

ANSI DIMENSIONAL MAGNETIC DRIVE PUMPS
ULTRACHEM® | UCP SERIES



PUMPING SOLUTIONS **AROUND THE WORLD**

FINISH THOMPSON INC.

finishthompson.com



FINISH THOMPSON INC.

Outstanding chemical resistance and enhanced hydraulic capabilities at a lower cost.



ULTRA PROFITABLE

- Combination of ETFE and polypropylene wetted components allows a less expensive alternative to conventional all ETFE pumps
- Polypropylene is a proven, highly corrosion resistant material with an outstanding track record in demanding chemical applications
- Approximately 70% of chemical applications are suitable for polypropylene
- ANSI dimensional design allows UCP pumps to be installed in place of more expensive all ETFE versions during upgrades or service

ULTRA RELIABLE

- Engineered for extreme reliability in the most challenging chemical applications
- Sealless, magnetic drive, ANSI-dimensional pump
- Constructed from proven, corrosion resistant materials
- Modified concentric volute allows the pressure on the periphery of the impeller to be uniform, reducing radial load to very low levels at all flows

ULTRA DURABLE

- Fully supported, single geometry shaft and dual bushings
- Careful design balances axial forces inside the pumps, controlling thrust
- Inner drive magnets are completely encapsulated in unfilled polypropylene and 100% vacuum tested

UCP SERIES SPECIFICATIONS

- **Max. Working Pressure:** to 300 psi (21 Bar)
- **Max. Temp:** 180°F (82°C)
- **Max. Viscosity:** over 200 cP
- **Specific Gravity:** Over 1.8
- **Casing:** ANSI/ASME B73.1m & 73.3
- **Flanges:** ANSI 150#, ANSI 300#, or ISO PN40
- **Certifications:** CE/UKCA
- **Motor Frames:**
NEMA: 143 through 286 TSC
IEC: 90 through 160
Bearing frame
Gas engine



UCP SERIES APPLICATIONS

- Electroplating & anodizing
- Chemical processes
- Chemical blending/mixing
- Water and wastewater
- Surface finishing
- Fume scrubbing
- Metal plating
- Pharmaceutical

TYPICAL CHEMICALS:

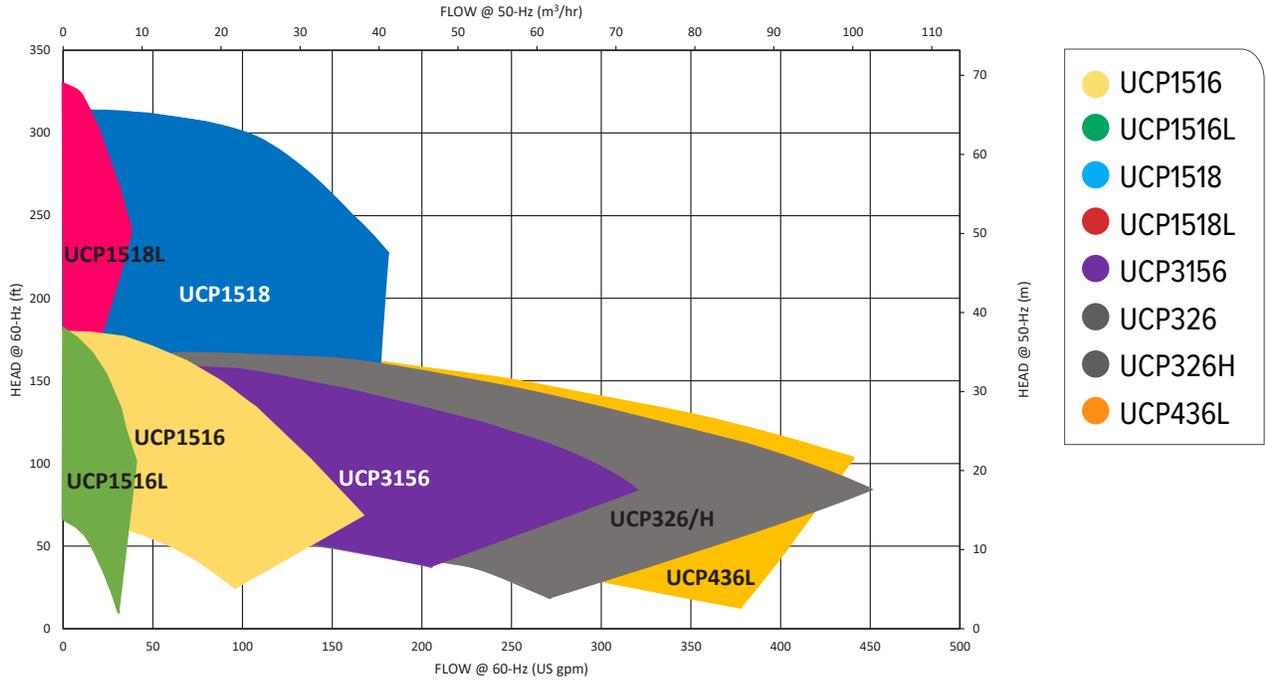
Sodium hydroxide, potassium hydroxide, hydrochloric acid, sulfuric acid, aluminum potassium sulfate (alum), ferric chloride, hydrofluosilicic acid, phosphoric acid, plating solutions, potassium permanganate, sodium bisulfite



