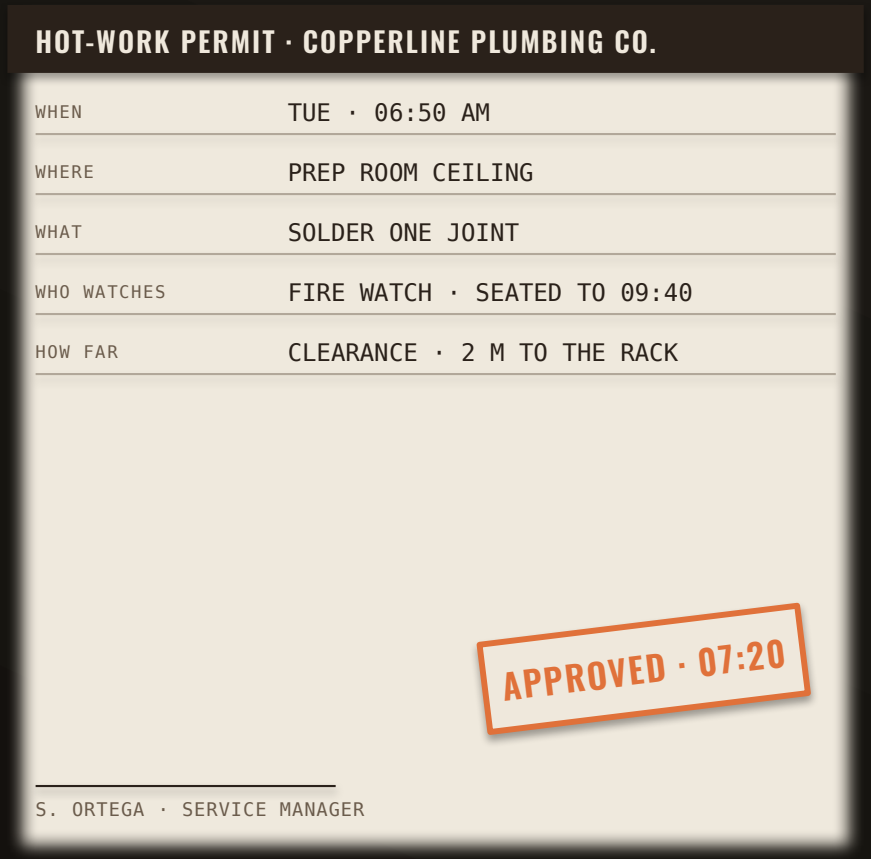
The permit that took the morning.

Tuesday, 06:50. The bread proofs at ten. The paperwork is already signed — for a joint that hasn't been cut yet.

You'll leave with four checks, one shared rule, and a card for the van — for the first joint after tonight.



This deck trains the press-vs-solder decision through one fictional firm's story. 45-minute session: 10 on the bakery morning (slides 1–3), 15 on the four checks (4–8), 10 on the fine print and quiz (9–11), 10 to close and pin the card. Nothing in it needs a job site — a van bay and the card are enough.

Ninety seconds of soldering. Two hours thirty-five minutes of everything else.

Invented scenario — built to teach. Not a real job.



Two hours thirty-five minutes. Nothing burned. The morning was gone.

A worked example written to be expensive, not dangerous — invented, like every figure here (footer). Nobody was careless: the flame bought the paperwork, and the paperwork bought the morning. Count what the route cost — the permit, the person pulled to watch, the two metres of clearance — then hold the joint's own price: ninety seconds.

Fictional quote — written for this training.

“We billed ninety seconds of copper and ate the morning in paperwork. The flame isn't free — and nobody ever priced it.”

Sam Ortega, service manager, Copperline Plumbing Co. · fictional quote, written for this training.

The joint was the bill you could read. The morning was the one you couldn't.



This is the principle under slide 2: a flame is a purchase — permit, watch, clearance, cooldown — and buying it by habit means paying for joints that never asked. The fix isn't a faster torch.

