



KEGASAURUS

POLYMER KEGS

Specifications Sheet for 30L and 50L One Way Kegs and Safe Handling Instructions



SEPTEMBER 1, 2016

OXEBAR PTY LTD

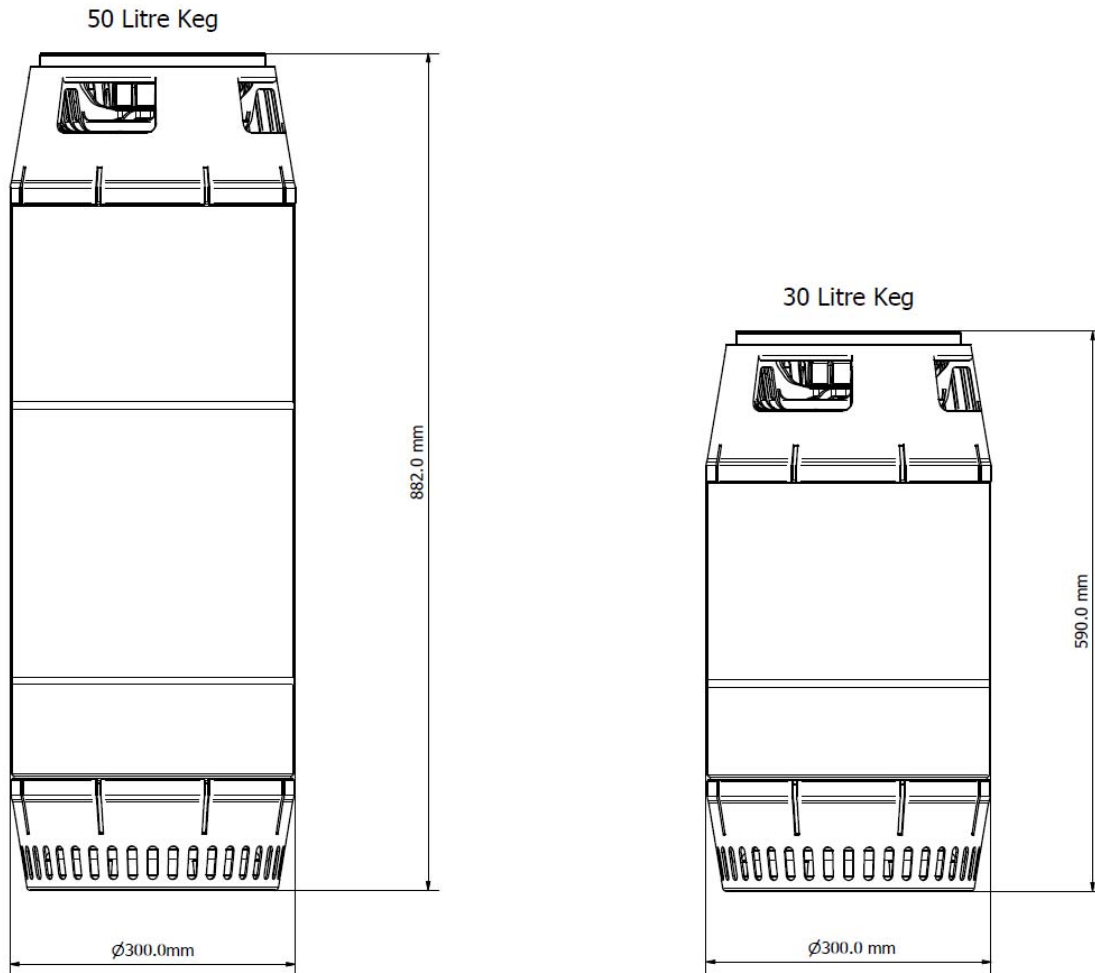
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Leading the way in one way!

