



**BAD
SHEPHERD**
BREWING CO

Case Study

Bad Shepherd Brewing Co Craft Brewery

DC DEACAM
INDUSTRIAL ELECTRICAL ENGINEERING



*“The Fermecraft system is awesome! High quality.
Get what you pay for.”*

Dereck Hales, Owner/Brewer, Bad Shepherd Brewing Co





Summary

Customer
Bad Shepherd Brewing Co

Location
386 Reserve Rd, Cheltenham VIC 3192

Industry
Craft Brewing

Description of works
Installation and commissioning of brewing equipment and customised full Fermecraft system

The Customer

The concept of Bad Shepherd Brewing Co is that of husband and wife team Dereck and Diti Hales, who have created a complete package for beer lovers with their brewpub.

Their crafty natures are on show here, tempting the public in with their amazing beers and keeping them with the deliciously smoked meats and mouth-watering comfort food. Dereck and Diti believe that the best accompaniment to their beers is American style barbeque food. The pairing of the Bad Shepherd beers with this style of comfort food is the ultimate path to indulgence, and that is exactly where Bad Shepherd wishes to lead.

After being given a home brew kit as a gift in 2009, Dereck experimented and initially fell short of greatness. After a little more research he began to get the feel for the craft. So much so that after entering numerous competitions he won the Victorian Championships. Discovering this hidden talent soon led to Dereck's thirst for more in which he began working one day a week at Mornington Brewery to build his knowledge and skill.

Along this journey came the idea for Bad Shepherd Brewing Co, in which Diti would run the front of house operations in the pub and Dereck the brewery. Opening in 2015, Bad Shepherd has already become so popular with locals and craft beer lovers alike, that they have had to limit offsite sales in order to keep up with in-house demand.

The Job

Bad Shepherd worked closely with the Cavalier team in the very early stages of their business, as contract customers at the Cavalier Brewery. With the brand and production going well, Bad Shepherd began the process of planning a brewery build of their own, engaging Cavalier as Project Managers. With Cavalier having custom built their own brewery, and with a focus on continuous improvement to the facility as well as constant involvement in new projects, they were the perfect candidates to oversee the Bad Shepherd brewery build.

Cavalier have established themselves in the craft beer industry as a great brand and product, and now as contract brewers for smaller labels as well as Project Managers of new brands who are entering the market. By working with these start-ups to incubate their ideas and launch their products, Cavalier is involved from the very beginning in many small projects that have grown into successful brands, from concept stage through to project managing the brewery build.

With Deacam having completed much of the installation at Cavalier and production of customised systems such as Fermecraft, Cavalier enlisted Deacam to manage the electrical aspect of the project at the Bad Shepherd Brewery. Together, Cavalier and Deacam provide innovative systems that allow new breweries, such as Bad Shepherd, to be successful.

Bad Shepherd had a great working knowledge of the cavalier brewing systems which were commissioned by Deacam. They also had the added advantage of being able to view the complete system in operation and see how it would both look and run, as well as having a clear assessment of how the system would operate in the space at Cheltenham.

All of these factors proved huge advantages to Bad Shepherd as a start-up business and small scale craft brewery. Having the knowledge and comfort in knowing they were dealing with reliable and trusted companies such as Deacam and Cavalier was of great importance.

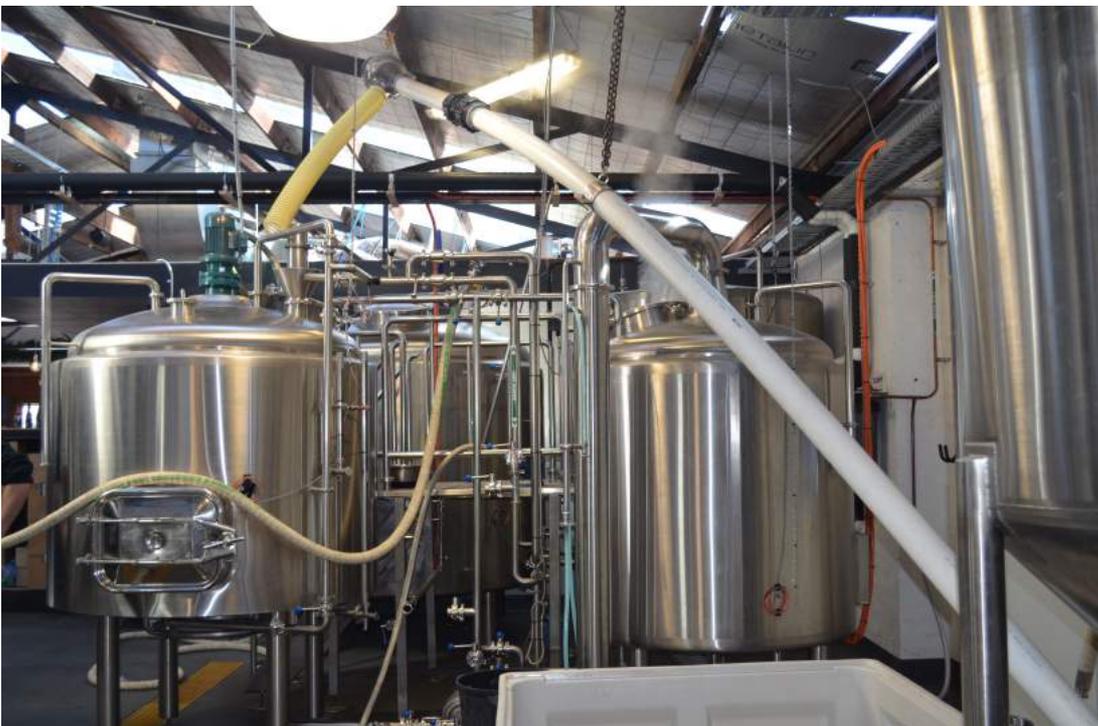


In addition to the brewery installation and associated work, Deacam was also responsible for:

