"The **KEEN PUMP DIFFERENCE** is dedication to the highest quality of product and service in our industry along with the best customer care delivered with a sense of warmth, friendliness, individual pride, and company spirit"

KEEN PUMP®

KEEN PUMP Models

Pump Model	Horsepower	Impeller	Max. Flow (GPM)	Max. Head (TDH)
K3RN FM	1 - 10	Vor-	625	71
K4RN FM	1 - 10	Vortex	600	67
K3RH FM	3 - 7.5	Vor-	275	90
K4RH FM	7.5 - 15	Vortex	540	94
K3VN FM	1 - 10	Enclosed	700	76
K4VN FM	1 - 10	Enclosed	690	75
K4RP	3 - 20	Vortex	750	125
K4VP	3 - 20	Enclosed	1200	118
K4RB FM	3 - 60	Vortex	1400	275
K4VB FM	3 - 60	Enclosed	1675	183
K6VB FM	3 - 60	Enclosed	2250	155
K4VK	50 - 150	Enclosed	2060	268
K8VK	15 - 150	Enclosed	3800	175
K12VK	15 - 150	Enclosed	7700	125
K14VK	15 - 150	Enclosed	7700	125

• FM Listed FM3615 for Class 1, Div. 1, Groups C & D Hazardous Locations

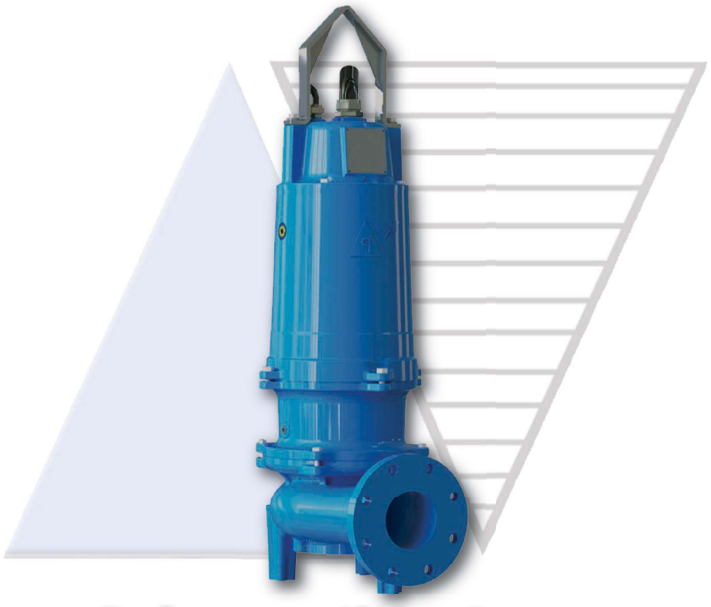
KEEN PUMP Designs Your Complete Pump Station

- Custom Engineered
- Unmatched Delivery
- Best Customer Service/Technical Support

KEEN PUMP®

471 US HWY 250 East · Ashland, Ohio 44805
419.207.9400 fax 419.207.8031
www.keenpump.com

K0004 08/18



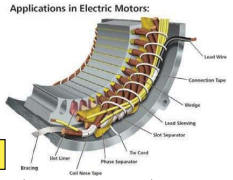
Submersible Sewage SOLIDS-HANDLING

KEEN PUMP Solids-Handling Pumps...a COOLER Way to Move Solids!

Keen Pump's Bearing Protection Program

- Keen's Motor Grounding Ring protects the motor from harmful shaft voltages produced by VFD drives.
- Safely conducts the harmful voltages to the grounding ring adding protection for the bearings and extended life.

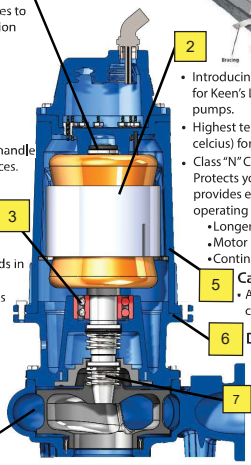
Heavy Duty Motor



- Introducing New Premium Class "N" Motors for Keen's Large Grinders and Solids Handling pumps.
- Highest temperature construction (200 degrees celcius) for motors
- Class "N" Construction is the best in the industry. Protects your motor from over heating and provides extended motor life. Motors are operating at higher teperatures due to:
  - Longer run times
  - Motor housing not submerged
  - Continuous

Double Row Bearings

- Heavy Duty Bearings to handle the toughest performances.
- High Pressures
- High Flows
- Handles both Axal and Radial loads in both directions at the same time.
- Double Row Angular Ball Bearings have two rows of balls arranged back-to-back.



5 Castings

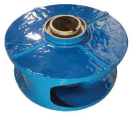
- ASTM - Class 35 high tensile strength castings.

6 Durable Powder Coat Finish

- Holds up to the toughest environmental conditions.

7 Dual Shaft Seals

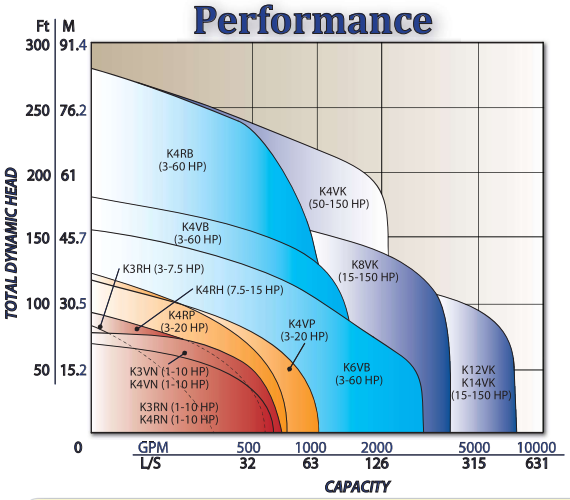
- Twice the protection quality silicon carbide faces, viton elastomers, stainless steel construction.



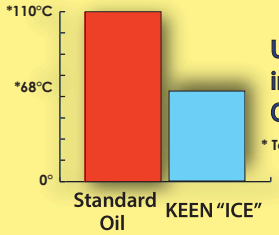
Ceramic Coating

The ultimate indestructable ceramic coated impellers and volutes for Keen's Solids Handling pumps. This allows the pump to operate in any condition without any problems! Impressive sand, grit, abrasion and cavitation resistance!

Performance



Decrease Heat...Increase Motor Life 8x! ...it's that simple!



Up to 38% Decrease in Running Temp vs Other Manufacturers!

* Temps Shown for Reference Only

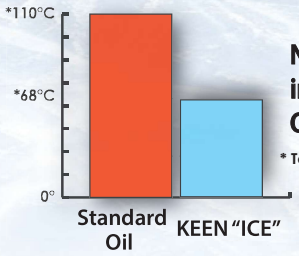
Note: KEEN "I.C.E." is a PROPRIETARY, synthetic blend, low-viscosity oil, specifically designed for cooling KEEN submersible pumps.

www.keenpump.com

KEEN I.C.E.

Intensified Cooling Effect!

Decrease Heat...Increase Motor Life 8x!
...it's that simple!

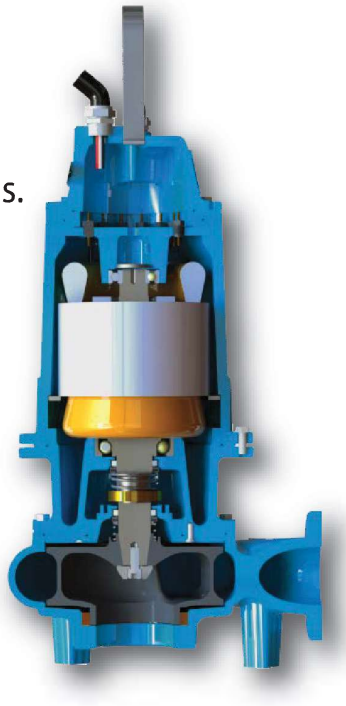


Nearly 40% Decrease in Running Temp vs Other Manufacturers!

*** Temps Shown for Reference Only**

Note: KEEN "I.C.E." is a PROPRIETARY, synthetic blend, low-viscosity oil, specifically designed for cooling KEEN submersible pumps.

- Used in ALL KEEN Submersible Solids-Handling Products!
- Best Heat Transfer
- Transfers Heat 40% Faster vs. Standard Dielectric Oil
- Coolest Operating Pumps
- Nearly 40% Decrease in Running Temperature vs Other Mfgs.
- Ultra-Low Viscosity Allows Faster Turnover
- Viscosities 65% Lower vs Standard Dielectric Oil
- Locks out Airborne Moisture Contamination



FM APPROVED

- High Dielectric Strength Passes all FM Criteria!
- Promotes Longer Pump Life!
- Promotes Higher Efficiencies!
- Promotes Reduced Energy Consumption!

KEEN PUMP

KEEN PUMP

K3RN(X)

FM APPROVED

3" Submersible, Recessed Impeller
(Class 1, Div. 1, Groups C & D Hazardous Location)

Optional :
All Stainless Steel Construction

CERAMIC COATED RECESSED IMPELLER
- Superior Abrasion Resistance
- Allows The Pump To Operate Better In Any Pressure Or Flow Condition

CERAMIC COATED VOLUTE
- Holds Up to Wear On Inside of Volute Casting Case

STANDARD MOTOR CONSTRUCTION
- Class H Laminations (Standard)

MOTOR GROUND RING PROTECTION
- Allows Motor To Operate With VFD Without Damaging Bearings and Motor
- Ground Ring Safely Diverts Harmful Voltages Away From Bearings

DOUBLE ROW LOWER BEARINGS
- Heavy Duty Bearings Handle The Toughest Applications of High Pressure and Flow Rates

BEST MOTOR CONSTRUCTION
- OPTIONAL Class "N" (392° F) Highest Temperature
- Motor Will Not Overheat In Continuous Or Dry Pit Applications

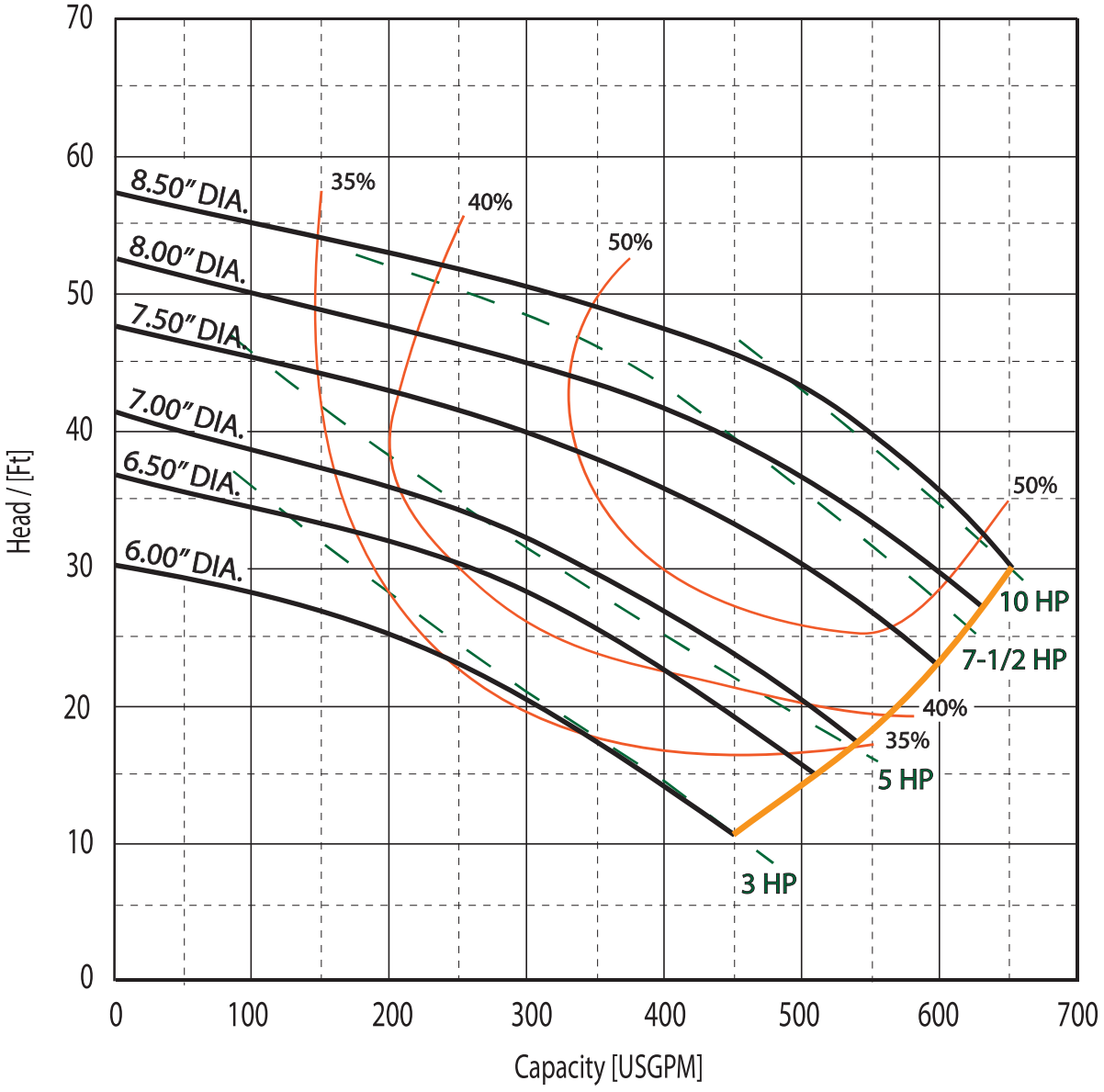
CAPABILITIES:
- Flows---------- to 625 GPM
- Heads---------- to 71 Feet
- HP Range---------- 1 - 10 HP
- Voltage / Phase Options---------- 208/230V, 1 Phase - 208/230/460 V, 3 Phase
- Discharge Connections---------- 3" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 1150 / 1750 RPM
- Solids-Handling---------- 2.5"
- Impeller---------- Recessed, Vortex
- Motor Service Factor---------- 1.20

KEEN PUMP

Section **VORTEX**
Date Nov. 2021

Pump Series	**K3RN**		3″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1750 RPM**	Discharge	**3″**	Solids	**3″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

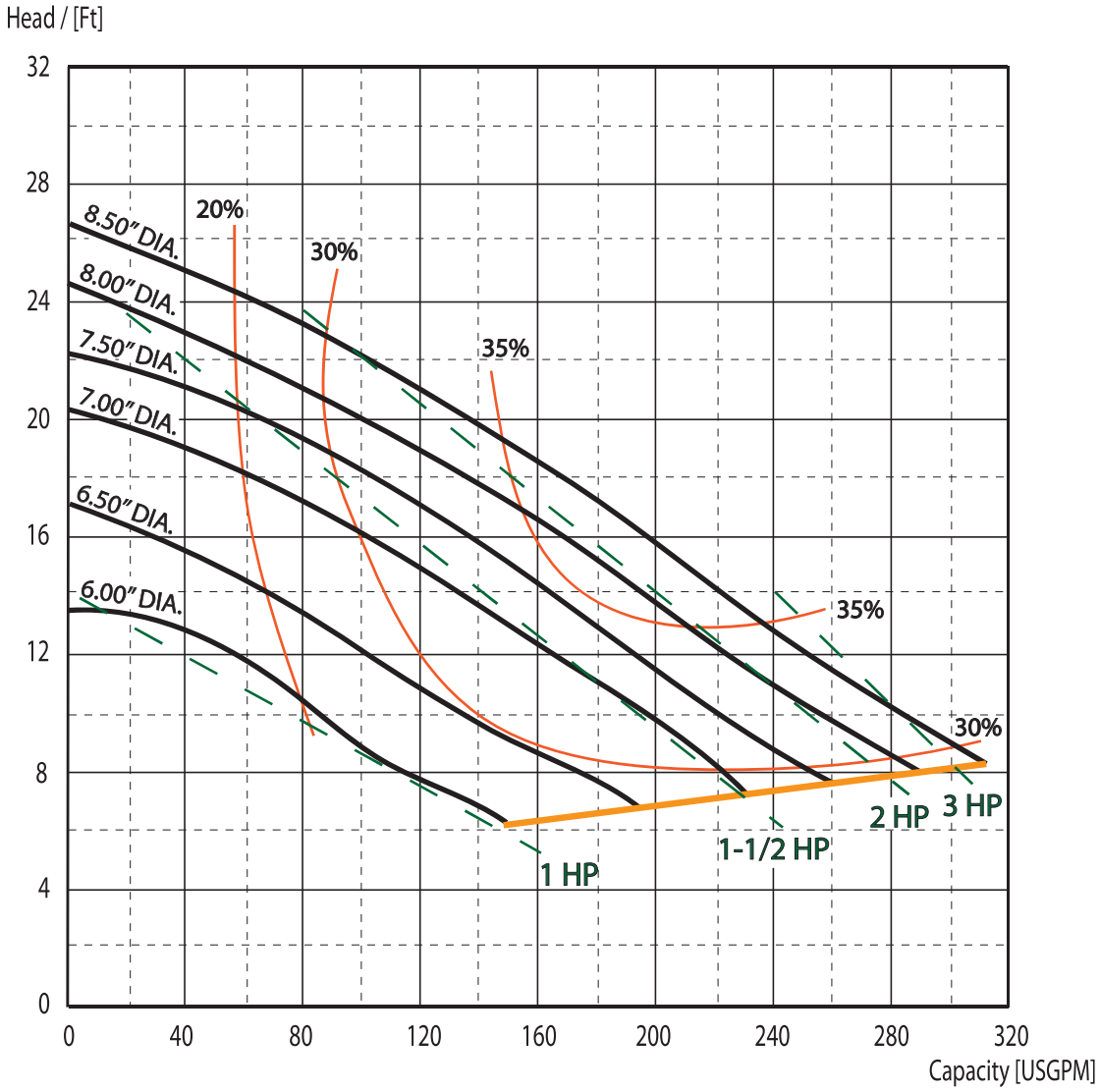
File: K3RN_1750_CAT

KEEN PUMP

Section **VORTEX**
Date Nov. 2021

Pump Series	**K3RN**		3″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1150 RPM**	Discharge	**3″**	Solids	**3″**

GPM: _____ TDH: _____



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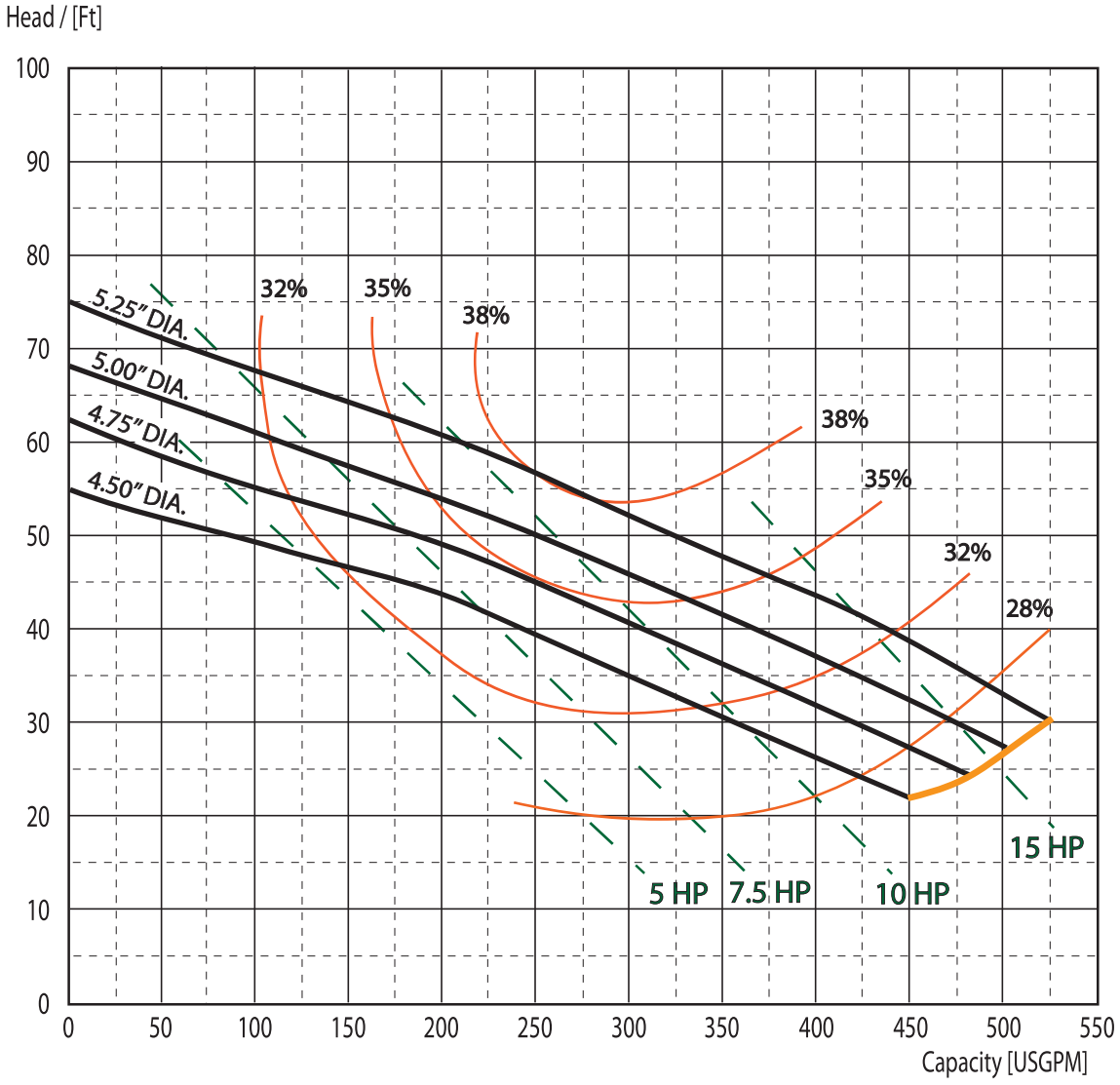
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

KEEN PUMP

Section **VORTEX**
Date Nov. 2021

Pump Series	**K3RN**		3″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**3450 RPM**	Discharge	**3″**	Solids	**3″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

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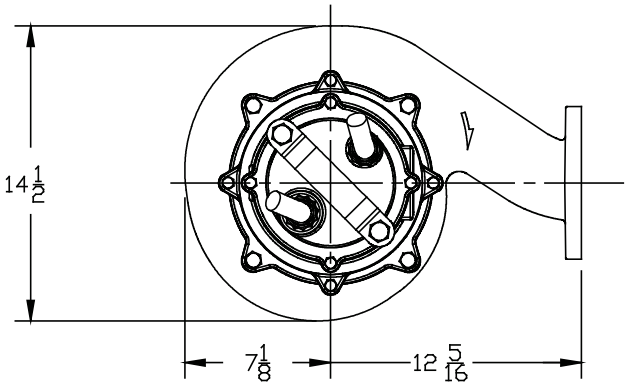
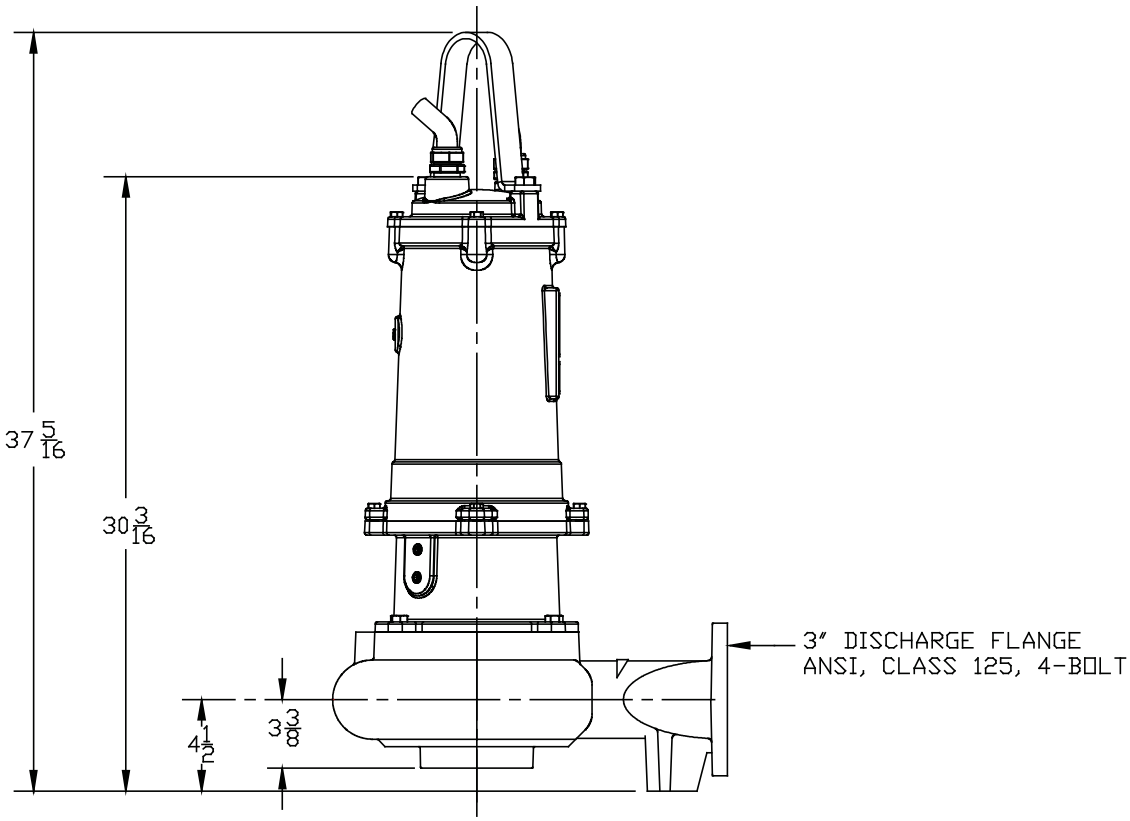
Section **VORTEX**
Date **NOV 2016**

Pump Series	**K3RN**	3″ SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA

4 & 6 POLE





Note: All dimensions in inches unless noted.
Dimensions may vary due to normal manufacturing tolerances.

File: K3RN Dimensions

Pump Model: **K3RN**

Physical Data:

Discharge Size	ANSI 3″ Horizontal
Solids Size	2.5″
Impeller Type	Balanced, Recessed, 8 Vane
Power/Control Cable Length	40′ Standard
Paint	Blue, Powder Coated – Impeller & Inside Volute - Ceramic Coated For Abrasion Resistance

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H (**Optional -** Class N)
Service Factor	1.2
NEMA Design Type	B (3Ø) L (1Ø)
Single Phase Configuration	External Start and Run Components
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	Class H: 356°F (180°C) Class N: 392° F (200°C) **- Optional**
Power Cord Type	SOOW - 600V, 90º C; Type W - 2000V, 90º C
Control Cord Type	18-5 - SOOW - 600V, 90º C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coated Inside
Impeller	Ductile Iron, ASTM A536, 60-40-18 / Ceramic Coated
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Conrad Style Double Row Angular Contact Ball Bearing
Line Bearing	Bronze, CDA 836

Pump Model: **K3RN – 1150 RPM**

Thermal Data:

Maximum Liquid	140º F (60º C)
Maximum Stator	311º F (155º C)
Heat Sensor Open:	257º F (125º C) Max. / 239º F (115º C) Min.
Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point	390º F (199º C)

Electrical Data:

RPM					**1150**					
Electrical Ratings					Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS		
					Seal Fail	300VAC 5mAMPS				
Voltage Tolerance					± 10%					
HP	**Voltage**	**Phase**	**NEC Code**	**Service Factor**	**Full Load AMPS**	**SF Amps**	**Locked Rotor AMPS**	**Run KW**	**Start KVA**	**Run KVA**
1	208	1	H	1.2	9.6	11.5	33.6	2.0	7.0	2.6
	230				8.6	10.4	30.3			
1	208	3	J	1.2	6.6	7.9	21.0	1.7	7.6	2.1
	230				6.2	7.4	18.9			
	460				3.1	3.7	9.5			
2	208	1	H	1.2	18.9	22.7	66.2	13.8	5.1	5.1
	230				17.0	20.4	59.6			
2	208	3	G	1.2	9.9	11.9	34.7	2.8	12.5	3.5
	230				8.9	10.7	31.2			
	460				4.5	5.4	15.6			
3	208	1	F	1.0	22.7	22.7	79.5	4.7	16.5	6.1
	230				20.5	20.5	71.6			
3	208	3	G	1.0	14.3	14.3	50.1	4.1	18.0	6.0
	230				12.9	12.9	45.1			
	460				6.4	6.4	22.5			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
1	1	81	81	80	76	75	73	66	57
1	3	83	82	81	77	75	72	67	61
2	1	84	83	82	78	76	74	70	62
2	3	84	84	83	79	78	76	71	60
3	1	86	85	84	80	75	70	64	54
3	3	86	86	85	81	79	78	71	59

Pump Model: **K3RN – 1750 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C)
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM					**1750**					
Electrical Ratings					Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS		
					Seal Fail	300VAC 5mAMPS				
Voltage Tolerance					± 10%					
HP	**Voltage**	**Phase**	**NEC Code**	**Service Factor**	**Full Load AMPS**	**SF Amps**	**Locked Rotor AMPS**	**Run KW**	**Start KVA**	**Run KVA**
3	208	1	E	1.2	26.2	31.4	66.9	4.0	13.9	5.2
	230				23.8	28.6	60.2			
3	208	3	H	1.2	16.3	19.6	57.1	4.6	20.6	5.8
	230				14.7	17.6	51.4			
	460				7.3	8.8	25.7			
5	208	1	F	1.2	37.1	44.5	129.9	7.7	26.9	10.0
	230				33.4	40.1	116.9			
5	208	3	F	1.2	26.2	31.4	73.9	6.0	26.5	7.5
	230				23.8	28.6	66.5			
	460				11.9	14.3	33.3			
7.5	208	3	F	1.2	32.1	38.5	112.4	9.1	40.4	11.3
	230				28.9	34.7	101.2			
	460				14.5	17.4	50.6			
10	208	3	E	1.0	38.5	38.5	134.8	11.0	48.5	13.6
	230				34.7	34.7	121.4			
	460				17.3	17.3	60.7			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
3	1	85	85	85	77	87	83	79	70
3	3	86	86	85	79	81	80	79	71
5	1	88	88	89	82	86	83	76	62
5	3	89	89	88	82	79	76	71	60
7.5	3	89	89	88	82	75	70	64	54
10	3	90	90	89	83	79	78	71	59

KEEN PUMP®

K3RH(X)

FM APPROVED

3" Submersible, Recessed Impeller (Class 1, Div. 1, Groups C & D Hazardous Location)

Optional :
All Stainless Steel Construction

CERAMIC COATED RECESSED IMPELLER
- Superior Abrasion Resistance
- Allows The Pump To Operate Better In Any Pressure Or Flow Condition

CERAMIC COATED VOLUTE
- Holds Up to Wear On Inside of Volute Casting Case

STANDARD MOTOR CONSTRUCTION
- Class H Laminations (Standard)

MOTOR GROUND RING PROTECTION
- Allows Motor To Operate With VFD Without Damaging Bearings and Motor
- Ground Ring Safely Diverts Harmful Voltages Away From Bearings

DOUBLE ROW LOWER BEARINGS
- Heavy Duty Bearings Handle The Toughest Applications of High Pressure and Flow Rates

BEST MOTOR CONSTRUCTION
- OPTIONAL Class "N" (392° F) Highest Temperature
- Motor Will Not Overheat In Continuous Or Dry Pit Applications

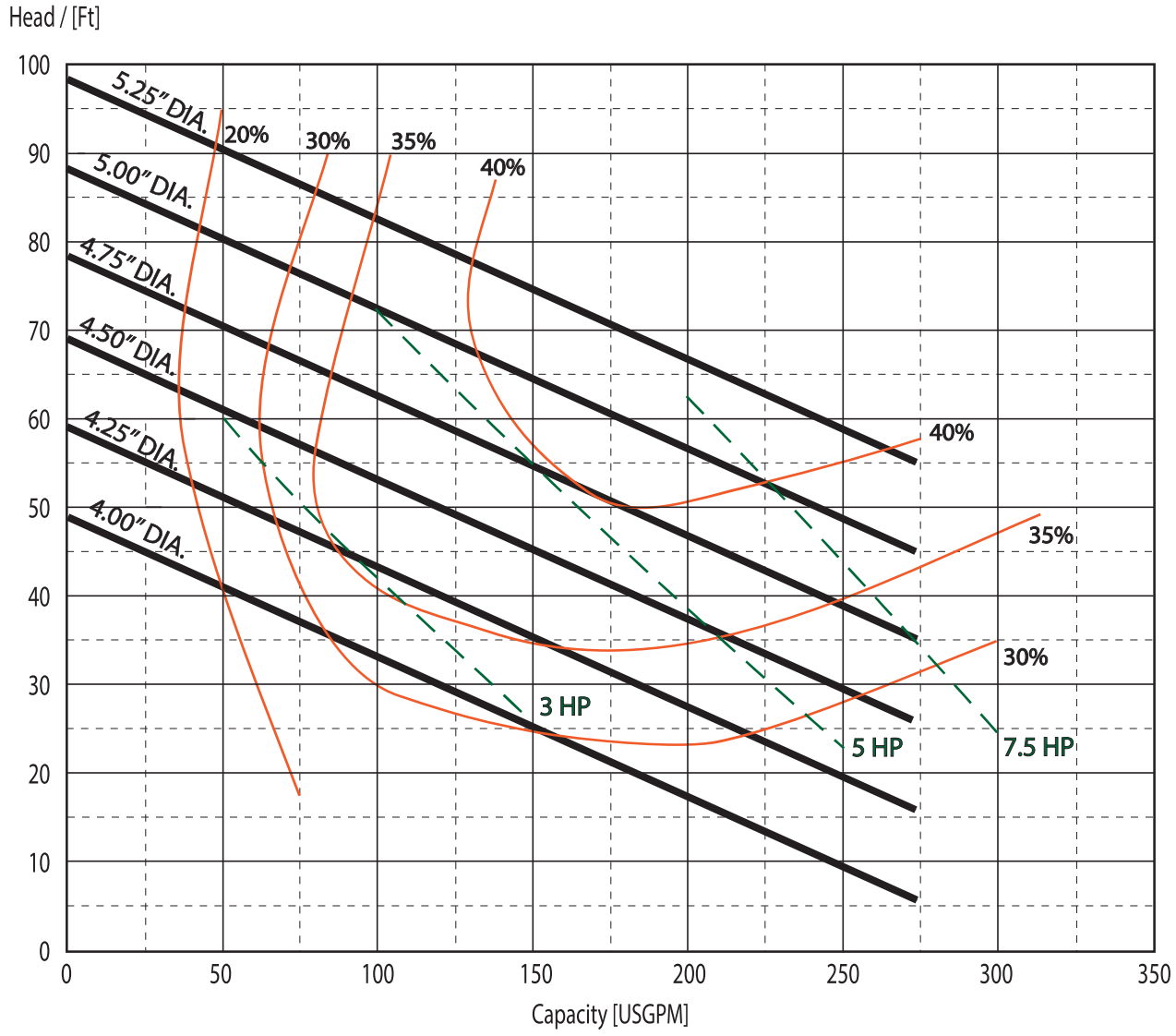
CAPABILITIES:
- Flows---------- to 275 GPM
- Heads---------- to 97 Feet
- HP Range---------- 3 - 7.5 HP
- Voltage / Phase Options---------- 208/230 V, 1 Phase - 208/230/460 V, 3 Phase
- Discharge Connections---------- 3" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 3450 RPM
- Solids-Handling---------- 2.5"
- Impeller---------- Recessed, Vortex
- Motor Service Factor---------- 1.20

KEEN PUMP®

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K3RH**		3″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**3450 RPM**	Discharge	**3″**	Solids	**2.5″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

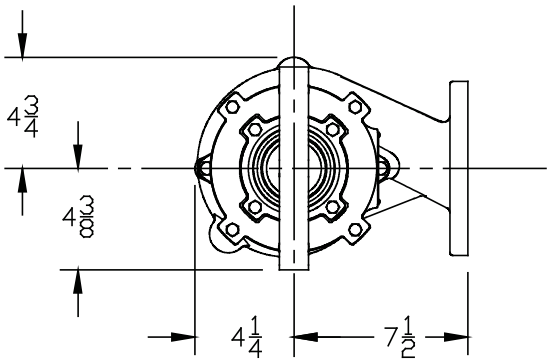
File: K3RH_3450

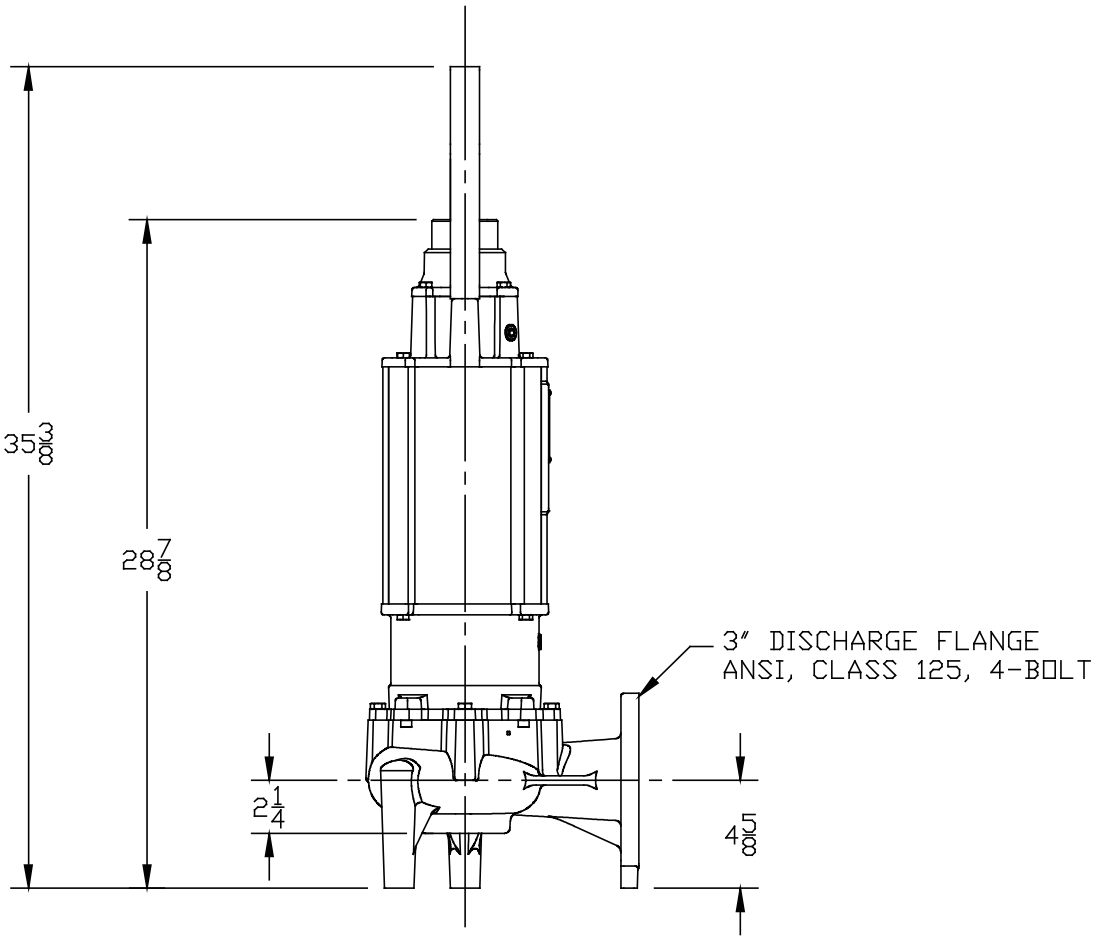
KEEN PUMP®

Section **VORTEX**
Date **JUNE 2015**

Pump Series	**K3RH**	3″ SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA





Note: All dimensions in inches unless noted.
Dimensions may vary due to normal manufacturing tolerances.