1. Technical Specification

1.1 Dimensions



1.2 Materials

	50 Litre Keg	30 Litre Keg
Container	PET	
Dip Tube	PE	
Valve	Glass fibre reinforced poly amide	
Springs	Stainless Steel grade 304	
Seals	TPR	
Chimes	High impact PP	

1.3 Technical

	50 Litre Keg	30 Litre Keg
Max Allowable Working Temp.	35° Celsius	
Max Allowable Working Pressure	3.0 Bar	
Pressure Release Opening	5.2 Bar	
Proof Pressure	6.0 Bar	
Burst Pressure	Over 8.5 bar	

2. Sharing of Instructions

TRANSMITTING and SHARING OF INSTRUCTIONS including Handling & Safety Instructions are part of the agreement governing the sale of the Kegasaurus Kegs. By purchasing Kegasaurus Kegs The Buyer expressly warrants that it will ensure proper transmission of such Handling & Safety Instructions end users and/or resellers. For the avoidance of doubt, we recommend every user to check the national or other applicable legislation with regards to food packaging, transport and recycling obligations.

3. Safety Warnings

DO NOT EXCEED M.A.W.P. OF 3.0BAR – All keg components and equipment that interacts with Kegasaurus single use keg assemblies, (such as kegs, spears, valves, taps, carbon dioxide tanks, nitrogen tanks, and filling equipment) must be equipped with safety devices to mitigate risk of injury or damage to individuals and equipment. Altering, circumventing, or destroying safety features of any of these components is prohibited.

To prevent keg rupture, a pressure regulator and suitable sized relief device **MUST** be attached to any pressure source to which a keg is connected. Ensure regulators are set below 3.0 bar (43.5psi) before connecting a Kegasaurus keg to pressure source. Relief devices must be set and calibrated to a relieve at a pressure below 5.0 bar (72.5 psi)

KEEP AWAY FROM HEAT AND OUT OF DIRECT SUNLIGHT – Extreme heat conditions due to direct exposure to sunlight and/or heat sources may cause single use Kegasaurus kegs that are full, partially empty or pressurized to deform and/or fail.

DO NOT KICK

DO NOT PUNCTURE

DO NOT EXPOSE TO CHEMICALS

DO NOT DROP

KEEP AWAY FROM CHILDREN

HANDLE WITH CARE

4. Handling and Storage Instructions

4.1 Empty kegs

KEEP OUT OF WIND – Kegasaurus kegs are light weight containers. Even when palletised they are not wind stable and should be kept in protective storage away from strong wind.

STORE BETWEEN 0°C and 40°C – Extreme heat conditions due to direct exposure to sunlight and/or heat sources may cause single use kegs to deform and/or fail.

KEEP OUT OF SUNLIGHT – Direct sunlight may cause UV degradation of the keg materials and increase risk of failure/rupture at lower than expected pressures.

AVOID DAMAGE OR PUNCTURE – Kegasaurus kegs are supplied pressurised to a level of 1.0 to 1.5 bar when new. Do not drag kegs along ground or roll over sharp objects. Puncture of the kegs may result in catastrophic failure of the keg.

DO NOT DROP OR KICK – Dropping or kicking of empty kegs may cause damage and cause kegs to deform and/or fail.

STOCK ROTATION - It is recommended to use a FIFO (first in first out) program with Kegasaurus Kegs. Kegasaurus Kegs contain an oxygen scavenging compound that depletes over time. Although barrier properties remain intact it is recommended to use kegs within 6 months of the manufacturing date marked on the kegs to take full advantage of oxygen scavenging properties.

KEEP CLEAN - It is recommended that the keg storage facility be clean and free of dust/debris and have an insect and pest prevention system in place.

4.2 Filled Kegs

STORE BETWEEN 0°C and 35°C – Filled kegs should be stored at temperatures as close to 0°C as is practical. This aids to decrease the risk of pressure fluctuations due to temperature as well as reduce the risk of spoilage of the contents.

