Threadline Coffee — Batch Brew Training Guide

Fetco CBS-2152 | Denver Locations

Generated output based on equipment manual and café parameters

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Part 1: Extraction Principles

Before you touch the machine, understand what you're doing. Batch brewing is not a simpler version of pour-over — it's a different discipline with its own logic. Here's what you actually need to know.

Extraction is everything. Every brewing method is trying to solve the same problem: move the right amount of soluble material from the coffee grounds into the water. Too little, and you're sour and thin. Too much, and you're bitter and harsh. At Threadline, we're targeting 19–22% extraction yield and 1.35–1.45% TDS in the finished cup. Those numbers aren't arbitrary — they represent decades of research into what most people find balanced and pleasant.

Why water temperature matters. We brew at 200°F (93.3°C). Cooler water under-extracts — you'll get flat, sour coffee with none of the sweetness or body the coffee is capable of. Hotter water can over-extract, pulling harsh bitter compounds. The CBS-2152 holds temperature well once it's preheated — always verify it's at full temp before your first batch.

Why our water is set to 150 TDS. Water that's too soft (low mineral content) under-extracts — there isn't enough mineral structure to facilitate the extraction chemistry. Water that's too hard creates scale and can make coffee taste flat or chalky. 150 ppm is our dialed-in sweet spot. Don't use tap water. Don't use distilled water. Both will make the coffee worse and potentially damage the equipment.

Why pulse brewing matters. The CBS-2152 uses a 3-pulse setting. Rather than pouring all the water through the grounds at once — which causes channeling, uneven extraction, and weak spots in the bed — pulse brewing distributes the water in bursts that saturate the grounds more evenly. This is the machine's equivalent of a gooseneck kettle technique. It produces a more even, better-extracted cup with the same dose. Leave it on.

Pre-infusion: the bloom. The 30-second pre-infusion allows CO2 to escape from the grounds before full extraction begins — exactly like the bloom step in your pour-over. Fresh coffee off-gasses significantly; skipping pre-infusion creates uneven extraction and inconsistency between batches. This is especially important with freshly roasted coffee.

Ratio is the anchor. We use a 1:16.5 ratio (coffee to water by weight): 99g of coffee to approximately 1,633g of water (a half-gallon batch). This is a reasonable center point for batch brew — not so strong it's overwhelming, not so weak it's watery. When you're dialing in a new coffee, this

ratio is your starting point. Grind adjustment moves extraction; ratio adjusts strength.

Part 2: Brewing SOP

Step 1: Preheat the brewer. The CBS-2152 must be preheated before the first batch of the day. Press the power button and allow the water to reach temperature — the display will confirm. This takes approximately 10–15 minutes. Never brew on a cold machine; the first batch will be under-temperature and under-extracted.

Step 2: Prepare and pre-rinse the filter. Open the filter basket and seat a fresh Fetco E-Series paper filter. Pre-rinse with hot water from the brew head or a kettle. This removes paper taste and brings the basket to temperature. Discard the rinse water.

Step 3: Dose and grind. Weigh out 3.5 oz (99g) of coffee. Grind on the Mahlkönig EK43 at 8.5 — adjust ±0.5 steps as needed for the specific coffee based on your first batch TDS reading. Pour ground coffee evenly into the filter basket. Tap lightly to level.

Step 4: Set the batch parameters. On the touchscreen controller, confirm the following settings before starting: - Brew volume: half-gallon (64 oz) - Pre-infusion: ON, 30 seconds - Pulse setting: 3-pulse - Temperature: 200°F

If these settings have been changed, reset them before proceeding.

Step 5: Brew. Place the airpot under the dispenser (confirm it is clean and empty). Press START. The machine will pre-infuse, pause, then deliver the three brew pulses. Total brew time: approximately 4–5 minutes. Do not interrupt the cycle.

Step 6: Check TDS. Once the batch is complete, draw a 1 oz sample into a small cup. Allow it to cool slightly. Take a TDS reading with the VST refractometer. Target: 1.35–1.45%. Log the result on the shift sheet. - Below 1.35%: grind finer or check dose weight - Above 1.45%: grind coarser - If TDS is dramatically off, do not serve the batch until corrected

Step 7: Label and time the airpot. Apply a time label to the airpot. Airpots are held for a maximum of 45 minutes from the end of brew. At 45 minutes, discard and brew a fresh batch if demand exists — or wind down if you're approaching close.

Step 8: Log the batch. Record on the batch brew log: date, time, coffee name, TDS reading, grind setting, and barista initials.

