INDOOR COIL

RCTA Horizontal Evaporator Coil Installation Instructions



General:

Rheem horizontal evaporator coils are designed for use with condensing units or heat pump units. These instructions are intended as a general guide and do not supersede local codes in any way. Consult with local authorities having jurisdiction before installation.

Receiving:

Check coil for shipping damage. If you should find damage, immediately contact the last carrier. Verify contents.

WARNING!

Coils are shipped with a 10 psi dry air holding charge. Puncture rubber plug on suction line to release charge before removing plugs. Note: The absence of pressure does not verify a leak. Check the coil for leaks before installing, or returning it to your local wholesaler.

WARNING!

PROPOSITION 65: THIS PRODUCT CONTAINS FIBERGLASS INSULATION. RESPIRABLE PARTICLES OF FIBERGLASS ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

IMPORTANT

The Clean Air Act of 1990 bans the intentional venting of refrigerant (CFC's and HFC's) as of July1, 1992. Approved methods of reclaiming must be followed. Fines and/or incarceration may be levied for non-compliance.

Rheem Manufacturing Company
Fort Smith, AR

WARNING!

BECAUSE OF POSSIBLE DAMAGE TO EQUIPMENT OR PERSONAL INJURY, INSTALLATION, SERVICE, AND MAINTENANCE SHOULD BE PERFORMED BY A TRAINED, QUALIFIED SERVICE PERSON. THIS PRODUCT CONTAINS NO CONSUMER SERVICEABLE ITEMS.

Configuration:

Verify the capacity and SEER requirements (if applicable) are appropriate with the matched condensing or heat pump units. Coils are suited for R-22 refrigerants.

The RCTA coils are approved for horizontal application only.

Factory Installed Valves:

As shipped from the factory, a non-bleed thermal expansion valve (TXV) is installed in each coil. The TXV is chosen to match the nominal BTUH capacity of the coil.

CAUTION!

Expansion valve ranges are from 1 to 3 tons and 3.5 to 5 tons. Coil models set up for 3 tons cannot be used on 3.5 tons and higher without an expansion valve change. 5 ton models can be used down to 3.5 ton only, TXV change out required for applications 3 tons and below.

IMPORTANT

This coil contains a non-Bleed expansion valve. If this coil is used with a condensing unit containing a reciprocating compressor - a hard start mechanism will be required on the outdoor unit.

CAUTION!

When an evaporator coil is installed in an attic or above a finished ceiling, an auxiliary drain pan should be provided under the unit as specified by most local building codes.

CAUTION!

Drain pans are made of a polymer that can withstand temperatures up to 400 deg F. Maintain 3" clearance on oil or drum type heat exchangers, and 1½" on sectionalized heat exchangers.

Installation - All Coils:

These coils can utilize either opening as the entering or leaving side. Position the inlet opening of the horizontal coil with the center of the outlet opening of the furnace. The horizontal coil should be positioned at least 12" from the outlet of the furnace to provide uniform airflow into the horizontal coil. Failure to provide uniform airflow can lead to localized high face velocities at the coil resulting in water blowoff. See Figures 1 and 2.

Depending on the horizontal coil tonnage and furnace size, the ductwork between the furnace and the coil may require angular transitions. The transition angles should not exceed 45º as noted in Figures 1 and 2.