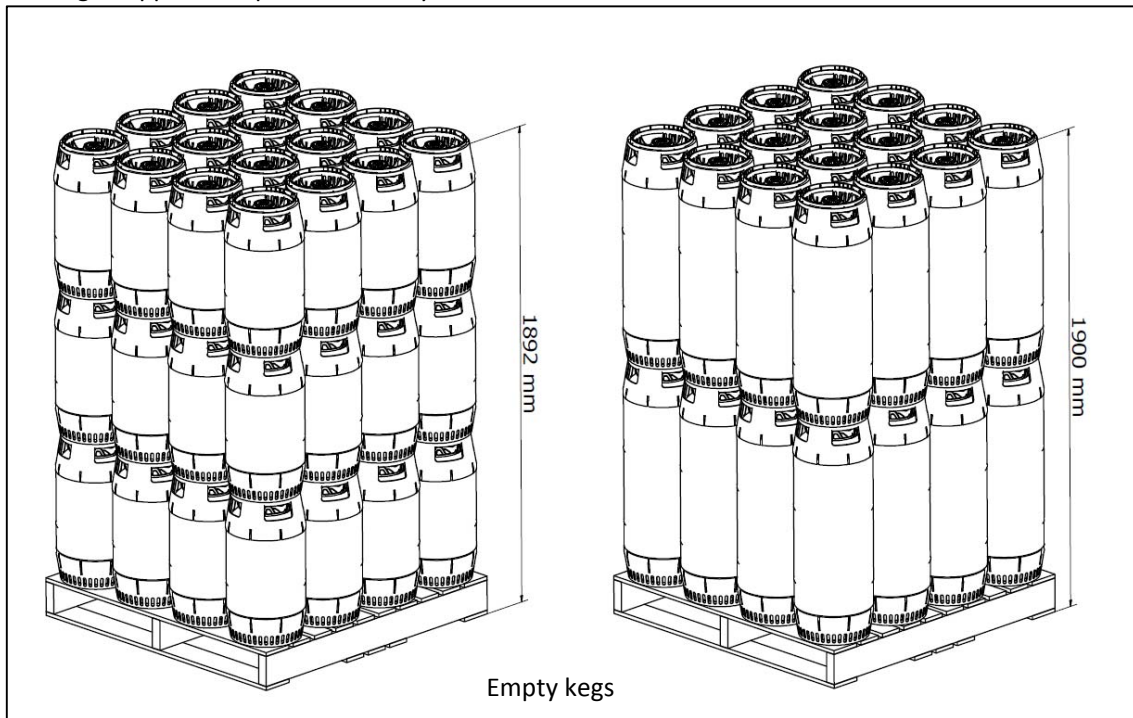
HANDLE WITH CARE – Single use polymer kegs are not as robust as traditional stainless steel kegs and should be handled accordingly. If cellar drops are required, then a suitable keg drop pad/cellar mat with minimum thickness of 300mm **MUST** be used. The use of tyres or mattresses is not recommended and may cause failure of the keg.

DO NOT ROLL OVER SHARP OBJECTS – Rolling of kegs over sharp objects may cause puncturing of the keg. It is recommended to use a suitable trolley for manual transport of individual filled kegs.

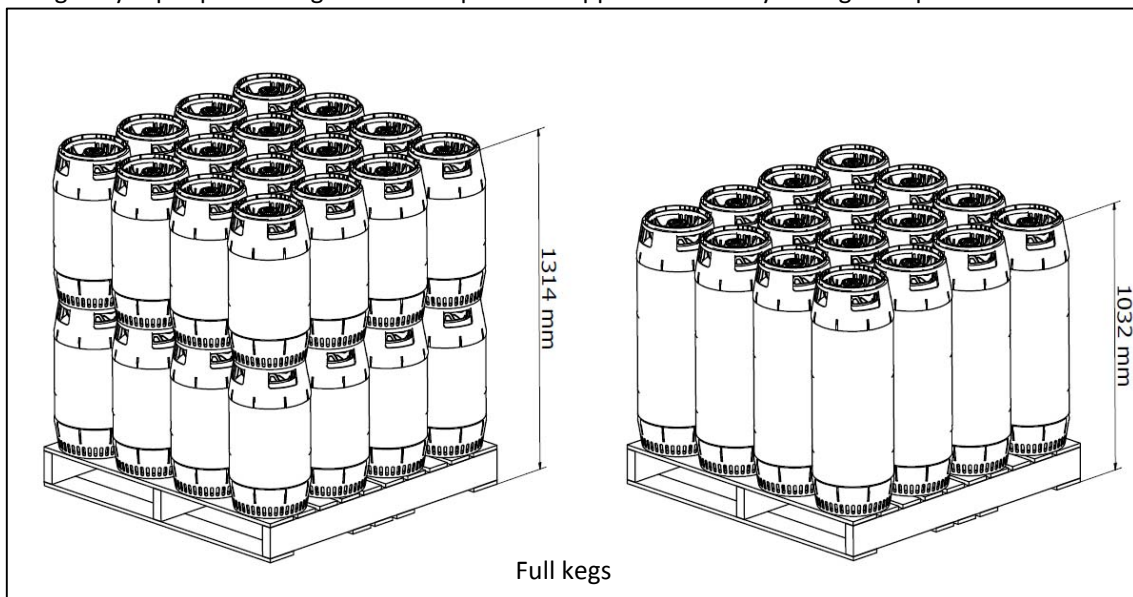
WARNING: EXTREMELY HEAVY – Filled 50L kegs weigh in excess of 50kg, 30L kegs in excess of 30kg. If lifting is required, then team lifting or the use of mechanical lifting aids may be needed. **ONLY USE HANDLES** of the keg to lift. Do not use keg couplers to lift or manoeuvre kegs with the valve; this may cause failure of the valve.

