KEG KING

APOLLO UNITANK

30L & 60L P.E.T. Pressure Fermenters

User Instruction Manual

Designed & Engineered by Keg King

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https://www.kegking.com.au
Keg King is a registered business name of MCH Australia Pty Ltd

Warnings and General Safety

Your 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 -2°C (28.5°F)**
- **DO NOT apply more than 2.4 bar (35 psi) to the 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**
- **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 use the tank under pressure if it has been physically damaged e.g. dropped on the ground**
- **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™ Kegerators
- Atomic 15 Brewery Cleaners
- UltraTap Twist FC Faucets
- Spundy spunding valves
- the KegMaster™ Solstice Fridge
- 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**
https://www.youtube.com/c/KegKingvideos

Enjoy your Apollo P.E.T. fermenter

Introduction

The Apollo 30L Fermenters are our newest UniTank and closed-bottom Snub Nose variety P.E.T. Pressure Fermenters. 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. The Unitank variety utilise our new centralized plunger valve offering more sanitary yeast harvesting and more accurate temperature control due to the centralized thermowell. The floating dip tube design can now be attached to the thermowell/plunger valve, allowing for cleaner and clearer beer transfer from the centre of the tank.

Compared to Butterfly Dump Valves, the plunger valve option on the unitank versions is easier to disassemble and clean. It is an overall more sanitary dump valve, and we believe that it will help brewers brew even better beer than before since sanitation is key to brewing great beer in the first place. Much like a bung or sink plug, the Plunger Valve closes off the bottom of the fermenter by being pushed in from the top. The seal is airtight, ensuring nothing enters or leaves the bottom hole of the tank. Pulling the Plunger Valve up opens the bottom of the tank, allowing yeast slurry and vegetal matter to fall through. It's that easy. We recommend fermenting with the valve open to start.

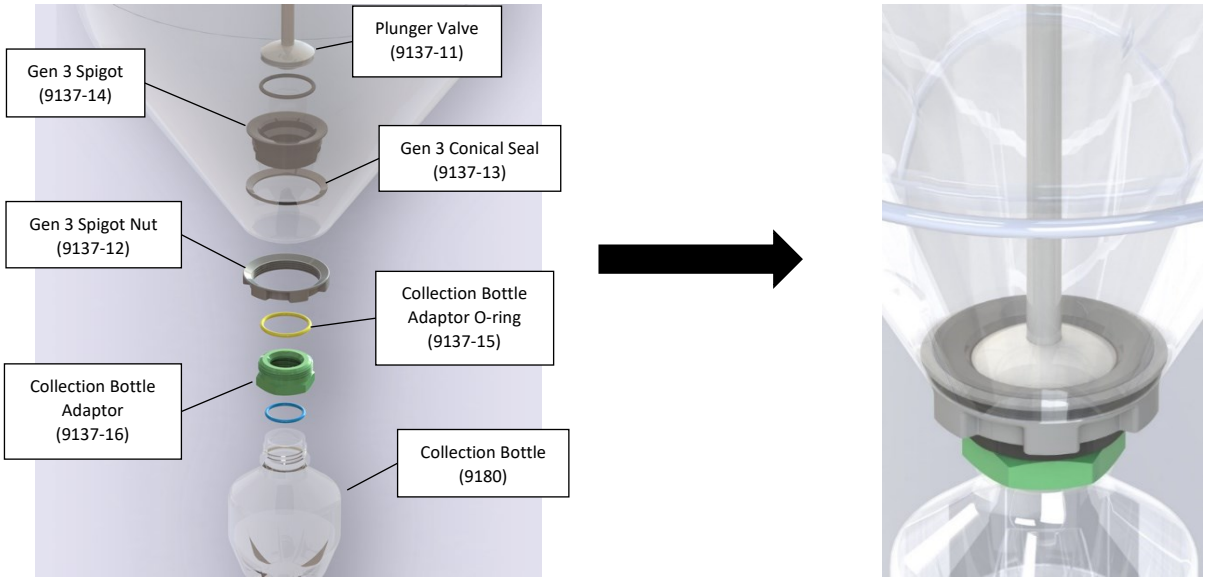
Made from BPA-free, bottle-grade PET plastic, the unitank itself is pressure-rated at 5 bar, making it the safest vessel of its size for pressure fermentation. Fermenting under pressure has its benefits, including low ester formation, less dependence on temperature control, oxygen-free transfer and beer that is near-carbonated after fermentation. For homebrewers and small batch brewers, pressure fermentation allows for faster fermentation times.

