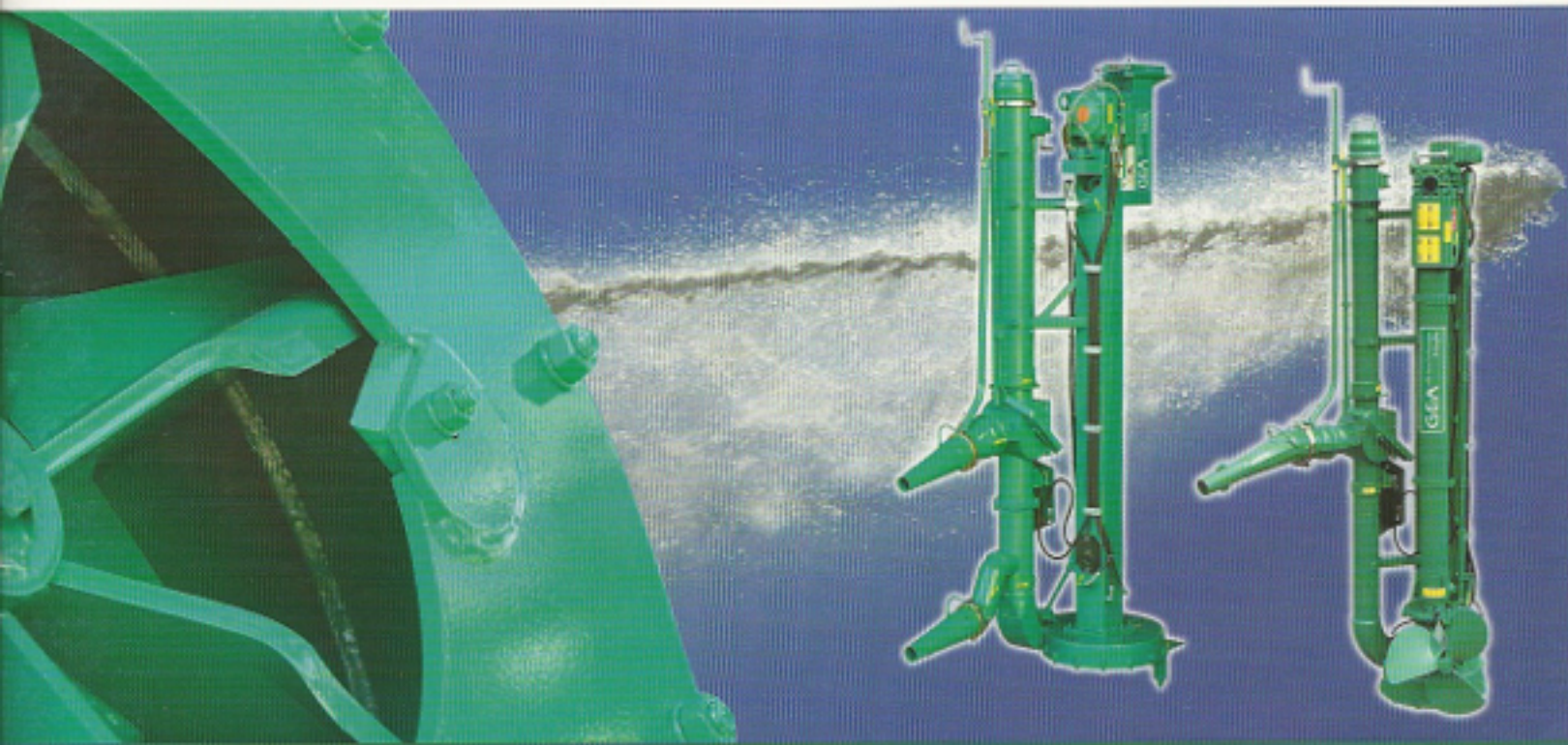


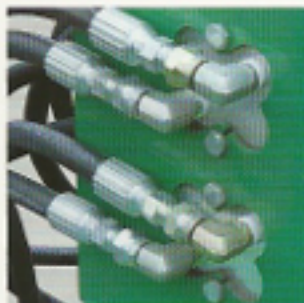
GEA



GEA Farm Technologies

Power Take-Off Pumps

Powerful PTO pumps
to handle liquid manure



GEA Farm Equipment | Houle

GEA Farm Technologies - The right choice.

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PTO Pumps



For decades GEA Houle Inc. has offered PTO pumps, a wide range of products designed to agitate and facilitate the evacuation of manure from your main manure storage pit.

Because manure characteristics are as varied as the types of storage, GEA Houle Inc. has extended the strength and power of its two main pumps, the Agi-Pompe and Super Pump, toward three distinct uses.

- The vertical pumps offer six different configurations to allow easy installation and removal from concrete pits.
- Our lagoon pumps are specifically designed to facilitate the approach, agitation and transfer of manure from lagoons.
- The far-reaching articulated pumps, secured solidly with a 3-point hitch are designed to mix and transfer manure from larger concrete pits.



GEA Houle Inc. strives to provide solutions that support proper manure management by offering products with a wide range of options to aid in manure transfer from pits, lagoons and to our spreaders.

With our knowledge of manure, GEA Houle Inc. has the ability to anticipate the needs of farmers and transform that knowledge into ingenious, efficient and high quality products. GEA Farm Technologies - The right choice when it comes to manure handling.

GEA Houle Inc. cares about the quality of the environment and continuously works to implement effective environmental management systems applicable in all facets of the business.

Agi-Pompe

The Agi-Pompe, with its high quality impeller and propeller offers outstanding performance and a long life span. The Agi-Pompe is used to homogenize and transfer liquid manure containing long bedding and bottom sediments.

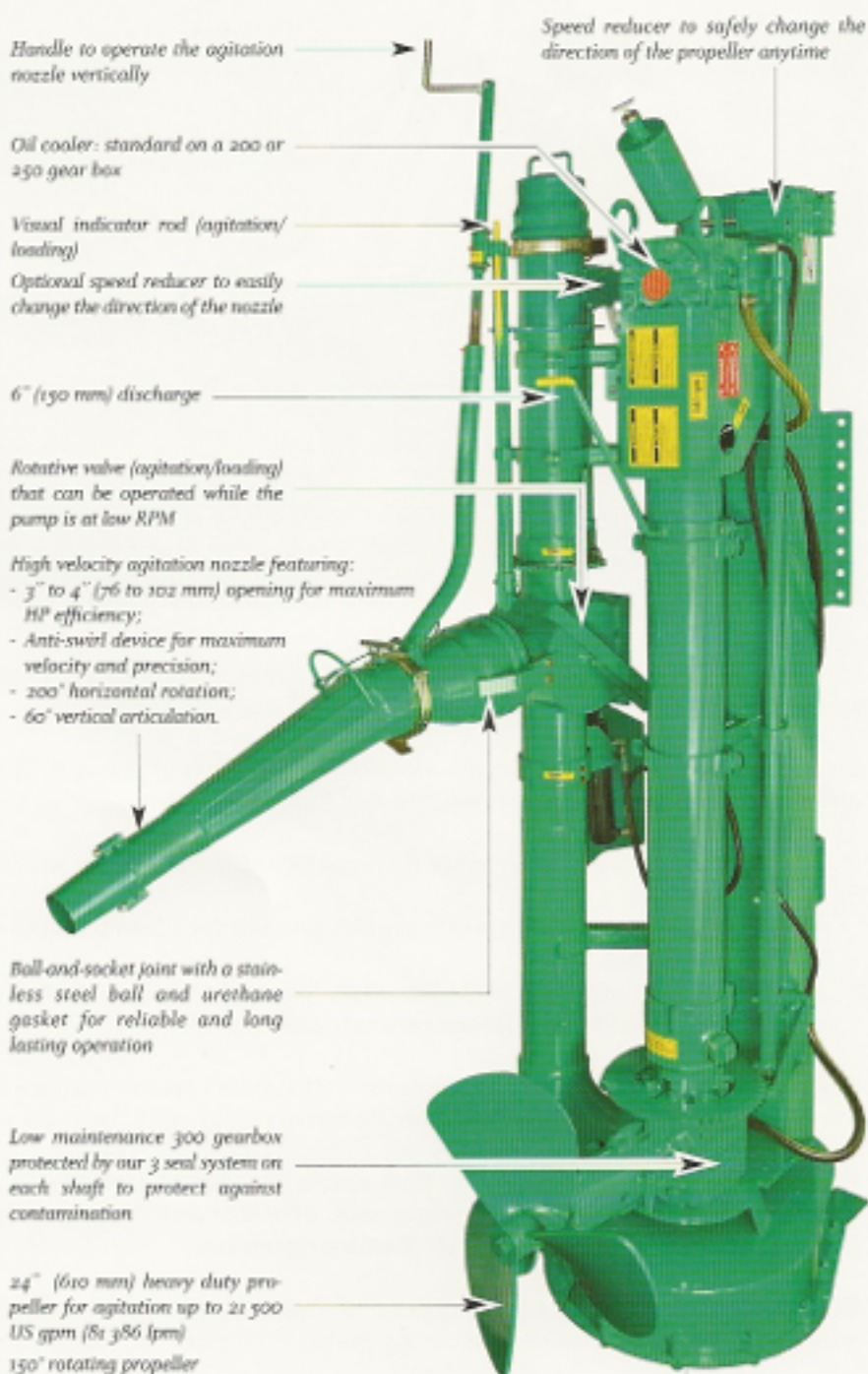
| | | |
|---|--|---------|
|  | Maximum transfer consistency 3/4" (19 mm) | |
|  | Maximum agitation consistency 1 1/2" (38 mm) | |
| ✓ Straw | ✓ Sawdust | ✓ Sand* |

* With optional abrasive resistant steel housing and bottom plate.

