

60 t/h tomato processing plant $\frac{1}{2}$ the most financed campaign size

Target application: 60 t/h tomato processing plant

Reference configuration: 60 t/h fresh tomato at the reception (10 $\frac{1}{2}$ 200 t/h configurable)

At 60 t/h a tomato plant produces enough bulk paste to sign export contracts, which is why this is the capacity most often submitted to banks and development funds. The configuration is a triple-effect evaporation train with two aseptic filling heads and full automation.

SCOPE OF SUPPLY

- Reception, washing, sorting: 60 t/h fresh tomato
- Hot break and cold break option with dedicated extraction
- Triple-effect falling-film evaporation with vapour recovery
- Two aseptic filling heads for drums, IBC and bag-in-box
- CIP / SIP, steam, cooling and compressed air utility block
- SCADA with batch traceability and OEE reporting

TYPICAL OUTPUTS

30 $\frac{1}{2}$ Brix and 36 $\frac{1}{2}$ 38 $\frac{1}{2}$ Brix tomato paste $\frac{1}{2}$ Passata di pomodoro $\frac{1}{2}$ Tomato juice (single strength)

DIMENSIONS AND BUILDING ENVELOPE

Process building footprint	2,200 $\frac{1}{2}$ 3,200 m $\frac{1}{2}$ for 60 t/h (1,200 $\frac{1}{2}$ 1,800 m $\frac{1}{2}$ at 30 t/h, 4,000 $\frac{1}{2}$ 5,500 m $\frac{1}{2}$ at 120 t/h)
Clear height	9 $\frac{1}{2}$ 12 m under beam in the evaporation bay, 6 $\frac{1}{2}$ 7 m in reception and filling
Reception yard	1,500 $\frac{1}{2}$ 3,000 m $\frac{1}{2}$ paved area for truck queuing, weighbridge and water dumping channels
Evaporator height	12 $\frac{1}{2}$ 18 m overall for double / triple effect calandria, outdoor or enclosed tower
Aseptic filling room	120 $\frac{1}{2}$ 200 m $\frac{1}{2}$, controlled area, 4.5 m clear height
Bulk storage	600 $\frac{1}{2}$ 1,200 m $\frac{1}{2}$ covered area per 10,000 t of 30 $\frac{1}{2}$ Brix paste in drums or IBCs
Heaviest single lift	18 $\frac{1}{2}$ 26 t (evaporator body) $\frac{1}{2}$ crane access to be verified at layout stage

LAYOUT $\frac{1}{2}$ FUNCTIONAL ZONES IN FLOW ORDER

1 $\frac{1}{2}$ Reception	Weighbridge, water dumping, roller and brush washing, destoner, elevators
2 $\frac{1}{2}$ Sorting	Optical and manual sorting platform, reject collection, waste conveying
3 $\frac{1}{2}$ Break section	Chopper, hot break 85 $\frac{1}{2}$ 95 $\frac{1}{2}$ C or cold break 65 $\frac{1}{2}$ 75 $\frac{1}{2}$ C, pulper / refiner / finisher
4 $\frac{1}{2}$ Evaporation	Multi-effect falling-film or forced-circulation train, vacuum unit, condensers
5 $\frac{1}{2}$ Sterilization	Tubular or scraped-surface steriliser with hold cell and aseptic buffer tank
6 $\frac{1}{2}$ Aseptic filling	Bag-in-box 3 $\frac{1}{2}$ 20 L, 220 L bag-in-drum, 1,000 L IBC, sterile air and steam barriers
7 $\frac{1}{2}$ Utilities & CIP	Steam distribution, cooling towers, chilled water, compressed air, CIP/SIP skid
8 $\frac{1}{2}$ Warehouse	Bulk storage, packaging materials, laboratory and QC office

UTILITIES AND CONSUMPTION

Installed power	1,600İÇİ½2,400 kW at 60 t/h (900İÇİ½1,300 kW at 30 t/h)
Steam	12İÇİ½20 t/h saturated at 8İÇİ½12 bar, MVR option reduces demand by 45İÇİ½60%
Cooling water	900İÇİ½1,600 mİÇİ½/h circulating, cooling towers sized on site design ambient
Process water	60İÇİ½120 mİÇİ½/h treated, with washing water recovery loops
Compressed air	700İÇİ½1,200 NmİÇİ½/h at 7 bar, oil-free for the aseptic zone
Effluent	40İÇİ½90 mİÇİ½/h to treatment, COD load dependent on washing recovery
Manning	18İÇİ½26 operators per shift including sorting, QC and maintenance

CAPEX, OUTPUT AND PAYBACK

60 t/h tomato line İÇİ½ investment profile

The most frequently financed size: triple-effect evaporation, two aseptic filling heads and enough volume to support bulk export contracts.

60 t/h fresh tomato (reference)	Turnkey CAPEX: İÇİ½8 İÇİ½ 11 million Annual output: 19 000 İÇİ½ 24 000 t/year of 30 İÇİ½Brix paste EBITDA: 20 İÇİ½ 26% of revenue Payback: 4 İÇİ½ 5.5 years Commissioning: 14 İÇİ½ 18 months contract-to-commissioning
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Assumptions behind the figures

- Campaign of 90İÇİ½110 days per year, 20İÇİ½22 productive hours per day.
- Hot break line, evaporation to 28İÇİ½30 İÇİ½Brix, aseptic filling in 220 L bag-in-drum or 1 000 L IBC.
- Yield 5.5İÇİ½6.5 t of fresh tomato per tonne of 30 İÇİ½Brix paste, depending on inbound İÇİ½Brix.
- CAPEX is turnkey scope: process equipment, automation, installation, commissioning and training; civil works and land excluded.
- EBITDA and payback assume export bulk paste pricing and no financing cost inside the operating margin.

Indicative engineering ranges used by MCF Technology for budget screening. Final CAPEX, EBITDA and payback are fixed only in the feasibility study, once inbound İÇİ½Brix, campaign length, utilities cost and target packaging are confirmed.

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

Why is 60 t/h so common in financed projects?

It is the smallest capacity where specific CAPEX per tonne, export contract size and DSCR usually align: annual output of roughly 19 000İÇİ½24 000 t of paste is enough for multi-buyer supply while the İÇİ½8İÇİ½11 million CAPEX remains inside typical project-finance envelopes.

Hot break or cold break at this size?

Most 60 t/h plants install hot break as the main route and keep a cold-break option for brighter-colour, lower-viscosity products such as pizza sauce bases. Both routes share reception and evaporation.

How much steam does the evaporation section use?

A triple-effect train uses roughly 0.35İÇİ½0.40 kg of steam per kg of evaporated water; MVR can bring the thermal figure much

lower in exchange for higher electrical demand and higher CAPEX.

What utilities are required?

Indicatively 16İÇİ½22 t/h of steam, 1 800İÇİ½2 600 mİÇİ½/h of cooling water and 1 200İÇİ½1 800 kW of installed electrical power, confirmed in the feasibility study.

What EBITDA and payback are realistic?

Indicatively 20İÇİ½26% EBITDA on revenue with simple payback of 4İÇİ½5.5 years at bulk export pricing. Both figures are planning ranges fixed only after the feasibility study.

NEXT STEPS

- Full technical page: <https://mcftechnology.group/en/tomato-processing-plant-60-tph>
- 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 (3İÇİ½10 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.