



# TETON

Natural Reliability™

## XTP SERIES

### Ecostream Primer Pump INSTRUCTION MANUAL



VERISON  
MARCH 2021 v1.0

Teton Dynamics  
P.O. Box 1044  
San Leandro, CA 94578-0031

MODEL  
XTP3900  
XTP5600  
XTP7400  
XTP9200  
XTP10500  
XTP12000

# ECOSTREAM PRIMER PUMP

## XTP3900/5600/7400/9200/10500/12000

VERSION March 2021

[www.tetonus.com](http://www.tetonus.com)

800.752.0399

[info@tetonus.com](mailto:info@tetonus.com)

**WELCOME TO THE WORLD OF TETON,  
NATURAL RELIABILITY™!**

You Made The Right Choice Investing In This Quality Product. Thank You And Enjoy.

**BEFORE USING THIS PRODUCT, PLEASE READ  
THESE INSTRUCTIONS CAREFULLY AND  
FAMILIARIZE YOURSELF WITH THE UNIT. PLEASE  
KEEP THESE INSTRUCTIONS IN A SAFE PLACE  
FOR FUTURE REFERENCE.**

### TECHNICAL SPECIFICATIONS

MODEL NO.	XTP3900	XTP5600	XTP7400	XTP9200	XTP10500	XTP12000
<b>MAX FLOW RATE</b>	3900 GPH (14750 LPH)	5600 GPH (21200 LPH)	7400 GPH (28000 LPH)	9200 GPH (34825 LPH)	10500 GPH (39750 LPH)	12000 GPH (45425 LPH)
<b>MAX HEAD HEIGHT</b>	17 ft (5.2 m)	23 ft (7.0 m)	26 ft (7.9 m)	24 ft (7.3 m)	23 ft (7.0 m)	24 ft (7.3 m)
<b>WATTS (MAX)</b>	195	350	600	620	830	970
<b>AMPS</b>	1.8	3.2	5.3	5.6	7.3	8.6
<b>VOLTS</b>	115	115	115	115	115	115
<b>OUTPUT HP</b>	1/8	1/4	1/2	1/2	3/4	1
<b>INTAKE/DISCHARGE UNIONS INCLUDED</b>	2" (5 cm)	2" (5 cm)	2" (5 cm)	3" (7.5 cm)	3" (7.5 cm)	3" (7.5 cm)
<b>CORD LENGTH</b>	8 ft (2.4 m)	8 ft (2.4 m)	8 ft (2.4 m)	8 ft (2.4 m)	8 ft (2.4 m)	8 ft (2.4 m)

# UNDERSTAND PRIMING AND PUMP OPERATION

## The Basics

Your pump is powered by an electric motor that directly affects your water flow rate. When the electric motor is turned on it utilizes centrifugal force to generate velocity of the water. The water then flows into the strainer pot from the water source, filtering out debris. Water continues its flow into the eye of the impeller where the water meets the impeller vanes and converts kinetic energy into static pressure allowing the pump to maintain pressure and is then forced out of the pumps discharge port resulting in continuous water flow for your waterscape oasis.

## The Prime

The Teton® XTP Ecostream Primer Pump is considered a “true” self-priming pump. This means it is designed to prime and operate at varying heights up to 9 feet above the water source surface as well as varying horizontal lengths. It is important to note that operating at maximum suction lift height may negatively affect the pumps overall performance. If after starting the pump you notice it takes more than three minutes for water to start flowing into the priming pot after being filled with water and energized, it is recommended to install a rubber flapper type swing check valve. The valve should be as low and as close to your source water as possible to maintain constant pressure and shorten prime time. The best location can even be underwater when possible as this can provide an airtight fit even without PVC adhesive. Some swing check valves have true union connection fittings that offer easier access for cleaning when needed.

**Never use a spring loaded check valve as it will reduce or stop flow.**

## With Valve

What to expect for priming cycle **with** swing check valve installed.

Essentially, when utilizing a properly installed swing check valve the priming process is less time consuming and is more efficient. When installing a swing check valve, be sure your connections are properly seated and airtight. Then, simply fill the priming pot with water until the intake plumbing and priming pot are full. Replace the lid, securing tightly and turn on your pump. With the swing check valve in place your pump is fully primed from the beginning. However, if after running your pump you observe the water level in the strainer pot decreasing continuously, this indicates there is either a blockage limiting the flow or a union fitting, connection on the intake pipe or lid is not airtight. Check all connections for debris, crimping, or cracking and re-tighten or replace parts as needed.

## No Valve

What to expect for priming cycle **without** a swing check valve installed.

In installation applications where the pump and plumbing are above the water level and no swing check valve is installed, the priming process will work as listed in the installation instructions on page 5. In this application the internal pressure in the pipe drops below outside barometric pressure which allows this pressure to slowly push water toward the pump. This slow push results in a longer priming cycle. It is important to note that the incoming water flow may initially be very little or non-existent for the first few minutes. If three minutes pass with no water flowing into the priming pot, the pump should be shut off, connections rechecked, water refilled and system restarted.

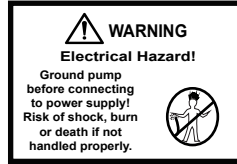
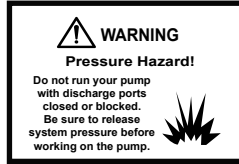
With a valve or without a valve, the time it takes for your pump to complete the prime cycle is based on a variety of factors including pipe type, diameter, suction lift height, horizontal distance, motor speed and horsepower. The entire cycle can range from one to fifteen minutes to complete; however, as noted above, you should see water flowing into the pump within three minutes or less.

For system specific assessments including suction lift and friction loss guidance and operating questions, visit [www.tetonus.com](http://www.tetonus.com) or email [info@tetonus.com](mailto:info@tetonus.com)

## IMPORTANT SAFEGUARDS



Please read the operating instructions and familiarize yourself with the equipment before placing it in service. Correct and safe use of the system requires strict compliance with these safety instructions. For safety reasons, persons less than 16 years of age or persons that are not familiar with these instructions, should not use this equipment.