4.3 Palletising and stacking

Kegasaurus kegs are designed to fit in a 4x4 configuration (16 kegs per layer) on a standard CHEP/LOSCAM pallet with minimal overhang. Empty (new) 50L kegs may be stacked 2 layers per pallet. Empty (new) 30L kegs may be stacked 3 layers high per pallet. Individual layers of kegs must be cling wrapped or taped for stability.

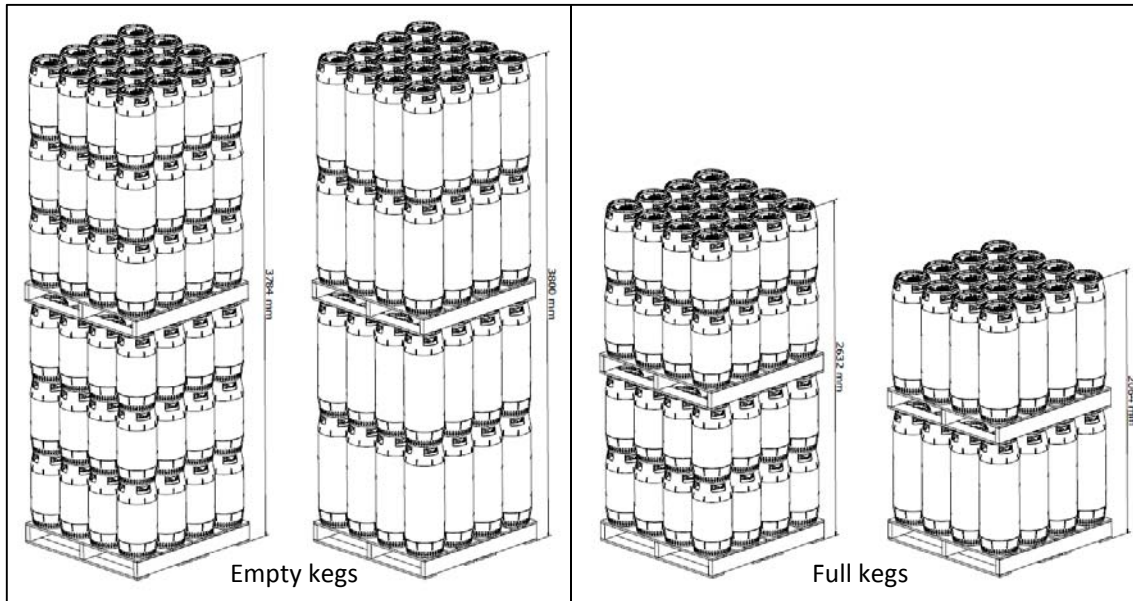


When full, 30L kegs can be stacked two layers high per pallet. Full 50L kegs should only be loaded to a single layer per pallet. Kegs need to be taped or wrapped for stability during transport.



Pallets of empty kegs may be stacked up to two pallets high.

Pallets of full kegs may be stacked 2 pallets high.



4.4 20ft Container Loading Empty Kegs

When the empty kegs are shipped there are various ways that they can be packed in shipping containers.

