

# KG(X)2



## 2HP Dual Seal Grinder Pump, 1 or 3 Phase (Class 1, Div. 1, Groups C & D Hazardous Location)

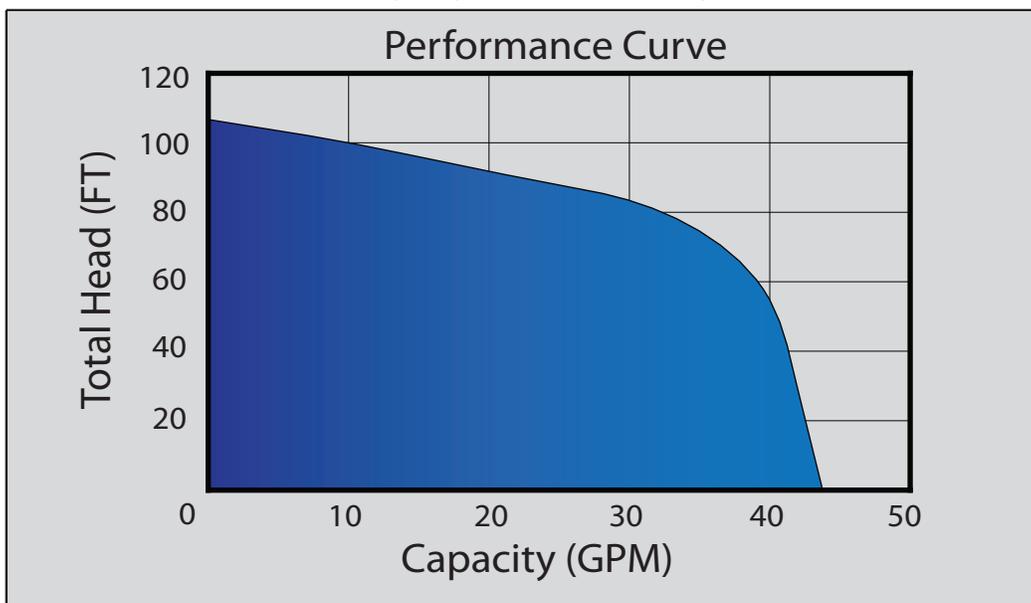
The KEEN PUMP **KG(X)2** series centrifugal grinder pumps easily handle residential, light commercial or industrial sanitary waste, reducing it to a fine slurry. The **KG(X)2** pump is designed for use in pressure sewer applications or any piping network.

The **KG(X)2** grinder pump retrofits into many existing competitor pump installations. The **KG(X)2** pump operates with the same control panel and installation piping / rail system.

The recessed vortex impeller design of the **KG(X)2** grinder pump provides trouble-free, non-overloading operation over the entire performance curve. The **KG(X)2** pump produces capacities to 43 gpm with heads to 106 feet.

The **KG(X)2** series pump features:

- Interchangeable into Competitor Installations
- Dual Silicon-Carbide Shaft Seals
- Pressed-In Motor with Internal Overload Protection
- 3-Bearing Shaft Support
- Internal Moisture Detection
- Strong 2hp Motor, 1 Phase (208, 230 or 240 Volt)
- 3 Phase Motor (208, 230 or 460 Volt)



## Features and Benefits

### 1. Watertight Cable Entrance

Agency-approved, watertight strain relief cord grip with compression grommet protects outer cord jacket. Epoxy-filled inner cord cap provides anti-wicking moisture protection to the motor even if powercable is cut or damaged.

### 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 30 cast iron components.

### 3. Strong Motor

Powerful high-torque motor for reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil-filled chamber for cool operation and long motor life.

### 4. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus additional sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

### 5. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture 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.

### 6. Moisture Detection

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

### 7. Non-Overloading Hydraulic Design

The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

### 8. Proven Grinder Assembly

Hardened (Rockwell 56-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 16,600 cuts/second.

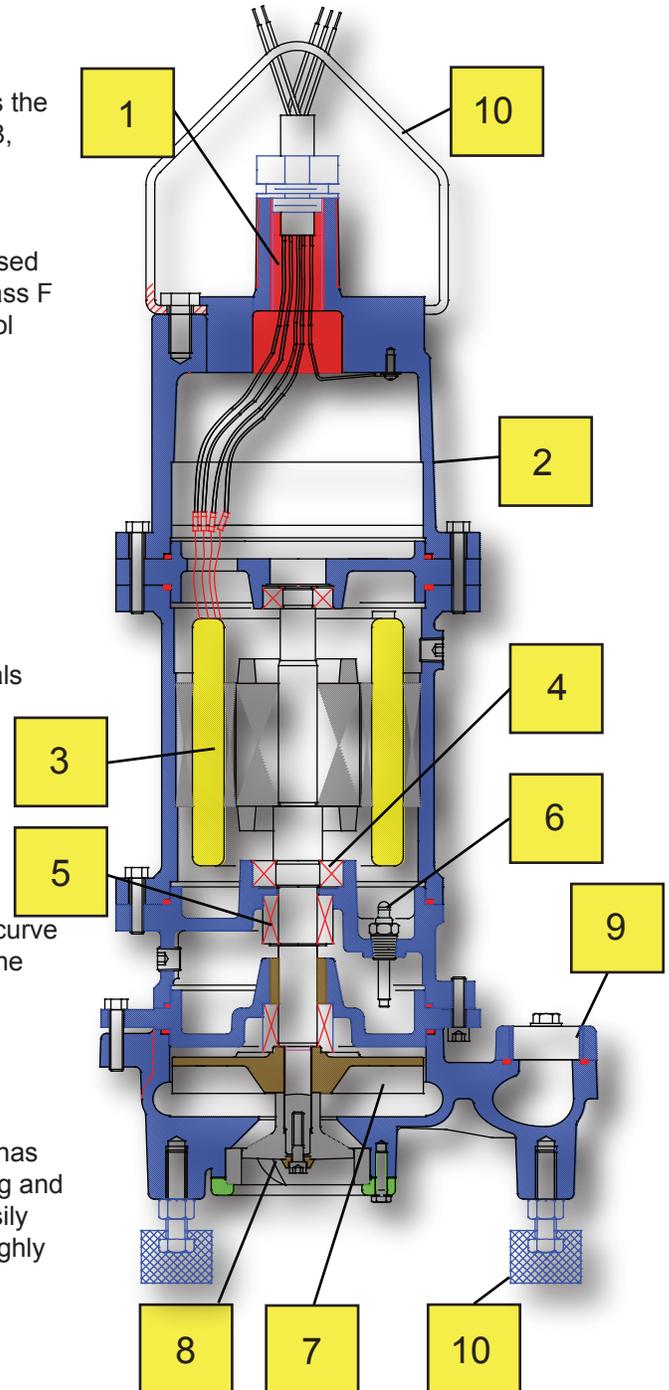
### 9. Easy Piping Connection

Removable 1-1/4" NPT connection flange for simple and easy connection to discharge piping.

### 10. Accessories

Stainless steel lifting handle included. Anti-Vibration mounting feet **OPTIONAL**.

## 2HP Grinder Pump Dual Seal KG(X)2



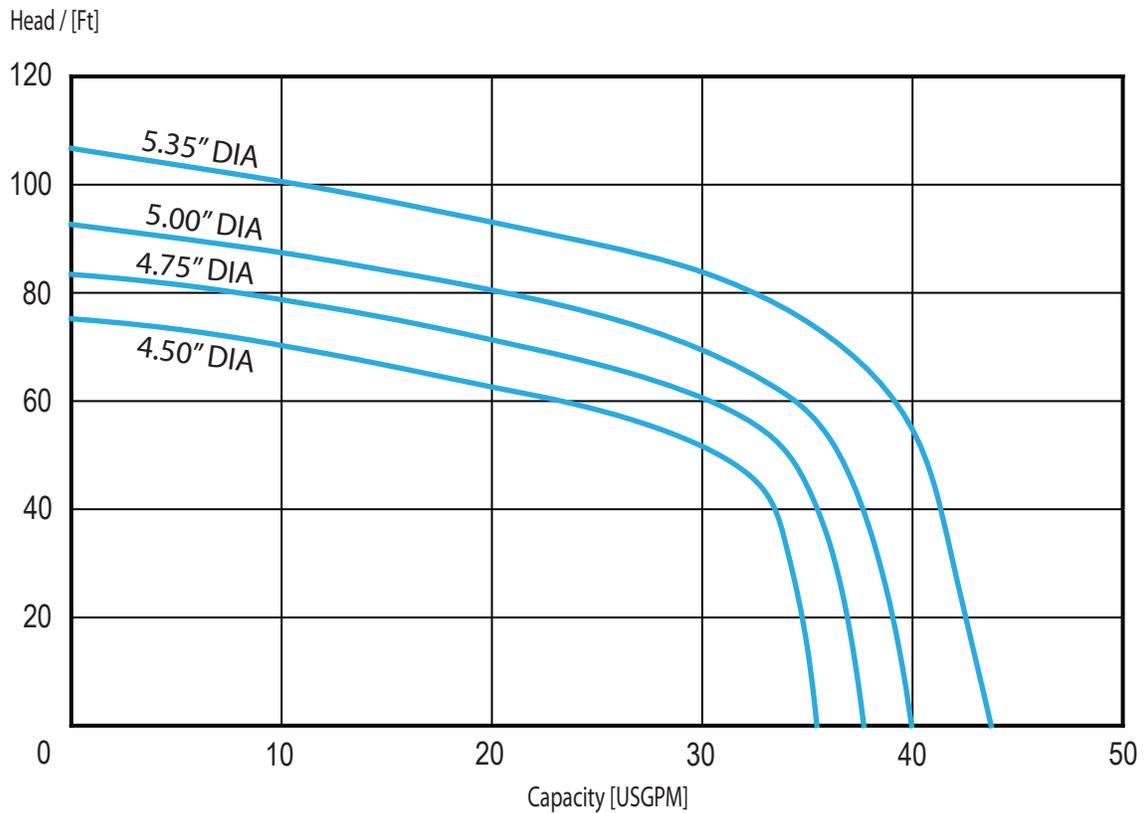
471E State Route 250 East · Ashland, Ohio 44805  
419.207.9400 fax 419.207.8031  
www.keenpump.com



**2HP SUBMERSIBLE GRINDER PUMP**

<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KG(X)2</b>	HP / Power Supply	2HP / 1 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 208V	15.5 Amps
Date	03/26/2015	Start Amps 208V	54 Amps
Discharge Flange	1-1/4" NPT, Vertical	Full Load Amps 230V	12.8 Amps
Grinder Ring	26 Slots	Start Amps 230V	45 Amps
Impeller Type / Std. Dia.	Recessed / 5.35" Dia.	Start / Run Amp 240V	
<b>Single Phase</b>	START KIT SK-2A includes: Start & Run Capacitors, Relay, and Mounting Hardware	Poles / Rated Speed	2 P / 3450 rpm
		Insulation Class	F Class
		Start Capacitor	216 ufd, 250 VAC
		Run Capacitor	20 ufd, 370 VAC

**PERFORMANCE CURVE**



<b>MODEL</b>	<b>HP</b>	<b>Phase</b>	<b>Volts</b>
KG(X)2-2001	2	1	208
KG(X)2-2301	2	1	230
KG(X)2-2401	2	1	240

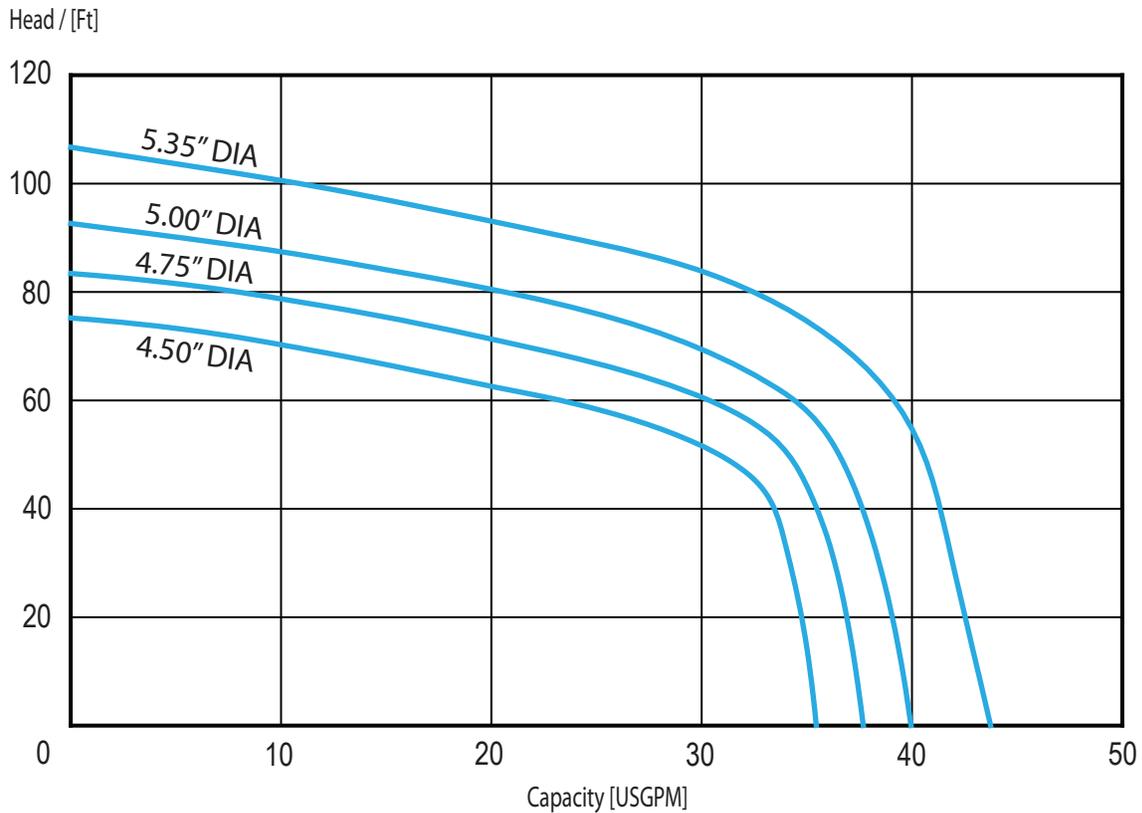
\* Performance with clear water and ambient temp 20°C (68°F)



**2HP SUBMERSIBLE GRINDER PUMP**

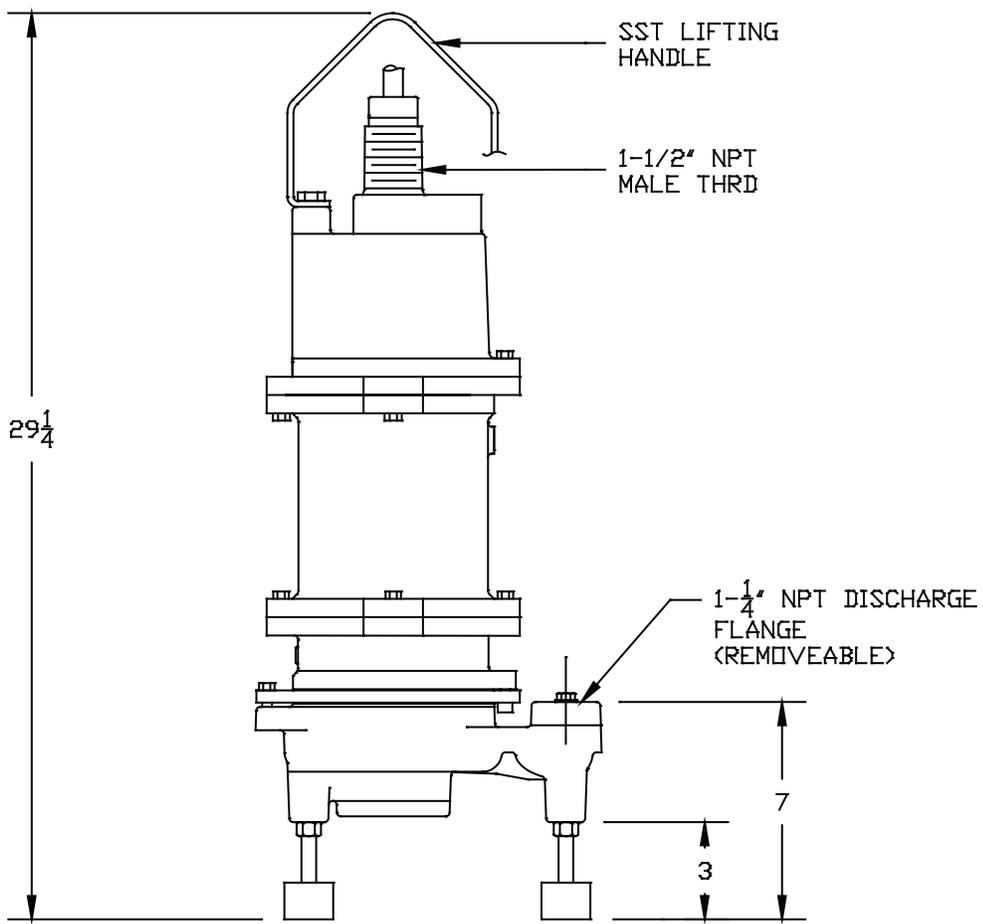
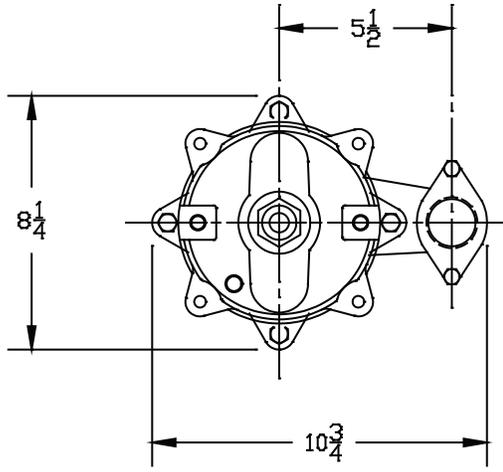
GENERAL		MOTOR DATA	
Pump Model	<b>KG(X)2</b>	HP / Power Supply	2HP / 3 $\phi$ , 60 Hz
PUMP DATA		Full Load Amps 208V	10 Amps
Date	03/26/2015	Start Amps 208V	33 Amps
Discharge Flange	1-1/4" NPT, Vertical	Full Load Amps 230V	9 Amps
Grinder Ring	26 Slots	Start Amps 230V	31 Amps
Impeller Type / Std. Dia.	Recessed/ 5.35" Dia.	Full Load Amps 460V	4.5 Amps
<b>Three Phase</b>		Start Amps 460V	15 Amps
		Poles / Rated Speed	2 P / 3450 rpm
		Insulation Class	F Class

**PERFORMANCE CURVE**



<b><u>MODEL</u></b>	<b><u>HP</u></b>	<b><u>Phase</u></b>	<b><u>Volts</u></b>
KG(X)2-2003	2	3	208
KG(X)2-2303	2	3	230
KG(X)2-4603	2	3	460

\* Performance with clear water and ambient temp 20°C (68°F)



REV. 02/18/2015

 <b>KEEN PUMP CO.</b> 471E ST ROUTE 250 EAST ASHLAND, OHIO 44805		PHONE: 419-207-9400 FAX: 419-207-8031
<b>TITLE</b> KCF/HXGX 2HP GRINDER PUMP DIMENSIONS		
<b>SCALE</b> NTS	<b>DATE</b> 10/02/12	<b>DWG. #</b> KN-19
<b>DWG. BY</b> SE	<b>REV.</b> A	

# KFG(X)2



## 2HP High Flow Grinder Pump, 1 or 3 Phase (Class 1, Div. 1, Groups C & D Hazardous Location)

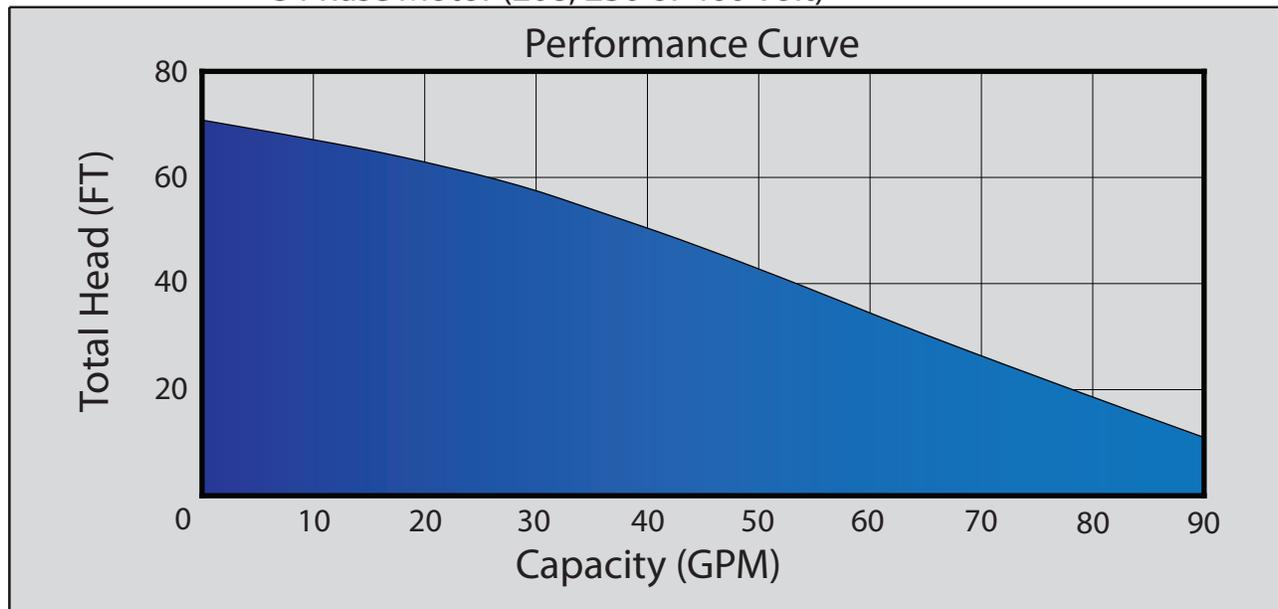
The KEEN PUMP **KFG(X)2** series centrifugal grinder pumps easily handle residential, light commercial or industrial sanitary waste, reducing it to a fine slurry. The **KFG(X)2** pump is designed for use in pressure sewer applications or any piping network.

The **KFG(X)2** grinder pump retrofits into many existing competitor pump installations. The **KFG(X)2** pump operates with the same control panel and installation piping / rail system.

The recessed vortex impeller design of the **KFG(X)2** grinder pump provides trouble-free, non-overloading operation over the entire performance curve. The **KFG(X)2** pump produces capacities to 90 gpm with heads to 70 feet.

The **KFG(X)2** series pump features:

- Interchangeable into Competitor Installations
- Dual Silicon-Carbide Shaft Seals
- Pressed-In Motor with Internal Overload Protection
- 3-Bearing Shaft Support
- Internal Moisture Detection
- Strong 2hp Motor, 1 Phase (208, 230 or 240 Volt)
- 3 Phase Motor (208, 230 or 460 Volt)



## Features and Benefits

### 1. Watertight Cable Entrance

Agency-approved, watertight strain relief cord grip with compression grommet protects outer cord jacket. Epoxy-filled inner cord cap provides anti-wicking moisture protection to the motor even if powercable is cut or damaged.

### 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 30 cast iron components.

### 3. Strong Motor

Powerful high-torque motor for reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil-filled chamber for cool operation and long motor life.

### 4. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus additional sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

### 5. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture 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.

### 6. Moisture Detection

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

### 7. Non-Overloading Hydraulic Design

The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

### 8. Proven Grinder Assembly

Hardened (Rockwell 56-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 16,600 cuts/second.

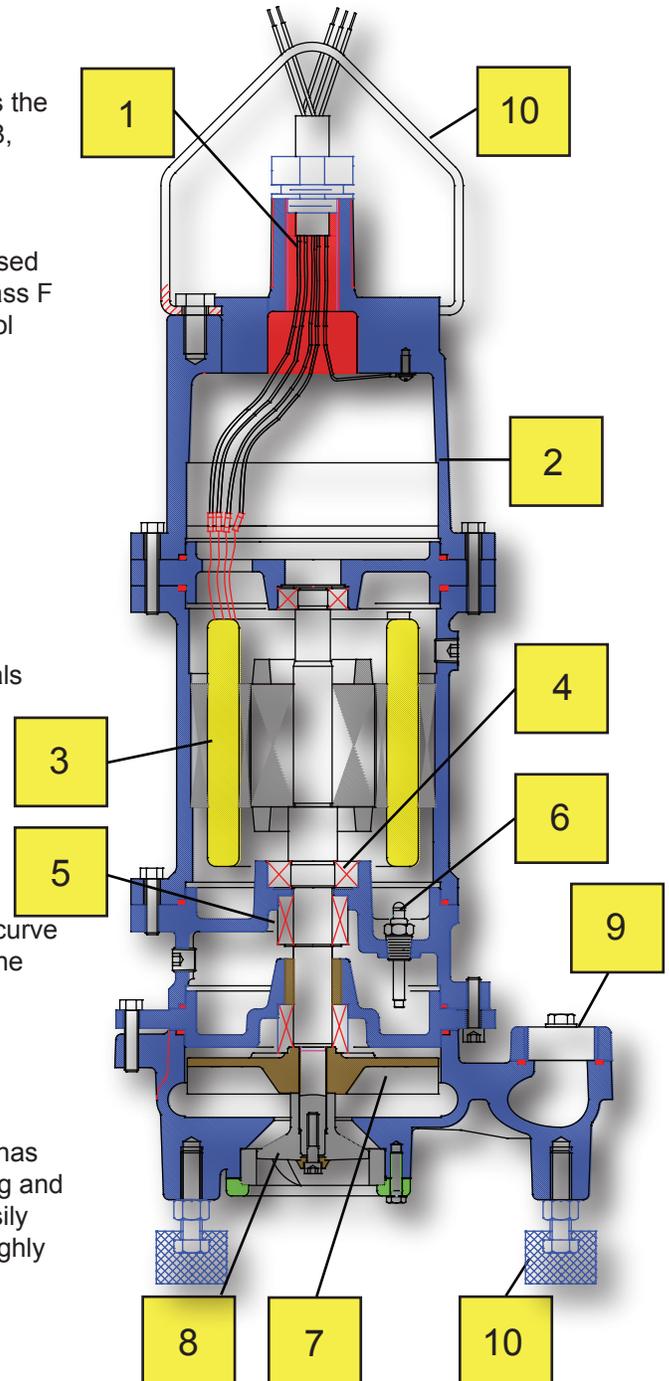
### 9. Easy Piping Connection

Removable 1-1/4" NPT connection flange for simple and easy connection to discharge piping.

### 10. Accessories

Stainless steel lifting handle included. Anti-Vibration mounting feet **OPTIONAL**.

## 2HP Grinder Pump Dual Seal KFG(X)2



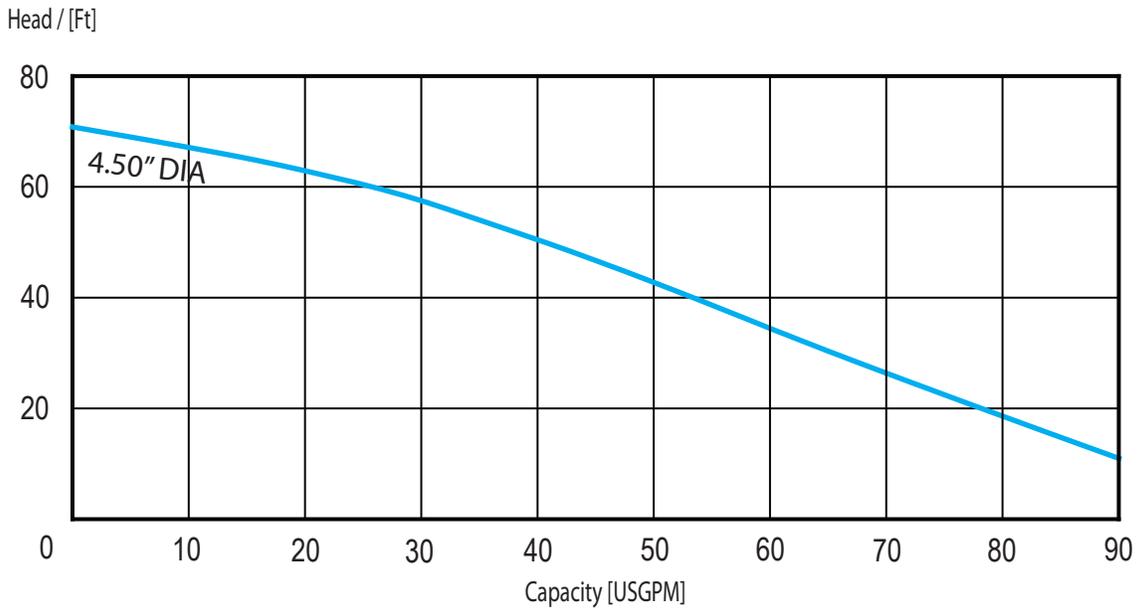
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419.207.9400 fax 419.207.8031  
www.keenpump.com



**2HP SUBMERSIBLE GRINDER PUMP**

<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KFG(X)2</b>	HP / Power Supply	2HP / 1 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 208V	18 Amps
Date	03/26/2015	Start Amps 208V	54 Amps
Discharge Flange	1-1/4" NPT, Vertical	Full Load Amps 230V	15 Amps
Grinder Ring	18 Slots	Start Amps 230V	45 Amps
Impeller Type / Std. Dia.	Recessed/ 4.50" Dia.	Start / Run Amps 240V	
<b>Single Phase</b>	START KIT SK-2A includes: Start & Run Capacitors, Relay, and Mounting Hardware	Poles / Rated Speed	2 P / 3450 rpm
		Insulation Class	F Class
		Start Capacitor	216 ufd, 250 VAC
		Run Capacitor	20 ufd, 370 VAC

**PERFORMANCE CURVE**



<b><u>MODEL</u></b>	<b><u>HP</u></b>	<b><u>Phase</u></b>	<b><u>Volts</u></b>
KFG(X)2-2001	2	1	208
KFG(X)2-2301	2	1	230
KFG(X)2-2401	2	1	240

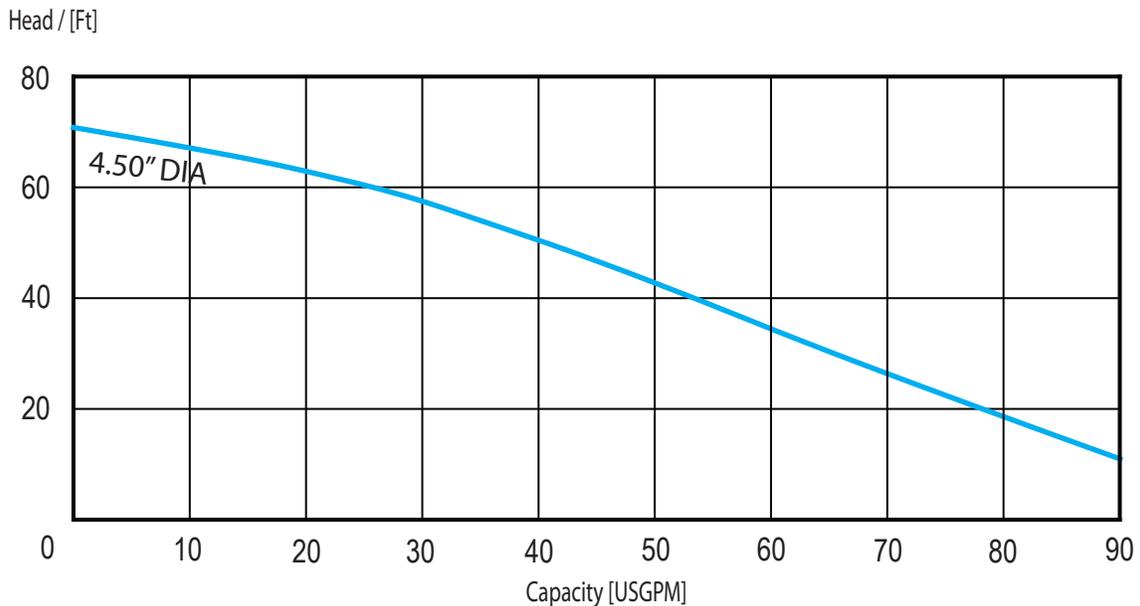
\* Performance with clear water and ambient temp 20°C (68°F)



**2HP SUBMERSIBLE GRINDER PUMP**

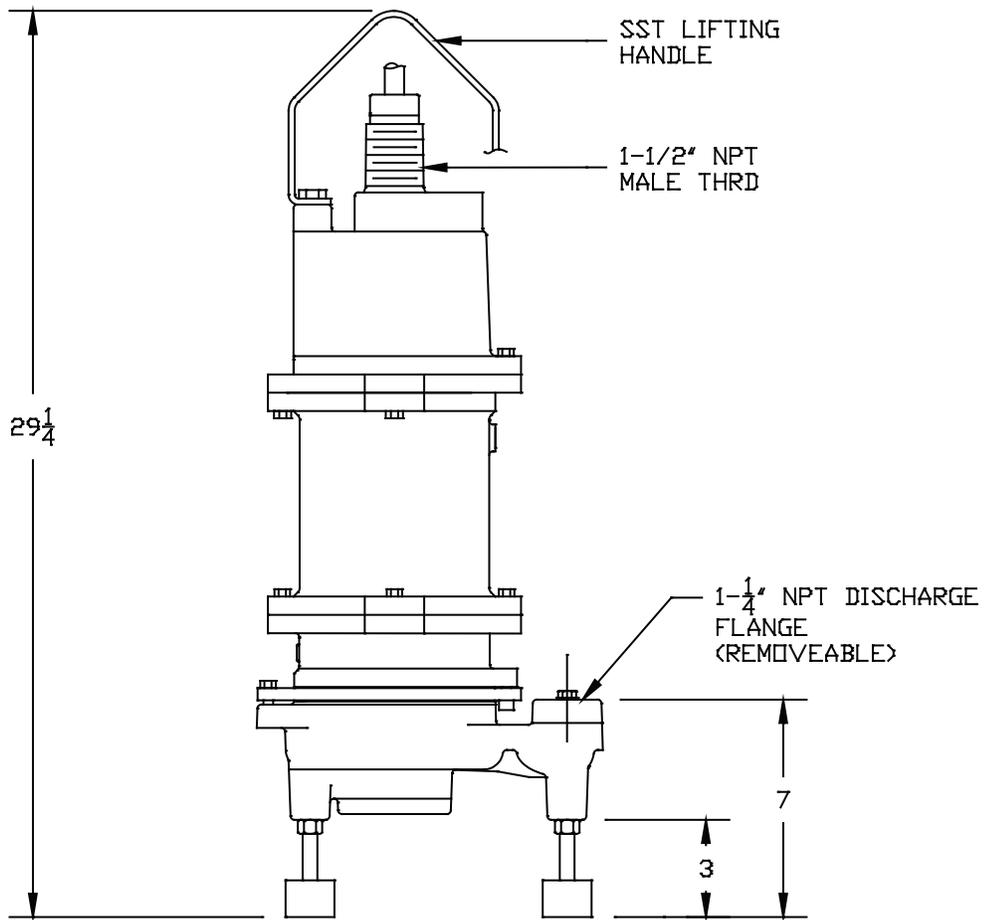
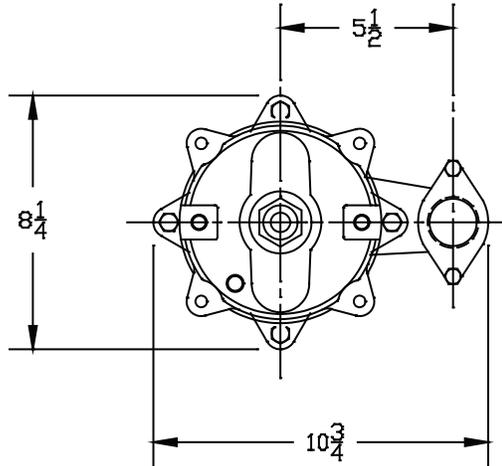
<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KFG(X)2</b>	HP / Power Supply	2HP / 3 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 208V	10 Amps
Date	03/26/2015	Start Amps 208V	33 Amps
Discharge Flange	1-1/4" NPT, Vertical	Full Load Amps 230V	9 Amps
Grinder Ring	18 Slots	Start Amps 230V	31 Amps
Impeller Type / Std. Dia.	Recessed/ 4.50" Dia.	Full Load Amps 460V	4.5 Amps
<b>Three Phase</b>		Start Amps 460V	15 Amps
		Poles / Rated Speed	2 P / 3450 rpm
		Insulation Class	F Class

**PERFORMANCE CURVE**



<u>MODEL</u>	<u>HP</u>	<u>Phase</u>	<u>Volts</u>
KFG(X)2-2003	2	3	208
KFG(X)2-2303	2	3	230
KFG(X)2-4603	2	3	460

\* Performance with clear water and ambient temp 20°C (68°F)



REV. 02/18/2015



**KEEN PUMP CO.**  
 471E ST ROUTE 250 EAST  
 ASHLAND, OHIO 44805

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 FAX: 419-207-8031

<b>TITLE</b>			
KCF/HXGX 2HP GRINDER PUMP DIMENSIONS			
<b>SCALE</b>	NTS	<b>DWG. #</b>	<b>REV.</b>
<b>DWG. BY</b>	SE	<b>DATE</b>	KN-19 A
		10/02/12	

# KG10

## 10HP High Flow Grinder Pump

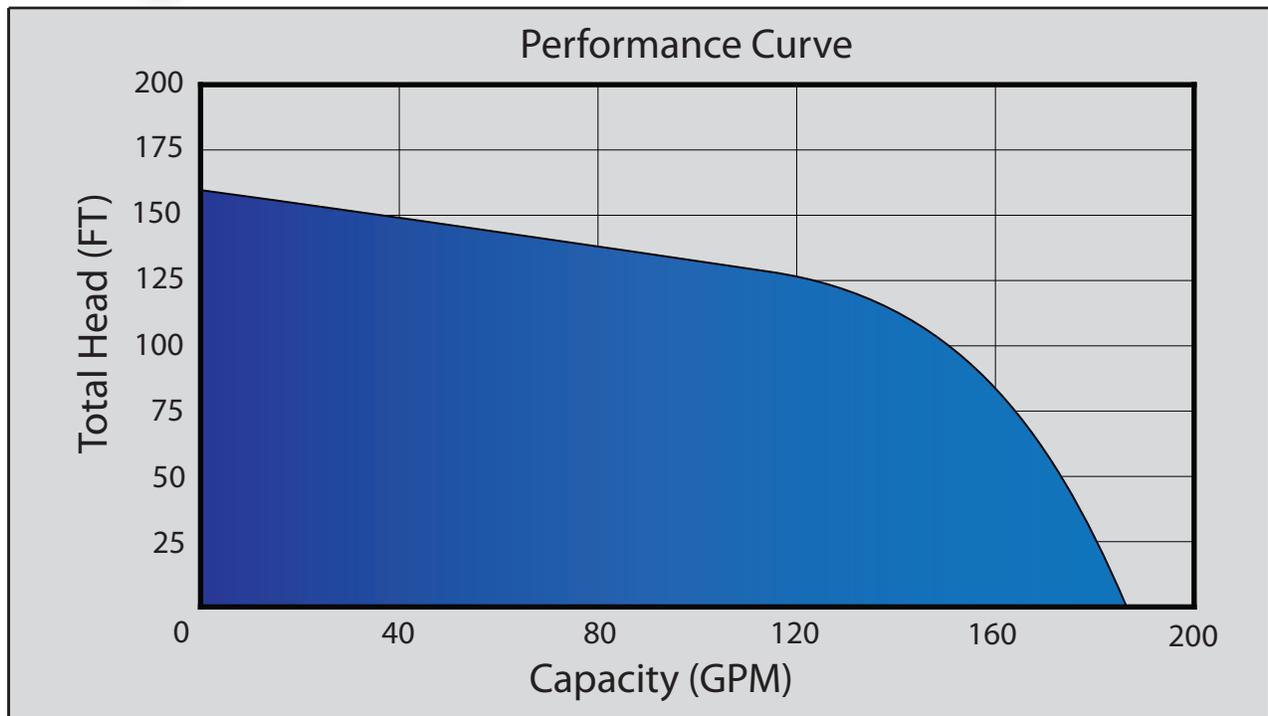


The KEEN PUMP **KG10** series centrifugal grinder pumps easily handle residential, commercial or industrial sanitary waste, reducing it to a fine slurry. The **KG10** pump is designed for use in pressure sewer applications or any piping network.

