



## Installation and Maintenance Model EHF-2 Fan Unit

These installation and maintenance guidelines should be used by experienced personnel as a guide to ensure that the Armstrong EHF-2 Fan Unit functions correctly. Selection or installation of equipment should always be accompanied by competent technical assistance. We encourage you to contact your local Armstrong representative or Armstrong if further information is required.

### Installation Instructions - Direct Mounting on Top of Models EHU-600 and EHU-701 Humidifiers. (For remote mounting, refer to Page 3.)

**Note:** The maximum capacity of the EHF-2 is 30 lb/hr.

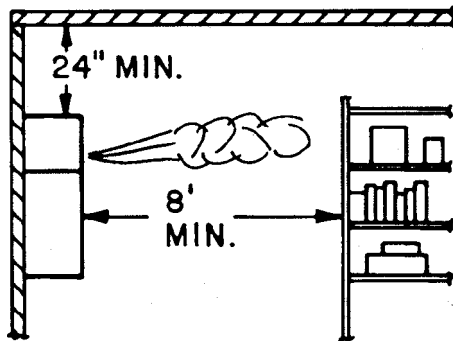


Figure 1-1

1. **Check the Location** for the fan unit. It should face out into the free space of the room, and there should be at least 24 inch clearance from the top of the fan unit to the ceiling. (See Figure 1-1).
2. **Remove the Cover** from the fan unit. Remove the knockouts on the bottom of the cabinet base and the left side panel. Also remove the left-most knockout on the **TOP** of the EHU-600 or EHU-701 humidifier.

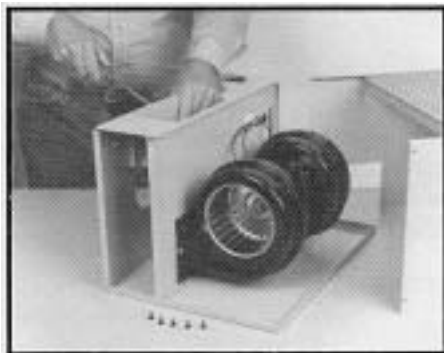


Figure 1-2

3. **Install the steam hose** and nozzle assembly into the fan unit, using the self-tapping pan head screw that is provided. (See Figure 1-2)

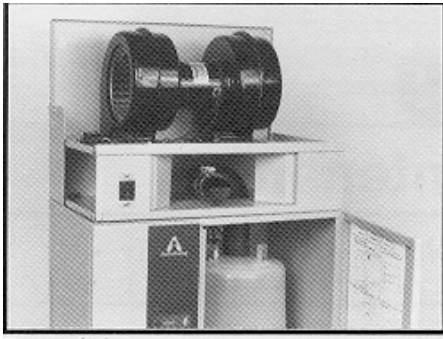


Figure 2-1

4. **Place the fan unit** on top of the humidifier. (See Figure 2-1)
  - a. Slipping the steam hose over the outlet of the steam generator tank.
  - b. Press the plastic bushing through the hole in the bottom panel of the fan unit so it also goes through the hole in the humidifier.
  - c. Fasten the fan unit in place with two #10 x 1/2 machine screws and nuts that are provided.



Figure 2-2

5. **Pull the steam hose down** over the outlet of the steam generator, and secure it with the hose clamp that is provided. (See Figure 2-2)
6. **Connect a 120V electrical supply** to the fan unit. Follow local electrical codes that apply.

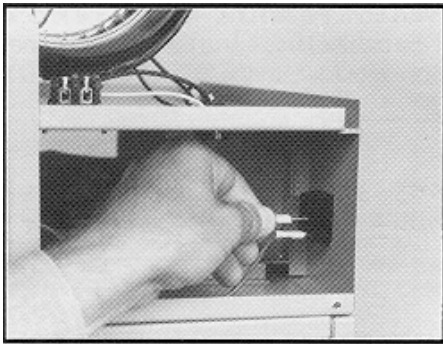


Figure 2-3

7. **Connect the two 42-inch leads**, from the unused switch terminals in the fan unit, through the plastic bushing, to terminals in the humidifier interlock circuit. (See Figure 2-3).

