

How to Set Up a Cafe: Equipment, Capacity, and Layout, From People Who Service This Gear for a Living

You're opening a specialty cafe. Light to medium roasts, espresso done properly, batch brew that doesn't apologize for itself, maybe a by-the-cup program and a matcha station. This guide covers the equipment decisions, the capacity math, and the bar buildout, in that order, because that's the order the decisions actually happen in.

We sell, install, and service commercial coffee equipment across Ottawa, Montreal, Eastern Ontario, and Western Quebec. Most of what follows comes from what we see on service calls: what holds up, what breaks, and which decisions people wish they'd made differently at buildout.

Start with volume, not with the machine

The most common mistake we see is picking the machine first and figuring out the numbers later. Do it backwards.

Estimate your peak hour, not your daily total. A cafe doing 200 drinks a day might pour 80 of them between 7:30 and 8:30 on a weekday. That hour is what your equipment has to survive. The rest of the day almost doesn't matter for sizing.

Rough working numbers:

- One competent barista on a two group machine: about 30 to 40 espresso drinks an hour, milk drinks included.
- Two baristas splitting shots and milk on a two group: 60 to 80 an hour.
- A two group covers most independent cafes up to roughly 150 to 200 drinks a day.
- Past 300 drinks a day, you're looking at a three group, or better, two two-group machines so a failure doesn't close your bar.

Count your seats, walk the block at 8 a.m., look at what the nearest comparable shop does, and be honest. Oversizing costs you a few thousand dollars up front. Undersizing costs you your morning line every single day.

The espresso machine: what the architecture actually means

This is a five-figure purchase and the heart of the bar, so it's worth understanding what's inside the box. There are three basic architectures.

Heat exchanger (HX)

One large boiler held at steam temperature, around 120 degrees and change. Brew water never sits in that boiler. Instead, cold water runs through a tube (the heat exchanger) that passes through the boiler, picking up heat on its way to the group.

What that gets you: strong, endless steam from a big boiler, a simpler machine with fewer parts to fail, and a lower price. The Nuova Simonelli Appia line is the classic example in our lineup, and it's a genuinely good machine for the right room.

The trade-off is temperature precision. Water sitting in the exchanger between shots overheats, which is why HX baristas flush the group before pulling. On darker roasts and milk-heavy menus, nobody in the cup will ever notice. On a light-roast Ethiopian pulled as a straight espresso, you will. If your menu leans light and you care about repeatability shot to shot, an HX is fighting you a little.

Where HX makes sense: milk-forward menus, tighter budgets, second machines, mobile setups, and lower-volume rooms where the machine spec isn't the bottleneck.

Dual boiler and multi-boiler

Separate boilers for brew and steam. The brew boiler is PID controlled, holding brew water within about half a degree of your set point, all day, with no flushing routine. The steam boiler does nothing but steam.

Multi-boiler machines take it further: an independent boiler per group, so each group can run its own temperature. Pull a washed Kenyan at 94 on group one and a natural Brazil at 92 on group two. Synesso and Slayer build this way, and Victoria Arduino's T3 system gives you independent control of brew water, group, and steam temperatures.

For a light-to-medium roast program, this is the architecture to budget for. Light roasts are less soluble and typically want higher, more stable brew temperatures. Temperature drift that hides in a dark roast sticks out in a light one.

Saturated group

La Marzocco's signature design, and the reason a Linea feels the way it does. The group head is an open extension of the brew boiler itself, so the group is always at brew temperature. No

warm-up flush, no dead zones, extremely stable. GB5 and Linea PB carry the same DNA; the KB90 adds a straight-in portafilter that saves the barista's wrist a few thousand twists a week, which matters more than it sounds at 300 drinks a day.

