

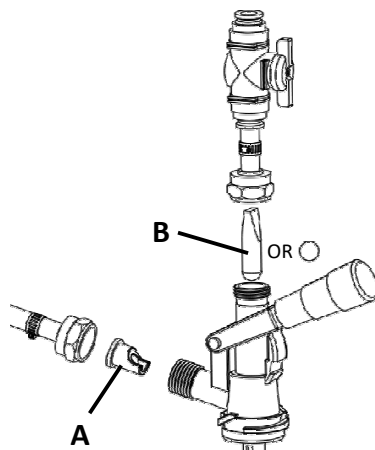
Manual filling instruction – reusable kegs

Material required for manual filling

1 x		or	1x		 
2 x			2 x		
1x			1 x		
6 x			3x		

Preparing

Step 1: remove the non-return valves A and B from the metal keg coupler (S type for example, same for A, G, D type)



Step2: connecting metal coupler, hose, ball valve and pressure regulating valve as a manual filling set.



**Manual Filling Tool for
Carbonated Beverages**



**Manual Filling Tool for
Non-Carbonated Beverages**

Manual filling instruction – reusable kegs

Step3: cleaning

- Hot water (100° C) go through all connectors, metal coupler, hose, etc. and keep for 3 minutes
- 75% food grade alcohol to go through inner line of all connectors, metal coupler, hose, etc.
- Food grade CO2 go through inner line of all connectors, metal coupler, hose, etc., to blow away the water and/or alcohol, dry all parts.

Step 4. Connecting hose to beverage supply, CO2 (or compressed air) supply.

Step 5. Open the ball valve till the beverage fully fills the hose and connectors without foam/bubbles inside the hose, close the ball valve.



Parameters for filling:

- Temperature of carbonated beverage: 1° C ~ 5° C
- Temperature of non-carbonated beverage $\leq$ 30° C
- Filling pressure for carbonated beverage: 1.5bar ~ 3.5 bar
- Filling pressure for non-carbonated beverage: 1.0 bar ~ 3.0 bar
- Pressurized pressure inside keg prior filling: same as filling pressure;

Remarks:

- 1) only for carbonated beverages and/or too much CO2 inside the carbonated beverages;
- 2) as high barrier inner bag inside the keg, the gas only goes into the space between the keg and inner bag, never goes into the inner bag and contact with beer; can use compressed air instead of CO2 for keg pressurizing/counter pressure.
- 3) for non-carbonated beverages and/or not too much CO2 inside the beverage, no necessary for pressurizing the kegs prior filling, no counter pressure needed.

Filling

Step 1: spraying 75% alcohol on metal coupler and spear head



Step 2: connecting the metal coupler on the spear head of kegs, with the handle of the metal coupler on the opening position (not pushed down); ball valve at closing position.



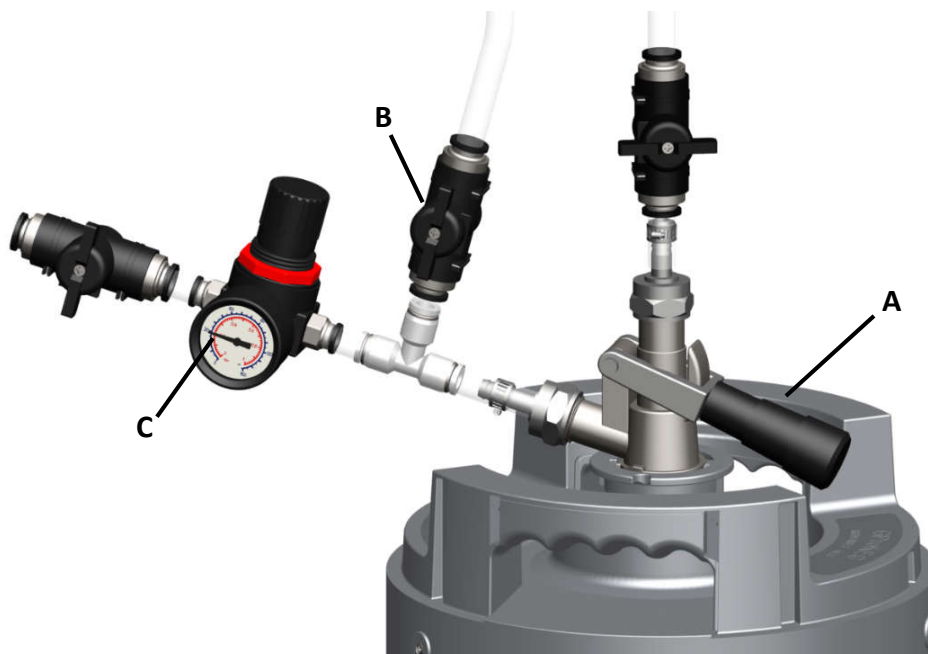
For Carbonated Beverages



For Non-Carbonated Beverages

Step 3: **A:** push the handle of the metal coupler down, **B:** open the ball valve on gas tunnel side to pressurize the keg, **C:** till the pressure inside the keg goes up to be same as the filling pressure;

- for non-carbonated beverages and/or beverages without too much CO₂, no need to pressurize the kegs, go to step 4 directly.



