Chromalox®
PRECISION HEAT AND CONTROL

Cold Weather Electric Heat and Control Products

COLD WEATHER PRODUCTS

INDUSTRIAL COMFORT HEATERS

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Chromalox electric comfort heaters provide efficient, economical heat for commercial and industrial applications. Convection, forced-air, and radiant heaters provide safe, clean, fast heat. Their heavy-duty construction affords long, dependable service.

Typical applications include:

- Heating industrial work areas
- Machinery freeze protection
- Heating warehouse and storage areas
- Heating and freeze protection in sewage treatment plants
- Pipe thawing
- Shipboard heating

INDUSTRIAL COMFORT HEATERS

Portable Comfort Heaters

Portable electric heaters are clean and odor-free, and available in radiant-heat or fan-forced-air designs. Constructed for heavy-duty use, they are easily moved to virtually any location where instant heat is required. In forced-air applications, heater sizes range from 2 to 20 kW for use in building construction for warming workers, drying and curing, thawing frozen pipes and machinery, and where temporary localized heat is necessary. Radiant heaters are available in sizes from 1.5 to 13.5 kW and are ideal for large open areas and shipping docks to provide workers sunshine-like warmth.

Dragon Heaters

A rugged, industrial-grade, self-contained, highly mobile, electric blower heater, the all-electric Dragon heater can be left unattended without the threat of poisoning from combustion by-products associated with fuel-fired heaters. Built-in safety features include an adjustable thermostat to control the outlet air temperature, auto-reset cutouts for the fan motor, and heating elements. The thermostat provides settings for full-off, fan-only, and temperature control in the heating setting.

- 7.5 to 30 kW
- 208 to 600 V, single- and three-phase
- 25,590 to 102,360 Btu/hr
- Rugged construction
- No assembly required
- Portable
- UL listed and CSA registered
- All units have built-in high-limit cutouts; 480/600 V units feature safe 120 V control circuit

Infra-Red Radiant Comfort Heaters

Chromalox® ChromaStar™ infra-red comfort heaters are designed to provide a rugged source of heat for use in areas where dependence on air movement is impractical. The heaters are versatile, designed to provide warmth directly where it is needed for primary or spot heating applications. Each unit is constructed for long life and requires minimal maintenance. There are no moving parts or motors to wear out, no air filters or lubrication required. All Chromalox® ChromaStar™ radiant heaters feature the exclusive "Arctic End" patent-pending heating element terminal construction that lowers the terminal box temperatures for extended element and wiring life.

- 500 W to13.5 kW
- 120 to 600 V, single- and three-phase
- 5,118 to 46,062 Btu/hr
- Fixed overhead models convertible to portable
- Portable models factory assembled
- Optional accessories include ground fault, disconnect, and tip-over shutdown
- UL-listed and CSA-registered models

INDUSTRIAL COMFORT HEATERS

General-Purpose Blowers

These self-contained heaters provide quiet, reliable, fan-forced-air heat for all types of commercial and industrial applications. The heavy-gauge steel blowers, trimmed in a polyester powder coat, come in horizontal or vertical configurations that can be ceiling- and wall-mounted. Adjustable louvers direct air flow. Chromalox® general-purpose blowers are UL listed and CSA certified, and meet NEC and OSHA requirements. LUH-series heaters include seismic qualifications. Various built-in control options are available.

- 2.6 to 50 kW
- 208 to 600 V, single- and 3-phase
- 8,900 to 153,000 Btu/hr

Hazardous Duty

Hazardous-duty convection and forced-air blower-type heaters are designed for rugged industrial use in the presence of potentially flammable or explosive gases, vapors, powdered metals, or dusts in locations such as sewage treatment plants, petroleum refineries, and chemical processing plants. Numerous control options are available. Units are UL listed, and CSA-certified models are available for wall or ceiling mounting. Certain models are available with ATEX certification. Consult the National Electric Code for classification of your hazardous area before selecting your heater.

