Roasting & Flow Profiling
Adjusting extraction for every roasting profile

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Mina Flow Profiling
Control over flavors

Flow profiling allows the user control over the coffee flavors profile.

Acidity, sweetness and body can be changed by regulating the quantity of water flow and time.

Profiles can be easily saved and repeated on the app.

The extraction can be profiled in five steps, with the possibility to set up the flow steps with one hundredth of a millimeter precision.
FROM LIGHT TO DARK
Extremes of Roasting
DARK

LIGHT

DARK
Dark roast (not burned)
how usually taste:

- low or no acidity
- short sweetness
- bitter compounds
- heavy body (is it?)
- long aftertaste
- strong flavors
Ligth roast (not underdeveloped)

how usually taste:

- pungent acidity
- fruity sweetness
- off balance

- low body (is it?)
- short aftertaste
- mild flavors
TOO FRESH
48 hours or less

degasification
crema
undeveloped flavors
short aftertaste
TOO OLD
30 days or more

- loss of organic matter
- crema
- oxidized flavors
- faded body & sweetness
ADJUSTING THE EXTRACTION
Go With The Flow
Fours stages of control

- **Blooming** When pressure starts – what volume, time and g/s – Flow Control
- **Ramp up** When pressure is reached Flow & pressure
- **Extraction** When we see the coffee - Pressure
- **Extraction development** - Flow & Pressure maintaining extraction flow through and out of the coffee bed.

We are looking for consistency in terms in both the total extraction yield and uniformity across the coffee bed.
Ligth roast (not underdeveloped)

**General Rule**

A lighter roasted coffee has a predominant acidity and the sweetness of the fruit are more preserved, but at the same time, there’s not a lot of solids to be extracted.

To balance the high acidity, you should start with a very gentle flow (2 to 3g/s) making a longer pre-infusion (from 5 to 8 seconds) that will break down the acidity and will bring more flavors to the final cup.

The next step you should increase the flow (5 to 7g/s) for the same amount of time to get most of the lipids and carbohydrates as fast as possible, increasing the tactile in the process.

Lower the flow (3 to 5g/s) for the rest of the extraction to make a more gentle finish that will make the aftertaste more pleasant and not extract undesirable acids and solids.
Dark roast (not burned)

General Rule

When the coffee is roast to a certain degree, longer time or higher temperatures, the coffee becomes more soluble and less dense.

To decrease the bitter compounds, start with a high/aggressive flow (around 10 to 12 grams per second) for a short time (2 to 4 seconds) to create pressure inside the porta filter fast but not for a long period of time.

Next step, lower the flow to 4 grams per second or lower to only extract the remained sugar and oils, but avoiding the solids that can bring bitter tastes and earthy mouthfeel.
A medium roasted coffee can vary from different parts of the world. This profile is a good step to start exploring most coffees and adapting according to your preferences.

Start with a medium to gentle pre infusion (5 to 6g/s) for 5 seconds to extract flavors and aromas from the coffee.

In the second step, increase the flow in 30% (to 6,5 to 8g/s) for another 5 seconds and with this ramp up in the extraction will bring more oils and will showcase the body of the espresso.

At the end, lower the flow a bit (7,5 to 5,5g/s) till the end of the extraction for a clarity in the aftertaste.
TOO OLD
General Rule

After a certain period of time after roasting, the coffee starts to get oxidized, stale and losing the aromatics and flavors. To try to recover a little bit of the flavors preserved in the bean, you should start with a short pre infusion (around 3 seconds) with a medium flow (from 5 to 7g/s). After that you should lower the flow significantly (to 3 or 2g/s) and keep low until the end of the extraction. Since the coffee lost most of the volatiles and is starting to fade, the medium flow in the beginning will help to extract all the remaining flavors fast, but not aggressively. The low flow will help the mouthfeel by not bringing the stale and oxidized compounds to the cup.
TOO FRESH

General Rule

Very similar to lighter roasted coffee, when the coffee is too fresh we have a feeling of higher acidity, but also that unstable crema and ‘gassy/bubbly’ tactile sensation. To overcome the freshness you should start with a very gentle flow (2 to 4g/s) making a longer pre-infusion (from 4 to 6 seconds) that will work by gently breaking down CO₂ and decreasing the bitterness that comes with it.

The next step you should increase a little bit the flow (3,5 to 5g/s) for 3 to 5 seconds, keeping the extraction gentle, but a little more powerfull to extract the sugars and flavors from the coffee. Lower the flow (2,5 to 4g/s) for the rest of the extraction to make a more build a pleasant and sweeter aftertaste.
Guidelines

choose your coffee

create your recipe

find the right temperature

mind the roasting date and profile

change the flow and...
THANK YOU

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