ONE (1) TRAILER MOUNTED; DIESEL POWERED TRASH PUMP

BP23-01

Lump sum bid consisting of the purchase of One (1) Trailer Mounted, Diesel Powered Trash Pump.

Lump Sum Bid: $ 81,527.50

Signed: Brent Becker

Title: Account Manager

Firm: Mersino Dewatering

Address: 10162 East Coldwater Rd

Davison, Mi, 48423

Phone No: (810) 350-4404

BIDS SHALL BE SUMBITTED ON THIS FORM IN DUPLICATE IN SEALED ENVELOPES CLEARLY IDENTIFYING THE BID TITLE

SPECIFICATION/PRICE SHEET

ONE (1) TRAILER MOUNTED, DIESEL POWERED, TRASH PUMP

The city is interested in purchasing an 8" trailer mounted, auto prime, diesel-powered trash pump meeting the following criteria, The diesel driven pump set must be of a heavy duty construction such as the type used within the construction, mining, and the pump rental industry, with the ability to work continuously.

The priming system should be an integral part of the pump with the ability to switch on and off automatically on demand and be capable of priming automatically from dry conditions at a 28-foot vertical suction lift to be fully operational within 20 seconds.

The pump shall be capable of running dry without damage for long periods and capable of passing 3" solids, fibrous material, gaseous sewage and sludge that can be found in emergency flood conditions.

Bids will be accepted for consideration by the city on any make and model that is equal to or superior to a Global Pump 8GST, eight-inch, trailer mounted pump as interpreted by the city.

	COMPLIANCE
1. The diesel-powered engine shall be minimum 4 cylinders with easily accessible engine fluid inspection/fill openings. The cooling system, engine air intake and exhaust shall be designed for optimum performance and operator safety as approved by the City.	**YES**
2. The pump shall be a non-clog, enclosed impeller type with Replaceable wear rings on both impeller and suction Cover. The separate suction cover shall be removable without disturbing the pump casing.	**YES**
3. The throttle shall be operator adjustable to set governed engine speed at any range between minimum and maximum design speed.	**YES**
4. Please provide speed and flow rates for the proposed pump, set up @ 750' MSL with a suction head of 15' and a TDH of 25' utilizing 8" suction and discharge hose at 50°F. **Minimum** 1600 rpm with a flow rate of 2925 gpm **Maximum** 2000 **rpm with a flow rate of** 3650 gpm	**YES**
5. The pump shall be capable of operating at any speed between the minimum and maximum for extended periods of time without restrictions or damage to the pump, priming system and/or engine	**YES**
6. The pump shall be capable to run completely dry for extended periods of time (24 hr) without adverse effect on the pump/priming system and/or engine as approved by	

COMPLIANCE

the city. The mechanical seal shall be constantly lubricated without influence of the product being pumped, requiring no maintenance or adjustment. Please describe the drive/seals/lubrication systems employed to deliver these characteristics.

YES

The pump's rotating face sits in an oil bath reservoir to provide cooling and lubrication during operation; even without water present in the pump. A sight level indicator allow for daily checks. No maintenance or adjustment is required

7. Gauges shall be provided to monitor engine oil pressure, voltage, coolant temperature, hour meter and tachometer. The hour meter shall indicate actual hours of engine running time.

YES

8. Shall come equipped with automatic low engine oil pressure and high engine temperature shut down system.

YES

9. Shall come equipped with three ignition keys.

YES

10. The engine shall come equipped with spin on fuel and engine oil filters.

YES

11. The fuel tank shall be sized for a minimum 24 hours of operation at full throttle and load as approved by the City. The fuel tank shall come equipped with an accurate, easily accessible fuel gauge as well as vandal proof fill and vent openings as approved by the City. The fuel tank shall be constructed of corrosion resistant materials and openings shall be provided for inspection and cleaning as approved by the City. **24.5 hours at 100% load**

YES

Consumption per hour under full load	**5.95**	gals**/hr at 100% load**
Fuel tank capacity	**146**	gals
Fuel tank composition	**steel**	gals

12. The pump shall be designed to be easily maintained, to pump at manufacturers published capacity over years of use. Please describe in detail the procedure to keep the pump end at optimum performance with shims, replacement wear components, adjustment, etc. Also provide estimated operating hours and costs per service interval over a 5,000-hour utilization period.

