

Ventilation Buying Guide

A step-by-step guide to find the right ventilation products for your home or project

YALE
APPLIANCE





Overview

What Appliance emits Carbon Dioxide, Carbon Monoxide, Nitrous Oxide, Formaldehyde, and Particulate Matter?

Your stovetop, especially a gas stovetop.

It's time to take ventilation seriously. Indoor air is much worse than outdoor air.

The most crucial function of a range hood is to draw heat, steam, and grease out of your house.

This guide will teach you about the most common ventilation problems and how to ventilate your kitchen correctly.

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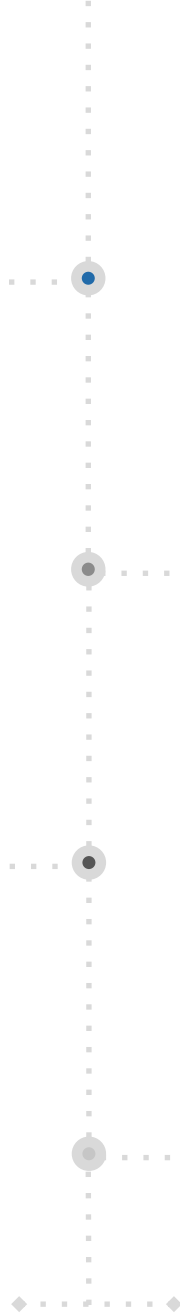
Good Ventilation Ideas



Key Takeaways



About Yale



Ventilation Problems





High Output Ranges

- Gas range burner outputs now average around 60,000 BTU (British Thermal Unit), over 50% more than when I started at Yale in 1986.
- Yet most hoods haven't changed.



**Best Ventilation
Hoods for
Professional Ranges**



More Efficient Houses

- Houses are now designed to be more efficient and less expensive to run.
- Windows and building materials are designed to keep the air inside your home.
- Thus, smoke, grease, and gases will now stay in your home longer.

The Elements of a Good Vent Hood



CFM (Cubic Feet Per Minute)

- How many cubes of air are exhausted per minute.
- A 1200 CFM hood, for example, will exhaust 1200 cubes of air per minute.
- For frying and grilling, you would need a higher CFM depending on the size of the range.



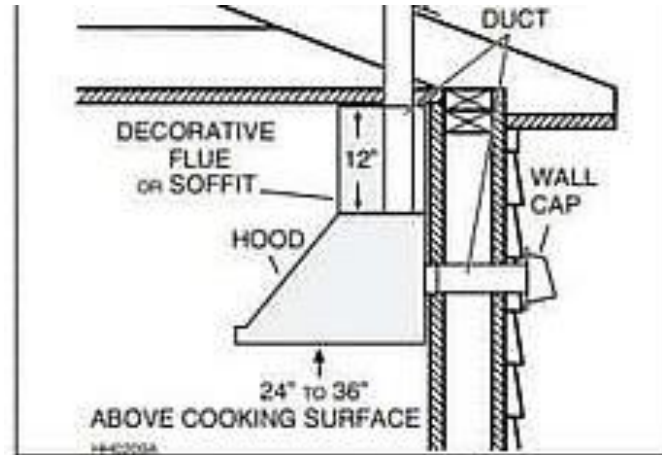
Capture

- Capture is defined as the height, width, and depth of a hood.
- **Smoke is not immediately evacuated, especially if you cook.**
- You need sufficient capture area, especially over the front burners.