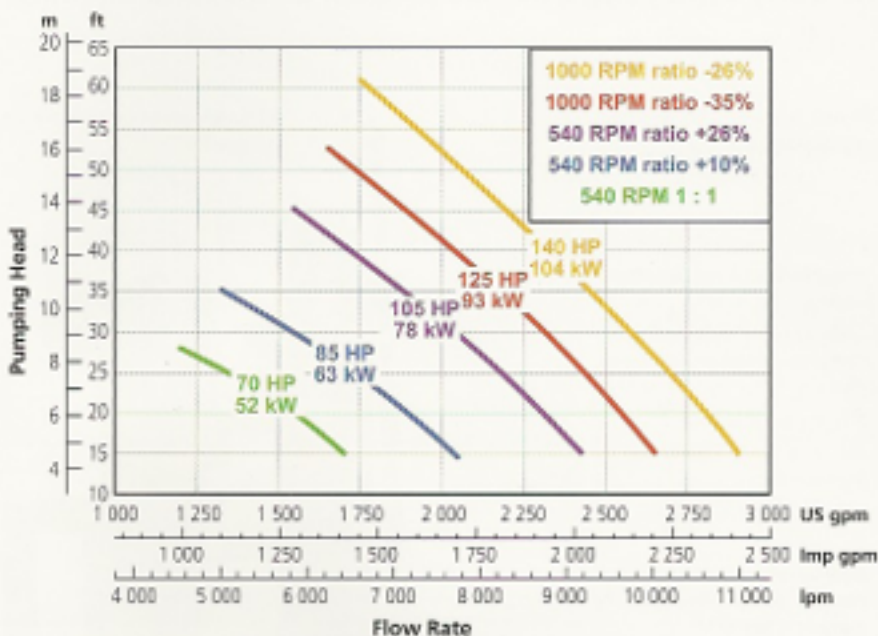
| Horsepower Requirements | |
|-------------------------|-------------------------------|
| 540 RPM | 70 - 110 HP (52 - 82 kW) |
| 1000 RPM | 125 - 140 HP (93 - 104 kW) |

Impeller and Housing

20" (508 mm) impeller featuring self-cleaning blades and reversible knives at the intake.



Working Range





Performance Chart

| 6" Agi-Pompe | | | | | | | | | |
|--|-------|------------------------|---------|-------------------|-------|-----|--------------------|-------|-----|
| 24" (610 mm) propeller and 20" (510 mm) impeller | | | | | | | | | |
| Ratio | RPM | Agitation Capacity | | | | | | | |
| | | 24" (610 mm) Propeller | | 3" (76 mm) Nozzle | | | 3½" (89 mm) Nozzle | | |
| | | US gpm | lpm | US gpm | lpm | HP | US gpm | lpm | HP |
| -26% | 1 000 | 26 525 | 100 408 | 1 400 | 5 300 | 140 | 1 750 | 5 300 | 140 |
| -35% | 1 000 | 24 750 | 93 689 | 1 325 | 5 000 | 120 | 1 625 | 5 000 | 120 |
| +26% | 540 | 22 975 | 86 970 | 1 200 | 4 500 | 105 | 1 500 | 4 500 | 105 |
| +10% | 540 | 20 275 | 76 749 | 1 075 | 4 000 | 85 | - | - | - |
| 1 to 1 | 540 | 18 150 | 68 705 | 950 | 3 500 | 70 | - | - | - |

Performances are obtained with approx. 1% (13 mm) mixture consistency.

Super Pump

The Super Pump is built with the same high quality construction as the Agi-Pompe and is the right choice to agitate and transfer slurry containing a limited amount of chopped bedding.

| | |
|---|--|
|  | Maximum transfer consistency 3/4" (19 mm) |
|  | Maximum agitation consistency 2 1/4" (57 mm) |
| ✓ Straw | ✓ Sawdust |
| | ✓ Sand* |

* With optional abrasive resistant steel housing and bottom plate.

The information above applies to the 28" (711 mm) impeller.

| Horsepower Requirements | |
|-------------------------|--------------------------------|
| 540 RPM | 70 - 100 HP (52 - 74.5 kW) |
| 1000 RPM | 95 - 210 HP (71 - 156.5 kW) |

The information above applies to the 20" (508 mm) impeller.

Impeller and Housing

20" to 28" (508 to 711 mm) impeller featuring self-cleaning blades and reversible knives at the intake.



Handle to operate the agitation nozzle vertically

Visual indicator rod (agitation/loading)

Optional speed reducer to easily change the direction of the nozzle

6" (150 mm) discharge
Also available in 8" (200 mm) for faster loading

Rotative valve (agitation/loading) that can be operated while the pump is at low RPM

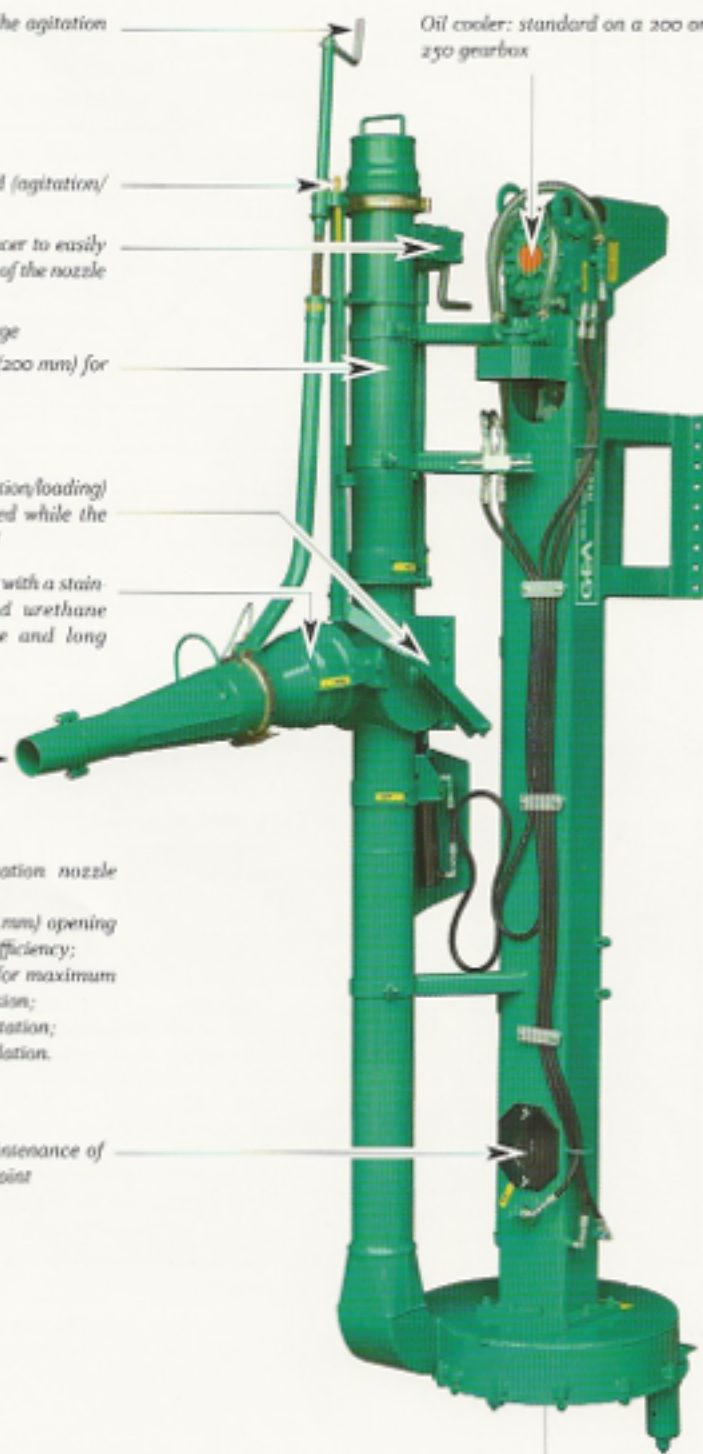
Ball-and-socket joint with a stainless steel ball and urethane gasket for reliable and long lasting operation

High velocity agitation nozzle featuring:

