



ComboEase[™]
COMBINATION OVEN-STEAMER

culinary collection





Welcome to the Unified Brands Culinary Collection.

We are pleased to present the Unified Brands Culinary Collection. This collection of application information, cook times, and recipes for Groen ComboEase™ Combination Oven-Steaming will benefit all foodservice operations or service providers.

The first section of the Culinary Collection includes topics that directly affect every foodservice operation; food safety, event planning, calculation formulas, and charts to aid in determining the cost of shrinkage, cost of labor and volume sizing. The second section addresses how the ComboEase works along with offering great application ideas.

Since these collections are working documents, periodic updates will include timely application suggestions for current menu trends or food safety challenges along with recipes from Unified Brands Culinary Center or from users like you. A compilation of the Culinary Collection recipes for all Groen products; braising pans, steamers, combination Oven-Steaming, and kettles is available in PDF format in the Culinary Collection section of the Unified Brands website at unifiedbrands.net. The collection is also available on CD when requested through our literature department. Either format allows for simple printing of the new pages of interest which can be added to your Unified Brands Culinary Collection materials.

We know you'll find the Unified Brands Culinary Collection to be valuable when used in your foodservice operation!



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Are You In Compliance?

It is important to review and consider the current Food Code and safe food handling practices when integrating innovative technologies into your operation. Products such as combination Oven-Steamers can enable your operation to cook food faster and much more safely than conventional methods.

Hand-Washing: Code revisions set the minimum temperature on hand-washing stations at 100°F. The code also clarifies and strictly enforces that hands must be washed for 20 seconds and only in an easily accessible hand-washing sink in the kitchen. No hand-washing should occur in food prep or three compartment sinks. Also, the code clarifies that hands must be washed before donning gloves, and alcohol gels are not suitable for proper hand-washing. Most current commercial kitchen codes have already adopted hands free technologies. If don't have hands free yet - you might consider making that change sooner vs later.

Bare Hand Contact: There is some confusion about gloves and bare hand contact. The regulation prohibits bare hand contact, but does not dictate gloves in all instances. The regulation reads: "Except when washing fruits and vegetables, food employees may not contact exposed ready-to-eat foods with their bare hands and shall use suitable utensils such as deli tissue, spatulas, tongs, single use gloves or dispensing equipment." For example, a fry cook would not be required to wear gloves as gloves can become contaminated and lead to cross-contamination just as hands. Check with your local health department for regulations regarding bare hand contact.

Date Marking and Storage Time Limits: All potentially hazardous food prepared and held for more than 24 hours should be clearly marked to indicate the date or day by which the food shall be consumed or discarded. If the food is in a manufacturer's sealed package, the manufacturer's use-by date is sufficient. Once opened, that date must be replaced by a label with a date assigned by the kitchen. The maximum time shall be seven days if the food is kept at a temperature of 41°F or below the entire time. If food is taken in and out of the refrigerator, that time span must be shortened. You must not, however, exceed the manufacturer's use by date. It is the manufacturer's use-by date or up to seven days, whichever comes first. Day one of the seven-day period starts with the prep date of the oldest ingredient. For example, if you prepare potatoes for a salad on Sunday, but actually make the salad on Monday, day one would be Sunday.

Thermometers: Operators are required to have proper equipment to measure temperatures accurately. Calibrated bimetallic stem thermometers are good for certain applications but do not register temperatures instantly. Therefore, the use of thermocouples may be required in certain situations. Buffets, for example, must be checked at least every two hours and an instant reading thermocouple would be needed to accurately check each station. The code also requires a thin probe to measure items such as meat patties. Thin probes are available for use with certain thermocouples.

Time and Temperature Logs: Environmentalists can require time and temperature logs to be maintained. The logs simply require temperatures to be recorded at least every two hours and this record maintained on file. Buffets, barbecue operations, and other places where potentially hazardous foods are held are most likely to have this mandate. This would include foods held in the kitchen and front of the house service. Hot foods must be maintained at 135°F or above and cold foods at 41°F or lower. Even if the health department does not require that you maintain these logs, it is good practice to make sure that food temperatures are being checked and documented, and the food is being kept above 135°F or below 41°F.

NOTES:

