

# Chromalox®

## Installation, Operation and RENEWAL PARTS IDENTIFICATION

SERVICE REFERENCE	
DIVISION 4	SECTION DB
SALES REFERENCE (Replaces PV404-1)	PM404-1
161-562750-001	
DATE SEPTEMBER, 2004	

## Type DB and DBW Heater Bands (for Barrel or Surface Temperatures up to 800°F)



Type DB  
and  
Type DBW

### Specifications

Type DB – 1½ inches wide, 240/480 volts

Model	Watts	Watt Density*	Barrel Diam. (In.)	Approx. Net. Wt. (Lbs.)
DB-050772	770	33	5	1.5
DB-054102	1000	42	5½	1.75
DB-060752	750	27	6	2
DB-064102	1000	33	6½	2
DB-070102	1000	30	7	2
DB-074122	1250	35	7½	2
DB-080122	1200	32	8	2
DB-08416	1600	40	8½	2.5
DB-090152	1500	35	9	2.5
DB-094172	1700	38	9½	3
DB-100182	1800	25	10	3
DB-104122	1200	24	10½	3
DB-114212	2100	39	11½	3
DB-124152	1500	25	12½	3

Type DBW – 2½ inches wide, 240/480 volts

Model	Watts	Watt Density*	Barrel Diam. (In.)	Approx. Net. Wt. (Lbs.)
DB-064152	1525	30	6½	2.75
DB-074182	1800	31	7½	3
DB-080202	2200	35	8	3
DB-084222	2250	34	8½	3.25
DB-090252	2500	35	9	3.25
DB-100282	2800	36	10	3.75
DB-104292	2950	36	10½	3.75
DB-114322	3250	36	11½	4

\*Note: Watt densities shown are based on heated area of contact surface only.

### GENERAL

- Heater Construction Characteristics —
  - Type DB and DBW one-piece band heaters are manufactured by joining two Chromalox Type PT strip heaters with a common backplate.
  - Long life heavy duty band heater has a 3/8-inch thick chrome steel sheath.
  - The complete heater is factory-formed to provide excellent heat transfer to injection molding barrels and other cylindrical surfaces.
  - The heavy-duty spring-loaded clamping bolt pulls the heater tight to the work and maintains tightness by compensating for expansion.
- CAUTION: Hazard of heater failure. Pipe or barrel surface temperature not to exceed 800°F.**
- Heater bands may be used individually or in multiples spaced ¼" apart.

#### ⚠ WARNING

**The system designer is responsible for the safety of this equipment and should install adequate back-up controls and safety devices with their electric heating equipment. Where the consequences of failure could result in personal injury or property damage, back-up controls are essential.**

### INSTALLATION

#### ⚠ WARNING

**ELECTRIC SHOCK HAZARD. Disconnect all power before installing or servicing heater. Failure to do so could result in personal injury or property damage. Heater must be installed by a qualified person in accordance with the National Electrical Code, NFPA 70.**

**ELECTRIC SHOCK HAZARD. Any installation involving electric heaters must be performed by a qualified person and must be effectively grounded in accordance with the National Electrical Code to eliminate shock hazard.**

- Grip mounting tabs at each end and spread sufficiently to position heater band around the surface to be heated. (See Figure 1)
- When heater band is correctly placed in the desired location, com-

press ends of band together and snap bolt head in slot in tab. (See Figure 2)

- Turn nut to draw heater band tight on the surface to be heated. Ensure that there is good contact between heating element and surface. (See Figure 3)

#### ⚠ WARNING

**FIRE HAZARD. Since heaters are capable of developing high temperatures, extreme care should be taken to:**

- Avoid installing heater in an atmosphere containing combustible gases and vapor.
- Avoid contact between heater and combustible material.
- Keep combustible materials far enough away to be free of effects of high temperature.

## INSTALLATION

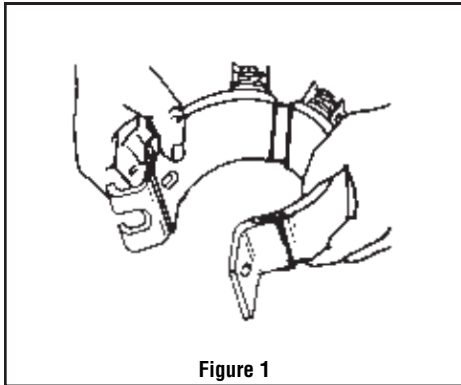


Figure 1

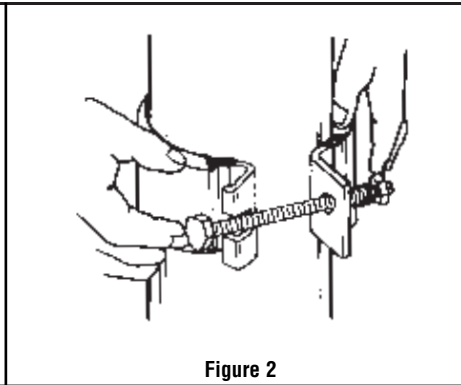


Figure 2

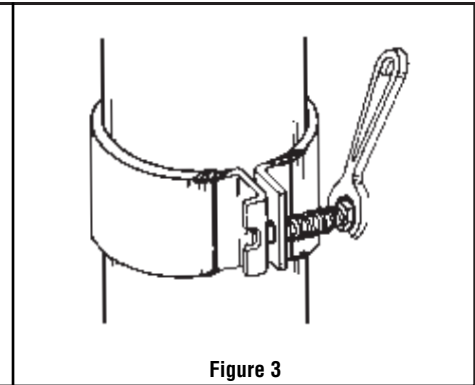


Figure 3

## WIRING

### ⚠ WARNING

**ELECTRIC SHOCK HAZARD.** Any installation involving electric heaters must be performed by a qualified person and must be effectively grounded in accordance with the National Electrical Code to eliminate shock hazard.

1. **Rough-in Wiring** — Wiring to heater should be to the voltage specified on heater band and in accordance with National Electrical Code and local codes.

2. Protection with properly sized fuses and breakers is important to minimize hazards.

**CAUTION: Do not exceed 25 inch pounds of torque when tightening the hex nuts on the heater terminals. Excessive torque will result in stripping the terminals from the refractory of the heating element.**

3. Each element is rated 240-volt. Connect the two elements in parallel for rated output. For 480 volt use, connect elements in series.

## TESTING

### ⚠ WARNING

**Hazard of Electric Shock or Burns.** Avoid contact to hot surfaces and live electrical terminals during this adjustment.

1. Energize the heater and check for hot spots after the heater has reached operating temperature. These can be identified as

bright red areas on the heating element or dark brown areas on the clamping band. If hot spots are encountered, place a wooden block on the affected area and tap lightly with a hammer to bring the heater in contact with the pipe or barrel surface.

2. It's good practice to check the tightness of the clamping band after a few hours at operation temperature.

## MAINTENANCE

### ⚠ WARNING

**ELECTRIC SHOCK HAZARD.** Disconnect all power before installing or servicing heater. Failure to do so could result in personal injury or property damage. Heater must be installed by a qualified person in accordance with the National Electrical Code, NFPA 70.

1. For longer heater life, maintain good contact between heater and work cylinder by periodically checking clamping band tightness.
2. Make certain that both the terminals and band are free from contact with oil, liquids or other foreign matter. Such contaminants can cause heater failures.
3. Check for loose terminal connections and tighten if necessary.

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