

Brews & News

TM

A Publication of the Maltose Falcons Home Brewing Society

Volume 41 Issue 3 March 2015



**California Home Brewer's
Club of the Year 2014**

THE MALTOSE FALCONS



California Homebrew Club of the Year 'Maltose Falcons' Party at Anchor Brewing!

Brews & News

Vol. 41, No. 3 March 2015

PUBLISHER

Maltose Falcons Home Brewing Society

EDITOR

David Uhl

CONTRIBUTORS

David Uhl, Cullen Davis, Melody Rose Hitt, Drew Beechum,
Chris Downie

©2015 Maltose Falcons. All rights reserved.

Brews & News is the monthly newsletter of the Maltose Falcons Home Brewing Society. It is distributed via e-mail to the membership during the first week of every month. Members may also access the current issue and archived editions, by logging onto the Web site www.maltosefalcons.com, and clicking on the appropriate PDF file.

All material submitted for possible publication should be sent to: David Uhl at newsletter@maltosefalcons.com. Materials may be edited for length.

Deadline for April issue: April 8th

Maltose Falcons Board 2014-2015

President, Cullen Davis

president@maltosefalcons.com

Vice-Presidents, Ed Kochanowski, Dana Cordes

vicepresident@maltosefalcons.com

Secretary, Melody Rose Hitt

secretary@maltosefalcons.com

Treasurer, Kent Fletcher

treasurer@maltosefalcons.com

Membership Director, Craig Frump

membership@maltosefalcons.com

Publicity Director, Matt Myerhoff

publicity@maltosefalcons.com

Activities Director, Kevin Baranowski

Tom Sisolak activities@maltosefalcons.com

Grand Hydrometer, Drew Beechum

grandhydro@maltosefalcons.com

Burgermeisters, Tiffany Fairbrother, Natalie

DeNicholas burgermeister@maltosefalcons.com

Newsletter Editor, David Uhl

newsletter@maltosefalcons.com

Webmeister, Drew Beechum, Dana Cordes

webmaster@maltosefalcons.com



Wow. What a party.

This was my first Anchor Party, and it was awesome. Superb food, great music, unlimited beer, and the best damn parties north of Rio de Janeiro. It was great fun. The only downside was me having to leave early for a Valentines dinner with my honey and a couple we are close friends with in San Francisco.

Next job, winning Radegast. We are an awesome club. There is no doubt in my mind that we will win it eventually if we keep up a sustained and coordinated effort. That means brew, enter, get involved in club activities, and get involved in the community. We should all be doing that despite the Radegast. But now, we've got one more, concrete reason. So get off your duff and just do it.

Until next month:

PROST



Presidents Article	4	JFK
Board Meeting Minutes	6	Melody Hitt
Grand Hydrometer	8	Drew Beechum
Anchor Pictorial	10	
Member Meeting Minutes	15	Melody Hitt
Membership Benefits	18	
Board of Directors	19	
Frankenchiller	20	Chris Downie



PRESIDENTS REPORT

Editor's note: Cullen didn't submit a president's article, so I made up my own. Enjoy!

I am proud to come to this city as the guest of your distinguished Mayor, who has symbolized throughout the world the fighting spirit of West Berlin. And I am proud -- And I am proud to visit the Federal Republic with your distinguished Chancellor who for so many years has committed Germany to democracy and freedom and brewing, and to come here in the company of my fellow American, General Clay, who has been in this city during its great moments of crisis and will come again if ever needed.

Two thousand years ago -- Two thousand years ago, the proudest boast was "civis Romanus sum."¹ Today, in the world of freedom, the proudest boast is "Ich bin ein Berliner", which, loosely translated means "I'd like another Berliner Weisse, please.

There are many people in the world who really don't understand, or say they don't, what is the great issue between a simple infusion and a multi-step decoction.



Let them come to Berlin.

There are some who say -- There are some who say that single step infusions the wave of the future.

Let them come to Berlin.

And there are some who say, in Europe and elsewhere, we can work with the anti-decoctionists

Let them come to Berlin.

And there are even a few who say that it is true that infusionism is an evil system, but it permits us to make decent beer.

Lass' sie nach Berlin kommen.

Let them come to Berlin.

