

INSTALLATION, OPERATION AND MAINTENANCE MANUAL

# CABINET UNIT HEATERS

**ATTENTION: READ THIS MANUAL AND ALL LABELS ATTACHED TO THE UNIT(S) CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE OR SERVICE THE UNIT(S)! CHECK UNIT DATA PLATE FOR ELECTRICAL SPECIFICATIONS AND MAKE CERTAIN THAT THEY AGREE WITH THOSE AT THE POINT OF INSTALLATION. RECORD THE UNIT MODEL AND SERIAL NUMBER IN THE SPACE PROVIDED AND RETAIN FOR FUTURE REFERENCE.**

Model Number \_\_\_\_\_ Serial Number \_\_\_\_\_

**WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.**

## INSTALLER'S RESPONSIBILITY

**Installer Please Note:** This equipment has been tested and inspected. It has been shipped free from defects from our factory. However, during shipment and installation, problems such as loose wires, leaks or loose fasteners may occur. **It is the installer's responsibility to inspect and correct any problems of this nature that may be found.**

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## RECEIVING

This equipment is prepared for shipment in accordance with the Uniform Freight Classification Act. When a carrier signs the bill of lading, **the carrier accepts the responsibility** for any subsequent damage, evident or concealed. **Any claim must be made against the carrier by the consignee. Evident shortage or damage should be noted on the carrier's delivery document before signature of acceptance.** Inspection by the carrier of damage, whether evident or concealed, must be requested. After inspection, issue a purchase order for necessary parts or arrange for return of the equipment to the factory for repair. Please do not return equipment without prior authorization.

## STORAGE

If the cabinet unit heater is not to be immediately installed, store in a dry location with the motor protected against moisture, dust, corrosion and physical damage. If unit is to be stored for more than one year, contact the motor manufacturer for further instructions.

## ADDITIONAL WARNINGS

Familiarization with, and adherence to, the National Electric Code and state/local codes is recommended. Personnel should be instructed to:

1. Avoid contact with energized circuits and/or rotating parts. Contact with operating voltage may be fatal.
2. Act with care and in accordance with prescribed procedures when handling or lifting this equipment.
3. Insure that unit is electrically grounded in accordance with code requirements.
4. Be sure that equipment is properly secured to prevent access by children or other unauthorized personnel in order to prevent possible accidents.
5. Avoid contact with capacitors (if so equipped) until safe discharge procedures have been completed.
6. Do not restrict motor ventilation.
7. If unit has been stored in a damp location, dry out thoroughly before operating.

## POWER SUPPLY AND CONNECTION

The power supply must agree with the values on the nameplate. Terminal voltage should not vary more than +/- 10% of the nameplate voltage at rated frequency. Fuse/breaker sizing shall be per unit nameplate

If auxiliary controls are used, such as thermostats or aquastats, they should be wired in accordance with the control manufacturers instructions and/or wiring diagram supplied with unit(s).

Unit Size	No. Motors	HP	Total Motor Amperers
02	1	1/15	.8
03	1	1/15	.8
04	1	1/10	1.4
06	1	1/10	1.4
08	2	1 @ 1/10 1 @ 1/15	2.2
10	2	1 @ 1/10 1 @ 1/15	2.2
12	2	1/10	2.8
14	2	1/10	2.8

## GENERAL INSTALLATION INSTRUCTIONS

- All units are shipped fully assembled. If unit is fully or semi-recessed model, the "wall seal" will be packed in the carton with the unit and must be installed per instruction sheet included in carton.
- Cabinet unit heaters feature removable front panels, providing access to plumbing, heating coil, motor(s), fan speed control, filter and mounting brackets.
- Cabinet unit heater "floor" models, prefix F, FI, FS and FSI are open at the bottom and rear of the unit and piping may be brought in at any point in these two areas.
- Cabinet unit heater wall and ceiling models, prefixes W, WI, RW, RWI, C and RC are open in the rear only and piping may be brought in any point in this area.
- Recessed units will require an opening that is 1/2" larger than the width and length of the finished unit size (Ex. A size 10 unit is 25" x 66". The opening should be 25-1/2" x 66-1/2").
- Remove front panel, line up roughed-in piping and position unit at wall or ceiling mounting location.

- Attach unit to wall or ceiling using the three (3) slotted holes in each of the mounting brackets. Mounting brackets are designed to provide both lateral and vertical adjustments.
- Coils are interchangeable for right or left hand connections (units are shipped with left hand connections). **NOTE: If coil connections are reversed, fan speed control must also be reversed.** Coils should be level and adjustment in mounting hardware is provided. Coils for steam service may be pitched for condensate removal using the coil mounting hardware.
- Piping should always be installed and connected using good practice and in accordance with applicable codes.
- Wiring should be completed in accordance with applicable codes. All models are furnished as standard with a solid state variable speed fan control. The fan control, with connection box, is factory mounted on the right side of the unit unless otherwise specified. (Fan control shipped loose on ceiling units.) **NOTE: If coil connections are reversed, fan speed control must also be reversed.** If speed control is to be wall mounted, junction box must be furnished by others.
- Once installation has been completed, unit should be test run. If operational difficulties are experienced, recheck all wiring connections and power source.

## FIELD INSTALLED OPTIONS

### NOTES:

1. An "installation envelope" is packed with every unit and in it you will find installation instructions and various hardware items, including those listed below.
2. On orders for multiple units, various options may be packed in a separate carton(s) due to quantity. The notes below generally apply to single units of a given model/size.

