

Cooling Coil

Assembly, Operation, & Maintenance

Congratulations on your purchase, and thank you for selecting the Cooling Coil from Blichmann Engineering™.

We are confident that it will provide you years of service and many gallons of outstanding beer.

This manual will familiarize you with the assembly, operation, and maintenance of the Cooling Coil.

Preparing the Fermentor Lid

Mark the hole locations 6.5" apart from each other on center as shown in **Figure 1**. Ensure there is enough clearance for fittings and mounting hardware. Drill two 3/16" pilot holes. Use a step drill to and enlarge hole to 13/16" (**Fig 2**). Spray the drill bit with water to cool and lubricate while drilling. Step drills are available through most hardware/home improvement centers or through McMaster.com (part# 8841A24 or 89315A42 for TiN coated). Alternately, a 13/16" knockout punch (McMaster.com part 3449A999) can be used. After drilling remove all burrs.



Installation

Thoroughly wash the exterior of the coil with Powdered Brewery Wash or Bar Keeper's Friend before use. Install the Cooling Coil with two adjustable wrenches and **DO NOT** overtighten.

Operation

The Cooling Coil may be sanitized with StarSan® or other brewing sanitizer. This product is to be used as part of a complete cooling system. A temperature controller, a recirculation pump, and a glycol chiller are preferred for operation. A food safe liquid, such as an FDA grade glycol should be used to pump through the Cooling Coils. This is available through Blichmann Engineering. Please refer to Dowfrost spec sheet for more information. Alternatively an ice water bath may be used instead of a glycol chiller.

This coil is pressure capable up to 50 psi and may be used with commercial glycol shilling systems.

The cooling coils will work best when fully submerged. If only half of the coil is submerged, the cooling speed will likely be diminished by half.

Fig. 2

Cleaning and Maintenance

Drain the liquid from coil and rinse with water. Drain water from coil and let dry. Clean the outside of the coil with Powdered Brewery Wash and a brush. Sanitize before installing into fermentor.

Large Cooling Coil	
Flow Rate (gal/min)	Pressure Drop (psi)
1	7.7
0.75	4.1
0.5	3.1
0.25	1
Small Cooling Coil	
Flow Rate (gal/min)	Pressure Drop (psi)
1	7.7
0.75	4.1
0.5	3.1
0.25	1

Small and Large Cooling Coil Flow Rate and Pressure Drop

Blichmann Engineering Product Warranty

A. Limited Warranty

- Blichmann Engineering warrants to the original purchaser that this product will be free from manufacturing defects in material and workmanship for a period of one (1) year from the date of purchase by the customer. Proof of purchase is required. Blichmann Engineering's obligation to repair or replace defective materials or workmanship is the sole obligation of Blichmann Engineering under this limited warranty.
- The limited warranty covers only those defects that arise as a result of normal use of the product and does not cover any other problems, including, but not limited to, those that arise as a result of:
 - a. Improper maintenance or modification;
 - b. Damage due to incorrect voltage or improper wiring by customer;
 c. Operation outside of the product's specifications;

 - d. Carelessness or neglect to operate the product in accordance with instructions provided with the product;
 - e. Damaging the tamper label on the product;

 - f. Damage by over-tightening the fasteners; q. Failure to follow cleaning and / or maintenance procedures; or
 - h. Exceeding published operational temperatures.
- $Blich mann \ Engineering \ reserves \ the \ right \ to \ request \ delivery \ of \ the \ defective \ component \ for \ inspection \ before \ processing \ the \ warranty \ claim. \ If \ Blich mann \ Engineering \ reserves \ the \ right \ to \ request \ delivery \ of \ the \ defective \ component \ for \ inspection \ before \ processing \ the \ warranty \ claim. \ If \ Blich mann \ Engineering \ reserves \ the \ right \ to \ request \ request$ receives, during the applicable warranty period, notice of a defect in any component that is covered by the warranty, Blichmann Engineering shall either repair or replace the defective component with a new or rebuilt component at Blichmann Engineering's option.
- Blichmann Engineering must be notified within seven (7) days of the delivery date of any shipping damage. Customer is responsible for shipping damage outside of this time period. Approval for return must be provided by Blichmann Engineering prior to any return. Customer is responsible for keeping all original packaging material for warranty returns. Blichmann Engineering is not responsible for damage from improperly packaged warranty returns, and these repair costs will be the sole responsibility of the customer. Shipping costs for warrantee returns are covered only for the contiguous United States.
- Blichmann Engineering's limited warranty is valid in any country where the product is distributed.

B. Limitations of Warranty

- Any implied warranty that is found to arise by way of state or federal law, including any implied warranty of merchantability or any implied warranty of fitness, is limited in duration to the terms of this limited warranty and is limited in scope of coverage to this warranty. Blichmann Engineering disclaims any express or implied warranty, including any implied warranty of fitness for a particular purpose or merchantability, on items excluded from coverage as set forth in this limited warranty.

 Blichmann Engineering makes no warranty of any nature beyond that contained in this limited warranty. No one has authority to enlarge, amend, or modify this limited
- warranty, and Blichmann Engineering does not authorize anyone to create any other obligation for it regarding this product.
- Blich mann Engineering is not responsible for any representation, promise, or warranty made by any independent dealer or other person beyond what is expressly stated in the person beyond which is expressly stated in the person between the person beyond which is expressly stated in the person between the person bethis limited warranty. Any selling or servicing dealer is not Blichmann Engineering's agent, but an independent entity.

C. Limitations of Liability

- The remedies provided in this warranty are the customer's sole and exclusive remedies.

 Except for the obligations specifically set forth in this warranty, in no event shall Blichmann Engineering be liable for direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory and whether or not advised of the possibility of such damages
- This warranty does not cover, and in no event shall Blichmann Engineering be liable for, travel, lodging, or any other expense incurred due to manufacturing defects in material and workmanship, or any other reason. Any performance of repairs after the warranty coverage period has expired or performance of repairs regarding anything excluded from coverage after this limited warranty
- shall be considered good-will repairs and they will not alter the terms of this limited warranty, or extend any warranty coverage period. 5. Venue for any legal proceedings relating to or arising out of this warranty shall be in Tippecanoe County, Indiana, United States, which courts will have exclusive jurisdiction.

D. Local Law

- This warranty gives the customer specific legal rights. The customer may also have other rights that vary from state to state in the United States or other countries.
- To the extent that this warranty is inconsistent with local law, it shall be deemed modified, only to the extent necessary to be consistent with such local law.