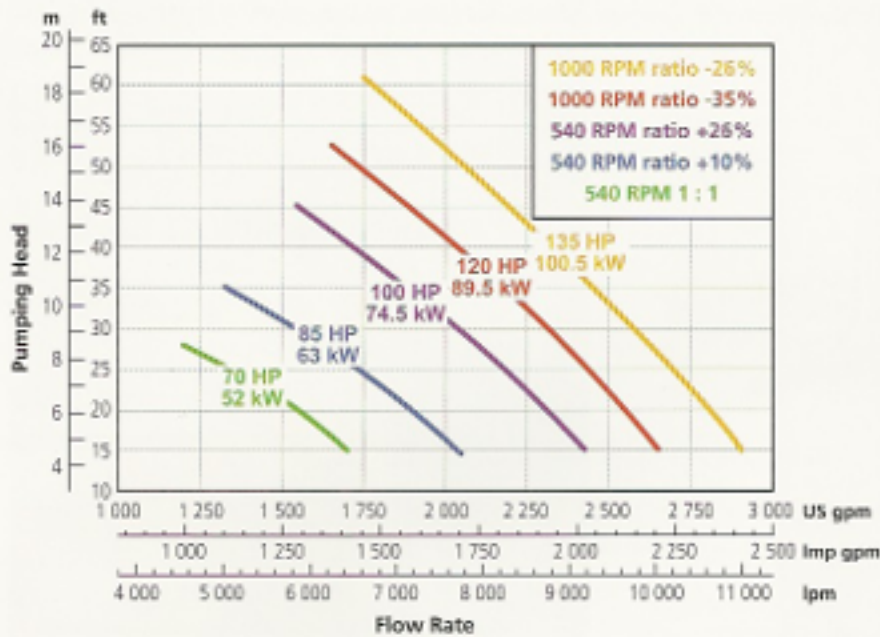
- 3" to 4" (76 to 102 mm) opening for maximum HP efficiency;
- Anti-swirl device for maximum velocity and precision;
- 220° horizontal rotation;
- 60° vertical articulation.

Easy access for maintenance of the lower driveline joint

Oil cooler: standard on a 200 or 250 gearbox



Working Range



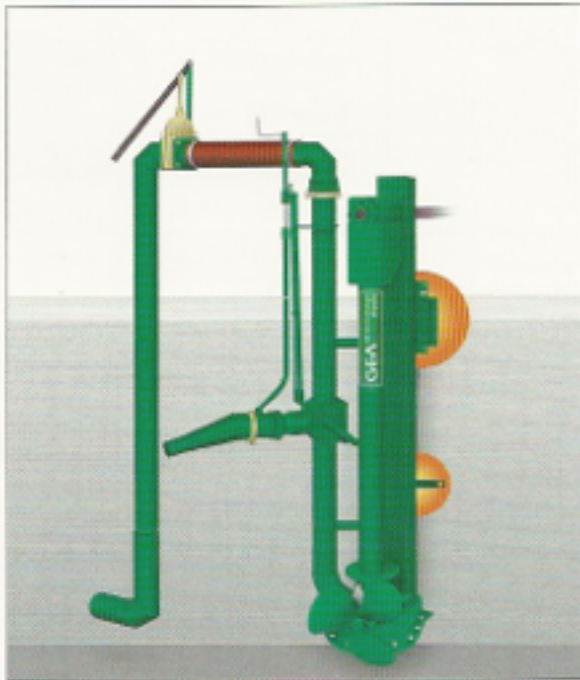
Performance Chart

| 6" Super Pump | | | | | | | | | | |
|----------------------------------|-------|--------------------------|-------|-----|---------------------------|--------|-----|------------------------|--------|-----|
| 20" (510 mm) impeller | | | | | | | | | | |
| Ratio | RPM | Agitation Capacity | | | | | | | | |
| | | 3" (76 mm) single nozzle | | | 3½" (89 mm) single nozzle | | | Twin 3" (76 mm) nozzle | | |
| | | US gpm | lpm | HP | US gpm | lpm | HP | US gpm | lpm | HP |
| -26% | 1 000 | 1 475 | 5 500 | 110 | 1 850 | 7 000 | 125 | 2 250 | 8 500 | 105 |
| +26% | 540 | 1 250 | 4 700 | 85 | 1 575 | 5 900 | 95 | 1 975 | 7 400 | 135 |
| +10% | 540 | 1 125 | 4 200 | 70 | - | - | - | - | - | - |
| 8" Super Pump | | | | | | | | | | |
| 21" (530 mm) impeller | | | | | | | | | | |
| -26% | 1 000 | 1 625 | 6 150 | 130 | 2 125 | 8 100 | 140 | 2 950 | 11 125 | 155 |
| 22" (560 mm) impeller - 4 blades | | | | | | | | | | |
| -26% | 1 000 | 2 150 | 8 250 | 145 | 2 850 | 10 925 | 160 | 3 925 | 14 900 | 185 |
| 22" (560 mm) impeller - 6 blades | | | | | | | | | | |
| -26% | 1 000 | 1 725 | 6 500 | 155 | 2 250 | 8 575 | 170 | 3 050 | 11 675 | 190 |

Agi-Pompe and Super Pump Configurations

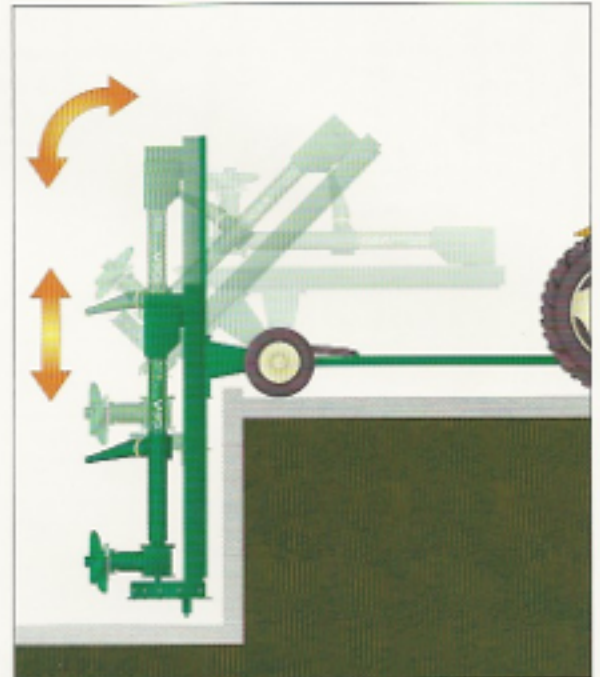
Stationary

Pumps available for pits 5'-6" (1.7 m) deep and up.



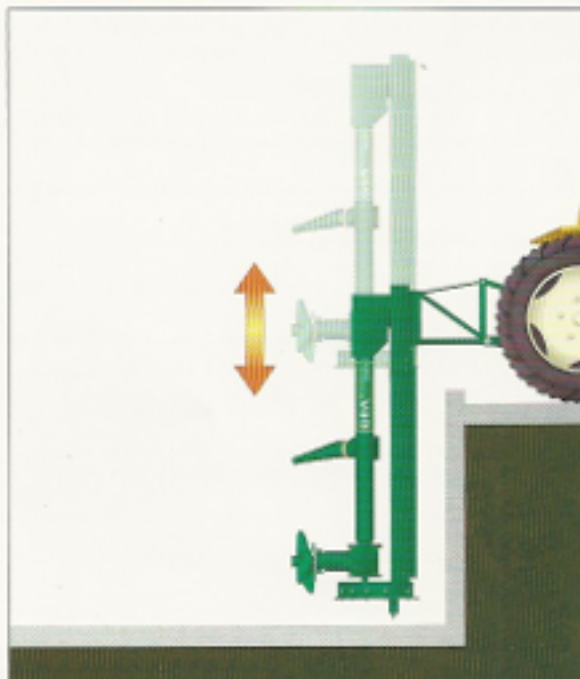
Trailer

Pumps available for pits ranging from 5'-6" to 18' (1.7 to 5.5 m) deep.



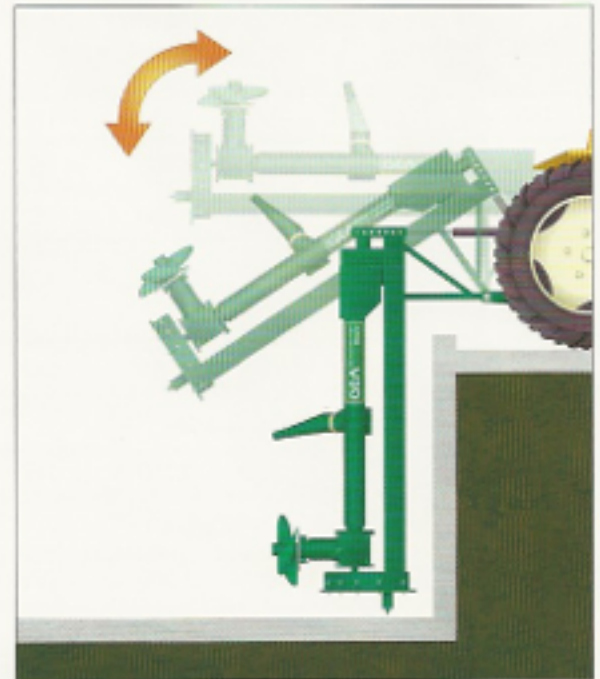
Sliding 3-Point Hitch

Pumps available for pits ranging from 5'-6" to 12' (1.7 to 3.7 m) deep.



