

K16H

16" Recessed Impeller High Head Sewage Pump



KEEN PUMP "KH" Series pumps are designed for demanding wastewater, municipal sewage treatment plants, storm water, industrial, commercial and a wide range of water-handling applications.

"KH" Series pumps feature a self-contained cooling jacket system, circulating impeller, heat exchanger plate and liquid refrigerant with a high boiling point (195° C). Standard construction allows for submersible and dry pit installations.

"KH" pumps are equipped with high-efficiency, inverter-duty rated, Class H insulation motors. Electrical features include fully automatic alarm protection system and liquid level control system, protecting the motor from water, oil, phase loss, overheating and grounding.

CAPABILITIES:

- Flows to 12,500 GPM
- Heads to 131 Feet
- Horsepower 275 HP
- Voltage/Phase Options 460, 3 Phase
- Discharge Connections 16" ANSI 150 Lb. Horizontal Flange
- Motor Speeds 710 RPM
- Solids Handling 6"
- Impeller Balanced, Vaned - Enclosed
- Motor Service Factor 1.20

1. WATERTIGHT CABLE ENTRANCE

Agency-approved, watertight strain relief cord grips with compression grommets protects outer cord jacket. Epoxy-filled inner cord cap provides anti-wicking moisture protection to the motor even if power cable is cut or damaged. 40' UL power & control cords. Additional sealing accomplished by individually soldered wires.

2. MODULAR PUMP DESIGN

Commonality of parts across the Keen product line minimizes the amount of parts required for servicing. Heavy-duty ASTM A48, Class 35 cast iron components.

3. STRONG MOTOR / COOLING JACKET SYSTEM

Powerful high-torque, Class H motor for reliable pump operation. Overload protection in air-filled chamber. Inverter-duty wire for VFD / soft start operation, continuous duty. Self-contained cooling jacket system with recirculating impeller. Includes heat exchanger plate. Liquid refrigerant coolant supplied.

4. SOLID BEARING SUPPORT

Motor / Pump shaft securely held with upper and lower ball bearings rated for 100,000 hour B-10 life.

5. SEVERE DUTY DUAL MECHANICAL SEALS

Dual mechanical shaft seals provide twice the moisture and grit protection for the motor. Silicon-Carbide Upper and Tungsten-Carbide Lower seals are housed in a secondary oil-filled seal chamber. Tougher material seals better handle sand, grit and abrasive materials.

6. 3-CHAMBER MOISTURE DETECTION

Moisture detection in lower seal chamber, motor housing and upper cord cap housing.

7. HIGH EFFICIENCY HYDRAULIC DESIGN

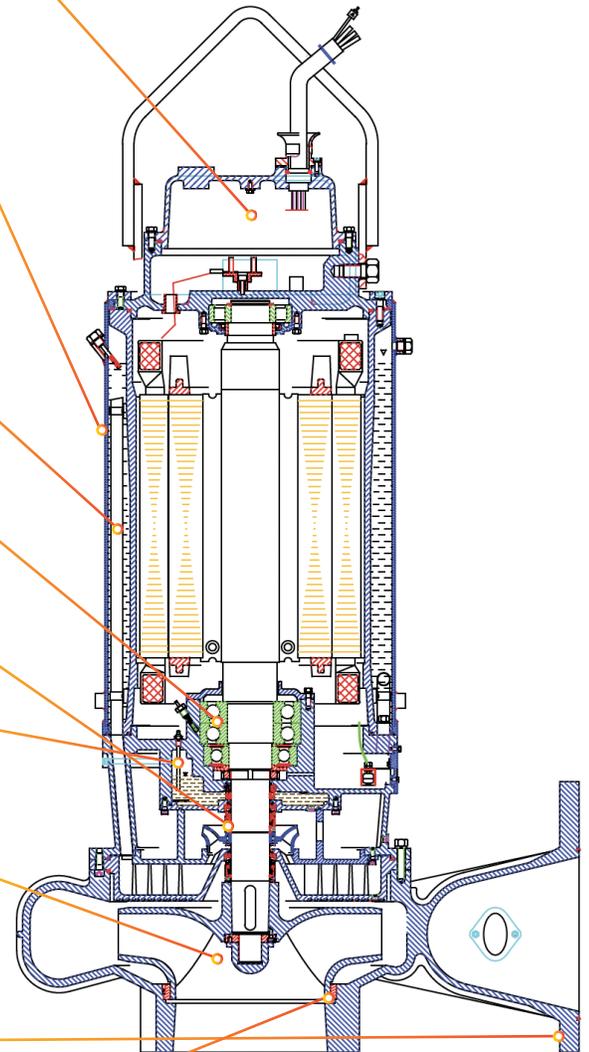
Highly efficient enclosed, vaned impeller easily passes 6" diameter solids without blockage. Strong, ductile iron impeller features backside pump-out vanes, keeping lower seal clean and pressure-compensated for longer life. Dynamically balanced for smooth, quiet operation and long bearing life.

8. STANDARD FLANGE CONNECTION

16" Horizontal, 150 Lb., ANSI discharge flange. Industry standard, 16-bolt pattern.