Planning A Successful Event

1. **List All Items Needed For A Job:** Recheck that list for items you may have overlooked.
2. **Use A Contract**
3. **Get A Deposit**
4. **Keep Your Eye On Inventory:** Don't use a lot of special items that you do not use in your business.
5. **Prep Certain Foods Ahead Of Time:** i.e. make toast rounds, blanch vegetables, pack dry goods and supplies.
6. **Use Labor Wisely:** Schedule labor for the appropriate times, stagger talent to hold down overtime.
7. **Schedule Deliveries:** Make sure supplies are ordered well in advance to avoid surprises, especially special items that are hard to find.
8. **Keep The Onsite Event Prep Simple:** Eliminate as much onsite cooking as possible.
9. **Do A Site Inspection In Advance:** Determine what facilities will be used and what is available to you. Be sure to check for Ice Machines and Garbage Disposal facilities.
10. **Use Alternating Colors And Shapes:** Use contrasting colors and shapes on trays; ex. cut and roll meats, layer cheeses and arrange in alternate colors. For the finishing touch, use fresh Green Leaf Lettuce Leaves to separate layers and add height to the tray.
11. **Keep Cold Foods Cold:** Save setting cold trays and garnishes until as close to serving time as needed. Most garnishes can be prepped ahead of time and kept in resealable bags.
12. **Keep Food Trays Fresh And Supplies Well Stocked:** Prepare spare or backup trays and hold them in the cooler. Never prepare trays at the table. Have staff prepared to quickly replace as needed. Be sure to have spare meats and garnishes ready for replenishment in prep area.
13. **Rent Early:** Reserve any equipment or linens in plenty of time before the event and confirm the week before the event.
14. **Be Creative But Know Your Limits:** Do not experiment on the actual event. Practice a recipe first and make sure you and others like it before you sell it. Sometimes recipes sound better than they taste.

- 15. **Taste Before You Serve:** To make sure the food meets your standards by personally tasting all items before you serve them. Have disposable spoons available for tasting.
- 16. **Calculate Your Costs:** When calculating event prices, make sure you categorize your costs. i.e. a) food b) labor c) equipment and linen rental d) facility rental.
- 17. **Food:** Markup can be calculated several ways, 3 x food cost will give you a 33%, 4 x food cost will give you 25%. Many restaurants find a happy medium between the two (usually 28%).

Food Calculation Cart: How to determine food cost/food cost percentage

Menu Item: _____ # Servings: _____ Estimated Prep Time: _____

Ingredient:	Recipe Amount:	Price:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Total food cost for this recipe	\$ _____
Divided by the number of servings	/ _____
Subtotal of food cost per serving	= _____
Cost of seasonings per serving	\$ _____
Food cost per serving	= _____
Divided by menu price	/ _____
Food cost percentage	= _____

- 18. **Labor:** Your best estimate of how many hours it will take you and your staff to do all of the activities necessary to service your customers completely will do. This includes preparing the food, setting up the facility, working the actual party and time spent cleaning the facility after the event.

Labor Calculation Chart: The following table calculates the actual hourly cost of time for people at various income levels. The value of each of your hours, even each of your minutes, is something to bear in mind when you review your dietary record. Look at your time as money to invest. (all below values in dollars)

Salary -Year	Salary- Week	Benefits-40% Total Salary	Total Week	Value Per Hour	Value Per Minute
\$5,000	96	38	135	3	.06
\$6,000	115	46	162	4	.07
\$7,000	135	54	188	5	.08
\$8,000	154	62	215	5	.09
\$9,000	173	69	242	6	.10
\$10,000	192	77	269	7	.11
\$15,000	288	115	404	10	.17
\$20,000	385	154	538	13	.22
\$25,000	481	192	673	17	.28
\$30,000	577	231	808	20	.34
\$35,000	673	269	942	24	.39
\$40,000	769	308	1,077	27	.45
\$45,000	865	346	1,212	30	.50
\$50,000	962	385	1,346	34	.56
\$55,000	1,058	423	1,481	37	.62
\$60,000	1,154	462	1,615	40	.67

19. **Equipment And Linen Rental:** If you need any equipment, silverware, glassware, plates, bowls, etc., get firm prices on cost of rental ahead of time so it can be included in the contract.
20. **Facility Rental:** (if needed) Reserve the site well in advance and make sure it is included in the deposit section of the contract. This covers you in case of customer cancellation.
21. **Your Food Is Your Best Advertisement:** It is important, especially in the case of catering parties, that each item placed on a tray or in a display is given careful attention. All members of the party are prospective clients, they eat first with their eyes. Keep your business cards handy.
22. **Use Your Party Staff Wisely:** Assign select members of your staff to pick up plates, glasses, napkins, etc., keeping the serving area neat and tidy.

23. **When Is Case Cost Not Usable Case Cost:** When working on your food cost, keep into account what your finished cost is going to be. As an example - shrimp (31-35 count) may cost \$6 per pound. After it is thawed, cooked, and peeled, the finished weight will decrease as much as 25% or up to 1/4 lb of shrimp which makes the cost increase to \$7.50 per lb. This is a strong consideration when preparing large amounts of shrimp. Considering waste, labor savings and ease of preparation, you might consider using pre-cooked shrimp.

Conversion Exercise (Scratch vs. Cooked, Pulled and Diced Chicken Meat):

10 Lbs of cooked boneless pulled chicken meat wanted. No skin, natural proportion of light and dark meat.

25% Cook Shrink – The fat cooks away when raw chicken is cooked; therefore, allowing meat shrinkage. The water that is added to fresh chicken during processing also cooks away. A minimum of 25% is lost.

+ 30% Bone Weight – 30% of the chicken’s weight is bone.

+ 15% Skin Weight – 15% of the chicken’s weight is skin.