**Option 114 – Duct Collars:** Packed in carton with unit. Hardware in "installation envelope". Installs over existing louver. These options are included when ordering models C-1150, RC-1190 and RC-1210. The required cutout (no louver) is provided on these three models.

**Option 116 – Leveling Legs:** Placed in cloth bag in installation envelope.

**Options 118 & 119 – Manual and Motorized Outside Air Damper Kits:** Shipped in separate box.

**Options 125 and 127 – Aquastat & Line Voltage Thermostat:** If either one of the two is ordered, its carton will be taped to the mounting bracket. If both are ordered, they will be shipped in a separate carton.

**Options 126A & B – Wall Seals:** Packed in carton with unit. Hardware in cloth bag inside installation envelope. Wall seals are included with models RC, RW and RWI, but must be ordered for all other models.

### WALL SEAL SCHEDULE

Model	Fully Recessed	2¼" Partial Recess
F	F-1020, F-1030	F-1000, F-1010
FI	FI-1050	FI-1040
W, RW	RW-1120	W-1060, W-1070
WI, RWI	RWI-1130	WI-1090, WI-1100
C, RC	C-1170, RC-1200	C-1140, C-1150 C-1160, C-1180 RC-1190, RC-1210

**Option 129 – Extra Filter:** Packed inside unit carton with standard filter.

**Option 140 – 24VAC - 40VA transformer:** shipped in separate box.

## MAINTENANCE INSTRUCTIONS

**NOTE: Due to the reliability of our cabinet unit heaters, we do not recommend the stocking of any components or subassemblies.**

### MOTORS

All motors are fitted with permanently lubricated sleeve bearings.

## COILS

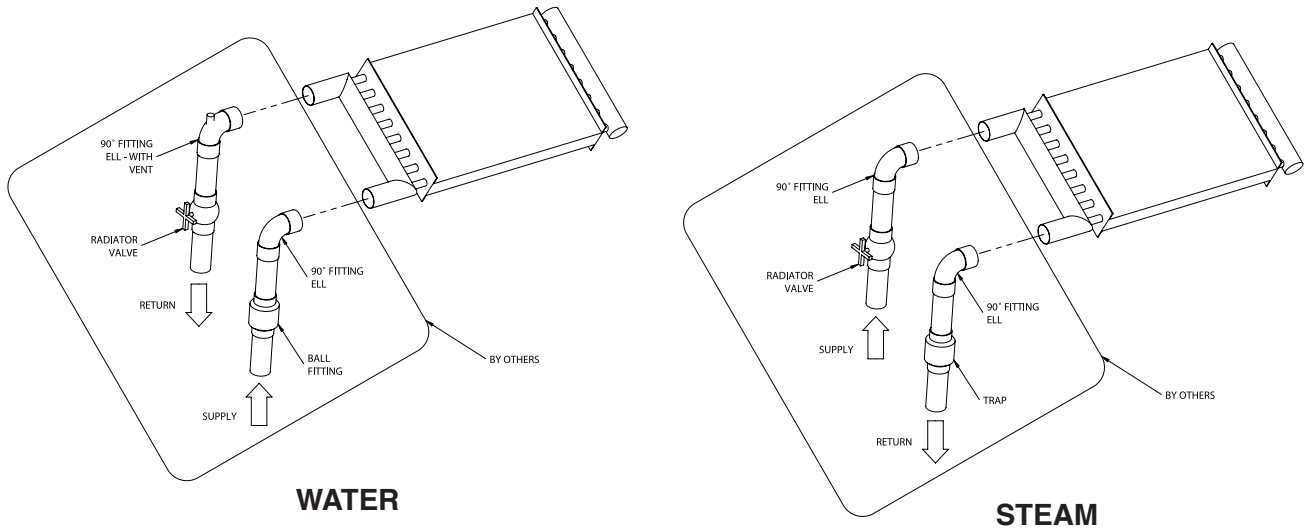
Coils should be kept clean to insure proper heat transfer. Frequency of cleaning is dependent upon operating environment. Coils may be vacuumed or the following method may be used: Brush the fins on the side where the air enters the unit and then operate the fan after placing a bag or dampened cloth over the discharge of the unit to catch the dirt. High pressure air may be used to blow dirt out from the air leaving side.

## BLOWERS

Blowers may also be cleaned out using high pressure air.

## FILTERS

Filters should be cleaned using compressed air or washed with a mild detergent solution at intervals of three (3) months or sooner depending on job conditions.



## CABINET UNIT HEATER LIMITED WARRANTY

Mestek, hereinafter referred to as the Company, warrants all material manufactured by it and to be delivered hereunder, to be free from defects in material, workmanship and title and to be as ordered. If within one (1) year from the date of any shipment by the Company, the Company is notified that the merchandise delivered hereunder does not meet the foregoing specific warranty, the Company's sole liability shall be, at its option, to refund the purchase price of the equipment or to correct any defect (the results of ordinary wear and tear, neglect, misuse or accident not to be deemed a defect) including non-conformity with specifications, by repairing any defective parts or, at its option, by furnishing replacement parts F.O.B. the factory where same are manufactured with all freight costs paid by the customer. The company is not liable for any damages to plant, personnel, equipment or products resulting from the use or misuse of any of its products and its sole liability shall be as set forth and as limited herein.

THE WARRANTIES SET FORTH ABOVE ARE IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES OR REPRESENTATIONS WHETHER ORAL, WRITTEN OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. THE COMPANY SHALL NOT BE LIABLE FOR CONSEQUENTIAL DAMAGES.



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