire assembly
- ATEX Certifications:
 - Ⓔ II 1/2G Ex h IIB T5...T4 Ga/Gb
 - HT models: Ⓔ II 1/2G Ex h IIB T4...T3 Ga/Gb
 - $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq 60^{\circ}\text{C}$



Applications:

Acetone, alcohol, toluene, xylene, mineral spirits, diesel fuel, kerosene, gasoline, etc.

Construction Specifications

Pump Model	Construction Materials	Tube Diameter	Discharge	Hose Size	Maximum Temperature		Minimum Temperature		Tube Lengths
		in (cm)	Size & Type	in (cm)	°F	°C	°F	°C	in (cm)
PFS-A	316SS, Perlast, PTFE, ETFE	2 (5.1)	1" Hose Barb	1 (2.54)	220	105	5	-15	27" (69 cm), 40" (102 cm), 48" (122 cm), 60" (152 cm), 72" (183 cm)
PFS-A-FKM	316SS, ETFE, FKM								

Perlast® is a registered trademark of Precision Polymer Engineering Limited.

Performance Data

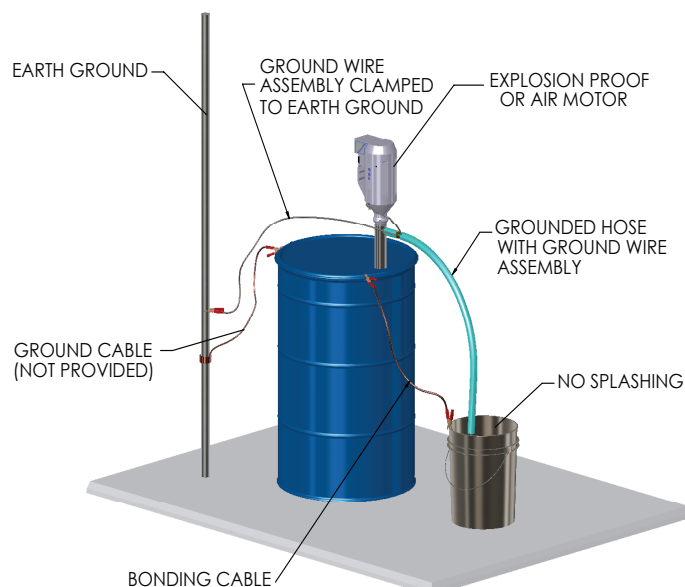
Maximum Flow*		Maximum Head		Maximum Specific Gravity	Maximum Viscosity	
Electric gpm (lpm)	Air gpm (lpm)	Electric ft (m)	Air ft (m)		Electric	Air
40 (151)	22 (83)	80 (24)	38 (11.6)	1.8	2000 cP	330 cP

Use the handy online Pump Selector at www.finishthompson.com for help choosing a pump.



*Static sparking can cause an explosion. Always follow NFPA 77 and CLC/TR 60079-32-1 guidelines for control of static electricity and proper grounding methods when using ATEX and Hazardous Location motor models.

Explosion-proof Installation



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Астана (7172)727-132
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DRUM/BARREL PUMPS

MOTOR DATA



Ex-Proof
(M5XV)



Air
(M6A, M6XA)

Model	Description	Certification	Electrical Requirements	Input	Output	RPM	Maximum Viscosity cP
				W	W		

Explosion Proof Motors

M5XV	Continuous duty, IP55. 12 ft. (3.5 m) cord without plug, downdraft cooling and quick connection to pump without tools. Variable speed, solid state overload protection, zero voltage release.	CE/ATEX/IECEx Ex II 2G Ex d ib IIB T5 Gb	230VAC/50-60 Hz	1000	680	0-12,000	2000
M5XV-HT		CE/ATEX Ex db ib IIB T4 Gb $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq 60^{\circ}\text{C}$	230VAC/50-60Hz	1000	680	0-12,000	2000

Air Motors

M6A	Lightweight. Operates from customer-supplied compressed air source. Variable speed. Muffer and control valve.	CE/ATEX II 2G Ex h IIC T4 Gb II 2D Ex h IIIC T135°C Db $+1^{\circ}\text{C} \leq T_{\text{amb}} \leq 40^{\circ}\text{C}$	80-100 psi @ 15-32 cfm	-	400	300-9,000	330
M6XA		CE/ATEX II 2G Ex h IIC T4 Gc II 2D Ex h IIIC T135°C Dc $+1^{\circ}\text{C} \leq T_{\text{amb}} \leq 40^{\circ}\text{C}$	80-100 psi @ 15-32 cfm	-	600	300-6,000	330

STATIC PROTECTION KIT



Description	Non-Wetted Materials	Hose ID	Hose OD	Fitting Size	Fitting Type
Synthetic rubber cross-linked polyethylene (XLPE) with brass hose fittings and grounding wire	Synthetic rubber with imbedded grounding wire	1" (25.4 mm)	1.47" (37.3 mm)	1" (25.4 mm)	NPT or Barb

NOTE: ATEX compliance requires use of a Static Protection Kit.