+ 5% Unusable Carcass Meat – This accounts for any meat left on the carcass that is unusable for pulled or diced chicken meat.

= 75% Total Loss – There is only 25% usable meat on a raw bird.

1. Cost per pound _____ x 40 pounds _____
(to yield 10 lbs, 40 is needed)

2. Labor rate per hour _____ x 1.3 hours _____
(based on 30 lbs/hour, an industry average)

3. Credit for fat and broth @ \$.30 per pound x 10 pounds _____
(current value approx. \$.30 per pound)
(when cooking chicken, 25% broth and fat are created)

For 10 lbs of pulled chicken,
meat prepared from scratch _____

For 10 lbs of pulled chicken,
meat prepared from frozen _____

Cooking Yield Of Raw Whole Turkey: Are you buying turkey the most economical way? Here are some facts that may surprise you (figures based on averages taken from independent tests on 20 lb turkeys).

Cost/Lb Raw Turkey	Cost of Servable Cooked Meat/Lb From Raw Turkey
.70	2.07
.72	2.13
.74	2.19
.76	2.25
.78	2.31
.80	2.37
.82	2.43
.84	2.49

In the left column find the price you most recently paid for your raw turkey. Compare that price with the price in the column at the right and you will see how much you actually paid per lb for the servable meat. Surprised? The difference between the price paid and the cost of the usable meat is made up from a combination of water loss, cooking loss, carcass, bones and unservable scrap. Only 33.8% of a frozen raw bird is available for serving. Usable cooked meat – 20.6% white, 13.2% dark, 33.8% total. Unusable part of bird – 5.2% giblets, 3.4% water on thawing, 27.1% cooking loss, 30.5% carcass and bones.

- 24. Avoid Confusion:** To eliminate as much miscommunication as possible between you and the customer, design a function sheet and contract. Have the customer sign the contract and share a copy with them. Changes can be made, just note them on the form and initial it. Don't leave anything to question.

This form should include:

- Customer name
- Name of function
- Person responsible for payment
- Number of guests expected
- Date and time (beginning and ending)
- Location
- Items and amounts to be served
- Equipment, smallwares and linens needed
- Labor needed (servers, carvers, bussers, bartenders, etc)
- Labor hours contracted (ending time for party is important for this)
- Party decor and person(s) responsible
- Cost of party
- Deposit required

25. **Plan Your Work:** Assemble your staff in advance and discuss an unpriced copy of the function sheet. This is your opportunity to assign duties, describe the party theme, and create an expectation of performance. Distribute a checklist to each department.
26. **Use An Inventory List:** Before the party have an inventory list of all items to be used (equipment, smallwares and linens). After the party, use this list to clean and repack to avoid loss. Catering equipment and linens can be expensive, loss could cost you the profits from your event.
27. **Confirm A Job Well Done:** Follow up with your customer a couple of days after the party to make sure they are satisfied and get their permission to use them as a reference for future business.
28. **Employee Feedback:** Encourage employees to give feedback on both good and not so good aspects of the process. Always work to improve yourself and your business, it pays big dividends.

ComboEase Combination Oven-Steamers

Is it an oven? Is it a steamer? It's both, and then some.

Features:

- Oven, steamer and combination cooking modes.
- Solid-state operating controls with digital time and temperature readout.
- Faster heat-up, faster cook times.
- Temperature control accurate to $\pm 2^{\circ}\text{F}$.
- Glass door lets you see what you're cooking.
- Easy repeat (previous cook setting) feature.
- Automatic cleaning from touch pad.
- Easy access to Triple Reservoir steam generator for cleaning.**
- Self-diagnostic service trouble-shooting.
- 200°F - 450°F operating temperature range in all oven modes except high combi.
- 200°F - 350°F operating temperature range in high combi.

ComboEase Combination Oven-Steamers From A Chef's Perspective

by Chef Michael Williams

Some time ago, I visited the kitchen of a restaurant that had recently been acquired by a new owner. While reviewing the equipment I inspected a virtually spotless Combination Oven. I remarked how fortunate they were to have a Combination Oven. To this the head cook replied "Oh yes, we love our steamer." Sadly this response didn't surprise me. During his tenure, the original "Chef" had only taken the time to show the staff how to run the steam cycle. He had never shared all of the great things that this wonderful piece of equipment would do.

Combination Ovens are wonderful steamers because of the even heat transfer properties provided by the convection fan, which circulates the steam. However, these ovens are best used for humidity balanced convection cooking and can be used for dry convection cooking as well. To many of you, this is about as confusing as ordering coffee at a Starbuck's for the first time, but I assure you that the concepts are simple. In this article I will try to unravel the cooking mystery and then let your sales representative explain how to use all of the great cooking features of the ComboEase.

For purposes of conversation let's break cooking in an oven into two categories, conventional (passive) and convection (active). In either category the goal is to transfer heat from the air into the item being cooked.

In a traditional oven, heat is referred to as passive because it doesn't do any extra work to accomplish heat transfer. In this application heat is applied in large amounts and penetrates the product by shear mass. This method is slow and inefficient but is still widely used.