File: K3RH Dimensions

Pump Model: **K3RH**

Physical Data:

Discharge Size	ANSI 3 ” Horizontal
Solids Size	2.5”
Impeller Type	Balanced, Recessed, 10-Vane
Power/Control Cable Length	40’ Standard
Paint	Blue, Powder Coated – Impeller & Inside Volute - Ceramic Coated For Abrasion Resistance

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H (**Optional** - Class N)
Service Factor	1.2
NEMA Design Type	B (3Ø) L (1Ø)
Single Phase Configuration	External Start and Run Components
Motor Protection	Thermal Sensors Embedded in the Windings
M aximum Stator Temperature	Class H: 356°F (180°C) Class N: 392°F (200°C) - **Optional**
Power Cord Type	SOOW - 600V, 90º C; Type W - 2000V, 90º C
Control Cord Type	18-5 - SOOW - 600V, 90º C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coated Inside
Impeller	Ductile Iron, ASTM A536, 60-4 0-18 / Ceramic Coated
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Conrad Style Double Row Angular Contact Ball Bearing
Line Bearing	Bronze, CDA 836

Pump Model: **K3RH – 3450 RPM**

Thermal Data:

Maximum Liquid		140° F (60° C) Intermittent
Maximum Stator		311° F (155° C)
Heat Sensor	**Open:**	257° F (125° C) Max. / 239° F (115° C) Min.
	Closed:	194° F (90° C) Max. / 119° F (48° C) Min.
Oil Flash Point		390° F (199° C)

Electrical Data:

RPM	**3450**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
3	208	1	H	1.2	20.9	25.1	93.1	5.5	19.3	7.2
	230				18.9	22.7	84.7			
3	208	3	E	1.2	17.0	19.0	51.6	3.1	13.8	4.1
	230				15.0	17.0	46.9			
	460				7.5	8.5	23.4			
5	208	1	F	1.2	34.2	41.1	144.3	7.5	26.3	9.8
	230				30.9	37.1	126.4			
5	208	3	G	1.2	20.0	24.0	77.4	6.3	27.9	9.3
	230				18.0	22.0	69.7			
	460				9.0	11.0	34.8			
7.5	208	3	E	1.2	35.0	38.0	150.3	8.3	36.7	7.3
	230				33.0	36.0	131.8			
	460				16.5	18.0	66.2			

KEEN PUMP®

K4RH(X)

FM APPROVED

4" Submersible, Recessed Impeller
(Class 1, Div. 1, Groups C & D Hazardous Location)

Optional :
All Stainless Steel Construction

CERAMIC COATED RECESSED IMPELLER
- Will Not Wear Out
- Superior Abrasion Resistance
- Allows The Pump To Operate In Any Pressure Or Flow Condition

CERAMIC COATED VOLUTE
- Holds Up to Wear On Inside of Volute Casting Case

STANDARD MOTOR CONSTRUCTION
- Class H Laminations (Standard)

MOTOR GROUND RING PROTECTION
- Allows Motor To Operate With VFD Without Damaging Bearings and Motor
- Ground Ring Safely Diverts Harmful Voltages Away From Bearings

DOUBLE ROW LOWER BEARINGS
- Heavy Duty Bearings Handle The Toughest Applications of High Pressure and Flow Rates

BEST MOTOR CONSTRUCTION
- OPTIONAL Class "N" (392° F) Highest Temperature
- Motor Will Not Overheat In Continuous Or Dry Pit Applications

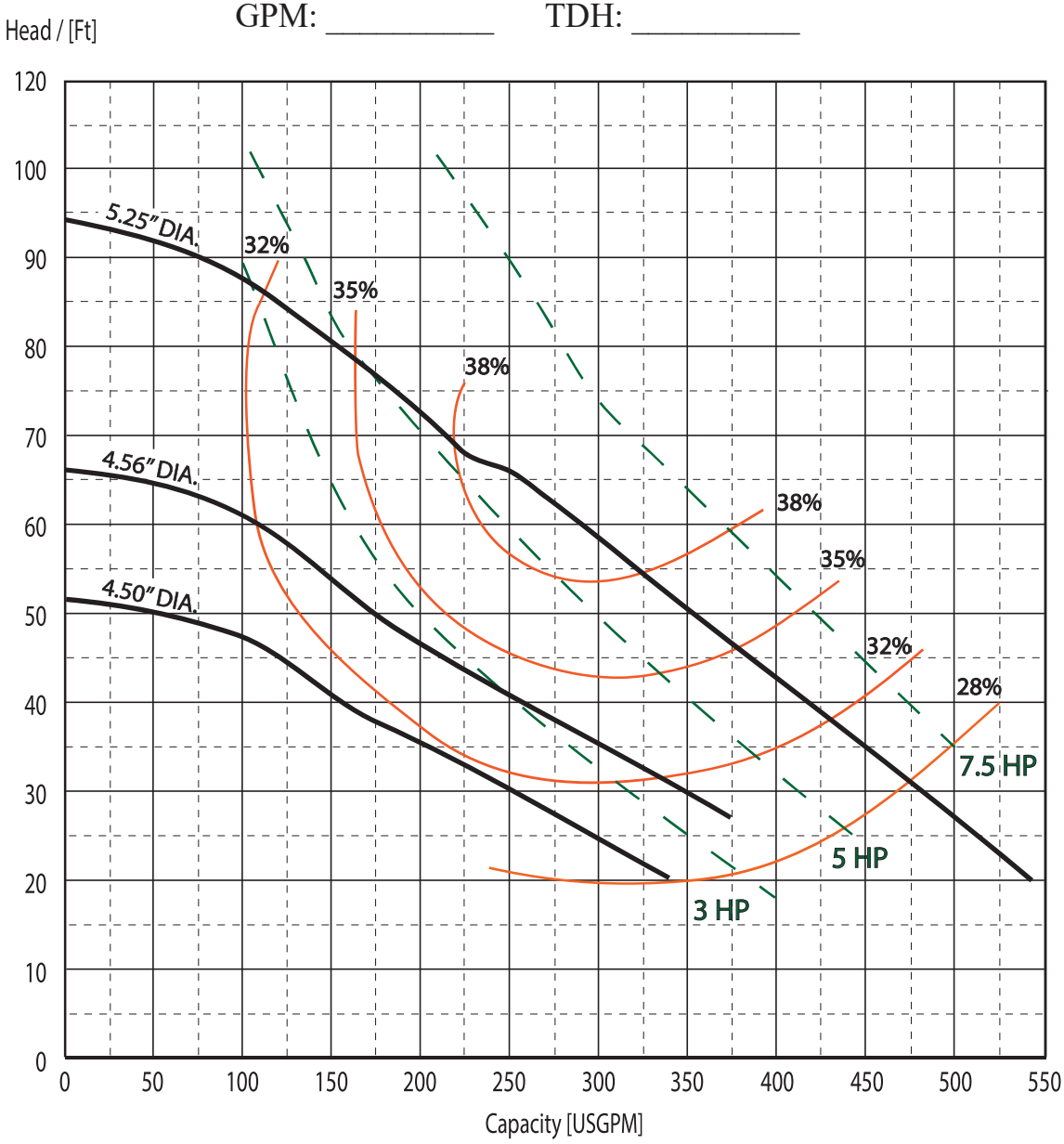
CAPABILITIES:
- Flows---------- to 540 GPM
- Heads---------- to 94 Feet
- HP Range---------- 3 - 7.5 HP
- Voltage / Phase Options---------- 208/230 V, 1 Phase - 208/230/460 V, 3 Phase
- Discharge Connections---------- 4" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 3450 RPM
- Solids-Handling---------- 3"
- Impeller---------- Recessed, Vortex
- Motor Service Factor---------- 1.20

KEEN PUMP

Section **VORTEX**
Date Nov. 2021

Pump Series	**K4RH**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**3450 RPM**	Discharge	**4″**	Solids	**3″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

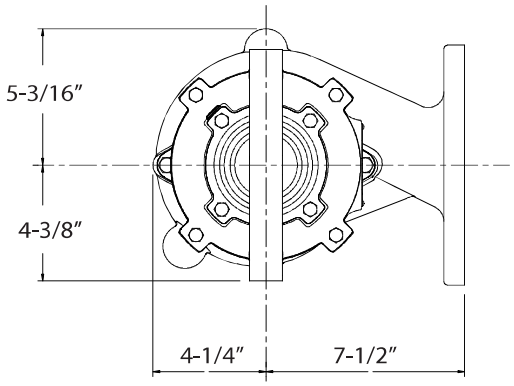
File: K4RH_3450

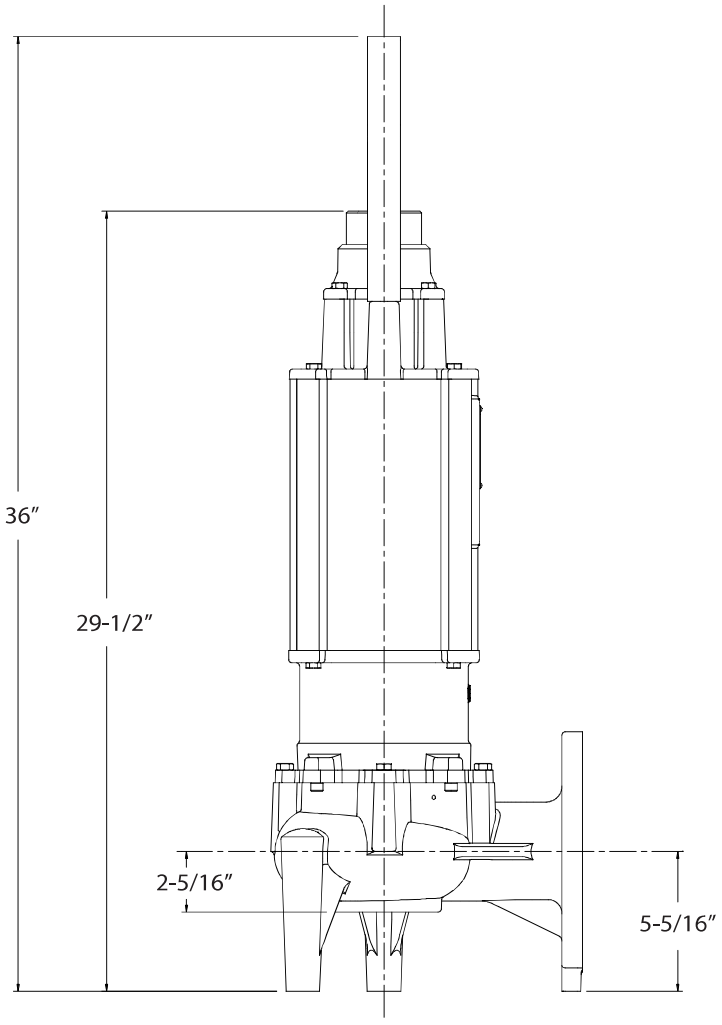
KEEN PUMP®

Section **VORTEX**
Date **MAR 2015**

Pump Series	**K4RH**	4″ SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA





Note: All dimensions in inches unless noted.
Dimensions may vary due to normal manufacturing tolerances.

File: K4RH Dimensions

Pump Model: **K4RH**

Physical Data:

Discharge Size	ANSI 4″ Horizontal
Solids Size	3″
Impeller Type	Balanced, Vortex, 10-Vane
Power/Control Cable Length	40′ Standard
Paint	Blue, Powder Coated – Impeller & Inside Volute - Ceramic Coated For Abrasion Resistance

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H (**Optional** - Class N)
Service Factor	1.2
NEMA Design Type	B (3Ø) L (1Ø)
Single Phase Configuration	External Start and Run Components
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	Class H: 356°F (180°C) Class N: 392°F (200°C) - **Optional**
Power Cord Type	SOOW - 600V, 90º C; Type W - 2000V, 90º C
Control Cord Type	18-5 - SOOW - 600V, 90º C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coated Inside
Impeller	Ductile Iron, ASTM A536, 60-40-18 / Ceramic Coated
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Conrad Style Double Row Angular Contact Ball Bearing
Line Bearing	Bronze, CDA 836

Pump Model: **K4RH – 3450 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**3450**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
7.5	230	1	L	1.2	32.5	39.0	113.8	7.5	26.3	9.8
7.5	208	3	L	1.2	22.1	26.5	77.4	6.3	27.9	9.3
	230				19.9	23.9	69.7			
	460				10.0	11.9	34.8			
10	208	3	J	1.2	29.1	34.9	101.9	8.3	36.7	7.3
	230				26.2	31.5	91.8			
	460				13.1	15.7	45.9			
15	208	3	J	1.2	45.2	54.2	158.2	12.8	56.9	7.6
	230				44.1	48.9	142.5			
	460				22.1	24.4	71.3			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				Power Factor %			
HP	Phase	Service Factor Load	100% Load	75% Load	50% Load	Service Factor Load	100% Load	75% Load	50% Load
7.5	1	65	65	64	59	86	83	76	62
7.5	3	78	78	75	70	79	76	71	60
10	3	75	76	75	70	79	78	71	59
15	3	74	76	74	68	78	77	72	58

KEEN PUMP

K4RN(X)

FM APPROVED

4" Submersible, Recessed Impeller
(Class 1, Div. 1, Groups C & D Hazardous Location)

Optional :
All Stainless Steel Construction

CERAMIC COATED RECESSED IMPELLER
- Superior Abrasion Resistance
- Allows The Pump To Operate Better In Any Pressure Or Flow Condition

CERAMIC COATED VOLUTE
- Holds Up to Wear On Inside of Volute Casting Case

STANDARD MOTOR CONSTRUCTION
- Class H Laminations (Standard)

MOTOR GROUND RING PROTECTION
- Allows Motor To Operate With VFD Without Damaging Bearings and Motor
- Ground Ring Safely Diverts Harmful Voltages Away From Bearings

DOUBLE ROW LOWER BEARINGS
- Heavy Duty Bearings Handle The Toughest Applications of High Pressure and Flow Rates

BEST MOTOR CONSTRUCTION
- OPTIONAL Class "N" (392° F) Highest Temperature
- Motor Will Not Overheat In Continuous Or Dry Pit Applications

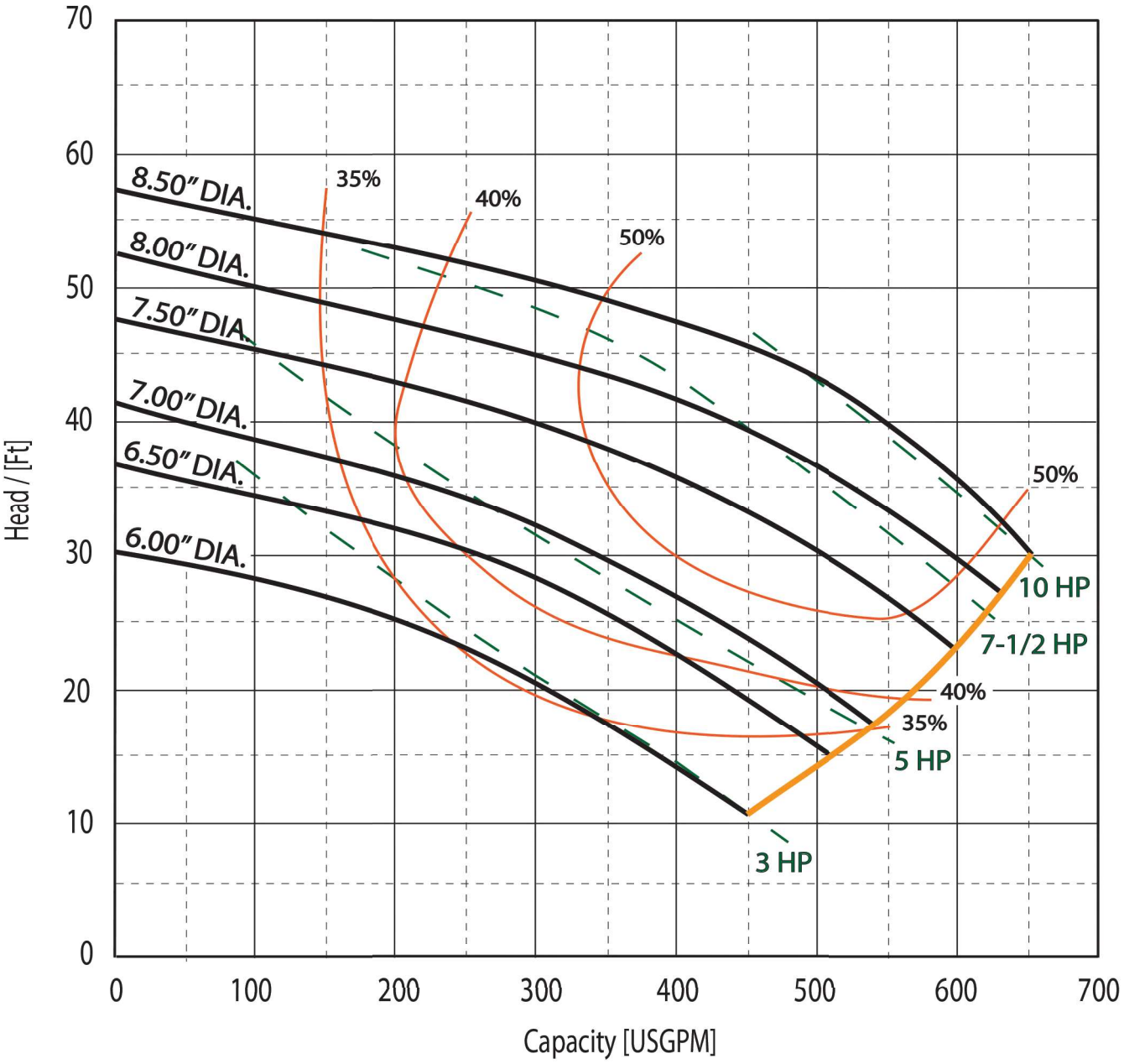
CAPABILITIES:
- Flows---------- to 600 GPM
- Heads---------- to 67 Feet
- HP Range---------- 1 - 10 HP
- Voltage / Phase Options---------- 208/230 V, 1 Phase - 208/230/460 V, 3 Phase
- Discharge Connections---------- 4" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 1150 / 1750 RPM
- Solids-Handling---------- 3"
- Impeller---------- Recessed, Vortex
- Motor Service Factor---------- 1.20`

KEEN PUMP

Section **VORTEX**
Date Nov. 2021

Pump Series	**K4RN**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1750 RPM**	Discharge	**4″**	Solids	**3″**

GPM: _____ TDH: _____



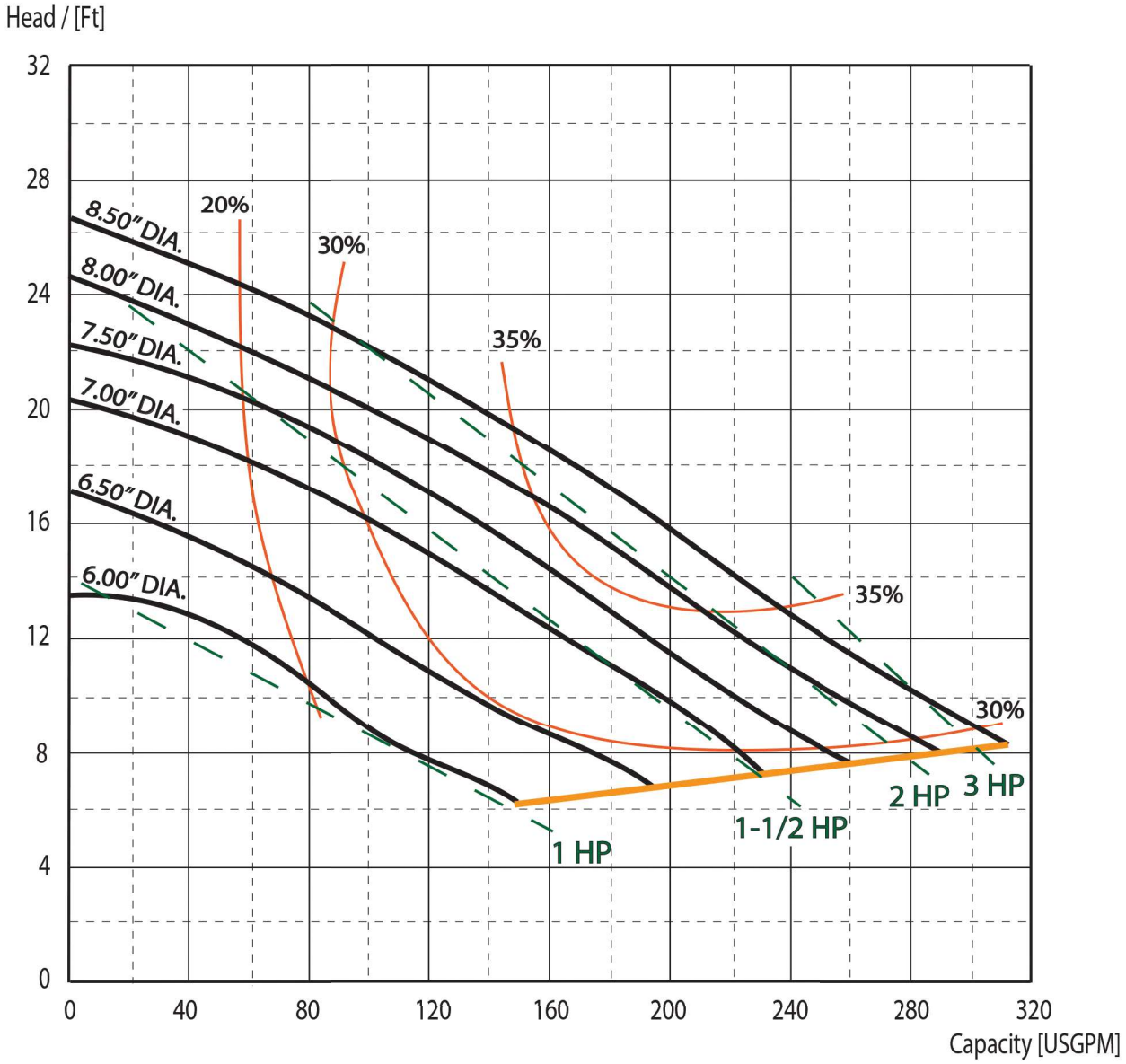
The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

KEEN PUMP

Section **VORTEX**
Date Nov. 2021

Pump Series	**K4RN**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1150 RPM**	Discharge	**4″**	Solids	**3″**

GPM: _____ TDH: _____



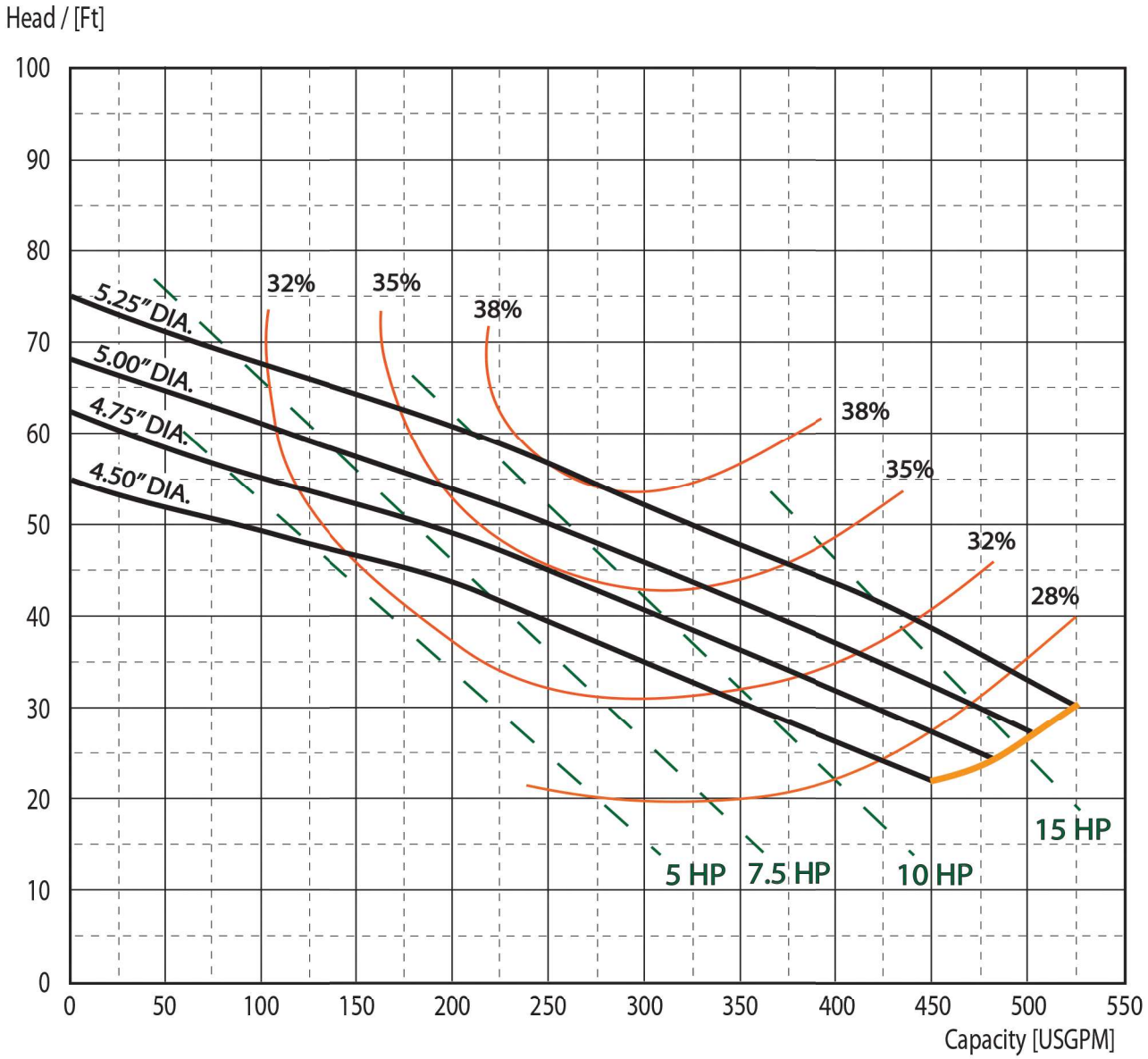
The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

KEEN PUMP

Section **VORTEX**
Date Nov. 2021

Pump Series	**K4RN**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**3450 RPM**	Discharge	**4″**	Solids	**3″**

GPM: _____ TDH: _____



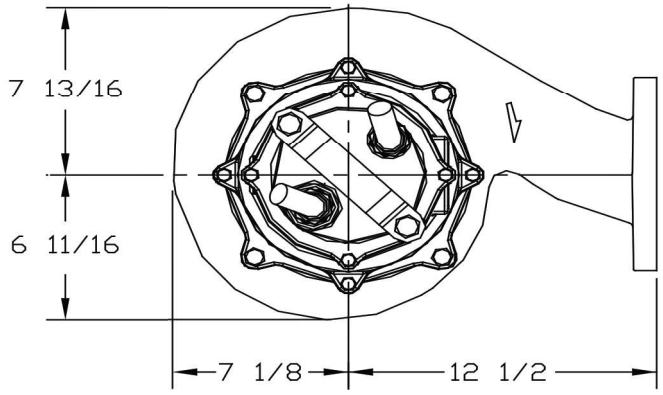
The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

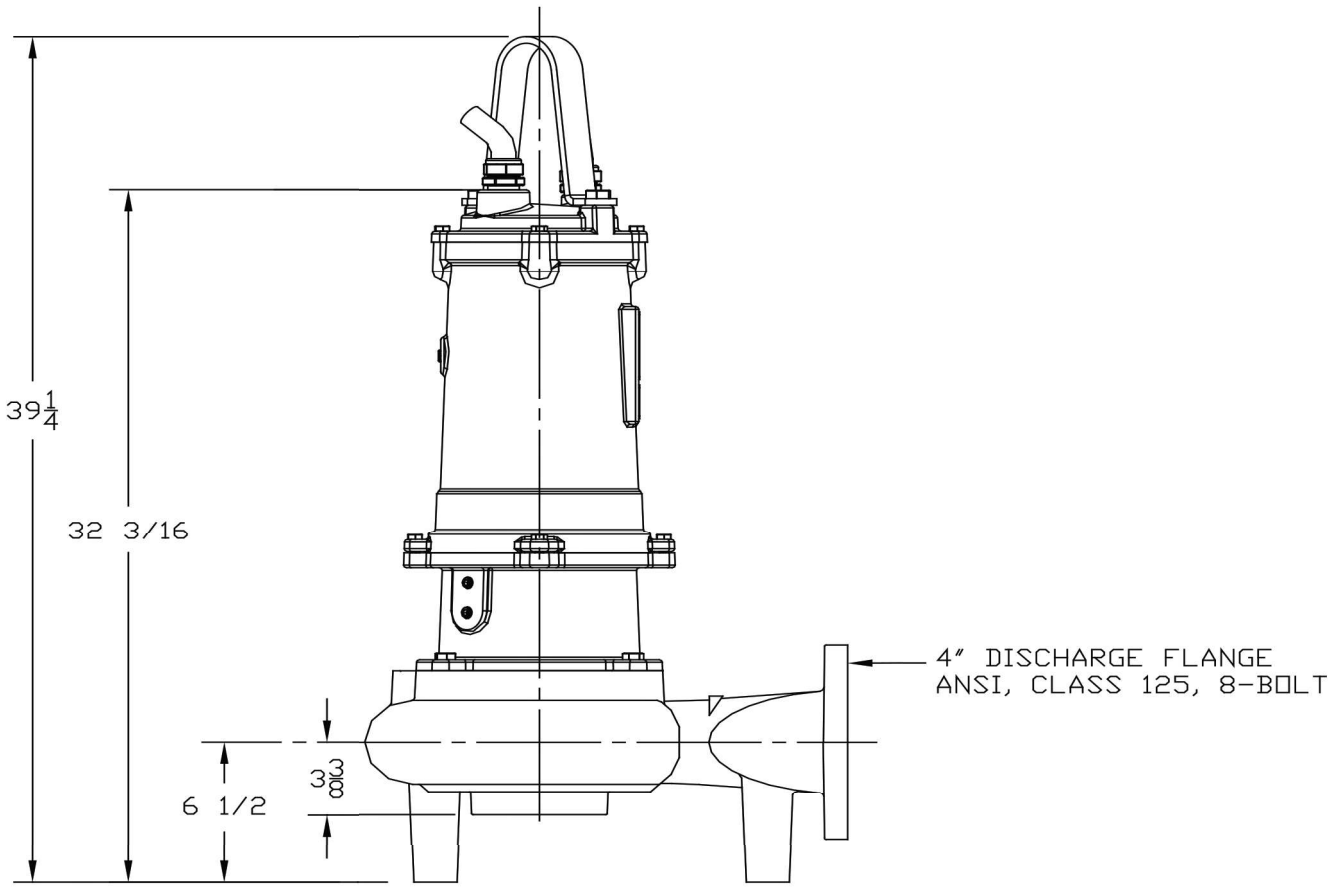
KEEN PUMP

Section **VORTEX**
Date **JUNE 2015**

Pump Series	**K4RN**	4″ SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA





Note: All dimensions in inches unless noted.
Pump shown 1150 & 1750 RPM.
Dimensions may vary due to normal manufacturing tolerances.

File: K4RNM4&6 Dimensions

Pump Model: **K4RN**

Physical Data:

Discharge Size	ANSI 4" Horizontal
Solids Size	3"
Impeller Type	Balanced, Recessed, 8 Vane
Power/Control Cable Length	40' Standard
Paint	Blue, Powder Coated– Impeller & Inside Volute - Ceramic Coated For Abrasion Resistance

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H (**Optional** - Class N)
Service Factor	1.2
NEMA Design Type	B (3Ø) L (1Ø)
Single Phase Configuration	External Start and Run Components
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	Class H: 356°F (180°C) Class N: 392°F (200°C) - **Optional**
Power Cord Type	Type W - 2000V, 90° C
Control Cord Type	18-5 - SOOW - 600V, 90° C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coated Inside
Impeller	Ductile Iron, ASTM A536, 60-40-18 / Ceramic Coated
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Conrad Style Double Row Angular Contact Ball Bearing
Line Bearing	Bronze, CDA 836

Pump Model: **K4RN – 1750 RPM**

Thermal Data:

Maximum Liquid		140° F (60° C)
Maximum Stator		311° F (155° C)
Heat Sensor	**Open:**	257° F (125° C) Max. / 239° F (115° C) Min.
	Closed:	194° F (90° C) Max. / 119° F (48° C) Min.
Oil Flash Point		390° F (199° C)

Electrical Data:

RPM	**1750**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
3	208	1	E	1.2	19.1	22.9	66.9	4.0	13.9	5.2
	230				17.2	20.6	60.2			
3	208	3	H	1.2	16.3	19.6	57.1	4.6	20.6	5.8
	230				14.7	17.6	51.4			
	460				7.3	8.8	25.7			
5	208	1	F	1.2	37.1	44.5	129.9	7.7	26.9	10.0
	230				33.4	40.1	116.9			
5	208	3	F	1.2	21.1	25.3	73.9	6.0	26.5	7.5
	230				19.0	22.8	66.5			
	460				9.5	11.4	33.3			
7.5	208	3	F	1.2	32.1	38.5	112.4	9.1	40.4	11.3
	230				28.9	34.7	101.2			
	460				14.5	17.4	50.6			
10	208	3	E	1.0	38.5	38.5	134.8	11.0	48.5	13.6
	230				34.7	34.7	121.4			
	460				17.3	17.3	60.7			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				Power Factor %			
HP	Phase	Service Factor Load	100% Load	75% Load	50% Load	Service Factor Load	100% Load	75% Load	50% Load
3	1	66	66	64	56	87	83	79	70
3	3	71	70	69	63	81	80	79	71
5	1	65	65	64	59	86	83	76	62
5	3	78	78	75	70	79	76	71	60
7.5	3	77	76	74	69	75	70	64	54
10	3	75	76	75	70	79	78	71	59

Pump Model: **K4RN – 1150 RPM**

Thermal Data:

Maximum Liquid	140° F (60° C)
Maximum Stator	311° F (155° C)
Heat Sensor Open:	257° F (125° C) Max. / 239° F (115° C) Min.
Closed:	194° F (90° C) Max. / 119° F (48° C) Min.
Oil Flash Point	390° F (199° C)

Electrical Data:

RPM	**1150**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
1	208	1	H	1.2	9.6	11.5	33.6	2.0	7.0	2.6
	230				8.6	10.4	30.3			
1	208	3	J	1.2	6.6	7.9	21.0	1.7	7.6	2.1
	230				6.2	7.4	18.9			
	460				3.1	3.7	9.5			
2	208	1	H	1.2	18.9	22.7	66.2	13.8	5.1	5.1
	230				17.0	20.4	59.6			
2	208	3	G	1.2	9.9	11.9	34.7	2.8	12.5	3.5
	230				8.9	10.7	31.2			
	460				4.5	5.4	15.6			
3	208	1	F	1.0	22.7	22.7	79.5	4.7	16.5	6.1
	230				20.5	20.5	71.6			
3	208	3	G	1.0	14.3	14.3	50.1	4.1	18.0	6.0
	230				12.9	12.9	45.1			
	460				6.4	6.4	22.5			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				Power Factor %			
HP	Phase	Service Factor Load	100% Load	75% Load	50% Load	Service Factor Load	100% Load	75% Load	50% Load
1	1	60	60	59	53	75	73	66	57
1	3	65	62	56	52	75	72	67	61
2	1	63	61	60	50	76	74	70	62
2	3	65	64	60	52	78	76	71	60
3	1	68	65	59	55	75	70	64	54
3	3	65	64	60	57	79	78	71	59

KEEN PUMP®

K4RP(X)

FM (PENDING)

4" Submersible, Recessed Impeller
(Class 1, Div. 1, Groups C & D Hazardous Location)

Optional :
All Stainless Steel Construction

CERAMIC COATED RECESSED IMPELLER
- Superior Abrasion Resistance
- Allows The Pump To Operate Better In Any Pressure Or Flow Condition

CERAMIC COATED VOLUTE
- Holds Up to Wear On Inside of Volute Casting Case

STANDARD MOTOR CONSTRUCTION
- Class H Laminations (Standard)

MOTOR GROUND RING PROTECTION
- Allows Motor To Operate With VFD Without Damaging Bearings and Motor
- Ground Ring Safely Diverts Harmful Voltages Away From Bearings

DOUBLE ROW LOWER BEARINGS
- Heavy Duty Bearings Handle The Toughest Applications of High Pressure and Flow Rates

BEST MOTOR CONSTRUCTION
- OPTIONAL Class "N" (392° F) Highest Temperature
- Motor Will Not Overheat In Continuous Or Dry Pit Applications

CAPABILITIES:
- Flows---------- to 750 GPM
- Heads---------- to 135 Feet
- HP Range---------- 3 - 20 HP
- Voltage / Phase Options---------- 208/230/460/575V, 3-Phase or 208/230V, 1-Phase
- Discharge Connections---------- 4" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 1150 / 1750 / 3450 RPM
- Solids-Handling---------- 3"
- Impeller---------- Recessed, Vortex
- Motor Service Factor---------- 1.20

Rev. 03/2022

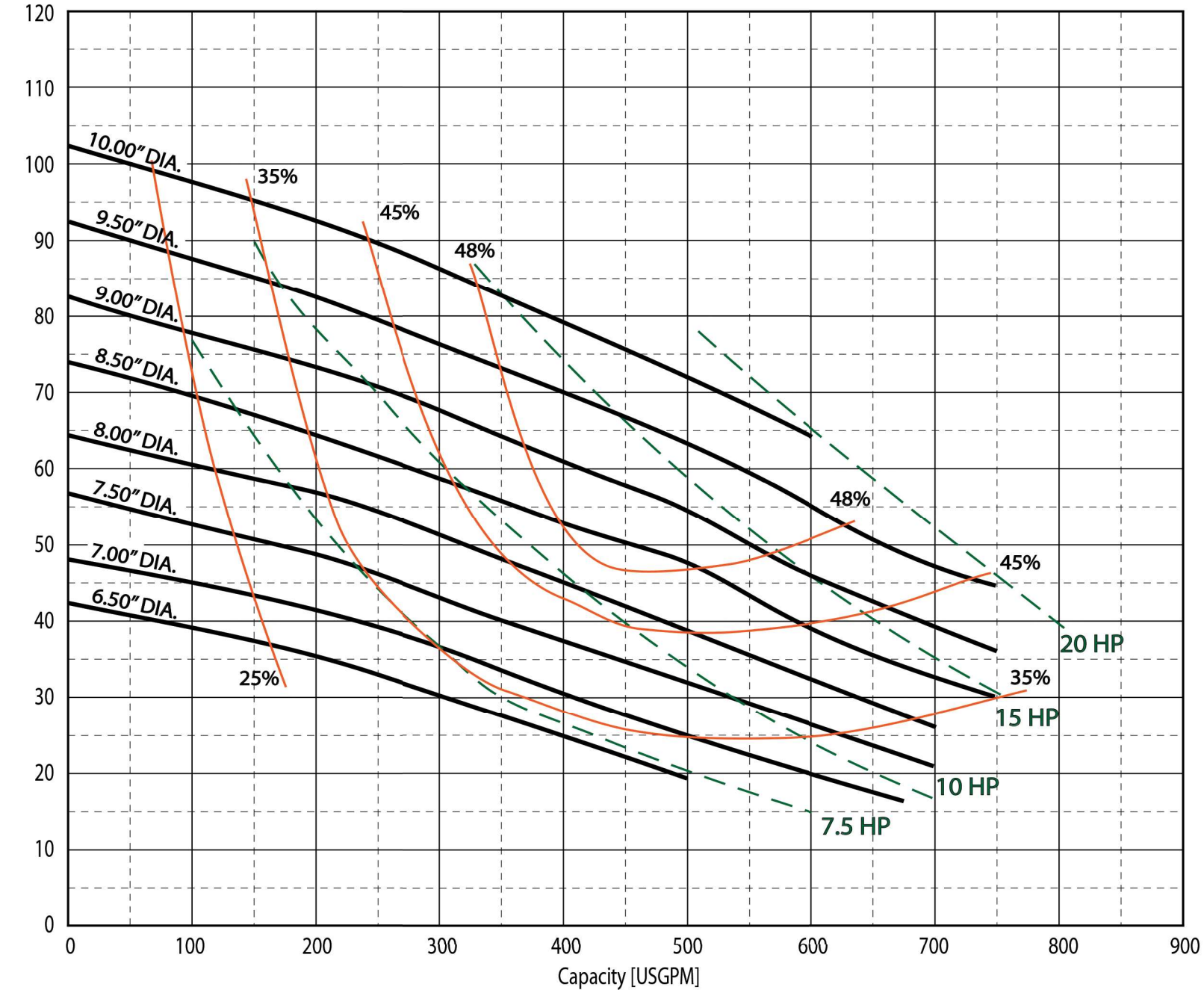
KEEN PUMP

Section **VORTEX**
Date Nov. 2021

Pump Series	**K4RP**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1750 RPM**	Discharge	**4″**	Solids	**3″**

Head / [Ft]

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

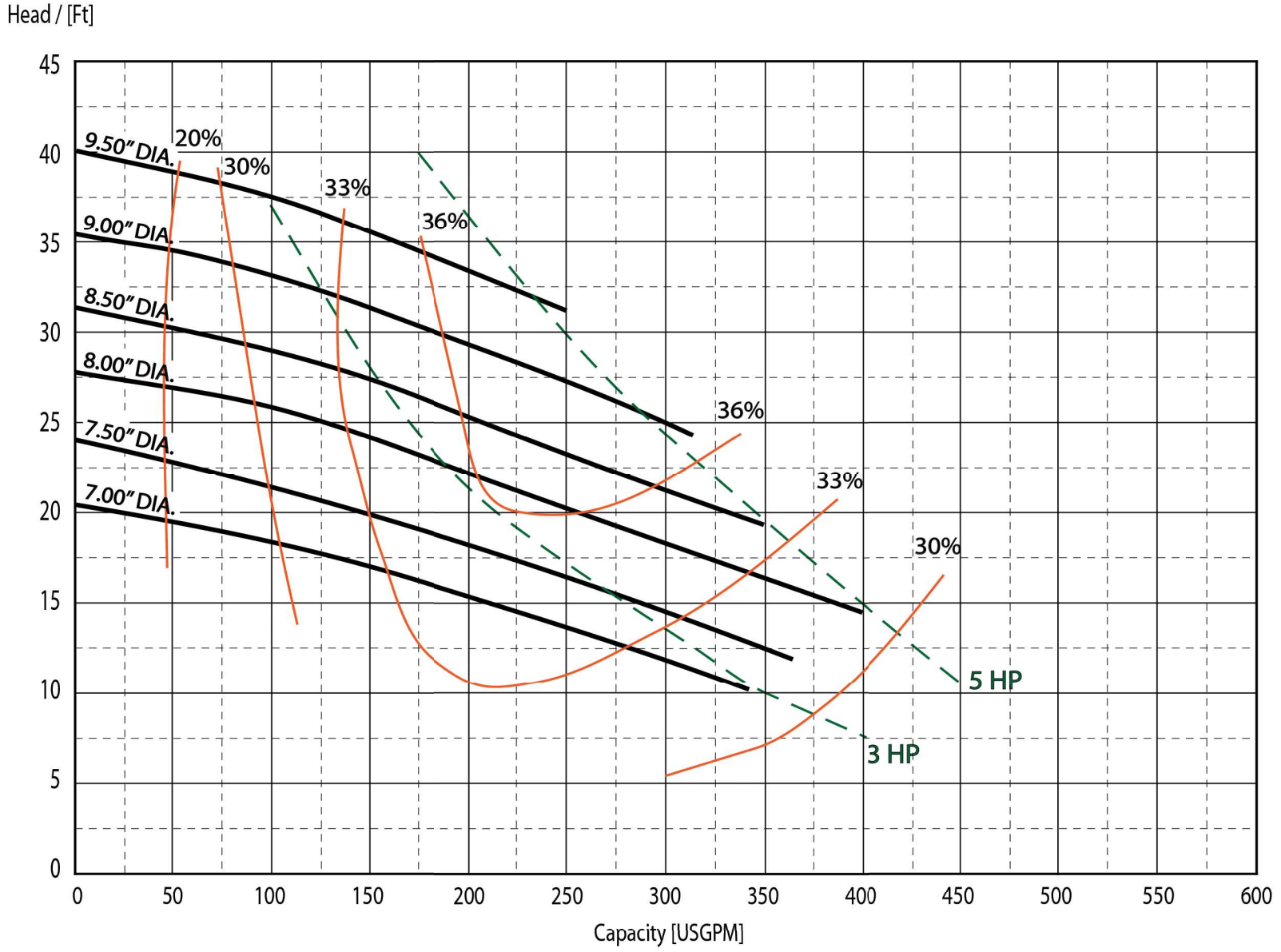
File: K4RP_1750

KEEN PUMP

Section **VORTEX**
Date Nov. 2021

Pump Series	**K4RP**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1150 RPM**	Discharge	**4″**	Solids	**3″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

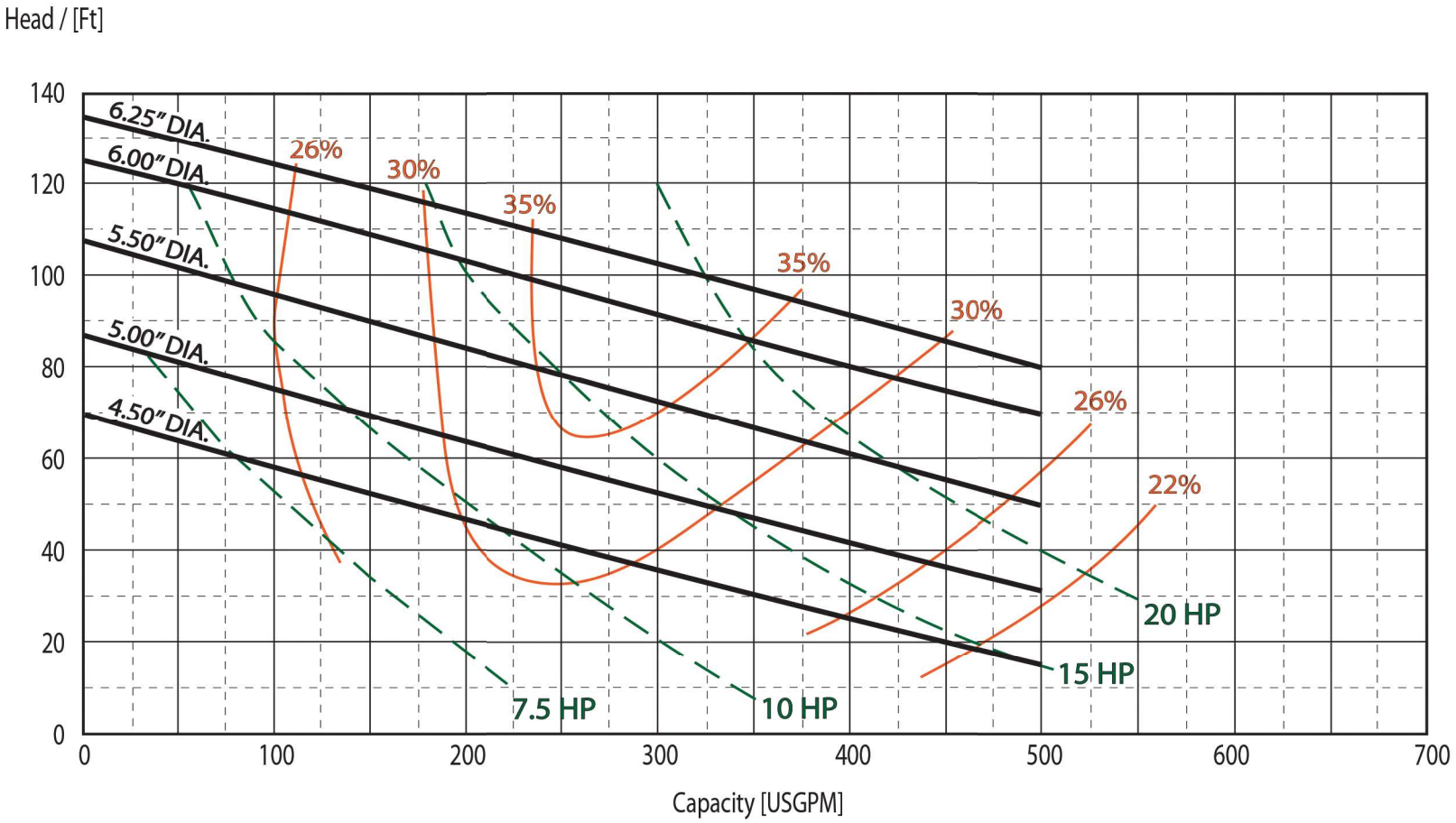
File: K4RP_1150

KEEN PUMP

Section **VORTEX**
Date Nov. 2021

Pump Series	**K4RP**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**3450 RPM**	Discharge	**4″**	Solids	**3″**

GPM: _____ TDH: _____



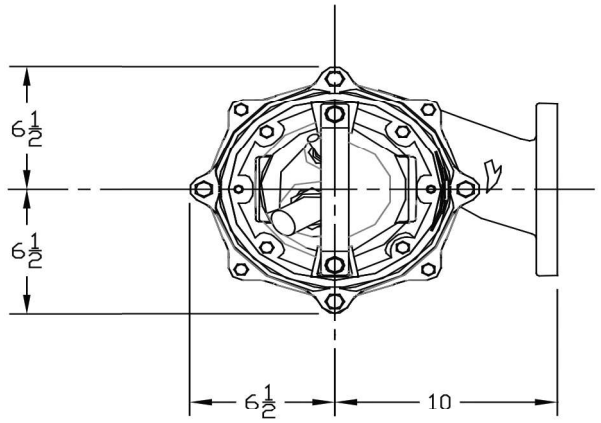
The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

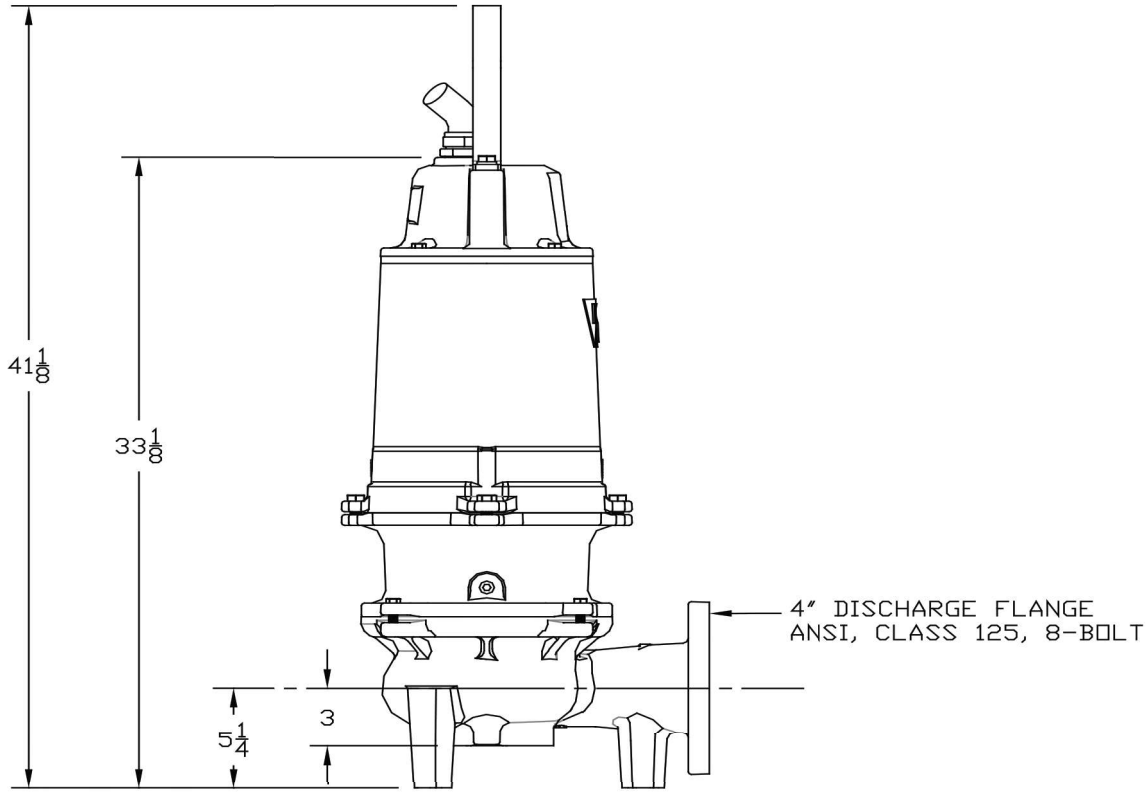
KEEN PUMP®

Section **VORTEX**
Date **SEPT 2014**

Pump Series	**K4RP (3450)**	4″ SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA





Note: All dimensions in inches unless noted.
Dimensions may vary due to normal manufacturing tolerances.