9. HIGH PERFORMANCE WEAR RING

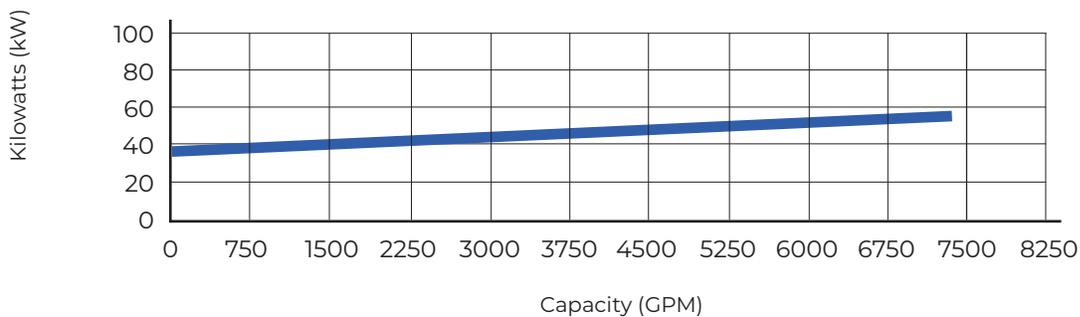
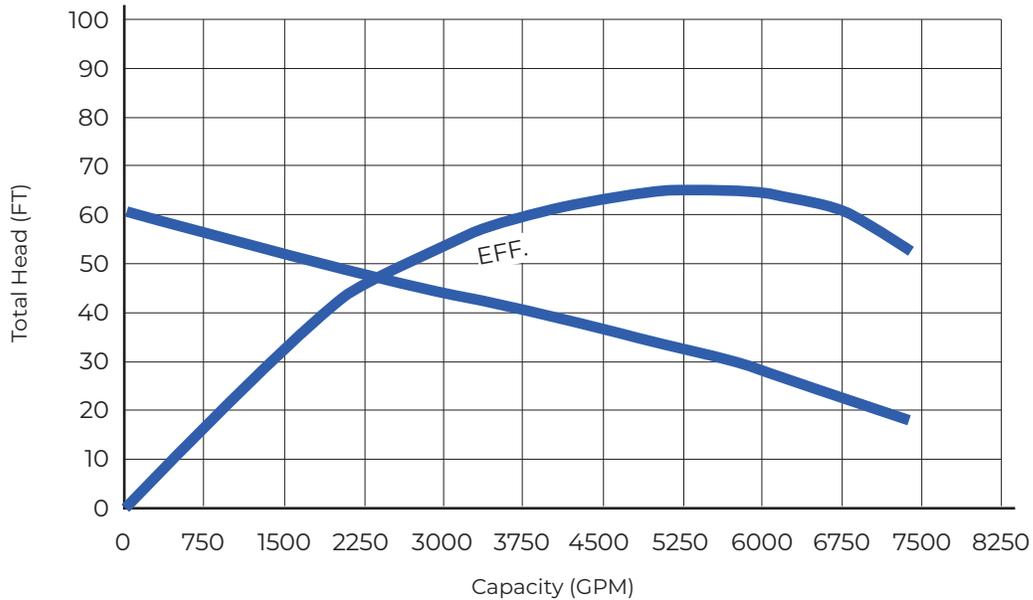
Assists impeller in providing higher performance efficiencies and prevention of recirculation losses. Ring will not corrode or deteriorate from liquid being pumped. Ring reduces wear to stronger ductile iron impeller in sandy or gritty applications. Easily serviceable and replaceable.





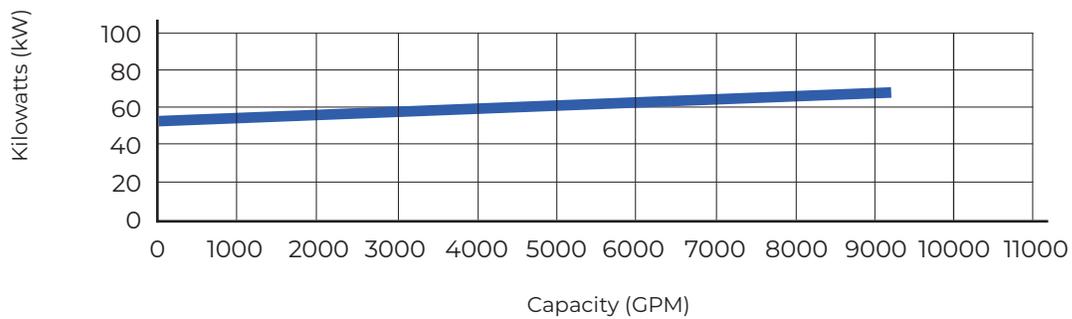
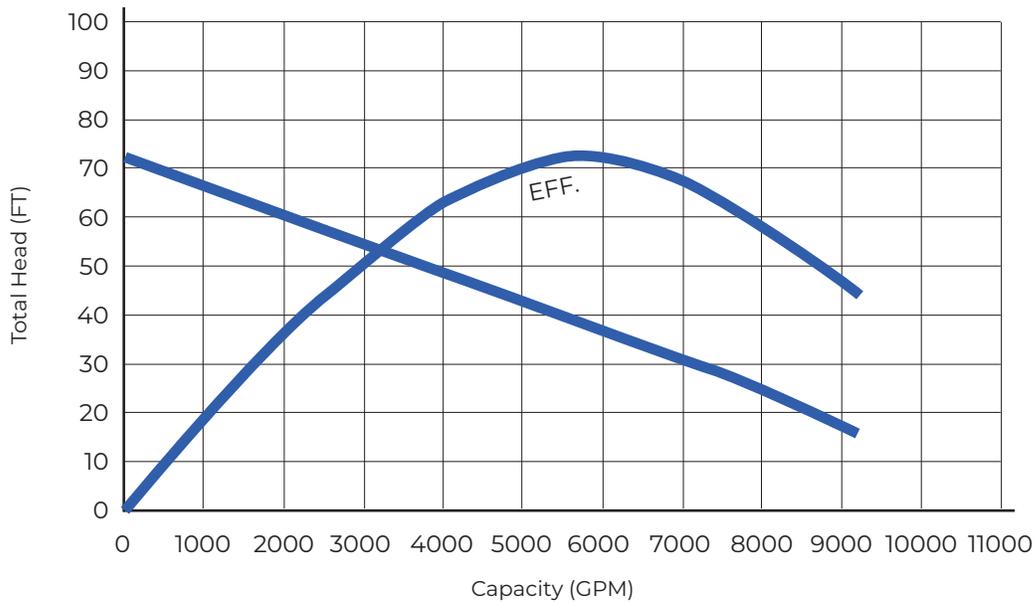
GENERAL		MOTOR DATA			
Pump Model	K16H750M8-43	Load	1/1	3/4	1/2
		Efficiency (%)	85	87	86
PUMP DATA		Power Supply	3 ϕ , 460 V, 60 Hz		
Date	02/2023	HP / Amps	75 HP / 119 A		
Discharge Flange	16" ANSI, 150lb	Poles / Rated Speed	8P / 870 rpm		
Solids Size	5 inch	Insulation Class	H Class		
Impeller Type	Enclosed 2-Vane				

	HEAD (FT)	CAPACITY	KILOWATTS [KW]	EFFICIENCY [%]
Best Efficiency Point	32	5425	51	65



