

CLAIMS

1.- A system for cooking pasta (2); the system comprising:

a container (4), which is configured to contain a given
5 quantity of pasta (2); the container (4) comprising a base
wall (19) and one single opening (20) opposite the base wall
(19);

a pasta cooking machine (1) comprising:

a first dosing device (3) to feed a given quantity of
10 liquid water into the container (4); the first device (3)
being configured to feed a given quantity of liquid water at
a temperature of at least 50°C to the container (4) and
comprising a first duct (6), a first nozzle (7) arranged at
an end of the first duct (6) to release the water into the
15 container (4), and a feeding assembly (8) to convey the water
along the first duct (6) to the first nozzle (7);

a second dosing device (5) to feed a given quantity of
water vapour into the container (4); the second device (5)
comprising a second duct (15), a second nozzle (16) arranged
20 at an end of the second duct (15) to emit the water vapour,
and a boiler (10) to feed water vapour along the second duct
(15) to the second nozzle (16).

2.- A system according to claim 1, wherein the container
(4) contains the quantity of pasta (2); the given quantity
25 of water is smaller, by weight, than the given quantity of

pasta (2); the pasta (2) has a humidity content of at least 22%, in particular up to 30%, by weight with respect to the weight of the pasta.

3.- A system according to claim 1 or 2, wherein the
5 opening (20) is configured to allow part of the water vapour to flow out of the container (4).

4.- A system according to any one of the preceding claims, wherein the container (4) and the second dosing device (5) are configured so that the pressure inside the
10 container (4) is greater than the atmospheric pressure, in particular greater than 1 bar.

5.- A system according to any one of the preceding claims, wherein the second dosing device (5) is configured to emit water vapour having a vapour quality smaller than
15 0.9, in particular smaller than 0.8.

6.- A system according to any one of the preceding claims, wherein the ratio between the weight of the given quantity of water and the weight of the given quantity of pasta (2) ranges from 0.30 to 0.95, in particular from 0.35
20 to 0.90.

7.- A system according to any one of the preceding claims, wherein the feeding assembly (8) comprises a pump (12) and a flow meter (13) to measure the quantity of water flowing along the first duct (6).

25 8.- A system according to any one of the preceding

claims, wherein the feeding assembly (8) also comprises a first flow adjuster (14), in particular a valve, to adjust the quantity of water flowing along the first duct (6).

9.- A system according to any one of the preceding
5 claims, wherein the second device (5) comprises a second flow adjuster (18), in particular a valve, to adjust the water vapour emitted by the second nozzle (16).

10.- A system according to any one of the preceding claims, wherein the machine (1) comprises a lid (21), which
10 is configured to at least partially cover the opening (20).

11.- A system according to claim 10, wherein the lid (21) completely covers said opening (20) and has an outlet passage (22), which establishes a communication between the inside of the container (4) and the outside and has an area
15 from 0.09 cm² to 0.95 cm².

12.- A system according to claim 10 or 11, wherein the lid (21) completely covers said opening (20) and is provided with control means, which are configured to let out gas from the inside of the container (4) when the pressure inside the
20 container (4) exceeds a reference value.

13.- A system according to any one of the claims from 10 to 12, wherein the first and the second device (3, 5), in particular the first and the second nozzle (7, 16), extend through the lid (21).

25 14.- A system according to any one of the claims from

10 to 13, and comprising a moving device (23) to move at least one between the container (4) and the lid (21) relative to the other one, so as to move them close to and away from one another.

5 15.- A system according to claim 14, wherein the moving device (23) is configured to move the container (4) towards the lid (21) or away from the lid (21).

 16.- A system according to claim 14 or 15, wherein the moving device (23) is configured to exert a given force upon
10 the lid (21) and/or upon the container (4) so as to keep the lid (21) in contact with an upper edge (24) of the container (4), even when the second device (5) is operated.

 17.- A system according to any one of the preceding claims and comprising at least one control unit (25), which
15 is configured to control the first and the second dosing devices (3, 5) so as to feed the given quantity of liquid water and the given quantity of water vapour; in particular, the control unit (25) is configured to control the first and the second dosing devices (3, 5) so that the given quantity
20 of liquid water is at least partially emitted before the given quantity of water vapour.

 18.- A system according to any one of the preceding claims, wherein the container (4) has a code, which identifies the pasta (2) contained in the container (4)
25 and/or the operating parameters of the first and of the

second device (3, 5); the system comprises a reader (26), which is configured to detect the code; and a control unit (25), which is configured to select the parameters used by the first dosing device (3) and by the second dosing device
5 (5) based on the information detected; in particular, the control unit (25) is configured to select at least one parameter among: the given quantity of liquid water, the given quantity of water vapour, and the time during which
10 the water vapour is fed to the container (4).