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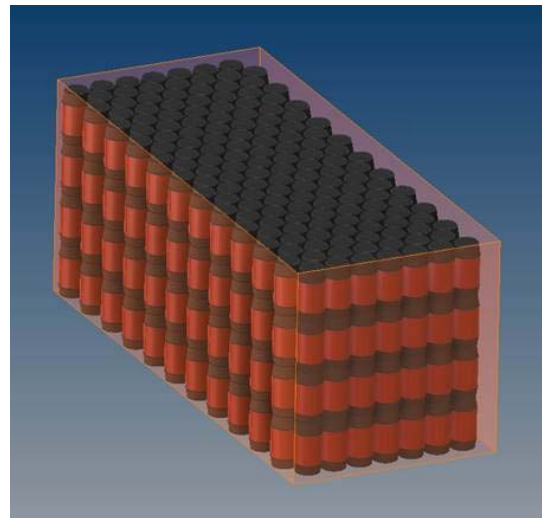
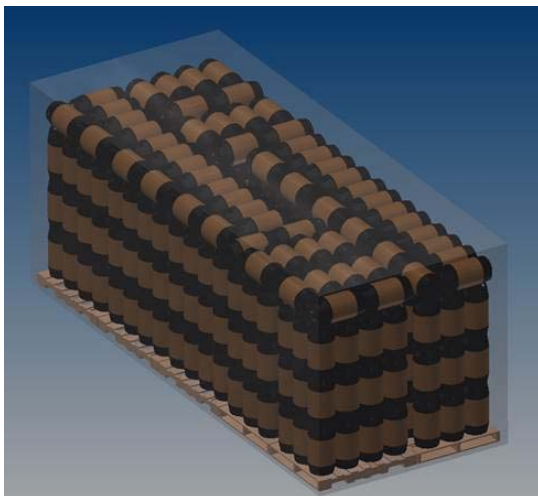
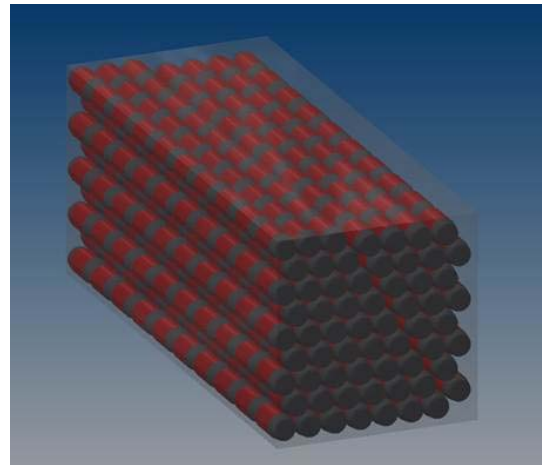
- Packed horizontal loose in container. 630 per container.

Shown to Bottom Left

- Packed on pallets with additional loose on top. 420 per container (packed on 1200x1000mm pallets).