- 1.6 to 35 kW
- 120 to 600 V, single- or three-phase
- 5,459 to 119.420 Btu/hr

Heavy-Duty Blowers

Heavy-duty forced-air heaters feature heavy-duty construction for use in dirty, corrosive environments. Some models are available with NEMA 4X control enclosures and stainless steel constriction to resist dirt contamination and chemical attack, and can be hosed down. Chromalox heavy-duty heaters are UL listed and meet NEC and OSHA requirements. Many models are CSA certified.

- 2 to 50 kW
- 1120 to 575 V
- 6,820 to 170,600 Btu/hr

General-Purpose Convention

General-purpose convection heaters are designed to be wall-mounted in isolated areas, crane cabs, shop offices, and plants. These heavy-gauge steel units are coated with corrosion-resistant powder coat. Various models include thermostats, tamper-proof construction, and UL listings. HCH-series heaters are CSA certified.

- 250W to 5 kW
- 120 to 600 V, single- and 3-phase
- 1,706 to 17,060 Btu/hr

Radiant Heaters

Radiant heaters provide virtually instantaneous, dependable heat for tough-to-heat areas. They are designed for fixed mounting and will maintain an isolated comfort level within a larger, cooler area. Heavy-duty, metal-sheathed elements resist impact and vibration and are ideal for high-abuse applications.

- 800 W to 13.5 kW
- 120 to 480 V, single- and 3-phase
- 3,412 to 37,361 Btu/hr

HEAT TRACE AND CONTROLS

Heat trace is used to counteract the heat loss from process equipment and piping through its insulation. Chromalox offers a variety of heat trace systems for temperature maintenance and freeze protection in cooling water lines, steam or condensate return lines, compressed-air lines, fire protection lines, storage tanks, and valves. Chromalox heat trace systems can also be used to prevent solution precipitation and the increase of viscosity or solidification of product. In addition, Chromalox offers heat trace and controls for roof and gutter de-icing.

Typical applications include:

- Pipe freeze protection
- Process temperature regulation
- Frost heave protection
- Roof and gutter de-icing

HEAT TRACE AND CONTROLS

Self-Regulating Heat Trace Cable

Self-regulating cable for ordinary and hazardous environments prevents pipe freezing and maintains process temperatures. Constructed of a semi-conductive heater matrix extruded between parallel buss wires, the self-regulating cable adjusts its output to independently respond to temperatures along its length. This heat trace cable can be single-layer overlapped. It is flexible and can be cut to length in the field. Cable can be used in Division 2 hazardous areas.

- 3, 5, 8, 10, 15, and 20 W/ft (10, 16, 26, 32, 48, and 65 W/m)
- 120 and 208 to 277 V
- Circuit lengths to 780 ft (240 m)
- Process maintenance temperature up to 302°F (150°C)
- Exposure temperature up to 420°F (215°C)

Self-Regulating Heat Freeze Protection and Roof & Gutter De-Icing Cable

Chromalox SRF cable is ideal for keeping metal and plastic pipes warm in commercial construction, institutional buildings, and some industrial freeze protection applications, while Chromalox SRF-RG cable provides reliable freeze protection of roofs and gutters. The cable automatically adjusts to the appropriate heat output, eliminating hot spots and making it both energy efficient and cost effective. Parallel construction makes it easier to install than zone or series types of cable since it can be cut-to-length. It can be single overlapped without overheating the cable.

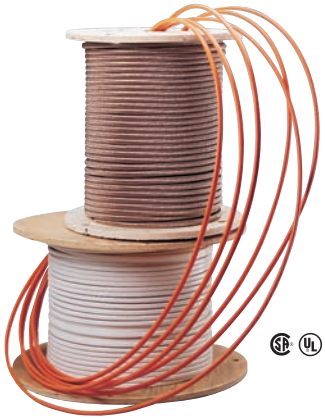
- 3, 5, and 8 W/ft (10, 16, and 26 W/m)
- 120 and 208 to 277 V from stock
- Self-regulating, energy efficient
- Circuit lengths up to 660 ft (200 m)
- Approximate size: 3/8" W x 1/8" H (9.5 mm W x 3.2 mm H)
- Minimum bend radius 1 1/8" (28.6 mm)
- UL listed, CSA certified

Class 1, Division 1 Cable and Accessories

Chromalox offers self-regulating heat trace cable that is Factory Mutual approved for Class I, Division I, Group B, C, and D environments (hazardous gas and vapor) as well as Class II, Division I, Group E, F, and G (combustible dusts) and Class III, Division I environments. It can be cut-to-length and spliced in the field, and single-overlapped without burnout. Higher current capacity means longer circuit lengths—up to 780 feet (238 meters). Chromalox hazardous environment cable is fully compatible with Chromalox® intelliTRACE™ modular process controls.

