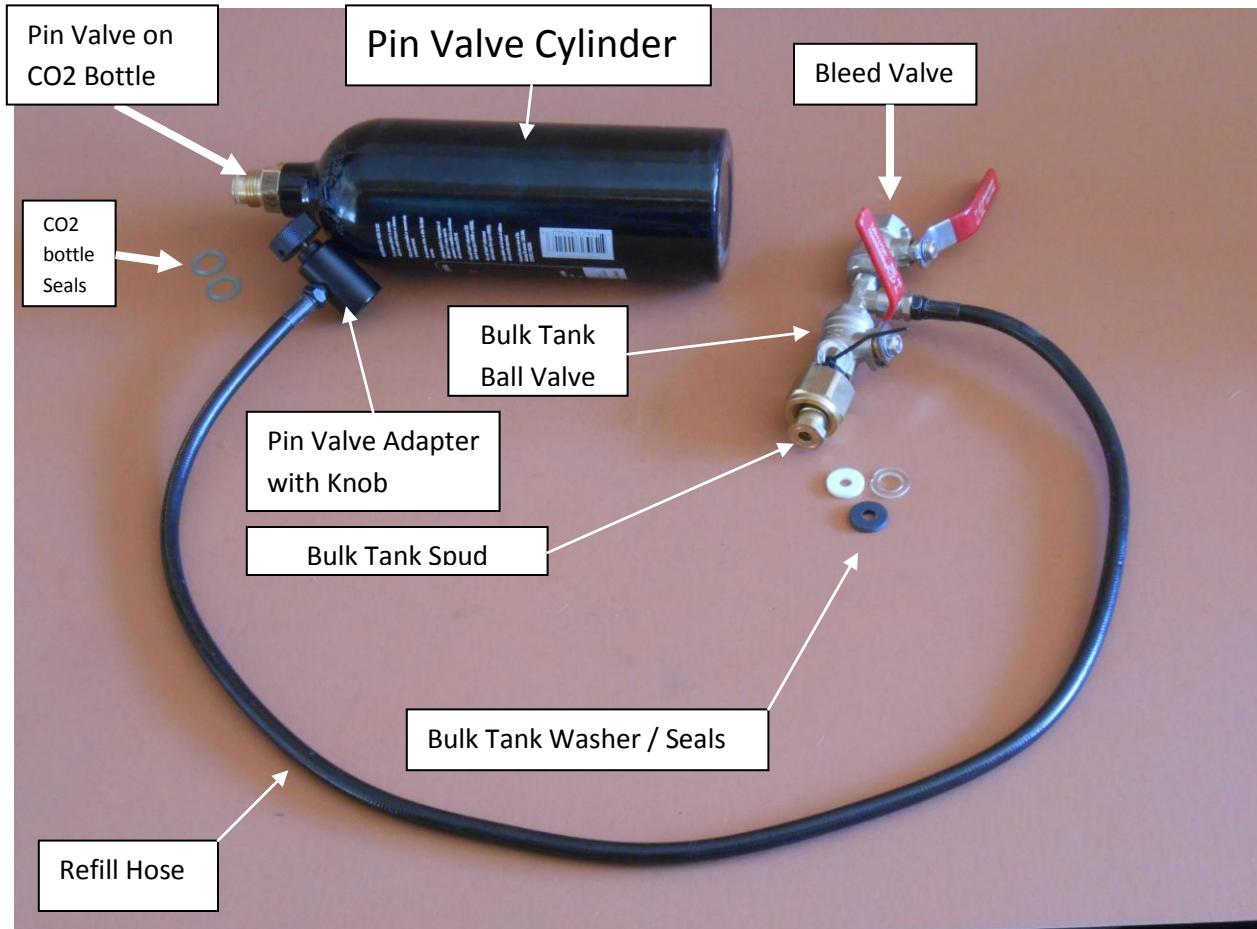


CO₂ Bulk Tank to Pin Valve Bottle Fill Instructions



If the Bulk CO₂ Tank is marked "dip tube" or "siphon tube", do the fill with the Bulk CO₂ Tank upright. If the Bulk CO₂ Tank is conventional it must be upside down for the fill. Pin valve cylinders require partial liquid fills; dip tube Bulk CO₂ Tanks must be upright to deliver the liquid CO₂ via the dip tube or siphon; Conventional CO₂ Tanks must be upside down to deliver the liquid CO₂ to the Pin Valve CO₂ Cylinder.

