Lily Pad Fountain Tutorial

Part One: Making the Lily LF122

Use frit and molds to form two fused glass tiers to form one lily.

Image 1

Creative Paradise Molds: **LF122** Water Lily Mold x 2 or 1 used twice, **GM04** 7.5" Round Slump, **GM149** Small Round Drape
Materials Used: 1" x 1" 1/8" fiber paper, 1/2" x 2" kiln shelf paper, scotch tape, frit sifter, gram/ounce scale, MR 97 Boron Nitride Spray
System 96 Frit Used: F1 Pale Purple Trans, F1 Mauve Opal, F1 Yellow Trans, F1 Turns Pink Trans, F2 White Opal, F3 Clear
Glass Weight: 9 oz

Image 2

General Instructions:
Begin by treating the molds with the Boron Nitride spray in a ventilated area. Several light coats with a short waiting period between coats is preferable to one heavy coat. Shake the can well before use and hold the can upright while using to assure proper distribution of product. It is important to turn the mold to make sure you coat the mold cavity at all angles. (For more information on the use of this product http://mr-97.com/info/).

Image 3

Before adding frit to the mold, place the mold on a scale and weigh it. (Tip: you can use an underglaze pencil to write the weight of the empty mold on the outside of the mold and the number will be there after firing for future projects.)

Cut four 1/8" x 1" pieces of 1/8" fiber paper. Bundle the pieces together and wrap them with a 1/2" x 1" piece of kiln shelf paper. Secure the kiln shelf paper with a small piece of scotch tape (image 1). Place this bundle of fiber paper in the center of the lily mold (image 2). This fiber paper bundle will help to create a frit casted piece with a hole in the center of it. You may still have to dremel out the hole to fit the fountain hardware but this fiber paper hole will at least provide a pilot hole.

Image 4

Use a powder sifter and sift F1 Pale Purple powder into the center area of the mold and along the edges of the petals (image 3). Sift F1 Mauve Opal powder over the F1 Pale Purple and coat the entire bottom of the mold with a light coating of F1 Mauve Opal powder. Over the powder place about 5 ounces of F2 White Opal to cover the bottom of the mold. Place the mold on a scale and fill the mold with F3 Clear until the mold weighs 9 oz more than it did empty (image 4).

Table 1 - Fuse firing

Segment	rate	temp F	hold
1	275	1000	05
2	275	1225	10
3	250	1300	05
4	275	1465	5
5	9999	960	60
6	100	800	1

Image 5

To add color to the inside of the lily, sift F1 Yellow Translucent in the center of the clear glass in the mold and sift a bit less F1 Turns Pink Trans into the center of the yellow powder (image 5).

If you have two molds, repeat the instructions above to fill the other mold. If you have one mold, repeat these instructions for a second firing.

Place the mold on three 1" kiln posts in a kiln and fire according to the schedule provided in Table 1.

Image 6

After the glass has cooled to room temp, remove the glass from the mold and clear the center hole of fiber paper. Wash the glass with soap and water. If you have excessive MR97 residue, you can spray the glass with a mineral stain remover such as Lime Away and scrub it with a scrub brush.

Table 2 - Slumping/Draping

Segment	rate	temp F	hold
1	275	1000	05
2	250	1225	15
3	275	1250	0
4	9999	960	90
5	100	825	5
6	100	500	0

Image 7

Place one of the frit casted lily blanks texture side up on MR97 treated GM04 Bowl Slump (image 6) and one of the frit casted lily blanks texture side up over MR97 treated GM149 Round Drape (image 7) and fire according to the schedule provided in Table 2.

Part Two: Making the Lily Pads LF121

Use frit and molds to form two fused glass lily pads.

Image 8

Creative Paradise Molds: **LF121** Lily Pad x 2 or one used twice, **GM144** Fluted Slump

Materials Used:
1" x 1" 1/8" fiber paper,
1/2" x 2" kiln shelf paper,
scotch tape, frit sifter,
gram/ounce scale,
MR 97 Boron Nitride Spray
System 96 Frit Used: F1 Deep Aqua Trans, F1 Hunter Green Trans, F2 Moss Green Trans, F2 Pastel Green, F3 Pastel Green
Glass Weight: 20 oz

Image 9

General Instructions:

Begin by treating the molds with the Boron Nitride spray in a ventilated area. Several light coats with a short waiting period between coats is preferable to one heavy coat. Shake the can well before use and hold the can upright while using to assure proper distribution of product. It is important to turn the mold to make sure you coat the mold cavity at all angles. (For more information on the use of this product http://mr-97.com/info/).

