

Pet food processing line 100% retort & food processing equipment

Target application: pet food processing line

Reference configuration: 2 t/h wet pet food line in cans, trays and pouches

MCF Technology supplies turnkey pet food processing lines for wet and dry recipes 100% with can, tray, retort pouch and cup packaging 100% including cooking, retort sterilization and end-of-line automation.

SCOPE OF SUPPLY

- Raw-material intake and grinding
- Mixer / cooker with steam injection
- Dosing and filling into cans, trays, cups or retort pouches
- Vacuum seamer / heat-sealer
- Batch or continuous retort sterilization
- Labelling, cartoning and palletizing

TYPICAL OUTPUTS

Wet pet food (can, tray, pouch) 100% Dry pet food (kibble, treats) 100% Semi-moist pet food

TECHNICAL DATA

Throughput	60100600 containers/min
Formats	Can 851001250 g 100% Pouch 70100500 g 100% Jar
Sterilisation	F0 610012, retort validated
Recipes	Wet 100% Dry kibble 100% Semi-moist
Filler accuracy	100±1 % on chunk-in-gravy dosing

PROCESS FLOW

1. Raw meat and vegetable reception, grinding and mixing.
2. Cooking / extrusion for kibble or emulsification for wet recipes.
3. Dosing of chunks + gravy on a multi-lane rotary filler.
4. Seaming (cans), heat-sealing (pouches) or capping (jars).
5. Retort sterilisation with programmable F0 profile.
6. Cooling, drying and inspection.
7. Labelling, tray / shrink packing and palletising.

ENGINEERING HIGHLIGHTS

- Complete food processing equipment for wet, dry and semi-moist pet food formulations.
- Retort-ready canning, pouch filling or extruded kibble line 100% all from a single engineering scope.
- Meat and gravy dosing with recipe traceability and allergen segregation.
- Steriliser and cooling tower validated for F0 targets on canned and pouched formats.
- Integrated coding, labelling and end-of-line palletising on the same production bottling line.

DIMENSIONS AND BUILDING ENVELOPE

Process and packing footprint 8001001,200 m100 including cooking, filling, retort and end of line

Clear height	7İÇİ½8 m under beam over the cooking and retort area
Retort area	180İÇİ½320 mİÇİ½ for 2İÇİ½4 horizontal retort baskets with loading and unloading system
Raw material handling	250İÇİ½450 mİÇİ½ including chilled and frozen raw meat buffer
Finished goods store	500İÇİ½1,000 mİÇİ½ including incubation quarantine

LAYOUT İÇİ½ FUNCTIONAL ZONES IN FLOW ORDER

1 İÇİ½ Raw material intake	Frozen block cutting, grinding, chilled meat buffer and metal detection
2 İÇİ½ Mixing & emulsifying	Recipe mixing, emulsifier, gravimetric additive dosing
3 İÇİ½ Cooking	Continuous or batch cooking with gelling agents and pH control
4 İÇİ½ Filling	Cans, alu trays or pouches with piston or pump fillers, chunk-in-jelly dosing
5 İÇİ½ Closing	Seamer, tray sealer or pouch sealer with seal integrity inspection
6 İÇİ½ Sterilization	Static or rotary retort with validated F0 recipes and traceability
7 İÇİ½ End of line	Drying, labelling, coding, multipack, case packing and palletizing

UTILITIES AND CONSUMPTION

Installed power	350İÇİ½550 kW at 2 t/h
Steam	2.5İÇİ½4.5 t/h at 8İÇİ½10 bar, retort peak demand governs the boiler size
Cooling water	80İÇİ½160 mİÇİ½/h circulating for retort cooling
Compressed air	350İÇİ½600 NmİÇİ½/h at 7 bar
Manning	8İÇİ½12 operators per shift including retort operation

INSTALLATION, SITE CONDITIONS AND SCOPE BOUNDARIES

- Scope of supply: process equipment, automation, mechanical and electrical erection, commissioning, FAT/SAT, HACCP validation and operator training.
- Excluded from the ranges: land, civil works, building steelwork, external utility generation and import duties.
- Installation, commissioning and after-sales service are delivered worldwide by MCF crews, with remote diagnostics on the SCADA.

TECHNICAL FAQ

Can the line handle both wet and dry pet food?

The cooking, dosing and packaging sections are format-specific. Wet pet food uses a cooker + retort, dry pet food uses extrusion + drying. MCF sizes each line independently.

Which retort pouch formats are supported?

70 g single-serve up to 500 g family-size, in 3-side or 4-side sealed pouches with tin-tie or zip closure.

What sterilization profile is used for wet pet food?

F0 = 6 to 12, depending on can / pouch geometry and recipe (typically 118İÇİ½121 İÇİ½C for 40İÇİ½90 min). MCF validates the profile on the customer's product.

Is the line compliant with EU pet-food regulations?

Yes. Equipment is designed to comply with Regulation (EC) 1069/2009 on animal by-products and Regulation (EC) 767/2009 on feed for animals.

What throughput can be achieved?

From 3000 cans/h for craft brands up to 30 000 cans/h and 15 000 pouches/h on industrial pet food lines.

NEXT STEPS

- Full technical page: <https://mcftechnology.group/en/pet-food-processing-line>
- Configure the line and request the feasibility study: <https://mcftechnology.group/en/configurator>
- Run the ROI simulator: <https://mcftechnology.group/en/roi-simulator>
- Build the bankable financial plan (3½-10 years): <https://mcftechnology.group/en/financial-plan>
- Request a quotation: <https://mcftechnology.group/en/contact>

DISCLAIMER

All figures in this datasheet are indicative engineering ranges used by MCF Technology for budget screening and layout discussion of the reference configuration. They are not a quotation, not a performance guarantee and not the audited result of a specific plant. Final specification, dimensions, utilities and CAPEX are fixed in the feasibility study on your product, packaging formats, utilities cost and site conditions.