

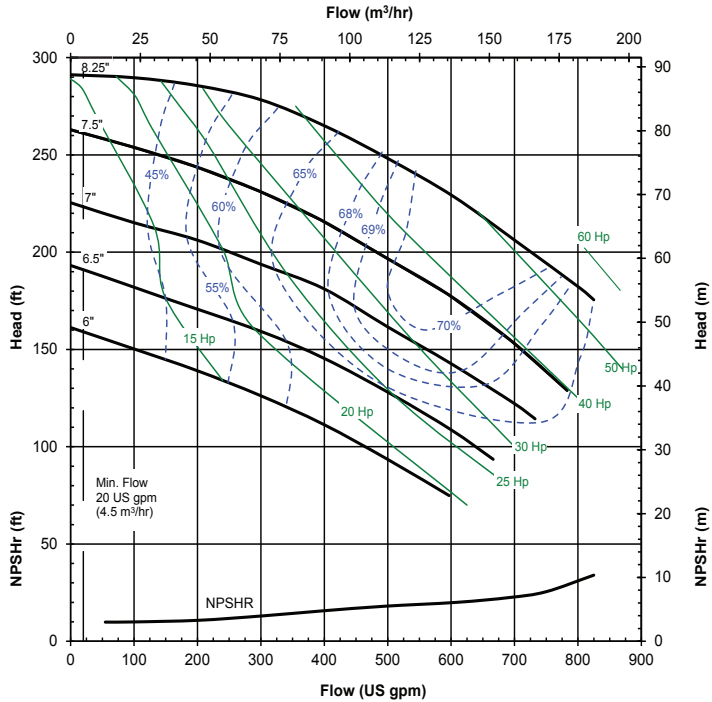
# ULTRACHem<sup>®</sup> Series

## ANSI DIMENSIONAL MAGNETIC DRIVE PUMPS

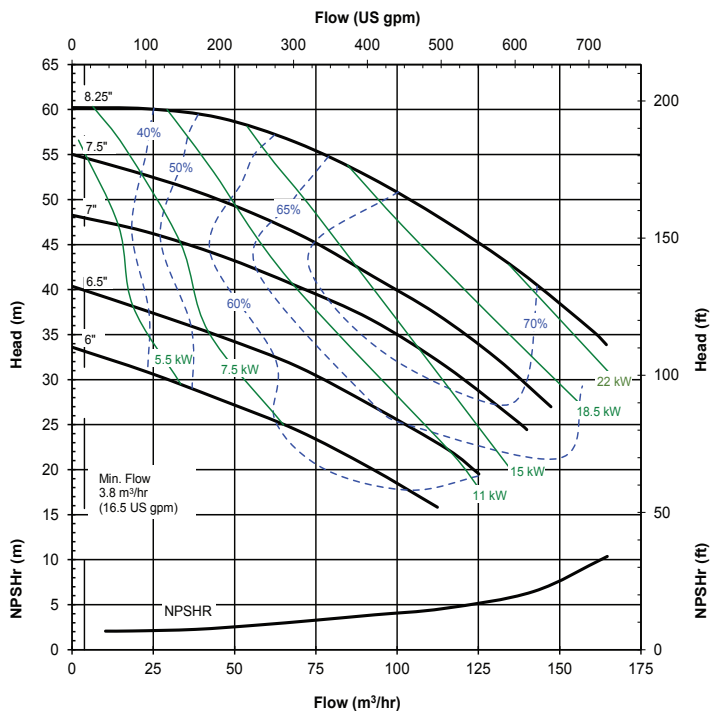
### UC SERIES: MODEL 438

#### PERFORMANCE

3450 rpm, 60 Hz



2900 rpm, 50 Hz



\*Tefzel<sup>®</sup> Fluoropolymer Resin  
is a registered trademark of DuPont



#### FEATURES

- Durable, corrosion-resistant Tefzel<sup>®</sup> lined ductile iron casing
- Casing meets ANSI B73.1 m & 73.3 for foot and flange location
- Powerful neodymium magnets for dependable, leak-free operation
- Volute with partial splitter reduces radial thrust load
- Rear sealing ring to balance axial thrust
- Dual bushings provide optimum alignment
- Suction shaft support with integral straightening vanes
- Replaceable 2-piece impeller and drive hub
- Run dry capability with carbon or Dri-Coat SiC bushing
- Easy-set measurement free outer drive
- Exclusive vapor protection package to protect outer magnetic drive and motor face from corrosive fumes
- Back pull-out design
- Casing drain connection standard
- Specific gravity over 1.8
- Accepts standard NEMA 143-365 or IEC 90-225 motor frames
- ANSI or ISO flange mountable
- ATEX certified models available

#### TYPICAL APPLICATIONS

- Chemical manufacturing, blending, distribution
- Water treatment
- Plating and metal finishing
- Paper mills
- Fume scrubbers
- Metals manufacturing
- Electronics
- Pharmaceuticals
- Truck loading/unloading

