

Laser nozzle with mobile element of improved external profile

Abstract

5 The invention relates to a nozzle for laser cutting comprising a nozzle body (1) comprising an axial housing (5) and a first outlet orifice (11) situated in the region of the front face (1a) of the nozzle body (1), a mobile element (2) arranged in the axial housing (5) of the nozzle body (1), comprising a skirt-forming front part (2a) and comprising a second outlet orifice (12), said mobile element (2) being able to be moved in a translational movement inside the axial housing (5) toward the first outlet orifice (11) under the effect of a gas pressure applied to the mobile element (2) until such time as the skirt-forming front part (2a) of the mobile element (2) projects out from the axial housing (5) through the first outlet orifice (11), and an elastic element (8) arranged in the axial housing (5), between the nozzle body (1) and the mobile element (2), applying an elastic return force to the mobile element (2). According to the invention, the front part (2a) comprises an end portion (17) the outside diameter of which decreases progressively toward the second outlet orifice (12). Focusing head and associated laser cutting installation. Laser-beam cutting method employing a nozzle according to the invention, a laser focusing head according to the invention or an installation according to the invention.

20 (Fig. 4)