Table 2-1

EHU-600	Terminals	2 and 24
EHU-700	Terminals	9 and 15

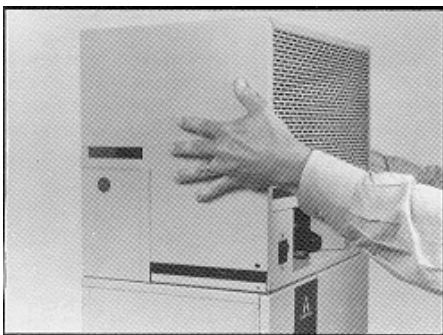


Figure 2-4

8. **Replace the fan unit cover.** This completes the installation. Note: The cover **must be in place** for the fan unit to operate properly. (See Figure 2-4).

**Now go to the “Operating Instructions” section on Page 4.**

**Installation Instructions - Remote Mounting on a Wall at Some Distance From The Humidifier.** (For direct mounting, refer to Page 1.)

**Note:** The maximum capacity of the EHF-2 is 30 lb/hr.

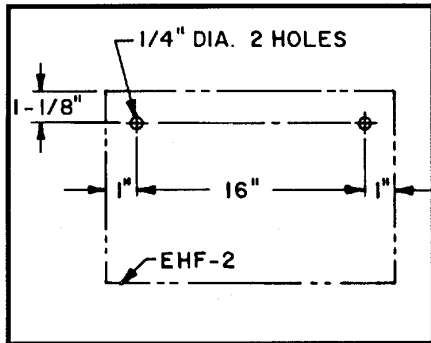


Figure 3-1

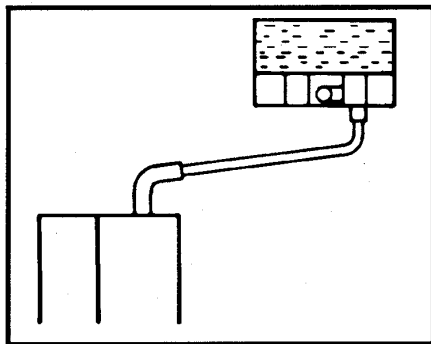


Figure 3-2

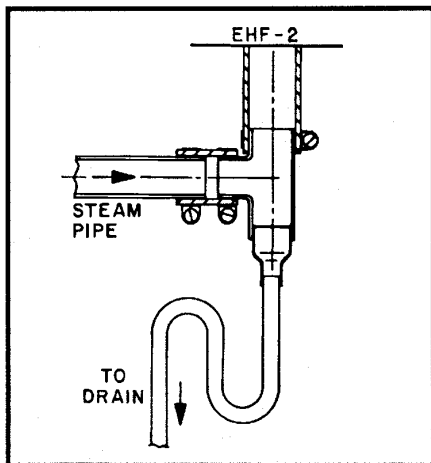


Figure 3-3

1. **Check the Location for the fan unit.** It should face out into the free space of the room, and there should be at least 24 inch clearance from the top of the fan unit to the ceiling. (See Figure 1-1).

2. **Drill two 1/4" holes** in the wall. Be sure these mounting holes are drilled into studs, or some equally strong structure. (See Figure 3-1)

Screw the 3/8" x 1-1/2" lag bolts part way into these holes (leave the heads about 3/8" out from the wall).

3. **Remove the Cover** from the fan unit. Remove the knockouts on the bottom of the cabinet base and the left side panel.

4. **Install the steam hose** and nozzle assembly into the fan unit, using the self-tapping pan head screw that is provided. (See Figure 1-2)

5. **Hang the fan unit** on the lag bolts and tighten the two bolts.

6. Connect the steam supply piping from the humidifier steam generator to the fan unit. We recommend 1-1/4" copper tube with insulation. Be sure the steam pipe **slopes upward toward the fan unit**, with a pitch of at least 1" per foot. Use the short pieces of hose **from the humidifier** to connect to the copper tube. (See Figure 3-2)

7. **If steam piping cannot slope up** to the fan unit make a drain fitting from a 1-1/4" inch tee, a reducer fitting, and copper tube as shown. Install this directly under the fan unit. (See Figure 3-3)

8. **Connect a 120V electrical supply** to the fan unit. Follow local electrical codes that apply.

