

Title:

Heat Reclaim (26, 31-70 Ton) Replacement Installation

Overview

A general guide on Flō large box (26, 31-70 ton) heat reclaim coil replacement.

Preparing For Heat Reclaim Replacement

Resource Estimates

- People: 2-4 (recommended to have at least one individual who is smaller/thinner in stature).
- Estimated Completion Time: 4-6 hours.
- Estimated Coil Weight: 500-600 lbs.

Recommended PPE (Personal Protective Equipment)

- Hard hats
- Safety vest
- Safety glasses
- Steel-toed shoes
- Cut resistant gloves

Recommended Tools

- Crane (recommended) - If the unit is more than 1 foot off the ground (on curb adapter, etc..) a crane will be required for removal of coil from unit. Otherwise, a crane is recommended for rooftop units to lower coil from roof.
- Adjustable panel dolly (optional) – This can be used to roll the coil around, using two or more workers on the other end of the coil to push and steer the coil. The dolly should have a minimum load requirement of at least 500 lbs.
- Lighted Endoscope/Borescope camera (optional).
- Impact driver with 1/4", 5/16" and 3/8" nut drivers.
- Rubber mallet.
- Duck billed pliers/sheet metal locking pliers.
- Flexible bit extensions and various size solid bit extensions.
- Stubby 5/16" nut driver.
- All weather caulking (white or clear).
- Insulated seam tape.
- Box cutter and/or painters 10 in 1 paint/putty scraper tool.
- Prying tools/pry bars.

Preparing For Reclaim Coil Replacement On-Site

1. Wear all Personal Protective Equipment.
2. Place a piece of plywood on the roof deck to distribute the new coil's weight and protect the roof from damage.
3. Crane the new coil to the roof.
4. Remove the new coil from its shipping crate.
5. Verify the new coil is holding the nitrogen charge.
6. Release the nitrogen charge.
7. It is recommended to braze the elbows and stubs to the new coil before installing the new coil in the unit.

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- NOTE: If you are attempting panel removal/installation on the ground, ensure that the unit is on a completely level surface with no high spots. Failure to do so make complicate reinstallation of the panel.

Reclaim Coil Extraction

- To remove the reclaim coil in a D box unit, the middle side panel of the left side of unit needs to be removed (see fig. 1) This is the side opposite of the evap coil TXV assemblies.

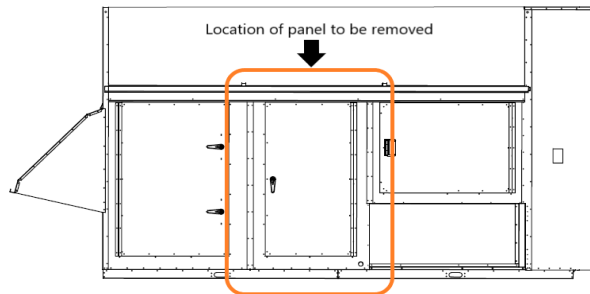


Fig. 1 – Coil Door Location

- There are self-tapping screws across the top edge (see fig 2.) and along the side of the top edge (see fig.3) that needs to be removed.

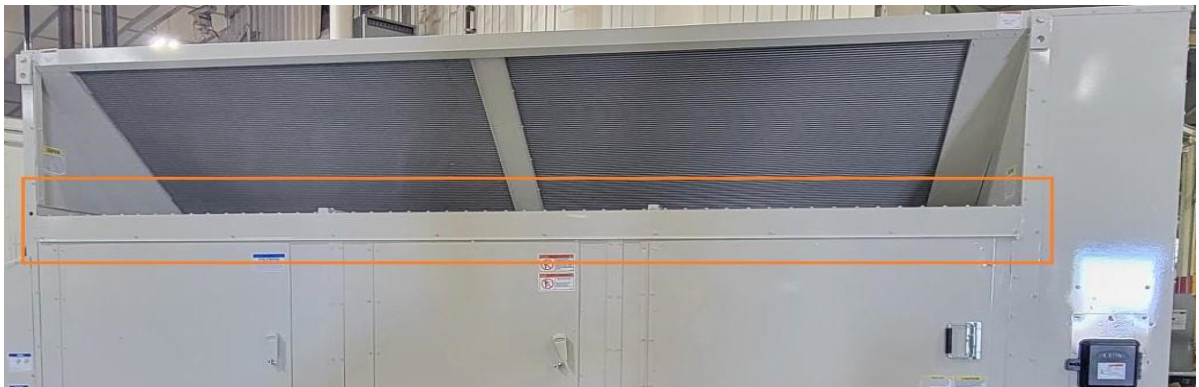


Fig 2. Self-Tapping Screws Top Edge



Fig. 3. Self-Tapping Screws Side Of Top Edge

- Next, remove the screws securing the highlighted sections of Fig 4, then remove the plate, exposing the panel seam. Use a putty knife down the seam to remove much of the insulated tape.

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Fig. 5. Plate Removal Coil Cabinet And Heating Cabinet

4. Next, remove the heating cabinet door, the screws holding the rain cover on at least several feet back, and the screws securing the half-plate (see fig 5), and remove the half-plate, exposing the other seam. Use a putty knife down the panel seams to remove much of the insulated tape.
5. Next, remove the 3/8" screws across the bottom of the panel (see fig 6). Keep these screws separate as they are oversized and should be placed back in the area they came from.

