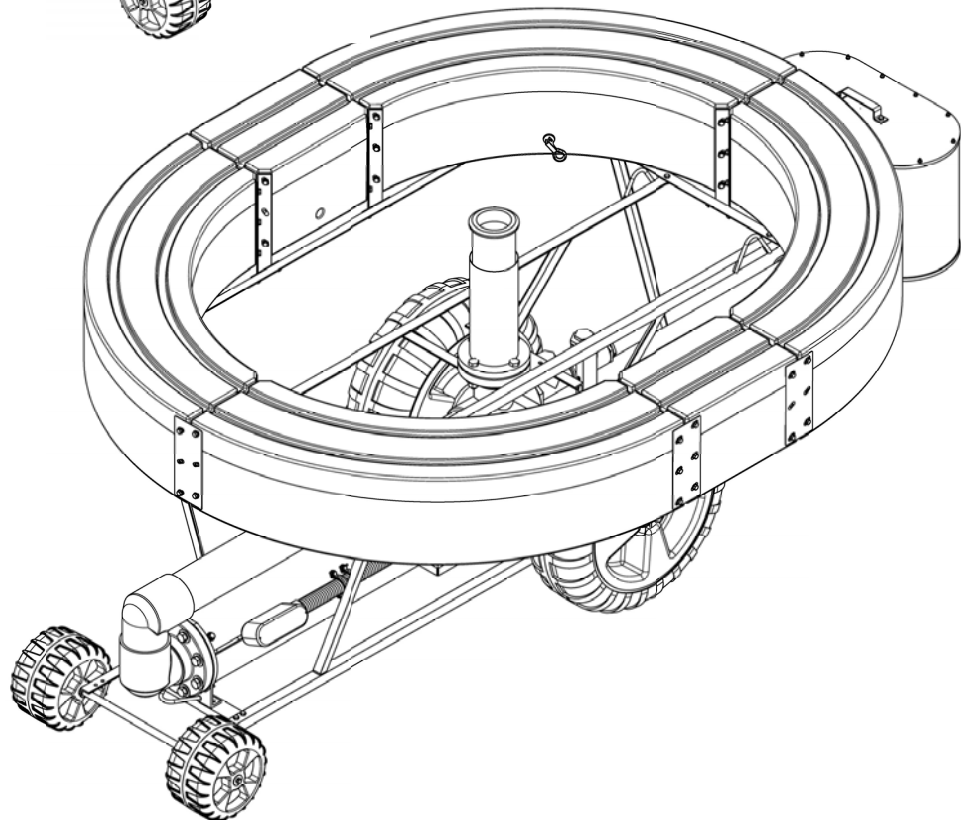
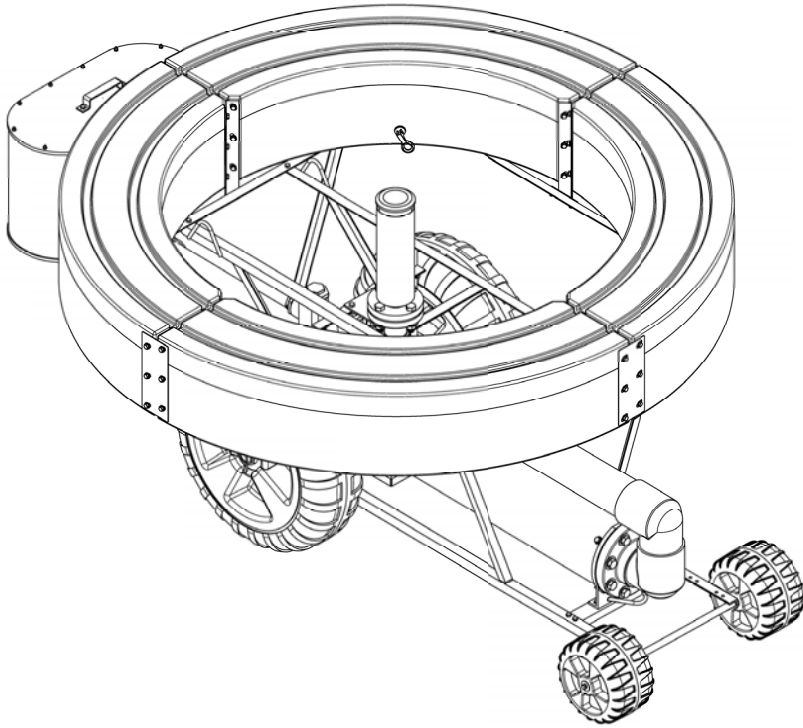
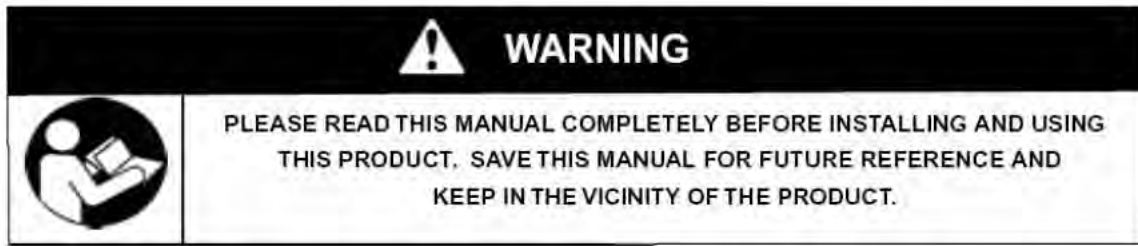




Otterbine Barebo Inc. Giant Fountain 60Hz Installation Manual



SAFETY INSTRUCTIONS



ALL ELECTRICAL WORK MUST BE PERFORMED BY A QUALIFIED LICENSED ELECTRICIAN AND CONFORM WITH ALL APPLICABLE ELECTRICAL SAFETY CODES

Tous travaux électriques doivent être effectués par un électricien professionnel qualifié et conforme à tous les codes applicables sécurité électrique

ALWAYS SWITCH OFF/DISCONNECT ALL EQUIPMENT IN THE WATER BEFORE SERVICING OR PERFORMING ANY MAINTENANCE

Toujours éteindre l'équipement dans l'eau avant entretien ou de tout entretien

DO NOT OPERATE THE FOUNTAIN WHEN PEOPLE ARE IN THE WATER

Ne pas utiliser la fontaine quand les gens sont dans l'eau

CAUTION: KEEP HANDS CLEAR OF THE IMPELLER WHEN OPERATING!

ATTENTION: Garder les mains loin du turbine lors de l'utilisation!



WARNINGS

- Before entering, wading in or swimming in the water in which Otterbine Aerators or Fountains are installed, make sure they are PHYSICALLY disconnected from their electrical power sources.
- Aerators located in or near garden ponds and similar locations must be equipped with Ground Fault Circuit Interrupter.
- The permissible temperature range for this equipment is -12° to 40° C/10° to 104° F.
- If the power cord is damaged, it must be replaced by a special cord or assembly available from Otterbine Barebo, Inc. or an authorized Otterbine Barebo, Inc. sales and service center.
- Avant d'entrer, pataugeant dans ou en nageant dans l'eau dans laquelle Aérateurs Otterbine ou fontaines sont installées, assurez-vous qu'ils sont physiquement déconnectés de leur source d'alimentation électrique.
- Aérateurs situés dans ou à proximité des bassins de jardin et des emplacements similaires doivent être équipés de disjoncteur.
- La plage de température admissible pour cet appareil est -12 ° à 40 °C/10 ° à 104 °F aux.
- Si le cordon d'alimentation est endommagé, il doit être remplacé par un cordon spécial ou de montage disponible à partir Otterbine / Barebo, Inc ou une autorisation Otterbine / Barebo, les ventes Inc et centre de service.

INSPECT EQUIPMENT

Immediately report any shipping damage to the carrier that delivered your unit.

Inspect your equipment and verify the following:

Unit - Check the nameplate located on the housing of the unit to make sure you have received the correct horsepower and voltage unit.

Power Control Center - Verify the PCC is compatible with the unit horsepower and voltage. Refer to the electrical specifications on the nameplate located inside on the door of the PCC.

Power Cable Assembly - Verify the correct cable gauge and length.

For proper warranty consideration return your Otterbine warranty registration card.