DRUM/BARREL PUMPS PF SERIES

Sealless, High Performance

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

- Polypropylene (PP), PVDF, 316SS tubes
- Interchangeable with motors
- Up to 2000 cP with M3TV/M5TV/M5XV motors
- FDA-compliant (PFS only)



Applications:

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

PFM/PFP

PFV

PFS

Pat. US D658,273 S; Pat. US D657,849 S; Pat. ZL 201130042124.3; Pat. ZL 201130042107.X; OHIM Pat. 001839002-0003

CONSTRUCTION SPECIFICATIONS

Pump Model	Construction Materials		Tube Dia. in (cm)	Discharge Size & Type	Hose Size in (cm)	Max. Temp.		Min. Temp.		Tube Lengths (all models)
	Outer Tube	Internals				°F	°C	°F	°C	
PFM	PP	PP, 316SS, FKM, PVDF, PTFE	2 (5.1)	1" Hose Barb w/ Variable Orifice	1 (2.54)	160	71	35	1.7	27" (69 cm)
PFP	PP	PP, Alloy 625, FKM, PVDF, PTFE				160	71	35	1.7	40" (102 cm)
PFV ¹	PVDF	PVDF, Alloy 625, FKM, PTFE				120	49	35	1.7	48" (122 cm)
PFS	316SS	316SS, FKM, ETFE, PTFE		1" Hose Barb		220	105	-20 ²	-29	54" (137 cm)
										60" (152 cm)
										72" (183 cm)

¹PFV-72 = 115°F (46°C) ²Perlast o-rings limit minimum temperature to 5° F (-15° C); Buna-FDA o-rings have same temperature range as FKM

[†]When pumping flammables or combustibles, use explosion proof electric or air drive motors on stainless steel tubes with static protection kit. Note: ATEX versions of some pump models are available. Please see PF Series ATEX flyer or contact Finish Thompson.

PERFORMANCE DATA

Maximum Flow**		Maximum Head**		Maximum Specific Gravity	Maximum Viscosity	
Electric gpm (lpm)	Air gpm (lpm)	Electric ft (m)	Air ft (m)		Electric	Air
40 (151)	22 (83)	80 (24)	38 (11.6)	1.8	2,000 cP	330 cP

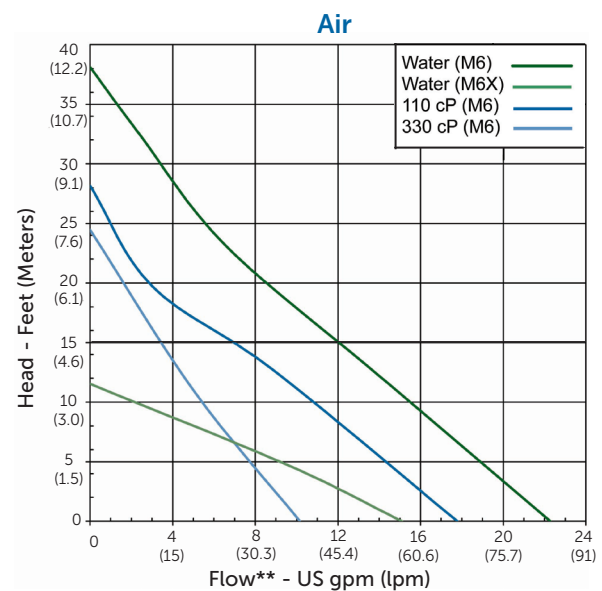
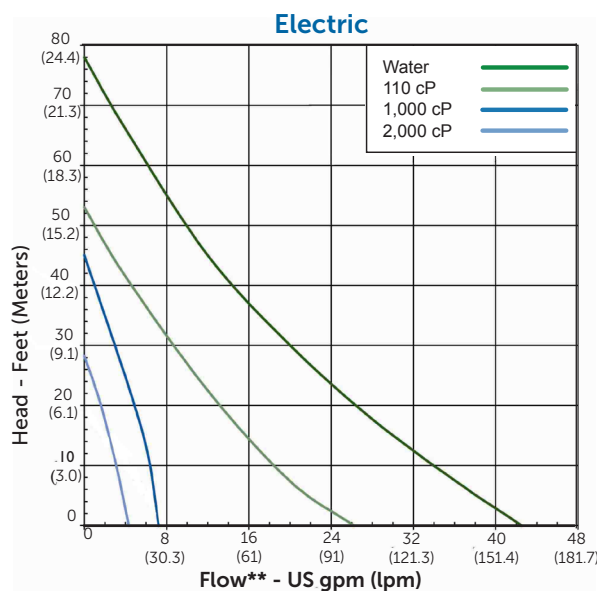
**All testing performed with water at 68° F (20° C) in a full container with the discharge barb at maximum opening. Actual performance may vary by +/- 10%. Actual performance will decrease with increased fluid viscosity and specific gravity.

