

## Throttle Body for Forklift

Throttle Body for Forklifts - The throttle body is part of the intake control system in fuel injected engines so as to regulate the amount of air flow to the engine. This mechanism functions by applying pressure upon the operator accelerator pedal input. Usually, the throttle body is situated between the intake manifold and the air filter box. It is normally connected to or positioned close to the mass airflow sensor. The largest piece inside the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is to regulate air flow.

On nearly all automobiles, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works to be able to move the throttle plate. In automobiles consisting of electronic throttle control, otherwise called "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal is attached to a sensor and not to the throttle body. This particular sensor sends the pedal position to the ECU or also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position along with inputs from other engine sensors. The throttle body has a throttle position sensor. The throttle cable connects to the black part on the left hand side that 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.

The throttle plate rotates inside the throttle body each and every time the driver presses on the accelerator pedal. This opens the throttle passage and allows much more air to be able 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 in order to generate the desired air-fuel ratio. Often a throttle position sensor or likewise called 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 also called "WOT" position, the idle position or somewhere in between these two extremes.

So as to control the least amount of air flow while idling, some throttle bodies may have adjustments and valves. Even in units which are not "drive-by-wire" there would often be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU uses so as to regulate the amount of air which can bypass the main throttle opening.

In lots of cars it is normal for them to contain one throttle body. In order to improve throttle response, more than one can be used and connected together by linkages. High performance vehicles such as the BMW M1, along with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are called ITBs or otherwise known as "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body into one. They work by blending the air and fuel together and by modulating the amount of air flow. Vehicles that include throttle body injection, that is known as CFI by Ford and TBI by GM, locate the fuel injectors inside the throttle body. This enables an old engine the chance to be transformed from carburetor to fuel injection without really changing the design of the engine.