ELECTRICAL/PCC INSTALLATION

ELECTRICAL INSTALLATION MUST BE PERFORMED BY A QUALIFIED LICENSED ELECTRICIAN AND CONFORM TO ALL APPLICABLE LOCAL AND NATIONAL CODES

DISCONNECT EQUIPMENT FROM ELECTRICAL SUPPLY BEFORE SERVICING OR PERFORMING MAINTENANCE

Use Only OTTERBINE power cord. Do not splice or repair the cord, replacement is necessary if damage occurs.

The standard Power Control Center includes a fiberglass NEMA 4X or 3R enclosure with twenty-four hour timer control in the auto setting or manual control of the unit, the required motor short circuit, ground fault and overcurrent protection, surge protection, and personnel GFCI protection. (Except 460V and above 60Hz. applications, on these units EPD (Equipment Protection Device) is an optional accessory to provide 5, 10 or 30 mA ground fault protection)

Caution: GFCI Protection is required. If GFCI protection is not used, serious or FATAL electrical shock may occur.

Attention: GFCI/RCD de protection est nécessaire. Graves ou mortelles choc électrique peut se produire s'il n'est pas utilisé.

A. Feeder

1. Proper feeder circuit protection in accordance with all applicable local and national codes **must** be provided to the power control center.
2. Be certain to properly size feeder conductors to allow for no more than 5% voltage drop for the entire circuit from the feeder source to the unit. Failure to do so may damage the unit and void product warranty.

60Hz. Electrical Specifications			
HP	Volts	Phase	Full Load Amps
10	230	1	47
10	230	3	30
10	380	3	19
10	460	3	15
10	575	3	12.9
15	230	1	67
15	230	3	44
15	380	3	28
15	460	3	22
15	575	3	16.7
25	230	3	70
25	380	3	45
25	460	3	35
25	575	3	26.8

B. PCC Location

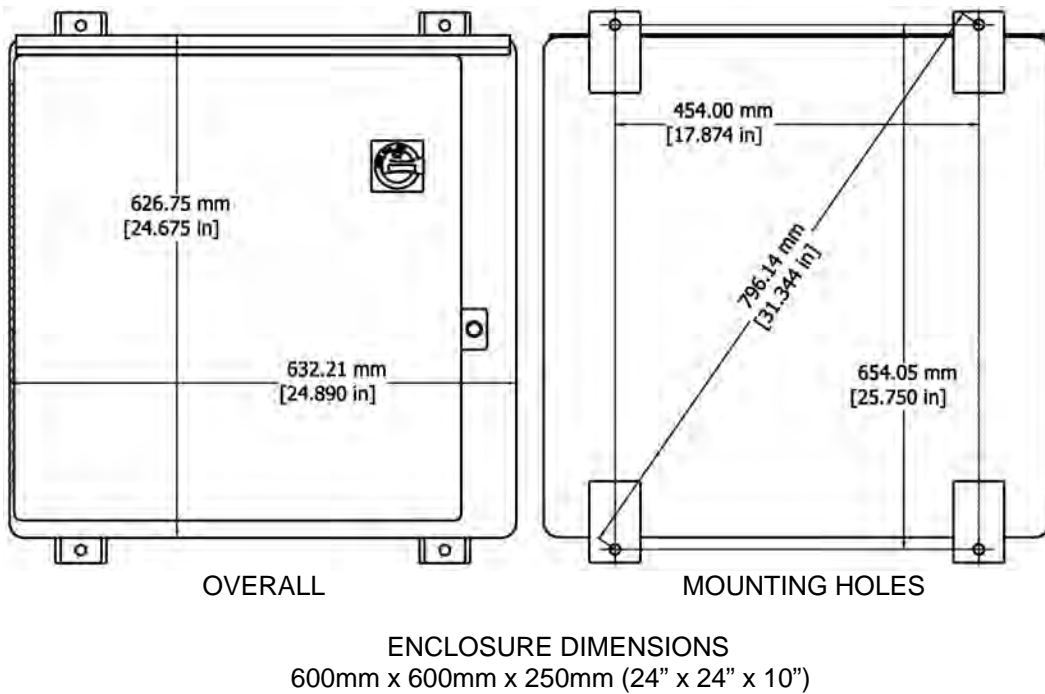
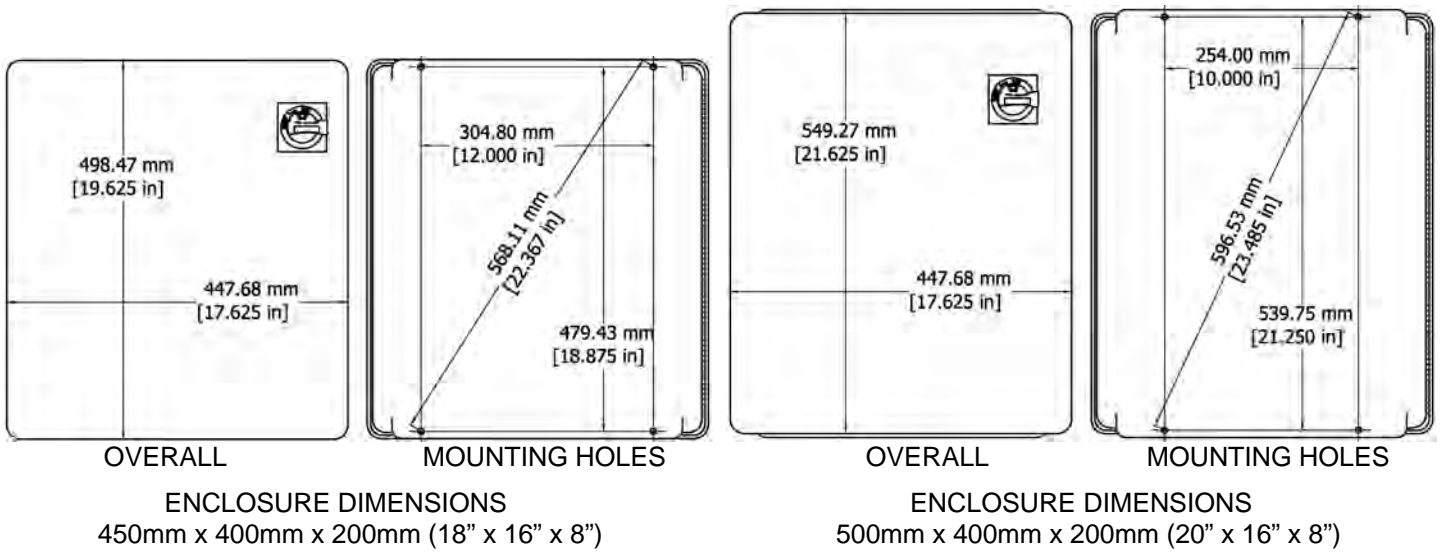
1. The power control center shall be mounted where easily visible from the shoreline where the unit is located.

Important: The power control center **shall not** be accessible from the water.

Important: Le Centre de Contrôle de la puissance ne doit pas être accessible à partir de l'eau

C. PCC Mounting

1. To prevent damage to the enclosure mount the enclosure using all four (4) mounting holes.
2. Whenever possible do not mount the PCC in direct sun light.



D. PCC Cables & Connections

1. Only Otterbine Barebo, Inc. factory approved power cord is to be used from the PCC to the unit with no junction boxes or splices. **Only** use power cord gauges and lengths specified by Otterbine at the time of cable purchase. (Contact your Otterbine Distributor for proper cable sizing)
2. It is recommended that all exposed cable between the PCC and the shoreline be installed in non-metallic conduit. It is **important** the unit and lighting cables be installed in individual conduits to avoid induced interference between cables which causes random GFCI tripping.
3. **Always** use strain relief cord connectors to attach the Otterbine cable to the PCC.
4. Cables and conduits must only enter into the bottom of the PCC.
5. Factory connections may loosen during shipping. Verify tightness of all screw terminal connections before energizing.
6. Power input and output wiring connections are accessed from the bottom of the enclosure.