- This pump and motor unit should be installed by a qualified electrician or serviceperson in accordance with the National Electrical Code. Improper installation may create a mechanical or electrical hazard which could cause damage to property and could result in serious injury or death.
- In order to avoid serious injury or death, always disconnect power to the motor before servicing the pump and follow all instructions in this manual.
- Always use the schematic on the motor for all electrical connections.
- Never run the pump dry. The priming pot must be filled with water and lid secured before starting the the motor. Running dry will void the warranty and can result in permanent damage to the pump unit.
- Maintain a minimum flow rate of at least two gallons per minute of once per week.
- To prevent incorrect motor rotation, install a ball or swing type check valve. Do not use spring check valves.
- Visually inspect the pump and motor a minimum of once per week. If any leakage between the motor and pump housing is present, replace the mechanical seal. The seal faces wear similar to car tires and must be replaced periodically. For critical applications, replace the mechanical seal yearly. If your pump is excessively noisy, shut it down and contact support.
- For 3 phase motors, ensure proper rotation. In freezing environments it is advisable to winterize your pump to prevent damage.
- Do not allow pump or system plumbing to freeze, as freezing can cause damage that may lead to equipment failure or possible injury and will void the warranty.


## PRODUCT SPECIFIC SAFEGUARDS

### Before Installation

- Open the pump box when received and inspect for evidence of rough handling or damage to the pump and verify the product ordered. If damage is found, notify the freight carrier and contact the vendor purchased from immediately. For order discrepancies, contact the vendor purchased from immediately.
- Be sure your installation location is no higher than 9 feet above the water surface level. If using smaller than 3" pipe, excessive fittings such as elbows, sweeps or reducers, using an excessively long pipe run, using additional strainers or any other water flow restriction device, can increase the prime cycle time. Refer to the Pump Operation information on page 3.

## GENERAL TIPS

- Position the pump as near to the water and as low as is practical. This will help reduce priming time, avoid cavitation, and maximize your pumps performance.
- Mount the motor to a stable base where it will not get submerged. Use caution when installing in a vault. Be sure proper drainage is in place to prevent flooding. A sturdy pedestal under the pump is beneficial in a vault application to maximize space to the ground. Ensure the vault is properly ventilated.
- Minimize friction loss by using the appropriate diameter pipe determined by gallons per minute flow, reducing run length, and minimizing the number of elbows and fittings as much as possible.

- Maximize your pumps service life by protecting the motor from the elements by ensuring it is well covered and adequately ventilated . Exposing your pump to excessive heat or moisture will shorten the life of the motor.
-  Protect the motor against dirt, water, and all foreign matter. If the motor has been flooded, do not operate it until it has been checked by an authorized motor technician and has been found to be safe to operate. If the motor is damaged by dirt, moisture, foreign matter or corrosion, it is not covered by the warranty.
- When determining pump placement, it is important to consider the distance and height from the water source. To ensure reasonable prime time without an inline swing type check valve, position the pump no higher than 9 feet from the water source.
- Positioning is also important to maintain the pumps ability to stay primed and minimize cavitation. Do not use spring loaded check valves!
- The pump ports are 3" slip on both the inlet and discharge ports. The Teton® XTP EcoStream Primer Pump series offer 2" or 3" fitting sizes. The fittings included with your pump should connect to PVC or flex pipe plumbing. All plumbing lines should be self supported and properly aligned. This will prevent undue stress to the housing and fittings. We recommend using a good primer and PVC cement to glue the pipe to the tailpiece fittings.
- Installations in which the water level is elevated above the pump it is highly recommended to use a ball or swing type check valve to prevent back flow and possible reverse rotation. A ball valve will supplement a swing check valve and allow flow adjustments.
- FILL THE PRIMING POT WITH WATER BEFORE STARTING THE PUMP.

## INSTALLATION

1. After thorough inspection, carefully remove the pump from the box.
2. Secure the pump on a flat, solid foundation. A covered location is always best and care should be taken to ensure adequate ventilation. See installation tips for beneficial tips.
3. Install a ball or swing type check valve as needed to facilitate pump disconnection, flow control and servicing.
4. Connect plumbing to the pump by dry fit testing first to ensure proper fit and proper pipe alignment.  
**Be sure the union nut is on the union tail piece before gluing in place.**
5. Once proper fit and alignment is established, use proper pipe sealant designed for plastic pipe. Support plumbing as needed to prevent strain and damage. Do not over tighten the nut included with the pump in the quick connect fittings. Hand tightening is sufficient.
6. Wiring of the pump should be in accordance with the wiring diagram located on the motor. Ensure the pump is wired for the correct supply voltage and is supplied by no smaller than 16 gauge wire and should be based on horsepower. See Maintenance. The circuit breaker should be 20 amp but no less than 15 amp. It is recommended that wiring be performed by a licensed electrician. For 3 phase wiring, see Electrical.
7. If your pump will be hardwired, be sure to ground the motor correctly by connecting code compliant wiring to the green ground screw located under the wiring plate.
8. When wiring is complete, double check intake and discharge fittings to ensure a snug fit.  
**Note:** There may be installations in which plumbing allows for trapped air in the system. If this happens, priming will be difficult. In this case, loosen the discharge fitting slightly to allow trapped air to bleed off. Once primed tighten the discharge fitting.
9. On flooded suction systems where the water source is higher than the pump, the pump will fill with water once the supply valve is opened. However, on both flooded and non-flooded system, it is recommended to open the strainer pot lid, fill with water, ensure the lid o-ring is clean of any debris and close the lid securely prior to starting.
10. Once priming pot is filled and supply valves (if present) are opened, your pump is now ready to prime. Turn the motor on by plugging in the unit or switching on the power supply. Priming will vary in length. Water should continue to flow into the basket as the pump goes through the priming process. The priming process should not take longer than 15 minutes. The pump should never run dry. If water stops flowing into the strainer pot, shut the pump off immediately and see Troubleshooting (Page 13) for more information.  
**Note:** At initial start up, the water level in the pump housing, as seen through the clear lid should drop rapidly and have a small amount of water entering the pump in less than 3 minutes. There is no need to be alarmed as this is normal. If no air leaks are present the small amount of water flow will continue to gradually increase resulting in a fully primed pump operating at maximum performance.

