



# CHUBBY APOLLO

30L P.E.T. Pressure Fermenter



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**User Instruction Manual** 

Designed & Engineered by Keg King

# **Warnings and General Safety**



Your Chubby Apollo is made of bottle-grade PET plastic that is highly crystalline and pressurisable.

The following warnings must be followed to ensure your own safety when handling the tank under pressure.



# IMPORTANT INFORMATION ON PROPER USAGE

Use of this product in a manner other than its intended use as a pressure fermenter or using this product beyond indicated safe working pressures or safe working volumes can result in damage to the product, property, and serious injury. Never attach to an unregulated pressure source or fill the unit sealed from a mains or other water source. Rapid shifts in pressure, even while venting pressure through the Pressure Relief Valve (PRV) in the lid, may occur faster than can be relieved through the PRV and may result in catastrophic damage to the unit, property, and users. Always ensure adequate pressure relief is attached to the unit and gradual pressure increases are monitored and regulated.



#### WARNING

- ▲ DO NOT expose the tank to temperatures above 50°C (122°F) or below -10°C (14°F)
- ▲ DO NOT apply more than 2.4 bar (35 psi) to the Chubby Apollo UNDER ANY CIRCUMSTANCE
- ▲ DO NOT use caustic soda or strong acids, as they will deteriorate the plastic material of the tank
- ▲ DO NOT use steel-wool or abrasive scrubbers.

  For scrubbing protein residues, use of soft sponges is recommended
- **A** NEVER connect to an unregulated pressure source
- ▲ If you connect to an external pressure source; ensure it has an independent pressure release valve (PRV)
- ONLY use the WHITE, Purple or Blue PRV supplied by Keg King on the pressure lid
- ▲ DO NOT tamper with the pressure relief valve, and ensure it is unobstructed
- ▲ DO NOT use the tank under pressure if it has been physically damaged e.g. dropped on the ground
- A Keep the tank out of direct sunlight and other sources of UV radiation
- ⚠ The tank is pressure tested at production and is marked with a date for retesting. If past the marked date, ensure that the tank undergoes a hydrostatic pressure test before further usage under pressure



Please read the entire manual before operating.



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# **Keg King**



Whether you're a brewer or someone wanting to put drinks on tap in your own home, cafe or office, Keg King offers beverage creation and keg dispense solutions for amateurs and pros!

We don't just sell products, we innovate, design and manufacture our equipment to bring your beverage ambitions to life!

#### Our brands include:

- King Kegs, our Australian Made P.E.T. kegs
- Apollo P.E.T. Pressure Fermenters & Unitanks
- KegMaster<sup>™</sup> Kegerators
- Atomic 15 Brewery Cleaners
- UltraTap Twist FC Faucets
- Spundy spunding valves
- the KegMaster<sup>™</sup> Solstice Fridges
- and more!

Check the resellers map on our website to find where our products are available in North America, UK, EU, Aus, NZ and South Africa.

https://www.kegking.com.au/retailers

Since 2009, Keg King's mission is to make the best brewing & dispensing equipment in the world!

Check out our helpful instructional videos on the **Keg King YouTube Channel** <a href="https://www.youtube.com/c/KegKingvideos">https://www.youtube.com/c/KegKingvideos</a>

Enjoy your Chubby Apollo P.E.T. fermenter



#### Introduction

The Chubby Apollo P.E.T. Fermenter is our newest barrel-shaped Pressure Fermenter. Made in Australia and individually pressure tested, these tanks offer more convenient single batch capacity and boast a larger tank opening for ergonomic handling and cleaning.

Made from BPA-free, bottle-grade PET plastic, the Chubby Apollo is a 30L Pressure Fermenter and Keg capable of fermenting up to 23-25L of wort under pressure and is pressure-rated up to 5 bar, making it safe for pressure fermentation.

Fermenting under pressure has its benefits, including low ester formation, less dependence on temperature control, oxygen-free transfer and beer that is near-carbonated after fermentation. For homebrewers and small batch brewers, pressure fermentation allows for faster fermentation times.

The Chubby Apollo Fermenter can also be used as a gravity fermenter by attaching a blow off tube or airlock.

With a crystal-clear PET tank, the Chubby Apollo Fermenter comes complete including a pressure lid fitted with a pressure relief valve and stainless-steel ball lock gas and liquid posts.

