

## **A Test of the Valley Mill**

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All-grain brewers are constantly on the lookout for a better gadget to make their long brewing day easier. One important investment in an all-grain home brewery is the grain mill. Although it can be expensive, a good quality mill with a consistent, proper crush will contribute considerably toward a better mash and more peace of mind while you brew.

Personally, I put this one off for over 2 years of all-grain brewing by borrowing shamelessly from an out-of-practice and generous neighbor, who lent me his motorized Corona mill and insisted I was doing *him* a favor. That all went fine, until that fateful day in November when a small piece of metal somehow got in the hopper (I was in my workshop, go figure) while the mill was churning and the shaft shattered! Suddenly, I not only had a major brew-day delay on my hands, but I also faced the prospect of replacing this antiquated machine.

I had recently seen an ad announcing the Valley Mill in *Zymurgy*, and our good friends at Steinbart's spoke of it highly. After reading what I could about the various mills out there and looking at the options on the retail shelves, I settled on the Valley Mill. Lo and behold, there it was under the tree on Christmas morning! I guess Santa is hoping for something a bit stronger than cookies and milk next year.

### **Notes on assembly**

The mill comes with three pages of instructions -- one page of rather terse text and two pages of invaluable illustrations. While the assembly instructions could have been better (e.g., a reference to "see page 1" leads you nowhere), it doesn't really matter -- the unit comes almost assembled and the rest is pretty straightforward. It took me about 45 minutes to assemble, largely because I took a bunch of notes for this article and I proceeded carefully so as not to have to undo and repeat the operation.

Still, truth in advertising would suggest that the buyer should be aware of a few things up front (and guess what, most are probably not):

- ◆ You are going to be building a platform for this mill. And because of this...
- ◆ You need some tools: home-quality drill or better with 1/4" bit, Phillips-head screwdriver, circular saw, handsaw, tape measure, carpenter's square
- ◆ You need to provide some other materials: a pail to catch grain, 12"x14" plywood for a platform. If you're making batches requiring more than 10 pounds of grain, use a bigger pail and adjust the size of your platform accordingly.
- ◆ You need some basic woodworking and assembly skills.

A few tips: make sure you clear the platform when you turn the crank before you attach the mill to the platform. Counter to your intuition, you attach the handle by turning the bolt attached to the roller while holding the nut on the handle to the bolt. And when you attach the little rubber feet, remember to account for the thickness of the pail -- the feet go on the *inside*. Believe me, all this will make sense on assembly day.

Bottom line: read all the instructions carefully, twice, before you cut any wood.

### **The crush**

The Valley Mill is a two-roller mill. The rollers are about 8" long -- longer than most homebrew market mills -- and the hopper holds 5-6 lbs of grain. An indexed dial on one side lets you adjust the rollers to give you the desired crush. To achieve the proper crush, the instructions encourage a lot of trial and error -- and they aren't kidding: it takes a few pounds of grain to get it set right.

Because of the rollers' size they pull the grain through quickly, yet the handle turns very easily -- easier than the now-defunct Glatt mill and much, much easier than a Corona for the same throughput. It took less than a minute per pound turning the crank by hand.

Ah, but the Valley Mill also comes with an adapter so you can motorize it with a standard household power drill. Except that ... it didn't quite fit my Black & Decker 3/8" drill, although my ancient Craftsman took the adapter perfectly. Except that ... the Craftsman isn't a variable speed drill, and it was way too fast -- the grain Zoomed! through and either didn't get crushed or it became flour. You'll want to use a nice, slow motor with this mill. Or just hand-crank it -- it really was very easy and quick.

My brewing partner and I ended up hand-cranking my entire (22-lb) batch of grain. We switched off each time we filled the hopper and it took less than 20 minutes. The crush was very good -- barleycorns broken into chunks, husks nicely removed from the barleycorn without tearing, although (thanks to the drill) just a bit too much flour for my taste.

### **The mash**

The result of my first mash having used this mill was encouraging. My extraction went up about a point and the beer ran very clear very quickly. I usually recirculate compulsively (2-3 gals) but recirculated about half that this time before it ran beautifully clear. The sparge seemed to be faster, meaning that my husks were in good shape for filtering the bed. No danger of a set sparge with this crush.

### **So, how's the beer?**

Sorry -- the jury's still out. By the time you read this, it will probably be just-bottled or kegged. Maybe in our March meeting, you can tell me.

### **Conclusion**

The Valley Mill provides a good crush, is easy to assemble, operates smoothly, and is easily motorized for those to whom that is a concern. Although it's priced a bit higher than some of its competitors (about \$125 at Steinbart's, \$99 + shipping mail-order), it is solidly constructed of good quality materials. For those of you in the market for a grain mill, the Valley Mill is one you'll want to consider. (Especially if you get it from Santa like I did.)