



PRODUCT
MARKETING
NEWS



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Date: October 22, 2015
To: Goodman® and Amana® Brand Sales and Distribution
From: Mark Hagan - Director Residential Products
Subject: Application of R-410A Split System Air Conditioner with Existing R-22 Indoor Unit

We have received many questions on whether it is acceptable to apply a 13 SEER or 14 SEER R-410A split system air conditioner with an existing R-22 indoor coil or air handler, to reuse an existing R-22 line set, and to use a flushing agent in existing line-sets.

We understand there may be situations that preclude the removal of installed line-sets or indoor coils. Outlined below are guidelines and estimated outcomes of such a situation. Please keep in mind that these guidelines only apply to air conditioning systems and do not apply to heat pumps systems. In heat pump applications, existing R-22 indoor units should not be used with 14 SEER R-410A heat pumps.

Replacing an R-22 air conditioner with a 13 SEER or 14 SEER R-410A air conditioner using an existing R-22 indoor unit:

- 1) Goodman **strongly** recommends the installation of an AHRI certified matched system.
- 2) System mix-matches of 13 SEER or 14 SEER R-410A outdoor units and existing R-22 indoor units may experience reduced capacity.
- 3) System mix-matches involving different outdoor unit and indoor unit SEER levels **should be avoided** whenever possible.
- 4) If a system mix-match cannot be avoided, the outdoor and indoor units must be properly charged in accordance with manufacturer installation procedures. Units with fixed orifice expansion devices must be charged by the system's superheat and units with thermal expansion valves must be charged by the system's subcooling.

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Goodman Manufacturing Company, L.P. • 5151 San Felipe, Suite 500 • Houston, TX 77056
Main: 713.861.2500 • Marketing Fax: 713.331.3275 • www.goodmanmfg.com • www.amana-hac.com

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- 5) It is acceptable to install a 13 SEER or 14 SEER R-410A split system air conditioner to an existing coil or air handler only if the following conditions are met:
- a. The indoor coil or air handler was produced after 1992.
 - b. The indoor coil or air handler has a piston that is compatible with the new Goodman/Amana brand piston or has a TXV.
 - c. The indoor coil or air handler does not have capillary tube style refrigerant metering.
 - d. In a system mix-match whether the indoor coil expansion device is a fixed orifice or a thermal expansion valve, that expansion device must be of a capacity that is specified by the outdoor unit manufacturer.
 - e. For piston style coils, the R-22 piston must be replaced with the piston that is shipped with the new R-410A split system air conditioner.
 - f. For TXV style coils, the old R-22 TXV must be replaced with the appropriate R-410A TXV. See the R410A condenser spec sheet for the appropriate TVX kit.
 - g. The system is charged using the information provided in the installation instructions for the new R-410A split system air conditioner.
- 6) It is acceptable to utilize existing R-22 line-sets for a new 13 SEER or 14 SEER R-410A split system units only if the following conditions are met:
- a. The line set sizes are correct for the new R-410A unit per the installation and operation manual.
 - b. Reasonable effort is made to remove remaining R-22 mineral oil.
 - c. If the previous system experienced a compressor burnout, the remaining components should be cleaned using generally accepted practices.

Please note that many flushing agents are currently available in the marketplace. Goodman has not tested any of these products, and therefore, can not provide any recommendations as to any benefits or detriments from using them.

Please also note that federal law prohibits the venting of HCFCs and requires that they be recovered and then recycled, reclaimed, or destroyed in accordance with the law.

As we continue to transition away from old R-22 systems to new R410A systems, we hope that these answers will make the process as smooth as possible.

Good Selling!

Mark Hagan
Director Residential Products

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