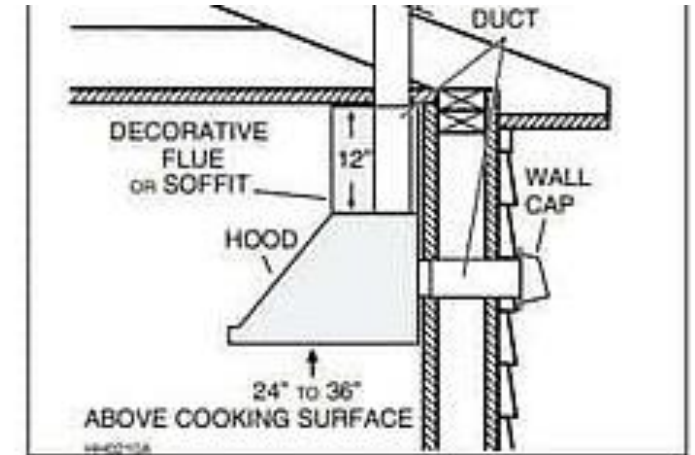


Duct Run

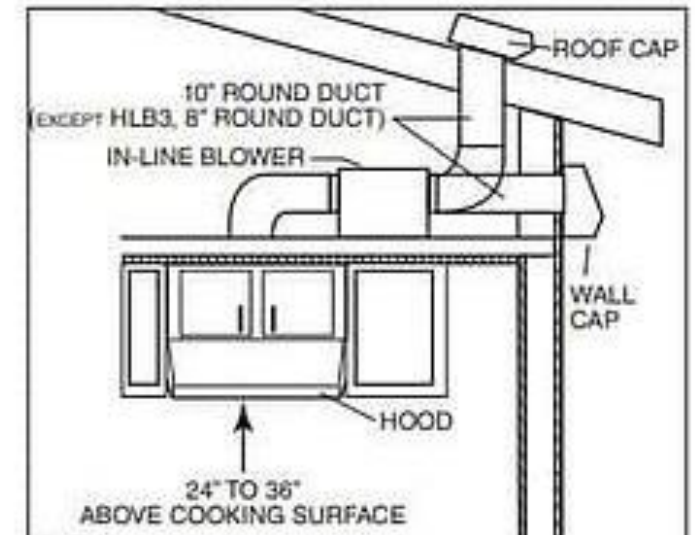
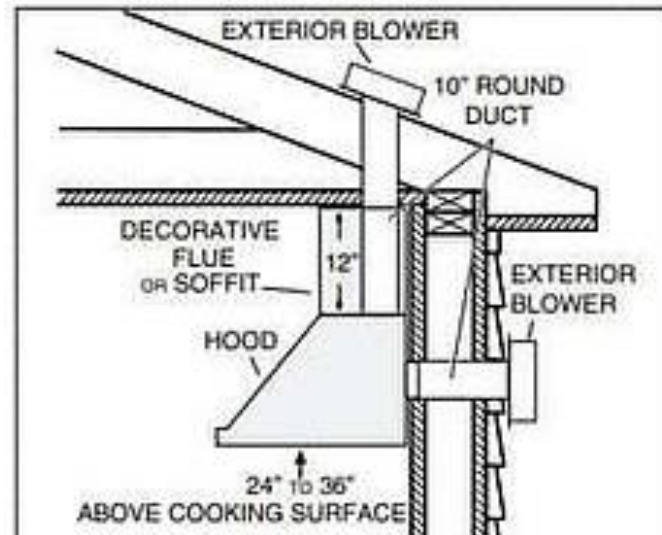
- Plan the ducting accordingly.
- Straight up with gravity is best.
- Straight back is also a viable option.
- Long runs and redirecting the exhaust with elbows and transitions will reduce the effectiveness of the exhaust.