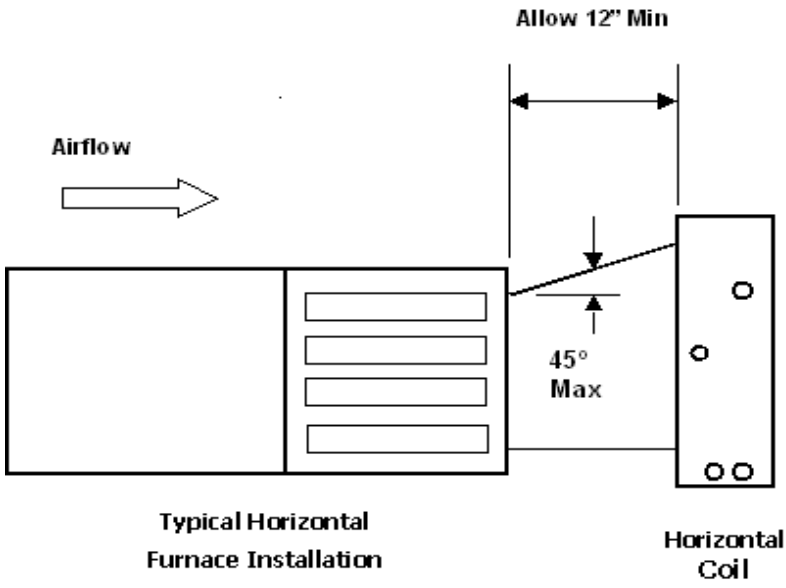


Figure 1

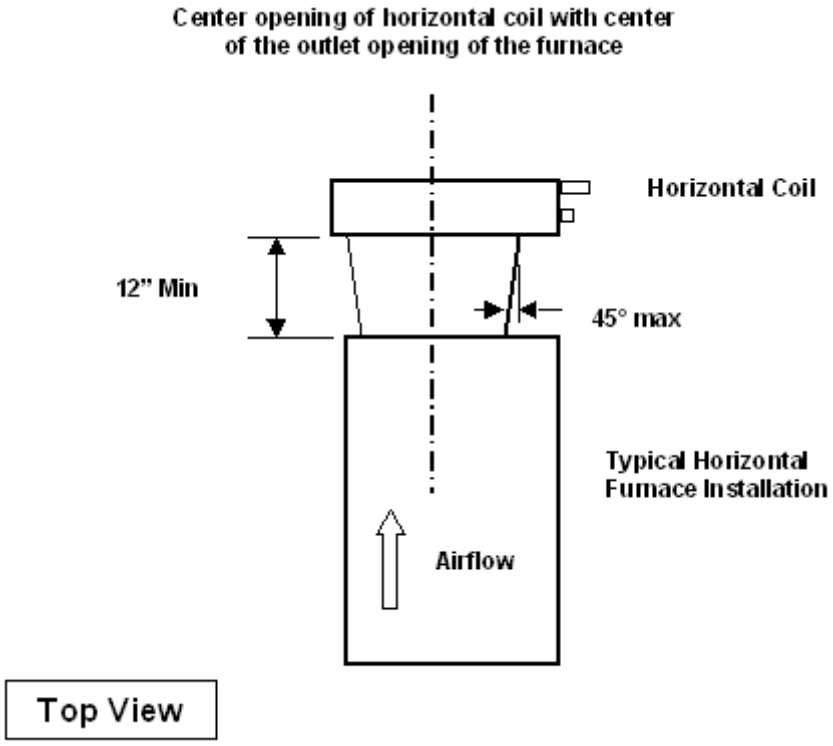


Figure 2

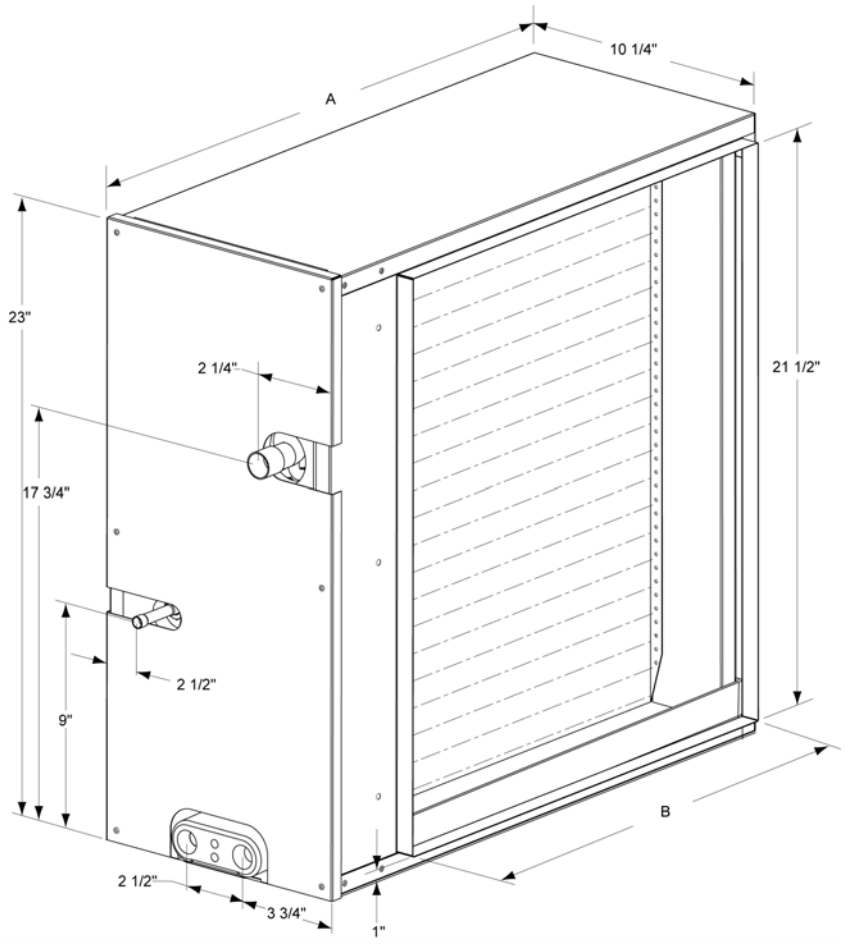


Figure 3

Coil Model	Nominal Tons	Nominal CFM	Dimension A	Dimension B	Connection Size Liquid	Connection Size Suction
RCTA-A024	1-1/2	600	23	18-3/4	3/8	3/4
RCTA-A024	2	800	23	18-3/4	3/8	3/4
RCTA-A036	2-1/2	1000	27	22-3/4	3/8	3/4
RCTA-A036	3	1200	27	22-3/4	3/8	3/4
RCTA-A048	3-1/2	1400	31	26-3/4	3/8	7/8
RCTA-A048	4	1600	31	26-3/4	3/8	7/8
RCTA-A060	5	2000	35	30-3/4	3/8	7/8

Table 1

Refrigerant Piping:

Refrigerant sweat connections provided with the coil are 3/8" ODF Liquid and 3/4" ODF (18-36 MBTU) or 7/8" ODF (42-60 MBTU) Suction. Check outdoor unit manufacturer's instructions for proper interconnecting line sizing.

Condensate Drain:

CAUTION!

All coils are provided with a secondary drain fitting. It should be trapped and piped to a location that will give the occupant a visual warning that the primary drain is clogged.

Coils are equipped with multiple drain connections. Determine the drain connections to be used and note the difference between the primary and secondary openings.

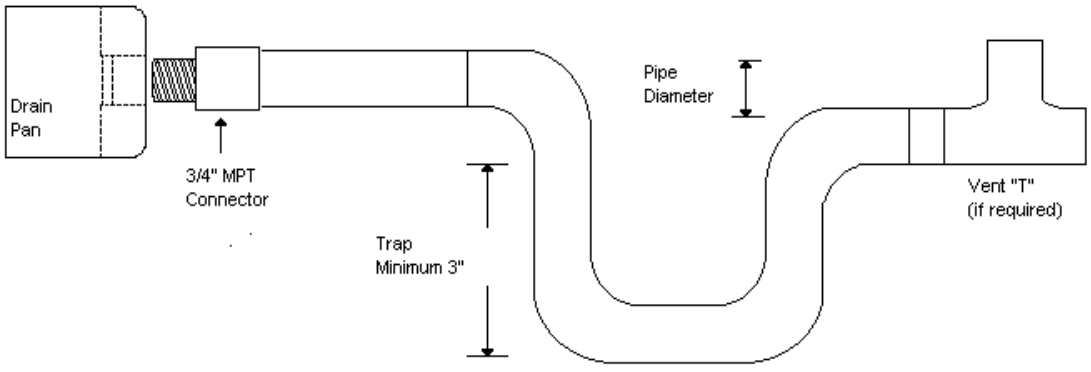
Drain plugs are provided for all openings, remove and discard the unused drain plugs.

Attach drain lines to pan with 3/4 " male pipe thread PVC fittings. **DO NOT TIGHTEN ABOVE 10 FT-LBS OF TORQUE.** This maximum torque is slightly above hand tight.

Do not reduce drain line sizes.

Route drain line(s) so they will not be exposed to freezing temperatures and do not interfere with accessibility to the coil, air handling system or filter. The drain should be pitched downward 1" per 10' with a 2 " trap (if required) as close to the coil as possible. If line makes a second trap, or has an extended run before termination, a vent tee should be installed after the trap closest to the pan.

If the coil is located in or above a living space where damage may result from condensate overflow, a separate 3/4" drain must be provided from the secondary drain connection. Run this drain to a place in compliance with local installation codes where it will be noticed when unit is operational. Condensate flowing from the secondary drain indicates a plugged primary drain.



Prime the trap with water. Test line for leaks. Test water flow with unit in operation.