Before adding frit to the mold, place the mold on a scale and weigh it. (Tip: you can use an underglaze pencil to write the weight of the empty mold on the outside of the mold and the number will be there after firing for future projects.)

Image 10

Cut four 1/8" x 1" pieces of 1/8" fiber paper. Bundle the pieces together and wrap with a 1/2" x 1" piece of kiln shelf paper. Secure the kiln shelf paper with a small piece of scotch tape (image 1 page 1). Place this bundle of fiber paper in the center of the lily pad mold. This fiber paper bundle will help to create a frit casted piece with a hole in the center of it. You may still have to dremel out the hole to fit the fountain hardware but this fiber paper hole will at least provide a pilot hole.

Use a powder sifter to sift F1 Deep Aqua Translucent randomly all over the surface of the lily pad cavity. Sift F1 Hunter Green Translucent around the edges of the lily pad cavity (image 8). Evenly distribute about 2 oz of F2 Moss Green throughout the lily pad cavity (image 9).

Image 11

Cover the entire mold cavity at all angles with a thin layer of F2 Pastel Green Opal (image 10). Place the mold on a scale and fill the mold with F3 Pastel Green Opal until the mold weighs 20 ounces more than it did empty (image 11).

If you have two molds, repeat the instructions above to fill the other mold. If you have one mold, repeat these instructions for a second firing.

Place the mold on three 1" kiln posts in a kiln and fire according to the schedule provided in Table 1 (page 1).

Image 12

After the glass has cooled to room temp, remove the glass from the mold and clear the center hole of fiber paper. Wash the glass with soap and water. If you have excessive MR97 residue, you can spray the glass with a mineral stain remover such as Lime Away and scrub it with a scrub brush.

Place one of the fused lily pads, texture side down, in a MR97 treated GM144 Fluted Slump (image 12) and fire according to the Slump/Drape schedule provided in Table 2 (page 1). One of the fused lily pads is used unslumped in the construction of the Water Lily Fountain. Dragonflies can be added to the unslumped lily pad by firing the dragonflies on a lily pad that is laying flat on kiln shelf paper on a kiln shelf in the slump firing.

Part Three: Making the Dragonflies LF115

Use frit and molds to form two dragonflies and tack fire them to the unslumped lily pad.

Creative Paradise Molds: **LF115** Medium and Small Dragonfly
Materials Used:MR 97 Boron Nitride Spray, 1/8" fiber paper (optional), 1" x 2" COE 96 Ripple Clear Rainbow Dichroic
System 96 Frit Used: F1 Deep Aqua Trans, F1 Dark Green Opal, F2 Peacock Green Opal, F2 Ming Green Trans, F2 Moss Green Trans, F3 Clear,
Glass Weight: Med. Dragonfly 1.75 oz, Sm. Dragonfly .75 oz

Image13

Image 14

Image 15

Image 16

Image 17

General Instructions:

Begin by treating the molds with the Boron Nitride spray in a ventilated area. Several light coats with a short waiting period between coats is preferable to one heavy coat. Shake the can well before use and hold the can upright while using to assure proper distribution of product. It is important to turn the mold to make sure you coat the mold cavity at all angles. (For more information on the use of this product http://mr-97.com/info/).

Before adding frit to the mold, place the mold on a scale and weigh it. (Tip: you can use an underglaze pencil to write the weight of the empty mold on the outside of the mold and the number will be there after firing for future projects.)

Sprinkle a light coat of F1 Deep Aqua in the wings and use your finger or a brush to gently sweep most of the Deep Aqua into the veins of the wings. Add F1 Deep Aqua to the body. Add a bit of F1 Dark Green Opal to the head and tail of the body (image 13).

