

# **XKF SERIES**

# PROFESSIONAL POND & KOI FILTER INSTRUCTION MANUAL



# XUV PROFESSIONAL CLARIFIER XKF2500/ XKF4200/ XKF6500/ XKF9000/ XKF12000/ XKF16000/ XKF24000

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# WELCOME TO THE WORLD OF TETON, NATURAL RELIABILITY<sup>™</sup>!

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.

#### **ABOUT THE PRODUCT**

Teton would like to thank you for your purchase of this filtration equipment. These units are easy to install and simple to maintain. The heavy-duty poly or fiberglass tanks and robust valves and laterals will provide years of durable use. Furthermore, common replacement parts are available to extend the service life for years to come.

#### Safety Warnings



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 is the safety-alert symbol. When you see this symbol on your equipment or in this manual, look for one of the following signal words and be alert to the potential for personal injury.



• Teton XKF Series Teton fiberglass filters are designed to work with water at a temperatures greater > than 32degrees F/ 0 ° C and less < than 105 degrees F/40 ° C. The filter should never be operated outside of these temperatures or damage may occur.

• The installation should be carried out in accordance to local safety standards and bylaws.

• Any modification of the filter requires the prior consent from Teton. Original replacement parts and accessories authorized by the manufacturer ensure a high level of safety. Teton assumes no liability for the damage and injuries caused by unauthorized replacement parts and accessories.

• The user should make sure that the installation is carried out by qualified authorized persons and that these persons have first carefully read the following instructions.

The operating safety of the filter is only guaranteed if the installation and operation instructions are correctly followed.

- In the event of defective operation or fault, contact Teton or its nearest authorized service agent.
- To reduce the risk of injury, do not permit children to use this product.
- Incorrectly installed equipment may fail, causing severe injury or property damage.

• Chemical spills and fumes can weaken filtration Swimming Pool / Spa equipment. Corrosion can cause filters and other equipment to fail, resulting in severe injury or property damage. Do not store pool chemicals near your equipment.

Basic safety precautions should always be followed, including the following: Failure to follow instructions can cause severe injury and/or death.

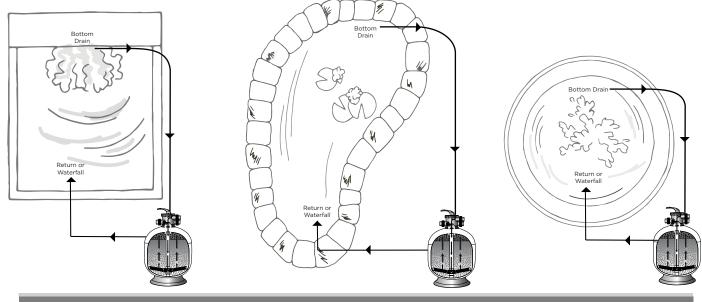
MODEL NO.	XKF2500	XKF4200	XKF6500	XKF9000	XKF12000	XKF16000	XKF24000
TANK SIZE	16"	18"	20"	24"	24"	30"	36"
VALVE SIZE	1.5" Top	1.5" Top	1.5" Top	2" Top	2" Slide	2" Slide	2" Slide
MEDIA (CF)	1	1.5	2	3	5	6.5	11
MAX FLOW GPM	70	80	90	120	140	160	180
MAX FLOW GPH	4200	4800	5400	7200	8400	9600	10800
MAX POND SIZE	2500	4200	6500	9000	12000	16000	24000
MAX FISH LOAD (LBS	<b>)</b> 100	150	200	350	400	500	725

#### **Technical Specifications**

#### How the filtration works

The large volume of biological media provides generous surface area for the beneficial bacteria to quickly colonize. These beneficial bacteria growing on the media perform the nitrogen cycle which converts ammonia and nitrite into nontoxic nitrates. The bacteria colony will establish itself over a 2–4-week period depending on the water temperature, fish load and feed rates. Please closely monitor the water quality during the startup phase. This media is semi-floating so the filter can backwash easily to dispose of the heavy waste. Backwashing should take place once a week depending on the fish load and feed rates.

#### **INSTALLATION** Recommended pond layouts



Teton

# Installing valve to filter (XKF12000/16000/24000)

- 1. Align the intake and discharge unions with the two ports on the side of the tank.
- 2. Make sure the o-rings are seated correctly.
- 3. Tighten the unions onto the ports.

Note: XKF2500-9000 come with valves pre-installed.

### Installing the filter

- 1. Position the filter as close to the pond as possible.
- 2. Position the filter so that it is free from flooding, away from sumps, guttering, garden hollows, etc.
- 3. The filter should be placed on a level concreate slab, very firm ground, or equivalent. Ensure that the ground will not settle, preventing any strain from the attached plumbing.
- 4. Filter units should be installed with sufficient clearance around the filter to permit visual inspection and where they can be accessed easily for routine maintenance.
- 5. Position the filter so that the piping connections, Multiport Valve and winter drain are convenient and accessible for operation, servicing and winterizing.
- 6. The product label should be clearly visible for future reference.