Brewing has many difficulties and decocting is not perfect. But we have never had to put a wall up to keep our wort in -- to prevent it from leaving us. I want to say on behalf of my countrymen who live many miles away on the other side of the Atlantic, who are far distant from you, that they take the greatest pride, that they have been able to share with you, even from a distance, the story of the last 18 years. I know of no town, no city, that has been besieged for 18 years that still lives with the vitality and the force, and the hope, and the determination of the city of West Berlin.

While the wall is the most obvious and vivid demonstration of the failures of the Infusion system -- for all the world to see -- we take no satisfaction in it; for it is, as your Mayor has said, an offense not only against history but an offense against Melanoidin, separating hops, dividing alpha acids and beta acids and Cohumulone and humulone, and dividing a people who wish to be joined together.

What is -- What is true of this city is true of Germany: Real, lasting peace in Europe can never be assured as long as one German out of four is denied the elementary right of free men, and that is to make an awesome beer. In 18 years of peace and good faith, this generation of Germans has earned the right to be

free, including the right to unite their families and their nation in lasting brewing session

You live in a defended island of freedom, but your life is part of the main. So let me ask you, as I close, to lift your eyes beyond the dangers of today, to the hops of tomorrow, beyond the freedom merely of this city of Berlin, or your country of Germany, to the advance of home brewing everywhere, beyond the wall to the day of multistep infusions and with decoctions, beyond yourselves and ourselves to all mankind.

Freedom of beer is indivisible, and when one man is enslaved, all are not free to brew. When all are free, then we look -- can look forward to that day when this city will be joined as one and this country and this great Continent of Europe in a brewing and drinking globe. When that day finally comes, as it will, the people of West Berlin can take sober satisfaction in the fact that they were in the front lines for almost two decades.

All -- All free men, wherever they may live, are citizens of Berlin.

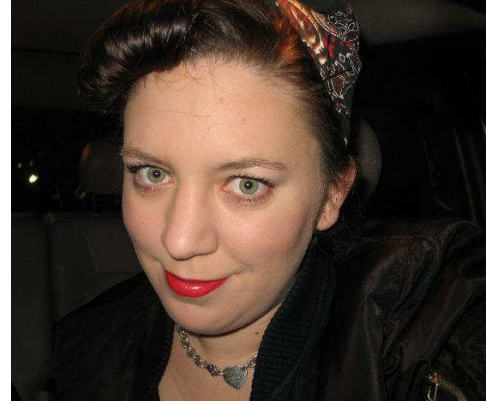
And, therefore, as a free man, I take pride in the words "Ich bin ein Berliner."



BOARD MEETING MINUTES

Maltose Falcons Board Meeting Minutes 12/24/2014 at Melody Hitt's Home

By Melody Rose Hitt



I. Members Present – Next Meeting

A. Cullen Davis, Ed Kochanowski, Melody Hitt, Dana Cordes, Kent Fletcher, Matt Myerhoff, Kevin Baranowski, David Uhl, Natalie DeNicholas

