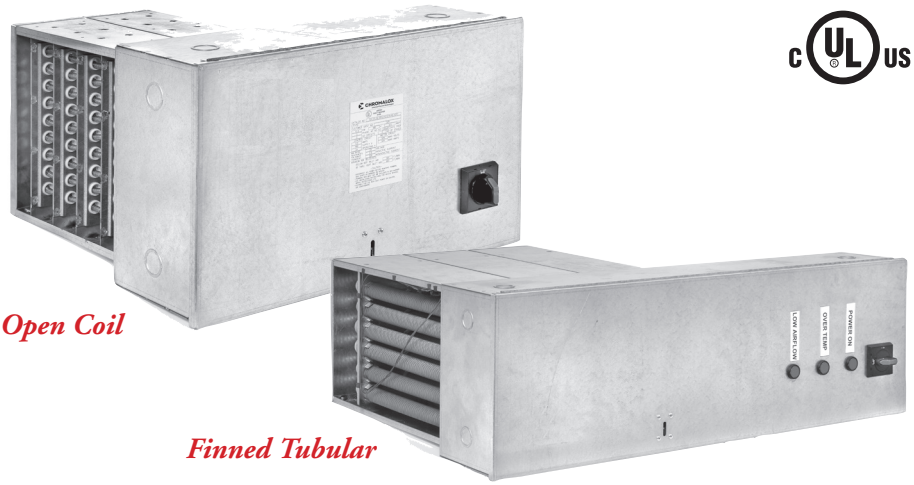
DH

UL Listed Open Coil & Fintubular Air Duct Heaters

- Up to 458 kW
- Up to 35 kW/Ft² Power Densities
- Up to 600 Volt
- 6 x 8" to 40 x 72" Duct Sizes
- Slip-In and Flanged Mounting
- Heavy Gauge Galvanized Frame
- NEMA1 Control Panel
- Meets NEC Requirements
- Configured to Order
- cULus Listed
- Available with CE mark for Europe



Open Coil

Finned Tubular

Description

Type DH duct heaters are pre-engineered, factory assembled units consisting of a standard frame section, heating elements and a prewired control panel. They are available in a wide range of standard frame sizes, with various heating capacities and heating stages operating on AC voltage ratings of 120 to 600V.

The standard duct heater is designed to be inserted in a rectangular opening cut in the side of a horizontal or vertical duct. For larger ducts or where it may be more desirable to attach the duct directly to the heater, a frame may be added to the heater.

Applications

- Primary Room Heating (Central or Zone)
- Supplemental Room Heating (Heat Pumps)
- Air Tempering (Outside Air)
- Preheating (Make-Up Air)
- Reheating (Overcooling applications)
- Industrial and Commercial Buildings

Standard Features

Heater Frame — Galvanized for corrosion protection.

Heating Elements — 80/20 Nickel/Chromium open coil or painted steel finned.

Mounting — Insert or flanged designs configured for horizontal airflow.

Control Panel — Integral control panel prewired for easy wiring and installation.

Listed for zero clearance to combustible materials.

Overtemperature Protection — provided with both manual and automatic resets.

Factory Prewired — 48 Amp maximum circuits to meet NEC requirements.

Controls — 24V transformer, magnetic contactors, airflow switch, disconnect switch and overtemperature cutouts allow for thermostat control.

Fusing — Power fusing on heaters above 48 amps.

Easy Wiring access through opening in terminal box.

Optional Features

Heater Frame — Outdoor Use (per UL1996) galvanized frame, stainless steel (NEMA 1 or Outdoor Use) frame.

Heating Elements — Stainless steel finned tubular or Monel® finned tubular for added corrosion resistance.

Mounting — Insert or flanged designs for vertical or bottom mounting.

Control Panel — Remote control panel allows for additional space around heater.

Pilot Lights — "Heat-on", fault, low airflow, "Stage On".

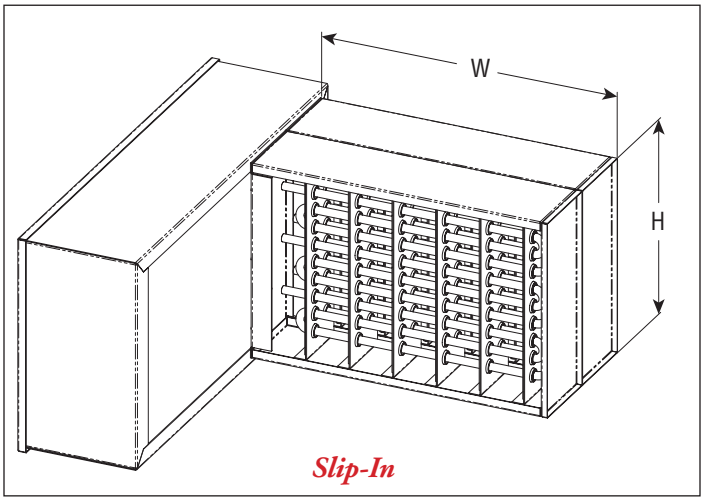
SCR Power Control — SCR with proportional control, or vernier control for more precise temperatures.

