

Temporary Climate Control Equipment

Polygon delivers engineered solutions and services with leading technology, deep technical expertise, and exceptional operational support. Many clients see Polygon as a partner in solving their climate control problems or supporting their emergency preparedness plans.

Category	Description	Benefits and Considerations
	<p>Remote Monitoring and Control Low (battery and 120V)</p> <p>Connected sensors that provide real-time data and alerts on conditions to modulate/optimize equipment, reduce energy, and help manage schedule. Track parameters like temperature, humidity, moisture content, water leaks, VOCs, air quality, and vibration.</p>	<ul style="list-style-type: none"> • Critical in identifying potential issues such as condensation, mold, and material damage • Some systems can automatically turn equipment on/off based on data • Supports warranty validation, sustainability, certifications, and risk mitigation programs • Can be relocated as work progresses • Communications protocols and reliability vary • Data and reporting range from simple to advanced
	<p>Desiccant Dehumidifiers High (230V or 460V)</p> <p>Desiccant dehumidifiers remove water from the air by physically absorbing moisture using a wheel typically silica gel.</p>	<ul style="list-style-type: none"> • Very effective in preventing humidity and condensation, controlling or mitigating mold and mildew • Not used for temperature control • Accelerate drying schedules • Maintain optimal conditions for construction materials and building acclimation • Large but typically stackable • Relatively energy efficient • Capable of using gas or steam for reactivation if power is limited
	<p>Hybrid Cooling Unit (HCU) High (460V)</p> <p>Hybrid Cooling Units combine desiccant and refrigeration systems into one unit, optimizing energy usage and reducing equipment footprint.</p>	<ul style="list-style-type: none"> • Balances humidity and temperature for construction drying and creature comfort • Delivers dry air without introducing heat commonly associated with desiccant dehumidifiers • Most effective in high-humidity and high-temperature climates. Not effective if temperatures are below 50 deg Fahrenheit
	<p>Industrial Air Conditioners High (230V or 460V)</p> <p>Air conditioners provide cooling to maintain optimal temperatures for workers, equipment, and materials and can remove moisture out of the air.</p>	<ul style="list-style-type: none"> • Maintain temperature for climate-sensitive tasks. • Sometimes paired with dehumidification systems to cool air before moisture removal • Packaged for rapid deployment • Wide range of models from portable to skid-mount

A BEGINNER'S GUIDE TO TEMPORARY CLIMATE CONTROL EQUIPMENT

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	<p>Chillers High (460V)</p> <p>Chillers are large-scale cooling systems that use chilled water supply.</p>	<ul style="list-style-type: none"> • Superior for larger-scale cooling applications • Capable of handling significant heat loads in industrial processes • Commonly paired with air handlers or cooling coils • Able to produce below freezing temperatures with use of other fluids like glycol
	<p>Cooling Coils Low (120V)</p> <p>A unit that transfers air over a chilled coil to reduce temperatures and, in certain conditions, remove moisture.</p>	<ul style="list-style-type: none"> • Typically used to either pre-cool or post-cool on desiccant dehumidification • Must be paired with another technology that can move air because no integral fan or blower included • Chilled water / fluid is required from a temporary unit or site source
	<p>Air Handlers High (460V)</p> <p>Air handlers are ventilation and temperature control systems. When paired with air conditioners and desiccant dehumidifiers, they can significantly enhance cooling and drying performance.</p>	<ul style="list-style-type: none"> • Circulate and condition air for cooling applications • Support heating, cooling, and dehumidification systems • Chilled water / fluid is required from a temporary unit or site source
	<p>Direct Fired Heaters Low to High (120V - 460V)</p> <p>Direct fired heaters heat air by passing it through an open flame, like a gas stove. They are ideal for temporary use in large, poorly insulated spaces like construction sites or warehouses where a lot of warm air is needed.</p>	<ul style="list-style-type: none"> • Used for temperature only and do not remove moisture • The process of combustion adds moisture to the air • Cannot recirculate the air; requires outside/make up air • Best for well-ventilated spaces, as they release combustion byproducts like CO2. Proper airflow is essential to prevent gas buildup. • Often required to be located outside of the building
	<p>Indirect Fired Heaters Low to High (120V - 460V)</p> <p>Indirect-fired heaters provide clean, powerful heat to maintain ideal working temperatures for workers and prevent cold-related project delays while keeping the environment free from combustion byproducts.</p>	<ul style="list-style-type: none"> • Used for temperature only and do not remove moisture • Clean air: Combustion byproducts are NOT introduced into the workspace, ensuring safe and breathable air. • Accelerate drying schedule without the risk of fumes or moisture • Air can be re-circulated, saving on fuel

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	<p>Electric Heaters High (460V)</p> <p>Electric heaters deliver instant, clean warmth, ensuring comfortable work conditions and project continuity in cold weather. These versatile units offer precise control without emissions, suiting various indoor and outdoor needs.</p>	<ul style="list-style-type: none"> • Used for temperature only and do not remove moisture • Requires significant amount of energy • Accelerate drying schedule without the risk of fumes or moisture • Ideal for projects with limited footprint. Able to be rolled through doorways and placed inside.
	<p>Air Filtrations, Blowers, and Fans Low (110V)</p> <p>Air filtration, blowers, and fans improve air quality, enhance ventilation, and aid in temperature control for safer and more efficient working conditions. Variety of sizes for any application.</p>	<ul style="list-style-type: none"> • <u>Air Filtration</u> - Compact and portable units designed to remove dust, debris, and contaminants, ensuring clean air quality in confined or hard-to-reach spaces while protecting workers' health. • <u>Blowers</u> - Lightweight and highly maneuverable, ideal for providing ventilation, clearing fumes, and speeding up drying in tight or confined areas. • <u>Fans</u> - Easily transportable and used for circulating air, regulating temperature, and improving ventilation in larger or enclosed spaces where flexibility and mobility are essential.
	<p>Humidifiers High (110V or 460V)</p> <p>Humidifiers maintain optimal moisture levels, preventing materials from drying out too quickly and ensuring proper curing of finishes, coatings, and concrete.</p>	<ul style="list-style-type: none"> • Maintain proper humidity for materials like wood and drywall. • Commonly used for gymnasium floors, millwork, high-end finishes, and mass timber applications • Two different technical types: Steam injection (high-power) or evaporative (lower power) • Need to have a constant supply of water
	<p>Portable Dehumidifiers Low (120V)</p> <p>Portable dehumidifiers help control moisture levels, preventing condensation, mold, and structural damage.</p>	<ul style="list-style-type: none"> • Desiccant and refrigerant-based models • Smaller and easier to maneuver to position in targeted spaces • Collected water must be into a sink or drain • Commonly used in property restoration

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