GENERAL		MOTOR DATA			
Pump Model	K16H1000M8-43	Load	1/1	3/4	1/2
		Efficiency (%)	85	87	86
PUMP DATA		Power Supply	3 ϕ , 460 V, 60 Hz		
Date	02/2023	HP / Amps	100 HP / 155 A		
Discharge Flange	16" ANSI, 150lb	Poles / Rated Speed	8P / 870 rpm		
Solids Size	5 inch	Insulation Class	H Class		
Impeller Type	Enclosed 2-Vane				

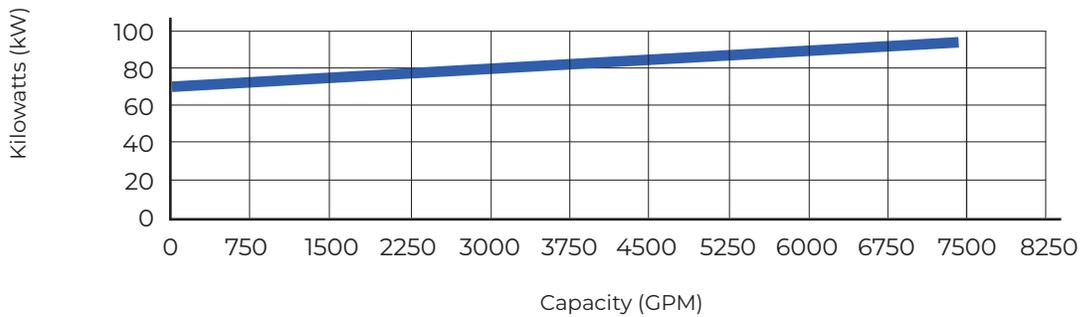
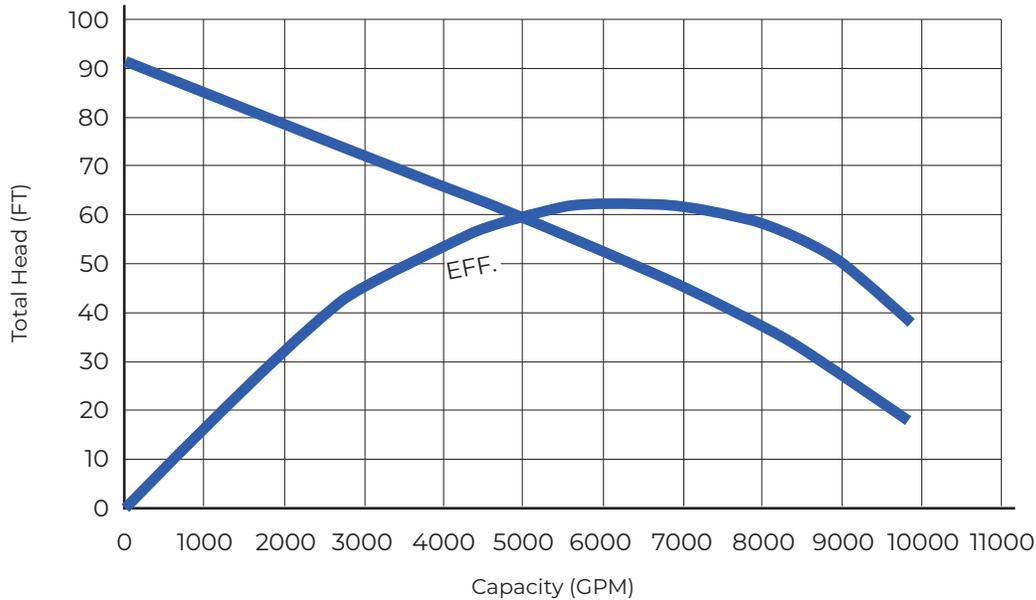
	HEAD (FT)	CAPACITY	KILOWATTS [kW]	EFFICIENCY [%]
Best Efficiency Point	40	5500	63	72





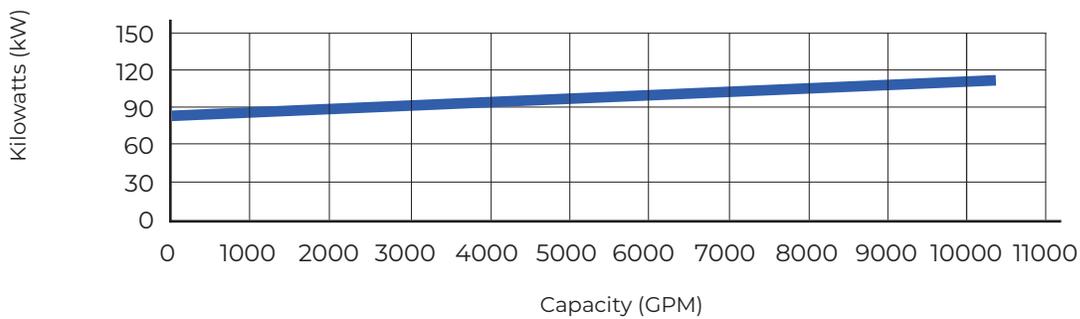
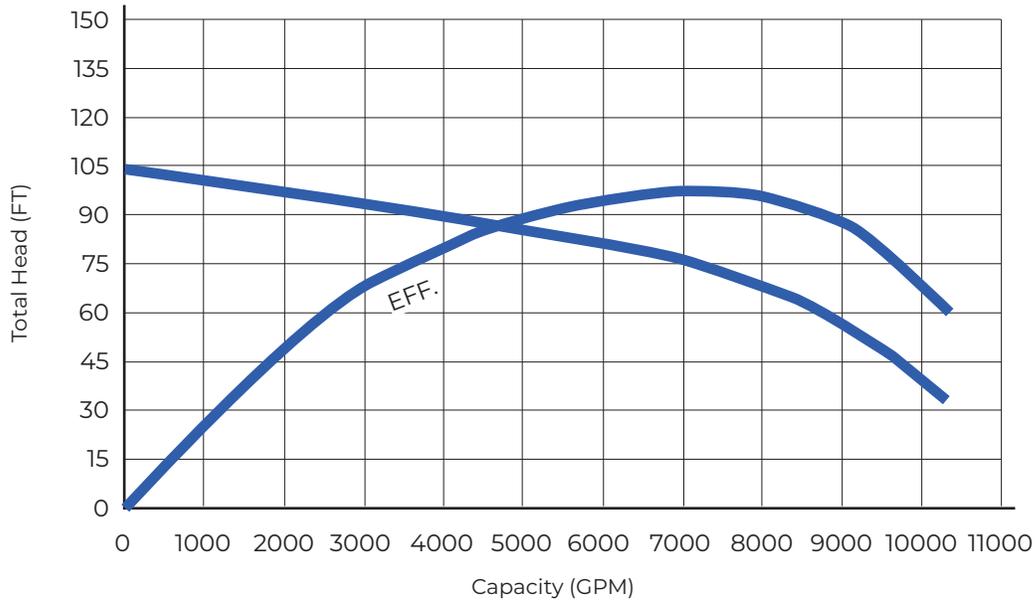
GENERAL		MOTOR DATA			
Pump Model	K16H1250M6-43	Load	1/1	3/4	1/2
		Efficiency (%)	85	87	86
PUMP DATA		Power Supply	3 ϕ , 460 V, 60 Hz		
Date	02/2023	HP / Amps	125 HP / 192 A		
Discharge Flange	16" ANSI, 150lb	Poles / Rated Speed	6P / 1150 rpm		
Solids Size	5 inch	Insulation Class	H Class		
Impeller Type	Enclosed 2-Vane				