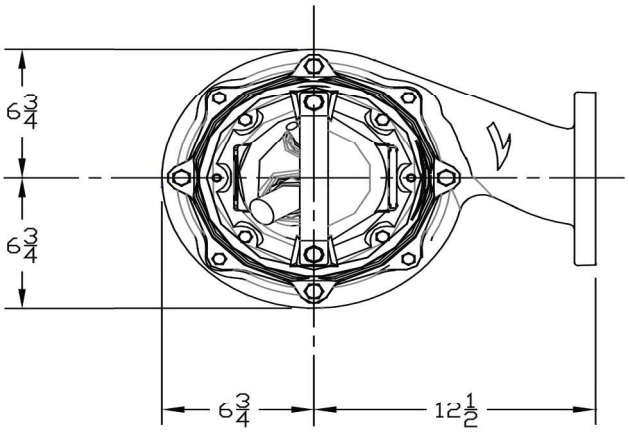
File: K4RPM2 Dimensions

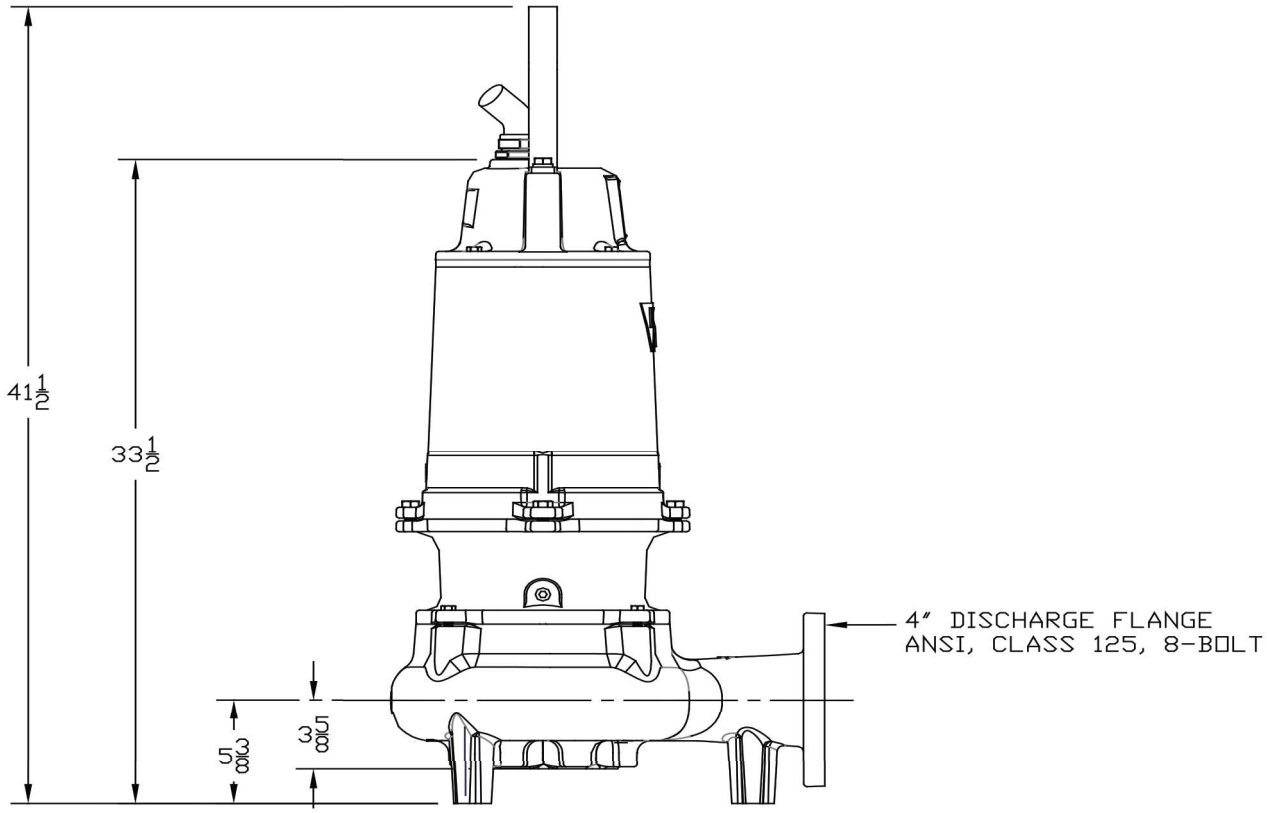
KEEN PUMP®

Section **VORTEX**
Date **SEPT 2014**

Pump Series	**K4RP (1150 & 1750)**	4″ SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA





Note: All dimensions in inches unless noted.
Dimensions may vary due to normal manufacturing tolerances.

File: K4RPM4&M6 Dimensions

Pump Model: **K4RP**

Physical Data:

Discharge Size	ANSI 4" Horizontal
Solids Size	3"
Impeller Type	Balanced, Recessed
Power/Control Cable Length	40' Standard
Paint	Blue, Powder Coated – Impeller & Inside Volute - Ceramic Coated For Abrasion Resistance

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H (**Optional** - Class N)
Service Factor	1.2
NEMA Design Type	B (3Ø) L (1Ø)
Single Phase Configuration	External Start and Run Components if Applicable
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	Class H: 356°F (180°C) Class N: 392°F (200°C) - **Optional**
Power Cord Type	Type W - 2000V, 90° C
Control Cord Type	18-5 - SOOW - 600V, 90° C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coated Inside
Impeller	Ductile Iron, ASTM A536, 60-40-18 / Ceramic Coated
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Conrad Style Double Row Angular Contact Ball Bearing
Labyrinth Seal	Bronze, CDA 836

Pump Model: **K4RP – 1750 RPM**

Thermal Data:

Maximum Liquid		140° F (60° C) Intermittent
Maximum Stator		356° F (180° C)
Heat Sensor	**Open:**	275° F (135° C) Max. / 257° F (125° C) Min.
	Closed:	205° F (96° C) Max. / 154° F (68° C) Min.
Oil Flash Point		390° F (199° C)

Electrical Data:

RPM	**1750**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
5	208	1	C	1.2	26.2	31.4	91.7	5.4	19.1	7.1
	230				22.8	28.3	82.6			
5	208	3	J	1.2	21.6	25.9	129.5	6.9	39.3	7.7
	230				19.3	23.2	116.8			
	460				9.6	11.5	58.1			
	575				7.7	9.2	46.5			
7.5	230	1	D	1.2	37.1	44.5	129.9	8.6	30.0	11.1
7.5	208	3	G	1.2	25.4	30.5	129.5	8.2	46.5	9.1
	230				22.9	27.5	116.8			
	460				11.4	13.7	58.1			
	575				9.1	10.9	46.5			
10	208	3	H	1.2	35.1	42.1	179.0	11.3	64.0	12.5
	230				31.6	37.9	161.2			
	460				15.7	18.8	80.1			
	575				12.5	15.0	63.8			
15	208	3	H	1.2	54.2	65.0	276.4	17.5	99.2	19.4
	230				48.9	58.7	249.4			
	460				24.4	29.3	124.4			
	575				19.4	23.3	98.9			

Pump Model: **K4RP – 1150 RPM**

Thermal Data:

Maximum Liquid		140° F (60° C) Intermittent
Maximum Stator		356° F (180° C)
Heat Sensor	**Open:**	275° F (135° C) Max. / 257° F (125° C) Min.
	Closed:	205° F (96° C) Max. / 154° F (68° C) Min.
Oil Flash Point		390° F (199° C)

Electrical Data:

RPM	**1150**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
3	208	3	L	1.2	16.0	19.2	99.5	5.2	35.7	5.7
	230				14.4	17.3	89.6			
	460				7.2	8.6	44.8			
	575				5.8	6.9	35.8			
5	208	3	J	1.2	19.5	23.4	99.5	6.3	35.7	7.0
	230				17.6	21.1	89.6			
	460				8.8	10.5	44.8			
	575				7.0	8.4	35.8			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
3	3	80	78	75	68	61	56	48	39
5	3	81	81	80	76	72	69	62	51

Pump Model: **K4RP – 3450 RPM**

Thermal Data:

Maximum Liquid		140° F (60° C) Intermittent
Maximum Stator		356° F (180° C)
Heat Sensor	**Open:**	275° F (135° C) Max. / 257° F (125° C) Min.
	Closed:	205° F (96° C) Max. / 154° F (68° C) Min.
Oil Flash Point		390° F (199° C)

Electrical Data:

RPM	**3450**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
7.5	208	3	J	1.2	29.4	35.3	206.6	9.5	75.2	7.2
	230				26.5	31.8	186.1			
	460				13.2	15.9	93.0			
	575				10.6	12.7	74.4			
10	208	3	J	1.2	40.5	48.6	206.6	13.1	75.2	7.4
	230				36.5	43.8	186.1			
	460				18.2	21.9	93.0			
	575				14.6	17.5	74.4			
15	208	3	H	1.2	56.1	67.3	286.1	18.2	102.8	11.9
	230				50.5	60.6	257.8			
	460				25.3	30.3	128.9			
	575				20.2	24.3	103.1			
20	230	3	H	1.0	60.6	60.6	287.9	19.9	102.8	16.1
	460				30.3	30.3	143.9			

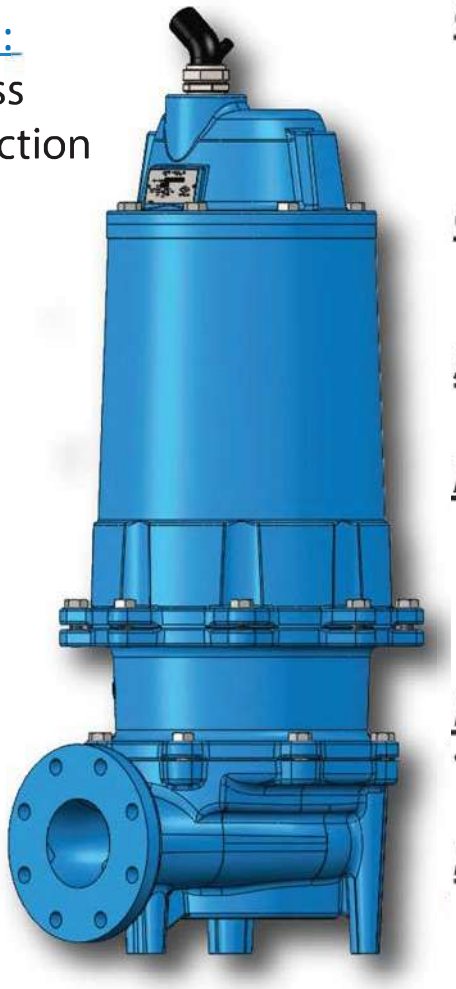
KEEN PUMP®

K4RB(X)

FM APPROVED

4" Submersible, Recessed Impeller
(Class 1, Div. 1, Groups C & D Hazardous Location)

Optional :
All Stainless
Steel Construction



CERAMIC COATED RECESSED IMPELLER
- Superior Abrasion Resistance
- Allows The Pump To Operate Better In Any Pressure Or Flow Condition

CERAMIC COATED VOLUTE
- Holds Up to Wear On Inside of Volute Casting Case

STANDARD MOTOR CONSTRUCTION
- Class H Laminations (Standard)

MOTOR GROUND RING PROTECTION
- Allows Motor To Operate With VFD Without Damaging Bearings and Motor
- Ground Ring Safely Diverts Harmful Voltages Away From Bearings

DOUBLE ROW LOWER BEARINGS
- Heavy Duty Bearings Handle The Toughest Applications of High Pressure and Flow Rates

BEST MOTOR CONSTRUCTION
- OPTIONAL Class "N" (392° F) Highest Temperature
- Motor Will Not Overheat In Continuous Or Dry Pit Applications

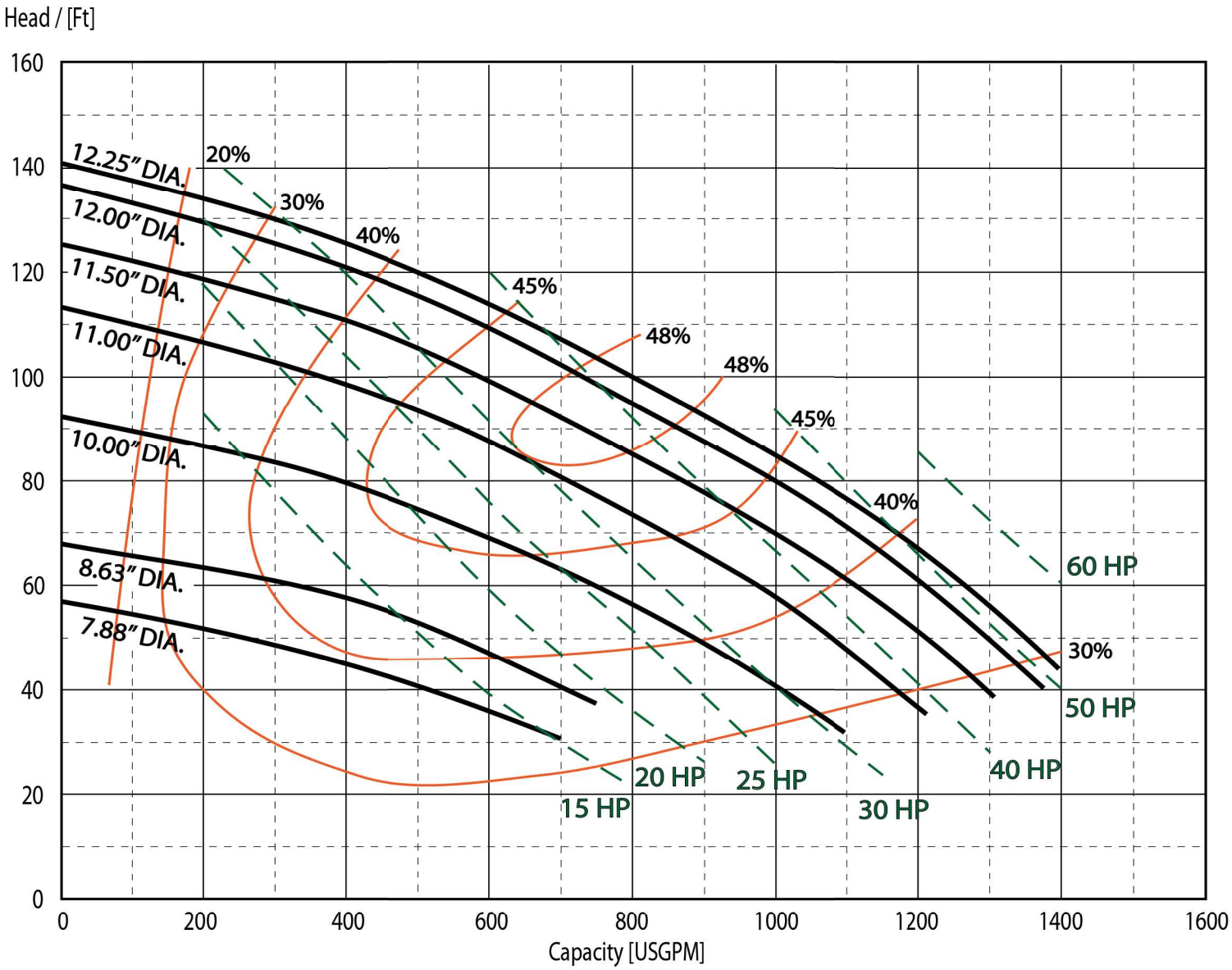
CAPABILITIES:
- Flows---------- to 1400 GPM
- Heads---------- to 275 Feet
- HP Range---------- 3 - 60 HP
- Voltage / Phase Options---------- 208 / 230 / 460 / 575V, 3 Phase
- Discharge Connections---------- 4" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 1150 / 1750 / 3450 RPM
- Solids-Handling---------- 3"
- Impeller---------- Recessed, Vortex
- Motor Service Factor---------- 1.20

KEEN PUMP

Section **VORTEX**
Date Nov. 2021

Pump Series	**K4RB**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1750 RPM**	Discharge	**4″**	Solids	**3″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

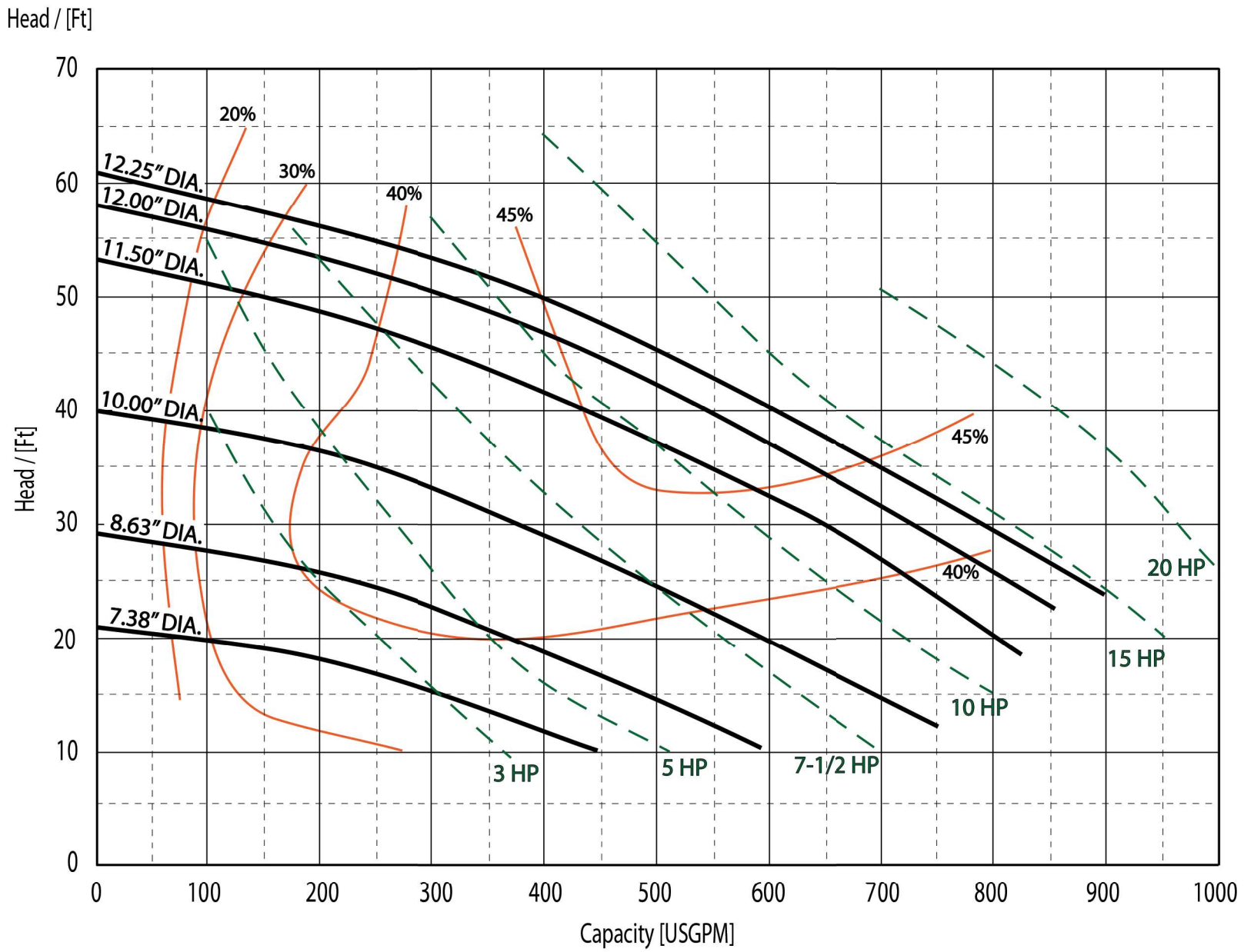
File: K4RB_1750

KEEN PUMP

Section **VORTEX**
Date Nov. 2021

Pump Series	**K4RB**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1150 RPM**	Discharge	**4″**	Solids	**3″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

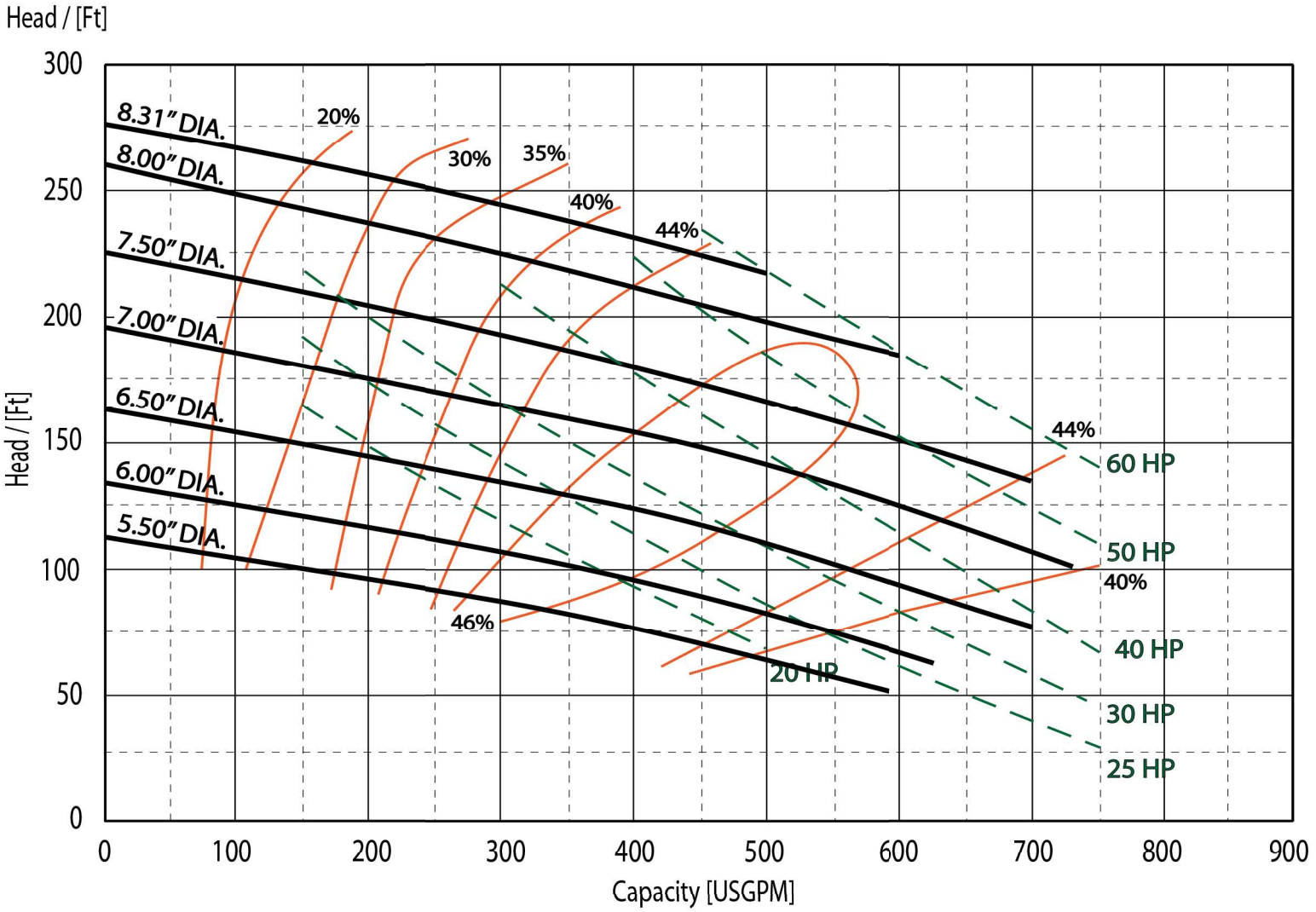
File: K4RB_1150

KEEN PUMP

Section **VORTEX**
Date Nov. 2021

Pump Series	**K4RB**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**3450 RPM**	Discharge	**4″**	Solids	**3″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

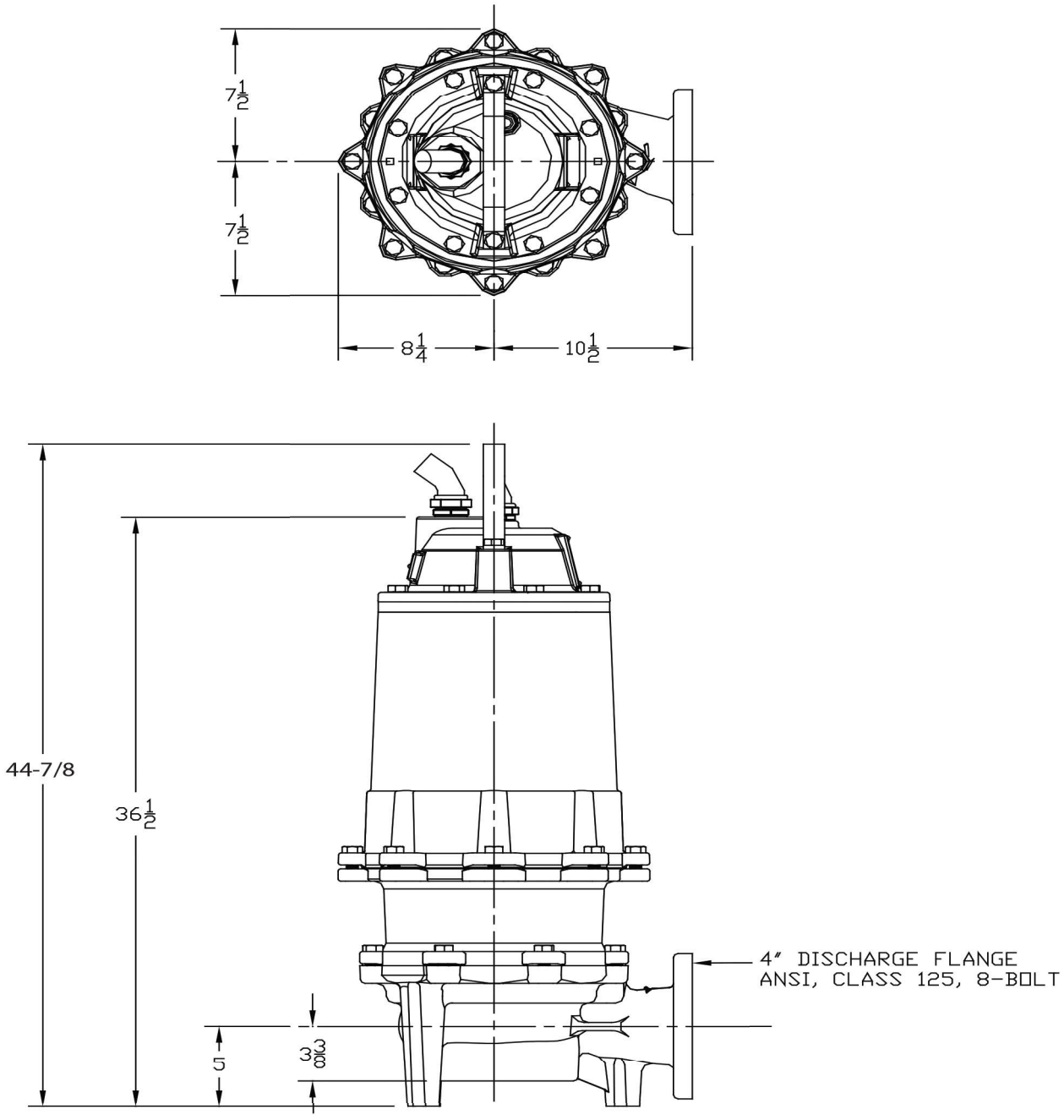
File: K4RB_3450

KEEN PUMP®

Section **VORTEX**
Date **JUNE 2014**

Pump Series	**K4RB (3450)**	4″ SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA



Note: All dimensions in inches unless noted.
Dimensions may vary due to normal manufacturing tolerances.

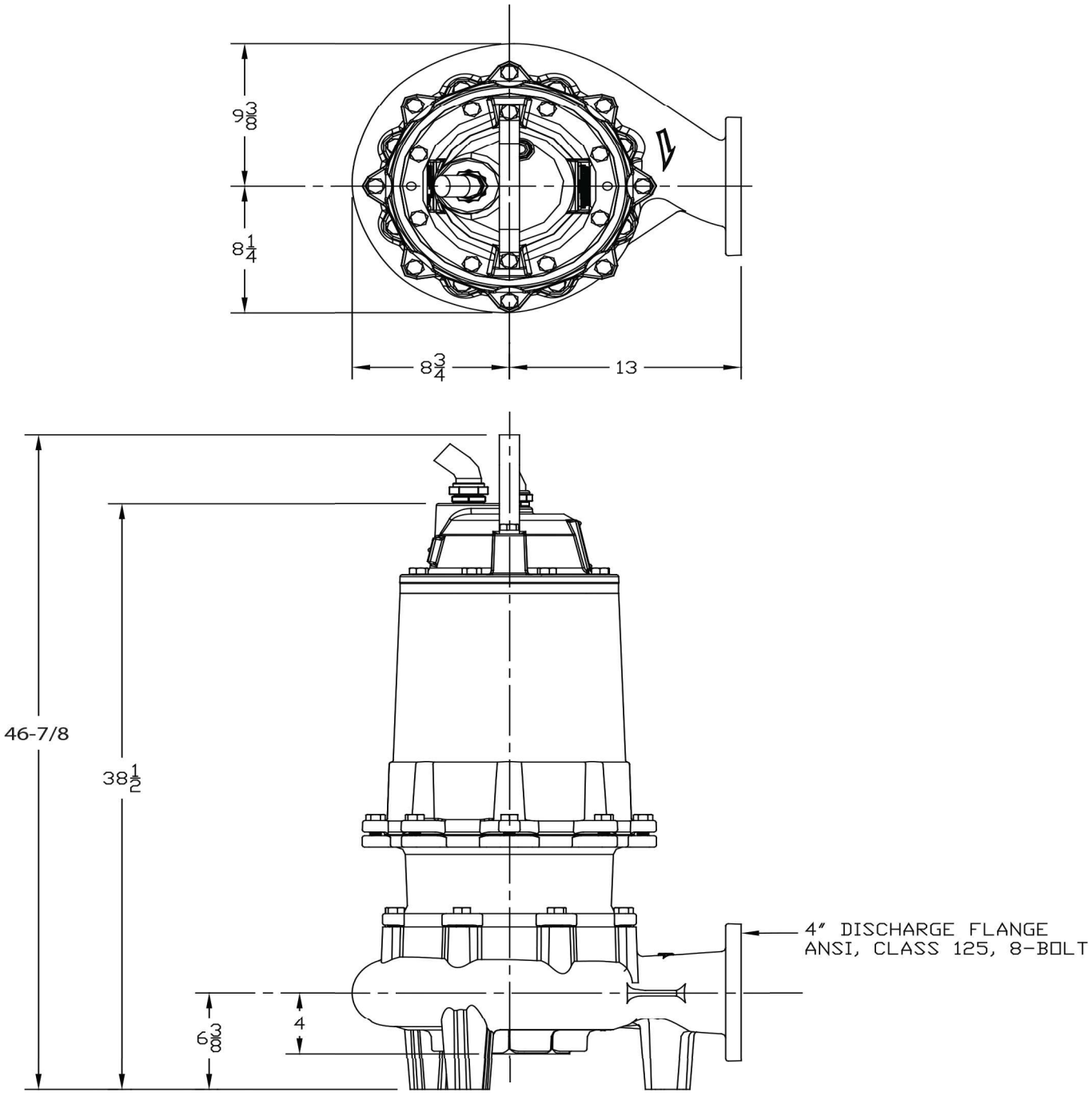
File: K4RBM2 Dimensions

KEEN PUMP®

Section **VORTEX**
Date **JUNE 2014**

Pump Series	**K4RB (1150&1750)**	4″ SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA



Note: All dimensions in inches unless noted.
Dimensions may vary due to normal manufacturing tolerances.

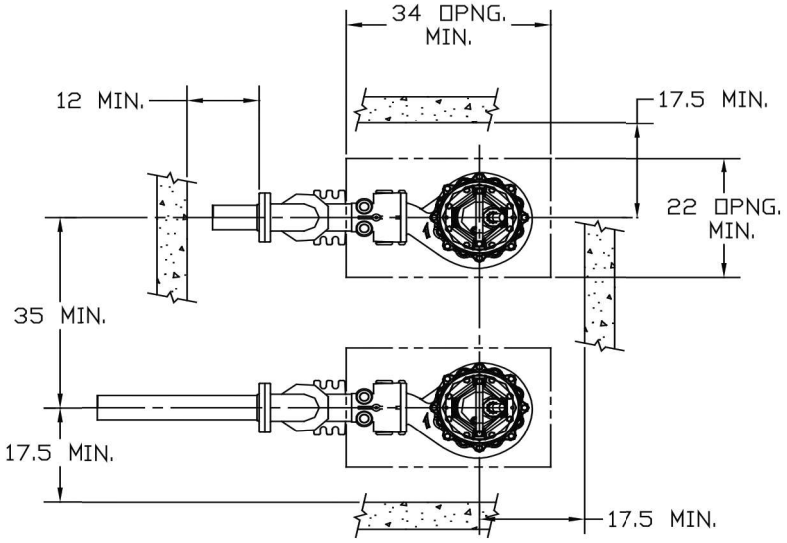
File: K4RBM4 Dimensions

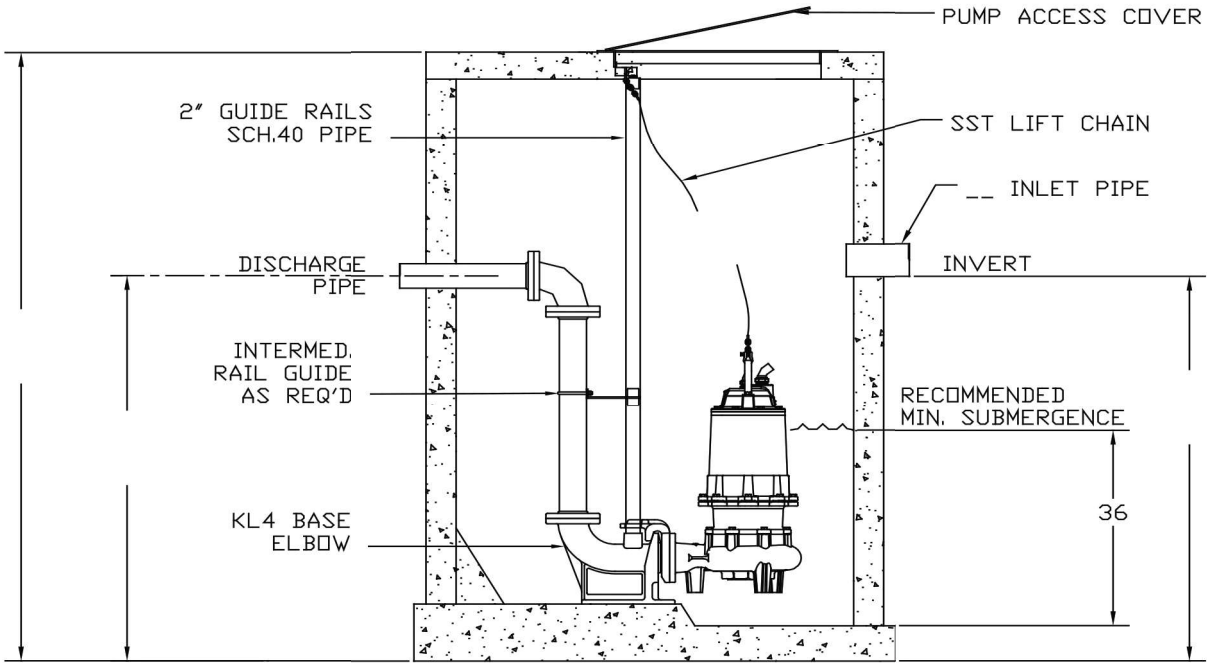
KEEN PUMP®

Section **VORTEX**
Date **JULY 2013**

Pump Series	**K4RB (1150&1750)**	4″ SUBMERSIBLE SEWAGE PUMPS

DUPLEX INSTALLATION DIMENSIONAL DATA





Notes:
1. All dimensions in inches unless noted.
2. Refer to pump dimension and liftout dimension sheets for more details.
3. Recommended minimum submergence levels noted.
4. Discharge base elbow must be placed above sump bottom as noted.
5. Dimensions may vary due to normal manufacturing tolerances.
6. If discharge pipe is larger than discharge elbow, eccentric reducer must be used limited to 2X larger maximum.

