

Spunding Valve

Assembly, Operation, & Maintenance



Congratulations on your purchase, and thank you for selecting the Spunding Valve 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 use, assembly, and the sanitation procedures for the product.



IMPORTANT INFORMATION

PLEASE READ AND THOROUGHLY UNDERSTAND THIS MANUAL PRIOR TO USE FOR IMPORTANT SAFETY INFORMATION!

- WARNING:** Sections labeled "Warning" can lead to serious injury or death if not followed. Please thoroughly read these sections and understand them completely before use. If you do not understand them or have any questions, contact your retailer or Blichmann Engineering (www.BlichmannEngineering.com) before use.
- CAUTION:** Sections labeled "Caution" can lead to equipment damage or unsatisfactory performance of the equipment. Please read these sections thoroughly. If you have any questions, contact your retailer or Blichmann Engineering (www.BlichmannEngineering.com) before use.
- IMPORTANT:** Sections labeled "Important" should specifically be followed to ensure satisfactory results with the product.

OPERATION

Pressurized fermentation virtually eliminates the need for cold fermentation when making lagers and allows for warmer ale fermentation without effecting flavor.

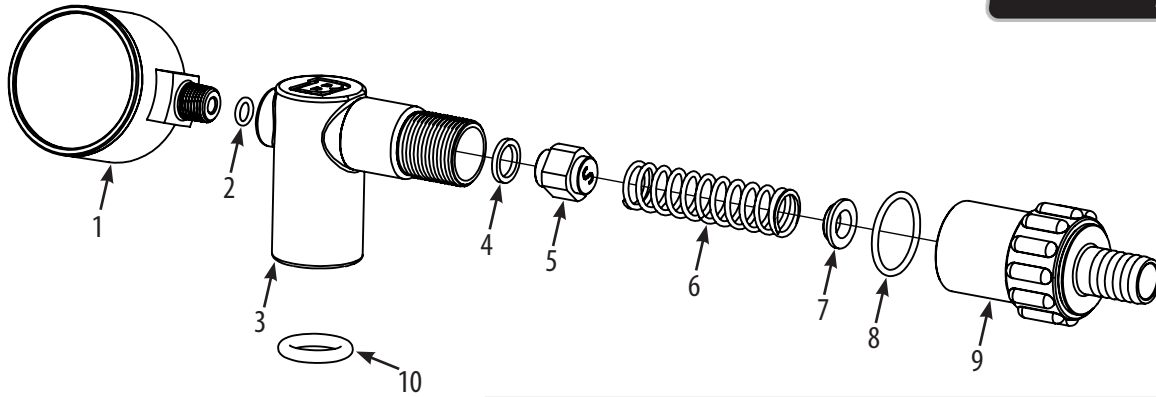
WARNINGS

1. This is not a pressure safety device or a pressure relief valve.
2. Always use an independent pressure relief valve when using this product.
3. Do not immerse the pressure gauge in liquid.
4. Always use a pressure regulated CO₂ supply.
5. Never exceed the maximum pressure of your fermentation vessel.

What's In the Box? —

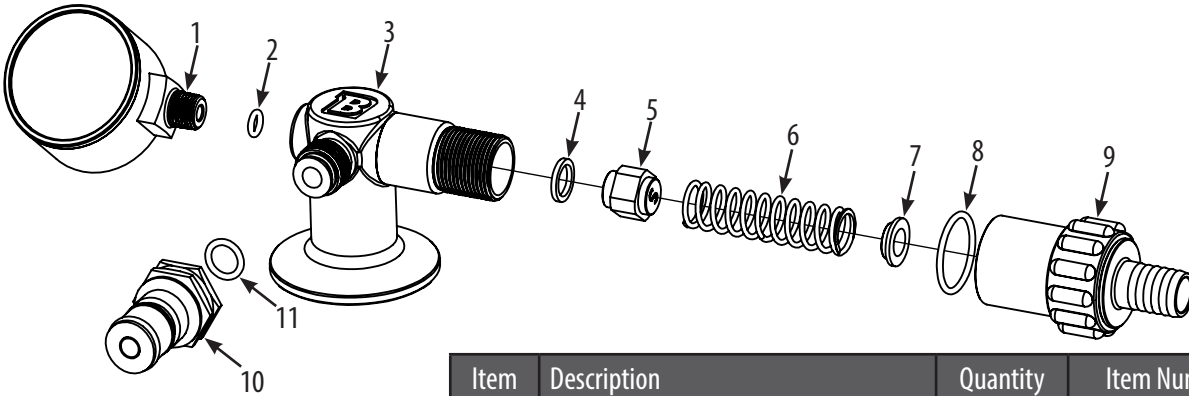


1/2" NPT Spunding Valve



Item	Description	Quantity	Item Number
1	Pressure Gauge	1	BE-001370-00
2	Pressure Gauge O-ring -107	1	BE-001466-00
3	NPT Spunding Valve Body	1	BE-001267-08
4	Square O-ring -012	1	BE-001271-00
5	Spunding Seal Plug	1	BE-001268-05
6	Spunding Spring	1	BE-001272-02
7	Plastic Spring Seat	1	BE-001399-01
8	Adjustment Knob O-ring -019	1	BE-000067-00
9	Adjustment Knob	1	BE-001269-05
10	QuickConnect™ O-ring -207	1	BE-000105-00

