



TECHNIQUE · AMERICAN · SPANISH-ADJACENT · MAIN

Perfect Sous Vide Steak

Edge-to-edge medium-rare with a mahogany crust — precision interior plus fire exterior, the signature workflow that makes every steak better than the one before.

Protein Beef (ribeye, strip, tomahawk)

Serves 2 per steak

Difficulty Intermediate

Active 10 min

Total 2 h 10 min (45 min salt + 1.5 h bath + sear + rest)

THE STORY

The Gateway Cook

Every home cook has a relationship with steak that goes like this: you spend money on a great cut, you're nervous about cooking it, you cook it, the interior is a gradient of doneness from well-done edges to cold center, and you pretend you're happy. Sous vide ends that cycle. Forever.

When you hold a steak at exactly 55 °C for ninety minutes, every molecule of protein reaches the same temperature. No gradient. No gray band. No overcooked edges. The steak that comes out of the bag is, frankly, unimpressive — pale, limp, sad-looking. That's the *point*. It's a blank canvas. The fire you hit it with next — screaming cast iron or a dialed-up kamado — applies only the finishing crust. Sixty to ninety seconds per side. Just the Maillard. Nothing more.

The result: edge-to-edge medium-rare interior, thin mahogany crust, and a texture so consistent from bite to bite that it feels almost inevitable. Because it is. The bath temperature IS the meat temperature. You can leave it an extra hour — it won't matter. You've swapped guesswork for thermodynamics.

AT A GLANCE

Specs

<p>YIELD</p> <p>1 steak per 2 guests</p>	<p>PROTEIN</p> <p>Beef · ribeye / strip / tomahawk</p>	<p>BATH TEMP</p> <p>55 °C / 131 °F</p>	<p>DIFFICULTY</p> <p>Intermediate</p> <p>●●○○○</p>
<p>ACTIVE TIME</p> <p>10 min</p>	<p>BATH TIME</p> <p>1.5–2 h (3–4 cm) / 3–4 h (5 cm+)</p>	<p>MAKE-AHEAD</p> <p>Yes — hold up to 4 h at bath temp</p>	<p>CUISINE</p> <p>Technique · American</p>
<p>COURSE</p> <p>Main</p>	<p>PAIRS WITH</p> <p>Bordeaux, Rioja Reserva</p>		

UMAMI ADAPTATION

What Changed & Why

The original technique — cast iron direct sear — works beautifully but has a narrow window: 30 seconds can separate medium-rare from medium, and the interior gradient means part of the steak is always overcooked. The sous vide adaptation eliminates the gradient entirely. The sear becomes purely cosmetic — and therefore fast, aggressive, and uncompromising.

CHANGE	ORIGINAL	UMAMI VERSION	WHY
TECH	Cast iron direct, 2.5 min/side	Sous vide 55 °C/1.5–2 h, then sear 60–90 sec/side	Eliminates interior gradient — every bite is the same doneness
TECH	Salt at cook time	Salt 45 min ahead (or day-of minimum, or 24 h max)	Moisture reabsorbs — thorough seasoning, dry surface for better Maillard

CHANGE	ORIGINAL	UMAMI VERSION	WHY
ADD	Discard fond	Save bag juices → pan sauce or freeze for demi-glace	Bag juices are pure beef extract — gels when chilled, treasure
ELEV	Cold steak to pan	Ice bath 5 min before searing (No Limits)	Cold outer 5mm lets you sear longer without raising interior — thicker crust, zero gray band
ELEV	Neutral oil sear	Compound butter basting last 30 sec (No Limits)	Aromatics carried directly to the crust — Café de Paris, miso-yuzu, or black garlic

What You Need

Everyday

The Steak

- 2 × USDA Choice or Prime ribeye or NY strip steaks, 3–4 cm thick (1.25–1.5 inches), ~400 g each
- Kosher salt (~1 tsp per steak)
- Fresh-cracked black pepper
- 1 tbsp neutral oil (grapeseed or avocado) for searing

Finish

- 30 g unsalted butter
- 2 garlic cloves, smashed
- 1 sprig rosemary (or thyme)
- Maldon flaky salt

Substitution Notes

- *No vacuum sealer?* Water-displacement method with freezer zipper bags works — lower bag slowly into water, let pressure push air out, seal at the surface.
- *No cast iron?* Heavy stainless steel works. Avoid non-stick — won't reach the temperature you need.
- *Ribeye vs strip?* Ribeye is more forgiving (higher fat, self-bastes). Strip is cleaner flavor, less marbled. Both work identically in the bath.