File: K4RBM4 Install Dimensions

Pump Model: **K4RB**

Physical Data:

Discharge Size	ANSI 4" Horizontal
Solids Size	3"
Impeller Type	Balanced, Recessed, 10 Vane (3450) / 8 Vane (1750 & 1150)
Power/Control Cable Length	40' Standard
Paint	Blue, Powder Coated– Impeller & Inside Volute - Ceramic Coated For Abrasion Resistance

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H (**Optional** - Class N)
Service Factor	1.2
NEMA Design Type	B (3Ø) L (1Ø)
Single Phase Configuration	External Start and Run Components if Applicable
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	Class H: 356°F (180°C) Class N: 392°F (200°C) - **Optional**
Power Cord Type	Type W - 2000V, 90° C
Control Cord Type	18-5 - SOOW - 600V, 90° C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coated Inside
Impeller	Ductile Iron, ASTM A536, 60-40-18 / Ceramic Coated
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Conrad Style Double Row Angular Contact Ball Bearing
Labyrinth Seal	Bronze, CDA 836

Pump Model: **K4RB – 1750 RPM**

Thermal Data:

Maximum Liquid		140° F (60° C) Intermittent
Maximum Stator		311° F (155° C)
Heat Sensor	**Open:**	257° F (125° C) Max. / 239° F (115° C) Min.
	Closed:	194° F (90° C) Max. / 119° F (48° C) Min.
Oil Flash Point		390° F (199° C)

Electrical Data:

RPM	**1750**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
15	208	3	H	1.2	50.8	61.0	277.2	16.5	99.7	18.3
	230				45.8	54.9	249.7			
	460				22.9	27.5	124.9			
	575				18.3	22.0	99.9			
20	208	3	E	1.2	69.3	83.2	277.2	22.4	99.7	25.0
	230				62.4	74.9	249.7			
	460				31.2	37.5	124.9			
	575				25.0	30.0	99.9			
25	208	3	G	1.2	78.5	94.2	417.6	25.5	150.3	28.3
	230				70.7	84.9	376.2			
	460				35.4	42.4	188.1			
	575				28.3	33.9	150.5			
30	208	3	F	1.2	104.4	125.3	417.6	33.8	150.3	37.6
	230				94.1	112.9	376.2			
	460				47.0	56.4	188.1			
	575				37.6	45.1	150.5			
40	208	3	E	1.2	135.6	162.7	542.4	43.9	195.1	48.8
	230				122.2	146.6	488.6			
	460				61.1	73.3	244.3			
	575				48.9	58.6	195.5			
50	230	3	D	1.2	135.2	162.3	540.9	48.6	215.8	54.0
	460				67.6	81.1	270.5			
	575				54.1	64.9	216.4			

Pump Model: **K4RB – 1150 RPM**

Thermal Data:

Maximum Liquid		140° F (60° C) Intermittent
Maximum Stator		311° F (155° C)
Heat Sensor	**Open:**	257° F (125° C) Max. / 239° F (115° C) Min.
	Closed:	194° F (90° C) Max. / 119° F (48° C) Min.
Oil Flash Point		390° F (199° C)

Electrical Data:

RPM	**1150**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
5	208	3	J	1.2	19.6	23.5	100.0	6.4	36.0	7.0
	230				17.7	21.2	90.1			
	460				8.8	10.6	45.0			
	575				7.1	8.5	36.0			
7.5	208	3	K	1.2	27.3	32.8	176.0	8.9	63.3	9.8
	230				24.6	29.5	158.5			
	460				12.3	14.8	79.3			
	575				9.8	11.8	63.4			
10	208	3	G	1.2	34.5	41.4	176.0	11.2	63.3	12.4
	230				31.1	37.3	158.5			
	460				15.5	18.6	79.3			
	575				12.4	14.9	63.4			
15	208	3	K	1.2	48.2	57.8	339.2	15.6	122.5	17.4
	230				43.4	52.1	305.5			
	460				21.7	26.1	152.8			
	575				17.4	20.8	122.2			
20	208	3	G	1.2	66.5	79.8	339.2	21.6	122.5	24.0
	230				59.9	71.9	305.5			
	460				30.0	35.9	152.8			
	575				24.0	28.8	122.2			

Pump Model: **K4RB – 1750 RPM**

Thermal Data:

Maximum Liquid		140° F (60° C) Intermittent
Maximum Stator		311° F (155° C)
Heat Sensor	**Open:**	257° F (125° C) Max. / 239° F (115° C) Min.
	Closed:	194° F (90° C) Max. / 119° F (48° C) Min.
Oil Flash Point		390° F (199° C)

Electrical Data:

RPM	**1750**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
15	208	3	H	1.2	50.8	61.0	277.2	16.5	99.7	18.3
	230				45.8	54.9	249.7			
	460				22.9	27.5	124.9			
	575				18.3	22.0	99.9			
20	208	3	E	1.2	69.3	83.2	277.2	22.4	99.7	25.0
	230				62.4	74.9	249.7			
	460				31.2	37.5	124.9			
	575				25.0	30.0	99.9			
25	208	3	G	1.2	78.5	94.2	417.6	25.5	150.3	28.3
	230				70.7	84.9	376.2			
	460				35.4	42.4	188.1			
	575				28.3	33.9	150.5			
30	208	3	F	1.2	104.4	125.3	417.6	33.8	150.3	37.6
	230				94.1	112.9	376.2			
	460				47.0	56.4	188.1			
	575				37.6	45.1	150.5			
40	208	3	E	1.2	135.6	162.7	542.4	43.9	195.1	48.8
	230				122.2	146.6	488.6			
	460				61.1	73.3	244.3			
	575				48.9	58.6	195.5			
50	230	3	D	1.2	135.2	162.3	540.9	48.6	215.8	54.0
	460				67.6	81.1	270.5			
	575				54.1	64.9	216.4			

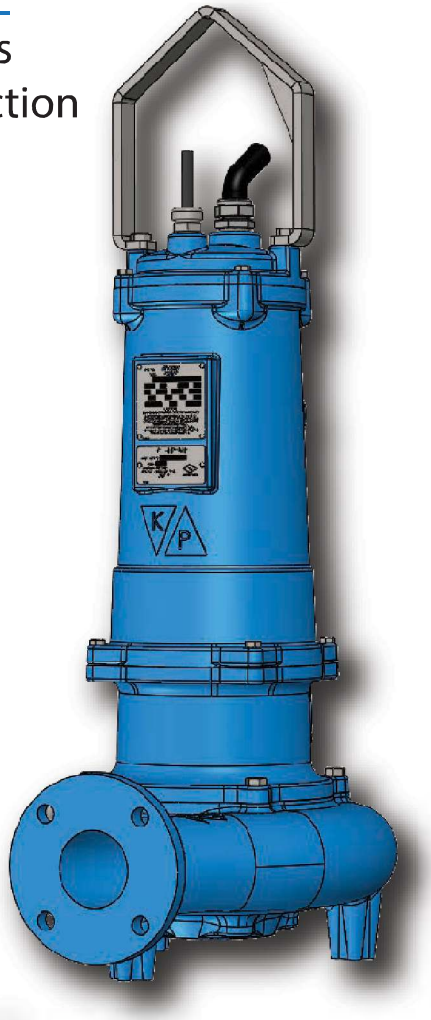
KEEN PUMP

K3VN(X)

FM APPROVED

3" Submersible, Enclosed Impeller
(Class 1, Div. 1, Groups C & D Hazardous Location)

Optional :
All Stainless
Steel Construction



CERAMIC COATED VORTEX IMPELLER
- Superior Abrasion Resistance
- Allows The Pump To Operate Better In Any Pressure Or Flow Condition

CERAMIC COATED VOLUTE
- Holds Up to Wear On Inside of Volute Casting Case

STANDARD MOTOR CONSTRUCTION
- Class H Laminations (Standard)

MOTOR GROUND RING PROTECTION
- Allows Motor To Operate With VFD Without Damaging Bearings and Motor
- Ground Ring Safely Diverts Harmful Voltages Away From Bearings

DOUBLE ROW LOWER BEARINGS
- Heavy Duty Bearings Handle The Toughest Applications of High Pressure and Flow Rates

BEST MOTOR CONSTRUCTION
- OPTIONAL Class "N" (392° F) Highest Temperature
- Motor Will Not Overheat In Continuous Or Dry Pit Applications

CAPABILITIES:

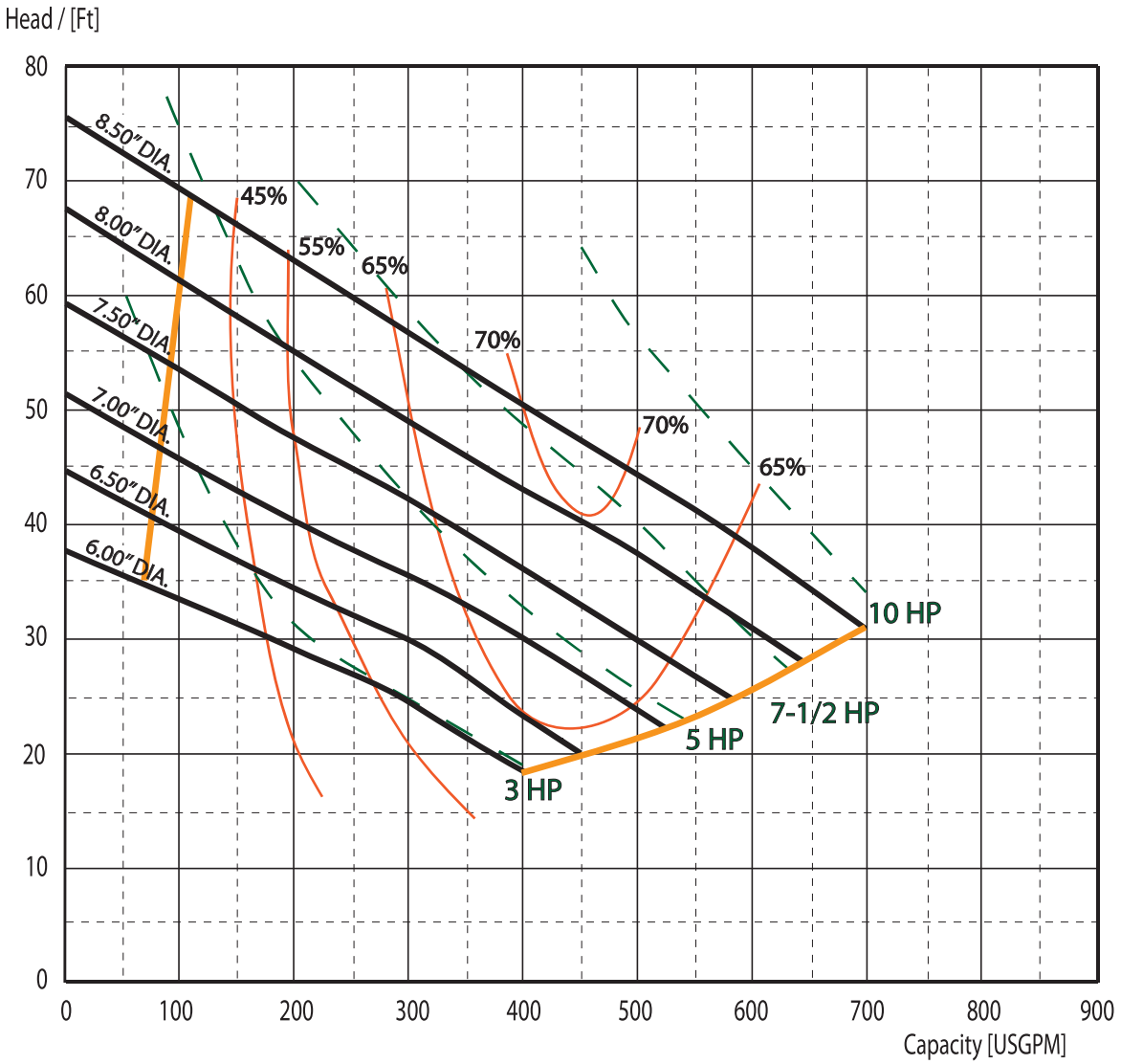
- Flows---------- to 700 GPM
- Heads---------- to 76 Feet
- HP Range---------- 1 - 10 HP
- Voltage / Phase Options---------- 208/230 V, 1 Phase - 208/230/460 V, 3 Phase
- Discharge Connections---------- 3" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 1150 / 1750 RPM
- Solids-Handling---------- 2.5"
- Impeller---------- Balanced, Enclosed, 2-Vane
- Motor Service Factor---------- 1.20

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K3VN**		3″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1750 RPM**	Discharge	**3″**	Solids	**3″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

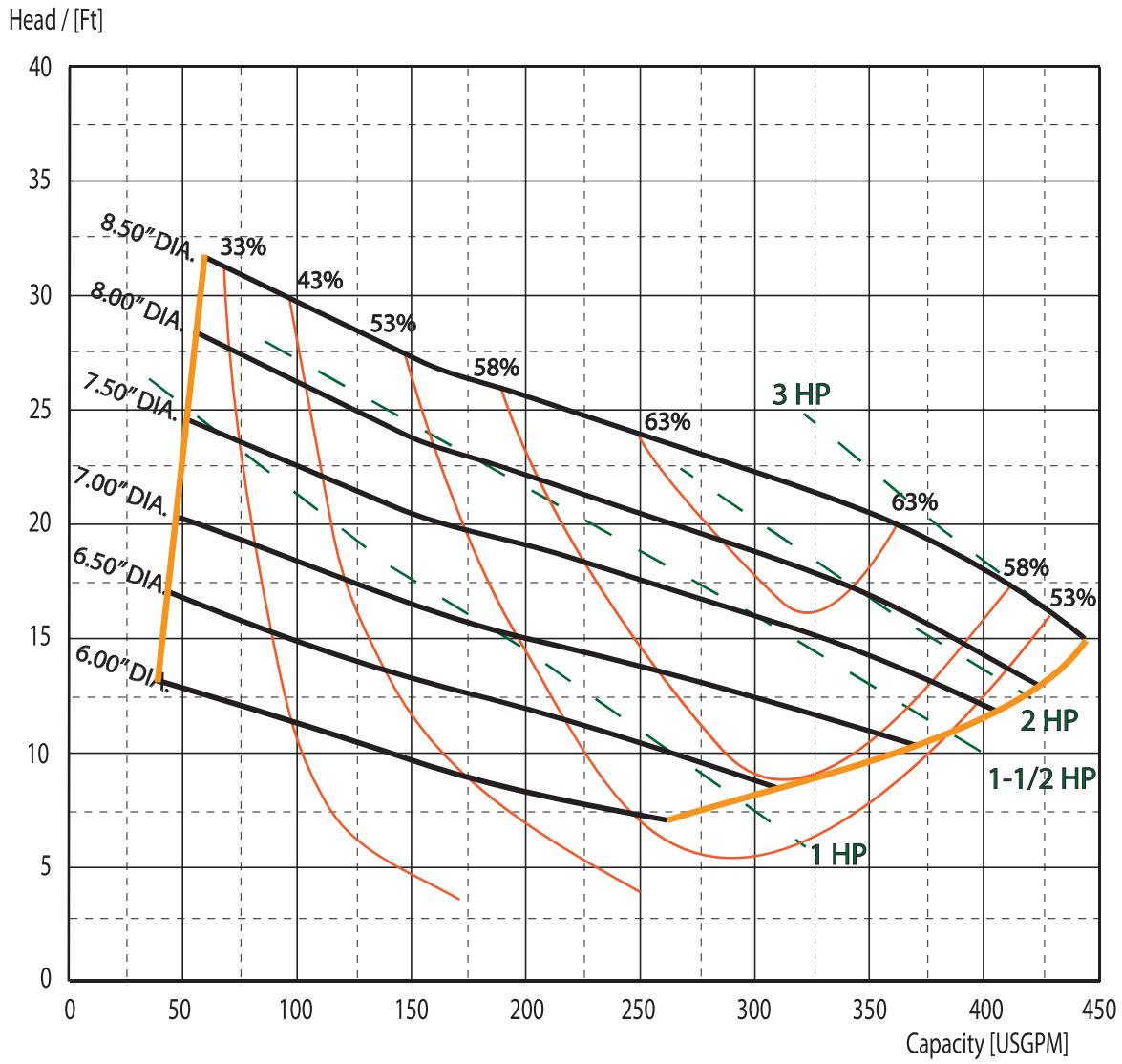
File: K3VN_1750

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K3VN**		3″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1150 RPM**	Discharge	**3″**	Solids	**3″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

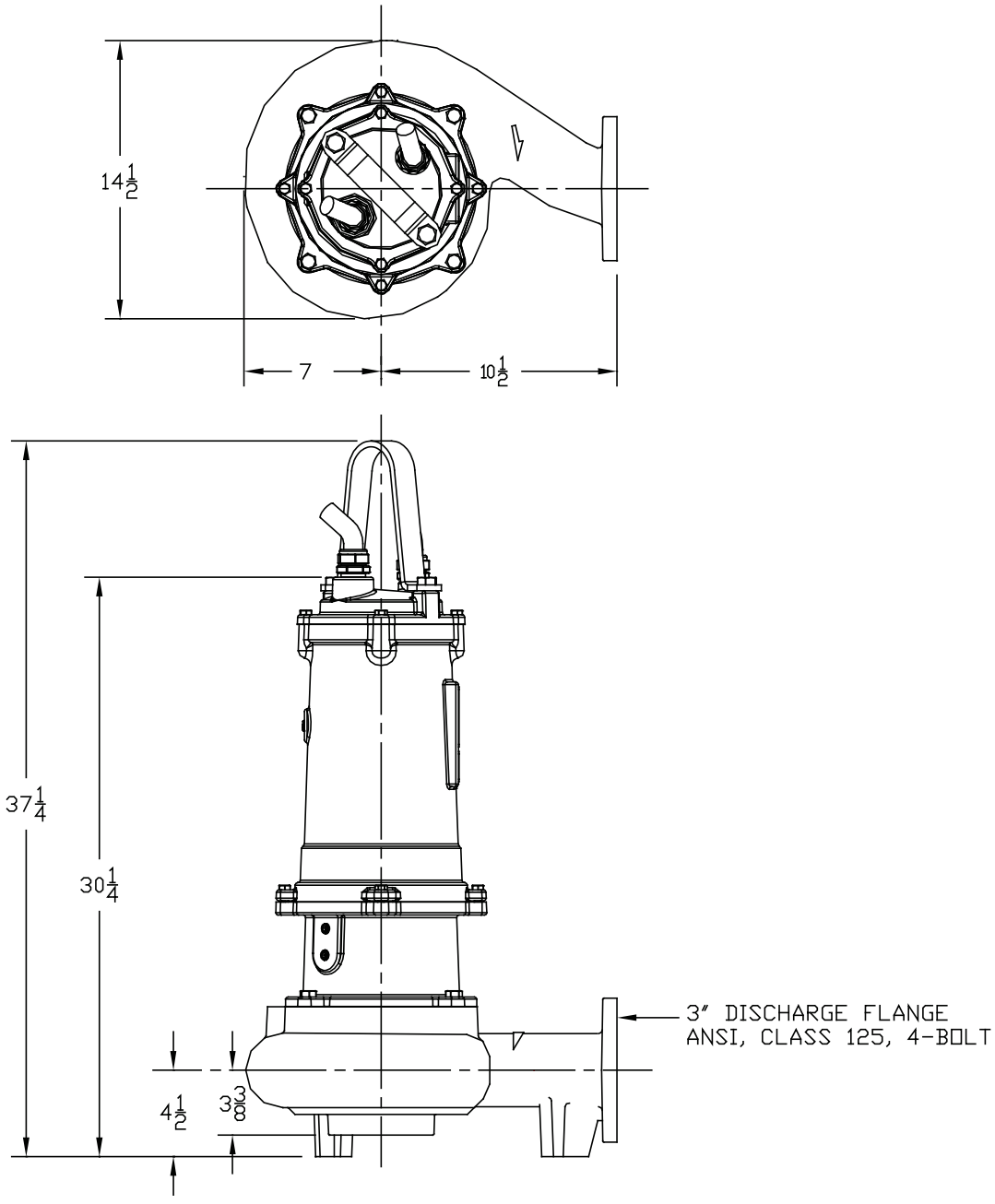
File: K3VN_1150_CAT

KEEN PUMP

Section **ENCLOSED**
Date **MAR 2015**

Pump Series	**K3VN**	3″ SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA



Note: All dimensions in inches unless noted.
Dimensions may vary due to normal manufacturing tolerances.

File: K3VN Dimensions

Pump Model: **K3VN**

Physical Data:

Discharge Size	ANSI 3″ Horizontal
Solids Size	2.5″
Impeller Type	Balanced, Enclosed, 2 Vane
Power/Control Cable Length	40′ Standard
Paint	Blue, Powder Coated – Impeller & Inside Volute - Ceramic Coated For Abrasion Resistance

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H (**Optional** - Class N)
Service Factor	1.2
NEMA Design Type	B (3Ø) L (1Ø)
Single Phase Configuration	External Start and Run Components
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	Class H: 356°F (180°C) Class N: 392°F (200°C) **- Optional**
Power Cord Type	Type W - 2000V, 90º C
Control Cord Type	18-5 - SOOW - 600V, 90º C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coated Inside
Impeller	Ductile Iron, ASTM A536, 60-40-18 / Ceramic Coated
Volute Wear Ring	Bronze, CDA 836
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Conrad Style Double Row Angular Contact Ball Bearing
Line Bearing	Bronze, CDA 836

Pump Model: **K3VN – 1750 RPM**

Thermal Data:

Maximum Liquid	140º F (60º C)
Maximum Stator	311º F (155º C)
Heat Sensor Open:	257º F (125º C) Max. / 239º F (115º C) Min.
Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point	390º F (199º C)

Electrical Data:

RPM					**1750**					
Electrical Ratings					Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS		
					Seal Fail	300VAC 5mAMPS				
Voltage Tolerance					± 10%					
HP	**Voltage**	**Phase**	**NEC Code**	**Service Factor**	**Full Load AMPS**	**SF Amps**	**Locked Rotor AMPS**	**Run KW**	**Start KVA**	**Run KVA**
3	208	1	E	1.2	26.2	31.4	77.0	4.0	13.9	5.2
	230				23.8	28.6	77.0			
3	208	3	H	1.2	16.3	19.6	71.4	4.6	20.6	5.8
	230				14.7	17.6	58.8			
	460				7.3	8.8	29.4			
5	208	1	F	1.2	37.1	44.5	130.0	7.7	26.9	10.0
	230				33.4	40.1	130.0			
5	208	3	F	1.2	26.2	31.4	84.4	6.0	26.5	7.5
	230				23.8	28.6	76.0			
	460				11.9	14.3	38.0			
7.5	230	1	F	1.2	40.1	48.0	130.0	7.7	26.9	10.0
7.5	208	3	F	1.2	32.1	38.5	131.4	9.1	40.4	11.3
	230				28.9	34.7	121.4			
	460				14.5	17.4	60.7			
10	208	3	E	1.0	38.5	38.5	161.7	11.0	48.5	13.6
	230				34.7	34.7	138.8			
	460				17.3	17.3	69.4			

Motor Efficiencies & Power Factor

		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
3	1	66	66	64	56	87	83	79	70
3	3	71	70	69	63	81	80	79	71
5	1	65	65	64	59	86	83	76	62
5	3	78	78	75	70	79	76	71	60
7.5	3	77	76	74	69	75	70	64	54
10	3	75	76	75	70	79	78	71	59

KEEN PUMP®

K4VN(X)

4" Submersible, Enclosed Impeller
(Class 1, Div. 1, Groups C & D Hazardous Location)

Optional :
All Stainless Steel Construction

CERAMIC COATED VORTEX IMPELLER
- Superior Abrasion Resistance
- Allows The Pump To Operate Better In Any Pressure Or Flow Condition

CERAMIC COATED VOLUTE
- Holds Up to Wear On Inside of Volute Casting Case

STANDARD MOTOR CONSTRUCTION
- Class H Laminations (Standard)

MOTOR GROUND RING PROTECTION
- Allows Motor To Operate With VFD Without Damaging Bearings and Motor
- Ground Ring Safely Diverts Harmful Voltages Away From Bearings

DOUBLE ROW LOWER BEARINGS
- Heavy Duty Bearings Handle The Toughest Applications of High Pressure and Flow Rates

BEST MOTOR CONSTRUCTION
- OPTIONAL Class "N" (392° F) Highest Temperature
- Motor Will Not Overheat In Continuous Or Dry Pit Applications

CAPABILITIES :

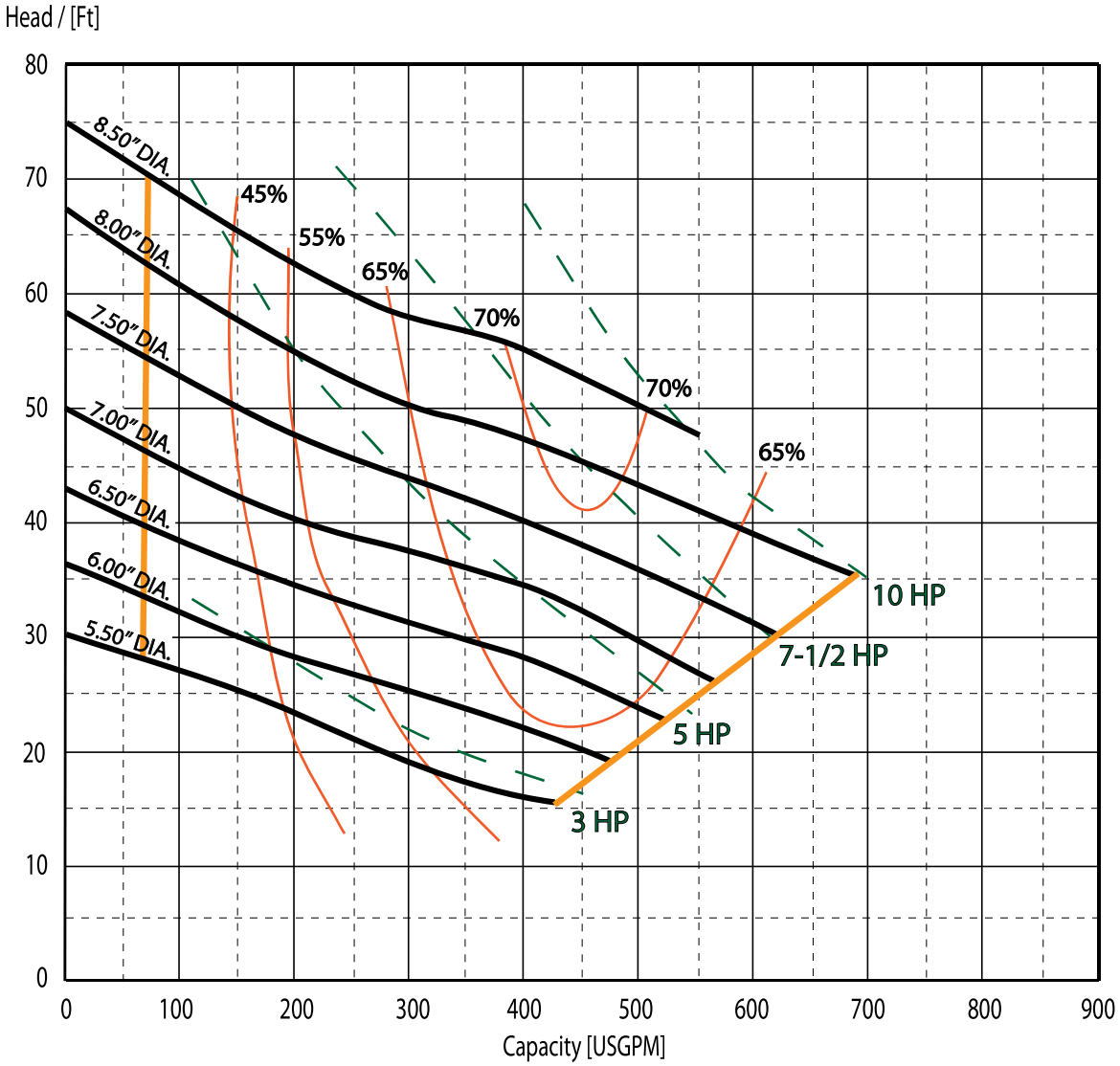
- Flows---------- to 690 GPM
- Heads---------- to 75 Feet
- HP Range---------- 1 - 10 HP
- Voltage / Phase Options---------- 208/230 V, 1 Phase - 208/230/460 V, 3 Phase
- Discharge Connections---------- 4" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 1150 / 1750 RPM
- Solids-Handling---------- 3"
- Impeller---------- Balanced, Enclosed, 2-Vane
- Motor Service Factor---------- 1.20

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K4VN**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1750 RPM**	Discharge	**4″**	Solids	**3″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

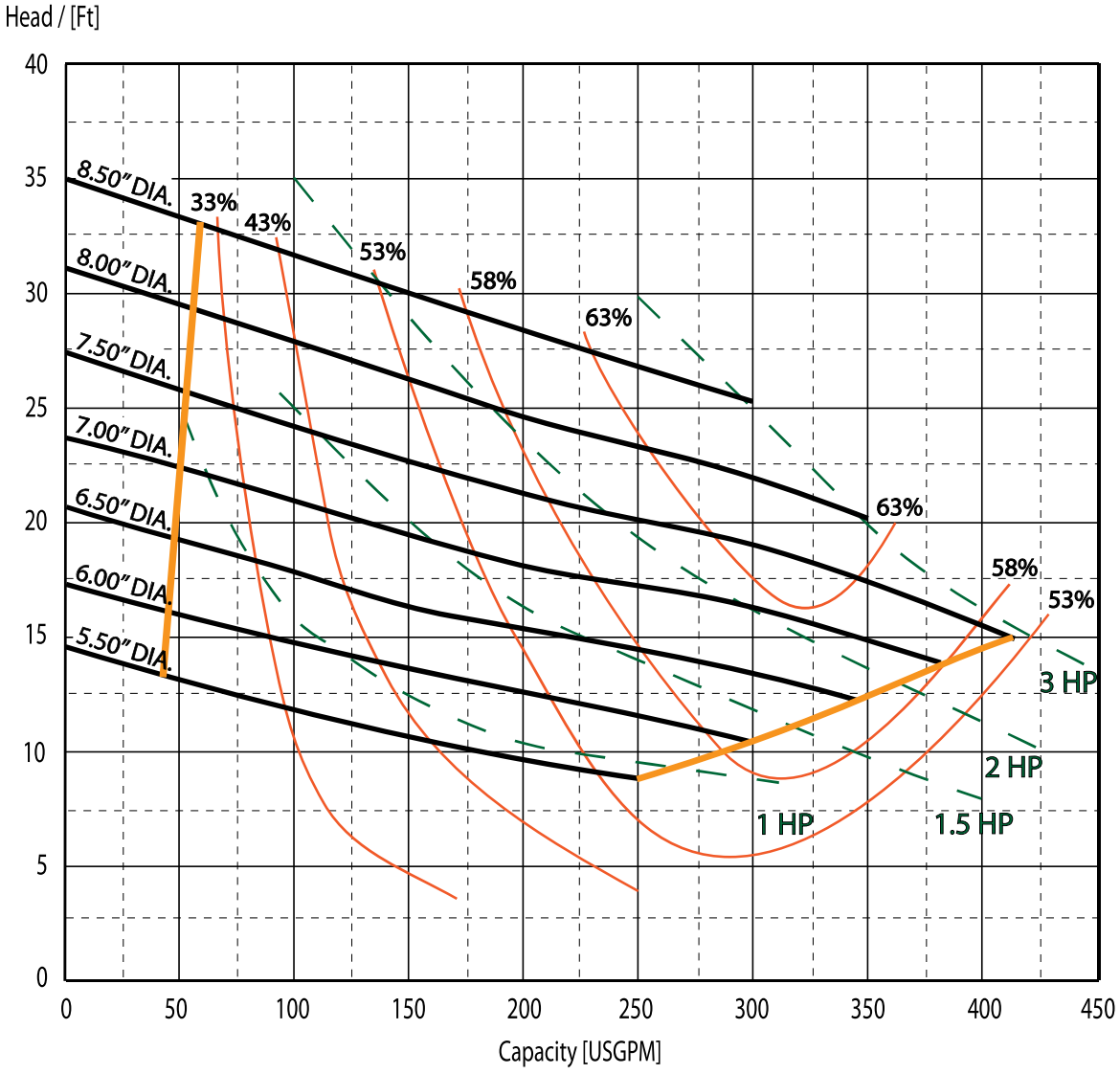
File: K4VN_1750

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K4VN**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1150 RPM**	Discharge	**4″**	Solids	**3″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

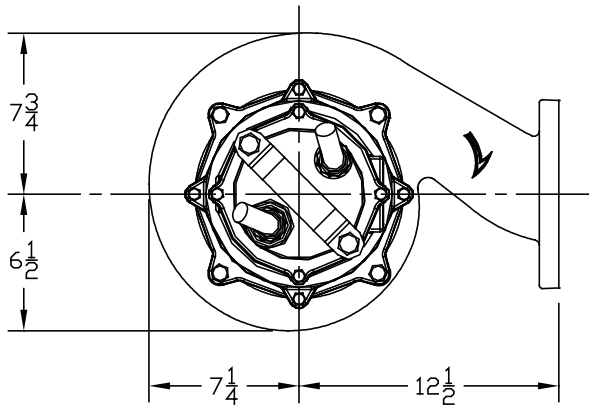
File: K4VN_1150

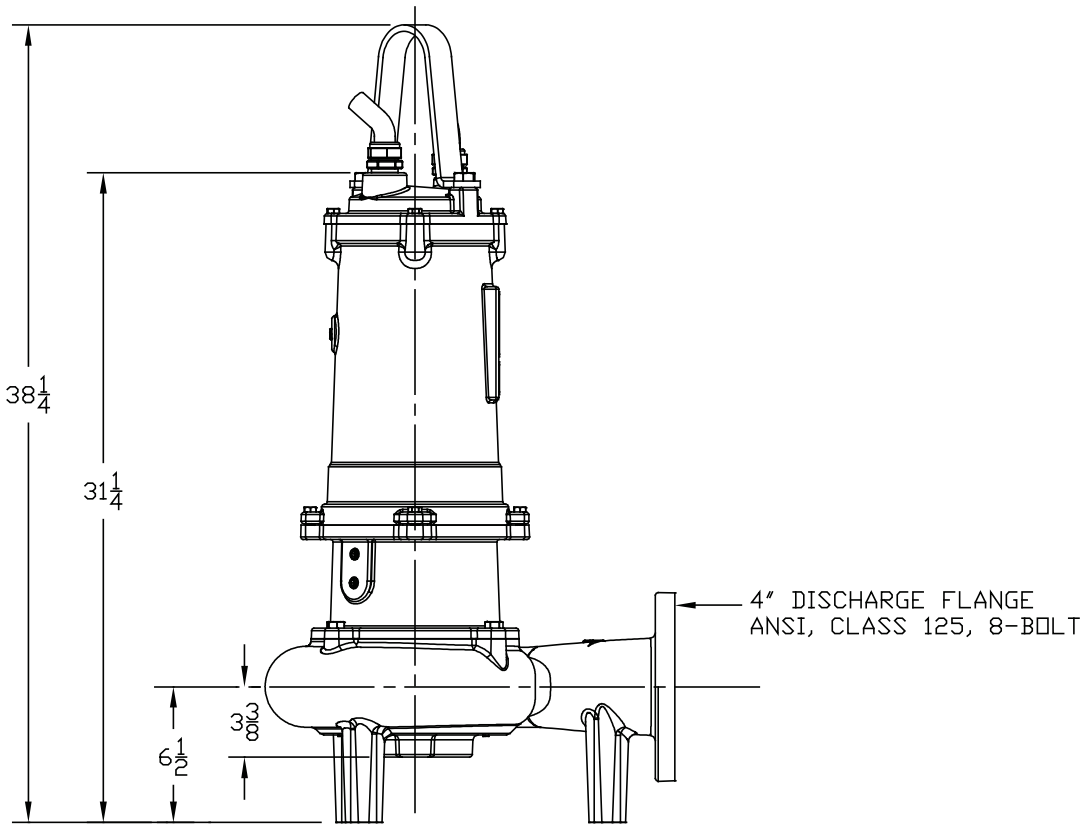
KEEN PUMP®

Section **ENCLOSED**
Date **JULY 2013**

Pump Series	**K4VN**	4″ SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA





Note: All dimensions in inches unless noted.
Dimensions may vary due to normal manufacturing tolerances.

File: K4VN Dimensions

Pump Model: **K4VN**

Physical Data:

Discharge Size	ANSI 4" Horizontal
Solids Size	3"
Impeller Type	Balanced, Enclosed, 2 Vane
Power/Control Cable Length	40' Standard
Paint	Blue, Powder Coated – Impeller & Inside Volute - Ceramic Coated For Abrasion Resistance

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H (**Optional** - Class N)
Service Factor	1.2
NEMA Design Type	B (3Ø) L (1Ø)
Single Phase Configuration	External Start and Run Components
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	Class H: 356°F (180°C) Class N: 392°F (200°C) - **Optional**
Power Cord Type	Type W - 2000V, 90º C
Control Cord Type	18-5 - SOOW - 600V, 90º C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coated Inside
Impeller	Ductile Iron, ASTM A536, 60-40-18 / Ceramic Coated
Volute Wear Ring	Bronze, CDA 836
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Conrad Style Double Row Angular Contact Ball Bearing
Line Bearing	Bronze, CDA 836

Pump Model: **K4VN – 1750 RPM**

Thermal Data:

Maximum Liquid	140º F (60º C)
Maximum Stator	311º F (155º C)
Heat Sensor Open:	257º F (125º C) Max. / 239º F (115º C) Min.
Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point	390º F (199º C)

Electrical Data:

RPM	**1750**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
3	208	1	E	1.2	19.1	22.9	66.9	4.0	13.9	5.2
	230				19.0	22.8	60.2			
3	208	3	H	1.2	16.3	19.6	57.1	4.6	20.6	5.8
	230				14.7	17.6	51.4			
	460				7.3	8.8	25.7			
5	208	1	F	1.2	37.1	44.5	37.1	7.7	26.9	10.0
	230				33.4	40.1	33.4			
5	208	3	F	1.2	21.1	25.3	73.9	6.0	26.5	7.5
	230				19.0	22.8	66.5			
	460				11.1	13.3	33.3			
7.5	208	3	F	1.2	32.1	38.5	112.4	9.1	40.4	11.3
	230				28.9	34.7	101.2			
	460				14.5	17.4	50.6			
10	208	3	E	1.0	38.5	38.5	134.8	11.0	48.5	13.6
	230				34.7	34.7	121.4			
	460				17.3	17.3	60.7			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				Power Factor %			
HP	Phase	Service Factor Load	100% Load	75% Load	50% Load	Service Factor Load	100% Load	75% Load	50% Load
3	1	66	66	64	56	87	83	79	70
3	3	71	70	69	63	81	80	79	71
5	1	65	65	64	59	86	83	76	62
5	3	78	78	75	70	79	76	71	60
7.5	3	77	76	74	69	75	70	64	54
10	3	75	76	75	70	79	78	71	59

Pump Model: **K4VN – 1150 RPM**

Thermal Data:

Maximum Liquid	140º F (60º C)
Maximum Stator	311º F (155º C)
Heat Sensor Open:	257º F (125º C) Max. / 239º F (115º C) Min.
Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point	390º F (199º C)

Electrical Data:

RPM	**1150**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
1	208	1	H	1.2	9.6	11.5	33.6	2.0	7.0	2.6
	230				8.6	10.4	30.3			
1	208	3	J	1.2	6.6	7.9	21.0	1.7	7.6	2.1
	230				6.2	7.4	18.9			
	460				3.1	3.7	9.5			
2	208	1	H	1.2	18.9	22.7	66.2	13.8	5.1	5.1
	230				17.0	20.4	59.6			
2	208	3	G	1.2	9.9	11.9	34.7	2.8	12.5	3.5
	230				8.9	10.7	31.2			
	460				4.5	5.4	15.6			
3	208	1	F	1.0	22.7	22.7	79.5	4.7	16.5	6.1
	230				20.5	20.5	71.6			
3	208	3	G	1.0	14.3	14.3	50.1	4.1	18.0	6.0
	230				12.9	12.9	45.1			
	460				6.4	6.4	22.5			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				Power Factor %			
HP	Phase	Service Factor Load	100% Load	75% Load	50% Load	Service Factor Load	100% Load	75% Load	50% Load
1	1	60	60	59	53	75	73	66	57
1	3	65	62	56	52	75	72	67	61
2	1	63	61	60	50	76	74	70	62
2	3	65	64	60	52	78	76	71	60
3	1	68	65	59	55	75	70	64	54
3	3	65	64	60	57	79	78	71	59

KEEN PUMP®

K4VP(X)

FM (PENDING)

4" Submersible, Enclosed Impeller
(Class 1, Div. 1, Groups C & D Hazardous Location)

HEAVY DUTY PUMP SERIES
- Handles Aggressive Pumping Applications
- Strong Pumping Capacities to 1200 GPM
- Smooth, Quiet Operation
- Centerline Volute Discharge

STRONG PERFORMANCE
- Non-overloading Performance Curve
- Pump-Out Vanes Prevent Material Build-up
- Positive Pumping Action through Impeller
- Ideal for Higher Flows

LONG SERVICE LIFE
- Dual Silicon Carbide Shaft Seals
- Low Motor Operation Temperatures
- Continuously Lubricated Ball Bearings

LOW MAINTENANCE
- Easily Replaceable Impeller Wear Ring Restores Original Pump Performance
- Unobstructed Impeller Passageway
- Grit-Resistant Silicon Carbide Shaft Seals
- Large, 3" diameter Solids-Handling
- High Service Factor Motor Handles Tough Electrical Operating Conditions

CAPABILITIES:
- Flows---------- to 1200 GPM
- Heads---------- to 118 Feet
- HP Range---------- 3 - 20 HP
- Voltage / Phase Options---------- 208/230/460/575V, 3-Phase or 208/230V, 1-Phase
- Discharge Connections---------- 4" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 1150 / 1750 RPM
- Solids-Handling---------- 3"
- Impeller---------- Balanced, Enclosed, 2-Vane
- Motor Service Factor---------- 1.20

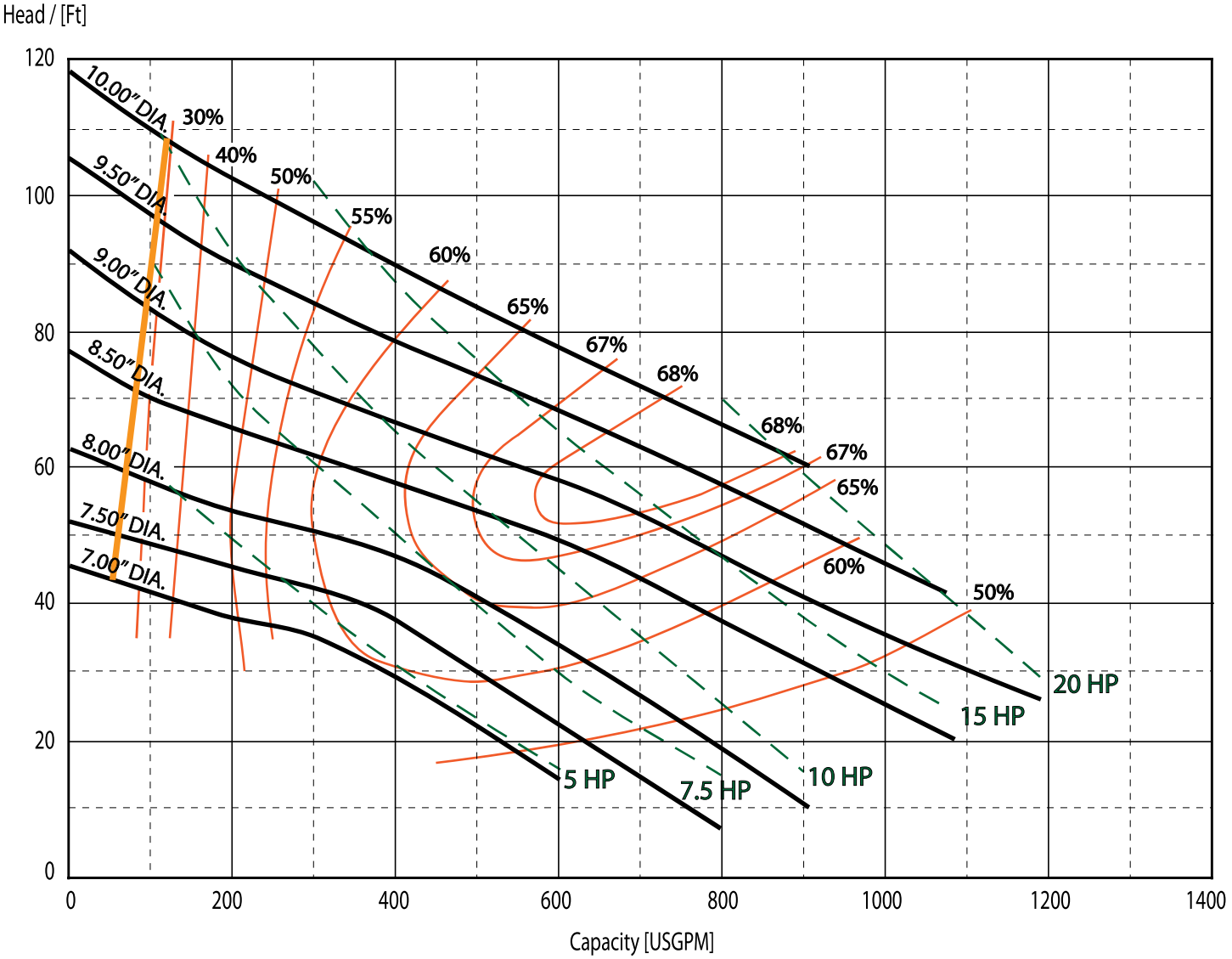
Rev. 03/2018

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K4VP**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1750 RPM**	Discharge	**4″**	Solids	**3″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

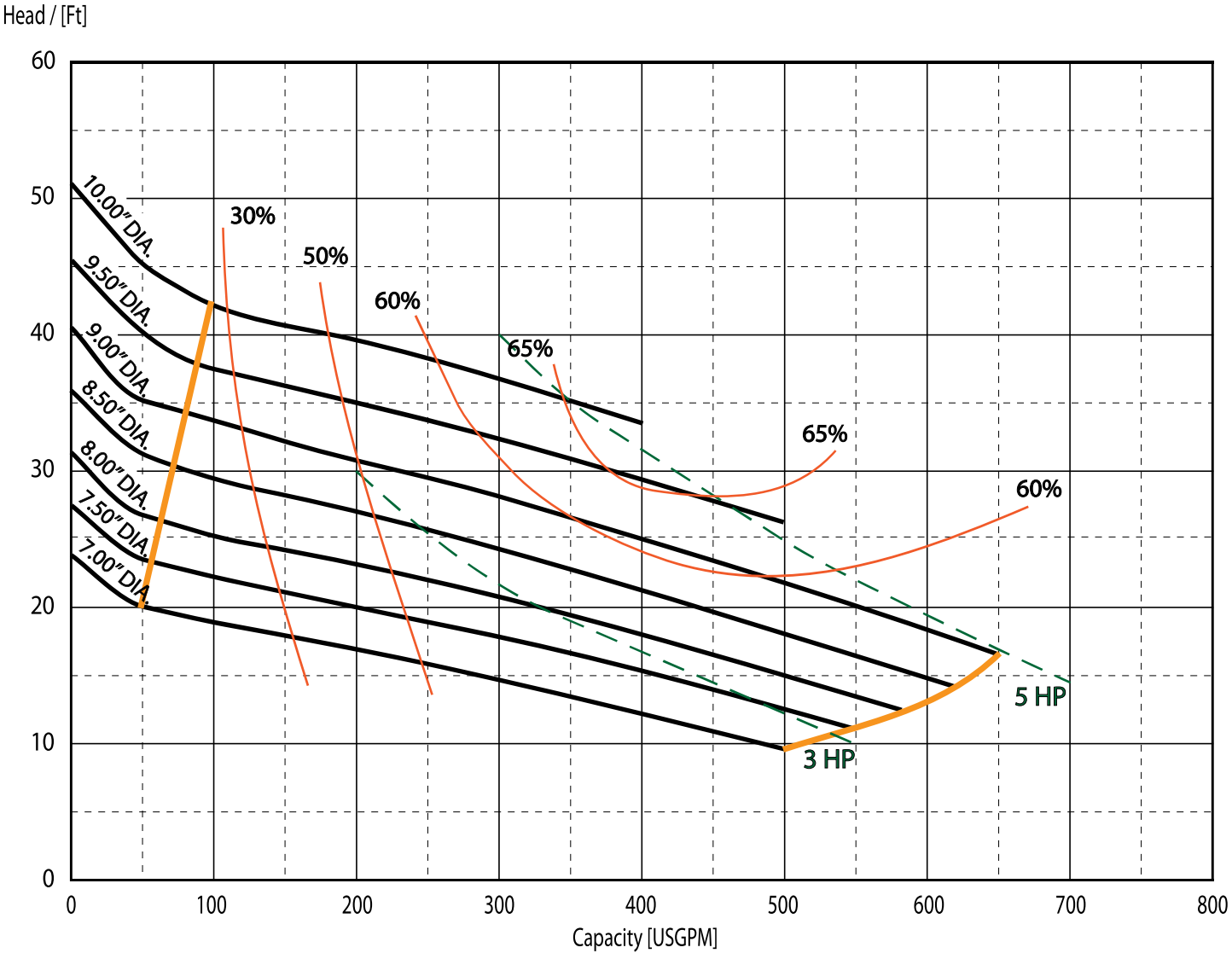
File: K4VP_1750

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K4VP**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1150 RPM**	Discharge	**4″**	Solids	**3″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

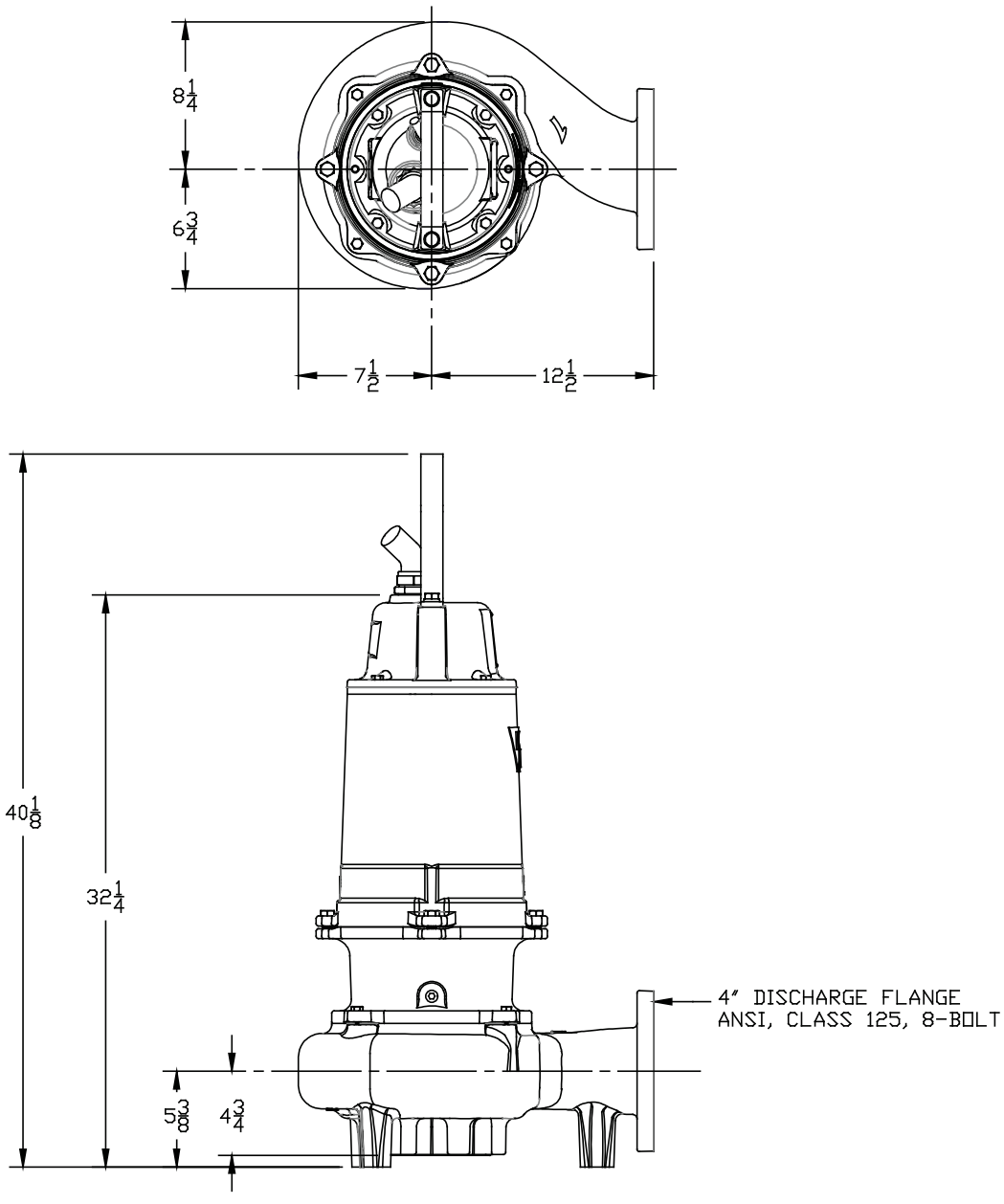
File: K4VP_1150

KEEN PUMP®

Section **ENCLOSED**
Date **JULY 2016**

Pump Series	**K4VP**	4″ SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA



Note: All dimensions in inches unless noted.
Dimensions may vary due to normal manufacturing tolerances.