Features worth paying for, and features that are theater

- **Volumetric dosing.** The machine cuts the shot at a programmed water volume. On a busy bar this is not optional. It frees the barista's hands and eyes for milk and keeps shots consistent across staff. Nuova Simonelli and Victoria Arduino do this very well.
- **Gravimetric dosing.** Scales built into the drip tray weigh the shot in the cup and stop it at a target weight. The Victoria Arduino Black Eagle Maverick is the reference here. It removes the last variable volumetrics can't see: puck resistance changing shot mass. For a shop obsessed with light-roast consistency, it earns its cost.
- **Pressure and flow profiling.** Slayer's needle-valve flow control and Synesso's MVP let you shape the extraction, softening pre-infusion for delicate lighter roasts. Real tool, real results, but only if someone on staff will actually build and maintain recipes. If nobody will, it's an expensive knob.
- **Auto-steam wands.** Steam to a set temperature and texture, hands free. Worth it for high volume with mixed-experience staff.
- **Autopurge.** One of the quietly best features on a modern bar. Victoria Arduino machines purge the steam wand automatically after every steaming, so milk never bakes into the tip or gets drawn back into the circuit. La Marzocco's KB90 goes further with a steam flush that rinses the group after each shot. Nobody puts these on the spec sheet headline, but they save thousands of manual purges a week, keep the wand sanitary, and are exactly the kind of feature you stop noticing until you work on a machine without it.
- **Eco and standby modes.** Machines like the Victoria Arduino Eagle One were engineered around energy recovery and faster warm-up. Your hydro bill notices.
- **Under-counter builds.** Modbar puts the machine's guts below the counter with only taps on top. You give up nothing functionally and gain complete sightlines to your customers. It costs more and service access needs planning, but for a bar where conversation is the brand, nothing else looks like it.

Budget-wise, plan roughly \$12,000 to \$25,000 for a solid two group volumetric machine, and \$28,000 to \$45,000-plus as you move into multi-boiler, gravimetric, profiling, or Modbar territory. All figures Canadian, and all worth confirming against a real quote because specs and exchange rates move.

Grinders: the machine is only as good as what feeds it

Plan for three, and on the espresso side we're going to be opinionated, because this is the purchase where the price-to-feature math is clearest right now.

- **Main espresso grinder: the Ceado Rev lineup.** Rev Steel, Rev Titan, and Rev Zero share one chassis; you move up the range for tougher burr coatings and longer burr life. Feature for feature at the price, nothing else we install matches it: 83 mm flat burrs, digital burr positioning that keeps your setting on screen and lets you pin reference points, a locked burr gap that doesn't drift through a rush, and grounds temperature management so shot forty tastes like shot four.
- **Get it with grind by weight.** The Rev's WAM module is one of the best features you can put on a bar today, period. The grinder senses the portafilter, tares, and doses to 0.1 g, every dose, every barista, no scale dance, no snowdrift of wasted grounds around the tamper. Time-based dosing drifts as beans age, humidity moves, and hoppers empty; weight-based dosing doesn't. Pair it with a gravimetric or volumetric machine and the two biggest variables on your bar are handled before anyone touches a tamper.
- **The Mythos range is the solid second.** Now under the Victoria Arduino umbrella, it's been the modern cafe standard for years: heat-managed grinding chamber, proven at volume, and it's what most of your baristas will already know. You pay a premium for the badge and you don't get grind by weight at the Rev's price. For the main grinder, those are the only two we're recommending right now.
- **Second espresso grinder.** For decaf, go Eureka W65 or W75. Decaf ordered eight times a day doesn't justify flagship money, and the W series gives you weight-based dosing at a price that fits the job. If you run two espresso options instead, that second slot becomes your single-origin grinder and it should match your main: a second Rev.
- **Filter grinder.** Batch and by-the-cup need a coarser, flat-burr grinder, and it doubles as your retail-bag grinder. Two answers here: the Mahlkönig EK43S, still the benchmark, or the Eureka 3TEMP shop grinder, which pairs naturally if a 3TEMP brewer is running your batch program.

Batch brew: take it seriously

In a specialty shop, batch brew is where most of your black coffee actually sells. It's your fastest ticket, your cheapest drink to make, and for a lot of morning customers it's the whole relationship.

Fetco is the volume workhorse; a twin 1-gallon setup covers most independent cafes. Bunn covers similar ground at friendlier prices. The interesting one is 3TEMP: low-mass on-demand heating and real profile control, closer to a giant pour over than a classic urn, and a natural fit for a light-roast program.

Whatever you buy, get it plumbed and filtered, brew into insulated servers rather than glass on a hot plate, and time out your servers. Batch that's been sitting 90 minutes is how a shop with a \$30,000 espresso machine serves its worst drink of the day.

By the cup: hand pours, PureBrew, and the frozen-coffee play

Single-cup brewing is the natural home for your most interesting coffees. The question is whether a human or a machine does the pouring, and the math is less romantic than the ritual.