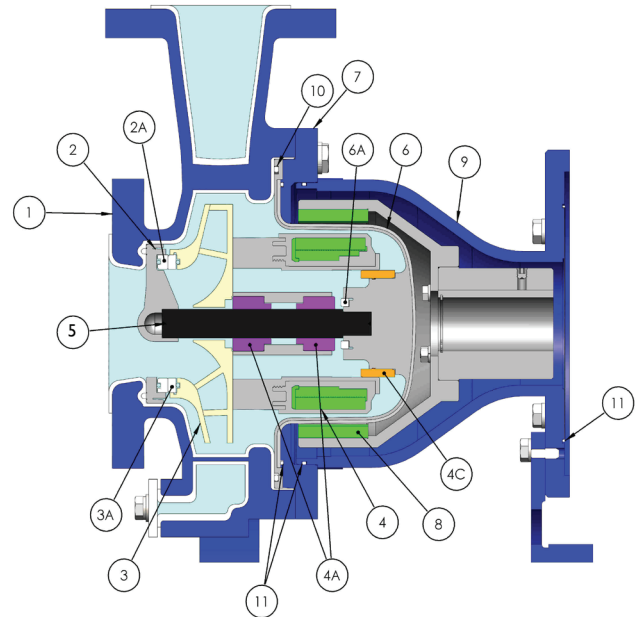
#### TYPICAL CHEMICALS

- Sodium hydroxide
- Sulfuric acid
- Hydrochloric acid
- Sodium hypochlorite
- Plating solutions
- Corrosive blends
- Solvents
- Wastewater



FINISH THOMPSON INC.

Item No.	Description	Construction
1	Casing	Cast ductile iron, DuPont Tefzel® (ETFE) lined
2	Shaft support	Carbon fiber filled ETFE
2A	Front thrust ring	Alpha sintered silicon carbide
3	Impeller	Carbon fiber filled ETFE
3A	Impeller thrust washer	Alpha sintered silicon carbide
4	Inner drive	Neodymium iron boron magnets encapsulated in CF ETFE
4A	Bushing options	Alpha sintered silicon carbide, carbon, Dri-Coat silicon carbide
4C	Rear sealing ring	Molybdenum disulfide-filled PTFE
5	Shaft	Alpha sintered silicon carbide
6	Barrier	Molded CF ETFE liner with Aramid Reinforced Epoxy external shell
6A	Barrier thrust ring	Alpha sintered silicon carbide
7	Clamp ring	Painted ductile iron
8	Outer drive magnet	Nickel-plated neodymium iron boron magnets/painted ductile iron
9	Motor adapter	Ductile iron
10	O-ring options	FKM, EPDM, Kalrez®, Simriz®
11	Vapor protection o-rings	Buna



Kalrez® is a registered trademark of DuPont Performance Elastomers

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

## SPECIFICATIONS

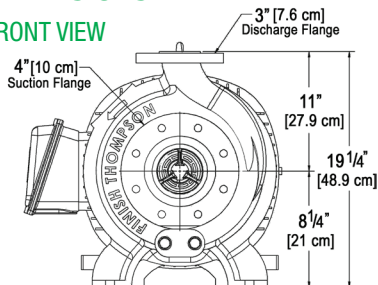
HP (kW)	Impeller Diameter		Suction	Discharge	Max. Flow 3500 rpm		Max. Head 3500 rpm		Max. Working Pressure psi (Bar)	Max. Viscosity cP	Max. Specific Gravity	Max. Temp. °F (°C)*
	in	cm	in (cm)	in (cm)	gpm	m <sup>3</sup> /hr	ft.	m				
1 - 75 (1.5 - 55)	6 - 8-1/4	15.2 - 21	4 (10.2)	1-1/2 (3.8)	825	187	290	88	300 (20.7)	200	1.8	250 (121)

\*Except E magnet set: maximum 220° F (104° C)

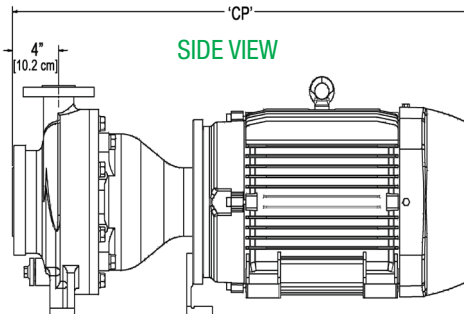
Note: Impeller trims available every 1/8" (.32 cm) between the smallest and largest diameters.

## DIMENSIONS

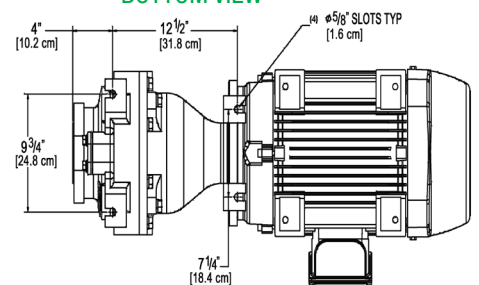
### FRONT VIEW



### SIDE VIEW



### BOTTOM VIEW



Motor Frames	CP (approx.)*	
	in	cm
<b>NEMA</b>		
143-145TC	27-11/16	70.3
182/184TC	29-9/16	75.1
213/215TC	32-5/8	82.9
254/256TC	37-1/2	95.3
282/284TC/TSC	39-27/32	101.2
324/326TC/TSC	44-21/32	113.4
364/365TC/TSC	46-27/32	119.0
<b>IEC</b>		
90	27-15/32	69.8
100/112	28-29/32	73.4
132	32-9/16	82.7
160	38-9/32	97.2
180	40-9/16	103
200	43-3/32	109.5
225	46-21/32	118.5

\*For all magnet sets

## ACCESSORIES



**Bronze Bump Ring** - add to the motor adapter to make pump suitable for hazardous areas.

**SiC Dri-Coat** (for shaft and bushings) is ideal protection for applications where the pump may see unintentional, brief periods of dry running.

**Baseplate** - fabricated of steel or fiberglass for extra strength and rigidity. Suitable for grouting. Shown with optional bearing frame.



**M20 Power Monitor** - Shuts the pump down when there is a drop in power to prevent run dry damage.