The recessed vortex impeller design of the **KG10** grinder pump provides trouble-free, non-overloading operation over the entire performance curve. The modular design provides quick and easy serviceability. The hardened stainless steel grinder assembly provides many years of dependable operation.

The **KG10** series pump features:

- Interchangeable into Competitor Installations
- Dual Silicon-Carbide Mechanical Shaft Seals
- Pressed-In Motor with Internal Overload Protection
- 3-Bearing Shaft Support (Upper / Lower / Sleeve)
- Internal Moisture Detection
- Strong Motor 230/460 volt, 3-Phase



## Features and Benefits

### 1. Watertight Cable Entrance

Heavy-duty molded compression grommet 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.

### 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 30 cast iron components.

### 3. Strong Motor

Powerful high-torque motor for reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil-filled chamber for cool operation and long motor life.

### 4. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus additional sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

### 5. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture 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.

### 6. Moisture Detection

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

### 7. Non-Overloading Hydraulic Design

The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

### 8. Proven Grinder Assembly

Hardened (Rockwell 56-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 17,250 cuts/second.

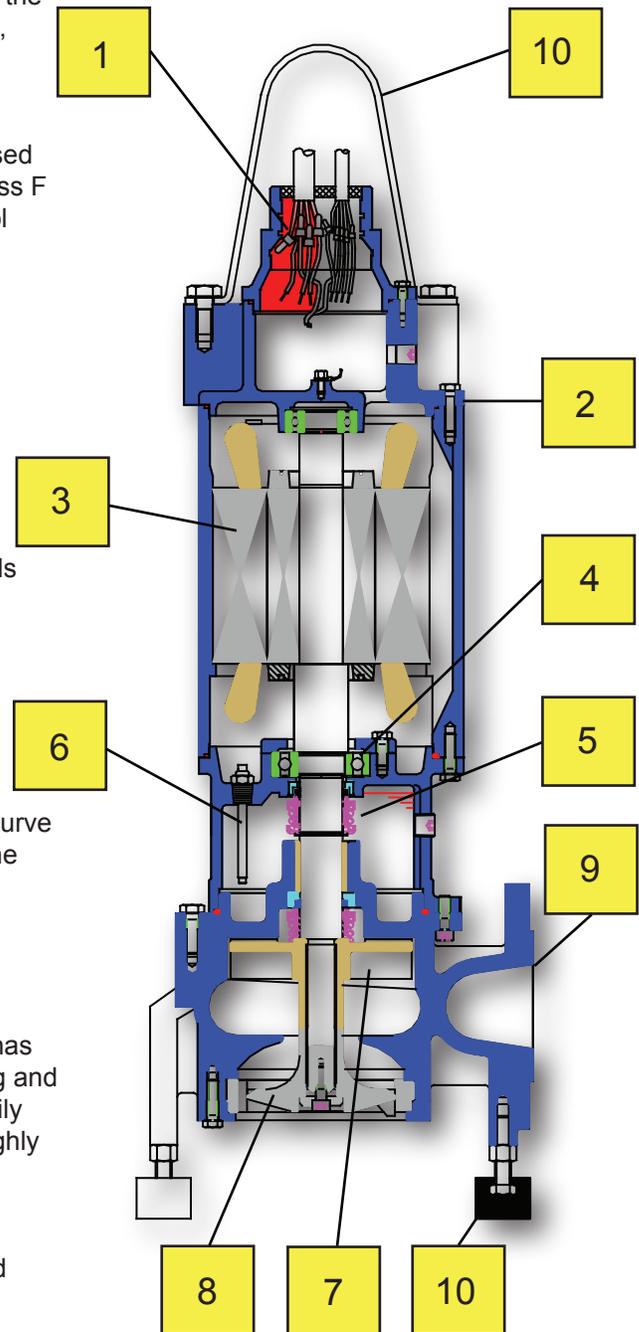
### 9. Versatile Flange Connection

Combination 2-1/2" and 3" horizontal flange. Industry-standard ANSI Class 125 dimensions.

### 10. Accessories

Stainless steel lifting handle included. Anti-vibration rubber mounting feet **OPTIONAL**.

## 10HP Grinder Pump High Flow KG10



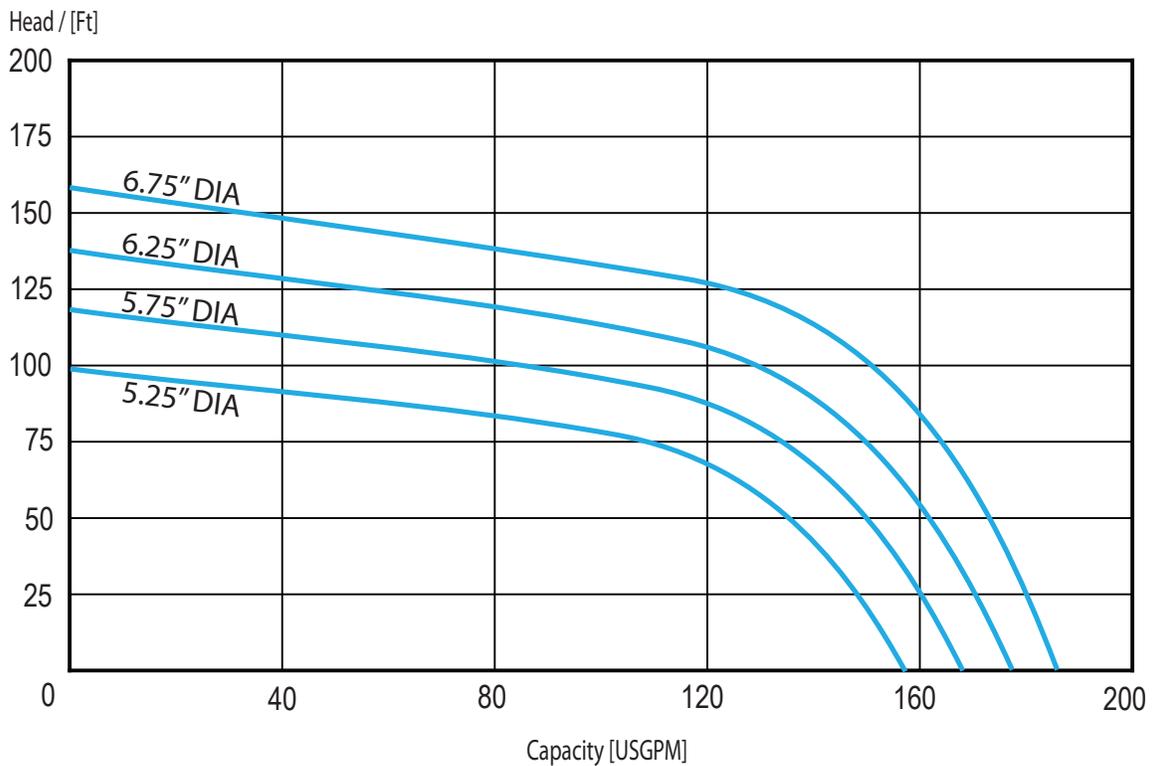
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**10HP SUBMERSIBLE GRINDER PUMP**

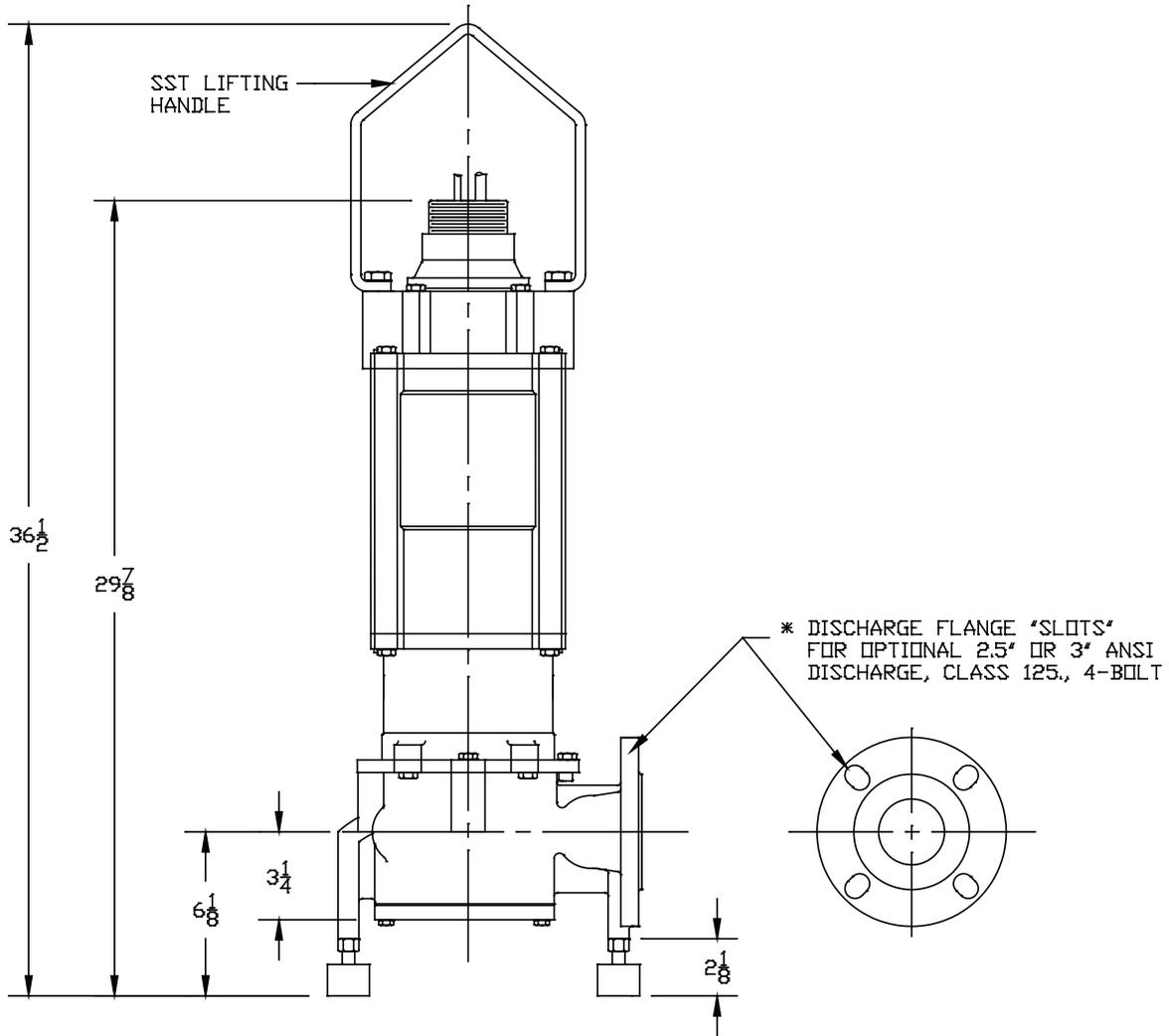
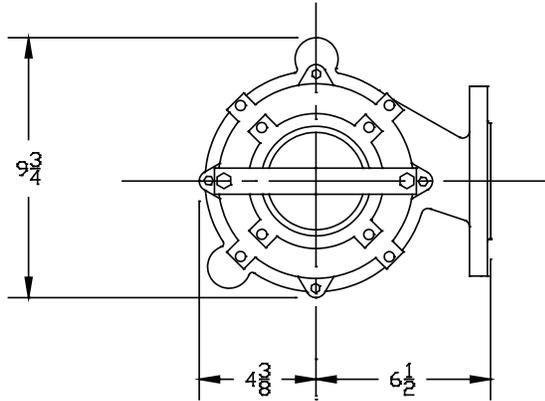
<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KG10</b>	HP / Power Supply	10HP / 3 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 230V	40 Amps
Date	03/26/2015	Start Amps 230V	135 Amps
Discharge Flange	2-1/2 & 3" ANSI Horizontal	Full Load Amps 460V	20 Amps
Grinder Ring	25 Slots	Start Amps 460V	75 Amps
Impeller Type / Std. Dia.	Recessed / 6.75"	Poles / Rated Speed	2 P / 3450 rpm
<b>Three Phase</b>		Insulation Class	F Class

**PERFORMANCE CURVE**



<b><u>MODEL</u></b>	<b><u>HP</u></b>	<b><u>Phase</u></b>	<b><u>Volts</u></b>
KG10-2303	10	3	230
KG10-4603	10	3	460

\* Performance with clear water and ambient temp 20°C (68°F)



REV 03/26/15

\* PUMP STANDARD HORIZONTAL FLANGE (2 1/2" OR 3" ANSI)  
 STANDARD BASIN PACKAGE DISCHARGE (2" PIPING)  
 ACCEPTABLE WITH MACERATED SEWAGE SLURRY

**KEEN PUMP COMPANY** KEEN PUMP CO.  
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 ASHLAND, OHIO 44805 FAX: 419-207-8031

<b>TITLE</b> KG10 10HP HIGH FLOW GRINDER PUMP DIMENSIONS			
<b>SCALE</b> NTS	<b>DWG. #</b> KN-670	<b>REV.</b> B	
<b>DWG. BY</b> SE	<b>DATE</b> 01/03/2013		

# KGP(X)



(PENDING)

## 7.5 - 15HP Grinder Pump, 3 Phase (Class 1, Div. 1, Groups C & D Hazardous Location)

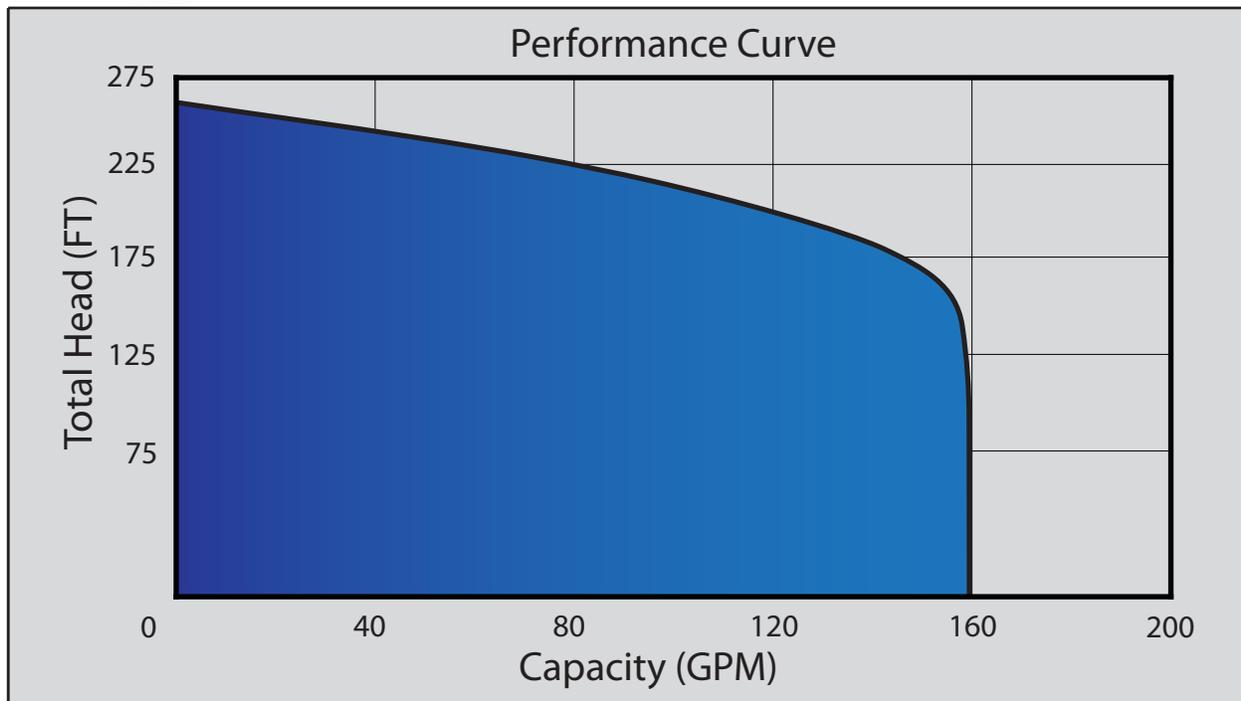


The KEEN PUMP **KGP(X)** series centrifugal grinder pumps are designed for municipal, commercial or industrial applications. The **KGP(X)** pump is also designed for use in pressure sewer applications or any piping network with long discharge distances or high heads.

The recessed vortex impeller design of the **KGP(X)** grinder pump provides trouble-free, non-overloading operation over the entire performance curve. The modular design provides quick and easy serviceability. The hardened stainless steel grinder assembly provides many years of dependable operation.

The **KGP(X)** series pump features:

- Interchangeable into Competitor Installations
- Dual Silicon-Carbide Mechanical Shaft Seals
- Slip-Fit Motor with Internal Overload Protection
- 3-Bearing Shaft Support (Upper / Lower / Sleeve)
- Internal Moisture Detection
- Strong Motor 208, 230 or 460 volt, 3-Phase



## Features and Benefits

### 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 is 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 30 cast iron components.

### 3. Strong Motor (U.S. Motor Manufacturer)

Powerful high-torque motor for strong pumping. 208/230/460 Volt, 3-phase. Slip-Fit stator efficiently transfers heat to cast housing. Class H 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 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. Non-Overloading Hydraulic Design

Recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed, vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

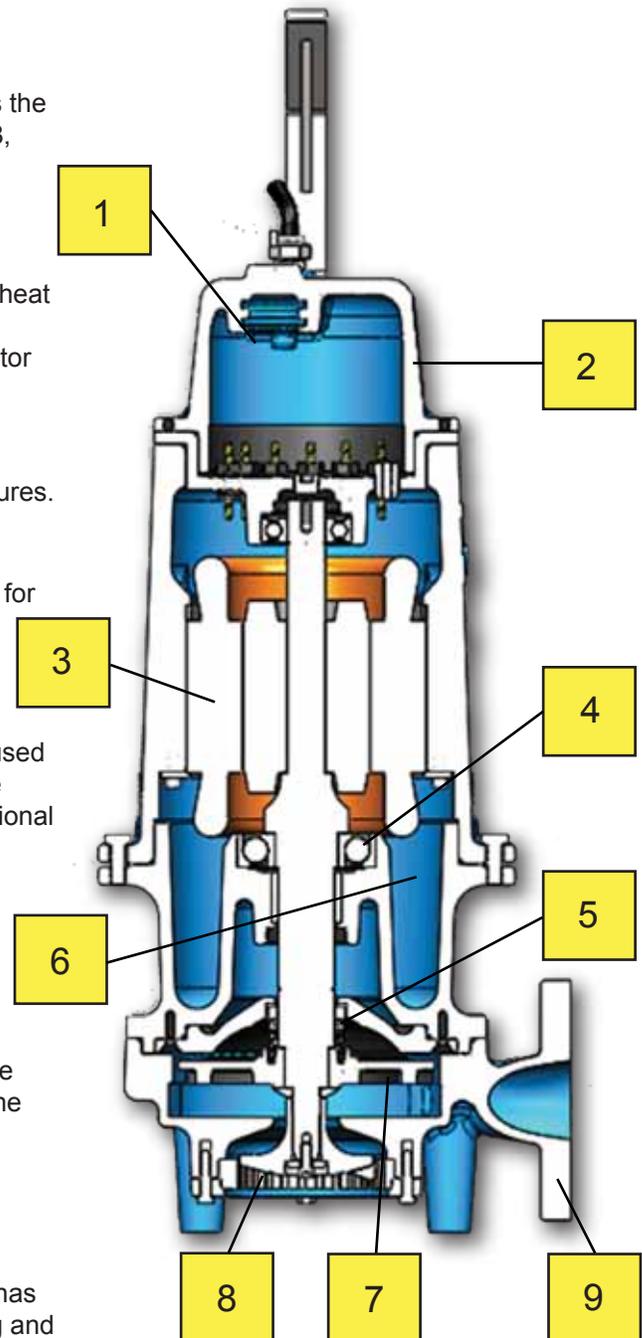
### 8. Proven Grinder Assembly

Hardened (Rockwell 58-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 17,250 cuts/second.

### 9. Standard Flange Connection

2-1/2" / 3" Horizontal, Class 125 ANSI discharge flange. Industry standard, 4-bolt pattern.

7.5-15HP   
Grinder Pump  
KGP(X)75/100/150

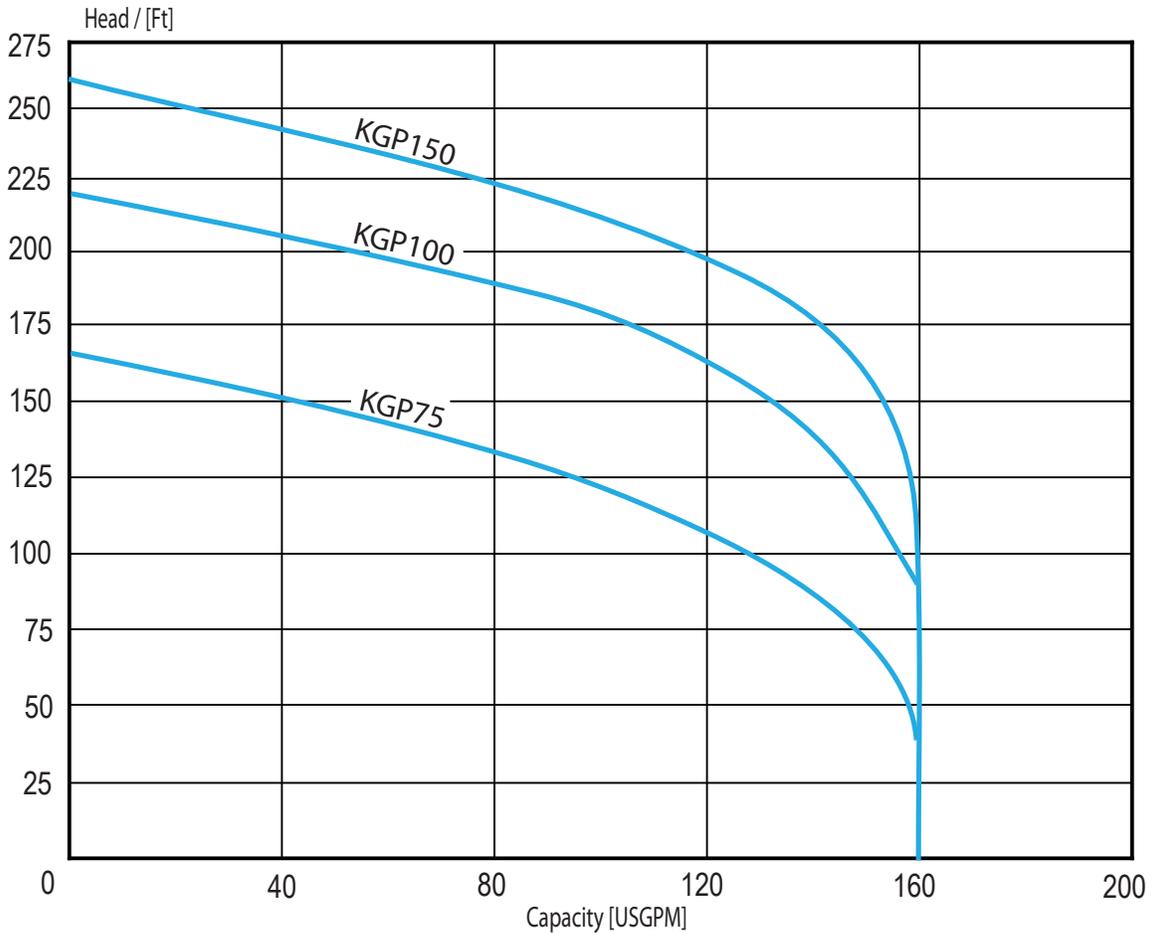


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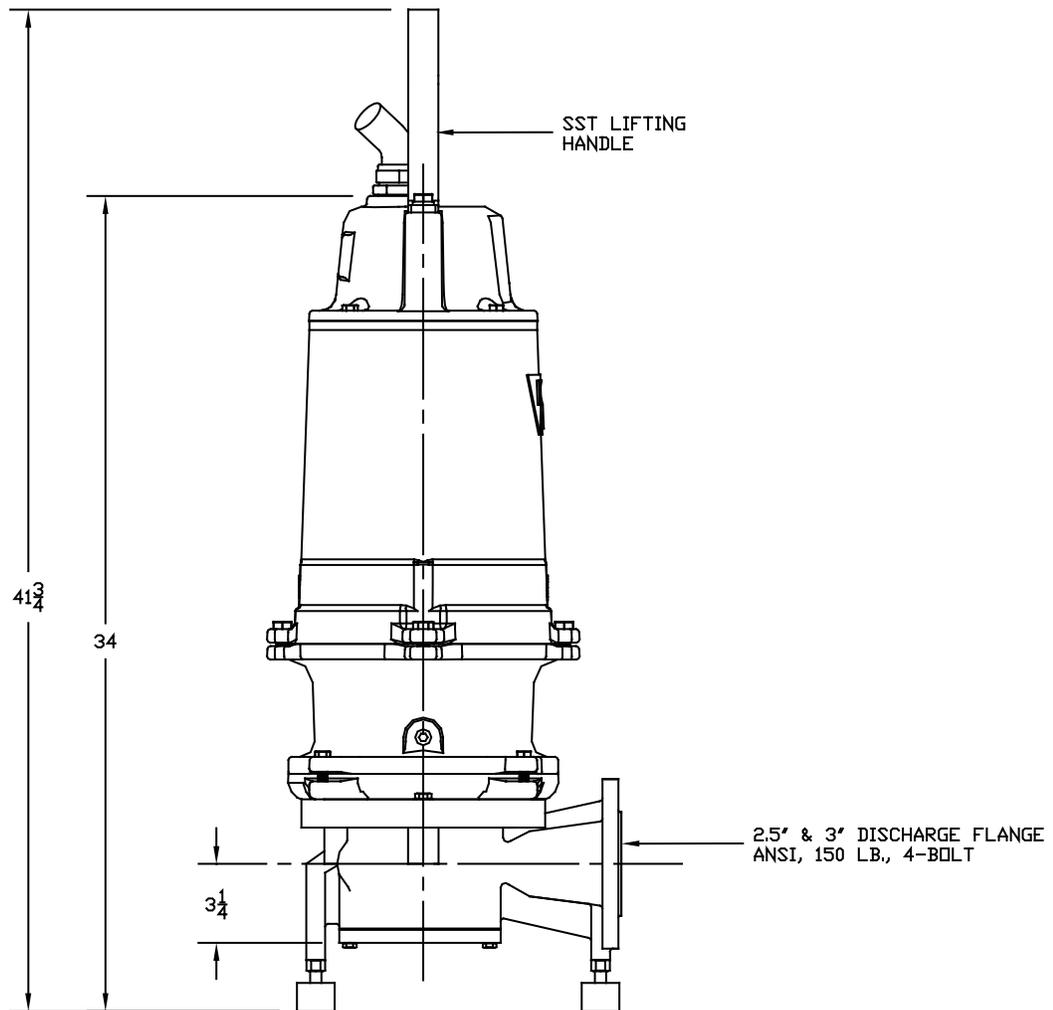
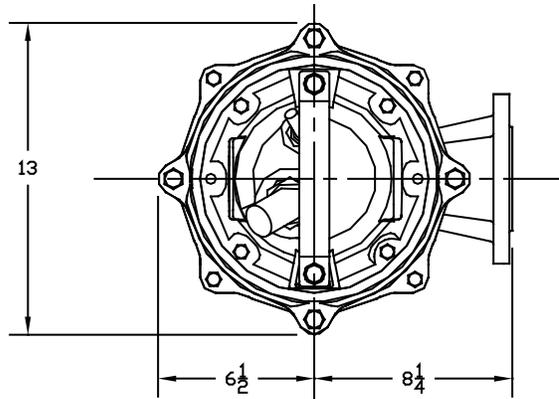
GENERAL		MOTOR DATA	
Pump Model	<b>KGP(X)75/100/150</b>	HP / Power Supply	7.5-15HP / 3 $\phi$ , 60 Hz
PUMP DATA		Poles / Rated Speed	2 P / 3450 rpm
Date	03/27/2015	Insulation Class	H Class
Discharge Flange	2-1/2 & 3" ANSI Horizontal	Full Load Amps	See Chart
Grinder Ring	Hardened SST		
Impeller Type / Std. Dia.	Recessed / As Shown		

PERFORMANCE CURVE



Models	Electrical Data			
	HP	Volts	Phase	Full Load Amps
KGP(X)75-03	7.5	208	3	39.8
KGP(X)75-23	7.5	230	3	34.5
KGP(X)75-43	7.5	460	3	17.3
KGP(X)100-03	10	208	3	55.6
KGP(X)100-23	10	230	3	48.5
KGP(X)100-43	10	460	3	24.3
KGP(X)150-03	15	208	3	68.5
KGP(X)150-23	15	230	3	59.5
KGP(X)150-43	15	460	3	29.8

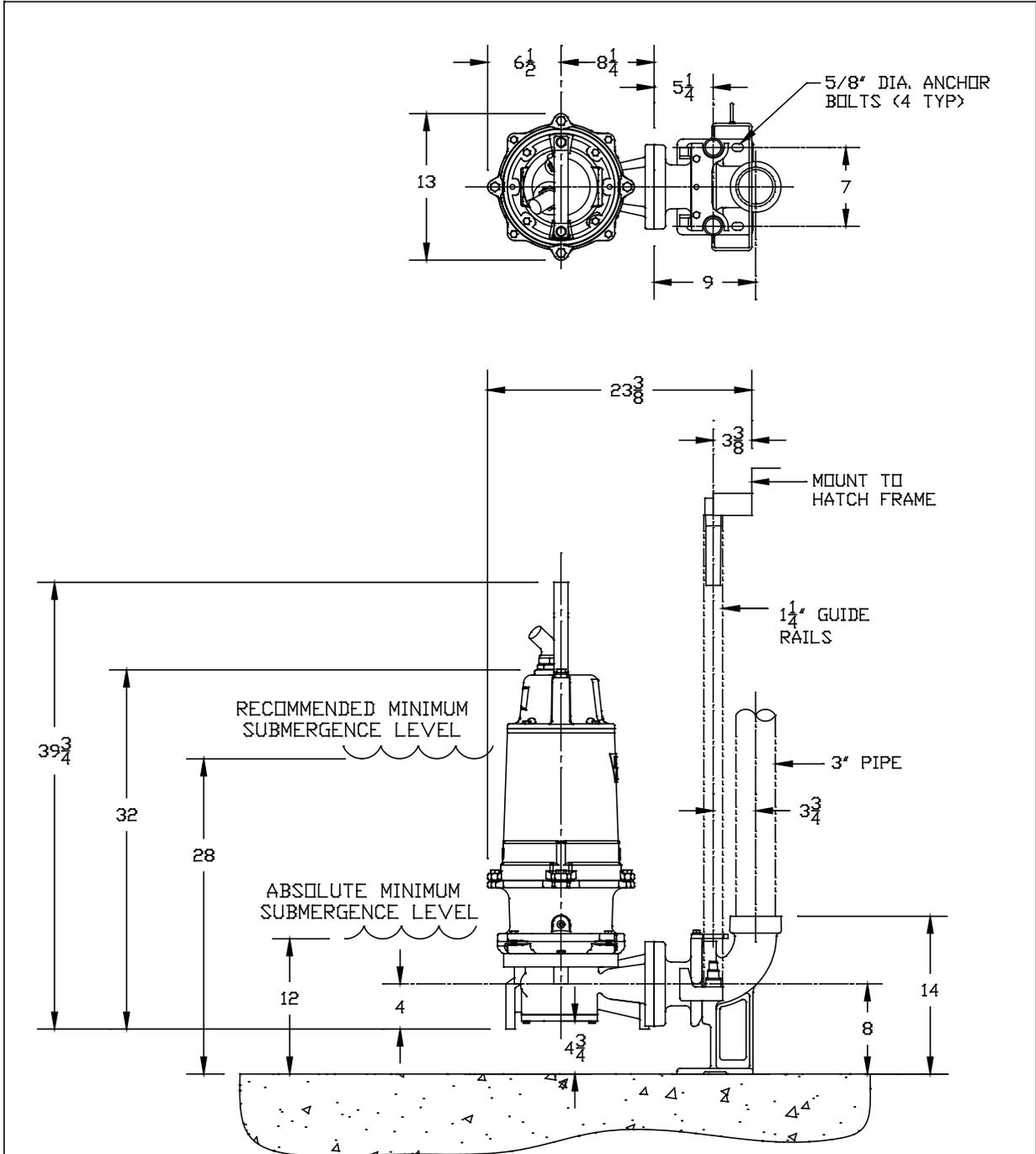
\* Performance with clear water and ambient temp 20°C (68°F)



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

TITLE KGP75-150 7.5-15HP GRINDER PUMP OUTLINE			
SCALE NTS		DWG. # KN-919	REV. -
DWG. BY SE	DATE 06/10/2014		

Pump Series	<b>KGP</b>	SUBMERSIBLE GRINDER PUMPS
<b>LIFTOUT DIMENSIONAL DATA</b>		



Notes:

1. All dimensions in inches unless noted.
2. Discharge flange 3" NPT.
3. Absolute minimum and recommended minimum submergence levels noted.
4. Dimensions may vary due to normal manufacturing tolerances.
5. If discharge pipe is larger than discharge elbow, eccentric reducer must be used limited to 2X larger maximum.