No Limits

The Steak

- 2 × **Snake River Farms American Wagyu Gold or Black ribeye**, 4–5 cm thick — Pablo's proven supplier (SRF ✓). Gold tier for dinner-party flex, Black tier for weeknight indulgence.
- Kosher salt (~1 tsp per steak, more for thicker cuts)
- Fresh-cracked Tellicherry black pepper
- **NO OIL needed for searing wagyu** — the fat self-bastes. Neutral oil only for non-wagyu steaks.

Finish — The Upgrade

- 30 g compound butter — **Miso-Yuzu, Café de Paris, Black Garlic, or Pimentón** (see [recipes/sauces/](#) once filed; archived rings from Sauces & Condiments §10)
- 2 garlic cloves, smashed
- 1 sprig fresh rosemary + 1 sprig thyme
- Maldon flaky salt
- Bag juice — save and reduce with shallot + sherry as pan sauce (*don't discard*)

Optional: Pre-Sear Ice Bath (No Limits)

- Ice bath (small bowl + ice) — to chill outer 5 mm of steak for 5 min after SV, before searing. This lets you sear longer without raising interior temp — produces a thicker crust with zero gray band. Competition-level result for dinner-party plates.

EQUIPMENT

Your Kit

- Immersion circulator (Anova, Joule, or similar — Pablo ✓)

- Vacuum sealer + bags (Pablo ✓)

- Container or pot for water bath — large enough for steaks to lie flat without touching

- Heavy cast iron pan — the thicker the better for thermal mass

- Tongs (not forks — piercing lets juice out)

- Digital instant-read thermometer — verify 55 °C at service

- Wire rack + plate for patting dry
- Paper towels — obsessive drying is non-negotiable

MISE EN PLACE

Before You Start

- Steaks patted dry and salted 45 min ahead, refrigerated uncovered on rack (surface dries further)
- Water bath preheated to 55 °C, lid on to reduce evaporation
- Vacuum bags labeled with date/temp/time
- Cast iron pan cleaned, ready to heat
- Aromatics prepped: garlic smashed, herbs stemmed
- Butter or compound butter portioned
- Ice bath ready (No Limits pre-sear chill step)
- Pan sauce mise: shallot minced, wine/stock measured, cold butter cubed

MAKE-AHEAD

Timeline

- T-60 min — Salt**
Season steaks generously with salt. Place on wire rack, refrigerated uncovered. Salt penetrates; surface dries.
- T-90 min — Start bath**
Preheat water bath to 55 °C. Takes 15–20 min to reach temp with lid on.
- T-90 min — Bag**
Vacuum seal steaks (single layer, no overlap). Drop into bath.

● **T-0 – Remove from bath**

After 1.5–2 h. Steaks are pale and limp — normal. Pat OBSESSIVELY dry.

● **T-0 to T-3 – Optional ice bath**

(No Limits) 5 min in ice bath chills outer 5mm — enables longer sear, thicker crust.

● **T-3 – Sear**

Cast iron screaming hot. 60–90 sec per side. Last 30 sec: baste with butter, garlic, herbs.

● **T-5 – Rest + Plate**

2 min rest max (SV steaks don't need 10 min like conventional). Slice against grain. Maldon. Serve.

METHOD

The Cook

1 Salt and Set Up

1. Pat steaks dry with paper towels. Inspect for silverskin or connective tissue — trim if needed.
2. Season generously with **kosher salt** (about 1 tsp per steak) and fresh-cracked black pepper. Place on a wire rack over a plate. Refrigerate uncovered for 45 minutes minimum, up to 24 hours.
3. Preheat your water bath to 55 °C / 131 °F. Cover to reduce evaporation. Allow 15–20 minutes to reach temperature.
4. Vacuum seal steaks in a single layer — do not overlap in the bag. Multiple steaks? Use separate bags.

WHY THIS WORKS

Salt penetrates meat via osmosis over 30–45 minutes. Initially, salt draws moisture to the surface (don't cook in this window — the wet surface ruins Maillard). Given enough time, the moisture reabsorbs carrying the salt inward. The surface dries — which is exactly what you want before searing. 45 min is the minimum; overnight (12–24 h) is the optimum. This 'dry brine' is more effective than any wet brine for steak-type cuts.