In a convection oven air is circulated by a fan. This air carries heat across the surface of the item being cooked, disrupts the vapor barrier and heat energy is transferred to the product evenly. However, because dry air is circulated across the surface of the product, moisture is evaporated very quickly. Most products can become dry and brown too quickly.

So the challenge is how to cook foods quickly and brown evenly while keeping the finished product moist and flavorful. These issues are addressed by the ComboEase Combination Oven-Steamer. This oven combines the properties of a steamer with the benefits of a convection oven to make an extremely versatile cooking machine.

The basic elements of cooking in a combination oven are heat and heat transfer, product mass, humidity, air circulation, and time. You will see that these elements are pretty much the same in any cooking application. Everything works together to disturb the products' vapor barrier and transfer heat effectively.

So what is the vapor barrier? The vapor barrier is a naturally occurring insulating phenomenon. This barrier is a thin coating of air that insulates against subtle changes in the atmosphere. You have it, I have it and so does a pot roast. Convection cooking uses a fan to move air in the cooking cavity and disrupt the vapor barrier allowing the heat to transfer more efficiently and evenly to the item being cooked. A personal example of this is most evident on a very chilly morning; you strike out for the newspaper without a coat. You make it half way down the driveway and that gust of wind flows by. You now understand how convection airflow disturbs your personal vapor barrier. It is no different with the pot roast in a hot convection oven, moving hot air transfers heat more efficiently than static air. Only in the example, you lost heat and the pot roast gained heat.

Heat is the energy generated by a heat source, such as gas flame or electric elements. This heat energy is then transferred through the air to the product mass. A basic principle of heat is that it is fairly anti-social--- it always tries to go to the place where there is no heat. Remember being stranded in the driveway? Cold is loosely defined as small amounts of heat energy relative to the product mass. The more heat that you add to the air, the more is transferred to the product.

Mass refers to the density of the product that you are cooking. From rice to cake, chickens to pork roast or even frozen vegetables, each item accepts heat in its own unique way. In conventional ovens you will see hot spots or uneven cooking. How many times have you participated in the oven assistance program by adding a pan of water to the bottom rack, rotating the roast during the cooking cycle, or trying to attach leveling strips to a cake pan? Well, it's all about mass and how it is distributed in the product you are heating. Different parts of the mass accept heat energy at a different rate.

Humidity is something that most of us understand. Heat is generally more intense as the humidity increases. When it is hot, a person typically sweats. In dry conditions this sweat evaporates and heat is transferred away from the skin providing a cooling effect and very dry skin. When the humidity increases, the sweat is less likely to evaporate providing very little relief via evaporation. When a hot wind blows it only serves to make the heat more intense. The only method of aiding evaporation is provided by a cool breeze, or the gale force arctic wind created when running the air conditioner. The oven cavity has its own mini atmosphere; it has a balance of humidity and works to maintain that balance. When the air is dry, it will work to draw moisture from any place that it can--like your roast. When steam is introduced and the air is humid, the atmosphere is balanced. Moisture will stay in the product being cooked, which provides a higher product yield.

It is said that time waits for no one and this is especially true in foodservice. It seems that a large part of our efforts are spent trying to save time. Because of the cooking properties of combination cooking, significant time is saved in the cooking process and greater equipment versatility is available.

Combination Ovens use the cooking elements we have discussed to provide a moist, evenly heated and browned item. How this is achieved is different in all applications. An operator can choose the steam mode for 10 minutes, then the combination mode for 40 more minutes, then finish the browning process with 10 minutes in the CrispEase mode. At the end of the 60-minute cooking period, a moist, tender and perfectly browned product is produced.

So if you are using that combination oven as a steamer only, you're missing out. Give the ComboEase Oven-Steamer oven a test drive in Overdrive! You will save time, money and need a napkin when you test that great food.

NOTES:

ComboEase Combination Oven-Steamers Manual

The quantities, cook times and temperatures provided in this booklet are based on performance of a ComboEase Combination Oven-Steamer. It is important to note that the cook times and temperatures provided are based on controlled testing. Your actual cook times and temperatures may change based on the following variables:

Portion size

Cut

Recipe

Manufactured product differences

CrispEase function for crisping/browning

Load or batch size

Beginning temperature of product (i.e. frozen, fresh, thawed)

Required internal temperatures

Desired doneness, browning, etc.

Please take into consideration how each of these factors might cause the cook time to vary for your specific items. All cook times, unless otherwise stated are in “Combo” mode of the ComboEase Combination Oven-Steamer.

Using This Guide: The most important thing to remember is that cook times will be reduced anywhere from 15% to 50% compared to convection and conventional ovens respectively.

This section gives general guidelines for cooking particular types of product using the CrispEase function. We strongly suggest these be read prior to using the charts as variations are always a possibility.

Temperature: With a ComboEase Combination Oven-Steamer it is possible to lower usual cooking temperatures by 25 to 50°F. In many cases this will give you higher yields and a more tender product.