# KGP(X)



(PENDING)

## 7.5 - 15HP Grinder Pump, 3 Phase (Class 1, Div. 1, Groups C & D Hazardous Location)

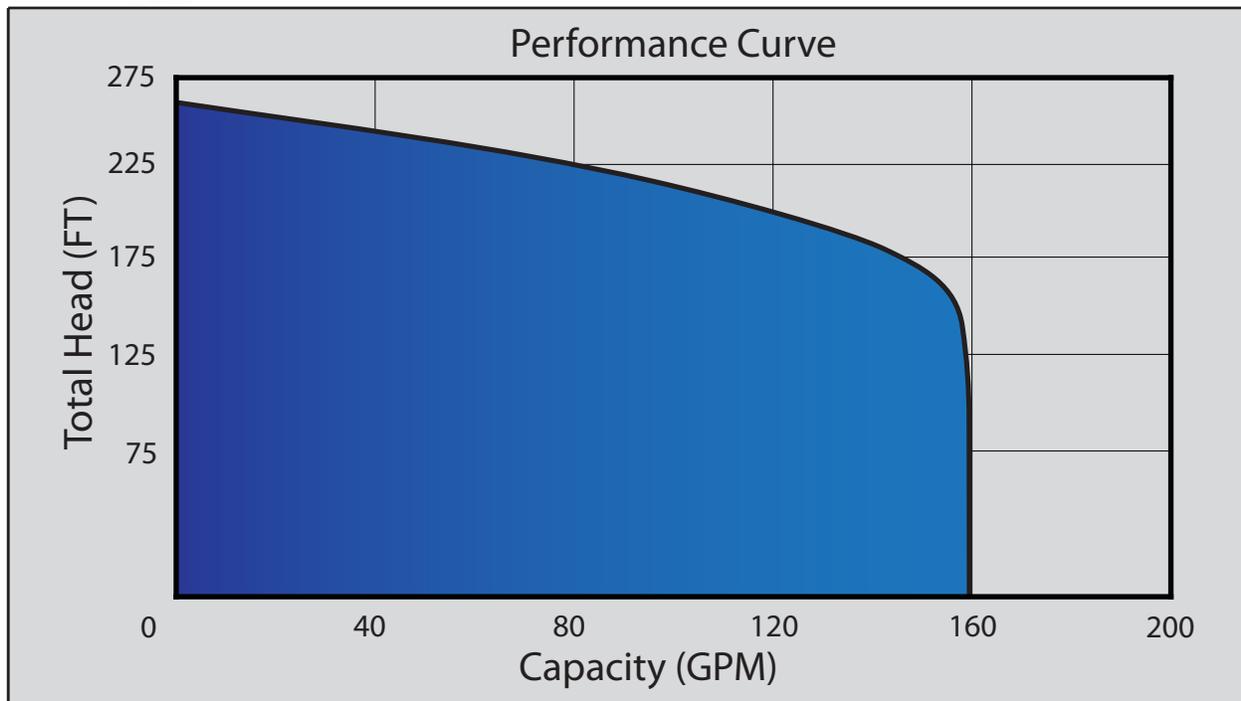


The KEEN PUMP **KGP(X)** series centrifugal grinder pumps are designed for municipal, commercial or industrial applications. The **KGP(X)** pump is also designed for use in pressure sewer applications or any piping network with long discharge distances or high heads.

The recessed vortex impeller design of the **KGP(X)** grinder pump provides trouble-free, non-overloading operation over the entire performance curve. The modular design provides quick and easy serviceability. The hardened stainless steel grinder assembly provides many years of dependable operation.

The **KGP(X)** series pump features:

- Interchangeable into Competitor Installations
- Dual Silicon-Carbide Mechanical Shaft Seals
- Slip-Fit Motor with Internal Overload Protection
- 3-Bearing Shaft Support (Upper / Lower / Sleeve)
- Internal Moisture Detection
- Strong Motor 208, 230 or 460 volt, 3-Phase



## Features and Benefits

### 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 is 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 30 cast iron components.

### 3. Strong Motor (U.S. Motor Manufacturer)

Powerful high-torque motor for strong pumping. 208/230/460 Volt, 3-phase. Slip-Fit stator efficiently transfers heat to cast housing. Class H 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 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. Non-Overloading Hydraulic Design

Recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed, vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

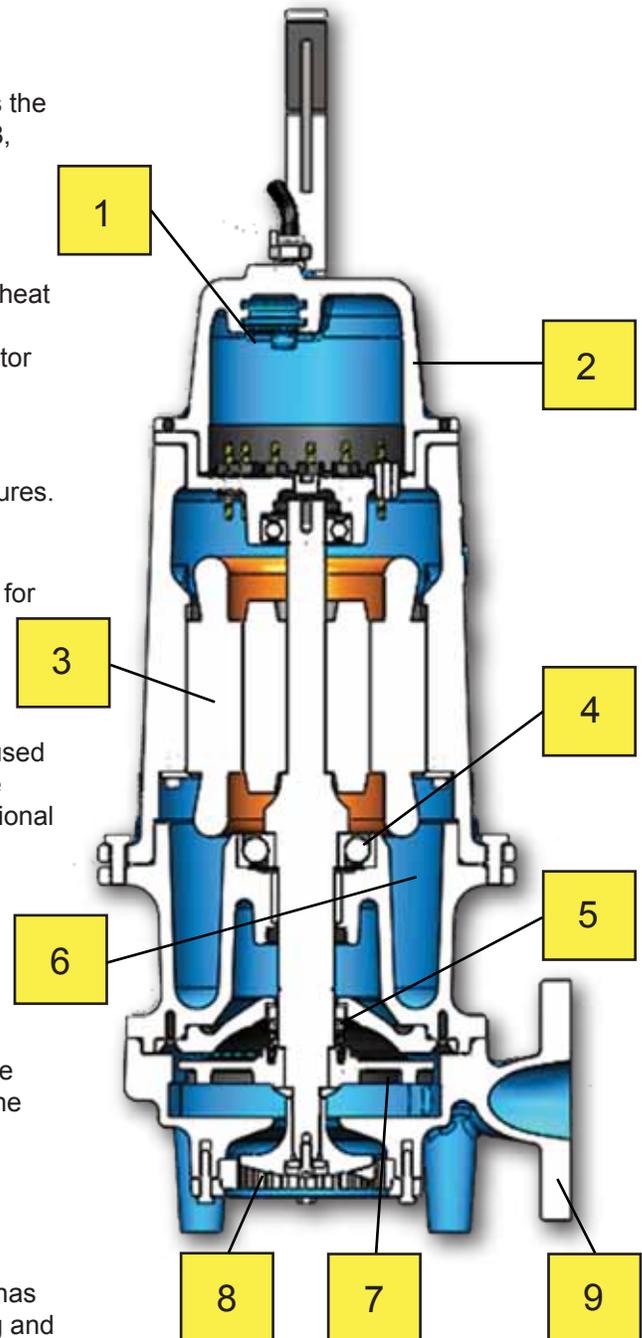
### 8. Proven Grinder Assembly

Hardened (Rockwell 58-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 17,250 cuts/second.

### 9. Standard Flange Connection

2-1/2" / 3" Horizontal, Class 125 ANSI discharge flange. Industry standard, 4-bolt pattern.

7.5-15HP   
Grinder Pump  
KGP(X)75/100/150

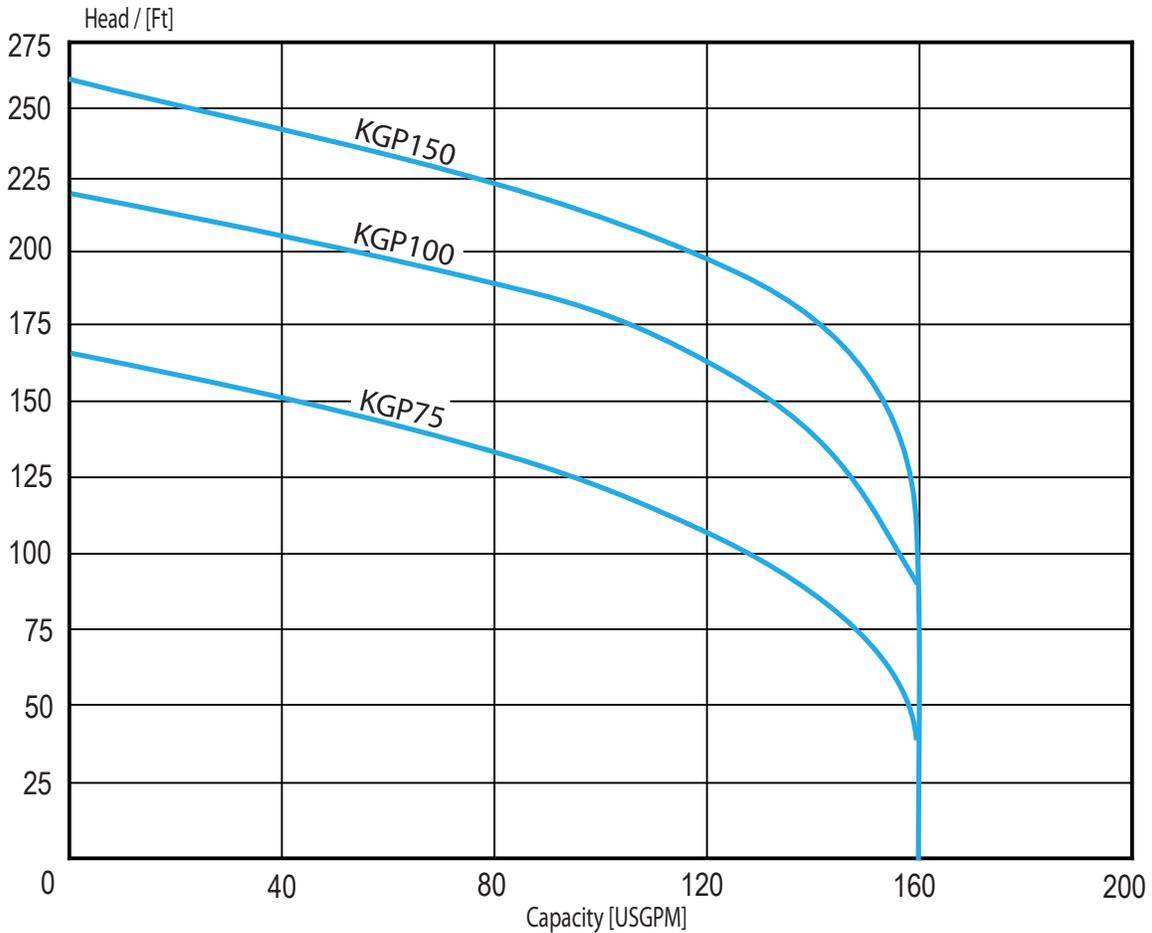


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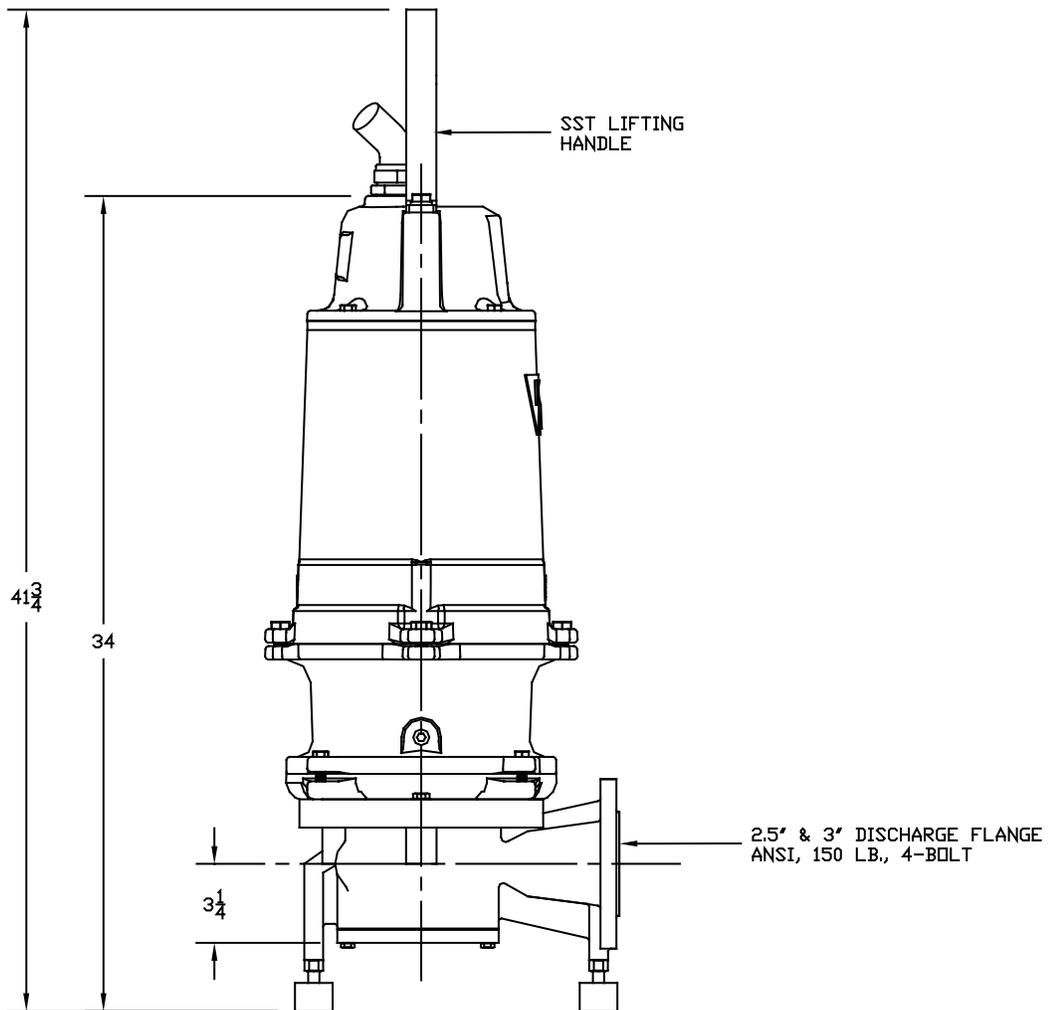
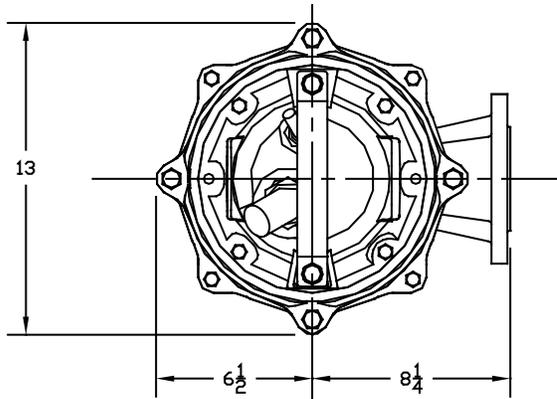
GENERAL		MOTOR DATA	
Pump Model	<b>KGP(X)75/100/150</b>	HP / Power Supply	7.5-15HP / 3 $\phi$ , 60 Hz
PUMP DATA		Poles / Rated Speed	2 P / 3450 rpm
Date	03/27/2015	Insulation Class	H Class
Discharge Flange	2-1/2 & 3" ANSI Horizontal	Full Load Amps	See Chart
Grinder Ring	Hardened SST		
Impeller Type / Std. Dia.	Recessed / As Shown		

PERFORMANCE CURVE



Models	Electrical Data			
	HP	Volts	Phase	Full Load Amps
KGP(X)75-03	7.5	208	3	39.8
KGP(X)75-23	7.5	230	3	34.5
KGP(X)75-43	7.5	460	3	17.3
KGP(X)100-03	10	208	3	55.6
KGP(X)100-23	10	230	3	48.5
KGP(X)100-43	10	460	3	24.3
KGP(X)150-03	15	208	3	68.5
KGP(X)150-23	15	230	3	59.5
KGP(X)150-43	15	460	3	29.8

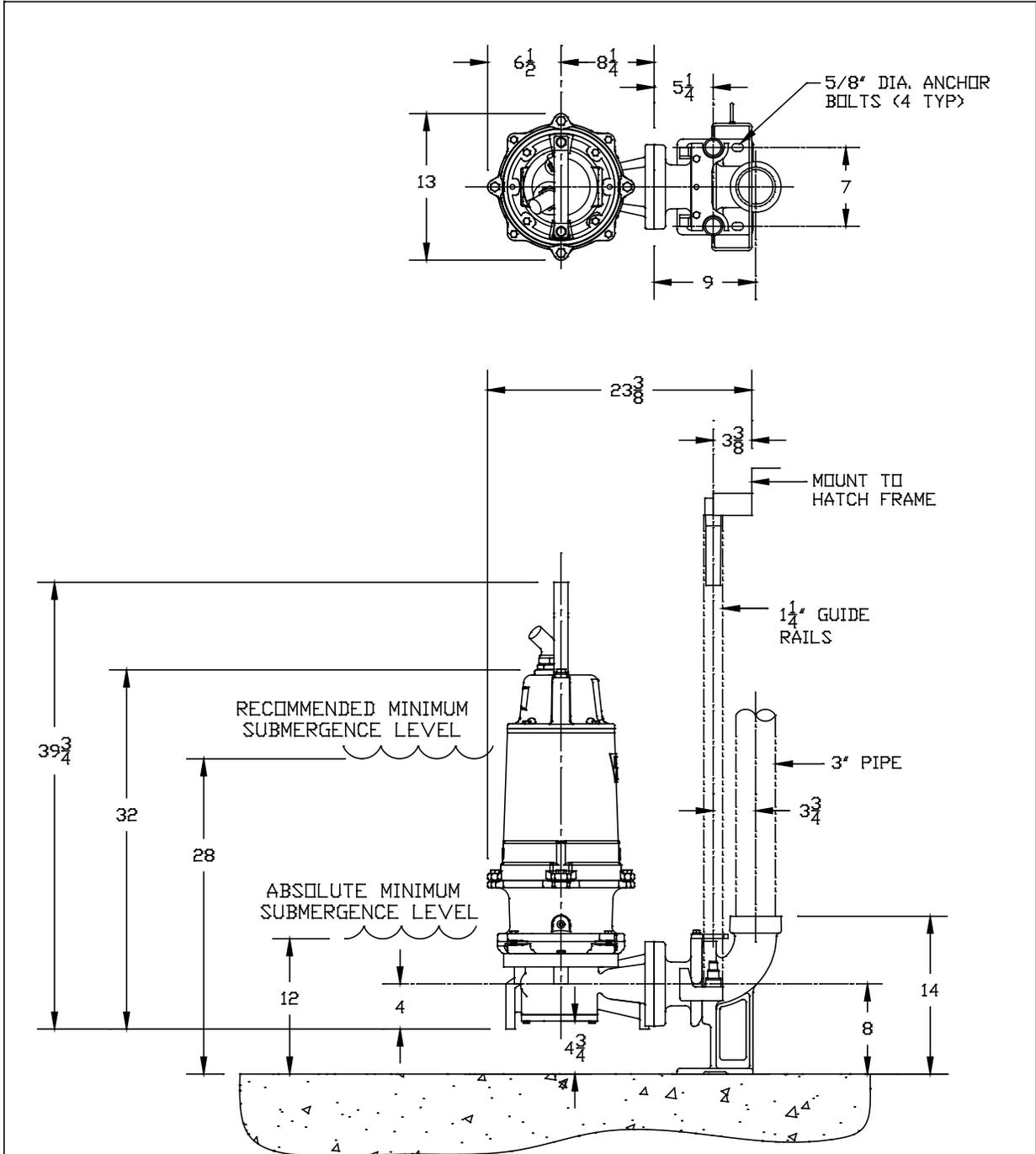
\* Performance with clear water and ambient temp 20°C (68°F)



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

TITLE KGP75-150 7.5-15HP GRINDER PUMP OUTLINE			
SCALE NTS		DWG. # KN-919	REV. -
DWG. BY SE	DATE 06/10/2014		

Pump Series	<b>KGP</b>	SUBMERSIBLE GRINDER PUMPS
<b>LIFTOUT DIMENSIONAL DATA</b>		



Notes:

1. All dimensions in inches unless noted.
2. Discharge flange 3" NPT.
3. Absolute minimum and recommended minimum submergence levels noted.
4. Dimensions may vary due to normal manufacturing tolerances.
5. If discharge pipe is larger than discharge elbow, eccentric reducer must be used limited to 2X larger maximum.

# KG(X)2-115



## 2HP Dual Seal Grinder Pump, 115 Volt, Internal Start Kit (Class 1, Div. 1, Groups C & D Hazardous Location)

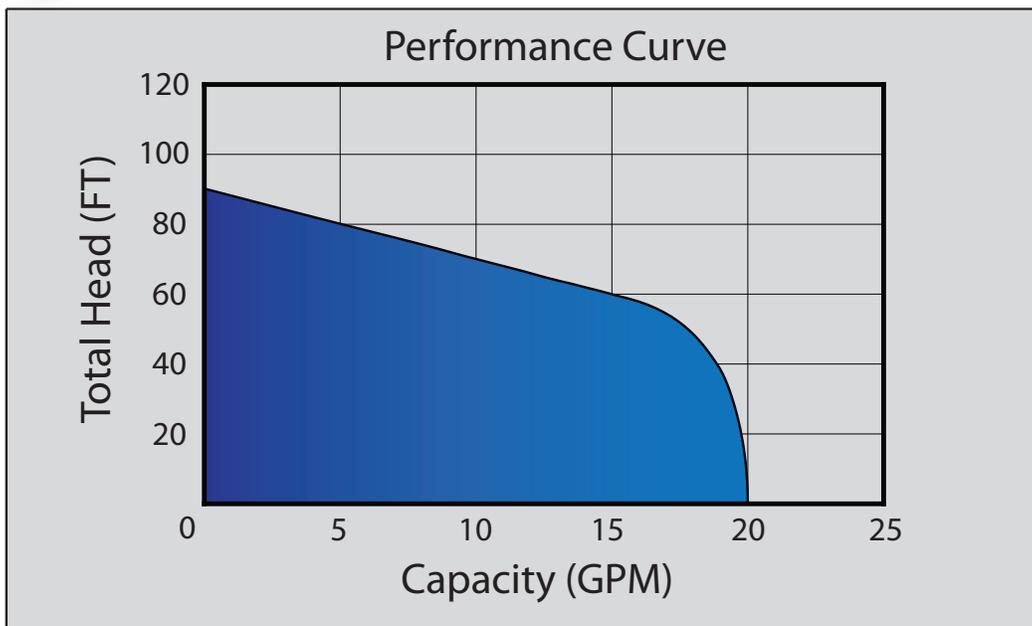
The KEEN PUMP **KG2-115** series centrifugal grinder pumps easily handle residential, light commercial or industrial sanitary waste, reducing it to fine slurry. The **KG2-115** pump is designed for use in pressure sewer applications or any piping network.

The recessed vortex impeller design of the **KG2-115** grinder pump provides trouble free, non-overloading operation over the entire performance curve. The **KG2-115** pump produces capacities to 20 gpm with heads to 90 feet.

The modular design provides quick access to the internal start capacitor kit. Hardened stainless steel grinder assembly and many quality features:

The **KG2-115** series pump features:

- Strong, 2HP, 115 Volt Motor
- Internal Start Component (No control box req'd)
- Potted Cord Cap Assembly
- Dual Silicon-Carbide Shaft Seals
- 3 Bearings
- Pressed-In Motor



## Features and Benefits

### 1. Watertight Cable Entrance

Agency-approved, watertight strain relief cord grip with compression grommet protects outer cord jacket. Epoxy-filled inner cord cap provides anti-wicking moisture protection to the motor even if powercable is cut or damaged.

### 2. Internal Start Kit

Start/Run capacitor with relay securely positioned in dry compartment. Rubber compression grommet for wire leads to motor prevents oil from entering chamber. 4 bolts quickly removes cord cap for easy servicing.

### 3. Modular Pump Design

Commonality of parts across the Keen product line minimizes the amount of parts required for servicing. Heavy-duty ASTM A48, Class 30 cast iron components.

### 4. Strong Motor

Powerful high-torque motor for reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil-filled chamber for cool operation and long motor life.

### 5. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus additional sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

### 6. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture 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.

### 7. Non-Overloading Hydraulic Design

The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

### 8. Proven Grinder Assembly

Hardened (Rockwell 56-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 7400 cuts/second.

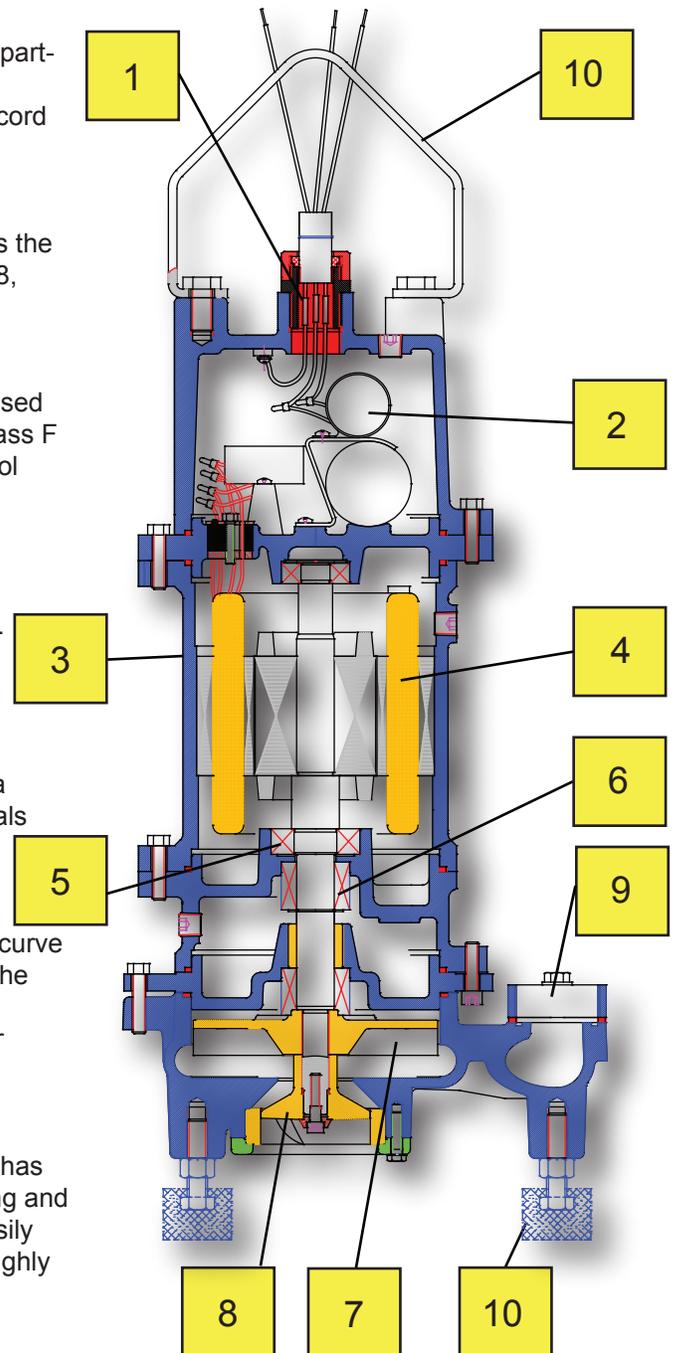
### 9. Easy Piping Connection

Removable 1-1/4"NPT connection flange for simple and easy connection to discharge piping.

### 10. Accessories

Stainless steel lifting handle included. Anti-Vibration mounting feet **OPTIONAL**.

## 2HP Grinder Pump Dual Seal KG(X)2-115



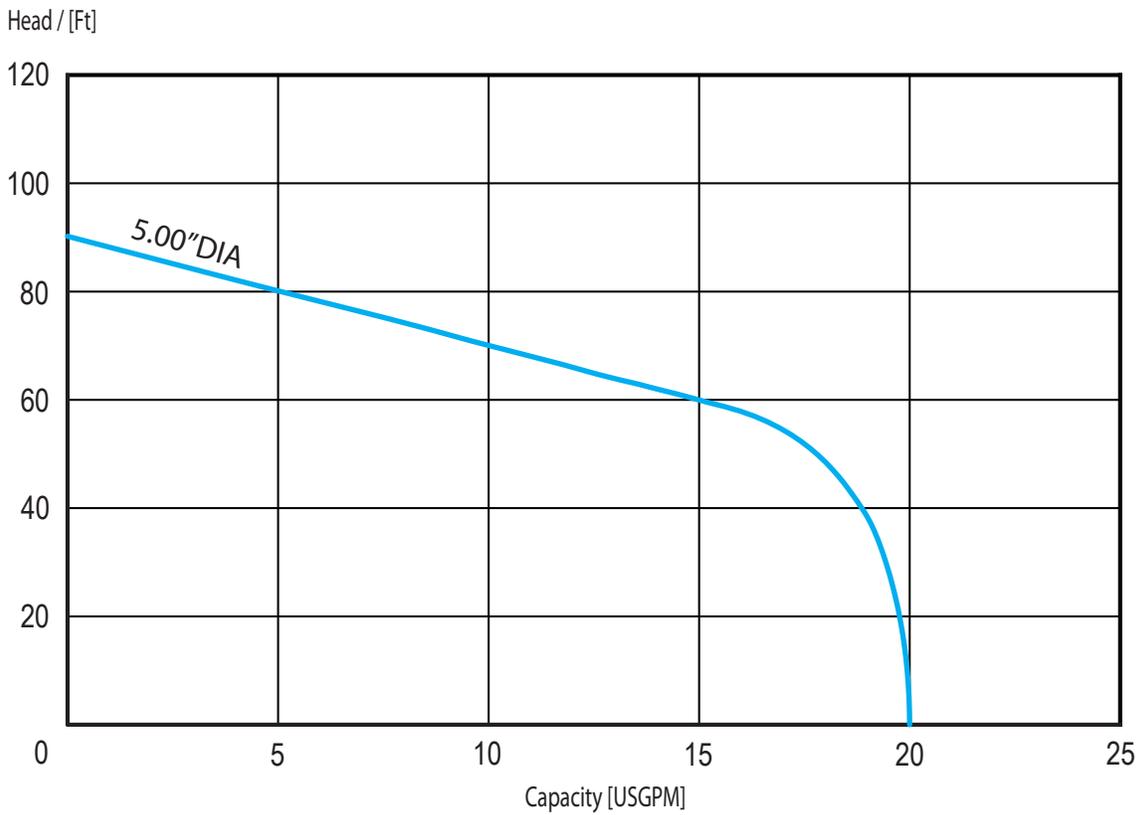
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419.207.9400 fax 419.207.8031  
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**2HP SUBMERSIBLE GRINDER PUMP**

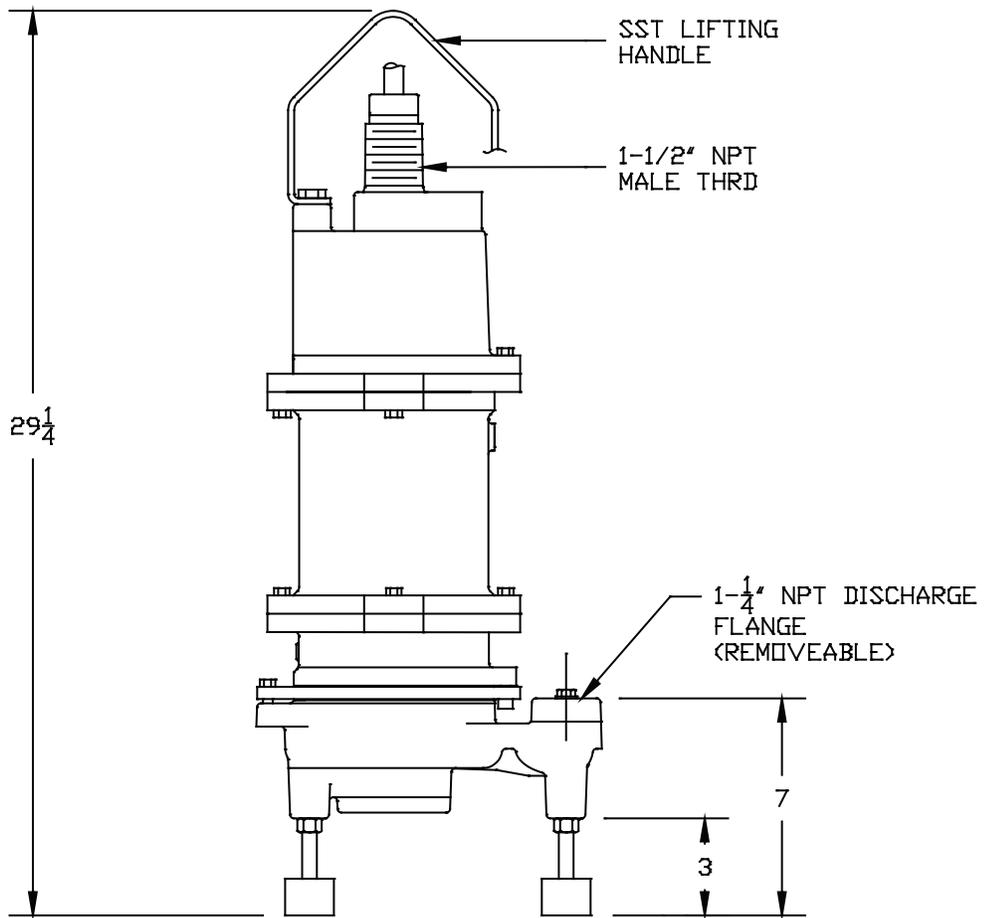
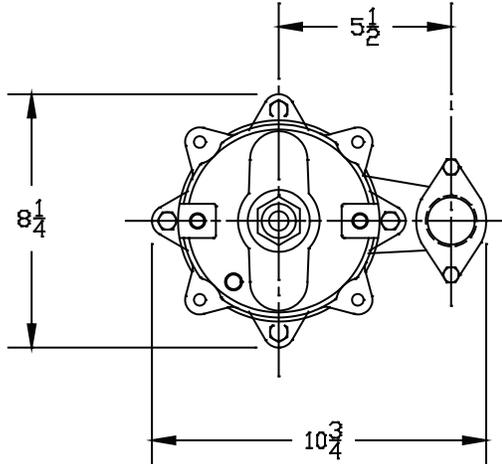
<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KG(X)2-115</b>	HP / Power Supply	2HP / 1 $\phi$ , 115 V, 60 Hz
<b>PUMP DATA</b>		Full Load Amps 115V	16.9 Amps
Date	03/26/2015	Start Amps 115V	48 Amps
Discharge Flange	1-1/4" NPT, Vertical	Poles / Rated Speed	2 P / 3450 rpm
Grinder Ring	8 Slots	Insulation Class	F Class
Impeller Type / Std. Dia.	Recessed / 5.00" Dia.	Start Capacitor	200 ufd, 125 VAC
		Run Capacitor	70 ufd, 250 VAC
START KIT SK-1E includes: Start & Run Capacitors, Relay, and Mounting Hardware			

**PERFORMANCE CURVE**



<u>MODEL</u>	<u>HP</u>	<u>Phase</u>	<u>Volts</u>
KG(X)2-115	2	1	115

\* Performance with clear water and ambient temp 20°C (68°F)



REV. 02/18/2015

		<b>KEEN PUMP CO.</b> 471E ST ROUTE 250 EAST ASHLAND, OHIO 44805	PHONE: 419-207-9400 FAX: 419-207-8031
<b>TITLE</b> KCF/HGX 2HP GRINDER PUMP DIMENSIONS			
<b>SCALE</b> NTS		<b>DWG. #</b> KN-19	<b>REV.</b> A
<b>DWG. BY</b> SE	<b>DATE</b> 10/02/12		

# KG(X)2-C



## 2HP Dual Seal Grinder Pump, Internal Start Kit (Class 1, Div. 1, Groups C & D Hazardous Location)

The KEEN PUMP **KG2-C** series centrifugal grinder pumps easily handle residential, light commercial or industrial sanitary waste, reducing it to fine slurry. The **KG2-C** pump is designed for use in pressure sewer applications or any piping network.

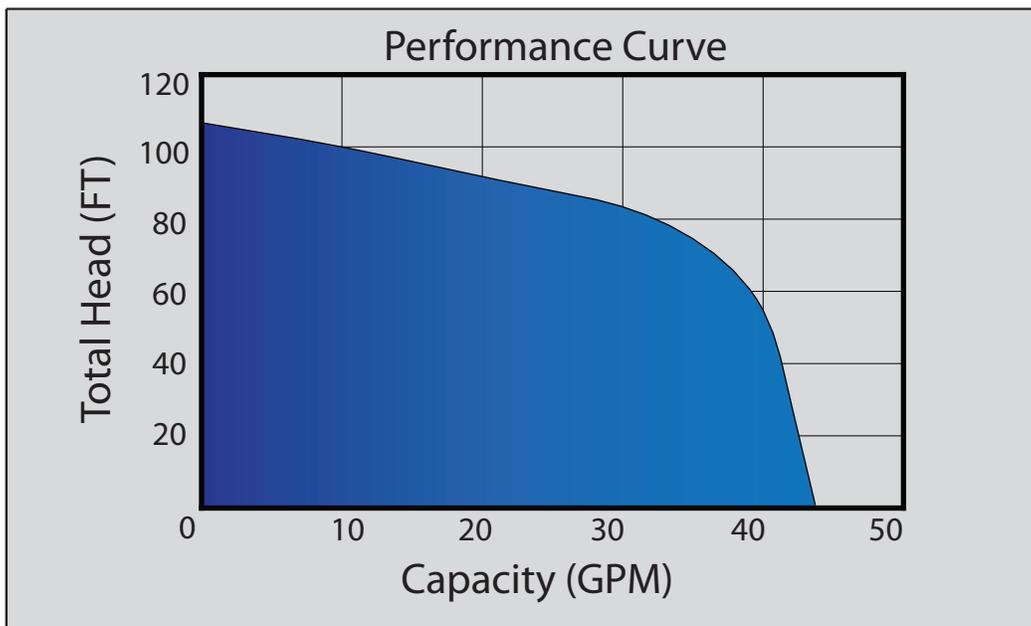
The recessed vortex impeller design of the **KG2-C** grinder pump provides trouble free, non-overloading operation over the entire performance curve. The **KG2-C** pump produces capacities to 43 gpm with heads to 106 feet.