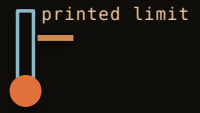
Four checks decide every joint. The habit decides nothing.



01 THE STAMP

Read the fitting's listing before the fitting: it names the services, fluids and places the joint may live.

(The law — slide 5.)



02 THE CEILING

The seal has a printed temperature limit; hot water lives under it, boiler and steam lines don't.

(The physics — slide 6.)



03 THE FLAME

If both joints are allowed, price the permit before you strike.

(The cost — slides 2 and 7.)



04 THE PANEL

If the wall opens again, the access panel beats either method.

(The return — slide 8.)

One rule both methods share — test before the wall closes — arrives on slide 9.

This slide is the deck's rail; it returns at the answer key and folds into the Joint Card. The order is the method: law, physics, cost, service — in that order, every time.

Two fittings, identical copper. Different licences.

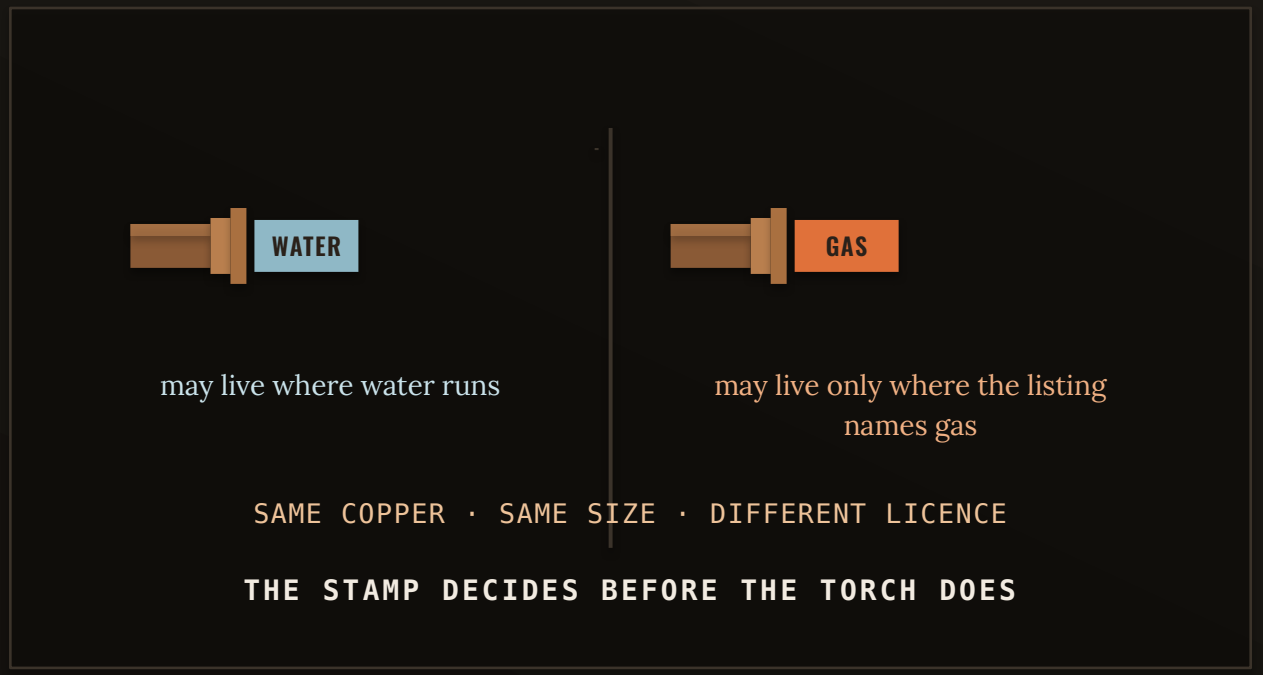
Invented scenario — built to teach. Not a real job.