Shown to Bottom Right

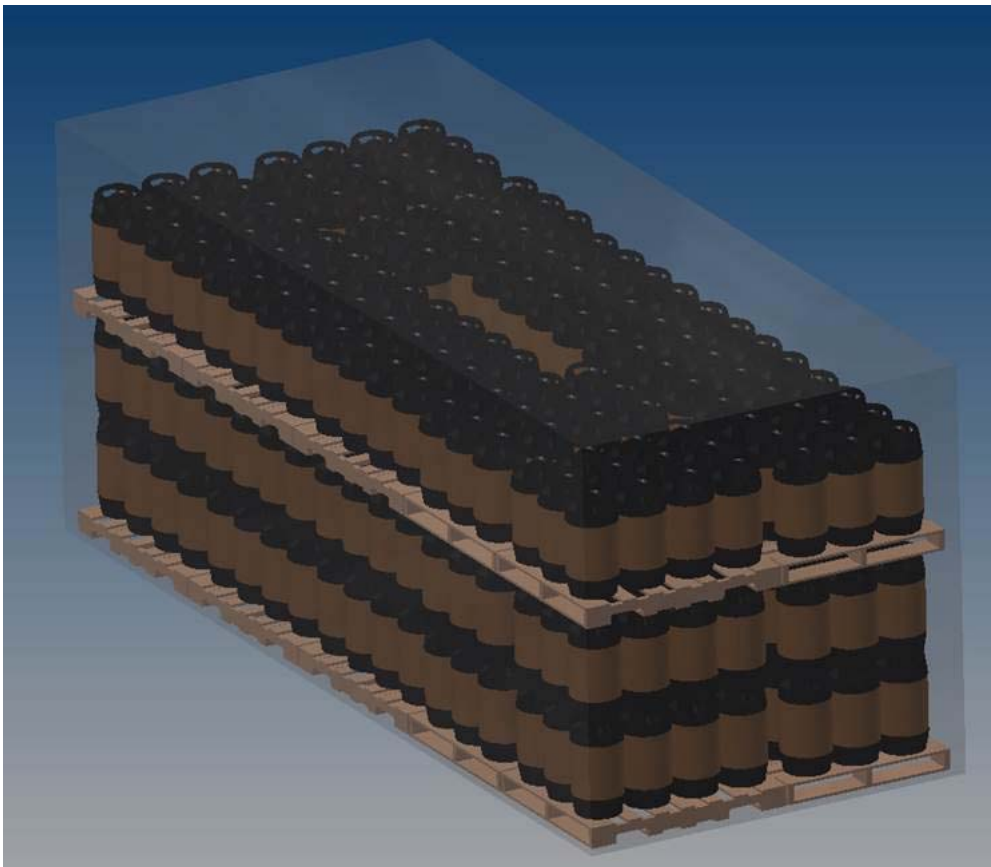
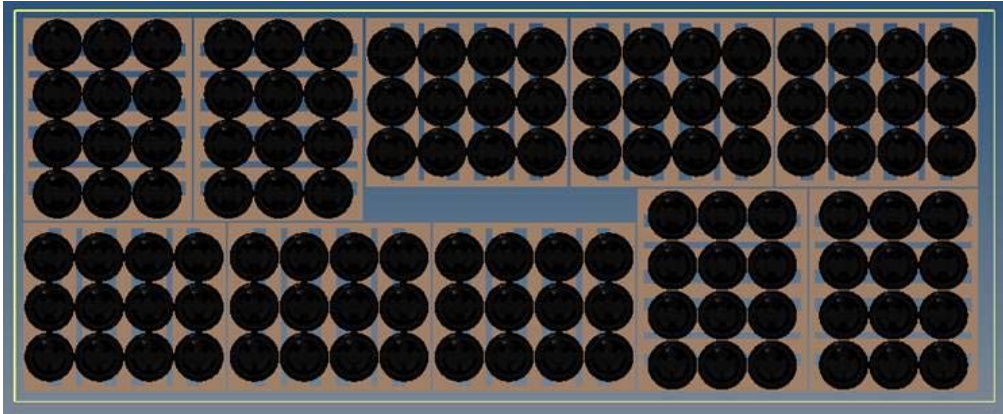
- Packed vertical loose in container. 616 per container.



4.5 20ft Container Loading Full Kegs

When using the 1200 x 1000mm pallets the configuration below is recommended.

Using this configuration 360 x 30L kegs can be packed in 20ft shipping container:



Note: Slightly higher quantities can also be achieved on the 800x1200mm Euro pallets

5. When the Usage

5.1 Filling

Kegs should be filled per established industry methods with good manufacturing practices in a fail safe manner. It is recommended that keg compatibility be verified in partnership with the keg filling system vendor. Overall keg and beer quality should be maintained by working with the keg supplier and filling system vendor to provide the optimum filling sequence. Failure to do so may cause damage to the keg, damage to equipment, or injury.

CHECK KEG FOR DAMAGE – Prior to filling, all kegs should be visually checked to ensure no damage has occurred to the valve or PET body of the keg. If a keg appears damaged it should not be used.

CHECK KEG FOR PRESSURE – New kegs are supplied pressurised to 1.0-1.25 bar and will appear firm to the touch. If a keg does not appear to contain pressure it may indicate a faulty seal or valve.

USE SUITABLE PRESSURE RELIEF VALVE – Only connect professional couplers to kegs for filling. When coupling to Kegasaurus Kegs the inbuilt safety valve is no longer active; it is **MANDATORY** that filling systems have a calibrated pressure relief valve with an opening pressure no greater than 5.0 bar.

USE CORRECT EQUIPMENT – Kegasaurus kegs are equipped with industry standard filling valves. Use only professional couplers for filling kegs. Whenever connecting Kegasaurus kegs to filling stations ensure that filling pressure does not exceed the MAWP of 3.0 bar.

ALWAYS USE A REGULATOR – Never connect a Kegasaurus Keg to an unregulated pressure source. Ensure that pressures are regulated to below 3.0bar before connecting to the keg. Connecting to an unregulated source may result in catastrophic failure of the keg; injury/death may occur.

KEEP AWAY FROM CAUSTIC AND CLEANING AGENTS – Kegasaurus kegs are delivered sanitised. No additional sterilisation is required and should be avoided.