# ELECTRICAL



Before wiring any part of the motor be sure the power is disconnected.

It is recommended that wiring be performed by a licensed electrician or professional serviceperson. If pump has a factory preinstalled cord, wiring has already been set and this step is not needed; unless voltage change is required in which case the cord will need to be removed and steps followed below.

1. Inspect the motors internal wiring to ensure voltage supply is matched between the motor and the power source. If voltage does not match, it will damage the motor and void the warranty.  
**Example:** If connecting your pump to a 115V circuit, make sure the motor connections match the 115V wiring diagram listed on your particular motor.
2. Supply voltage must be within +/- 10% of nameplate voltage indicated on the motor. Incorrect voltage supply may result in fire or damaged motor and voids the warranty. If you are not certain, please consult with a licensed electrician.
3. Use designated supply wire size specified in the chart below. Correct wire size is necessary to avoid electrical insufficiencies, allowing the motor to run cooler, more efficiently and eliminating line voltage loss. It is important to connect your pump to a ground fault circuit interrupter (GFCI) for safety.
4. Wire motor following the connection diagram located on the motor. Note differences in high and low voltage arrangements. If a cord has been preinstalled the connection was completed at the factory.
5. Be sure all connections are clean and tight. Ensure the motor is properly grounded. Typically a green ground terminal is located inside the motor connection box. The ground wire must be properly connected to an electrical service ground to safely operate.
6. The pump must be connected to an adequately sized circuit. It is recommended to have a dedicated circuit that will prevent voltage drop from other loads as occurs on shared circuits.
7. When using 3 phase power the motor leads must be energized in the correct sequence to provide the correct motor rotation. When viewed from the back end (opposite drive end), the motor must rotate clockwise. Incorrect rotation could destroy the pump and void the warranty. If sequence of the incoming electrical supply lines is not known, briefly connect the power for a second or two to determine the rotation while looking at the fan through the motor end plate on the back end (opposite drive end) of the motor. If you are unable to see the fan you will need to remove the drip cover (solid plate) on the back end of the motor (opposite drive end) in order to see the motor shaft as this unit type will not have a visible fan. If the rotation is incorrect, exchange any two of the connected leads and retest.



- \* Risk of shock! Connect only to a ground fault circuit interrupter (GFCI). Contact an electrician if uncertain.
- \* Do not bury electrical cord unless installed in certified conduit. Locate the cord safely to minimize accidental damage
- \* Replace damaged cords immediately to minimize risk of electric shock.
- \* Do not use extension cords to supply electricity to the pump.

## RECOMMENDED WIRING AND CIRCUIT BREAKER DATA FOR TETON® XTP ECOSTREAM PRIMER PUMP

CIRCUIT DATA			WIRING DATA					
HP	CIRCUIT	VOLTS/Hz/PH	WIRING SIZE PER AMPERAGE CAPACITY					
			WIRE GAUGE	25-50 ft	100 ft	150ft	200ft	250ft
1/4	15 Amp	115 or 230/60/1	16	13 amps	10 amps	*	*	*
1/3	15 Amp	115 or 230/60/1	14	15 amps	13 amps	7 amps	*	*
1/2	15 Amp	115 or 230/60/1	12	20 amps	15 amps	10 amps	8 amps	7 amps
3/4	15 Amp	115 or 230/60/1	10	20 amps	20 amps	15 amps	10 amps	10 amps
1	15 Amp	115 or 230/60/1						

\*Not recommended for use at this length. Note: The longer the wiring length the lower the amp conductivity due to voltage drop.

# MAINTENANCE

## Cleaning the basket:

The strainer basket in the priming pot should be inspected and cleaned at least one (1) time per week, more often if excessive debris is present in the operating environment.

1. Turn off your pump and disconnect from the electrical source by unplugging or turning off the breaker.
2. If you have a ball valve placed at the return side of your pump, be sure to close the valve to prevent backflow.
3. Remove the black clamp ring by holding the tabs and turning the clamp ring counter clockwise. Take care if the clamp ring is too tight. Slightly bumping the tabs may aid in releasing the grip.

Remove the lid and clean out the basket. It is recommended to clean out the basket using a sprayer on a garden hose and a brush as needed. Do not hit the basket on any hard surface as this will weaken and damage the basket.

4. Reinstall the basket so that the tab under the basket locks in place.
5. Fill priming pot (basket section) with water.
6. Replace the lid securely.
7. Open ball valve (if present).
8. Connect power and start the pump.



If the pump has been running with no incoming water flow for more than five (5) minutes, it is important to immediately turn the pump off by disconnecting the unit from the power supply. If the volute (main pump housing) is hot, allow the pump a minimum of one hour or more to cool down before opening the lid. The volute housing/strainer pot should be cool to the touch before opening. Danger of burn if opened when hot.

## Seals and Bearings

Pump seals and bearings experience normal wear and degrade over time. It is recommended to change pump seals every three (3) to four (4) years for fresh water applications and every year for salt water applications. The frequency of replacement will be determinate upon environment and water quality. If leakage is noticed at anytime, check troubleshooting tips and contact us for parts and advice. If the pump becomes abnormally noisy, this could be a sign that the bearings are failing and need replacement. There are a few options for repair when this occurs.

1. Contact Teton to obtain a return authorization and ship the pump to us for repair.
2. Contact Teton for a list of authorized motor repair centers near you. Note that this option may not honor any warranty but may provide a good alternative.
3. If you are mechanically minded, the option to order bearings and a seal kit from Teton or your local dealer is available to perform the repair.

# WINTERIZATION

Winterizing your pump is necessary if freezing temperatures occur in your geographic area for extended periods of time. If freezing temperatures are not common but may on occasion drop below freezing, it is advised to follow winterization procedure to protect your pump.