9. **Connect the two unused switch terminals** in the fan unit to terminals in the humidifier interlock circuit, using the knockout in the bottom of the fan unit. (See Figure 2-3 and Table 2-1)

a. Use the 42" leads provided, if they will reach. If extra length is needed, cut the 42" leads (provided) to about 10" length and splice to stat or signal wire.

b. **Do Not** run this signal wire in the same conduit as the 120-volt power supply wiring.

10. Replace the fan unit cover. This completes the installation. Note: The cover **must be in place** for the fan unit to operate properly.

## Operating Instructions

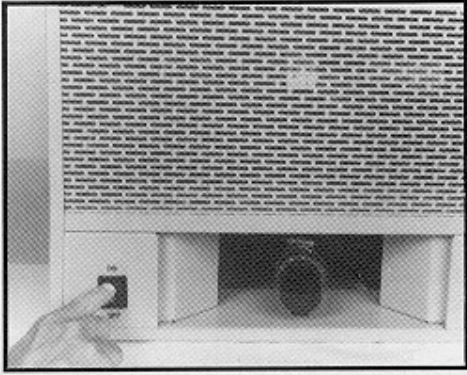


Figure 4-1

1. **Turn on the electrical power:**
  - a. Power to the EHU humidifier.
  - b. Power to the EHF-2 fan unit, and
  - c. Turn on the switch on the front of the EHF-2 fan unit.

The fan unit will start to run. At the same time, the humidifier will start to fill with water, and in a few minutes will produce steam.

2. **Operation is now automatic** under control of the humidistat connected to the EHU humidifier.

Please see the **humidifier operating instructions** for help in checking out the operation of the system.

3. **To stop the humidifier**, just turn off the switch on the fan unit. This switch controls both the fan motor and, through the interlock circuit, the humidifier.

## Normal Maintenance

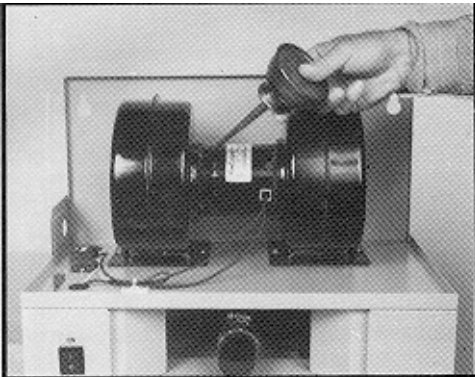


Figure 4-2

1. **Oil the fan motor** every **6** months with a few drops of SAE 20 oil. There is an oil hole at each end of the motor.

**Note:** Lightweight "household" oil is not recommended.

2. **Clean any accumulated grease or dust** from the fan cabinet and grille with any mild detergent and water. Clean the fan wheels with a brush if necessary.

## Troubleshooting and Repairs

There will normally be very few operating problems with EHF-2 fan unit. The construction is simple and rugged, and should provide years of trouble-free service. There are some problems that can occur due to improper installation.

### 1. The fan unit is spitting drops of water.

- A. The steam hose inside the fan unit may be pushed up so that a puddle of water is trapped in the outlet nozzle, and cannot flow back to the humidifier.

**Direct mount installation:** Be sure the steam hose is pulled down on the neck of the steam generator. It may be necessary to trim a bit (try 1/4") off the end of the steam hose to make it fit properly.

**Remote Installation:** Be sure the steam hose is pulled down on the steam piping, or relocate the piping support so it does not push up on the steam hose.

- B. **Remote Installations Only.** There may not be enough pitch on the steam piping from the humidifier to the fan unit. If the pipe does not slope upward, at least 1" per foot of run, toward the fan unit then it may be necessary to install a "drip leg" just before the fan unit. (See Page 3, Item 7)

