



**DELTA ENVIRONMENTAL**  
**D1P20-21 SERIES**  
**SEMI-POSITIVE DISPLACEMENT**  
**GRINDER PUMP**

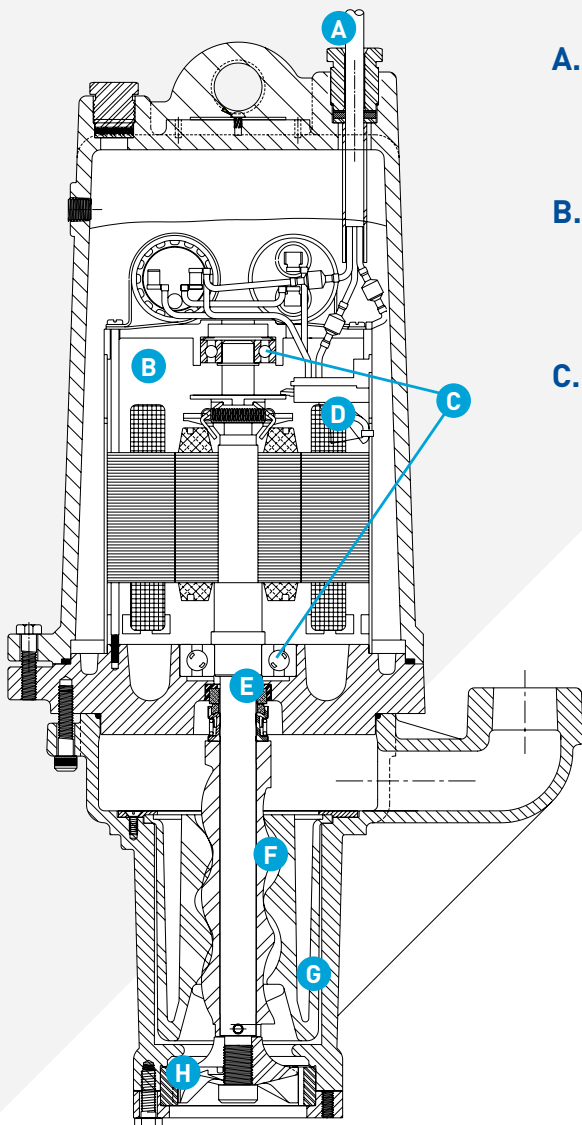


# DELTA ENVIRONMENTAL® D1P20 SERIES

## Semi-Positive Displacement Grinder Pump

### The Changing Force in Pressure Sewer

The reliable D1P20-21 semi-positive displacement grinder pump offering by Delta Environmental is specifically designed to meet the demands in Low Pressure Sewer (LPS) systems for the residential developer applications. The D1P20-21 grinder pump is ideal for “high head” applications involving single-family residences and cottages and features an innovative hardened cutter mechanism to effectively macerate typical domestic sewage solids into a fine slurry. As the world evolves from concrete septic tanks and large piping gravity collection systems to more innovative wastewater solutions, the use of submersible grinder pumps in Low Pressure Sewer (LPS) systems for the residential developer applications has proven to be a superior alternative. Complete packaged systems are available to make installation quick and simple. For additional information, please contact your local Delta Environmental representative.



#### A. Cable Entry

The water resistant power cord with molded plug is available in 20' (6m) lengths.

#### B. Powerful Motor

2 hp, 1750 RPM, 230V, 1 phase. High torque oil-filled motor conducts heat and lubricates bearings. Class F VFD/continuous duty rated.

#### C. Ball Bearings

The heavy-duty ball bearings, upper (radial) and lower (thrust), are continuously lubricated by oil to ensure long service life.

#### D. Overload Heat Sensor

Protects motor from burn-out due to excessive heat from any overload conditions. Automatically resets when motor has cooled.

#### E. Shaft Seal

The mechanical seal is constructed with a ceramic stationary face and a carbon rotating face and is field proven for long service life.

#### F. Rotor

300 Series SST single lobe rotor

#### G. Stator

Buna-N double helix stator.