YES

The engine should be maintained every 250 hours of operation.

This includes engine oil, filters (air/oil/fuel). Estimated $250.00 in parts per service

COMPLIANCE

13. The pump shall be fitted with a fully automatic, compressor driven venturi, air ejector priming system. The compressor shall be engine driven. The priming/air ejection system shall start and stop on demand while continuously sensing suction conditions and air/liquid level on the suction side of the pump as approved by the City. The pump shall have the ability to repeatedly cycle from pump-snore-reprime-pump. The air/water separation shall be designed to eliminate the possibility of water being drawn into the air source as approved by the City. **YES**

14. The pump set shall be capable of operating automatic engine start-stop-start cycles in conjunction with a set of remote float switches. Please describe and indicate costs to provide this feature. **YES**

The engine controller is designed for automatic operation. Only parameter changes are required. A set of floats with a pin connection is $420.00

15. The pump shall be designed to easily drain the entire casing and any wet cavities which may become frozen during cold weather as approved by the city. **YES**

16. Please describe the nature of the inlet/outlets and the manufacturer and model of the fittings required for connections. The suction flow path shall be in axial alignment with the impeller eye, free of sharp turns or other features that may create suction turbulence. **YES**

The pump shall come equipped with 'Bauer' style ball and socket connectors made of galvanized steel.

17. A non-return check valve and shut off valve shall be provided between the venturi and the venturi hat to maintain engine prime after engine shutdown and to allow isolation of the priming system. **YES**

18. The entire trailer mounted pump set shall come equipped with a single point lift eye located at the vertical center of gravity to lift the entire unit evenly. Please indicate total weight of the unit as specified including fuel. **6,300** lbs. **YES**

TRAILER	COMPLIANCE
1. The complete structural trailer assembly including the axle and wheel rims shall be hot dipped galvanized or another City approved method of corrosion protection.	YES
2. The axle, suspension, wheels and tires shall be rated for at least 25% more than the actual unit weight.	YES
3. Fenders shall be provided that protect the unit from overspray as well as under spray as approved by the city.	YES
4. The towing connection shall be a commercial duty 2 5/8" ball coupler with a minimum adjustment range from 15" to 20" tow height.	YES
5. All wiring shall be protected with conduit and terminated with waterproof/salt proof connectors. The sealed modular LED lighting system shall be of the recessed design, mounted in rubber bushings and connected to the wiring system with the aforementioned connectors.	YES
6. The fore and aft zinc plated jacks shall be of the side-wind, quick-release, spring-loaded, 4 position swivel design with a minimum capacity of 1000 lbs. each.	YES
7. The trailer shall include all applicable equipment and lighting required for DOT compliance. Including electric brakes.	YES

BID ATTACHMENTS

The following information shall be included with the bid:

- Head/capacity curve
- Pump absorbed power curve (flow, head, horsepower)
- Capacities at suction lifts
- Solids handling capability @ variable flow rates
- A drawing illustrating priming system
- A drawing with operational dimensions

DEALER SUGGESTED OPTIONS OR ACCESSORIES

Available options or accessories not covered elsewhere in the bid specifications which may contribute to greater safety, productivity or convenience will be considered by the city. Please describe any additional suggested items for your proposed pump set and provide costs.

Please specifically address fittings and hose/pipe connections for both suction and discharge plumbing.

Do not include the cost for these extra items in your bid price on the proposal sheet.