1.5" Tri Clamp Spunding Valve



Item	Description	Quantity	Item Number
1	Pressure Gauge	1	BE-001370-00
2	Pressure Gauge O-ring -107	1	BE-001466-00
3	Tri Clamp Spunding Valve Body	1	BE-001266-09
4	Square O-ring -012	1	BE-001271-00
5	Spunding Seal Plug	1	BE-001268-05
6	Spunding Spring	1	BE-001272-02
7	Plastic Spring Seat	1	BE-001399-01
8	Adjustment Knob O-ring -019	1	BE-000067-00
9	Adjustment Knob	1	BE-001269-05
10	Ball Lock Post (Gas)	1	BE-000804-00
11	Post O-ring -904	1	BE-001368-00

Overview

This product is an adjustable pressure regulator used for maintaining a desired pressure in a fermentor for the purpose of ester suppression during fermentation for more lager-like character, and for naturally carbonating beer. Offered in ½" NPT and Tri-clamp models, it may be used in a myriad of applications. The NPT model is perfect for the Blichmann Engineering™ Cornical™ Unitank, and the Tri-Clamp model is ideal for most fermentors. The unique integral blow-off barb fitting adds a visual indication of fermentation if desired.

Cleaning and Sanitizing

- Step 1: Unscrew the adjustment knob all the way and remove it. It is OK to leave the internal o-ring in place as this does not contact the beer.
- Step 2: Remove the spring, plastic spring seat, spunding seal plug, and square o-ring from the spring.
Important: Always reattach the spunding seal plug with the "S" facing the spring.
- Step 3: Unscrew the pressure gauge and remove the o-ring.
- Step 4: If using the Tri Clamp Spunding Valve, remove the ball lock post and ball lock o-ring.
- Step 5: Wash and sanitize these parts.
Caution: DO NOT WASH OR SANITIZE THE PRESSURE GAUGE. The Pressure Gauge is not water tight.
- Step 6: Reassembly is the reverse of this procedure.

Important: When installing the pressure gauge it is not necessary to use Teflon tape. Turn the pressure gauge until you feel it touch the o-ring and continue tightening the pressure gauge 1/4 to 1/2 turn. DO NOT OVERTIGHTEN. The face of the pressure gauge fitting seals with the o-ring at the bottom of the threads. Over tightening can cause the gauge to read incorrectly. This allows for quick and easy removal of the gauge for sanitation of the valve body.

Important: Refer to the images on page 2 for a complete diagram of parts locations.

Tips for Pressure Fermentation

While there are no hard and fast rules for pressure fermentation, most yeasts will tolerate fermentation up to 30 PSI. Research that Blichmann Engineering™ and White Labs™ have performed indicates that 15 PSI produces a nice balance between ester reduction, and overall mouthfeel and hop bitterness perception. At higher pressures, esters are further reduced, but hop bitterness is more pronounced. Experiment with your fermentations and hopping levels to optimize your desired flavors. Fermentation will proceed as a typical ale. About a week for fermentation, and another week for conditioning. The pressure can be released any time after fermentation is complete.

Operation

- Step 1: Disassemble and sanitize the Spunding Valve before installation.
- Step 2: Screw the pressure adjustment knob all the way in. Do not overtighten.
- Step 3: Install the Spunding Valve on your vessel. For the NPT model Teflon tape is not needed on the threads.
- Step 4: Cornical™ users: Connect a CO₂ line to the gas-in post of the keg. For tri clamp models, apply the CO₂ pressure to the gas post on the Spunding Valve.

WARNING: Never exceed the rated pressure of your vessel and ALWAYS use a separate pressure safety relief valve.

- Step 5: Set the regulator on the CO₂ tank 1 to 2 psi above your desired pressure.
- Step 6: Unscrew the adjustment knob on the Spunding Valve until you hear the CO₂ escaping. The gauge should read your desired pressure.
- Step 7: Remove the CO₂ supply line.

NOTE: The pressure will drop in the fermentor over time as CO₂ dissolves into the wort until the yeast lag phase has passed. At that time, fermentation activity will build the pressure to your setting. Esters, and ester precursors are not formed during the lag phase.

Optional: Use 1/2" ID hose clamped to the output of the Spunding Valve and place the other end into a container of sanitizer to use as a blow off tube. This allows for a visual indicator of fermentation while under pressure.

Optional Accessories

Accessories can be purchased at parts.blichmannengineering.com



Blow Off Tube

Connect a 1/2" ID hose with a clamp to the output of the Spunding Valve and run the other end into a container of sanitizer. This is not required, but recommended if you would like visual indication of your fermentation.



Blichmann Engineering Product Warranty

A. Limited Warranty

1. 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.
2. This product is for home use only. 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. Damage by over-tightening the fasteners;
 - f. Failure to follow cleaning and / or maintenance procedures; or
3. Blichmann Engineering reserves the right to request delivery of the defective component for inspection before processing the warranty claim. If Blichmann Engineering 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.
4. 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.
5. Blichmann Engineering's limited warranty is valid in any country where the product is distributed.

B. Limitations of Warranty

1. 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.
2. 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.
3. Blichmann Engineering is not responsible for any representation, promise, or warranty made by any independent dealer or other person beyond what is expressly stated in this limited warranty. Any selling or servicing dealer is not Blichmann Engineering's agent, but an independent entity.

C. Limitations of Liability

1. The remedies provided in this warranty are the customer's sole and exclusive remedies.
2. 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.
3. 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.
4. 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

1. 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.
2. 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.

This product uses FDA and/or NSF approved food grade materials anywhere the product touches the beverage.

Warning: This product contains or may contain chemical(s) known to the State of California to cause cancer, birth defects, or other reproductive harm.