CrispEase Function: Use the CrispEase function to promote crisping and browning by removing moisture from the cavity during the cooking process.

Rethermalization (Reheating): Each portion category in the charts has a reheat time for items that have already been cooked but need to be reheated or rethermalized.

The charts give cook times and temperatures for commonly cooked foods in common batch and portion sizes. Here is how the numbers were determined:

One Portion =

- x one each
- x one sizzle platter portion
- x a 1/2 hotel pan
- x a 1/2 sheet pan

One Pan =

- x a full 18"x26" sheet pan
- x a full 12"x20"x2 1/2" steamer pan

Full Oven* =

- x 5 full 18"x26" sheet pans
- x 8 full 12"x20"x2 1/2" steamer pans

* Depending on the actual size and height of your product and the number of racks available in your particular ComboEase Combination Oven-Steamer, capacity may vary.

NOTES:

Beef

Roasts and Large Cuts: Lower temperatures provide more uniformity in doneness and more retained moisture — thus higher yields. Even at the lower temperatures, you should find cook times significantly reduced (20%-30% on average!) from conventional oven times.

To “sear” a roast and hold in the juices for the entire cooking time, start at 375-400°F for the first 20 minutes and then reduce to the desired temperature.

Steaks and Individual Beef Items: High temperatures and short cook times work best when preparing single portion beef items.

Grill marks can be achieved by placing a rack on top of a sheet pan and preheating both in the oven for 10 minutes before placing the steak on it. The rack will also provide more even circulation and browning of each steak.

Doneness Temperatures: With a meat thermometer you can check doneness using the following guidelines for beef.

Rare 120-135°F

Medium Rare 130-140°F

Medium 140-150°F

Medium Well 150-160°F

Well Done 160-170°F

About the Beef Cook Time Chart: The Beef Cook Time Chart contains cook times and temperatures for the most popular beef cuts and sizes. All information can be adapted accordingly, to meet your specific needs. When cooking beef in the Combo Mode, these general guidelines will assist you in planning your cook times, temperatures and procedures. Add your own tested cook times and temperatures to the bottom of the chart.

MENU ITEM	MODE	TEMP (°F)	FAN SPEED	INITIAL MODE	CRISPEASE	TOTAL COOK TIME	PANS	WEIGHT/PIECES
BEEF ROASTS								
Prime Rib Roast	low	325	high	1 hr 40 min	40 min	2 hrs 20 min	3 sheet pans with racks	6-23 lbs
Tenderloin	low	375	high	15 min	10 min	25 min	3 sheet pans with racks	16-2 lbs, 4 oz
Tri Tip	low	225	high	10 min	20 min	30 min	3 sheet pans with racks	40 lbs
Beef Top Round	low	275	high	2 hrs 30 min	30 min	3 hrs	3 sheet pans with racks	6-11 lbs
STEAKS								
Filet, 4.5 oz	low	450	high	2 min	7 min	9 min	3 sheet pans with racks	96 ea
Filet, 9 oz	low	450	high	2 min	10 min	12 min	3 sheet pans with racks	96 ea
Porterhouse, 12 oz	low	450	high	2 min	6 min	8 min	3 sheet pans with racks	36 ea
Sirloin, 10 oz	low	450	high	2 min	5 min	9 min	3 sheet pans with racks	48 ea
OTHER								
Corned Beef, 3.2 lbs	high	275	low	1 hr 30 min	30 min	2 hrs	3 sheet pans with racks	16 lbs
Kabobs	low	450	high	10 min	5 min	15 min	5 sheet pans with racks	30 lbs
Patties Fresh, 4 oz	low	400	high	2 min	6 min	8 min	5 sheet pans with racks	30 lbs
Patties Fresh, 8 oz	low	400	high	4 min	10 min	15 min	3 sheet pans with racks	40 lbs
Patties Frozen, 4 oz	low	400	high	4 min	6 min	10 min	3 sheet pans with racks	30 lbs
Ribs, 3 lbs	high	375	low	50 min	20 min	1 hr 10 min	3 sheet pans with racks	6 racks

Pork, Lamb & Veal

About Pork: Gone are the days of tough and dry. The times for cooking fresh uncured pork in the chart reflect a finished product which has a tint of pink in the middle, but has attained an internal temperature of 160-165°F. Cured cuts like ham can be reheated to 140+°F.

Ribs: The ComboEase Combination Oven-Steamer is the best way to cook ribs. Never again will you need to par boil. Fresh ribs can be put directly into the oven at a low temperature and taken out a few minutes early, sauced and replaced until they are browned and falling off the bone. Best of all, you will cut the cook time down by at least 30%.

Lamb: Being a red meat, cook times and temperatures for lamb are generally similar to those of beef. The variables for lamb are portion size, fat, bone mass and desired doneness. Most people now agree that lamb is at its best when cooked medium to medium rare (130-150°F). Remember, cook times in a ComboEase Combination Oven-Steamer for this type of meat are also reduced by roughly 30%.