130081050001	IMPELLER CUTTER WEAR RING, AXIAL	$650.00	
130082050001	SUCTION COVER CUTTER WEAR RING, AXIAL	$650.00	
506459000000	PUMP PRESSURE TRANSDUCER	$613.43	
506460000000	PUMP VACUUM TRANSDUCER	$613.43	
506005000015	0-15PSI SUBMERSIBLE TRANSDUCER, 50' CORD	$2,033.01	OR
601397000050	FLOAT ASSY - START/STOP - TWO 50' FLOATS	$400.00	
601355000000	8" X 10' QD BLACK HD SUCTION HOSE	$ 1,410.00	
601238000000	8" X 50' QD RED MD 2 PLY LAYFLAT HOSE	$1,020.00	

GLOBAL PUMP®
A MERSINO COMPANY

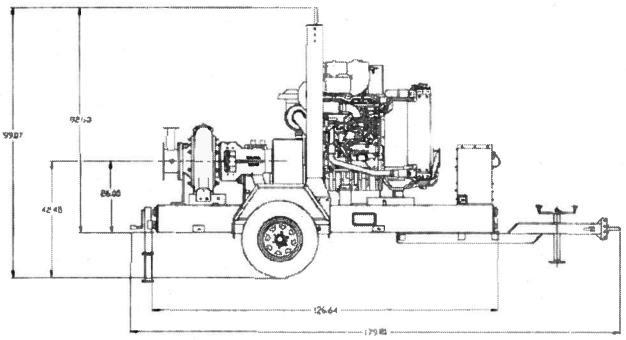
8GST GLOBAL STANDARD TRASH

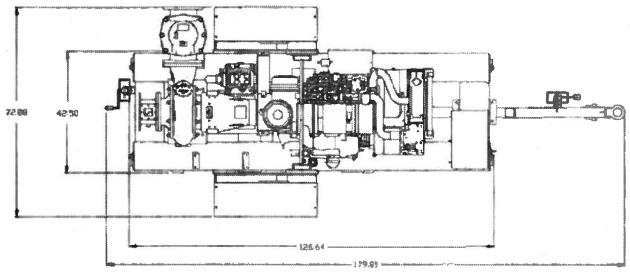
Global Pump® Standard Trash pumps are specifically designed to effectively handle a wide range of liquids from water to sewage and sludge that can contain solids and other material.

Global Pump Standard Trash pumps provide a dependable, highly efficient solution.The model 8GST is capable of achieving maximum flows of 3,650 gpm (829 m³/h) and maximum total head of 183' (55.8 m) while handling solids up to 4" (101.6 mm) in diameter.

The standard 8GST is powered by a water-cooled, 4-cylinder diesel engine. Alternative drives are available including natural gas as well as electric motors.