Cover the powdered frit and ridges in the body with F2 Peacock Green (image 14).

Break small pieces of Ripple Clear Rainbow dichroic and place them dichroic side up in the wings (image 15). Cover the bottom of the wings with F2 Ming Green Transparent. Sprinkle a bit of F2 Peacock Green to the tip of the wings. Sprikle a bit of F2 Moss Green in the center of the wing (image 15) . Fill the entire cavity with F3 Clear (image 16) (large dragonfly = 1.75 oz, small dragonfly .75 oz). Fire the mold using the fuse firing schedule found in Table 1 (page 1).

After the mold and glass have returned to room temperature, demold the glass (image 17) and clean with soap and water. Remove excess MR97 with a stiff brush and water.

Place the unslumped lily pad formed in part two of this tutorial on a piece of shelf paper on a kiln shelf. Arrange the dragonflies on the pad remembering that the flower will be placed in the center of the pad in the finished fountain. Fiber paper can be used to prop the end of the dragonfly to give added dimension (images 18,19,20).

Fire the pad with the dragonflies using the Slump Schedule given in Table 2 (page 1).

Image 20

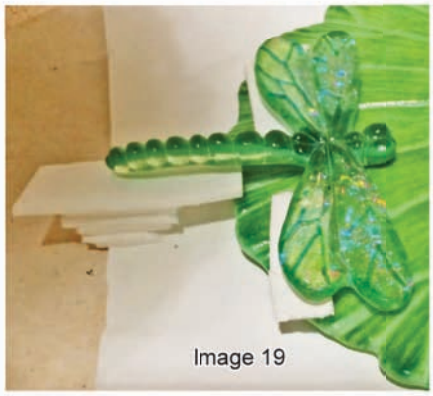


Image 19

Image 18

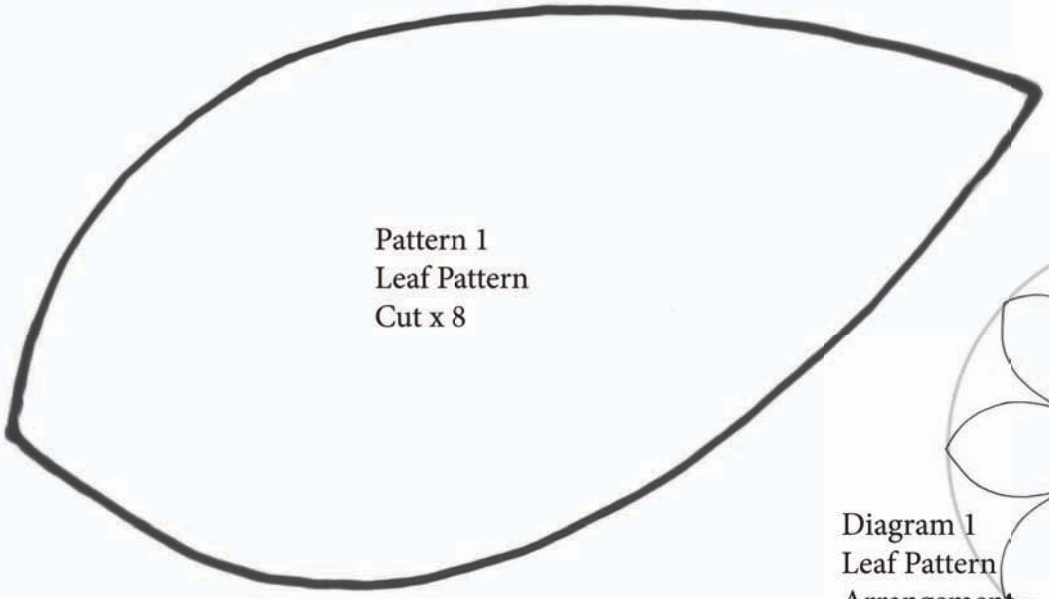
Part Four: Making the Large Water Bowl

Use sheet glass to fuse and slump a 13" dia. x 3" deep bowl to hold 1/2 gallon of water.