Veal: As one of the more delicate of meats, veal has a tendency to become easily overcooked and dry when cooked with conventional heat sources. The ComboEase Combination Oven-Steamer yields a product which is juicy and tender, due to the use of moist heat. Again, as Veal cooks more quickly in the ComboEase, it is best to start by reducing your cook time by approximately 25-30%, depending on size, cut and desired doneness.

About the Pork, Lamb and Veal Cook Times Chart: The chart contains cook times and temperatures for the basic cuts of pork, lamb and veal. The ComboEase Combination Oven-Steamer is a great method of cooking these meats as it retains the moisture of the meat while cutting down on cook times and exposure to dry heat. The information contained on the following cook times chart is meant to assist you in developing cook times that work for your specific needs. Remember that these times will be dependent on portion size, production quantity, marbling and bone mass, as well as your specific desired degree of doneness. Add your own tested cook times and temperatures to the bottom of the chart.

MENU ITEM	MODE	TEMP °F	FAN SPEED	INITIAL MODE	CRISPEASE	TOTAL COOK TIME	PANS	WEIGHT/PIECES
PORK CHOPS / HAM / LOIN								
Chops, 5 oz	low	350	high	5 min	10 min	15 min	5 sheet pans with racks	10 doz
Chops, 7 oz	low	350	high	10 min	20 min	30 min	5 sheet pans with racks	140
Ham, 12 lbs	high	300	low	1 hr 30 min	30 min	2 hrs	3 sheet pans with racks	6 ea
BONELESS/PROCESSED								
Loin, 5 lbs	high	275	low	25 min	15 min	40 min	3 sheet pans with racks	9 ea
RIBS*								
Baby Back	high	275	low	25 min	10 min	35 min	3 sheet pans with racks	30 racks
Pork Rack, 3 lbs	high	275	low	30 min	15 min	45 min	3 sheet pans with racks	15 racks
Pork Roast, 5 lbs	high	275	low	1 hr 30 min	30 min	2 hrs	6 hotel pans with racks	6-5 to 10 lbs
LAMB**								
Chops, 4 oz	low	450	high	5 min	7 min	12 min	5 sheet pans with racks	120 ea
Chops, 8 oz	low	450	high	8 min	10 min	18 min	5 sheet pans with racks	120 ea
Loin, 8 oz	low	450	high	2 min	10 min	12 min	6 hotel pans with racks	96 ea
Rack, 10 - 12 oz	low	450	high	10 min	8 min	18 min	3 sheet pans with racks	72 ea
Roast, 5 lbs	low	275	high	1 hr 30 min	30 min	2 hr	3 sheet pans with racks	12 ea
VEAL								
Chops, 4 oz	low	450	high	3 min	7 min	10 min	5 sheet pans with racks	120 ea
Loin, 3 lbs	low	350	high	20 min	5 min	25 min	3 sheet pans with racks	24 ea
Roast, 7 lbs	low	275	high	1 hr 40 min	20 min	2 hrs	3 sheet pans with racks	9 ea
Patties	low	350	high	6 min	5 min	11 min	5 sheet pans with racks	120 ea

* Cook ribs for 30 minutes at 275°F remove from oven and apply sauce of choice. Increase temperature to 350°F and finish cooking for balance of recommended time (10 to 15 minutes).

** All times are to cook lamb to medium rare or a temperature of approximately 140-150°F.

Poultry

Chicken: Chicken loves the ComboEase Combination Oven-Steamer and so will you. Not only will you reduce your cook time (by as much as 40%!) — you will retain all the moisture that keeps chicken looking and tasting tender and delicious even at a safe internal temperature of 175°F. Because you have retained all that moisture, your yield should be at least 20% higher than cooking the same bird in a straight conventional or convection oven.

For rotisserie style roasted chicken, dredge your birds in a herb, flour and paprika mixture prior to cooking. Use a wire rack, a vertical roasting rack, or the new Groen Rotisserie Chicken rack to raise the chicken off the bottom of the pan — then follow the cook times provided. You will have plump, juicy, great tasting roasted chicken in a fraction of the time.

Turkey: Turkey enjoys the same benefits in Combo Mode as chicken, but does require more time in the oven, especially when stuffed. It is important to remember that cook time increases when the bird is stuffed and that a desired internal white meat temperature of 170-175°F and dark meat temperature of 180-185°F (between the thigh and leg joint is the best place to check) must be attained, to meet food safety standards. As with chicken, there will be a reduction in cook time when compared to conventional oven preparation.

Duck: By scoring the skin and cooking at a higher temperature for the first half to three-quarters of the total cook time, renders the fat, leaving the skin crispy and the meat tender and juicy. Be sure to cook on a rack placed over a sheet pan to collect dripping fat.

Reheating: The ComboEase Combination Oven-Steamer is the best way to reheat poultry without losing the moisture essential to the tenderness of the product. If unstuffed, most poultry will reheat in a very short time. See the chart for specifics.

