

Tower Assembly

Refer to pictures indicated, and also see two tower drawings.

Important note: DO NOT TIGHTEN ANY BOLTS UNTIL TOWER IS FULLY ASSEMBLED.

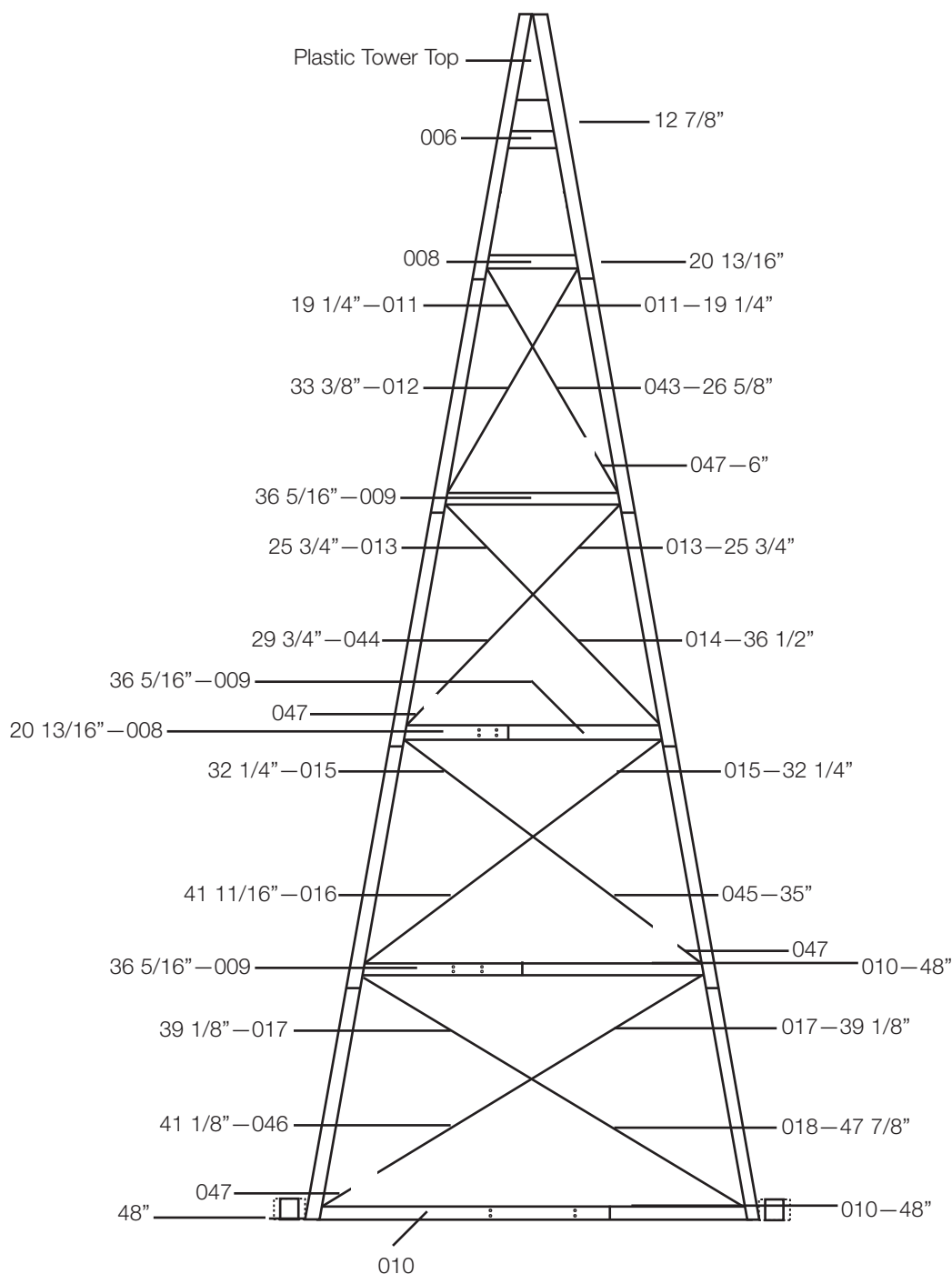
Before assembling your windmill: Open these boxes first. Compressor Box; Blade and Tail Box and 8' Tower Box. This will build the wheel and an 8' windmill. By doing this, you are eliminating confusion of too many parts. After you have built the 8' Tower, open up the 12' Ext. box and so on.