Creative Paradise Molds: **GM134** Large Flat Bottom Slump
Materials: 14" x 14" kiln shelf paper, MR 97 Boron Nitride Spray, a level System 96 sheet glass: 14" x 14" Sea Green Transparent, 14" x 14" Hunter Green Opal.

Use a circle cutter and cut a 13" circle of Sea Green Transparent. Use a suitable glass cutter and running pliers to cut 8 pieces of Hunter Green opal into the "Leaf Pattern" shape found in pattern 1.
Clean the glass with alcohol and a paper towel. Place the 13" circle onto a piece of kiln shelf paper on a kiln shelf (make sure the kiln shelf is larger than the glass) and arrange the leaf shapes onto the circle in the pattern given in Diagram 1. Fire the glass using the Fuse Schedule found in Table 1 (page 1).

After fusing the glass, place the Large Round Flat Bottom Slump onto a level kiln shelf. It is essential that the glass be slumped on a mold that is level. The glass will pull in unevenly if the mold is not level. After leveling the shelf and mold, place the glass on the mold with the leaf shapes facing up and fire the project using the Slump Schedule found in Table 1 (page 1).



Pattern 1
Leaf Pattern
Cut x 8

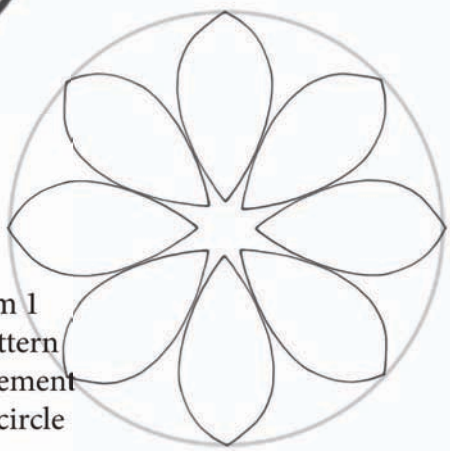


Diagram 1
Leaf Pattern
Arrangement
on 13" circle

Part Five: Assembling the Fountain

Use the glass shapes created in parts 1-4, pump and hardware to create the fountain.

Materials needed:
Finished glass pieces from parts 1-4 of this tutorial, 50 gallon per hour submersible pump, 2.5" brass threaded 1/8 IP lamp nipple, two 1/8F brass hex nuts (four photographed), one 1" white rubber washers, four 3/4" dia. white rubber washers, one inch of 7/16" OD x 5/16 ID Vinyl tube

For the best results, use solid brass findings in this project to create a rust proof fountain. Examine the holes created in the lily pads and lily parts. If the brass lamp nipple will not fit through the holes, use a diamond drill bit, water, saftey glass and dremel tool to carefully ream out the holes until the lamp nipple just fits inside the hole.

Step 1- - Cut the end of the vinyl tube at a slight angle and moisten. Place the moistened end about 1/4" onto the brass lamp nipple. It is a tight fit and will require a bit of effort. Place a 3/4" white rubber washer followed by a brass hex nut on the lamp nipple (image 21).

Image 21

Step 2- Insert the lamp nipple through the bottom side of the slumped lily pad (image 22).

Image 22

Step 3- Place a 3/4" white washer onto the lamp nipple facing up through the slumped lily pad (image 23).

Image 23

Step 4- Insert the lamp nipple through the hole in the unslumped lily pad and rest it on the slumped lily pad and washer. Place another 3/4" white washer onto lamp nipple on unslumped lily pad (image 24).

Image 24

Step 5- Insert the lamp nipple through the hole in the less-cupped water lily and rest the less-cupped water lily on the washer on unslumped lily pad. Place a 1" white ruber washer onto the lamp nipple and seat it on the less-cupped water lily (image 25).

Image 25

Step 6- Insert the lamp nipple through the hole in the cupped water lily and rest the cupped water lily down on the washer on the less-cupped water lily. Place a 3/4" white washer on the lamp nipple followed by a brass hex nut. Carefully tighten the hex nut until the glass is all held firmly together and the top rubber washer is snug between the glass and hex nut. Do not over tighten (image 26).

Image 26

Part Five: Assembling the Fountain
Continued

Step 7- Place a tablespoon of water in the cupped lily. If it is not water tight, tighten the hex nut. Do not over tighten.