**MODEL IQ6, P3 OR P6
SINGLE INTERIOR BLOWER
TYPICAL DUCTWORK**



**MODEL IQ12 OR P12
DUAL INTERIOR BLOWER
TYPICAL DUCTWORK**



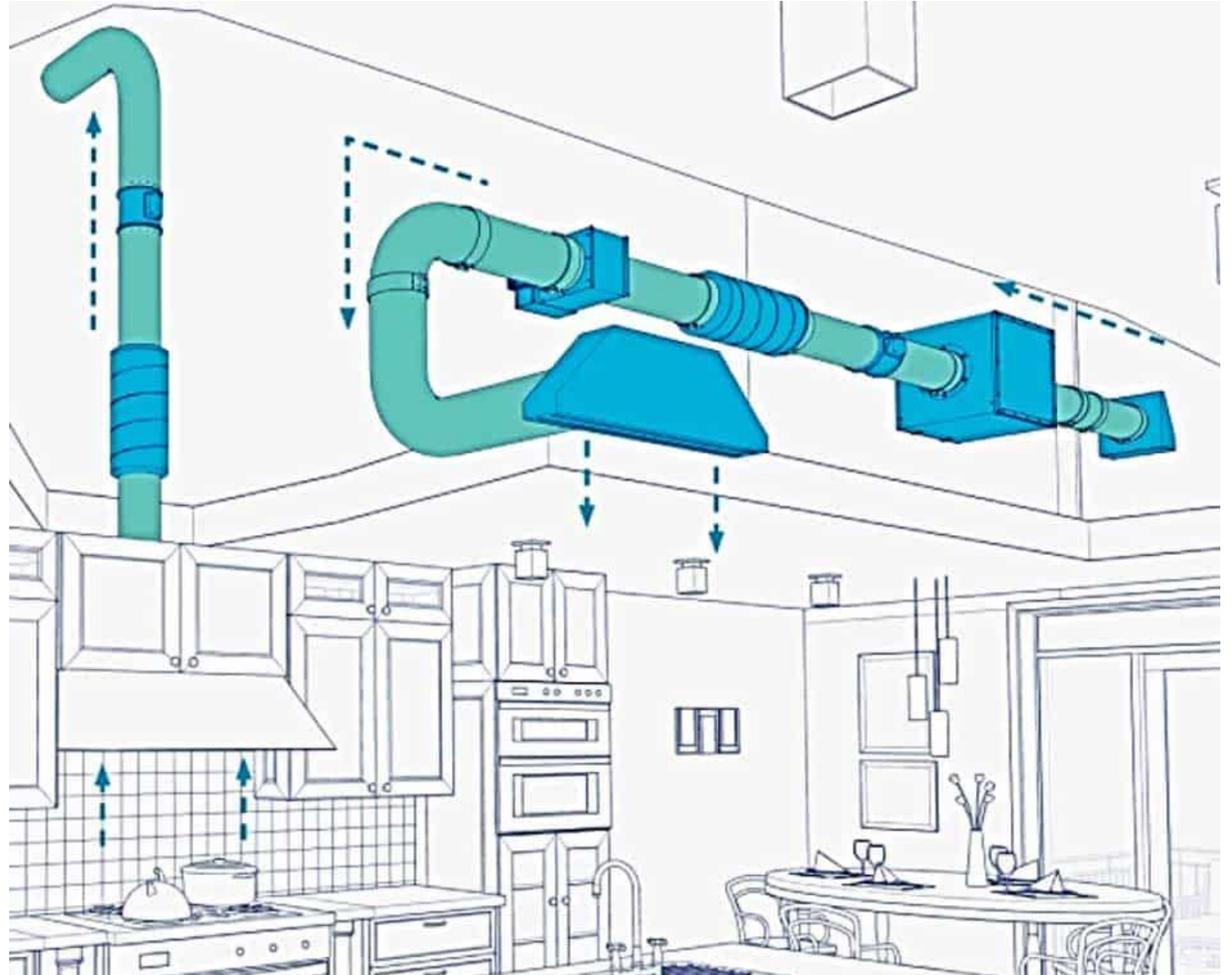
Duct Composition

- Always use a rigid stainless-steel duct so grease does not accumulate as it does in flexible ducts.
- Use the specified duct or larger as per hood instructions.



Make-Up Air

- Make-up air is the law in Massachusetts. Section M1503.4 states any vent over 400 CFM needs a fresh air return.
- You can comply with the regulation by having the fresh air returned through your HVAC.
- Fresh air can also be placed 10 feet away on the opposite wall of your stove.





Why Make-Up Air Is Important

- Let's go back to that 1200 CFM exhaust or a small room of air leaving your house every minute.
- Air abhors a vacuum so that air is made up from your garage, attic, and furnace.
- In Massachusetts, make-up air is the law. You won't be granted a CO without it.
- If you live out of state, you should incorporate make-up returns into your renovation.

Types of Blowers



Internal Blowers

- Most common type of blower is inside. Many hoods are packaged with the blower inside.
- **Pros:** Easy to buy, easy to service
- **Cons:** Louder, but you still hear the air rushing through the duct in the others.



External Blowers

- Outside blowers fit on the outside of your house.
- **Pros:** Higher CFMs available, a little quieter
- **Cons:** Harder to service



In-Line Blowers

- **Pros:** The power of outside with a quieter operation
- **Cons:** It needs to be placed where it can be fixed.



4 Hoods to Avoid





Over-the-Range Microwaves

- Loved them when they were first introduced. The design hasn't changed even with more powerful burner profiles.
- The depth of 15-16 inches with 350 CFM cannot adequately vent, especially those powerful front burners.



Slide-Out Hoods

- It should have been discontinued in the 90s as the thin glass of the slide-out has no capture area and does not extend over the burners.



Ceiling Blowers

- The directions state only “4-7 feet” for the best ventilation Yet, you see them installed on cathedral ceilings.
- You should also be worried about the lack of capture area.



Downdrafts

- Downdrafts will always top this list with no capture and a long exhaust with at least one transition.
- It's a bad idea, especially if you like to cook on the front burners.



**Island Hoods vs.
Downdraft Ranges**



**The Best Downdraft
Ranges and
Cooktops**

Bad Ventilation Ideas





Ventless Hoods

- Ventless hoods are an option with kitchens on inside walls.
- The filters will capture some grease and smoke, but **the gases will recirculate back into your home.**
- Ventless should be the last resort only.