1. Begin the tower assembly at the top. Take all four top leg sections (item #1-019) and fasten them to the black plastic tower top (item #1-118) with 8 lag screws per leg. Tighten lag screws snug, but be careful not to strip the threads. (See photo A).
2. After top legs are fastened to the plastic tower top, install horizontal brace (item #1-006). Place nuts toward inside of tower, and washers under the head of the bolt. (5/16 x 5/8" bolts will be used here).
3. Place the airline clamp from the lag bolt package in the next hole down from (item #1-006) any leg will do.
4. Hold the next set of tower legs (item #1-020) to the back of the first set of legs (items #1-019) (See photo B) You also have to hold up (item #1-008) (See photo B) to the back of the leg sections and run a 5/16 x 3/4" bolt through the top hole of all items. Don't put bolts through the bottom holes yet as the "x" braces will have to be added. Place all nuts toward the inside of the tower with washers under the head of the bolt. Remember- do not tighten bolts yet.
5. Now look at the tower drawings. You need 8 pieces of (item #1-011). Place a 5/16 x 3/4" bolt and washer through one end, and then put the bolt through the remaining hole in the legs and through the horizontal piece, (item #1-008). Put the nut on the inside of the tower, and the washer under the bolt head.
6. Now place one of (item #1-012), and one of (item #1-043) as shown in (See photo C) onto the backside of the bottom ends of the upper "x" braces (item #1-011). Item #1-043 has a bend on one end, this goes toward the inside of the tower, and at the lower end so that it can become part of the tightener system (item #1-047).
7. Now look at (Photo D). You will be putting 5/16 x 3/4" bolts through four parts at the same time. Start on the right side of each tower side. Place a bolt through the straight end of (item #1-047) (See photo D) and then through the top hole on the lower end of leg section (item #1-020) already in place, and then through the top hole of the next leg section (item #1-020). "Upper legs lap over lower legs". Now place (item #1-009) behind both legs. The top hole in (item #1-009) goes over the bolt. Place a nut on the bolt. Do this on all four sides, then connect opposite "x brace" to top hole on opposite corner with 5/16 x 3/4" bolt and nut. Place a 5/16 x 1-1/4" bolt with one washer through the angled end of (item #1-047) and opposite "x brace". Add 2 thick rubber grommets to 1-1/4" bolt. Now add a washer and lock nut to the end of the bolt. Do not tighten these bolts until all assembly is done. Please note that the tensioning straps (item #1-047) and whatever opposite "x brace" is being used on that section, need only be drawn up snug. Please refer to detail photos.
8. The next section of the tower will be about the same as the last section except that you will bolt two parts together to make up the horizontal brace, and the (item #1-047) tensioner will go on the left side opposite the one in the section above (See photo E).
9. For all remaining sections, the same applies. Look at the tower drawing pertaining to the section you are working on for the correct part numbers for "x braces" and horizontal braces. Horizontal braces may be two parts bolted together. Remember to alternate (item #1-047) from right to left. They will always be opposite of the one above. **Don't forget to add anchor stake clamps at the bottom of your tower.**

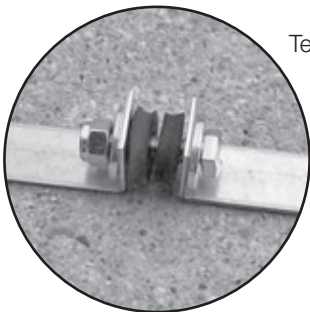
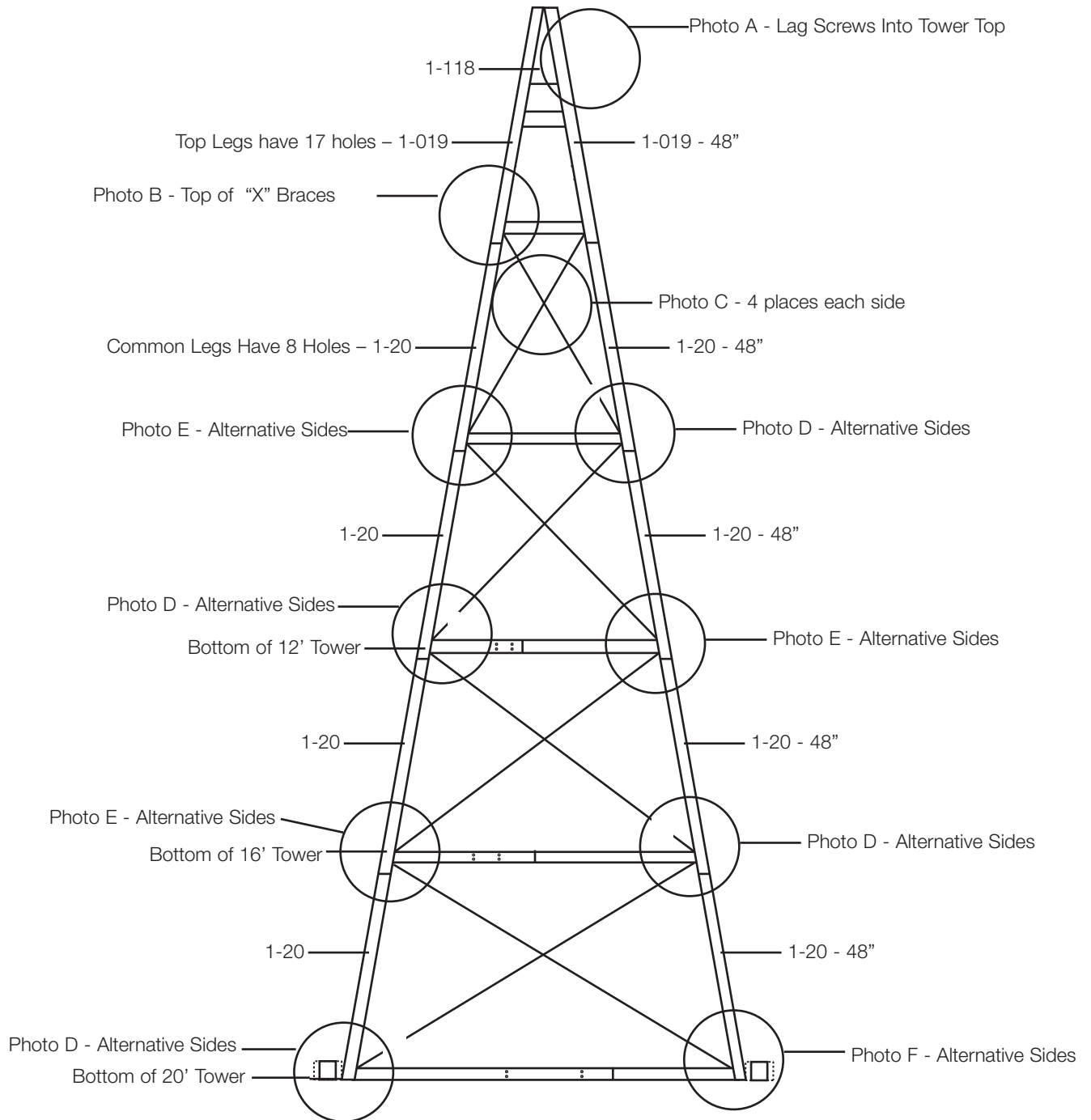
Adding anchor stake clamps: Refer to (photo F). Notice that the angle of the holes in the clamps, match to the angle of the tower leg. The clamps are rights and lefts to correctly fit the tower.

Tightening tower bolts: It is best to draw the "x" braces up fairly snug first (on the entire tower) (if you over tighten "x" braces you can pull the legs out of a straight line), and then tighten all other bolts on tower legs and horizontal braces at overlaps. Now readjust "x" braces (again, they need to be only snug). After all "x" braces are adjusted tighten the bolts at the center of "x" braces where all four pieces join.

HORIZONTAL AND "X" BRACES



VERTICAL LEGS AND DETAILS



Tentioner - Close Up View

TOWER



Photo A

Item 1-118

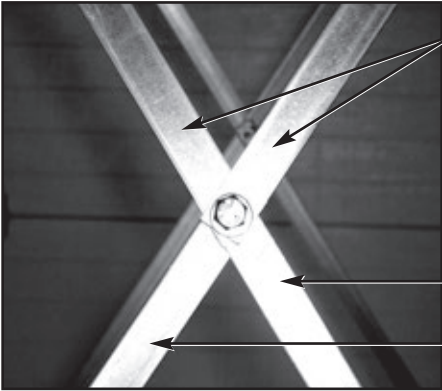


Photo C

Item 1-011

Item 1-043

Item 1-012



Photo E



Photo B

Item 1-008



Photo D

Item 1-047

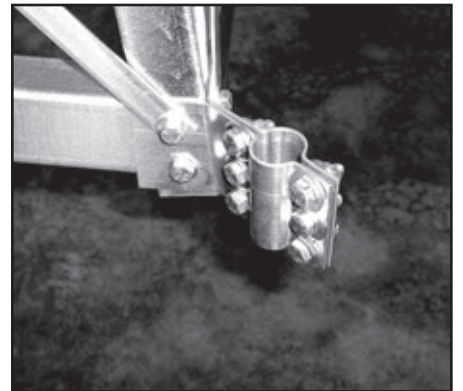
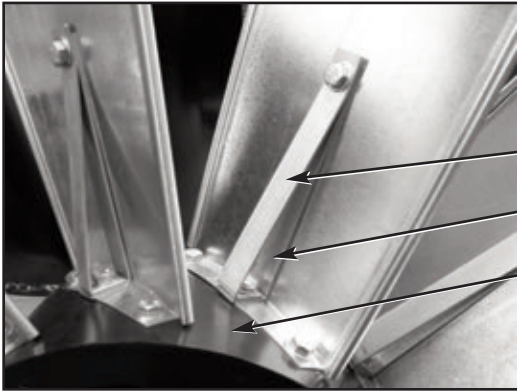


