



Keg King

www.kegking.com.au

The Keg Dispense Specialists

2/33-35 Smith Rd

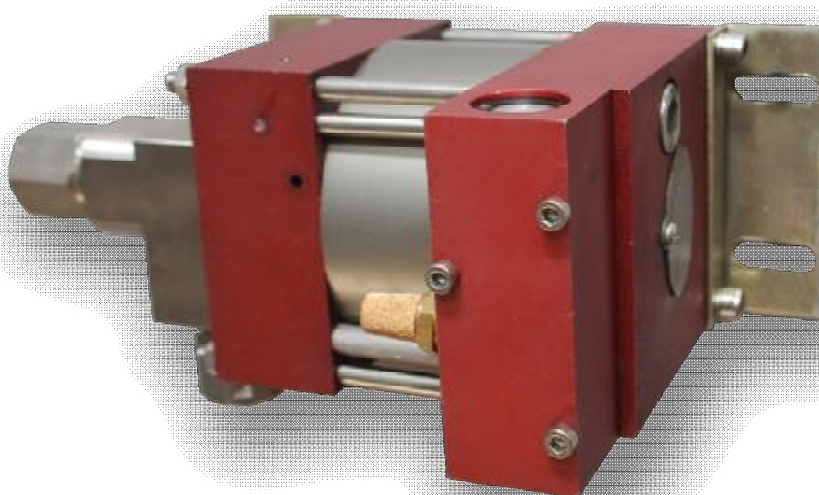
Springvale, VIC, 3171

Phone: +61 3 9011 1698 Fax: +61 3 9011 1697

Keg King CO₂ Transfer Station



MODEL: KK30



GERMAN DESIGNED HIGH PRECISION CO₂ PUMP



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1 CO2 Cylinder Filling Station

The key to a high quality fill station is the type of pump that's inside it. Our filling stations use a German made high pressure ratio pump rated to 3500 PSI. The pump does not run on electricity. It runs on compressed air which can be supplied in the form of an air compressor or a spare CO2 cylinder.

The pump will pump liquid CO2 from larger cylinders into smaller cylinders. This allows you to order large cylinders directly from suppliers such as BOC, Supagas etc... and transfer that gas into many smaller cylinders such as our 2.6kg CO2 cylinders.

The pump is made to the highest German standards and has been custom built to work most efficiently on cylinders up to 8kg and is one of the very few CO2 transfer pumps that will operate using a relatively small air compressor that you can run from normal Australian mains power. (most other pumps require a three phase air compressor)

The pump comes complete with high pressure hoses, ball lock fittings, and the appropriate connections to be used on Australian standard CO2 cylinders.

2 Reasons For Purchasing a Keg King CO2 Transfer Pump

- Quick Payoff, Low Running Costs

Installing a CO2 transfer pump at your store has the obvious start-up costs but once installed there is almost no maintenance or ongoing running costs. Average cost of 22kg CO2 bulk cylinder (from Supagas/BOC/Air Liquide) will be 35-45 depending on your area and the volume that you are doing. This will fill approx 6.5 x 2.6kg CO2 Cylinders. So the average price for you to fill a 2.6kg Cylinder is \$6.15

The average retail price for a 2.6kg CO2 refill: \$30

Profit per refill: $\$30 - \$6.15 = \$23.85$

Approx Price of Keg King CO₂ Refill Pump: \$1650

Refills to payoff pump: $1650 \div 23.85 = 69.18$ CO2 refills

So you will be able to pay off your Keg King Transfer Pump in less than 70 CO2 refills.

- Customer Loyalty

As many store owners will know, once a customer makes the effort to come to your store, there is a high chance that they will purchase other items at your store. Offering CO2 refills keeps your customers coming back into your store. Most active home brewers will use a 2.6kg cylinder in approx 6 months. So the average customer using one of our cylinders will be coming back to you twice a year just for cylinder refills.



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- **Generating New Customers**

Having a CO2 refill station will encourage customers from other stores to come to your own store. CO2 can be used for a large range of applications including bee keeping, aquariums, welding etc. You will be able to offer cylinder refills for all of these people and generate even more traffic into your store.

3 Keg King CO2 Transfer Pump Specifications

Model:	KK30 – Stainless
Pressure Ratio (output pressure:input pressure):	
Pump Body	Anodised Aluminium
Internal Valves and Cylinder Material	Food Grade Stainless Steel
Lubricant	Oil Free
Pressure Ratio (output:input)	30:1
Recommended Air Compressor	18 CFM or 2000watt
Minimum Air Compressor	12 CFM
Average Flow Rate (based on 50 bar back pressure)	1.72 Litres/min
Average Filling Time (for 2.6kg Cylinder)	Approx 2 minutes
Place of Manufacture (pump)	Metzingen, Germany
Place of Manufacture (high pressure hoses and fittings)	Hefei, China
Maintenance Schedule	Service by Keg King after 3000hrs (approx 60,000 2.6kg cylinder refills)
* Based on recommended input pressure of 8 bar	

4 Safety

4.1 Operators Clothing

- Safety glasses
- Safety boots or sturdy leather boots
- Leather or thick cotton gloves
- Long sleeve shirt
- Safety helmet

4.2 Ventilation

Use with adequate natural ventilation. Open windows and doors where possible. In poorly ventilated areas, mechanical extraction ventilation is recommended and/or CO2 detection alarm.