Part 3: Troubleshooting

Symptom	Likely Cause	Fix
Sour, thin, flat	Under-extracted	Grind finer; verify temperature is at 200°F; confirm pre-infusion is ON
Bitter, harsh, astringent	Over-extracted	Grind coarser; check dose weight (too much?)
Weak, watery	Low TDS	Check dose — did you weigh it? Grind finer. Check for filter bypass.
Tastes like paper	Filter not pre-rinsed	Always pre-rinse filter before brewing
Inconsistent batch-to-batch	Grind dose varies	Weigh every dose; don't scoop
First batch always off	Machine not preheated	Preheat 10–15 min before first brew; run a hot-water purge through the head
Coffee tastes flat/mineral	Water issue	Confirm water source is filtered at 150 TDS; check filter cartridge replacement date
Coffee overflows filter	Grind too fine / dose too high	Grind coarser; confirm dose is correct
Brew time too fast (<3 min)	Grind too coarse	Adjust grinder finer by 0.5 steps
Brew time too slow (>7 min)	Grind too fine or filter clogged	Grind coarser; replace filter if cake appears plugged
Airpot drips slowly	Airpot seal issue	Clean and re-seat the airpot lid; replace gasket if worn

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Part 4: Cleaning and Maintenance

Clean equipment is the difference between good coffee and good coffee that stops being good two weeks in.

Between batches: - Remove spent filter and grounds immediately after each brew - Rinse the filter basket with hot water - Wipe the brew head spray disc with a damp cloth — grounds accumulate here and affect flow distribution

End of day: - Full backflush of brew head with hot water - Wash filter basket and airpots with Urnex Clearly Coffee solution (follow dilution instructions on label) - Rinse thoroughly — residual

cleaning solution will ruin the next batch's flavor - Run a clean hot-water cycle through the machine before closing

Weekly: - Soak spray disc in Urnex solution for 20 minutes; scrub and rinse - Wipe down exterior and touchscreen with a damp cloth

Monthly: - Check water filter cartridge — replace if TDS is drifting above 160 ppm - Inspect airpot gaskets for wear; replace if cracked or brittle - Log machine cleaning in the equipment maintenance sheet

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Recipe Card (Half-Sheet Format)

Parameter	Value
DOSE	3.5 oz (99g)
WATER	Half-gallon (64 oz)
RATIO	1:16.5
TEMP	200°F (93.3°C)
PRE-INFUSE	ON — 30 seconds
PULSE	3-pulse setting
GRIND	EK43 at 8.5 (adjust per coffee)
TARGET TDS	1.35–1.45%
HOLD TIME	45 minutes max — then discard
WATER TDS	150 ppm filtered

Staff Quiz — Batch Brew Certification

Circle the best answer.

1. What is the correct coffee dose for a half-gallon batch at Threadline? - a) 3.0 oz - b) 3.5 oz (correct) - c) 4.0 oz - d) It depends on the barista

2. Our target TDS range for brewed batch coffee is: - a) 1.20–1.30% - b) 1.50–1.60% - c) 1.35–1.45% (correct) - d) TDS doesn't matter for batch brew

3. Why do we pre-rinse the paper filter? - a) To heat the basket and remove paper taste (correct) - b) To add moisture to the grounds - c) It's required by the manufacturer - d) We don't — this step is optional

4. The CBS-2152 is set to 3-pulse brewing. Why? - a) It uses less water - b) It brews faster - c) It distributes water more evenly, reducing channeling and improving extraction (correct) - d) The manufacturer requires it

5. How long can a brewed batch be held before discarding? - a) 2 hours - b) 1 hour - c) 45 minutes (correct) - d) Until the airpot is empty

6. You pull a TDS reading and get 1.28%. What should you do? - a) Serve it — close enough - b) Add more coffee to the airpot - c) Grind finer on the next batch (correct) - d) Increase water temperature

7. The coffee tastes harsh and bitter. The most likely cause is: - a) Under-extraction - b) Over-extraction (correct) - c) The water TDS is too low - d) The airpot is dirty

8. Our water is filtered to 150 ppm TDS. Using tap water instead would most likely result in: - a) Better extraction due to higher mineral content - b) Inconsistent extraction and potential equipment damage (correct) - c) No difference in taste - d) Faster brew times

9. How often should you backflush the brew head? - a) Once a week - b) Once a month - c) At the end of every shift (correct) - d) Only when it looks dirty

10. You're opening the store and the machine was not preheated. You should: - a) Start brewing immediately to avoid being late - b) Wait 10–15 minutes for the machine to reach temperature before the first batch (correct) - c) Lower the temperature setting to compensate - d) Run a batch and discard it, then brew normally

Answer Key: 1-b, 2-c, 3-a, 4-c, 5-c, 6-c, 7-b, 8-b, 9-c, 10-b