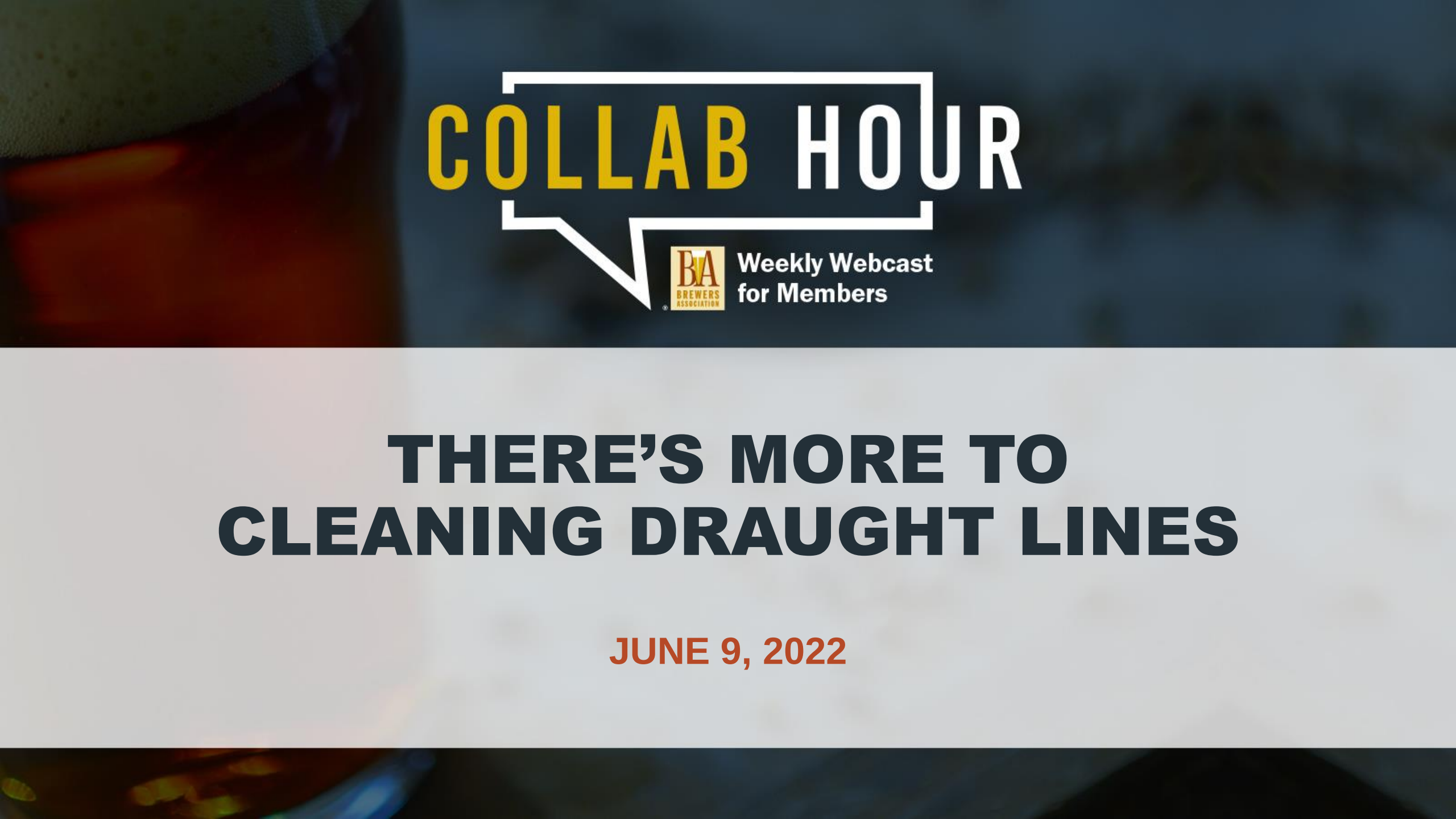


THERE'S MORE TO CLEANING DRAUGHT LINES

JUNE 9, 2022

THERE'S MORE TO CLEANING DRAUGHT LINES THAN…

- **Wasting time and beer**
- **Going through the motions**

PROPER LINE CLEANING

- **Highest product quality**
  - Proper heading and CO_2 levels
  - Avoid off-flavors
  - Maximize profits
- **Optimal system performance**
  - Hardware longevity
  - Preventative maintenance
- **Safety considerations**

COLLAB HOUR BA BREWERS ASSOCIATION

MATT STINCHFIELD

Safety Ambassador

BREWERS ASSOCIATION

BEN GEISTHARDT

Field Quality Specialist

NEW GLARUS BREWING COMPANY

COLLAB HOUR BA BREWERS ASSOCIATION

THE VITAL IMPORTANCE OF SAFE DRAUGHT LINE PROCEDURES

https://www.fox5vegas.com/2022/03/21/jury-awards-8m-man-served-chemical-cleaning-solution-instead-beer-henderson-casino/

Jury awards $8M to man served chemical cleaning solution instead of beer at Henderson casino

MGN Online (Source: MGN)
By Chanel Ridley
Published: Mar. 21, 2022 at 5:08 PM EDT

LAS VEGAS, Nev. (FOX5) - A jury on Friday awarded $8 million to a man who suffered internal injuries after being served a chemical cleaning agent that was leftover in a tap lines instead of a beer at a Henderson casino, attorneys said.

According to the man's attorneys, Dr. Lon Enwright, a 38-year-old special education teacher, was visiting Barley's Casino & Brewing in Henderson to watch a football game when a bartender offered him a sample of a Honey Blonde ale. However, instead of a beer, attorneys say Dr. Enwright was given a chemical cleaning solution instead.

