# PORTABLE FLUID TRANSFER SOLUTIONS DRUM/BARREL PUMPS

FINISH THOMPSON INC.

finishthompson.com



# **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**

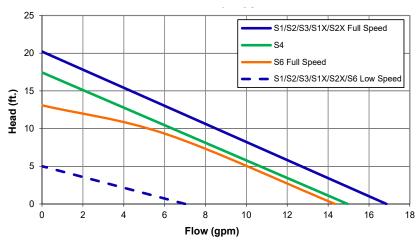
Light acids and bases, solvents<sup>†</sup>, flammables<sup>†</sup>, plating solutions, sodium hypochlorite, cleaners, coolants, diesel exhaust fluid (DEF)/AdBlue

#### **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



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 or conductive hose.

\*All testing performed with water at  $68^{\circ}$  (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.



#### **TUBE LENGTHS**

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



## **BUILT-IN STRAINER**

Prevents solids from entering the tube and damaging the pump.



PUMP	CONSTRUCTION MATERIALS					
MODEL	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				

# SF SERIESPUMP TUBES

## Sealless, High Performance

Dual impeller options provides either high flow or high head with 41mm tube diameter for smaller bung openings.

- Polypropylene (PP), Pure PVDF, Pure PP/PVDF, 316SS
- Interchangeable with motors
- Integral strainer on high-flow versions
- Up to 1200 cP



## **APPLICATIONS**

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

#### SF SERIES SPECIFICATIONS

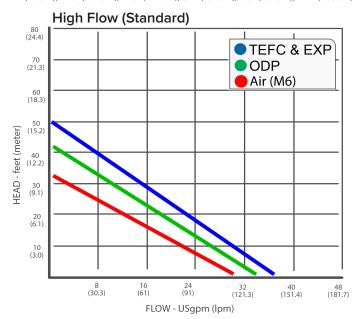
- Maximum flow\*: up to 37 gpm (140 lpm)
- Maximum head\*: up to 83 ft (25 m)
- Maximum temperature:

-Polypropylene 175° F (79° C) -PVDF\* 140° F (60° C) 212° F (100°C) -316SS

- Maximum specific gravity: 2.0
- Maximum viscosity: up to 1,200 cP
- 1.6 in (4.1 cm) tube diameter
- 1 in (2.5 cm) discharge

# **TUBE LENGTHS**

27" (69cm), 40" (102cm), 48" (122cm), 54" (137cm), 60" (152cm), 72" (183cm)



See MOTOR DATA pages for applicable motor models.

<sup>†</sup>When pumping flammables or combustibles, use explosion proof electric or air drive motors on stainless steel tubes with a groundable hose or 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%.

\*\*SFVV54(-H), SFVV60(-H), SFVV72(-H) =  $115^{\circ}$  F ( $46^{\circ}$ C) maximum temperature

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

# SFP/SFM SFM-DEF



**SFS** 



## **Discharge Spouts**







#### **IMPELLERS**

HIGH FLOW - STANDARD IMPFI I FR COVER

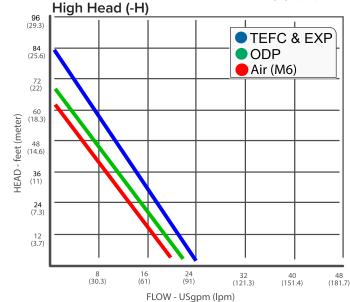








HIGH HEAD (-H) - OPTIONAL



PUMP	CONSTRUCTION MATERIALS				
MODEL	OUTER TUBE	INTERNALS			
SFM (-H)	Polypropylene	316SS, PP, FKM, PTFE			
SFP (-H)	Polypropylene	Alloy 625, PP, FKM, PTFE			
SFV (-H)	FV (-H) Pure PP/ PVDF Alloy 625, PP, FKM, ETFE, PT				
SFVV (-H)	Pure PVDF	Alloy 625, PVDF, FKM, ETFE, PTFE			
SFS (-H)	316SS	316SS, FKM, ETFE, PTFE			

