Multi-hole nozzles

Audi common rail systems are components of fascinating precision that inject tiny amounts of fuel into the combustion chambers. The fuel is released from the nozzles at pressures of up to 2,000 bar (29,008 psi) and at several times the speed of sound. In some engines, Audi uses piezo injectors with eight-hole nozzles, with each hole only 0.12 millimeters (0.0047 in) in diameter.

The fine atomization this enables creates an optimal spray pattern in the combustion chamber, so that ignition and combustion take place more rapidly, more evenly and with less noise. Combustion is extremely efficient, and fuel consumption and exhaust emissions decrease while performance increases.

Status: 2011

Source: www.audi-technology-portal.com
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