

YOU'RE BUILDING A CLIMATE FOR SHOPPERS

WE'LL HELP YOU BUILD IT ON SCHEDULE

RETAIL

Opening new stores and retrofitting existing stores is critical to successful and sustainable growth for a typical retail organization. Timely deliveries are a key part of your new-store openings and retrofit projects. You may have fixed targets for metrics such as sales per square foot per day, or sales growth through new store openings. Operating days lost due to construction project delays are extremely costly.

For packaged system orders, Armstrong has delivery support mechanisms to ensure timely order fulfillment and a successful completion of your project. Our project managers ensure adherence to construction and shipping timelines by coordinating all planned activities. Project managers also facilitate communication between all key stakeholders and provide continuous project updates. Thanks to these efforts, Armstrong builds and delivers systems that meet and exceed your expectations.

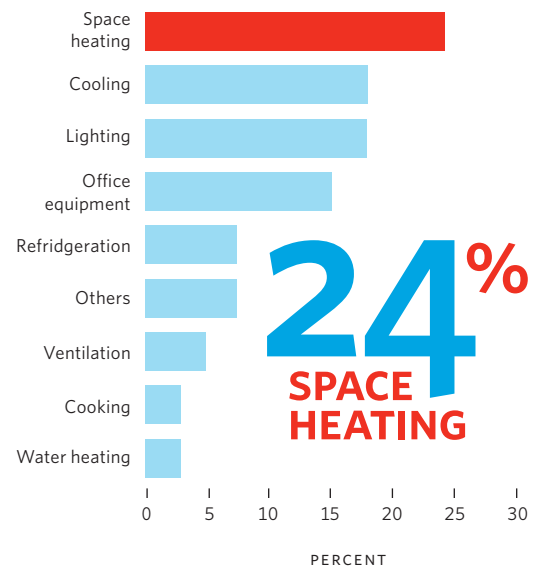
Energy-saving equipment choices can play a key role in supporting corporate strategy as you look for new ways to lower operating costs, make stores more profitable and pursue eco-friendly initiatives.

¹Based on the 2003 EIA Commercial Building Energy Consumption Survey (CBECS)

Source: U.S. Energy Information Administration

Based on Energy Information Administration data, HVAC accounts for 40 to 60 percent of the energy used in U.S. retail stores.

RETAIL STORE ENERGY USE PROFITS*



Many retailers have published targets for reduction of greenhouse gas emissions. Effectively communicating energy savings and GHG emission reductions can have a positive impact on your customers' shopping attitudes. Shoppers notice and reward positive behavior. That's why leading retailers use every opportunity to promote their energy savings programmes.

Armstrong offers the most energy-efficient solutions to help you cut energy costs and minimize your carbon footprint. For example, a typical retail location of 150,000 square feet will require 500 tons of cooling capacity to maintain in-store comfort. Armstrong integrated solutions can improve cooling efficiency and reduce both energy usage and carbon footprint by 30-45% over standard industry solutions.

Retailers need cost-effective solutions to help them reduce new store costs and make the existing stores more profitable.

They need innovative solutions to save money and remain competitive in a market that is increasingly tight.

Armstrong can deliver solutions with low installed costs to make projects affordable and provide low life-cycle costs that can shorten the payback period for both the initial investment for new store openings and retrofit projects.

Project	Old system (10-15 years old)	Annual cost savings [†]	Annual CO ₂ reduction [‡]
Cooling system capacity (tons)	500	500	500
Annual average efficiency (kW/ton)	0.95	0.75	0.50
Operating hours (hrs)	3,024	3,024	3,024
Utility rate (\$/kWhr)	0.10	0.10	0.10
Annual energy cost for cooling	\$143,640	\$113,400	\$75,600
Annual savings vs. older system	—	—	\$68,040
Annual savings vs. newer system	—	—	\$37,800

A typical superstore (50,000 ft² to 200,000 ft²) could save over \$45,000 annually by retrofitting chilled water system components.*

Industry-standard solutions	Problems you may experience	Armstrong solutions available	Additional benefits
Chilled water systems	<ul style="list-style-type: none"> High operating costs Unacceptable temperature swings 	<ul style="list-style-type: none"> Integrated chilled water plants Patented controls 	<ul style="list-style-type: none"> Redundancy Improved temperature control Reduced maintenance Extended life-cycle Low operating cost
Boilers	<ul style="list-style-type: none"> High operating costs Repeated cycling 	<ul style="list-style-type: none"> Modular boiler systems 	<ul style="list-style-type: none"> Improved efficiency in a part-load environment Improved temperature control
Heat exchangers	<ul style="list-style-type: none"> High cost of maintenance Capacity shortages 	<ul style="list-style-type: none"> Retrofit heat exchanger options 	<ul style="list-style-type: none"> Improved maintenance and control
Pumps	<ul style="list-style-type: none"> Overpumping High cost of maintenance 	<ul style="list-style-type: none"> Variable speed pumps with integrated controls 	<ul style="list-style-type: none"> Space savings Low operating cost Improved maintenance and control
Fire systems	<ul style="list-style-type: none"> Insufficient alarms Lack of reporting and data logging 	<ul style="list-style-type: none"> Remote fire monitoring systems 	<ul style="list-style-type: none"> Alarms Data logging Text messaging

* Calculations based on 150 ft², 9-month operation

Assumptions:

- Area from 50,000 ft² to 200,000 ft²
- Cooling season of 9-months

TORONTO
+1 416 755 2291

BUFFALO
+1 716 693 8813

BIRMINGHAM
+44 (0) 8444 145 145

MANCHESTER
+44 (0) 8444 145 145

BANGALORE
+91 (0) 80 4906 3555

SHANGHAI
+86 21 3756 6696