Freezing temperatures cause water to expand and may result in damage to the pump, plumbing, and other connected components resulting in costly repairs.

### Full disconnection method:

This method is best for pumps situated outside without protection of a building or vault.

1. Disconnect the pump from the power source by unplugging or turning off at the circuit breaker  
Note: If hardwired, you may either disconnect the electrical connection (a qualified electrician should perform this) or leave the motor connected and disconnect the pump end. If you choose this option, please follow pump disassembly instructions and insulate and cover the motor for protection.
2. Close all necessary valves on inlet and discharges lines and drain the pump by removing both drain plugs. As the pump drains, the lid may be loosened to facilitate better drainage. **Tip:** Store drain plugs in a resealable bag and tape the bag to the pump or store inside the pump basket to prevent loss.
3. Once drained, loosen the intake and discharge ports by turning the union nut counter-clockwise until loose.
4. The pump can now be removed. Be sure the pump is fully drained and lid removed before being stored. The lid may stay secured if prior to storage the lid is removed and fully dried. Store with drain plugs removed. Your pump is now ready for storage in a dry, warm location such as a garage.

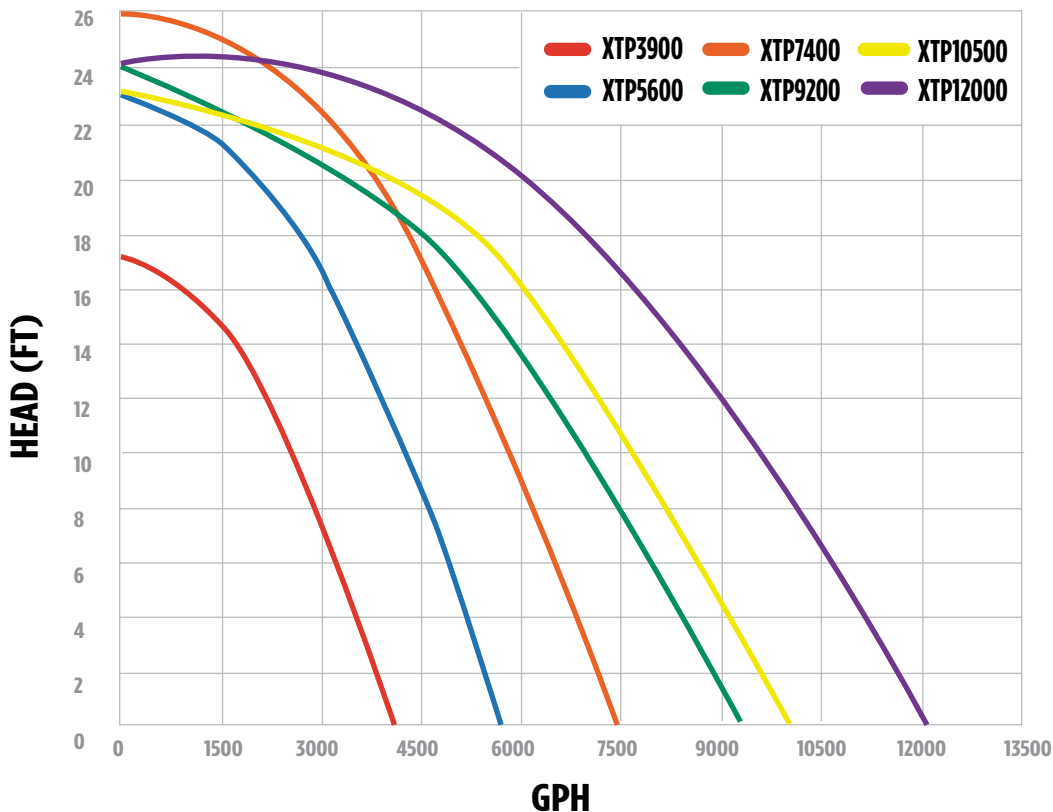
\*\*Be sure to drain the water from the plumbing on your system and related components to prevent damage.

### Connected method:

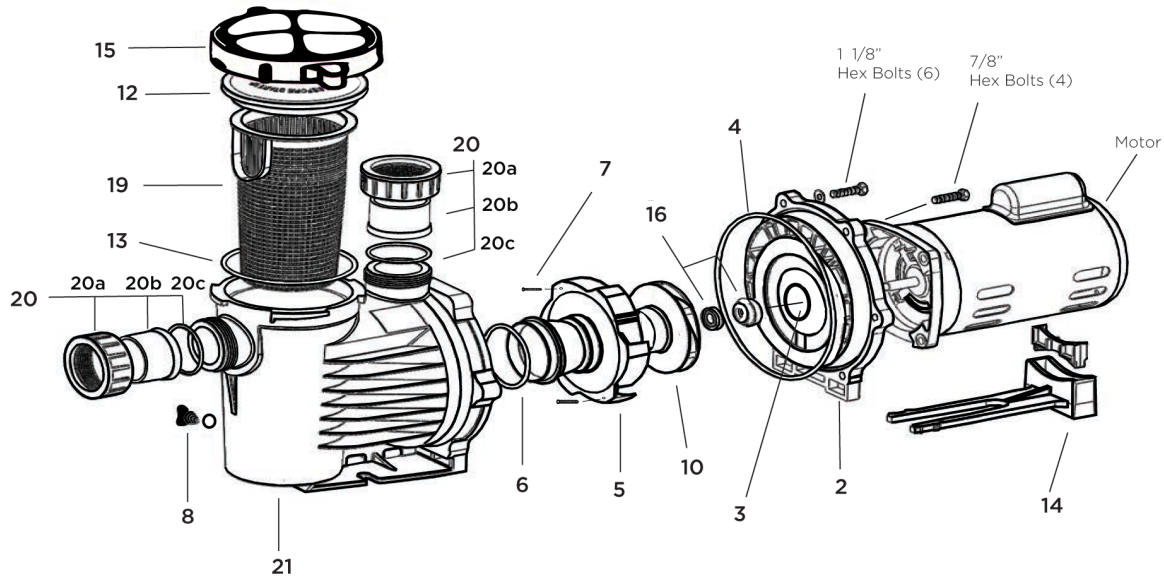
This method is best for pumps situated in a vault, shed or other covered outdoor location that may be difficult to fully remove.

