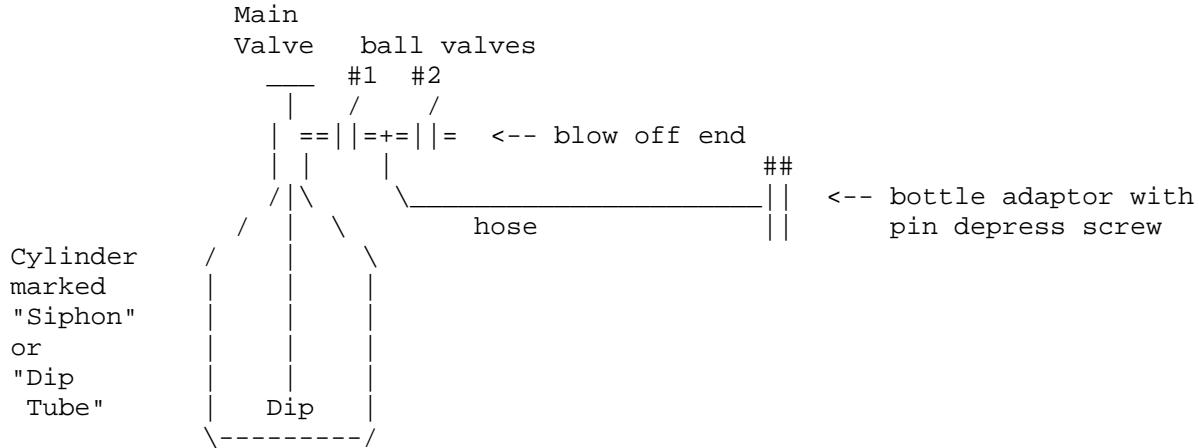

A fill station usually consists of a two ball valves and a hose, which goes to a bottle adapter.



To use this setup you might follow these steps:

(But before proceeding, order pamphlets "G-6.3" (Carbon Dioxide Cylinder Filling and Handling Procedures For Beverage Plants, NSDA TD01) and "P-1" (Safe Handling of Compressed Gasses in Containers) from the Compressed Gas Association. I assume no responsibility for any injury, death, or any damage to equipment resulting from the use or misuse of the following information.)

1. Put on Gloves. *CO₂ boils at 109 below 0 and CO₂ can get much colder!! Direct contact to dry ice will cause severe burns and the bottle can get cold enough to bond to skin.
2. Make sure the bottle adaptor is backed out so that it will not open the bottle's pin valve before the bottle is screwed on.
3. Make sure all valves are closed before attaching the bottle.
4. Inspect the O-Ring on your bottle before attaching the bottle to the adaptor. Replace if necessary.
5. Screw the bottle into the adaptor.
6. Screw in the adaptor's pin depress to crack the bottle. You should hear and feel the fill station's hose charge with some of the left over CO₂ in the bottle.
7. Open vent valve or #2 "in principal" to vent any remaining gas in the bottle. If the bottle feels to be nearly full be sure to invert the bottle to remove the liquid CO₂ before the bottle is over chilled and dry ice is allowed to build up in the bottom of the bottle. *Dry ice will not vent and will result in over filling.
8. A couple of ounces of in a bottle are needed to cool the tank as it is vented. Vent the bottle completely. Do not attempt to fill a partially full bottle!
9. Close the vent valve or #2.
10. Once the bottle is empty hang it on the scale. Tier out or zero the scale while the bottle is hanging from it.
11. Open the bulk cylinder's main valve if not already open.
12. Open the fill valve or #1 completely. Watch the scale and close the fill valve when the scale reads the bottle's capacity. In most cases the bottle will not fill completely. If the bottle filled completely skip to step 15. Danger, do not over fill bottles. *If CO₂ blasts out at the burst disk it is probably blown and will need to be replaced.
13. To finish filling the tank vent about 2 to 3 seconds of Gas CO₂ from the bottle while it is hanging on the scale. This should chill the tank enough to allow the required amount to fit

into the bottle. If the vent and fill cycle does not work try a second time. If the problem persists there are three main problems listed by commonality.

- The bulk tank is empty
- The bottle truly did not chill enough
- The bottle is damaged

14. Unscrew the bottle adaptor pin depress until it is completely disengaged.

15. Open valve #2 to vent the system between the Bulk tank and the bottle.

16. Unscrew the newly filled tank from the bottle adaptor.

17. Close the bulk cylinder's main valve and remove gloves.