

Carrier Multizone Replacement rigging instructions

This document is intended to give an installing contractor a “heads up” on one potential issue that may come up during Carrier unit replacements. ***Seasons 4 measures the existing units and the supply and return openings. Seasons 4 does NOT evaluate the ductwork under the existing unit. It is the installing contractor’s responsibility to make sure the duct work is not screwed or connected to the unit by any means.**

The installing contractor should become familiar with the site conditions and look at the ductwork under the existing unit prior to rigging if at all possible.

The unit shown below is a Carrier model 48MA028 but this problem can occur with any make or model of roof top unit.



The above picture is that of a Carrier multizone roof top unit to be replaced. Before rigging the old unit for the lift, make sure that all electrical, piping, and ductwork is disconnected from the existing unit.



Seasons 4 recommends using spreader bars with straps or chains to lift the old unit out of place. If spreader bars are not available, straps that are 40' in length are acceptable.

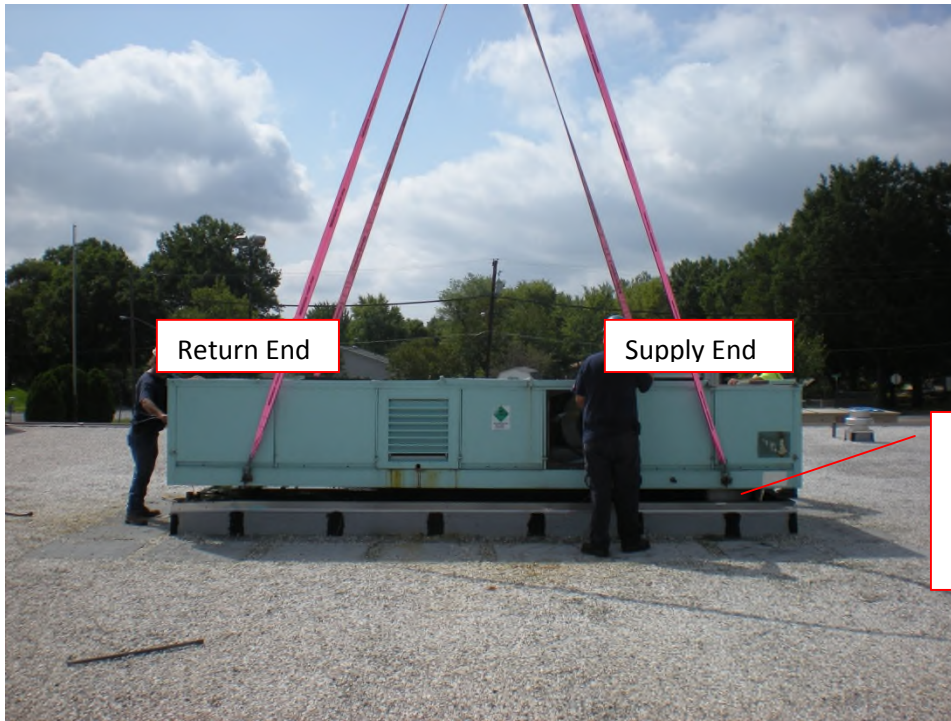


The crane should lift the old unit VERY slowly while observers are watching for wires, pipes, or connections that were missed.



Power wiring conduit
clearing the old unit.

Locations vary
depending on actual
model number.



Return End

Supply End

It may be difficult to tell in
this picture but the supply
air duct is still connected
to the existing unit.



As soon as it was noticed that the supply air (SA) ductwork was still attached to the roof top unit, the lift was stopped. The contractor then took a closer look at the unit to see how the duct was attached to the RTU. In many cases, Carrier instructed the original installing contractor to screw the SA ductwork to the underside of their unit. Sometimes, the connection can be broken by a pry bar when the unit is lifted a few inches above the curb.

The next few pictures show the conditions under the roof where the supply duct drops into the ceiling cavity. There was no way to access the underside of the unit from the ceiling cavity and the initial lifting process caused damage to the ductwork underneath. Eventually, the decision was made to cut loose the ductwork under the roof line and lift the supply air drop out with the old unit.





Above, a worker disconnects the supply air duct drop loose from the existing ductwork.

Below, the decision was made to lift the supply air duct drop out with the old unit.



