



# schwabens®

## Coolant Refill/Air Purge Tool

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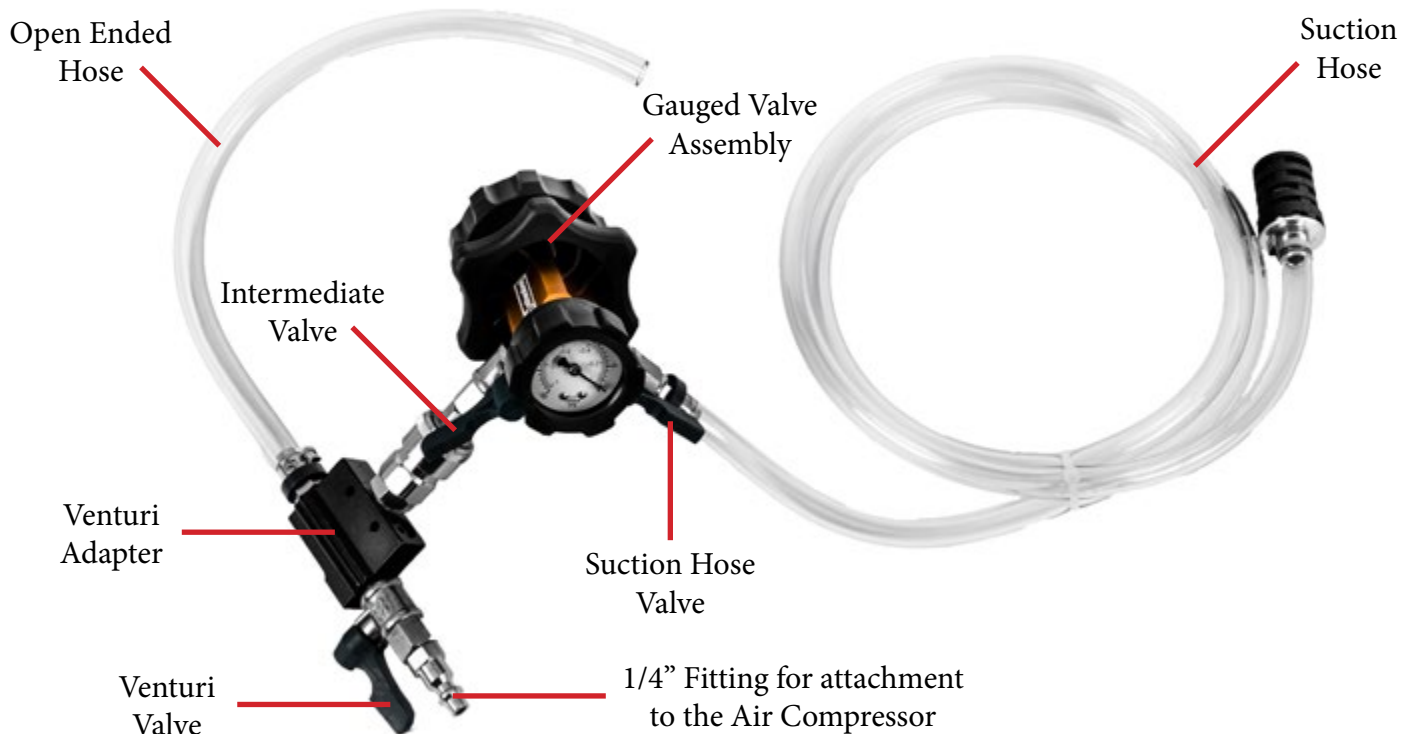
### Refill your cooling system quickly while avoiding airlock issues

The Schwaben Coolant Refill/Air Purge Tool is a universal tool which uses the Venturi method to draw a vacuum on the entire cooling system, ensuring that no air pockets are left in the cooling system while refilling. This tool comes complete with all of the fittings and adapters you will need, and it comes in a custom molded case for easy storage. This tool requires access to a standard air compressor with a minimum rating of 90 PSI (6.2 bar). A



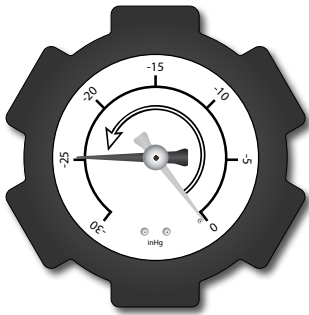
convenient, though not required part to complete the job is a container large enough to hold the entire coolant mixture capacity for your vehicle. This will dramatically reduce the risk of any unwanted air being drawn into the system. This tool is designed to refill the cooling system **AFTER** it has been drained.