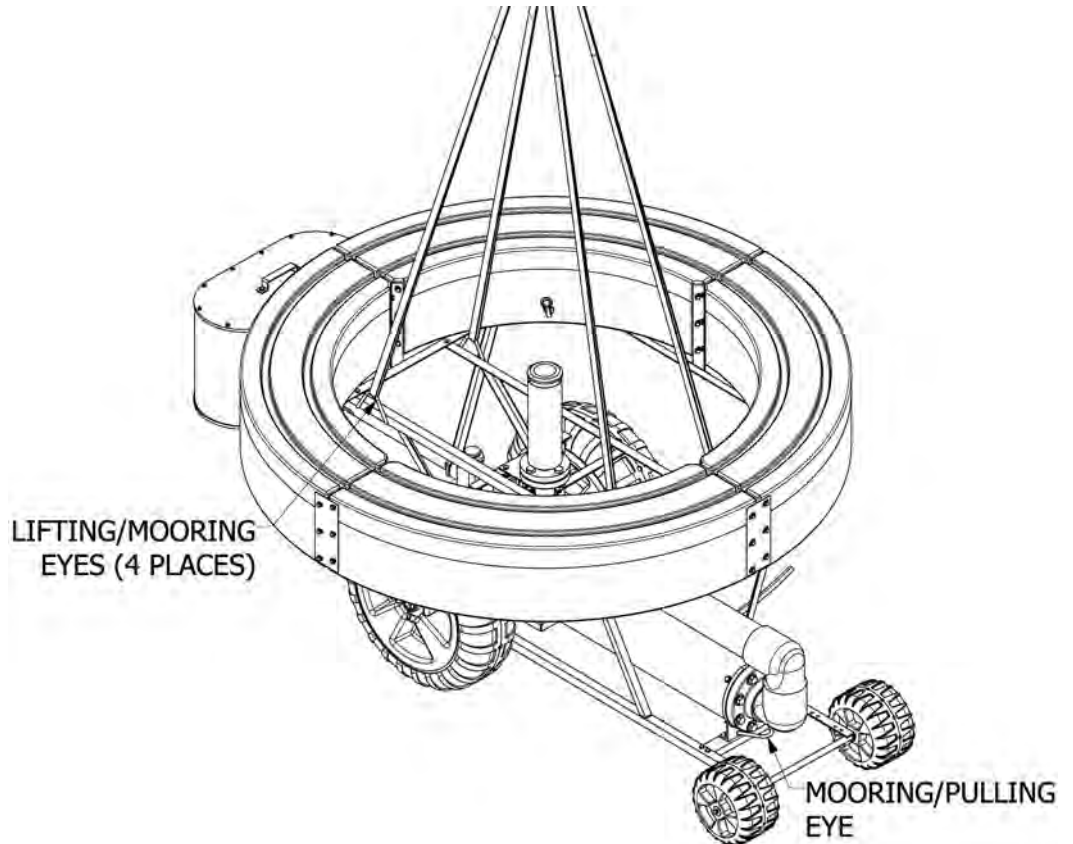
Terminal Torque Values: **Input & Output** – 5 N-m (45 in./lb.) Maximum

!Warning! To Prevent Damage

DAMAGE CAUSED DUE TO FREEZING WILL NOT BE ELIGIBLE FOR WARRANTY CONSIDERATION

- **Never** operate the Giant Fountain when not submersed
- Remove the unit from the water when temperatures are expected below 0°C (32°F)
- Always store the unit at temperatures above 0°C (32°F)
- Operating Depth of the Giant Fountain is 1m (40in.)
- Remove and clean intake screen as necessary
- Inspect and clean the pattern head and nozzle components as required
- As a minimum annually clean and inspect the unit and cables for physical damage

LIFTING
WARNING! ONLY
LIFT THE UNIT USING
THE LIFTING EYES

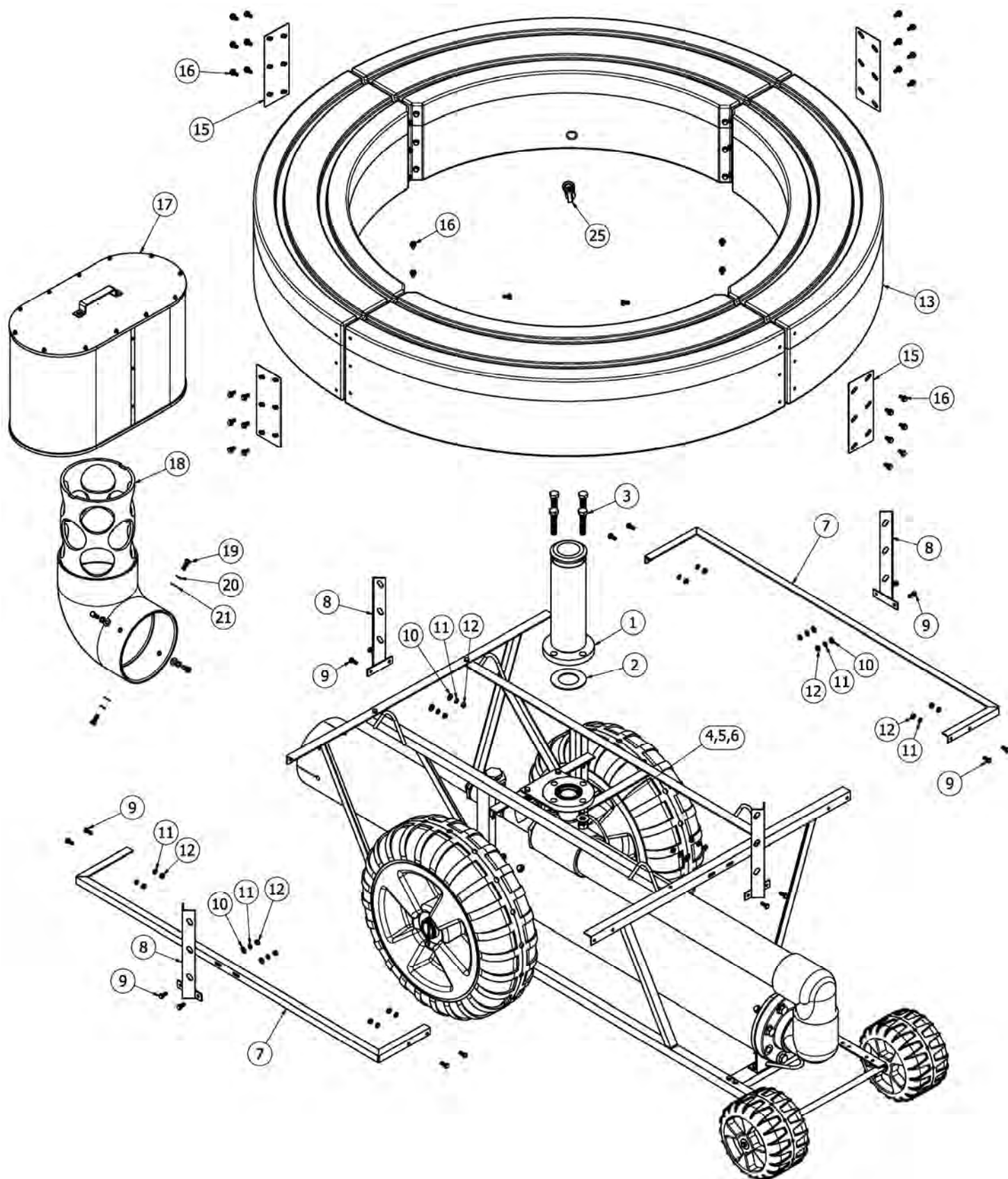


GIANT FOUNTAIN PARTS LIST

ITEM	PART NUMBER	DESCRIPTION	ITEM	PART NUMBER	DESCRIPTION
1	10-0101-10-0106	Mystic Nozzle	14	42-0005	Float, 16" Extension (25HP Only)
	10-0111-10-0116	Polaris Nozzle	15	40-0039	Bracket, Outside Float
	10-0121-10-0126	Super Nova Pattern Head	16	22-0010	Bolt, 5/16"-18 x 5/8" Flange
	10-0131-10-0136	AquaStar Pattern Head	17	10-0230	Intake Screen
	10-0141-10-0146	Triad Pattern Head	18	10-0231	Intake Pipe
2	49-0062 or 49-0063	Gasket, Flange	19	22-0015	Bolt, 3/8"-16 x 1"
3	22-0037	Bolt, 5/8"-11 x 3"	20	EP6301	Washer, 3/8" Split
4	28-0011	Washer, 5/8" Flat	21	927-003	Washer, 3/8" Flat
5	28-0027	Washer, 5/8" Star	22	46-0036	Hose, 32mm (1-1/4")
6	26-0009	Nut, 5/8"-11	23	46-0037	Clamp, 32mm (1-1/4")
7	10-0205	10/15HP Float Extension Bracket	24	46-0045	Clamp 57mm (2-1/4")
	10-0208	25HP Float Extension Bracket	25	46-0026	Plug, Float
8	10-0201	Float Mounting Bracket	26	65-0018	Adapter, Hose
9	106-302	Bolt, 5/16"-18 x 3/4"	27	40-0057	Bracket A, Pattern Ring
10	28-0018	Washer, 5/16" Flat	28	40-0058	Bracket B, Pattern Ring
11	28-0019	Washer, 5/16" Split	29	46-0200	Wheel, Large Rear
12	660-002	Nut, 5/16"-18	30	46-0201	Wheel, Small Front
13	42-0004	Float, 1/4 Circle	31	48-0016	Anti-Seize Compound

GIANT FOUNTAIN EXPLODED VIEW

10HP GIANT FOUNTAIN SHOWN

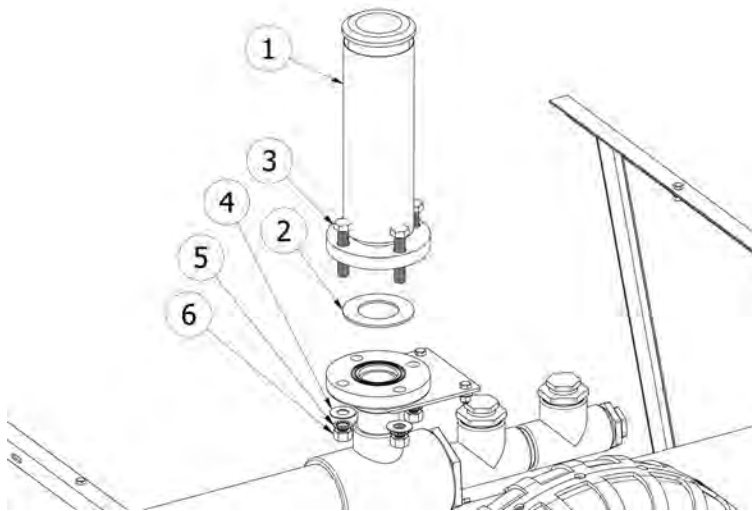


UNIT ASSEMBLY

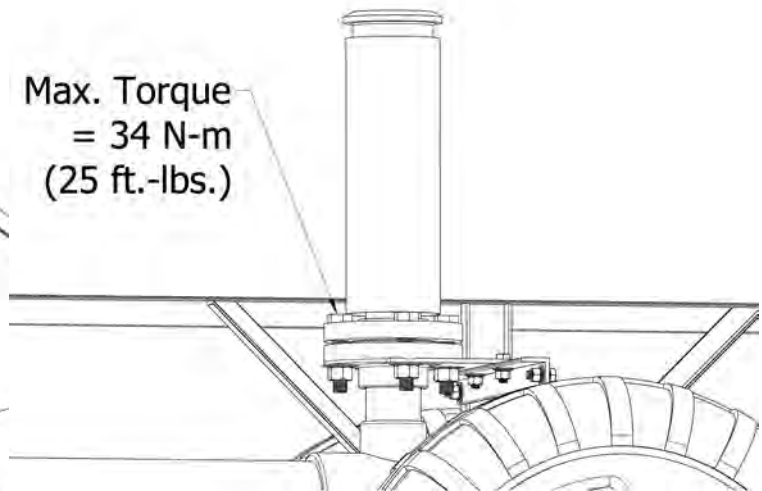
NOTE: Before proceeding follow instructions provided with splice kit and splice cable to motor leads.
If quick disconnect option is provided plug connectors together before launching.

STEP 1 – INSTALL NOZZLE OR PATTERN HEAD

A

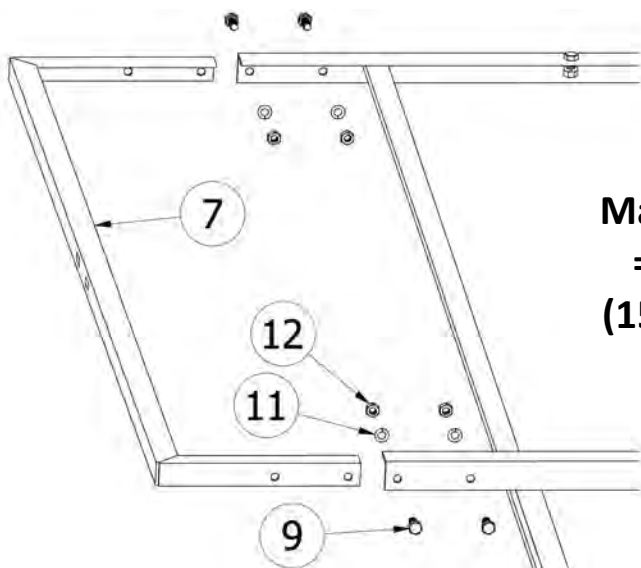


B



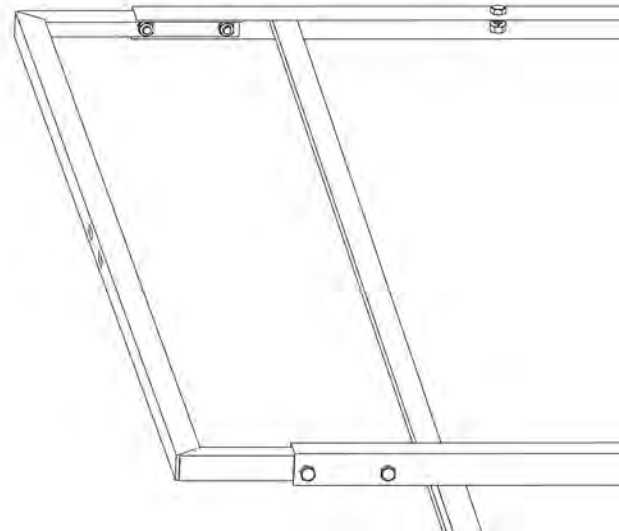
STEP 2 – INSTALL (2) FLOAT EXTENSION BRACKETS

A



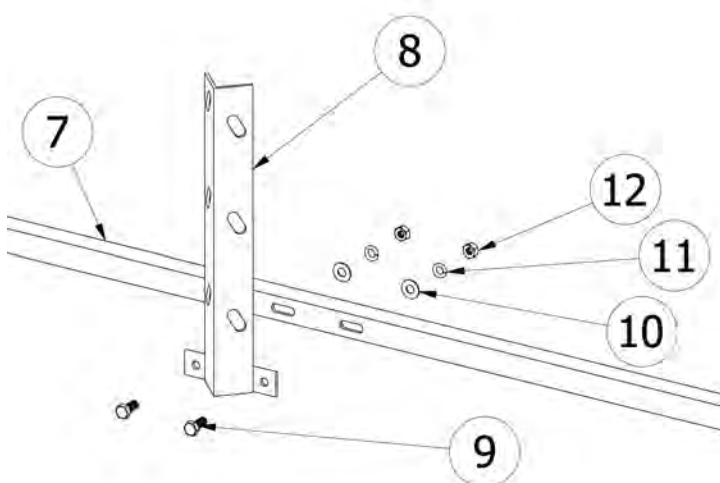
B

Max. Torque
= 17 N-m
(150 in.-lbs.)



