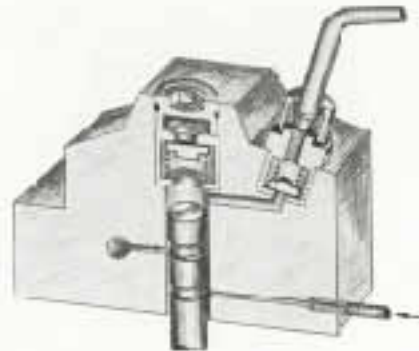


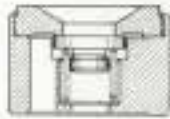
Delivery comes to an end when TDC is reached. The delivery valve is shut by force of the delivery valve spring and thus prevents the fuel from flowing back via the injection pipe into the high pressure chamber during the following new suction stroke.



The Suction Valve

The suction process is controlled for each element by way of a valve, called the suction valve.

The suction valve stops the fuel from returning to the suction chamber during the delivery stroke of the plunger. The valve opens during the downward travel of the plunger (suction stroke). During delivery the suction valve remains shut by force of the delivery valve spring and the excess pressure in the element.



The Delivery Valve

serves the purpose of preventing the fuel from flowing back into the high-pressure chamber.

At the end of the delivery stroke the pressure above the plunger drops whereafter the delivery valve spring and the increasing pressure in the delivery pipe press the valve cone onto its seat, thereby shutting off delivery pipe and high pressure chamber.



Suction Stroke Control

The fuel quantity is controlled by varying the plunger stroke but only in lower rest position. Commencement of delivery is thus variable and the end of delivery constant.

As the suction stroke is limited, only the sucked-in quantity of fuel is delivered during the suction stroke.

The Control Device

Lower rest position of the plunger is determined by the control cam actuating rocker, the position of which can be changed in the direction of plunger stroke. The rocker has been designed as a one-armed lever mounted on the eccentric shaft. Its free end is supported via a feeler pin by the control cam. Lower rest position of the plunger can be influenced separately from two sides.

During engine operation the injected fuel quantity is determined by scanning the radial projections on the three-dimensional control cam. The control cam is moved longitudinally by the fuel control shaft lever and its position depends on the position of the accelerator pedal because fuel control shaft lever and throttle valve are coupled. The control cam is thus 'load dependent' at constant speed.