

## Recovery of Hydrocarbon Refrigerants

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This guide highlights key points you should follow to ensure you recover hydrocarbon (HC) refrigerant safely.

- You must be trained in the safe handling of HC refrigerants before carrying out any invasive work on HC systems.
- The recovery machine must be suitable for HC refrigerants – the Care Saver (shown in the photo) has no sources of ignition and has been designed for use with flammable refrigerants.
- The recovery cylinder must be weighed while being filled so you do not overfill it. If it is not marked with the safe fill weight for HC refrigerant you need to remember the density difference to calculate the HC maximum safe fill weight:

$$= \text{HFC max fill weight} \times 0.45.$$

- The photo shows two recovery cylinders:

The one of the left has an **HFC** safe fill weight of 10 kg.  
The one of the right has an **HC** safe fill weight of 10 kg.

- You must have a fire extinguisher available (at least a 2kg dry powder type or a CO<sub>2</sub> type).
- Monitor the work area with an HC detector.
- The work area must be well ventilated. Add forced ventilation if necessary, using a fan which has no sources of ignition, such as the Care Air (see photo).
- If you are recovering the refrigerant and will then be unbrazing connections, recover the system onto a vacuum and back fill the system with oxygen free nitrogen to a pressure of approximately 0.1 bar g (1 psig).



The Care Saver and Care Air are available from RDA, [tech@rda-eng.com](mailto:tech@rda-eng.com), 01983 821189.

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