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: M3V/M5V motor: 100-500 cP
M3TV/M5TV: 500-2,000 cP

Use the handy online Pump Selector at www.finishthompson.com for help choosing a pump.



DRUM/BARREL PUMPS

MOTOR DATA



ODP
(M3V, M5V, M5V-US, M3V-UK)



TEFC
(M3T, M5T, M3TV, M5TV)



Ex-Proof
(M3XV, M5XV)



Air
(M6, M6X)

Model	Description	Certification	Electrical Requirements	Input	Output	RPM	Maximum Viscosity cP
				W	W		

ODP (Open Drip Proof), Splashproof, IP24 Motors

M3V	Quick connects to pump without tools.	QPS	115VAC/50-60 Hz	650	400	3,500-10,000	500
M5V	Downdraft cooling system and double wall housing. Continuous duty, variable speed. 12 ft. (3.5 m) cord with integral circuit breaker.	CE	230VAC/50-60 Hz	650	400	3,500-10,000	500
M5V-US*		CE	230VAC/50-60 Hz	650	400	3,500-10,000	500
M3V-UK		CE	115VAC/50-60 Hz	650	400	3,500-10,000	500

TEFC (Totally Enclosed Fan Cooled), IP55 Motors

M3T	Continuous duty. 12 ft. (3.5 m) cord with plug, downdraft cooling and quick connection to pump without tools. "T" versions feature manual reset. TV versions feature variable speed, solid state overload protection, zero voltage release.	QPS	115VAC/60 Hz	1000	680	12,000	1,000
M3TV		QPS	115VAC/60 Hz	1000	680	0-12,000	2,000
M5T		CE	230VAC/50-60 Hz	1000	680	12,000	1,000
M5TV		CE	230VAC/50-60 Hz	1000	680	0-12,000	2,000

Explosion Proof Motors

M3XV		QPS Class I, Div. 1, Gr D, T4	115VAC/60 Hz	1000	680	0-12,000	2,000
M5XV	Continuous duty, IP55. 12 ft. (3.5 m) cord without plug, downdraft cooling and quick connection to pump without tools. Variable speed, solid state overload protection, zero voltage release.	CE/ATEX/IECEx Ex II 2G Ex db ib IIB T5 Gb	230VAC/50-60 Hz	1000	680	0-12,000	2,000
M5XV-HT		CE/ATEX Ex db ib IIB T4 Gb -20°C ≤ T _{amb} ≤ 60°C	230VAC/50-60Hz	1000	680	0-12,000	2,000

Air Motors**

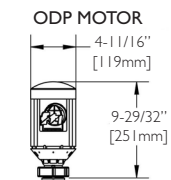
M6	Lightweight. Operates from customer-supplied compressed air source. Variable speed. Muffler and control valve.	CE	80-100 psi @ 15-32 cfm	-	400	300-9,000	330
M6X		CE	80-100 psi @ 15-32 cfm	-	600	300-6,000	330

*Suitable for 230V, 60 Hz. Includes a NEMA 6-15 plug.

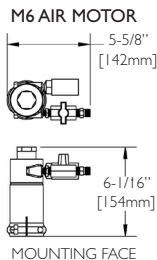
**An air motor is a non-electrical device meaning possibility of explosion from igniting flammables/combustibles is reduced. Air motor performance will depend upon user's system setup.

Note: ATEX versions of some motors are available. Please see PF Series ATEX flyer or contact Finish Thompson for more information.

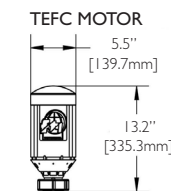
DIMENSIONS



ODP MOTOR
4-11/16"
[119mm]
9-29/32"
[251mm]

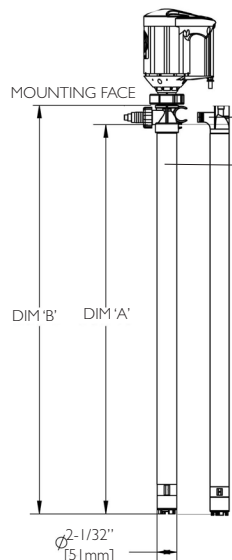


M6 AIR MOTOR
5-5/8"
[142mm]
6-1/16"
[154mm]



TEFC MOTOR
5.5"
[139.7mm]
13.2"
[335.3mm]

MODEL	DIM 'A' (IN.)	DIM 'B' (IN.)	DIM 'A' (MM)	DIM 'B' (MM)
PPF-27	27	29	685.8	737
PPF-40	40	42	1016	1067
PPF-48	48	50	1219.2	1270
PPF-60	60	62	1524	1575
PPF-72	72	74	1828.8	1880



MOUNTING FACE

DIM 'B' DIM 'A'

2-1/32"
[51mm]

ACCESSORIES

Static Protection Kit



Nozzles



Discharge Spout



Strainers



Wall Mount Bracket



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