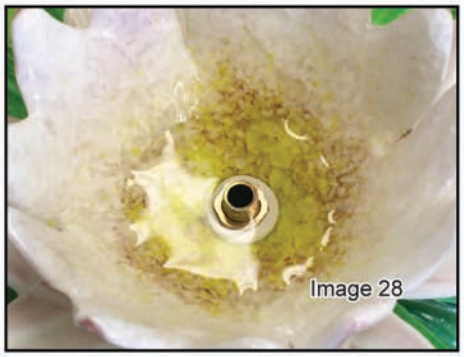


Image 28

Step 8- Trim the vinyl tube so that 1/2" is extending from the lamp nipple. Moisten the end of the vinyl tube and place the tube on the water pump.

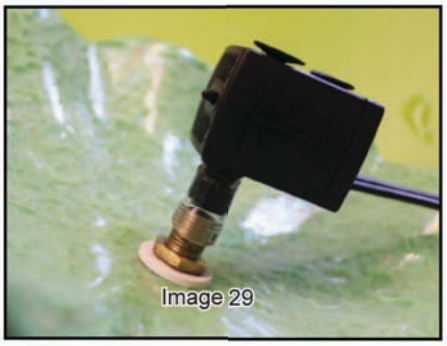


Image 29

Step 9- Pour approximately 1/2 gallon of water in the large water bowl. Carefully lift the lily pad and lily unit over the water and begin to lower in until the slumped lily pad is resting in the bowl and the pump is submerged in water. Place the electrical cord through the slit in the slumped lily pad.

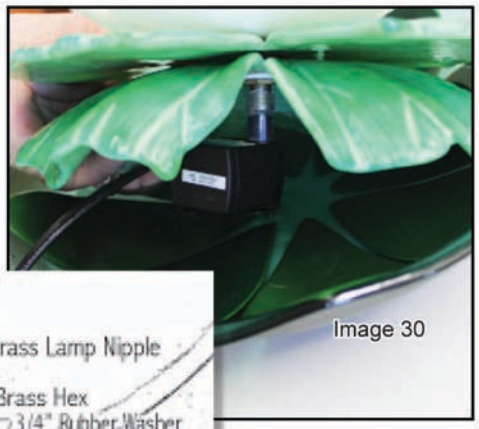
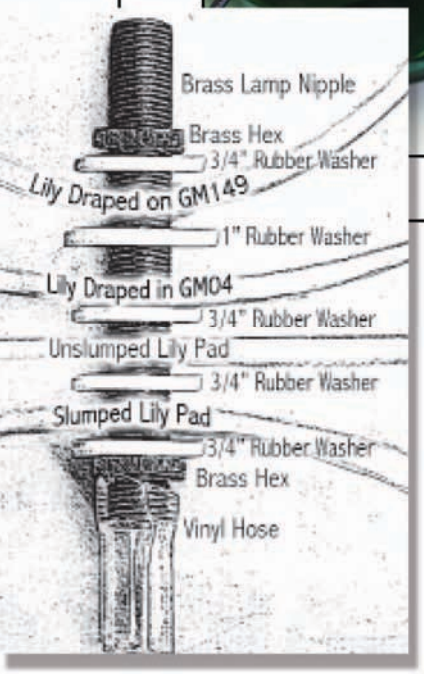


Image 30

Step 10- With dry hands and in a dry environment, plug the pump into an outlet. You can level the unslumped pad by adjusting the position of the lily pad and flower unit in the bowl. Turn the parts of the lily until they are positioned where the water will flow the best aesthetically. Add water if needed.

Image 31



If using an indoor fountain pump (two wire plug) do not place the fountain outside. Avoid getting water on the fountain plug. Always make sure to run the pump with enough water. Add water after turning pump on if water level drops below pump intake. Add water to the fountain on a regular basis to maintain the water level. Always use distilled water to help prevent excessive mineral build up in the bowl. To limit algae build up, add an algaecide according to the manufacturers directions. Cleaning the fountain bowl and pump on a regular basis will help extend the life of the pump and improve the aesthetics of your fountain.