

APT INDUSTRIAL CHILLER

Compact Industrial Chiller Catalog

Small-footprint process cooling systems for machine-side industrial applications.

1 HP to 10 HP compact cooling range

Small air cooled chillers

Vertical industrial chillers

Mobile industrial chillers

CNC, laser, laboratory, testing, and OEM cooling

Engineering selection support

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



COMPACT PROCESS COOLING SYSTEMS

APT Compact Industrial Chiller Overview

Compact process cooling support for equipment-side projects where small footprint, stable temperature control, and installation flexibility matter.

APT Industrial Chiller provides compact industrial chillers for process cooling projects where small footprint, machine-side installation, stable temperature control, pump performance, voltage, mobility, and equipment integration need to be reviewed. Compact chillers are commonly used for low to medium heat load applications, testing, laboratory equipment, CNC machines, laser equipment, and OEM industrial systems.

- Factory direct industrial chiller manufacturer
- Compact air cooled process cooling systems
- Vertical and mobile compact chiller options
- Machine-side and equipment-side cooling support
- Engineering review before model recommendation
- Suitable for CNC, laser, lab, testing, OEM, and small process cooling applications

Engineering Review Entry

Send your cooling application and installation conditions for engineering review before quotation and final model confirmation.



COOLING RANGE

1 HP to 10 HP
compact review
direction

INSTALLATION FOCUS

Machine-side,
limited footprint,
and service access

TYPICAL USE

CNC, laser, lab,
testing, and small
production
support

SELECTION BASIS

Heat load,
temperature,
pump, voltage,
and layout review

Compact Industrial Chiller Solution Range

Typical compact chiller directions reviewed according to cooling capacity, footprint, pump requirements, and equipment-side installation conditions.

COMPACT CHILLER DIRECTION	TYPICAL REQUIREMENT	TYPICAL APPLICATIONS	BEST FOR
Small Air Cooled Industrial Chillers	Small footprint process cooling for equipment-side installation	Laser equipment, CNC machines, lab systems, small production machines, test benches	Projects requiring compact air cooled cooling without a central cooling system
1 HP to 5 HP Compact Chillers	Low heat load cooling and small process cooling	Small laser, spindle cooling, laboratory circulation, electronic equipment, small process tanks	Small machines and low heat load equipment cooling
5 HP to 10 HP Machine-Side Chillers	Medium compact process cooling near production equipment	CNC equipment, laser processing, injection molding auxiliary cooling, testing systems	Projects requiring more cooling capacity while keeping a compact layout
Vertical Industrial Chillers	Limited floor space or compact machine-side installation	Production machines, equipment-side cooling, compact factory layouts	Projects with limited installation footprint
Mobile Industrial Chillers	Movable cooling equipment	Testing, maintenance, temporary process cooling, multi-station factory use	Projects requiring flexible cooling location
OEM Integrated Compact Chillers	Compact chiller integrated into customer equipment	Industrial equipment manufacturers, test systems, OEM machines	Machine builders requiring customized size, control, pump, and layout

Main Compact Chiller Categories

Representative compact chiller directions commonly reviewed for equipment-side and limited-space applications.

1 HP to 5 HP Compact Chillers

Compact air cooled chillers for small process cooling, laboratory circulation, equipment cooling, laser cooling, CNC spindle cooling, and low heat load applications. Selection should review heat load, target temperature, pump flow, pump pressure, ambient temperature, and voltage.

5 HP to 10 HP Machine-Side Chillers

Compact industrial chillers for equipment-side process cooling where higher cooling capacity, stable temperature control, and pump performance are required without using a large central cooling system.

Vertical Industrial Chillers

Vertical chillers are suitable for compact factory layouts and machine-side installations where floor space is limited. Airflow, service access, tank layout, pump location, and installation space should be reviewed.

Mobile Industrial Chillers

Mobile chillers are used for flexible cooling, test stations, temporary cooling, maintenance, and production areas where the cooling unit may need to move between machines.

CNC and Laser Compact Chillers

Compact chillers can support CNC machines, spindles, laser equipment, optics, power modules, and auxiliary cooling circuits where stable temperature control and pump performance matter.

OEM Compact Chiller Systems

OEM compact chillers are configured for machine builders or equipment manufacturers requiring special dimensions, voltage, control interface, pump selection, and installation layout.



SMALL CAPACITY COMPACT RANGE



MACHINE-SIDE COMPACT DIRECTION

Compact Chiller Selection Review Points

Typical engineering items reviewed before recommending a compact process cooling direction.