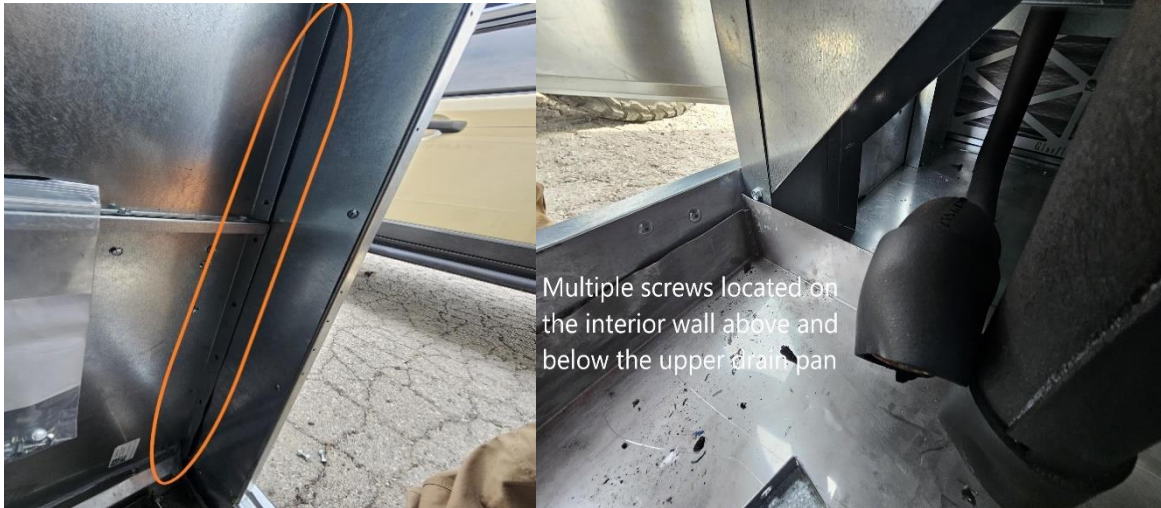


Fig. 6. Screw Removal Coil Cabinet Bottom Panel

6. Next, locate and remove all 5/16" screws on the interior side of the panel that secure the filter rack, and upper drain pan support structure to the wall, pictured below (this will not cause any collapse of the interior structure, and along the interior corner of the drain pan area and back of supply fan cabinet wall (see Fig 7 images). You will likely need to feel around along the inside of the panel or use an endoscope/borescope camera to locate the screws requiring removal.

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Multiple screws located on the interior wall above and below the upper drain pan

Fig. 7. Interior Coil Cabinet Screw Removal

- Next, remove the panel in fig 8, and use a box cutter or paint scraper to separate the drain pan from the panel interior. The panel is usually secured with a couple screws and possibly caulking.



Fig. 8. Interior Coil Cabinet Panel Removal

- Next, use a pic or flathead screwdriver or similarly shaped tool to scrape out as much of the caulking as possible around the drain spout (see fig 9).

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Fig. 9. Drain Spout Caulking Removal

9. You can now locate and remove any bracing (attached with 5/16" screws) securing the existing coil in place (see fig.10). There is often a piece of angled sheet metal attaching the coil frame to the roof, air dam panels on one or both sides of the coil, and support structure securing the coil to the back of the supply fan cabinet wall.

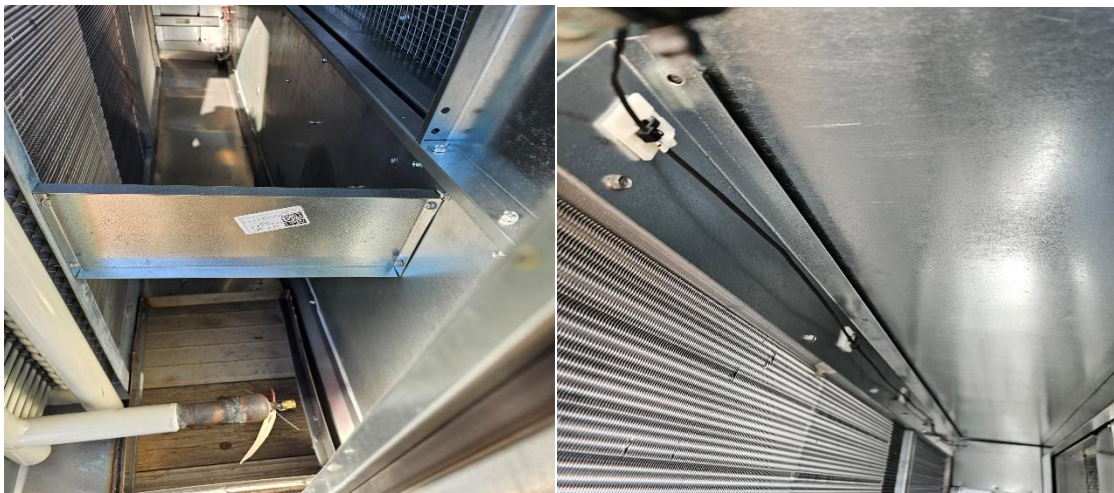


Fig. 10. Reclaim Coil Bracing Removal

10. Once the coil is free, and all the screws, caulking/seals have been removed, you should be able to pry and slide the bottom of the panel out from the bottom and then pull down to slide from under the rain guard at top. If the panel is catching in any area, recheck for extra screws around the exterior and interior, and for caulking that may have been missed.
11. Once the panel has been removed and placed to the side, you will need to use the sheet metal locking pliers to bend the lower pan edge outwards to provide clearance for the coil to be removed.
12. You should now be able to start sliding the coil out from the side opening. Use caution to ensure coil fins are not damaged during removal and/or installation. Use caution when sliding/lifting as the coil weighs 500+ lbs. You will need multiple people and a crane, or if the unit is within a foot of the ground, you may be able to slide the closest end onto an adjustable panel dolly and roll the coil the rest of the way out of the unit.

Reclaim Coil Installation

To install the new reclaim coil, perform the above coil removal steps in reverse. Use caulking and insulated seam tape between seams and around drain pan and drain spout and any gaps to ensure proper weather sealing.