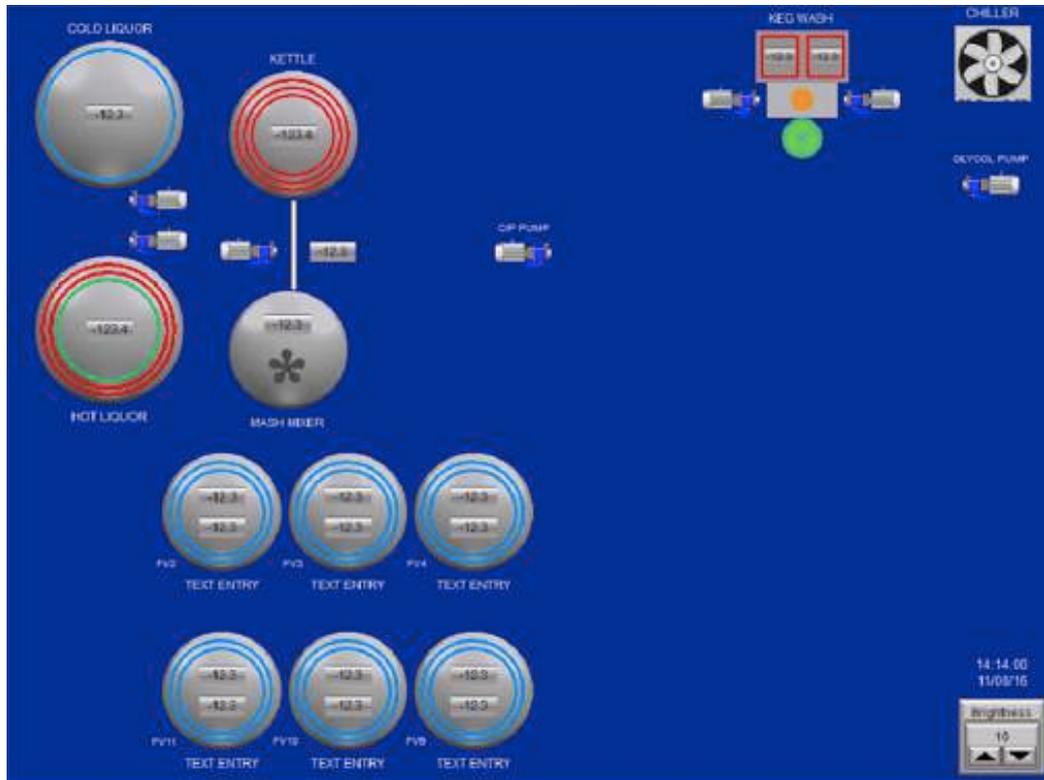
- Field wiring, including mains
- Manufacture and installation of the control panel
- Installation of Fermecraft System
- Supply and installation of new sub-board to provide machines with power and aid lack of capacity
- Supply and installation of breakers
- Installation of cable tray, including wall mounts
- Supply and installation of keg cleaner including:
 - Pneumatic setup
 - Manufacturing a control panel for the keg cleaner that ties into the main production PLC
- Installation of additional sensors
- Wiring in additional tanks



Deacam also installed and commissioned the brewhouse and all fermentation tanks, as well as all supporting equipment. In order for the brewery to run efficiently and effectively at full capacity it required all of the above elements to be correctly installed and tested to ensure a safe and productive work space. Deacam assessed the equipment that was to be installed in conjunction with the space that would house it and determined the best way to facilitate the job in order for the brewery to be a success.



Bad Shepherd also chose to install Deacam's customised Fermecraft system to enable a higher level of monitoring and technical advancement in the brewery.



The Fermecraft system consists of a control panel in which the brewery set up is uploaded, allowing a visual representation of the brewery, including the brewhouse and all fermentation tanks. Each tank is monitored for various factors such as temperature control and variables, allowing complete control throughout the brewery. If the sensors detect an issue within the process of the brew in direct comparison to the input data, an alarm is raised on the control panel. This allows the brewer to acknowledge the alarm, observe the problem and rectify accordingly without lengthy diagnostics.

Bad Shepherd also has the added element of receiving these alarms remotely, alerting them to the fact that there is a problem on-site and can then choose how they wish to react depending on the situation.

One of the biggest benefits of having the Fermecraft system is the ability to monitor the brewery while off-site via the application on smart devices. One of the many features is the capability to control fermenters, agitators and adjust cooling and heating elements.



The Outcome

With Deacam's work on the Cheltenham facility for Bad Shepherd Brewing Co, the brewery is now fully operational and designed to work at full productivity without issue. Deacam's responsiveness and high level of service is of paramount importance.

Our standards, from custom design through to after-care service, is of the highest quality and we would like to thank Bad Shepherd for choosing to work with Deacam to enable such a great result. We look forward to seeing them advance even more in the craft beer world and hope to work with them on future projects.

