

**“ We Need A 3D Model That Shows Us How We Can Expand Production Without Expanding Our Facility.”**

### **What Our Client Said**

We need to expand our brewery and we need to do it fast, but it's going to be a tight fit. How can we fit everything in without physically expanding our facility?

### **What We Heard**

Our situation is akin to a puzzle: limited time, limited space and specific requirements. The margin for error on the solution to that puzzle is almost zero, but if we can succeed, we'll be able to expand our operation without hindering our productivity or necessitating a prohibitive capital investment.

### **What We Did**

LSI knew from experience that success with this project hinged on an accurate, detailed 3D layout that facilitated both creative thinking and cutting-edge engineering. Starting with a white board sketch provided by the customer, LSI's team developed a 3D model that included all brewing equipment, brewing piping, storage racks, building piping, boiler, refrigerant equipment, floor drains, building columns and doors. The 3D layout enabled LSI to perform a constructibility review, fitting and locating the new fermenters and new process piping (complete with tie-in locations and revised traffic flow patterns). The model helped to identify potential conflicts and allowed for the successful relocation of the centrifuge to prevent a collision and enable much easier maintenance access. The brewery saved many weeks of rework without interrupting operations.

### **LSI provided:**

- 3D design / layout
- Mechanical engineering
- Constructibility Review
- Project management

## *The Results Speak For Themselves*

### **Faster approvals and permits**

LSI's 3D drawing was used to obtain city permits, taking much of the uncertainty out of the process.

### **More accurate bids and improved installation**

Because the 3D model provided accurate details of the needed improvements before the brewery hired a contractor, bids for the installation were more accurate, and the work itself went more smoothly.

### **Expansion without an expanded footprint**

LSI solved the puzzle by expanding capacity without the need to expand the facility. The margin of error was almost non-existent, with just six inches of headroom upon completion.

### **Improvement without downtime**

Operations were expanded without disrupting the workflow of the plant. The project was completed on time and on budget with virtually no downtime.

### **Doubled brewing capacity**

Brewery output has doubled since the additional equipment was installed. The return on investment has been outstanding.

*Let LSI listen to your challenges today, and we'll work together to write a success story for you.*



### **LSI listened,**

then reviewed, the customer's sketch and studied every detail with an experienced team of engineers and designers. This inside-the-brewery expansion required some serious outside-the-box thinking, and it all started with a 3D model that left nothing to chance. This layout allowed LSI's team to think creatively while planning realistically, the only way such a complex puzzle could be solved.

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*The customer doubled brewing capacity without adding a single square foot to their facility, and it all began with a highly-detailed 3D model that let everyone see the challenges and opportunities from all directions.*

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