### 2. The Switch on the fan unit doesn't have any control over the humidifier.

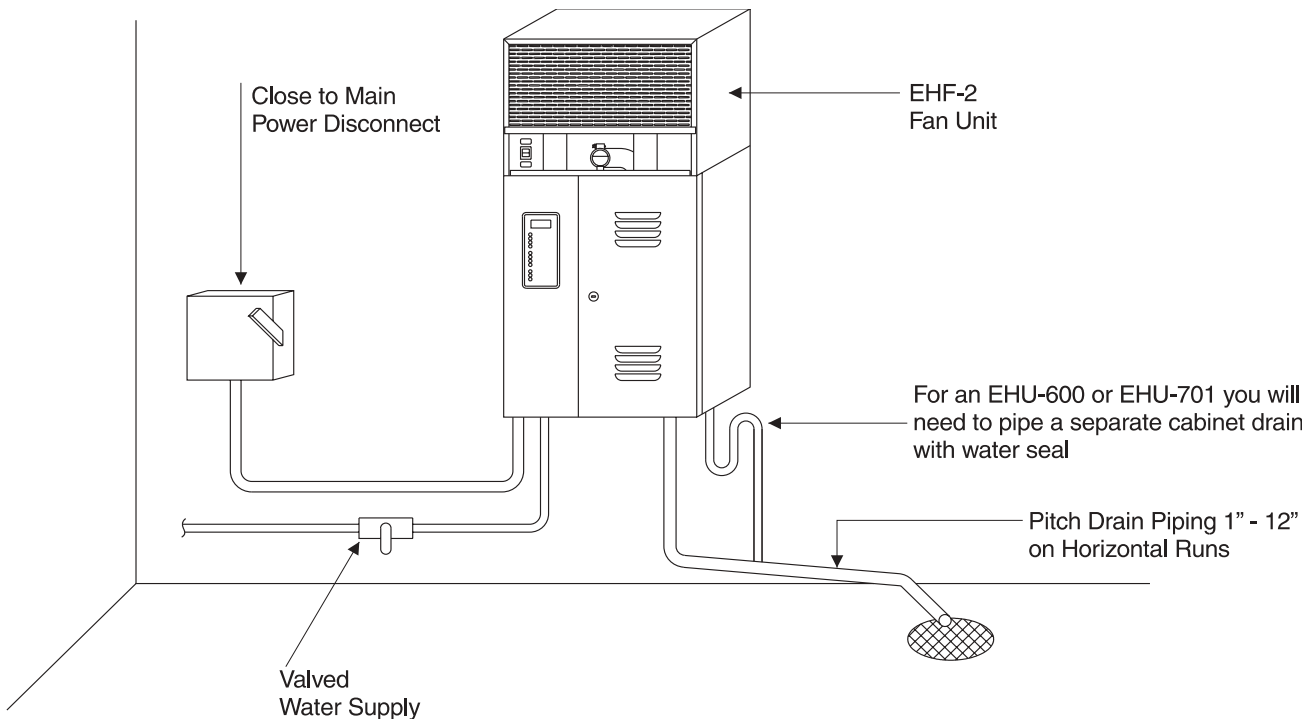
- A. Is the humidistat calling for humidity? If the demand meter on the humidifier doesn't show (above 30%), there should be no steam output.
- B. Are the "interlock" terminals of the humidifier connected to the switch? If not, the fan unit cannot control the humidifier.
- C. Is the switch working? With the fan unit power OFF, disconnect the interlock circuit leads from the switch. Use an ohmmeter or continuity tester to check the switch. Check both "on" and "off" switch positions. Replace switch if necessary.

### 3. There is a stream of visible vapor coming six or eight feet out from the fan unit.

- A. This is normal. As the steam from the nozzle mixes with the cooler air, it condenses into microscopic droplets carried along in the air stream producing "visible vapor". Very quickly, these droplets re-evaporate and the visible vapor disappears.

## Site Selection - General Installation Concept

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## Limited Warranty and Remedy

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Armstrong International, Inc. warrants to the original user that those products supplied by it and used in the service and in the manner for which they are intended shall be free from defects in materials and workmanship for a period of one (1) year after installation, but no longer than fifteen (15) months from date of shipment. Except as may be expressly provided for in a written agreement between Armstrong International, Inc. and the user, which is signed by both parties, Armstrong International, Inc. DOES NOT MAKE ANY OTHER REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

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**Armstrong International, Inc.**

816 Maple Street, P.O. Box 408, Three Rivers, Michigan 49093 - USA Ph: (616) 273-1415 Fax: (616) 273-9500

Parc Industriel Des Hauts-Sarts, B-4040 Herstal/Liege, Belgium Ph: (04)409090 Fax: (04)481361

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