

HYPER FIT TECHNICIANS recommend nozzles be ultrasonically cleaned then flow checked at 10,000 rpm's (duplicating corner exit) to insure that they are clean and matched for maximum performance.



Methanol Purge Tank

Purge fuel system of methanol if not using for 2-3 weeks.

602-210



Injector Nozzle Clean and Flow Test Service (per nozzle)

602-604

Injector Nozzle Flow Test Service Only (per nozzle)

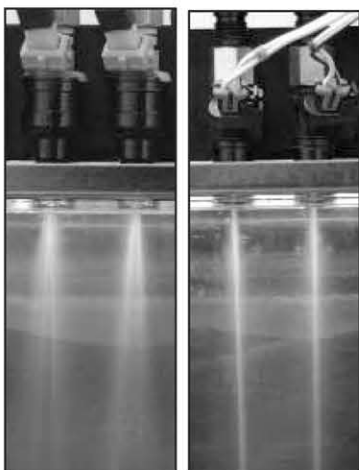
602-6041



Fuel Injector Pulse Tester

Enables the injectors to be pulsed during cleaning.

602-6045



Bosch Nozzle
with optimal 10°
spray pattern

Competitor's Nozzle

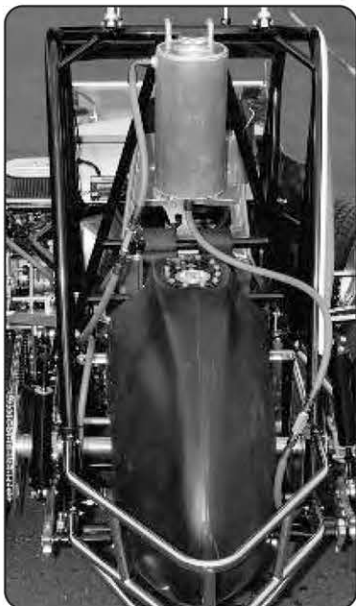
SHOP TALK

nozzle cleaning alternative

Use 602-6045 Fuel Injector Pulse Tester to pulse the nozzles while back flushing them.

- Connect the pulser to a 12v battery and the injector and begin pulsing
- Use an air hose with a rubber tip pressed onto the outlet side of the nozzle to blow back through the nozzle while pulsing it.
- Spray injector cleaner, brake clean, or WD40 into the nozzle
- Use the air hose to blow backwards and then forwards several times to work out and dirt.
- Drip **air tool oil** (no other oil will work, we have tried them all) into the inlet side of the nozzle
- Pulse nozzle
- Use air hose to force the oil through the nozzle. If air tool oil is not used, the nozzle will stick and not pulse.

Gasoline is a petroleum product so it acts as a lubricant to preserve the engine, injector nozzles, pump, and the entire delivery system, enabling the components to last longer and not corrode when the alcohol evaporates.



SHOP TALK

fuel injection system maintenance

Electronic fuel injection systems can function so perfectly that it is easy to forget how awful it was to take apart and clean those carburetors every week. Keep the fuel injection system functioning optimally with weekly maintenance and proper off-season storage.

Because methanol evaporates quickly, do not leave it in the nozzles and fuel delivery system for extended periods of time. Make sure the system (fuel lines and fuel rail) are filled with methanol during the week. Oxygen is the enemy of a properly functioning fuel injection system. Do not allow oxygen (air) to get into the system. If the car will be raced on a weekly basis, the only necessary maintenance is to clean the fuel filters at least every six races. If the car has been recently painted, or is new, clean the fuel filters every week for three races. After cleaning the fuel filters, turn the pump on to circulate the methanol and remove air. Here is the best way to prepare the system if it is not going to be used for more than two to three weeks:

STORAGE-PURGE TANK METHOD

- fill the purge tank with gasoline
- hang the purge tank from the back of the roll cage
- turn on the pump and reduce the fuel pressure to half of what is used with methanol (generally 25 psi), to keep the spark plugs from fouling
- turn the fuel off at the tank tail
- remove the fuel line attached to the shut off valve of the tank
- turn the fuel pump on for 4 seconds, this pumps most of the methanol out of the lines and into the tank
- attach the line from the bottom of the purge tank (feed line) to the line that was connected to the tank tail shut off valve (line going to pump)
- remove the return line at the top of the tank tail
- hook it up to the line from the top of the purge tank
- turn on both shut off valves of the purge tank
- start your engine and let it run for several minutes
- leave the gas in the entire system until you are ready to race again

RACE PREPARATION

- turn off lower shut off valve of purge tank (feed line)
- turn pump on for 4 seconds, this pumps the gasoline from the lines into the purge tank
- turn off upper shut off valve (return line) in purge tank
- remove gasoline purge tank from roll cage and attach optional second purge tank filled with methanol, or attach both lines onto tank tail: second purge tank eliminates the possibility of gasoline from entering the tank tail
- turn on shut off valve on tank tail
- if using the second purge tank, attach lines, and turn on valves
- turn on the pump and increase fuel pressure back to pressure used with methanol
- if using the second purge tank, start engine, let run for several minutes, then shut off valves and attach lines back onto tank tail

Gasoline is a petroleum product so it acts as a lubricant to preserve the engine, injector nozzles, pump, and the entire delivery system. It will also enable the components to last longer and stay corrosion free when the methanol evaporates.

As always, when turning the engine off, turn the engine off first and then the pump. Or, preferably, hook the engine and pump up to the same switch. This insures the engine is not running with the pump off and eliminates a switch that could go bad. If the pump is turned off first, the nozzles will keep pulsing without pressure behind them and may allow air to get into the system. Whenever a liquid of any kind is in the nozzle and is allowed to evaporate (under the presence of air in the system) it will leave a fine residue behind. The injector nozzles are machined to such tight tolerances that this residue may lead to a stuck injector.

protect your investment

- Never let gasoline come into contact with your alcohol bladder.
- Use the purge tank method to safely prepare your car for off season storage.