Staging Control — Prewired for remote thermostat staging or built in staging control with 4-20 mA, 0-10.

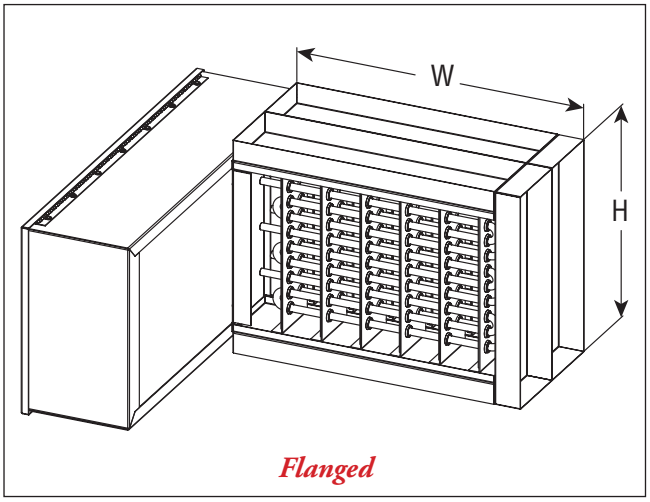
DH

UL Listed Open Coil & Fintubular Air Duct Heaters *(cont'd.)*

Heater Dimensions

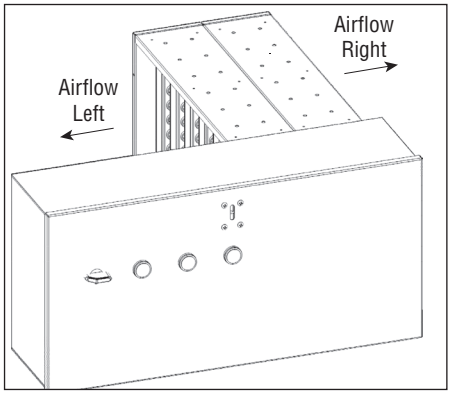


Slip-In

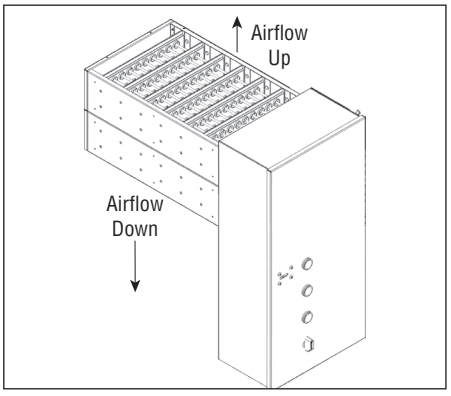


Flanged

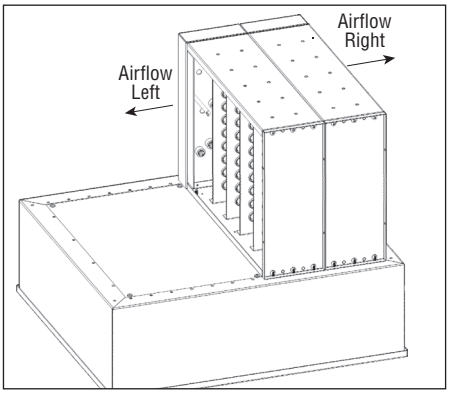
Airflow Orientation



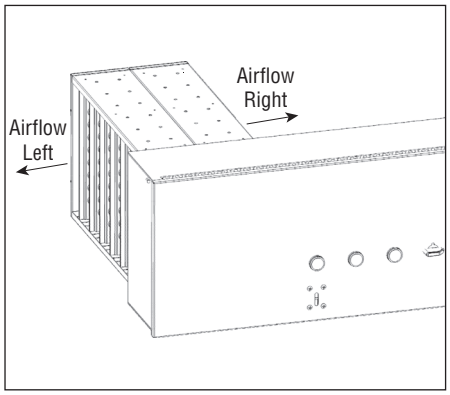
Horizontal duct with panel extended in LEFT direction



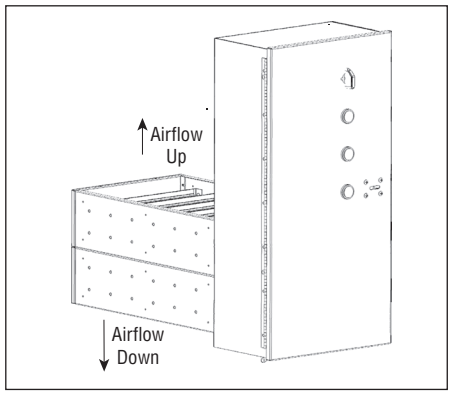
Vertical duct with panel extended in DOWNWARD direction