	HEAD (FT)	CAPACITY	KILOWATTS [KW]	EFFICIENCY [%]
Best Efficiency Point	48	6500	95	62



GENERAL		MOTOR DATA			
Pump Model	K16H1500M6-43	Load	1/1	3/4	1/2
		Efficiency (%)	85	87	86
PUMP DATA		Power Supply	3 ϕ , 460 V, 60 Hz		
Date	02/2023	HP / Amps	150 HP / 237 A		
Discharge Flange	16" ANSI, 150lb	Poles / Rated Speed	6P / 1150 rpm		
Solids Size	5 inch	Insulation Class	H Class		
Impeller Type	Enclosed 2-Vane				

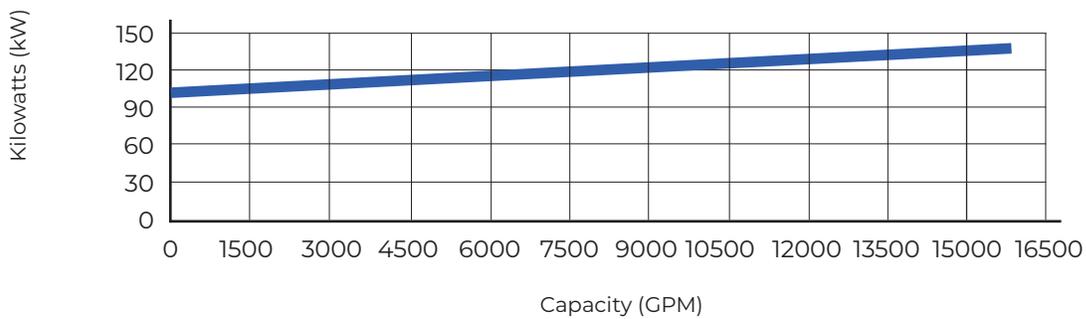
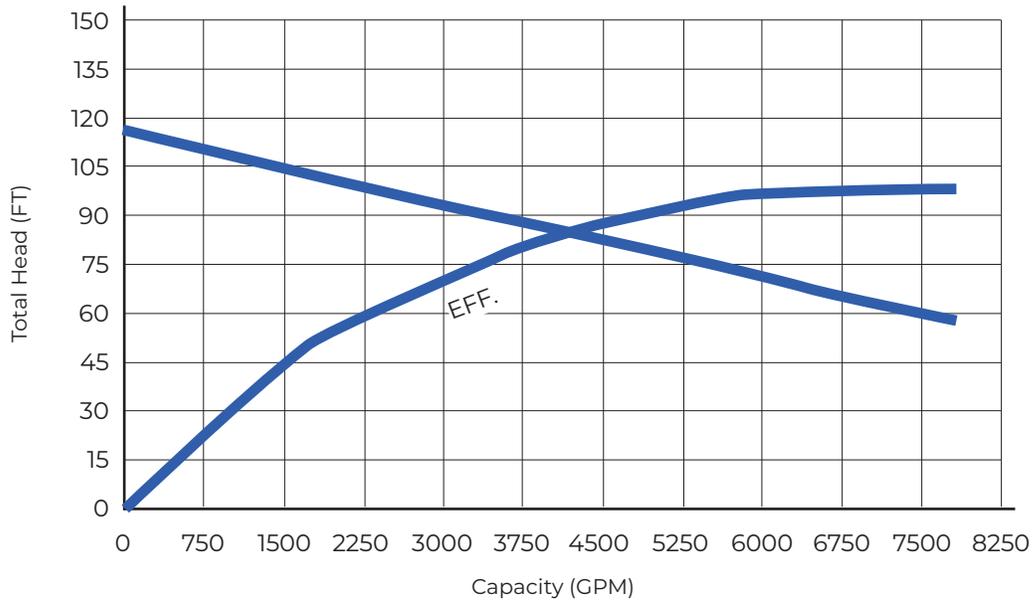
	HEAD (FT)	CAPACITY	KILOWATTS [kW]	EFFICIENCY [%]
Best Efficiency Point	72	7480	117	65