Backed by a two-year warranty

UCP COVERAGE CURVE 3500/2900 RPM

UCP 2-Pole Coverage Chart

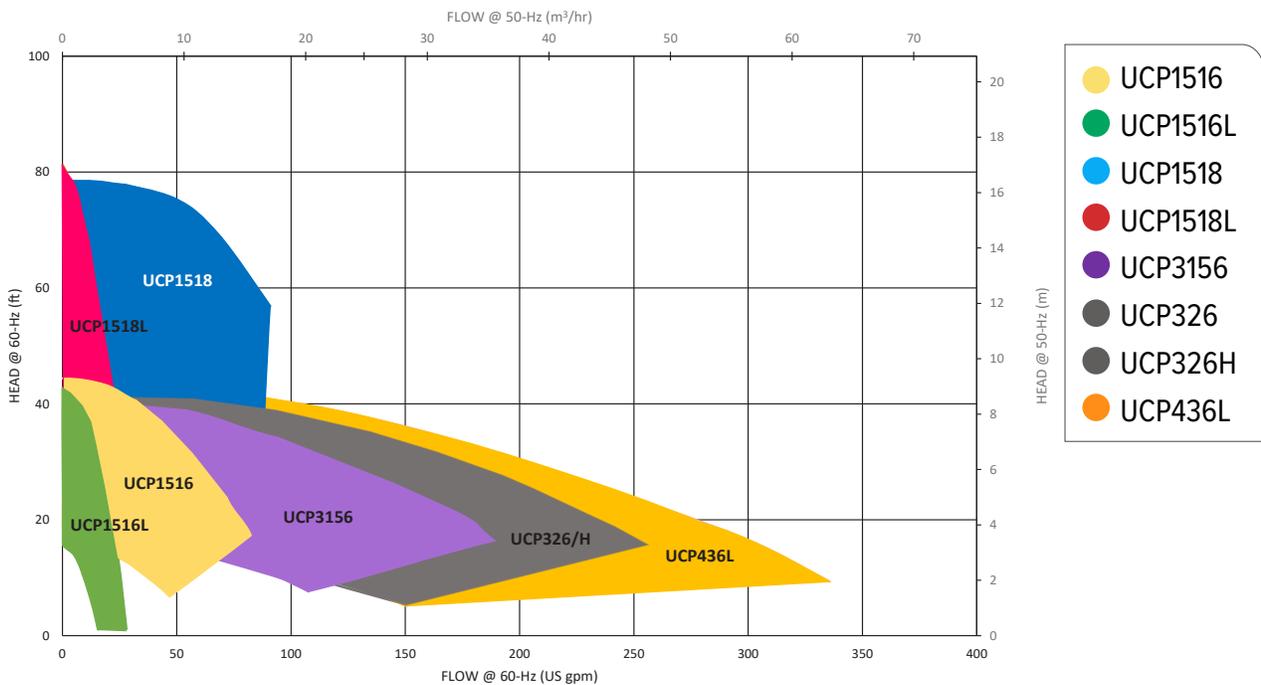


The pump selector program is designed to allow you to easily search Finish Thompson's collection of centrifugal pumps to find the products that most closely match your hydraulic and application criteria.