EXTERNAL SANITISING – It is recommended that brewers pre-sanitise the keg neck prior to filling with a suitable sanitizer. A dilute solution of hydrogen peroxide or peracetic acid is suitable.

KEEP AWAY FROM HEAT AND STEAM – If automated filling lines are being used then cleaning cycles should be disabled to avoid deforming or degrading the properties of the kegs.

AVOID OVERFILLING – Overfilling may reduce impact performance of kegs. Flood filling or overflow filling is not recommended.

FLUSHING - Brewers should ensure the kegs have been pre-flushed with inert gas prior to filling. It is recommended that Kegasaurus Kegs are flushed with a suitable inert gas (CO₂ or N₂) prior to filling to ensure adequate oxygen displacement from the kegs.

Connect appropriate coupling and fill at speeds equivalent to stainless kegs.

Fill by volumetric control and check fill level with trade certified scales by means of weight control.

5.2 Dispensing

USE SUITABLE PRESSURE RELIEF VALVE – Only connect professional couplers to kegs for dispensing. When coupling to Kegasaurus Kegs the inbuilt safety valve is no longer active; it is **MANDATORY** that dispensing systems have a calibrated pressure relief valve with an opening pressure no greater than 5.0 bar.

USE CORRECT EQUIPMENT – Kegasaurus kegs are equipped with industry standard filling valves. Use only professional couplers for dispensing kegs. Whenever connecting Kegasaurus kegs to dispensing systems ensure that gas dispensing pressure does not exceed the MAWP of 3.0 bar.

ALWAYS USE A REGULATOR – Never connect a Kegasaurus Keg to an unregulated pressure source. Ensure that pressures are regulated to below 3.0bar before connecting to the keg. Connecting to an unregulated source may result in catastrophic failure of the keg; injury/death may occur.

DECOMMISSION – As soon as Kegasaurus Kegs are emptied they should be decommissioned.

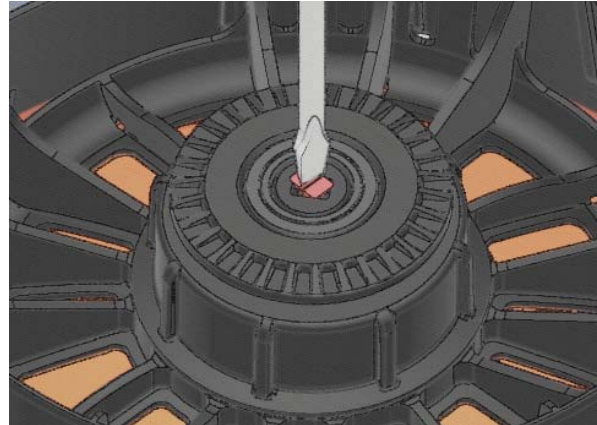
5.3 Disposal and Decommissioning

DO NOT REUSE – Kegasaurus Kegs are single use items. They should not be reused for any second life purpose in any way. Depressurise immediately when emptied.

RELIEVE PRESSURE – As soon as a Kegasaurus Keg is empty or ready for decommissioning the keg must be depressurised. Move keg outside or into well ventilated area. Turn red safety release 90° in order to release internal pressure of keg.

CO₂ WARNING – CO₂ is an asphyxiant gas and not classified as toxic or harmful. All relevant OH&S practices should be observed when venting CO₂ from emptied kegs. Ensure venting occurs in an open or well ventilated area.

DISASSEMBLE – Once relieved of pressure the Kegasaurus kegs can be disassembled. Unscrew the valve from the keg neck. Remove top chime from keg. Remove bottom chime from keg. Crush main body of keg. Place components into relevant recycling streams.



6. Transport recommendations

6.1 Equilibrium pressure

When transporting carbonated beverages in Kegasaurus Kegs it is vital to keep in mind the partial pressure in the keg. An increase in temperature of the Keg will result in an increase of the internal pressure of the Keg. In the case of highly carbonated beverages; this may result in setting off the system relief valve and losing some or all of the contents of the Keg. It is highly recommended that transport is conducted in a temperature controlled environment. If this is not an option, then CO₂ levels (carbonation levels) should be restricted. In the case of nitrogenated or other carbonated beverages; the relevant partial pressures should be calculated to ensure they are within the safe working limits of the Kegasaurus keg.