B. Next Meeting 3/24/2015 7pm at Kent's Home

II. Activities

A. Mayfaire

1. May 16, 2015 – 20 reserved campsites - \$10 per tenter. 5 RV sites \$40 incl hookups

B. Brew with a Falcon

1. Brew with a Falcon 3/21 & 3/22

2. Next Shop Brew 3/22 with a Lady Falcon – Melody Hitt

C. NHC – Social hour for swag

D. Sunfest possibly at the vet's hall – overnight?

E. SCHF

1. At Vail from Friday 7:30 Saturday 11am-9pm

2. Make sure you sign up through the SCHF site and become a member...or else.

III. Treasure's Report

A. Swag

1. Still 40th anniversary and Anchor shirts available

2. Hats to be made with patches

IV. Vice President

A. Doug King

1. Score sheets sent to Drew to post
2. Good turnout and excellent venue

B. Sponsorships- formats will be made for sponsors for future events

V. Publicity

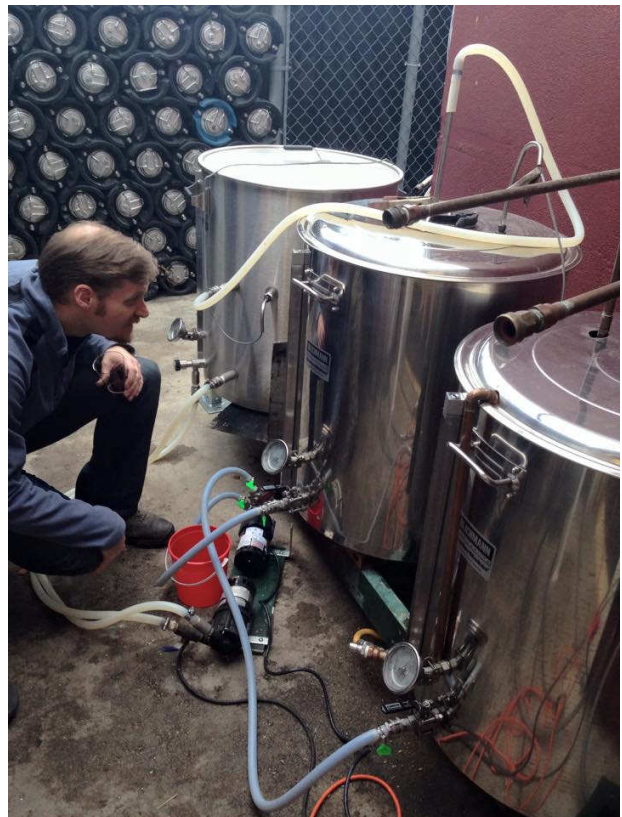
A. Brew with a Falcon Day ready to go

B. Next shop brew 3/22/15 "Brew with a Lady Falcon" – Melody Hitt

C. April Shop brew – Dave Uhl and Dana Cordes – Possibly a Kolcsh...?

VI. Burgermeister

A. Persian New Year – Persian food



Grand Hydrometer

Drew Beechum



Today's Grand Hydrometer talk is on Holiday Ales

Editor's Note: Drew actually gave this talk way back in December. I normally record his GH talk and then transcribe it. I happen to be an incredibly slow typist, so sometimes these get delayed a bit. Anyway, enjoy.

Holiday/Winter ales are a very broad category. As a general rule, American holiday ale traditions follow British holiday ale traditions. We begin with the most English of holiday ales, Smuttynose Winter Ale. Smuttynose comes in at 6.5%, which is a lot for a British holiday ale. It's a mere beginning for Americans. This beer was an excellent winter warmer; good for warming the bones we get from those frigid 75 °F winters we have in SoCal. This ale has lots of malt, a little bit of booze, nice fruity esters; apple and cherries, some nice spicy caramel and brown malt notes. This is reminiscent of New England "brown bread" with hints of molasses. A very rich beer that gets the Hell off of your tongue because it doesn't have a cloying sweetness. Most Americans could easily polish of a 6-pack.

Smuttynose was founded in 1994 in New Hampshire, and is now one of the largest breweries in New England. They tend to be very, very English in their brewing methods and ingredients. This is quite common in New England. Their beers tend to be quite malt forward, including even their IPAs and DIPAs. They are now one

of the largest craft brewers in the East coast. Drew got this at Mission Liquors in Pasadena, and it should be fairly easy to find in the Southland. One member of the peanut gallery mentioned it would be a great cooking beer. **Your editor considers that alcohol abuse.**

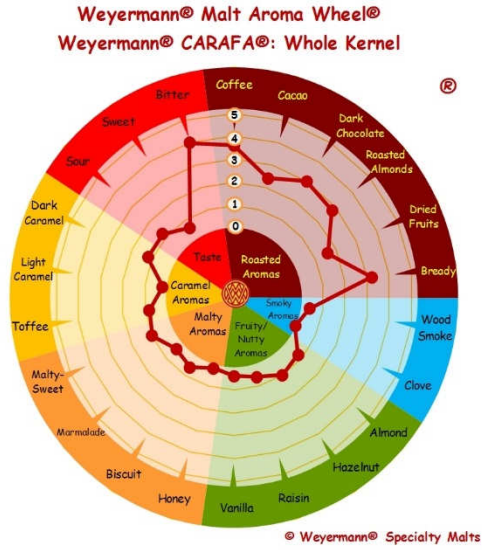


The next offering was from Ninkasi (in Oregon). They were founded in 2006, and they are already HUGE (they are already on their 4th brewery!). Being from Oregon, Ninkasi is typically known for their INSANELY hoppy beers. This includes two of your loyal editor's favorite beers Total Domination (65 IBUs) and Tricerahops (100 IBUs). Drew brought us Ninkasi Sleigh'r; a dark double alt. Alt meaning "old" (the old way of brewing). Alts are centered mostly around the old town of Dusseldorf. The pubs and breweries around Dusseldorf will break out their stronger Alts around this time, called "Sticky Alt", Or Secret Alt. Some German brewers (like Zymurga) are now making Dopplesticky alt. Anyways, back to Ninkasi, the Sleigh'r is quite hoppy. Several members of the peanut gallery noted this. Drew theorizes that Ninkasi beers pick up 10 IBUs just from the hop infused stainless steel in the tanks. In addition to the hops, we also get a lot of the same malt characteristics from the Sleigh'r that we did from the Smuttynose; that New England brown bread with molasses characteristics, but with a very strong bitter after-taste.