Tilting 3-Point Hitch

Pumps available for pits ranging from 5'-6" to 13' (1.7 to 4 m) deep.

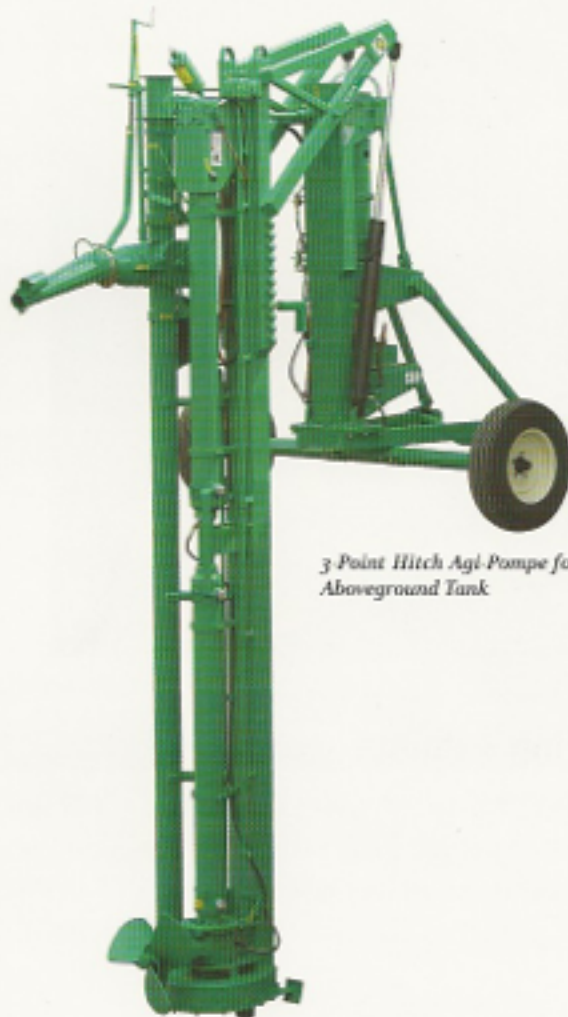


3-Point Hitch for Aboveground Tank

Pumps available for aboveground tanks or semi aboveground tanks up to 20' (6.1 m) deep.
Available only on Agi-Pompe and 6" Super Pump.

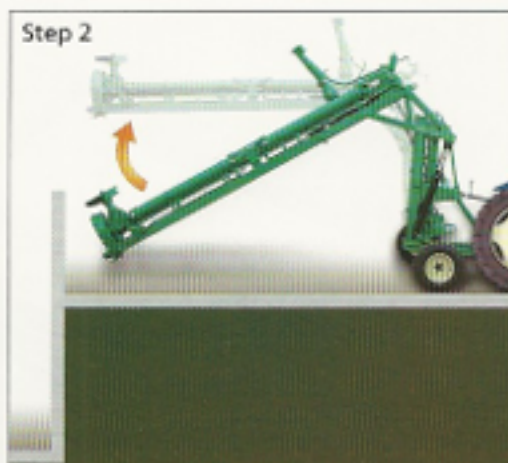
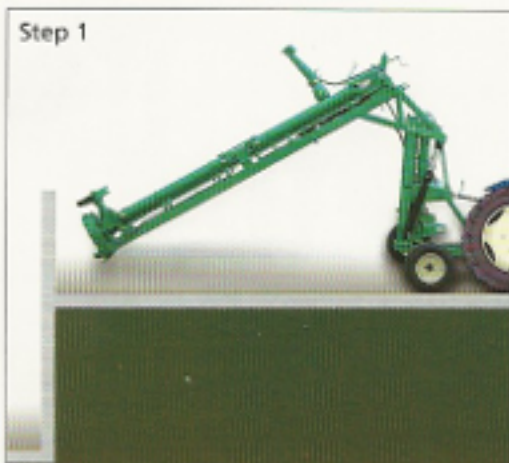


3-Point Hitch Agi-Pompe for Aboveground Tank



3-Point Hitch Agi-Pompe for Semi Aboveground Tank

Pump Deployment



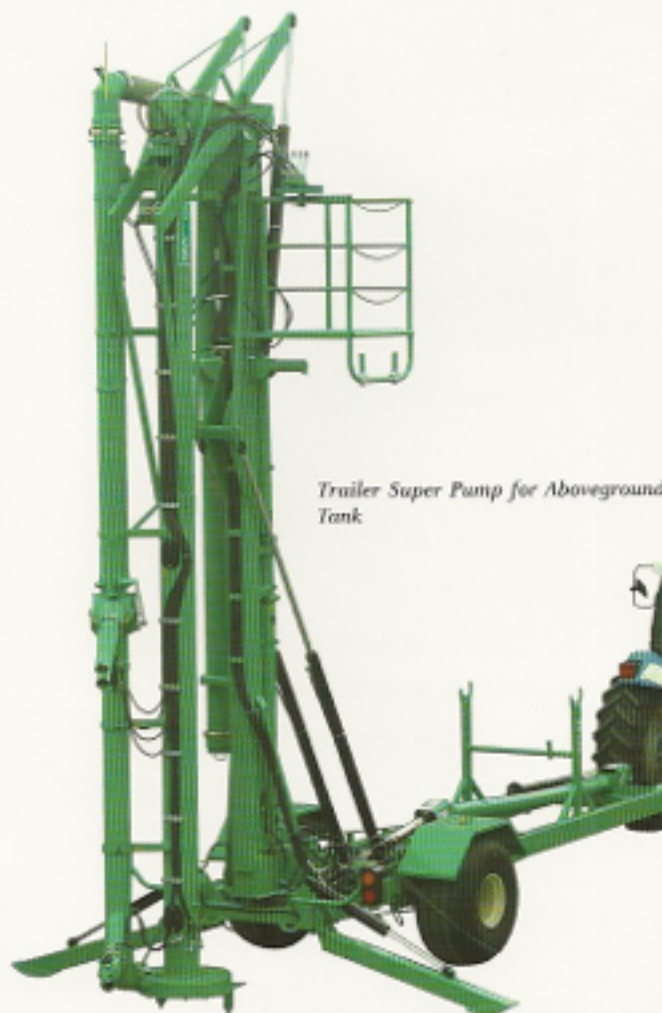
Agi-Pompe and Super Pump Configurations

Trailer for Aboveground Tank

For aboveground tanks up to 20' (6.1 m) deep.
Available only on Agi-Pompe and 8" Super Pump.



Trailer Agi-Pompe for Aboveground Tank

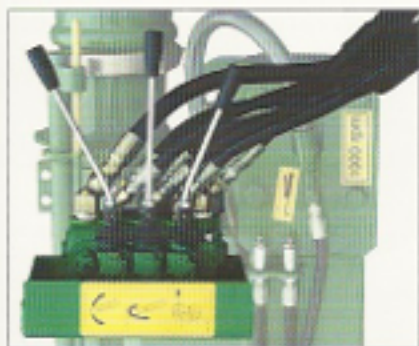


Trailer Super Pump for Aboveground Tank

Pump Deployment Steps



Agi-Pompe and Super Pump Options



Hydraulic Controls

3 levers operating the nozzles with one more on the Agi-Pompe to operate the propeller.



Electric Super Pump

The alternative for operating a stationary Super Pump where space does not allow a tractor.



Optional hydraulic cap

Additional Bottom Nozzle

To keep bottom sediments in suspension. 220° horizontal rotation. On Super Pump only.



Knife Kit on Propeller

To cut fibrous material and aid in the discharge of manure.

On Agi-Pompe only.



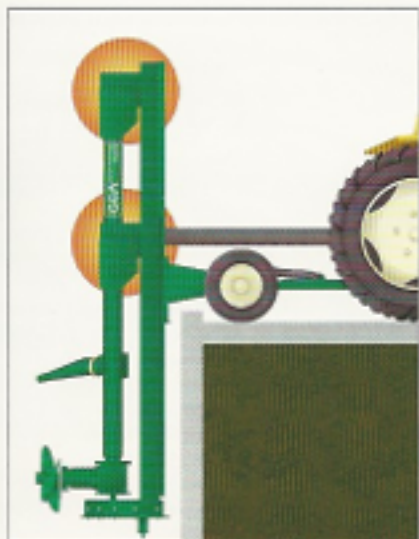
Remote Grease Line Kit

To lubricate the bearing housing without removing the pump.



Abrasive Resistant Steel Housing / Bottom Plate

To pump manure containing sand.



Additional Gearbox



To empty pits of different depths. A minimum of 36" (914 mm) is required between the two gearboxes.

Available only on the Trailer Agi-Pompe and 6" Super Pump.

