

Title (en)  
CONTROL VALVE FOR A FUEL INJECTOR

Title (de)  
SCHALTVENTIL FÜR EINEN KRAFTSTOFFINJEKTOR

Title (fr)  
SOUPAPE DE COMMANDE POUR INJECTEUR DE CARBURANT

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Application  
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Abstract (en)  
[origin: WO2015010805A1] The invention relates to a control valve (10) for a fuel injector (100) for internal combustion engines, which control valve comprises a valve piece (11), which has a valve seat (12) and a valve closing armature (20), which interacts with the valve seat (12) and can be moved in a reciprocating manner. A discharge bore (30) having a circular cross-section is formed in the valve piece (11). The discharge bore comprises a first region having a diameter  $d_1$ , which first region serves as a throttle (31), a second region, which serves as a diffuser (32), and a third region having a diameter  $d_3$ , which third region serves as a following flow geometry (33). The second region has at least one segment having a diameter  $d_2$ , and the following applies:  $d_1 < d_2 < d_3$ . The third region B3 serving as a following flow geometry (33) has a length  $l_3$ , wherein the following applies to the ratio  $l_3/d_3$ :  $2 < l_3/d_3 < 4$ ,  $l_3/d_3$  preferably being approximately equal to 2.5.

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