



# **Starter Kit Instruction Manual**

# (for 27L and 55L models)

This instruction sheet contains vital information that is related to the safe usage and handling of the FermZilla Uni Tank. It is vital that you read this instruction sheet from front to back before using the product! THIS IS FOR YOUR OWN SAFETY



Ferment, Clarify, Dispense. The uni tank that does it all.

### **Starter Kit Instruction Manual**



### WARNINGS

- 1. Only wash the fermenter with cold water. Do not clean, wash or sanitise the fermenter with water that is above  $50^{\circ}$ C ( $122^{\circ}$ F).
- 2. Under no circumstances apply more than 2.5bar (35PSI) to the fermenter tank.
- 3. Do not connect an unregulated pressure source.
- 4. If you connect external pressure source ensure it has independent PRV pre-set to 45psi or below.
- 5. Do not tamper with pressure relief valve. Only use the red colored supplied by KegLand.
- 6. If the fermenter is scratched, damaged or has been under any physical duress; do not use the fermenter under pressure.
- 7. Keep the fermenter out of direct sun or heat. Do not expose to UV rays of any sort.
- 8. If you use the fermenter under pressure hydro test the fermenter every 24months to ensure it is safe to use.
- Only use chemical cleaners and sanitizers that are approved by Kegland. These include:
  a) Super Kill Ethyl Sanitiser Spray (<u>KL05371</u>)
  - b) StellarSan (mixed to the correct specification) (KL05357)
  - c) StellarClean (KL05494)

... Or contact <u>www.kegland.com.au</u> for more information regarding other compatible chemical cleaning products.

10. Keep the butterfly valve always open during fermentation. Only close the butterfly valve once fermentation has ceased and hydrometer readings are stable for 3 consecutive days.

**Three Piece AirLock** 

Black Cap & Fitted Gromet

Threaded Lid Ring

(KL11396)

(KL11402)

Lid O-Ring (KL14267)

**Replacement Fermzilla Conical** 

Standard Tank

(KL11327 – 27L PET)

(KL11334 - 55L PET)

304 Stainless 8 Leg Stand

(KL11419)

FlatLid

&

&

(KL01595)

&



Cornelius Type Pressure Relief (PRV) RED 35psi/2.5bar (KL05333)

> Liquid/Gas Ball Lock Post Carbonation Cap Assembly (<u>KL10788</u> – Plastic) (<u>KL00826</u> – Stainless)

NOTE: This is sold separately as an upgrade the starter kit. This is recommended for fermenting under pressure. Standard plastic bottle caps can be used here too.

Silicone Dip Tube & Stainless Float Assembly for 55L and 27L.

(<u>KL14076</u>)

NOTE: This is sold separately as an upgrade the starter kit. This is recommended for fermenting under pressure.

Butterfly Dump Valve Assembly (KL11464)

1L Collection Collection Container with Lid, Caps and O-ring) (KL11365)







# FermZilla – Lid Assembly

- 1. Ensure the lid assembly has the o-ring attached.
- 2. Apply some food grade lubricant to the oring to extend the life of this o-ring and threads. Adding lubricant will also improve the sealing ability of the o-ring.
- 3. Place the lid onto the neck of the tank and screw down the threaded lid ring.
- 4. Use one of the bottle caps to close of one of the holes in the lid.
- 5. Ensure the Red PRV is placed into the pressure relief valve.
- 6. Push the three piece air-lock into the silicone bung then push both parts into the remaining hole in the lid.





# FermZilla – Dump Valve <u>Assembly</u>

1. Ensure the double threaded spigot has both the o-ring around the base and the cone shaped seal around the conical part of the threaded spigot. (see below)







2. Once the threaded spigot sticks out the bottom of the FermZilla use the thread ring to secure the spigot onto the tank.

> NOTE: This is a LEFT HAND THREAD. This has been designed with a left hand thread so it does not come undone when you tighten the Butterfly Valve Assembly onto the Dump Valve Adaptor. Do up the Thread Ring hand tight. This should be all that is required to get a good seal. (see right) This has been designed so that when pressure increases inside the tank the seal pushes harder against the tank. For this reason, it is not important to



overtighten this part of the fermenter. A small amount of keg lubricant can help make it easier to thread.

3. Locate the butterfly dump valve and screw this onto the spigot. This is a **RIGHT HAND** (regular) THREAD. Screw this onto the spigot firmly. Once again do not over tighten this fitting as additional tightness will not improve the sealing performance. A small amount of keg lubricant on the o-ring can help ensure your o-rings stay in good shape, seal well and screw on securely.

**NOTE:** When the handle on the butterfly dump valve is horizontal the gate is closed. When the handle is in the vertical position the gate is open.



### FermZilla – Dump Valve <u>Disassembly</u>

The Fermzilla dump valve assembly can be disassembled to allow for thorough cleaning or o-ring maintenance. Sometimes this assembly can be difficult to remove if over-tightened but can be undone following the correct method. Because the diameters of the fittings are large, the forces required to seal the fittings are much higher, so at times can be difficult to undo.