At this point, Drew waxed quite eloquently on Carafa specialty malt. It's an expensive malt that is a German chocolate malt that has had the husk removed. The husk is typically very acrid, so if you go with the carafe,

you can get rid of that. This will give you a very dark beer with a very soft, non-acrid chocolate character. (This portion of the grand hydro's presentation alone was worth the price of admission).



The third offering was Anchor's "Our Special Ale (40th edition)". Drew considers this more of a spiced brown porter. It's only 5.5%, which is low for an American holiday ale. When Drew first came out it '96, most people would lay the OSA down for a year. Each year has a different spice profile, and the year of aging would mellow and blend the spices quite nicely. Each bottle has a different tree on it, since the 1980's. One of the urban legends is they had some of whatever that tree in it. About 2002, the Anchors OSAs became very approachable, and you no longer had to age them. We also had some Anchor 2008 courtesy of John Aitchison for comparison.



The 2008 was much milder, the spices were much more

subdued. One of the possible reasons these beers age so well because of the anti-oxidant components of cinnamon. Charlie Papazian puts a ½ tea spoon of cinnamon in every 5 gallon batch. You can't taste the cinnamon at that level. Drew thinks of OSA is the beer equivalent of ginger-bread. It still has some of the molasses characteristics of Smuttynose, a little porter character, a little roast character, but the spices have pulled back a great deal. Because of the cinnamon and other spices, OSA can last 15-20 years if it is well taken care of.

Every year, Sierra Nevada has a time lapse video of the Bigfoot fermenting. Here is the link.

<https://www.youtube.com/watch?v=xCIXKMhcFr0>

The fourth offering was New Belgium's Accumulation. It's a white IPA that they are calling their holiday beer. 6.2% ABV. Drew originally bought this beer to gear up a great rant on how IPAs were taking over the craft beer market. This beer uses all Mosaic and Amarillo, no spices, you get a nice fruitiness and a soft citrusiness. One person thought it smelled like an outhouse. I need to go check out that place!



2012 Stone Double Bastard: 105 dollars. Drew considers this a holiday ale, the bigger meaner cousin of Arrogant Bastard. It's better balanced, it's hopier, it's more alcohol, etc. Double Bastard has smoother than Arrogant Bastard. 11.2%. Hides the alcohol very well. Some oxidation. The hops have softened with time. A lot of us thought it was more like an American barley wine. Drew got quite deep into the mineral profile.



Winner was the Double Bastard.



Falcons invade Anchor!

The Maltose Falcons won their 8th....yes, their EIGHTH California Homebrew Club of the year award. As is the tradition, Anchor invited the club up to San Francisco to celebrate. A great time was had by all.



Brian Vessa, Dave Anderson, Bruce Bode and Kevin Baranowski bend elbows.



The Hop Queen puts in an appearance!



Craig Wickham cuts a rug with a lovely lady.





The World Famous Maltose Falcons Brews Band wails!!!



Presentation of the trophy.



Cullen demonstrates his manly studliness!



More rug cutting.



"To die, to sleep -

To sleep, perchance to dream - ay, there's the rub,

For in this sleep of hops what beers may come..."



Couple of Anchor brewers hard at work!



The Three Amigos!



Melody "hops" to it!



Two Amigos and an Amigo that has fled his original amigo group!



1More Amigos. Three of them if my math is right.

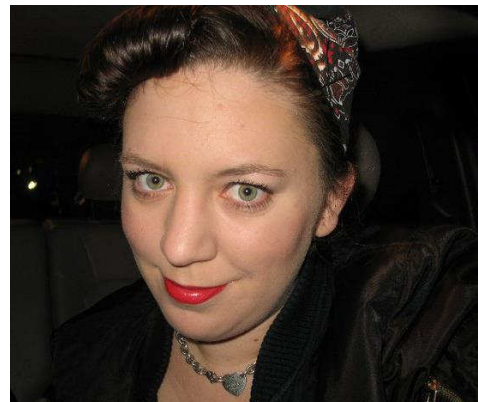


Sigh....more of these damn Amigos.



