Manual filling instruction – reusable kegs

Material required for manual filling

1 x or 1 x

2 x 2 x

6 x 1 x

1 x 3 x

Preparing

Step 1: remove the non-return valves from the metal keg coupler (S type for example, same for A, G, D type)
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**Step 2:** connecting metal coupler, hose, ball valve and pressure regulating valve as a manual filling set.

**Step 3:** 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.
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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.
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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.
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**Step 3:** pushing the handle of the metal coupler down, opening the ball valve on gas tunnel side to pressurize the keg, 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.

**Step 4:** (1) closing the gas valve; (2) open the valve on beverage hose; (3) 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 beverages, only need to open the valve on beverage hose, no gas valve/gas exhausting valve and counter pressure needed.
Step 5: monitoring the weight scale, till the beverage to be filled to required volume, stop the filling by closing the ball valve, and then pulling the handle of the metal coupler up (the spear valve will be closed automatically).

Stop filling by closing the ball valve, and pulling the handle of the metal coupler up

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