Lagoon Agi-Pompe and Super Pump

These heavy-duty pumps will rapidly homogenize liquid manure in lagoons. Our lagoon pumps will provide you with excellent stability to work safely.

Lagoon Agi-Pompe

| | |
|---|--|
|  | Maximum transfer consistency 3/4" (19 mm) |
|  | Maximum agitation consistency 1 1/2" (38 mm) |
| ✓ Straw | ✓ Sawdust |
| | ✓ Sand* |

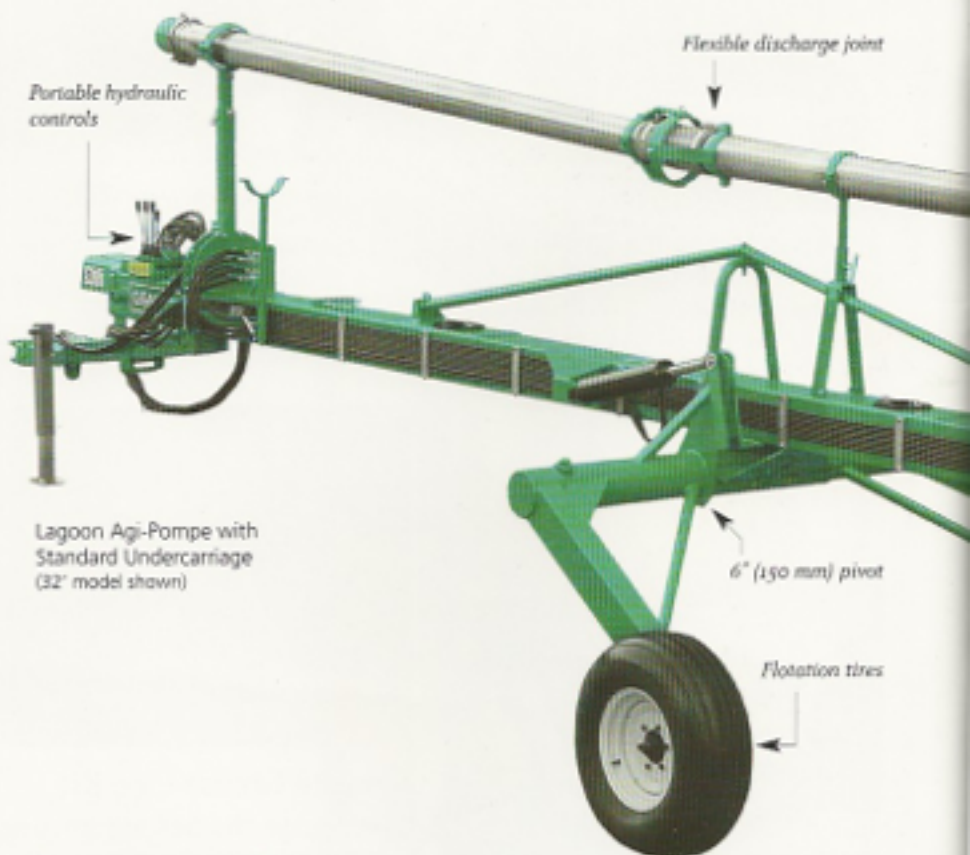
To homogenize liquid manure using a tractor with a minimum of 80 HP, 540 RPM.

Available in 1000 RPM for tractors with a minimum of 160 HP.

* With optional abrasive resistant steel housing and bottom plate.

Agi-Pompe Housing and Impeller

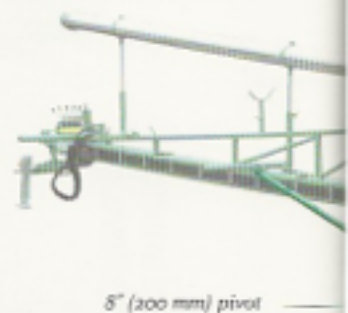
20" (508 mm) or 26" (660 mm) impeller.



Lagoon Agi-Pompe with Standard Undercarriage (32' model shown)

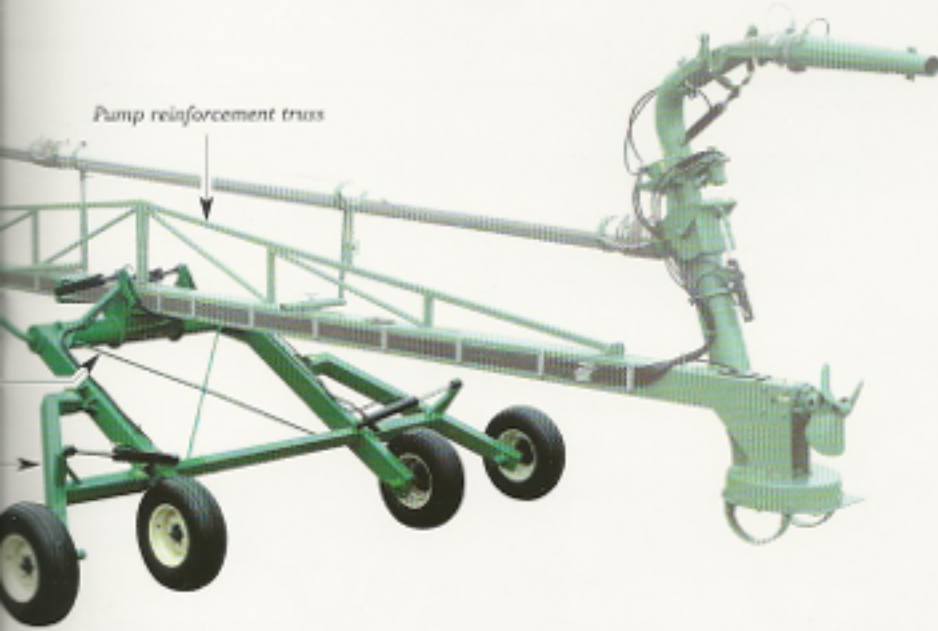
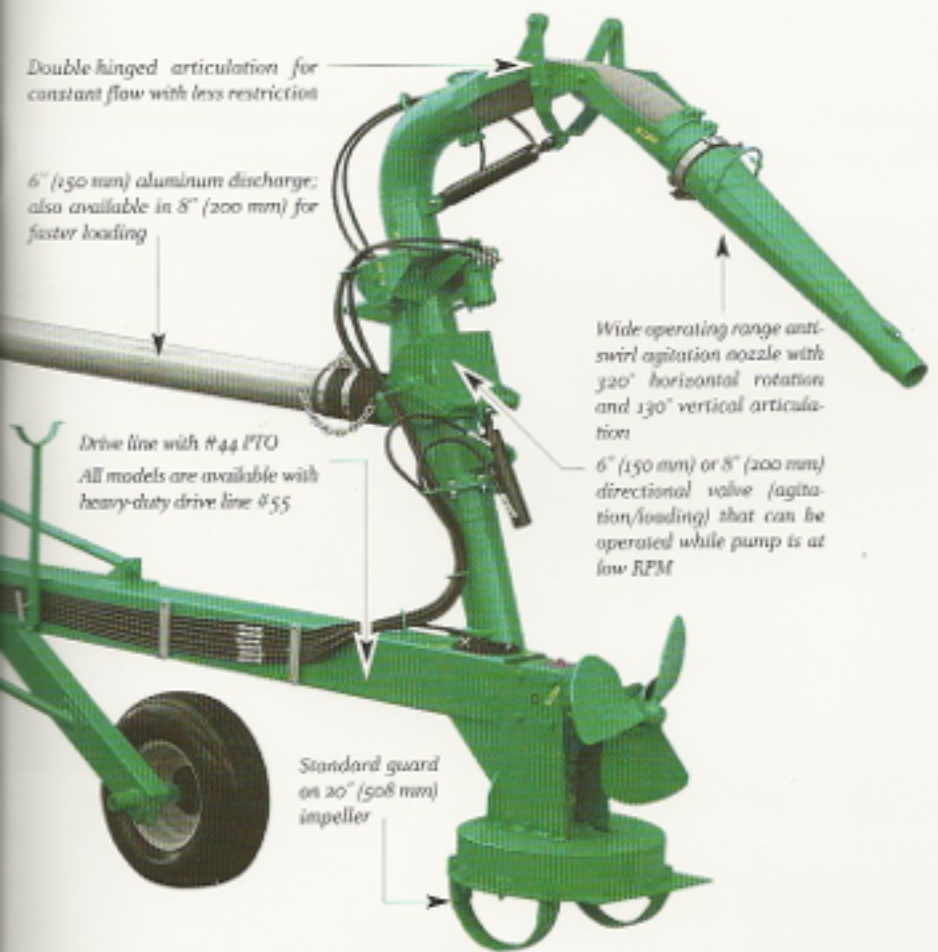
Draw Bar and Hitch

Length and angle are adjustable to avoid PTO vibration.