2 The Bath

1. Drop bagged steaks into the water bath. Ensure they sink — if floating, clip to the side or weight with a spoon to keep fully submerged.
2. Cook for 1.5–2 hours for 3–4 cm thick steaks. For 5 cm+ (tomahawk, cowboy cuts), extend to 3–4 hours minimum to reach equilibrium.
3. The steaks are ready when they reach bath temperature edge-to-edge — visually pale/gray, limp to touch. *That's correct.* The fire does the rest.
4. The bath is forgiving: if dinner is delayed 30 min, no problem. Up to 4 hours extra holds texture well at 55 °C.

WHY THIS WORKS

Heat transfer from 55 °C water to a 3cm steak takes ~45–60 minutes to reach equilibrium at the center. After that, the steak IS 55 °C throughout. No gradient. No carryover. Beyond 4 hours, endogenous enzymes (calpains, cathepsins) slowly break down muscle fibers — the steak becomes softer. For a 'steak texture,' pull at 1.5–2 hours. For an ultra-tender 'melting' result, go 4 hours. Beyond 8 hours, tender cuts become mushy. Reference: *Sous Vide Mastery* §4 (Time vs Temperature).

3 Sear

1. Remove steaks from bags. **Save the bag juices** — they become your pan sauce base. Strain through a fine mesh and reserve.
2. Pat the steaks **OBSESSIVELY** dry with paper towels. Surface moisture is the enemy of crust formation.
3. (*No Limits*) For ultimate crust: chill steak surfaces in an ice bath for 5 minutes. The outer 5mm drops to near-freezing, buying you extra searing time without raising the interior.
4. Heat cast iron over highest heat until **smoking hot** — 2–3 minutes minimum. A drop of water should skitter and vanish instantly.
5. Add neutral oil (or skip for wagyu — fat self-bastes). Place steak in pan. **Do not move** for 60–90 seconds. Listen for an aggressive, sustained sizzle.
6. Flip. Sear the second side 60–90 seconds. For the last 30 seconds: add butter, smashed garlic, and rosemary to the pan. Tilt and spoon the foaming butter over the steak — this is the *basting finish*.
7. Optional: stand the steak on its fat cap or edges for 15 seconds each to render and crisp those surfaces too.

WHY THIS WORKS

The Maillard reaction requires surfaces above 140 °C. Water on the surface holds it at 100 °C (boiling point) until evaporated — so a wet steak cannot brown. Obsessive drying removes the first barrier; the screaming hot pan removes the second. At 90 seconds with dry surface + 200 °C+ cast iron, you get a deep mahogany crust without overcooking the interior beneath — which is already at 55 °C and needs zero further cooking. Reference: Food Science Core §4 (Maillard Reaction).

4 Rest, Slice, Serve

1. Transfer steaks to a board. **Rest 2 minutes max**. Unlike conventional steaks (which need 5–10 min for juices to redistribute from a cooking gradient), sous vide steaks are at equilibrium — the juices are already evenly distributed.
2. Slice against the grain (especially for strip — ribeye is more forgiving). Thickness: about 8mm — thick enough to eat like a steak, thin enough that the sear-to-interior ratio stays balanced.
3. Top each slice with **Maldon flaky salt** and a coin of compound butter (*No Limits* — miso-yuzu, Café de Paris, or black garlic).
4. Serve immediately. The crust is at its audible peak for about 2 minutes after searing.

QUICK REFERENCE

Timing Cheat Sheet

STEP	TIME	CUE
Salt steaks	45 min ahead	Surface dries on rack in fridge
Preheat bath	15–20 min	Stable at 55 °C, lid on
Vacuum seal	2 min each	Single layer, no overlap
Bath (3–4 cm steak)	1.5–2 h	Pale, limp — looks sad, normal
Bath (5 cm+ tomahawk)	3–4 h	Same appearance; longer for equilibrium
Pat dry + pre-sear ice bath	5–8 min	Surface bone-dry, edges cool to touch
Heat cast iron	2–3 min	Smoking, water skitters instantly
Sear side 1	60–90 sec	Aggressive sustained sizzle, mahogany color
Sear side 2 + baste	60–90 sec	Butter foaming, garlic aromatic
Rest + slice	2 min	Warm, not hot. Slice against grain.

TROUBLESHOOTING

Emergency Protocols

BAG IS FLOATING

Residual air. Clip bag to side of container with binder clip, or weight with a heavy spoon or small plate. Food must stay fully submerged for even heat transfer.

