


See Step by Step Process Online at http://www.youtube.com/watch?v=koMsdirTggQ
(copy and paste URL into your computer's browser)

## Items Needed:

*History Stones half round molds
*mixing tub or wheelba rrow
*mixing tool, i.e. small shovel
orgarden hoe
*lubricant (vegetable oil cooking spray)
*Ready Mix concrete to create two halves: 10 "
sphere $35 \mathrm{lbs}, 12$ " sphere $45 \mathrm{lbs}, 15$ " sphere 75 lbs
*Thin Set Mortar 2 lb

Prepare the moldsusing a lubricant or a mold release. This will help in removing the casting from the mold later and may extend the life of the mold itself. Mix the conc rete a ccording to the instructions from the concrete manufacturer, mixing a small a mount of water at a time until you achieve a consistency that is well mixed, and is thick, not runny; similar to the consistency of crunchy pea nut butter.

## Filling Molds

## Casting Solid Sphere

1. Place the mold on a round container (bucket works well) this will keep your mold steady
2. Fill the mold in quarters, bouncing and taping in between to spread the concrete inside the mold and to drive out all the air bubbles
3. Once mold is filled smooth the concrete with a straight edge/trowel


Option: If you are casting two sizes of half balls you may take advantage of casting the second half inside the bigger one. This will make the ball hollow, save material and make the ball lighter weight.

## Casting a Hollow Sphere:

1. Pour larger mold $2 / 3$ of the way full. 2. Lubricate small half round mold and press it inside of the large ball to create the hollow space. 3. Continue to fill larger mold to top if needed 4. Twist the smaller half round mold after one hour to just loosen it from the concrete. 5. Remove smaller mold in two hours, and let concrete continue to set up for 24 hours

> Allow concrete to set up in the mold for at least 24 hours

## Unmold Half Spheres

- Gently turn the mold upside down onto a soft surface, like grass or a piece of carpet , and pull sides away very gently from concrete and tap lightly on the back. If the mold is stiff you can soften the plastic a bit by setting it in the sunlight to warm it up. Do NOT rest filled mold on lip when turning over, this will damage mold.
- The concrete will continue to set up for 5 more days so be gentle with handling until it is fully cured.
- Clean the mold immediately after use and store the molds out of the sun.


## Mortar Halves to Create Sphere

- Sponge water onto flat side of your half balls then apply a thin, even coat of mortar
- Press two halves together
- Clean any squeezed out mortar between the joint
- Once the joint is dry you can use sand paper to smooth it further if needed
- Use concrete colorant to mix directly into concrete for solid color (normally found near concrete in home improvement stores )
- Apply mosaics
- Concrete stains finish the concrete in an even color style that is beautiful and gives an old world type appearance
- You can use a hypertufa mixture in molds using peat moss and vermiculate mixed with concrete (use your own formula)
- Use half spheres as small planters by creating a hollow center using one of our smaller molds



## Other tips:

Lubrication is important with the sphere molds. Lubricate the main sphere mold and insert if you use an insert.
Never rest a full concrete mold on its lip when you are turning it over to unmold. This will significantly reduce the life of your mold and will crack it around the lip area (we do not cover this type of misuse in the warranty). Use a helper to turn it over if you need to.

In cold weather - Plastic gets harder and stiffer in cold weather. If trouble removing from molds, set them out in the sun till plastic is warm., or use a hair blow dryer, but be careful to not melt the plastic. Do not cast in temperatures close to freezing.

In warm weather - let molds set up in the shade, not in the sun. Let concrete dry slowly and in hot, dry weather cover with plastic to slow dehydration. In humid weather allow more time, even another day ,to allow the concrete to set up in mold.

## FAQ's

1. What type of concrete should I buy?

Any type/brand of basic ready mix concrete
2. My concrete has air bubbles in the surface, why?

Remember - concrete is a natural substance and this is the natural characteristic of concrete.
That said, you can minimize bubbles by:

- Pour concrete just a few inches at a time so you can stop and shake/tap on the mold to bring the majority of air bubbles to the surface
- If you have surface bubbles/irregularities that you do not like in your finished concrete you can patch them up by mixing up a bit of the same concrete (omit the aggregate/stones) and patch it, using a damp sponge.

3. My dried concrete piece cracked when I removed it from the mold! What's wrong with your mold?!

- It's not the mold! The most common problem is using concrete that has been exposed to dampness. Cement is the adhesive property in concrete and if a concrete bag has been sitting around for a while, especially with a tear in it, even just plain humidity can ruin the bag. Use a new bag that does not show any sign if dampness or rips.