The liquid ball lock post attaches to a silicone dip-tube with a stainless-steel float ball, so you always pick up bright beer from the top of the keg.

The relatively small size makes fermenting up to 23-25L of wort simple. Just attach our Spundy straight onto the gas post and you'll be able to control the internal pressure of your fermenter. After fermentation, you can carbonate your beer in the Chubby Apollo Fermenter, attach it to your tap system or any handheld tap and serve directly out of the fermenter.

Alternatively, aeasily transfer carbonated beverages from Chubby Apollo Fermenter to kegs, mini kegs and growlers.

The Chubby Apollo Fermenter is also a great way to ferment our Fresh Wort Kits.

This manual will provide users with information regarding the safe operation, handling and maintenance of our Chubby Apollo Fermenter.

#### **Features**

- Made from BPA-free, bottle-grade PET plastic
- Built-in Sturdy Handles
- Individually pressure tested
- Pressure-rated at 5 bar
- Large opening for handling and cleaning
- Can ferment a 23 25L batch



# **Included Items**

- Chubby Apollo Tank (P/N 13477)
- Apollo Lid (P/N 9555-1)
- Apollo Lid Neck Ring (P/N 9555-2)
- Apollo Lid O-ring (P/N 9555-13)
- Liquid Ball Lock Post (P/N 5229)
- Gas Ball Lock Post (P/N 5212)
- Universal Poppet and Spring x 2 (P/N 4826)
- Stainless-steel Short Dip Tube with O-ring x 2 (P/N 7063)
- White 25PSI Pressure Relief Valve (P/N 11367)
- PRV Housing (P/N 9137-1)
- PRV Housing O-ring (P/N 9137-5)
- Thermowell Port Cap (P/N 13491)
- Stainless-steel Beer Filter (P/N 10452-1)
- Silicone Pickup/Dip Tube (P/N 10452-2)
- Stainless-steel Dip Tube Float (P/N 9242)
- Chubby Graduation / Volume Sticker (P/N 9907-6)
- Stick-on Thermometer (P/N RET0061)

# **Fermenter Assembly**

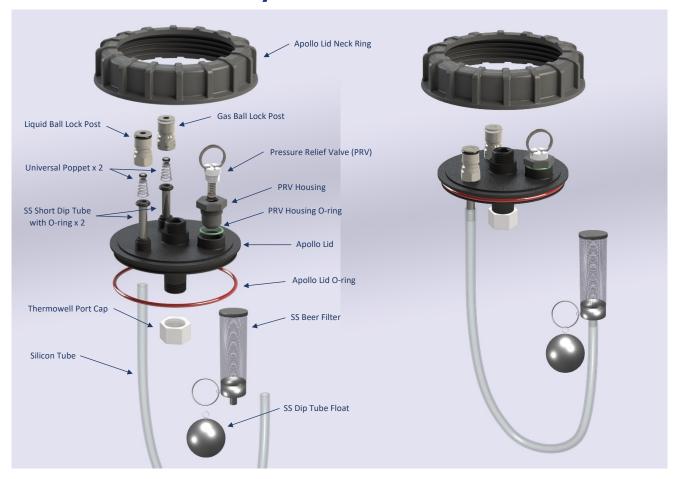


Figure 1: Chubby Apollo Lid Parts & Assembly

The Apollo lid has 4 ports available for use for:

- 1 ball lock post port for the gas post
- 1 ball lock post port for the liquid post
- The PRV/dry-hop port
- The Thermowell port (Thermowell optional)



Figure 2: Chubby Apollo Lid Assembled & Fitted

- 1. Clean and sanitise all components prior to assembly. Refer to "Cleaning and Sanitation"
- 2. Seat the PRV Housing and PRV O-ring into the PRV port.
- 3. Seat the PRV into the PRV Housing.
- 4. Insert the SS Short Dip Tubes with O-rings through the ball lock post ports in the lid.
- 5. Insert a Universal Poppet into each ball lock post.
- 6. Screw the Liquid and Gas Ball Lock Posts on to the lid's ball lock post ports (it does not matter which side you place the liquid or gas).
- 7. Lubricate the entire silicone Red O-ring with food-grade lubricant and fit into the groove around the side of the lid.
- 8. Slide the top end of the Silicone Dip Tube onto the SS dip tube under the Liquid Ball Lock Post.
- 9. Screw the Thermowell Port Cap onto the bottom thread of the Thermowell Port.
- 10. Insert the assembled lid in the mouth of the Fermenter and press it down, making sure the Red O-ring is not pinched and seats correctly inside the fermenter mouth.
- 11. Screw on the neck ring to firmly hold down the lid assembly.



