

ABSTRACTLaser nozzle with mobile element

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The invention relates to a laser nozzle (1, 2) that can be used in laser cutting, notably with a fibre or disc laser, comprising a nozzle body (1) comprising an axial housing (5) passing axially through said nozzle body (1) and comprising a first outlet orifice (11) situated at the front face (1a) of the nozzle body (1), and a movable element (2) comprising a skirt-forming front part (2a) arranged in the axial housing (5) of the nozzle body (1), said movable element (2) being capable of translational movement in the axial housing (5) of the nozzle body (1) and comprising an axial passage (4) with a second outlet orifice (12) opening onto the skirt-forming front part (2). According to the invention, the movable element (2) is able to move translationally in the axial housing (5) in the direction of the first outlet orifice (11) under the effect of a gas pressure applied to the movable element (2) until such point as the skirt-forming front part (2a) of the movable element (2) projects out from the axial housing (5) through the first outlet orifice (11) of the front face (1a) of the nozzle body (1), and an elastic element (8) is arranged in the axial housing (5), between the nozzle body (1) and the movable element (2), said elastic element (8) applying an elastic return force to the movable element (2) that tends to oppose the translational movement in the axial housing (5) in the direction of the first outlet orifice (11).

Figure 3