Maintain vapour levels below the recommended exposure standard.

Exposure Standards

CARBON DIOXIDE (124-38-9)

ES-TWA : 5000 ppm (9000 mg/m3)

ES-STEL : 30000 ppm (54000 mg/m3)

WES-TWA : 5000 ppm (9000 mg/m3)



5 Setting Up the CO₂ Transfer Pump

5.1 Required Equipment

5.1.1 Included Equipment

- Keg King CO₂ transfer pump
- High pressure (3500psi rated) stainless steel transfer hose x 2 (one for inlet side of pump and one for outlet side of pump)
- High pressure
- Ball lock valve
- Nuts to fit onto Australian Standard Cylinders

5.1.2 Other Required Equipment

- Accurate digital scales (up to 20kg)
- Air compressor (recommended min 12 CFM capacity, @ 100psi)
- Air hose (pressure rated to 150psi) To go from air compressor to pump
- Bulk CO₂ Cylinder (with dip tube)(recommended 22kg-35kg high pressure cylinder)



6 Operating the CO₂ Transfer Pump

Operating the Keg King Transfer pump is quite a simple procedure but if not done correctly can be quite dangerous. For this reason it is important to familiarise yourself with the instructions below. With time, the process will become second nature.

As you might already know, the best measure of how much CO₂ is in a cylinder is by weight. We recommend that you only fill cylinders that are completely empty.

Diagram 1.0



1. Bulk Cylinder Valve
2. Inlet High Pressure Hose
3. Pump Inlet Valve
4. Pump Outlet Valve
5. Outlet High Pressure Hose
6. Outlet Ball Lock Valve
- A. Hose to Air Compressor
- B. Accurate Digital Scales
- C. Host Cylinder

(incremental order of numbers also show direction of flow of CO₂)



Keep all protective clothing

Step 1

Join all connections together as shown in Diagram 1.0 and ensure valves (1), (6), (7) are closed and the air supply (A) is disconnected.

Step 2

Place the empty cylinder you want to fill onto the scales and record the initial empty cylinder weight while hose (5) is connected to the cylinder tightly. Record this weight. If you are using the Keg King 2.6kg cylinders record your target weight. This is calculated in this way:

Empty Cylinder Weight(kg) + Cylinder Capacity Weight(kg) = Target Weight (kg)

Step 2

Turn on valve (1)

(you will hear CO2 fill up into hose (2))

Step 3

Turn on valve 6

Step 4

Turn on Valve 7

At this stage you will notice that CO2 starts filling into the cylinder and the weight on the scales starts to increase. Depending on how full your host cylinder is (C) the smaller cylinder you are filling may almost completely fill without turning the pump on.

Step 3

Connect your air compressor (A) to the pump and you will hear the pump turn on making a "beating" or "popping" sound.

Step 4

Keep close attention to the weight on the scales and disconnect air compressor (A) once the desired target weight is reached.

Step 5

- **If you are not filling any more cylinders** turn off valve (1) and (7) and ball lock (6) then unscrew and remove the cylinder from the scales.

- **If you have subsequent cylinders to fill** turn off valve (7) and ball lock (6) remove cylinder from scales and replace with another cylinder for refilling.

7 First Aid Measurements For CO₂ Exposure

Eye: Treatment for cold burns: Immediately flush with tepid water or with sterile saline solution. Hold eyelids apart and irrigate for 15 minutes. Seek medical attention.

Inhalation: Remove from area of exposure immediately. If assisting a victim avoid becoming a casualty and do not enter area without breathing apparatus. If victim is not breathing apply artificial respiration and seek urgent medical attention. Give oxygen if available. Keep warm and rested.

Skin: Cold burns: Remove contaminated clothing and gently flush affected areas with warm water (30C) for 15 minutes. Apply sterile dressing and treat as for a thermal burn. For large burns, immerse in warm water for 15 minutes. DO NOT apply any form of direct heat. Seek immediate medical attention.

For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor.

Advice To Doctor: Treat for asphyxia and cold burns.

8 Fire Fighting Measurements With CO₂ Cylinders

Fire and Explosion: Non flammable. Temperatures in a fire may cause cylinders to rupture. Call fire brigade. Cool cylinders exposed to fire by applying water from a



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protected location. Do not approach cylinders suspected of being hot. Remove cool cylinders from the path of the fire. Evacuate the area if unable to keep cylinders cool. Ensure work area is thoroughly ventilated before re-entry.

9 Accidental CO₂ Release

Spillage: GAS CYLINDERS: If the cylinder is leaking, eliminate all potential ignition sources and evacuate area of personnel. Inform manufacturer/supplier of leak. Wear appropriate PPE and carefully move it to a well ventilated remote area, then allow to discharge. Do not attempt to repair leaking valve or cylinder fusible plugs.

10 Handling and Storage of CO₂

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas (eg. if container is damaged). Storage Do not store near sources of ignition or incompatible materials. Cylinders should be stored below 50 C in a secure area, upright and restrained to prevent cylinders from falling. cylinders should also be stored in a dry, well ventilated area constructed of non-combustible material with firm level floor (preferably concrete), away from areas of heavy traffic and emergency exits.

11 CO₂ Hazardous Classification & General Information

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE