



Freon™ One Shot-C

Refrigerant (R-422C)

Product Information

Freon™ One Shot-C (R-422C) is a non-ozone depleting A1 refrigerant that can be used as a direct replacement into existing systems that are still operating with R-502, R-404A/507, or R-22. Freon™ One Shot-C is compatible with traditional and new lubricants; in most cases, no change of lubricant is required.

Applications

- R-502 low and medium temperature refrigeration
- R-407A/507 low and medium temperature refrigeration
- R-22 low and medium temperature refrigeration

Benefits

- EPA SNAP listed
- Designed for systems utilizing direct expansion devices
- No line set changes
- Compatible with AB, MO, and POE lubricants
- Can use R-502/404A TEV and power element

ASHRAE Number	R-422C
Composition	R-125/R-134a/R-600a
Weight %	82/15/3
Molecular Weight	113.4 g/mole (113.4 lb/lb mole)
Boiling Point at 1 atm (101.3 kPa)	-45.95 °C (-50.71 °F)
Critical Pressure	3776.26 kPa [abs] (547.70 psia)
Critical Temperature	73.07 °C (163.53 °F)
Liquid Density at 21.1 °C (70 °F)	1163.95 kg/m ³ (72.663 lb/ft ³)
Ozone Depletion Potential (CFC-11 = 1.0)	0
AR5 Global Warming Potential	2794
ASHRAE Safety Classification	A1
Temperature Glide	-2 K (-4.5 °R)

Conversion Recommendations and Guidelines

System must be designed for use with R-502, R-404A/507, or R-22—in sound operating condition and free of leaks. Freon™ One Shot-C is designed for use in systems utilizing direct expansion metering (e.g., TXV, fixed orifice, cap tube). Change from CFC or HCFC to HFC refrigerants may cause a retraction in O-rings and elastomers. Replace these items after recovery of the original refrigerant.

1. Record Pre-Conversion System Data

Prior to conversion, operating conditions should be monitored and recorded for future reference.

2. Recover Original Refrigerant

In accordance with EPA guidelines, 100% of the refrigerant must be recovered from the system.

3. Perform Oil Analysis

Test system oil for acidity, water, and solids. If detected, perform a complete system oil change using OEM specified oil and charge size.

4. Install New Filter Drier and Oil Filter

Oil analysis will inform which filter drier type should be used. Systems with coalescent oil separators and/or compressor oil filters need to be changed as well.

5. Leak Check System

Pressure test system with dry nitrogen. DO NOT exceed system's design pressure.

6. Evacuate System

Pull a minimum 500-micron vacuum to remove non-condensables and moisture.



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7. Charge System

Turn over cylinder, and charge system with LIQUID ONLY. Refrigerant can be added directly into the receiver tank or high-pressure side of the system with compressor off. Charge ratios will vary based on system design and application. Initial charge should be 95% of original refrigerant's weight..

8. Run System

Check pressure, subcooling, and superheat temperatures. If additional refrigerant is needed, add in 5% increments. DO NOT exceed 115% of the original charge.

9. Properly Label System

Avoid mixing refrigerants by properly labelling the system.

10. Post-Conversion Leak Check

Perform a thorough leak check as system operation begins post-conversion.

11. Record Post-Conversion System Data

Monitor and evaluate system performance. Record data. This information should be compared to the pre-conversion data.



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For more information on Freon™ refrigerants, visit freon.com

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