Attorneys for the man, Rahul Ravipudi, Ian Samson, and Adam Ellis of Panish | Shea | Boyle | Ravipudi LLP, argued that staff knew the tap lines were out of service for cleaning. However, he was offered a sample anyway.

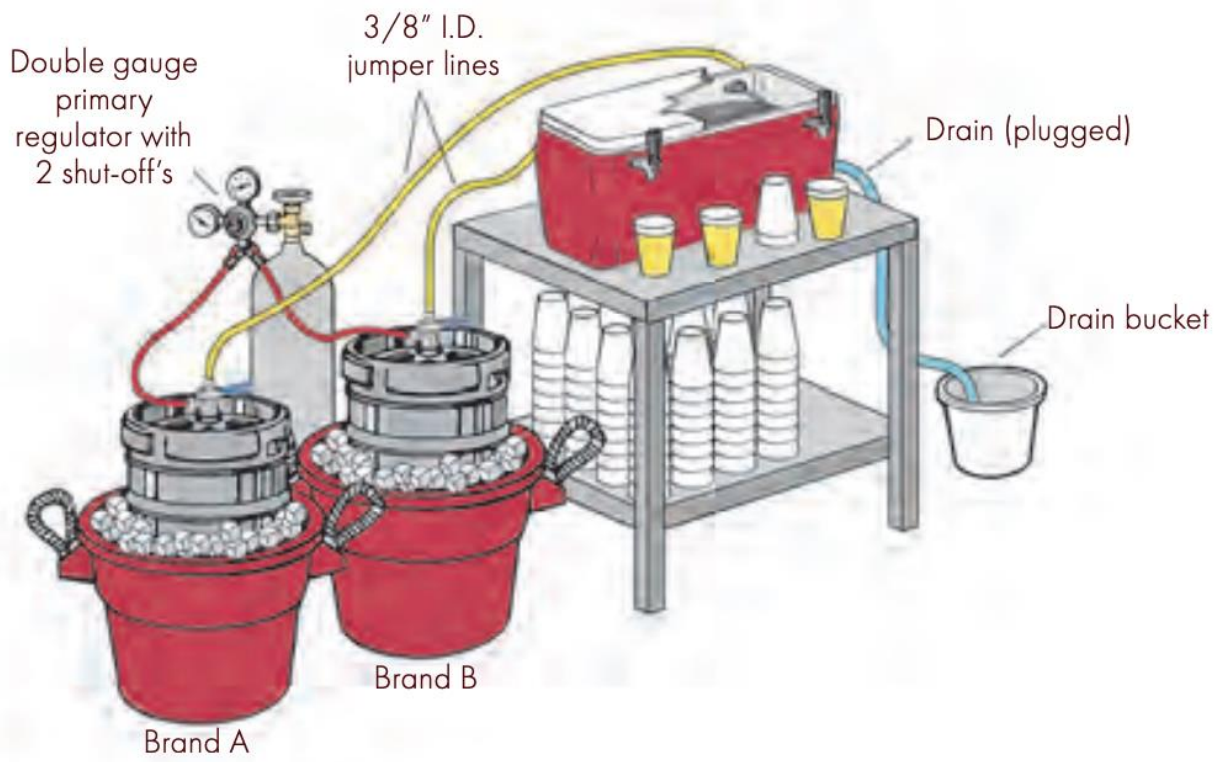