Optional side articulated stabilizer wheels operated individually

Lagoon Agi-Pompe with Heavy-Duty Undercarriage and Articulated Stabilizer (52' model shown)



Lagoon Super Pump

| | |
|---|--|
| | Maximum transfer consistency 3/4" (19 mm) |
| | Maximum agitation consistency 2 1/4" (57 mm) |
| <input checked="" type="checkbox"/> Straw <input checked="" type="checkbox"/> Sawdust <input checked="" type="checkbox"/> Sand* | |

To handle slurry using a tractor with a minimum of 80 HP, 540 RPM.
Available in 1000 RPM for tractors with a minimum of 180 HP.

* With optional abrasive resistant steel housing and bottom plate.
The information above applies to the 28" (711 mm) impeller.

Super Pump Housing and Impeller

26" (660 mm) or 28" (711 mm) impeller with 540 RPM or 23" (584 mm) impeller with 1000 RPM.

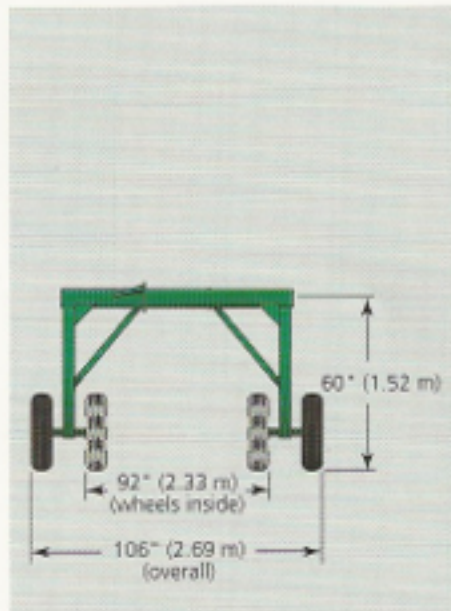


Lagoon Agi-Pompe and Super Pump

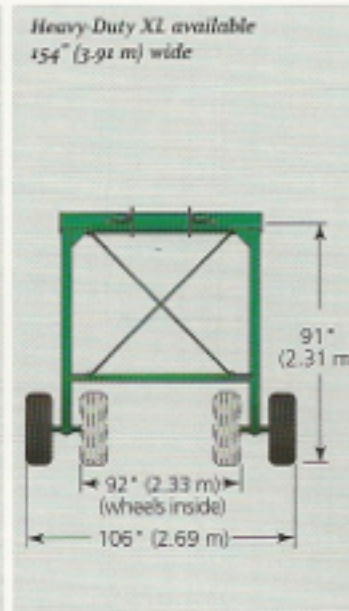
Undercarriage

Five robust trailers expressly designed to fit every lagoon pump.

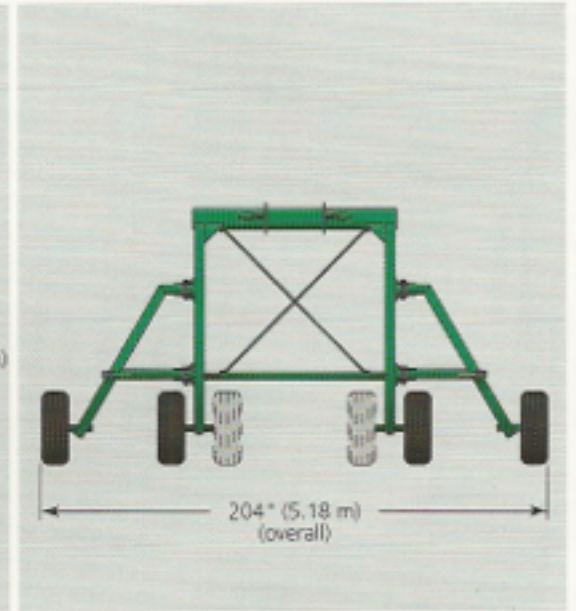
Standard Undercarriage



Heavy-Duty Undercarriage



Heavy-Duty Undercarriage with Articulated Stabilizer Wheels



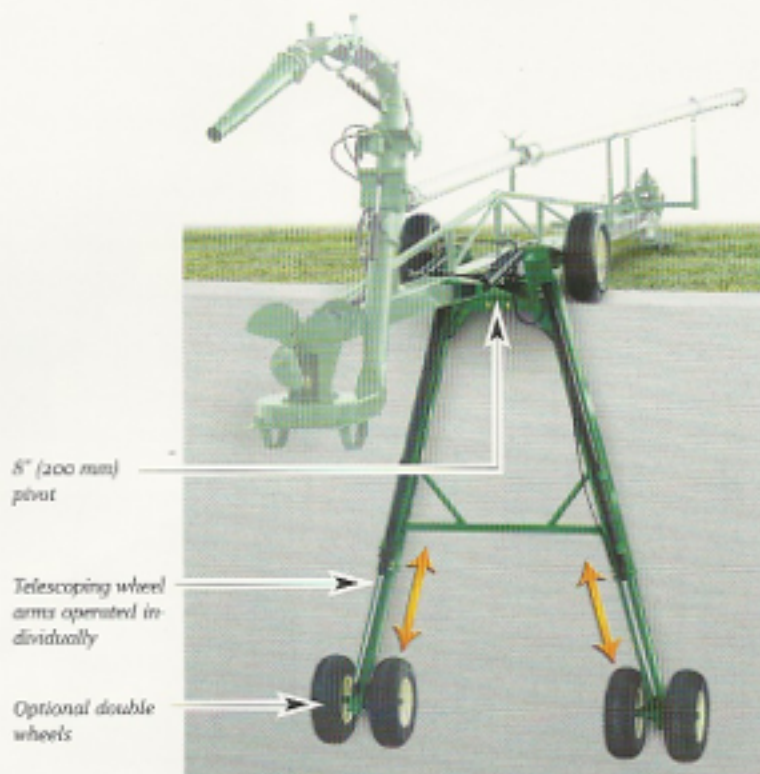
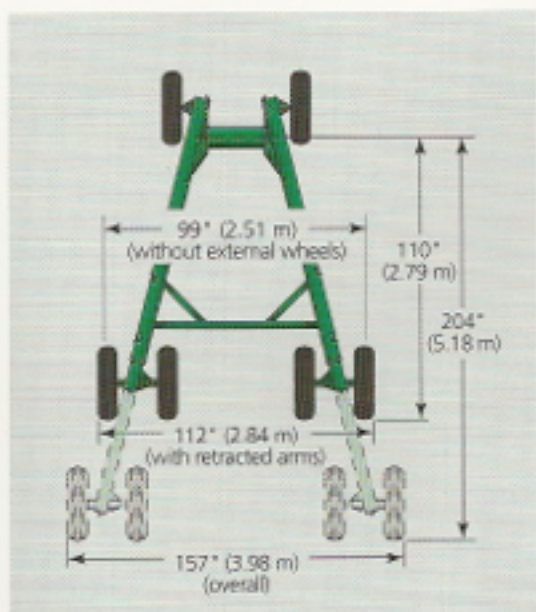
Undercarriage Compatibility

| Pump Lengths Available | Undercarriage Models | | | | |
|--|----------------------|------------|---------------|--------------------------|--------------|
| | Standard | Heavy-Duty | Heavy-Duty XL | Articulated Stab. Wheels | Multipurpose |
| 32' (9.8 m) 14' (4.3 m) lagoon depth Slope of 2 to 1 | Included | Option | Option | Option | Option |
| 42' (12.8 m) 18' (5.5 m) lagoon depth Slope of 2 to 1 | Included | Option | Option | Option | Option |
| 52' (15.9 m) 22' (6.7 m) lagoon depth Slope of 2 to 1 | - | Included | Option | Option | Option |
| 62' (18.9 m) 20' (6.1 m) lagoon depth Slope of 3 to 1 | - | - | Included | Option | - |
| 72' (22 m) 22' (6.7 m) lagoon depth Slope of 3 to 1 | - | - | Included | Option | - |

- : Not available

Multipurpose Undercarriage

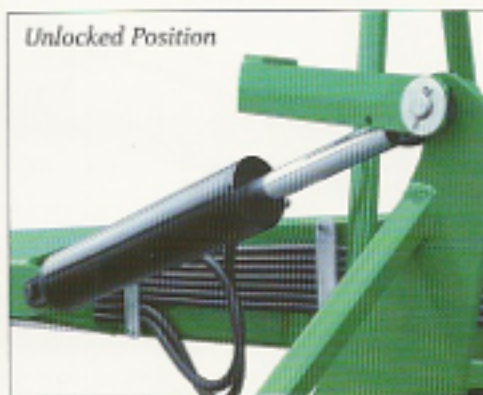
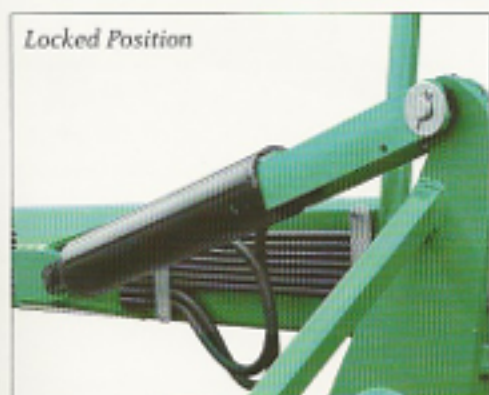
For lagoons and concrete pits.