UCP COVERAGE CURVE 1750/1450 RPM

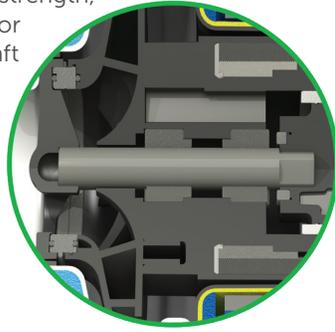
UCP 4-Pole Coverage Chart



EXPLODED VIEW & MATERIAL OPTIONS

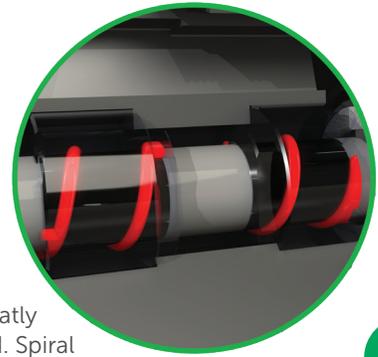
Rugged Shaft

A single geometry, high strength, simply supported shaft for maximum durability. Shaft is supported in both the front and the back of the pump, resulting in virtually no deflection, which can be found in cantilevered designs.



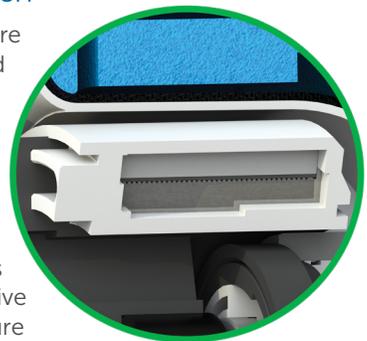
Dual Bushings

Dual bushings greatly reduce shaft load. Spiral groove pathway enhances fluid flow with a pumping action for best cooling.



Magnet Encapsulation

High strength magnets are completely encapsulated and hermetically sealed by a single shot of pure, unfilled, polypropylene for complete corrosive protection against the most corrosive fluids, including oxidizers, acids and bases. Each inner drive is vacuum tested to ensure quality and reliability.

**1 CASING, SHAFT SUPPORT, FRONT THRUST RING**

Cast ductile iron with pure ETFE lining, glass-fiber reinforced polypropylene (front shaft support), alpha sintered silicon carbide (thrust ring)

