NANO CON 2021

EQUIPMENT PLANNING FOR EXPANSION

OVERVIEW OF TOPICS

PLANNING FOR BREWERY EXPANSION

- Introduction
- Before you build your first brewery
- When do you expand?
- Expansion details
- Tank / Capacity planner
- Time Savers
- Lead Times
- Q&A

INTRO

- **Josh Miller**
- **Learned about Brewing in Organic Chemistry while at Purdue**
- **Started Home Brewing in 2010**
- **Started brewing Professionally in 2014**
- **Earned 39 professional brewing medals between 2015 and 2019**

INTRO

- **John Blichmann**
- **You know him**

BEFORE YOU BUILD, THE FIRST TIME

Before you build your first brewery, think about expansion

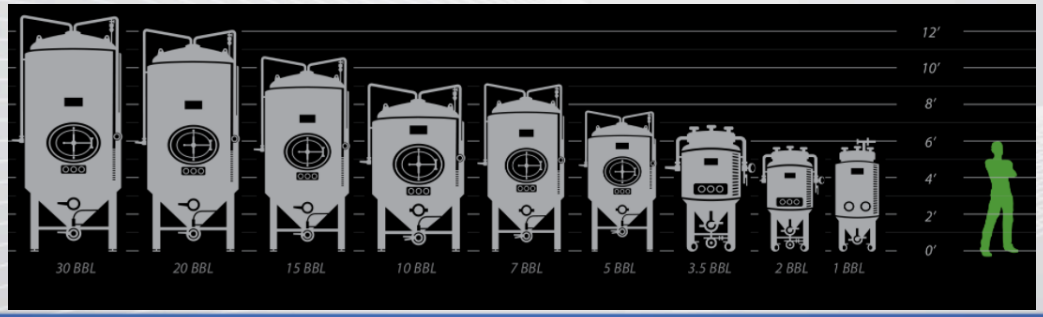
- **Survey – How many in planning vs established?**
- **Glycol chiller – size ahead of time or add second**
- **Glycol drops – install drops / valves ahead of time**
- **Layout the space for expansion in the future**
- **Utilities – run enough power / gas from the start**
- **BUSINESS PLAN**

WHEN TO EXPAND?

- **Work / Life balance – Don't be a sleepy Anderson**
- **Potential Revenue Loss – How much revenue is lost without a minimal investment?**
- **Attracting qualified labor**

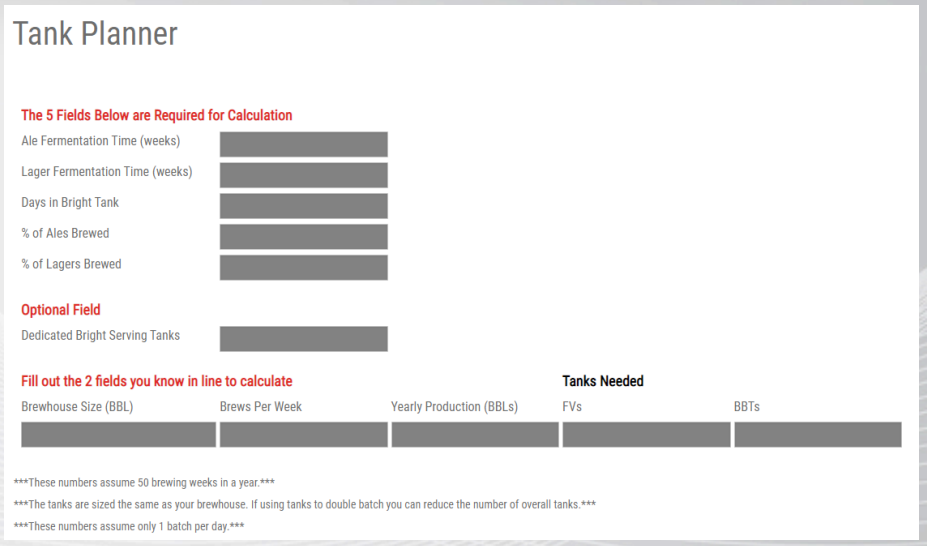
TANK ONLY EXPANSION

- **Do you have the glycol capacity to handle a tank expansion? If not, plan for system expansion down the line.**
- **High Gravity Brewing Techniques**
- **Double batching – O2 and yeast day one**



EXPANSION DETAILS

- **Estimate your annual production needs**
- **https://www.blichmannengineering.com/tankplanner/index/index**
- **Can you use your current system and invest in larger tanks?**
- **Expand in steps – tanks first, brewhouse second**



1bbl System Capacity

Tank Planner

The 5 Fields Below are Required for Calculation

Ale Fermentation Time (weeks)	2.50
Lager Fermentation Time (weeks)	4
Days in Bright Tank	3
% of Ales Brewed	100
% of Lagers Brewed	0

Optional Field

Dedicated Bright Serving Tanks	

Fill out the 2 fields you know in line to calculate

			Tanks Needed	
Brewhouse Size (BBL)	Brews Per Week	Yearly Production (BBLs)	FVs	BBTs
1	2	100	5	1

These numbers assume 50 brewing weeks in a year.