Photo F

Head unit assembly and set up instructions

1. Lay the center hub down (item #1-114) with the front facing up, in an area large enough for entire blade assembly. The front of hub has a small center hole - back hole is one inch.
2. Attach blades (item #1-005) by lining up the three bolt holes in the bottom of the blade with the three diagonal holes on the outside diameter of the hub (item #1-114) See photo (#G & #H). The blades will have to turn clockwise; this means the concave side of the blade will face toward you. **(Leave all bolts loose until wheel is done)**
3. Secure blades to center hub with 5/16 x 3/4" bolts, large washers and nuts. As you assemble the blades you will add the stiff backs (item# 047 & 048) to the center bolt. See photo (#G), you will also need a large washer on head of bolt, and nut on end of bolt, after it passes through the stiff back.
4. Next, fasten the blade spacers (item #1-028) between blades with 5/16 x 3/4" bolts, washers and nuts. The washer goes under the nut. Note: Leave these bolts very loose until all blade spacers are installed - then tighten them. (You may need a "drift" or Phillips screwdriver to align the holes on the last pair of bolts).
5. **Make sure all bolts on wheel are tight (one loose bolt, may cause damage)**
6. Now get the pivot tube, item# 029 and slide the pivot tube (with the spot weld on side of top end) through the back two - 2" holes until the weld spot on Pivot tube touches top of compressor flange. Place "U" bolt around pivot tube above the bottom plate of compressor - through the holes and tighten nuts on inside of compressor. (See Photo K)
7. Next, move to the tail assembly. Line up the four sets of holes by overlapping the tail fins (item #1-026). Bolt together the back three sets of holes leaving the first set to bolt the tail arms to (items #1-031 and 1-032 see photo I and J).
8. Now look at photo I. The tail fin is in between two 1/4" thick UHMW spacers. (The tail arms are mounted to the out side of the spacers.) Now bolt through all parts using 1 1/2" bolts supplied with washers and lock nuts. Leave these bolts loose until you attach arms to compressor. Now attach the other end to the tail arm supports and to the black can, using 5/16 x 5/8" bolts (See photo #K). Remember to go back and tighten the other end of tail arms. **Make sure all bolts are tight.**
9. Next slide hub (see photo #G) (item #1-114) over shaft. **Line the set screws to the flat spots on shaft. (don't tighten yet)** Tighten the 4 bolts on front face of hub. Next, place a 5/16 x 3/4" bolt and small washer into the end of the shaft-through the small hole in the hub. Now tighten set screws onto shaft. **(Very important: Make sure set screws are on center of flat spots on shaft)** Install the dome (item #1-129) (see photo #L) to hub (item #1-114) using four sheet metal screws. **(Very important: Make sure all these bolts are tight. Damage may occur if loose)**
10. Now you can put the Back Plate on the back of the compressor. The Filter will either be on the top left or right of the Back Plate. On either side, you will want to take the bottom of the Back Plate and slide it just above the tail arms and behind the Pivot tube. (See photo #K) Also, attach the heater hose on top of the compressor. Tighten clamps.
11. The head unit is now ready to mount onto the tower top. Slide the 3 white washers, then the large steel washer onto the pivot tube. Do not grease. The three white plastic washers are self lubricate, and should never be lubed.