- 1 –
DRAUGHT LINE SYSTEM TERMINOLOGY

BEN GEISTHARDT

COLLAB HOUR BA BREWERS ASSOCIATION

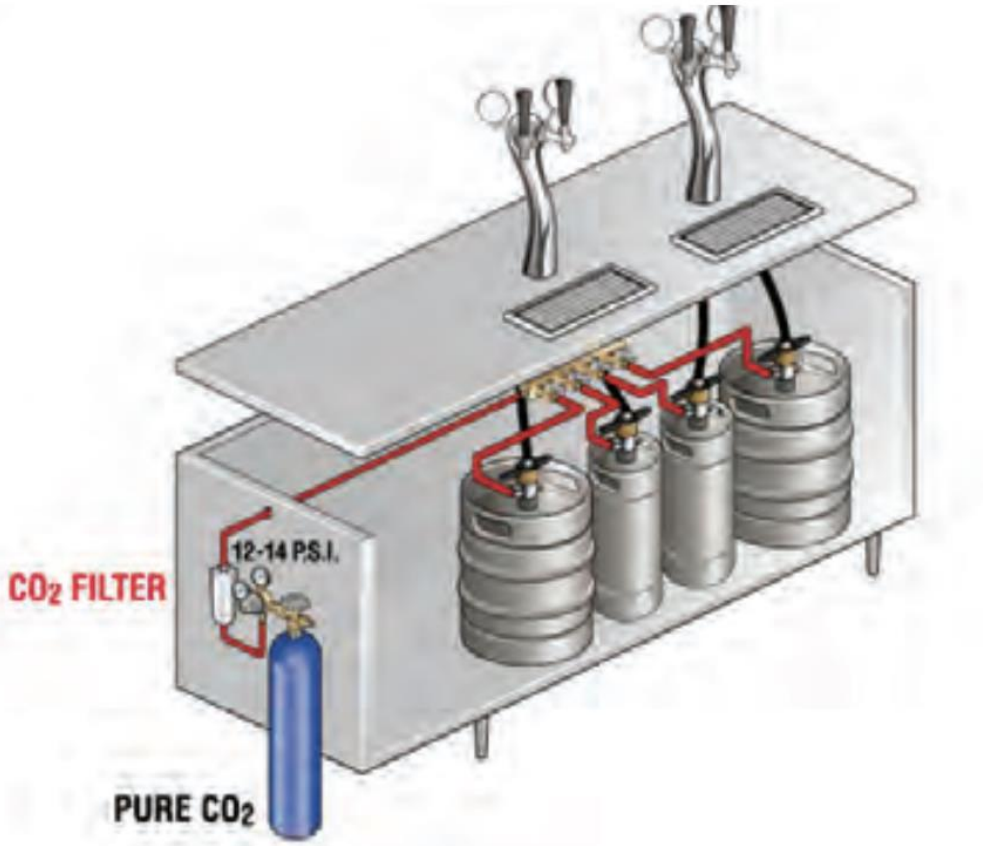
Temporary Draught Setup

Plastic Metal Combined with CO_2 Cartridge

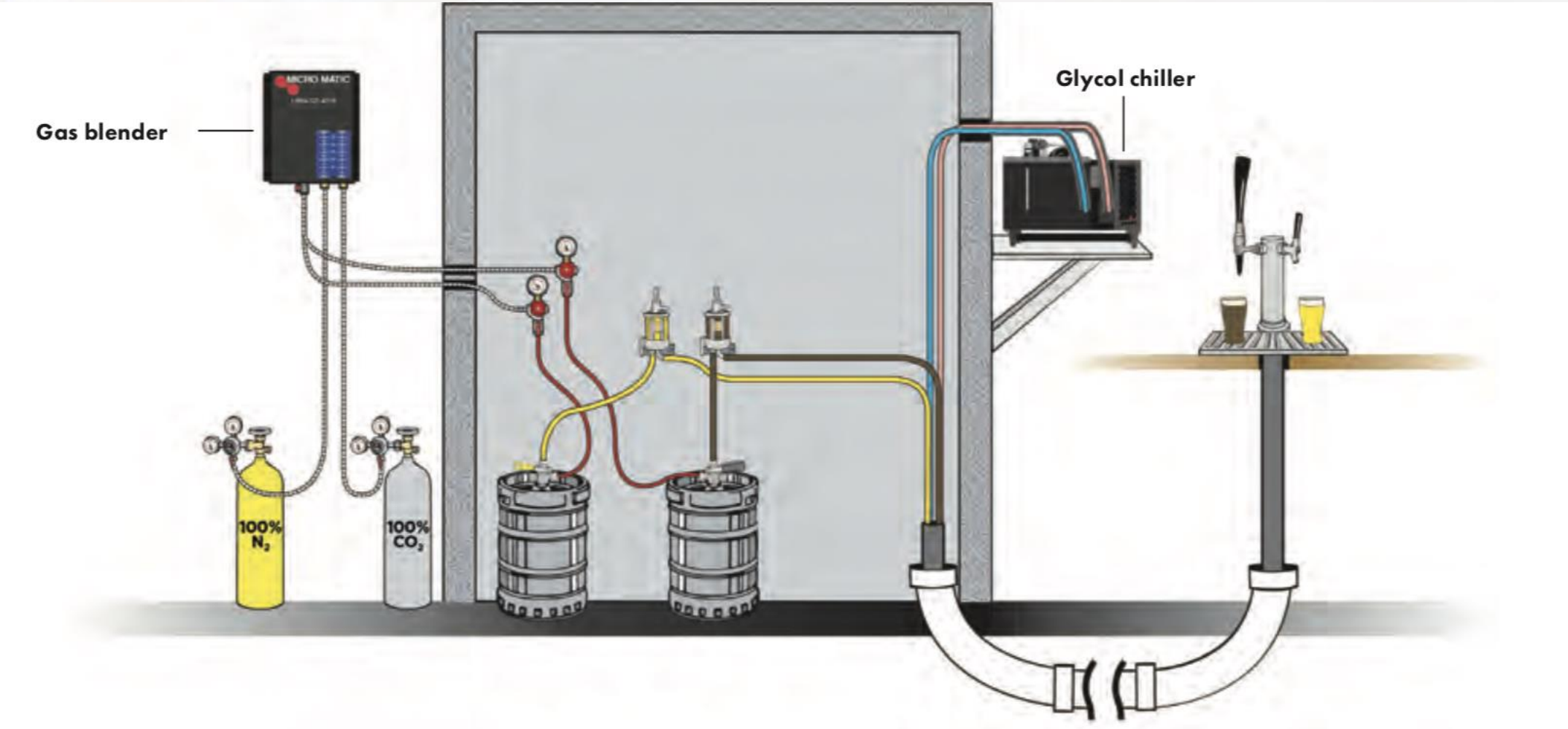


Typical jockey box setup

