

Tomato processing plant cost İÇİ½ CAPEX, output and payback by capacity

Target application: tomato processing plant cost

Reference configuration: 60 t/h fresh tomato at the reception (10İÇİ½200 t/h configurable)

Most buyers ask for a price before the plant is defined. MCF Technology answers the other way round: first the capacity, the evaporation configuration and the packaging format, then the CAPEX range, the annual output and the payback. This page shows the screening grid used before any quotation, so you can size the investment before choosing a supplier.

SCOPE OF SUPPLY

- Capacity screening at the reception (30 / 60 / 120 t/h fresh tomato)
- Turnkey CAPEX range: process, automation, installation, commissioning, training
- Annual output at 28İÇİ½30 İÇİ½Brix over a 90İÇİ½110 day campaign
- Indicative EBITDA, simple payback and contract-to-commissioning time
- Cost drivers: inbound İÇİ½Brix, evaporation type, energy price, packaging format
- Next step: feasibility study and bankable financial plan (3İÇİ½10 years)

TYPICAL OUTPUTS

Budget CAPEX range per capacity İÇİ½ Annual paste output (30 İÇİ½Brix) İÇİ½ Indicative EBITDA and payback İÇİ½ Commissioning timeline

DIMENSIONS AND BUILDING ENVELOPE

Process building footprint	2,200İÇİ½3,200 mİÇİ½ for 60 t/h (1,200İÇİ½1,800 mİÇİ½ at 30 t/h, 4,000İÇİ½5,500 mİÇİ½ at 120 t/h)
Clear height	9İÇİ½12 m under beam in the evaporation bay, 6İÇİ½7 m in reception and filling
Reception yard	1,500İÇİ½3,000 mİÇİ½ paved area for truck queuing, weighbridge and water dumping channels
Evaporator height	12İÇİ½18 m overall for double / triple effect calandria, outdoor or enclosed tower
Aseptic filling room	120İÇİ½200 mİÇİ½, controlled area, 4.5 m clear height
Bulk storage	600İÇİ½1,200 mİÇİ½ covered area per 10,000 t of 30 İÇİ½Brix paste in drums or IBCs
Heaviest single lift	18İÇİ½26 t (evaporator body) İÇİ½ crane access to be verified at layout stage

LAYOUT İÇİ½ FUNCTIONAL ZONES IN FLOW ORDER

1 İÇİ½ Reception	Weighbridge, water dumping, roller and brush washing, destoner, elevators
2 İÇİ½ Sorting	Optical and manual sorting platform, reject collection, waste conveying
3 İÇİ½ Break section	Chopper, hot break 85İÇİ½95 İÇİ½C or cold break 65İÇİ½75 İÇİ½C, pulper / refiner / finisher
4 İÇİ½ Evaporation	Multi-effect falling-film or forced-circulation train, vacuum unit, condensers
5 İÇİ½ Sterilization	Tubular or scraped-surface steriliser with hold cell and aseptic buffer tank
6 İÇİ½ Aseptic filling	Bag-in-box 3İÇİ½20 L, 220 L bag-in-drum, 1,000 L IBC, sterile air and steam barriers
7 İÇİ½ 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	1,600 $\frac{1}{2}$ 2,400 kW at 60 t/h (900 $\frac{1}{2}$ 1,300 kW at 30 t/h)
Steam	12 $\frac{1}{2}$ 20 t/h saturated at 8 $\frac{1}{2}$ 12 bar, MVR option reduces demand by 45 $\frac{1}{2}$ 60%
Cooling water	900 $\frac{1}{2}$ 1,600 m $\frac{3}{2}$ /h circulating, cooling towers sized on site design ambient
Process water	60 $\frac{1}{2}$ 120 m $\frac{3}{2}$ /h treated, with washing water recovery loops
Compressed air	700 $\frac{1}{2}$ 1,200 Nm $\frac{3}{2}$ /h at 7 bar, oil-free for the aseptic zone
Effluent	40 $\frac{1}{2}$ 90 m $\frac{3}{2}$ /h to treatment, COD load dependent on washing recovery
Manning	18 $\frac{1}{2}$ 26 operators per shift including sorting, QC and maintenance

CAPEX, OUTPUT AND PAYBACK**Tomato processing plant cost $\frac{1}{2}$ capacity, CAPEX, payback**

The cost of a tomato processing plant is driven by three decisions: throughput at the reception, evaporation configuration and packaging format. The table below is the screening grid MCF uses before any quotation.