Features

- Made from BPA-free, bottle-grade PET plastic
- Individually pressure tested
- Pressure-rated at 5 bar
- Large opening for handling and cleaning
- Utilises a centralized combo plunger-valve thermowell for accurate temperature readings and more sanitary yeast harvesting
- Available in 30 and 60 Litre, UniTank or Snub Nose varieties

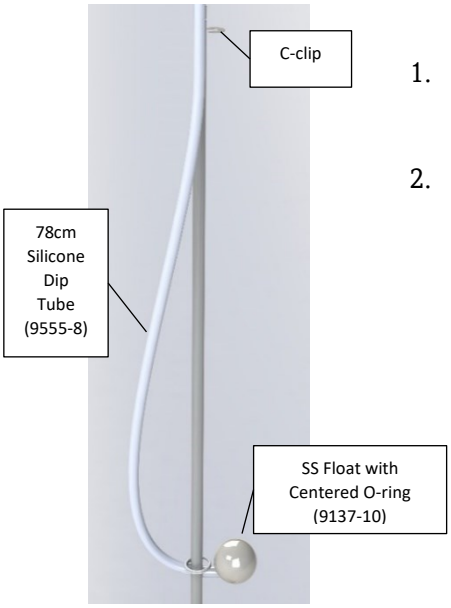
Fermenter Assembly

Bottom Section – Dump Valve Spigot Assembly



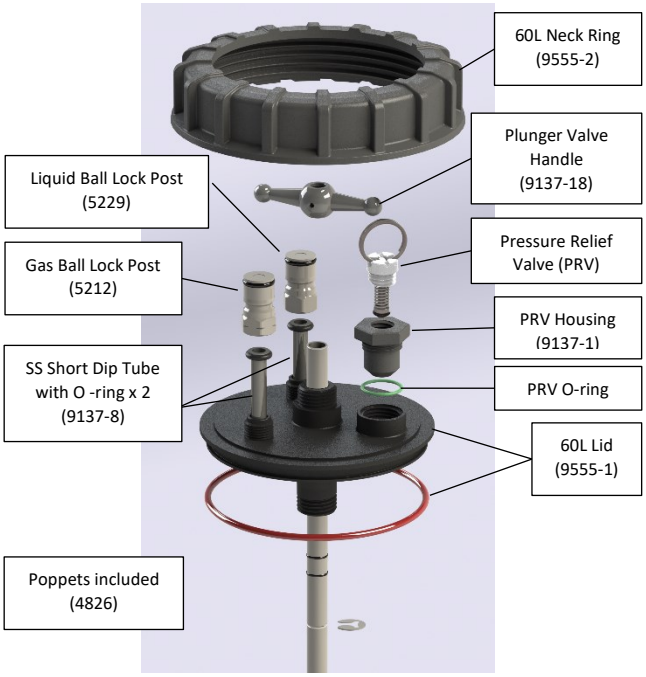
1. The first part to install on the Apollo is the bottom spigot as this is the foundation for holding every succeeding part in place.
2. Start by securing the Gen 3 Conical Seal onto the bottom face of the spigot.
3. Allow the spigot to fall in from the top of the tank to the bottom hole.
4. Seat the conical seal between the spigot and the conical surface of the tank.
5. Firmly lock in the spigot to the tank base by screwing on the Gen 3 Spigot Nut.
6. Seat the Collection Bottle Adaptor O-ring.
7. Attach the Collection Bottle Adaptor.
8. Screw in the Collection Bottle to the Collection Bottle Adaptor.
9. Fit the Plunger Valve O-ring inside the recess at the bottom end of the plunger valve.
10. The bottom end of the Plunger Valve sits inside the spigot through the tank with the centre rod and top end standing stable and upright.

Middle Section – Floating Dip Tube and Plunger Valve Rod



1. With the Plunger Valve in place in the bottom assembly, attach one end of the Silicone Dip Tube onto the Pickup Float then slide the ring of the Pickup Float down the Plunger Valve Rod.
2. Snap the C-clip into place on the recess of the Plunger Valve Rod beneath the two black O-rings to limit how high the Plunger Valve can be lifted during fermentation.