The modular design provides quick access to the internal start capacitor kit. Hardened stainless steel grinder assembly and many quality features:



The **KG2-2C** series pump features:

- Strong, 2HP, 208, 230 or 240 Volt Motor
- Internal Start Components (No control box req'd)
- Potted Cord Cap Assembly
- Dual Silicon-Carbide Shaft Seals
- 3 Bearings
- Pressed-In Motor



## Features and Benefits

### 1. Watertight Cable Entrance

Agency-approved, watertight strain relief cord grip with compression grommet protects outer cord jacket. Epoxy-filled inner cord cap provides anti-wicking moisture protection to the motor even if powercable is cut or damaged.

### 2. Internal Start Kit

Start/Run capacitor with relay securely positioned in dry compartment. Rubber compression grommet for wire leads to motor prevents oil from entering chamber. 4 bolts quickly removes cord cap for easy servicing.

### 3. Modular Pump Design

Commonality of parts across the Keen product line minimizes the amount of parts required for servicing. Heavy-duty ASTM A48, Class 30 cast iron components.

### 4. Strong Motor

Powerful high-torque motor for reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil-filled chamber for cool operation and long motor life.

### 5. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus additional sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

### 6. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture 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.

### 7. Non-Overloading Hydraulic Design

The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

### 8. Proven Grinder Assembly

Hardened (Rockwell 56-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 16,600 cuts/second.

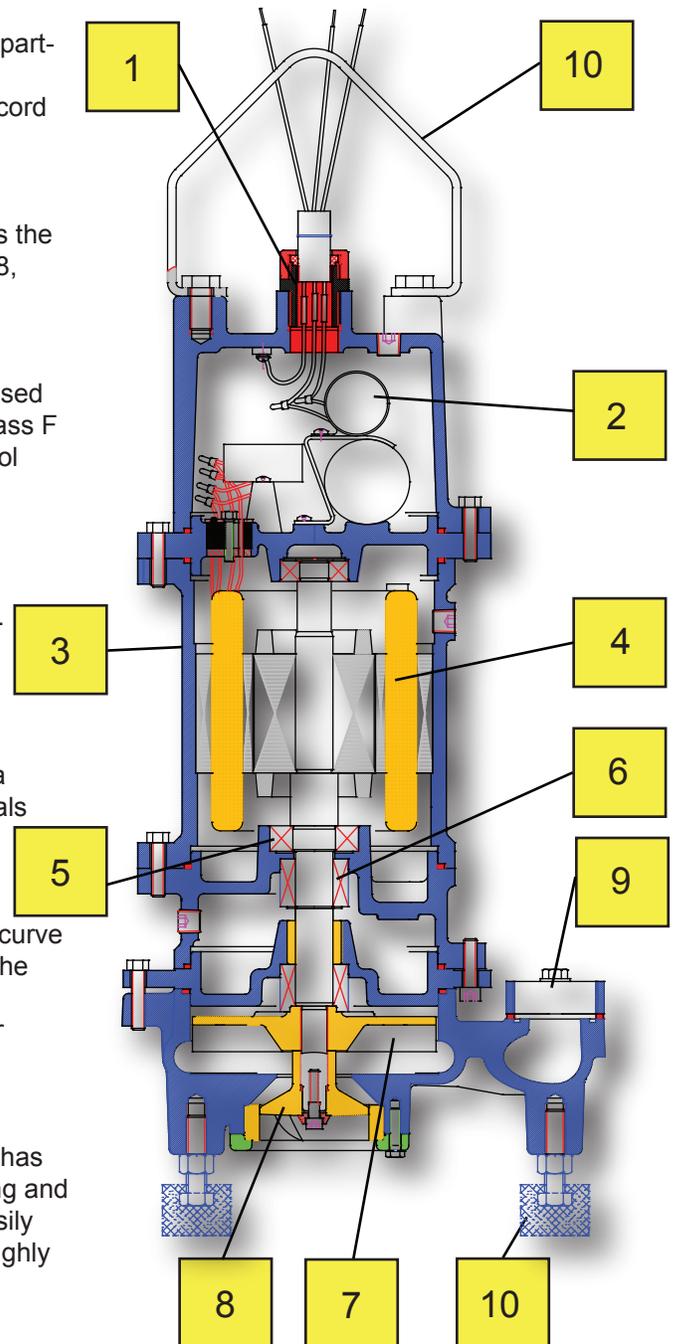
### 9. Easy Piping Connection

Removable 1-1/4"NPT connection flange for simple and easy connection to discharge piping.

### 10. Accessories

Stainless steel lifting handle included. Anti-Vibration mounting feet **OPTIONAL**.

## 2HP Grinder Pump Dual Seal KG(X)2-C



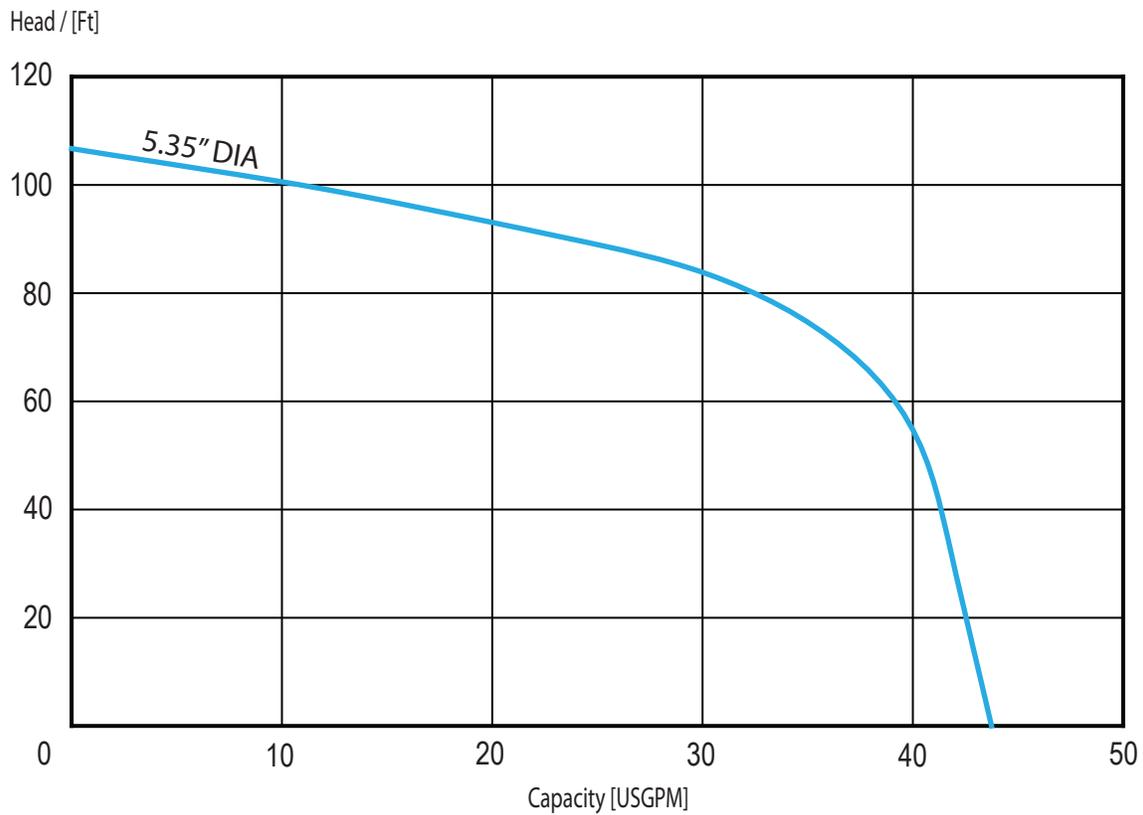
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419.207.9400 fax 419.207.8031  
www.keenpump.com



**2HP SUBMERSIBLE GRINDER PUMP**

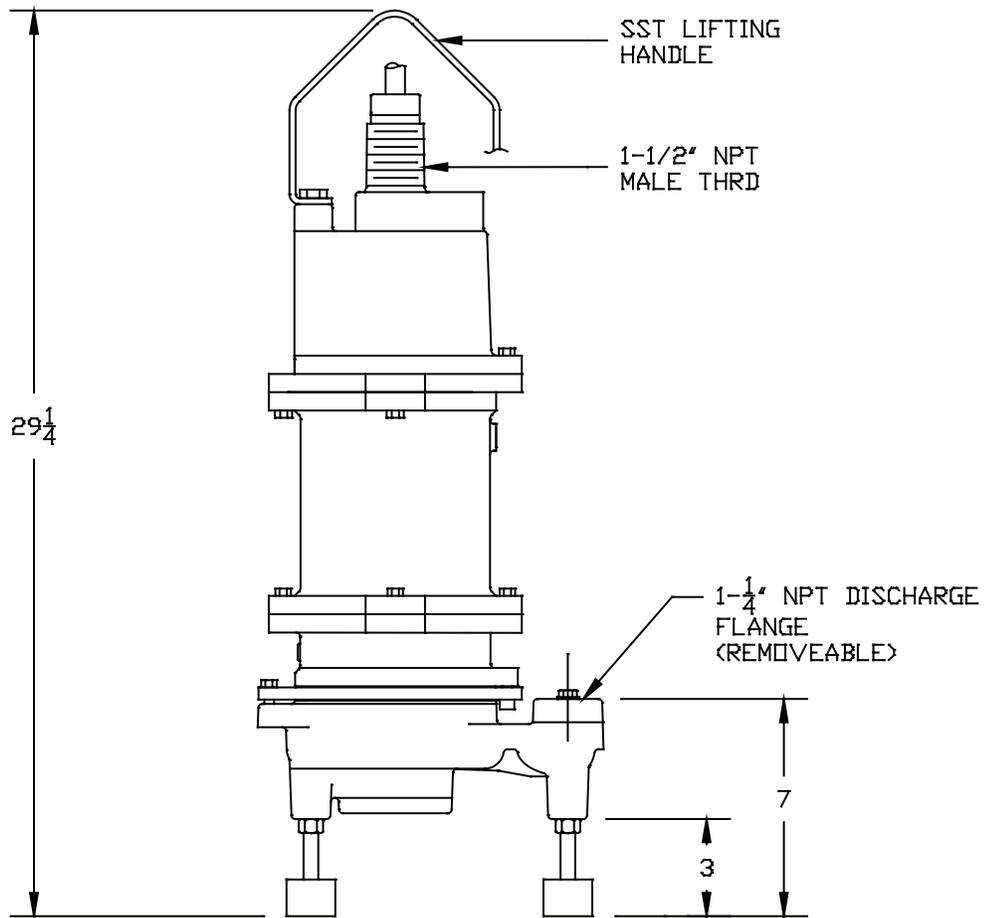
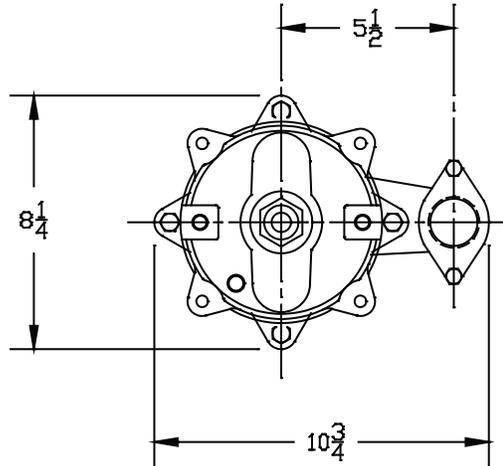
<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KG(X)2-C</b>	HP / Power Supply	2HP / 1 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 208V	15.5 Amps
Date	03/26/2015	Start Amps 208V	54 Amps
Discharge Flange	1-1/4" NPT, Vertical	Full Load Amps 230V	12.8 Amps
Grinder Ring	18 Slots	Start Amps 230V	45 Amps
Impeller Type / Std. Dia.	Recessed/ 5.35" Dia.	Start/Run Amps 240V	
START KIT SK-2A includes: Start & Run Capacitors, Relay, and Mounting Hardware		Poles / Rated Speed	2 P / 3450 rpm
		Insulation Class	F Class
		Start Capacitor	216 ufd, 250 VAC
		Run Capacitor	20 ufd, 370 VAC

**PERFORMANCE CURVE**



<b>MODEL</b>	<b>HP</b>	<b>Phase</b>	<b>Volts</b>
KG(X)2-2001C	2	1	208
KG(X)2-2301C	2	1	230
KG(X)2-2401C	2	1	240

\* Performance with clear water and ambient temp 20°C (68°F)



REV. 02/18/2015

 <b>KEEN PUMP CO.</b> 471E ST ROUTE 250 EAST ASHLAND, OHIO 44805		PHONE: 419-207-9400 FAX: 419-207-9031
<b>TITLE</b> K(F/H)GX 2HP GRINDER PUMP DIMENSIONS		
<b>SCALE</b> NTS	<b>DWG. #</b> KN-19	<b>REV.</b> A
<b>DWG. BY</b> SE	<b>DATE</b> 10/02/12	

# KG(X)3



## 3HP High Flow Grinder Pump (Class 1, Div. 1, Groups C & D Hazardous Location)

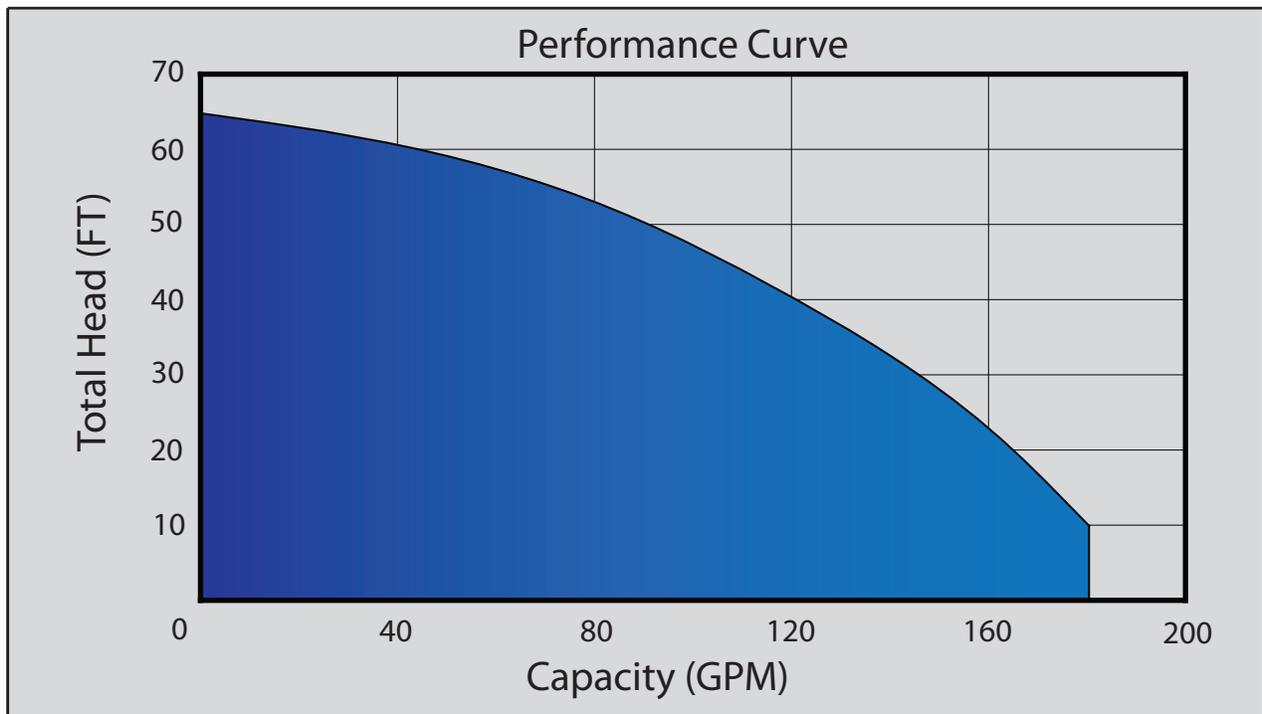


The KEEN PUMP **KG(X)3** series centrifugal grinder pumps easily handle residential, commercial or industrial sanitary waste, reducing it to a fine slurry. The **KG(X)3** pump is designed for use in pressure sewer applications or any piping network.

The recessed vortex impeller design of the **KG(X)3** grinder pump provides trouble-free, non-overloading operation over the entire performance curve. The modular design provides quick and easy serviceability. The hardened stainless steel grinder assembly provides many years of dependable operation.

The **KG(X)3** series pump features:

- Interchangeable into Competitor Installations
- Dual Silicon-Carbide Mechanical Shaft Seals
- Pressed-In Motor with Internal Overload Protection
- 3-Bearing Shaft Support (Upper / Lower / Sleeve)
- Internal Moisture Detection
- Strong Motor, 1-Phase (208/230) Volt or 3-Phase (208/230/460) V



## Features and Benefits

### 1. Watertight Cable Entrance

Agency-approved, watertight strain relief cord grip with compression grommet protects outer cord jacket (**FM Explosion-Proof**) or Heavy-duty molded compression grommet 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.

### 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 30 cast iron components.

### 3. Strong Motor

Powerful high-torque motor for reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil-filled chamber for cool operation and long motor life.

### 4. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus additional sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

### 5. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture 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.

### 6. Moisture Detection

Dual Seal leak probe signals alarm in control panel for scheduled maintenance.

### 7. Non-Overloading Hydraulic Design

The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

### 8. Proven Grinder Assembly

Hardened (Rockwell 56-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 17,250 cuts/second.

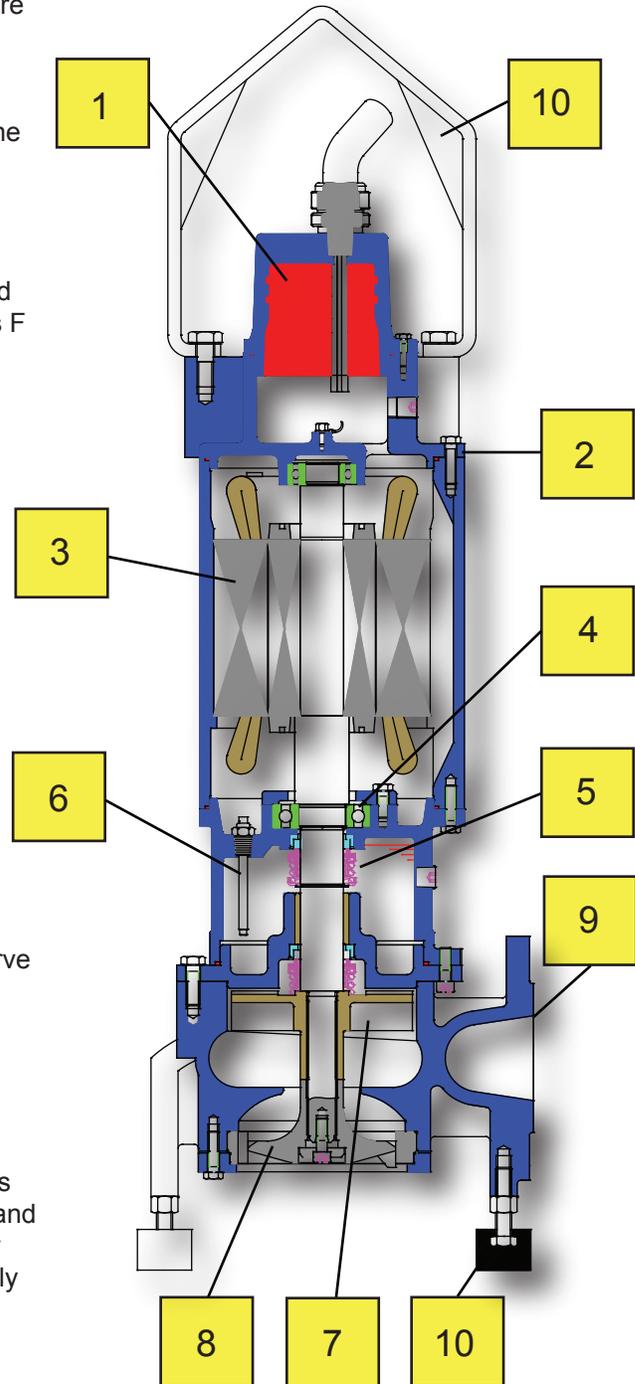
### 9. Versatile Flange Connection

Combination 2-1/2" and 3" horizontal flange. Industry-standard ANSI Class 125 dimensions.

### 10. Accessories

Stainless steel lifting handle included. Anti-vibration rubber mounting feet **OPTIONAL**.

## 3HP Grinder Pump High Flow KG(X)3



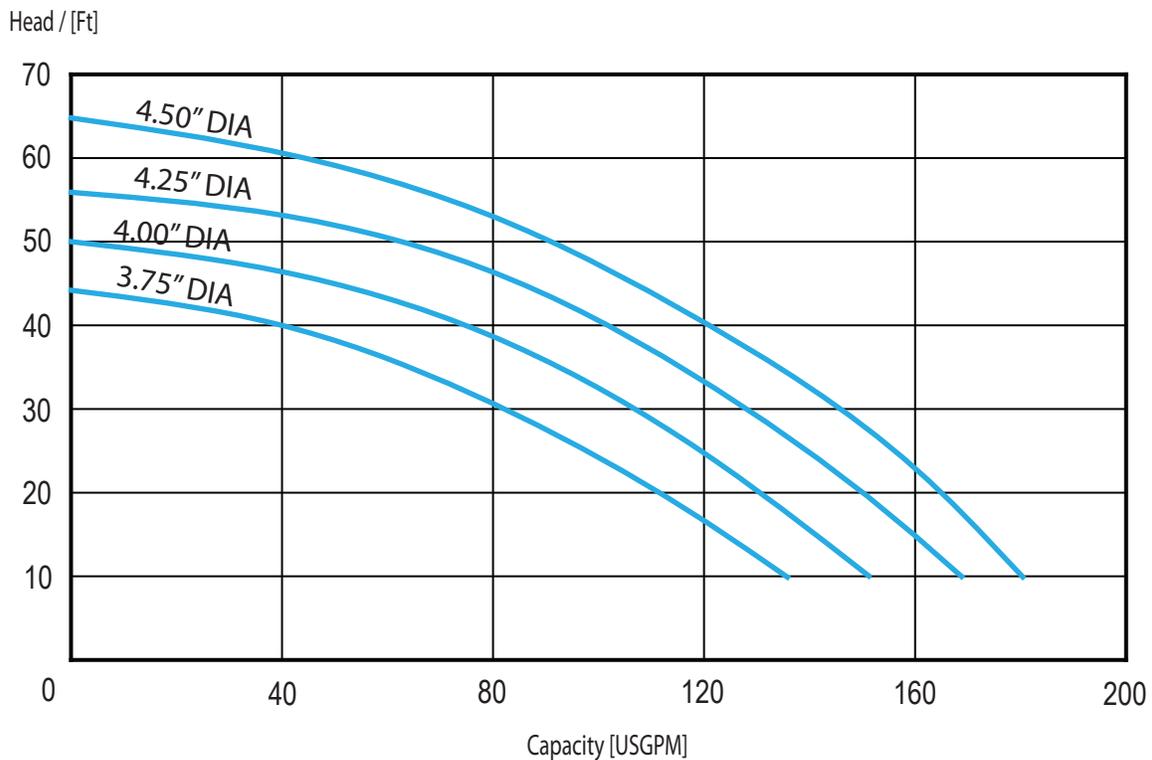
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419.207.9400 fax 419.207.8031  
www.keenpump.com



### 3HP SUBMERSIBLE GRINDER PUMP

<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KG(X)3</b>	HP / Power Supply	3HP / 1 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 208V	37 Amps
Date	03/26/2015	Start Amps 208V	185 Amps
Discharge Flange	2-1/2 & 3" ANSI Horizontal	Full Load Amps 230V	34 Amps
Grinder Ring	25 Slots	Start Amps 230V	170 Amps
Impeller Type / Std. Dia.	Recessed / 4.50"	Poles / Rated Speed	2 P / 3450 rpm
<b>Single Phase</b>	START KIT SK-56-K0173 includes: Start & Run Capacitors, Relay, and Mounting Hardware	Insulation Class	F Class
		Start Capacitor	238 ufd, 330 VAC
		Run Capacitor	40 ufd, 440 VAC

#### PERFORMANCE CURVE



<u>MODEL</u>	<u>HP</u>	<u>Phase</u>	<u>Volts</u>
KG(X)3-2001	3	1	208/230
KG(X)3-2201	3	1	* 220
KG(X)3-2401	3	1	* 240

**\* Voltages Available July 2015**

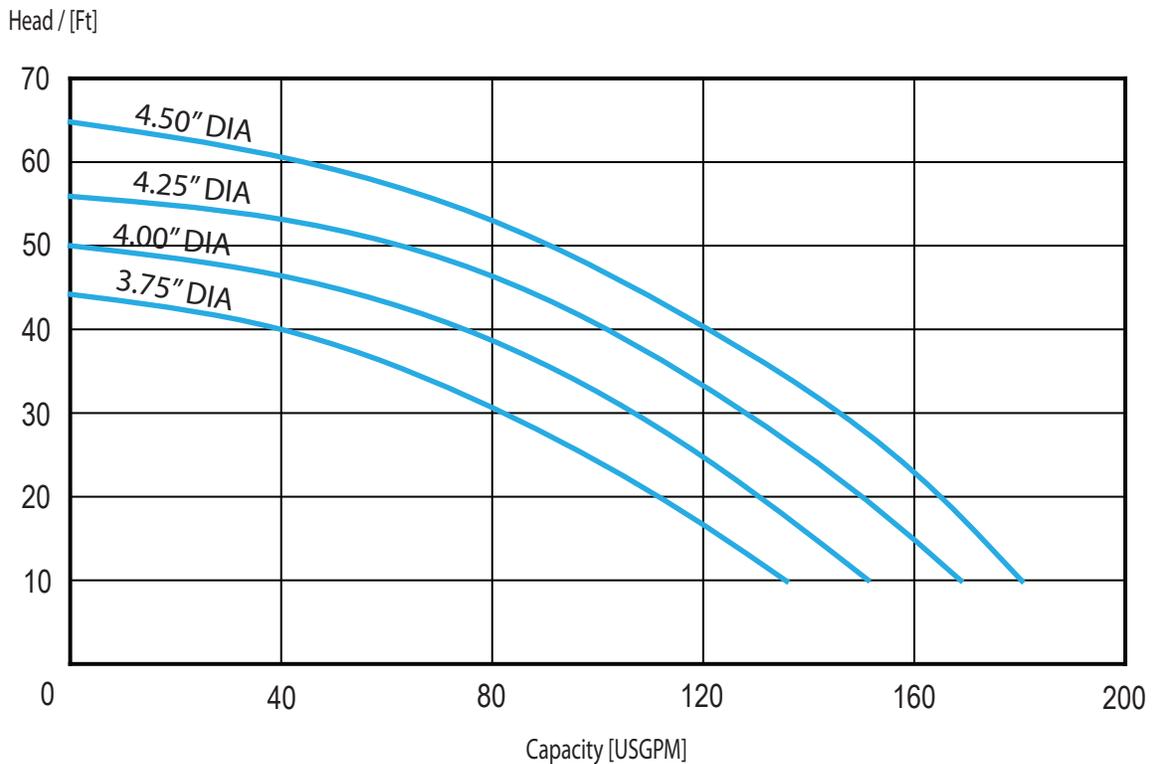
\* Performance with clear water and ambient temp 20°C (68°F)



**3HP SUBMERSIBLE GRINDER PUMP**

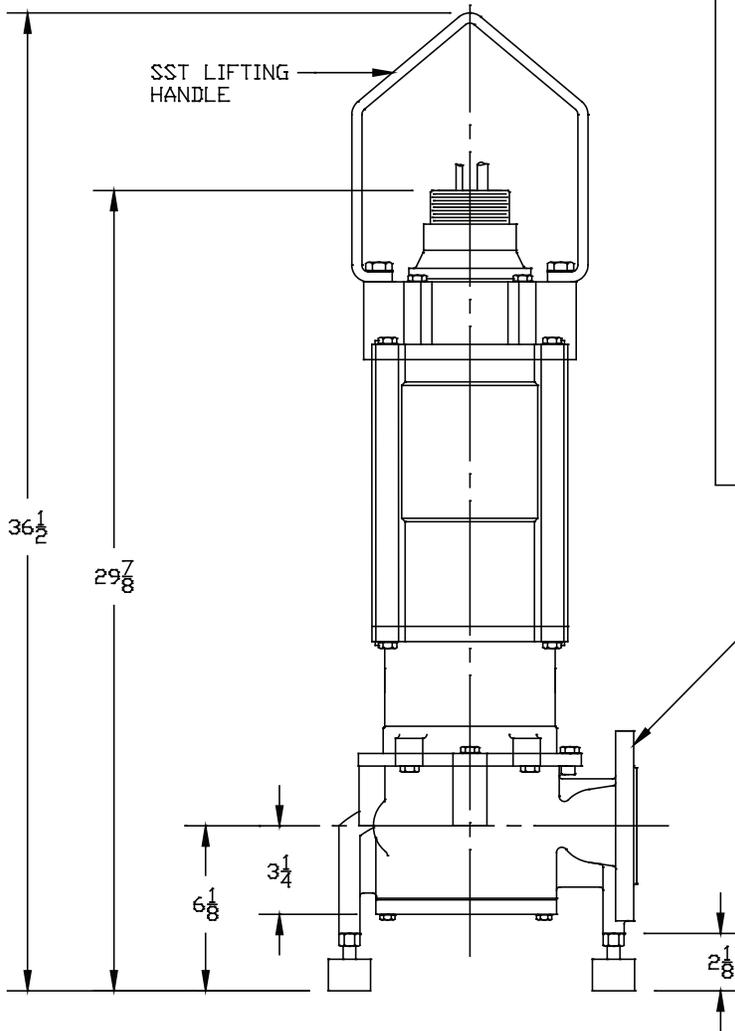
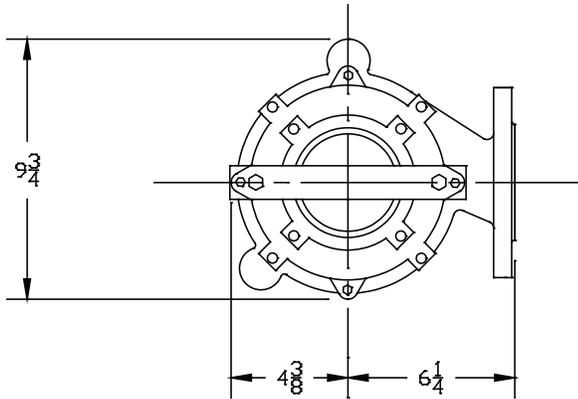
<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KG(X)3</b>	HP / Power Supply	3HP / 3 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 208V	21 Amps
Date	03/26/2015	Start Amps 208V	105 Amps
Discharge Flange	2-1/2 & 3" ANSI Horizontal	Full Load Amps 230V	18 Amps
Grinder Ring	25 Slots	Start Amps 230V	90 Amps
Impeller Type / Std. Dia.	Recessed / 4.50"	Full Load Amps 460V	9 Amps
<b>Three Phase</b>		Start Amps 460V	45 Amps
		Poles / Rated Speed	2 P / 3450 rpm
		Insulation Class	F Class

**PERFORMANCE CURVE**

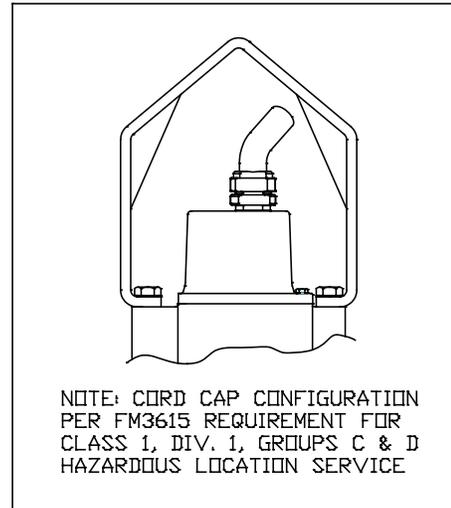


<b><u>MODEL</u></b>	<b><u>HP</u></b>	<b><u>Phase</u></b>	<b><u>Volts</u></b>
KG(X)3-2003	3	3	208
KG(X)3-2303	3	3	230
KG(X)3-4603	3	3	460

\* Performance with clear water and ambient temp 20°C (68°F)

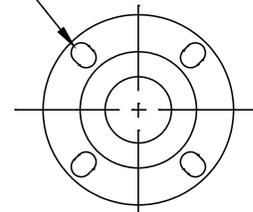


SST LIFTING HANDLE



NOTE: CORD CAP CONFIGURATION PER FM3615 REQUIREMENT FOR CLASS 1, DIV. 1, GROUPS C & D HAZARDOUS LOCATION SERVICE

\* DISCHARGE FLANGE "SLOTS" FOR OPTIONAL 2.5" OR 3" ANSI DISCHARGE, CLASS 125, 4-BOLT



REV 03/26/15

\* PUMP STANDARD HORIZONTAL FLANGE (2 1/2" OR 3" ANSI) STANDARD BASIN PACKAGE DISCHARGE (2" PIPING) ACCEPTABLE WITH MACERATED SEWAGE SLURRY



KEEN PUMP CO.  
471E STATE ROUTE 250 EAST  
ASHLAND, OHIO 44805

PHONE: 419-207-9400  
FAX: 419-207-8031

TITLE		3-7.5HP HIGH FLOW/HIGH HEAD GR. PUMP DIMENSIONS	
SCALE		DWG. #	REV.
NTS		KN-28	A
DWG. BY	DATE		
SE	01/27/2014		

# KG(X)5



## 5HP High Flow Grinder Pump (Class 1, Div. 1, Groups C & D Hazardous Location)

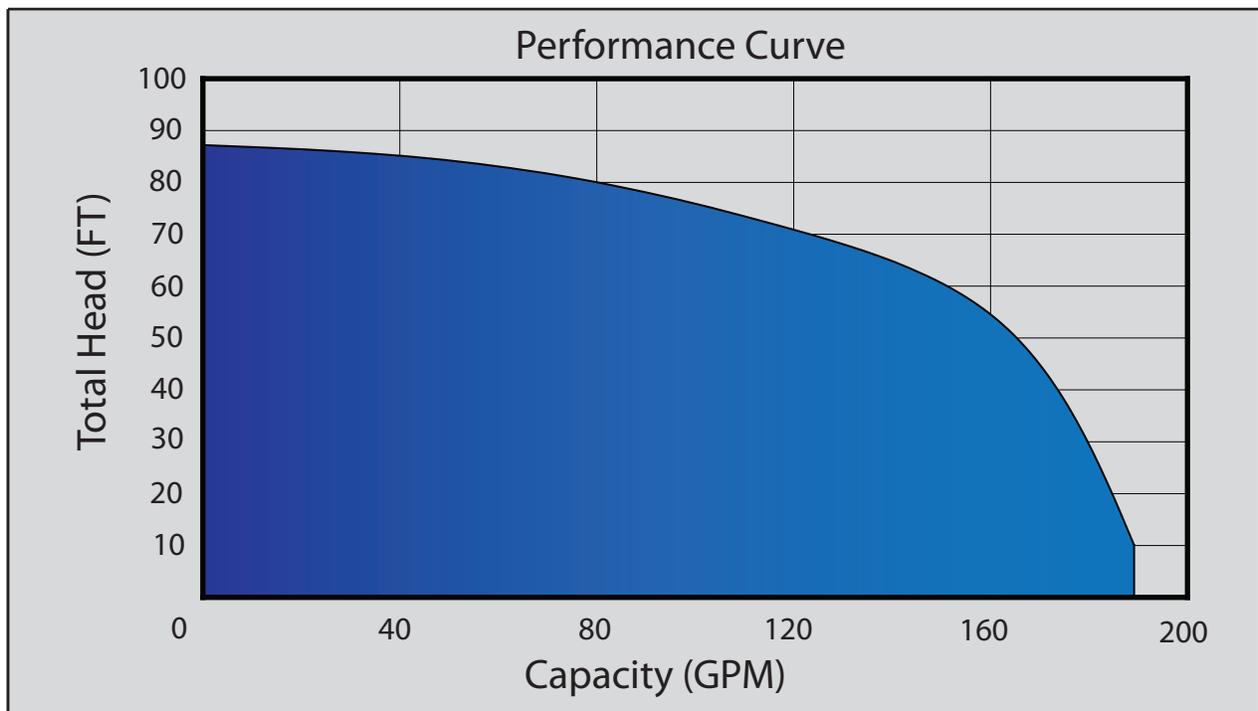


The KEEN PUMP **KG(X)5** series centrifugal grinder pumps easily handle residential, commercial or industrial sanitary waste, reducing it to a fine slurry. The **KG(X)5** pump is designed for use in pressure sewer applications or any piping network.