- 3, 5, 8, 10, 15, and 20 W/ft (10, 16, 26, 32, 48, and 65 W/m)
- 120 and 208-277 V
- Self-regulating, energy efficient
- Freeze protection of fire protection system piping
- 14 and 16 AWG buss wire
- Circuit lengths to 780 ft (238 m)
- Process temperature maintenance to 302°F (150°C)
- Maximum continuous exposure temperature, power off, to 420°F (215°C)

Constant-Wattage Cable



Constant-wattage heating cable provides uniform thermal output for process temperature maintenance and freeze protection. Rugged construction can withstand steam cleaning to 190 PSIG while de-energized. Optional tinned-copper braid permits use in some hazardous areas. Fluoropolymer jackets are available for corrosive applications. The cable is flexible for easy wrapping around piping and complex fittings and can be cut-to-length in the field. To ensure compatibility, consult the National Electrical Code for classification of your Hazardous Area before selecting heating cable.

- 4, 8, and 12 W/ft (13, 26, and 39 W/m)
- 120, 208 to 277, and 480 V
- Circuit lengths to 780 ft (238 m)

Mineral-Insulated Cable

Mineral-insulated heating cable is ideal for the most rugged pipe tracing applications requiring process temperature maintenance to 900°F (480°C). Its high-nickel-content Alloy 825 metal sheath material resists damage, is fire resistant, and provides for a good electrical ground. Select from custom configurations with a single- or dual-conductor cable.

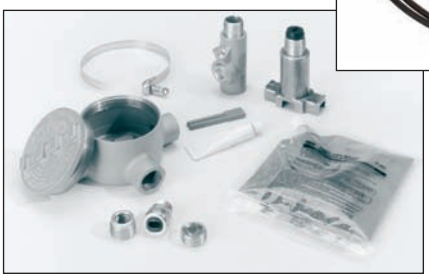
- 5 to 50 W/ft (16 to 162 W/m)
- 120 to 600 V
- Circuit lengths up to 1,000 ft (305 m)
- Process maintenance temperature up to 900°F (480°C)
- Maximum exposure temperature, power off, to 1,100ºF (593ºC)

Modular Heat Trace Control Systems

The Chromalox® intelliTRACE™ and weatherTRACE™ control systems are complete control solutions for heat trace applications, providing temperature control, monitoring, and power management in one package. The modular design of the control panel and components allows selection of only those features needed for a specific heat trace installation, minimizing cost and simplifying system configuration. The systems employ microprocessor-based controls and come pre-wired and assembled. Options include a choice of AC line voltages (120, 208, 240, 277, and 480), RS-485 communications interface, and Ground Fault Indicator alarms. Single-loop and multi-loop units are available. Multi-loop intelliTRACE panels feature a simple color touchscreen operator panel. Both retrofit easily into existing systems.

Installation Kits and Accessories

Chromalox offers installation kits and accessories for all of the necessary components to perform straight or tee splices, power connection boxes and water-resistant end seal terminations for final installation. Installation tape, pipe straps, and caution labels are also available from Chromalox.



The HL (hazardous location) series connection system for Chromalox heating cable is specifically designed to comply with the requirements of Division 1 hazardous areas and is Factory Mutual and CSA approved. The HL connection system includes power connection kits, end seal kits, splice kits, and tee kits as well as fiberglass tape cable attachments, aluminum tape cable attachments, metal pipe strap kit attachments, and caution labels.

ALSO AVAILABLE

ALSO AVAILABLE

Silicone-Rubber-Insulated Enclosure Heaters and General-Purpose Air Heaters

Used for freeze protection and condensate protection in electrical enclosures. They are also installed in equipment to keep mechanical components functioning in applications such as ATM machines and automatic doors.

