

CLAIMS

1. Apparatus (10) for roasting coffee beans comprising :
- a roasting chamber (1) presenting a bottom opening (11),
5 - an air driver (2) configured to drive a flow of air inside the roasting chamber through the bottom opening of said chamber,
- an electrical heater (3) positioned below the bottom opening of the chamber configured to heat said flow of air driven to the bottom opening of the roasting chamber,
wherein the apparatus comprises a conduit (6) to drive the flow of hot air from the heater (3)
10 to the bottom opening (11) of the roasting chamber, and
wherein said conduit (6) comprises a local transversal constriction (61) reducing the section of the conduit to a minimum transversal section, and
wherein at least one temperature probe (7) is positioned at said minimum transversal section of the conduit.
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2. Apparatus according to Claim 1, wherein said apparatus comprises a controller (8) arranged to control said apparatus, said controller being adapted to control the electrical heater (2) and/or the air driver (2) based on the temperature of the flow of air measured by the at least one temperature probe (7).
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3. Apparatus according to Claim 1 or 2, wherein at least two temperature probes (7) are positioned at said minimum transversal section of the conduit, each probe being positioned at different radial positions.
- 25 4. Apparatus according to any one of the precedent claims, wherein the hydraulic diameter ($\emptyset$) of the minimum transversal section of the local transversal constriction is comprised between 15 and 25 mm.
5. Apparatus according to any one of the precedent claims, wherein the design of the constriction comprises a progressive reduction (61a) of the transversal section of the conduit
30 down to the minimum transversal section and a progressive opening (61b) of the transversal section of the conduit from said minimum transversal section.
6. Apparatus according to any one of the precedent claims, wherein the hydraulic diameter
35 ($\emptyset$) of the minimum transversal section is comprised between 1/3 and 2/3 of the hydraulic diameter (D) of the conduit upstream the constriction.

7. Apparatus according to any one of the precedent claims, wherein the bottom (11) of the roasting chamber is positioned above the minimum transversal section by a distance d, said distance d being comprised between 2 and 3 times the hydraulic diameter ($\varnothing$) of the minimum transversal section.

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8. Apparatus according to any one of the precedent claims, wherein the conduit (6) comprises a static mixer, said static mixer being positioned upstream the constriction.

9. Apparatus according to any one of the precedent claims, wherein the roasting chamber is removably mounted to the housing (4), the bottom opening (11) of the roasting chamber cooperating with the hot air outlet end of the conduit when the roasting chamber is mounted to a housing (4) of the roasting apparatus.

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