Disassembly can be done through the following steps:

- 1. **Tightening the body coupling:** first, ensure the spigot's collar is tightened down securely, so that when you undo the valve part, it doesn't freely spin in the body (remember, this part is left-hand threaded). One trick to get the collar up super tight is to pressurise the vessel before tightening. This will push down the spigot and bulge the vessel enough to screw down the collar even tighter, it will also make the body easier to grip. The KegLand Adjustable Easy Opening Tool is handy for ensuring you tighten it as far as it can go and ensuring the fittings are dry will ensure they don't slip. At no point use the valve itself to tighten this, as it will only make step 2 harder. Once tightened, depressurise the vessel.
- 2. **Unscrewing the vale:** with the spigot assembly securely tightened, grip the body of the fermenter and firmly twist off the valve part of the assembly counter-clockwise.

One trick to make this easier with only one set of hands is to secure the handle of the valve in the Fermzilla frame and twisting off the body instead (see picture to the right). If the spigot assembly spins freely in the body of the Fermzilla, repeat step one.

*Alternatively,* if you have the steel handles securely mounted to the top of the vessel, you could also use these handles to lock into the frame again to allow you to turn off the valve.

3. **Unscrewing the body coupling:** Now that you have successfully removed the butterfly valve, you can proceed with removing the body coupling/spigot assembly. Remember, this is a left-handed thread, so turn the fitting off clockwise.

The trick to getting the entire assembly apart is ensuring the spigot collar is tight enough in the first place that is doesn't spin when attempting to screw off the valve.

#### Please refer to this instructional video for a visual demonstration of how to do this process.



# FermZilla – Collection Container

The collection bottle has several uses. Its primary function is to collect and harvest yeast however it can also be used for other purposes such as:

- 1. Reagent Bottle
- 2. Dry Hopping Bottle
- 3. Beer Sampling Bottle
- 4. Collection and disposal of unwanted trub or hop material
- 5. Carbonation of small samples of product
- 6. Yeast culturing container

The FermZilla collection container has also conveniently manufactured with heat resistant Tritan plastic meaning it's not only robust and chemical resistant, but also heat resistant and will handle extended contact in hot water 100C (212F)

# FermZilla – Collection Container Assembly

- It is suggested to first apply food-grade lubricant to the o-ring on the collection container. Suitable lubricant can be sourced on our website. Part <u>KL07221</u>
- 2. Screw the lubricated collection container into the thread on the bottom of the dump valve assembly.
- 3. Tighten with the collection container removal tool. Part <u>KL14250</u>. Make sure to not overtighten, tighten just enough to form a leak-proof seal.

### FermZilla – Collection Container Disassembly

- 1. Prior to removing the collection container, open the butterfly valve and release the pressure in the vessel by pulling on the pressure relief valve on the lid of the Fermzilla until all the gas is evacuated.
- 2. Close the butterfly valve if there is liquid in the Fermzilla.
- 3. Using the collection container removal tool to rotate the collection container clockwise to loosen the container.

### FermZilla – 304 Stainless Steel Handles Assembly

- 1. Insert a bolt into a hole of each of the handles.
- 2. Screw a nut onto the bolt. Don't tighten this nut yet.
- 3. Place the handles around the collar of the Fermzilla as shown in the image to the right.
- 4. Insert the second bolt into the remaining holes on the handle and screw the remaining nut onto this bolt.
- 5. Tighten the two nuts while holding the bolts to prevent them from spinning. Do not overtighten as it can warp the opening of the Fermzilla.



NOTE: It is suggested to orientate the handle during assembly such that the exposed thread of the bolt furthest away from you is oriented to the left such that when undoing the collar of the Fermzilla it reduces the risk of hitting your hand on this exposed thread of the bolt. This orientation is shown above to the right.



### Yeast Harvesting and Trub Dumping:

- 6. In order to harvest yeast simply screw the yeast collection bottle onto the Butterfly Valve. You can insert this bottle right from the start of fermentation.
- 7. Fermentation is no different to any other fermenter. Once the wort is inside the fermenter pitch yeast as you would normally.
- 8. Once the collection bottle has been fitted open the butterfly valve yeast can fall down into the collection bottle. The butterfly valve is open when the handle is facing in the vertical direction and it's off when it's in the horizontal position.
- 9. By chilling the fermenter this will accelerate the process of the yeast falling out of suspension and it will greatly speed up the clarification process. The easiest way to chill the FermZilla is by fermenting in a dedicated fermentation fridge.
- 10. Once the bottle is full of yeast you can re-cap and store in the fridge for your next brew *or* discard, rinse and sanitise if you just want to dump the trub.