The recessed vortex impeller design of the **KG(X)5** grinder pump provides trouble-free, non-overloading operation over the entire performance curve. The modular design provides quick and easy serviceability. The hardened stainless steel grinder assembly provides many years of dependable operation.

The **KG(X)5** series pump features:

- Interchangeable into Competitor Installations
- Dual Silicon-Carbide Mechanical Shaft Seals
- Pressed-In Motor with Internal Overload Protection
- 3-Bearing Shaft Support (Upper / Lower / Sleeve)
- Internal Moisture Detection
- Strong Motor, 1-Phase (208/230) Volt or 3-Phase (208/230/460) V



## Features and Benefits

### 1. Watertight Cable Entrance

Agency-approved, watertight strain relief cord grip with compression grommet protects outer cord jacket (**FM Explosion-Proof**) or Heavy-duty molded compression grommet 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.

### 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 30 cast iron components.

### 3. Strong Motor

Powerful high-torque motor for reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil-filled chamber for cool operation and long motor life.

### 4. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus additional sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

### 5. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture 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.

### 6. Moisture Detection

Dual Seal leak probe signals alarm in control panel for scheduled maintenance.

### 7. Non-Overloading Hydraulic Design

The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

### 8. Proven Grinder Assembly

Hardened (Rockwell 56-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 17,250 cuts/second.

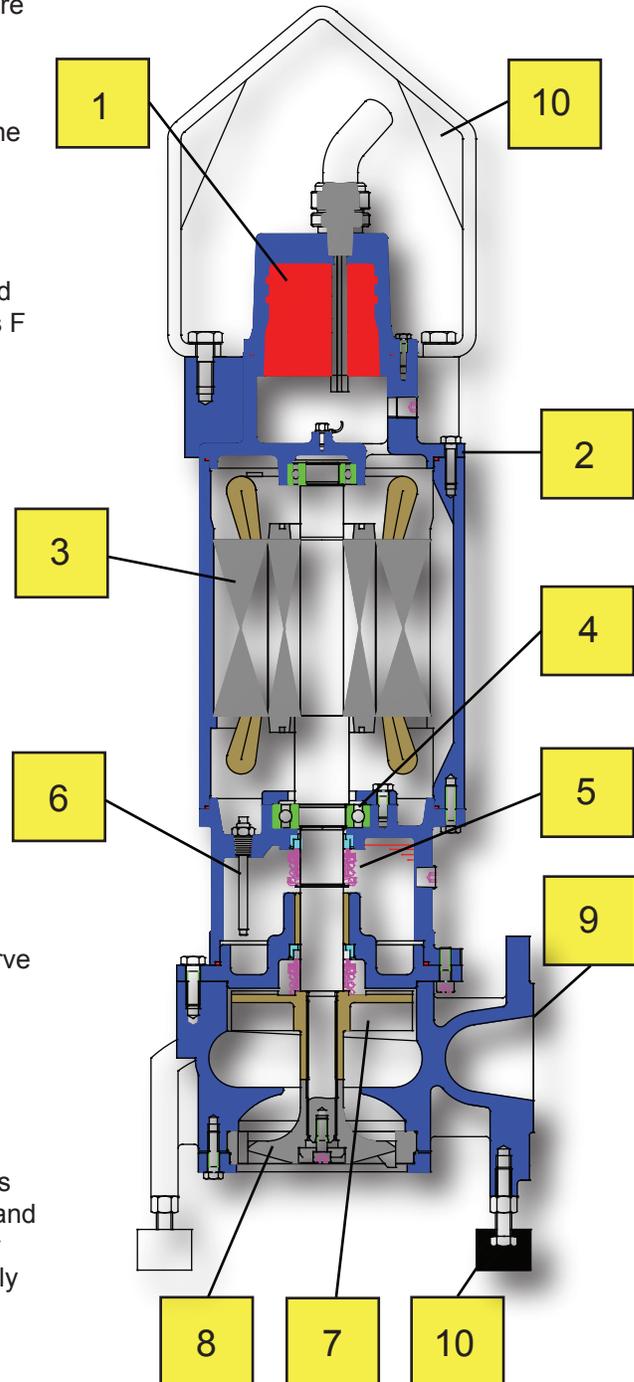
### 9. Versatile Flange Connection

Combination 2-1/2" and 3" horizontal flange. Industry-standard ANSI Class 125 dimensions.

### 10. Accessories

Stainless steel lifting handle included. Anti-vibration rubber mounting feet **OPTIONAL**.

## 5HP Grinder Pump High Flow KG(X)5



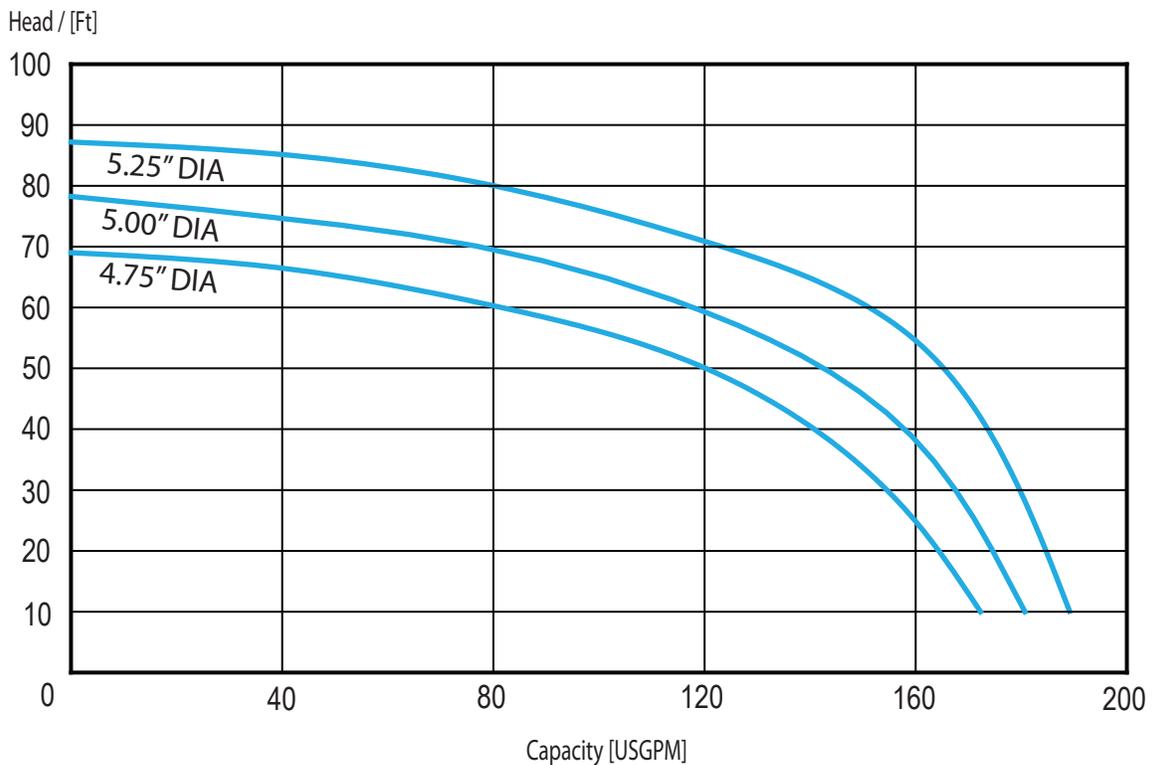
471E State Route 250 East · Ashland, Ohio 44805  
419.207.9400 fax 419.207.8031  
www.keenpump.com



**5HP SUBMERSIBLE GRINDER PUMP**

<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KG(X)5</b>	HP / Power Supply	5HP / 1 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 208V	44 Amps
Date	03/26/2015	Start Amps 208V	220 Amps
Discharge Flange	2-1/2 & 3" ANSI Horizontal	Full Load Amps 230V	40 Amps
Grinder Ring	25 Slots	Start Amps 230V	200 Amps
Impeller Type / Std. Dia.	Recessed / 5.25"	Poles / Rated Speed	2 P / 3450 rpm
<b>Single Phase</b>	START KIT SK-56-K0173 includes: Start & Run Capacitors, Relay, and Mounting Hardware	Insulation Class	F Class
		Start Capacitor	238 ufd, 330 VAC
		Run Capacitor	40 ufd, 440 VAC

**PERFORMANCE CURVE**



<b><i>MODEL</i></b>	<b><i>HP</i></b>	<b><i>Phase</i></b>	<b><i>Volts</i></b>
KG(X)5-2001	5	1	208/230
KG(X)5-2201	5	1	* 220
KG(X)5-2401	5	1	* 240

***\* Voltages Available July 2015***

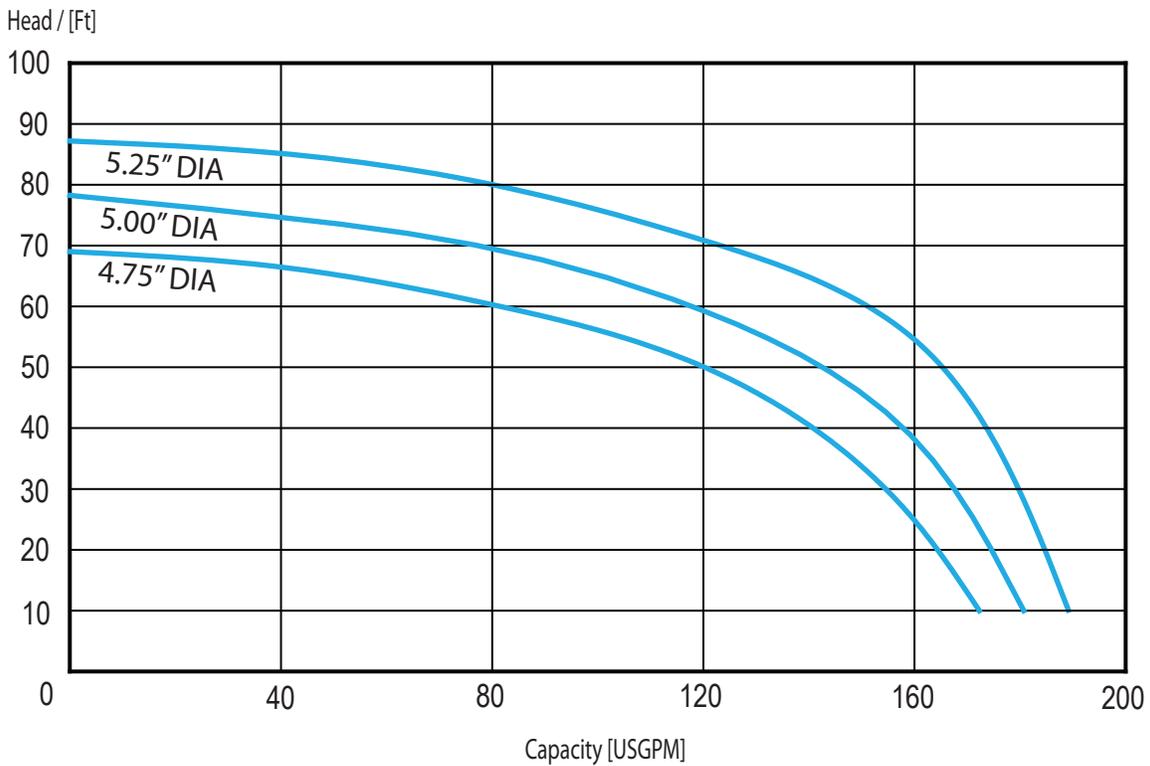
\* Performance with clear water and ambient temp 20°C (68°F)



**5HP SUBMERSIBLE GRINDER PUMP**

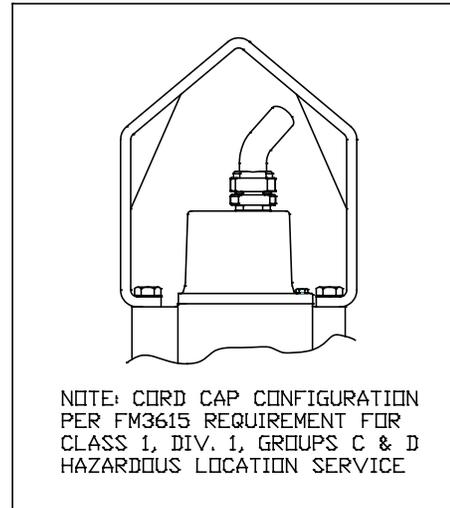
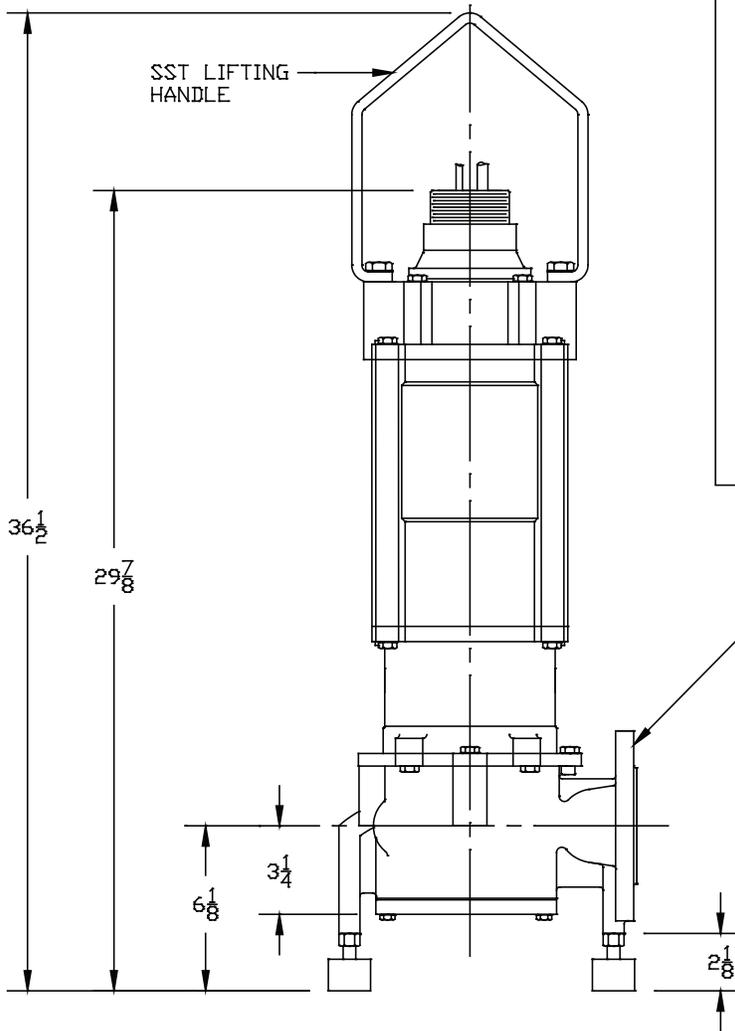
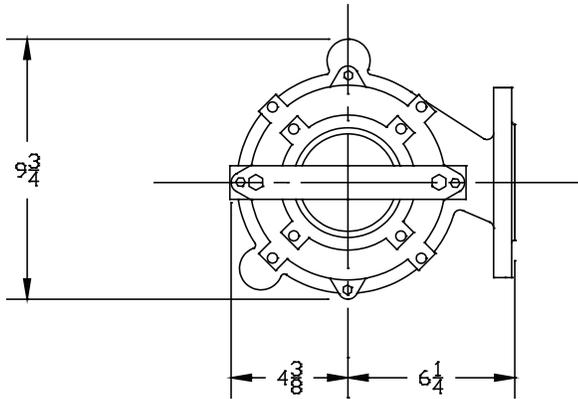
GENERAL		MOTOR DATA	
Pump Model	<b>KG(X)5</b>	HP / Power Supply	3HP / 5 $\phi$ , 60 Hz
PUMP DATA		Full Load Amps 208V	29 Amps
Date	03/26/2015	Start Amps 208V	145 Amps
Discharge Flange	2-1/2 & 3" ANSI Horizontal	Full Load Amps 230V	25 Amps
Grinder Ring	25 Slots	Start Amps 230V	125 Amps
Impeller Type / Std. Dia.	Recessed / 5.25"	Full Load Amps 460V	13 Amps
<b>Three Phase</b>		Start Amps 460V	65 Amps
		Poles / Rated Speed	2 P / 3450 rpm
		Insulation Class	F Class

**PERFORMANCE CURVE**

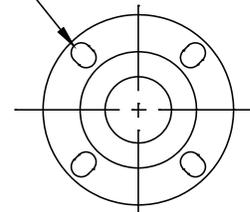


<u>MODEL</u>	<u>HP</u>	<u>Phase</u>	<u>Volts</u>
KG(X)5-2003	5	3	208
KG(X)5-2303	5	3	230
KG(X)5-4603	5	3	460

\* Performance with clear water and ambient temp 20°C (68°F)



\* DISCHARGE FLANGE "SLOTS" FOR OPTIONAL 2.5" OR 3" ANSI DISCHARGE, CLASS 125, 4-BOLT



REV 03/26/15

\* PUMP STANDARD HORIZONTAL FLANGE (2 1/2" OR 3" ANSI) STANDARD BASIN PACKAGE DISCHARGE (2" PIPING) ACCEPTABLE WITH MACERATED SEWAGE SLURRY



KEEN PUMP CO.  
471E STATE ROUTE 250 EAST  
ASHLAND, OHIO 44805

PHONE: 419-207-9400  
FAX: 419-207-8031

TITLE		3-7.5HP HIGH FLOW/HIGH HEAD GR. PUMP DIMENSIONS	
SCALE		DWG. #	REV.
NTS		KN-28	A
DWG. BY	DATE		
SE	01/27/2014		

# KHG(X)2-C



## 2HP Dual Seal Grinder Pump, Internal Start Kit, High Head (Class 1, Div. 1, Groups C & D Hazardous Location)



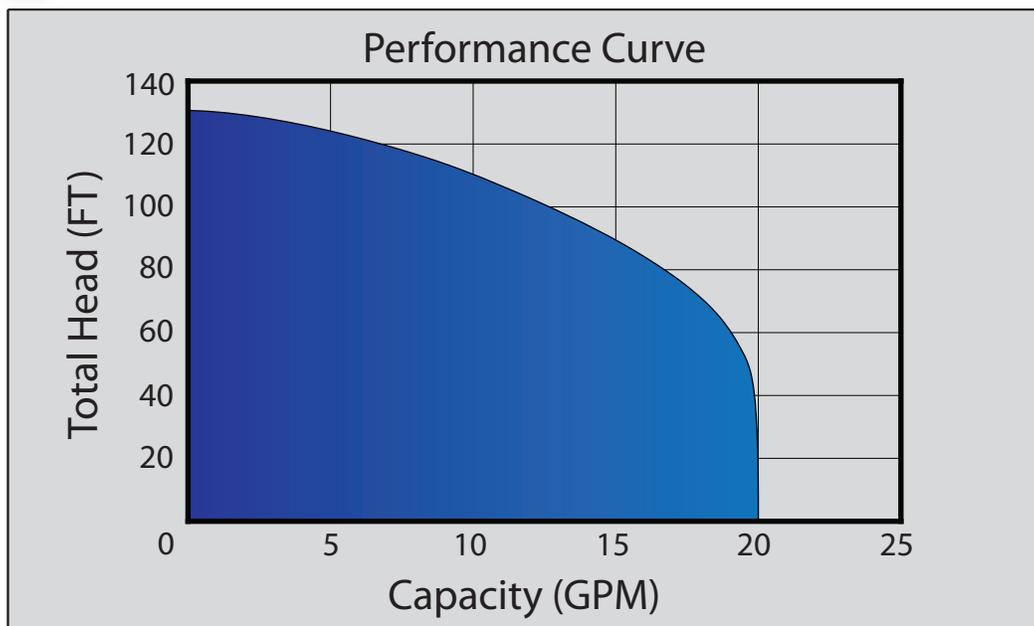
The KEEN PUMP **KHG2-C** series centrifugal grinder pumps easily handle residential, light commercial or industrial sanitary waste, reducing it to fine slurry. The **KHG2-C** pump is designed for use in pressure sewer applications or any piping network.

The recessed vortex impeller design of the **KHG2-C** grinder pump provides trouble free, non-overloading operation over the entire performance curve. The **KHG2-C** pump produces capacities to 20 gpm with heads to 130 feet.

The modular design provides quick access to the internal start capacitor kit. Hardened stainless steel grinder assembly and many quality features:

The **KHG2-C** series pump features:

- Strong, 2HP, 208, 230 or 240 Volt Motor
- Internal Start Components (No control box req'd)
- Potted Cord Cap Assembly
- Dual Silicon-Carbide Shaft Seals
- 3 Bearings
- Pressed-In Motor



## Features and Benefits

### 1. Watertight Cable Entrance

Agency-approved, watertight strain relief cord grip with compression grommet 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.

### 2. Internal Start Kit

Start/Run capacitor with relay securely positioned in dry compartment. Rubber compression grommet for wire leads to motor prevents oil from entering chamber. 4 bolts quickly removes cord cap for easy servicing.

### 3. Modular Pump Design

Commonality of parts across the Keen product line minimizes the amount of parts required for servicing. Heavy-duty ASTM A48, Class 30 cast iron components.

### 4. Strong Motor

Powerful high-torque motor for reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil-filled chamber for cool operation and long motor life.

### 5. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus additional sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

### 6. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture 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.

### 7. Non-Overloading Hydraulic Design

The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

### 8. Proven Grinder Assembly

Hardened (Rockwell 56-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 7,400 cuts/second.

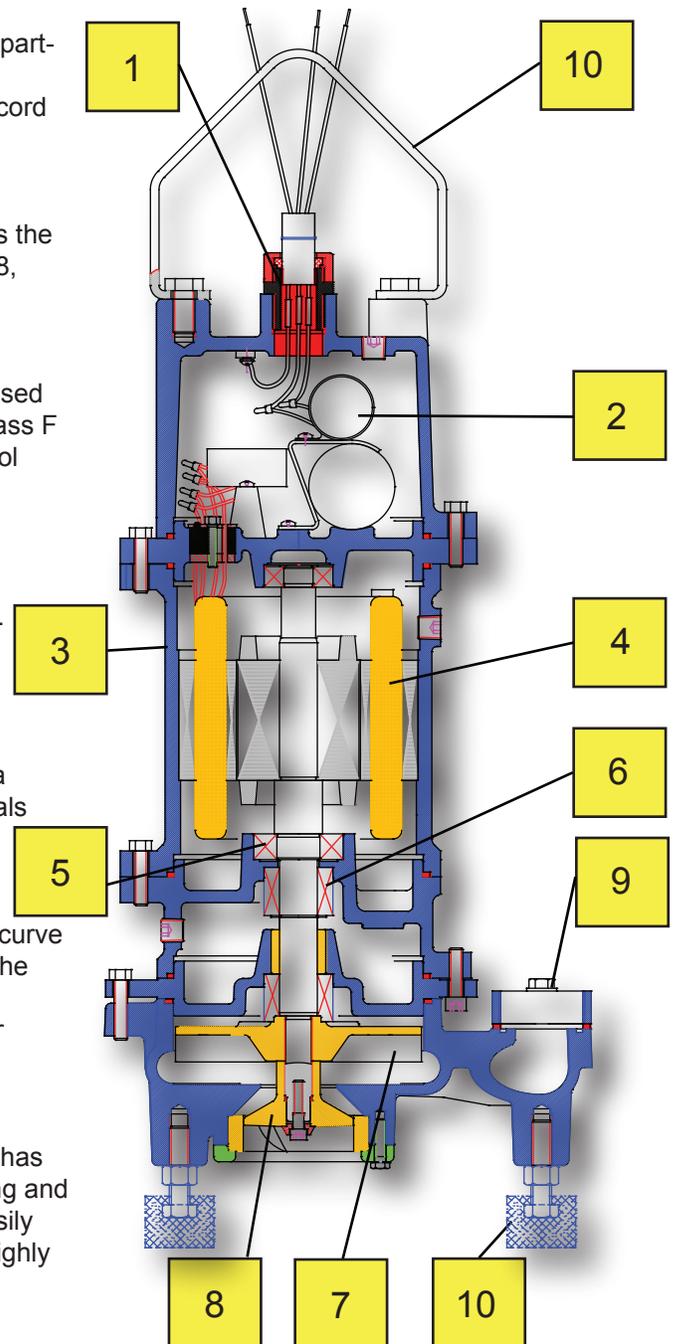
### 9. Easy Piping Connection

Removable 1-1/4"NPT connection flange for simple and easy connection to discharge piping.

### 10. Accessories

Stainless steel lifting handle included. Anti-Vibration mounting feet **OPTIONAL**.

## 2HP Grinder Pump Dual Seal KHG(X)2-C



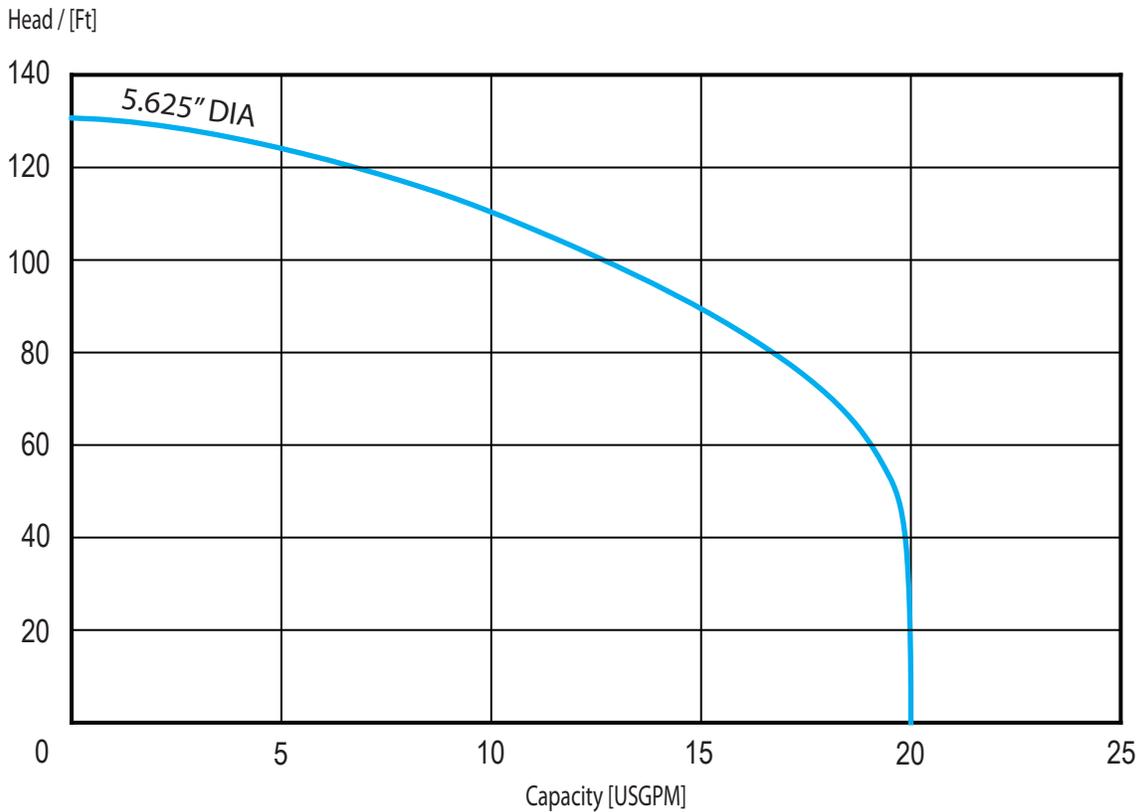
471E State Route 250 East · Ashland, Ohio 44805  
419.207.9400 fax 419.207.8031  
www.keenpump.com



**2HP SUBMERSIBLE GRINDER PUMP**

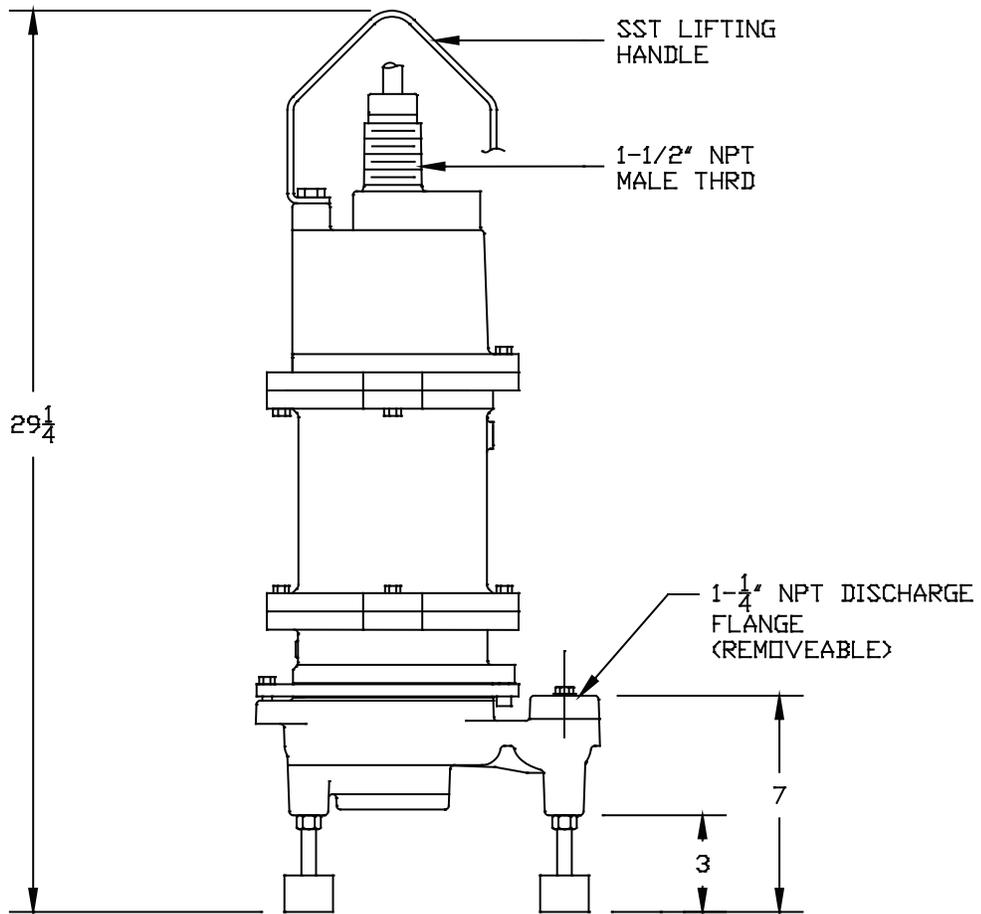
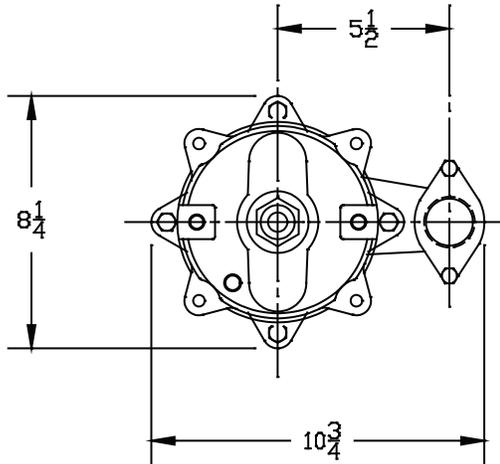
GENERAL		MOTOR DATA	
Pump Model	<b>KHG(X)2-C</b>	HP / Power Supply	2HP / 1 $\phi$ , 60 Hz
PUMP DATA		Full Load Amps 208V	15.5 Amps
Date	03/24/2015	Start Amps 208V	54 Amps
Discharge Flange	1-1/4" NPT, Vertical	Full Load Amps 230V	12.8 Amps
Grinder Ring	8 Slots	Start Amps 230V	45 Amps
Impeller Type / Std. Dia.	Recessed/ 5.625" Dia.	Start/Run Amps 240V	
START KIT SK-2A includes: Start & Run Capacitors, Relay, and Mounting Hardware		Poles / Rated Speed	2 P / 3450 rpm
		Insulation Class	F Class
		Start Capacitor	216 ufd, 250 VAC
		Run Capacitor	20 ufd, 370 VAC

**PERFORMANCE CURVE**



<b>MODEL</b>	<b>HP</b>	<b>Phase</b>	<b>Volts</b>
KHG(X)2-2001C	2	1	208
KHG(X)2-2301C	2	1	230
KHG(X)2-2401C	2	1	240

\* Performance with clear water and ambient temp 20°C (68°F)



REV. 02/18/2015

 <b>KEEN PUMP CO.</b> 471E ST ROUTE 250 EAST ASHLAND, OHIO 44805		PHONE: 419-207-9400 FAX: 419-207-8031	
<b>TITLE</b> KCF/HXGX 2HP GRINDER PUMP DIMENSIONS			
<b>SCALE</b> NTS		<b>DWG. #</b> KN-19	
<b>DWG. BY</b> SE		<b>DATE</b> 10/02/12	
			<b>REV.</b> A

# KHG(X)2



## 2HP High Head Grinder Pump, 1 or 3 Phase (Class 1, Div. 1, Groups C & D Hazardous Location)



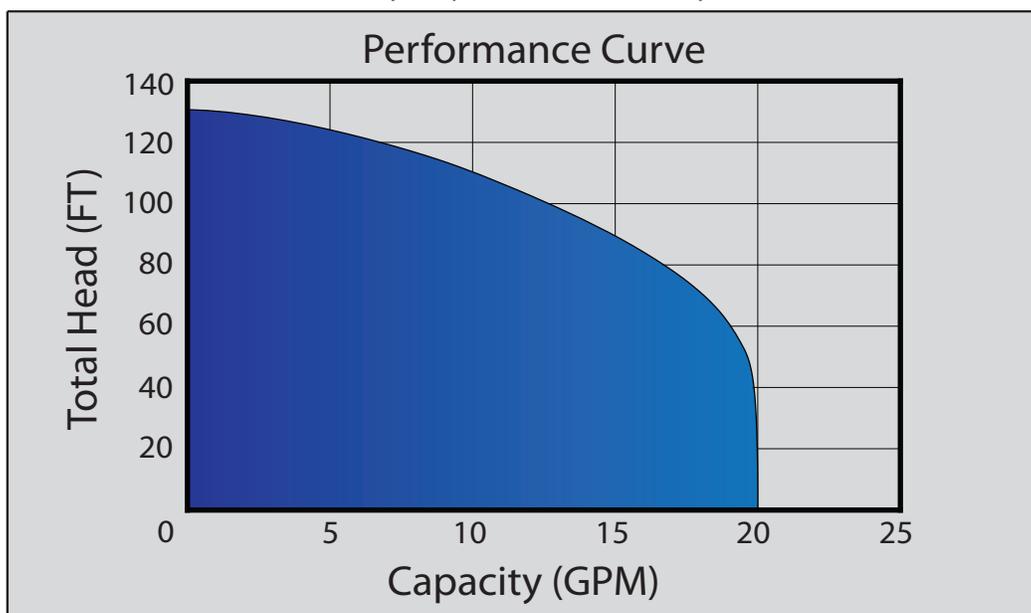
The KEEN PUMP **KHG(X)2** series centrifugal grinder pumps easily handle residential, light commercial or industrial sanitary waste, reducing it to a fine slurry. The **KHG(X)2** pump is designed for use in pressure sewer applications or any piping network.

The **KHG(X)2** grinder pump retrofits into many existing competitor pump installations. The **KHG(X)2** pump operates with the same control panel and installation piping / rail system.

The recessed vortex impeller design of the **KHG(X)2** grinder pump provides trouble-free, non-overloading operation over the entire performance curve. The **KHG(X)2** pump produces capacities to 20 gpm with heads to 130 feet.

The **KHG(X)2** series pump features:

- Interchangeable into Competitor Installations
- Dual Silicon-Carbide Shaft Seals
- Pressed-In Motor with Internal Overload Protection
- 3-Bearing Shaft Support
- Internal Moisture Detection
- Strong 2hp Motor, 1 Phase (208, 230 or 240 Volt)
- 3 Phase Motor (208, 230 or 460 Volt)



## Features and Benefits

### 1. Watertight Cable Entrance

Agency-approved strain relief cord grip with compression grommet 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.

### 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 30 cast iron components.

### 3. Strong Motor

Powerful high-torque motor for reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil-filled chamber for cool operation and long motor life.

### 4. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus additional sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

### 5. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture 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.

### 6. Moisture Detection

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

### 7. Non-Overloading Hydraulic Design

The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

### 8. Proven Grinder Assembly

Hardened (Rockwell 56-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 7,400 cuts/second.

