

**Tradition and project: the espresso machine**

by Gabriele Adriano

Tutor: Giorgio De Ferrari

Italians are known worldwide for being brilliant, inventive and fanciful creators of great inventions that have strongly influenced the development of our society. Pizza, spaghetti and espresso coffee are only three of these inventions, perhaps the strangest, but certainly the best known ones, the ones that identify Italians anywhere in the world and that are very appreciated and sought-after everywhere.



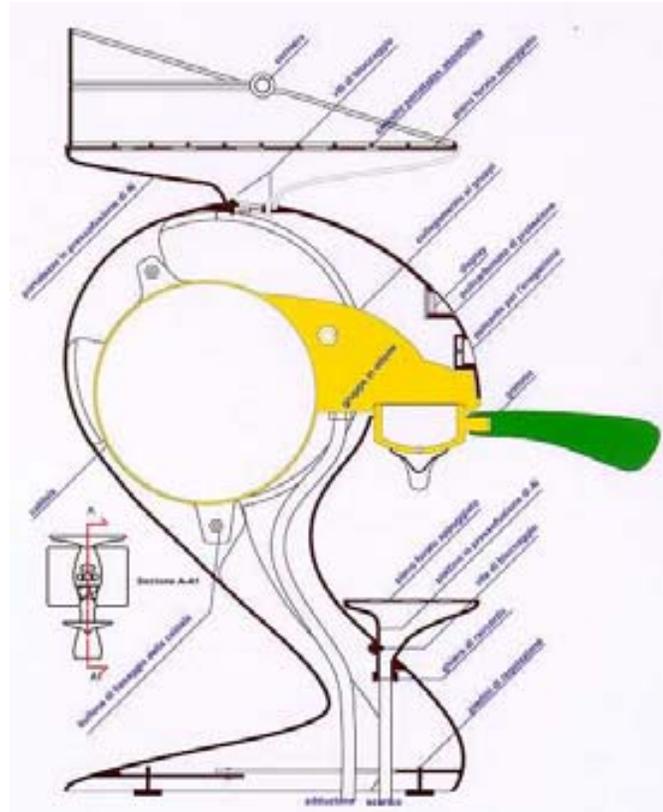
The G98 project aims at revolutionizing one of the basic steps in the art of making espresso coffee: its preparation.

This unusual drink is made up of three "magic" components: the coffee blend, the espresso machine and the barman.

The espresso machine is the link between the raw material and the person preparing the drink; it is the heart of any Italian bar, it is the mysterious object that produces our coffee as black and scented as we like it.



The G98 project aims at developing this last element: the coffee machine. Thorough historical and technological researches have enabled us to understand the direction to take in designing this new coffee machine that, according to the Italian tradition, must respect history and the technological changes. The resulting machine is aimed at fulfilling the needs of the big mass production, but is also careful to all the ergonomic details and the distribution of the internal parts. Externally the machine features rounded forms that remind us of the '60s but at the same time draw the mind to a timeless future. We have looked for an object that would be hard to date, beyond the trends that often characterize design. The machine will once again have to become the main character in the espresso ritual. For this reason we have imagined it as more "transparent", lighter, readable regardless of its positioning on the stage of the bar. The small dimensions make it easy to place, enabling a more flexible creation of the right setting for the consumption of the espresso coffee.



The distribution of the internal parts has been drastically modified by raising the boiler, moving the volumetric pump outside and optimising the adduction and exhaust channels. All of the above has been obtained by eliminating the classic frame and substituting it with a supporting body made of two shells in aluminium die-casting. The resulting machine is more compact, more rigid, easier and faster to assemble and dismount for maintenance and cheaper in the industrial production of high quantities.

Special care has been devoted to its ergonomic features, starting from the observation of the work usually done by barmen: during the preparation of an espresso coffee, the machine requires the operator to do 16 different tasks which may be burdensome for a person who on average prepares 300 - 400 coffees a day. The ergonomic study aims at improving the quality of the work reducing the total number of tasks to perform.

The ergonomic changes have regarded both the anatomical and motory aspects (leverage grips and use paths) as well as the cognitive aspects (grouped and easy-to-read commands) aiming at the elimination of useless tasks.

For further information, e-mail : [ghirdes@tin.it](mailto:ghirdes@tin.it)