File: K4VP Dimensions

Pump Model: **K4VP**

Physical Data:

Discharge Size	ANSI 4″ Horizontal
Solids Size	3″
Impeller Type	Balanced, Enclosed, 2 Vane
Power/Control Cable Length	40′ Standard
Paint	Blue, Powder Coated – Impeller & Inside Volute - Ceramic Coated For Abrasion Resistance

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H (**Optional** - Class N)
Service Factor	1.2
NEMA Design Type	B (3Ø) L (1Ø)
Single Phase Configuration	External Start and Run Components if Applicable
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	Class H: 356°F (180°C) Class N: 392°F (200°C) - **Optional**
Power Cord Type	Type W - 2000V, 90º C
Control Cord Type	18-5 - SOOW - 600V, 90º C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coated Inside
Wear Ring	Bronze, CDA 836
Impeller	Ductile Iron, ASTM A536, 60-40-18 / Ceramic Coated
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Conrad Style Double Row Angular Contact Ball Bearing
Labyrinth Seal	Bronze, CDA 836

Pump Model: **K4VP – 1750 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		356º F (180º C)
Heat Sensor	**Open:**	275º F (135º C) Max. / 257º F (125º C) Min.
	Closed:	205º F (96º C) Max. / 154º F (68º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**1750**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
5	208	1	C	1.2	26.2	31.4	91.7	5.4	19.1	7.1
	230				22.8	28.3	82.6			
5	208	3	J	1.2	21.6	25.9	129.5	6.9	39.3	7.7
	230				19.3	23.2	116.8			
	460				9.6	11.5	58.1			
	575				7.7	9.2	46.5			
7.5	230	1	D	1.2	37.1	44.5	129.9	8.6	30.0	11.1
7.5	208	3	G	1.2	25.4	30.5	129.5	8.2	46.5	9.1
	230				22.9	27.5	116.8			
	460				11.4	13.7	58.1			
	575				9.1	10.9	46.5			
10	208	3	H	1.2	35.1	42.1	179.0	11.3	64.0	12.5
	230				31.6	37.9	161.2			
	460				15.7	18.8	80.1			
	575				12.5	15.0	63.8			
15	208	3	H	1.2	54.2	65.0	276.4	17.5	99.2	19.4
	230				48.9	58.7	249.4			
	460				24.4	29.3	124.4			
	575				19.4	23.3	98.9			
20	230	3	E	1.0	58.7	58.7	249.4	21.8	99.2	24.1
	460				29.3	29.3	124.4			
	575				23.3	23.3	98.9			

Pump Model: **K4VP – 1150 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		356º F (180º C)
Heat Sensor	**Open:**	275º F (135º C) Max. / 257º F (125º C) Min.
	Closed:	205º F (96º C) Max. / 154º F (68º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**1150**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
3	208	3	L	1.2	16.0	19.2	99.5	5.2	35.7	5.7
	230				14.4	17.3	89.6			
	460				7.2	8.6	44.8			
	575				5.8	6.9	35.8			
5	208	3	J	1.2	19.5	23.4	99.5	6.3	35.7	7.0
	230				17.6	21.1	89.6			
	460				8.8	10.5	44.8			
	575				7.0	8.4	35.8			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				Power Factor %			
HP	Phase	Service Factor Load	100% Load	75% Load	50% Load	Service Factor Load	100% Load	75% Load	50% Load
3	3	80	78	75	68	61	56	48	39
5	3	81	81	80	76	72	69	62	51

KEEN PUMP®

K4VB(X)

FM

4" Submersible, Enclosed Impeller
(Class 1, Div. 1, Groups C & D Hazardous Location)

Optional :
All Stainless
Steel Construction

CERAMIC COATED VORTEX IMPELLER
- Superior Abrasion Resistance
- Allows The Pump To Operate Better In Any Pressure Or Flow Condition

CERAMIC COATED VOLUTE
- Holds Up to Wear On Inside of Volute Casting Case

STANDARD MOTOR CONSTRUCTION
- Class H Laminations (Standard)

MOTOR GROUND RING PROTECTION
- Allows Motor To Operate With VFD Without Damaging Bearings and Motor
- Ground Ring Safely Diverts Harmful Voltages Away From Bearings

DOUBLE ROW LOWER BEARINGS
- Heavy Duty Bearings Handle The Toughest Applications of High Pressure and Flow Rates

BEST MOTOR CONSTRUCTION
- Class "N" (392° F) Highest Temperature
- Motor Will Not Overheat In Continuous Applications

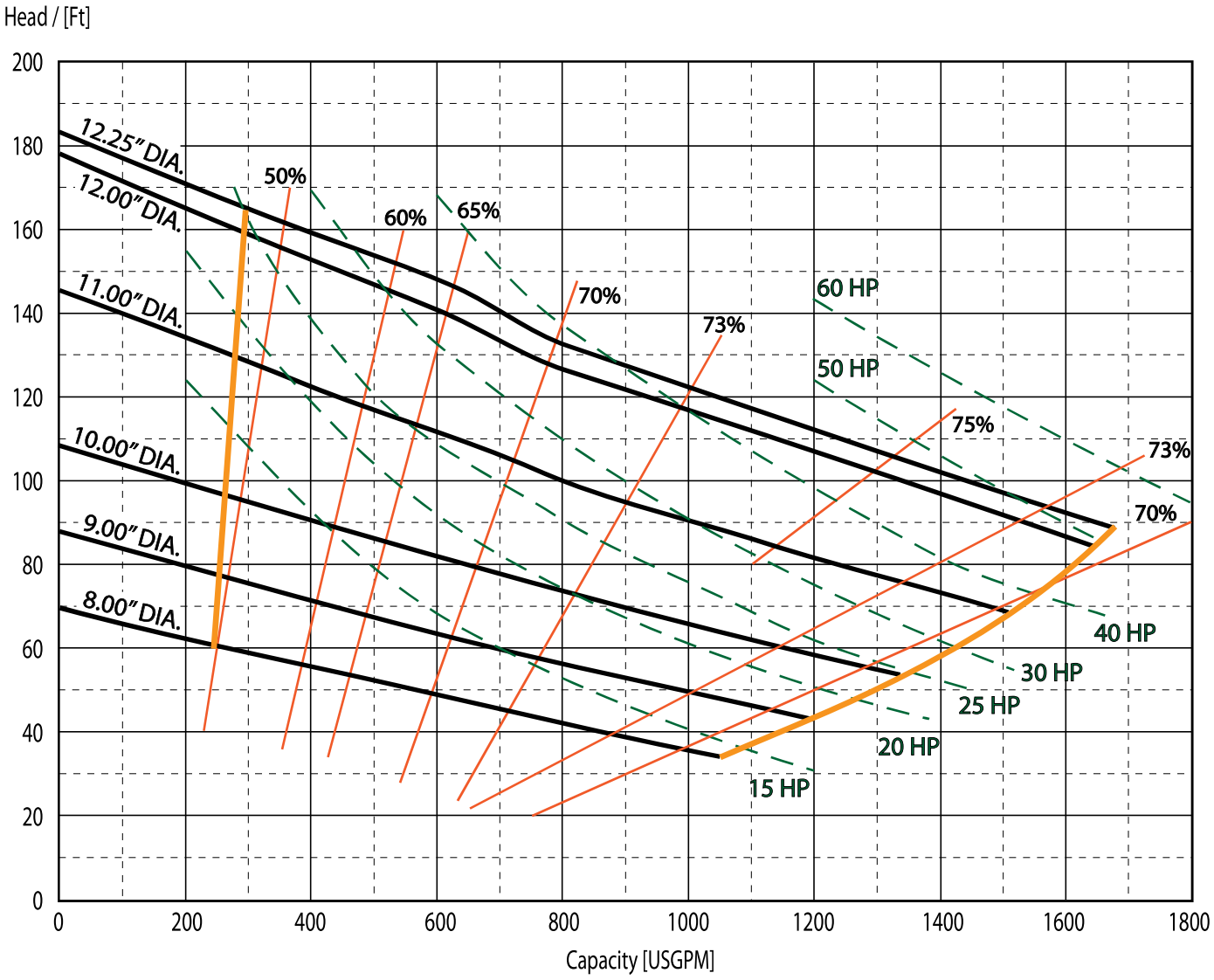
CAPABILITIES:
- Flows---------- to 1675 GPM
- Heads---------- to 183 Feet
- HP Range---------- 3 - 60 HP
- Voltage / Phase Options---------- 208 / 230 / 460 / 575V, 3 Phase
- Discharge Connections---------- 4" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 870 / 1150 / 1750 RPM
- Solids-Handling---------- 3-3/16"
- Impeller---------- Balanced, Enclosed, 2-Vane
- Motor Service Factor---------- 1.20

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K4VB**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1750 RPM**	Discharge	**4″**	Solids	**3-3/16″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

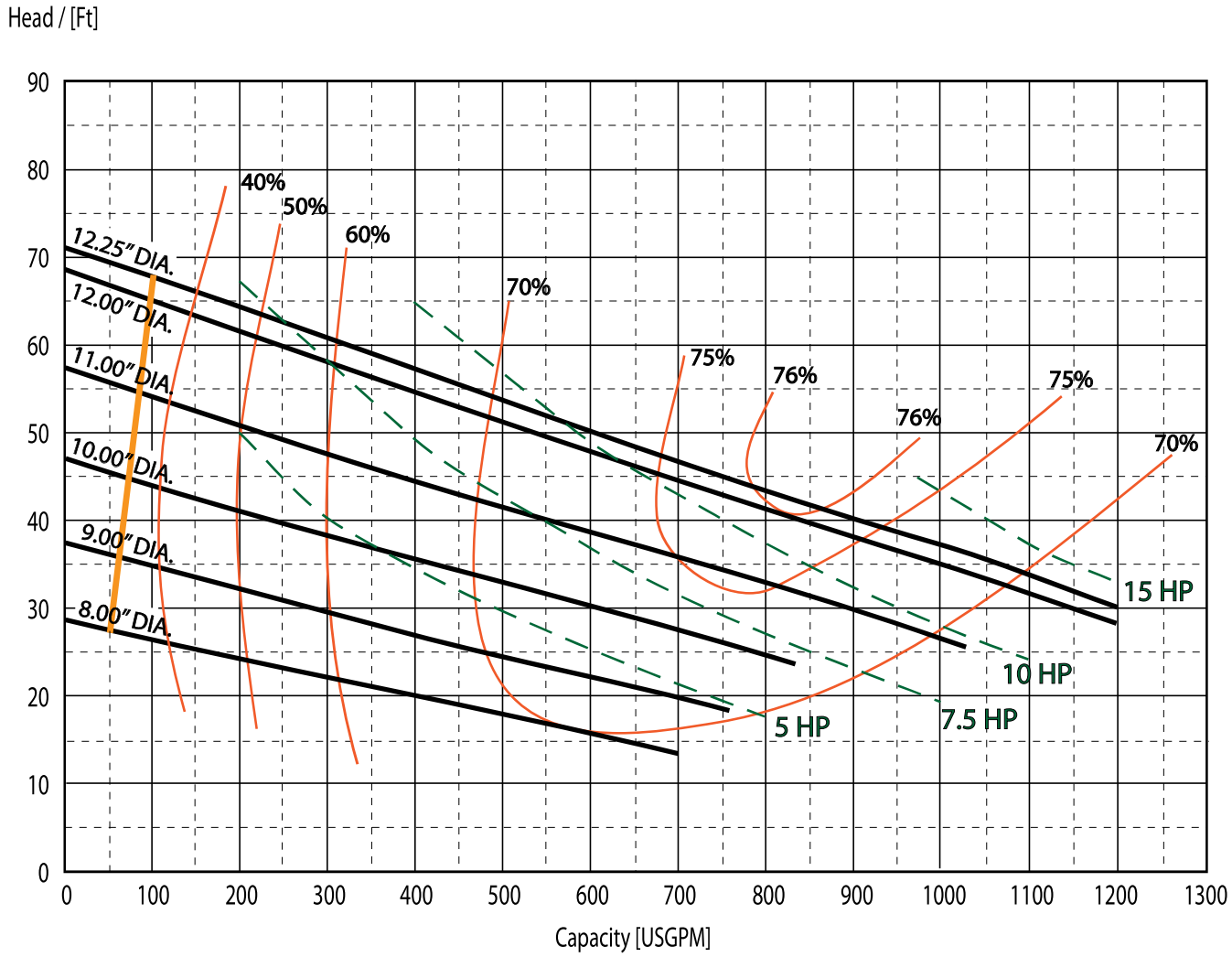
File: K4VB_1750

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K4VB**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1150 RPM**	Discharge	**4″**	Solids	**3-3/16″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

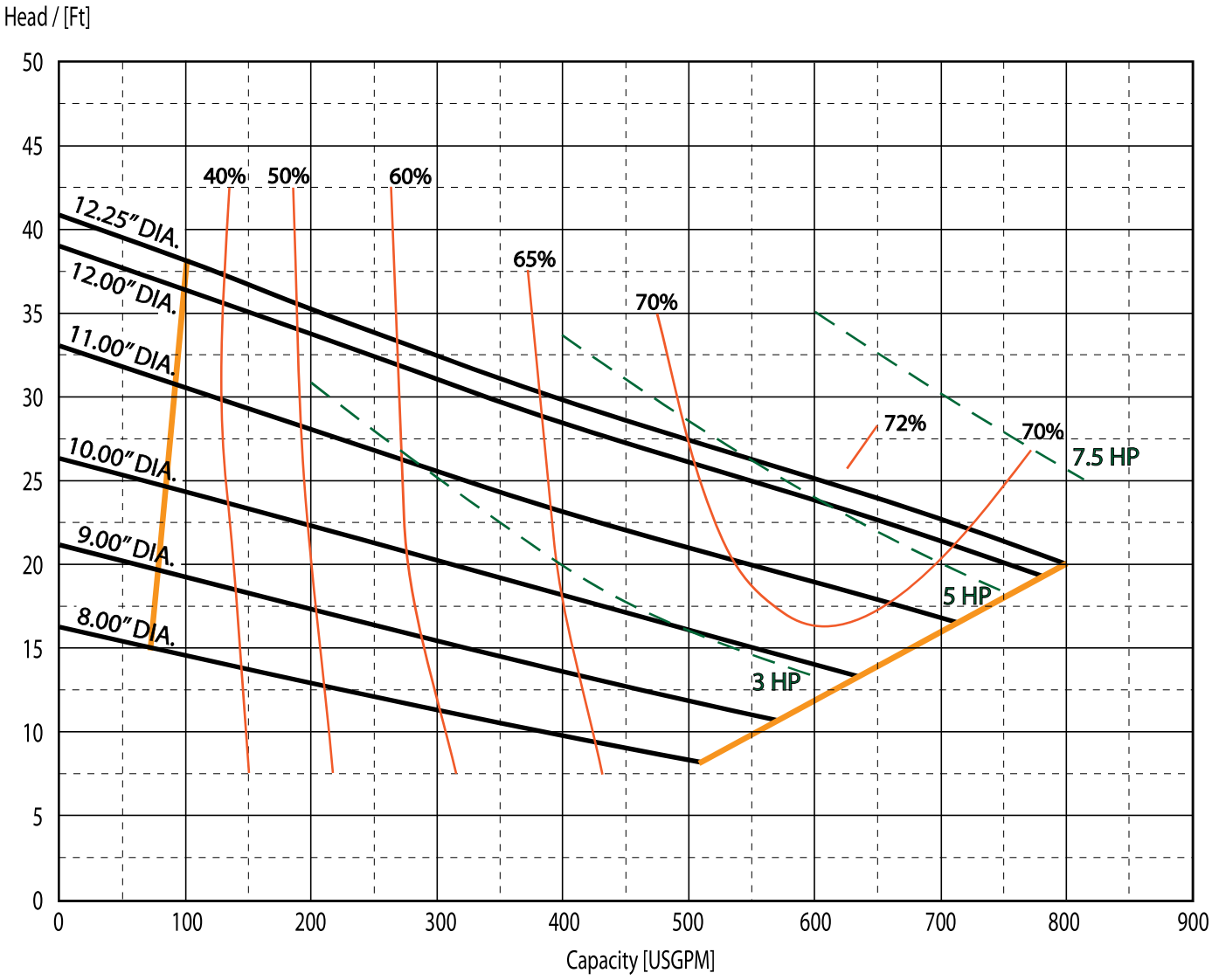
File: K4VB_1150

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K4VB**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**870 RPM**	Discharge	**4″**	Solids	**3-3/16″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

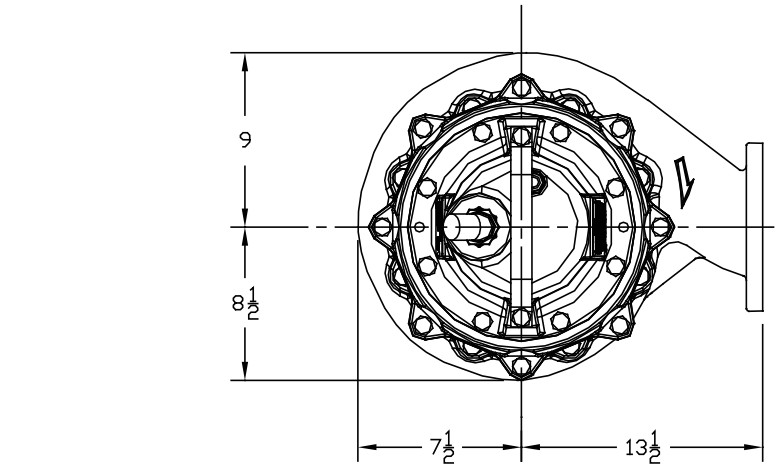
File: K4VB_870

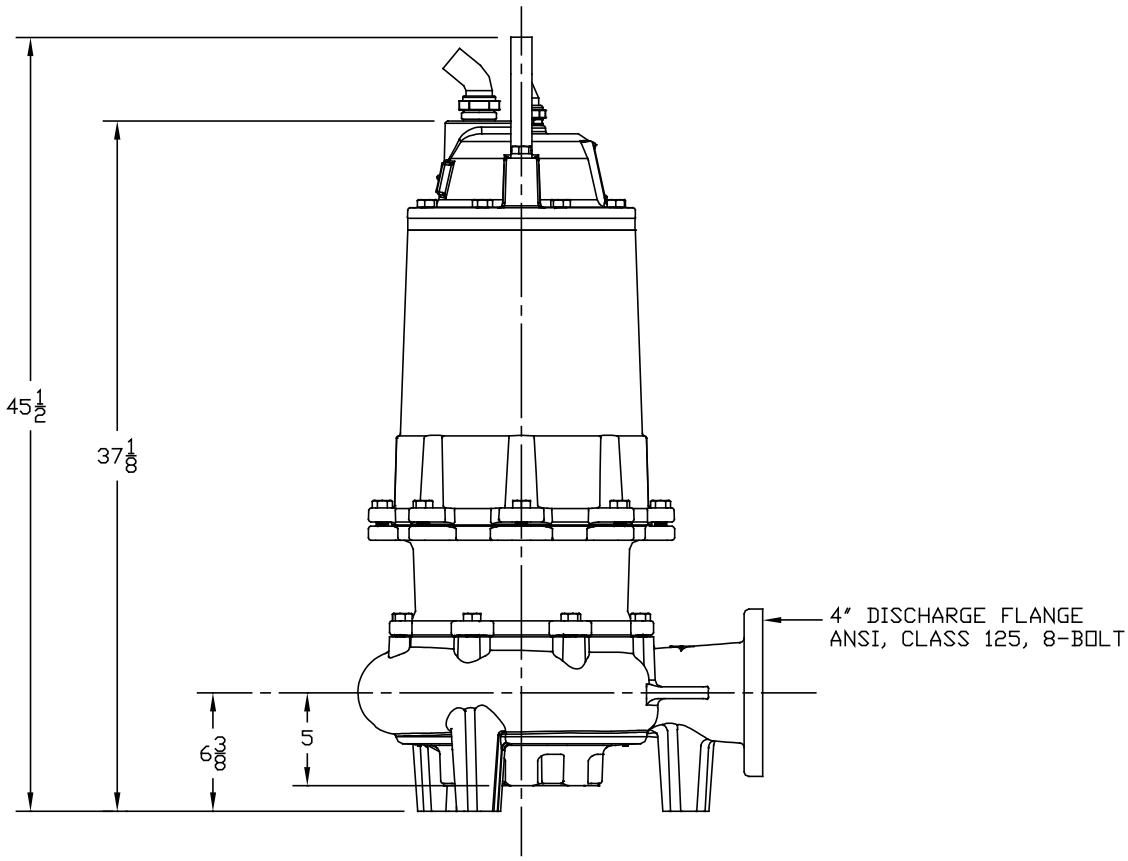
KEEN PUMP®

Section **ENCLOSED**
Date **JUNE 2014**

Pump Series	**K4VB**	4″ SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA





Note: All dimensions in inches unless noted.
Dimensions may vary due to normal manufacturing tolerances.

File: K4VB Dimensions

Pump Model: **K4VB**

Physical Data:

Discharge Size	ANSI 4" Horizontal
Solids Size	3-3/16"
Impeller Type	Balanced, Enclosed, 2 Vane
Power/Control Cable Length	40' Standard
Paint	Blue, Water Reducible Enamel, One Coat, Air Dried – Standard

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H
Service Factor	1.2
NEMA Design Type	B (3Ø)
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	311ºF (155ºC)
Power Cord Type	SOOW - 600V, 90º C; Type W - 2000V, 90º C
Control Cord Type	16-4 or 18-5 - SOOW - 600V, 90º C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coating Inisde
Wear Ring	Bronze, CDA 836
Impeller	Ductile Iron, ASTM A536, 60-40-18 / Ceramic Coating
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Single Row Angular Contact Ball Bearing
Labyrinth Seal	Bronze, CDA 836

Pump Model: **K4VB – 1750 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**1750**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
15	208	3	H	1.2	53.8	64.6	277.2	16.5	99.7	18.3
	230				48.9	58.7	249.7			
	460				24.5	29.4	124.9			
	575				19.6	23.5	99.9			
20	208	3	E	1.2	69.3	83.2	277.2	22.4	99.7	25.0
	230				62.4	74.9	249.7			
	460				31.2	37.5	124.9			
	575				25.0	30.0	99.9			
25	208	3	G	1.2	78.5	94.2	417.6	25.5	150.3	28.3
	230				70.7	84.9	376.2			
	460				35.4	42.4	188.1			
	575				28.3	33.9	150.5			
30	208	3	F	1.2	104.4	125.3	417.6	33.8	150.3	37.6
	230				94.1	112.9	376.2			
	460				47.0	56.4	188.1			
	575				37.6	45.1	150.5			
40	208	3	E	1.2	135.6	162.7	542.4	43.9	195.1	48.8
	230				122.2	146.6	488.6			
	460				61.1	73.3	244.3			
	575				48.9	58.6	195.5			
50	230	3	D	1.2	135.2	162.3	540.9	48.6	215.8	54.0
	460				67.6	81.1	270.5			
	575				54.1	64.9	216.4			

Pump Model: **K4VB – 1150 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**1150**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	**Voltage**	**Phase**	**NEC Code**	**Service Factor**	**Full Load AMPS**	**SF Amps**	**Locked Rotor AMPS**	**Run KW**	**Start KVA**	**Run KVA**
5	208	3	J	1.2	19.6	23.5	100.0	6.4	36.0	7.0
	230				17.7	21.2	90.1			
	460				8.8	10.6	45.0			
	575				7.1	8.5	36.0			
7.5	208	3	K	1.2	27.3	32.8	176.0	8.9	63.3	9.8
	230				24.6	29.5	158.5			
	460				12.3	14.8	79.3			
	575				9.8	11.8	63.4			
10	208	3	G	1.2	34.5	41.4	176.0	11.2	63.3	12.4
	230				31.1	37.3	158.5			
	460				15.5	18.6	79.3			
	575				12.4	14.9	63.4			
15	208	3	K	1.2	48.2	57.8	339.2	15.6	122.5	17.4
	230				43.4	52.1	305.5			
	460				21.7	26.1	152.8			
	575				17.4	20.8	122.2			
20	208	3	G	1.2	66.5	79.8	339.2	21.6	122.5	24.0
	230				59.9	71.9	305.5			
	460				30.0	35.9	152.8			
	575				24.0	28.8	122.2			

Pump Model: **K4VB – 870 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**870**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	**Voltage**	**Phase**	**NEC Code**	**Service Factor**	**Full Load AMPS**	**SF Amps**	**Locked Rotor AMPS**	**Run KW**	**Start KVA**	**Run KVA**
3	208	3	N	1.2	16.9	20.3	97.2	5.5	34.9	6.1
	230				15.2	18.3	87.6			
	460				7.6	9.1	43.8			
	575				6.1	7.3	35.0			
5	208	3	H	1.2	24.3	29.2	97.2	7.9	34.9	8.8
	230				21.9	26.3	87.6			
	460				10.9	13.1	43.8			
	575				8.8	10.5	35.0			
7.5	208	3	G	1.2	30.5	36.6	122.0	9.9	43.9	11.0
	230				27.5	33.0	109.9			
	460				13.7	16.5	55.0			
	575				11.0	13.2	44.0			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
3	3	72	71	70	66	73	71	67	59
5	3	83	80	76	69	74	72	67	60
7.5	3	82	81	77	68	74	71	68	61

Solids-Handling Pumps

K4VK

4" Submersible, Enclosed Impeller

Optional :
All Stainless
Steel Construction

CERAMIC COATED VORTEX IMPELLER
- Superior Abrasion Resistance
- Allows The Pump To Operate Better In Any Pressure Or Flow Condition

CERAMIC COATED VOLUTE
- Holds Up to Wear On Inside of Volute Casting Case

STANDARD MOTOR CONSTRUCTION
- Class H Laminations (Standard)

MOTOR GROUND RING PROTECTION
- Allows Motor To Operate With VFD Without Damaging Bearings and Motor
- Ground Ring Safely Diverts Harmful Voltages Away From Bearings

DOUBLE ROW LOWER BEARINGS
- Heavy Duty Bearings Handle The Toughest Applications of High Pressure and Flow Rates

BEST MOTOR CONSTRUCTION
- Class "N" (392° F) Highest Temperature
- Motor Will Not Overheat In Continuous Applications

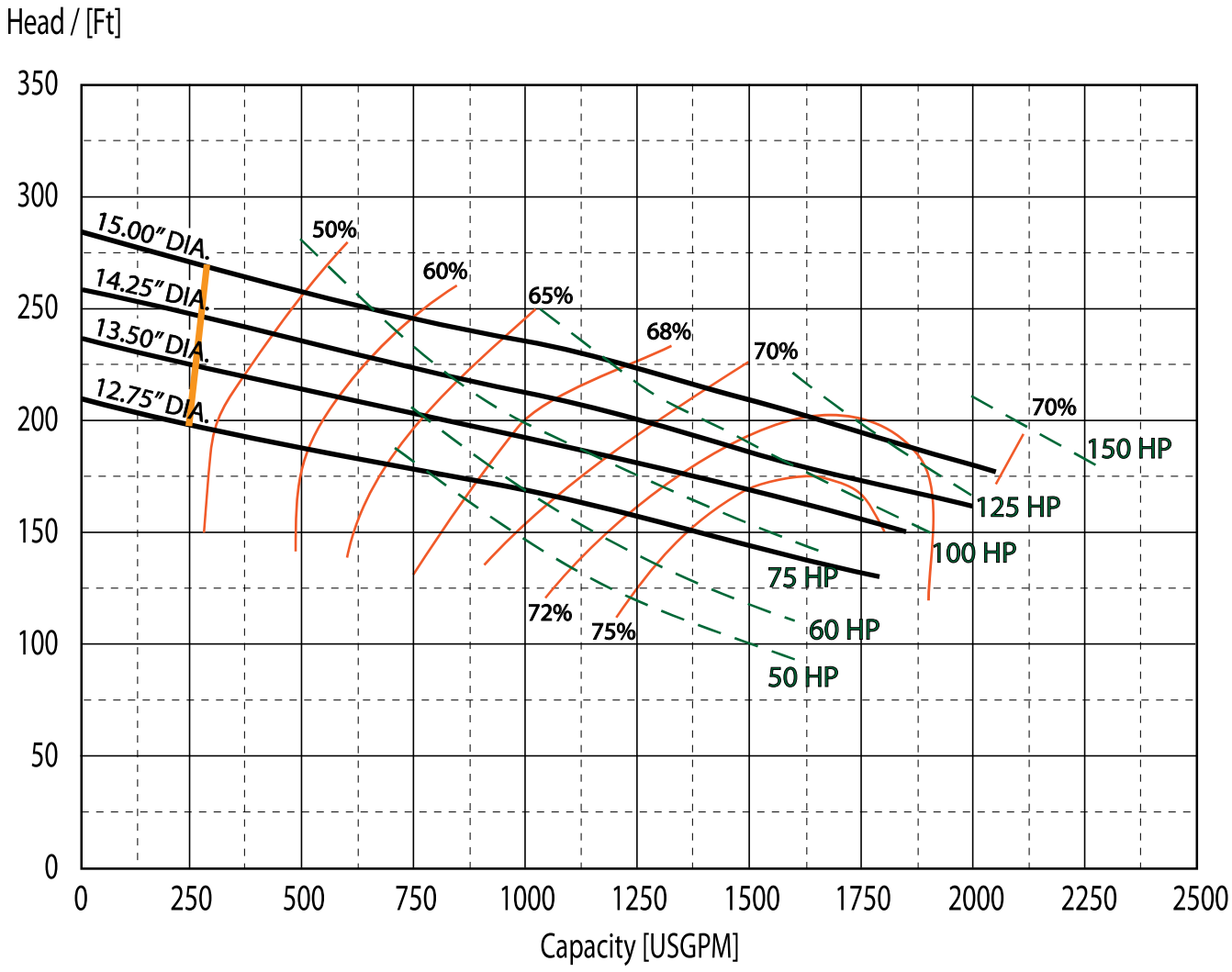
CAPABILITIES:
- Flows---------- to 2060 GPM
- Heads---------- to 268 Feet
- HP Range---------- 50 - 150 HP
- Voltage / Phase Options---------- 460 / 575V, 3 Phase
- Discharge Connections---------- 4" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 1750 RPM
- Solids-Handling---------- 3"
- Impeller---------- Balanced, Enclosed, 2-Vane
- Motor Service Factor---------- 1.20

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K4VK**		4″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1750 RPM**	Discharge	**4″**	Solids	**3″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

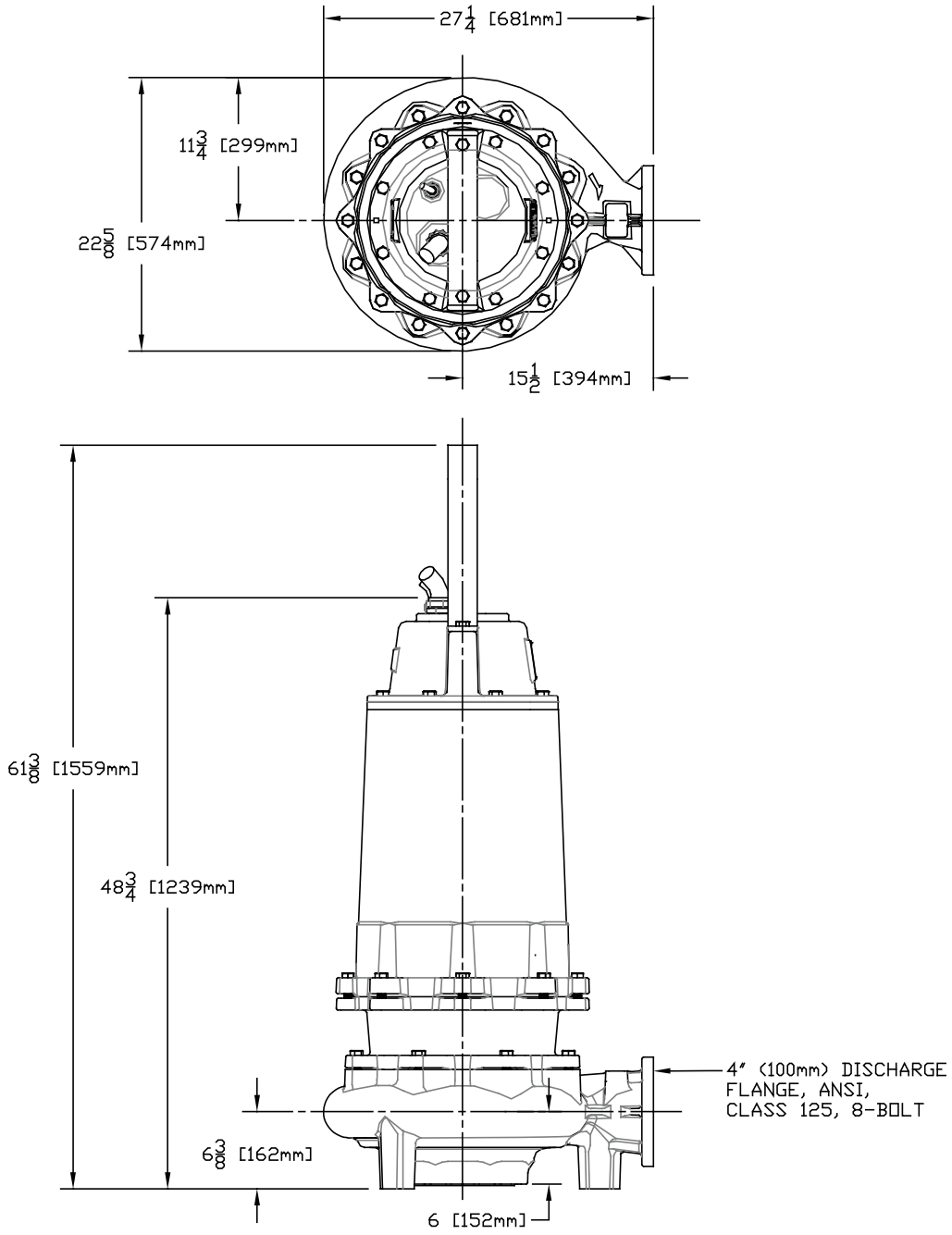
File: K4VK_1750

KEEN PUMP

Section **ENCLOSED**
Date **NOV 2013**

Pump Series	**K4VK**	4″ SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA



Note: All dimensions in inches and (millimeters).
Dimensions may vary due to normal manufacturing tolerances.

File: K4VK Dimensions

Pump Model: **K4VK**

Physical Data:

Discharge Size	ANSI 4″ Horizontal
Solids Size	3″
Impeller Type	Balanced, Enclosed, 2 Vane
Power/Control Cable Length	40′ Standard
Paint	Blue, Water Reducible Enamel, One Coat, Air Dried – Impeller & Inside Volute - Ceramic Coated For Abrasion Resistance

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H (**Optional** - Class N)
Service Factor	1.2
NEMA Design Type	B (3Ø) L (1Ø)
Single Phase Configuration	External Start and Run Components if Applicable
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	Class H: 356°F (180°C) Class N: 392°F (200°C) - **Optional**
Power Cord Type	SOOW - 600V, 90º C; Type W - 2000V, 90º C
Control Cord Type	16-4 or 18-5 - SOOW - 600V, 90º C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coted Inside
Wear Ring	Bronze, CDA 836
Impeller	Ductile Iron, ASTM A536, 60-40-18 / Ceramic Coated
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Conrad Style Double Row Angular Contact Ball Bearing
Labyrinth Seal	Bronze, CDA 836

Pump Model: **K4VK – 1750 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**1750**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
50	460	3	K	1.2	65.3	78.4	507.7	46.8	404.5	52.0
	575				52.3	62.7	406.2			
60	460	3	H	1.2	75.2	90.3	507.7	53.9	404.5	59.9
	575				60.2	72.2	406.2			
75	460	3	F	1.2	99.5	119.5	507.7	71.4	404.5	79.3
	575				79.6	95.6	406.2			
100	460	3	F	1.2	132.9	159.5	691.0	95.3	550.5	105.9
	575				106.3	127.6	552.8			
125	460	3	G	1.2	172.1	206.5	962.2	123.4	766.5	137.1
	575				137.7	165.2	769.7			
150	460	3	F	1.2	200.5	240.5	962.2	143.7	766.5	159.7
	575				160.4	192.4	769.7			

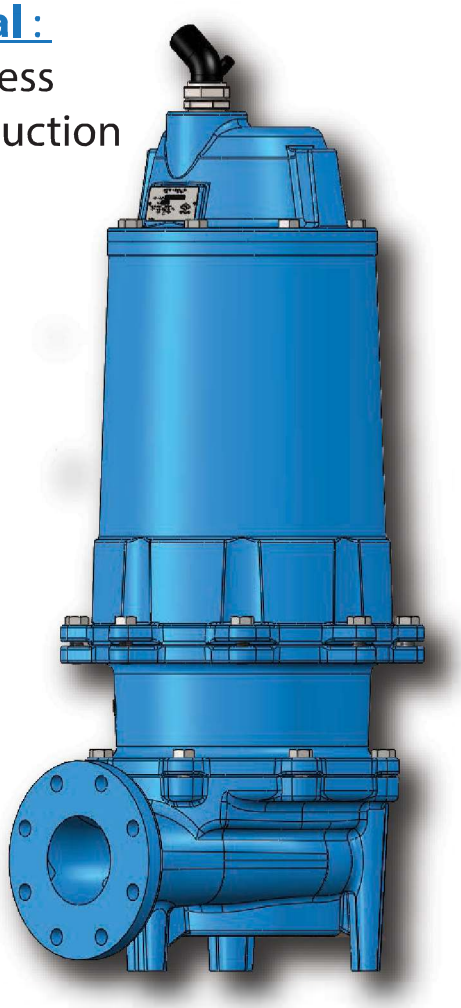
Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
50	3	84	83	79	72	86	83	80	70
60	3	85	84	80	73	87	84	82	74
75	3	83	82	81	74	86	84	81	75
100	3	84	83	80	73	86	86	83	78
125	3	87	86	81	74	87	86	82	78
150	3	87	87	82	75	84	82	80	77

KEEN PUMP

K6VB(X)

6" Submersible, Enclosed Impeller
(Class 1, Div. 1, Groups C & D Hazardous Location)

Optional :
All Stainless Steel Construction



CERAMIC COATED VORTEX IMPELLER
- Superior Abrasion Resistance
- Allows The Pump To Operate Better In Any Pressure Or Flow Condition

CERAMIC COATED VOLUTE
- Holds Up to Wear On Inside of Volute Casting Case

STANDARD MOTOR CONSTRUCTION
- Class H Laminations (Standard)

MOTOR GROUND RING PROTECTION
- Allows Motor To Operate With VFD Without Damaging Bearings and Motor
- Ground Ring Safely Diverts Harmful Voltages Away From Bearings

DOUBLE ROW LOWER BEARINGS
- Heavy Duty Bearings Handle The Toughest Applications of High Pressure and Flow Rates

BEST MOTOR CONSTRUCTION
- Class "N" (392° F) Highest Temperature
- Motor Will Not Overheat In Continuous Applications

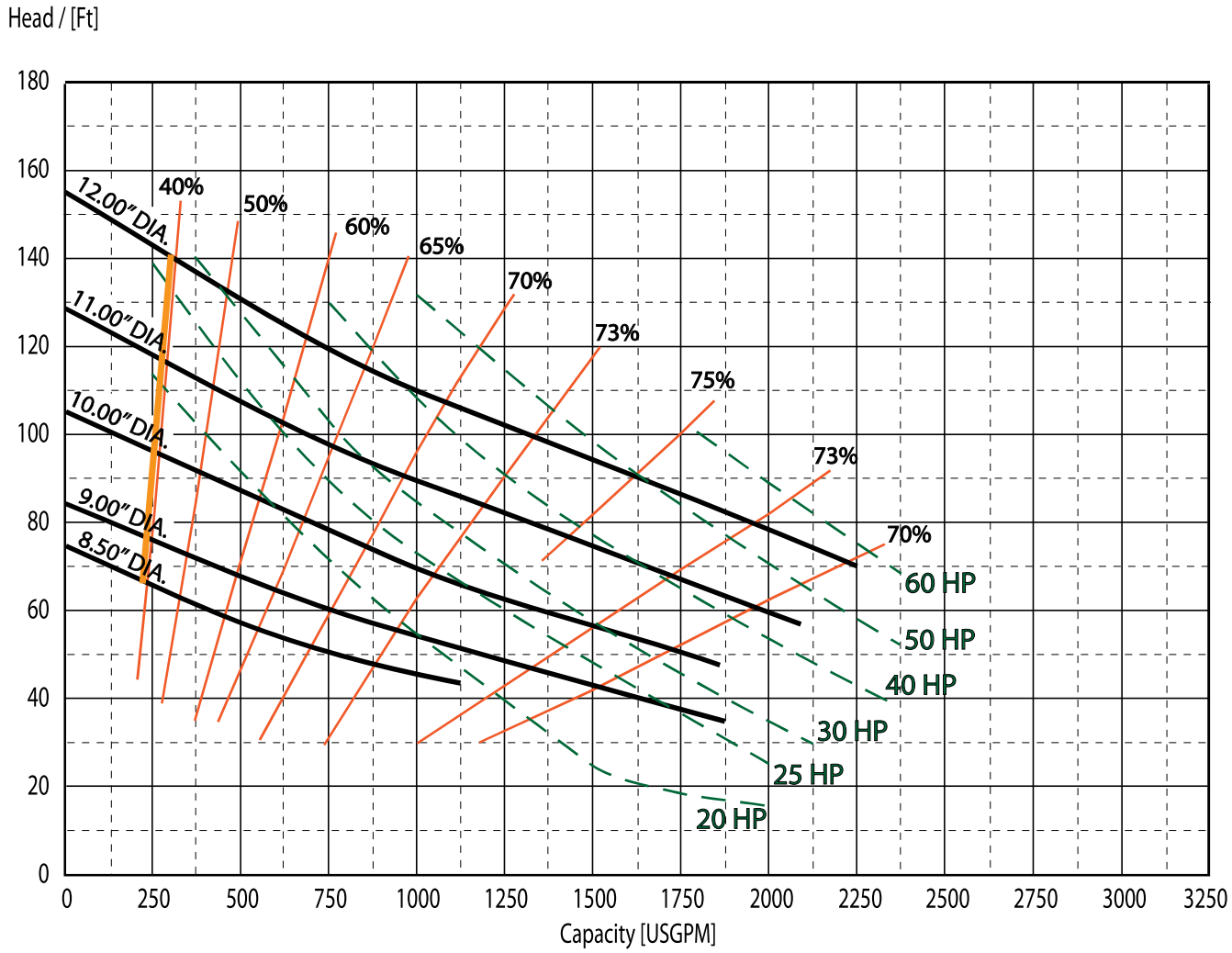
CAPABILITIES:
- Flows---------- to 2250 GPM
- Heads---------- to 155 Feet
- HP Range---------- 3 - 60 HP
- Voltage / Phase Options---------- 208 / 230 / 460 / 575V, 3 Phase
- Discharge Connections---------- 6" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 870 / 1150 / 1750 RPM
- Solids-Handling---------- 3-1/2"
- Impeller---------- Balanced, Enclosed, 2-Vane
- Motor Service Factor---------- 1.20

