

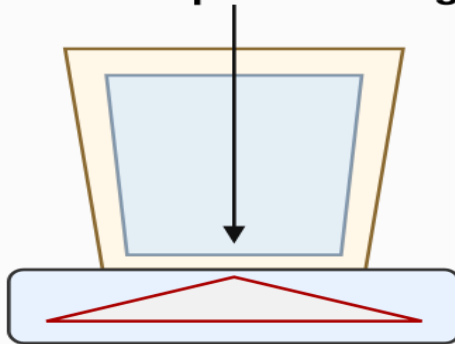
PQ4 AP-2 Ice-Cream Pint Quarterer - Rev A

Baileigh AP-2 conversion kit for freezer-cold pint quartering. Generated 2026-06-21.

This package contains two prototype heads: Version A inverted push-through for wrapped wedges, and Version B upright preserve-container for inner cutting. It includes DXF quote files, SVG references, BOM, assembly notes, SendCutSend guidance, and a test protocol.

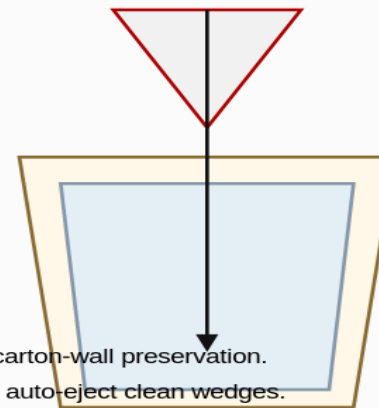
PQ4 AP-2 conversion: two prototype heads

A. Inverted push-through



Best for freezer-cold robustness.
Cuts carton, ejects wrapped wedges.
Short blade avoids buckling.

B. Upright inner cut



Best for carton-wall preservation.
Does not auto-eject clean wedges.
Sensitive to pint taper and centering.

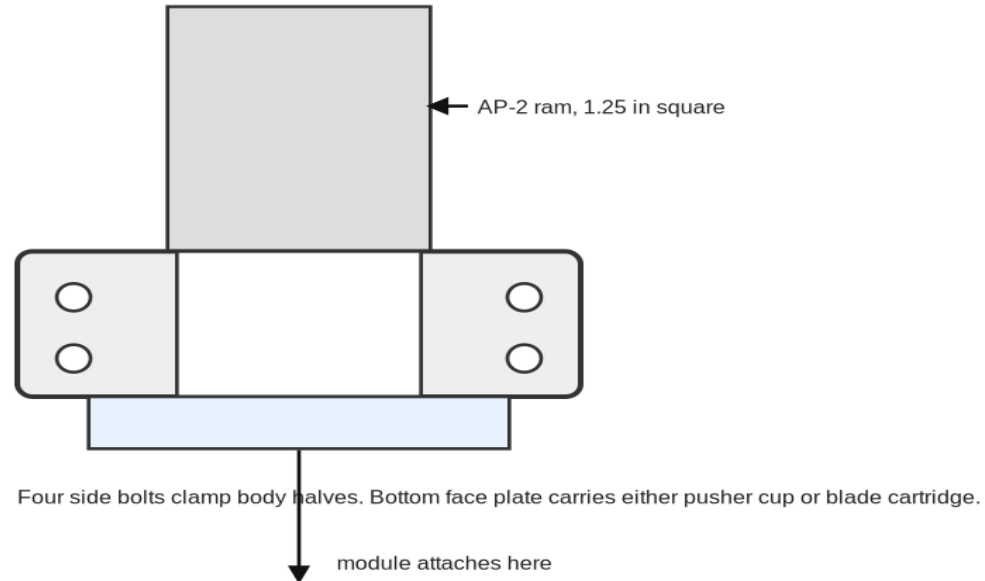
Prototype warning: this is not a certified food appliance. Build and test with guarding, down-stops, and controlled alignment before letting the dairy goblin anywhere near a hand.

1. Donor press envelope: Baileigh AP-2

The fixed donor is the AP-2 arbor press. Published constraints used here: 2 ton manual capacity, 5.375 in throat, 9 in stroke, 7.5 in capacity over table, and a 1.25 in square ram. The daylight/capacity is the tight dimension, so Version A uses a low receiver and through-slotted pusher.

Shared AP-2 ram clamp concept

Non-destructive split clamp around the AP-2 1.25 in square ram. Machine or print body; bolt SCS face plate below.