2 IMPELLER ASSEMBLY, IMPELLER THRUST RING, IMPELLER DRIVE HUB, BUSHINGS

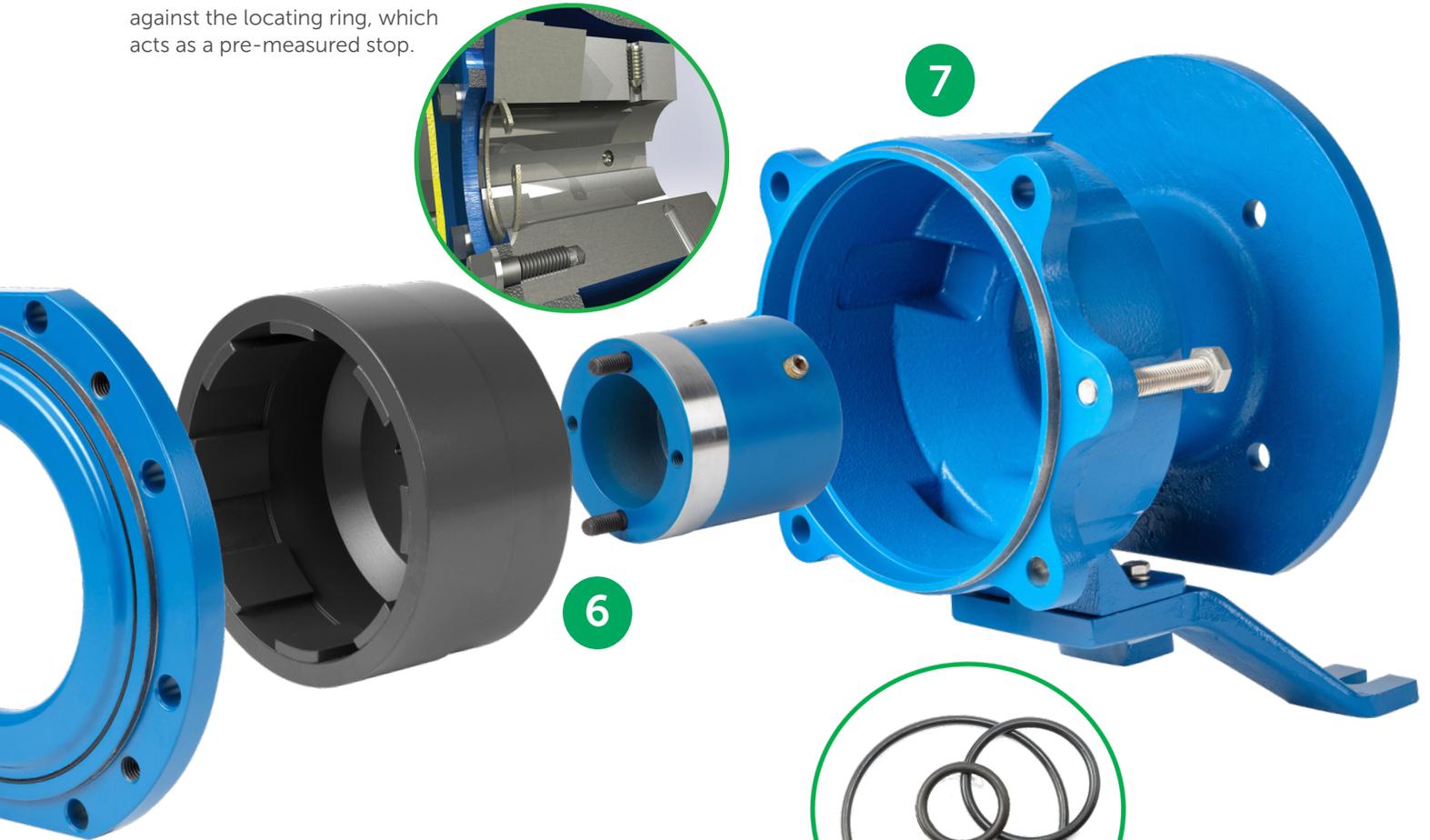
Glass-fiber reinforced polypropylene (impeller), glass-fiber reinforced molybdenum disulfide filled PTFE, or SiC (thrust ring), neodymium iron boron magnets (drive hub), carbon or alpha-sintered SiC, [Dri-Coat DLC optional] (bushings)

3 SHAFT, HOUSING O-RING

High purity alumina ceramic, alpha sintered SiC, (Dri-Coat DLC optional) shaft; FKM, EPDM (FEP encapsulated FKM, Kalrez®, Simriz® optional) o-ring

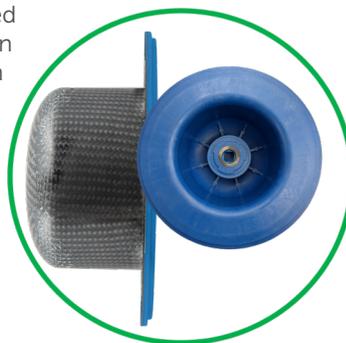
Easy Set Outer Drive

Shaft adapter has Easy Set Drive feature to ensure perfect magnet alignment for maximum transfer of power and easy installation. No measuring required. Simply slide the drive onto the motor shaft until it is against the locating ring, which acts as a pre-measured stop.



High-Strength, Corrosion-Resistant Barrier

The barrier liner is glass-fiber reinforced polypropylene for maximum protection against a wide range of chemicals with a carbon-fiber reinforced exterior for exceptional strength and suitable for vacuum service applications.



Vapor Protection Package

Three non-wetted O-rings help protect the outer drive and motor face from exposure to corrosive vapors.