#### H. Grinder Assembly

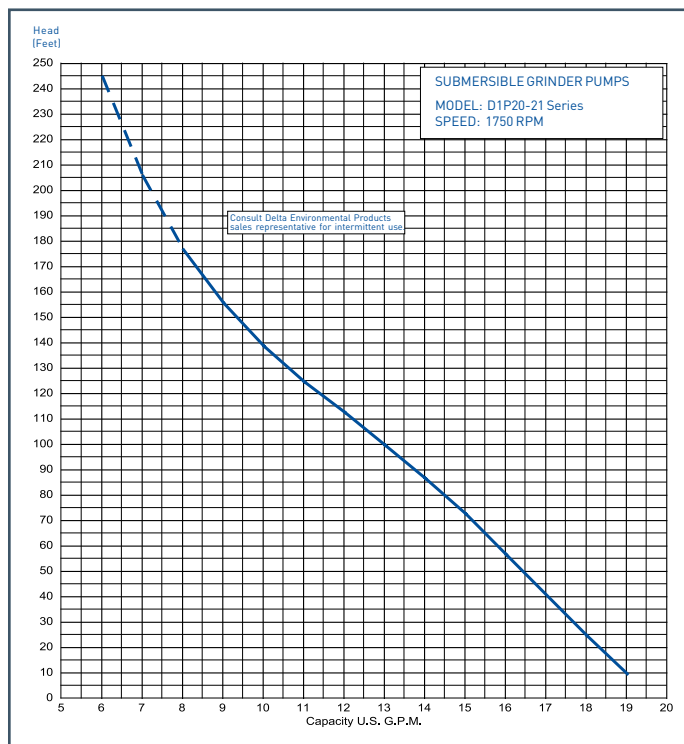
Grinder impeller and shredding ring are replaceable without dismantling pump. Constructed of 440 SST hardened to 56 – 60 Rockwell.

# Pump Details

## Pump Performance

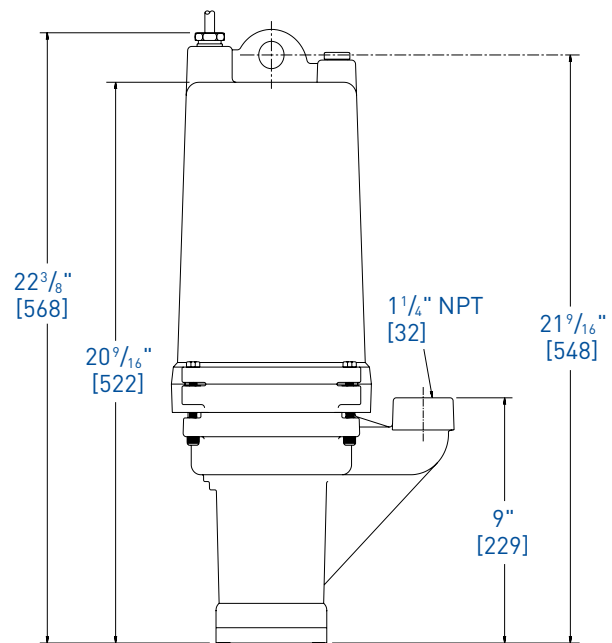
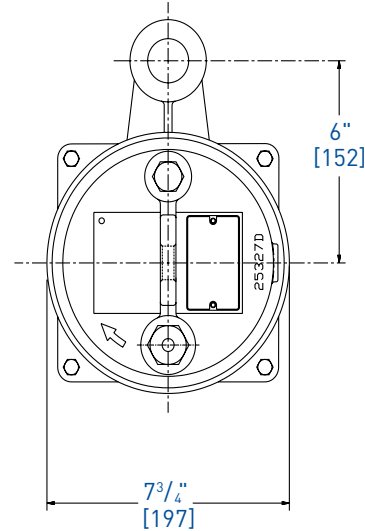
| Pump Capabilities                  |   |            |
|------------------------------------|---|------------|
| Winding Insulation Temp. (Class F) | 311°F                                       | 155°C      |
| Discharge, NPT                     | 1-1/4 in.                                   | 32 mm      |
| Liquids Handling                   | Domestic raw sewage                         |            |
| Intermittent Liquid Temp.          | Up to 140°F                                 | Up to 60°C |
| Motor                              | 2 hp capacitor start                        |            |
| Electrical (60 Hz)                 | 230 volts, 12.0 amps, 1750 rpm, 1 ph, 60 Hz |            |
| Acceptable pH Range                | 6 - 9                                       |            |
| Unit Weight                        | 85 lbs.                                     | 39 kg      |

| Construction Materials   |  |
|--------------------------|--|
| Motor Housing            | Cast iron, Class 30, ASTM A48  |
| Volute Case              | Cast iron, Class 30, ASTM A48  |
| Shaft                    | Stainless steel  |
| Cutters                  | 440C hardened 55-60 Rockwell C   |
| Power Cord               | 20 ft. SJOW/SJOW-A   |
| Rotor                    | Buna-N, Dbl. Helix,  |
| Stator                   | 300 series SST, single lobe  |
| Mechanical Seal          | Seal - carbon and ceramic<br>Seal body - stainless steel<br>Spring - stainless steel<br>Bellows - Buna-N |
| Bearings Upper and Lower | single ball  |