Thursday's gas drop. The old habit says thread it all; the bin holds a gas-stamped press fitting beside the water ones. Marisol: “Same copper, same size. Different licence.”

Press only where the listing names the service — water, hydronic, gas with gas-listed fittings.

Fuel-gas joints are never soft-soldered — solder is a water-line habit that doesn't transfer.

Some services go past both methods — medical-gas lines are brazed under a purge. The joint you don't make is also a decision.



The stamp decides before the torch does. Everything downstream — heat, cost, access — only runs for joints the listing allows.

The joint passed in October. January was the seal's opinion.

Invented scenario — built to teach. Not a real job.

OVER THE CEILING

heat that lives in the pipe, not just the water

- boiler supply
- solar loop
- steam

THE PRINTED CEILING

the ceiling is printed on the spec sheet — read it before you press.

UNDER THE CEILING

the daily run of a house

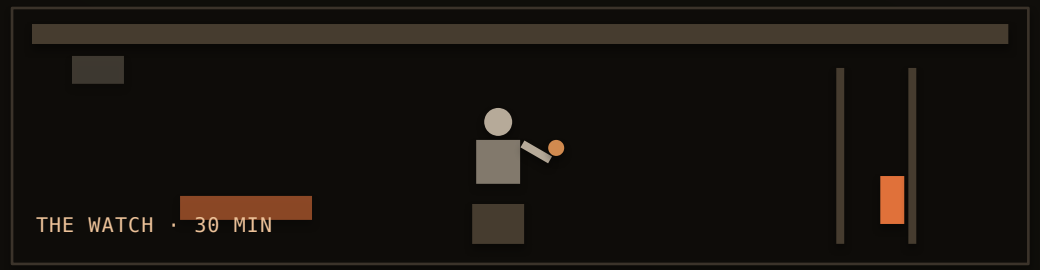
- cold water
- domestic hot water

October — the last fitting on a boiler-room riser, pressed, tested, door closed. January — a weeping joint and a dried seal; two trips where one soldered joint would have been one.

The press tool doesn't know the pipe is hot. The spec sheet does — and the January call-back is how the lesson bills itself when nobody reads it in October.

The flame bills by the room. The press bills once.

Invented scenario — built to teach. Not a real job.



THE FLAME'S PRICE

every strike buys the room's rules:

- the hot-work permit
- the fire watch
- the clearance
- the blanket
- the cooldown

THE BAKERY MORNING, ITEMIZED: 2h35 of room for 90 seconds of joint.

PRICE THE ROOM BEFORE YOU STRIKE.

THE PRESS'S PRICE

the tool once, then the job:

- the tool once — $1,850 with the first jaws · invented figure
- a jaw per size
- the indicator check every press

then the per-job price is minutes, not permits.



When the room bans flames outright — occupied wards, clean rooms, midnight retail — press isn't the cheap choice, it's the only legal one. If the stamp and the ceiling allow.

The honest slide: neither method is free, and the trade-off is priced in rooms, not opinions. The flame wins where the room owes nothing; the press wins everywhere else the listing allows.

No joint — pressed or soldered — forgives a hidden place.

A weep behind a sealed soffit becomes “open ceiling, find joint, close ceiling” — the invoice nobody wanted.

If the run will be opened, the panel is cheaper than either method's second visit. Draw the panel on the job sheet, not the memory.

Press's quiet edge on returns: cut out, press new — no flame in a ceiling you just opened, no draining the floor to re-make one joint. Press connections are made wet or dry — the manufacturer's sheet decides.



The fourth check is the one that survives every method: the wall you're about to close is the one you're about to open again. The panel decision is made before the joint, not after the call-back.

Every method has a price.
One rule is free: test before the wall closes.

