



## LH350S21 INSTANT-PRIME® PUMP



### PUMP SPECIFICATIONS

Pump End: GPS MCL-K141424  
 Pump Size: 14x14 inches (350x350 mm)  
 Max Flow: 12700 US GPM (2900 m<sup>3</sup>/h)  
 Max Head: 200 feet (61 m)  
 Solids Size: 3.5 inches (88.9 mm)  
 Mechanical Seal: Single mechanical seal 3.25"  
 Lip Seals: CR type, single lip, Buna-N (Bearing & SAE Cover) and Viton(Stuffing box)  
 Non-Drive End Bearing: Single row ball bearing 6217  
 Drive End Bearing: Duplex angular contact bearing 7316  
 Air/Water Chamber: Steel material and designed to separate air and water before entering into vacuum pump suction hose.  
 Discharge Non Return Valve: Swing type, cast iron with Buna-N disc (Viton optional)  
 Gasket: Aramid Fiber w/ EPDM  
 O Ring: Buna-N

### VACUUM ASSISTED PRIMING SYSTEM

**INSTANT-PRIME® SYSTEM:** Patent Pending self priming pumps are equipped with the most powerful priming system and P-S-P mechanism. Instant-Prime® pump sets a new benchmark of vacuum assisted priming pumps in the industry.

**VACUUM PUMP DATA\*:** Air Capacity: 112CFM  
 Vacuum: -26inHg(9m)

\* at engine speed 2200 rpm

### PUMP FEATURES

#### 1 ECO Friendly Vacuum Priming System

GPS pump's EVP self priming system has extraordinary features like large air process capability, high vacuum, low operation temperature, maintenance free, oil and mechanical seal free etc.

#### 2 P-S-P Auto Switch System (Prime-Sleep-Prime)

EVP system will be switched to sleep status automatically once priming was finished. When it is used for general purpose application, EVP system only operates for a few seconds for priming, which makes it almost unnecessary for daily maintenance or changing spare parts within its life cycle.

#### 3 Dry Running Protection System

Instant-Prime® pumps offer three types of dry running seal options: oil reservoir lubricated mechanical seal, air cushion protected mechanical seal and grease lubricated lip seals configurations. Either of them can secure the pump run dry for a long time.

#### 4 Cooling System\*\*

A pressurized cooling flush water is introduced from centrifugal pump into vacuum pump's water jacket and then flows back to centrifugal pump. This cooling system cools the vacuum pump quickly and brings most of the heat out of the vacuum pump's cavity, and makes its rotor has an extraordinary long life.

#### 5 Easy Maintenance Structure

It is very convenient to remove the vacuum pump's cover from its non-drive end, and slides can be easily pulled out for inspection or replacement. It is also easy to access to the centrifugal pump's impeller, wear ring or mechanical seal for inspection or maintenance without removing diesel engine or pump's frame since the centrifugal pump's suction cover can be fully opened.

#### 6 All-In-One Pump Applications

EVP Priming system's powerful function makes Instant-Prime® pumps can be used in almost all aspects of fluid industry, including well point dewatering. Buy one pump and get all your jobs covered.

\*\* cooling system is only needed for well point dewatering application.

### ENGINE SPECIFICATIONS

Engine Model: DEUTZ TCD12.0V6  
 Rated Power At Speed: 524HP @ 2100RPM  
 Engine Type: Water-cooled 6-cylinder inline engine with turbocharging, charge air cooling and cooled external exhaust gas recirculation.  
 Displacement: 732 Cu.In. (12 Liters)  
 EPA Tier: Tier 4 Final/Stage V  
 Fuel Tank: 238 U.S. Gallons (900 Liters) Larger volume fuel tank is available  
 Full Load Operating Time: 9.2 Hours  
 Starter: 24 Volts Electric  
 Control Panel: Murphy, Controls Inc, Deepsea, Kensho, Lofa

