

Injector cuts diesel smoke

By JAMES STANFORD

A GEELONG-made diesel direct-injection system could be closer to production after it won an Australian design award this week.

The injector was developed by engineer Ron Kukler.

Kukler has been unable to find an Australian manufacturer to take on his invention, but will now meet representatives of Perth direct-injection expert Orbital.

"If we can't do it locally, we'll have to team up with someone overseas," he says. "Unfortunately, we will have to end up buying back the technology for three times the price."

His invention is a high-pressure, diesel direct-injection system that sits at the top of each cylinder and links to a regular fuel line and the engine's electronic control unit.

Many new diesel engines have direct injection, but use high-pressure lines and pumps, which can be expensive.

Kukler says his hydraulic system uses the engine's combustion pressure to shoot the



Any takers? Ron Kukler is looking for industry to buy in.

diesel fuel into the cylinder and can inject it with better accuracy than any of the other systems.

The system can inject a finer spray of diesel which means the engine produces less pollution, eliminates much engine vibration and noise while increasing power output, he says.

"This is the new technology. There is nothing from the past in this unit," he says.

The system, which has been tested on several engines, has run for more than 10,000 hours.

Engineer Eric Milkins,

who has helped Kukler, says the invention has potential, but needs to be developed further.

"It's main advantage is that it just screws in like a spark plug," Milkins says.

But convincing the auto industry to invest the large sums needed for development will be tough, he says.

It all started when Kukler was on a city street corner about 10 years ago.

"A bus went past and covered me with black smoke, which is carcinogenic, and I set out to design a better system."