Verify that the Pin Valve CO₂ cylinder has been "hydro tested" within the last three to five years according to the service sticker or stamp located somewhere on the cylinder. Hydro testing is a professional service that tests the serviceability of the CO₂ tanks and cylinders and avoids injury caused by weakened tanks rupturing under pressure. This is a Lawyer generated warning and must be followed under penalty of Injury, Death, or Lawsuit.

Set all valves to the CLOSED position before proceeding. This includes the valve on the Bulk CO₂ tank, the Bulk Tank Ball Valve, the Bleed Valve on the refill assembly, and the Pin Valve Adapter on the refill hose.

Insert the washer type seal into the female spud nut on the CO2 refill hose assembly that attaches to the bulk CO2 tank and tighten that nut onto the bulk CO2 tank. Tighten the nut with an open end or adjustable wrench to ensure a good seal. Various seals are available. Pictured are Teflon, Plastic, and Fiber.

Attach the Pin Valve CO2 cylinder to the refill hose assembly via the Pin Valve Adapter at the end of the fill hose. Rotate the knob on the Pin Valve Adapter to open the Pin Valve.

Place the Pin Valve CO2 cylinder on a scale and open the bleed valve to purge any CO2 inside. Close the bleed valve once the cylinder is empty.

Change the scale's units of measure to ounces and zero out the scale once any excess CO2 has been purged and the tank is completely empty. This will enable to have the scale show the actual fill of the Pin Valve Cylinder.

Fill the cylinder by opening the main CO2 tank valve and then the Bulk Tank Ball valve on the refill kit. The cylinder should fill to approximately half capacity before the equalized pressures between the main CO2 tank and the Pin Valve Cylinder stop the process.

This should be enough capacity to actuate any of the Quick Release Air Actuation Cylinders several times.

If a half fill is adequate, close the Pin Valve Adapter; both Ball Valves and the Bulk CO2 Tank Valve. Remove the Pin Valve Cylinder from the Pin Valve Adapter. Open the Bleed Valve to blow off remaining CO2 from the Refill Assembly.

If you require a complete Pin Valve Cylinder fill, close the Bulk CO2 Tank Valve and Bulk CO2 Ball Valve. Leave the Pin Valve Adapter open. Open the Bleed Valve to blow off CO2 from the Refill Assembly and Pin Valve Cylinder. Close the bleed valve once the cylinder has been completely purged. This will chill the Pin Valve Cylinder enough to allow a complete fill. Fill the cylinder by opening the main CO2 tank valve and then the Bulk Tank Ball valve on the refill kit. The cylinder should fill to approximately full capacity. Then close the Pin Valve Adapter; both Ball Valves and the Bulk CO2 Tank Valve. Remove the Pin Valve Cylinder from the Pin Valve Adapter. Open the Bleed Valve to blow off remaining CO2 from the Refill Assembly

This may seem like a complicated process, however after a couple of fills it should be a lot easier.

Bulk CO2 Tanks, Conventional and Siphon type are available from your local welding supply. If you want to bypass the filling process yourself, any local Paintball Game business can fill your Pin Valve Cylinders for you.

Be aware that any compressed gas fill process must be done with care to detail. When screwing Pin Valve Cylinders on or off, some CO2 will be vented; make sure that the Pin Valve Cylinder Adapter is closed during this operation.