STEP 3 – INSTALL (QTY. OF 4 - 10&15HP)(QTY. OF 6 - 25HP) FLOAT MOUNTING BRACKETS

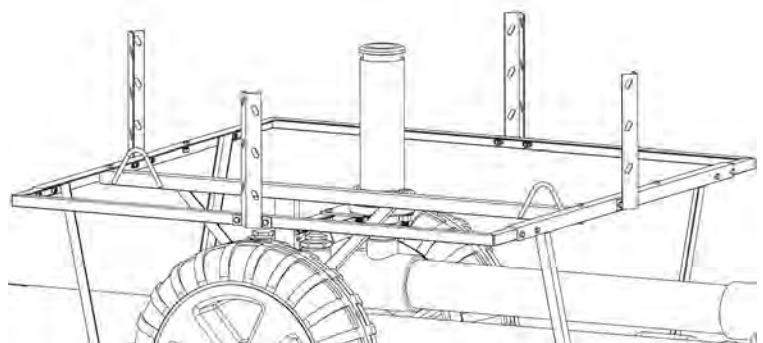
A



B

DO NOT TIGHTEN FLOAT BRACKET BOLTS
COMPLETELY UNTIL FLOATS ARE INSTALLED

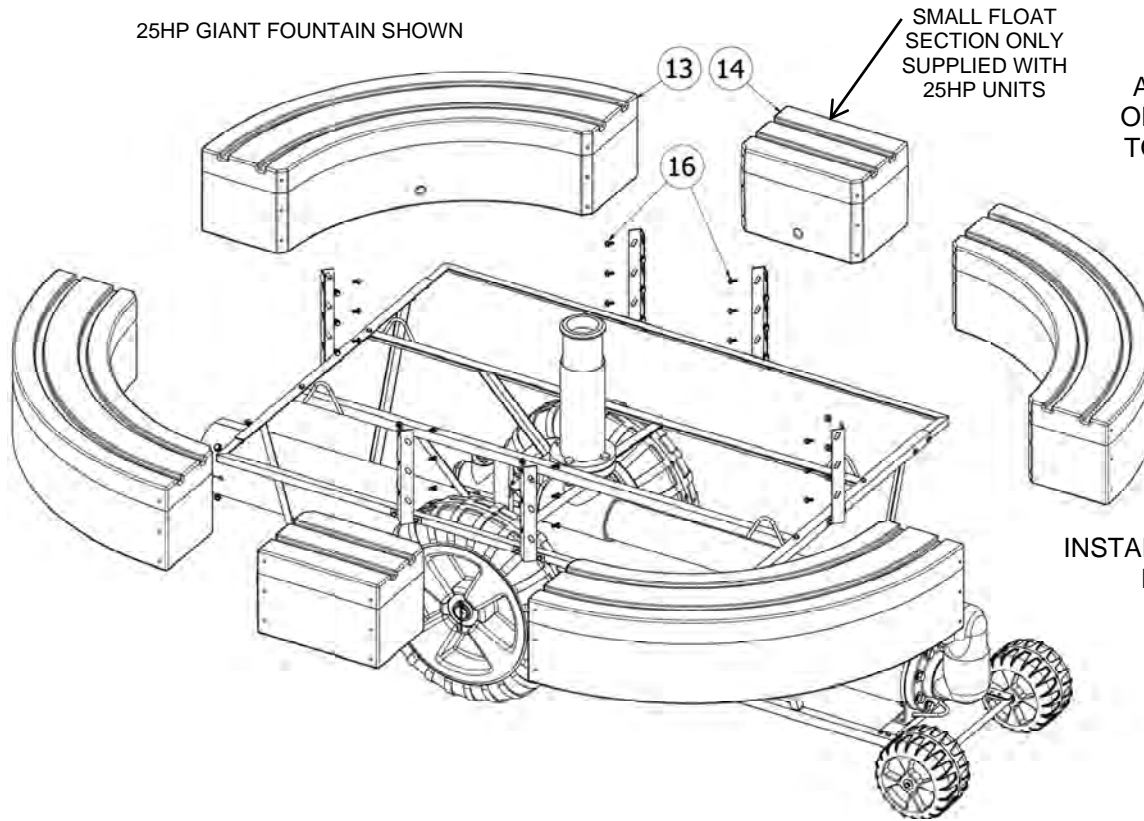
10HP GIANT FOUNTAIN SHOWN



STEP 4 – INSTALL FLOATS

A

25HP GIANT FOUNTAIN SHOWN



SMALL FLOAT SECTION ONLY SUPPLIED WITH 25HP UNITS

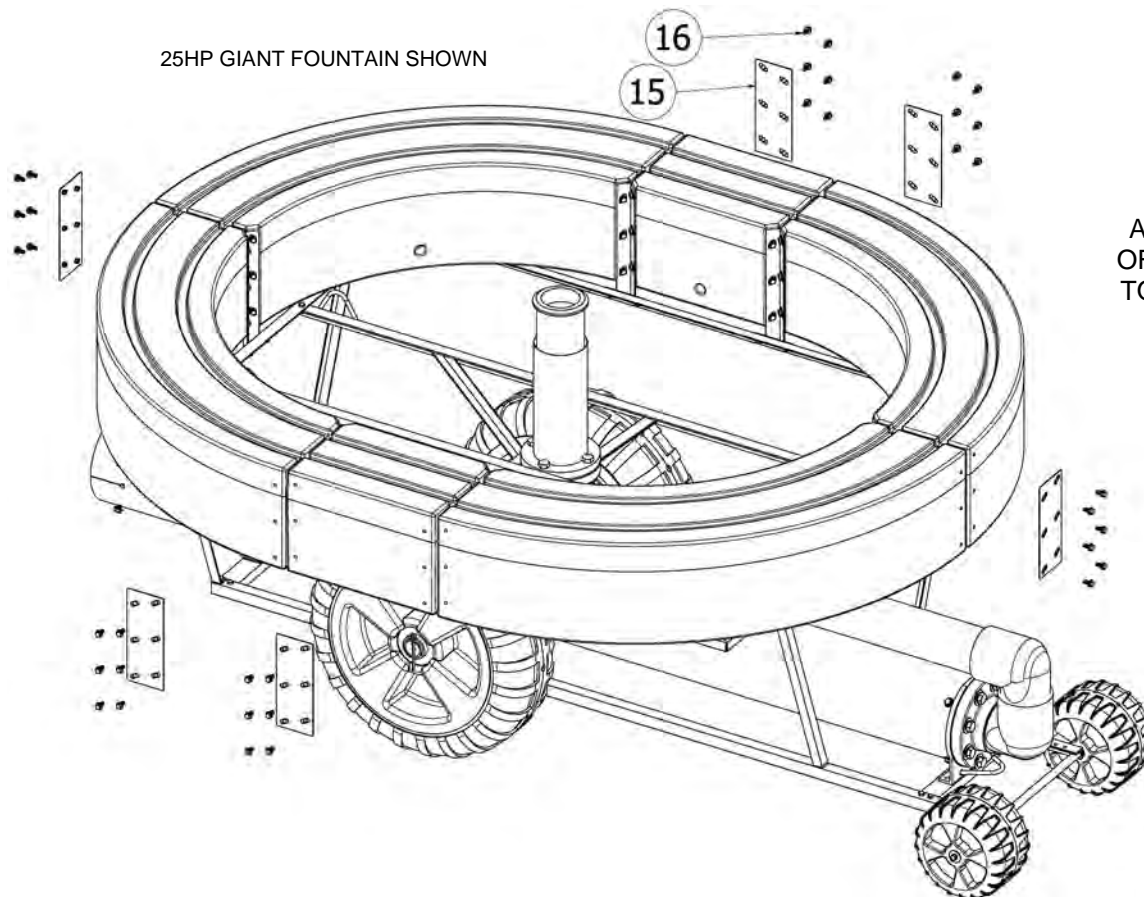
APPLY SMALL AMOUNT OF COMPOUND (ITEM 31) TO EACH BOLT (ITEM 16) BEFORE THREADING INTO FLOAT