## Pump Dimensions

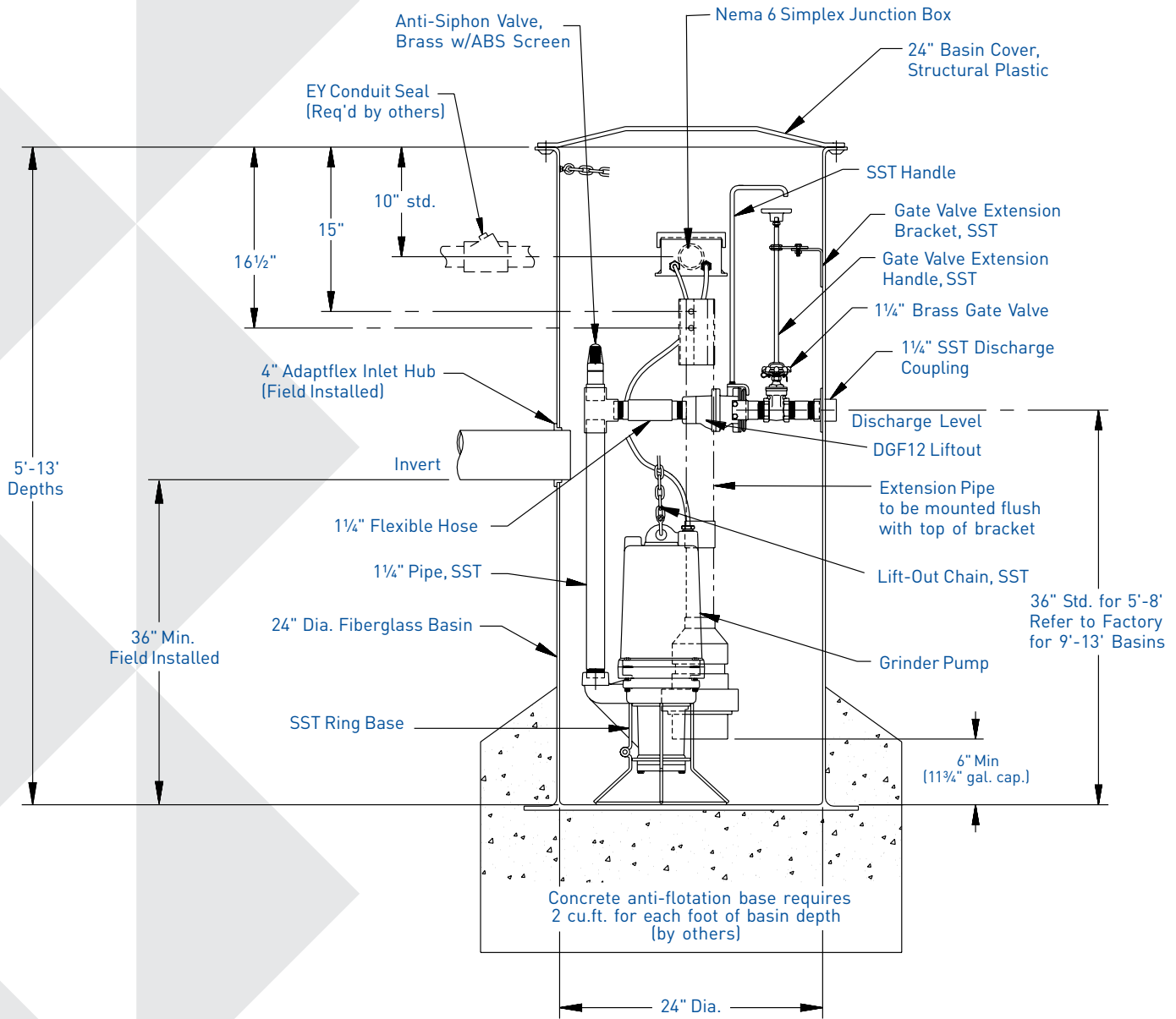
[Dimensions in MM]



### Motor Electrical Data

| Hazardous Location | HP | Volts | Phase | Hertz | Full Load Amps | Run kW | Start KVA | Run KVA | NEC Code | NEC Service Factor |
|--------------------|----|-------|-------|-------|----------------|--------|-----------|---------|----------|--------------------|
| D1P20-21           | 2  | 230   | 1     | 60    | 12.0           | ---    | 3.90      | 1.40    | D        | 1.0                |

# Installation Details



8263 FLORIDA BLVD., DENHAM SPRINGS, LA 70727, 225-665-6162, 1 (800) 219-9183 | WWW.DELTAENVIRONMENTAL.COM

Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice.  
 K4267 07/28/13 © 2013 Pentair Ltd. All Rights Reserved.