

# Introducing the New Bernoulli Showerhead

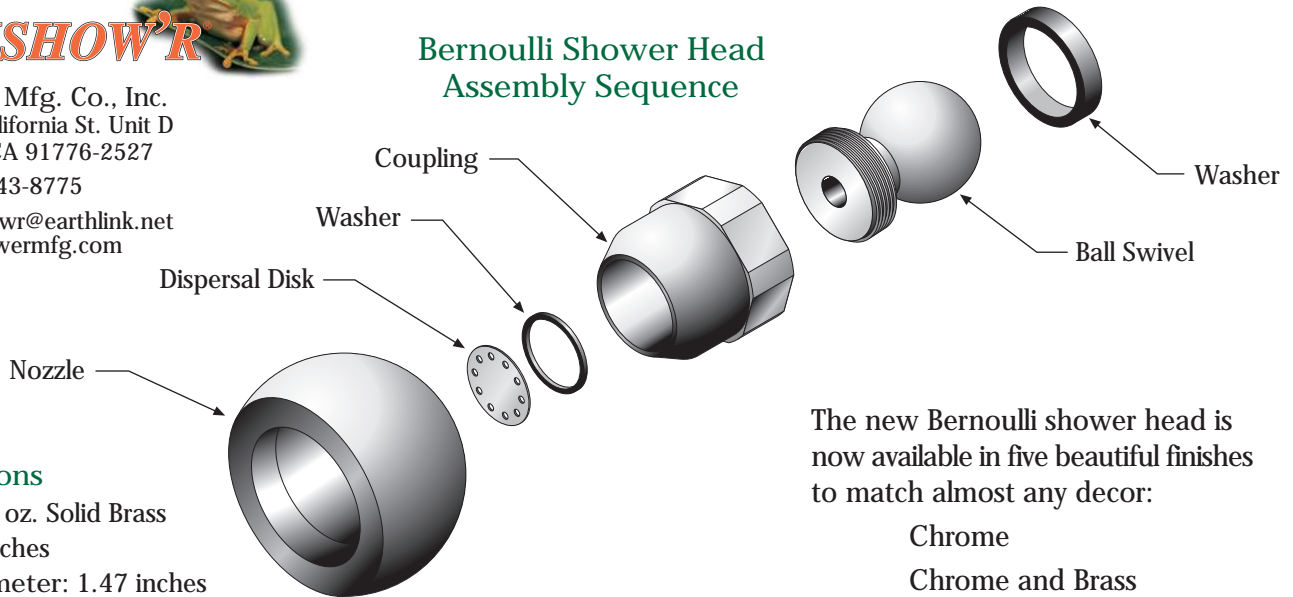
## From the Bernoulli Signature Series

**RAINSHOW'R**



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### Bernoulli Shower Head Assembly Sequence



The new Bernoulli shower head is now available in five beautiful finishes to match almost any decor:

- Chrome
- Chrome and Brass
- Brushed Brass
- Brushed Nickel
- Polished Brass

### Specifications

Weight: 6.7 oz. Solid Brass  
Length: 2 inches  
Nozzle Diameter: 1.47 inches  
Nozzle Mouth Diameter: 3/4 inch

### Designed and Manufactured in America

Check on availability of after market retail packaging.

### We encourage you to read this brief history.

Since its inception in 1989 Rainshow'r has had a policy of always providing the best quality shower heads to its customers. But Rainshow'r's founder, George Ricci, was never able to find a shower head specifically designed for use with a shower filter.

Finally, in 2005 he decided to design the head he wanted. The Bernoulli is the result. These were his design requirements; one, it had to compensate for the natural pressure drop that occurs when water flows through the dense KDF media, two, it had to increase the volume of exit water while at the same time meeting two important performance demands.

First, the Bernoulli had to meet the government imposed water conservation levels of the U.S. Energy Policy Act of 1992 of 2.5 gallons per minute at 80 pounds per square inch (psi) of water pressure. Second, it had to provide the necessary contact time needed by the KDF media to properly dechlorinate.

However, once it could do that it still had to deliver a shower water product that was both acceptable and very pleasing to the user.

That was accomplished by these design changes:

1. The diameter of the nozzle mouth had to be recalculated to create a spray pattern that was concentrated and retain its tubular shape for about 12 inches from the nozzle. This was to assure adequate rinsing of residual soap and in particular in rinsing shampoo from the hair.
2. The inside (or barrel) of the nozzle had to be reshaped so as to have wider inside walls than the nozzle mouth. That would allow the inlet water coming through the delivery disk to build up a pressure within the nozzle itself so as to create a kind of venturi effect (as in an auto carburetor) at the mouth of the nozzle.
3. This accelerated delivery of water at the nozzle mouth created the specific result that George Ricci was aiming for; a practical application of the Bernoulli Principle. This principle will be described again later on.

4. The Bernoulli Principle states that as you increase the flow rate of any fluid, including air, you reduce the pressure on it. That is what we caused to happen at the nozzle mouth. That created a virtual vacuum at the nozzle mouth. Air rushed in to fill the vacuum. In so doing the air mixed with water to create a new benefit to the user, Oxygen Rich Water. We call this benefit "OXYRICH™ water.
5. The delivery rate of this "OXYRICH™ water is no more than 2.5 gallons per minute (GPM). By carefully incorporating the Bernoulli Principle into the shower head, the delivered water is much more intense because of the mixture of water and air. For some users it may seem like 5GPM or more. All this without a needle-like feel.
6. At this time we cannot make any provable claims about the benefits of OXYRICH™ water, but it does seem to have a very real and pleasant effect on the skin, but we do not know why. We are not certain, but we think the use of Rainshow'r energized virgin crystal could be a contributing factor by making the water clusters in the shower water smaller and lighter.
7. One last design change was the delivery disk which helped control the entry of water into the nozzle. It had to be designed to allow the right amount of water into the nozzle. It could not be too much or too little. It seems we got it right.
8. The end product of all this design effort is the quality of the spray that comes out of the nozzle. The diameter of mouth of the nozzle is three quarter inches and the spray maintains that same round and concentrated three quarter inch pattern for about 12 inches. While the spray is strong it is not a needle-like spray. Many users find needle sprays uncomfortable. The Bernoulli spray pattern allows thorough rinsing, a strong concentrated spray that is comfortable which is particularly important for rinsing shampoo from long hair.
9. It is our plan to switch completely to the Bernoulli head by Oct 1, 2007, if not sooner. We also plan to make it available on all models plus a packaged showerhead for after-market sales.