1. Follow steps 1, 2 and 3 above.
2. Once drained, remove and dry the lid and place over the top without latching.
3. Drain all plumbing lines on your system.
4. Insulate the pump and exposed pipes, fully covering to prevent moisture intrusion and freezing temperature exposure. Do not directly cover with plastic sheeting as this can create condensation that can result in damage.

## PERFORMANCE DATA



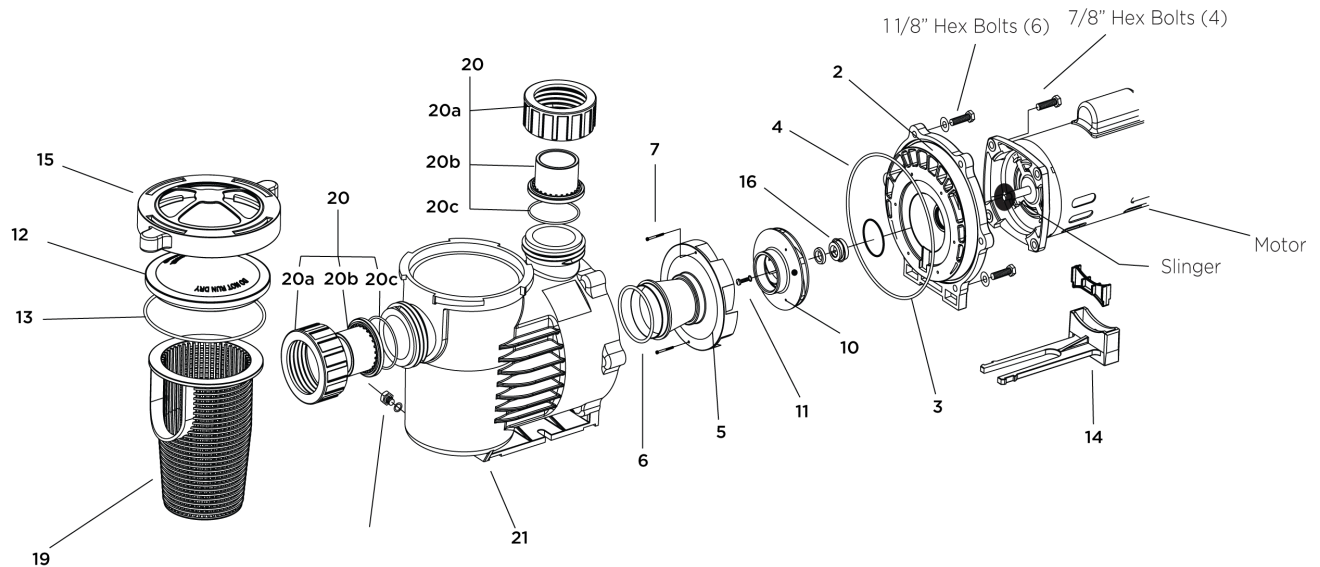
## PARTS BREAKDOWN - XTP3900/5600/7400



## AVAILABLE REPLACEMENT PARTS - XTP3900/5600/7400

NO.	ITEM	DESCRIPTION
1	Bearings	Motor Bearings - 03
2	Bracket	Bracket
3	Bracket Bore O-Ring	Bracket Bore O-Ring
4	Bracket O-Ring	Bracket O-Ring
5	Diffuser	Diffuser Large Vane (for #4 - 7 Impellers) / Diffuser XL Vane (for #8 - 9 Impellers)
6	Diffuser O-Ring	O-Ring for Diffuser Nose
7	Diffuser Set Screw	Set Screw for Diffuser (All except 1.5 - 3hp HF) / Set Screw for Diffuser (1.5 - 3 hp HF)
8	Drain Plug	Polypropylene Drain Plug with Buna O-Ring (1)
9	Hardware	Stainless Steel Hardware Set (All except 1.5 - 3 HF) / Stainless Steel Hardware Set (1.5 - 3 HF only)
10	Impeller	Impeller for XTP3900 T: 4.35 Impeller for XTP5600 T: 4.92 Impeller for XTP7400 T: 4.92
11	Impeller Set Screw	Impeller reverse set screw with gasket (3450 RPM only)
12	Lid	Clear Lexan™ Lid
13	Lid O-Ring	O-Ring for Lexan™ Lid
14	Motor Base	Plastic Motor Base
15	Quick Clamp	Quick clamp for Volute
16	Seal - Mechanical	316 Stainless Steel Carbon vs. Ceramic with Buna / PTFE Coated S.S. with SIC Faces, Buna Trim
17	Seal Kit	Includes (2) Drain plug O-rings, (1) Lid, Diffuser, Bracket & Bracket bore O-rings, (1) 513 Mechanical seal, (1) Reverse set screw washer, (2) Tailpiece O-rings
18	Seal Kit - Salt	Includes (2) Drain plug O-rings, (1) Lid, Diffuser, Bracket & Bracket bore O-rings, (1) 517 Mechanical seal, (1) Reverse set screw washer, (2) Tailpiece O-rings
19	Strainer Basket	Strainer Basket for Volute
20	Union Assembly	2" Nut(a), Tail Piece(b) & O-Ring(c)
21	Volute	Volute Housing (Polypropylene)