Multipurpose Undercarriage for lagoons and concrete pits

Safety Device

To lock the hydraulic cylinders when traveling.

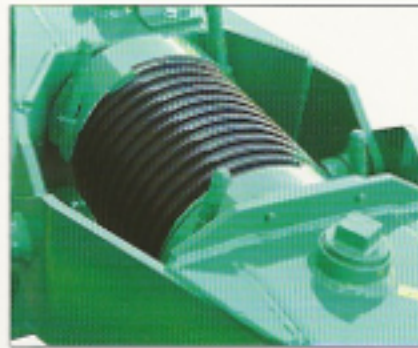


Lagoon Pump Options



Remote Control

To operate the pump and its multiple functions from inside the cab using 1 hydraulic outlet.



Drive Line in Oil Bath



Knife Kit on Propeller

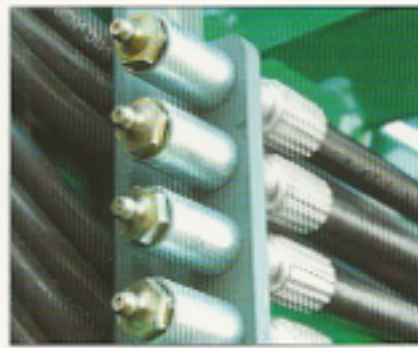
To cut fibrous material and aid in the discharge of manure.

On Agi-Pompe only.



Low Pressure Discharge Elbow

Reduces the pressure of the loading pipe discharge.



Remote Grease Line Kit

To lubricate the bearing housing without removing the pump.





Abrasive Resistant Steel Housing / Bottom Plate

To pump manure containing sand.

Articulated Agi-Pompe

The far-reaching Articulated Agi-Pompe with its solid 3-point hitch allows faster agitation and transfer of the manure from a larger concrete pit.

| | |
|---|--|
|  | Maximum transfer consistency 3/4" (19 mm) |
|  | Maximum agitation consistency 1 1/2" (38 mm) |
| ✓ Straw ✓ Sawdust ✓ Sand* | |

To rapidly homogenize liquid manure using a tractor with a minimum of 140 HP. 540 RPM only.**

* With optional abrasive resistant steel housing and bottom plate.



Low maintenance gearbox in oil bath.



Standard 3-point hitch.



Easy access for maintenance of the driveline joint.

Pump Lengths Available

| Length | Pit depth |
|--------------|--------------|
| 18' (5.5 m) | 12' (3.66 m) |
| 21' (6.4 m) | 14' (4.27 m) |
| 24' (7.32 m) | 16' (4.88 m) |

Portable hydraulic controls

Double hinged articulation for constant flow with less restriction

Adjustable nozzle 3" - 3 1/2" (76 - 89 mm) or 3 1/2" - 4" (89 - 102 mm)



6" (150 mm) aluminum discharge: available in 8" (200 mm) for faster loading

Wide operating range anti-swirl agitation nozzle with 320° horizontal rotation and 130° vertical articulation

6" (150 mm) directional valve (agitation/loading) that can be operated while the pump is at low RPM

Available in 8" (200 mm) for faster loading and better agitation

Articulated drive line with double joint for vibration-free operation.

Also available:

- Double joint in oil bath for low maintenance;
- #77 double joint.

Heavy duty drive line with #55 PTO

Low maintenance gearbox protected by our 3 seal system on each shaft to protect against contamination
A heavy-duty gearbox is also available



20" (508 mm) or 24" (610 mm) propeller
Constant agitation up to 27 500 US gpm (81 386 lpm)

26" (660 mm) impeller

** Available in 1000 RPM with gearbox reduction.

Articulated Super Pump

The Articulated Super Pump allows far-reaching access into concrete pits and provides power entirely concentrated on manure pumping.

| | |
|---|--|
|  | Maximum transfer consistency 3/4" (19 mm) |
|  | Maximum agitation consistency 2 1/4" (57 mm) |
| <input checked="" type="checkbox"/> Straw <input checked="" type="checkbox"/> Sawdust <input checked="" type="checkbox"/> Sand* | |

To handle manure with a limited amount of chopped bedding in a pit using a tractor with a minimum of 80 HP, 540 RPM only.

* With optional abrasive resistant steel housing and bottom plate.
The information above applies to the 28" (711 mm) impeller.

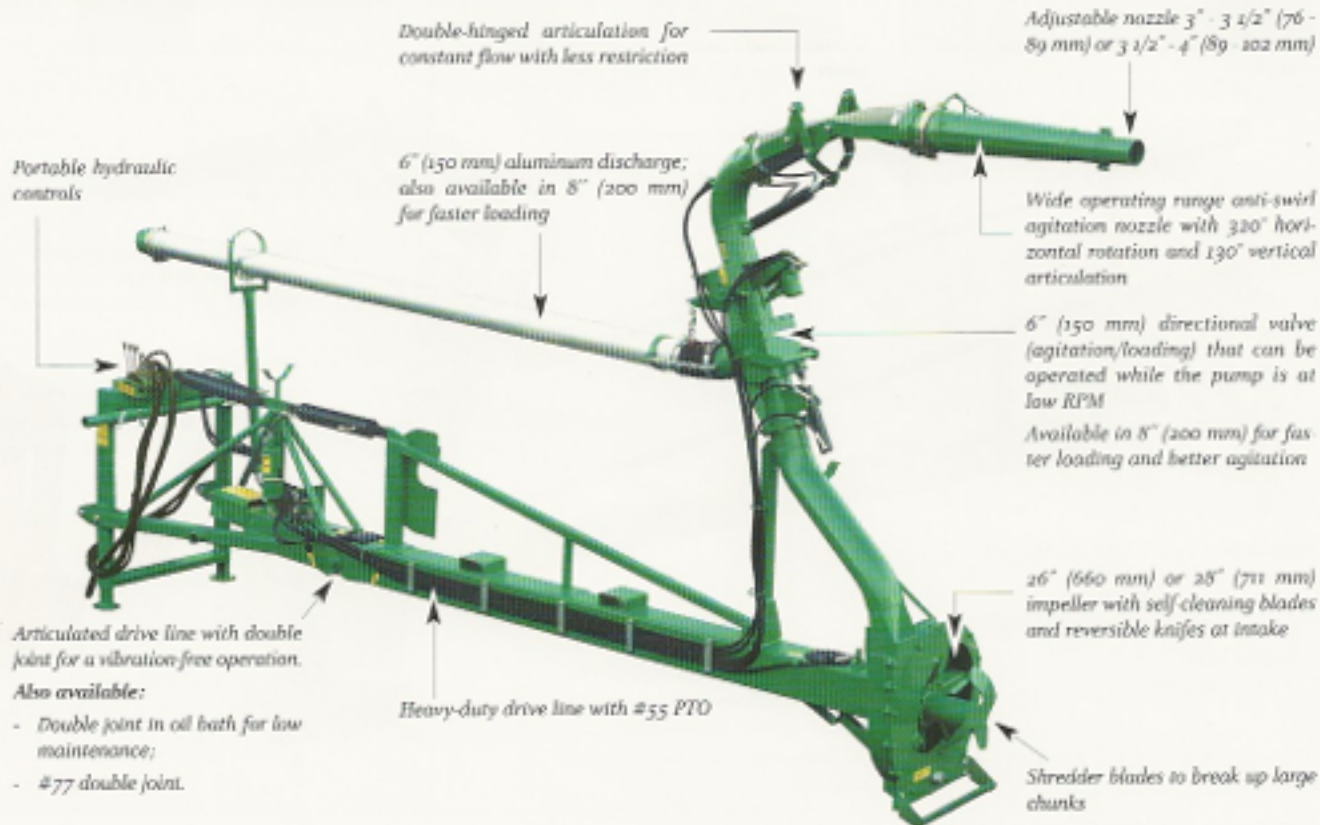
| Pump Lengths Available | |
|------------------------|--------------|
| Length | Pit depth |
| 17' (5.18 m) | 12' (3.66 m) |
| 18' (5.5 m) | 14' (4.27 m) |
| 21' (6.4 m) | 16' (4.88 m) |
| 24' (7.32 m) | 18' (5.5 m) |



Standard 3-point hitch.




Easy access for maintenance of the driveline joint.