# **General Operation**

#### **Leak Test**

It is important to check for leaks to ensure that all the parts are securely in place so that no beer is lost, and the vessel can operate safely during fermentation. To do this:

- 1. Pressurise the tank to no higher than 20 psi.
- 2. Disconnect the gas line and detect for leaks using a spray bottle filled with foaming sanitiser or soapy water around the seals and joins of the top and bottom assemblies.
- 3. To fix a leak, DEPRESSURISE the tank first before readjusting the fittings.

#### Cleaning and Sanitation

- 1. For cleaning, we recommend non-caustic products such as sodium percarbonate or our Atomic 15 ABC (Alkaline Brewery Cleaner P/N 9006).
  - For easier cleaning, we recommend our Fermenter Cleaning Kit (P/N 8051ND).
- 2. For sanitising your Chubby Apollo, it is best to go with non-rinse phosphoric-acid type sanitisers such as the Atomic 15 Foaming Sanitiser (P/N 9001) or something similar.
- 3. Do not use caustic soda or strong acids as they will deteriorate the plastic material of the tank.
- 4. Do not exceed temperatures above 50°C. PET is a soft plastic and will deform at higher temperatures.
- 5. For scrubbing protein residues, soft sponges are highly recommended. DO NOT use steel-wool or abrasive scrubbers.

#### **Fermentation**

Fermenting beverages under pressure provides brewers with the ability to reduce unwanted esters and speed up fermentation times with the capacity to ferment at higher temperatures with fewer off flavours.

Wort should be chilled to below 30°C prior to transfer to the Chubby Apollo tank.

After pitching the yeast, seal the tank with the Apollo Lid and ferment with controlled temperature and pressure.

To control Chubby Apollo's internal pressure, we recommend attaching the Keg King Spundy spunding valve (P/N 11169) to the lid's gas ball lock post (identified by a notch at the base and grey o-ring).

As the internal pressure builds up during fermentation, you will be able to adjust to the desired pressure rating by adjusting the black knob of Spundy. Alternatively, you can insert our pre-set Blue or Purple PRVs rated respectively for 10psi and 15psi.

Temperature can be monitored through the optional thermowell (P/N 10421). The Thermowell attaches to the Thermowell Port replacing the Thermowell Port Cap.

Simply insert a temperature control device probe 6mm or under into the thermowell to gauge liquid temperature readings at any height within the fermenting beverage.

During and after fermentation, hops can be added to the fermenter by de-pressurising and utilising the dry-hop port for pellet hops. Once added, the tank can be purged and re-pressured with a regulated CO2 source.

Sampling from the fermenter can be easily done with the liquid-to-liquid transfer line (P/N 9183). Simply connect one end to the liquid post and move the liquid out by pushing down on the internal pin of the opposite disconnect. No additional CO2 is required as the fermenter should already be pressurised.

When fermentation is complete, bring the temperature of the beverage down to cold crash the yeast and increase beverage clarity. You can remove the spunding valve and attach a gas line to hold your desired carbonation pressure when the liquid is cold.

If the internal gas pressure of the tank after fermentation was not enough to carbonate your beverage entirely after cold crashing, attach a regulated CO2 source to the gas post to allow the beverage to finish carbonating to your desired carbonation level.



#### **Extract Kit and Kilo Brewing**



#### WARNING

#### DO NOT expose the tank to temperatures above 50°C (122°F)

Are you an Extract Brewer who wants the advantages of pressure fermentation in a Chubby Apollo but not sure how to make it work in a PET fermenter?