# 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**

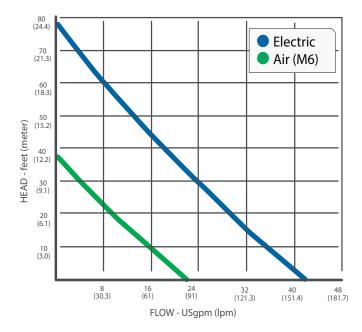
Acids, bases, solvents<sup>†</sup>, flammables<sup>†</sup>, water treatment chemicals, cleaners, plating solutions, kidney dialysis solutions, sanitary, diesel exhaust fluid (DEF)/AdBlue

## 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.

'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 $^{\circ}$  F (46 $^{\circ}$ C) maximum temperature

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



#### **TUBE LENGTHS**

**27**" (69cm), **40**" (102cm), **48**" (122cm), **54**" (137cm), **60**" (152cm), **72**" (183cm)



#### THREADED FOOT

Heavy duty threaded foot prevents breakage.



PUMP	CONS	TRUCTION MATERIALS
MODEL	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

# 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**

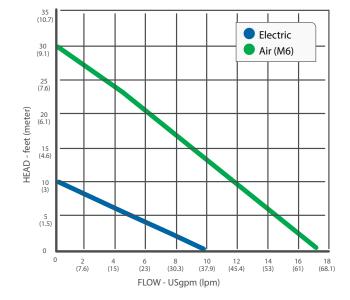
Inks, paints, solvents<sup>†</sup>, sanitary, food products

#### 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 50 cP with electric motor

up to 2,000 cP with air motor

- 1-1/2 in (3.8 cm) tube diameter (TTS, STTS)
- 1 in (2.5 cm) discharge





## **TUBE LENGTHS**

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



## BOTTOM BEARING/STRAINER

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

See MOTOR DATA pages for applicable motor models.

PUMP MODEL	CONSTRUCTION MATERIALS				
FOMF MODEL	OUTER TUBE	INTERNALS			
TTS	316SS	316SS, PTFE			
STTS	316SS	316SS, PTFE			

†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  $68^{\circ}F$  ( $20^{\circ}C$ ). 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 - *pictured*) or 100,000 cP (LR model). FDA-compliant material options.



#### **APPLICATIONS**

Oils, resins, solvents<sup>†</sup>, 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

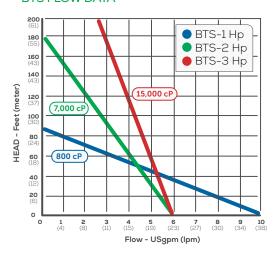
**TUBE LENGTHS** 

BTS: 40"(102cm)

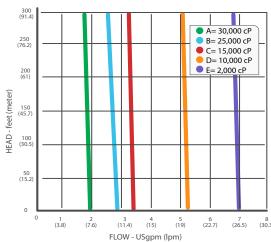
**BTS** 

IVDP: 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.

tWhen 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	CONSTRUCTION MATERIALS					
MODEL	OUTER TUBE	INTERNALS				
BTS	316SS	PTFE, 316SS				
HVDP	316SS	316SS, Buna N, FKM, 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<sup>†</sup>, flammables<sup>†</sup>

#### TM SERIES SPECIFICATIONS

• Maximum circulation: 14 gpm (53 lpm)

• Maximum temperature: 200° F (93°C)

Maximum specific gravity: 1.8Maximum viscosity: 1500\* cP

• 2 in (5.1 cm) tube diameter

• 1 in (2.5 cm) discharge

\*Dependent on motor used.

• 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.



- C

**TMS** 

TUBE LENGTHS 40" (102cm)



TURBINE
Provides high intensity
mixing and suspension of
settled solids.



See MOTOR DATA pages for applicable motor models.