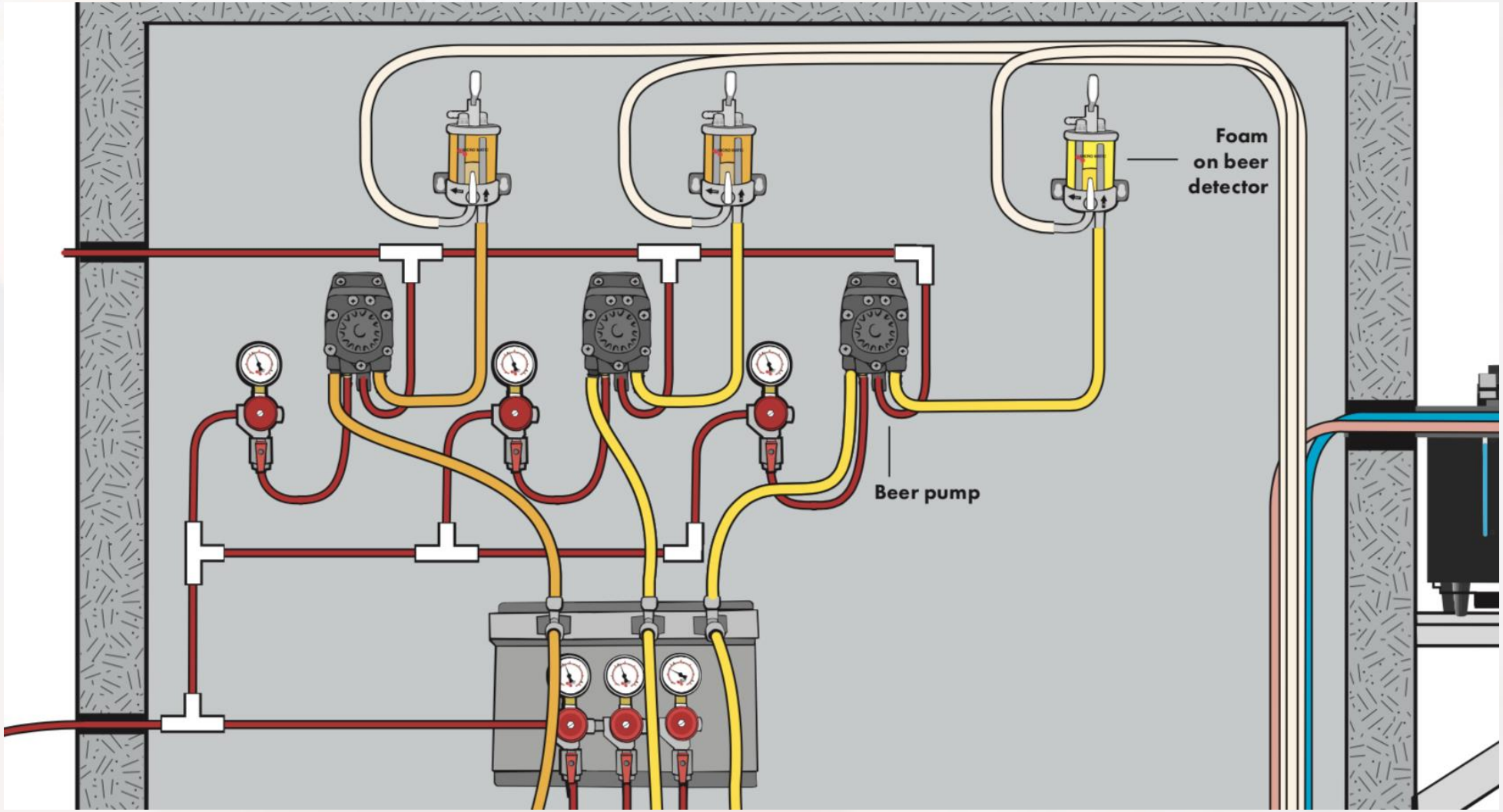
Direct Draw System



Long Draw System



Long Draw System with Pumps and FOBs



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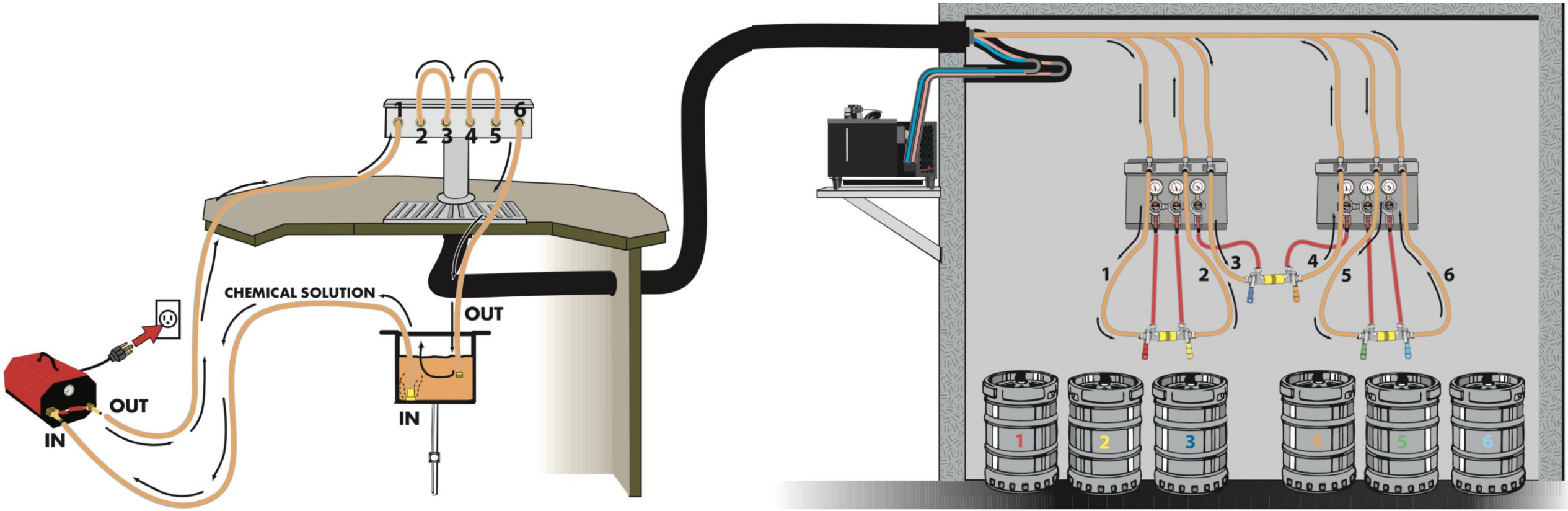
Typical Recirculated Cleaning Setup