Articulated Super Pump for Lagoon

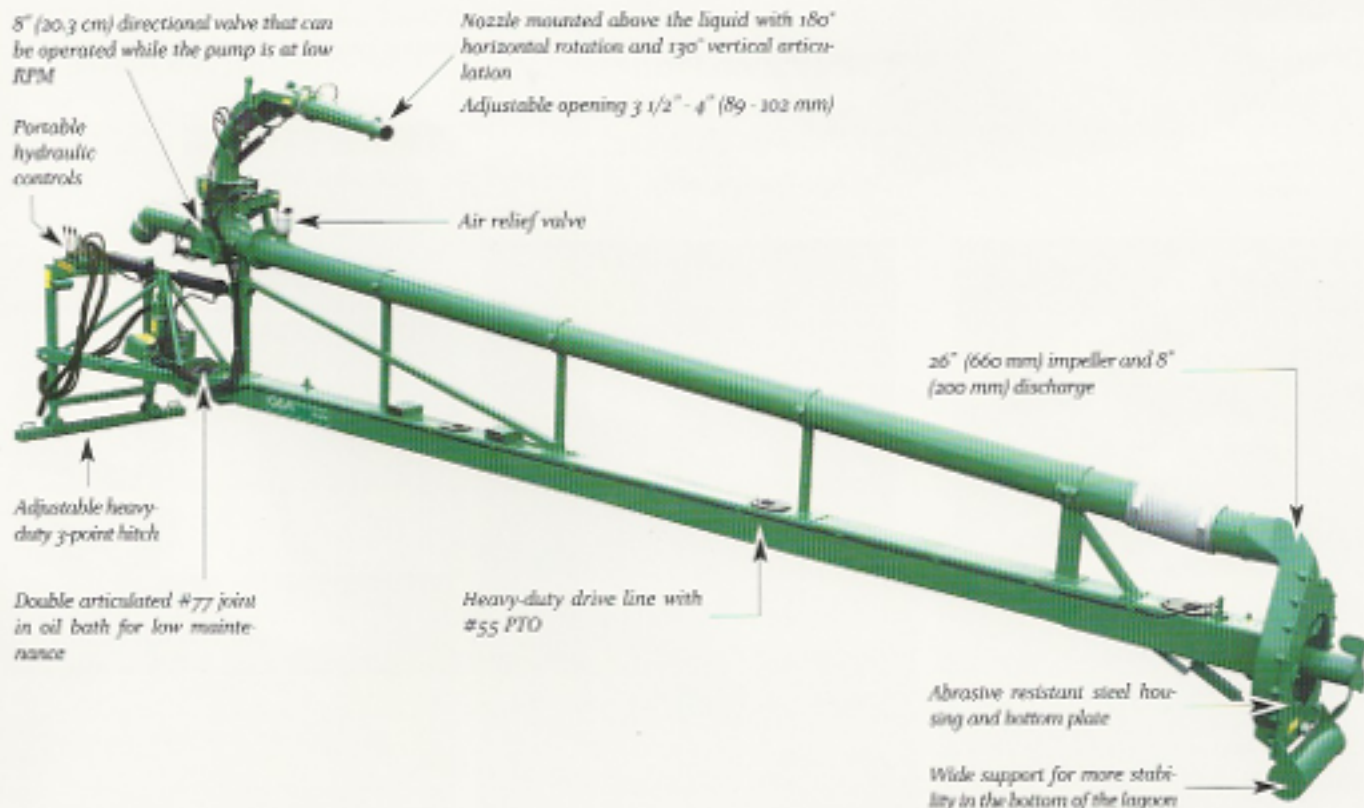
This Super Pump is especially designed for narrow areas and for lagoons up to 25' (7.6 m) deep with steep banks.

| | |
|---|--|
|  | Maximum consistency 2" (51 mm) |
| | ✓ Straw ✓ Sawdust ● Sand |

To handle heavy slurry using a tractor with a minimum of 120 HP, 540 RPM only.



| Pump Lengths Available | |
|------------------------|--------------|
| Length | Pit depth |
| 32' (9.75 m) | 25' (7.62 m) |



Articulated Pump Options



Adjustable Heavy-Duty 3-Point Hitch

Optional on the 18' (5.5 m) and 21' (6.4 m) model. Standard on the 24' (7.32 m) model.



Wheels and Tow Bar Kit

For road travel.



Remote Control

To operate the pump and its multiple functions from inside the cab using 1 hydraulic outlet.



Drive Line in Oil Bath



Knife Kit on Propeller

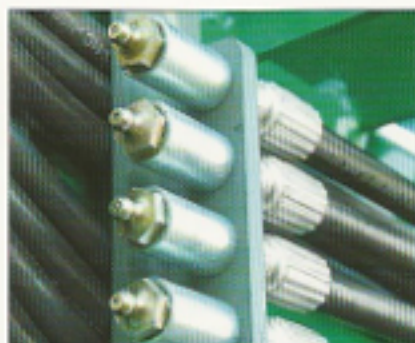
To cut fibrous material and aid in the discharge of manure.

On Agi-Pompe only.



Low Pressure Discharge Elbow

Reduces the pressure of the loading pipe discharge.



Remote Grease Line Kit

To lubricate the bearing housing without removing the pump.



Abrasive Resistant Steel Housing / Bottom Plate

To pump manure containing sand.

Other Options

Articulated Housing

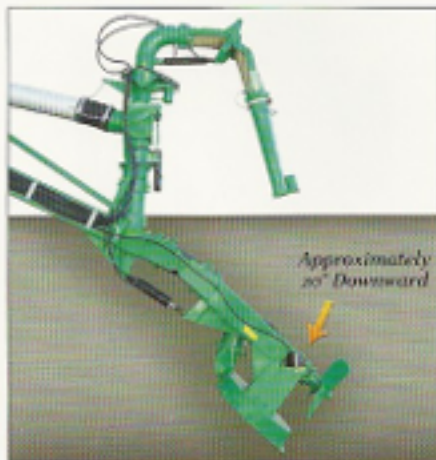
The Articulated Housing is a valuable, time saving option. The agitation nozzle combined with the 40° vertical rotation of the articulated housing creates enough turbulence to significantly reduce the time needed to homogenize your main storage. It can be installed on the Articulated or the Lagoon Agi-Pompe.



Articulated Agi-Pompe with the optional articulated housing



Lower Housing Articulation



Other Options

Articulated Filling Pipe

This loading pipe is made of durable aluminum and requires no clamps or hoses. The Articulated Filling Pipe is quick and easy to set up directly from the tractor. It can be installed on lagoon and articulated pumps.

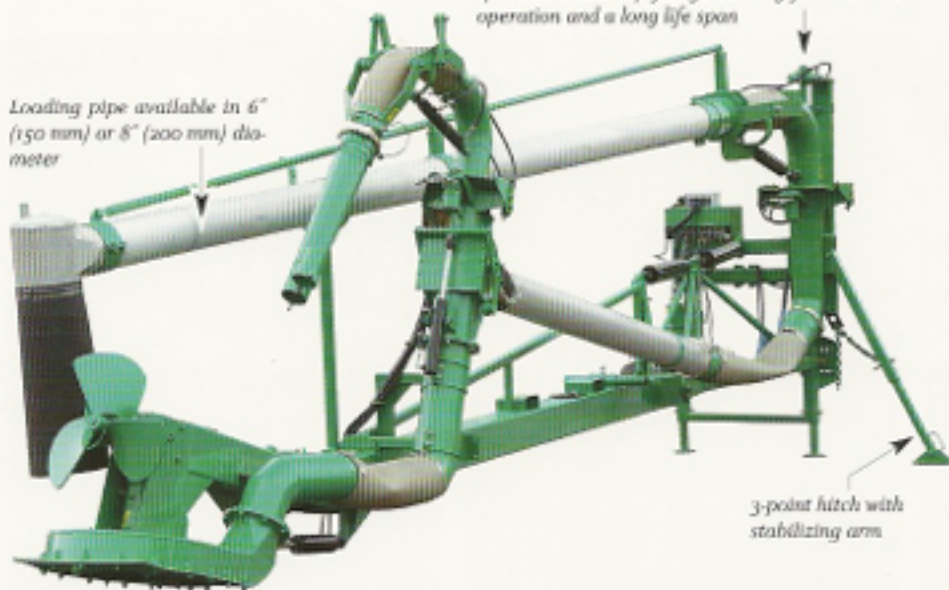
The pipe measures 29' (8.84 m) from the articulation to the discharge.



Articulated Filling Pipe installed on an Articulated Agi-Pompe

Pivoting system constructed with a large diameter sprocket and a top flange bearing for accurate operation and a long life span

Loading pipe available in 6" (150 mm) or 8" (200 mm) diameter



3-point hitch with stabilizing arm

3-point hitch on lagoon pump



Loading Pipes

Loading Pipe on Tripod

Key Features

- Aluminum loading pipe measuring 25' (7.62 m) long;
- 6" (150 mm) discharge or 8" (200 mm) discharge for faster loading and less velocity;
- Available with 20°, 70° or 90° elbows.



Loading Pipe on Wheels

Key Features

- 8" (200 mm) to 10" (250 mm) loading pipe to decrease the velocity by 36% and reduce the foaming produced when using a high output pump;
- Steel loading pipe measuring 30' (9.14 m) long;
- Hose adapter at the intake.

Optional

- Hydraulic height adjustment;
- Accessories basket.



GEA Farm Technologies

The right choice.



GEA

GEA Farm Technologies

GEA Houle Inc.

Manufacturing Plant and Canadian Sales Office

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GEA Farm Technologies

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