Setting Up the Grinder and Espresso

How to dial in extraction, calibrate every day and fix the most common faults

1. Starting recipe

Parameter	Starting value	Note
Dose of ground coffee	18 g (double basket)	16–20 g depending on the basket; weigh to 0.1 g
Yield in the cup	36 g	ratio 1:2; lighter roasts 1:2.2–2.5, darker 1:1.5–2
Extraction time	25–32 s	from starting the pump
Water temperature	92–94 °C	higher for light roasts, lower for dark
Pressure	9 bar	check on the group gauge
Water	hardness approx. 4–6 °dH	filter based on measured hardness

> The recipe is a starting point. Taste decides: sour and thin espresso = under-extracted; bitter, astringent and hollow = over-extracted.

2. Method

1. Remove the portafilter, wipe it dry, briefly flush the group.
2. Grind the dose and weigh it, adjust by tenths of a gram.
3. Distribute the coffee and tamp level; no need for force, evenness is what matters.
4. Clean the rim of the portafilter, lock it in and start the extraction straight away.
5. Cup on the scales: stop at the target yield, watch the time.
6. Taste and record the dose, yield and time.

3. Dialling in – what to change

Symptom	Cause	Adjustment
Runs fast (under 22 s), sour, thin	grind too coarse	grind finer by a small step
Runs slow (over 35 s), bitter, astringent	grind too fine	grind coarser by a small step
Time is fine but sour	low yield or temperature	increase yield by 2–4 g, or +1 °C
Time is fine but bitter	yield too long	reduce yield by 2–4 g, or −1 °C
Uneven flow, spurting from a bottomless portafilter	channelling	better distribution, level tamp, clean grinder
Weak body	dose too small	increase the dose by 0.5–1 g and re-adjust the grind

Always change **one variable** at a time, and after changing the grind throw away 1–2 doses to purge coffee ground at the old setting from the grinder.

4. Grinder

- Move the setting in small steps; on stepped grinders, one notch at a time.
- Adjust finer while the motor is running so beans do not jam the burrs.
- Put only enough coffee for one shift in the hopper: beans exposed to air and heat lose aroma quickly.
- Room temperature and humidity change the grind during the day. Check extraction after opening and when the weather changes.
- Burrs wear out (roughly after hundreds of kilograms of coffee, depending on the grinder). When taste deteriorates and you keep having to grind finer, replace the burrs.

5. Daily calibration

Date	Coffee / roast date	Dose g	Yield g	Time s	Grind	Taste	Who

6. Milk

- Milk well chilled, jug cold, fill up to the bottom of the spout.
- First let in air briefly (hissing), then submerge the wand and spin the milk into a whirlpool.
- Target temperature 55–65 °C, never above 70 °C: milk loses sweetness and the foam breaks down.
- Use steamed milk immediately; do not re-steam it.

7. Coffee after roasting

Espresso from freshly roasted coffee is often unstable. We recommend resting espresso coffee for about 7–10 days after roasting and using it within 4–6 weeks. Order smaller amounts more often.