

# APT INDUSTRIAL CHILLER

INDUSTRIAL COOLING  
REFERENCE DOCUMENT

<https://applied-chiller.com/>



## 15HP Stainless Steel Process Chiller for Food Mixing Tank Cooling

Industrial Cooling Reference for Food and  
Beverage Process Cooling

STAINLESS STEEL

15HP REFERENCE

FOOD PROCESS

TANK COOLING

CASE REFERENCE

Project Snapshot

15HP stainless steel process chiller direction for a food mixing tank cooling project.

|                                                                                                                               |                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>APPLICATION</b><br>Food Mixing Tank Cooling                                                                                | <b>INDUSTRY</b><br>Food and Beverage Processing Workshop         |
| <b>COOLING TARGET</b><br>Food mixing tank temperature control and hygienic process water cooling                              | <b>CHILLER DIRECTION</b><br>15HP Stainless Steel Process Chiller |
| <b>REVIEW FOCUS</b><br>Tank volume, target temperature, process-side material, water quality, cleaning requirement, pump flow |                                                                  |



ENGINEERING REVIEW

Engineering Matrix

| ENGINEERING ITEM      | WHY IT MATTERS                                                                  | DATA TO CONFIRM                                                  |
|-----------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------|
| Tank Volume           | Batch size influences practical cooling load and process pull-down requirement. | Working volume, batch frequency, and production cycle.           |
| Target Temperature    | Tank temperature setpoint defines the required cooling control direction.       | Required outlet temperature and allowable fluctuation.           |
| Process-Side Material | Material review may affect wetted part direction and hygiene suitability.       | Required stainless grade and material compatibility expectation. |
| Water Quality         | Cooling water cleanliness supports hygienic process-side operation reliability. | Water source, filtration review, and maintenance approach.       |
| Cleaning Requirement  | Cleaning method may affect material, seal, and circuit review.                  | CIP practice, detergent exposure, and shutdown procedure.        |
| Flow Rate             | Enough circulation must be maintained through the tank loop or heat exchanger.  | Required L/min or m3/h through the process circuit.              |

Reference direction only. Final engineering review should be completed before quotation and final model confirmation.

COOLING CHALLENGE

Process Review

- Mixing tank temperature control affects batch consistency and practical production rhythm.
- Hygienic process water review is important for food and beverage workshop cooling support.
- Material direction should match process-side cleaning requirement and plant practice.
- Flow rate and heat exchanger selection must fit the real tank cooling loop.

RECOMMENDED DIRECTION

A 15HP stainless steel process chiller was considered as the preliminary direction for this food mixing tank cooling project. Final material and hygiene design depends on process fluid, cleaning method, local requirement, and engineering review, together with tank volume, target temperature, and circulation flow.

CHILLER DETAIL

15HP Stainless Steel Chiller Configuration

Main configuration points for a food mixing tank cooling reference project.



**24HP**  
**Stainless Steel**  
**Water Cooled Chiller**

Hygienic Cooling Solution for Food & Pharmaceutical Processing

Full Stainless Steel Structure

Food Grade Cooling

Corrosion Resistant

Customized Engineering

STAINLESS STEEL CHILLER CONFIGURATION VIEW

- 01

**Stainless Steel Direction**

Material direction reviewed for process-side hygiene and corrosion sensitivity.
- 02

**Tank Temperature Control**

Stable outlet temperature helps support food mixing process consistency.
- 03

**Hygienic Water Review**

Process cooling circuit review considers water quality and cleaning practice.
- 04

**Pump and Heat Exchanger**

Circulation and exchanger direction follow actual tank loop requirement.

TECHNICAL REFERENCE

|                                                                       |                                                               |                                                                                                                    |                                                                                                |
|-----------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <p><b>COOLING METHOD</b></p> <p>Process chiller by project review</p> | <p><b>CAPACITY DIRECTION</b></p> <p>15HP reference</p>        | <p><b>TYPICAL APPLICATION</b></p> <p>Food mixing tank / hygienic process cooling / beverage production support</p> | <p><b>COOLING CIRCUIT</b></p> <p>Closed-loop process water</p>                                 |
| <p><b>OUTLET TEMP.</b></p> <p>Project-defined, often 5-20 C</p>       | <p><b>PUMP SELECTION</b></p> <p>By required flow and head</p> | <p><b>POWER SUPPLY</b></p> <p>380-460V, 50/60Hz by destination</p>                                                 | <p><b>FINAL REVIEW</b></p> <p>Material / hygiene / tank volume / flow / target temperature</p> |

**Review Note**

Final material and hygiene design depends on process fluid, cleaning method, local requirement, and engineering review. No direct food contact certification should be assumed unless it is specifically confirmed for the project.

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