#### Cleaning the Fermzilla:

- 1. Remove the Fermzilla collection container and the lid.
- 2. Rinse the walls of the Fermzilla vessel, collection container, lid and butterfly valve (including the external face and threads of the butterfly valve) with cold water. A garden hose is particularly useful for rinsing and dislodging yeast/hop matter.
- 3. Use a non-abrasive cloth to remove any stuck on particulate matter from the walls of the Fermzilla, lid, collection vessel and butterfly valve.
- 4. Close the butterfly valve and leave the collection vessel unattached.
- 5. Clean the collection vessel by filling it with cold water and add ¼ scoop of Stellarclean, attach the lid and shake to dislodge any yeast/hop matter.
- 6. Fill the Fermzilla with cold water and add Stellarclean according to the instructions on the tub. Reattach the lid and shake the full Fermzilla to coat all surfaces.
- 7. Stellarclean can be left in the vessel for up to 24 hours.
- 8. Remove the lid and drain the Stellarsan by opening the butterfly valve and then rinse using cold water.
- 9. Fill the Fermzilla and collection vessel with cold water again and add Stellarsan according to the instructions on the tub. Reattach the lid and shake the full Fermzilla to coat all surfaces.
- 10. Stellarsan can be left in the vessel until the next fermentation.

NOTE: Following adding Stellarclean and Stellarsan the Fermzilla can be pressurised (if the pressure kit, Part <u>KB02113</u> or <u>KB01609</u>, is attached) to push cleaner or sanitiser into the crevices of the dump valve assembly to get a more thorough clean.



# **5 GREAT TIPS TO GET YOU STARTED**

#### 1. No need to do a whirlpool in your kettle

Due to the fact that you now have a conical fermenter there is no need to do a whirlpool in your kettle. Once your wort has cooled you can dump all trub and hop material from your boil into your fermenter. The boiled hops and trub will settle out in the cone quickly and you can easily dump this directly from the butterfly valve. The clear tank wall will enable you to separate clear wort from trub far more easily than in your kettle and collect the trub into the collection jar.

#### 2. Dry hop without compromise

Traditionally, most home brewers who want to dry hop are forced to remove the lid of the fermenter to insert hops. Removing the fermenter lid increases the risk of contamination and it also introduces significant amounts of oxygen to your fermented beer. You can avoid these issues by dry hopping with the collection bottle. After yeast has been collected and the butterfly valve is clear of debris, simply fill the collection bottle with your favorite hop and re-fit this to the butterfly valve. The hops will float up through the beer and introduce a fantastic hop aroma.

Note: If you have a CO2 cylinder you can also purge the oxygen out of the hops before connecting to the butterfly valve.

#### 3. Naturally ferment under pressure

Some people believe that beer that is naturally fermented under pressure is the traditional and best way to ferment. Almost all large commercial breweries inherently ferment under some degree of pressure due to the fact that they have tall tanks and the pressure at the bottom of the tank is significant even if no pressure has been applied to the headspace of the tank. With the FermZilla it's possible to ferment at higher temperatures, faster speeds and produce cleaner beers. In order to do this we would recommend you to purchase the additional parts:

- a. 2 x Carbonation caps. Either Part <u>KL00826</u> for the stainless-steel ones or <u>KB02113</u> for the plastic ones.
- b. Silicone dip tube with stainless float. Part <u>KL09241</u>
- c. Duotight Blowtie 2 Spunding Valve Part <u>KL15042</u> or Blowtie spunding valve kit Part <u>KL09706</u>

### 4. Oxygen-free transfers

Easily avoid oxygen getting into your beer and staling it prematurely by transferring under CO2 pressure in a closed loop system straight to your kegs! Oxygen is the enemy of beer, by going straight from the floating dip tube on the FermZilla to the liquid post on your keg, you can be sure your precious beer won't come into any contact with the outside out.

#### 5. Make yeast starters in the collection container

You can make up to 900ml starters in the microwave, boiled directly in the collection jar! Simply remove the collection jar o-ring (not microwaveable and needs to be removed to allow for steam to exit) and any lube, put your starter wort in there and rest the lid on top of the jar (don't screw the lid down and make sure you're using plastic bottle caps on the



accessory ports) before microwaving on a lower power setting. After boiling for a minute in the microwave, remove, add back on the oring, throw in a sanitised stir bar and place some sanitised foil over the opening before allowing to cool. Pitch yeast and place onto stirplate.

# Some points on using the FermZilla without pressure:

The FermZilla's were designed to be used optimally with a source of CO2 pressure. While they were not designed with gravity-only operation in mind, there is some workaround that will allow you to get most of the FermZilla's benefits without a source of CO2.

### Taking hydrometer samples and bottling:

By attaching a ball lock post to the bottom of the collection jar, you now have a variety of removable options at your fingertips. You can connect a sanitised picnic tap (KL00963) mounted to a disconnect (to allow to take hydrometer samples. Simply slip some 10mm hose over the end of this and you now have a simple bottling gun! Just make sure the FermZilla is elevated so that gravity can carry your beer down to the bottle. You may need to squirt out some of the trub and yeast sediment before getting clear beer. Crash cooling will make the trub compact faster.