## PARTS BREAKDOWN - XTP9200/10500/12000



## AVAILABLE REPLACEMENT PARTS - XTP9200/10500/12000

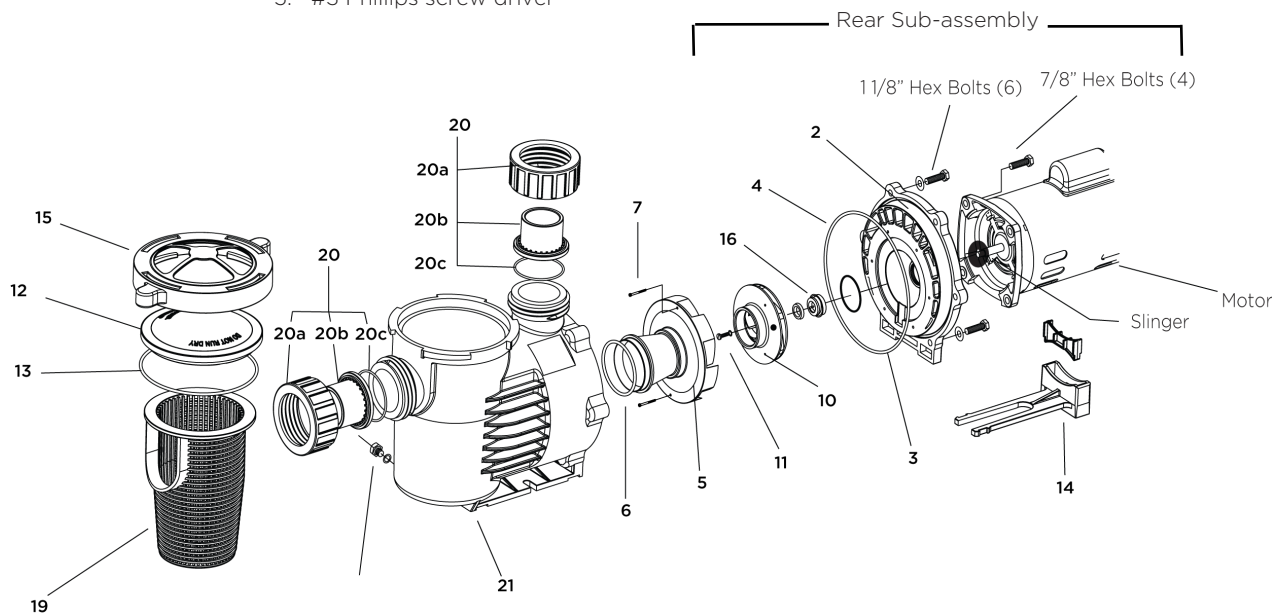
NO.	ITEM	DESCRIPTION
1.	Bearings	Motor Bearings - 03
2.	Bracket	Bracket
3.	Bracket Bore O-Ring	Bracket Bore O-Ring
4.	Bracket O-Ring	Bracket O-Ring
5.	Diffuser	Diffuser Regular Vane (for #4 - 7 Impellers) / Diffuser High Volume Vane (for #8 - 10 Impellers)
6.	Diffuser O-Ring	O-Ring for Diffuser Nose
7.	Diffuser Set Screw	Set Screw for Diffuser (All except 1/4 & 1/3 Low, 1-3 HH, 1/2 HF) / Set Screw for Diffuser (For 1/4 & 1/3 Low, 1-3 HH, 1/2 HF)
8.	Drain Plug	Polypropylene Drain Plug with Buna O-Ring (1)
9.	Hardware	Stainless Hardware Set (All except 1/4 & 1/3 L, 1-3HH, 1/2HF) / Stainless Hardware Set (1/4 & 1/3 L, 1-3HH, 1/2HF)
10.	Impeller	Impeller for XTP9200 T = 5.12 Impeller for XTP10500 T = 5.00 Impeller for XTP12000 T = 5.00
11.	Impeller Set Screw	Impeller reverse set screw with gasket (3450 RPM only)
12.	Lid	Clear Lexan™ Lid
13.	Lid O-Ring	O-Ring for Lexan™ Lid
14.	Motor Base	Plastic Motor Base
15.	Quick Clamp	Quick clamp for Volute
16.	Seal - Mechanical	316 Stainless Steel Carbon vs. Ceramic with Buna / PTFE Coated S.S. with SIC Faces, Buna Trim
17.	Seal Kit	Bracket bore O-rings, (1) 513 Mechanical seal, (1) Reverse set screw washer, (2) Tailpiece O-rings
18.	Seal Kit - Salt	Bracket bore O-rings, (1) 517 Mechanical seal, Includes (2) Drain plug O-rings, (1) Lid, Diffuser, Bracket & (1) Reverse set screw washer, (2) Tailpiece O-rings
19.	Strainer Basket	Strainer Basket for Volute
20.	Union Assembly	2" Tail Piece(a), Nut(b) & O-Ring(c) / 3" Tail Piece(a), Nut(b) & O-Ring(c)
21.	Volute	Volute Housing (Polypropylene)

## PUMP DISASSEMBLY

All moving parts are located in the rear sub-assembly of this pump.

Tools required:

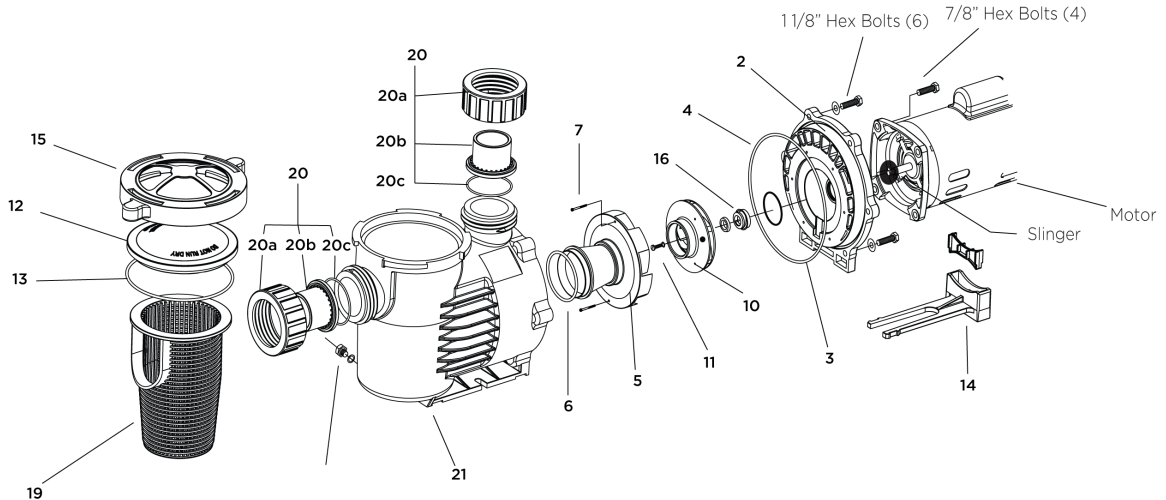
1. 3/32 inch Allen wrench
2. 7/16 inch open end wrench
3. 9/16 inch open end wrench
4. Small and large flathead screwdrivers
5. #3 Phillips screw driver