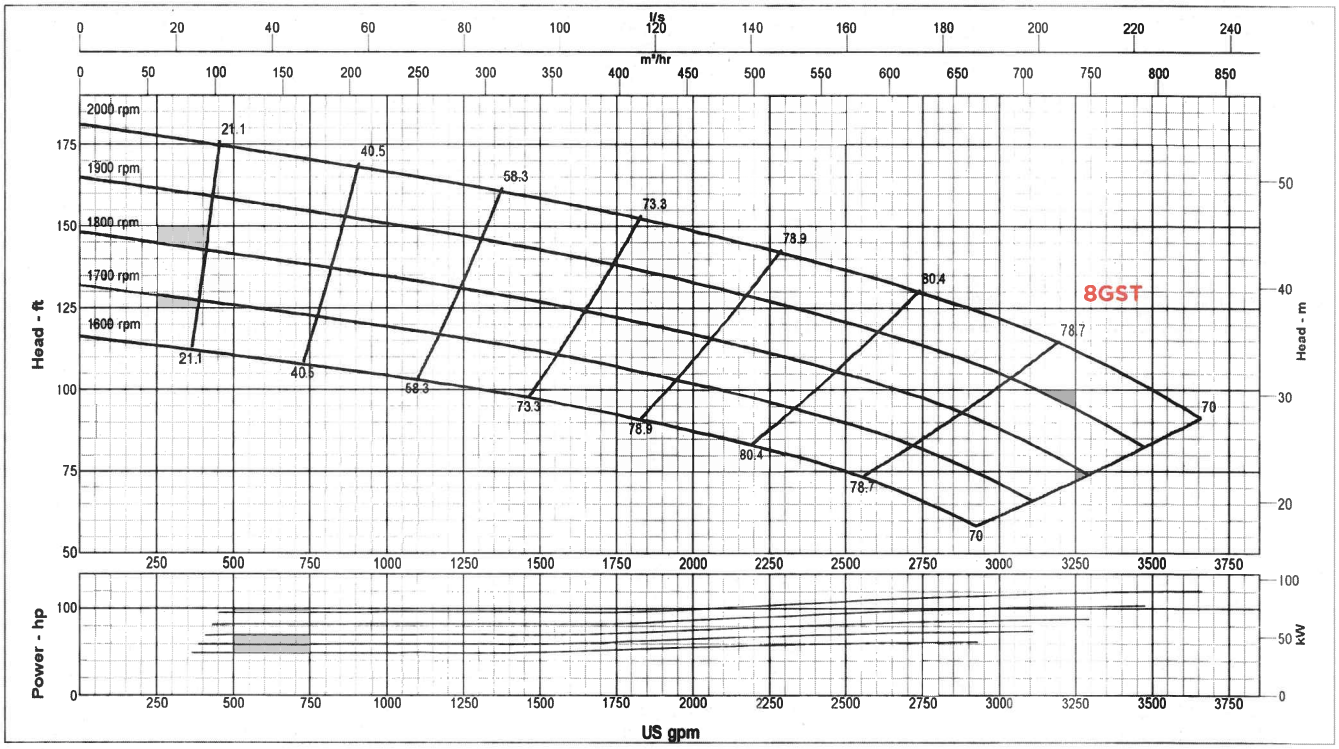
FEATURES	OPTIONS
Global Pump's rugged, heavy duty pumps are engineered specifically for portable application	Available with a variety of priming systems, including Global's Auto Prime® automatic priming system (compressor-fed venturi priming) or a diaphragm priming system
Non-return valve uses only a single moving part to allow full flow with minimal restriction	Mechanical seal with glycol (biodegradable optional) quench allows the pump to start and run dry
Standard engine control panel provides preset emergency shutdown protection and allows the addition of automatic level control	Global Pump's Environmental Box separates and silences air exhaust and returns liquid to the pump suction.
Fully guarded coupling	Fuel cubes for extended run times and/or remote location as required
Pump casings are hydrostatically tested to 50 psig (345 kPa) above the peak casing design pressure	Sound attenuated enclosure options
Highway trailer with integral fuel cell/chassis, lights, fenders, tie downs, lifting bail, front and rear jacks. Trailer brakes can be offered as required	Skid-mounted formats with tie downs, lifting bail, and fork pockets
	Hose racks, accessory containers and other custom features available as required
	Wide range of suction and discharge fittings including Global Pump's own "QD" Quick Disconnect fittings and accessories