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

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

				INPUT	OUTPUT			
MODEL	DESCRIPTION	CERTIFICATION	ELECTRICAL REQUIREMENTS	W	W	RPM	MAXIMUM VISCOSITY cP	PUMP SERIES
M3V	Quick connects to pump without tools.	QPS	115VAC/50-60 Hz	650	400	3,500-10,000	500/2,000	PF/SF
M5V	Downdraft cooling system and double wall housing. Continuous duty, variable speed. 12 ft. (3.5 m) cord and integral circuit breaker included.	CE	230VAC/50-60 Hz	650	400	3.500-10,000	500/2,000	PF/SF
M5V-US		CE	230VAC/50-60 Hz	650	400	3,500-10,000	500/2,000	PF/SF
M3V-UK		CE	115VAC/50-60 Hz	650	400	3,500-10,000	500/2,000	PF/SF
S1	Ergonomic, lightweight design with downdraft cooling. Continuous duty,	QPS	115VAC/60 Hz	230	110	8,000 / 14,000	300	EF
S2	dual speed, double insulated. 12 ft.	C.F.	230VAC/50-60 Hz	230	110	8,000 / 14,000	300	EF
S3	(3.5 m) cord and manual reset circuit breaker included.	CE	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	INPUT	OUTPUT	RPM	MAXIMUM	PUMP
MODEL		CERTIFICATION	REQUIREMENTS	W	W	KPM	VISCOSITY cP	SERIES
M3TV	IP55. 12 ft. (3.5 m) cord w/ plug,	QPS	115VAC/60 Hz	1000	680	0-12,000	1,200/2,000	SF/PF
M5TV	downdraft cooling, variable speed,	CE	230VAC/50-60 Hz	1000	680	0-12,000	1,200/2,000	SF/PF
M7TV	solid state overload protection, zero voltage release. & quick connection to	QPS	115VAC/60 Hz	450	250	0-6,000	50/100	TT/TM
M8TV	pump without tools.	CE	230VAC/50-60 Hz	450	250	0-6,000	50/100	TT/TM
M15	IP54. A 12 ft. (3.5 m) cord is provided.	Independent Testing Laboratory Approval	230/460V/60 Hz		0.75 kW	3,450	800	BT
M16			230/460V/60 Hz	Varies by mfg.	1.5 kW	1,725	7,000	BT
M17			230/460V/60 Hz	- J j.	2.2 kW	1,725	15,000	BT
M73	IP55. 12 ft. (3.5 m) cord with plug. Sin-	QPS	115V/1ph/60 Hz	1000 W	680 W	12,000	10,000	HVDP
M74	gle speed with manual circuit breaker.	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

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

ONLINE PUMP SELECTOR DRUM PUMPS

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

Note: Maximum viscosity can vary by pump series.

# **MOTOR DATA**

# For Drum/Barrel Pumps













M3XV, M5XV, MX7V, M8XV

S1X, S2X, S2X-HT

M6, M6X

M18, M19, M20

M65, M66

S4

## **EXPLOSION PROOF MOTORS**

			ELECTRICAL	INPUT	OUTPUT		MAXIMUM	PUMP
MODEL	DESCRIPTION	CERTIFICATION	REQUIREMENTS	W	w	RPM	VISCOSITY cP	SERIES
M3XV		QPS Class I, Div. 1, Gr D, T4	115VAC/60 Hz	1000	680	0-12,000	1,200/2,000	SF/PF
M7XV	Continuous duty, IP55. 12 ft. (3.5 m)	QPS Class I, Div. 1, Gr D, T4	115VAC/60 Hz	450	250	0-6,000	50/100	TT/TM
M5XV+	cord without plug. Variable speed, solid state overload	CE/ATEX/IECEx Ex II 2G Ex db ib IIB T5 Gb	230VAC/50-60 Hz	1000	680	0-12,000	1,200/2,000	SF/PF
M5XV-HT+	protection, zero voltage release, down draft cooling & quick connection to pump without tools.	CE/ATEX/IECEx Ex II 2G Ex db ib IIB T4 Gb -20°C <t<sub>amb≤60°C</t<sub>	230VAC/50-60 Hz	1000	680	0-12,000	1,200/2,000	SF/PF
M8XV		CE/ATEX/IECEx Ex II 2G Ex db ib IIB T5 Gb	230VAC/50-60 Hz	450	250	0-6,000	50/100	TT/TM
S1X	Continuous duty, IP55, 12 ft.	QPS Class I, Div. 1, GrD, T3	115VAC/60 Hz	210	100	9,000/14,000	100/300	EF
S2X+	(3.5 m) cord without plug. Dual speed, thermal and current overload protection, rugged double wall aluminum motor housing.	CE/ATEX/IECEx Ex II 2G Ex db IIB T5 Gb	230VAC/50-60 Hz	210	100	9,000/14,000	100/300	EF
S2X-HT+		CE/ATEX/IECEx EXII 2G Ex db IIB T4 Gb -20°C ≤T <sub>amb</sub> ≤60°C	230VAC/50-60Hz	210	100	9,000/14,000	100/300	EF

