

## Throttle Body for Forklifts

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines so as to control the amount of air flow to the engine. This mechanism functions by applying pressure on the driver accelerator pedal input. Usually, the throttle body is placed between the air filter box and the intake manifold. It is usually connected to or located near the mass airflow sensor. The biggest part in the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is to be able to regulate air flow.

On various kinds of automobiles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In cars with electronic throttle control, likewise known as "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal is attached to a sensor and not to the throttle body. This sensor sends the pedal position to the ECU or otherwise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position together with inputs from other engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black portion on the left hand side which is curved in design. The copper coil located near this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates rotate in the throttle body each and every time pressure is placed on the accelerator. The throttle passage is then opened to enable a lot more air to flow into the intake manifold. Typically, an airflow sensor measures this change and communicates with the ECU. In response, the Engine Control Unit then increases the amount of fluid being sent to the fuel injectors so as to produce the desired air-fuel ratio. Often a throttle position sensor or TPS is fixed to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or likewise called "WOT" position, the idle position or anywhere in between these two extremes.

Various throttle bodies could have valves and adjustments so as to control the least amount of airflow throughout the idle period. Even in units that are not "drive-by-wire" there will normally be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU utilizes in order to regulate the amount of air which can bypass the main throttle opening.

It is common that various cars contain one throttle body, although, more than one could be used and connected together by linkages to be able to improve throttle response. High performance automobiles like for example the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are called ITBs or "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors together. They function by mixing the fuel and air together and by regulating the amount of air flow. Automobiles which include throttle body injection, which is called TBI by GM and CFI by Ford, locate the fuel injectors within the throttle body. This allows an older engine the chance to be transformed from carburetor to fuel injection without considerably changing the engine design.