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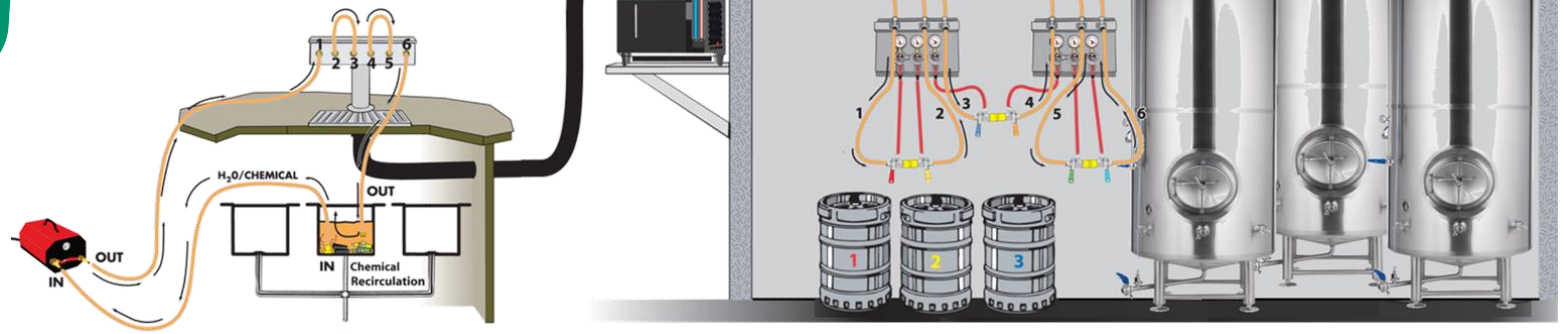
Serving Tanks

1.5 in. Tri-Clamp x
Male Beer Nut Thread



Circulation Pump vs. Cleaning Canister

Circulation Pump:

- High Pressure 1½ X Q rate
- Mechanical force assists in removal of build-up
- More Time Efficient

Cleaning Canister (Pressure Pot):

- Pressure restricted to the regulator setting
- Stagnant (no flow)
- Time Consuming
- Development of Carbonic Acid

POLLING QUESTION

Which line cleaning procedure do you utilize at your business?

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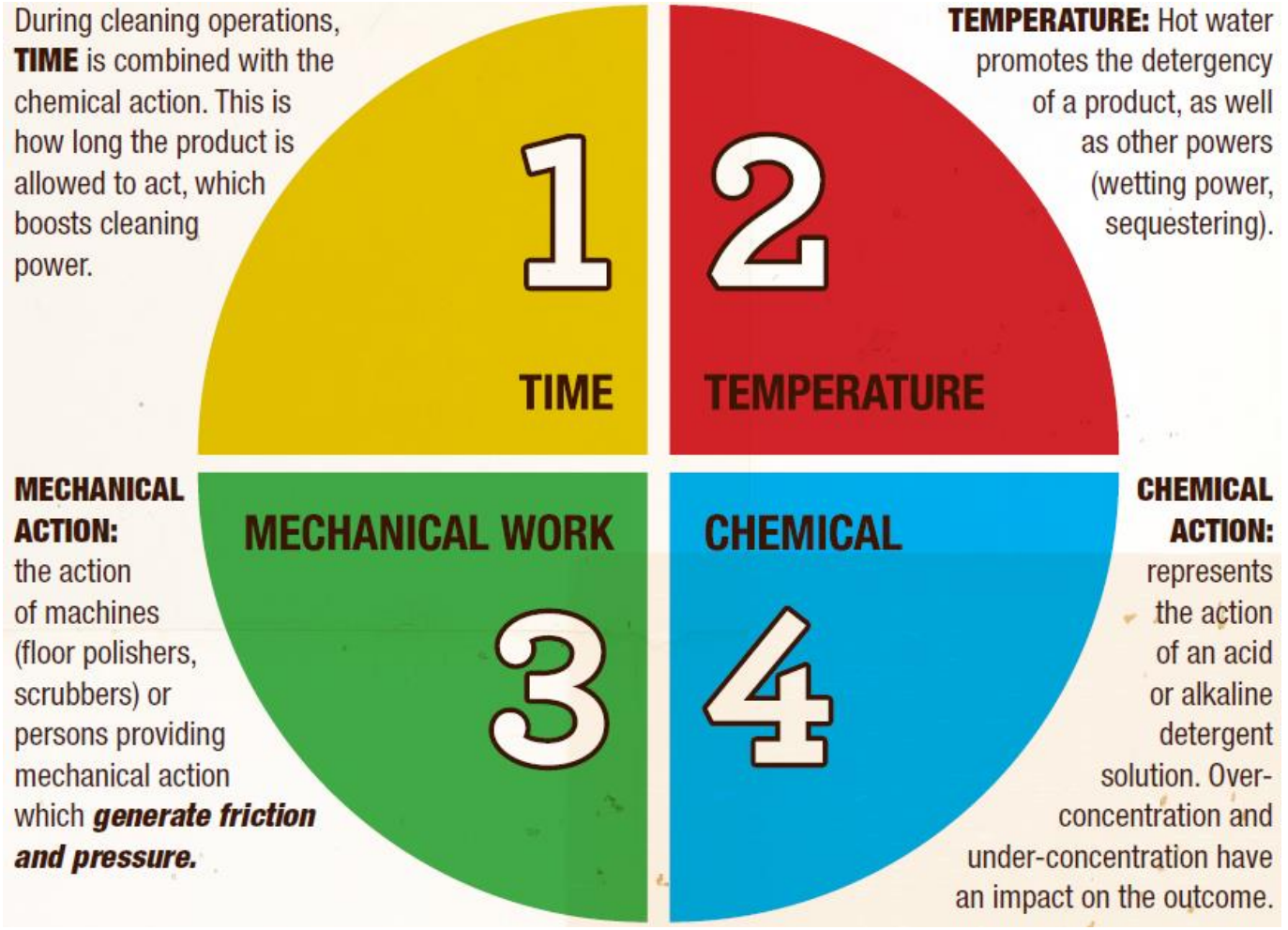
- 2 –
CHEMISTRY AND CLEANING THEORY