Placing a Grill on the Inside of Your House

- You can do it but be prepared for a large hood 27 inches deep with a high-powered exhaust.



Using a Downdraft for a Professional Range

- You see this in many kitchen designs, but a vent with no capture area cannot vent a large volume of smoke, grease, and gases.



What to Do If Your Kitchen Has a Preexisting Bad Vent

1. Open a window while cooking
2. Cook on the back burners if you can
3. Use electric or induction if possible.
They throw less gas into your kitchen.



Anatomy of a Good Vent

- 24-27 inches deep
- Powerful motor
- Baffle filters
- Short duct runs

Bad Ventilation Examples



Downdrafting a Pro Range

- Emissions from a high-powered professional range cannot be vented through a two-inch aperture in a downdraft.
- The air would need to be reversed and vented through a long duct.
- Place your cooking appliances on the back wall for better venting options.
- You may want to consider centralizing your sink in the island.



Ceiling Blower Over a Pro Range

- It's installed too high to be effective in this kitchen.
- **A flat ceiling blower will never have the same capture as a good hood.**
- I understand the windows are a focal point, but a range hood will be more efficient for a 60-inch range.



Pro Range With No Hood

- It's just a bad idea to have over 100,000 BTUs of burner output and a grill without a vent.



Good Ventilation Examples









What Makes These Kitchen Designs Successful

- These beautiful kitchens all have properly designed ventilation with the appropriate CFM.
- Hoods all are deep against a wall, so they can be vented straight up or back.



How to Choose the Best Kitchen Range and Range Hood



How to Vent Your Kitchen Range

Key Takeaways

- Take venting seriously and use your vent while cooking.
- **Good CFM, deep capture area, and a short ducting run will improve the quality of the air you breathe inside your home.**
- Be wary of make-up air. It's the law in Massachusetts and good practice to follow anywhere.



Video and Podcast Series

APPLIANCE 101

Check out our video and podcast series to gain insight into the best brands, new trends, and emerging technology that will help you achieve the renovation of your dreams.



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Buying Strategies

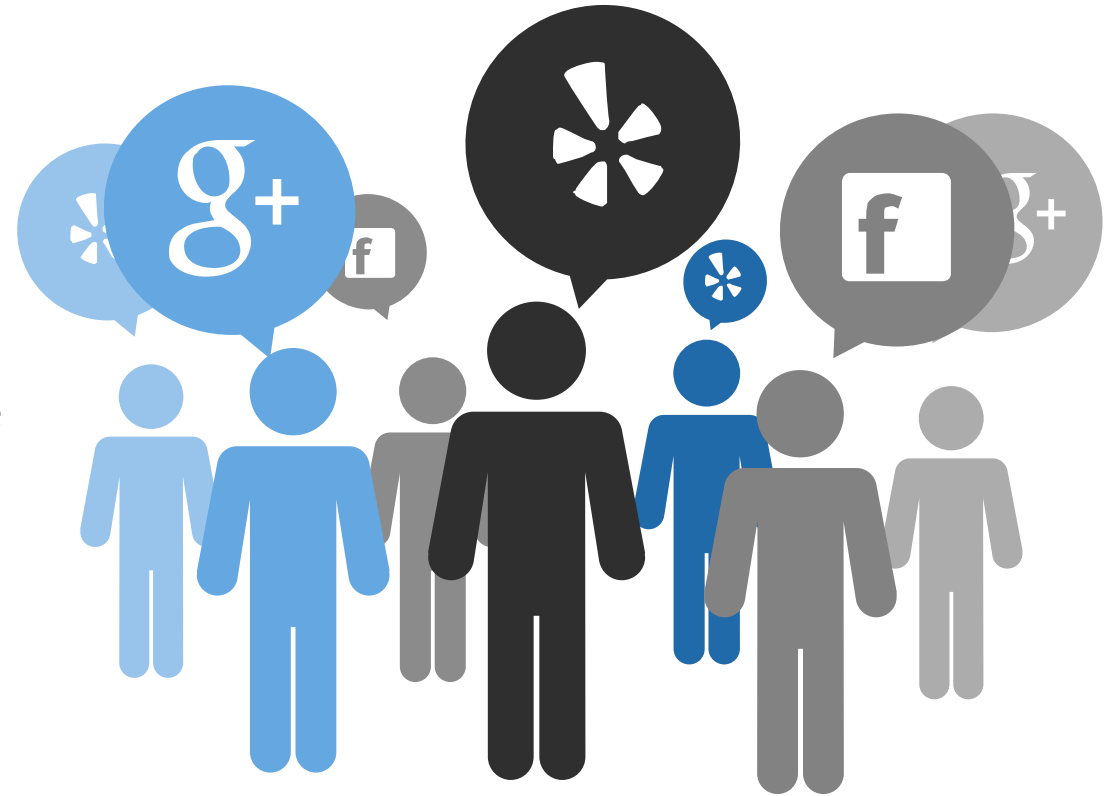
Wisdom of Crowds



Buy where you're comfortable

There are tons of stores and products, but a limited number of consumers. Check review sites like Yelp, CitySearch, Google and the Better Business Bureau before you purchase.

