

1	HOW TO GET A PERFECT ESPRESSO
2	THE COFFEE / SETTINGS FOR GRINDING
3	WATER TREATMENT / MAINTENANCE



Colour - "Monk's Robe"

Flavour - rich in aromas, full-bodied, smooth and soft, a touch of acidity, without any bitterness, lasting flavour.

**1** The Coffee

This is a complex raw material. Over 42 producing countries spread around the whole of the equatorial zone produce the two basic varieties, arabica and robusta, with different characteristics in each production zone. Thus, each coffee, from a variety of different origins, has its own specific characteristics.

*Ground Coffee:*

This has the advantage of being ready to use and means that a grinder isn't necessary. The coffee is ground in a standard manner in the factory. Disadvantages: the dosage can be only approximate and the surface comes into contact with the air (1000 times more so than with coffee beans), which leads to a rapid oxidation of oils, and this can produce a rancid taste.

*Coffee Beans:*

This form of coffee is easy to store and maintains its aromas because it's not ground until the moment of use.

*Specific Characteristics*

	Arabica	Robusta
Form of the bean	flat, long	small, round
Colour hazelnut	reddish reflections	dark, grey reflection
Texture	homogenous, fine	thick, big bubbles
Caffeine content	1.1 to 1.7%	2 to 4.5%
Body	light	significant
Aroma	very noticeable, fruity	weak, earthy
Taste	smooth, slightly sour	light bitterness

*Type of Roast*

	Clear	Dark
Roasting		
Taste qualities	More acid - less bitter	Less acid - more bitter

Coffee should be stored in a cool place away from light.

**2** The Grinding of Coffee

*The Dose for an Espresso*

The average dose for a cup of espresso is 7g for 6 – 8cl of water.

*The Grinding*

The ground coffee should be fine and homogenous. The contact surface of the coffee powder with water is thus increased and this favours the extraction of the rapidly dissolving substances that give the taste.

To achieve the required grind, carry out successive tests until the average time for two cups of espresso to come through is 25-30 seconds.

- If the grind is too fine (it takes 35-40 seconds for two cups of espresso to come through), then the coffee is over-extracted – the foam is dark and not very even; the coffee is very bitter.
- If the grind is too big (it takes less than 20 seconds for two cups of espresso to come through), then the coffee is under-extracted – the foam is very clear and not very thick; not much body.

*Grinding Wheels*

There are two types of grinding wheel:

- the flat wheels, which are most commonly found.
  - the conical grinding wheels, which are more effective but more expensive. These are often linked to large slow-moving motors and they don't heat the coffee beans.
- The quality of the settings and durability of the wheels determines the quality of the grinding. The size of the grains is determined by moving the wheels towards each other or away from each other:
- wheels close together a fine grain  
wheels apart a bigger grain

*Frequency of Wheel Changes in Terms of Kilos Ground*

Kilos per week	5kg	10 kg	15 kg	20 kg	30 kg
Wheel change	24 months	12 months	9 months	6 months	4 months

Lifespan of grinding wheels: flat wheels can grind 400kg in their life; and conical wheels 1200kg.

*Maintenance*

The hopper (the coffee bean receptacle) must be washed with hot water once a week to remove traces of oils left by the coffee beans. If this is not done, the oil traces become rancid and then pass on unpleasant odours to the beans in the hopper. The doser spout should be washed once a week using a dry brush.