Disassembly and repair of the motor sub-assembly can be made as follows:

1. Disconnect the pump from the power source by unplugging or turn off at the circuit breaker.
2. Close all necessary valves on inlet and discharge lines and drain the pump by removing both drain plugs.
3. Loosen and remove the six (6) 1-1/8" hex bolts that hold the volute and the bracket together.
4. Pull the rear sub-assembly away from the volute. The volute may remain attached to the plumbing.
5. Loosen and remove the two (2) diffuser set screws that hold the diffuser to the bracket.
6. Remove the set screw from the impeller eye, if present. To remove, hold the impeller stationary and turn the set screw clockwise to loosen (screw is left-hand threaded).
7. Hold the motor shaft stationary by removing the cap on the opposite end of the motor and inserting a screwdriver in the slot or use a wrench on the flat spot on the motor shaft depending on the motor design and unscrew the impeller by turning it counter-clockwise.
8. Loosen and remove the four (4) 7/8" hex-bolts that hold the bracket to the motor face.
9. To remove the shaft seal, place the bracket face down on a flat surface and press out the carbon/spring seal from the back side. Never try to pry it out from the front. Carefully remove the ceramic seal from the back of the impeller hub by carefully prying up with a small flathead screwdriver.
10. Clean the bracket, seal bore housing and the motor shaft as necessary. Remove slinger if replacing bearings.

## PARTS REPLACEMENT AND PUMP ASSEMBLY



1. To install a new shaft seal, clean or replace the bracket bore o-ring. Moisten bracket bore o-ring with water prior to installing to prevent rolling.
  2. Press the seal into the bore without touching or putting pressure on the delicate carbon face by pushing on the stainless steel collar. (A large socket or pipe nipple may be used to facilitate installation.)
  3. Clean as necessary the impeller hub and press in the ceramic part (see tip). Make sure that it is sitting flat. The polished white ceramic face must be face out, not the rubber boot!
- Tip:** Moistening the rubber boot with water prior to installation aids in proper seating.
4. Install the slinger rubber washer on the motor shaft. Install the bracket to the motor. tighten the four (4) 7/8" hex bolts.
  5. Screw the impeller clockwise onto the motor shaft while holding the motor shaft stationary until it makes firm contact.
  6. Mount the diffuser onto the bracket fitting the plastic pins into the holes in the bracket, then tighten both diffuser tighten both diffuser set screws.
  7. Make sure the diffuser o-ring and bracket gasket are clean and properly seated.
  8. Assemble the motor sub-assembly to the volute using the six (6) 1-1/8" hex bolts. Do not tighten until all six (6) hex bolts are in place and hand tightened, then tighten all six (6) bolts uniformly in an alternating opposing sides pattern.
  9. Insert both drain plugs with o-rings installed and tighten. Install strainer basket and fill the volute/strainer pot with water.
  10. Reinstall the lid and clamp ring, turning clockwise until snug.
  11. Open all valves on the system, if present, and reconnect the power to start. Wait for the pump to prime. Monitor water level in the volute/basket area to ensure water is always present. If the pump has been running with no incoming water flow for more than 15 minutes, shut the system off immediately and call PerformancePro pumps for technical assistance.



- \* Handle the mechanical seal with care to protect the polished and lapped faces of the seal from damage.
- \* DO NOT RUN THE PUMP DRY. Pump must be filled with water and sealed before it is turned on.

# TROUBLESHOOTING

PROBLEM	REASON	SOLUTION
<b>PUMP NOT PRIMING</b>	No power	Fill strainer pot with water and close lid. Ensure plumbing valves are open.
	Low water in the strainer pot	Check basket to make sure seated correctly and reinstall lid. Check lid for cracks and lid o-ring for flat spots or cracking.  Check intake and discharge union fittings for cracks or loose connection. Replace or tighten. Connections must be alright.
<b>MOTOR IS NOT TURNING</b>	Circuit breaker has tripped or has no power	Reset circuit breaker and/or GFCI. Check electric supply to verify power supply is present. Test a secondary location if needed. Capacitor failure. This may be tested. Call for details. Bearing seized. Rotate motor shaft by hand to test. If shaft does not freely spin, replace bearings.
<b>LOW FLOW</b>	Water flow has slowed or is intermittent	Clean filter basket of debris. Check for impeller clog. See disassembly instructions or call for details. Check for leaks in volute housing, lid and union connections. Check for obstructions in plumbing and clear if found.
<b>MOTOR OVERHEATING</b>	Seems overly hot and is shutting down or shutting off and on intermittently	Possible incorrect wiring. Have an electrician test. Test breaker. Replace if needed. Increase airflow if restricted. If pump is located in direct sunlight, try providing a properly vented shade covering.
<b>PUMP IS LEAKING</b>	Water leaking between motor and pump housing	Replace mechanical seal and bracket o-ring. Inspect brass inserts in volute housing.
	Water leaking at lid or union	Check lid or union nut for cracks. Replace if needed. Check lid or union o-rings for cracking or flat spots. Replace if needed.