INSTALL ALL BOLTS (ITEM 16) DO NOT TIGHTEN COMPLETELY

STEP 5 – INSTALL OUTSIDE FLOAT BRACKETS

A

25HP GIANT FOUNTAIN SHOWN

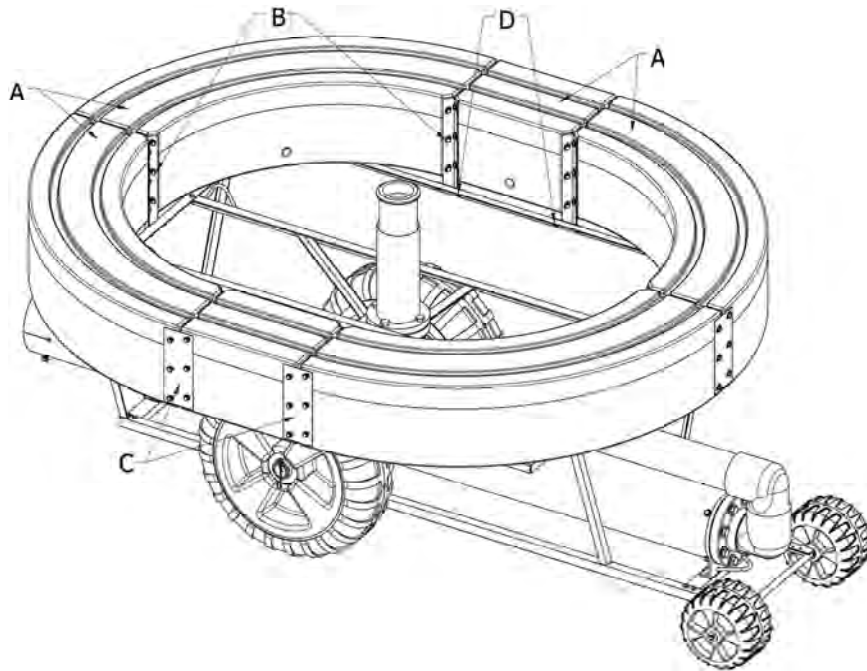


APPLY SMALL AMOUNT OF COMPOUND (ITEM 31) TO EACH BOLT (ITEM 16) BEFORE THREADING INTO FLOAT

INSTALL ALL BOLTS (ITEM 16) DO NOT TIGHTEN

STEP 6 – ALIGN FLOATS AND TIGHTEN ALL FLOAT BRACKETING BOLTS

A



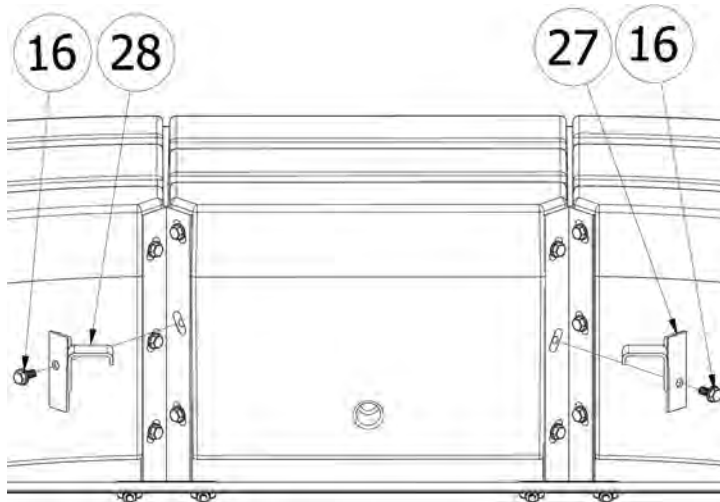
- A) ALIGN THE TOP OF ADJACENT FLOATS FLUSH
- B) TIGHTEN INSIDE FLOAT BRACKET BOLTS
- C) TIGHTEN OUTSIDE FLOAT PLATE BOLTS
- D) TIGHTEN INSIDE FLOAT BRACKETS TO FRAME

! IMPORTANT !
 VERIFY **ALL** BOLTS ARE TIGHTENED
 (DO NOT OVERTIGHTEN)

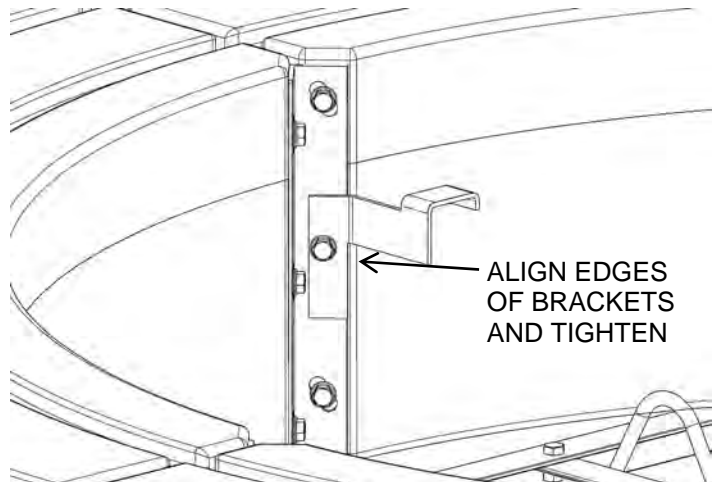
Max. Torque
 = 15 N-m
 (130 in.-lbs.)

STEP 7 – INSTALL PATTERN RING (required with TRIAD & AQUASTAR)