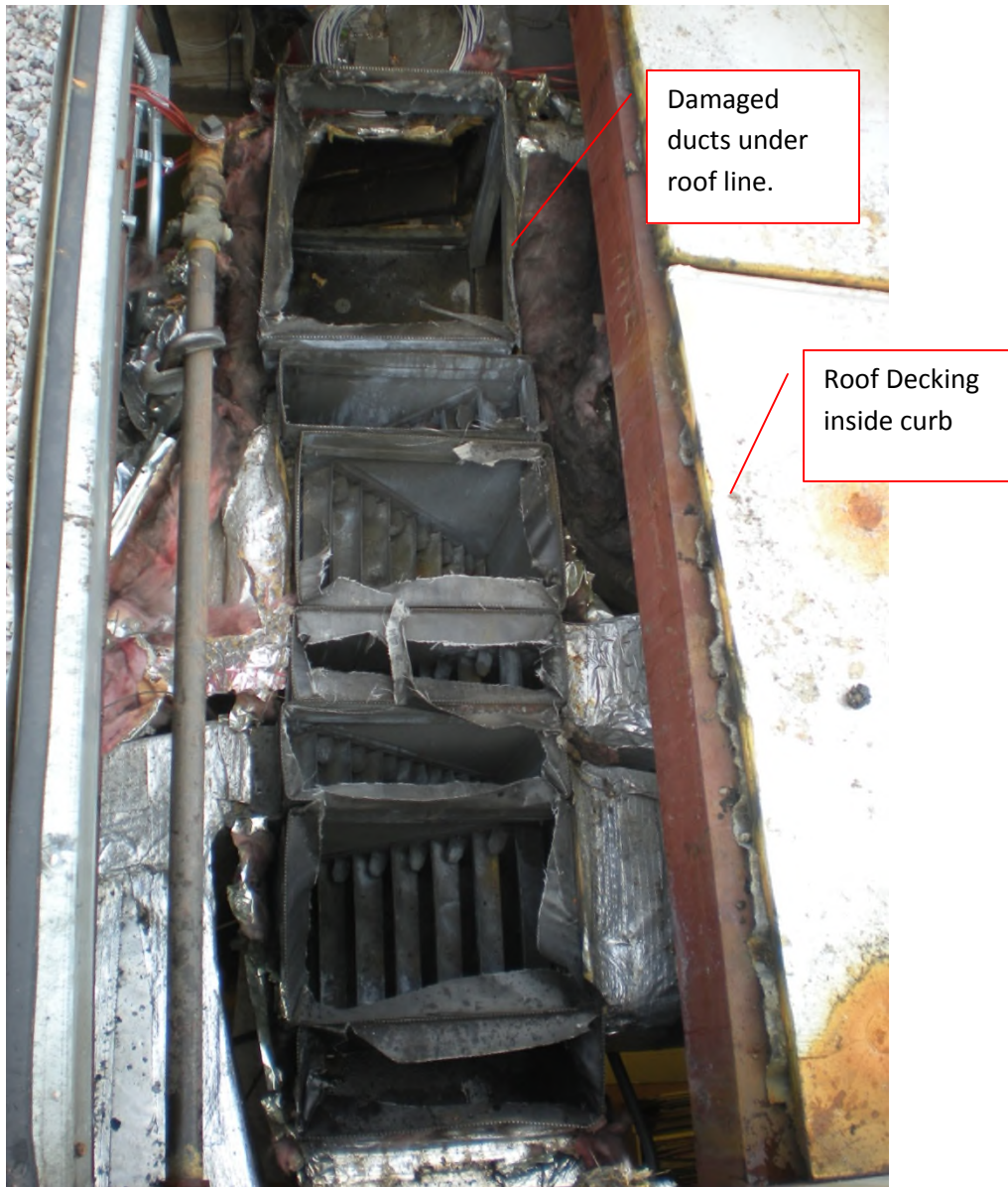
Supply Air
Duct



The SA duct drop was secured to the underside of the Carrier unit with sheet metal screws. This was fairly common practice though there's no way to tell if it's been done until the unit is lifted.



The above picture shows the zone divisions in the SA duct drop.



Damaged
ducts under
roof line.

Roof Decking
inside curb

The contractor for this job evaluated the conditions and made the determination to go ahead and set the new Seasons 4 RTU without have the duct repair complete. There was enough space below the roof line and the sheet metal contractor was able to make the duct connections from underneath the roof. This is not always an option. **Seasons 4 highly recommends making the necessary duct repairs before the new unit is set in place.**



This is a different job and contractor than the previous picture. The picture shows the installing contractor placing the new gasket material provided by S4 onto the supply air duct dividers and perimeter.



Again, a different job but this picture shows how the zone dividers are brought up level to the curb perimeter and covered in gasket material. The new S4 unit is designed to create a compression fit here.

In conclusion, it is highly recommended that the installing contractor have arrangements for emergency duct repair or access to repair materials (if not already kept onsite).