The tanks are sized the same as your brewhouse. If using tanks to double batch you can reduce the number of overall tanks.

These numbers assume only 1 batch per day.

3.5bbl System Capacity

Tank Planner

The 5 Fields Below are Required for Calculation

Ale Fermentation Time (weeks)	2.50
Lager Fermentation Time (weeks)	4
Days in Bright Tank	3
% of Ales Brewed	100
% of Lagers Brewed	0

Optional Field

Dedicated Bright Serving Tanks	

Fill out the 2 fields you know in line to calculate

Brewhouse Size (BBL)	Brews Per Week	Yearly Production (BBLs)	Tanks Needed: FVs	Tanks Needed: BBTs
3.50	2	350	5	1

These numbers assume 50 brewing weeks in a year.

The tanks are sized the same as your brewhouse. If using tanks to double batch you can reduce the number of overall tanks.

These numbers assume only 1 batch per day.

5bbl System Capacity

Tank Planner

The 5 Fields Below are Required for Calculation

Ale Fermentation Time (weeks)	2.50
Lager Fermentation Time (weeks)	4
Days in Bright Tank	3
% of Ales Brewed	100
% of Lagers Brewed	0

Optional Field

Dedicated Bright Serving Tanks	

Fill out the 2 fields you know in line to calculate

Brewhouse Size (BBL)	Brews Per Week	Yearly Production (BBLs)	Tanks Needed FVs	Tanks Needed BBTs
5	2	500	5	1

These numbers assume 50 brewing weeks in a year.

The tanks are sized the same as your brewhouse. If using tanks to double batch you can reduce the number of overall tanks.

These numbers assume only 1 batch per day.

REVENUE BREAKDOWN

-	1bbl Brewhouse	3.5bbl Brewhouse	5.0bbl Brewhouse
System Cost	$ 8,504.00	$ 18,499.00	$ 26,750.00
Tank Cost	$ 21,500.00	$ 27,000.00	$ 34,495.00
Accessories cost	$ 3,000.00	$ 10,000.00	$ 12,000.00
Total	$ 33,004.00	$ 55,499.00	$ 73,245.00
Potenti al Revenue	$ 144,000.00	$ 504,000.00	$ 720,000.00
*6.00 per pint			

