# Cheese Making Plant and Machinery

## 1. Plant Overview

This cheese-making plant concept is designed for hygienic, efficient production of fresh and semi-hard cheeses. The layout supports milk reception, pasteurisation, coagulation, curd handling, whey drainage, pressing, salting, maturation and packing, with stainless-steel process equipment suitable for food-grade dairy operations.

## 2. Key Machinery and Equipment

- **Milk reception and storage tanks:** insulated stainless-steel tanks for receiving, cooling and holding raw milk.
- **Plate heat exchanger pasteuriser:** continuous pasteurisation system for controlled heating and cooling of milk.
- **Cheese vats:** jacketed vats with agitation for starter culture dosing, rennet addition, coagulation and curd cutting.
- **Curd cutting and stirring system:** automated knives and agitators for uniform curd size and controlled whey release.
- **Whey drainage table or draining belt:** equipment for separating curd from whey before moulding.
- **Cheese moulds and pneumatic/hydraulic press:** forming and pressing system to shape cheese and remove residual whey.
- **Brining or dry-salting unit:** stainless-steel brine tank or salting station for flavour and preservation.
- **Maturation room:** temperature- and humidity-controlled storage for ripening cheese.
- **Packaging line:** vacuum packing, labelling and date-coding equipment for finished cheese.
- **CIP cleaning system:** automated clean-in-place skids for tanks, lines and process equipment.

## 3. Suggested Equipment Specification

| Equipment | Primary Function | Recommended Construction |
|---|---|---|
| **Milk storage tank** | Chilled milk holding before processing | AISI 304/316 stainless steel, insulated, CIP-ready |
| **Pasteuriser** | Thermal treatment for food safety | Plate heat exchanger with temperature controls |
| **Cheese vat** | Coagulation, curd formation and curd | Jacketed stainless-steel vat with agitator |

| | | |
|---|---|---|
| | cutting | |
| **Curd drainage system** | Whey separation and curd handling | Perforated stainless-steel drainage table or belt |
| **Pressing system** | Cheese shaping and whey removal | Pneumatic or hydraulic press with food-grade moulds |
| **CIP skid** | Automated cleaning of tanks, pipes and valves | Multi-tank stainless-steel skid with dosing pumps |

# 4. Illustrative Plant Photos






# 5. Benefits for STI Flows Limited

- Modular layout suitable for phased expansion as production volume increases.
- Food-grade stainless-steel equipment supports hygiene, cleanability and long service life.
- Automated temperature control improves batch consistency and product quality.
- CIP-ready tanks and pipework reduce cleaning time and support operational efficiency.
- Flexible machinery configuration can support different cheese types, including fresh, soft and semi-hard products.