About The Cook Times Chart: The Poultry chart contains cook times and temperatures for the most popular types of chicken, duck and turkey. All the information can be adapted to meet your specific needs when cooking poultry in the Groen ComboEase Combination Oven-Steamer. The following general guidelines will assist you in planning your specific cook times, temperatures and procedures. Add your own tested cook times and temperatures at the bottom of the chart.

MENU ITEM	MODE	TEMP °F	FAN SPEED	INITIAL MODE	CRISPEASE	TOTAL COOK TIME	PANS	WEIGHT/PIECES
PREPARED CHICKEN*								
Beaded, Stuffed	high	400	low	15 min	5 min	20 min	5 sheet pans with racks	120 ea
Breasts, Boneless	low	400	high	5 min	15 min	20 min	5 sheet pans with racks	60 ea
Filets, Breaded	low	400	high	2 min	10 min	12 min	5 baskets	120 ea
Fried, 1/8 cut	low	350	high	20 min	10 min	30 min	5 baskets	60 ea
Frozen Patties	low	350	high	2 min	10 min	12 min	5 baskets	60 ea
Nuggets	low	350	high	2 min	8 min	10 min	5 baskets	320 ea
OVEN ROASTED CHICKEN								
1/2's	low	385	high	20 min	10 min	30 min	3 sheet pans with racks	24 ea
1/4's	low	385	high	12 min	10 min	22 min	3 sheet pans with racks	48 ea
1/8's	low	385	high	10 min	7 min	17 min	3 sheet pans with racks	54 ea
Roast, 2.5 - 3 lbs	low	385	high	20 min	15 min	35 min	3 sheet pans with racks	30 lbs
Roast, 6 lbs	low	385	high	30 min	15 min	45 min	32 sheet pans with racks	30 lbs
Wings	low	385	high	8 min	10 min	18 min	5 sheet pans with racks	45 lbs
DUCK**								
Whole Roast	high	375	low	50 min	10 min	1 hr	3 sheet pans with racks	(24) 5 lbs
Pre-cooked	high	350	low	8 min	10 min	18 min	3 sheet pans with racks	24 ea
TURKEY BREAST								
Bone-in, Fresh	high	350	low	50 min	20 min	1 hr 10 min	6 hotel pans with racks	(6.5) 12 lbs
Process Breast	high	300	low	1 hr 40 min	20 min	2 hrs	4 hotel pans with racks	(8-10) 12 lb
WHOLE TURKEY								
Stuffed	high	325	low	1 hr 30 min	20 min	1 hr 50 min	4 hotel pans with racks	(4) 12 lbs
Not Stuffed	high	350	low	1 hr	20 min	1 hr 20 min	4 hotel pans with racks	(4) 12 lbs
Stuffed	high	325	low	2 hr	20 min	2 hrs 20 min	4 hotel pans with racks	(4) 16 lbs
Not Stuffed	high	275	low	1 hr	20 min	1 hr 20 min	4 hotel pans with racks	(4) 16 lbs

* For crispy breaded and fried items, use fry basket.

** When cooking duck, first score the skin to allow fat to render while cooking. Cook ducks on a rack atop a sheet pan for 30 minutes at 375* F and the remaining time listed at 325°F, to ensure fully cooked yet crispy duck.

Seafood

Fish Steaks and Filets: Seafood is the most sensitive to cook times and temperature, and we urge you to experiment with a variety of species to familiarize yourself with the speed and results of cooking in Combo Mode. The cook times and temperatures in the Seafood chart reflect slightly underdone variations, so remember to allow for carry over cook time.

Lobster: Both tails and whole lobsters can be cooked with ease in the Combo Mode with times varying based on weight. Cooking lobsters in Combo Mode eliminates the need to switch over to steam mode while cooking other food simultaneously. As always, both tails and whole lobsters can be cooked in steam mode if desired.

Shrimp and Scallops: When cooking both items, we suggest a single layer in each pan to ensure quick and even cooking. Shrimp with shells will require additional time. Both can be cooked in Steam Mode if desired. The seafood chart provides Steam Mode cook times.

Prepared Seafood: We suggest using a higher temperature than recommended for most prepared items to provide crisp breading and more even browning.

Reheating: In general, we do not suggest reheating or holding fish or shellfish. They are delicate meats and are best served soon after initial cooking.

About the Seafood Cook Times Chart: The Seafood cook times chart for fish, shellfish, and prepared seafood items represents a cross section of items in each category. These times are meant as guidelines to assist in the planning and preparation of your specific items. Seafood fluctuates greatly as to cut, thickness, size and style of preparation, so you may want to revise these guidelines as necessary to meet your specific menu and cooking style.

When cooking seafood in the Combo Mode, you will find reduced cook times and enhanced quality due to the increase of moisture in this preparation mode. Combo Mode combines the tenderness of steam cooking, with the taste and appearance of broiling. Add your own tested cook times and temperatures at the bottom of the chart.