SEAR IS WEAK — NO CRUST FORMING

Pan wasn't hot enough, or steak wasn't dry enough. Remove steak, crank pan higher, dry steak again on fresh paper towels, return to pan. At max heat with a truly dry surface, crust builds in 30 seconds.

GRAY BAND UNDER THE CRUST

Sear took too long at too-low heat. Next time: higher heat, shorter time (60 sec vs 90). Or use the ice-bath pre-sear trick — chilling the outer 5mm lets you sear longer without interior temp rise.

STEAK IS OVERCOOKED (MEDIUM, NOT MEDIUM-RARE)

Either bath was too hot (check circulator calibration — ± 0.5 °C matters), OR the sear was aggressive enough to push interior past 55 °C. If this happens repeatedly, drop bath to 54 °C to compensate for carryover from the sear.

SEAL FAILED DURING COOK (WATER IN BAG)

Remove and inspect. If cook time was short (<30 min), rebag with fresh salt and restart. If closer to full time, the steak is still safe — pat dry and sear normally. Double-bag thick-bone cuts (T-bone, porterhouse) to prevent this.

BAG JUICES LOOK BLOODY / OFF-COLOR

Normal. Beef 'juice' is myoglobin, not blood. The reddish-purple liquid is the iron-containing pigment of muscle cells. It's seasoned beef extract — strain and use it.

DEEP DIVES

Technique Notes

Holding Multiple Steaks at Service

DINNER PARTY • ORCHESTRATION • UNIVERSAL

Sous vide is the dinner-party steak technique. Hold 6 steaks at 55 °C for hours. When guests are ready, pull one steak at a time, pat, sear, serve. Each plate is hot and à la minute. Guests never know you prepared the steaks three hours ago. The search-to-plate window is under 4 minutes per steak. Pablo's proven approach for hosting 8–12. Reference: Dinner Party Orchestration §3.

● The Bag-Juice Pan Sauce

SAUCE • PAN SAUCE FROM FOND-FREE PROTEIN • UNIVERSAL

Sous vide produces no fond — no caramelized drippings in the pan after cooking. But the bag juices ARE the concentrated beef essence. After searing, deglaze the cast iron with 100 ml red wine or sherry, reduce by half, add the strained bag juices + 50 ml demi-glace (or more stock), reduce to nappé (coats a spoon), then mount off heat with 30 g cold butter. Pour over the sliced steak. This is restaurant-quality pan sauce in 4 minutes from a steak with no traditional fond. Reference: Sauces & Condiments §6 (Pan Sauce Mastery).

● No Limits: Ice-Bath Pre-Sear (Competition Technique)

HEAT TRANSFER • PRECISION • EXTENDS "SEAR"

After removing a sous vide steak from the bath, dunk it briefly (3–5 min) in an ice bath before searing. The outer 5mm drops to near-freezing while the center stays at 55 °C. When you hit the cast iron, the cold exterior buys you extra time before heat penetrates to raise the interior temp. Result: thicker, more developed crust with zero gray band. Serious Eats validated this technique — it produces competition-level steak doneness. Use for dinner-party plates where the visual matters.

● No Limits: Compound Butter Basting

FINISH • FLAVOR CARRIER • EXTENDS "SEAR" (LAST 30 SEC)

Compound butter isn't just butter — it's butter carrying aromatic, umami, and often acidic elements (miso, yuzu zest, black garlic, pimentón) in a fat-soluble matrix. In the last 30 seconds of searing, drop a 15 g coin of compound butter into the pan. Tilt the pan to pool the melted butter at one edge. Spoon the foaming butter over the steak continuously. The butter carries its flavor compounds directly to the Maillard crust — they don't get cooked off because the exposure is brief. Result: a steak with a charred crust overlaid with an umami/aromatic layer that feels like a sauce but is really just the butter doing its job. Pablo's recommended pairings: miso-yuzu (Spanish-Japanese bridge), Café de Paris (classic steakhouse), black garlic (kamado-finished steaks — the mellow sweetness echoes the smoke), pimentón (when serving with Spanish accompaniments). Compound butter recipes live in Sauces & Condiments §10 (to be filed under UMAMI-9). Why ● only: compound butters require the 30-min prep + log-shape + freeze sequence OR an active inventory of pre-made butters. The Everyday version uses plain butter + garlic + rosemary, which achieves 80% of the effect with 10% of the prep.

