RABOTTI S.R.L.

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6° exit

RESPONSE TIME

Welcome back to everyone with the new edition of Rabotti news. In this release we will try to explain the operation of the injectors' response time

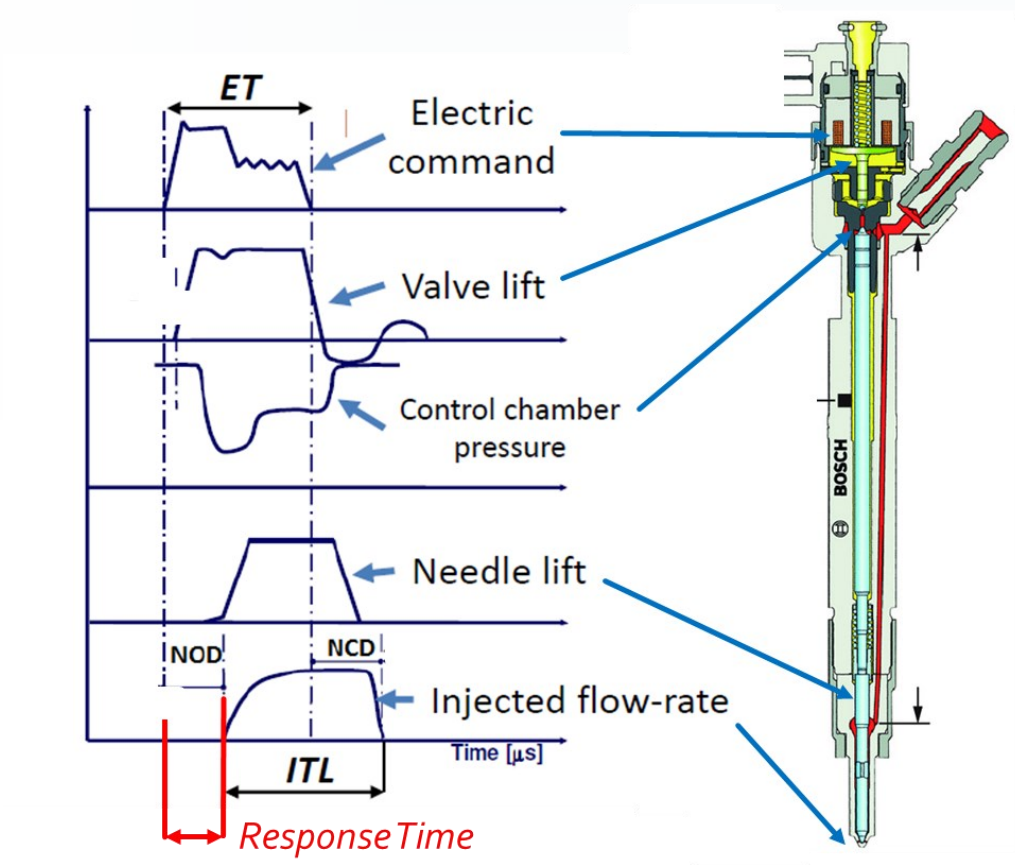
The Response Time of the injector is defined as the difference in time between the instant at which the electric command to the coil starts and the instant at which the injection shot actually starts.

That delay contains:

1)The time needed to open the valve;

2)The time needed to discharge the control chamber in order to reduce the pressure at the top of the plunger;

3)The time needed to lift up the needle.



The value of the response time is important to understand where the injection actually starts so that the ECU can move the electric command in order to obtain the best combustion process in the engine. This is the reason why in some cases it is also input in the correction code. It is influenced by several parameters such as pull-up current level, rail pressure, injector temperature, nozzle and valve springs preload.