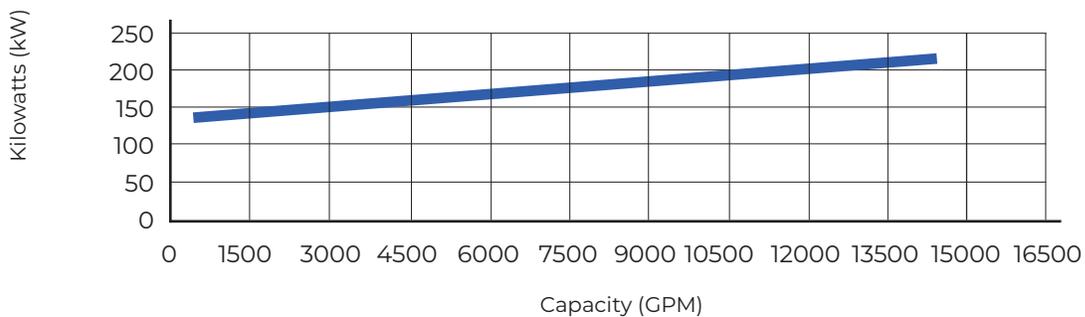
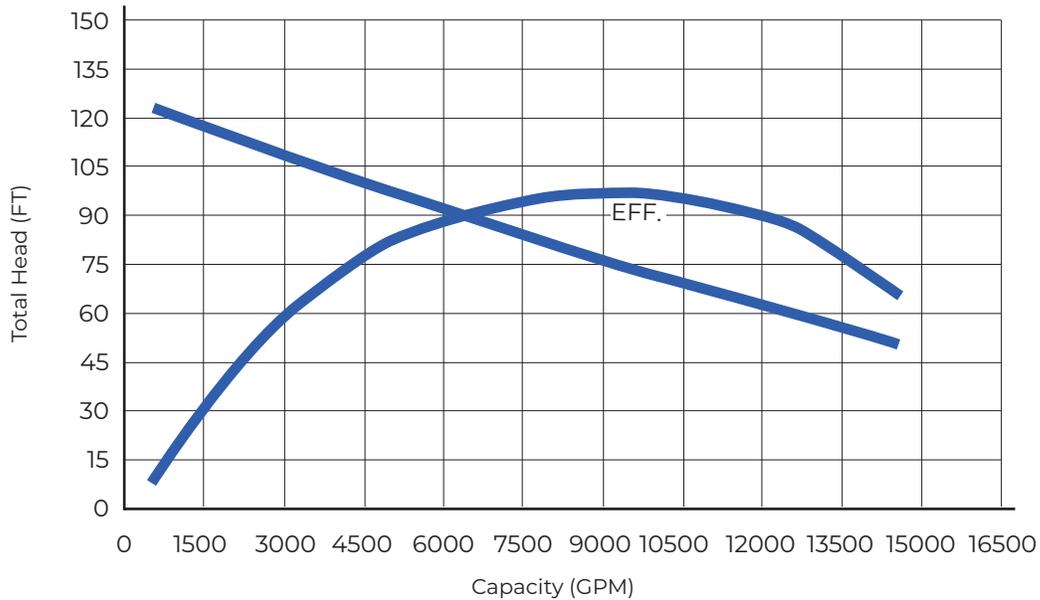
GENERAL		MOTOR DATA			
Pump Model	K16H2000M6-43	Load	1/1	3/4	1/2
		Efficiency (%)	85	87	86
PUMP DATA		Power Supply	3 ϕ , 460 V, 60 Hz		
Date	02/2023	HP / Amps	200 HP / 288 A		
Discharge Flange	16" ANSI, 150lb	Poles / Rated Speed	6P / 1150 rpm		
Solids Size	5 inch	Insulation Class	H Class		
Impeller Type	Enclosed 2-Vane				

	HEAD (FT)	CAPACITY	KILOWATTS [KW]	EFFICIENCY [%]
Best Efficiency Point	63	7435	132	66



GENERAL		MOTOR DATA			
Pump Model	K16H2500M6-43	Load	1/1	3/4	1/2
		Efficiency (%)	85	87	86
PUMP DATA		Power Supply	3 ϕ , 460 V, 60 Hz		
Date	02/2023	HP / Amps	250 HP / 428 A		
Discharge Flange	16" ANSI, 150lb	Poles / Rated Speed	6P / 1150 rpm		
Solids Size	5 inch	Insulation Class	H Class		
Impeller Type	Enclosed 2-Vane				

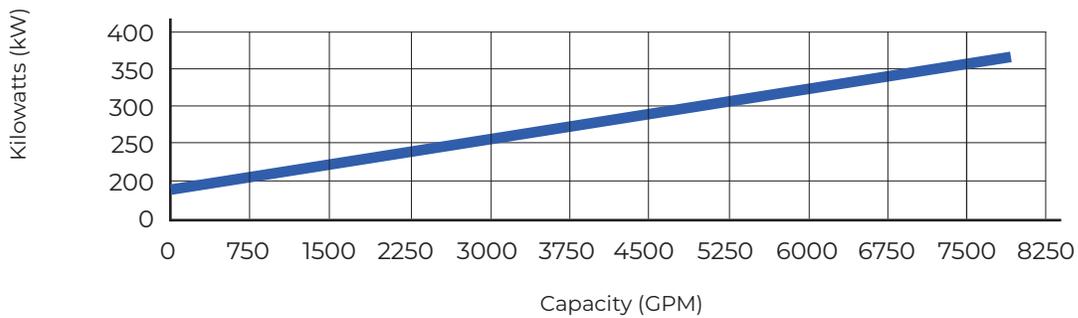
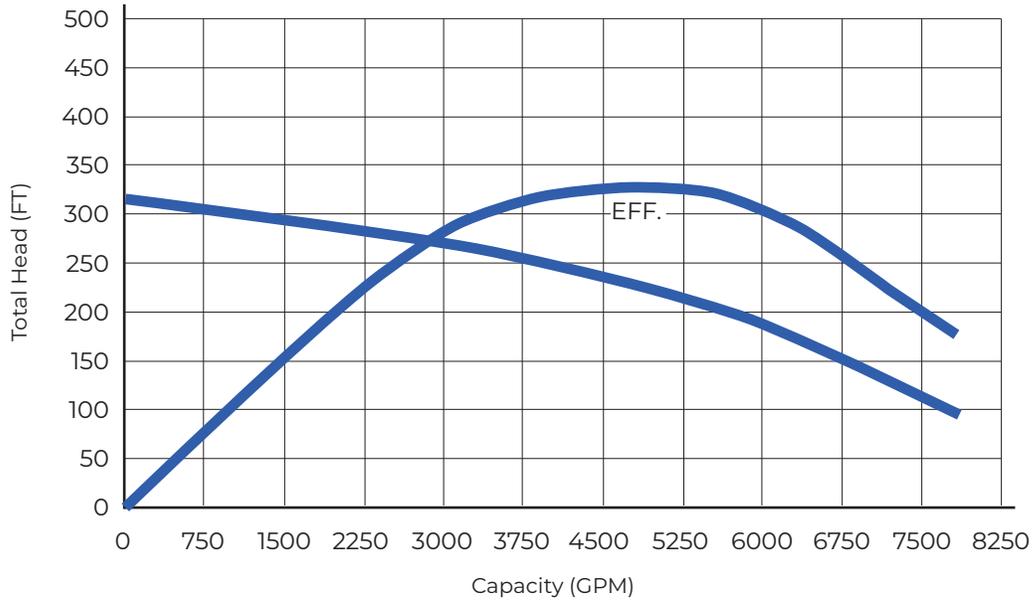
	HEAD (FT)	CAPACITY	KILOWATTS [kW]	EFFICIENCY [%]
Best Efficiency Point	75	9055	196	65



