

R-22 Replacement Policies



What is the recommended refrigerant?

Commercial Products

Use R-22 While the Unit is in Warranty

R-22 is an efficient refrigerant and is also the refrigerant for which the unit was optimized. All reliability testing was completed and performance measured using R-22 and mineral oil. Due to the many changes required with retrofit refrigerants, use of retrofit refrigerants or non-approved oils voids any remaining Trane warranty. THEREFORE TRANE DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES, EXPRESS OR IMPLIED, AS TO ANY SUCH MODIFIED PRODUCT, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IF ANY.

Trane WILL NOT Guarantee Performance

Trane will not guarantee capacity or efficiency after a refrigerant retrofit is performed. The supplier of the replacement refrigerant will typically provide these guidelines, but be sure to confirm with your chosen supplier.

Commercial Conversion of R-22 Products

- Develop an R-22 replacement plan for your customers.
- When you decide to convert, we suggest considering R-407C for existing and dry ship units.
- A conversion to R-407C requires the change to a Polyol Ester lubricant (POE) Oil.
- Replace all o-rings, gaskets, and packing. This includes Schrader valves.
- Must be an engineered solution (efficiency, capacity, oil, pressure, safety, parts and application are all important factors).
- Contact your local Trane Authorized Agent for technical assistance.



Commercial R-22 Refrigerant conversions

Temperature Glide

- Temperature glide is the band of boiling/condensing temperatures of refrigerant blends, and it impacts the performance of heat exchangers.
- Low temperature DX Coils can freeze if a refrigerant with high temperature glide is used.
- Flooded evaporator designs tend to fractionate the blended refrigerant. This will negatively affect performance and can cause oil return problems.

Counterfeit Refrigerants Exist!

- Refrigerants without the EPA-approved R-numbers are illegal and should never be used.
- Know your supplier.
- Verify refrigerant type in cylinder before use.
- Verify refrigerant type in system prior to servicing.
- Label and isolate contaminated systems.
- Isolate cylinders and reclaiming equipment to prevent cross contamination.
- Refer to leading manufacturer's website for examples of counterfeit labeling.

Facts about R-22 Replacements

Replacement Refrigerants are NOT 'drop-ins'.

- It must be an engineered conversion.
- Never mix refrigerants!

Flammable Refrigerants

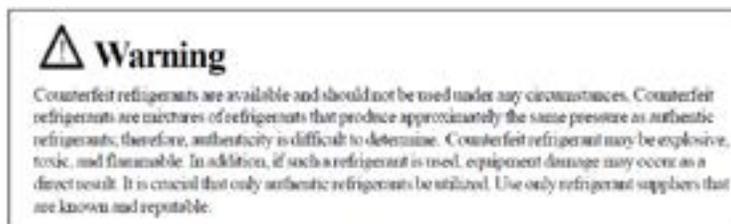
- Refrigerants that contain more than 4% hydrocarbons become flammable.
- Propane is being marketed under a variety of trade names.
- Check MSDS. DO NOT USE!

Only use EPA SNAP-approved refrigerants.

Unusually low pricing could be an indicator of pure hydrocarbon or counterfeit refrigerant!

Remember Reclaim, Reuse, Recycle all R-22 for Future Needs!

*Residential R-22 Conversions: Refer to Bulletin APP-APB011-EN for use of R-438A in limited residential applications.



Typical Tasks:

Engineered Conversions for R-407C and POE

- Engineer the project.
- Record baseline data on original system performance.
- Recover refrigerant charge using appropriate recovery equipment. Be careful of cross contamination (do not use the same hoses and purging equipment).
- Record the amount of refrigerant recovered.
- Drain the existing lubricant from the compressor, oil separator, suction accumulator, and liquid receiver.
- Measure the amount (volume) of lubricant removed.
- Change the oil filter if one is present.
- Recharge the system with Polyol Ester (POE) lubricant, use the same amount (volume) that was removed. A limited amount of mineral oil can remain. Refer to service bulletin PART-SVB12B-EN (or most recent version) for recommended oil type and quantity.
- Evaluate the expansion devices; consult the valve manufacturers for recommendations.
- Replace all o-rings, gaskets, and packing. This includes Schrader valves.
- Replace filter driers and suction filters. They must be compatible with a POE.
- Leak check the system.
- Evacuate the system.
- Break the vacuum with liquid R-407C charged into the liquid line and condenser. The liquid line solenoid should be open.
- Initial charge should be approximately 85% of the R-22 charge by weight. Record the amount of refrigerant charged.
- Adjust refrigerant charge, if necessary, in increments of 5% of original charge weight.
- Adjust the expansion device if needed. Consult the manufacturer if this is needed.
- Label components and the system with the type and amount of refrigerant and lubricant.



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