Table of Contents:

Section 1: Introduction
Contents of Kit ....................................................... 2

Section 2: Installation
Preparing the Unit .................................................. 2
Installing the Fitting Kit .......................................... 2
Piping ...................................................................... 2
Fitting Diagram ...................................................... 3
Start-Up ................................................................... 3
Single Tank Installation Diagram ......................... 4
Dual Tank Installation Diagram......................... 5

Guide Revision Table:

<table>
<thead>
<tr>
<th>Date</th>
<th>By</th>
<th>Page</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>August, 2010</td>
<td>KT</td>
<td>All</td>
<td>First published</td>
</tr>
</tbody>
</table>

P/N: 2300100908
Section 1: Introduction

CONTENTS OF THE DESUPERHEATER FITTING KIT:

- (1) p/n 23-23-0024-001 04ApI08, Installation Instructions
- (1) p/n 11-08-0004-001, 3/4”x 3/4”x 3/4” FPT Brass Tee
- (1) p/n 11-08-0003-001, ¾” Boiler Drain Valve
- (1) p/n 11-08-0005-001, ¾” MPT x 3-1/2” Brass Nipple
- (3) p/n 11-08-0006-001, ½” SWT x ¾” MPT Copper Adaptor
- (1) p/n 11-08-0007-001, ¾” x ¾” x ½” SWT Copper Tee

PLUMBING INSTALLATION

NOTE: All plumbing and piping connections must comply with local plumbing codes.

**TIP:** Measure the distance above the floor or shelf that the water heater is setting on, to where the drain valve is located. This distance must be greater than one-half the width of the tee you’re about to install, or you won’t be able to thread the tee on to the water heater.

1. Disconnect electricity to water heater.
2. Turn off water supply to water heater.
3. Drain water heater. Open pressure relief valve.
4. Remove drain valve and fitting from water heater.
5. Thread the ¾” MPT x 3-1/2” nipple into the water heater drain port. Use Teflon tape, or pipe dope on threads.
6. Thread the center port of the ¾” brass tee to the other end of the nipple.
7. Thread one of the copper adaptors into the end of the tee closest to the heat pump.
8. Thread the drain valve into the other end of the nipple. See Figure 1.
9. Above the water heater, cut the incoming cold water line. Remove a section of that line to enable the placement of the copper tee.
10. Insert the copper tee in the cold water line. See Figure 2.
Section 2: Installation

11. Thread the remaining two ½” SWT x ¾” MPT copper adaptors into the ¾” FPT fittings on the heat pump, marked HOT WATER IN and HOT WATER OUT.

12. Run interconnecting ½” copper pipe from the HOT WATER OUT on the heat pump, to the copper adaptor located on the tee at the bottom of the water heater (Step 7).

13. Run interconnecting ½” copper pipe from the HOT WATER IN on the heat pump, to the copper tee in the cold water line (Step 10).

14. Install an air vent fitting at the highest point of the line from step 13 (assuming it’s the higher of the two lines from the heat pump to the water heater). See Figure 2.

15. Turn the water supply to the water heater on. Fill water heater.

16. Flush the interconnecting lines, and check for leaks.

17. Install 3/8” closed cell insulation on the lines connecting the heat pump to the water heater.

18. Reconnect electricity to water heater.

---

NOTE: Drawing shown vertically for detail. Fitting installs horizontally into hot water tank.
Section 2: Installation

Figure 2: Typical Desuperheater Installation

- Hot Water Tank
- P/T Relief Valve
- Drain Valve
- Copper Tee
- Venting Waste Valve or Vent Coupling
- Hot Water Out
- Hot Water In
- 3/4” Copper Adapter Fitting
Section 2: Installation

Figure 3: Desuperheater Installation in Preheat Tank
* AHRI certification is shown as the Roth brand under the Enertech Manufacturing certification reference number
**Roth Industries geothermal heat pumps are shown as a multiple listing of Enertech Manufacturing’s ETL certification
*** Roth geothermal heat pumps are listed as a brand under Enertech Manufacturing’s Energy Star ratings