- 25, 50, 100, and 200 W
- 120 V
- Vulcanized to mounting plate for easy installation
- Custom design and thermostats available
- Air temperature sensing thermostats (40°F / 4°C close, 55°F / 13°C open) available

Room Thermostats

The RTC room thermostat is designed to control heaters directly and will accommodate heating and ventilating equipment within the voltage and current capability of the contacts. The RTC can also be used to control valves, relays, auxiliary electric heaters, and fans associated with fan coil units, and has a fan-only switch. In most applications, it can switch loads directly without the use of external relays, but an external relay can be used for larger loads. The “dead front” construction means that all electrically live parts and wiring connections are contained behind the insulated thermostat base. Even with the cover removed, the user is protected.

- 10 A at 120 Vac, 5 A at 240 Vac, 4.2 A at 277 Vac
- Positive snap-action switch
- Positive OFF switch position
- Single phase, SPST
- Fan-only switch
- Temperature range: 50° to 90°F (10° to 32°C)
- Mounts in standard 4” x 4” (100 mm x 100 mm) vertical duplex box

Industrial-Duty Thermostats

These thermostats are designed for harsh environments where a rugged design or special environment rating may be required. They are designed to directly control individual heaters or, by using an external contactor, can control several heaters. General-purpose, explosion-proof, and corrosion-resistant models are available, each providing a high level of accuracy and long, reliable service.

- Heavy duty: 25 A at 120 Vac, 22 A at 240 Vac, 18 A at 277 Vac
- Positive snap-action switch
- Temperature range: 40° to 100°F (4° to 38°C), depending on the model
- UL listed, CSA certified

Drum Heaters

Silicone-rubber-insulated drum heaters are constructed of silicone-rubber-reinforced fiberglass cloth laminated around resistance wire to provide flexible moisture- and chemical-resistant heat. Drum heaters can withstand flexing without fear of premature failure.

- In stock, ready to install
- Fit 5, 15, 30, and 55 gallon (19, 57, 114, and 208 liter) metal and non-metal drums
- Adjustable thermostats
- Chemical and moisture resistant
- Rugged and flexible
- Easy to store
- Internally grounded, standard

Additional Aids

Chromalox offers a variety of resources that are available for selecting and installing the right heat and control product for your cold weather application.

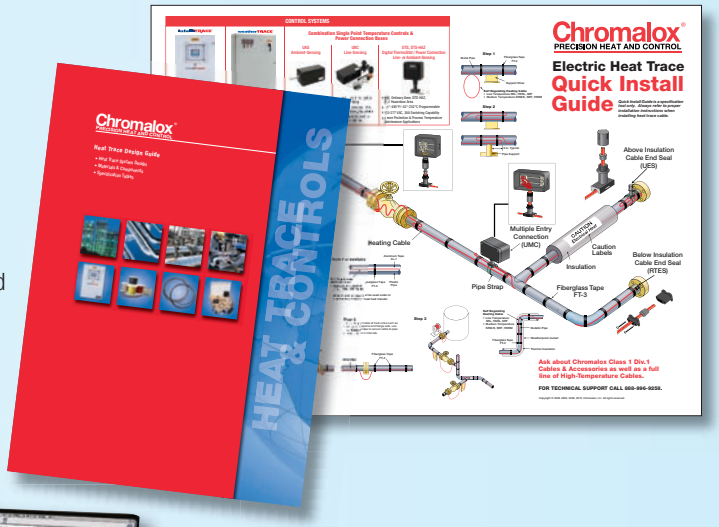
This CD contains complete product information for the full line of Chromalox comfort heaters, controls, and heat trace systems.

ChromaTrace™ Design Software

This software helps you to design a complete heat trace system and automatically generates a bill of materials. Available on a CD or download at: **www/Chromalox.com/requests/chromatrace.**

Heat Trace Installation Poster

This wall-mountable poster is a heat trace quick install guide with easy viewing of illustrations and calculation tables for specifying heat trace systems.



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