

# KINSLER VAPOR SEPARATOR TANK (VST) SYSTEM - CONTINUED -

## APPLICATIONS

The VST system is often used on road race cars, marine applications, off-road cars and trucks, street cars, and sometimes on drag cars with rear mounted fuel tank, both for constant flow and EFI systems. Used by top race teams all over the world including Daytona, Sebring, and LeMans. It is usually used with gasoline, however it can be used with alky, which requires special maintenance and/or hardware. Call a Kinsler technician for details.

## ADVANTAGES OF THE VST SYSTEM

**NO squirt bottle, NO open fuel containers, one person operation, easy to install**

Automatic priming of the fuel injection system from the drivers seat. The pressure in the Vapor Separator Tank purges out all the vapor. This pushes the fuel through the mechanical injection pump. When the main fuel shut-off is opened, the fuel flows directly into the engine. When the engine starts it will stay running because all the fuel system hoses are purged out. Gone are the problems of having to try and start the engine three or four times, this is hard on the starter, battery, and sometimes a persons ego (nothing hardly worse then being at a race or show and having the engine start, pop, bang, and die several times).

The VST system is less expensive than other "fixes" on the market. It takes up less room, and is not affected by G-forces.



**Economizer Valve has a small metering orifice drilled in the center of the poppet make certain it stays clean**

## COMPONENTS:

- 5708 Vapor separator tank, 8" tall x 3" diameter, blue anodized aluminum
- 5710 Vapor separator tank, 10" tall x 3" diameter, blue anodized aluminum
- 5712 Vapor separator tank, 12" tall x 3" diameter, blue anodized aluminum
- 5713 Mounting bracket for 3" diameter tank, stainless steel with rubber liner, two required
- 5716 Vapor separator tank, 12" tall x 4" diameter, blue anodized aluminum
- 5717 Mounting bracket for 4" diameter tank, stainless steel with rubber liner, two required

Stainless steel Vapor Separator Tanks are available on SPECIAL ORDER.

NOTE : Specify 8 AN, 10 AN, or 12 AN outlet to mechanical injection pump when ordering. Tanks are available with 8 AN or 10 AN male flare inlet (supply from electric pump) and 6 AN or 8 AN male flare for return to Back Pressure valve - other sizes can be special ordered.

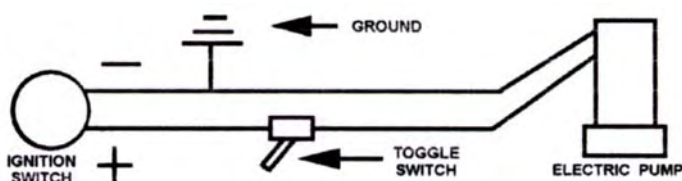
- 3096 Bubble tight check valve, for use between secondary bypass and VST, 6 AN male flare inlet and outlet
- 5732 Back Pressure valve, 6 AN brass high flow jet can, controls pressure in VST
- 5735 Economizer (Econ) valve, special metered orifice poppet for use with VST system
- 5737 Back Pressure valve, 8 AN brass jet can, controls pressure in VST (requires 8 AN fitting on VST)
- 5742 Labor; flow test and set spring, shim, and orifice size on #5735, #5732, and #5737



**Each valve is stamped on the end to identify it as seen on this Back Pressure Valve... stamped "BP"**

## INSTALLATION

Use the plumbing schematic entitled "KINSLER VAPOR SEPARATOR TANK SYSTEM" see Page #116. Follow the schematic carefully; read all the small notes. It would be a good idea to install a 15-PSI gauge to monitor the VST pressure. Install it between the VST and the Back Pressure valve. The pressure at an idle should be 3-4 PSI. This pressure should not drop below 1-PSI at maximum RPM wide open throttle operation.



Electric fuel pump wiring: wire the electric fuel pump into the ignition switch, so that the pump cannot run when the ignition is shut "off". PLUS install a separate pump switch in the circuit so even when the ignition is "on", the pump can be shut off. It is important NOT to run the pump when the engine is shut "off", fuel could drip from the nozzles and eventually flood the engine.

© 2008