### PUMP MATERIAL OF CONSTRUCTION

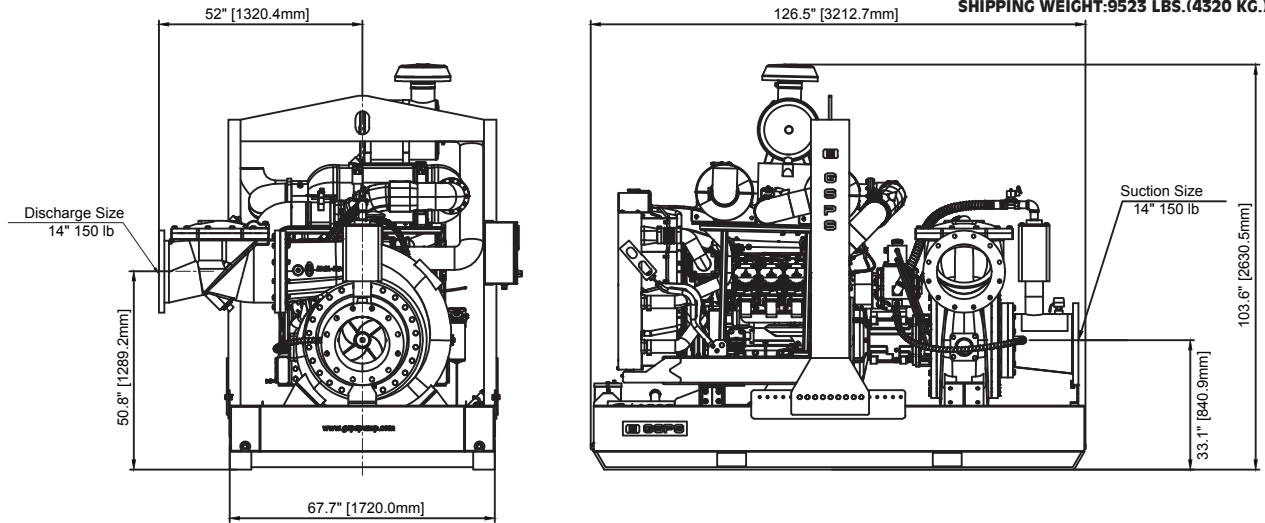
Main Parts	Standard (code:38)	Optional 1 (code:58)	Optional 2 (code:88)	Optional 3 (code:98)
Impeller	CA6NMSS	CA6NMSS	26% High Chrome	CD4MCu
Shaft	17-4PH	17-4PH	17-4PH	17-4PH
Wear Ring	Gray Iron	Gray Iron	Carbon Steel	316SS
Suction Cover	Gray Iron	Ductile Iron	26% High Chrome	CD4MCu
Volute	Gray Iron	Ductile Iron	26% High Chrome	CD4MCu
Stuffing Box	Gray Iron	Ductile Iron	26% High Chrome	CD4MCu
Adaptor	Ductile Iron	Ductile Iron	Ductile Iron	Ductile Iron