It's easy! Check out our YouTube Videos on Pressure Fermenting Extract Kits <a href="https://www.youtube.com/@Keg-King/search?query=extract">https://www.youtube.com/@Keg-King/search?query=extract</a>

#### How to put together a KIT AND KILO single batch 19L (5gal) brew from start to finish.

- 1. Make sure you have enough brewing water\* on hand to hit your desired volume. Depending on your Extract Kit you will need somewhere between 16 to 19 liters for a 19L batch.
- 2. Mix and dissolve your fermentables (LME, DME and Brewing Sugars) in 8 liters of hot water in a pre-sanitised HDPE bucket or stainless-steel stock pot.
- 3. Add cold, clean brewing water to the PET fermenter to about the 8 liter mark.
- 4. Once the 8L of fermentables are cooled under 70C, carefully pour them into the 8L of water in the fermenter, ensuring that the hot liquid mixes with the cold water without coming into direct contact with the PET fermenter. We recommend the use of a funnel.
- 5. Swirl the contents to mix them well in the fermenter with a sanitised long handle spoon to aerate. Be careful not to scratch your fermenter's tank.
- 6. Top up with clean brewing water to achieve the desired tank volume.
- 7. Pitch Yeast, affix the lid and connect your spunding valve (P/N 11169) to the fermenter's gas post setting the valve to your desired pressure.
  - We recommend 10psi for ales and 15psi for lagers.
  - An alternative to using a spunding valve, is replacing the White PRV with our optional 10psi Blue PRV (P/N 9975) or 15psi Purple PRV (P/N 9982).
- 8. When fermentation ends, remove the spunding valve (or re-install the White PRV if you used the Blue or Purple PRV), cold crash and carbonate in the fermenter using your gas cylinder set to your desired serving pressure.
- 9. Move your beverage to packaging in kegs or bottles or simply hook your fermenter up to a tap and enjoy your beverage fresh from the tank via the floating dip tube!

Check if your water supply contains either Chlorine and Chloramine as they are probably the most detrimental to beer flavor.

Chlorine and Chloramine can be removed by Reverse Osmosis systems, filtering through activated-charcoal or carbon filters, or by treating with a crushed Campden Tablet (potassium metabisulfite). Boiling water also removes chlorine, but will not remove chloramine.

Alternatively use store-bought water.

For an even easier way to make beer, check out our Fresh Wort Kits.

All the hard work is done for you. Just pour into the fermenter and add the yeast.

https://www.kegking.com.au/fresh-wort-kits.html

# **Fermenter Storage**

After fermentation, it is a best practice to clean and sanitise the Chubby Apollo fermenter, then store dry. We recommend pressurising the tank to 10 psi and storing in a cool room away from sunlight. This ensures that your tank stays free from oxygen and bacteria for up to 2 weeks.



<sup>\*</sup> Water accounts for 90-95% of your beer.

# **Optional Extras**

#### 30L Apollo Thermowell (P/N 10421)

Installing the optional Thermowell allows a temperature sensor to be inserted into the center of the fermenter to measure the temperature of the fermenting liquid more accurately.

To install the Thermowell

- 1. Unscrew the white Thermowell Port Cap (if installed) from the Thermowell Port on the underside Apollo Lid
- 2. Screw the Thermowell on to the Thermowell Port on the underside of the Apollo Lid

Temperature probes from our MKII Temperature Controller (P/N 7919) or our Kegmaster Chilli (P/N 12999) can be inserted into the Thermowell to help control fermentation temperature.

### Apollo Cooling Coil (P/N 11183)

The Apollo Cooling Coil, connected to a Cooling Unit such as the KegMaster Chilli (P/N 12999) can help maintain the desired fermentation temperature.

Installing the Cooling Coil Kit is optional and for this reason, the ports for the Cooling Coil will need to be manually drilled into the lid.

To install the cooling coils:

- 1. Drill two 13mm diameter holes through the indentations marked on underside of the Apollo lid.
- 2. Insert the threaded Cooling Coil Posts from the underside of the Apollo lid so that the male threads are facing upward with the silicone o-rings on the underside. The post threads should protrude through the lid.
- 3. Secure each post by screwing a Cooling Coil Nut onto the male thread.
- 4. Once positioned the coils can be separated slightly to increase the contact area with the liquid in the Chubby Apollo.
- 5. Connect the Cooling Coil to a Cooling unit such as the KegMaster Chilli

#### Fermenter Cleaning Kit (P/N 8051ND)

Our optional Deluxe Corny Keg and Fermenter Cleaning Kit includes the following parts to provide brewers with a powerful CIP system for getting their tanks sparkling clean without scrubbing. The required parts are:

- CIP Spray Ball
- 15L Bucket
- Submersible Pump (8051-1)
- Extendable Cleaning Tubes
- Gas & Liquid Connects
- Silicone Tubing
- Stainless-steel Tee
- Stainless-steel Keg Stand