MATT STINCHFIELD

COLLAB HOUR BA BREWERS ASSOCIATION

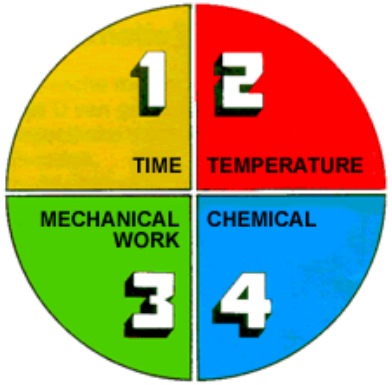
SINNER CIRCLE

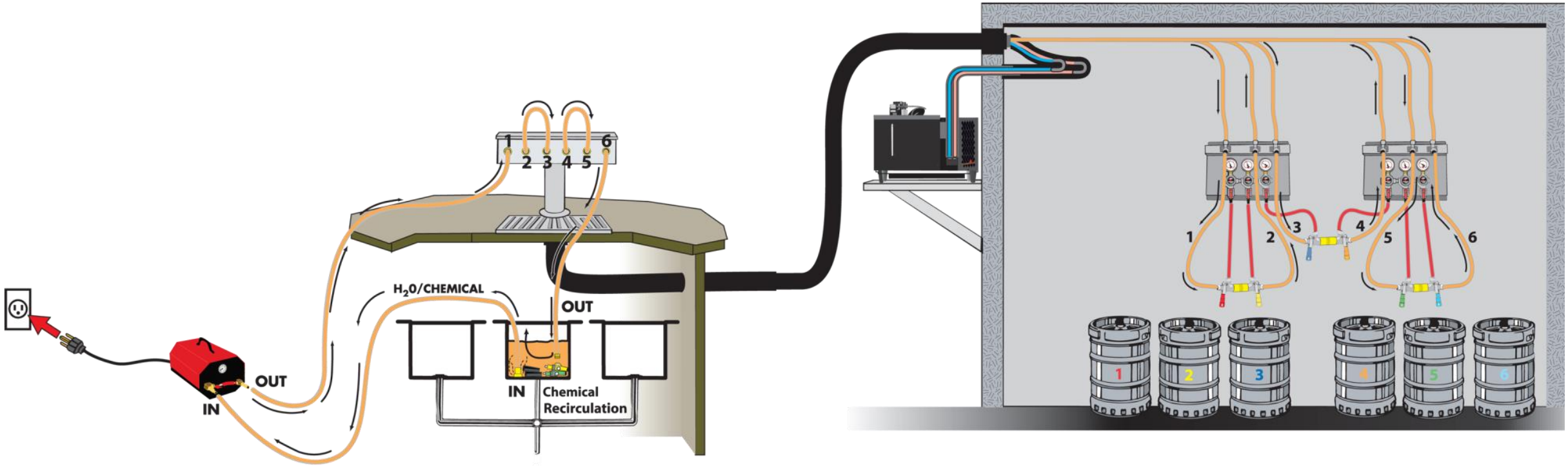
In cleaning, the final result is influenced by ***4 interdependent factors,*** represented in the Sinner Circle.
If one factor is reduced, the loss must be compensated for by increasing one or more other factors.



TIME

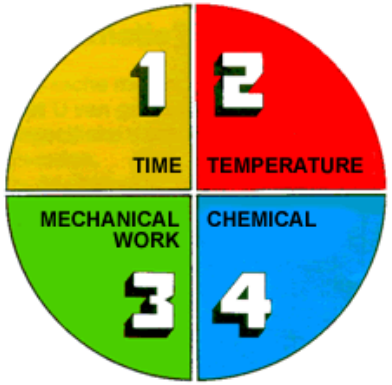
- Two-week cleaning cycle (caustic)
- Three-month cleaning cycle (acid)
- 15 Minutes of circulation