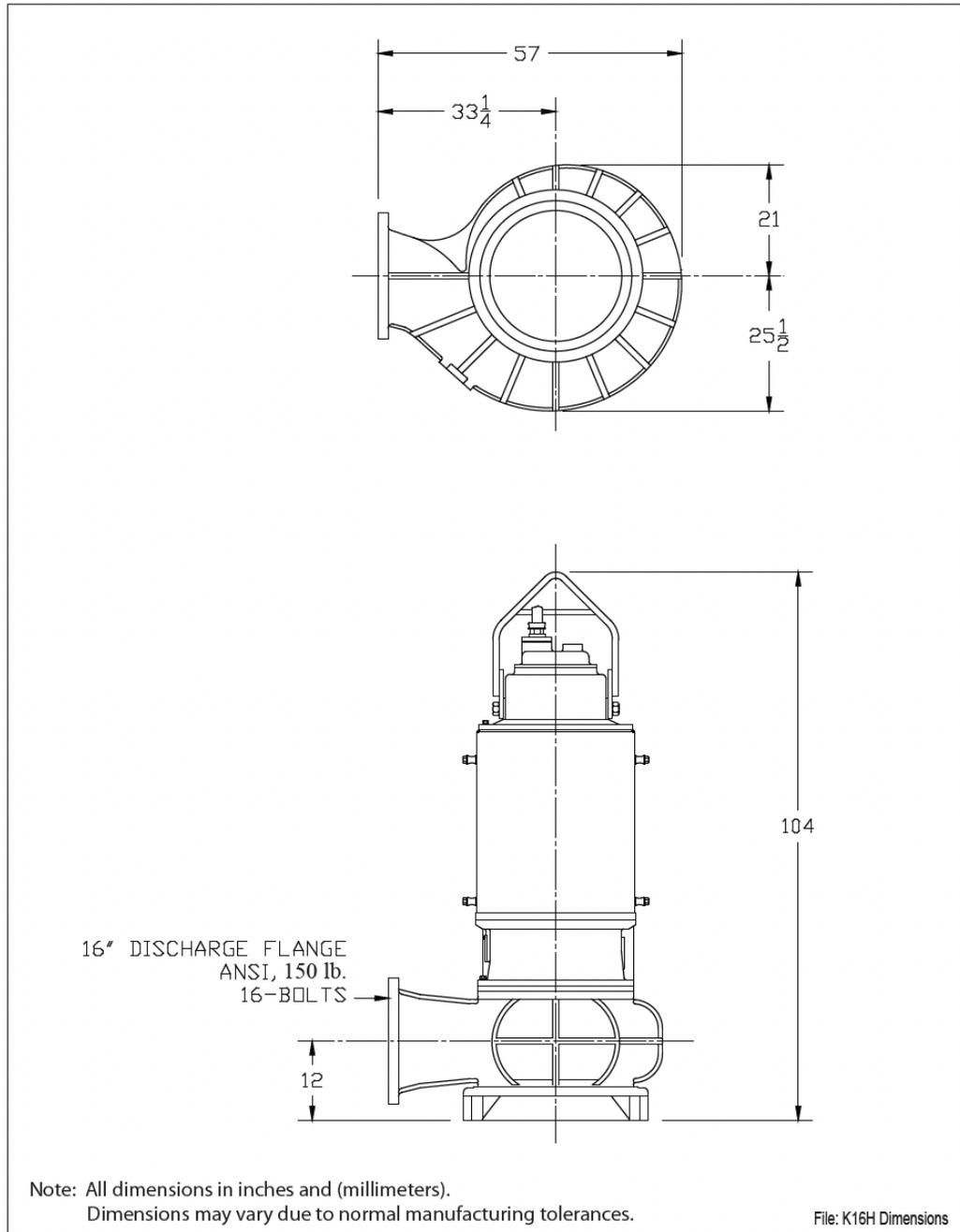


GENERAL		MOTOR DATA			
Pump Model	K16H4250M4-43	Load	1/1	3/4	1/2
		Efficiency (%)	85	87	86
PUMP DATA		Power Supply	3 ϕ , 460 V, 60 Hz		
Date	02/2023	HP / Amps	425 HP / 746 A		
Discharge Flange	16" ANSI, 150lb	Poles / Rated Speed	4P / 1750 rpm		
Solids Size	5 inch	Insulation Class	H Class		
Impeller Type	Enclosed 2-Vane				

	HEAD (FT)	CAPACITY	KILOWATTS [KW]	EFFICIENCY [%]
Best Efficiency Point	222	5000	319	66