● No Limits: Wagyu Self-Basting (No-Oil Sear)

HEAT TRANSFER · SUPPLIER-SPECIFIC · SUBSTITUTES "SEAR" OIL STEP

SRF American Wagyu Gold or Black (Pablo's verified supplier) has intramuscular fat content well above USDA Prime. When these cuts hit the screaming cast iron, the fat renders instantly, creating a pool of beef tallow that IS the sear medium. Adding neutral oil to the pan is a mistake — it competes with the rendered fat and flattens the crust flavor. For wagyu specifically: skip the oil entirely. The meat goes directly onto the dry cast iron. The fat renders within 5 seconds of contact, and the steak sears in its own rendered fat. The bag juices + rendered fat + any bits of crust left in the pan compose an extraordinary pan-sauce base. Why ● only: Everyday cuts (USDA Choice, Prime non-wagyu) have less intramuscular fat and DO benefit from a thin film of neutral oil to initiate surface contact. The no-oil technique is specifically correct for wagyu and wagyu-crosses. Reference: MEMORY.md — 'Wagyu (SRF Gold/Black): NO oil needed, self-bastes. Past medium the fat goes greasy not silky.'

● No Limits: Bag-Juice Pan Sauce Reduction

SAUCE · PAN SAUCE EXTENSION · EXTENDS UNIVERSAL BAG-JUICE TECHNIQUE

The Universal bag-juice card covers the fundamentals. This ● extension adds the full pan-sauce integration. After searing the steak: deglaze the cast iron with 100 ml red wine (Bordeaux or Rioja Reserva) + 1 minced shallot, reduce by half (~60 sec on high heat), add the strained bag juices + 50 ml demi-glace (or high-quality stock), reduce to nappé consistency — about 3-4 min until the sauce coats the back of a spoon and leaves a clear trail when you draw a line through it. Off heat, mount with 30 g cold butter cubed in, swirl to emulsify. Season with salt and a few drops of sherry vinegar to brighten. Pour over the sliced steak. This is a 4-minute pan sauce that rivals restaurant sauces, using ingredients that would otherwise be discarded (bag juices) or held in a freezer (demi-glace cubes). Why ● only: demi-glace requires a 12-hour stock reduction (or purchase of a high-quality product), and Bordeaux/Rioja Reserva at proper drinking quality raises the accompanying wine cost. Reference: Sauces & Condiments §6 (Pan Sauce Mastery — to be filed under UMAMI-9).

PAIRING

What to Drink

Wine — Everyday

Spanish Rioja Crianza or Reserva (Tempranillo-based)

Oak-aged, moderate tannins, savory leather and cherry notes. The oak matches the sear, the fruit brightens. A Rioja Reserva at \$25-40 outperforms many Bordeaux twice the price for this pairing.

Wine — No Limits

Bordeaux Left Bank (Cabernet-dominant) — Pauillac or Saint-Julien, 5+ years aged

Structured tannins scaffold wagyu's abundant fat. Cassis and tobacco notes bridge to the Maillard crust. A 10-year-aged bottle at dinner-party scale is the classic pairing — there's a reason steakhouse wine lists are 60% Bordeaux.

Alternative — New World Bold

Napa Cabernet or Priorat (Garnacha/Cariñena)

For wagyu especially, bolder fruit and higher alcohol stand up to the intense marbling. Priorat brings Spanish soul with New World structure — underrated with premium beef.

CONTEXT

Menu Ideas

Before the Steak

Light, acidic, or briny to wake up the palate. Swordfish ceviche with bottarga (UMAMI-2 #1) works. Tuna tartare or a clean green salad with sherry vinaigrette.

Alongside

Potato gratin (classical richness), papas arrugadas (Canarian salt-crusted with mojo verde), roasted Brussels sprouts with sherry-honey glaze, or charred leeks with romesco. Keep it simple — the steak is the story.

After the Steak

Cheese plate (Manchego viejo, Idiazábal, Roncal), or skip to a bright dessert to cut richness — citrus sorbet, fresh berries with mascarpone. Avoid another heavy course after a steak main.

YOUR NOTES

Cook Log

Session Notes

Date: _____ · Serves: ____ · Rating: __ / 5

Use this space to record what you changed, what worked, and what you'd do differently next time. Your future self will thank you.



Stop following recipes. Start understanding food.