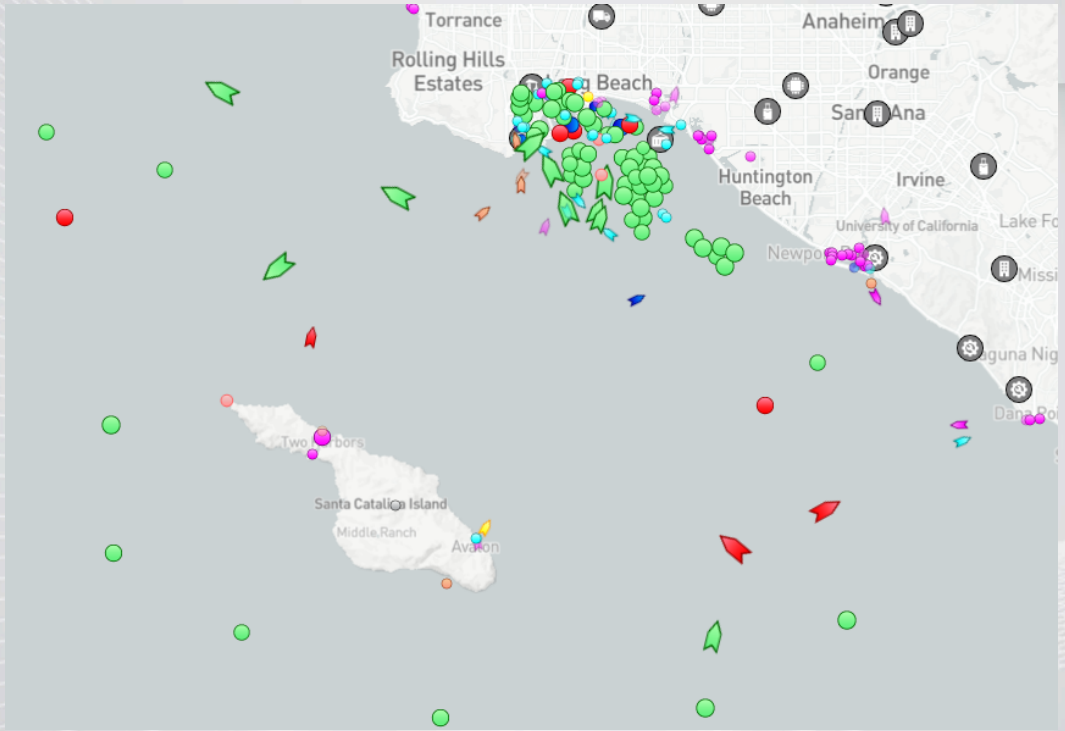
EXPANSION CONSIDERATIONS

- What is required for expansion?
- Door fittings, available openings, weight restrictions / floor loads, height restrictions
- Power / Gas requirements
- Expand in steps – tanks first, system second
- Don’t run the minimum electric runs

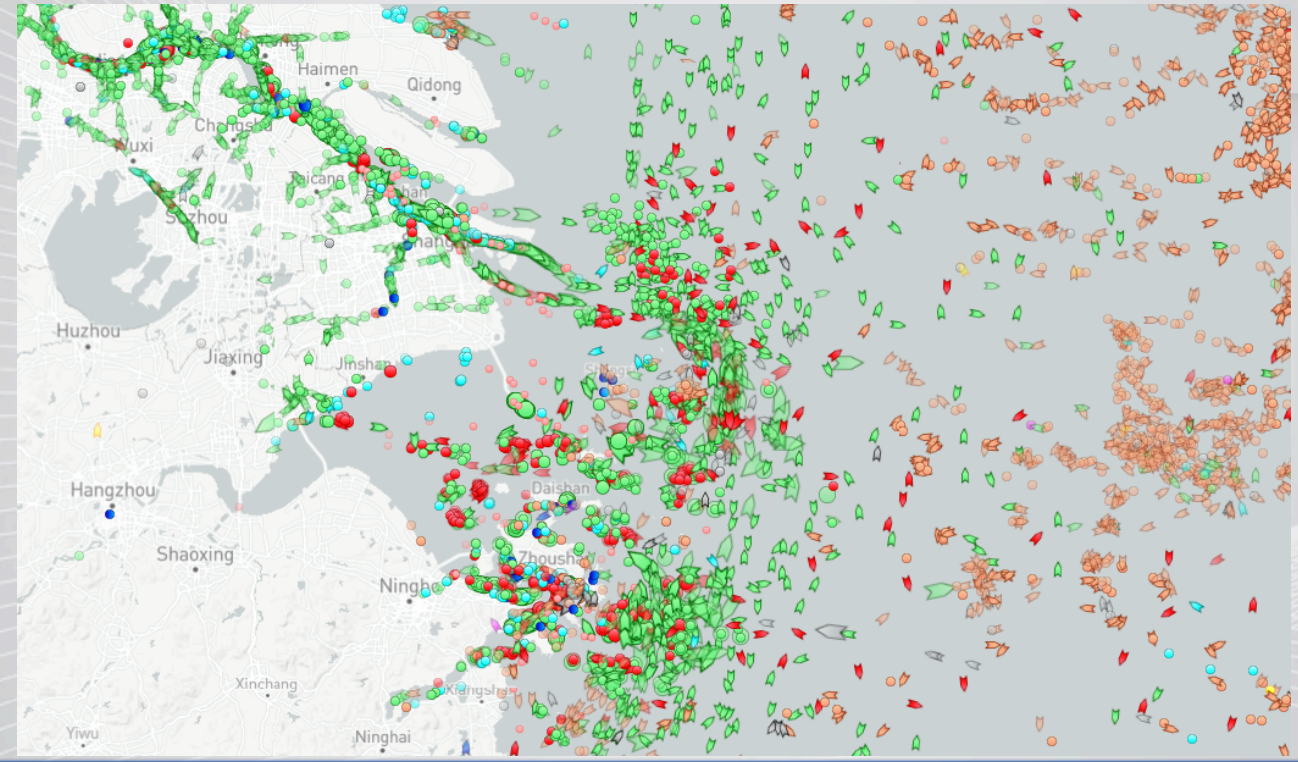
TIME SAVERS

- Keg Washers
- Pump Carts
- Oversized HLT
- CLT
- Labor

LEAD TIMES


Torrance
Rolling Hills Estates
Anaheim
Orange
Huntington Beach
Irvine
University of California
Santa Catalina Island
Middle Ranch

LEAD TIMES


Haimen
Qidong
Yuxi
Huzhou
Jiaxing
Hangzhou
Shaoxing
Xinchang
Yiwu
Ninghai
Daishan

LEAD TIMES

- **“And that’s all’s I got’s to say about that.”**

Q&A

- **Support**
- **proseries@blichmannengineering.com**
- **765-421-2018**
- **Blichmannengineering.com/pro-brewing**