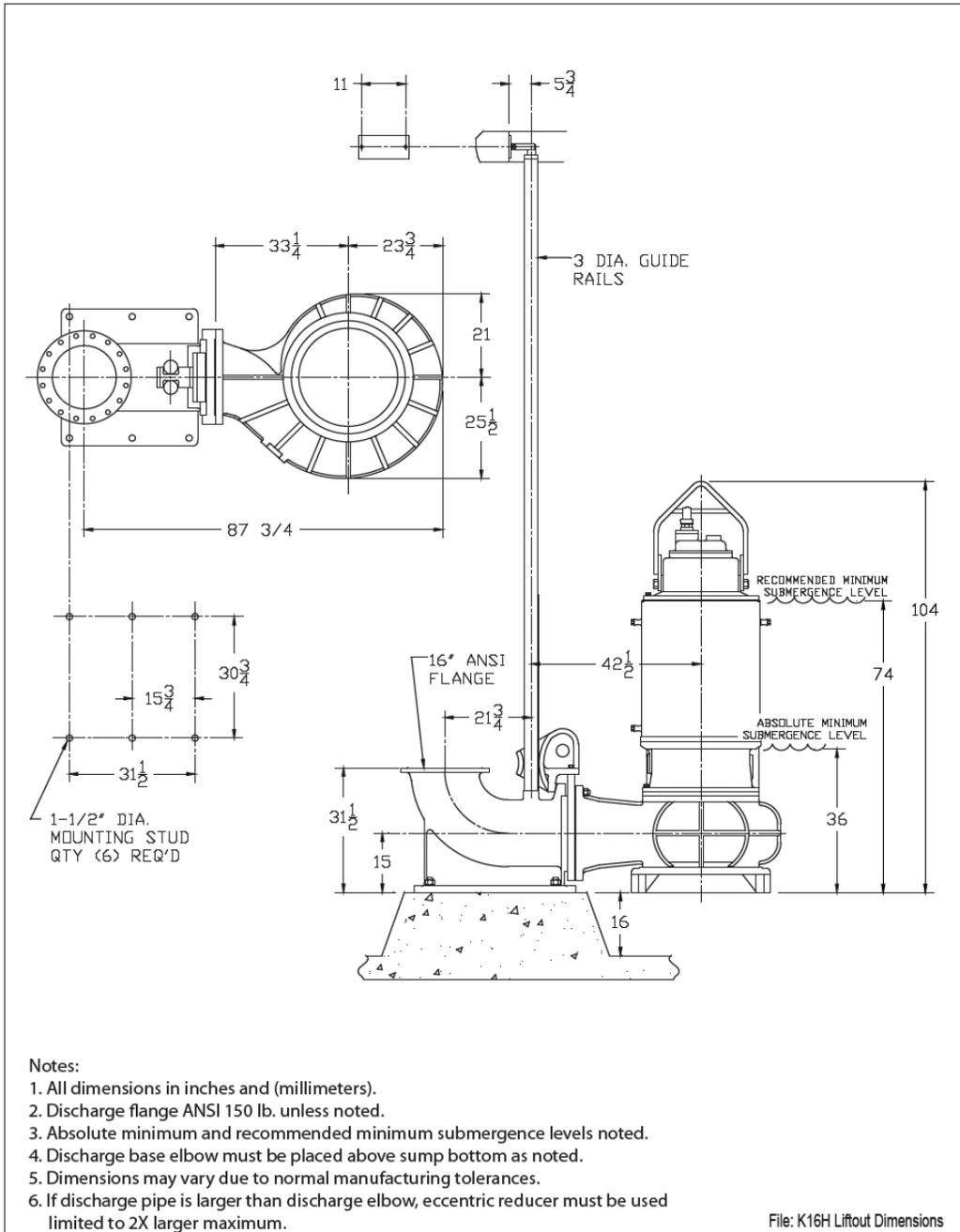


PUMP SERIES	K16H	16" SUBMERSIBLE SEWAGE PUMPS
DIMENSIONAL DATA		





PUMP SERIES	K16H	16" SUBMERSIBLE SEWAGE PUMPS
LIFTOUT DIMENSIONAL DATA		

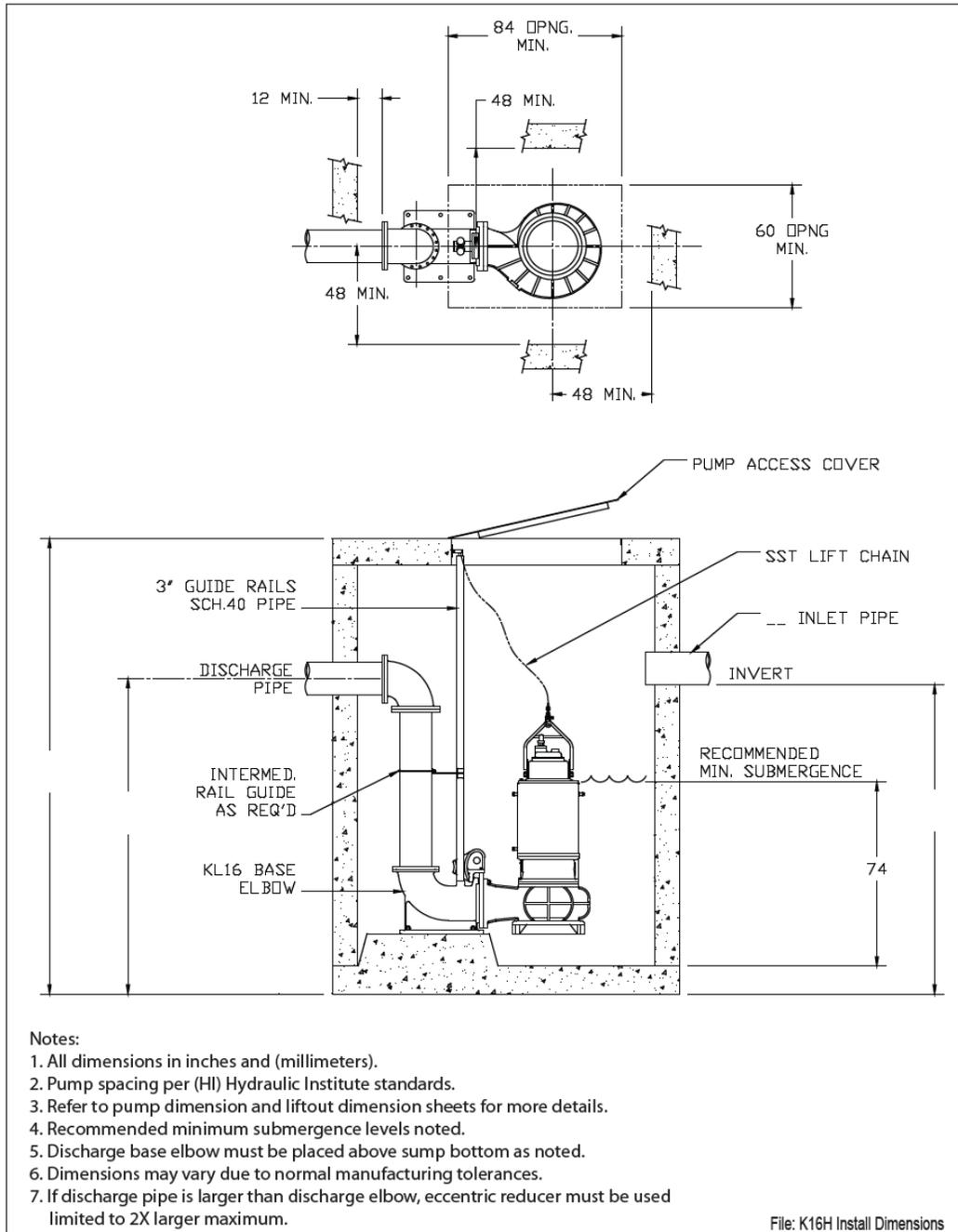


PUMP SERIES

K16H

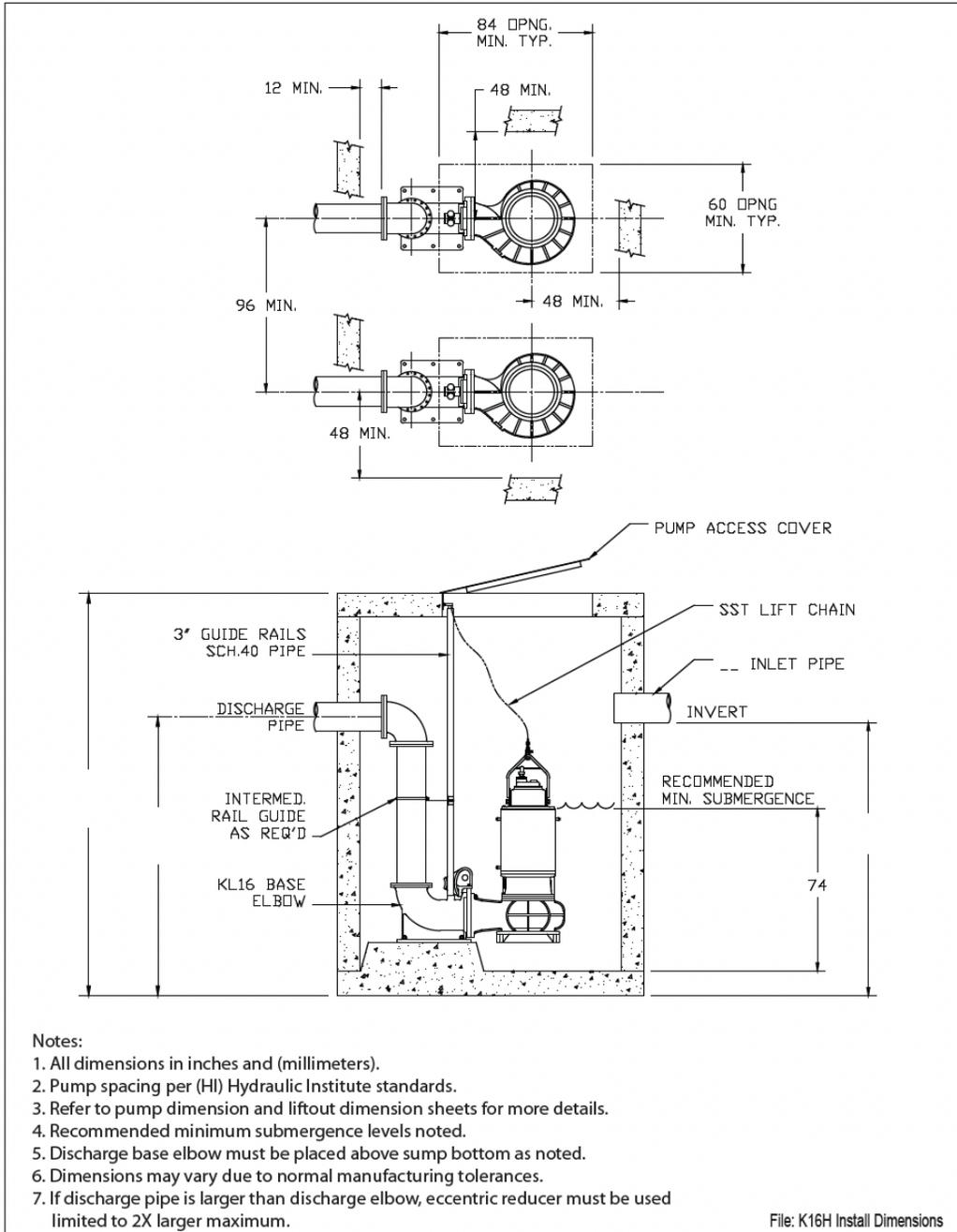
16" SUBMERSIBLE SEWAGE PUMPS

SIMPLEX INSTALLATION DIMENSIONAL DATA





PUMP SERIES	K16H	16" SUBMERSIBLE SEWAGE PUMPS
DUPLIX INSTALLATION DIMENSIONAL DATA		



PHYSICAL DATA	
Discharge Size	ANSI 16" Horizontal
Solid Size	6"
Impeller Type	Balanced, Enclosed, 4 Vane
Power/Control Cable Length	40' Standard
Paint	Blue, Powder Coat Paint Finish

MOTOR CONSTRUCTION	
Motor Type	Enclosed Submersible Air Filled
NEMA Insulation Code	Class H
Service Factor	1.2
NEMA Design Type	B
Cooling System	Internal Closed Loop
Cooling Liquid	Glycol
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	311°F (155°C)
Power Cord Type	SOOW - 600V, 90° C; Type W - 2000V, 90° C
