



Revolutionizing the Pumping Industry

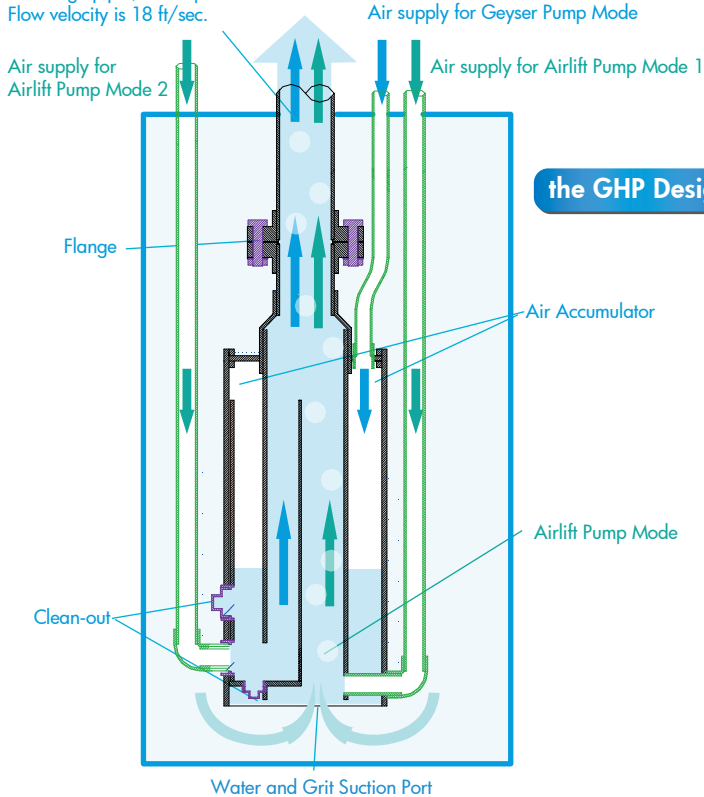
# Geyser Pump

## Geyser Hybrid Pump (GHP)

Low Cost, Low Energy for Grit Removal (Patent Pending)

The Geyser Hybrid Pump has been developed to provide clog free pumping operation for high grit solids removal using less energy with easy control of the pumping rate.

Discharge pipe / Grit ejection  
Flow velocity is 18 ft/sec.



the GHP Design



<b>Lift Pipe Diameters</b>
<b>2", 3", 4", 12"</b>
<b>Lifting Height</b>
<b>1.5 x Submergence</b>
<b>Grit Diameter</b>
<b>0 - 24mm</b>
<b>Grit Flow Velocity</b>
<b>18 ft per second</b>

## Specifications (GHP)

Discharge pipe diameter	2"	3"	4"	12"
Overall height	1' 10"	2'10"	3'2"	3'11"
Overall diameter (does not include intake screens)	10"	12"	16"	2'6"
Weight (lb)	30	40	50	100
Air supply (3)	1/2"	1"	1 1/4"	2"
Typical pumping rate (gpm)	28	64	86	1,200
Materials: PVC standard (Max. operational pressure 40 psig), Powder coated mild steel and stainless steel				

\*(note) Proper pumping rate selected based on submergence, lift, application and gpm required.



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**Operating pressure** = [Submergence (ft) + GEP height (ft)] x 0.43 (psi/ft)  
**Air flow [DCFM]** = # [pulses/min] x Delivered air volume to GEP [ft<sup>3</sup>/pulse]  
**Air flow [SCFM]** = [Operating pressure (psi) + 14.7 (psi)]/14.7 (psi) x Air flow [DCFM]  
**Flow rate:** # pulses/min x gallon/pulse = flow (gpm)

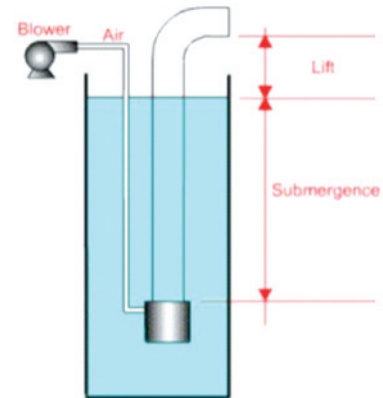
#### Delivered Air Flow to GHP [ft<sup>3</sup> / pulse]

2" GHP	3" GHP	4" GHP	12" GHP
0.13	0.35	0.52	6.12

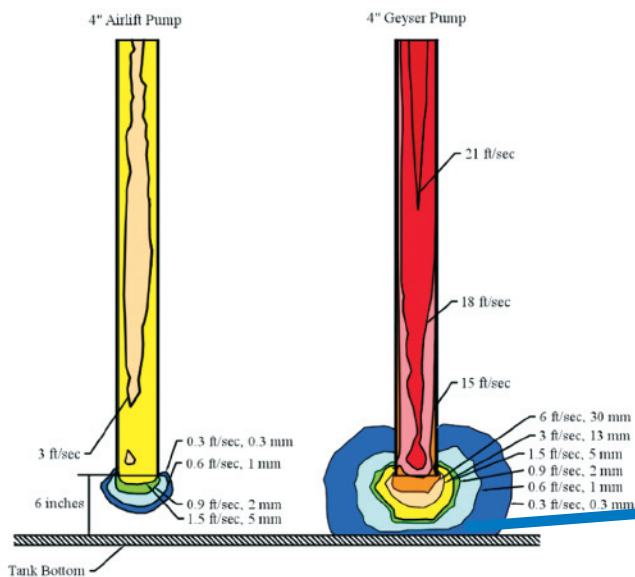
#### Delivered Liquid and Grit to GHP [gallon / pulse]

2" GHP	3" GHP	4" GHP	12" GHP
1.1	2.4	4.3	38.9

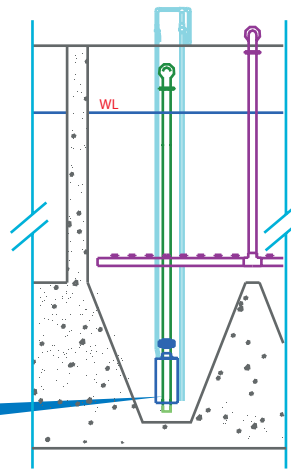
#### Design Criteria



#### Radii of Influence



#### Typical Grit Pit Placement



#### Performance comparison of Airlift Pump versus GHP

	Pumping rate	Velocity	Air flow	Power of Blower	Max Grit size
4" Geyser Hybrid Pump	35 GPM	18 ft/sec	20 SCFM @ 3.5 psig	0.8 BHP	24.0 mm
4" Airlift Pump	35 GPM	0.89 ft/sec	44 SCFM @ 3.5 psig	1.4 BHP	2.5 mm

Submergence = 8 feet, Lift = 7 feet