4 REAR SEALING RING, BARRIER, REAR THRUST RING

Moly-filled PTFE (sealing ring), glass-fiber reinforced polypropylene with carbon-fiber reinforced external shell (barrier), alpha sintered SiC (thrust ring)

5 CLAMP RING

Ductile iron

6 OUTER DRIVE, SHAFT ADAPTER

Nickel-plated neodymium iron boron magnets/ductile iron (outer drive); machined steel (adapter)

7 MOTOR ADAPTER

Heavy duty ductile iron with 1/2" (12.7mm) drain/instrumentation port with stainless steel plug and a flat on top for a vibration sensor

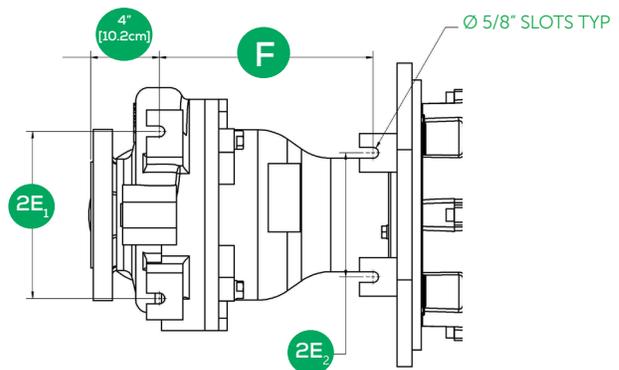
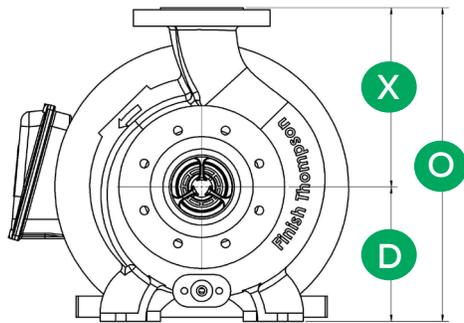
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Simriz® Perfluoroelastomer is a registered trademark of the Simrit® division of Freudenberg-NOK.

Fluorosint® is a registered trademark of Quadrant DSM Engineering Plastic Products.

DIMENSIONS

FRONT VIEW All models

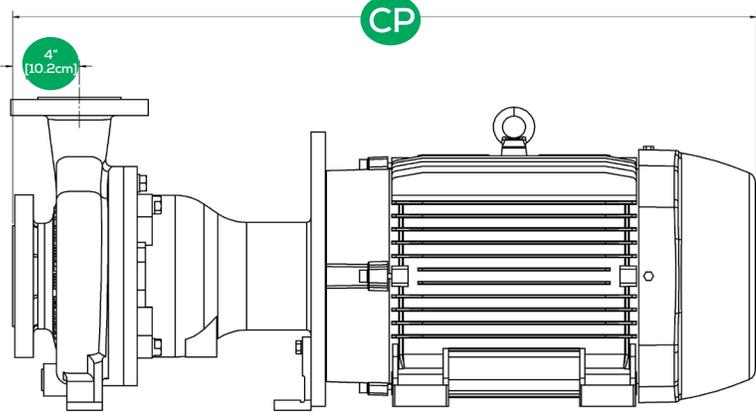


UCPI MODELS

UCP1516/1516L, UCP1518/1518L, UCP3156,
UCP326/326H, UCP436L

MOTOR FRAMES	CP (APPROX.)	
	(in)	(mm)
NEMA		
143/145TC	23-17/32	598
182/184TC	28-3/32	713
213/215TC	31-5/32	791
254/256TC	34-9/32	871
284/286TSC	36-11/16	932
IEC		
90 B14/B5	23-19/32	599
100/112 B14	25-1/32	636
132 B5	31-3/32	790
160 B5	34-27/32	885

SIDE VIEW All models



Note: For additional dimensions, please refer to outline dimensional drawings for all models located on our website.