A

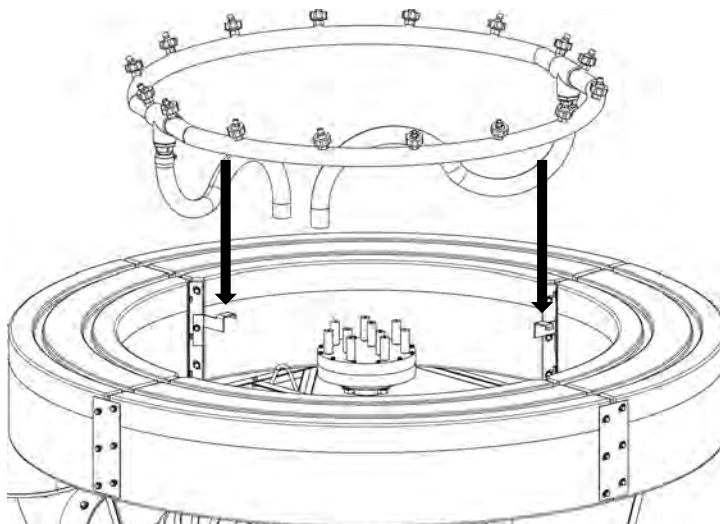


B

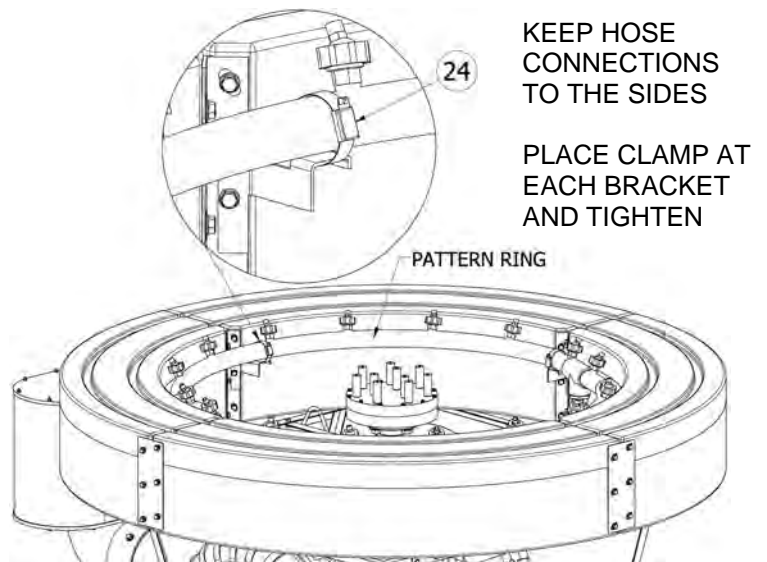


C

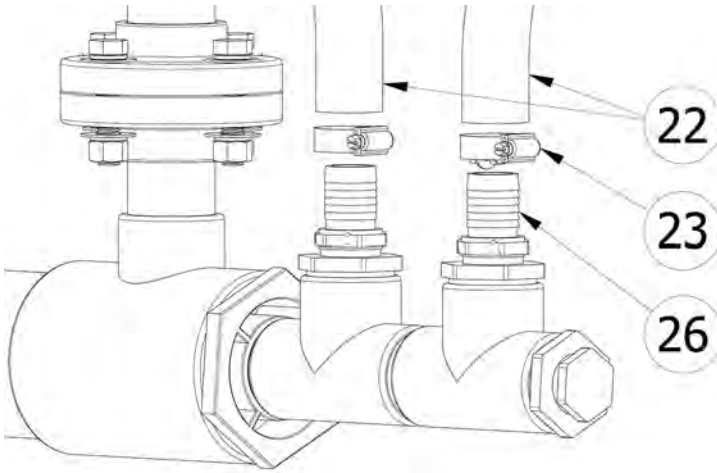
SET PATTERN RING ON BRACKETS
 TEES LOCATED TOWARDS SIDES OF FRAME



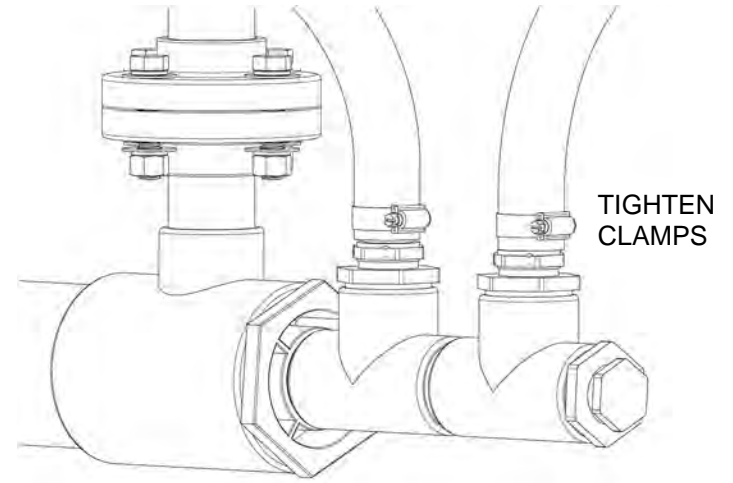
D



E



F

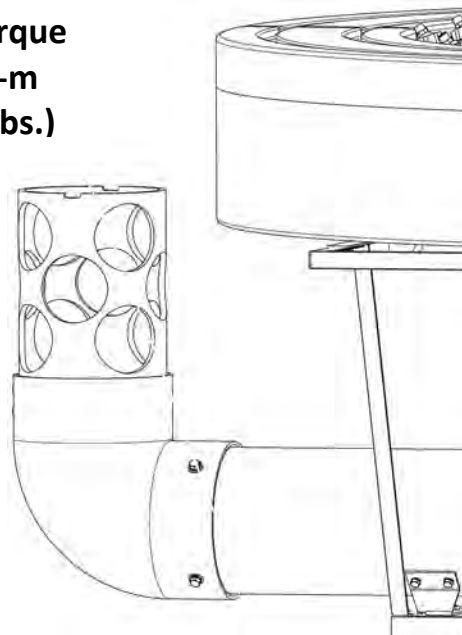
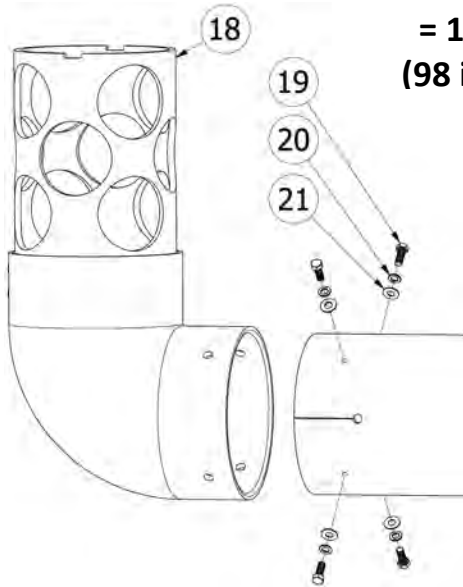


STEP 8 – INSTALL INTAKE PIPE & SCREEN

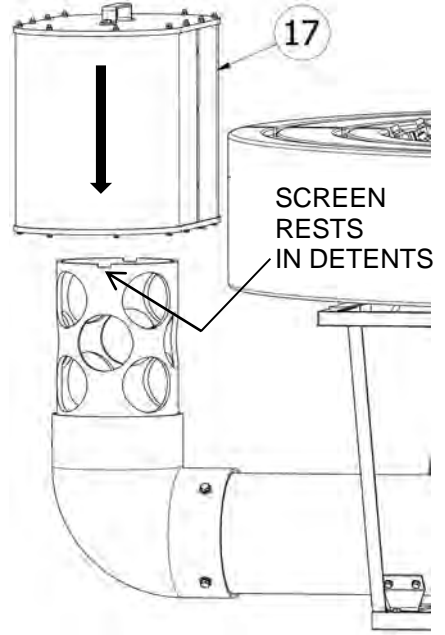
A

B

Max. Torque
= 11 N-m
(98 in.-lbs.)

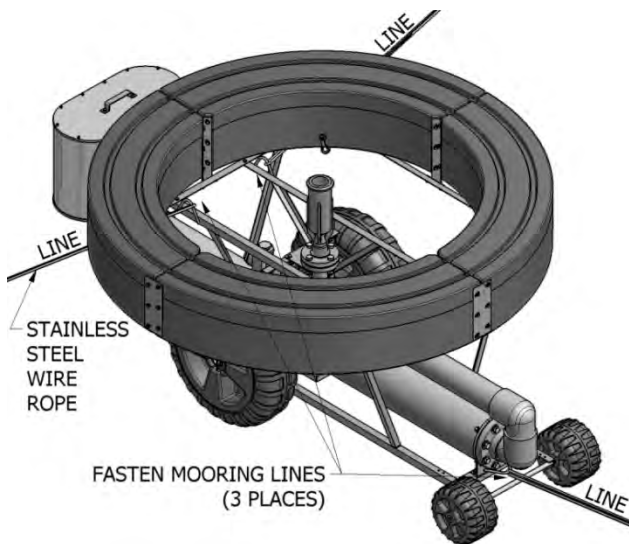


C



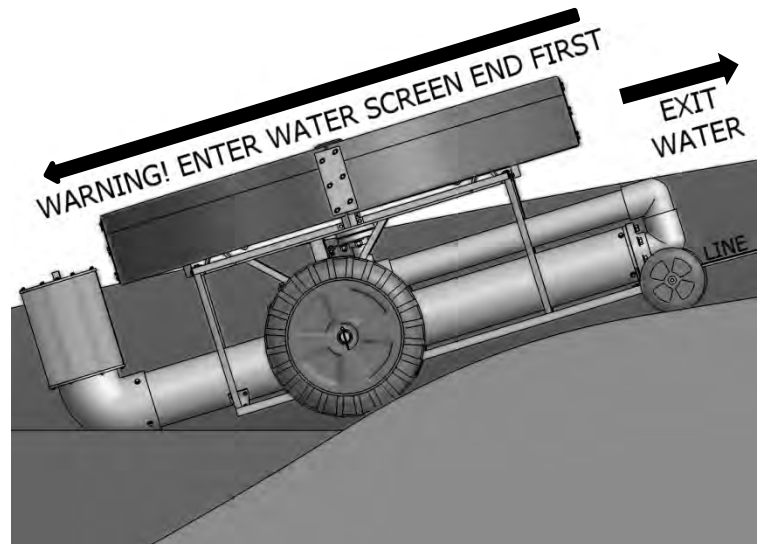
STEP 9 – MOORING/ANCHORING LINES

MOORING – USE SHORE MOUNTED STAKES OR EARTH ANCHORS
ANCHORING – USE 3 WEIGHTS, MINIMUM OF 20kg (45lb.)



STEP 10 – LAUNCHING

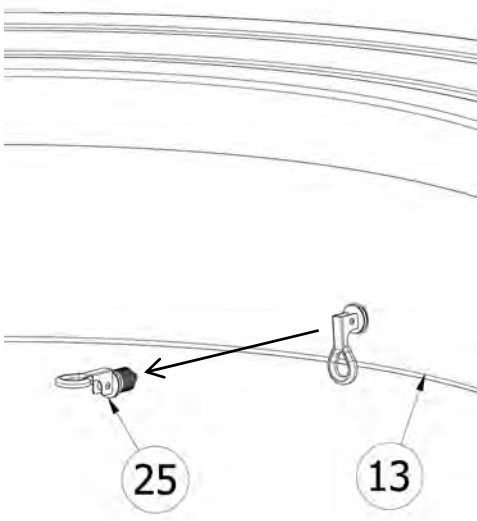
RETRIEVAL – USE FRONT MOUNTED PULLING/MOORING EYE
LOCATE – PULL TO DESIRED LOCATION AND MOOR/ANCHOR



STEP 11 – BALLASTING/LEVELING UNIT

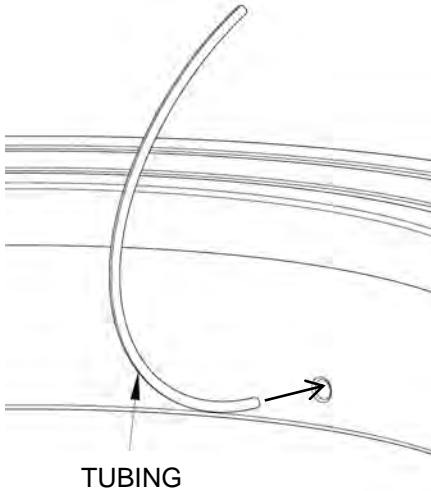
A

LIFT HANDLE ON PLUG AND REMOVE



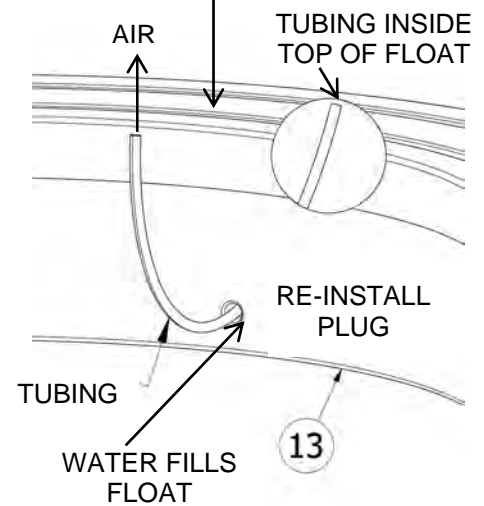
B

INSERT 90cm (36") LENGTH OF PLASTIC TUBING (not supplied) 13mm (½") O.D. MAX.