WHAT PRESS ASKS

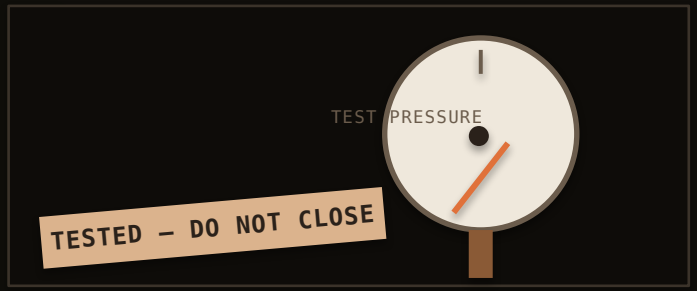
- the tool and the jaw per size;
- the indicator checked on every crimp;
- a mis-crimp shows at first pressurization — which is exactly why the shared rule exists.

WHAT SOLDER ASKS

- a dry pipe — a wet line ruins the heat's work (press is made wet or dry — the manufacturer's sheet decides);
- clearance and flame rules where the room requires them;
- the craft: the first joint you solder alone is a graduation.

THE SHARED RULE

- whichever joint, pressure-test before the wall closes.
- The joint you can't see is the one you test twice.



Neither method is the cheap one everywhere. Both are honest if you test first.

The honest slide — the trade-offs named by us before the learner meets them as surprises. Modest claims throughout: no promise that press replaces craft; the promise is that nothing is hidden.

You know the four checks. Now pick them under fire.

Practice scenario.

Three situations. Pick the call you'd actually make — vote with your hand.

SITUATION 1

dawn, occupied bakery, one ¾" cold-water line above the prep room.

- **A** “Solder it — solder is the permanent choice.”
- **B** “Press it — the stamp allows water, and the flame would buy a permit the schedule can't afford.”
- **C** “Come back after close — no work over food, ever.”

SITUATION 2

a boiler room's supply riser, three-foot run, nobody around.

- **A** “Press it — faster, and the room's empty anyway.”
- **B** “Solder or braze it — the heat lives in this run; check the stamp first.”
- **C** “Either — a joint is a joint.”

SITUATION 3

the gas drop to a new range; open wall; the reno isn't occupied yet.

- **A** “Solder like water lines — it's all copper.”
- **B** “Press it — any press fitting works on copper.”
- **C** “Let the stamp decide: gas-listed press or threaded/welded — never soft solder.”

30 seconds per card, hands up per letter. Answer key next. The traps are the old habits wearing confidence: "permanent" solder, "empty room" press, "all copper is the same."

Every right answer is one of the four checks.

Practice scenario.

1 → **B**

THE FLAME

the stamp allowed press; the room's rules priced the flame out.

(Check 3, with Check 1 already passed)

2 → **B**

THE CEILING

the heat lives in the run; the seal doesn't.

(Check 2 — confirm the stamp first)

3 → **C**

THE STAMP

the licence decides the joint; the habit decides nothing.

(Check 1 — the trap was the habit)

The traps were the habits that made the flame look free.

If a call burns paperwork for a joint that didn't ask, presses a heat line because the room was empty, or solders a gas drop because "it's all copper," it fails — even when it sounds safe.

The mornings come back one joint at a time.

MON 7:00

THE TOOL

press tool on the charger, indicator clean, jaws matched to today's sizes.

MON 7:15

THE BIN

the van's fittings sorted by stamp: WATER / GAS / HEAT ZONES.

MON 8:00

THE FIRST JOINT

on the first job, say the four checks out loud before the first cut.

FRI

THE SHEET

every hidden run this week gets an access panel or a note in the job sheet.

Read the stamp. Respect the ceiling. Price the flame. Leave the panel.

The Joint Card is the deck, folded (over-delivery: printable Copperline Joint Card — front, the four checks in order; back, what each method asks + the shared test rule + two date boxes: "my first pressed joint on a live job" and "my first soldered joint, alone" — plus one empty slot headed "the joint that taught me something"). If one line survives the week, make it the stamp rule — read the fitting's listing before the cut — because it's the one that keeps every other check honest.