A manual pour over, done right, costs you 5 to 6 minutes of barista attention: grind, rinse, bloom, staged pours, cleanup. Call it 4 minutes of true hands-on time once someone's in rhythm. At a loaded labour cost around \$22 an hour, that's about \$1.50 of labour in every cup, and during a rush it's worse than the money: it takes a set of hands off the espresso machine. One barista can realistically run 8 to 10 pour overs an hour and nothing else.

Automated brewing changes the equation. Victoria Arduino's PureBrew, available on the Black Eagle Maverick and as the standalone PureBrew+ brewer, pulses water through a fine double-mesh metal filter and delivers a 250 ml cup in roughly 2 to 3 minutes with about 20 seconds of hands-on time: dose, tap, walk away. Labour cost per cup drops to pennies, consistency stops depending on who's on bar, and the metal filter gives a rounder, more textured cup than paper, which flatters lighter roasts. A Marco SP9 plays a similar role if you want dedicated single-cup hardware.

Our honest take: keep a small manual station if the theater matters to your brand, and let automation carry the daily single-origin menu. Most rooms can't afford the labour of making every by-the-cup order a performance.

Now the frozen-coffee play. The usual argument against carrying a \$150-per-250-gram competition lot is waste: if you don't sell the bag inside two or three weeks, staling eats your margin. Freezing kills that argument. Weigh single doses into small tubes or vacuum-sealed portions the day the box arrives, freeze them, and grind straight from frozen to order. Properly sealed and frozen, the coffee holds its character for months, so the sell-through clock stops.

The math works like this. A 250 g box at \$150 is 60 cents a gram, so a 20 g dose carries \$12 of coffee cost. Brewed on an automated system with 20 seconds of labour, that cup can sell at \$16 to \$20 and clear more contribution margin in dollars than three lattes, from one shelf of freezer space and zero waste. Price the menu per cup, list the producer and lot, and your cafe suddenly has a top shelf the shop down the street can't match. Ten tubes of a spectacular Gesha is a program; a stale half-bag of it is a write-off.

The matcha station

Matcha has real margins and a real audience, and it deserves its own dedicated corner rather than a scoop and a shaker jammed next to the espresso machine. Green powder migrates; keep it away from your coffee workflow.

The station needs three things plumbed in from day one:

- **A pitcher rinser.** Same hardware as your milk-pitcher rinser at the espresso machine: cold water line, drain connection, high-pressure jets that clean a bowl or shaker in seconds. Matcha residue dries fast and stains; without a rinser your team is walking to a sink forty times a day.
- **A filtered cold tap.** For iced matcha and topping drinks. Run it off the same filtration or RO system as your coffee water. Chlorine is just as unkind to matcha as it is to a delicate washed coffee.
- **A hot tap set below boiling.** Matcha scorches; 70 to 80 degrees is the working range. A Vivreau tap or a dedicated hot-water tower with adjustable temperature gives you set-and-forget accuracy instead of guesswork with a kettle.

Round it out with an undercounter fridge for milks, a small counter mixer or whisk setup, and dedicated smallwares. Plan the drain and the water stubs during rough-in. Adding them after the counters are on is miserable and expensive.

Water: the part everyone skips and pays for later

More of our service calls trace back to water than to any other cause. Ottawa and Montreal municipal water are different animals, and neither comes out of the wall ready for a five-figure espresso machine.

Get your water tested, then spec treatment to the machine and the menu. For most serious installs that means reverse osmosis with remineralization. Two things we insist on:

- **Size the RO properly.** A cafe running espresso, batch, by-the-cup, and a matcha station needs a 400 gallon-per-day class membrane. The little 75 GPD units sold for home use fall behind a commercial bar by mid-morning.
- **Remineralize with magnesium, not just calcium.** Calcium-only blends protect flavour less and scale more. Magnesium-forward remineralization gives you extraction where you want it and keeps the inside of your boiler looking the way it should.

Scale is the quiet killer here. It coats heating elements, chokes gicleurs, and seizes valves, and by the time you taste it or see an error code, it has been building for months. Water treatment is the cheapest insurance you will ever buy on this equipment. It's also, frankly, why we lead with it on every install we quote.

Layout and workflow: design the bar around the drink's journey

A good bar is a one-way street. The order moves from POS to espresso to milk to hand-off without the barista ever crossing their own path or another barista's. When you sketch your counter, walk a latte through it mentally, step by step, and count the turns.