#### Plumbing the filter

- 1. Attach the unions.
- a. Make sure the surfaces of the ports and unions are wiped clean and free of debris
- b. Ensure the o-rings are positioned correctly.
- c. Insert the tail piece into the port.
- d. Tighten the nuts hand tight.
- 2. Attach the pipe from the pump into the "Intake" port union.
- 3. Attach the return to the pond into the "Discharge" port union.
- 4. Attach the waste pipe to the "Waste" port union.
- 5. Glue the PVC pipe to the barrel unions making sure to use the correct connection for the inlet from the pump, return to the pond and the waste outlet. Allow 24 hours for glue (solvent) to set before starting the filter. Use the adapters included if necessary.
- 6. Do not reduce the discharge or waste plumbing to allow the water to flow freely though the filter.
- 7. The pump used should be close to the maximum flow at the total dynamic head of the system.
- 8. If a UV clarifier is used in conjunction with the filter, the UV should be plumbed inline after the filter.
- 9. Ensure that the filter will not rock or move around once it is plumbed in, and the multi-port valve is operational.
- 10. Test the filter and check for leaks around the threads.

Note: Use the appropriate amount of glue to ensure a proper connection without using excess to prevent glue going onto the union oring.

# **OPERATION**

#### Initial Filter Startup

- 1. Depress the multiport valve handle and move to the "Backwash" position.
- 2. Open the air blead valve.
- 3. Prime and start the pump following the pump instructions.
- 4. Once a steady flow of water is flowing from the waste line close the air bleed valve and turn off the pump.
- 5. Move the multiport valve handle to the "Filter" position.
- Turn the pump back on and the filter will be in operational mode. Note the PSI level on the pressure gauge as this will indicate your system's baseline pressure. Caution: Operation of the Multiport Valve or mode selection is to be always done with the pump switched off.

#### Backwashing & Rinsing the filter

This function allows the filter to discharge larger debris on a regular basis to reduce the workload on the bacteria colony and help maintain a clean and healthy pond. The frequency of backwashing can depend on the amount of fish and the feed rate. We recommend backwashing once a week and monitoring the water guality and amount of waste being discharged to determine if a higher frequency is required.

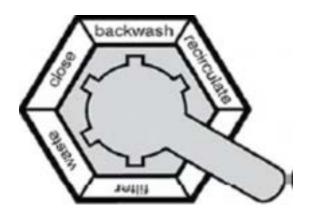
*Warning:* Always switch the pump off while changing positions on the multiport valve. Failure to do so will cause debris to get lodged in the spider gasket of the valve which will cause leakage from the valve and premature failure.

#### Backwashing steps:

- 1. Turn the pump off.
- 2. Depress the valve handle and rotate it to the "Backwash" position.
- 3. Turn the pump on and allow the filter to backwash for 2-3 minutes.
- 4. Turn the pump off.
- 5. Depress the valve handle and rotate it to the "Rinse" position.
- 6. Turn the pump on and allow the filter to rinse for 1-2 minute or until the sight glass is clear.
- 7. Repeat steps 1 through 6 for 2 or 3 times until the water from the waste line is clear.
- 8. Turn the pump off
- 9. Depress the valve handle and rotate to the "Filter" position.
- 10. Turn the pump back on and the filter is now in normal operational mode.

#### **Multi-port Valve Operation**

- "Filter"-Position for normal filtration operation Incoming water from the pond is automatically directed by the Multiport Valve to the top of the filter bed. The water is pumped down through the filter media. The filtered water is returned from the bottom of the filter tank, through the Multiport Valve and back through the piping system to the pond.
- "Backwash"- Position for cleaning the filter media Water flow is reversed by the Multiport Valve through the filter media so that water flow is directed to the bottom of the filter tank and up through the filter media, flushing the previously trapped dirt and debris out of filter through the waste line.
- 3. "Rinse"-Position for flushing the filter system The water flow is directed by the Multiport Valve down through the filter media and out through the waste line. This process settles the filter media bed into place and ensures any remaining dirt or debris is rinsed out of the filter.
- 4. "Waste" Position for bypassing the filter to waste The water flow is directed by the Multiport Valve straight to the backwash outlet, bypassing the entire filter bed. This Multiport Valve position is used to lower the water level or for draining the pond and water changes.
- 5. "Re-circulate" Position for bypassing the filter The Multiport Valve recirculates water flow directly back to the pond, bypassing the filter. This is necessary for some medications.
- Closed Position for closing all flow to the filter The Multiport Valve can be closed to enable servicing of pump without draining the water from the filter.



#### MAINTENANCE

#### Winterizing

If your filter is above ground:

- 1. Switch off the Pump/ Close the Inlet Valve,
- 2. Open the air release valve and move the MPV handle to the winterize position [between Filter and Waste] This will allow air to pass through to all ports.
- 3. Remove any drain plugs from the filter.
- 4. Drain water from the pipework.

If Your Filter Is Buried:

- 1. Switch off the Pump/ Close the Inlet Valve,
- 2. Open the air release valve and move the MPV handle to the winterize position [between Filter and Waste] This will allow air to pass through to all ports.
- 3. Remove the multiport valve or top cap from the filter tank.
- 4. Use a shop vac or pump to remove the water from the filter tank. Do NOT remove the filter media.
- 5. Drain water from the pipework

# Replacing the media

Replacement media is available for purchase separately should you need to replace the original media.

- 1. For top mount valve units (XKF2500-9000) cover the main standpipe under the valve with a plastic cap to prevent the media from going into the standpipe.
- 2. Pour the media through the top or valve opening and make sure it is distributed evenly around the laterals. The media amounts are provided on page 3 and should fill the tank 2/3 full.

Note: All filters come with the filter media pre-installed.

### 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 property 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.
- 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 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
  - Website address: www.tetonus.com