Let's take a moment to study the diagram below to become familiar with the component names and locations, this will make using this tool a breeze!

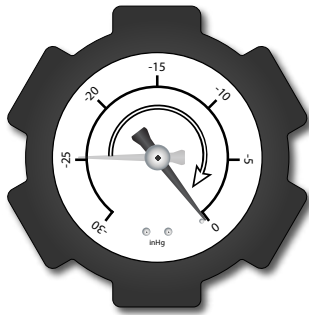


## Gauge Readings:

Drawing a vacuum:

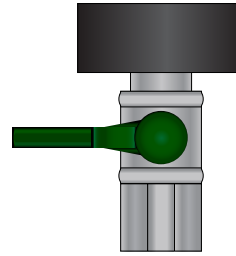


Filling the system:

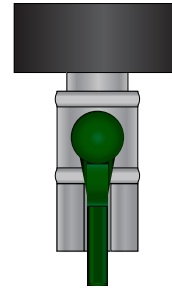


## Valve Operation:

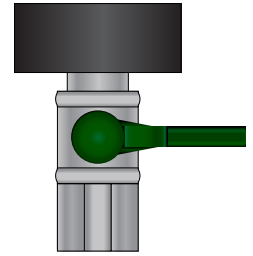
Closed:



Open:



Closed:



## Instructions for use:

1. If the heater system was serviced, turn the ignition on (engine off), Heat Temp to full HOT, fan on LOW. This will keep the heater control valves open to ensure that you are pulling a vacuum on the entire system.
2. Select the correct size rubber filler neck adapter, and install it onto the gauged valve assembly.
3. Install the gauged valve assembly into the filler neck, then hold the entire assembly stationary while you turn the knob clockwise until it is snug.
4. Attach the venturi adapter to the gauged valve assembly via the built in quick connector. Ensure that all of the valves are CLOSED on both the venturi adapter and the gauged valve assembly.
5. Attach the air line from the air compressor to the 1/4" air fitting on the venturi adapter.
6. Point the open ended hose (connected to the venturi adapter) downward and away from any electrical components (some coolant may vent out of this tube during the process of drawing a vacuum on the system).
7. OPEN the venturi valve and the intermediate valve, this will cause air to rush out of the open ended hose (this can be quite loud) and the gauge reading should begin to climb.
8. Wait until the gauge reading stabilizes, then continue to draw vacuum for another 20-30 seconds to be sure you have the maximum vacuum you can achieve (this can be between -23 and -27 inHg, you will NOT be able to reach -30 inHg).
9. CLOSE the venturi valve and the intermediate valve, then watch the gauge for 1-2 minutes. If the gauge reading begins to drop, you either have a leak in the system or the gauged valve assembly may not have a sufficient seal to the filler neck (using an incorrect adapter can cause this). If the gauge reading does not fluctuate, you can disconnect the air line from the air compressor and proceed with filling the system.
10. Insert the suction hose into a container filled with a 50/50 mixture of coolant and distilled water.
11. Slowly OPEN the suction hose valve, you will see the coolant mixture begin to flow through the suction hose and into the system.
12. Monitor the coolant mixture level inside the container, and ensure that the suction hose is always completely submerged in the mixture, DO NOT allow the suction hose to draw any air into the system. If the level in the container is getting low but the gauge has not dropped to zero (0), close the suction valve and refill the container.
13. Once the gauge reads zero (0), the system is full. OPEN the intermediate valve and remove the gauged valve assembly from the filler neck.
14. Double check the coolant level in your system, top off the mixture if it is low, or use a turkey baster to remove any excess coolant if it is high.
15. After any cooling system service has been performed, be sure to run the engine up to operating temperature to confirm temperature gauge and cooling fan operation.
16. We recommend flushing the Cooling System Refill/Air Purge Tool after every use with clean water, then allow the tool to air dry before placing it back into the molded case.