

“Fluorocarbons: Balanced Solutions For Society”

Commercial Air Conditioning...A Working Example

A Worldwide Perspective



Commercial air conditioning is used in modern airports, hospitals, and other commercial facilities.

Commercial air conditioning is essential for contemporary societal comfort in most of the world. These systems contribute to health and comfort, worker productivity and economic vitality. Commercial air conditioning is used in stores, restaurants, offices, hotels, hospitals, and other public places.

Environmental Considerations for Air Conditioning

Since the mid-1980s, commercial air conditioning systems have undergone a transition from using ozone depleting compounds, including chlorofluorocarbons (CFCs), to low and no-ozone depleting compounds, such as hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs). Ammonia and absorption are also being used, to a lesser extent.

Because of their excellent refrigerant properties CFCs and HCFCs were initially used. Today, HFC blends including R-407C and R-410A have been introduced to replace HCFC-22 in small systems. Chillers commonly use HFCs, HCFCs and ammonia. All new equipment has high containment integrity that minimizes refrigerant loss.

Replacement of air conditioning systems worldwide with new, high efficiency equipment is saving billions of kilowatt hours of electricity annually, and the corresponding reduction of greenhouse gas emissions.



Many office facilities use roof mounted air conditioning units.

Fluorocarbons – The Balanced Solution for the Future



In many hot climates, air conditioning is essential to business.

After HCFCs are no longer available, HFCs, widely used in equipment today, will become the refrigerants of choice for air conditioning applications ranging from small room air conditioners to large chillers. Commercially available throughout the world, HFCs are energy efficient, low in toxicity, cost-effective, can be used safely and are reusable.

Worldwide Industry Principles

The air conditioning industry is committed to responsible use and management of all refrigerants including HCFCs and HFCs. The industry actively promotes the following principles:

- Contain refrigerants in tight systems and containers minimizing atmospheric releases;
- Recover, recycle and reclaim refrigerants;
- Train all personnel in proper refrigerant handling;
- Comply with applicable standards (e.g., ASHRAE-15, and ISO 5149) on refrigerant safety;
- Comply with all relevant Ozone Depletion Regulation provisions (Section 608, US Clean Air Act);
- Size equipment to match the specific need, thereby minimizing the refrigerant amount; and
- Design, install and operate to optimize energy efficiency.

**Balanced Solutions for Society...Commercial Air Conditioning
is the Perfect Example of the Concept.
Energy Efficiency, Reduced CO₂ Emissions, Availability, Affordability.
Fluorocarbons – The RIGHT Choice for Commercial Air Conditioning**

The Alliance for Responsible Atmospheric Policy is a leading industry voice which coordinates industry participation in the development of reasonable international and U.S. government policies regarding ozone protection and global climate change.



The Alliance
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**AIR-CONDITIONING &
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