EGR VALVE FUNCTION AND LEAK TEST

Market driver:

The major engine manufacturers are currently developing improvements in the diesel engine to reduce Nox emissions to meet the 2010 standards. One of the many methods is to re-circulate the exhaust gas back to the input of the combustion process. A valve controls this re-circulation.

Test requirement:

This exhaust gas recirculation valve (EGR) must contain the gas, block the gas flow, open and close within a required response time, and close on shutdown.

CTS Solution:

Cincinnati Test Systems developed an automated stand to perform the response test of the valve to open, close and close upon a power failure. The valve is also leak checked for a shell leak and the closed seat leakage using mass flow. Upon completion of the testing the accepted valves are automatically pin stamped and returned to the operator to be moved to the label apply nest and rejected parts are automatically sorted to two reject conveyor positions.