Control Cord Type	16-4 or 18-5 - SOOW - 600V, 90° C



MATERIALS OF CONSTRUCTION	
Cord Entry	Cast Iron, ASTM A48, Class 30
Upper Bearing Housing	Cast Iron, ASTM A48, Class 30
Upper Bearing Plate	Cast Iron, ASTM A48, Class 30
Motor Housing	Cast Iron, ASTM A48, Class 30
Cooling Jacket	Steel
Lower Bearing Housing	Cast Iron, ASTM A48, Class 30
Lower Bearing Plate	Cast Iron, ASTM A48, Class 30
Volute	Cast Iron, ASTM A48, Class 30
Wear Ring	Cast Iron, ASTM A48, Class 35
Impeller	Ductile Iron, ASTM A48, Class 30
Shaft	ANSI 420 Stainless Steel
Inboard Mechanical Seal	Silicone - Carbide / Carbon - Ceramic
Outboard Mechanical Seal	Tungsten - Carbide / Silicone - Carbide
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Single Row Cylindrical Roller Bearing
Lower Bearing	Two (2) Single Row Angular Contact Ball Bearing One (1) Single Row Deep Groove Ball Bearing
Cooling Impeller	Bronze, CDA 836
Seal Plate	Cast Iron, ASTM A48, Class 30
Heat Exchanger Plate	Cast Iron, ASTM A48, Class 30