Top Section – Lid Assembly



Out of the box, the Apollo lid has 4 ports available for use for:

- 2x ball lock posts
- The PRV/dry-hop port
- The Central Plunger Valve / Thermowell port

1. Seat the PRV Housing and PRV O-ring into the PRV port.
2. Seat the PRV into the PRV Housing
3. Place the SS Short Dip Tubes with O-rings through the ball lock post ports in the lid.
4. Insert a Universal Poppet into each ball lock post.
5. Tighten down the liquid and gas posts to the thread ball lock post ports on the lid (it does not matter which side you choose to place the liquid or gas).
6. Slide the top end of the Silicone Dip Tube onto the SS dip tube under the Liquid Ball Lock Post.
7. Align the central port of the lid with the Plunger Valve Rod and push the lid through until it is seated firmly onto the top mouth of the tank.
8. Screw on the neck ring to firmly hold down the lid assembly.
9. Place the Plunger Valve Handle on top of the Plunger Valve Rod.
10. Use the Allen Key provided to tighten the grub screw in the handle to the Plunger Valve Rod.

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. Remove the collection bottle and push down on the plunger valve so that it is firmly settled inside the spigot.
2. Pressurise the tank to no higher than 20 psi.
3. 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.
4. 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 product code 9006).
   For easier cleaning, we recommend our Gen 3 CIP Cleaning Kit that attaches to the inside of your Apollo Lid!
2. For sanitising your Apollo, it is best to go with non-rinse phosphoric-acid type sanitisers such as the Atomic 15 Foaming Sanitiser (product code 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

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

After pitching in the yeast, close up the tank and ferment with the plunger valve OPEN and the collection bottle ATTACHED. Leaving the Plunge Valve closed during fermentation could create a pressure differential between the collection bottle and tank potentially causing the collection bottle to rupture.

To control Apollo's internal pressure, we recommend attaching the Keg King spunding valve (9161) to an MFL gas ball lock disconnect (8282 for plastic, 7797 for stainless steel) and affixing the spunding valve set up to the gas ball lock post on the Apollo lid.

Temperature can be monitored through the thermowell built into the Plunge Valve. 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 (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 is already 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.

To collect the yeast, push down on the plunger valve to seal the tank's bottom port assembly and remove the collection bottle.

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.

2 Inch Tri Clover Adaptor

Apollo includes a 2inch tri clover adaptor. The adaptor can be used in place of the collection bottle. Simply screw the threaded end of the adaptor into the bottom assembly of the fermenter. Brewers can choose to attach 2-inch tri clover equipment that utilises 2-inch tri clover seals and clamps. *Be aware, heavy 2-inch tri clover equipment could damage the fermenter and plastic adaptor.

Gen 3 Cooling Coils

Inserting 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 insert the cooling coils:

1. Drill two 13mm diameter holes through the indentations marked on the lid.
2. Protrude the Cooling Coil Posts from the bottom of the Apollo lid so that the male threads are facing upward with the O-rings on the underside.
3. Secure each post by screwing the Cooling Coil Nut onto the male thread.
4. The Cooling Coil connects to the Gen 3 Lid by pushing the ends through the Cooling Coil Posts. Adjust the seating level of the Cooling Coil to finish.

Gen 3 CIP Cleaning Kit

CIP stands for Clean in Place. Our optional Fermenter King Gen 3 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:

- ½ BSP Female Hose Barb (5717)
- ½ BSP Stainless Steel Spray-ball (9162-2)
- 2 meters of Silicone Tube Hose 12.5mm x 18.5 mm (5496)
- 70W submersible pump (8051-1)
- 15L bucket (8051-5)

Gen 3 Cleaning Kit Operation

1. Remove all fittings from the tank except the lid and neck ring and place them in the 15L bucket.
2. The pump comes pre-packed with a black hose barb. This is to be screwed onto the outlet of the submersible pump. Place the pump in the middle of the bucket.
3. Attach the CIP Spray-ball to the underside of the lid.
4. Attach the ½ BSP female hose barb to the top side of the lid.
5. Link the silicone tubing from the barbed pump outlet to the barb at the top of the fermenter lid.
6. Fill the tank with 5 litres of warm water at no higher than 50°C and Atomic 15 ABC (9006) or other recommended cleaner mixed to the recommended dosage.
7. Seat the bucket right underneath the tank.
8. Run the pump to drive the cleaning solution through the spray-ball until no fermentation residue is noticeable on the interior surfaces of the tank.
9. Rinse with clean water.

Storage

After each fermentation, it is a best practice to clean and sanitise the 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.