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K6VB**		6″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1750 RPM**	Discharge	**6″**	Solids	**3-1/2″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

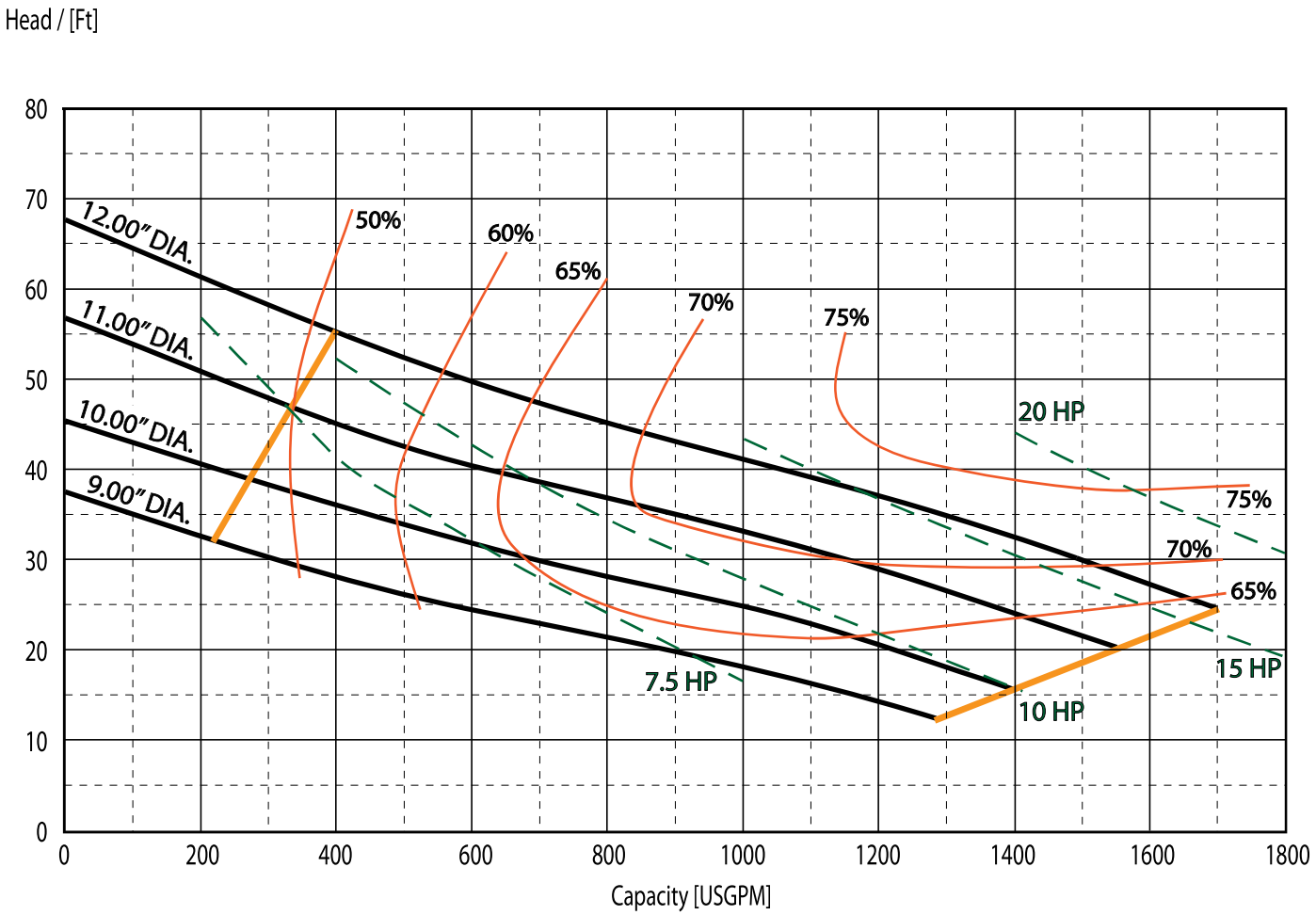
File: K6VB_1750

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K6VB**		6″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1150 RPM**	Discharge	**6″**	Solids	**3-1/2″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

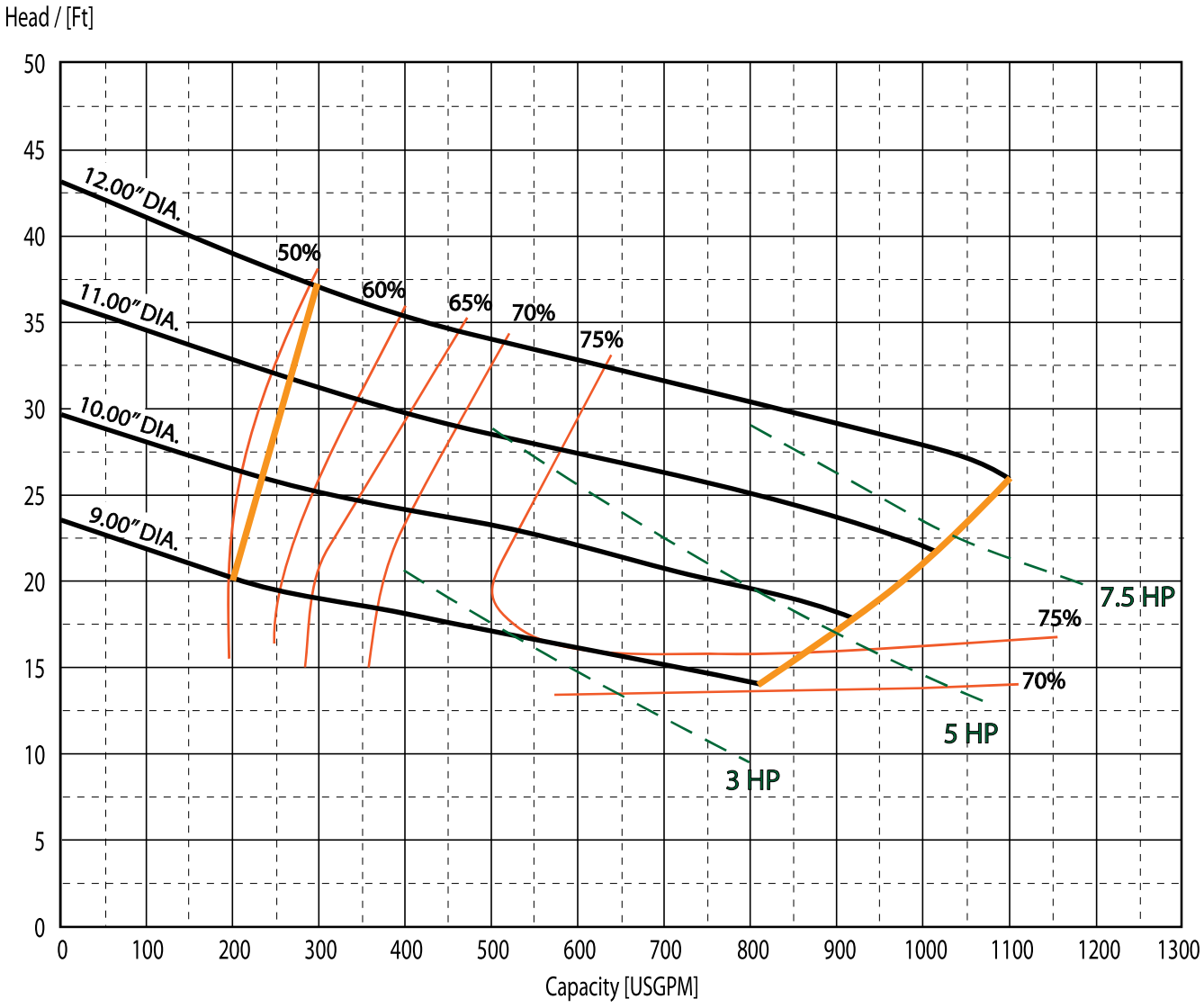
File: K6VB_1150

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K6VB**		6″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**870 RPM**	Discharge	**6″**	Solids	**3-1/2″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

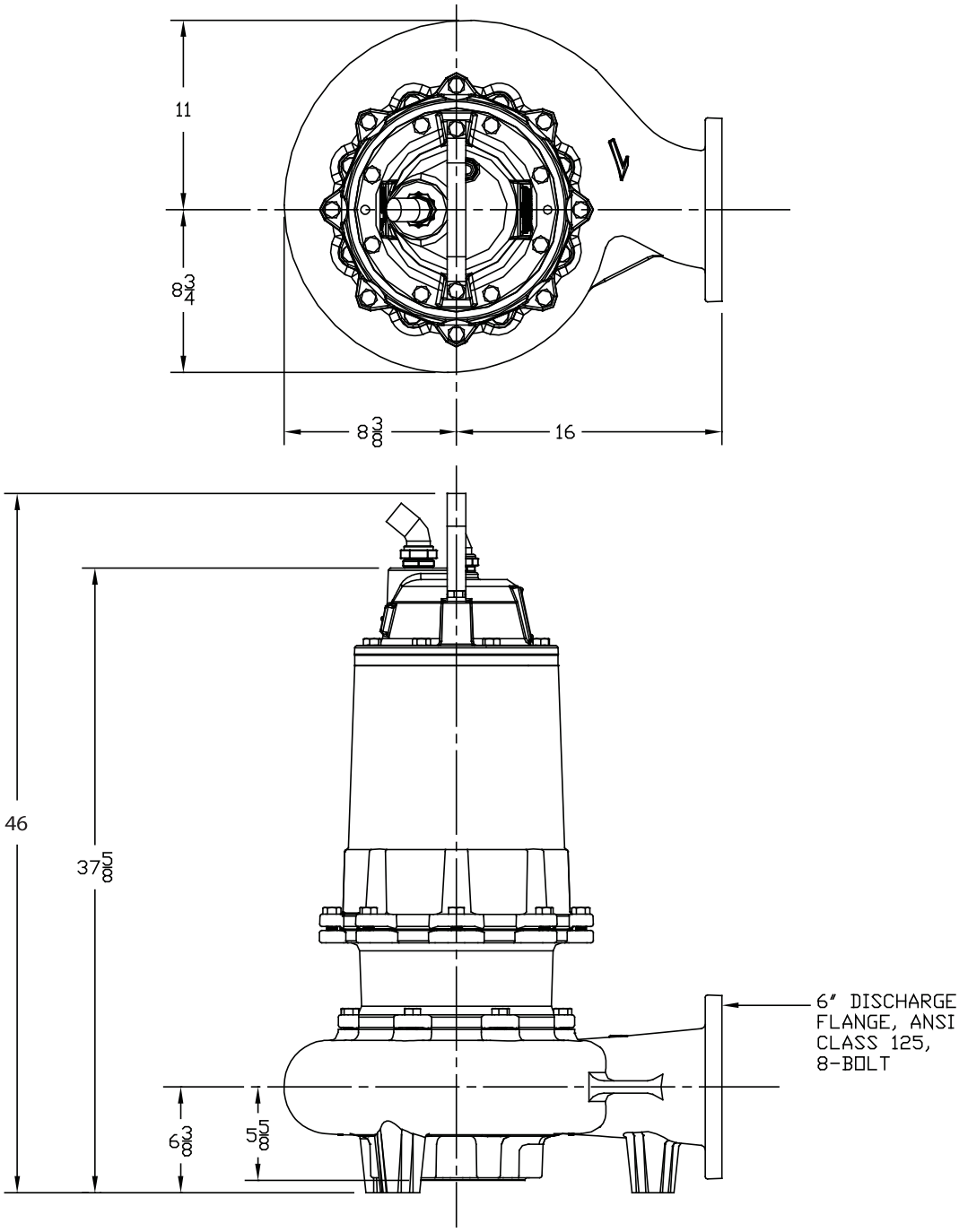
File: K6VB_870

KEEN PUMP

Section **ENCLOSED**
Date **JUNE 2014**

Pump Series	**K6VB**	6″ SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA



Note: All dimensions in inches unless noted.
Dimensions may vary due to normal manufacturing tolerances.

File: K6VB Dimensions

Pump Model: **K6VB**

Physical Data:

Discharge Size	ANSI 6″ Horizontal
Solids Size	3-1/2″
Impeller Type	Balanced, Enclosed, 2 Vane
Power/Control Cable Length	40′ Standard
Paint	Blue, Water Reducible Enamel, One Coat, Air Dried – Impeller & Inside Volute - Ceramic Coated For Abrasion Resistance

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H (**Optional** - Class N)
Service Factor	1.2
NEMA Design Type	B (3Ø) L (1Ø)
Single Phase Configuration	External Start and Run Components if Applicable
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	Class H: 356°F (180°C) Class N: 392°F (200°C) - **Optional**
Power Cord Type	SOOW - 600V, 90º C; Type W - 2000V, 90º C
Control Cord Type	16-4 or 18-5 - SOOW - 600V, 90º C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coated Inside
Wear Ring	Bronze, CDA 836
Impeller	Ductile Iron, ASTM A536, 60-40-18 / Ceramic Coated
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Conrad Style Double Row Angular Contact Ball Bearing
Labyrinth Seal	Bronze, CDA 836

Pump Model: **K6VB – 1750 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**1750**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
15	208	3	H	1.2	50.8	61.0	277.2	16.5	99.7	18.3
	230				45.8	54.9	249.7			
	460				22.9	27.5	124.9			
	575				18.3	22.0	99.9			
20	208	3	E	1.2	69.3	83.2	277.2	22.4	99.7	25.0
	230				62.4	74.9	249.7			
	460				31.2	37.5	124.9			
	575				25.0	30.0	99.9			
25	208	3	G	1.2	78.5	94.2	417.6	25.5	150.3	28.3
	230				70.7	84.9	376.2			
	460				35.4	42.4	188.1			
	575				28.3	33.9	150.5			
30	208	3	F	1.2	104.4	125.3	417.6	33.8	150.3	37.6
	230				94.1	112.9	376.2			
	460				47.0	56.4	188.1			
	575				37.6	45.1	150.5			
40	208	3	E	1.2	135.6	162.7	542.4	43.9	195.1	48.8
	230				122.2	146.6	488.6			
	460				61.1	73.3	244.3			
	575				48.9	58.6	195.5			
50	230	3	D	1.2	135.2	162.3	540.9	48.6	215.8	54.0
	460				67.6	81.1	270.5			
	575				54.1	64.9	216.4			

Pump Model: **K6VB – 1150 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**1150**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
5	208	3	J	1.2	19.6	23.5	100.0	6.4	36.0	7.0
	230				17.7	21.2	90.1			
	460				8.8	10.6	45.0			
	575				7.1	8.5	36.0			
7.5	208	3	K	1.2	27.3	32.8	176.0	8.9	63.3	9.8
	230				24.6	29.5	158.5			
	460				12.3	14.8	79.3			
	575				9.8	11.8	63.4			
10	208	3	G	1.2	34.5	41.4	176.0	11.2	63.3	12.4
	230				31.1	37.3	158.5			
	460				15.5	18.6	79.3			
	575				12.4	14.9	63.4			
15	208	3	K	1.2	48.2	57.8	339.2	15.6	122.5	17.4
	230				43.4	52.1	305.5			
	460				21.7	26.1	152.8			
	575				17.4	20.8	122.2			
20	208	3	G	1.2	66.5	79.8	339.2	21.6	122.5	24.0
	230				59.9	71.9	305.5			
	460				30.0	35.9	152.8			
	575				24.0	28.8	122.2			
25	208	3	G	1.0	79.8	79.8	339.2	21.6	122.5	24.0
	230				71.9	71.9	305.5			
	460				35.9	35.9	152.8			

Pump Model: **K6VB – 870 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**870**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	**Voltage**	**Phase**	**NEC Code**	**Service Factor**	**Full Load AMPS**	**SF Amps**	**Locked Rotor AMPS**	**Run KW**	**Start KVA**	**Run KVA**
3	208	3	N	1.2	16.9	20.3	97.2	5.5	34.9	6.1
	230				15.2	18.3	87.6			
	460				7.6	9.1	43.8			
	575				6.1	7.3	35.0			
5	208	3	H	1.2	24.3	29.2	97.2	7.9	34.9	8.8
	230				21.9	26.3	87.6			
	460				10.9	13.1	43.8			
	575				8.8	10.5	35.0			
7.5	208	3	G	1.2	30.5	36.6	122.0	9.9	43.9	11.0
	230				27.5	33.0	109.9			
	460				13.7	16.5	55.0			
	575				11.0	13.2	44.0			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
3	3	72	71	70	66	73	71	67	59
5	3	83	80	76	69	74	72	67	60
7.5	3	82	81	77	68	74	71	68	61

KEEN PUMP®

K8VK

8" Submersible, Enclosed Impeller

Class 1, Div. 1 Groups C & D Construction

HEAVY DUTY PUMP SERIES

- Handles Aggressive Pumping Applications
- Strong Pumping Capacities to 3800 GPM
- Smooth, Quiet Operation
- Centerline Volute Discharge

STRONG PERFORMANCE

- Non-Overloading Performance Curve
- Pump-Out Vanes Prevent Material Build-up
- Positive Pumping Action through Impeller
- Ideal for Higher Flows

LONG SERVICE LIFE

- Dual Silicon Carbide Shaft Seals
- Low Motor Operation Temperatures
- Continuously Lubricated Angular Contact Bearings

LOW MAINTENANCE

- Easily Replaceable Impeller Wear Ring Restores Original Pump Performance
- Unobstructed Impeller Passageway
- Grit-Resistant Silicon Carbide Shaft Seals
- Large, 4" diameter Solids-Handling
- High Service Factor Motor Handles Tough Electrical Operating Conditions

CAPABILITIES:

- Flows---------- to 3800 GPM
- Heads---------- to 175 Feet
- HP Range---------- 15 - 150 HP
- Voltage / Phase Options---------- 208 / 230 / 460 / 575V, 3 Phase
- Discharge Connections---------- 8" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 870 / 1150 / 1750 RPM
- Solids-Handling---------- 4"
- Impeller---------- Balanced, Enclosed, 2-Vane
- Motor Service Factor---------- 1.20

Rev. 07/2017

Features and Benefits

K8VK

Class 1, Div. 1
Groups C & D
Construction

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 wire terminal plate, separating cord cap from motor housing.

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 (U.S. Motor Manufacturer)
Powerful high-torque motor for strong pumping.
208 / 230 / 460 / 575 Volt, 3-phase.
Slip-Fit stator efficiently transfers heat to cast housing. Class H(Class N optional) construction with overload protection in oil-filled chamber for cool operation and long motor life. Inverter-duty capable, for VFD / soft start operation.

3a. Oil
Proprietary Keen oil ensures industry-low operating temperatures.

4. Solid Bearing Support
Two-bearing design featuring high load-rated angular contact bearings for 100,000 hour B-10 life.

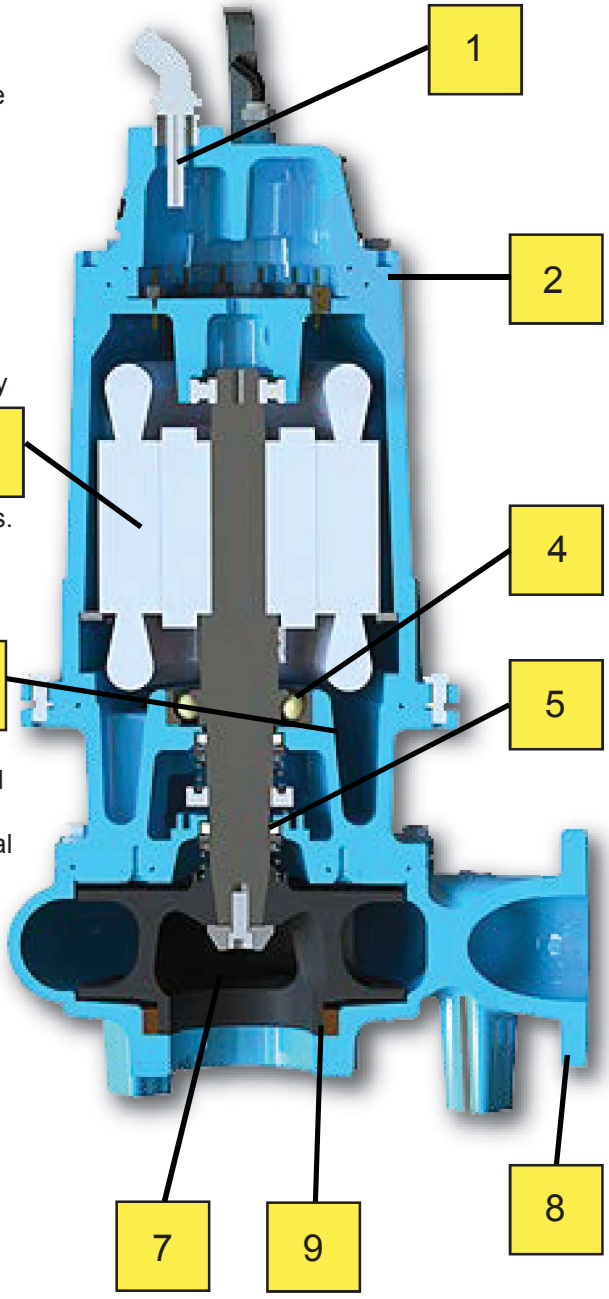
5. Severe Duty Dual Mechanical Seals
Dual silicon carbide mechanical shaft seals provide twice the moisture and grit protection for the motor. Dual seals are housed in a secondary oil-filled seal chamber. Tougher silicon carbide seals better handle sand, grit and abrasive materials. ** Additional bronze labyrinth seal for explosion-proof model.

6. Moisture Detection
Seal leak probe signals alarm in control panel for scheduled maintenance.

7. High Efficiency Hydraulic Design
Highly efficient enclosed, 2-vane impeller easily passes 4" 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
8" Horizontal, Class 125 ANSI discharge flange. Industry standard, 8-bolt pattern.

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



KEEN PUMP®
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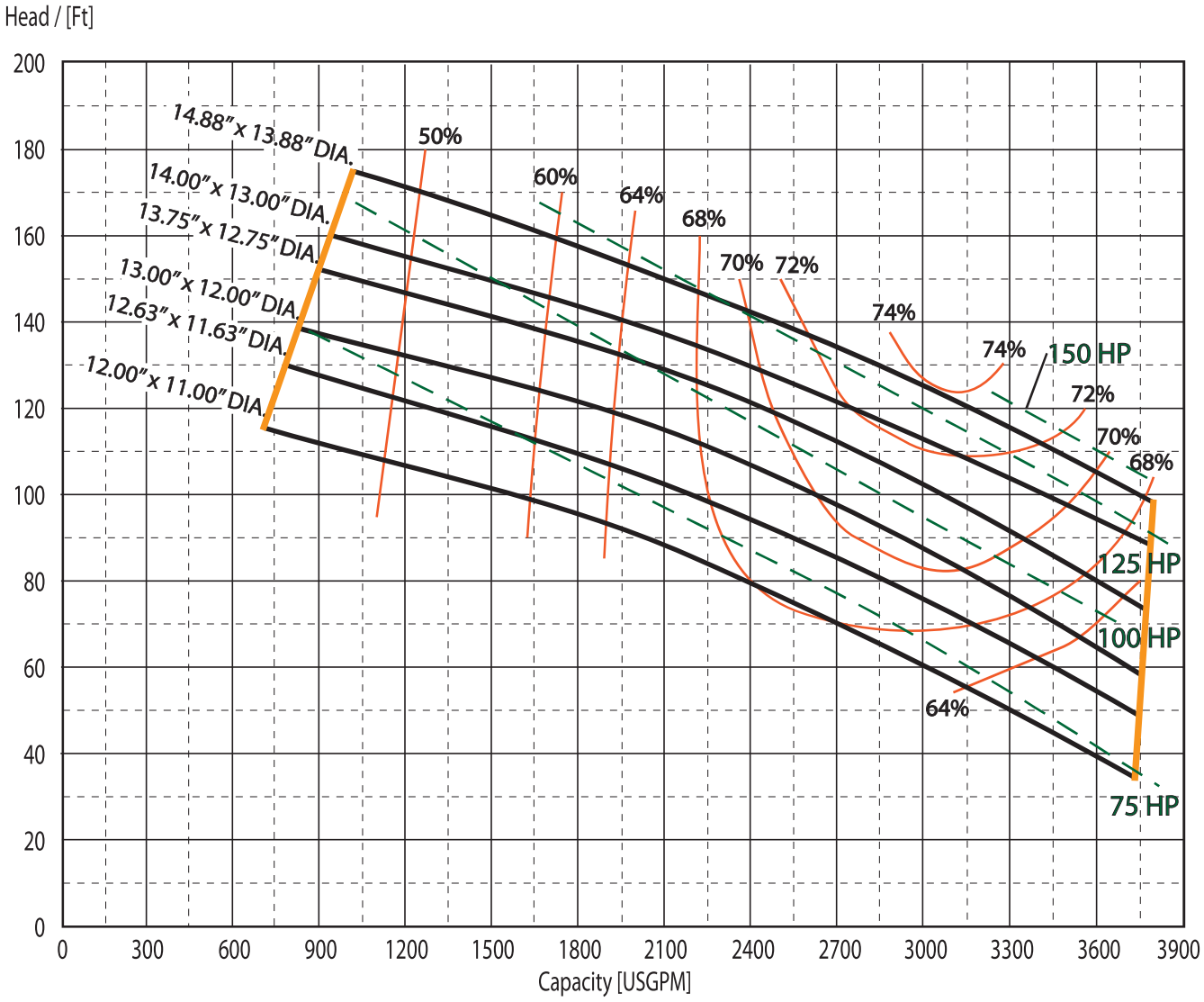
www.keenpump.com

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K8VK**		8″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1750 RPM**	Discharge	**8″**	Solids	**4″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

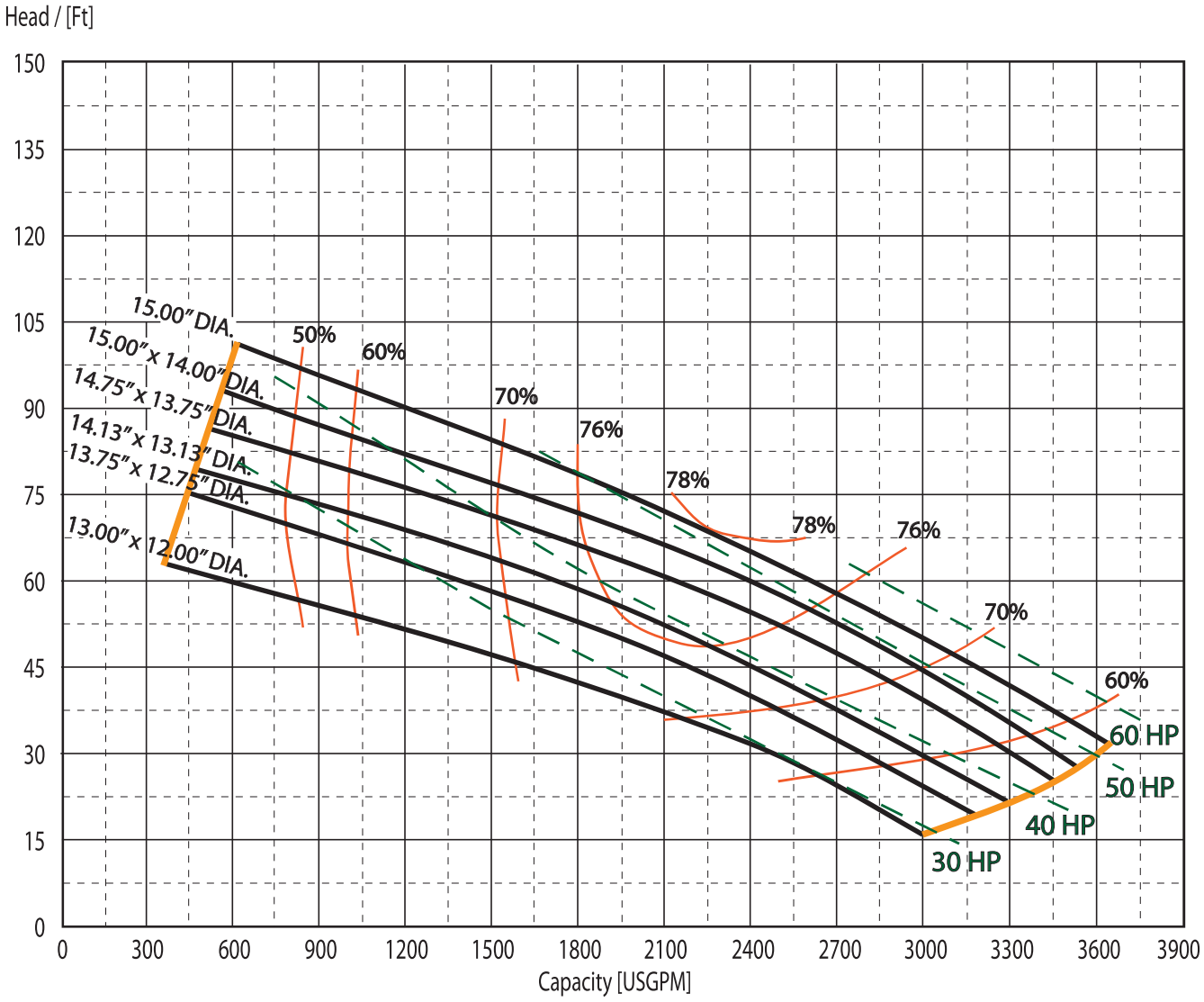
File: K8VK_1750_CAT

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K8VK**		8″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1150 RPM**	Discharge	**8″**	Solids	**4″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

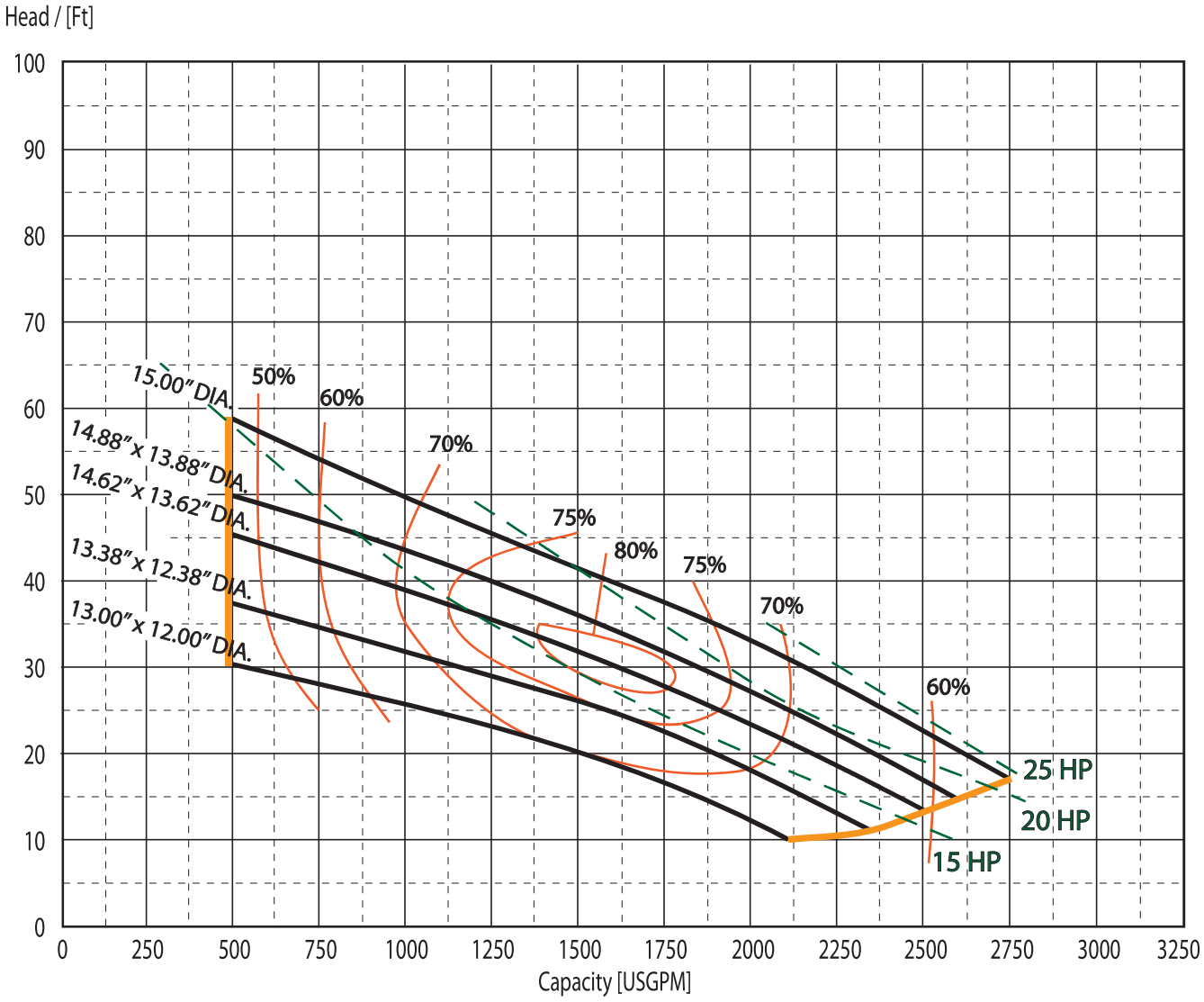
File: K8VK_1150_CAT

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K8VK**		8″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**870 RPM**	Discharge	**8″**	Solids	**4″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

File: K8VK_870_CAT

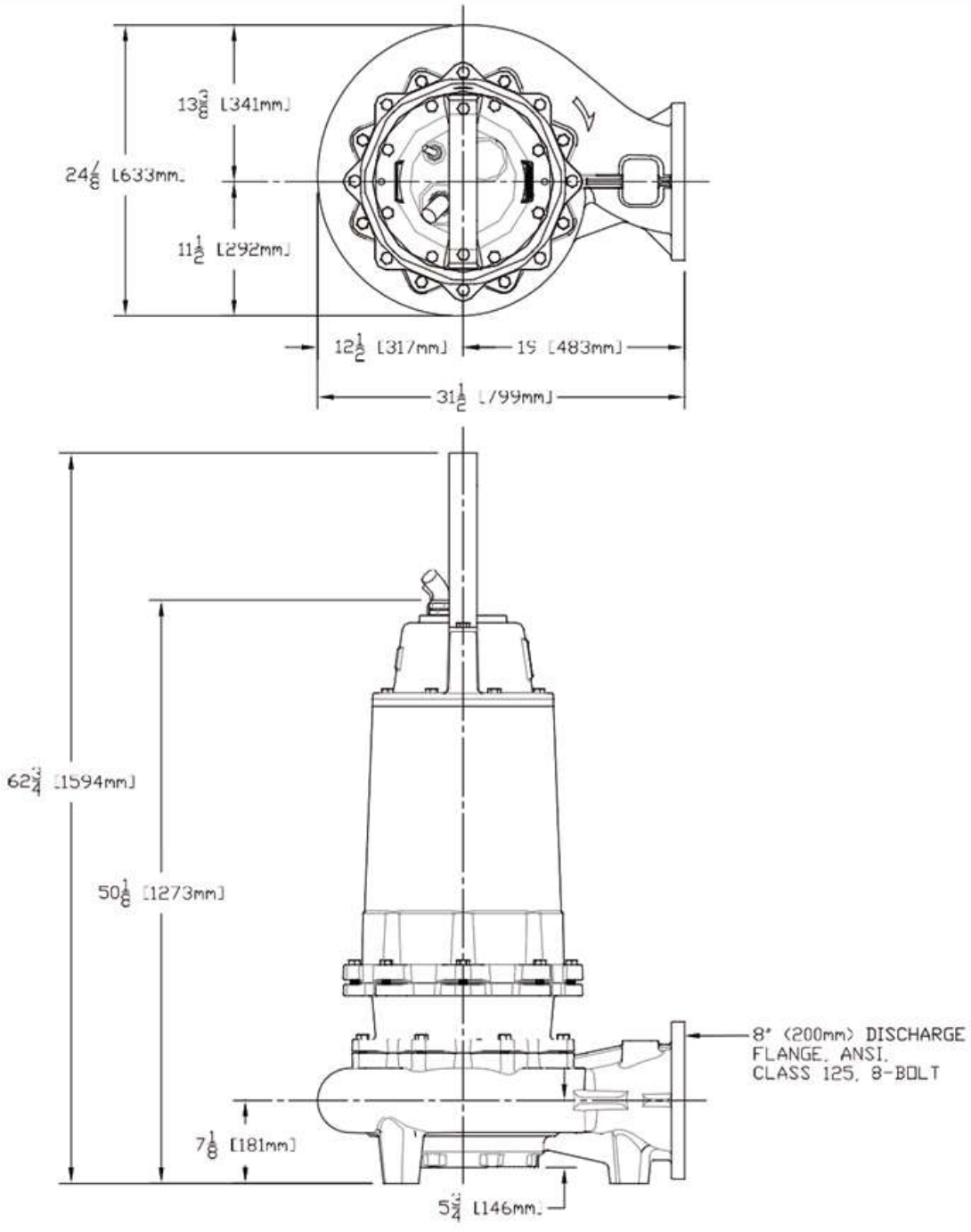
KEEN PUMP®

Section **ENCLOSED**

Date **NOV 2013**

Pump Series	**K8VK**	8" SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA



Note: All dimensions in inches and (millimeters).

Dimensions may vary due to normal manufacturing tolerances.

File: K8VK Dimensions

Pump Model: **K8VK**

Physical Data:

Discharge Size	ANSI 8″ Horizontal
Solids Size	4″
Impeller Type	Balanced, Enclosed, 2 Vane
Power/Control Cable Length	40′ Standard
Paint	Blue, Water Reducible Enamel, One Coat, Air Dried – Impeller & Inside Volute - Ceramic Coated For Abraison Resistance

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H (**Optional** - Class N)
Service Factor	1.2
NEMA Design Type	B (3Ø) L (1Ø)
Single Phase Configuration	External Start and Run Components if Applicable
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	Class H: 356°F (180°C) Class N: 392°F (200°C) - **Optional**
Power Cord Type	SOOW - 600V, 90º C; Type W - 2000V, 90º C
Control Cord Type	16-4 or 18-5 - SOOW - 600V, 90º C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coated Inside
Wear Ring	Bronze, CDA 836
Impeller	Ductile Iron, ASTM A536, 60-40-18 / Ceramic Coated
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Conrad Style Double Row Angular Contact Ball Bearing
Labyrinth Seal	Bronze, CDA 836

Pump Model: **K8VK – 1750 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**1750**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	**Voltage**	**Phase**	**NEC Code**	**Service Factor**	**Full Load AMPS**	**SF Amps**	**Locked Rotor AMPS**	**Run KW**	**Start KVA**	**Run KVA**
75	460	3	F	1.2	99.5	119.5	507.7	71.4	404.5	79.3
	575				79.6	95.6	406.2			
100	460	3	F	1.2	132.9	159.5	691.0	95.3	550.5	105.9
	575				106.3	127.6	552.8			
125	460	3	G	1.2	172.1	206.5	962.2	123.4	766.5	137.1
	575				137.7	165.2	769.7			
150	460	3	F	1.2	200.5	240.5	962.2	143.7	766.5	159.7
	575				160.4	192.4	769.7			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
75	3	84	83	79	72	86	83	80	70
100	3	85	84	80	73	87	84	82	74
125	3	83	82	81	74	86	84	81	75
150	3	84	83	80	73	86	86	83	78

Pump Model: **K8VK – 1150 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**1150**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	**Voltage**	**Phase**	**NEC Code**	**Service Factor**	**Full Load AMPS**	**SF Amps**	**Locked Rotor AMPS**	**Run KW**	**Start KVA**	**Run KVA**
30	208	3	J	1.2	98.3	118.0	651.8	31.9	234.1	35.4
	230				88.6	106.3	587.2			
	460				44.3	53.1	293.6			
	575				35.4	42.5	234.9			
40	208	3	G	1.2	127.8	153.4	651.8	41.4	234.1	45.9
	230				115.1	138.2	587.2			
	460				57.6	69.1	293.6			
	575				46.1	55.3	234.9			
50	208	3	G	1.2	164.8	197.8	840.5	53.3	301.9	59.3
	230				148.5	178.2	575.2			
	460				74.2	89.1	378.6			
	575				59.4	71.3	302.9			
60	460	3	H	1.2	84.5	101.4	507.7	60.6	404.5	67.3
	575				67.6	81.1	406.2			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
30	3	87	85	79	75	83	82	77	70
40	3	85	84	80	76	84	82	79	74
50	3	83	82	81	77	86	81	81	75
60	3	84	83	80	78	86	84	83	78

Pump Model: **K8VK – 870 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**870**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
15	208	3	K	1.2	54.2	65.0	346.3	17.6	124.5	19.5
	230				48.8	58.6	312.0			
	460				24.4	29.3	156.0			
	575				19.5	23.4	124.8			
20	208	3	G	1.2	67.9	81.5	346.3	22.0	124.5	24.5
	230				61.2	73.4	312.0			
	460				30.6	36.7	156.0			
	575				24.5	29.4	124.8			
25	208	3	H	1.2	82.1	98.5	484.0	26.6	173.9	29.6
	230				74.0	88.8	436.0			
	460				37.0	44.4	218.0			
	575				29.6	35.5	174.4			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
15	3	84	83	79	72	76	73	70	64
20	3	85	84	80	73	77	74	72	64
25	3	86	84	81	74	76	74	71	65

KEEN PUMP®

K12VK

12" Submersible, Enclosed Impeller

Class 1, Div. 1 Groups C & D Construction

HEAVY DUTY PUMP SERIES

- Handles Aggressive Pumping Applications
- Strong Pumping Capacities to 7700 GPM
- Smooth, Quiet Operation
- Centerline Volute Discharge

STRONG PERFORMANCE

- Non-Overloading Performance Curve
- Pump-Out Vanes Prevent Material Build-up
- Positive Pumping Action through Impeller
- Ideal for Higher Flows

LONG SERVICE LIFE

- Dual Silicon Carbide Shaft Seals
- Low Motor Operation Temperatures
- Continuously Lubricated Angular Contact Bearings

LOW MAINTENANCE

- Easily Replaceable Impeller Wear Ring Restores Original Pump Performance
- Unobstructed Impeller Passageway
- Grit-Resistant Silicon Carbide Shaft Seals
- Large, 6" diameter Solids-Handling
- High Service Factor Motor Handles Tough Electrical Operating Conditions

CAPABILITIES:

- Flows---------- to 7700 GPM
- Heads---------- to 125 Feet
- HP Range---------- 15 - 150 HP
- Voltage / Phase Options---------- 208 / 230 / 460 / 575V, 3 Phase
- Discharge Connections---------- 12" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 870 / 1150 / 1750 RPM
- Solids-Handling---------- 6"
- Impeller---------- Balanced, Enclosed, 2-Vane
- Motor Service Factor---------- 1.20

Rev. 07/2017

Features and Benefits

K12VK

Class 1, Div. 1
Groups C & D
Construction

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 wire terminal plate, separating cord cap from motor housing.

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 (U.S. Motor Manufacturer)
Powerful high-torque motor for strong pumping.
208 / 230 / 460 / 575 Volt, 3-phase.
Slip-Fit stator efficiently transfers heat to cast housing. Class H(Class N optional) construction with overload protection in oil-filled chamber for cool operation and long motor life. Inverter-duty capable, for VFD / soft start operation.