Manual filling instruction – reusable kegs

Step 4: Beer filling

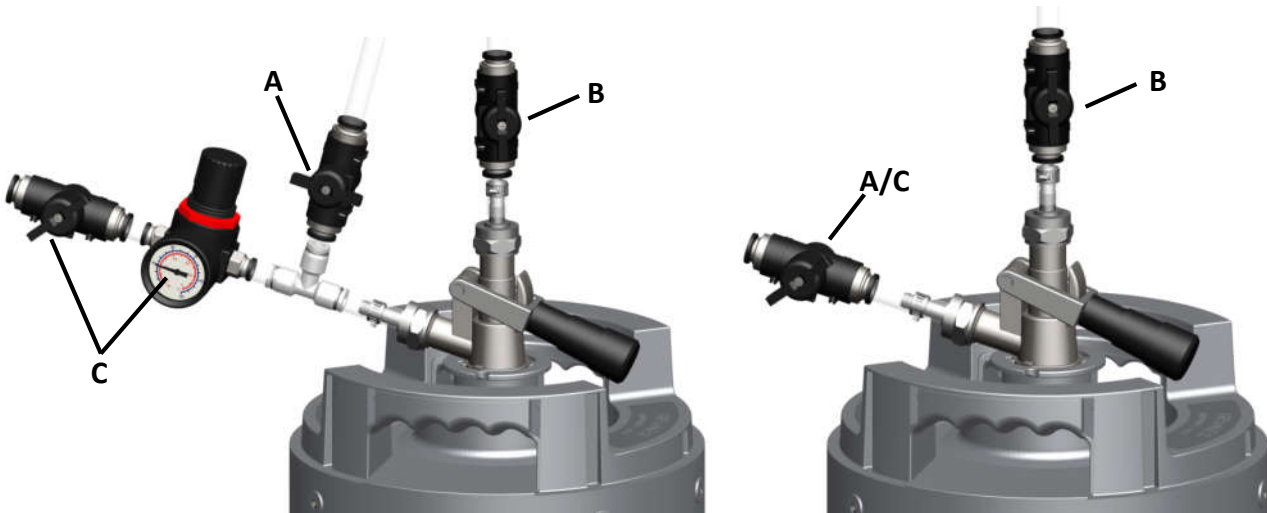
For carbonated beer and/or beer with too much CO₂:

A: closing the gas valve; **B:** open the valve on beverage hose; **C:** open the gas exhausting valve slowly, monitoring the counter pressure inside the keg, keep the pressure inside the keg to be about 0.5bar ~ 1.0bar lower than the filling pressure;

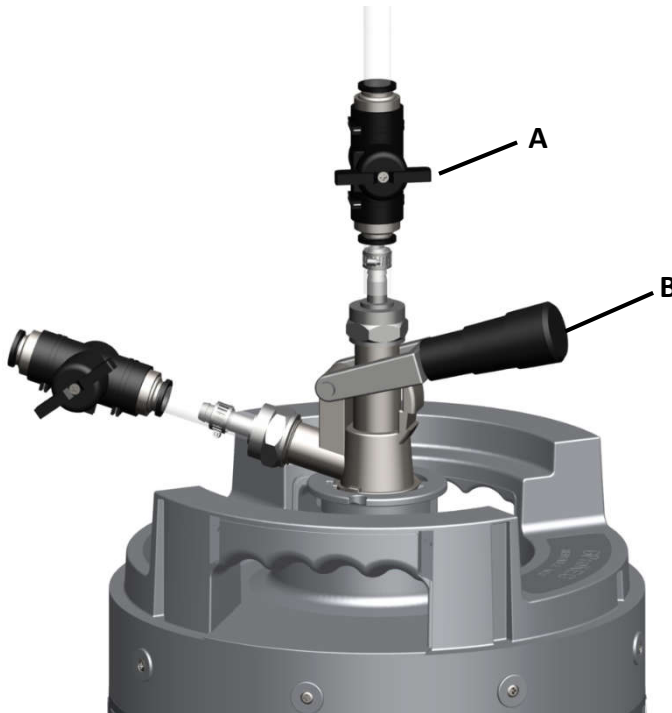
For Non-carbonated beer and/or carbonated beer without too much CO₂:

A: closing the gas valve (for carbonated beer); **B:** open the valve on beverage hose, fill the beer into the keg to half volume of the keg, e.g. 15L for 30L keg; **C:** half open the gas valve till the keg is fully filled; **OR:**

A: keep the gas valve open (for non-carbonated beer); **B:** open the valve on beverage hose, till the keg is fully filled



Step 5: monitoring the weight scale, till the beverage to be filled to required volume, stop the filling by **A:** closing the ball valve, and then **B:** pulling up the handle of the metal coupler (the spear valve will be closed automatically).



Manual filling instruction – reusable kegs

Step 6: disconnecting the filling head, cleaning the spear head by 75% food grade alcohol, and then put dust cap on the spear head.

