

# COMPARISON OF RACING FUEL INJECTION SYSTEMS

Comparison Features	Constant Flow	Lucas Mechanical	Electronic
Complete race metering system cost with pumps but without manifold.	\$1,500.00	\$7,500.00	\$2,500.00 - 15,000.00 plus cost of a laptop computer to run it
Dependability	Excellent	Excellent	Very good with electronics properly selected for the intended application
Ability to calibrate to exact engine requirement	Fair to Good	Poor to Fair	Very excellent
Time to calibrate on dynamometer	1 - 4 hours	1 - 2 hours	2 -12 hours, but varies dramatically
Ability to run methanol	Excellent	Poor or Not able	Fair - requires constant maintenance. High risk of long term component failure
Self adjusting to atmospheric conditions	No	On production car models	Yes
Does unit control metering during starting	Poor; little or no atomization during cranking	Very good	Excellent
Ease of starting	Fair	Very Good	Excellent
Ability to set clean idle yet have good throttle response	Poor	Fair	Excellent
Function of nozzles/injectors	Meter by pressure drop across orifice	Atomization only; no metering function.	Meter by pressure drop across orifice plus electrically controlled duty cycle
Nozzle/injector atomization quality	Poor --- to --- Good (low RPM) to (high RPM)	Excellent	Excellent
Tendency for nozzles/injectors NOT to drip after shutting engine off	Poor; Very poor if you don't use a shut-off valve	Very Good	Excellent
Fuel Economy	Poor	Fair	Excellent
Ease of cleaning nozzles/injectors.	Good	Fair	Poor if you don't have special equipment
Ease of maintenance of overall system	Excellent	Good	Fair

**CONSTANT FLOW NOZZLE**



**LUCAS MECHANICAL TIMED NOZZLE**



**ELECTRONIC INJECTOR**



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