3a. Oil
Proprietary Keen oil ensures industry-low operating temperatures.

4. Solid Bearing Support
Two-bearing design featuring high load-rated angular contact bearings for 100,000 hour B-10 life.

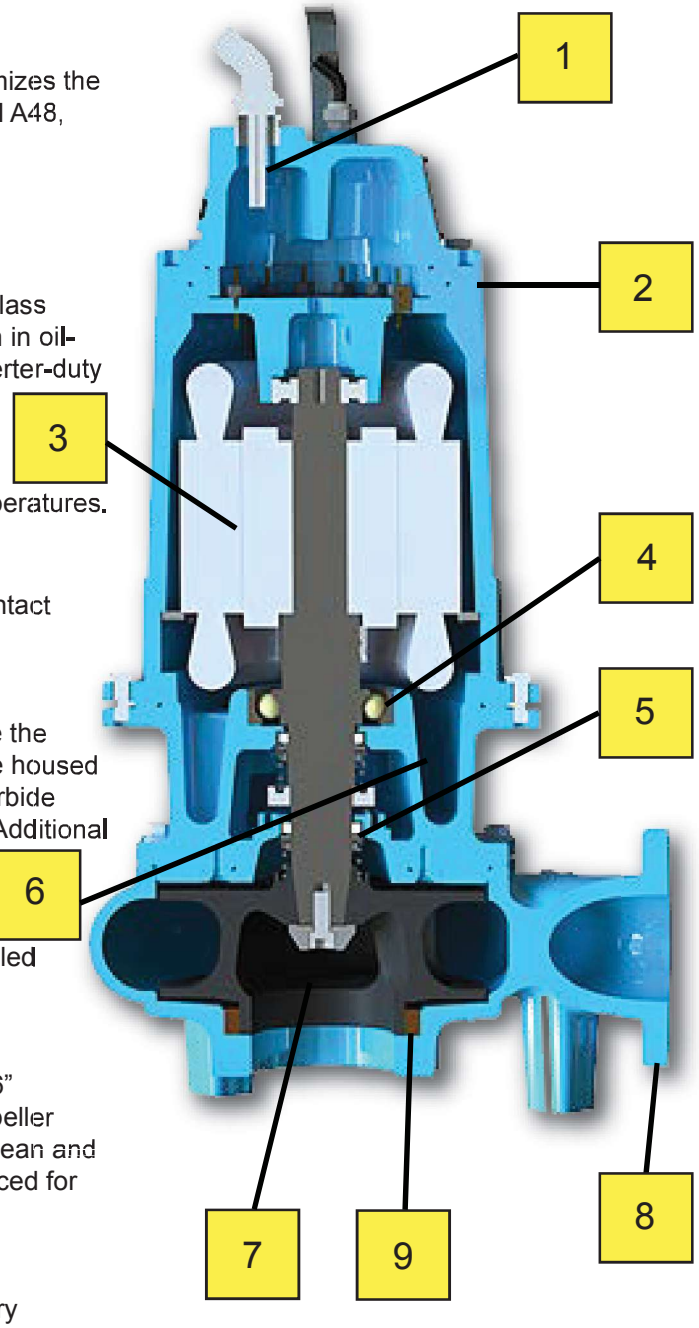
5. Severe Duty Dual Mechanical Seals
Dual silicon carbide mechanical shaft seals provide twice the moisture and grit protection for the motor. Dual seals are housed in a secondary oil-filled seal chamber. Tougher silicon carbide seals better handle sand, grit and abrasive materials. ** Additional bronze labyrinth seal for explosion-proof model.

6. Moisture Detection
Seal leak probe signals alarm in control panel for scheduled maintenance.

7. High Efficiency Hydraulic Design
Highly efficient enclosed, 2-vane 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
12" Horizontal, Class 125 ANSI discharge flange. Industry standard, 12-bolt pattern.

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



KEEN PUMP®
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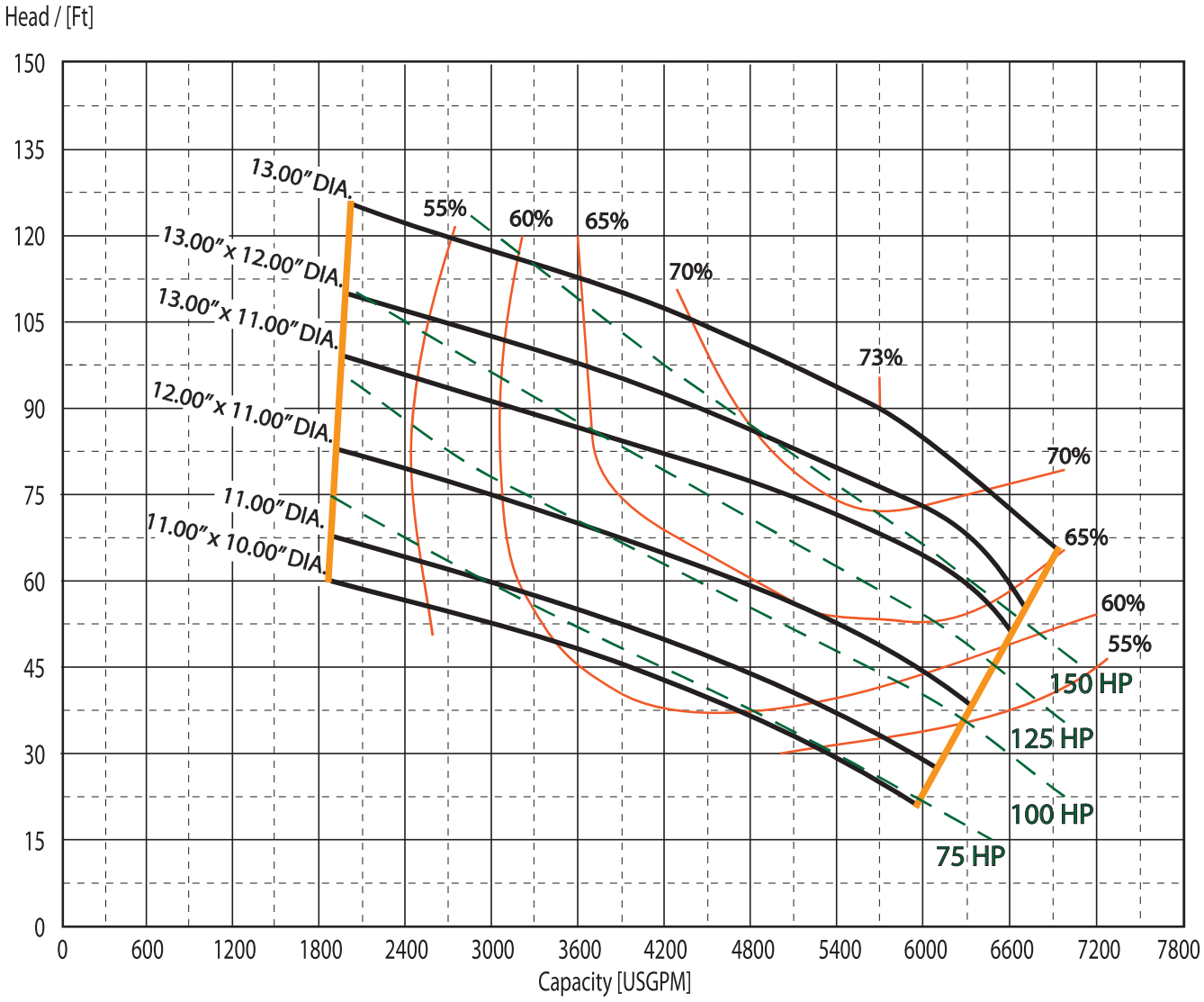
KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K12VK**		12″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1750 RPM**	Discharge	**12″**	Solids	**6″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

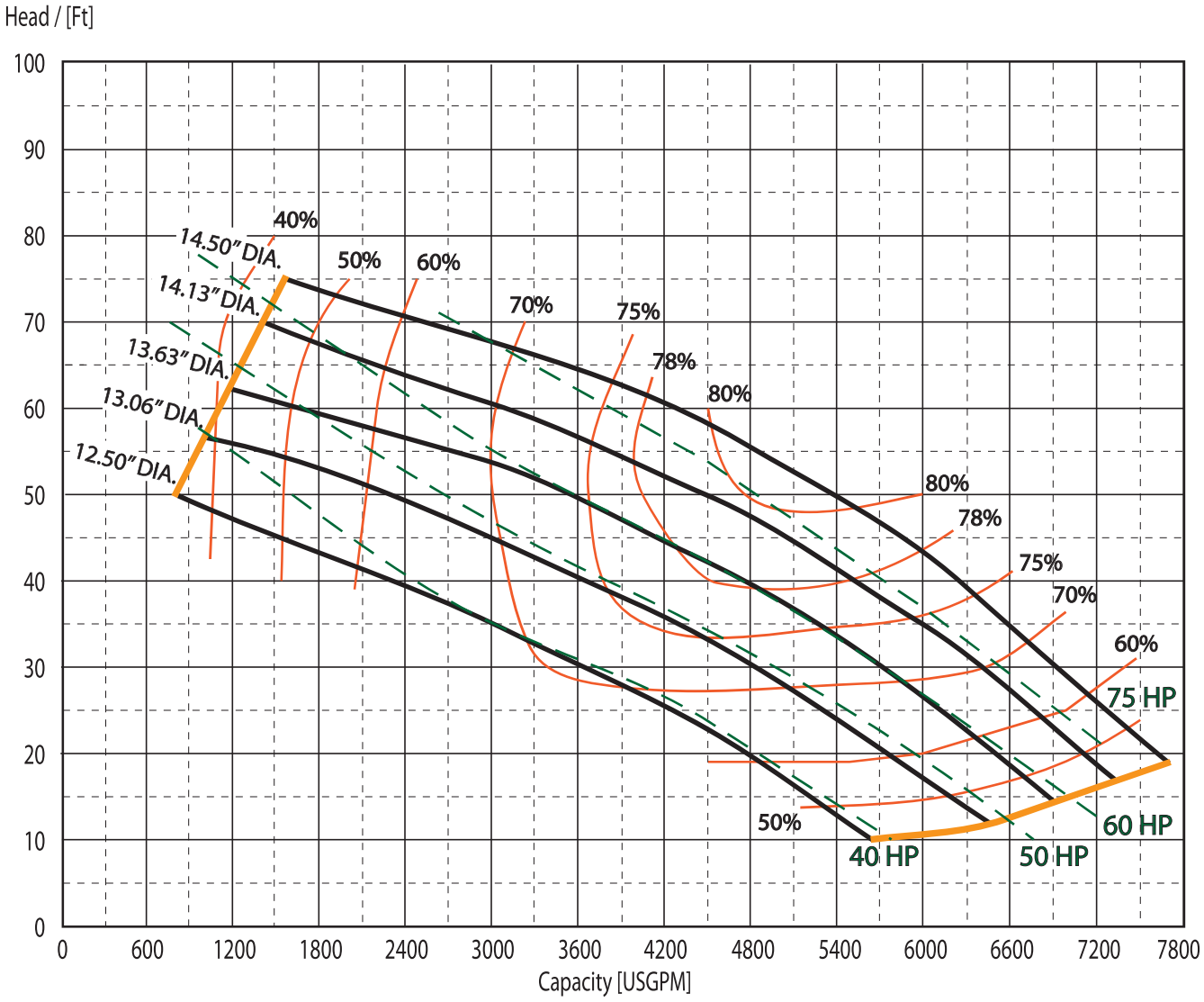
File: K12VK_1750_CAT

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K12VK**		12″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1150 RPM**	Discharge	**12″**	Solids	**6″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

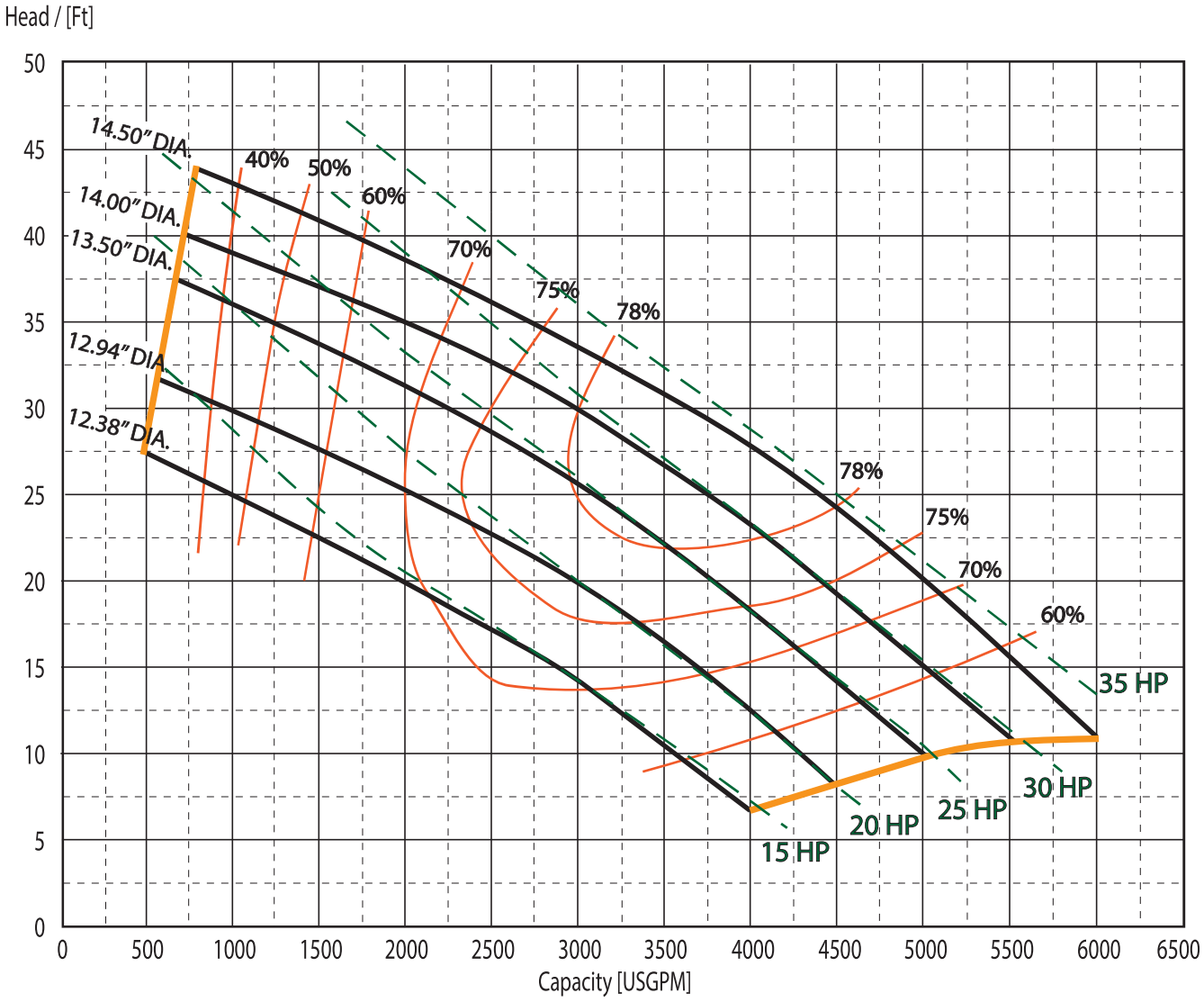
File: K12VK_1150_CAT

KEEN PUMP®

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K12VK**		12″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**870 RPM**	Discharge	**12″**	Solids	**6″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

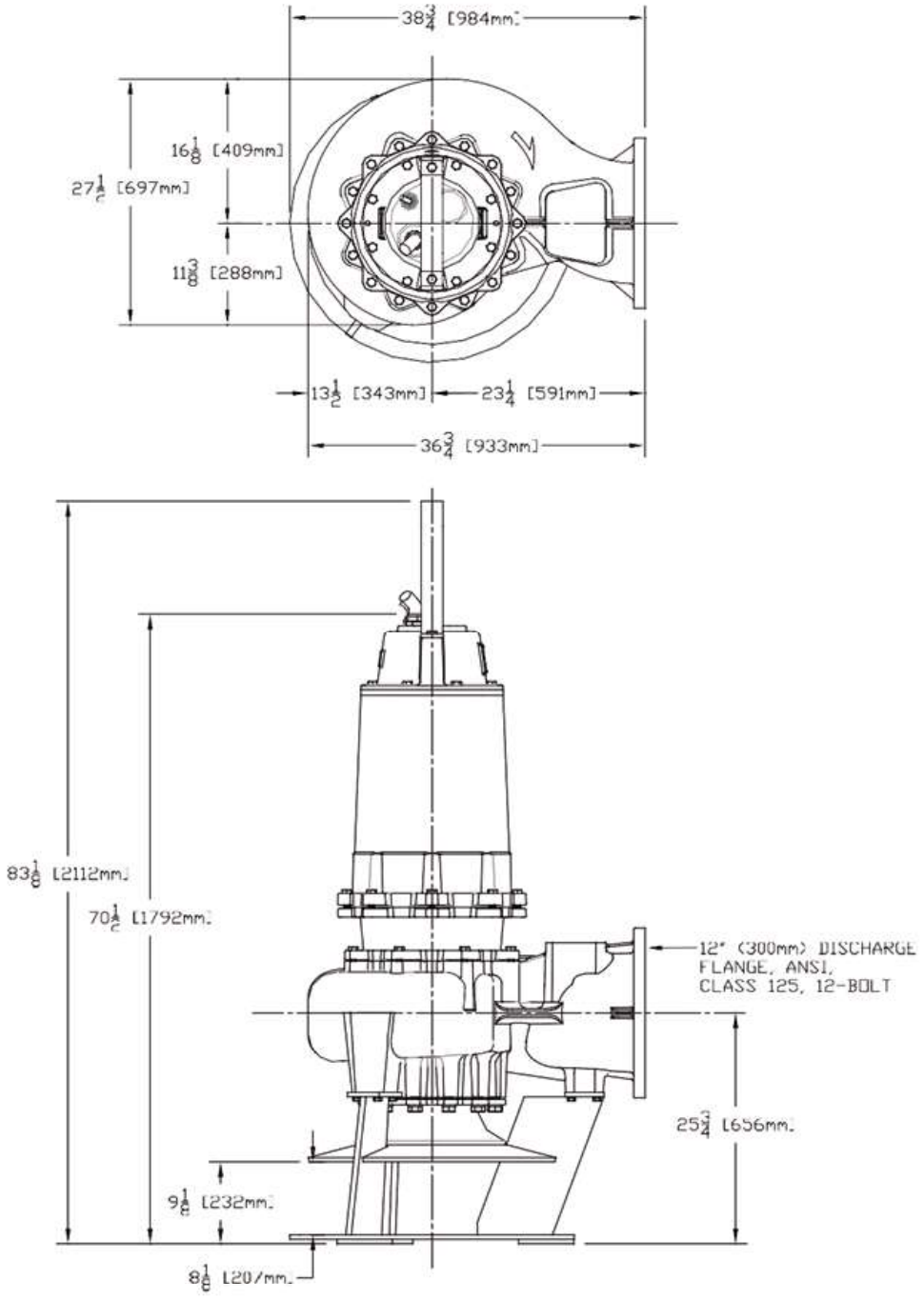
File: K12VK_870_CAT

KEEN PUMP®

Section **ENCLOSED**
Date **NOV 2013**

Pump Series	**K12VK**	12" SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA



Note: All dimensions in inches and (millimeters).
Dimensions may vary due to normal manufacturing tolerances.

File: K12VK Dimensions

Pump Model: **K12VK**

Physical Data:

Discharge Size	ANSI 12″ Horizontal
Solids Size	6″
Impeller Type	Balanced, Enclosed, 2 Vane
Power/Control Cable Length	40′ Standard
Paint	Blue, Water Reducible Enamel, One Coat, Air Dried – Impeller & Inside Volute - Ceramic Coated For Abrasion Resistance

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H (**Optional** - Class N)
Service Factor	1.2
NEMA Design Type	B (3Ø) L (1Ø)
Single Phase Configuration	External Start and Run Components if Applicable
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	Class H: 356°F (180°C) Class N: 392°F (200°C) - **Optional**
Power Cord Type	SOOW - 600V, 90º C; Type W - 2000V, 90º C
Control Cord Type	16-4 or 18-5 - SOOW - 600V, 90º C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coated Inside
Wear Ring	Bronze, CDA 836
Impeller	Ductile Iron, ASTM A536, 60-40-18 / Ceramic Coated
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Conrad Style Double Row Angular Contact Ball Bearing
Labyrinth Seal	Bronze, CDA 836

Pump Model: **K12VK – 1750 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**1750**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	Voltage	Phase	NEC Code	Service Factor	Full Load AMPS	SF Amps	Locked Rotor AMPS	Run KW	Start KVA	Run KVA
75	460	3	F	1.2	99.5	119.5	507.7	71.4	404.5	79.3
	575				79.6	95.6	406.2			
100	460	3	F	1.2	132.9	159.5	691.0	95.3	550.5	105.9
	575				106.3	127.6	552.8			
125	460	3	G	1.2	172.1	206.5	962.2	123.4	766.5	137.1
	575				137.7	165.2	769.7			
150	460	3	F	1.2	200.5	240.5	962.2	143.7	766.5	159.7
	575				160.4	192.4	769.7			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
75	3	84	83	79	72	86	83	80	70
100	3	85	84	80	73	87	84	82	74
125	3	83	82	81	74	86	84	81	75
150	3	84	83	80	73	86	86	83	78

Pump Model: **K12VK – 1150 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**1150**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	**Voltage**	**Phase**	**NEC Code**	**Service Factor**	**Full Load AMPS**	**SF Amps**	**Locked Rotor AMPS**	**Run KW**	**Start KVA**	**Run KVA**
40	208	3	G	1.2	127.8	153.4	651.8	41.4	234.1	45.9
	230				115.1	138.2	587.2			
	460				57.6	69.1	293.6			
	575				46.1	55.3	234.9			
50	208	3	G	1.2	164.8	197.8	840.5	53.3	301.9	59.3
	230				148.5	178.2	575.2			
	460				74.2	89.1	378.6			
	575				59.4	71.3	302.9			
60	460	3	H	1.2	84.5	101.4	507.7	60.6	404.5	67.3
	575				67.6	81.1	406.2			
75	460	3	F	1.2	99.5	119.5	507.7	71.4	404.5	79.4
	575				79.6	95.6	406.2			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
40	3	85	84	80	76	84	82	79	74
50	3	83	82	81	77	86	81	81	75
60	3	84	83	80	78	86	84	83	78
75	3	84	83	80	73	86	86	83	78

Pump Model: **K12VK – 870 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM		**870**			
Electrical Ratings		Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
		Seal Fail	300VAC 5mAMPS		
Voltage Tolerance		± 10%			

HP	**Voltage**	**Phase**	**NEC Code**	**Service Factor**	**Full Load AMPS**	**SF Amps**	**Locked Rotor AMPS**	**Run KW**	**Start KVA**	**Run KVA**
15	208	3	K	1.2	54.2	65.0	346.3	17.6	124.5	19.5
	230				48.8	58.6	312.0			
	460				24.4	29.3	156.0			
	575				19.5	23.4	124.8			
20	208	3	G	1.2	67.9	81.5	346.3	22.0	124.5	24.5
	230				61.2	73.4	312.0			
	460				30.6	36.7	156.0			
	575				24.5	29.4	124.8			
25	208	3	H	1.2	82.1	98.5	484.0	26.6	173.9	29.6
	230				74.0	88.8	436.0			
	460				37.0	44.4	218.0			
	575				29.6	35.5	174.4			
30	208	3	G	1.2	94.9	113.9	484.0	30.8	173.9	34.2
	230				85.5	102.6	436.0			
	460				42.7	51.3	218.0			
	575				34.2	41.0	174.4			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
15	3	84	83	79	72	76	73	70	64
20	3	85	84	80	73	77	74	72	64
25	3	86	84	81	74	76	74	71	65
30	3	87	86	85	81	79	78	73	67

KEEN PUMP®

K14VK

14" Submersible, Enclosed Impeller

Class 1, Div. 1 Groups C & D Construction

HEAVY DUTY PUMP SERIES

- Handles Aggressive Pumping Applications
- Strong Pumping Capacities to 7700 GPM
- Smooth, Quiet Operation
- Centerline Volute Discharge

STRONG PERFORMANCE

- Non-Overloading Performance Curve
- Pump-Out Vanes Prevent Material Build-up
- Positive Pumping Action through Impeller
- Ideal for Higher Flows

LONG SERVICE LIFE

- Dual Silicon Carbide Shaft Seals
- Low Motor Operation Temperatures
- Continuously Lubricated Angular Contact Bearings

LOW MAINTENANCE

- Easily Replaceable Impeller Wear Ring Restores Original Pump Performance
- Unobstructed Impeller Passageway
- Grit-Resistant Silicon Carbide Shaft Seals
- Large, 6" diameter Solids-Handling
- High Service Factor Motor Handles Tough Electrical Operating Conditions

CAPABILITIES:

- Flows---------- to 7700 GPM
- Heads---------- to 125 Feet
- HP Range---------- 15 - 150 HP
- Voltage / Phase Options---------- 208 / 230 / 460 / 575V, 3 Phase
- Discharge Connections---------- 14" ANSI Class 125 Horizontal Flange
- Motor Speeds---------- 870 / 1150 / 1750 RPM
- Solids-Handling---------- 6"
- Impeller---------- Balanced, Enclosed, 2-Vane
- Motor Service Factor---------- 1.20

Rev. 07/2017

Features and Benefits

K14VK

Class 1, Div. 1
Groups C & D
Construction

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 wire terminal plate, separating cord cap from motor housing.

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 (U.S. Motor Manufacturer)
Powerful high-torque motor for strong pumping.
208 / 230 / 460 / 575 Volt, 3-phase.
Slip-Fit stator efficiently transfers heat to cast housing. Class H(class N optional) construction with overload protection in oil-filled chamber for cool operation and long motor life.
Inverter-duty capable, for VFD / soft start operation.

3a. Oil
Proprietary Keen oil ensures industry-low operating temperatures.

4. Solid Bearing Support
Two-bearing design featuring high load-rated angular contact bearings for 100,000 hour B-10 life.

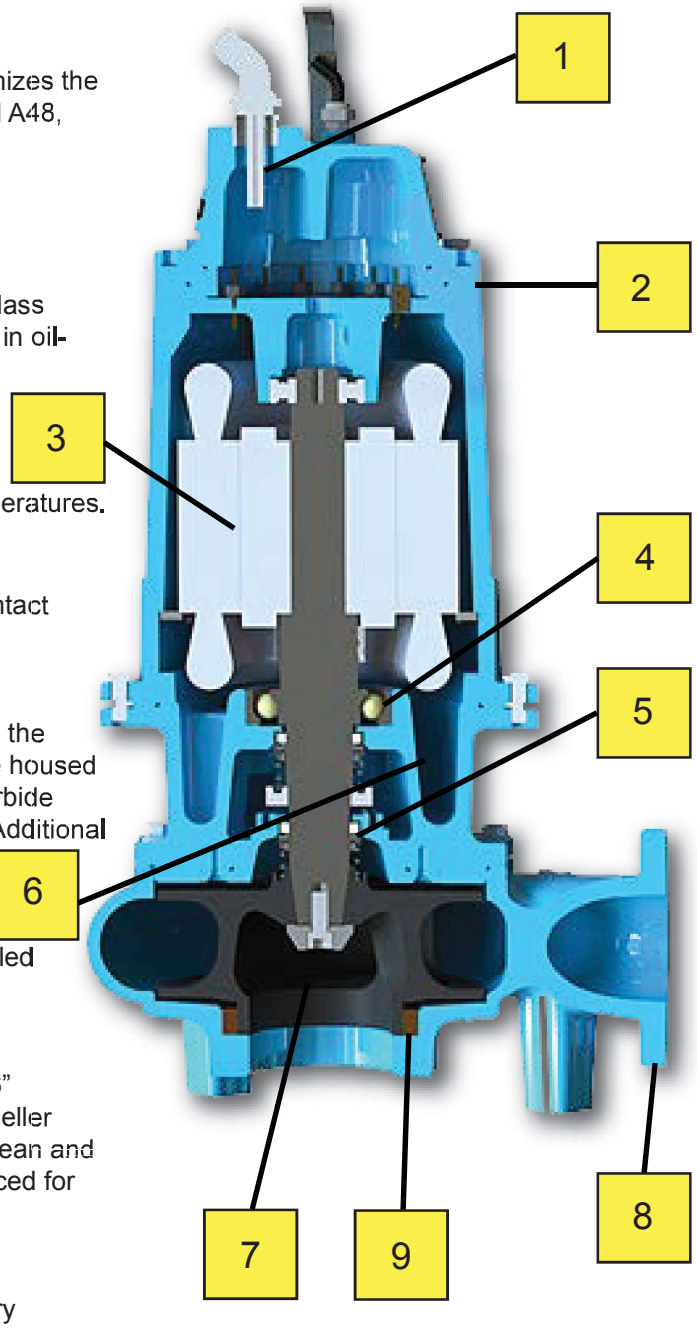
5. Severe Duty Dual Mechanical Seals
Dual silicon carbide mechanical shaft seals provide twice the moisture and grit protection for the motor. Dual seals are housed in a secondary oil-filled seal chamber. Tougher silicon carbide seals better handle sand, grit and abrasive materials. ** Additional bronze labyrinth seal for explosion-proof model.

6. Moisture Detection
Seal leak probe signals alarm in control panel for scheduled maintenance.

7. High Efficiency Hydraulic Design
Highly efficient enclosed, 2-vane 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
14" Horizontal, Class 125 ANSI discharge flange. Industry standard, 12-bolt pattern.

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



KEEN PUMP®
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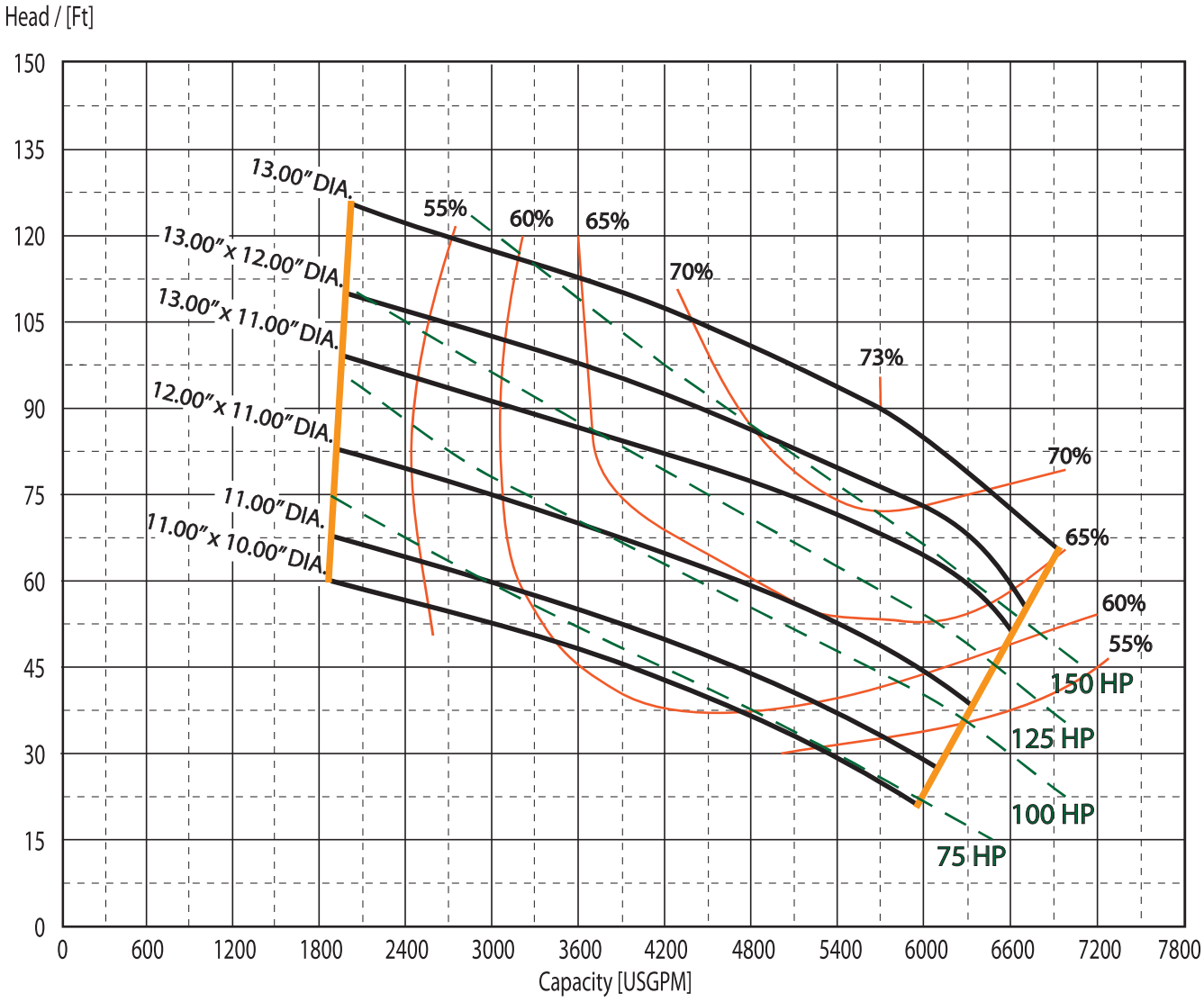
www.keenpump.com

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K14VK**		14″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1750 RPM**	Discharge	**14″**	Solids	**6″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

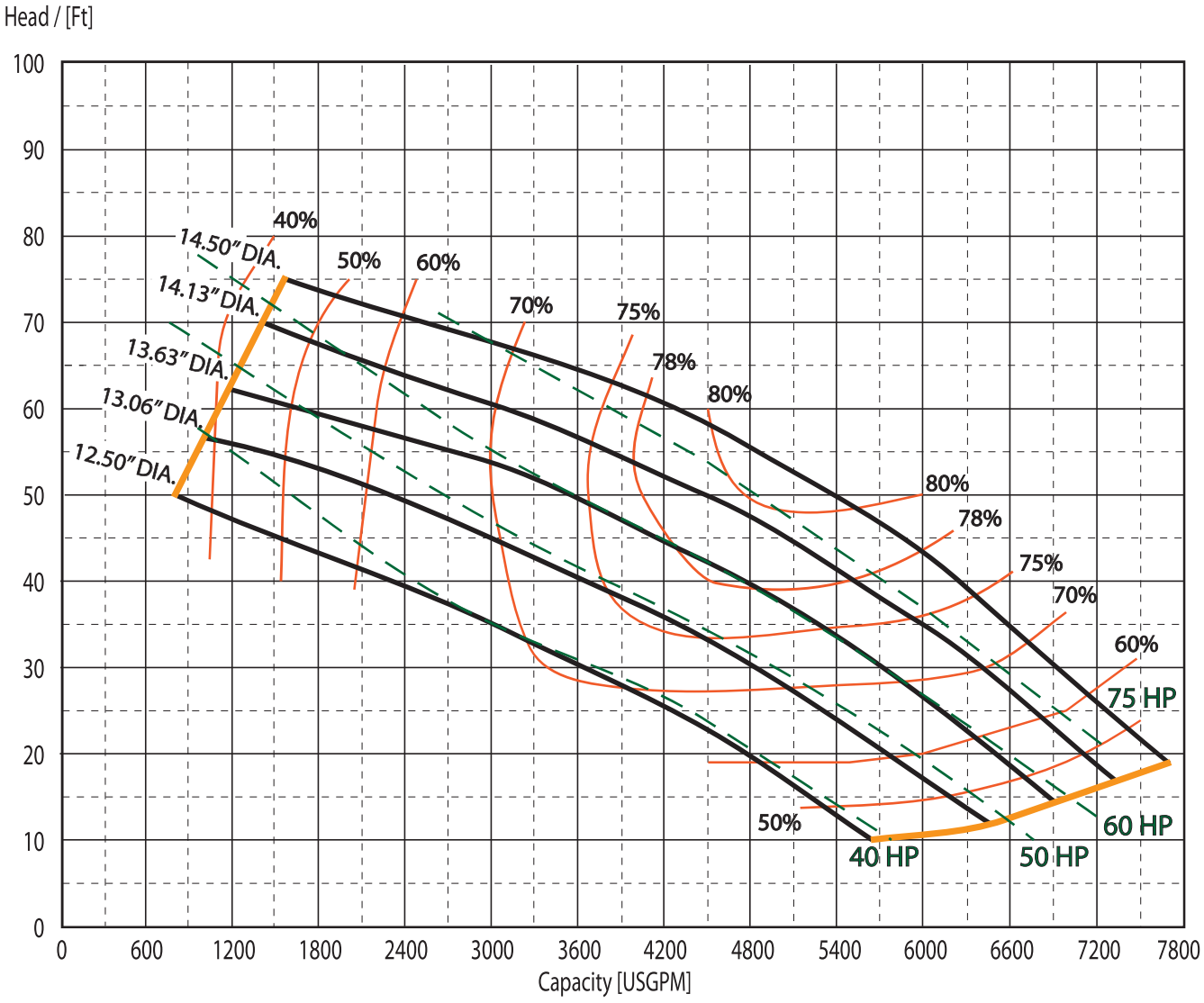
File: K14VK_1750_CAT

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K14VK**		14″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**1150 RPM**	Discharge	**14″**	Solids	**6″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

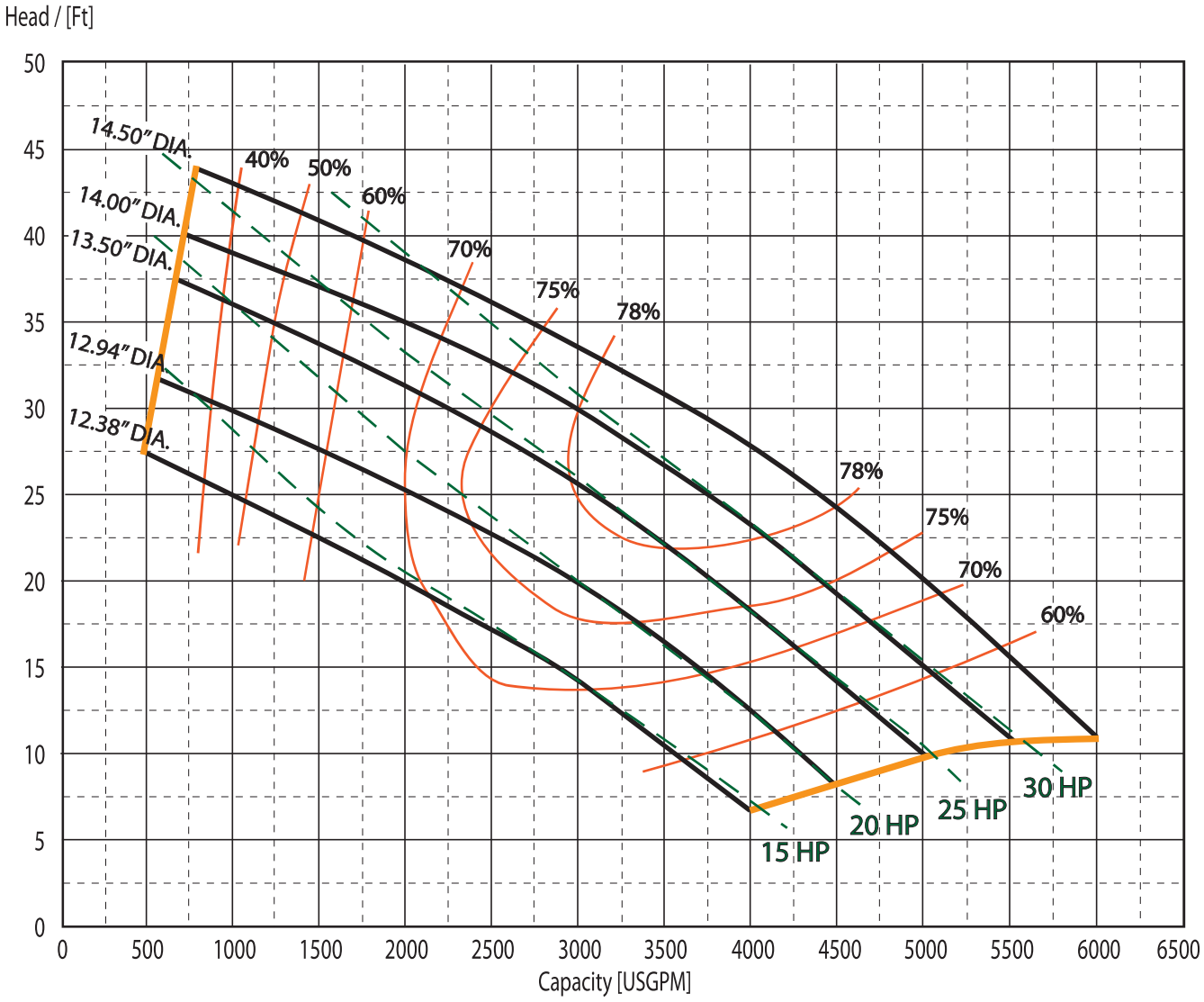
File: K14VK_1150_CAT

KEEN PUMP

Section **ENCLOSED**
Date Nov. 2021

Pump Series	**K14VK**		14″ SUBMERSIBLE SEWAGE PUMPS		
Speed	**870 RPM**	Discharge	**14″**	Solids	**6″**

GPM: _____ TDH: _____



The curves reflect maximum performance characteristics without exceeding full load.
Operation is recommended in the bounded area with operational point within the curve limit.
Performance curves are based on actual tests with clear water at 70° F and 1280 feet site elevation.

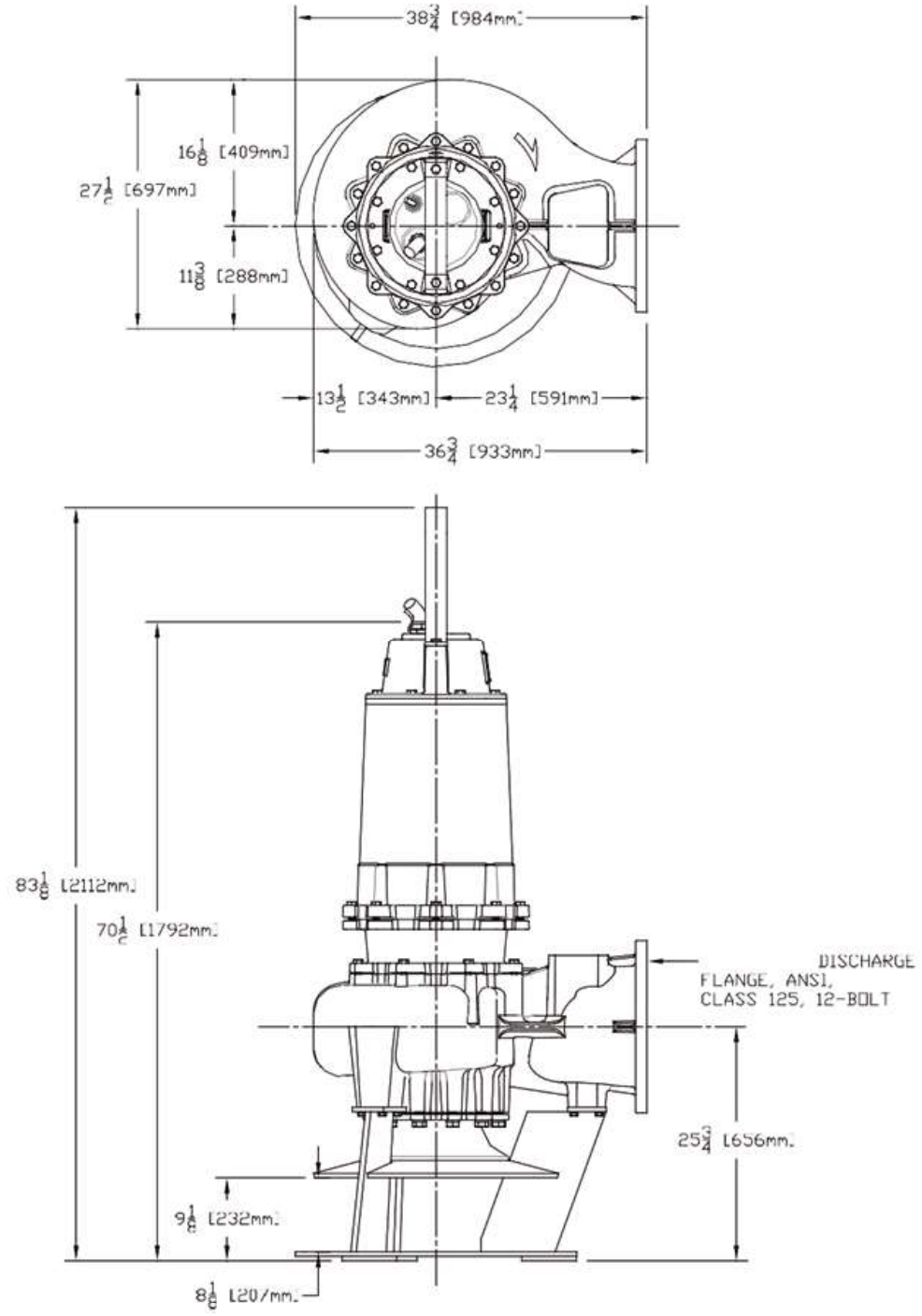
File: K14VK_870_CAT

KEEN PUMP®

Section **ENCLOSED**
Date **NOV 2013**

Pump Series	**K14VK**	14" SUBMERSIBLE SEWAGE PUMPS

DIMENSIONAL DATA



Note: All dimensions in inches and (millimeters).
Dimensions may vary due to normal manufacturing tolerances.