Member Meeting Minutes

By Melody Rose Hitt



Grand Hydro “Response to the World Menace to ‘Pils’.”

Mike Hess Brewing – Claritas 5.8% “Kolsch Style beer”, San Diego

The Dudes’ Brewing Co. – Kolschtal Eddie 6.2% Blond Ale, Torrance

Ballast Point Brewing Co. – Pale Ale 5.2% (Used to be called Yellow Tail but infringed on rights of a winery in Australia), San Diego

Saint Archer brewing Co. – Blond Ale 4.8% “Blond/ Kolsch style”, San Diego

“I would rather have a Coors or PBR.” (The entire room gasps)

Belching Beaver Brewing – Me So Honey 5.5% Honey Wheat Ale, Vista

The Bruery – Jardinier (French for Gardener) 4.9% Belgian Style Pale Ale, Placentia

“It’s actually under \$7 a bottle, odd for the Bruery.”

Grand Hydro challenge! Find something new, interesting...or just wrong. Email the grand hydro to include your find at the meeting!!

Activities

A. Cray Harry’s to unleash the “Maltose Falcon” by Firestone Walker Wednesday 3/11/2015 7pm. 20112 Saticoy Street in Winnetka. See you there!

B. Mayfaire

At St. Martin’s church weekend of May 16, 2015

All beer categories in the Maltose Falcons style guidelines will be accepted

\$9 an entry. Last day for entries; April 10, 2015

Mayfaire Party – May 26, 2015

For more info, go to Maltose falcon’s website

C. SCHF

1. At Vail Lake May 2, 2015 11am-9pm

You MUST register to the California Homebrewers Association (\$10) in order to get your tickets to the event: <http://www.calhomebrewers.org/>

Registration ends TWO WEEKS before event. NO TICKETS AT THE GATE!!

Campsites: \$25 per person for the weekend for camping. \$25 per person plus \$20 flat fee for RV's

For our booth: Bring kegs, no bottles for pouring

Friday night – commercial beer party 2-5pm at The Refuge Brewing Co. Stone Brewing, firestone Walker and more! \$30 for the bust tour.

Because of ABC laws, NO BEER TO BE POURED ON FRIDAY NIGHT!!

Be aware, NO cell phone coverage at Vail Lake. Ye Be warned.

All info to be up on website.

- D. Bottle Exchange – Next Meeting, Homebrew. Bring one-get one
- E. Club Shop Brews - March 22, 2015 “Lady Falcon Day” Melody Hitt will be brewing and Irish Red on the shop brew system. Sign up on website!
- F. Brew with a Falcon Day March 21 & 22, 2015! Member to have Brew day at their home. Sign up on website.

Other Business

- A. It's good to be a Falcon!
- B. Bring in more homebrews to share during lunch and before/after the meeting
- C. Winner of best homebrew – KALE!! With his Dark Heart IRS 15% ABV

Quotable Quotes:

“That beer is so strong, Beanie can have like 3-4 of them.” (The beer was at 15% ABV)

“Dear God, what did you put oatmeal in the mash!!” “...I like the smell.”



Membership Benefits

10% Discount:

Home Wine, Beer &

Cheesemaking Shop

22836 Ventura Blvd. #2

Woodland Hills, CA 91364

818-884-8586

{Applies to purchases only}

Tavern Services

18228 Parthenia St.

Northridge, CA 91325

818-349-0287

{Applies to CO2 and all purchases—
except beer}

Vendome Wine & Spirits

10600 Riverside Dr.

Toluca Lake, CA 91602

818-766-9593

{applies to beer only}

Red Carpet Liquor

400 E. Glen oaks Blvd.

Glendale, CA 91207

800-339-0609

{applies to beer only}

30% Discount:

Barbarella Bar

2609 N. Hyperion Ave

Los Angeles, CA 90027

{323} 644-8000

{applies to beer only}

15% Discount:

Ciao Cristina!

4201 West Olive Avenue Burbank, CA 91505 818-563-2426

{applies to beer, except happy hour, and food}

Join our Shop Brews on a one-barrel (31-gallon) pilot brewing system—and our many festivals, camp-outs and par-ties throughout the year!

Show Your Card!