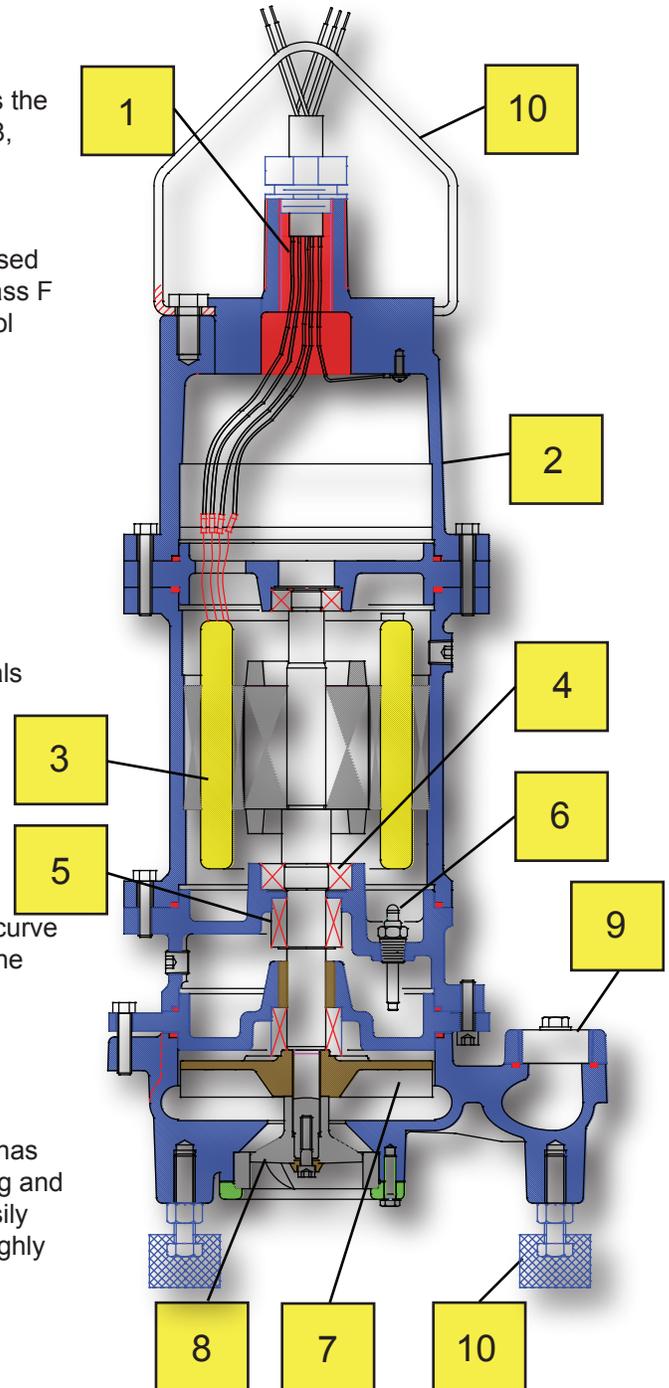
### 9. Easy Piping Connection

Removable 1-1/4" NPT connection flange for simple and easy connection to discharge piping.

### 10. Accessories

Stainless steel lifting handle included. Anti-Vibration mounting feet **OPTIONAL**.

## 2HP Grinder Pump Dual Seal KHG(X)2



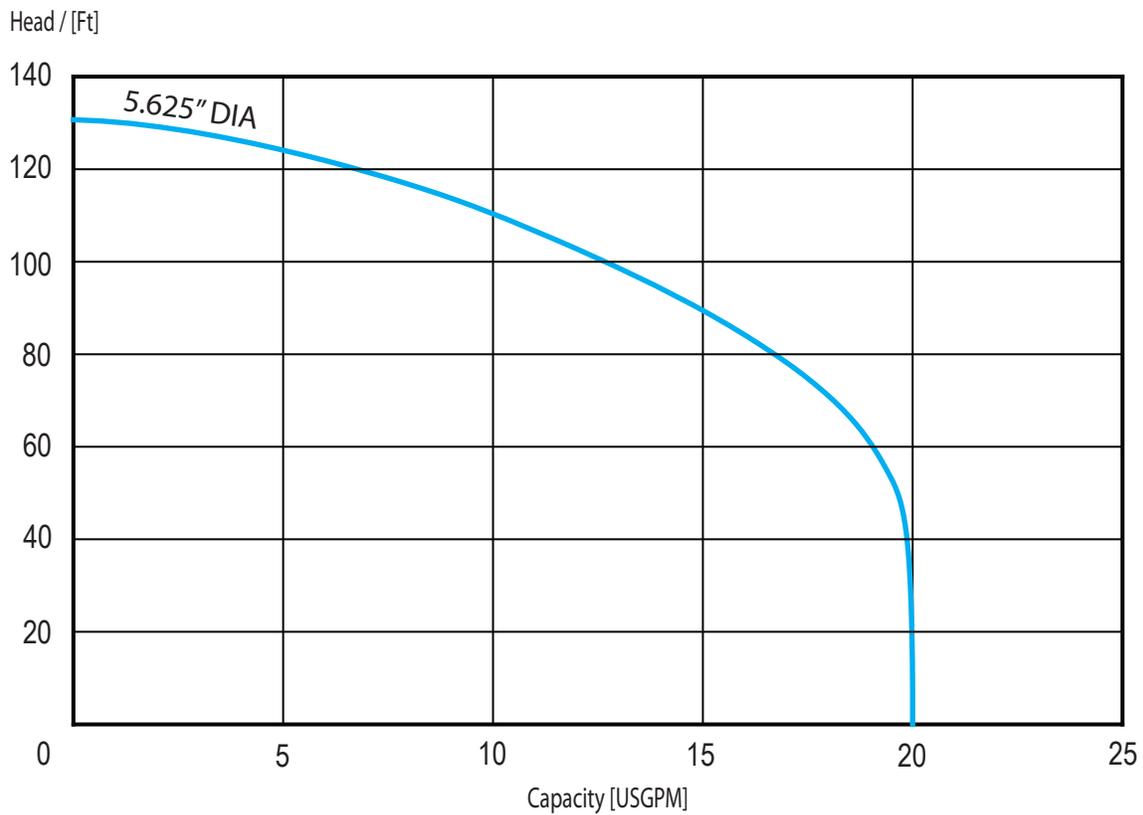
471E State Route 250 East · Ashland, Ohio 44805  
419.207.9400 fax 419.207.8031  
www.keenpump.com



**2HP SUBMERSIBLE GRINDER PUMP**

<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KHG(X)2</b>	HP / Power Supply	2HP / 1 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 208V	15.5 Amps
Date	03/26/2015	Start Amps 208V	54 Amps
Discharge Flange	1-1/4" NPT, Vertical	Full Load Amps 230V	12.8 Amps
Grinder Ring	8 Slots	Start Amps 230V	45 Amps
Impeller Type / Std. Dia.	Recessed/ 5.625" Dia.	Start / Run Amps 240V	
<b>Single Phase</b>	START KIT SK-2A includes: Start & Run Capacitors, Relay, and Mounting Hardware	Poles / Rated Speed	2 P / 3450 rpm
		Insulation Class	F Class
		Start Capacitor	216 ufd, 250 VAC
		Run Capacitor	20 ufd, 370 VAC

**PERFORMANCE CURVE**



<b>MODEL</b>	<b>HP</b>	<b>Phase</b>	<b>Volts</b>
KHG(X)2-2001	2	1	208
KHG(X)2-2301	2	1	230
KHG(X)2-2401	2	1	240

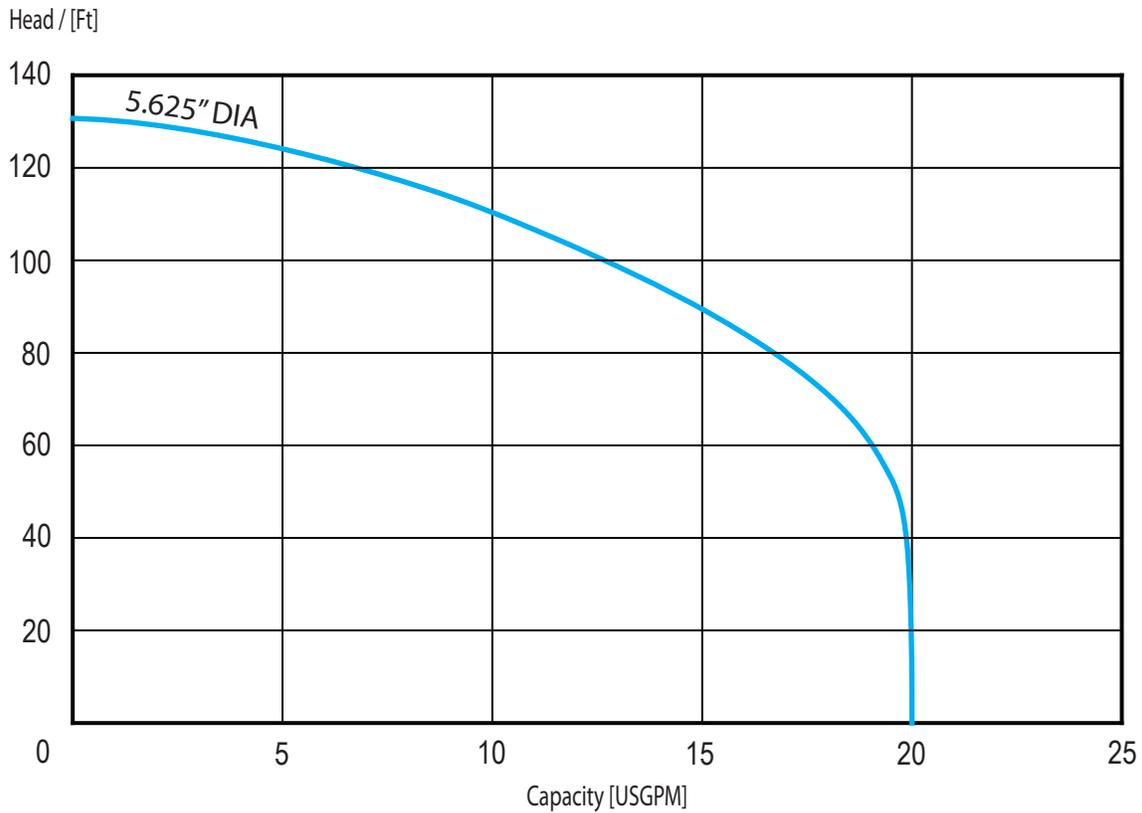
\* Performance with clear water and ambient temp 20°C (68°F)



**2HP SUBMERSIBLE GRINDER PUMP**

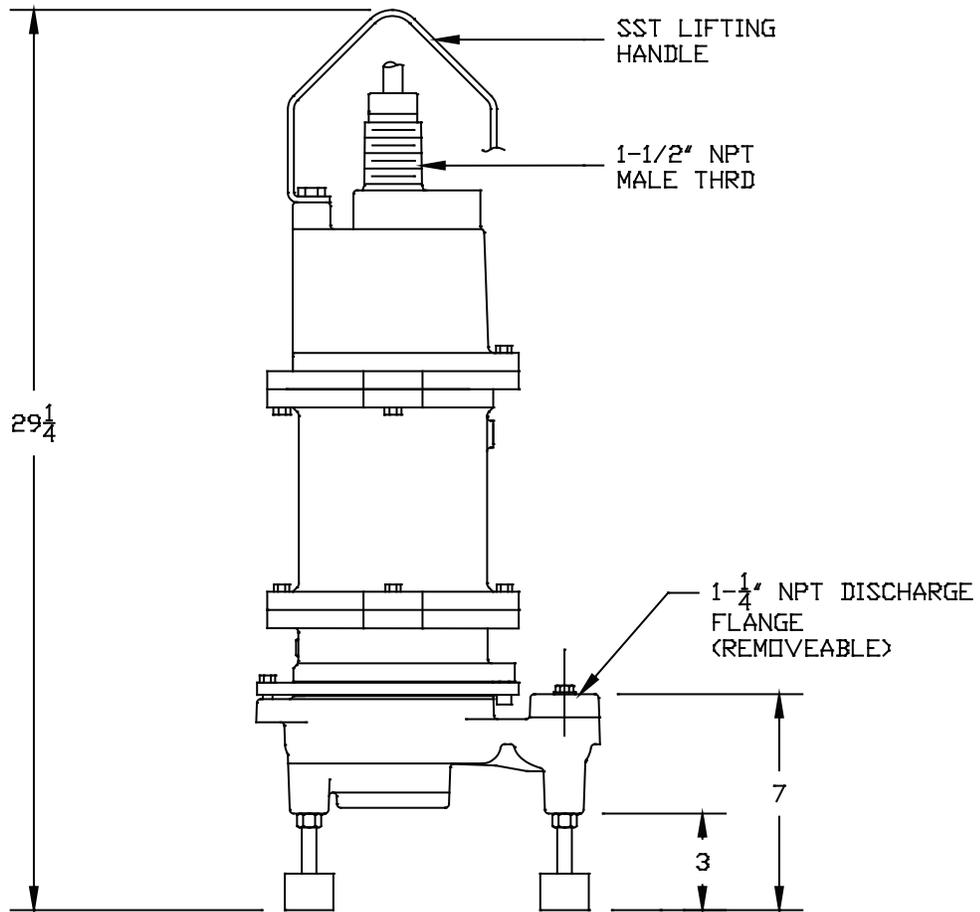
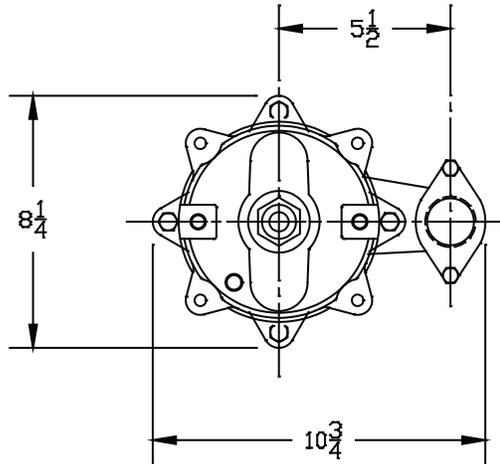
<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KHG(X)2</b>	HP / Power Supply	2HP / 3 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 208V	10 Amps
Date	03/26/2015	Start Amps 208V	33 Amps
Discharge Flange	1-1/4" NPT, Vertical	Full Load Amps 230V	9 Amps
Grinder Ring	8 Slots	Start Amps 230V	31 Amps
Impeller Type / Std. Dia.	Recessed/ 5.625" Dia.	Full Load Amps 460V	4.5 Amps
<b>Three Phase</b>		Start Amps 460V	15 Amps
		Poles / Rated Speed	2 P / 3450 rpm
		Insulation Class	F Class

**PERFORMANCE CURVE**



<b><u>MODEL</u></b>	<b><u>HP</u></b>	<b><u>Phase</u></b>	<b><u>Volts</u></b>
KHG(X)2-2003	2	3	208
KHG(X)2-2303	2	3	230
KHG(X)2-4603	2	3	460

\* Performance with clear water and ambient temp 20°C (68°F)



REV. 02/18/2015

 <b>KEEN PUMP CO.</b> 471E ST ROUTE 250 EAST ASHLAND, OHIO 44805		PHONE: 419-207-9400 FAX: 419-207-8031
<b>TITLE</b> KCF/H)GX 2HP GRINDER PUMP DIMENSIONS		
<b>SCALE</b> NTS		<b>DWG. #</b> KN-19
<b>DWG. BY</b> SE	<b>DATE</b> 10/02/12	<b>REV.</b> A

# KHG(X)3



## 3HP High Head Grinder Pump, 1 or 3 Phase (Class 1, Div. 1, Groups C & D Hazardous Location)

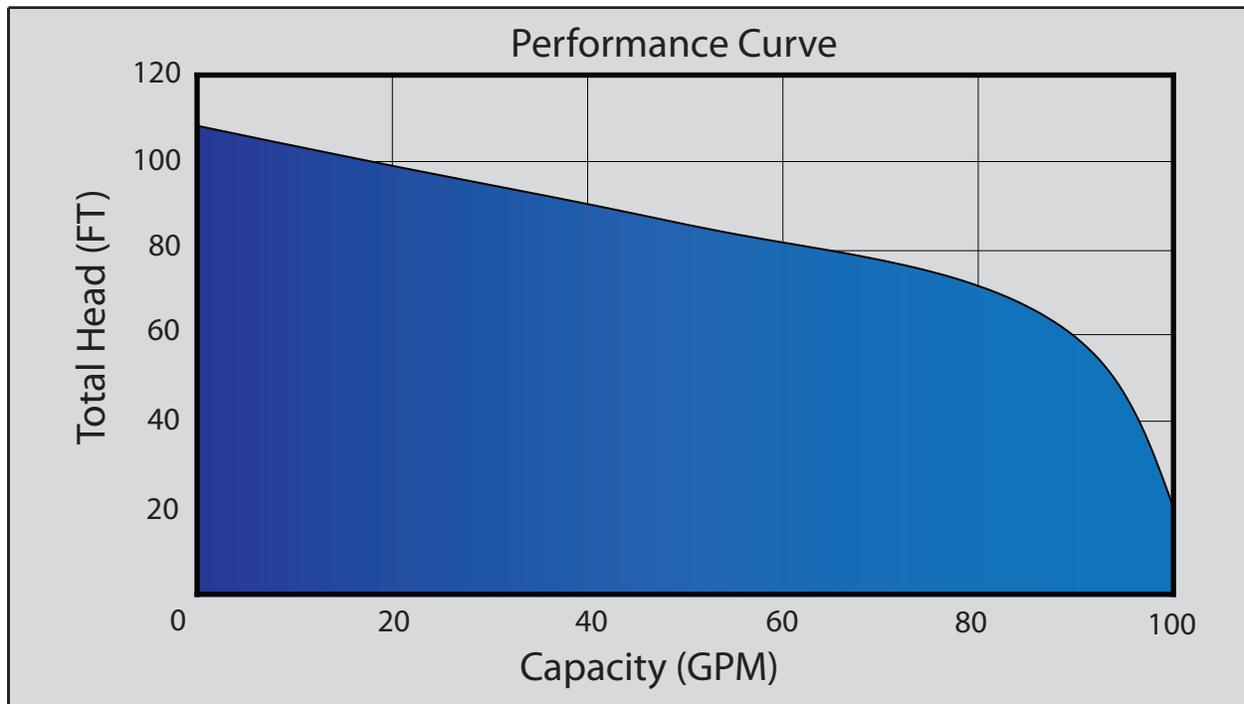


The KEEN PUMP **KHG(X)3** series centrifugal grinder pumps easily handle residential, commercial or industrial sanitary waste, reducing it to a fine slurry. The **KHG(X)3** pump is designed for use in pressure sewer applications or any piping network.

The recessed vortex impeller design of the **KHG(X)3** grinder pump provides trouble-free, non-overloading operation over the entire performance curve. The modular design provides quick and easy serviceability. The hardened stainless steel grinder assembly provides many years of dependable operation.

The **KHG(X)3** series pump features:

- Interchangeable into Competitor Installations
- Dual Silicon-Carbide Mechanical Shaft Seals
- Pressed-In Motor with Internal Overload Protection
- 3-Bearing Shaft Support (Upper / Lower / Sleeve)
- Internal Moisture Detection
- Strong Motor, 1-Phase (208/230) Volt or 3-Phase (208/230/460) V



## Features and Benefits

### 1. Watertight Cable Entrance

Agency-approved, watertight strain relief cord grip with compression grommet protects outer cord jacket (**FM Explosion-Proof**) or Heavy-duty molded compression grommet 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.

### 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 30 cast iron components.

### 3. Strong Motor

Powerful high-torque motor for reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil-filled chamber for cool operation and long motor life.

### 4. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus additional sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

### 5. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture 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.

### 6. Moisture Detection

Dual Seal leak probe signals alarm in control panel for scheduled maintenance.

### 7. Non-Overloading Hydraulic Design

The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

### 8. Proven Grinder Assembly

Hardened (Rockwell 56-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 12,400 cuts/second.

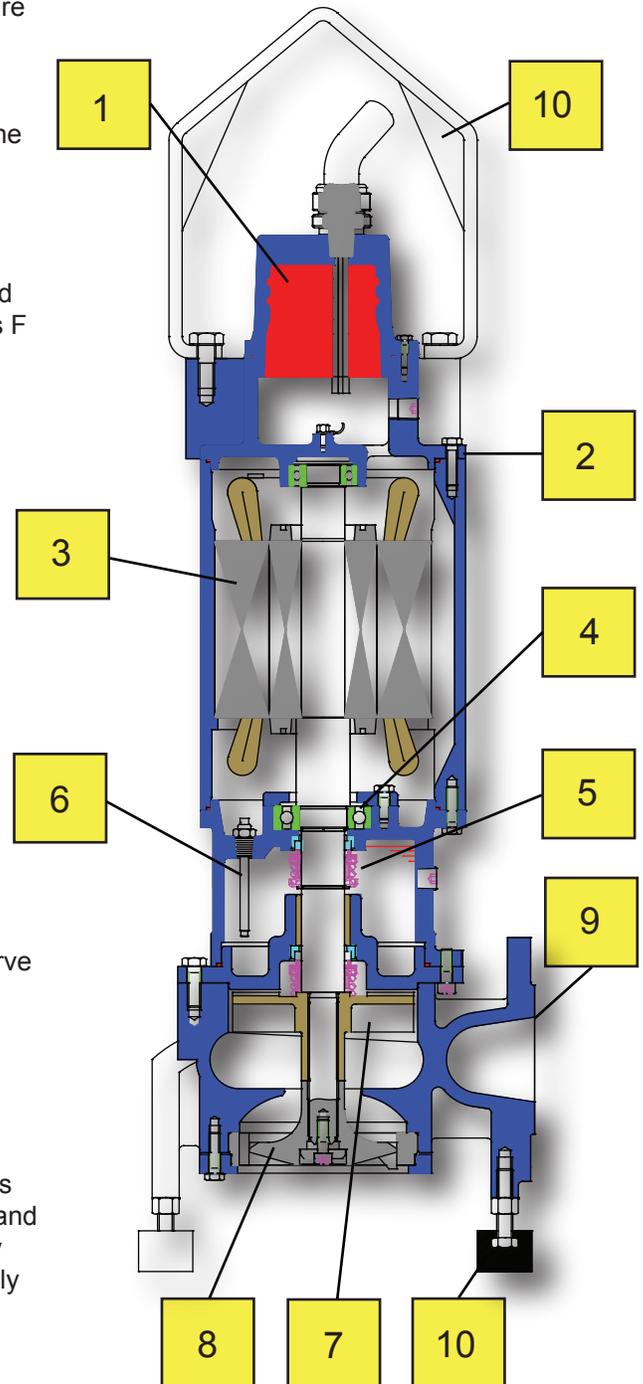
### 9. Versatile Flange Connection

Combination 2-1/2" and 3" horizontal flange. Industry-standard ANSI Class 125 dimensions.

### 10. Accessories

Stainless steel lifting handle included. Anti-vibration rubber mounting feet **OPTIONAL**.

## 3HP Grinder Pump High Head KHG(X)3



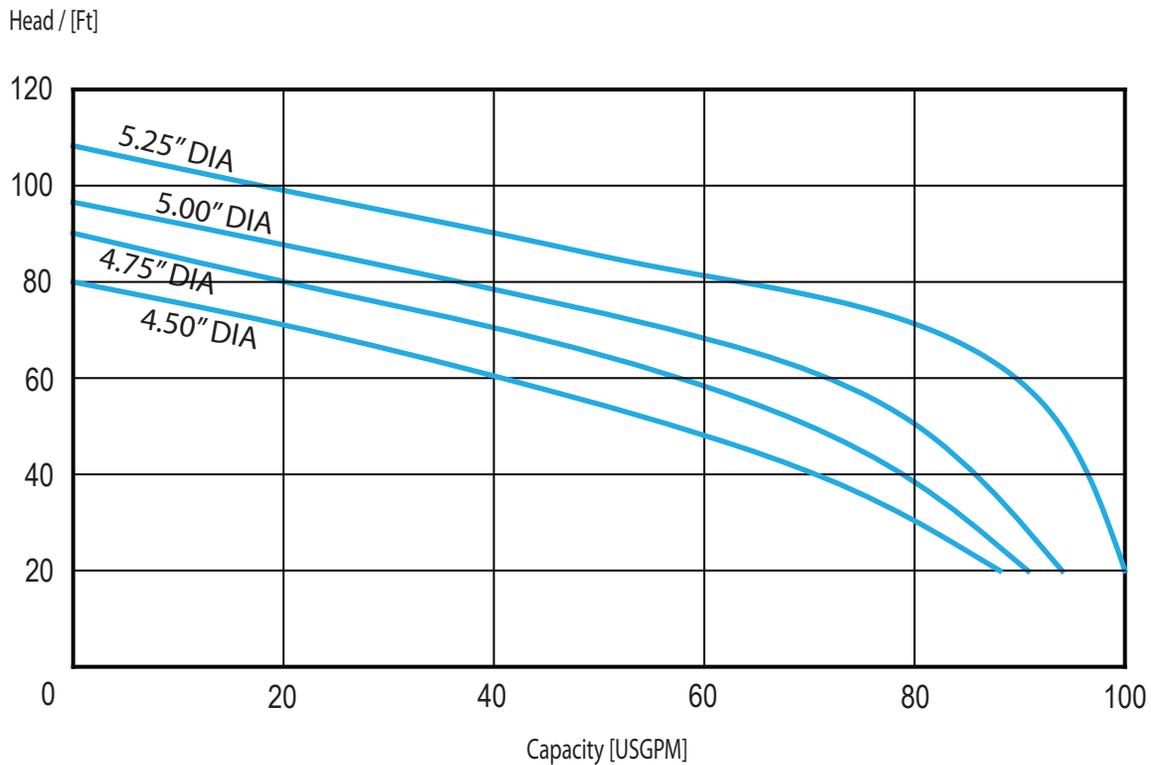
471E State Route 250 East · Ashland, Ohio 44805  
419.207.9400 fax 419.207.8031  
www.keenpump.com



### 3HP SUBMERSIBLE GRINDER PUMP

GENERAL		MOTOR DATA	
Pump Model	<b>KHG(X)3</b>	HP / Power Supply	3HP / 1 $\phi$ , 60 Hz
PUMP DATA		Full Load Amps 208V	27 Amps
Date	03/26/2015	Start Amps 208V	135 Amps
Discharge Flange	2-1/2 & 3" ANSI Horizontal	Full Load Amps 230V	25 Amps
Grinder Ring	25 Slots	Start Amps 230V	125 Amps
Impeller Type / Std. Dia.	Recessed / 5.25"	Poles / Rated Speed	2 P / 3450 rpm
<b>Single Phase</b>	START KIT SK-56-K0173 includes: Start & Run Capacitors, Relay, and Mounting Hardware	Insulation Class	F Class
		Start Capacitor	238 ufd, 330 VAC
		Run Capacitor	40 ufd, 440 VAC

#### PERFORMANCE CURVE



<u>MODEL</u>	<u>HP</u>	<u>Phase</u>	<u>Volts</u>
KHG(X)3-2001	3	1	208/230
KHG(X)3-2201	3	1	* 220
KHG(X)3-2401	3	1	* 240

**\* Voltages Available July 2015**

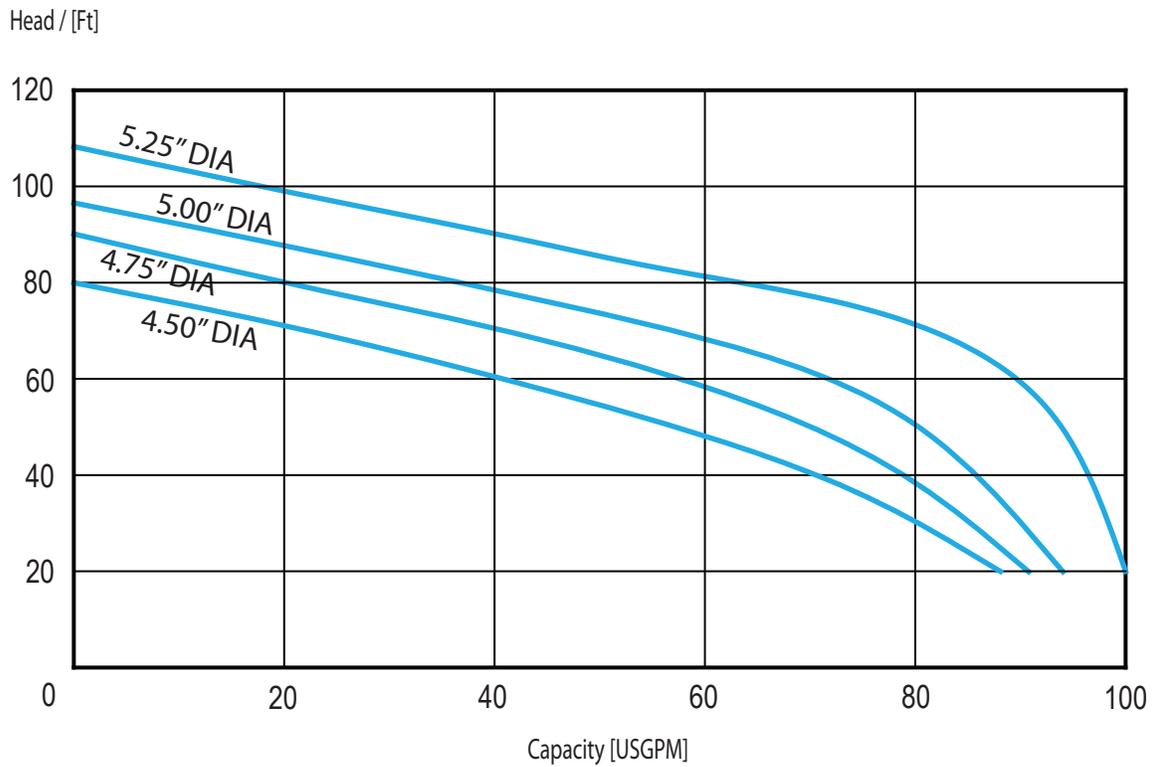
\* Performance with clear water and ambient temp 20°C (68°F)



**3HP SUBMERSIBLE GRINDER PUMP**

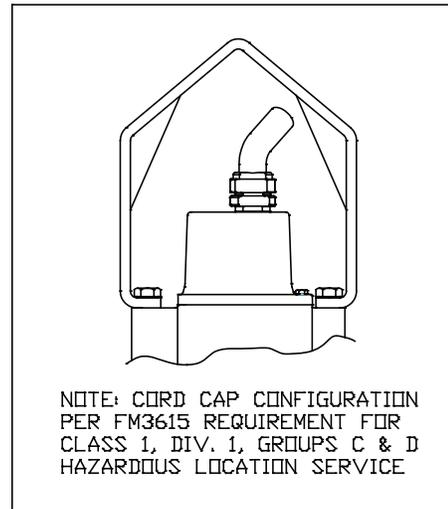
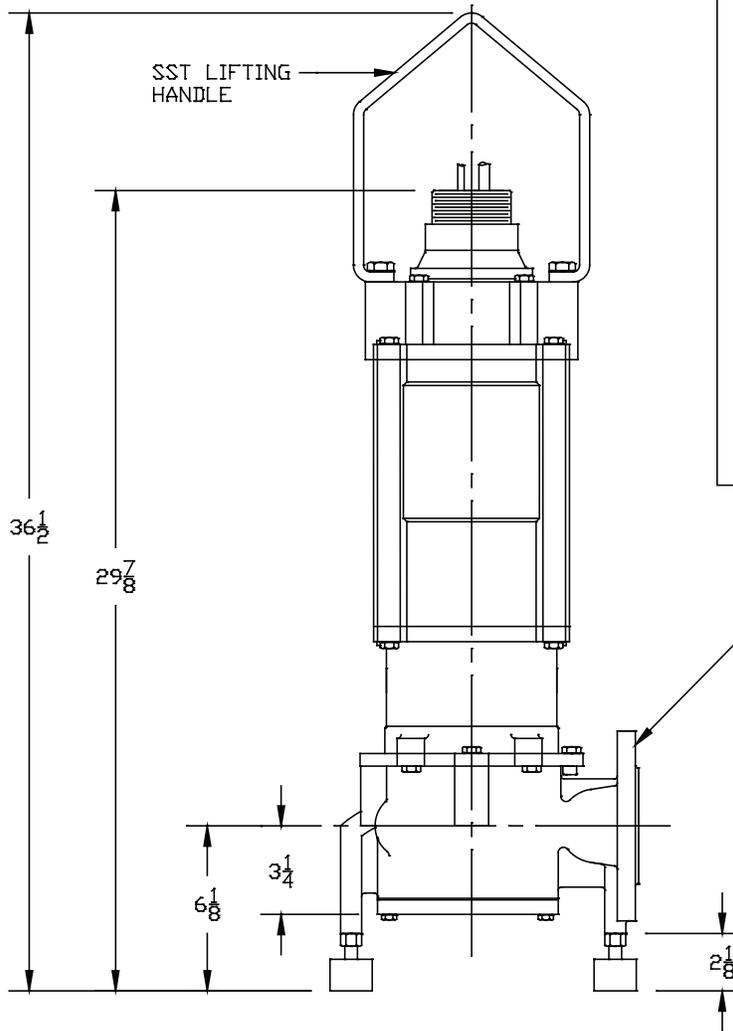
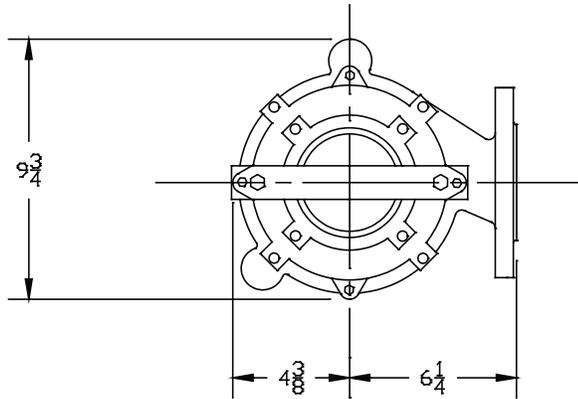
<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KHG(X)3</b>	HP / Power Supply	3HP / 3 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 208V	21 Amps
Date	03/26/2015	Start Amps 208V	105 Amps
Discharge Flange	2-1/2 & 3" ANSI Horizontal	Full Load Amps 230V	18 Amps
Grinder Ring	25 Slots	Start Amps 230V	90 Amps
Impeller Type / Std. Dia.	Recessed / 5.25"	Full Load Amps 460V	9 Amps
<b>Three Phase</b>		Start Amps 460V	45 Amps
		Poles / Rated Speed	2 P / 3450 rpm
		Insulation Class	F Class

**PERFORMANCE CURVE**

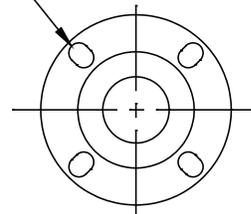


<b><u>MODEL</u></b>	<b><u>HP</u></b>	<b><u>Phase</u></b>	<b><u>Volts</u></b>
KHG(X)3-2003	3	3	208
KHG(X)3-2303	3	3	230
KHG(X)3-4603	3	3	460

\* Performance with clear water and ambient temp 20°C (68°F)



\* DISCHARGE FLANGE "SLOTS" FOR OPTIONAL 2.5" OR 3" ANSI DISCHARGE, CLASS 125, 4-BOLT



REV 03/26/15

\* PUMP STANDARD HORIZONTAL FLANGE (2 1/2" OR 3" ANSI) STANDARD BASIN PACKAGE DISCHARGE (2" PIPING) ACCEPTABLE WITH MACERATED SEWAGE SLURRY

		<b>KEEN PUMP CO.</b> 471E STATE ROUTE 250 EAST ASHLAND, OHIO 44805	PHONE: 419-207-9400 FAX: 419-207-8031
<b>TITLE</b> 3-7.5HP HIGH FLOW/HIGH HEAD GR. PUMP DIMENSIONS			
<b>SCALE</b> NTS		<b>DWG. #</b> KN-28	<b>REV.</b> A
<b>DWG. BY</b> SE	<b>DATE</b> 01/27/2014		

# KHG(X)5



## 5HP High Head Grinder Pump, 1 or 3 Phase (Class 1, Div. 1, Groups C & D Hazardous Location)

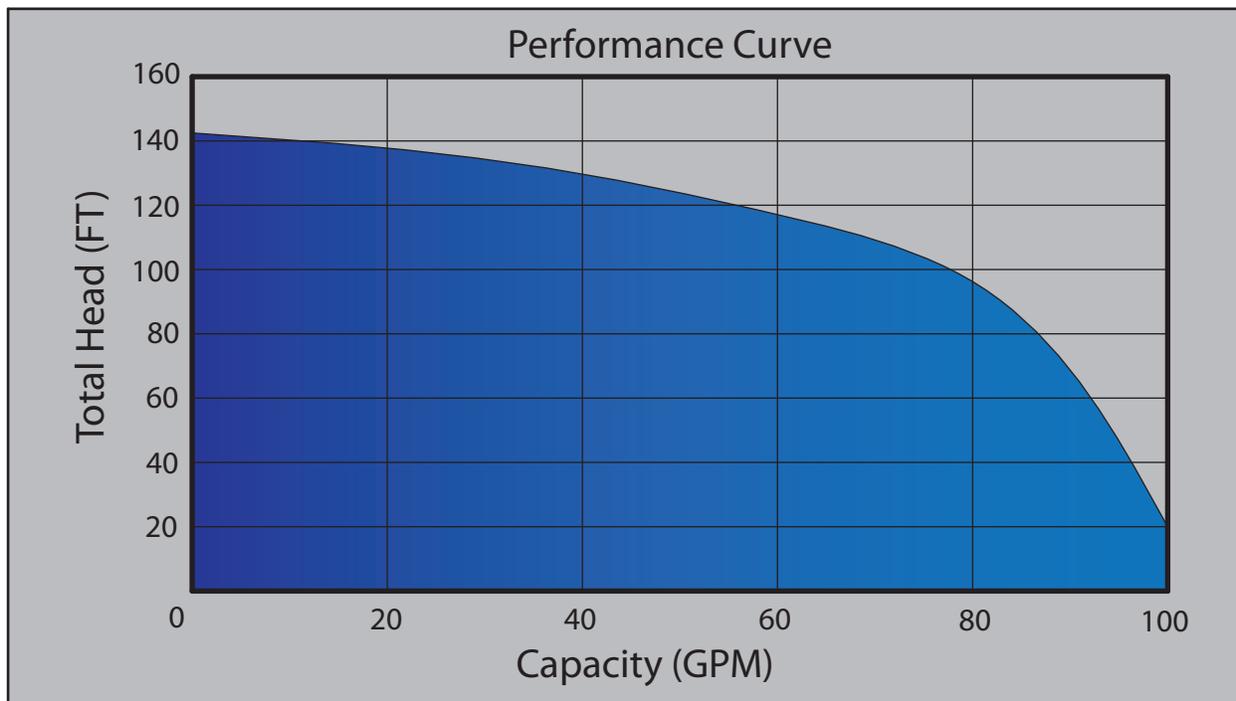


The KEEN PUMP **KHG(X)5** series centrifugal grinder pumps easily handle residential, commercial or industrial sanitary waste, reducing it to a fine slurry. The **KHG(X)5** pump is designed for use in pressure sewer applications or any piping network.