MODEL	SUCTION in (mm)	DISCHARGE in (mm)	ANSI NO.	O in (mm)	D in (mm)	X in (mm)	2E ₁ in (mm)	2E ₂ in (mm)	F in (mm)	SLOT QTY	SLOT DIAMETER in (mm)
UCP1516	1-1/2 (38)	1 (25)	AA	11-3/4 (298)	5-1/4 (133)	6-1/2 (165)	6 (152)	-	7-11/32 (186)	3	5/8 (16)
UCP1516L	1-1/2 (38)	1 (25)	AA	11-3/4 (298)	5-1/4 (133)	6-1/2 (165)	6 (152)	-	7-11/32 (186)	3	5/8 (16)
UCP1518	1-1/2 (38)	1 (25)	AA	11-3/4 (298)	5-1/4 (133)	6-1/2 (165)	6 (152)	-	7-11/32 (186)	3	5/8 (16)
UCP1518L	1-1/2 (38)	1 (25)	AA	11-3/4 (298)	5-1/4 (133)	6-1/2 (165)	6 (152)	-	7-11/32 (186)	3	5/8 (16)
UCP3156	3 (76)	1-1/2 (38)	AA	11-3/4 (298)	5-1/4 (133)	6-1/2 (165)	6 (152)	-	7-9/16 (192)	3	5/8 (16)
UCP326	3 (76)	2 (50)	--	11-3/4 (298)	5-1/4 (133)	6-1/2 (165)	6 (152)	-	7-9/16 (192)	3	5/8 (16)
UCP326H	3 (76)	2 (50)	A10	16-1/2 (419)	8-1/4 (210)	8-1/4 (210)	9-3/4 (248)	7-1/4 (184)	12-7/16 (316)	4	5/8 (16)
UCP436L	4 (102)	3 (76)	--	16-1/2 (419)	8-1/4 (210)	8-1/4 (210)	9-3/4 (248)	7-1/4 (184)	12-7/16 (316)	4	5/8 (16)

ACCESSORIES

Digital Power Monitor

The power monitor is designed to use the motor as a sensor to instantly sense a change in power when a pump is run dry or deadheaded and quickly shut the pump down before damage can occur.



- Monitors only the power used by the pump and eliminates losses from the motor.
- Ideal for tank unloading/emptying, vortexing, plugged stainers, startup errors, and system upset, all of which can result in run dry conditions or deadheading.



Long-Coupled Bearing Frame

Utilizes pump bearing frame and flexible coupling between the pump and motor.

- Cost-effective replacement for troublesome sealed pumps by allowing use of existing motors.
- ANSI dimensional design provides drop in replacement.
- Ideal when isolated pump from motor drive is desired.
- Allows use of alternative drives such as non-C face, DC, air, pulley, or hydraulic.
- Magnetic drain plug on flood oil unit.



Thermowell Kit Option

Kit contains a silicon carbide thermowell, modified drain cap with 1/4" NPT threaded hole, two Gylon expanded PTFE gaskets, and bayonett adapter to ensure the customer-supplied, spring-loaded thermocouple is pressing against the silicon carbide for the best accuracy and response time.



Base Plates

- Provides a sturdy mounting for the pump/motor.
- No layout and fabrications, simplifies site installation.
- Raises the pump off the floor to reduce exposure to corrosive liquids.
- Available in epoxy painted steel, 316 stainless steel, fiberglass, or polymer concrete.
- Polymer concrete baseplates feature superior flatness, 0.002"/foot (.05 mm/.03 meter), stainless steel cast in place threaded inserts, superior dampening, foundation bolt holes, standard grout hole, integrated sloping drip pan with drain port, and complies with most engineering specifications.
- Factory mounting includes stainless steel hardware and shims (if required).

Gas Engine Option

- Gas engine option eliminates the need for electricity.
- Ideal for chemical delivery and hazmat trucks.
- Remote location railcar and tanker truck unloading.
- Emergency standby pump.
- Operates at 3500 rpm and runs about two hours on a tank of gas.
- High quality Honda engines.

CONTACT FINISH THOMPSON FOR MORE INFORMATION



OTHER GREAT PRODUCTS FROM FINISH THOMPSON



DB & SP SERIES

PREMIUM MAGNETIC
DRIVE SEALLESS
CENTRIFUGAL PUMPS



MSDB SERIES

PREMIUM MULTISTAGE
MAGNETIC DRIVE
SEALLESS CENTRIFUGAL
PUMPS



DRUM/BARREL

PORTABLE FLUID
TRANSFER SOLUTIONS



GP SERIES

SEALED PLASTIC
CENTRIFUGAL PUMPS



AP SERIES

SEALED STAINLESS
STEEL CENTRIFUGAL
PUMPS



VKC SERIES

VERTICAL 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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