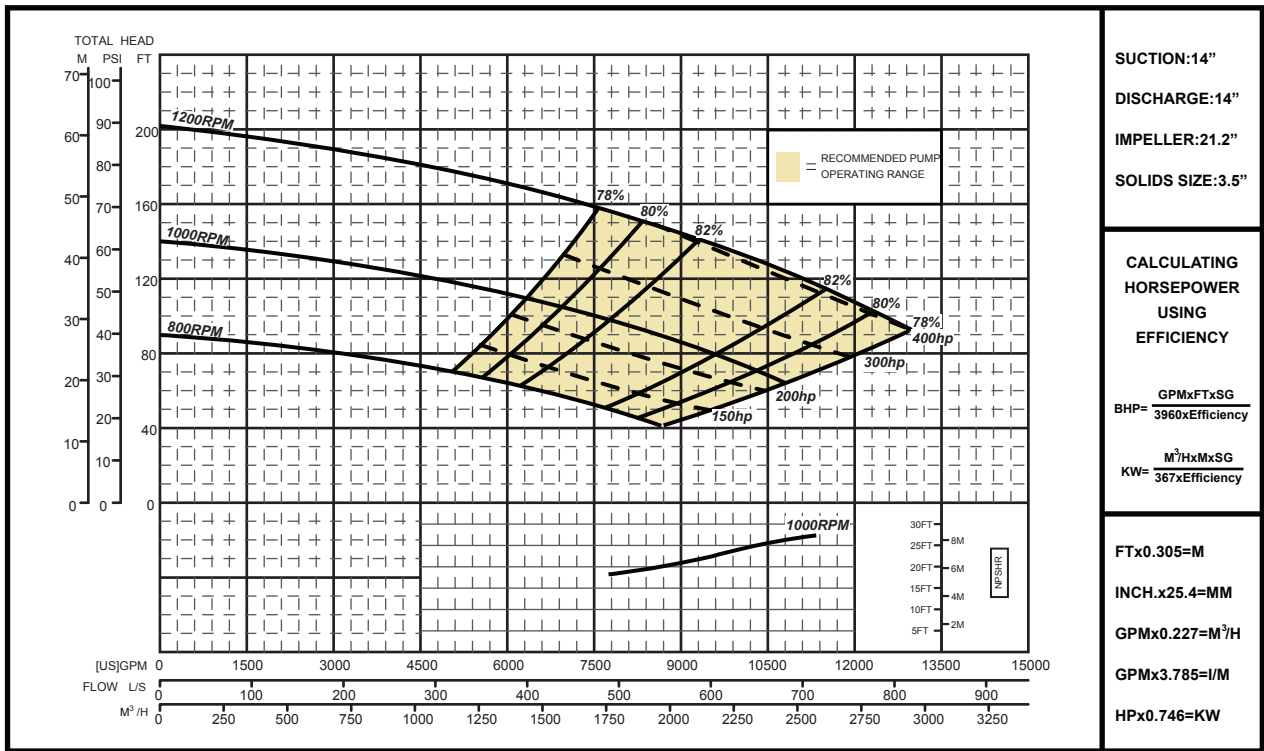
INSTANT-PRIME® Pumps. Patent Pending.

# LH350S21 INSTANT-PRIME® PUMP DIMENSIONS

**SKID MOUNTED**  
**NET WEIGHT: 8972 LBS. (4070 KG.)**  
**SHIPPING WEIGHT: 9523 LBS. (4320 KG.)**



# LH350S21 INSTANT-PRIME® PUMP PERFORMANCE CURVE



# PUMP DESIGNATION SYSTEM

### Pump Type

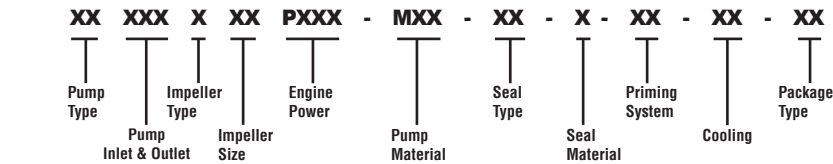
LH: Low Head Pump  
 MH: Medium Head Pump  
 HH: High Head Pump

### Pump Inlet & Outlet

LH: Pump Outlet Size (mm)  
 MH: Pump Outlet Size (mm)  
 HH: Pump Inlet Size (mm)

### Impeller Type

S: Solids Handling  
 C: Clear Water



### Impeller Size: Inch

### Engine Power: hp

### Pump Material

38: Standard  
 58: Optional 1  
 88: Optional 2  
 98: Optional 3

### Seal Type

MO: Mech. Seal Oil Lub (Standard)  
 MA: Mech. Seal Air Cushion  
 LG: Lip Seal Grease Lub

### Seal Material

1: SiC/SiC (Standard)  
 2: TC/SiC  
 3: TC/TC  
 4: NBR  
 5: Viton

### Priming System

V1: Venturi  
 V2: Diaphragm Pump (NA)  
 V3: EVP (Standard)

### Cooling

WC: With Cooling System  
 NC: No Cooling System

### Package Type

SO: Skid Open  
 TO: Trailer Open  
 SE: Skid Enclosed  
 TE: Trailer Enclosed  
 SP: Skid Push Bar  
 GN: Goose Neck