C

PUSH DOWN ON FLOAT



SYSTEM STARTUP

DO NOT ALLOW THE UNIT TO OPERATE "DRY" OUT OF THE WATER

IMPORTANT: Current imbalance for three phase systems shall not exceed 5%.

IMPORTANT: Courant de déséquilibre pour les trois systèmes de la phase ne doit pas dépasser 5%

A. User Control Functions

1. Main Disconnect Switch



MAIN DISCONNECT OFF

Removes Power to the Aerator for Maintenance/Service/Repair, Timers are not powered (Time of Day Needs to be Reset)



MAIN DISCONNECT ON

Power Applied, Mode of Operation Now Dependent on the Position of MOA Switch, Timers are Operating



MAIN DISCONNECT TRIPPED

Indicates a Fault Motor/Wiring Short Circuit Or Motor Current Overload

2. MANUAL-OFF-AUTO (MOA) switch.



MOA IN OFF

Unit & Lighting Will Not Function, Timers are Powered and Operating, GFCI's may be Reset



MOA IN AUTO

Allows Automatic Control of Unit & Lighting by Timers & Other Control Options



MOA IN MANUAL

Turns on Unit, Bypasses Timer & Non-Critical Control Functions

3. Timer operation.



- a. Push **in** (towards center) all tripper pins on the timer dial. (As Shown)
- b. Pull **out** only the tripper pins on the dial that are between the times you want the unit to run.

Example: If you want the unit on from 7:00AM - 5:00PM, pull out all of the tripper pins between those times. When the dial rotates to a tripper pin that is in, it will turn off.

c. Turn the outer dial clockwise to align the time of day to the stationary arrow positioned at "2 o'clock". Close the panel and turn the main disconnect on. When the main disconnect is off or in the case of power failure the timer/s will not operate and the time of day will need to be reset.

d. Set the "manual-off-auto" switch to the MANUAL or AUTO position. The MANUAL position on the switch will let your aerator run continuously. The AUTO position on the switch will allow the timer inside your aerator to operate the unit.

B. Energizing the Unit (To be performed by a qualified technician)

1. Single Phase Units: Correct motor rotation is factory determined and not field adjustable. Start the unit and record the operating voltage & amperage, power control center serial number and cable length and gauge on the label inside the power control panel.

2. Three Phase Units: Verify correct motor rotation (pattern will be diminished if reversed). Check current readings on each phase. Verify three phase operating currents are balanced within 5%. When correct, record the operating voltage & amperage, power control center serial number and cable length and gauge on the label inside the power control panel.

To calculate the percent of current imbalance:

Determine the Average Current:

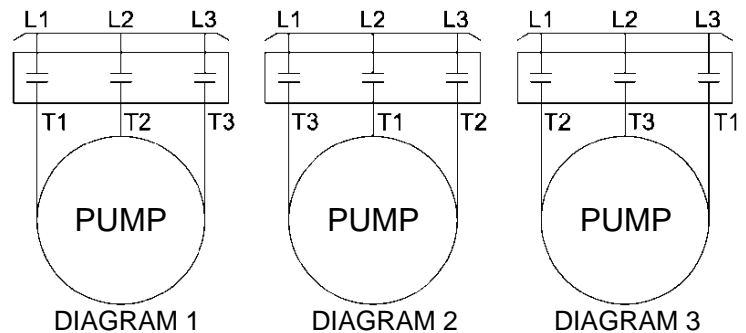
- a. Measure each of the three phase currents
- b. Add the three phase amperage values together.
- c. Divide the sum by three.
- d. This is the average current value.

Determine Current imbalance:

- a. Select the phase current with the greatest difference from the average (calculated above).
- b. Determine the difference between this phase current and the average current value.
- c. Divide the difference by the average.
- d. Multiply the result by 100 to determine percent of imbalance.

3. Use connection diagram 1, 2 or 3 at right which results in the lowest current imbalance. Roll the motor cable leads on the unit output terminal block in the same direction to avoid motor reversal. If the current imbalance is not corrected by rolling leads, locate the source of the imbalance and correct it.

- a. When the phase farthest from the average stays on the same power lead after being moved the primary cause of imbalance is the power source.
- b. When the phase farthest from the average moves on each of the hookups with a particular motor lead, then the primary cause of imbalance is the "motor side" of the circuit. Consider: damaged cable, leaking splice, poor connection, or a faulty motor as possible causes.



Limited 2 Year Warranty
Otterbine® Product

WARRANTY: Barebo, Inc 3840 Main Road East, Emmaus Pennsylvania 18049,U.S.A. hereby warrants, subject to the conditions herein below set forth, that should the **OTTERBINE** product prove defective by reason of improper workmanship or materials at any time during the warranty period the Purchaser at retail will be guarantee that **BAREBO** will repair or replace the said **OTTERBINE** product as may be necessary to restore it to satisfactory operating condition, without any charge for materials or labor necessarily incident to such repair or replacement, provided that:

- a) The enclosed Warranty Registration Card should be mailed to **BAREBO** within fifteen (15) days of the original receipt by the Purchaser at retail in order to avoid delays:
- b) The **OTTERBINE** product must be delivered or shipped, prepaid, in its original container or a container offering an equal degree of protection, to **BAREBO** or a facility authorized by **BAREBO** to render the said repair or replacement services or, if purchased from an authorized **OTTERBINE** dealer, to such dealer;
- c) The **OTTERBINE** product must not have been altered, repaired or serviced by anyone other than **BAREBO**, a service facility authorized by **BAREBO** to render such service, or by an authorized **BAREBO** dealer, and the serial number of the **OTTERBINE** product must not have been removed or altered: and
- d) The **OTTERBINE** product must not have been subjected to lightning strikes and other Acts of God, vandalism, freezing-in, accident, misuse or abuse, and must have been installed in conformance with applicable electrical codes (including proper electrical protection), and also installed, operated and maintained in accordance with guidelines in the Owner's Manual shipped with the Otterbine product.

No implied warranties of any kind are made by **BAREBO** in connection with this **OTTERBINE** product, and no other warranties, whether expressed or implied, including implied warranties of merchantability and fitness for a particular purpose, shall apply to this **OTTERBINE** product. Should this **OTTERBINE** product prove defective in workmanship or material, the retail Purchaser's sole remedy shall be repair or replacement as is hereinabove expressly provided and, under no circumstances, shall **BAREBO** be liable for any loss, damage or injury, direct or consequential, arising out of the use of, or inability to use, the **OTTERBINE** product, including but not limited to retail Purchaser's cost, loss of profits, goodwill, damages due to loss of product or interruption of service, or personal injuries to Purchaser or any person.

MODEL:	Polaris	Mystic	AquaStar	Super Nova	Triad
HORSEPOWER:	10	15	25		
VOLTAGE/PHASE/Hz:	230/1/60		230/3/60	460/3/60	575/3/60
CORD GAUGE & LENGTH	_____				
UNIT SERIAL NUMBER	_____				
PANEL SERIAL NUMBER	_____				
OPTIONS	_____				



Water Works With Otterbine!

**FOR FURTHER INFORMATION OR INSTRUCTIONS
ON OTTERBINE PRODUCTS
VISIT OUR WEBSITE:**

www.otterbine.com

**Otterbine/Barebo, Inc.
3840 Main Rd. East
Emmaus, PA. 18049
U.S.A.**

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E-mail: aeration@otterbine.com**