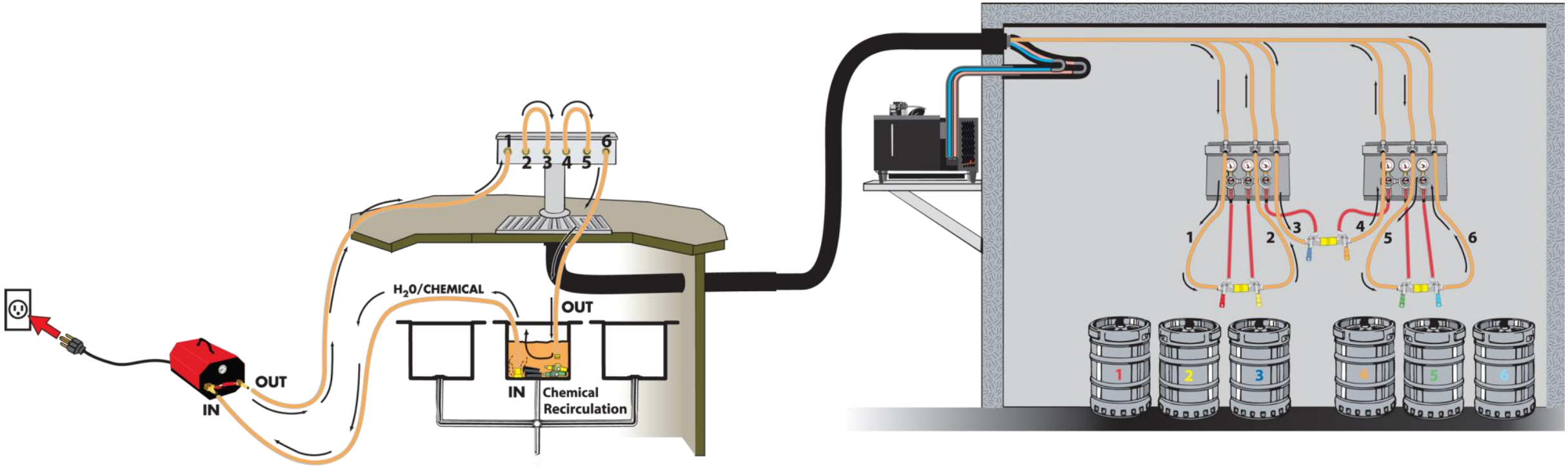




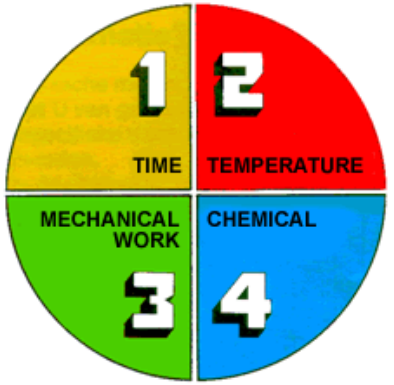
TEMPERATURE

- Hot tub temperature
- About 100˚ Fahrenheit

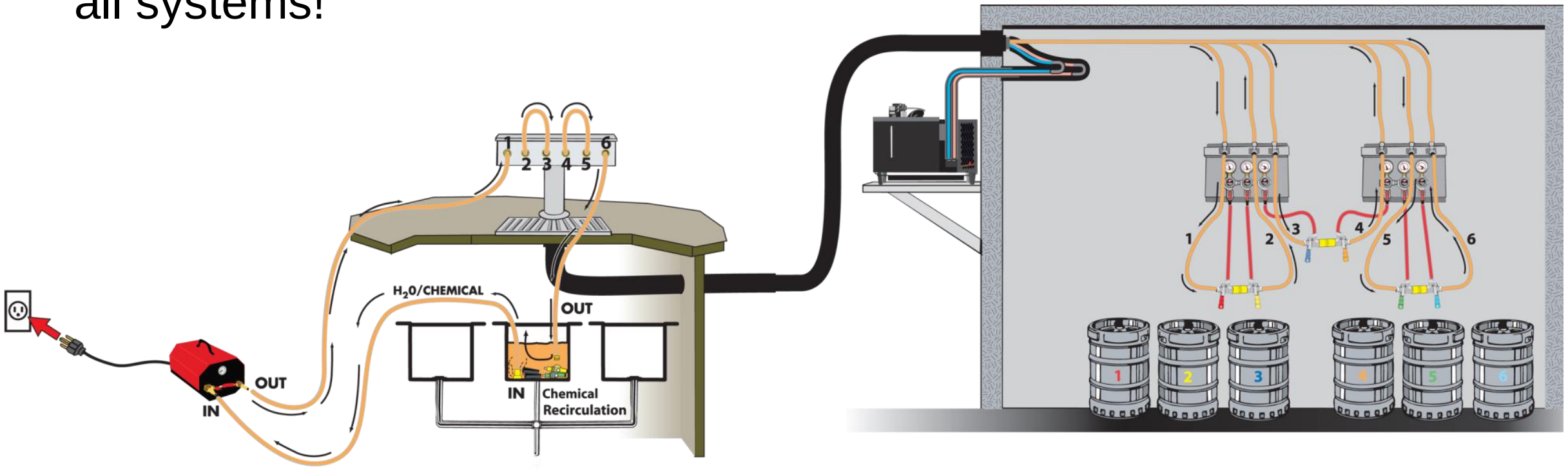




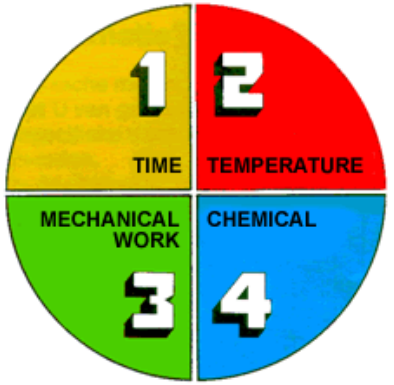
MECHANICAL WORK



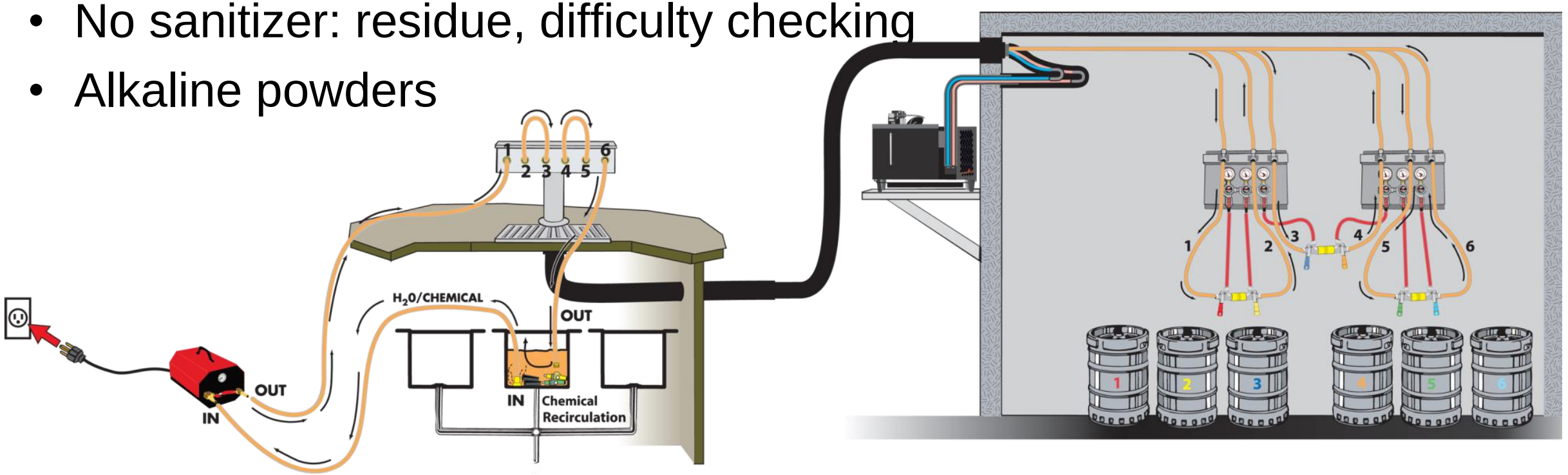
- 1.5-2.0 gpm, i.e. 1.5x faster than dispense rate
- Reverse direction each cycle
- Physical scrubbing faucet, couplers with brushes
- Recirculated cleaning recommended for all systems!



CHEMICAL CLEANING



- 2% to 3% caustic (NaOH or KOH)
- Non-chlorinated caustic only
- Pre- and Post-rinsed with water, pH check / record
- 2% acid used quarterly (H_3PO_4)
- No sanitizer: residue, difficulty checking
- Alkaline powders



CHEMICAL SAFETY / USE INFO

- Safety Data Sheet (SDS)
- Manufacturer tech info
- Labels, workplace signs
- PPE selection chart
- Standard Operating Procedure (SOP)

SOP / CHECKLIST

- Develop your own
- Brewers Association Resource Hub
  - BMPs
  - CBC archives

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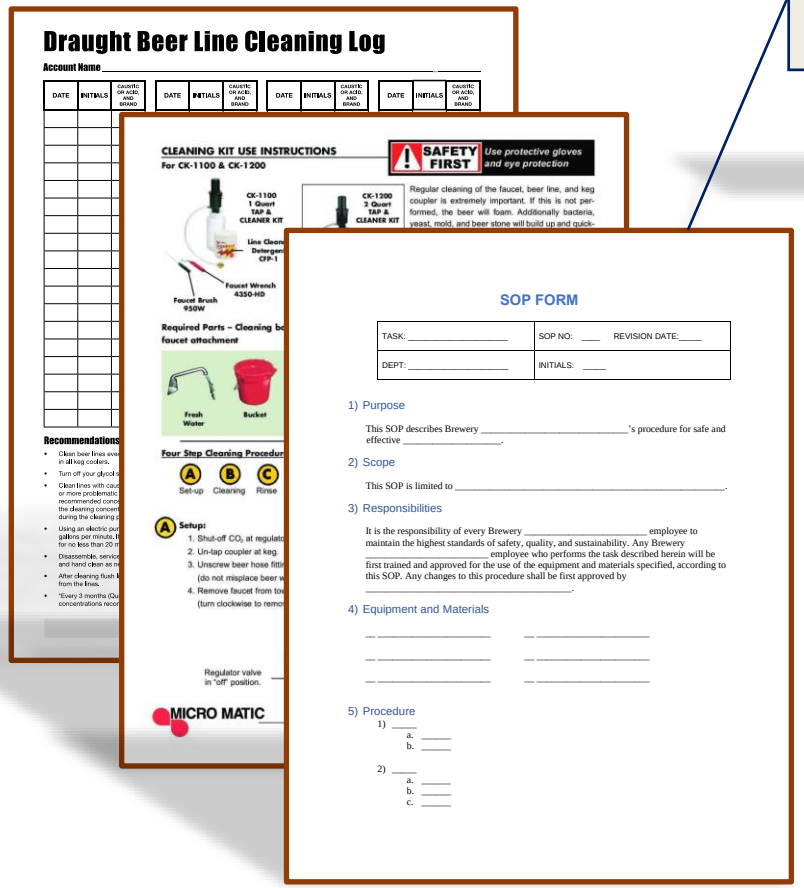
SOP RESOURCES



https://www.brewersassociation.org/educational-publications/hazard-assessment-principles/

https://cdn.brewersassociation.org/wp-content/uploads/2020/05/Standard-Operating-Procedures-Guidance-for-Brewers.pdf

- 3 –

DRAUGHT LINE CLEANING EDUCATION

KAYLYN KIRKPATRICK

COLLAB HOUR BA BREWERS ASSOCIATION

DRAUGHT LINE CLEANING EDUCATION

- LEARN MORE
- POUR BETTER

BREWERS ASSOCIATION / OSHA GRANT TRAINING PROGRAMS

- **FREE Advanced "Operations Level" Course**
  - For Line Cleaning Technicians, t.b.a. Spring 2023
  - https://www.brewersassociation.org/association-news/2022-registration-open-for-free-online-draught-line-safety-course/
- **FREE Intro "Awareness Level" Course**
  - Starting SOON - Summer 2022
  - For FoH staff, owners, brand managers, public health officials

MORE RESOURCES

- Draught Beer Quality Manual, 4th ed.
- Draught Beer Quality Manual for Retailers, 2nd ed.

- Brewers Association Forum

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- 4 –

Q & A

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Pour Safely, not Poor Safety

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