Principles that hold up in every room we've built or fixed:

- **Keep the espresso triangle tight.** Grinder, machine, and knock chute within one step. The milk fridge goes directly under or beside the machine. The pitcher rinser sits within arm's reach of the steam wand.
- **Give milk its own zone.** Steaming is where drinks stack up. Pitchers, rinser, thermometers, and alternative milks live together, just downstream of the groups.
- **Put batch and by-the-cup on their own station.** Black coffee is your fastest ticket. Let staff pour a batch cup without entering the espresso lane, ideally near the POS so the register person can serve it.
- **Matcha gets its own corner,** as above, downstream or on the back counter.
- **Hand-off away from the order point.** Even 6 feet of separation keeps the line and the waiting cluster from tangling.
- **Dimensions that work:** 36 inch working counter height, 42 inches for the customer-facing top, 24 to 30 inches of counter depth for equipment, and at minimum 36 inches of aisle behind the bar, 42 to 48 if two people work the line.
- **Rough-in generously.** Espresso machines want dedicated 220 V circuits; batch brewers often want their own too. Run more water stubs and drains than you think you need: machine, both grinders' neighbours, batch, rinsers times two, matcha taps, dipper well if you want one. A floor drain behind the bar will save you during every cleaning and every service visit.

One more thing people forget: leave service access. We need to get behind and under the machine. A bar built tight to the millwork with zero clearance turns a 45 minute repair into a 3 hour one, and you pay for the difference.

Building the bar: materials that survive a wet trade

Coffee bars live wet. Water, milk, coffee oils, and cleaning chemicals, 12 hours a day. Materials that shrug at home fail fast here.

- **Work surfaces: quartz or stainless.** Quartz is non-porous, takes no sealing, ignores stains, and looks good customer-side; it's our default for the top. Stainless is the pro-kitchen answer for the wet zones around rinsers, dishwashers, and the matcha station, and a fabricator can weld in drainboards and marine edges that keep water off your millwork.
- **Skip the things that fail.** Grouted tile counters trap grime in the joints and crack under equipment weight. Laminate blisters the first time water finds a seam. Sealed butcher block is beautiful on the customer side and a maintenance chore on the working side; if you want wood, keep it out front.
- **Granite works** if you love the look, but it needs sealing and it's unforgiving to dropped pitchers and porcelain.

- **Under the top**, build the cabinet bases from marine-grade or at minimum properly sealed plywood, not bare MDF, which swells into oatmeal at the first leak. Stainless legs or composite kicks where the base meets the floor, because that's where mop water lives.
- **Confirm the weight path.** A two group machine plus grinders plus stone top can put 250-plus kilograms on one run of cabinetry. Tell your millworker before, not after.
- **Floors:** sealed concrete or commercial tile behind the bar, sloped to that floor drain, with anti-fatigue mats where staff stand.

Rough budget for the bar (equipment only, CAD)

Every room is different and quotes move, but for planning:

Item	Range
Two group espresso machine	\$12,000 to \$45,000
Espresso grinders (2)	\$5,000 to \$12,000
Filter grinder	\$3,500 to \$5,500
Batch brewer + servers	\$3,500 to \$9,000
By-the-cup (automated)	\$5,000 to \$12,000
Water treatment (RO, remin, install)	\$2,500 to \$6,000
Matcha station (taps, rinser, fridge)	\$3,000 to \$7,000
Refrigeration, rinsers, smallwares, tamper station	\$6,000 to \$15,000

Add the counter buildout, and the bar itself typically lands between \$45,000 and \$110,000 before furniture, POS, and leaseholds.

Plan the maintenance before you open

Last thing, because it decides how the first five years go. Espresso machines don't fail on opening day; they fail in year two, when the gaskets you never changed harden, the group solenoid gets sluggish, and scale has had 700 quiet days inside the boiler.

Real maintenance is scheduled, every three to four months, with the machine opened up: boiler internals inspected, flowmeters and solenoid valves checked, group gaskets and diffuser

screens replaced before they fail instead of after. Swapping a gasket when it leaks isn't a maintenance program, it's triage.

The math is simple. Losing one regular over a machine-down morning or a sour shot costs you about \$6 a day, and \$6 a day over 250 open days is \$1,500 a year, from one customer. A maintenance plan costs less than a handful of those.

If you're building a cafe anywhere between Kingston and Trois-Rivières, this is what we do all day. Book a consult and we'll spec the bar to your room, your volume, and your water.

Better Coffee · Ottawa & Montreal · 343-573-3371 · bettercoffee.ca