Cooling Capacity Match actual heat load and operating duty.	Target Temperature Confirm required setpoint and stability expectation.	Inlet and Outlet Temperature Review temperature drop and usable cooling range.	Process Fluid Type Check fluid compatibility and circuit arrangement.
Pump Flow and Pressure Match actual loop resistance and cooling demand.	Tank Volume Include when buffer stability is needed.	Pipe Distance and Pressure Loss Assess remote circuit effect on pump sizing.	Ambient Temperature Review condenser margin and operating condition.
Airflow and Ventilation Prevent hot-air recirculation around the chiller.	Voltage and Frequency Adjust to destination power condition.	Installation Footprint Confirm length, width, height, and service access.	Vertical Structure Review when floor space is limited.
Mobility Check wheel base, movement path, and safe operation.	OEM Interface Review controls, communication, and layout needs.	Operating Hours Confirm duty cycle and continuous load condition.	Maintenance Access Leave enough space for service and inspection.

Selection Note

Final compact chiller selection should be confirmed according to heat load, temperature range, fluid type, pump requirements, ambient condition, voltage, installation space, airflow direction, and equipment-side layout.

Typical Applications for Compact Industrial Chillers

Compact cooling directions commonly reviewed for machine-side and low to medium heat load process equipment.

Laser Equipment Cooling

Compact chillers can support laser sources, optics, power modules, and auxiliary cooling circuits where stable water temperature and machine-side installation are required.

CNC Machine Cooling

Compact chillers can support CNC spindle cooling, machine tool cooling, and equipment-side process cooling with limited installation space.

Laboratory and Test Cooling

Small compact chillers can be used for laboratory circulation, test benches, small process tanks, instrument cooling, and temporary cooling needs.

Injection Molding Auxiliary Cooling

Compact chillers can support mold cooling, small auxiliary circuits, testing, and machine-side cooling where a central cooling system is not required.

Thermal Spray Support Cooling

Compact chillers may support auxiliary cooling equipment, testing, or smaller thermal spray-related cooling circuits where pump performance and water quality should be reviewed.

OEM Equipment Cooling

Compact chillers can be configured for machine builders requiring special size, control interface, pump performance, voltage, or installation layout.



CNC COOLING DIRECTION

 Compact chiller for laser or machine-side cooling

LASER AND EQUIPMENT COOLING

 Compact industrial chiller installed in factory workshop

FACTORY TEST AND LAYOUT REVIEW

How APT Reviews a Compact Chiller Project

A practical six-step engineering path from application review to quotation discussion.

STEP 1
Application Review

Understand the equipment, process, heat load, target temperature, and operating condition.

STEP 2
Compact Structure Review

Review installation space, machine-side layout, airflow direction, service access, and whether vertical or mobile structure is required.

STEP 3
Cooling Capacity Selection

Confirm heat load, inlet and outlet temperature, target water temperature, ambient temperature, and capacity margin.

STEP 4
Pump and Fluid Review

Confirm process fluid, pump flow, pump pressure, tank volume, pipe distance, and compatibility requirements.

STEP 5
Electrical and Control Review

Review voltage, frequency, control interface, alarms, protection logic, and OEM integration requirements.

STEP 6
Quotation and Technical Discussion

Prepare quotation, technical notes, and further discussion based on confirmed information.

Project Discussion Note

Compact projects may start from a standard air cooled direction before confirming whether vertical, mobile, or OEM-specific changes are required.

Information Needed for Compact Chiller Selection

Prepare the following data before requesting quotation or engineering review.

- Cooling application or equipment type
- Required cooling capacity or heat load
- Target water or fluid temperature
- Inlet and outlet temperature if available
- Process fluid type
- Pump flow and pressure requirements
- Tank volume if required
- Pipe distance or pressure loss if available
- Ambient temperature

- Installation space or footprint limit
- Airflow direction and ventilation condition
- Voltage and frequency
- Indoor, outdoor, or semi-outdoor installation
- Vertical structure requirement
- Mobility or wheel-mounted frame requirement
- OEM integration or control interface requirement
- Operating hours or duty cycle

Starting Point

If the exact cooling capacity is not available, APT can help review your process conditions and recommend a suitable starting configuration.

Example Compact Chiller Directions

Concise project-style compact cooling directions for early review and internal discussion.

Small Air Cooled Chiller for Equipment Cooling

A compact air cooled chiller direction for small machines, laboratory systems, and low heat load cooling where installation space and pump performance should be reviewed.

Vertical Chiller for Limited Floor Space

A compact vertical chiller direction for equipment-side installation where floor space is limited and airflow, service access, and internal layout need careful review.

Mobile Chiller for Testing and Maintenance

A mobile compact chiller direction for test stations, maintenance cooling, temporary cooling, and flexible factory use where the chiller may move between work areas.

OEM Compact Chiller Integration

A compact chiller direction for machine builders requiring special dimensions, control interface, voltage, pump performance, and installation layout.



Need a Compact Industrial Chiller for Your Equipment?

Send your application, cooling capacity, target temperature, process fluid, pump requirements, voltage, ambient temperature, installation space, airflow condition, and any vertical, mobile, or OEM requirements. APT can review your project and recommend a suitable compact industrial chiller configuration.

<https://applied-chiller.com/request-a-quote/>

Contact: <https://applied-chiller.com/contact-us/>

Compact Process Cooling Systems for Real Factory Applications