Head Assembly



Hub With Blades

Photo G

048

047

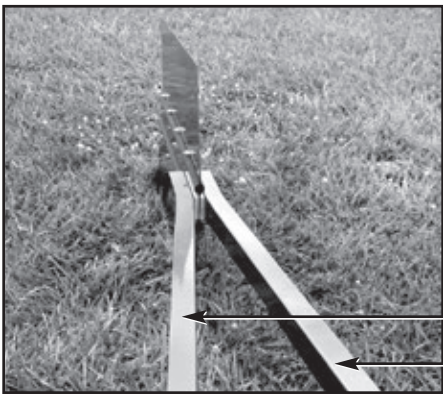
Item 1-114

Blades/Blade Spacers

Photo H

Item 1-028

Item 1-005



Inside Look

of Tail Fin

Photo I

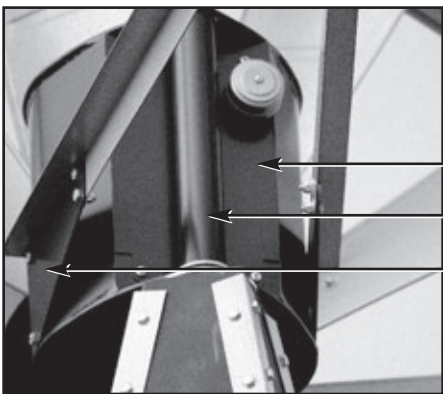
Item 1-032

Item 1-031

Tail
Photo J



Item 1-026



Tail Arm Supports

Photo K

Back Plate

1-029

Tail Arm Supports

1-129

1-114

Blade 1-005

1-028

Photo L



Set up Instructions:

Place the bottom end of two tower legs where you want the tower to stand. I recommend that you drive two 24" approx. stakes into the ground just behind the bottom horizontal piece. These will help to keep the bottom of the tower from sliding as you raise the tower. Now place a sawhorse under top end of the tower. Keep the sawhorse down from the top far enough to allow room for the blade assembly. Make sure you have the three white washers and large steel washer on the pivot tube. Pick up the head assembly and slide the pivot tube (item #029) into the tower top.

Anchoring System:

The standard anchoring system supplied is four 1" x 48" steel tubes wedged on both ends, with one end welded. Drive these stakes into the ground through the anchor stake clamps at the bottom of each tower leg. "The welded end goes up." The stakes should be driven down as far as possible. It is best to drive in the stake on the highest corner "elevation" first, to arrive at the height of the other stakes. Then using your level you can level your tower and tighten the anchor stake clamps. This anchoring system works well in most areas, but you must use your own discretion. A newly placed mound, such as pond banks, or sandy soil may not hold, if you think your ground will not hold, you can do other types of anchoring. **(Warranty will not cover blown over windmills.)**

Attaching Airline:

Run your airline up through the holes on the inside of tower legs. Give the airline a slight "S" curve before attaching to bottom of pivot tube. Twist hose back and forth to create groove inside. **Do not clamp hose here.**

Safety:

- 1. This tower, was not designed to be climbed on.**
- 2. Do not stand near the windmill during electrical storms.**
- 3. Do not work on the windmill while the wind is blowing.**
- 4. Always tie off or otherwise secure the windmill, before working on the windmill.**

Please Note:

This windmill has been designed by a professional design engineer for maximum strength, however it is possible that a severe storm may damage or destroy it. Due to this, the windmill should be covered by your own insurance.

Limited Warranty

This limited warranty is against any mechanical or material defects for a period of 5 years from the date of purchase. Warranty only covers properly installed and maintained units.

The limited warranty does not cover normal wear and tear, nor any deterioration suffered through overloading, improper use, negligence, accident, acts of nature (such as but not limited to wind storms), saturated ground, fading or dulling of galvanized steel or rust. Similarly, any modification made by the purchaser to the product will cause the warranty to be null and void.

If you live in an area where freezing weather occurs it is very important that you use our Freeze Control. The Freeze Control will keep the airline from becoming blocked with ice and causing damage in the compressor. When a Freeze Control has not been used damage can be caused to the compressor and may not be covered under warranty.

Be sure to follow assembly instructions carefully as this can also affect your warranty. After assembly and set up are completed you should once again make sure all bolts and nuts are in place and tight. Re-check bolts and nuts a few times in the following few months.

All returned items will be inspected to determine cause of failure before warranty is approved.

Warranty does not cover any cost associated with the installation or removal of the product subject to warranty claim.

An RA number must be obtained by calling EasyPro Pond Products at 800-448-3873. It is your responsibility to pay the return shipping charges. Be sure to include the RA number, original receipt (in the form of an invoice or sales receipt), name, return address and phone number inside of the package. No warranty claims will be honored without the original receipt.

Ensure the product is properly packaged and insured for the replacement value. Damage due to improper packaging is the responsibility of the sender.

The manufacturer or supplier shall not be held liable for any damages caused by defective components or materials of this product; or for loss incurred because of the interruption of service; or any consequential/incidental damages and expenses arising from the production, sale, use or misuse of this product. The manufacturer or supplier shall not be held liable for any loss of fish, plants or any other livestock as a result of any failure or defect of this product.



800-448-3873 • Grant, Michigan • www.easypro.com