You know how hot and steamy it gets in Florida, but can you imagine living without air conditioning? Until the 1950s, the chances were pretty good that people did, in fact, live without AC in their homes.

### Air Conditioning: The History of a Really Cool Concept

Fortunately, the evolution of the heating and cooling industry has not only made AC commonplace, but it is also affordable.

TAKE A LOOK AT ITS JOURNEY.

#### 1840s



Florida doctor and inventor John Gorrie thought cooling was key to fighting disease and keeping people comfortable. He devised a system of interior cooling by transporting huge blocks of ice from the frozen lakes and streams of the north to cool hospital rooms. Because it was impractical, he devised a machine that made ice using horsepower, wind-powered sails or steam.

Gorrie tried to patent his idea, but because his main investor died, the device never went to market. It did, however, set the stage for what was to come.



1851

#### 1902



Willis Carrier, an engineer in Buffalo, New York, was given the job of solving a big humidity problem in a Brooklyn publishing company that made magazine pages wrinkle. He designed and patented his "Apparatus for Treating Air," which used cooling coils. It could humidify the air by heating water or dehumidify by cooling water.

Organizers of the St. Louis World's Fair used mechanical refrigeration to cool various sections of the Missouri State Building, which housed fair events. It circulated 35,000 cubic feet of air per minute, giving the American public a first look at cooling used for comfort.



#### 1904



A modified heating/cooling system that used refrigeration equipment to force cool air through floor vents started appearing in public theaters. However, it often left lower areas too cold and upper areas too hot and muggy.

Carrier Engineering Corporation installed the first well-designed cooling system for theaters in Los Angeles. It pumped air through higher vents, resulting in more equally distributed cooling. In May of the same year, Carrier made a breakthrough in air conditioning when it introduced a centrifugal chilling system at New York's Rivoli Theatre. Although it was more reliable and less costly, it was still too large and expensive to use on a wider scale.



#### 1929



Frigidaire popped onto the cooling scene when it debuted a split-system room cooler. Shaped like a radio cabinet, it was small enough for homes but too heavy and required its own condenser.

General Electric patented 32 prototypes for improved self-contained room coolers. Around the same time, CFC (chlorofluorocarbon) coolants, the world's first nonflammable refrigerants, were introduced. Although they help with cooling, they were later linked to ozone depletion and phased out in the 1990s.



#### 1930-31









The first window AC unit was produced. It didn't become popular, however, because of its high cost.

Air conditioning units became more compact and cheaper, resulting in the sale of 43,000 systems.









By this time, most new homes in the United States were equipped with central air conditioning, and window units had become affordable.

The affordability and popularity of HVAC systems had created an energy consumption crisis. Congress passed laws to reduce energy consumption, setting the standard for the government's Appliance and Equipment Standards Program that established guidelines for air conditioning manufacturers.







The Department of Energy issued conservation standards for the manufacturers of residential HVAC systems.

#### 2006

The standards were revised and are expected to result in more than \$70 billion in energy savings by 2035. That is the equivalent of the annual greenhouse gas emissions of 72 million cars! According to the Energy Information Administration, 87 percent of all American households - about 100 million homes - had air conditioning in 2009, up from 68 percent in 1993. With better-designed, energy-efficient HVAC systems on the rise, those numbers are likely to climb.



## **The Future**

According to the Bureau of Labor Statistics, HVAC technician employment is expected to increase by 15 percent through 2026. If you like those odds, consider enrolling in the HVAC/R Technology program at Florida Academy in Fort Myers.

15% through 2026

INCREASE

In as few as 27 weeks, you can have HVAC skills that you can take anywhere.



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# WHY FLORIDA Academy?

Florida Academy is a licensed post-secondary education school accredited by the Council on Occupational Education (COE), as well as an approved ESCO Institute and HVAC Excellence testing and certification center. We offer:

- Convenient evening classes Hands-on education from HVAC industry professionals
- Financial aid for those who qualify
- Career placement assistance

Sources:

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