The recessed vortex impeller design of the **KHG(X)5** grinder pump provides trouble-free, non-overloading operation over the entire performance curve. The modular design provides quick and easy serviceability. The hardened stainless steel grinder assembly provides many years of dependable operation.

The **KHG(X)5** series pump features:

- Interchangeable into Competitor Installations
- Dual Silicon-Carbide Mechanical Shaft Seals
- Pressed-In Motor with Internal Overload Protection
- 3-Bearing Shaft Support (Upper / Lower / Sleeve)
- Internal Moisture Detection
- Strong Motor, 1-Phase (208/230) Volt or 3-Phase (208/230/460) V



## Features and Benefits

### 1. Watertight Cable Entrance

Agency-approved, watertight strain relief cord grip with compression grommet protects outer cord jacket (**FM Explosion-Proof**) or Heavy-duty molded compression grommet 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.

### 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 30 cast iron components.

### 3. Strong Motor

Powerful high-torque motor for reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil-filled chamber for cool operation and long motor life.

### 4. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus additional sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

### 5. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture 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.

### 6. Moisture Detection

Dual Seal leak probe signals alarm in control panel for scheduled maintenance.

### 7. Non-Overloading Hydraulic Design

The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

### 8. Proven Grinder Assembly

Hardened (Rockwell 56-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 12,400 cuts/second.

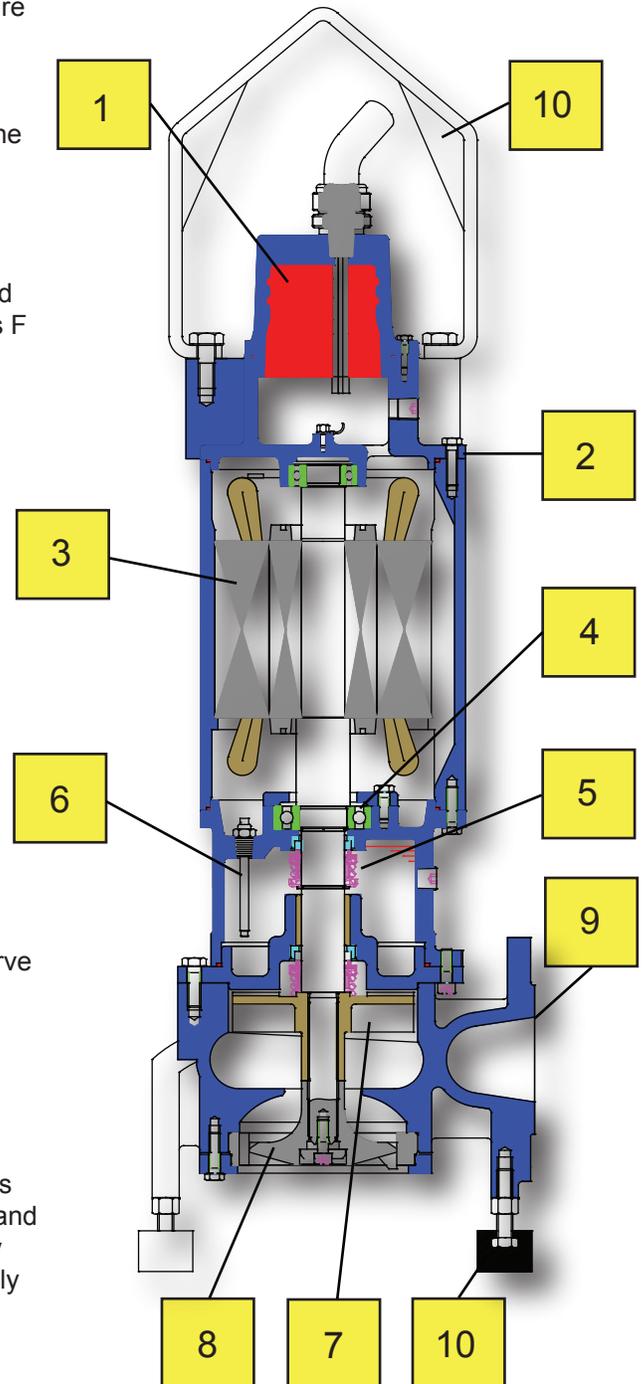
### 9. Versatile Flange Connection

Combination 2-1/2" and 3" horizontal flange. Industry-standard ANSI Class 125 dimensions.

### 10. Accessories

Stainless steel lifting handle included. Anti-vibration rubber mounting feet **OPTIONAL**.

## 5HP Grinder Pump High Head KHG(X)5



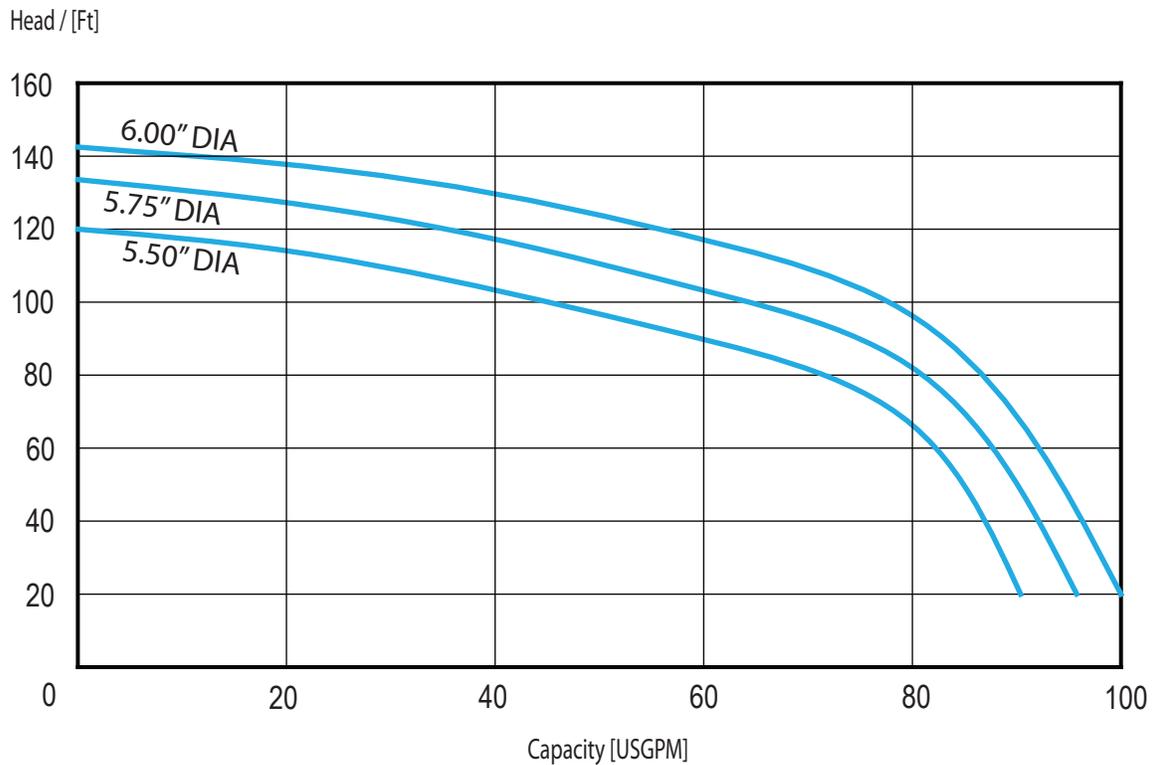
471E State Route 250 East · Ashland, Ohio 44805  
419.207.9400 fax 419.207.8031  
www.keenpump.com



**5HP SUBMERSIBLE GRINDER PUMP**

<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KHG(X)5</b>	HP / Power Supply	5HP / 1 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 208V	40 Amps
Date	03/26/2015	Start Amps 208V	144 Amps
Discharge Flange	2-1/2 & 3" ANSI Horizontal	Full Load Amps 230V	34 Amps
Grinder Ring	25 Slots	Start Amps 230V	122 Amps
Impeller Type / Std. Dia.	Recessed / 6.00"	Poles / Rated Speed	2 P / 3450 rpm
<b>Single Phase</b>	START KIT SK-56-K0173 includes: Start & Run Capacitors, Relay, and Mounting Hardware	Insulation Class	F Class
		Start Capacitor	238 ufd, 330 VAC
		Run Capacitor	40 ufd, 440 VAC

**PERFORMANCE CURVE**



<u>MODEL</u>	<u>HP</u>	<u>Phase</u>	<u>Volts</u>
KHG(X)5-2001	5	1	208/230
KHG(X)5-2201	5	1	* 220
KHG(X)5-2401	5	1	* 240

**\* Voltages Available July 2015**

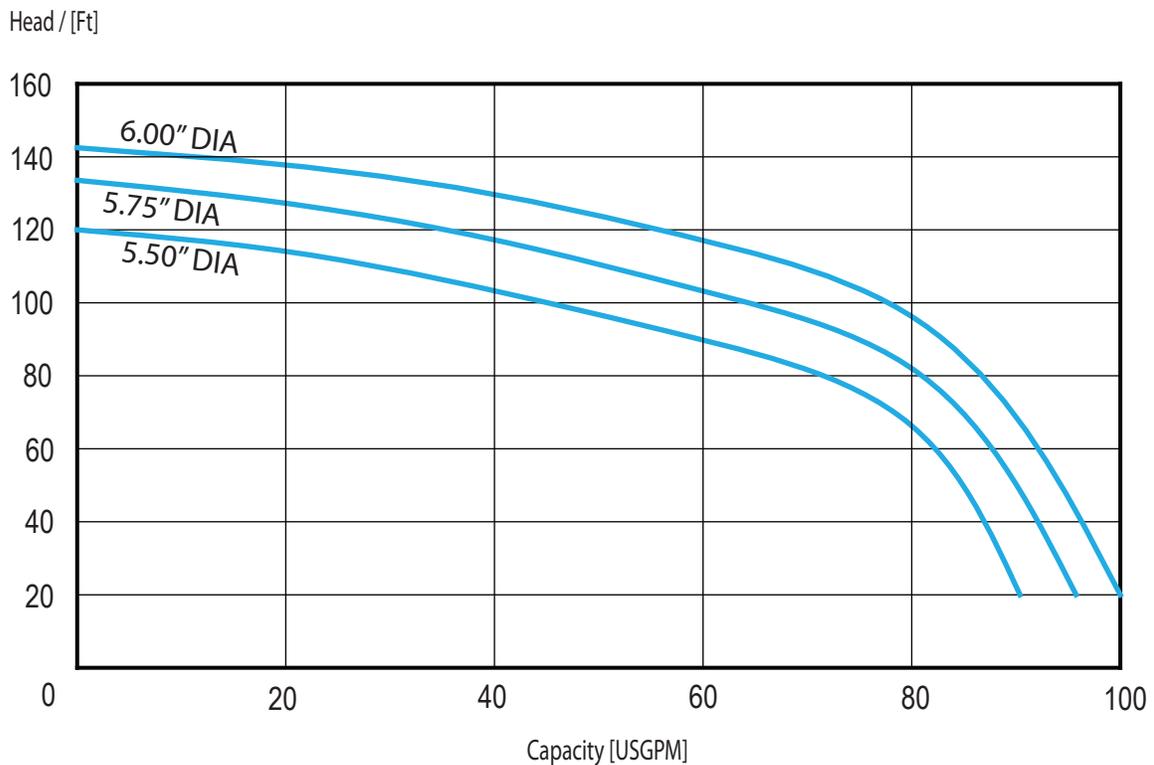
\* Performance with clear water and ambient temp 20°C (68°F)



**5HP SUBMERSIBLE GRINDER PUMP**

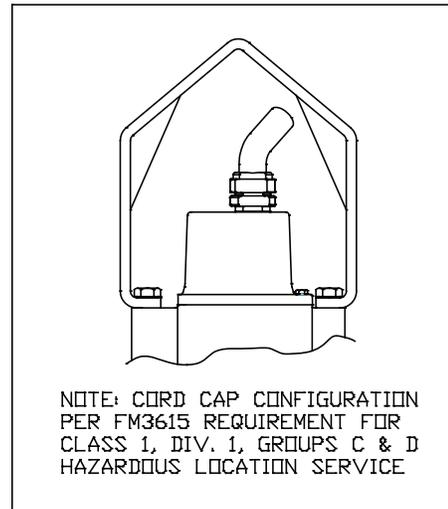
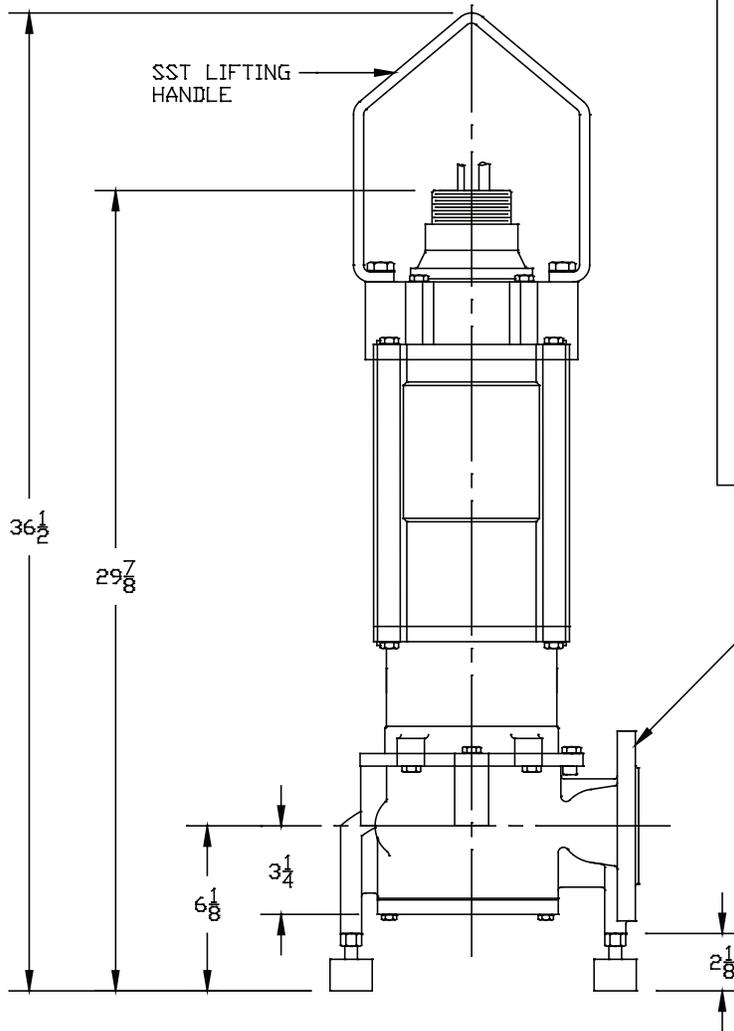
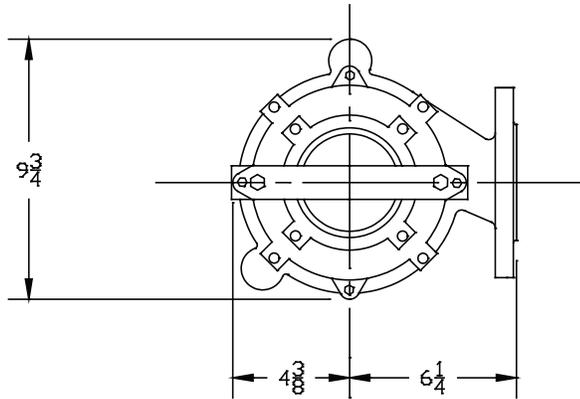
<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KHG(X)5</b>	HP / Power Supply	5HP / 3 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 208V	21 Amps
Date	05/21/2015	Start Amps 208V	120 Amps
Discharge Flange	2-1/2 & 3" ANSI Horizontal	Full Load Amps 230V	18 Amps
Grinder Ring	25 Slots	Start Amps 230V	90 Amps
Impeller Type / Std. Dia.	Recessed / 6.00"	Full Load Amps 460V	9 Amps
<b>Three Phase</b>		Start Amps 460V	45 Amps
		Poles / Rated Speed	2 P / 3450 rpm
		Insulation Class	F Class

**PERFORMANCE CURVE**

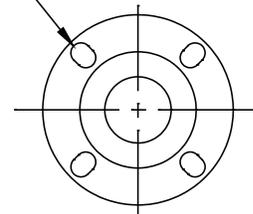


<b><u>MODEL</u></b>	<b><u>HP</u></b>	<b><u>Phase</u></b>	<b><u>Volts</u></b>
KHG(X)5-2003	5	3	208
KHG(X)5-2303	5	3	230
KHG(X)5-4603	5	3	460

\* Performance with clear water and ambient temp 20°C (68°F)



\* DISCHARGE FLANGE "SLOTS" FOR OPTIONAL 2.5" OR 3" ANSI DISCHARGE, CLASS 125, 4-BOLT



REV 03/26/15

\* PUMP STANDARD HORIZONTAL FLANGE (2 1/2" OR 3" ANSI) STANDARD BASIN PACKAGE DISCHARGE (2" PIPING) ACCEPTABLE WITH MACERATED SEWAGE SLURRY

		<b>KEEN PUMP CO.</b> 471E STATE ROUTE 250 EAST ASHLAND, OHIO 44805	PHONE: 419-207-9400 FAX: 419-207-8031
<b>TITLE</b> 3-7.5HP HIGH FLOW/HIGH HEAD GR. PUMP DIMENSIONS			
<b>SCALE</b> NTS		<b>DWG. #</b> KN-28	<b>REV.</b> A
<b>DWG. BY</b> SE	<b>DATE</b> 01/27/2014		

# KHG(X)7



## 7.5HP High Head Grinder Pump, 1 or 3 Phase (Class 1, Div. 1, Groups C & D Hazardous Location)

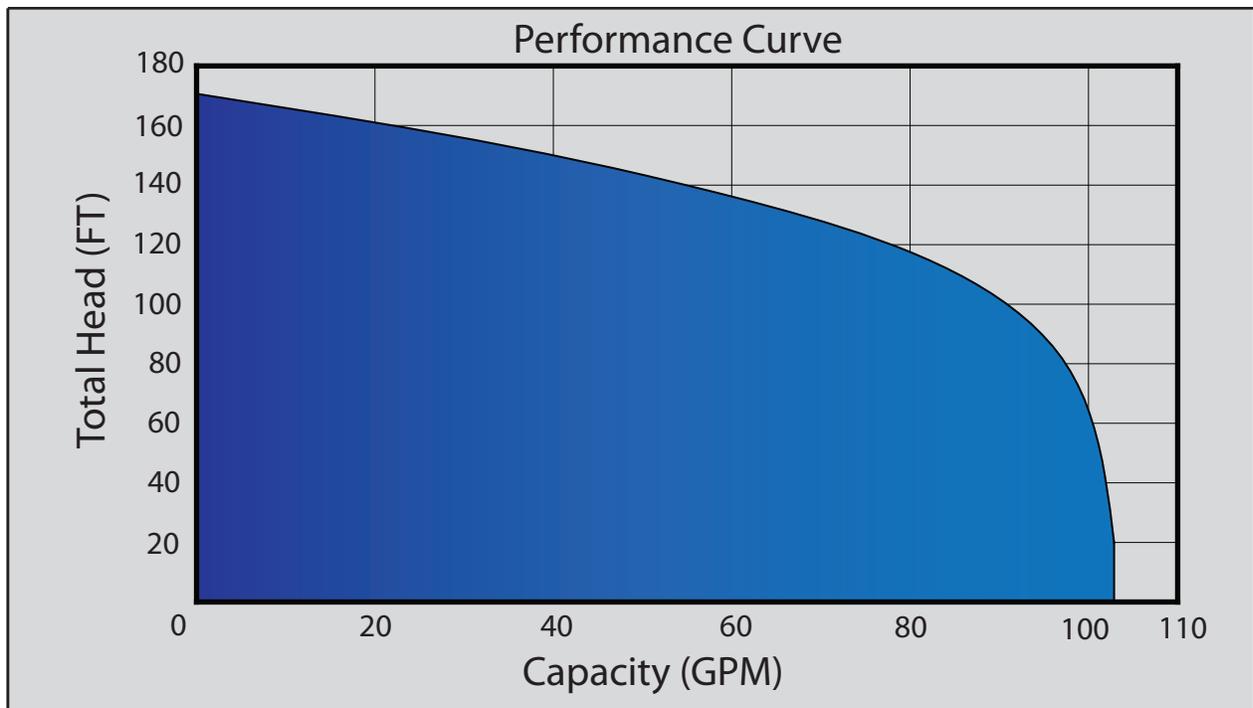


The KEEN PUMP **KHG(X)7** series centrifugal grinder pumps easily handle residential, commercial or industrial sanitary waste, reducing it to a fine slurry. The **KHG(X)7** pump is designed for use in pressure sewer applications or any piping network.

The recessed vortex impeller design of the **KHG(X)7** grinder pump provides trouble-free, non-overloading operation over the entire performance curve. The modular design provides quick and easy serviceability. The hardened stainless steel grinder assembly provides many years of dependable operation.

The **KHG(X)7** series pump features:

- Interchangeable into Competitor Installations
- Dual Silicon-Carbide Mechanical Shaft Seals
- Pressed-In Motor with Internal Overload Protection
- 3-Bearing Shaft Support (Upper / Lower / Sleeve)
- Internal Moisture Detection
- Strong Motor, 1-Phase (230) Volt or 3-Phase (208/230/460) V



## Features and Benefits

### 1. Watertight Cable Entrance

Agency-approved, watertight strain relief cord grip with compression grommet protects outer cord jacket (**FM Explosion-Proof**) or Heavy-duty molded compression grommet 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.

### 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 30 cast iron components.

### 3. Strong Motor

Powerful high-torque motor for reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil-filled chamber for cool operation and long motor life.

### 4. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus additional sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

### 5. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture 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.

### 6. Moisture Detection

Dual Seal leak probe signals alarm in control panel for scheduled maintenance.

### 7. Non-Overloading Hydraulic Design

The recessed centrifugal impeller allows 100% performance curve operation from shut-off to maximum flow without damage to the pump or system. The recessed vortex impeller is out of the passageway of fluid flow, eliminating concerns of blockage or wear.

### 8. Proven Grinder Assembly

Hardened (Rockwell 56-60) stainless steel grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 12,400 cuts/second.

### 9. Versatile Flange Connection

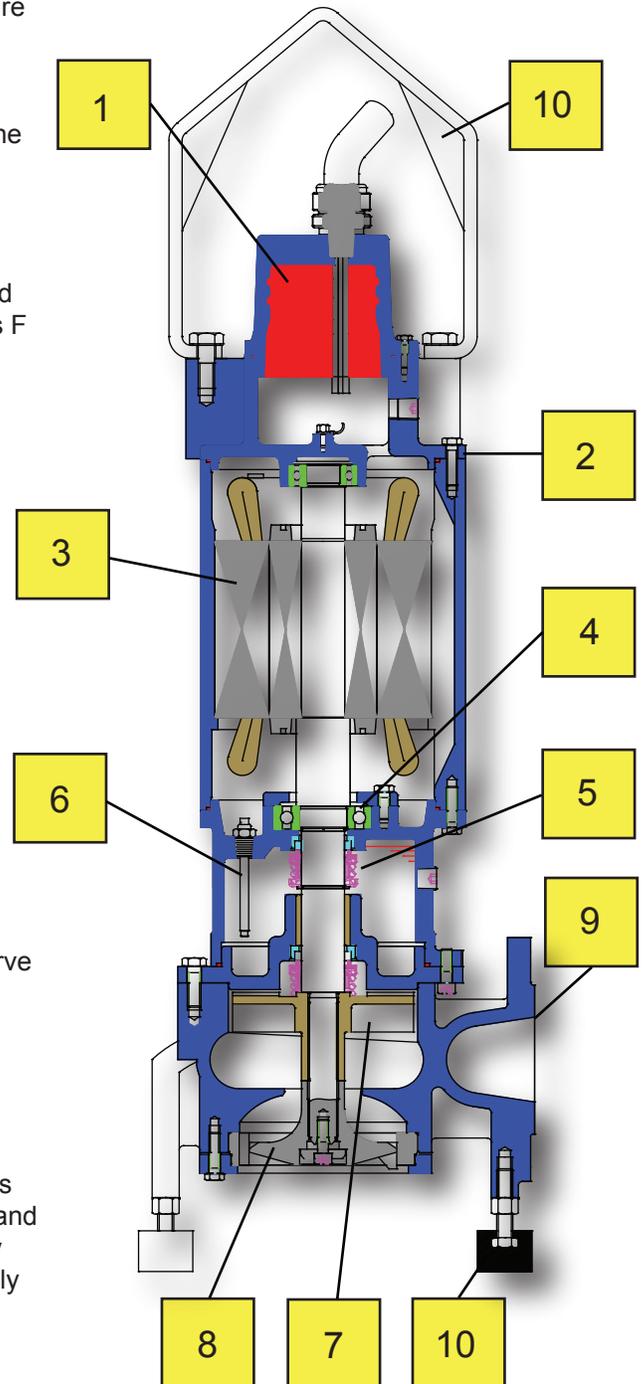
Combination 2-1/2" and 3" horizontal flange. Industry-standard ANSI Class 125 dimensions.

### 10. Accessories

Stainless steel lifting handle included. Anti-vibration rubber mounting feet **OPTIONAL**.

REV 03/26/15

## 7.5HP Grinder Pump High Head KHG(X)7



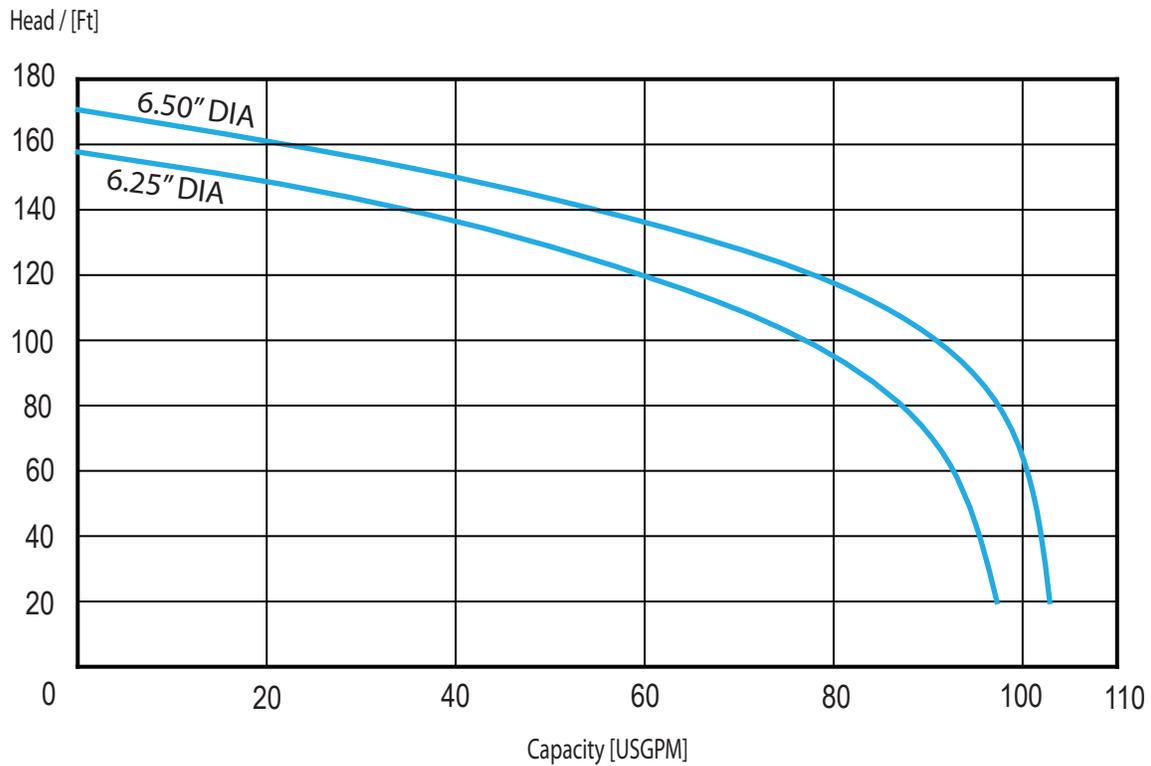
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419.207.9400 fax 419.207.8031  
www.keenpump.com



**7.5HP SUBMERSIBLE GRINDER PUMP**

<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KHG(X)7</b>	HP / Power Supply	7.5HP / 1 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 230V	47 Amps
Date	03/26/2015	Start Amps 230V	235 Amps
Discharge Flange	2-1/2 & 3" ANSI Horizontal	Poles / Rated Speed	2 P / 3450 rpm
Grinder Ring	25 Slots	Insulation Class	F Class
Impeller Type / Std. Dia.	Recessed / 6.50"	Start Capacitor	238 ufd, 330 VAC
<b>Single Phase</b>	START KIT SK-56-K0173 includes: Start & Run Capacitors, Relay, and Mounting Hardware	Run Capacitor	40 ufd, 440 VAC

**PERFORMANCE CURVE**



<u>MODEL</u>	<u>HP</u>	<u>Phase</u>	<u>Volts</u>
KHG(X)7-2001	7.5	1	208/230
KHG(X)7-2201	7.5	1	* 220
KHG(X)7-2401	7.5	1	* 240

**\* Voltages Available July 2015**

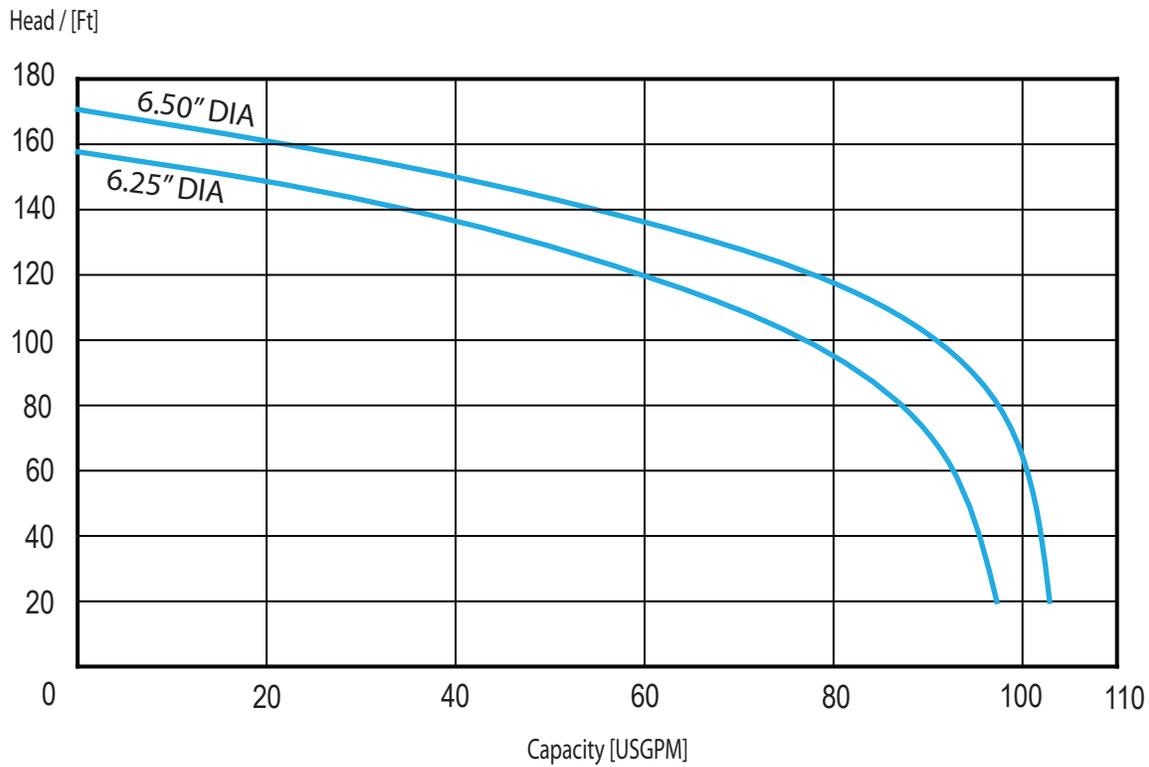
\* Performance with clear water and ambient temp 20°C (68°F)



**7.5HP SUBMERSIBLE GRINDER PUMP**

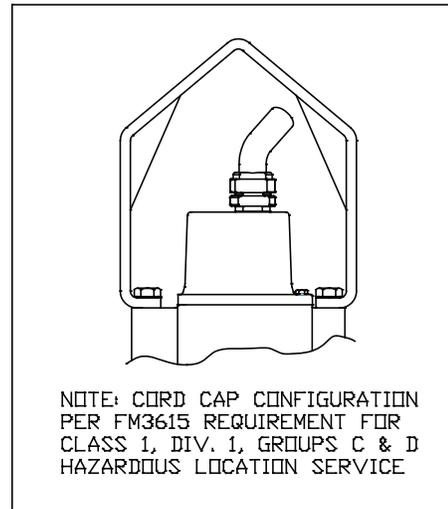
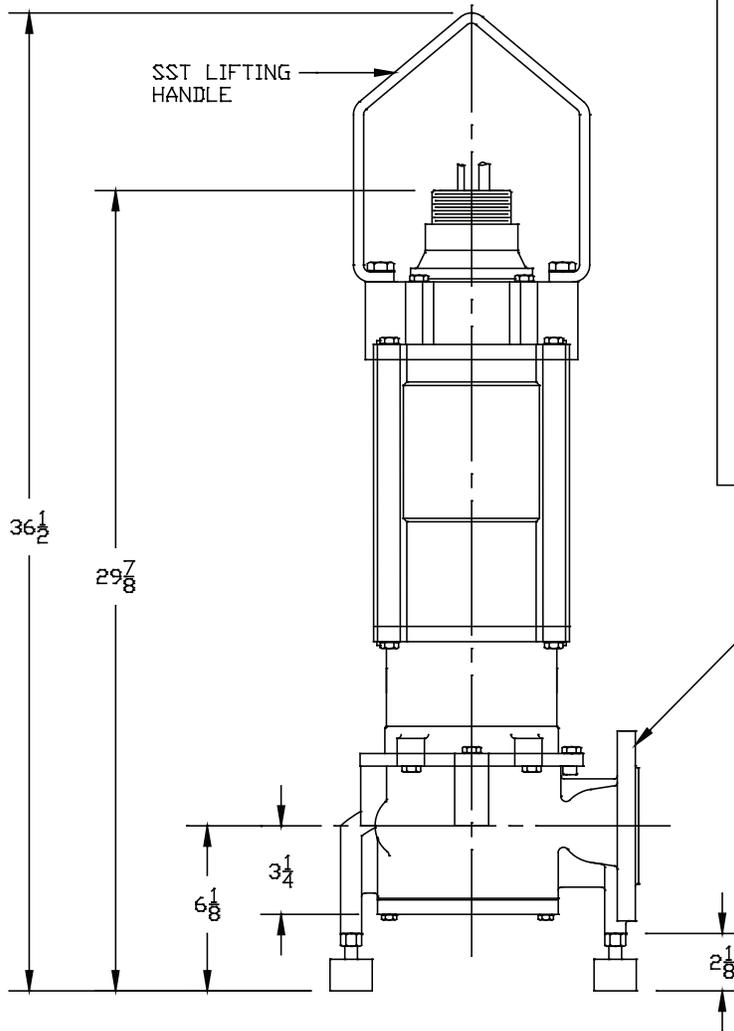
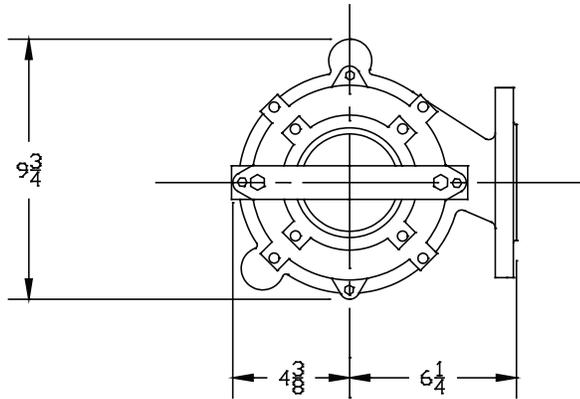
<b>GENERAL</b>		<b>MOTOR DATA</b>	
Pump Model	<b>KHG(X)7</b>	HP / Power Supply	7.5HP / 3 $\phi$ , 60 Hz
<b>PUMP DATA</b>		Full Load Amps 208V	37 Amps
Date	03/26/2015	Start Amps 208V	185 Amps
Discharge Flange	2-1/2 & 3" ANSI Horizontal	Full Load Amps 230V	32 Amps
Grinder Ring	25 Slots	Start Amps 230V	160 Amps
Impeller Type / Std. Dia.	Recessed / 6.50"	Full Load Amps 460V	16 Amps
<b>Three Phase</b>		Start Amps 460V	80 Amps
		Poles / Rated Speed	2 P / 3450 rpm
		Insulation Class	F Class