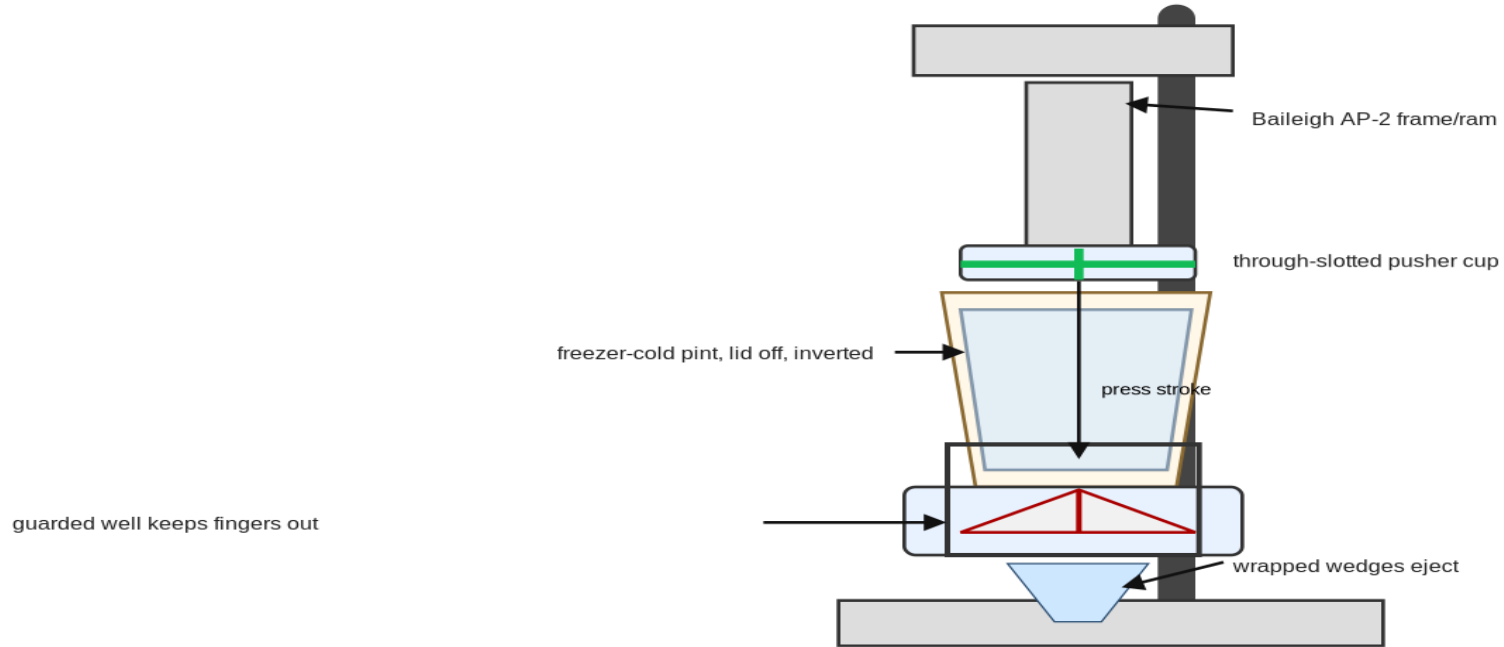


The ram interface is a non-destructive split clamp. Do not drill the ram for Rev A. The module base plate is universal and should be match-drilled or clamped after physical alignment.

2. Version A: inverted push-through / wrapped wedges

Version A: inverted push-through / wrapped wedges

AP-2 ram drives a low-profile slotted pusher. Short upward blade is recessed inside a guarded receiver.



Lid off, pint inverted, open face down into a guarded receiver. The AP-2 pushes the closed bottom through a short stationary blade. This is the strongest freezer-cold architecture because the blade is short, the carton acts as a cartridge, and the output self-strips.

Primary parts: INV-101, INV-102, INV-103, INV-104, INV-105, plus the common base and ram clamp. Output is four peelable carton-backed wedges.