## LIMITED PRODUCT WARRANTY

- CMT Group LLC, a California limited liability company d/b/a Teton™ (the “Company”) expressly warrants to the original purchaser that, for a period of two (2) years from the date of sale, the covered product (the “Product”) will be reasonably free of defects in materials and workmanship and that when properly handled, will conform, within accepted tolerance to applicable manufacturing specifications. This Limited Product Warranty (“Limited Warranty”) only applies to Company’s Products that are used, stored, handled, and installed in the manner recommended by the Company in the Product instruction manual.
- Notwithstanding this Limited Warranty, customer acknowledges that some parts of the Product are consumable and may need to be replaced as part of ongoing Product maintenance, as recommended in the Product instruction manual, and are therefore not covered by this Limited Warranty.
- Company will, at its option, repair or replace Product without charge, if the Product fails or does not perform as warranted solely due to a manufacturing defect within the warranty period, subject to the exclusions set forth in this Limited Warranty.
- Repair or replacement during this two (2) year warranty shall not include: reasonable labor charges necessary to repair or replace the defective Product, shipping costs, and packing and insurance costs. During the entire two (2) year warranty, Company’s obligation as to repair or replacement shall further be limited to repair or replacement with the models of the Product that are available at the time of the repair or replacement, and shall be limited to the repair or replacement of only the specific Product that fails due to a manufacturing defect. Any repaired or replaced Product shall also remain subject to the original two (2) year warranty from the date of the original sale, and any repair or replacement shall not extend the original warranty period in any manner or start a new warranty period.
- You may obtain coverage under this Limited Warranty by providing Company with proof of original purchase. For service under this Limited Warranty, you must first contact the seller, distributor, retailer, or dealer from whom you purchased the Product and provide the following: copy of original receipt, your name and address, a description of the Product (including the serial number/date code set forth on the Product), and the nature of the defect. To expedite any warranty claims and processing, please submit to us the product registration card included with your purchased Product promptly after your purchase.
- All warranty repairs must be performed by the Company, or a Company authorized third-party. Any repairs performed by you or an unauthorized third-party will not be compensated by Company and are not the responsibility of the Company and will void this warranty.
- **DISCLAIMER OF WARRANTIES:** Company’s Products must be stored, handled, installed, used, and maintained in accordance with instructions provided by Company, and this Limited Warranty is conditioned upon compliance with all such instructions. Copies of the Company’s use guide/care guide are included with the Product and available from the Company at the address listed below. You may also obtain these materials by contacting Company at (800) 752-0399 or on the Company’s website [www.tetonus.com](http://www.tetonus.com).
- This Limited Warranty does not cover defects caused by:
  - non-compliance with Company’s use guides, care guides, and/or instruction manual. Such failures include, but are not limited to, exposure to physical abuse, including, but not limited to chemical abuse (e.g. harsh cleansers and solvents), thermal abuse or shock (e.g. excessive heat or cold), incompatibility of fluid used near the Product, or misuse;
  - improper storage, installation, handling, and/or use of the Product;
  - damage not resulting from manufacturing defects that occur while the Product is in the customer’s possession;
  - unreasonable or unintended use of Product;
  - products installed with known or visible manufacturing defects at the time of installation;
  - minor conditions such as stains, scratches, etc.
- Any information or suggestion by Company with respect to the Products concerning applications, specifications, or compliance with codes and standards is provided solely for your convenient reference and are made without any representation as to accuracy or suitability. You must verify and test the suitability of any information with respect to the Products for your specific application.
- **THE WARRANTIES SET FORTH IN THIS LIMITED WARRANTY ARE THE ONLY WARRANTIES MADE BY COMPANY IN CONNECTION WITH THE PRODUCT. COMPANY CAN NOT AND DOES NOT MAKE ANY IMPLIED OR EXPRESS WARRANTIES WITH RESPECT TO THE PRODUCT, AND DISCLAIMS ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. PRODUCTS SOLD BY COMPANY ARE SOLD ONLY TO THE SPECIFICATIONS SPECIFICALLY SET FORTH BY COMPANY IN WRITING. OTHER THAN THE LIMITED WARRANTY SET FORTH HEREIN, COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. COMPANY’S SOLE OBLIGATION UNDER THIS WARRANTY SHALL BE REPAIR OR REPLACEMENT OF NON-CONFORMING PRODUCTS. BUYER ASSUMES ALL RISK WHATSOEVER AS TO THE RESULT OF THE USE OF THE PRODUCTS PURCHASED, WHETHER USED SINGULARLY OR IN COMBINATION WITH ANY OTHER PRODUCTS OR SUBSTANCES.**
- **LIMITATION OF LIABILITY:** No claim by the buyer/owner of any kind, including claims for indemnification, shall be greater in amount than the purchase price of the Product in respect to which damages are claimed. IN NO EVENT SHALL COMPANY BE LIABLE TO BUYER/OWNER IN TORT, CONTRACT OR OTHERWISE, FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, RELIANCE, STATUTORY, SPECIAL, PUNITIVE OR EXEMPLARY DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LOSS OF USE, LOSS OF TIME, LOSS OF REVENUES, INCONVENIENCE, LOSS BUSINESS OPPORTUNITIES, DAMAGE TO GOOD WILL OR REPUTATION, OR LOSS OF DATA, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR SUCH DAMAGES COULD HAVE BEEN REASONABLY FORESEEN, IN CONNECTION WITH, ARISING OUT OF, OR AS A RESULT OF, THE SALE, DELIVERY, SERVICING, USE OR LOSS OF USE OF THE PRODUCT SOLD HEREUNDER, OR FOR ANY LIABILITY OF BUYER TO ANY THIRD PARTY WITH RESPECT THERETO.
- All provisions of this Limited Warranty are severable and if any provision shall be deemed invalid, the remaining provisions shall remain in full force and effect.
- Please consult your retailer for quality original Company replacement parts.
- Visit [www.tetonus.com](http://www.tetonus.com) for your nearest dealer.
- Contact Information:
  - Any question concerning this warranty should be addressed to:  
Teton  
P.O. Box, 1044  
San Leandro, CA 94577  
Phone: 800-752-0399  
Email: [info@tetonus.com](mailto:info@tetonus.com)  
Website address: [www.tetonus.com](http://www.tetonus.com)