Remember, any store can sell an appliance; the biggest issues are shipping and service.



Exclusive Offer

Appliance Delivery Checklist



Our free checklist will help you avoid a delivery nightmare. At the end, you will know what to ask from your local, national, or box store appliance dealer.

Delivery is one of the biggest causes for your dissatisfaction. You need to be prepared.

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- Which questions to ask to spot a quality delivery team
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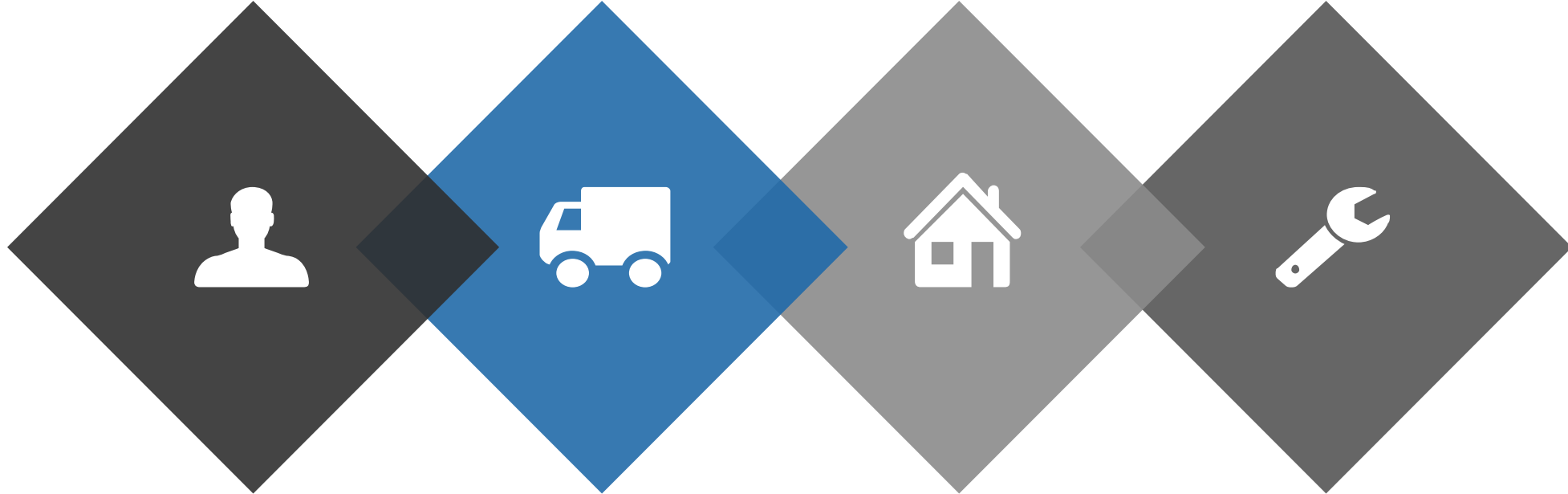


ABOUT US

- Proud to be family owned and operated since 1923.

About Us

The Yale Difference



Sales

Browse our two 15,000 sq. ft. showrooms guided by our sales staff with 269 years of combined experience

Delivery

We bring the products right into your home, not just to the curb. Every delivery includes removal of the old appliance

Install

Our professional install team can hook up your new dishwasher or re-configure your cabinets to accept a new wall oven

Service

20 service techs on the road every day backed by our Yale Warranty. Service is the largest department at Yale

Ventilation
About Us
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Yale has been based in Boston for over 90 years and operates three showrooms; in Boston, Framingham, and Hanover. We operate the largest independent service and repair department in New England with 60 people and 35 service technicians. Our sales staff has an average of 7 years experience, and our staff chef can help you learn to use your new appliances.

VISIT OUR STORES

Now you can schedule a free, private showroom visit to go over the needs of your project. Choose a time that works for your schedule to visit our Boston, Framingham, or Hanover, MA showrooms.



Schedule a Showroom
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