**PERFORMANCE CURVE**

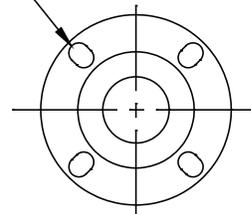


<b><u>MODEL</u></b>	<b><u>HP</u></b>	<b><u>Phase</u></b>	<b><u>Volts</u></b>
KHG(X)7-2003	7.5	3	208
KHG(X)7-2303	7.5	3	230
KHG(X)7-4603	7.5	3	460

\* Performance with clear water and ambient temp 20°C (68°F)



\* DISCHARGE FLANGE "SLOTS" FOR OPTIONAL 2.5" OR 3" ANSI DISCHARGE, CLASS 125, 4-BOLT



REV 03/26/15

\* PUMP STANDARD HORIZONTAL FLANGE (2 1/2" OR 3" ANSI) STANDARD BASIN PACKAGE DISCHARGE (2" PIPING) ACCEPTABLE WITH MACERATED SEWAGE SLURRY

		<b>KEEN PUMP CO.</b> 471E STATE ROUTE 250 EAST ASHLAND, OHIO 44805	PHONE: 419-207-9400 FAX: 419-207-8031
<b>TITLE</b> 3-7.5HP HIGH FLOW/HIGH HEAD GR. PUMP DIMENSIONS			
<b>SCALE</b> NTS		<b>DWG. #</b> KN-28	<b>REV.</b> A
<b>DWG. BY</b> SE	<b>DATE</b> 01/27/2014		

# KPCG-21C

## 1HP Dual Seal, High Performance Progressive Cavity Grinder Pump, Internal Start Kit



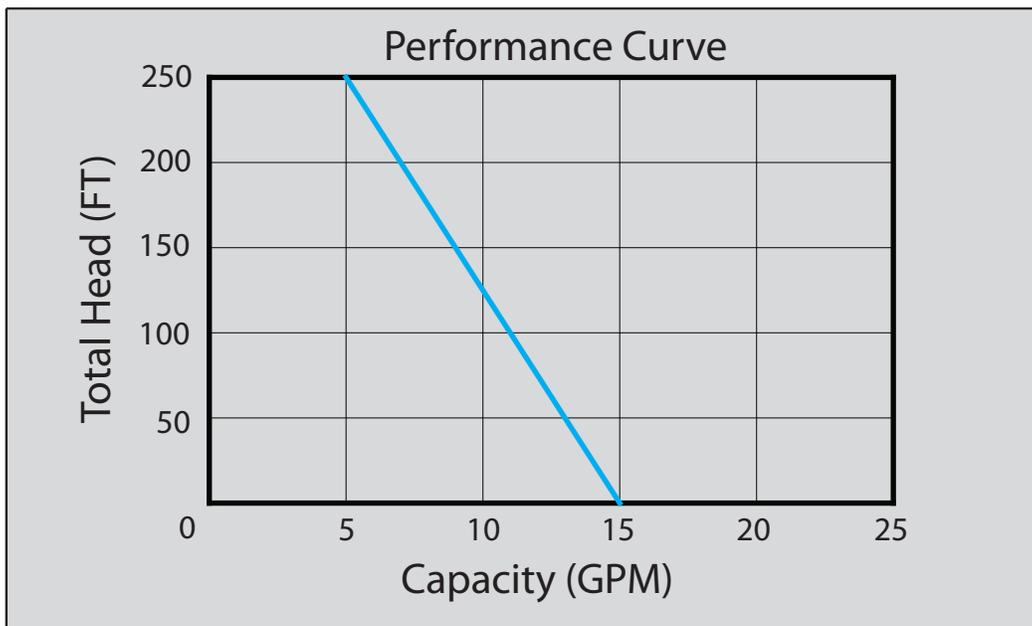
The **KEEN KPCG** series Progressive Cavity grinder pumps feature the best performance (high pressure and flow), combined with unique industry leading design features and materials of construction. This provides the most reliable, longest service life, progressive cavity pump in the industry. The **KPCG** pump can move wastewater through miles of piping network and is designed for use in pressure sewer applications.

Dependable, consistent flow rates, regardless of varying system operating pressures and vertical elevation differences makes the **KEEN KPCG** the pump of choice.

Designed to deliver 8.5 GPM at 180' operating heads, the **KPCG** can produce even higher operating heads at reduced flow rates.

The **KPCG-21C** series pump features:

- Strong, 1HP, 208/230 Dual Volt Motor
- Internal Start Components (No control box req'd)
- Potted Cord Cap Assembly
- Dual Silicon-Carbide Shaft Seals
- 3 Bearings
- Pressed-In Motor
- Scratch-resistant, Hardened Chrome Finish Rotor
- Wear-resistant, Special Compound Stator



## Features and Benefits

# KPCG-21C

### 1. Watertight Cable Entrance

Agency-approved, watertight strain relief cord grip with compression grommet 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.

### 2. Internal Start Kit

Start/Run capacitor with relay securely positioned in dry compartment. Rubber compression grommet for wire leads to motor prevents oil from entering chamber. Quick and easy servicing.

### 3. Modular Pump Design

Commonality of parts across the Keen product line minimizes the amount of parts required for servicing. Heavy-duty ASTM A48, Class 30 cast iron components.

### 4. Strong Motor

Powerful high-torque motor for reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil-filled chamber for cool operation and long motor life.

### 5. Oil

KEEN I.C.E. ensures industry-low operating temperatures. Synthetic blend with wear-additives, specifically engineered for submersible pump motors.

### 6. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus additional sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

### 7. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture 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.

### 8. High Performance Pump Design

Full-lobe design produces higher pressures and flows. Hardened chrome-finish rotor is scratch and abrasion resistant, not damaging the stator. Stator features open inlet design, EPDM material for improved wear, detergent and heat resistance. Thick stator wall and encapsulating liner for improved strength and longer life.

### 9. Proven Grinder Assembly

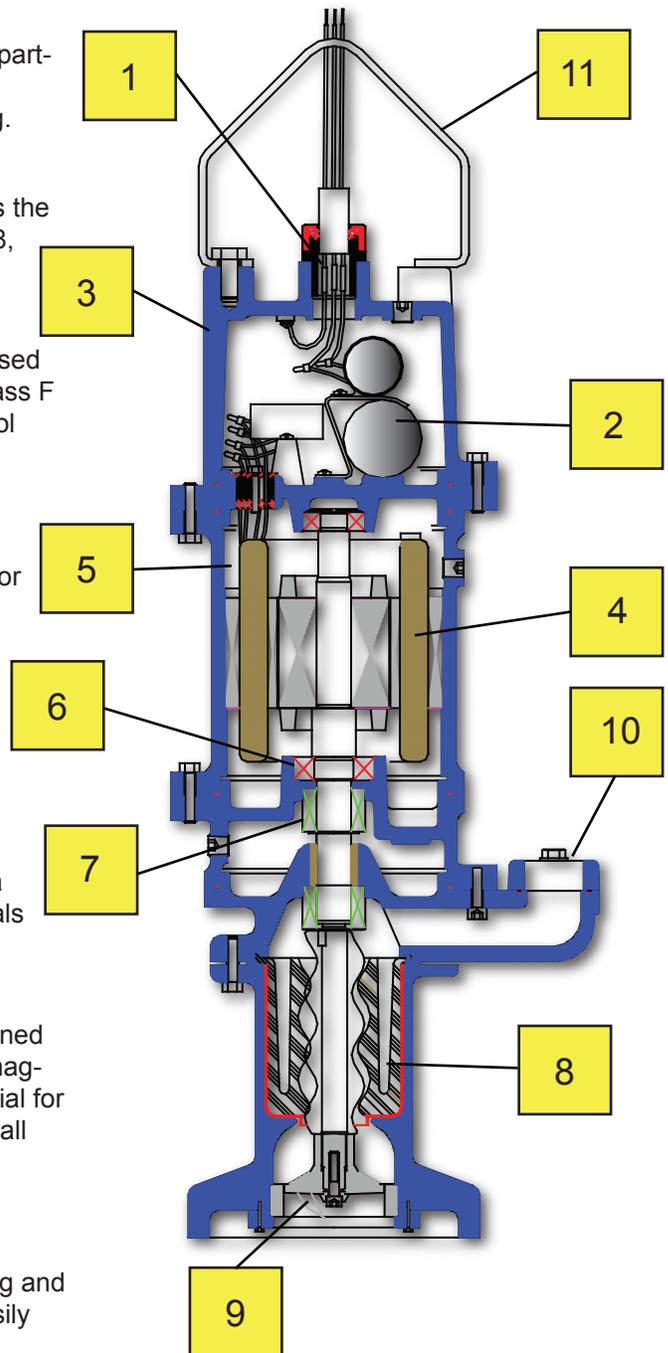
Hardened (Rockwell 58-60) 440C SST grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 7,400 cuts/second.

### 10. Easy Piping Connection

Removable 1-1/4"NPT connection flange for simple and easy connection to discharge piping.

### 11. Accessories Included

Stainless steel lifting handle included with the pump.



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419.207.9400 fax 419.207.8031  
www.keenpump.com

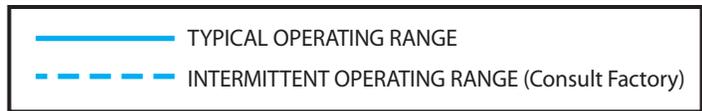
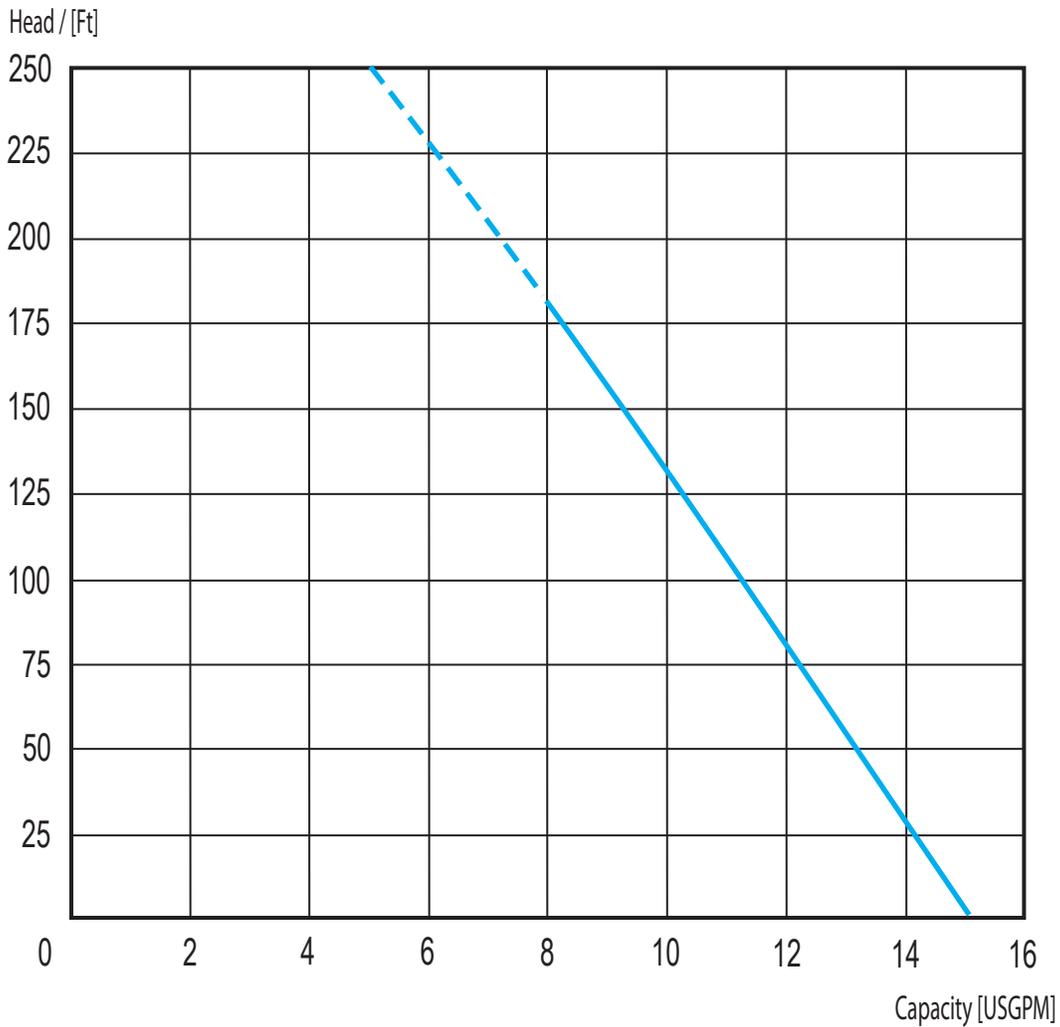
Rev 02/09/15



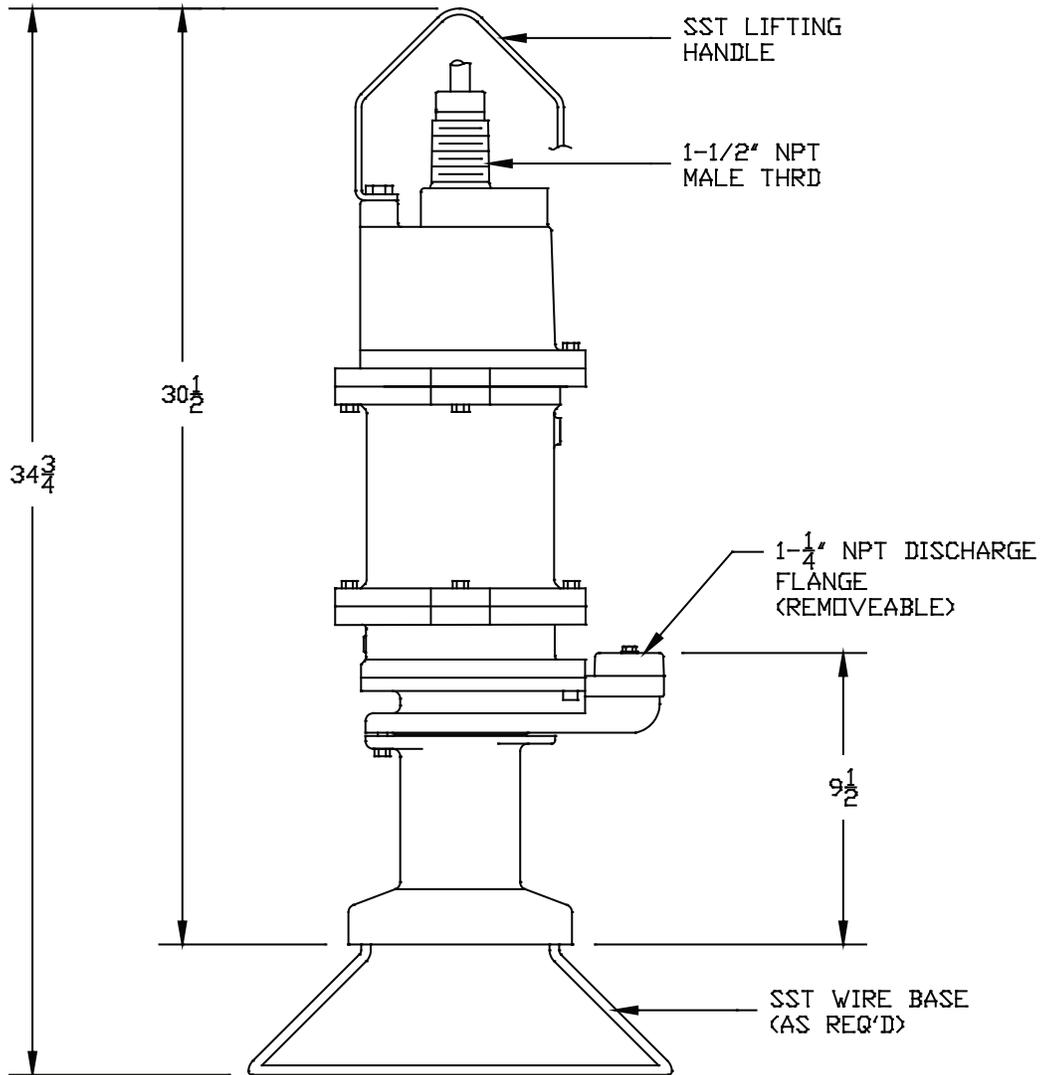
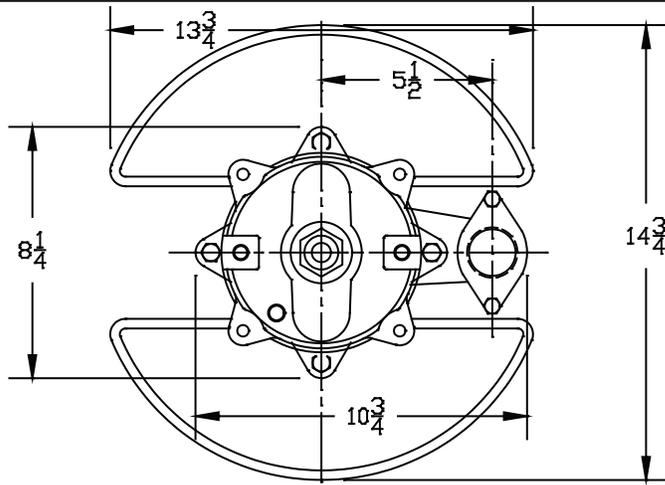
1HP SUBMERSIBLE GRINDER PUMP

GENERAL		MOTOR DATA	
Pump Model	<b>KPCG-21C</b>	HP / Power Supply	1HP / 1 $\phi$ , 208 / 230V, 60 Hz
PUMP DATA		Full Load Amps 208V	9 Amps
Date	03/24/2015	Start Amps 208V	Amps
Discharge Flange	1-1/4" NPT, Vertical	Full Load Amps 230V	8 Amps
Grinder Ring	26 Slots	Start Amps 230V	Amps
Impeller Type	Progressive Cavity	Poles / Rated Speed	4 P / 1750 rpm
START KIT SK-1-001 includes: Start & Run Capacitors, Relay, and Mounting Hardware		Insulation Class	F Class
		Start Capacitor	216 ufd, 250 VAC
		Run Capacitor	20 ufd, 370 VAC

PERFORMANCE CURVE



\* Performance with clear water and ambient temp 20°C (68°F)



Rev 02/09/15

		<b>KEEN PUMP CO.</b> 471E ST ROUTE 260 EAST ASHLAND, OHIO 44805	PHONE: 419-207-9400 FAX: 419-207-8081
<b>TITLE</b> KPCG 1HP GRINDER PUMP DIMENSIONS			
<b>SCALE</b> NTS		<b>DWG. #</b> KN-313	<b>REV.</b> B
<b>DWG. BY</b> SE	<b>DATE</b> 01/15/2013		

# KPCG-21

## 1HP Dual Seal, High Performance Progressive Cavity Grinder Pump, External Start Kit



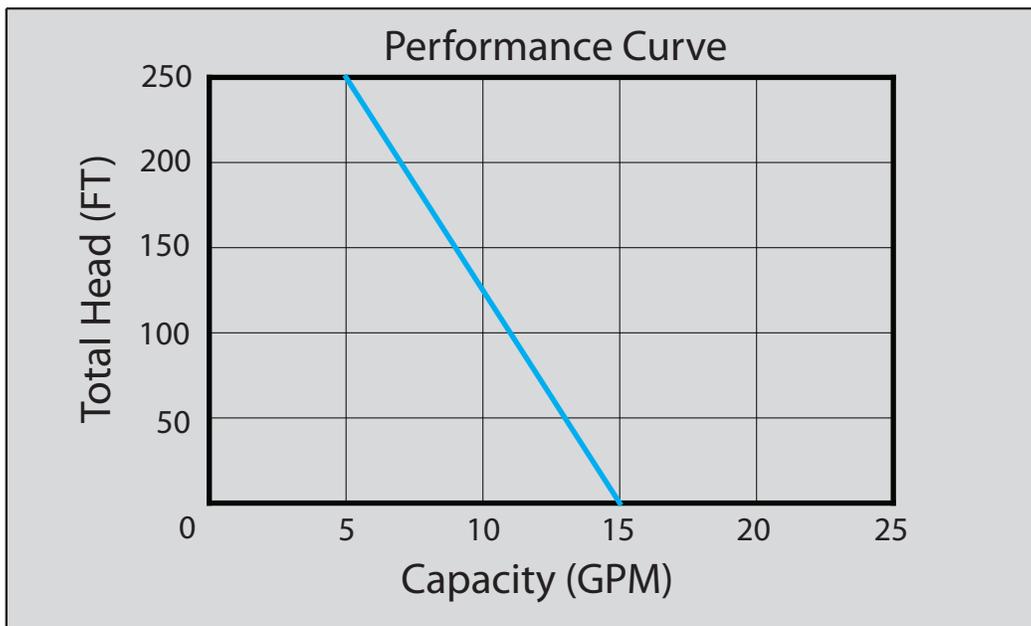
The **KEEN KPCG** series Progressive Cavity grinder pumps feature the best performance (high pressure and flow), combined with unique industry leading design features and materials of construction. This provides the most reliable, longest service life, progressive cavity pump in the industry. The **KPCG** pump can move wastewater through miles of piping network and is designed for use in pressure sewer applications.

Dependable, consistent flow rates, regardless of varying system operating pressures and vertical elevation differences makes the **KEEN KPCG** the pump of choice.

Designed to deliver 8.5 GPM at 180' operating heads, the **KPCG** can produce even higher operating heads at reduced flow rates.

The **KPCG-21** series pump features:

- Strong, 1HP, 208/230 Dual Volt Motor
- Potted Cord Cap Assembly
- Dual Silicon-Carbide Shaft Seals
- 3 Bearings
- Pressed-In Motor
- Scratch-resistant, Hardened Chrome Finish Rotor
- Wear-resistant, Special Compound Stator



## Features and Benefits

# KPCG-21

### 1. Watertight Cable Entrance

Agency-approved, watertight strain relief cord grip with compression grommet 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.

### 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 30 cast iron components.

### 3. Strong Motor

Powerful high-torque motor for reliable pump operation. Pressed stator securely holds motor and efficiently transfers heat. Class F insulation with overload protection in oil-filled chamber for cool operation and long motor life.

### 4. Oil

KEEN I.C.E. ensures industry-low operating temperatures. Synthetic blend with wear-additives, specifically engineered for submersible pump motors.

### 5. 3-Bearing Support

Motor / Pump shaft securely held with upper and lower ball bearing plus additional sleeve bearing in lower seal chamber. Long 50,000 hour B-10 bearing life.

### 6. Double Mechanical Seal Protection

Dual silicon carbide mechanical shaft seals provide twice the moisture 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.

### 7. Moisture Detection

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

### 8. High Performance Pump Design

Full-lobe design produces higher pressures and flows. Hardened chrome-finish rotor is scratch and abrasion resistant, not damaging the stator. Stator features open inlet design, EPDM material for improved wear, detergent and heat resistance. Thick stator wall and encapsulating liner for improved strength and longer life.

### 9. Proven Grinder Assembly

Hardened (Rockwell 58-60) 440C SST grinder assembly has 30+ years proven field experience. The reversible grinder ring and grinder impeller effectively reduce solids into a fine slurry, easily passable in a piping system without concerns of clogging. Highly efficient 7,400 cuts/second.

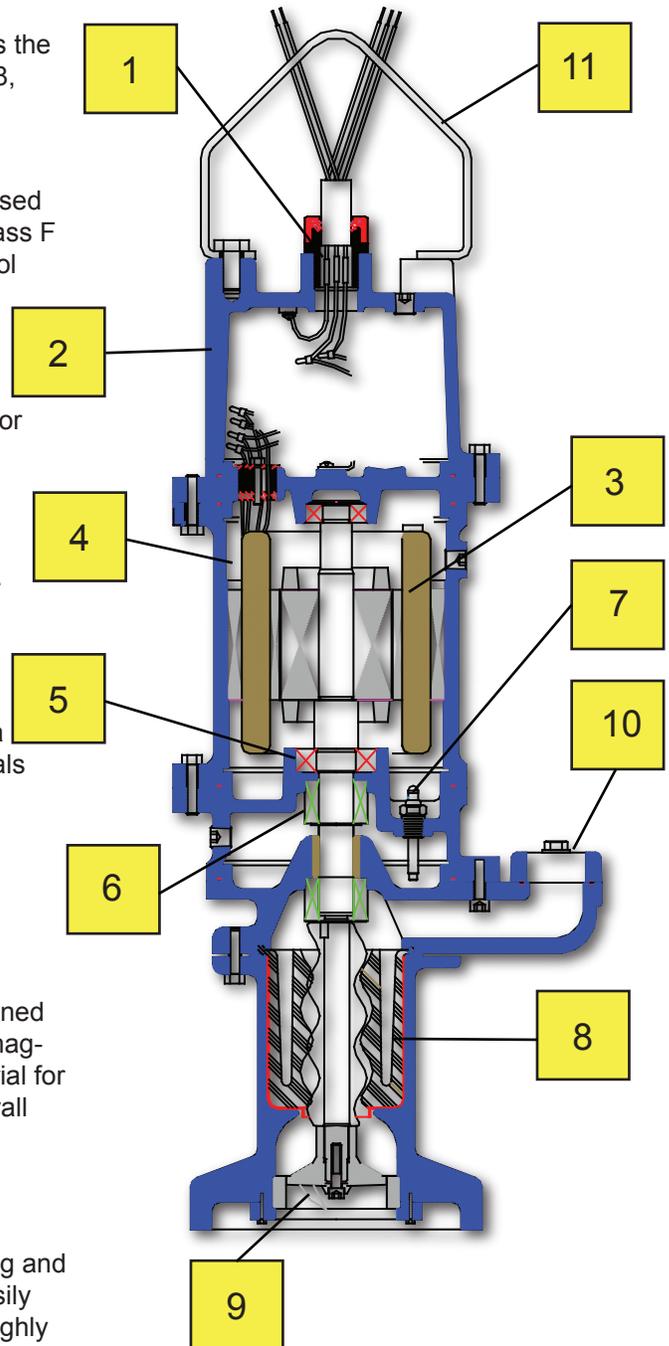
### 10. Easy Piping Connection

Removable 1-1/4"NPT connection flange for simple and easy connection to discharge piping.

### 11. Accessories Included

Stainless steel lifting handle included with the pump.

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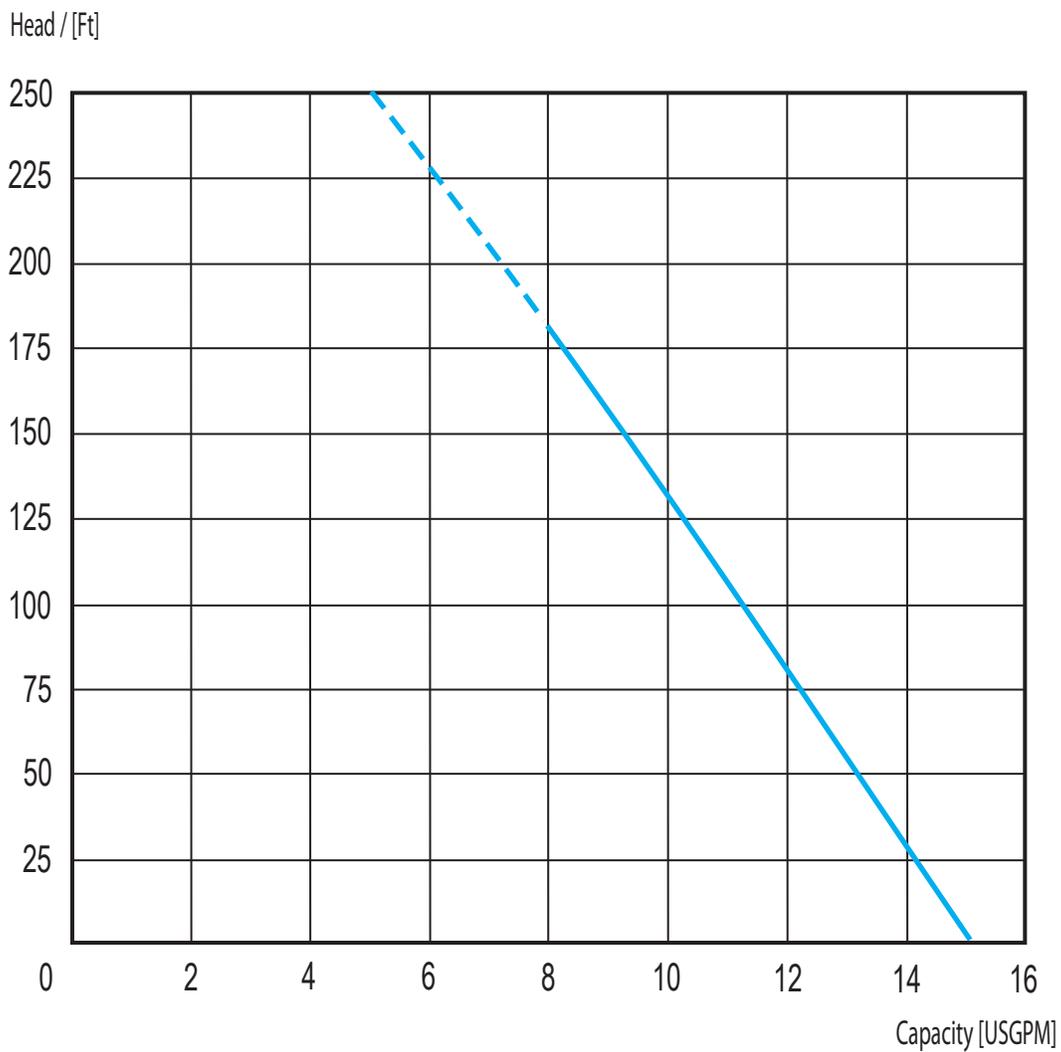
471E State Route 250 East · Ashland, Ohio 44805  
419.207.9400 fax 419.207.8031  
www.keenpump.com



1HP SUBMERSIBLE GRINDER PUMP

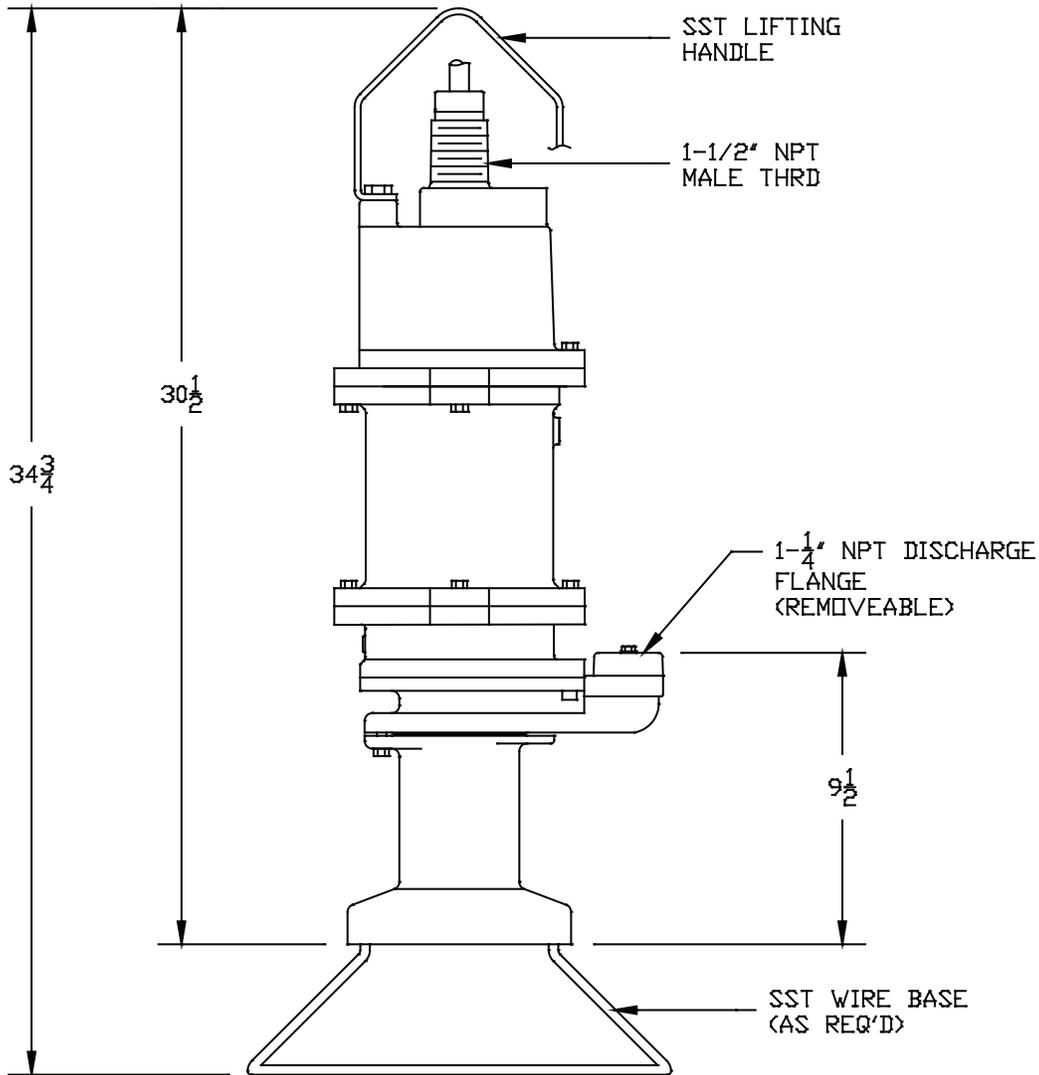
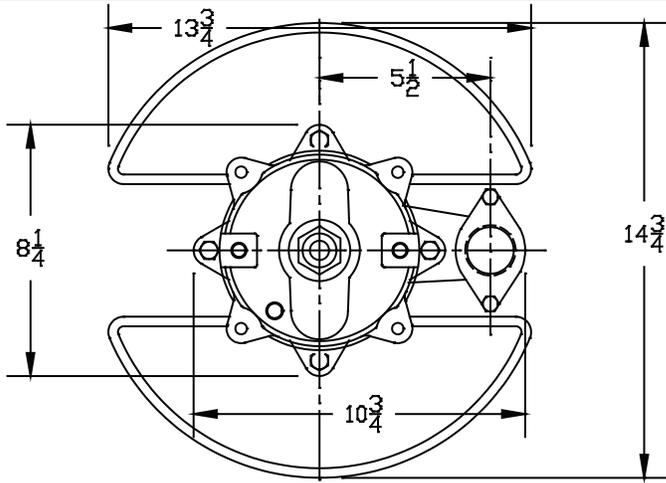
<b>GENERAL</b>		<b>MOTOR DATA</b>	
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		Start Capacitor	216 ufd, 250 VAC
		Run Capacitor	20 ufd, 370 VAC

PERFORMANCE CURVE



— TYPICAL OPERATING RANGE  
- - - INTERMITTENT OPERATING RANGE (Consult Factory)

\* Performance with clear water and ambient temp 20°C (68°F)



Rev 02/09/15

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

<b>TITLE</b>			
KPCG 1HP GRINDER PUMP DIMENSIONS			
<b>SCALE</b>	<b>DWG. #</b>	<b>REV.</b>	
NTS	KN-313	B	
<b>DWG. BY</b>		<b>DATE</b>	
SE	01/15/2013		