

A TYPICAL BREWING DAY AT A SMALL COLORADO MOUNTAIN BREWPUB

DOSTAL ALLEY BREWPUB, CENTRAL CITY, COLORADO

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As a contribution to the theme 'craft brewing' in this issue of the SBR, our close friend and frequent contributor, Finn Bjørn Knudsen, Knudsen Beverage Consulting in Evergreen, Colorado, gives an in-depth and detailed account of a typical brew day in a small, manually operated craft brewery. In this case the Dostal Alley Brewpub in Central City, CO, but it could just as well have been in Drammen in Norway, Sigtuna in Sweden or Amager in Denmark. If you have never experienced such a brew day, here's your chance...

First, let me start with some brief local history and background. Central City is located in Gilpin County about 35 miles west of Denver and, originally, it was one of the most important gold and silver mining towns in the USA. This was during and after the big gold rush, which started in 1859 for Central City. Another gold rush in the state of Colorado is of course – what else – our favourite beverage, beer. Colorado is proud to be the state with highest per capita production of our golden beverage; however, in the 'old gold and silver days', Gilpin County sported at least fifteen different breweries brewing fresh beer for thousands of thirsty miners in the 'Pointylands', according to the stories from my god friend and former colleague brewer emeritus, Dave Thomas. In the Central City area, one can find some wild hops growing in various places, which is the sure telltale sign of the many breweries that had previously been operating in the area.

However, today there is only one local brewery trying to satisfy the thirst of many, namely the Dostal Alley Brewpub. It was established and started brewing in 1997 after the father and son – Bruce and Buddy Schmalz – purchased a 2 Bbl brewing system when they were attending the Craft Brewers Conference in Seattle, WA. After some years, the thirsty people in Central City demanded more beer. So, in 2006,

Bruce and Buddy decided to purchase and expand with a 7 Bbl 'proven' brewing equipment available from a Wyoming brewery. It was tough to fit such a 7 Bbl system into the small space available, but Buddy says he measured and could just squeeze all the vessels through the door openings and locate them where they are today. Bruce has served as the mayor of Central City for many years, and Buddy has also served as the mayor of Central City and still serves on official local committees and a strong support to the community both in the City and Gilpin County. The three children – Cindee, Lisa and Buddy – all take part and work for the family business, which is open 24/7!! Cindee is the bookkeeper and her daughter also works in the business. Lisa is the business manager and Buddy is the head brewer. He also shows his skill as a professional 'sling and spin throwing' pizza maker!! So this is indeed a real family business.

While pondering the Central City history, I arrived just as Buddy and Dave, the assistant brewer, had started mashing in their twelfth Summer Ale Beer (Belgian White Style). The start of a typical brewing day at an authentic small local Colorado American Craft Brewery – a treat I shall share with you. The Dostal Alley brewery features a sign: 'GIVE US THIS DAY OUR DAILY BREW' – a prayer now to be followed!

During the night, a reliable 'ghost' had turned on the heater in the water-filled brew kettle, ensuring that the right temperature of real hot water was ready in the morning, meaning that it is possible to start brewing whenever convenient. The hot water from the kettle is mixed with cold tap water to achieve the correct mash-in temperature, typically 150 °F (65.5 °C).

Since the summertime is fast approaching, it was appropriate to brew – for the twelfth year – the seasonal special, Summer Ale, which is brewed to fit within the GABF style guideline of a Belgian White.

400 lbs of raw material is typically used for a 7 Bbl brew. Today, they used 200 lbs of 2-row Base Pale Malt (Scarlett Variety), 150 lbs Red Wheat and 50 lbs of flaked Oats – the raw materials are all locally Colorado-grown materials, delivered pre-ground in sacks from the local Colorado Malting Company. At 8:30 AM, the materials were fed manually into the hopper located above the mash/lauter tun. It flowed nicely into the mash tun, where it was being mixed with warm water through a homemade pre-mash mixer.

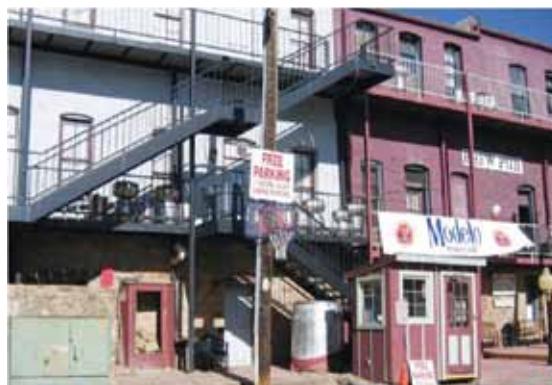
The mash is stirred once in a while by the experienced hands of Buddy and Dave using a stainless steel paddle. The temperature seemed to hold steady at approximately 140 °F (60 °C), which was a little low as the attempt was to keep the mash at ~150 °F (~65.5 °C). Having some time to spare at this time, a 5 gl. stainless steel open 'grant' (small cylindrical tank) was hooked up with hoses, sight glass, and wort pump to the brew kettle. The remainder of the hot water in the kettle was at this time transferred to the fermenter. The run-off started about 9:30 AM, and during the run-off, the level in the grant was manually controlled, so it would not to run over. The sparging started about 10:00 AM. The hot water from the fermenter was used and sprayed nicely over the grain bed through a stainless steel rotating spray arm. The sparging water temperature

was about 150 °F. During the run-off and sparging, the wort strength was periodically measured. A sample of the wort was taken and tasted. It was slightly hazy as it should be and tasted sweet and well blended for the style.