30 t/h fresh tomato	Turnkey CAPEX: $\frac{1}{2}$ 4.5 $\frac{1}{2}$ 6.5 million Annual output: 9 000 $\frac{1}{2}$ 12 000 t/year of 30 $\frac{1}{2}$ Brix paste EBITDA: 18 $\frac{1}{2}$ 24% of revenue Payback: 4.5 $\frac{1}{2}$ 6 years Commissioning: 12 $\frac{1}{2}$ 15 months contract-to-commissioning
60 t/h fresh tomato (reference)	Turnkey CAPEX: $\frac{1}{2}$ 8 $\frac{1}{2}$ 11 million Annual output: 19 000 $\frac{1}{2}$ 24 000 t/year of 30 $\frac{1}{2}$ Brix paste EBITDA: 20 $\frac{1}{2}$ 26% of revenue Payback: 4 $\frac{1}{2}$ 5.5 years Commissioning: 14 $\frac{1}{2}$ 18 months contract-to-commissioning
120 t/h fresh tomato	Turnkey CAPEX: $\frac{1}{2}$ 14 $\frac{1}{2}$ 19 million Annual output: 38 000 $\frac{1}{2}$ 48 000 t/year of 30 $\frac{1}{2}$ Brix paste EBITDA: 22 $\frac{1}{2}$ 28% of revenue Payback: 3.5 $\frac{1}{2}$ 5 years Commissioning: 16 $\frac{1}{2}$ 20 months contract-to-commissioning

Assumptions behind the figures

- Campaign of 90 $\frac{1}{2}$ 110 days per year, 20 $\frac{1}{2}$ 22 productive hours per day.
- Hot break line, evaporation to 28 $\frac{1}{2}$ 30 $\frac{1}{2}$ Brix, aseptic filling in 220 L bag-in-drum or 1 000 L IBC.
- Yield 5.5 $\frac{1}{2}$ 6.5 t of fresh tomato per tonne of 30 $\frac{1}{2}$ Brix paste, depending on inbound $\frac{1}{2}$ Brix.
- 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 $\frac{1}{2}$ Brix, 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**How much does a tomato processing plant cost?**

As an indicative turnkey range: €4.5-6.5 million for 30 t/h of fresh tomato, €8-11 million for 60 t/h and €14-19 million for 120 t/h. The range covers process equipment, automation, installation, commissioning and operator training; land and civil works are quoted separately.

What moves the cost most inside the same capacity?

Evaporation configuration and energy strategy. A falling-film triple effect costs less than an MVR train but consumes more steam per tonne, so the cheaper CAPEX can be the more expensive plant over a ten-year horizon. Packaging format (drum, IBC, retail) is the second driver.

Is the price per tonne better on a larger line?

Yes. Specific CAPEX per tonne of installed capacity typically drops 25-35% from 30 t/h to 120 t/h, because reception, utilities and automation scale sub-linearly. The constraint is raw material availability inside the campaign window, not the equipment.

Does the cost include installation abroad?

Yes. MCF delivers worldwide with mechanical installation, hot commissioning, HACCP validation and operator training on site; travel, accommodation and local labour are itemised in the offer.

How is the final figure fixed?

In the feasibility study. Inbound Brix, campaign length, utility tariffs, staffing and target packaging are confirmed first, then CAPEX, EBITDA and payback stop being ranges and become one committed scenario.

NEXT STEPS

- Full technical page: <https://mcftechnology.group/en/tomato-processing-plant-cost>
- 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 (3-10 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.