FORGEWORKS
Crafted in Colorado
Brewhouse and Cellar Vessels

Dear Forgeworks Customer, Electrical Inspectors, Governing Agencies, Fire Marshalls, and Mechanical Engineers

The Forgeworks Barley Cracker 1200 features a lid which creates a barrier to eliminate grain dust from escaping the hopper, and is intended to be used during the operation of the Barley Cracker, as well as during non use times. Another feature of The Barley Cracker is that it is equipped to utilize an flex auger type conveyance system to move the cracked barley via a closed system to the Mash Tun, and through a grist hydration apparatus. The auger connections, both at the Barley Cracker's output, and at the discharge end at the Mash Tun via the Grist Hydrator (see pictures below) provide a closed system to safeguard against the accumulation of dust or dust clouds. For additional safety, the motor on the equipment is a Baldor L35023A Explosion Proof motor. You can find information on this motor, and other information pertaining to the Barley Cracker on our website, in the "Articles" section.

https://www.forgeworksstainless.com/articles/2018/4/18/support-documents

The Barley Cracker is engineered to crack 85% of the grain greater than 600 Microns, with 10% being a particle size between 250 and 400 microns, and 5% less than 250 microns. All particle sizes generated are safely contained, and combined to produce a trouble free mash with maximized extraction efficiencies. With correct installation of the equipment performed, the produced crush/grist is delivered to the Mash Tun with minimal to zero levels of escaping dust. With best practices of a good periodic brewery cleaning of all surfaces, adequate ventilation, combined with the use of the barrier lid and closed conveyance connections on your grain cracking operation, your brewing environment will be kept safe from settling dust, and presence of grain dust clouds in the air. The electrical connection of the equipment to a outlet is specified to be a hard wired sealed explosion proof connection with a switch.

With all these features and practices in place, the Forgeworks Barley Cracker virtually eliminates any deflagration (rapid combustion) risk introduced by accumulated dust or dust clouds resulting from the use of the equipment.

Nearly all of our Barley Crusher customers utilize this equipment without the need or requirement of an a separate enclosed room, or fire suppression systems, as a pre-caution for the grain cracking process.

Every Forgeworks Barley Cracker is tested. The cracked barley is assayed with 8" diameter & serial numbered Humboldt-USA sieves that comply with ASTM E11 and AASHTO M92. The results for each machine is recorded before leaving our shop. Our Barley Cracker is calibrated to specs that according to research, achieve the best efficiencies and flow.

https://www.humboldtmfg.com/8in-sieves.html

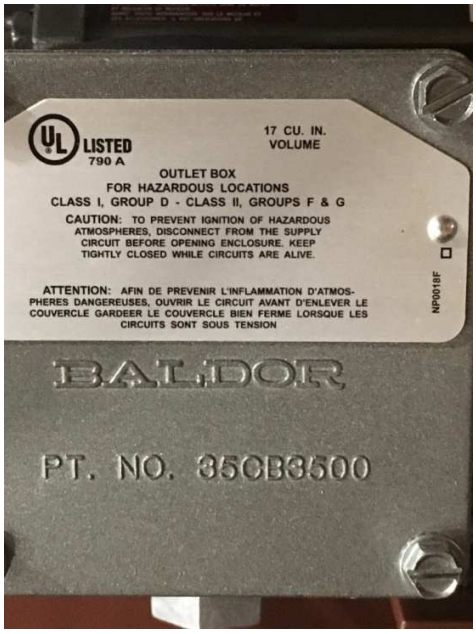
Crack Testing with the 8" Humboldt Sieve Assay

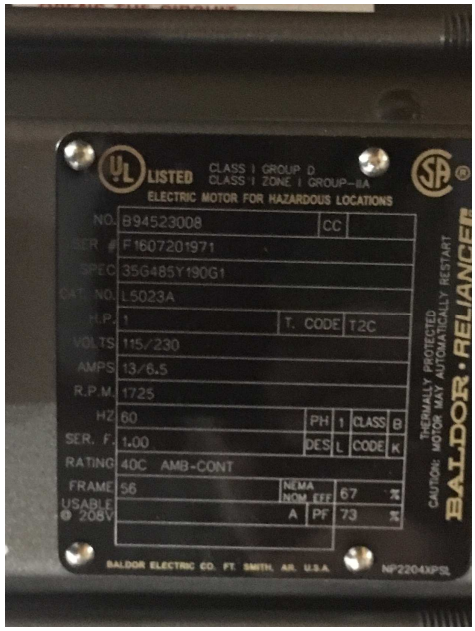
Humboldt-USA 8" Standard Sieve				
ASTM E11 / AASHTO M92				
Sieve No.	**Microns**	**Inches**	**Millimeters**	**Serial Number**
14-Course	1400	0.0555	1.4	EE44614
30-Medium	600	0.0234	.60	EE53661
60-Fine	250	0.0098	.25	EE59139

Targeted Calibration for the Forgeworks Barley Cracker

	No. 14 Sieve-Course	No. 30 Sieve-Medium	No. 60 sieve-Fine	Pan-Flour
Trouble Free Brewing	**70-85%**	**10-20%**	**Less than 10%**	**Less than 5%**

The #14 sieve would retain husk pieces, but let the grits and flour fall through. The #30 sieve would retain coarse grits while the #60 would retain the fine grits. Flour would fall through all the sieves and land in the pan. All these particle sizes produced by the Barley Cracker's rollers, are combined and hydrated prior to entering your mash tun, and produce a grain bed for Trouble Free Brewing.





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