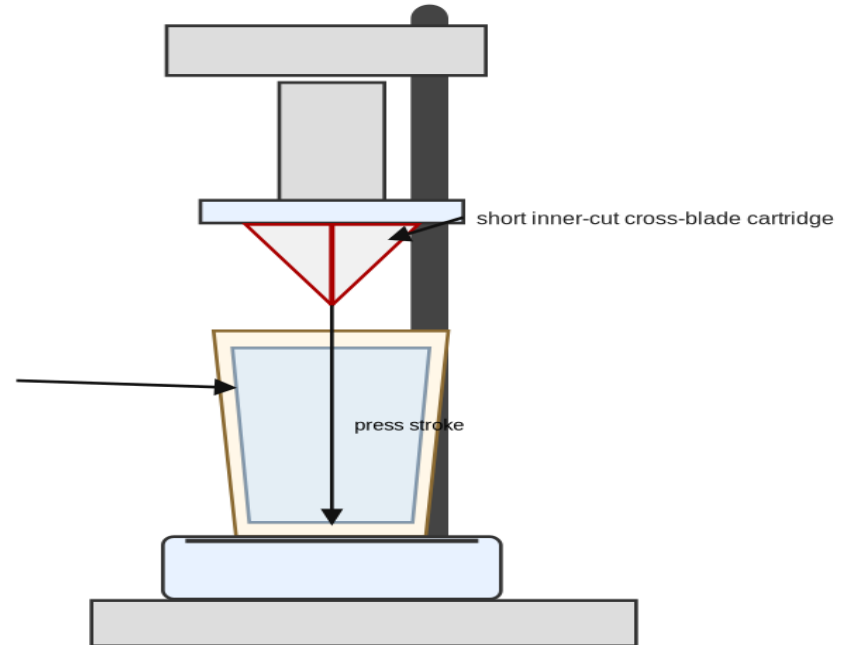
3. Version B: upright preserve-container / inner cut

Version B: upright preserve-container / inner cut

AP-2 ram carries a short cross-blade cartridge. Pint stays upright; carton sidewall is preserved.

pre-cut quadrants remain inside carton

Taper limits blade span: test 86 mm conservative, then 96 mm aggressive.



Lid off, pint upright in a centering collar. A short cross-blade cartridge descends into the ice cream. This avoids intentionally cutting the carton wall, but it does not automatically eject naked wedges. It is sensitive to pint taper and centering.

Start with the 86 mm conservative blade family. The 96 mm family cuts closer to the wall but has more risk of carton scoring.

4. Fabrication map

Group	Files	Recommended vendor/process	Notes
Common	COM-001, COM-002	SendCutSend or local laser/waterjet	Match-drill AP-2 mounting. Ram clamp body is machined/printed.
Version A blades	INV-101, INV-102	SendCutSend 304 stainless .125 in	Hand bevel, polish, passivate, weld/braze cross.
Version A guard/pusher	INV-104, INV-105	CNC routed HDPE/Delrin or local machining	Keep stack low for AP-2 daylight.
Version B blades	UP-86 or UP-96 family	SendCutSend 304 stainless .125 in	Experimental. Use down-stop and stripper.
Version B collar/pad	UP-204, UP-205	CNC routed plastic	Shim collar for each brand.

SendCutSend upload packet: [vendor_quote_packets/sendcutsend_upload/](#). Upload individual DXF files. SVGs are previews only.

5. Test protocol summary

Mode	Head	Orientation	Blade state	Primary question
A1	Inverted push-through	Upside down	Room temperature	Will it cut freezer-cold pints cleanly?
A2	Inverted push-through	Upside down	Hot-water-dipped	How much force/mess improves?
B1	Upright inner cut	Upright	Room temperature	Can carton be preserved without lift-out?
B2	Upright inner cut	Upright	Hot-water-dipped	Does warming reduce cracking while preserving carton?

Capture force, wedge equality, face cleanliness, carton fiber transfer, release quality, cleanup time, and safety issues. The outcome should decide the product direction, not aesthetic loyalty.

6. File manifest highlights

Key docs: README.md, docs/fabrication_sendcutsend.md, docs/assembly_inverted_pushthrough.md, docs/assembly_upright_preserve_container.md, docs/test_protocol_freezer_cold.md, docs/risk_safety_food_contact.md.

Key CSVs: bom/bom_revA.csv and bom/sendcutsend_order_manifest.csv.

Key CAD: cad/dxf/sendcutsend/, cad/svg/, cad/openscad/pq4_ap2_reference.scad.

Key drawing views: drawings/svg/ and drawings/png/. This PDF is a human-readable overview, not the source of truth for fabrication dimensions.