All of the above benefits are only avail-able to you if your membership is cur-rent. Your membership expires on the last day of the month printed on the front of your membership card, and in the year that has been punched.

Check out one of our monthly meetings and check out our Club House.

Cost? A mere \$25 per year. For more details e-mail the membership director at membership@maltosefalcons.com you can pay at the meeting, at the shop or on-line through PayPal at <http://www.maltosefalcons.com/catalog/fees>

Your Evil Board of Directors

Contact information for each member is on the 2nd page on the left side.

<p>The President</p>  <p>Got a problem, a suggestion that doesn't fit anywhere else? Talk to this guy. Cullen Davis.</p>	<p>Vice President</p>  <p>Questions about a Competition? Ed Kochanowski is the man to talk to. It REALLY helps if you buy him a beer 1st.</p>	<p>The Secretary</p>  <p>She is in charge of maintaining our club history. Melony Rose Hitt</p>
<p>The Treasurer</p>  <p>Got some money? This guy will take it off your hands. Kent Fletcher.</p>	<p>Publicity</p>  <p>He sets up the shop brews and does all of our publicity. Matt Myerhoff</p>	<p>Membership</p>  <p>He hands out cards and maintains our membership lists. Craig Frump.</p>
<p>Activities Director</p>  <p>This is the guy who make things happen for the club: Kevin Baranowski</p>	<p>Newsletter Editor</p>  <p>Want to submit an article? Get it to this guy! David Uhl</p>	<p>Grand Hydrometer/Webmaster</p>  <p>Got a technical question about beer or the web-site. Drew Beechum!</p>
<p>Burgermeister?</p>  <p>When drinking, it's important to be well-nourished. Tiffany Fairbrother</p>	<p>Associate Members</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="669 1537 868 1747">  <p>Tom Sisolak Activities</p> </div> <div data-bbox="906 1537 1117 1747">  <p>Natalie DeNicholas Burgermistress</p> </div> <div data-bbox="1166 1516 1367 1747">  <p>Dana Cordes Webmeister/VP</p> </div> </div>	

Frankenchiller

Saves water and doesn't terrorize the villagers!

By Chris Downie

I've always been a fan of efficiency in most of my endeavors, but keeping waste to a minimum has always been near and dear to my heart. I was inspired by Drew Beechum's article "Being Water Wise"¹ and started looking at the processes in my brew shack system that demanded the most water usage. The search was brief and the culprit obvious...my immersion chiller!

My system is an all gravity flow five gallon type which relies on a homebuilt copper immersion chiller comprised of 50 feet of 3/8 inch tubing. Using "luke-cool" Woodland Hills water I found it taking about 35-40 minutes to cool about 6 gallons of wort, which roughly translated in about 100 gallons of water each time. I added a paddle impeller driven by a geared down motor to create a gentle whirlpool and greatly improved the "evenness" of cooling but only shaved off about eight or nine minutes and about 20 or so gallons less water.

I still wasn't happy, so I started experimenting with running a secondary chiller coil through an ice bath prior to the wort chiller, but the extra hassle didn't produce a significant amount of change. That's when I decided to pursue refrigeration ideas via the internet. I found several articles describing construction of chillers for hydroponic gardens using old portable air conditioners to cool a water bath and decided that this was the path I wanted to follow.

The basic idea is to fashion a water reservoir and chill the water with the air conditioner components. Once cooled, a pump is used to circulate the cold water through the chiller coil in the substance being cooled and transfer the now heated fluid back into the reservoir to re-cool it, effectively transferring the heat out to the chiller and into the surrounding air.

Now I know just enough about physics to make me dangerous, but I do have a good base of common sense and technical skills to keep things safe. I figured that I'd need an air conditioner rated for at least 10,000 BTUs in order to have enough capacity to chill a typical batch, so I started my hunt on Craigslist. Thus began the mechanical grave robbing that I hoped would net all of the items necessary to get my desired result.

After a couple of weeks I found a unit in good working condition but missing the remote control for \$50 - a good start I thought. Once I got it home I opened up all the covers, removed all of the superfluous components I didn't need, and got down to the critical part - the evaporator. For those who aren't familiar with refrigeration, the evaporator is the finned coil

¹ "Being Water Wise", Drew Beechum 1/18/2014, Maltose Falcons Website, Tips & Techniques - Techniques

unit where all the cooling takes place (not to be confused with the other finned coil called the condenser where the heat gets dispersed). This was the scary part for this project because mishandling it and the tubing connecting it to the other components could cause a refrigerant leak - something that could end up costing twice or more what I paid for the unit to get fixed.