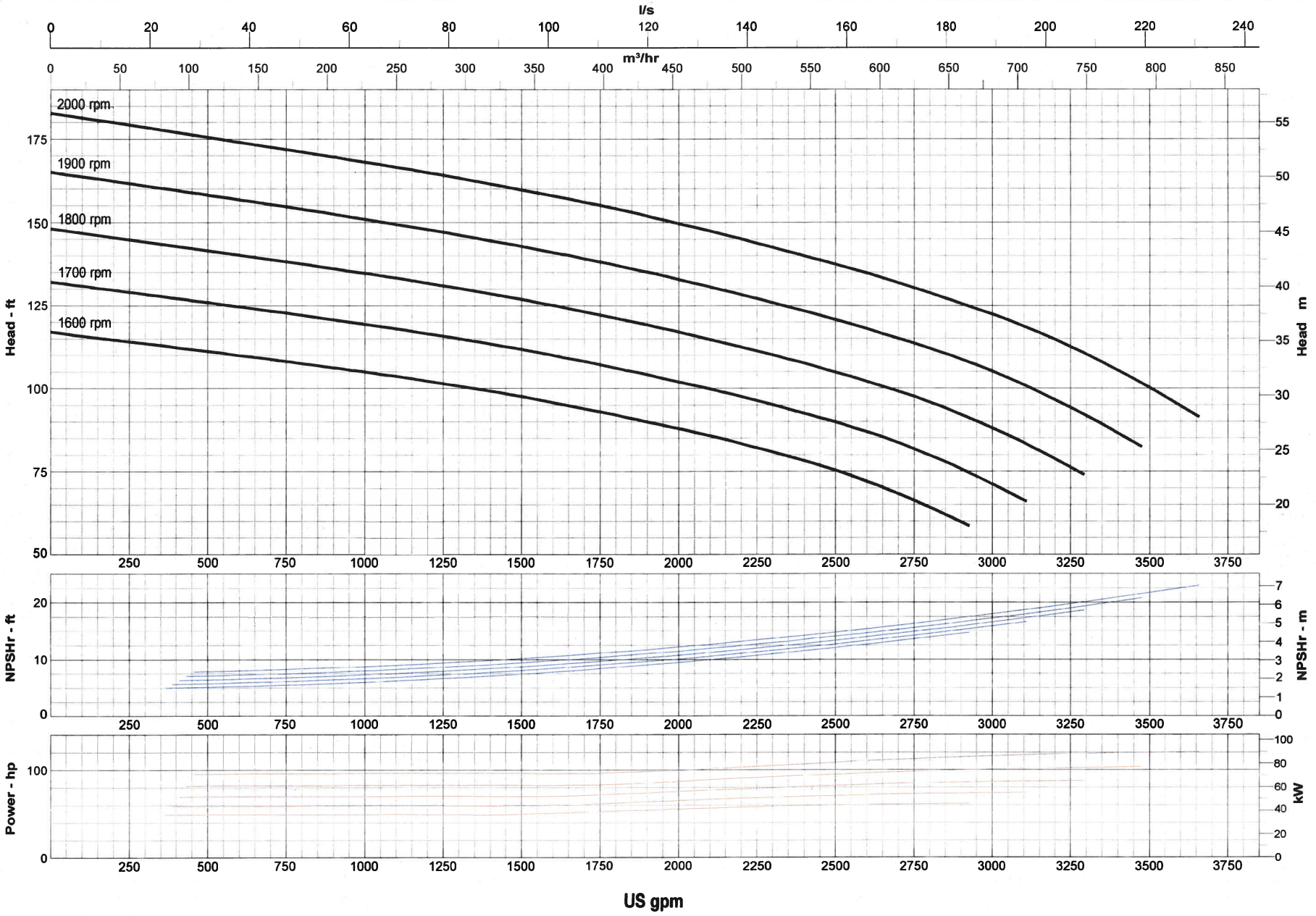


SPECIFICATIONS	
Connections	8" (200 mm) ANSI Flanges
Max Pump Speed	2,000 rpm
Max Flow	3,650 gpm (829 m^3/h)
Max Head	183' (55.8 m)
Max Static Priming Lift	28' (8.5 m)
Temperature Limit	160° F (70° C)
Solids Handling Capability	4" (101.6 mm)
Max Casing Pressure	125 psig (862 kPa)
Fuel Cell	109 gallons (413 liters)
Dry Weight	5,100 lbs

PUMP MATERIAL	
Casing	Cast Iron (CD4MCu is an option)
Impeller	Cast Iron (CD4MCu is an option)
Bearing Housing	Cast Iron
Bearing Lubrication	Grease
Shaft/Shaft Sleeve	Steel/FNC Treated Steel
Seal	Silicon Carbide on Silicon Carbide
Chassis/Fuel Cell	Steel
Non-Return Valve	Nitrile Fitted Cast Iron



GLOBAL PUMP
10162 East Coldwater Road, Davison, MI 48423
Tel: 810.653.4828 Fax: 810.658.0632
1.866.360.PUMP www.globalpump.com



Company: GLOBAL PUMP

Name: 2014 CATALOG CURVE

GLOBAL PUMP
Catalog: Global Pump, Vers 1
TRASH - 1800

Size: 8GST
Speed: 1600 - 2000 rpm
Dia: 12 in
Curve: T500106-2
Impeller: 000142