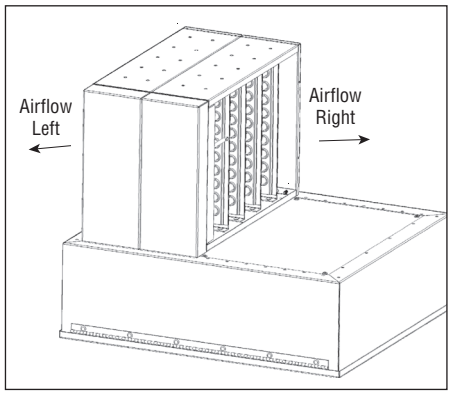
Bottom mount in horizontal duct with panel extended in LEFT direction



Horizontal duct with panel extended in RIGHT direction



Vertical duct with panel extended in UPWARD direction



Bottom mount in horizontal duct with panel extended in RIGHT direction

DH UL Listed Open Coil & Fintubular Air Duct Heaters *(cont'd.)*

Ordering Information

To Order — Complete the Model Number using the Matrix provided.

DH — Open Coil & Tubular Duct Heater

Code — Element Type

OC	Open Coil Elements	**SS**	304 Stainless Steel Finned Tubular Element
PS	Painted Steel Finned Tubular Elements	**MO**	MONEL® Elements

Code — Panel and Heater Mounting

IS	Integral Control Panel, Slip-In Frame	**RS**	Remote Control Panel, Slip-In Frame
IF	Integral Control Panel, Flanged Frame	**RF**	Remote Control Panel, Flange Frame

Code — Terminal Box and Frame Construction

GPG	Galvanized Terminal Box and Frame (NEMA 1)
DPG	Outdoor Use Galvanized Terminal Box and Frame
GPS	Stainless Steel Terminal Box and Frame (NEMA 1)
DPS	Outdoor Use Stainless Steel Terminal Box and Frame

Code — Height of Duct in Inches

XXX

Code — Width of Duct in Inches

XXX

Code — Line Voltage

12	120V	**27**	277V	**44**	440V	**57**	575V
28	208V	**38**	380V	**46**	460V	**60**	600V
24	240V	**40**	400V	**48**	480V	**69**	690V
22	220V	**41**	415V				

Code — Phase

1	Single Phase
3	Three Phase

Code — Kilowatts

XXX

Code — Airflow Direction

F1	Horizontal Left	**F4**	Vertical Down
F2	Horizontal Right	**F5**	Bottom Mount
F3	Vertical Up		

Code — Panel Orientation (Integral Panel Only)

P1	Extend Left Direction (Horiz. & Bottom Mount Configs Only)
P2	Extend Right Direction (Horiz. & Bottom Mount Config. Only)
P3	Extend Upward (Vertical Airflow Only)
P4	Extend Downward (Vertical Airflow Only)

DH-	OC-	II-	GPG-	010-	012-	48-	1-	015-	F1-	P1	Typical Model Number

Notes

1. Unless otherwise specified, heaters are wired for single stage operation and provided with on/off contactor control and a 24V control circuit
2. Heaters above 277V line voltage or three phase include a 24V control circuit transformer
3. To comply with UL requirements all heaters are design not to exceed 48 amps per circuit and are provided with both automatic and manual reset cutouts
4. Although Chromalox can provide heaters with line voltage terminal blocks in place of a disconnect, per NEC requirements a disconnect must be supplied within line of sight of the heater.
5. Finned tubular heaters are provided with back-up contactors
6. Maximum number of heater stages is 12 on all heaters. Minimum of 4 stages on pneumatic control.

Optional Features

Code	Description	Code	Description
D1	Remove Disconnect (Replaced with Terminal Block)	T1	120V Control Circuit Transformer
D2	Add Disconnect Fusing	T2-XXX	Remove Transformer (External control, XXX specifies contactor voltage)
S1	Remove Airflow Switch (Must add Fan Interlock Relay)	T3	Remove Transformer and Contactor (Line voltage thermostat control)
S2-XXX	Add Fan Interlock Relay (XXX Specifies Coil Voltage, e.g. S1-120 for 120V)	C1	SCR (Full SCR control On/Off, 24V to 265V input)
F1	Add Power Fusing (Models below 48 amps)	C2-X	SCR Controller (X specifies control signal - see table)
L1	Heater On Pilot Light	C3-XX	Staging (XX specifies number of stages)
L2	Stage On Pilot Light	C4-X	Electronic Staging Controller (Full contactor control, X specifies control signal - see table)
L3	Low Airflow Alarm Light	C5	Pneumatic-Electronic Proportional Controller (Specify pressure range on schedule)
L4	Automatic Reset Overtemperature Cutout Alarm Light	C6-X	Vernier Control (Uses contactors and SCR, X specifies control signal)

Control Signal Codes

Code	Description	Code	Description
1	0 to 5 vdc (available on SCR control only)	3	4 to 20 mA
2	0 to 10 Vdc (2 to 10 Vdc control range)	4	0 to 135 Ω (available on Vernier and electronic staging control)