

The invention relates to a process for manufacturing metal powders, comprising (i) feeding a chamber of a gas atomizer with molten metal, (ii) atomizing the molten metal by injection of gas so as to form metal particles, (iii) cooling the metal particles in the lower section of the chamber by injecting gas from the bottom of the chamber so as to form a bubbling fluidized bed of metal particles. The invention also relates to the gas atomizer thereof.