<sup>+</sup> Above ATEX motors are not for use in North America

## AIR MOTORS \*

MODEL	DESCRIPTION	CERTIFICATION	AIR REQUIREMENTS	OUTPUT W	RPM	MAXIMUM VISCOSITY cP	PUMP SERIES	
		CE/ATEX				330	PF	
M6/M6A		II 2G Ex h IIC T4 Gb	80-100 psi @15-32 cfm	400	300-9.000	1,000	TM	
1410/1410/		II 2D Ex h IIIC T135°C Db	00-100 b3(@12-25 CIIII	400	300-9,000	1,200	SF	
		+1°C≤T <sub>amb</sub> ≤40°C <sup>‡</sup>				1,500	TT	
	Lightweight, easy to handle yet powerful. Operates from customer-supplied		CE/ATEX				330	PF
M6X/M6XA			80-100 psi @15-32 cfm	600	300-6,000	1,500	TM	
						2,000	TT	
M18	compressed air source.		100 psi @ 40-70 cfm	750	300-3,000	800	BT	
M19	Variable speed via supplied control valve. Motors are	CE	100 psi @ 80-120 cfm	1500	300-3,000	7,000	BT	
M20	provided with muffler and		100 psi @ 120-170 cfm	2200	300-2,500	15,000	BT	
M65	control valve.	C.F.	100 psi @ 25 cfm	560	300-3,000	15,000	HVDP	
M66		CE	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 IIIC T135°C Db +1°C≤T <sub>amb</sub> ≤40°C†	40 psi @ 27 cfm	400	300 -11,000	300	EF	

<sup>\*</sup>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 <u>only</u> are ATEX certified. M6/M6X/S4 models are CE certified. 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, LPM, or CMH, 20 cP maximum +/-0.5% accuracy and repeatability.
- Can easily be field calibrated.
- Corrosion resistant Polypropylene or PVDF.
- Engineered connections for fast assembly to PF, SF, and EF series drum pumps.





# Discharge Tubing

Flexible tubing connects to the pump discharge. Available in PVC, Reinforced PVC, EPDM for Diesel Exhaust Fluid (DEF), FDA Compliant Buna-N, Chemical Grade Polyethylene (UHMWPE), and Conductive Polyethylene for flammable 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, BSP, or Buttress bung opening. Available in galvanized steel, stainless steel, carbon filled polypropylene, and PVC.



# 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.



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, PVDF, Aluminum and Stainless Steel.





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



MSDB SERIES
PREMIUM MULTI-STAGE
MAGNETIC DRIVE
SEALLESS CENTRIFUGAL
PUMPS



ONLINE PUMP SELECTOR PROGRAM
IS DESIGNED TO ALLOW YOU TO
EASILY SEARCH FINISH THOMPSON'S
COLLECTION OF CENTRIFUGAL AND
DRUM PUMPS TO FIND THE PRODUCTS
THAT MEET APPLICATION CRITERIA.



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