After examining the evaporator and the metal tubing connecting it to the compressor I decided that I'd need to build a reservoir for the cooling water out of a structurally substantial box. I figured that I could cut a slot in the side large enough to fit the evaporator through on one side and then firmly attach it without having to bend the evaporator tubing much to get it in place.

I went to one of my favorite "surplus" (read "junk") yards (Apex Electronics in Sun Valley, Ca) and scrounged up the remains of an old aluminum hot meal tray box from an aircraft galley. Having worked on private jets during my first career, I knew exactly what it was despite the fact it was missing its doors and knew it'd be sturdy enough for the task. I got it home, filled it with water (I found it would easily hold about 12 gallons or so), and found it leaked like a sieve. I put a thin coat of epoxy inside to seal it up and then cut a large slot for the evaporator. I used plumbing "Goop" on all the mating surfaces and attached the flange of the evaporator to the side of the box with screws.

Next came the electrical modifications. I removed the fancy electronic control board and using the schematic diagram inside the unit identified the compressor and blower wiring connections for making future connections. I had an extra electronic thermal controller that I'd got for another project and set it up to control the compressor and the cooling water temperature. Being safety conscious I was happy that the machine had GFCI (Ground Fault Circuit Interrupter for shock protection) integrated into the power cord. This was important considering that there would be that potentially hazardous combination of water and electricity running simultaneously during operation.

I purchased a submersible pump from Harbor Freight and set it in my reservoir to provide the circulation through the immersion chiller and provided an electrical outlet for it on the machine (so that it would also be protected via the machine's GFCI).

Now the chiller had its basic form - and it wasn't pretty (see photo and you'll agree), but I hoped it would be functional. The Franken-chiller was now alive! I set up my kettle with the maximum capacity of water and performed several test boils. I chilled each test boil using the machine and recorded my findings to look for patterns. I kept track of the kettle water and chiller reservoir temperature changes and experimented with different configurations. I ended up increasing the water quantity in the reservoir by adding a dam above the evaporator to force all of the returning water through the evaporator. This helped the numbers, but I was still not completely satisfied with the "time to cool" figures.

Another trip to Apex netted me an additional compact radiator (I think it started out life as an air conditioning condenser from a vehicle) which didn't leak at the low pressure I was running my chiller water at. I cobbled this to the room blower I'd originally removed from the air conditioner and plumbed it to the hot output from the immersion unit. The idea was to strip off the excessive heat at the beginning of the cooling process and allow the reservoir to provide cold water to the immersion unit for a longer period of time and stay ahead of the heat curve.

I ran a couple more test runs and was satisfied with the results and determined it was time to test it with wort this time! I ran a typical batch for my system (about five and half gallons or so at flameout) and went from boiling to an ale temp of sixty nine degrees in about 16 minutes. I was very happy with that drop rate and even happier because I could drain the ten gallons of cooling water out of the Frankenchiller back into two covered 5 gallon buckets and keep it for the next several runs! The net result has meant a savings in water usage of at least 80 gallons per batch.



The Frankenchiller - Don't be scared, it saves water- really

The upshot of the Frankenchiller is that it can be used as a supply for immersion or plate chillers. This was an “engineer as you go” kind of project and there were many different hurdles to overcome during the process, but the results were worth it. I’ve skipped a number of gory details and charts to spare the “technically uninterested” reader, but would be happy to share any data with those interested. I’m hoping this article will inspire others to continue the conservation efforts as Drew’s piece inspired me.

The Home Beer, Wine and Cheesemaking Shop

22836 Ventura Blvd #2
Woodland Hills, CA 91364
818-884-8586 (or) 800-559-9922

www.homebeerwinecheese.com

**The best and freshest selection of grains, hops & yeast ANYWHERE...
...and we ship OVERNIGHT to all of Southern California!**

Business Hours:

Mon - Fri: 11:00 AM– 7:00 PM

Sat-Sun: 10:30 AM–5:30 PM

SUPPORT THE SHOP THAT SUPPORTS THE MALTOSÉ FALCONS!

**Try our CO2 refilling station! Fill your cylinders at the shop
conveniently—for less!**

Check the Web site for the latest beer-related events and brewing goodies. Everything for the dedicated brewer, wine- or cheesemaker!