File: K14VK Dimensions

Pump Model: **K14VK**

Physical Data:

Discharge Size	ANSI 14″ Horizontal
Solids Size	6″
Impeller Type	Balanced, Enclosed, 2 Vane
Power/Control Cable Length	40′ Standard
Paint	Blue, Water Reducible Enamel, One Coat, Air Dried – Impeller & Inside Volute - Ceramic Coated For Abrasion Resistance

Motor Construction:

Motor Type	Enclosed Submersible Oil Filled
NEMA Insulation Code	Class H (**Optional** - Class N)
Service Factor	1.2
NEMA Design Type	B (3Ø) L (1Ø)
Single Phase Configuration	External Start and Run Components if Applicable
Motor Protection	Thermal Sensors Embedded in the Windings
Maximum Stator Temperature	Class H: 356°F (180°C) Class N: 392°F (200°C) - **Optional**
Power Cord Type	SOOW - 600V, 90º C; Type W - 2000V, 90º C
Control Cord Type	16-4 or 18-5 - SOOW - 600V, 90º C

Materials of Construction:

Cord Entry	Cast Iron, ASTM A48, Class 35
Motor Housing	Cast Iron, ASTM A48, Class 35
Bearing Housing	Cast Iron, ASTM A48, Class 35
Volute	Cast Iron, ASTM A48, Class 35 / Ceramic Coated Inside
Wear Ring	Bronze, CDA 836
Impeller	Ductile Iron, ASTM A536, 60-40-18 / Ceramic Coated
Shaft	ANSI 400 Stainless Steel
Inboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Outboard Mechanical Seal	Silicone Carbide / Silicone Carbide / Viton Elastomers
Fasteners	ANSI 18-8 Stainless Steel
O-Rings	Nitrile Rubber
Upper Bearing	Conrad Style Single Row Deep Groove Ball Bearing
Lower Bearing	Conrad Style Double Row Angular Contact Ball Bearing
Labyrinth Seal	Bronze, CDA 836

Pump Model: **K14VK – 1750 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**1750**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	**Voltage**	**Phase**	**NEC Code**	**Service Factor**	**Full Load AMPS**	**SF Amps**	**Locked Rotor AMPS**	**Run KW**	**Start KVA**	**Run KVA**
75	460	3	F	1.2	99.5	119.5	507.7	71.4	404.5	79.3
	575				79.6	95.6	406.2			
100	460	3	F	1.2	132.9	159.5	691.0	95.3	550.5	105.9
	575				106.3	127.6	552.8			
125	460	3	G	1.2	172.1	206.5	962.2	123.4	766.5	137.1
	575				137.7	165.2	769.7			
150	460	3	F	1.2	200.5	240.5	962.2	143.7	766.5	159.7
	575				160.4	192.4	769.7			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
75	3	84	83	79	72	86	83	80	70
100	3	85	84	80	73	87	84	82	74
125	3	83	82	81	74	86	84	81	75
150	3	84	83	80	73	86	86	83	78

Pump Model: **K14VK – 1150 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

RPM	**1150**			
Electrical Ratings	Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
	Seal Fail	300VAC 5mAMPS		
Voltage Tolerance	± 10%			

HP	**Voltage**	**Phase**	**NEC Code**	**Service Factor**	**Full Load AMPS**	**SF Amps**	**Locked Rotor AMPS**	**Run KW**	**Start KVA**	**Run KVA**
40	208	3	G	1.2	127.8	153.4	651.8	41.4	234.1	45.9
	230				115.1	138.2	587.2			
	460				57.6	69.1	293.6			
	575				46.1	55.3	234.9			
50	208	3	G	1.2	164.8	197.8	840.5	53.3	301.9	59.3
	230				148.5	178.2	575.2			
	460				74.2	89.1	378.6			
	575				59.4	71.3	302.9			
60	460	3	H	1.2	84.5	101.4	507.7	60.6	404.5	67.3
	575				67.6	81.1	406.2			
75	460	3	F	1.2	99.5	119.5	507.7	71.4	404.5	79.4
	575				79.6	95.6	406.2			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
40	3	85	84	80	76	84	82	79	74
50	3	83	82	81	77	86	81	81	75
60	3	84	83	80	78	86	84	83	78
75	3	84	83	80	73	86	86	83	78

Pump Model: **K14VK – 870 RPM**

Thermal Data:

Maximum Liquid		140º F (60º C) Intermittent
Maximum Stator		311º F (155º C)
Heat Sensor	**Open:**	257º F (125º C) Max. / 239º F (115º C) Min.
	Closed:	194º F (90º C) Max. / 119º F (48º C) Min.
Oil Flash Point		390º F (199º C)

Electrical Data:

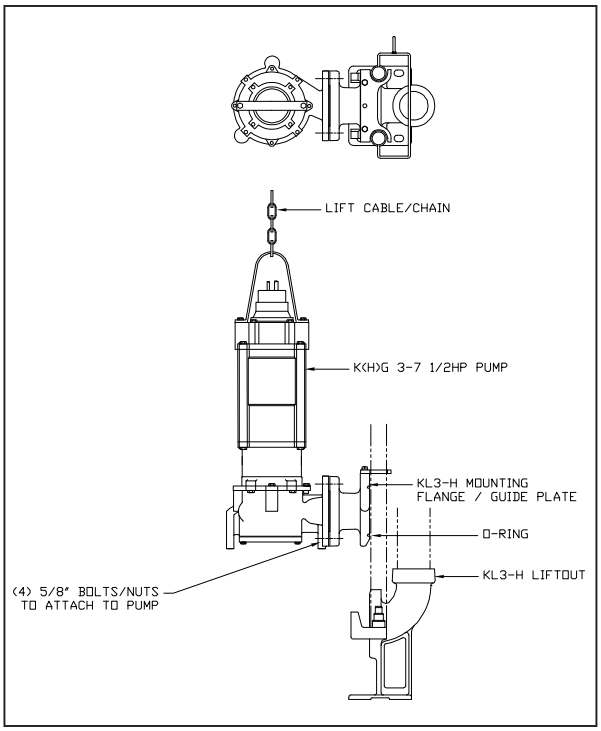
RPM		**870**			
Electrical Ratings		Heat Sensor	24VDC 5AMPS	115VAC 5AMPS	230VAC 5AMPS
		Seal Fail	300VAC 5mAMPS		
Voltage Tolerance		± 10%			

HP	**Voltage**	**Phase**	**NEC Code**	**Service Factor**	**Full Load AMPS**	**SF Amps**	**Locked Rotor AMPS**	**Run KW**	**Start KVA**	**Run KVA**
15	208	3	K	1.2	54.2	65.0	346.3	17.6	124.5	19.5
	230				48.8	58.6	312.0			
	460				24.4	29.3	156.0			
	575				19.5	23.4	124.8			
20	208	3	G	1.2	67.9	81.5	346.3	22.0	124.5	24.5
	230				61.2	73.4	312.0			
	460				30.6	36.7	156.0			
	575				24.5	29.4	124.8			
25	208	3	H	1.2	82.1	98.5	484.0	26.6	173.9	29.6
	230				74.0	88.8	436.0			
	460				37.0	44.4	218.0			
	575				29.6	35.5	174.4			
30	208	3	G	1.2	94.9	113.9	484.0	30.8	173.9	34.2
	230				85.5	102.6	436.0			
	460				42.7	51.3	218.0			
	575				34.2	41.0	174.4			

Motor Efficiencies & Power Factor									
		Motor Efficiency %				**Power Factor %**			
HP	**Phase**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**	**Service Factor Load**	**100% Load**	**75% Load**	**50% Load**
15	3	84	83	79	72	76	73	70	64
20	3	85	84	80	73	77	74	72	64
25	3	86	84	81	74	76	74	71	65
30	3	87	86	85	81	79	78	73	67

KL3H

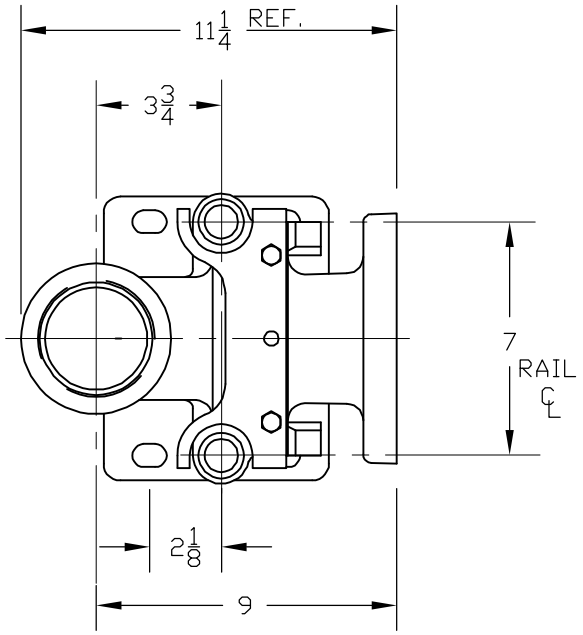
KEEN 3" Horizontal Liftout

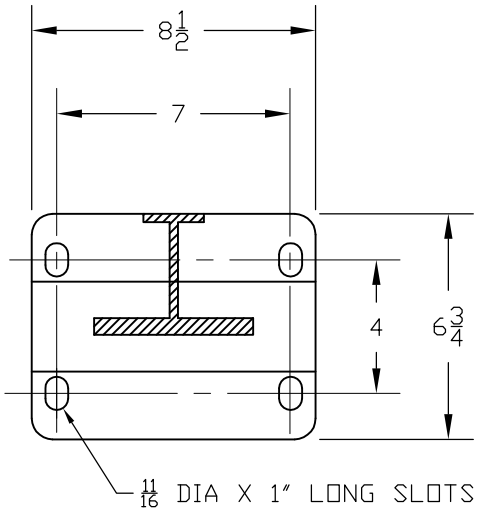


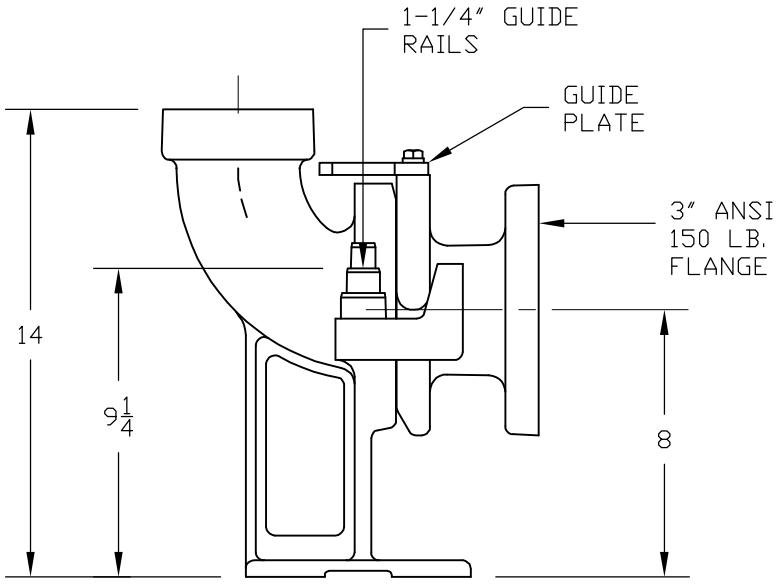
- **Horizontal Flange, 3" ANSI, Class 125**
- **3" NPT Female Vertical Discharge**
- **1" or 1-1/4" Guide Rails**
- **Stress-Free Rail System**
- **Durable Cast Iron Base and Lift-Out Flange**
- **Stainless Steel Guide Plate**

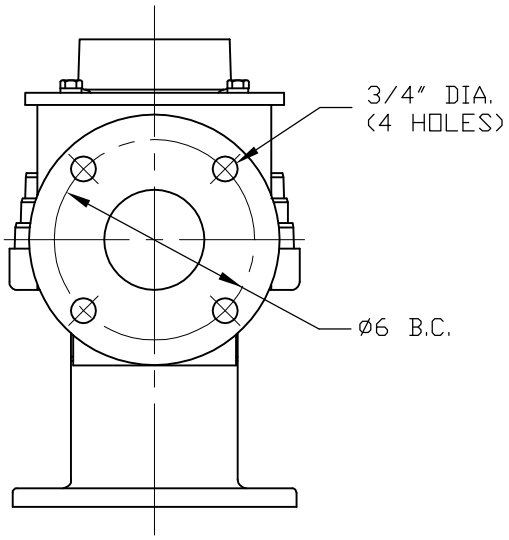
- Base elbow provides quick and easy installation and removal of horizontal discharge 1-10HP Pumps
- Taper-base arms support liftout elbow and pump
- Positive O-ring sealing face
- Automatic sealing pulls mating faces together
- Carries 100% pump load - no stress on rails

471E State Route 250 East · Ashland, Ohio 44805
419.207.9400 fax 419.207.8031
www.keenpump.com









MATERIAL
ELBOW/FLANGE: CLASS 30 IRON
PAINT: POWDER COAT BLUE
GUIDE PLATE: SST
FASTENERS: SST

NOTE: ALL DIMENSIONS FOR REFERENCE ONLY		
A	FY	
REV	INITIALS	DATE

KEEN PUMP COMPANY
KEEN PUMP CO.
471E ST ROUTE 250 EAST
ASHLAND, OHIO 44805
PHONE: 419-207-9400
FAX: 419-207-8031

TITLE			
KL3H 3" PUMP LIFTOUT BASE/DISCONNECT			
SCALE		DWG. #	REV.
NTS		KN-6	A
DWG. BY	DATE		
F. YUHASZ	9/03/08		

KL4

KEEN 4" Horizontal Liftout

- **4" Class 125 ANSI Flange (Pump Connection Discharge)**
- **1-1/2" or 2" Guide Rails**
- **Rated for Pumps up to 2,000 lbs.**
- **Dimensionally Interchangeable with Flygt**

- Base elbow provides quick and easy installation and removal of horizontal discharge Pumps up to 2000 lbs.
- Taper-base design supports liftout elbow and pump
- Standard with Buna-N Seal, Break-away Ring
- Optional Metal-to-Metal with SST Break-away Ring
- Optional with Heavy-Duty Gaskets

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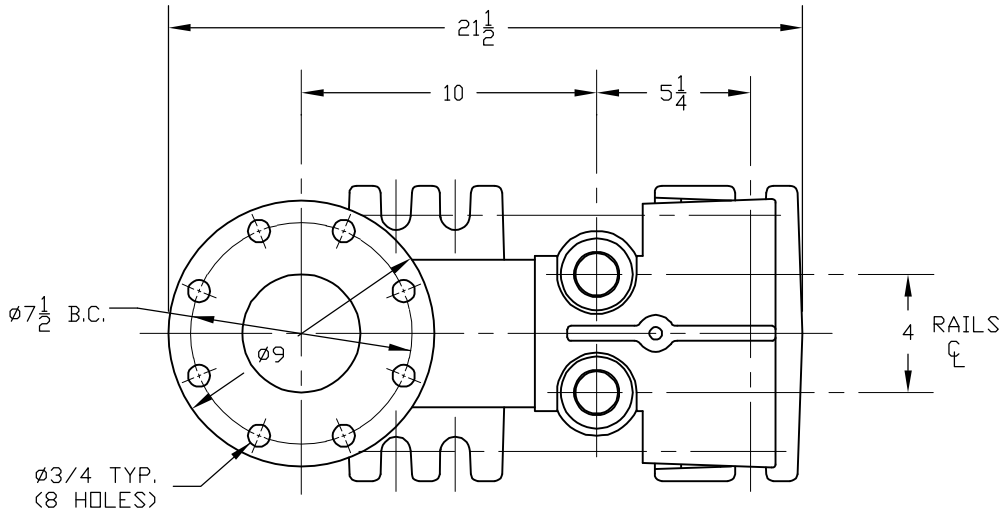

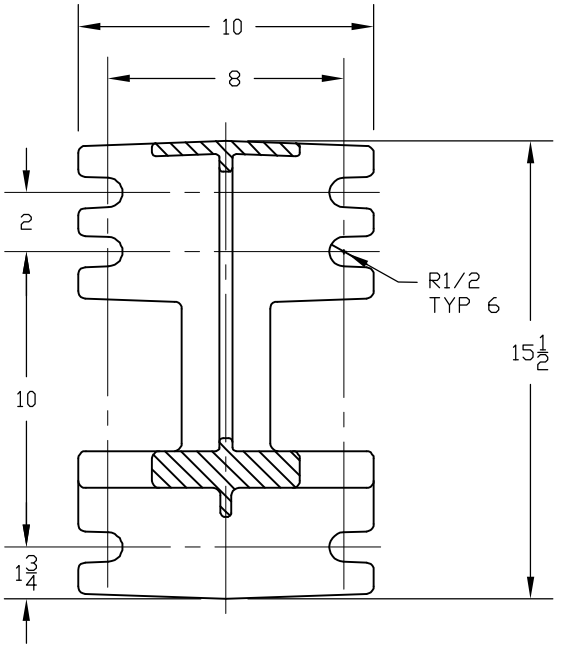

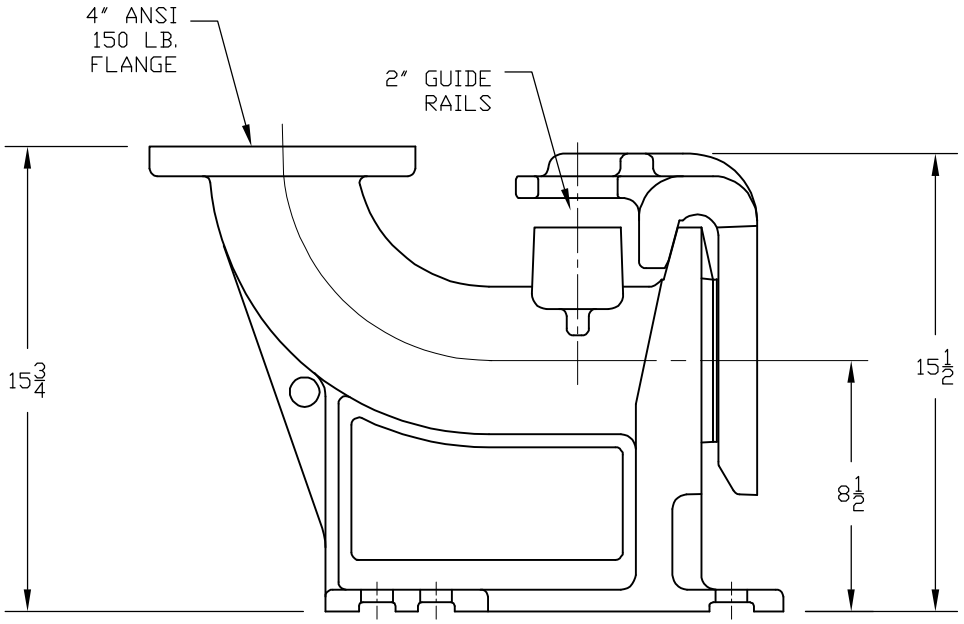

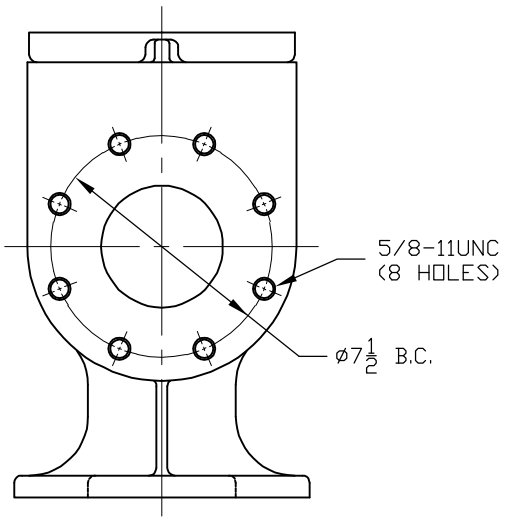

MATERIAL: CLASS 30 IRON
PAINT: POWDER COAT BLUE

KEEN PUMP COMPANY
KEEN PUMP CO.
471E ST ROUTE 250 EAST
ASHLAND, OHIO 44805
PHONE: 419-207-9400
FAX: 419-207-8031

TITLE			
KL4 4" PUMP LIFTOUT BASE/DISCONNECT			
SCALE		DWG. #	REV.
NTS		KN-3	-
DWG. BY	DATE		
SE	8/27/11		

KL6

KEEN 6" Horizontal Liftout

- **6" Class 125 ANSI Flange (Pump Connection Discharge)**
- **1-1/2" or 2" Guide Rails**
- **Rated for Pumps up to 2,000 lbs.**
- **Dimensionally Interchangeable with Flygt**

- Base elbow provides quick and easy installation and removal of horizontal discharge Pumps up to 2000 lbs.
- Taper-base design supports liftout elbow and pump
- Standard with Buna-N Seal, Break-away Ring
- Optional Metal-to-Metal with SST Break-away Ring
- Optional with Heavy-Duty Gaskets

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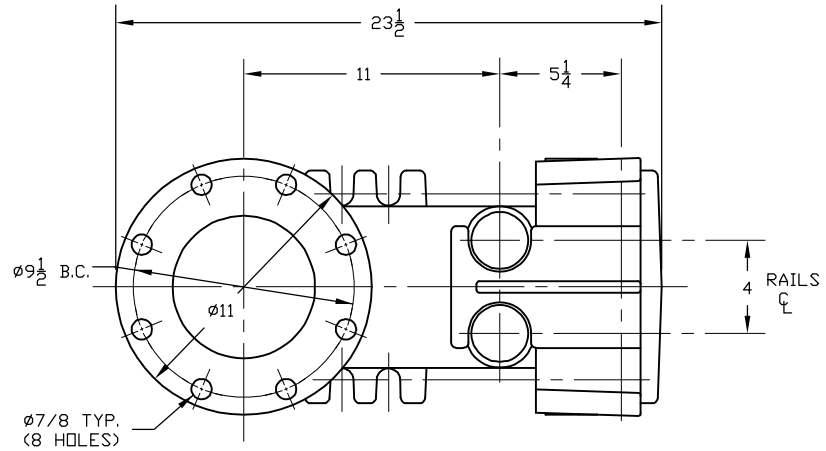
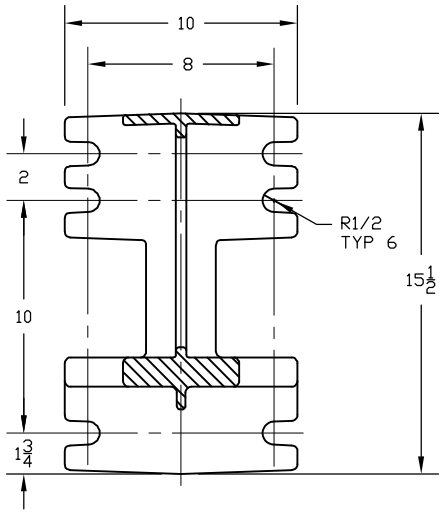
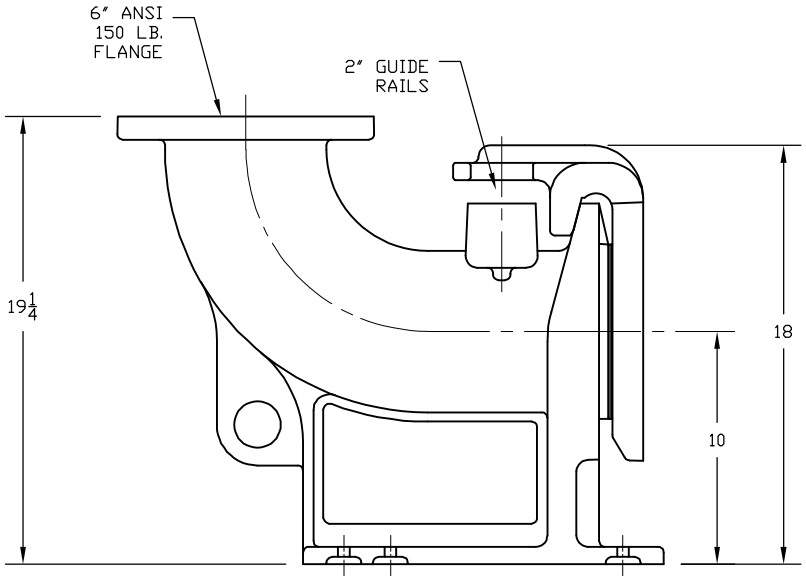
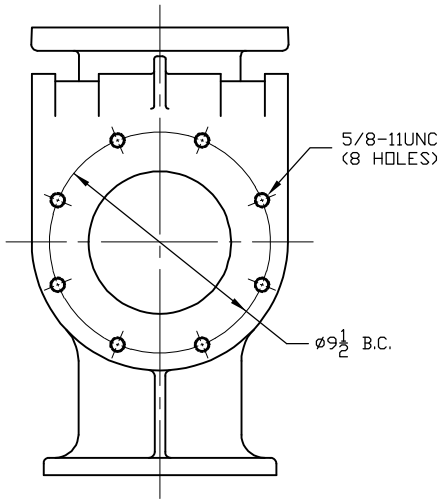
www.keenpump.com









MATERIAL: CLASS 30 IRON
PAINT: POWDER COAT BLUE

KEEN PUMP COMPANY
KEEN PUMP CO.
471E ST ROUTE 250 EAST
ASHLAND, OHIO 44805
PHONE: 419-207-9400
FAX: 419-207-8031

TITLE			
KL6 6" PUMP LIFTOUT BASE/DISCONNECT			
SCALE		DWG. #	REV.
NTS		KN-4	-
DWG. BY	DATE		
SE	9/01/12		

KEEN PUMP

KL8-C

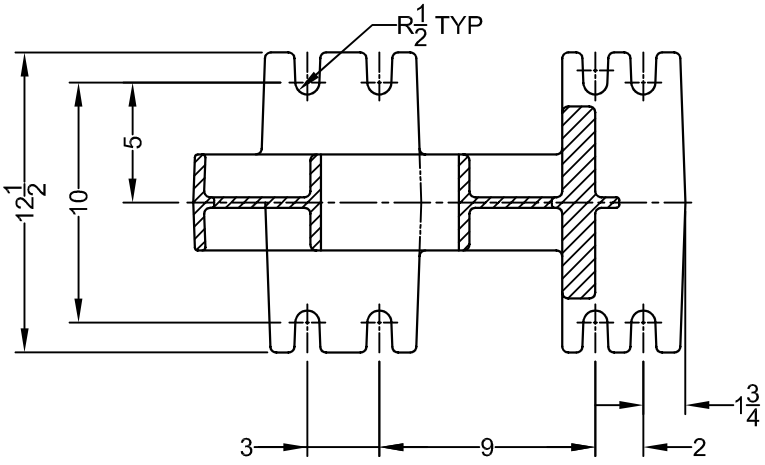
KEEN 8" Horizontal Liftout

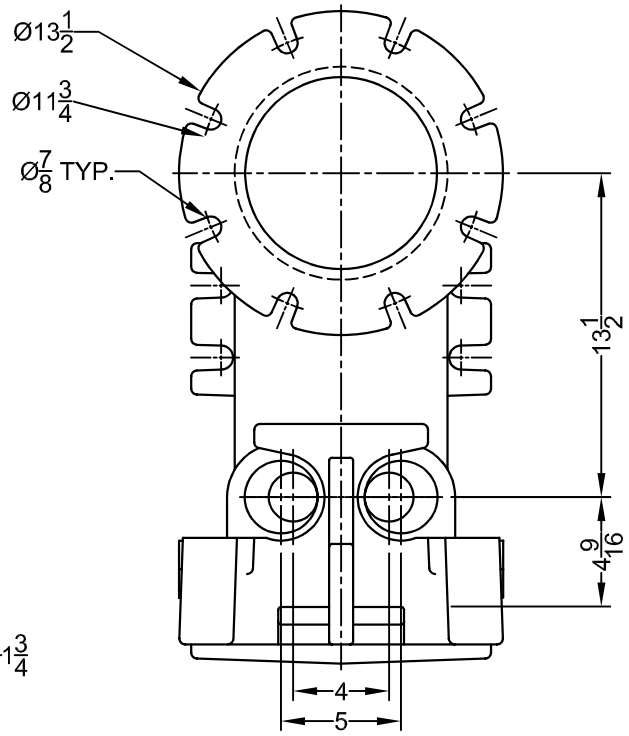
- **8" Class 125 ANSI Flange (Pump Connection Discharge)**
- **2" or 3" Guide Rails**
- **Rated for Pumps up to 4,000 lbs.**
- **Metal-to-Metal Design with SST Breakaway Ring**

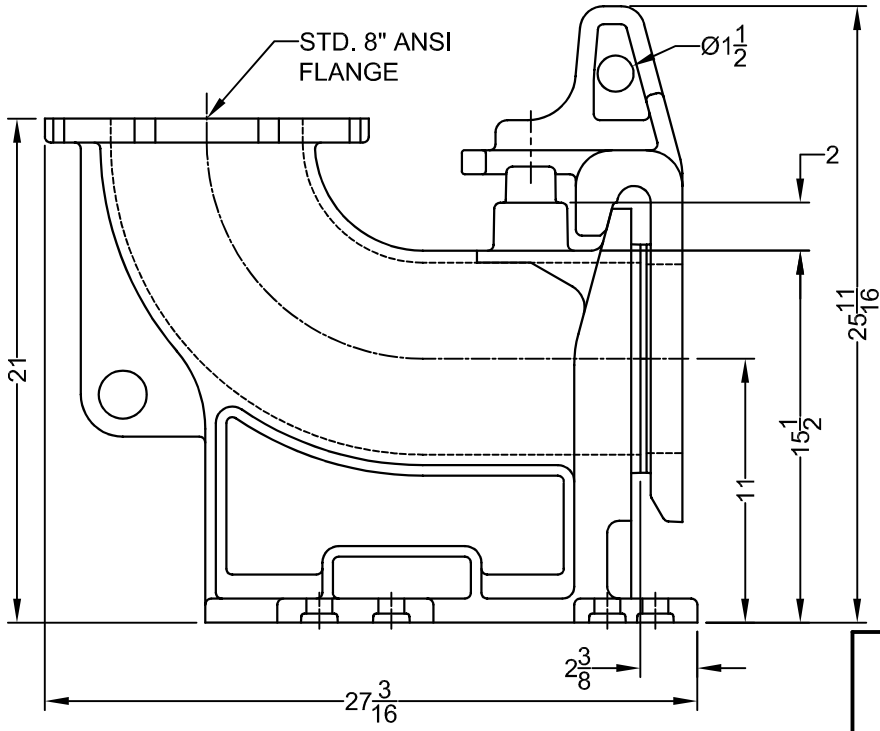
- Base elbow provides quick and easy installation and removal of horizontal discharge Pumps up to 4000 lbs.
- Taper-base design supports liftout elbow and pump
- Standard with SST Break-away Ring
- Rugged Ductile Iron Construction with Durable Powder Coating

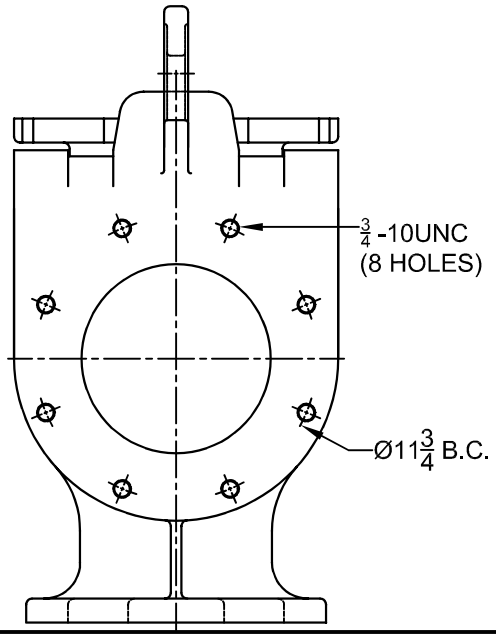
KEEN PUMP
471 US Hwy 250 East · Ashland, Ohio 44805
419.207.9400 fax 419.207.8031
www.keenpump.com

NOTE: ALL DIMENSIONS ARE IN INCHES.
MATERIALS OF CONSTRUCTION:
BASE ELBOW: CAST DUCTILE IRON
LIFT-OUT FLANGE: CAST DUCTILE IRON
W/SST SEALING RING
LOWER GUIDE BRACKET: CAST DUCTILE IRON
ALL FASTENERS ARE 304 SERIES SST
USEABLE GUIDE RAIL SIZES: 2" & 3"
SPHERICAL SOLIDS SIZE: 7-7/8" Diameter.
MAXIMUM WEIGHT ALLOWANCE: 4000lbs.









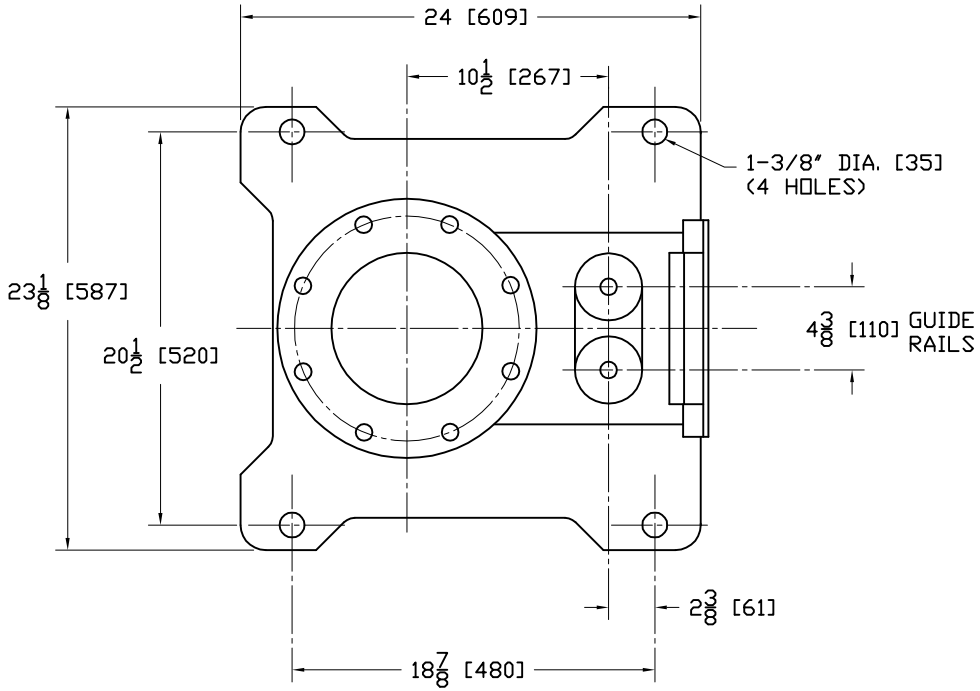
KEEN PUMP

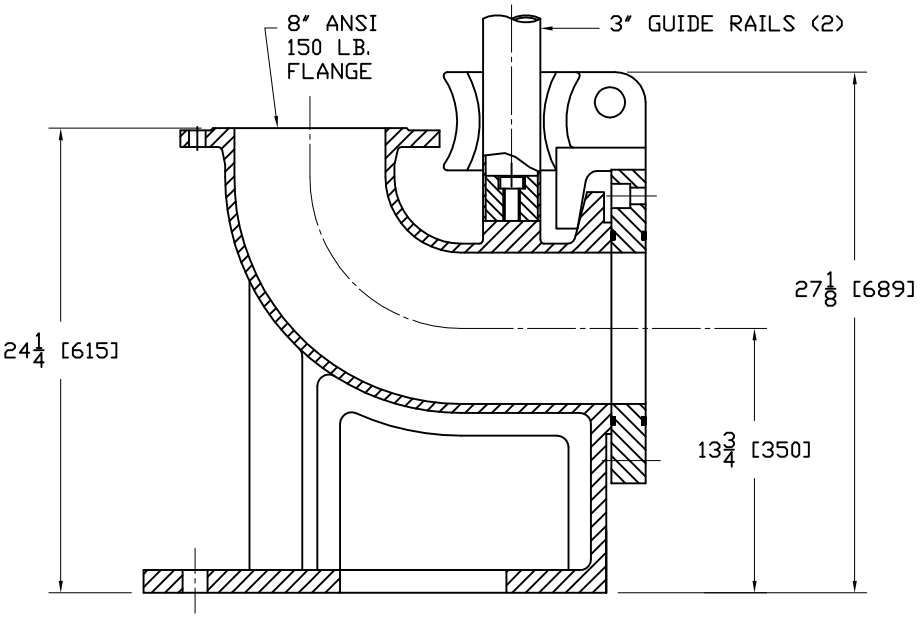
CHANGES	TOLERANCES	DRAWN BY	DATE
F	DECIMALS	SE	02/29/16
E	.XXX = ±.005		
D	.XX = ±.010	MATERIAL SPECIFICATION:	
C	FRACTIONAL	AS NOTED	
B	X/X = ±.1/64		
A	ANGLES		
	X = ±1/2		

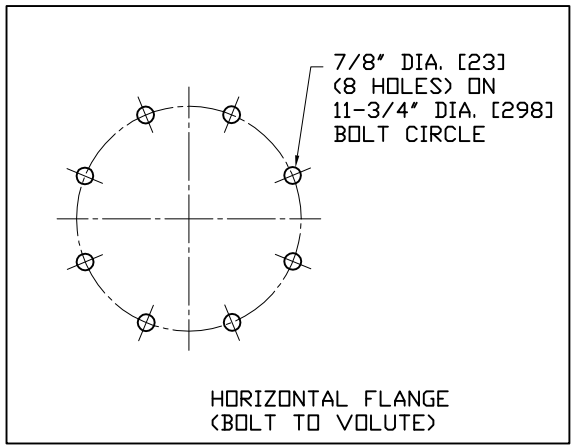
LIFT-OUT, 8" SPECS/CUT SHEET

SCALE: 1/8

PART NO. **KL8-C**







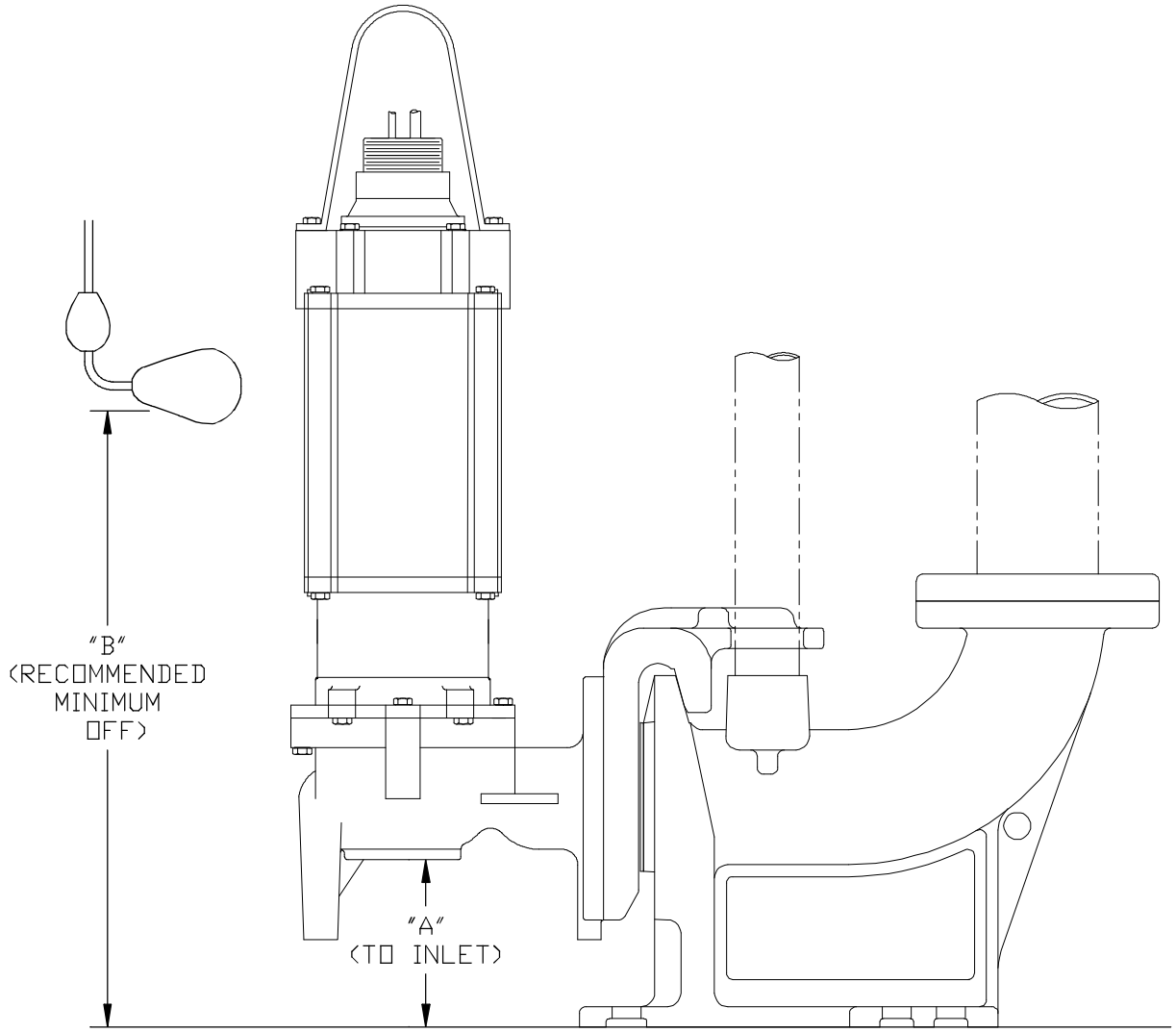
MATERIAL: CLASS 30 IRON
PAINT: POWDER COAT BLUE

KEEN PUMP COMPANY
KEEN PUMP CO.
471E ST, ROUTE 250 EAST
ASHLAND, OHIO 44805
PHONE: 419-207-9400
FAX: 419-207-8031

TITLE: KL8 8" PUMP LIFTOUT BASE/DISCONNECT

SCALE	DWG. #	REV.
NTS	KN-530	-

DWG. BY	DATE
S. ETZEL	04/24/12



SUBMERGENCE LEVELS - RAIL MOUNTED PUMPS

PUMP	LIFTOUT MODEL	A BOTTOM OF WELL TO INLET	B "KEEN" RECOMMENDED MINIMUM SUBMERGENCE LEVEL
KE102/103	KL2	3-1/2"	15"
K(F/H)G2	KL1(CV)	3-1/2"	15"
KPCG	KL1(CV)	3-3/4"	19"
K(H)GS2	KL1(CV)	3-3/8"	15"
KHHG2	KL1(CV)	3-1/2"	21"
KHHG2H	KL1(CV)	3-1/2"	21"
KG3,5,7,103	KL3H	4-3/4"	22"
KHG3,5,7	KL3H	5-3/4"	22"
KGP75-150	KL3H	4-3/4"	28"
K3RN	KL3H	5-3/4"	28"
K3VN	KL3H	4-1/2"	27"
K3RH	KL3H	5-3/4"	23"
K4RH	KL4	6-1/4"	24"
K4RN (3450)	KL4	6-1/4"	28"
K4RN (1150/1750)	KL4	5-1/8"	28"
K4VN	KL4	5-1/8"	27"
K4RP (3450)	KL4	5-1/2"	28"
K4RP (1150/1750)	KL4	7-1/2"	32"
K4VP	KL4	7-1/2"	30"
K4RB (3450)	KL4	9-1/8"	36"
K4RB (1750)	KL4	8-1/2"	36"
K4VB	KL4	7-1/2"	35"
K4VK	KL4	6-1/2"	42"
K6VB	KL6	8-3/8"	38"
K8VK	KL8	16"	52"
K12VK	KL12	15-1/2"	61"
K14VK	KL14	15-1/2"	61"

NOTE: ALL DIMENSIONS FOR REFERENCE ONLY

REV	INITIALS	DATE
B	SE	10/09/2015
A	SE	03/16/2015

KEEN PUMP
471 US HWY 250 EAST
ASHLAND, OHIO 44805
PHONE: 419-207-9400
FAX: 419-207-8031

TITLE
SUBMERGENCE LEVELS - WASTEWATER PUMPS

SCALE	DWG. #	REV.
NTS	KN-903	B

DWG. BY	DATE
SE	9/24/2014