The kettle was full around 11:30 AM, and some antifoam agent was added to prevent boil-over. Now brewmaster Buddy felt it was time for lunch, so he went into the kitchen to prepare a delicious hand thrown pizza for us. Meanwhile, Dave measured and weighed the hops to be used in this brew – 14 oz Centennial (α 8.2), 10 oz Perle (α 7.4), and 6 oz Falconer Flight (α 10.5) to be added at 90, 30 and 15 minutes prior to knock-out. (1oz = 28.35G). They were targeting around 17 IBU for this low hopped brew.

The pizza was warm and ready, so three of us could now enjoy a great lunch and enjoyable conversation together with a taste of the 2008 GABF Silver Medal winner Shafthouse Stout in the Classic Dry Irish Stout category. That was actually not their first GABF medal, since they won their first GABF Silver Medal for their Pub Ale, which had been entered into the British Bitter Category.

Last year, Buddy and Dave located and picked some of the local wild hops from grave markers and trellises in the cemeteries above Central City, and they jokingly called them Cemetery or Graveyard Hops and used them in one of their specialty beers. The local beer consumers loved that beer. Therefore, they plan to continue using those hops and possibly have them grown commercially at a small local Colorado hop yard. They are toying with registering them under names such as 'Wild Central City Hops' or 'Wild Mountain Hops'. Having successfully used them last year, they will be using them again this year and also in coming years for at least their special limited edition beers. →



Also, during lunch, I learned that the spent grains, spices and hops would be picked up later that afternoon by a local man, John Kittredge, who uses the materials to blend with some horse manure, and mix it into the poor mining soil, thereby making it more fertile and useful for gardening. So far, he has been quite successful with that and it is an easy way for the brewery to discard that otherwise good waste material.

Just as we finished lunch, the bartender announced that he was running out of the 'American City' Pale Ale, so this was also among the many duties of the brewers, Buddy and Dave, who had to get to the keg storage, retrieve a full keg and exchange it with the empty keg.

It was now 12:30 PM and the boil was going just fine. The vapour from the boil went through a condenser from where hot water was recovered into a specially designed converted keg, which they could use for either keg cleaning or as a vessel for mixing cleaning agents with the hot water.

The first addition of Centennial went in at this time. Then it was time to prepare the weighing in of the spices to be used for the brew, namely coriander, orange peel and chamomile. They were all mixed together in a bucket ready for use.

During the boiling, the spent grain was removed from the mash tun. It was done by hand using partly a small plastic scoop from

the side door and a shovel scooping the spent grains from the top. The spent grain was then put in plastic bags with about 15-20 lbs for easier carrying by John Kittredge who would pick it up later that afternoon. The removal took about half an hour. Later, the mash tun lautering screens were rinsed, cleaned and reassembled.

At 13:30 PM, the Perle hops were added, and the Falcons Flight hops were added around 13:45. The spices were added around 13:55, or about five minutes prior to knock-out. The evaporation from the kettle was typically around two to three per cent. The final OG was measured to be about 11° Plato and again the clarity was slightly hazy as per style.

During the boil, the plate heat exchanger had been hooked up to the kettle with a transfer pump, sight glass and a strainer to catch any hops and spice materials in order to prevent those from entering the heat exchanger. Cold tap water was used as the coolant and the cold wort coming out was ~65 °F (~18 °C).

The wort was being pitched during the transfer using the standard ale yeast, #1056. They actually pick up the yeast in a soft drink beverage keg/dispenser from their neighbour brewery – Tommyknocker Brewery – in Idaho Springs.

The fermentation takes place for seven days at around ~68 °F (~20 °C).



After fermentation, the beer is cooled and stored in the Uni-Tank at ~35 °F (~2 °C) for two days. The final ABV is targeted at about five per cent. After storage, the beer is transferred to the bright beer tank and kept cooled for three days at 32 °C. After that, the beer is racked by hand in the now rather rare traditional Hoff-Stevens kegs. They placed those in the next-door refrigerated keg storage room kept at 40 °F (4.4 °C) and at 30 psi pressure for three days. Then the Summer Ale will be ready to be enjoyed by many of their happy customers awaiting a thirst quenching summer beer.

Around 3:30 PM, John arrived and we could load his pick-up truck with the buckets and plastic bags with the still warm spent grains and spices. All in all, it was a very great brewing day, which ended at around 4 PM. At that time, we took time to taste the various Dostal Alley beers and, as time went on, we found great answers on how to make new great beers, and could also solve most of the world problems.

When driving home around 5:00 PM, I could look back on a fantastic day at a typical mountain brewpub, and I thought I would be back soon.

The future of the brewery is being considered and Buddy was talking about a small expansion for the current brewery by installing another 7 or 14 Bbl Uni-Tank, thereby being able to increase the capacity without moving the brewery. However,

if it cannot fit in the very tight space and/or the floor loading might not be sufficiently strong, they may have to relocate to another building in Central City. The demand for their beers is increasing rapidly, so the current capacity constraints will have to be considered, and the family will soon have to decide what would be the best way of expanding their brewery. All in all, The Dostal Alley Brewpub is a nice success story and typical of many small US craft breweries brewing good, clean beers with great variety and flavours the beer drinkers enjoy.

In conclusion, I want to direct a big heartfelt thank you to the brewers and my good friends, Buddy Schmalz and Dave Thomas, for sharing one of their typical brewing days with me, allowing information to be published in the SBR, and the possibility to taste several of their great beers and the delicious fresh, warm homemade pizza. □

INFO

I encourage the readers to visit two websites for more information, namely www.dostalalley.net and www.coloradomaltingcompany.com

