5 REASONS TO NOT USE REVERSE OSMOSIS WATER IN YOUR CRAFT BREWING

Presented by
The Water Dr. - US Water Systems
What Makes Up a Typical RO System?
5 or 6 Years Ago, About 20-25% of Craft Breweries Used RO

Today, that number has grown to over 70%
OK.... This is Tongue-in-Cheek

Let me put a disclaimer here. This is not a presentation on Why You Don’t Ever Want To Use Reverse Osmosis because we are proponents of Reverse Osmosis.

But, there are occasions when you don’t need reverse osmosis.

We’re going to talk about a number of water treatment methods and applications, and I’ll explain why you may or may not want to apply reverse osmosis in your craft brewery.
Can We Agree on This?

WATER IS LIFE
BEER IS 90% WATER

Therefore
BEER IS LIFE
All Beer Has #1 Common Ingredient

Whatever beer you’re making, you’re using the same ingredient that everybody else is.

Water
Beer is 90-95% Water

- Water Quality is much different than it was 50 years ago.
- Increased chemical contaminants
- Complex problems with the water
- Water infrastructures are aging
- Flourishing populations limit the ability to properly treat
What’s in the Water?

- Chlorine
- Chloramine
- Nitrates
- Arsenic
- High TDS
- Sodium
- Chlorides & Sulfates
- PFOA/PFAS (Forever Chemicals)
What Determines the Best Method for Treating Your Water?

Even though beer is 90% to 95% water... it depends upon:

- Where you’re geographically located
- Whether you have city or well water
- Whether your water source uses Chloramine or Chlorine, and
- What type of beer you want to brew
Its very difficult to overstate the importance of the water quality when in the process of making a great, craft beer.
If you think your water from a municipality is the same every day... Think again.

Due to pressure from growth, cost, aging infrastructure and emerging contaminants, water quality can fluctuate wildly.

This means that the water profile you brew with today, could be dramatically different tomorrow.

CONSISTENCY. CONSISTENCY. CONSISTENCY.
Look at the Difference of 2 Days in 1 City:

- The Fluoride can vary from 0.7 to 1.5 mg/L.
- The Chloride can vary from 24-45 mg/L.
- The Chlorine varies from 0.26 to 2.2 ppm.
- The Hardness varies from 303 to 486 ppm.
- The Iron varies from ND to 0.40 ppm.
- The Manganese varies from ND to 0.044 ppm.
- The Sodium varies from 16 to 31 ppm.
- The Sulfate varies from 69 to 190 ppm.
How Can You Consistently Brew Beer?

The short answer is that you will never consistently work with the exact same profile for your water... and your beer will never be consistent!
The water is a given, but you do your magic with the recipes that are used.

With the malts, hops, barley, yeast... whatever it happens to be.

That's where a true craft beer artist comes in the picture.

However, if you're relying on the city to be your source of consistent profiled water, we have some bad news! You are now held hostage to that city and whatever is quality that water will be today. $$ down the drain!

Beer is 90% Water and 10% Magic...
What is Your TDS?

• Depending on your TDS level and what type of beer you’re trying to brew, you might be led to choose different technologies to treat your water.

• For instance, if your TDS is below 200, you may decide you don’t want Reverse Osmosis. Maybe you’re going to use Micron filtration and Carbon filtration... But don’t forget about disinfection.
Disinfection

Craft beer is a beverage you are making for the public, so you absolutely want some type of disinfection for that water... even if for the sake of liability.

Typically, Ultraviolet Light or UV is the best solution.
Proper Pre-Treatment

- Even the best RO system in the world will not work very long without proper pre-treatment.
- Chlorine & Chloramine Removal
- Iron, Sulfur & Manganese Removal
- Water Softener or Anti-Scalar (when needed)
Measure Twice – Cut Once

That has never been **truer** than when you are planning a water treatment system. That’s when you measure twice and we do that by having a good laboratory analysis of the water. Get a good water test. We have them available.
A Typical System

1. Carbon Filter
2. Anti-Scalant Injection
3. RO System
4. Storage Tank
5. Re-pressurization
6. Ultraviolet
Skid-Mounted Turnkey Systems

From 3 Barrel Systems to 500 Barrel Systems and EVERYTHING in-between.
5 Reasons Not to Use RO

- Your water is below 200 TDS...
- You don’t have the money (well duhhh...)
- You have no room (it happens...)
- You don’t care what your beer tastes like...?
- You don’t plan on being in business that long...?
CBC Promo Code CBC2020 for 15% off all commercial systems and 50% off all water tests!