MENU ITEM	MODE	TEMP °F	FAN SPEED	INITIAL MODE	CRISPEASE	TOTAL COOK TIME	PANS	WEIGHT/PIECES
FISH								
Filet Fish,* 2 lbs	high	350	low	8 min	2 min	10 min	3 sheet pans with racks	36 ea
Salmon Filets, 2 lbs	high	350	low	8 min	2 min	10 min	3 sheet pans with racks	36 ea
Salmon Whole Side	high	350	low	9 min	2 min	11 min	3 sheet pans with racks	15 ea
Steak Fish*	high	350	low	8 min	2 min	10 min	5 sheet pans with racks	120
Stuffed Fish	high	350	low	8 min	2 min	10 min	5 sheet pans with racks	96
SHELLFISH								
Crab Legs	high	350	low	7 min	0	7 min	5 perforated sheet pans	20 lbs
Escargot	high	350	low	2 min	6 min	8 min	6 solid hotel pans with ramekins	120 portions
LOBSTER								
Fresh/Thawed Tail	high	225	low	8 min	2 min	10 min	5 perforated sheet pans	60 ea
Whole Live	high	225	low	16 min	2 min	18 min	5 perforated sheet pans	20 ea
Scallops	high	350	low	8 min	2 min	10 min	10 perforated hotel pans	25 lbs
SHRIMP								
Baby	high	350	low	5 min	-	5 min	10 perforated hotel pans	24 lbs
31-40's	high	350	low	6 min	-	6 min	10 perforated hotel pans	24 lbs
Jumbo	high	350	low	8 min	-	8 min	10 perforated hotel pans	24 lbs
PREPARED SEAFOOD								
Fish Patties, 2 oz	low	425	high	2 min	8 min	10 min	5 baskets	120 patties
Fish Sticks/Nuggets	low	425	high	2 min	8 min	10 min	5 baskets	320 ea
Stuffed Clams, 3 oz	low	425	high	3 min	7 min	10 min	5 sheet pans	300
Casino Style	low	425	high	2 min	6 min	8 min	5 sheet pans	10 doz
Crab Cakes	low	400	high	4 min	6 min	10 min	5 sheet pans	15 doz

* Steak fish includes Tuna, Halibut, and Swordfish. Fillet fish includes Roughy, Scrod, Sole, Snapper, Flounder, and Grouper.

TIP: Cook 10 minutes per 1 inch of thickness.

Starches

Pasta and Rice: Cook times are very dependent on the grain type or pasta shape and size.

When cooking rice, adhere to the basic 2 to 1 ratio for water to rice. For specialty rice or seasoned blends, adhere to the manufacturers' ratios. It is important to stir the rice occasionally during cook times to allow even cooking and distribution of moisture.

When cooking pasta, it is also important to stir occasionally and to make sure the pasta is adequately covered with water.

Both rice and pasta can be cooked in the Steam Mode with cook times being similar to the Combo Mode times listed on the chart.

About the Starch Cook Times Chart: All cook times are given for the Combo Mode. The advantage of cooking in the Combo Mode is you eliminate the need to switch to the Steam Mode when cooking other products simultaneously. With few exceptions, you will find little or no difference in results between Combo Mode and Steam Mode preparation. Add your own tested cook times and temperatures at the bottom of the chart.

MENU ITEM	MODE	TEMP °F	FAN SPEED	INITIAL MODE	CRISPEASE	TOTAL COOK TIME	PANS	WEIGHT/PIECES
PASTA, DRY*								
Egg Noodles	high	235	low	12 min	-	12 min	10 solid hotel pans	20 lbs
Fettuccine	high	235	low	12 min	-	12 min	10 solid hotel pans	20 lbs
Macaroni	high	235	low	12 min	-	12 min	10 solid hotel pans	20 lbs
Tortellini	high	235	low	12 min	-	12 min	10 solid hotel pans	20 lbs
PASTA, FRESH								
Fettuccine	high	235	low	4 min	-	4 min	10 solid hotel pans	20 lbs
Tortellini	high	235	low	4 min	-	4 min	10 solid hotel pans	20 lbs
RICE**								
Regular Long Grain	high	235	low	30 min	-	30 min	10 solid hotel pans	320 servings
Pilaf	high	235	low	30 min	-	30 min	10 solid hotel pans	320 servings
Brown	high	235	low	30 min	-	30 min	10 solid hotel pans	320 servings
OVEN FRIES								
3/8 Cut	low	425	high	2 min	10 min	12 min	5 baskets	15 lbs (5 pns)
BAKED								
Baby Red	high	350	low	30 min	5 min	35 min	10 perforated hotel pans	50 lbs
Baked, 70 ct	high	350	low	40 min	20 min	1 hr	5 sheet pans	100 lbs
Baked, 100 ct	high	350	low	30 min	10 min	40 min	5 sheet pans	75 lbs
PREPARED								
Au Gratin	high	325	low	30 min	5 min	35 min	10 hotel pans	320 servings
Mashed	high	325	low	20 min	5 min	25 min	10 hotel pans	320 servings
Pancakes	low	500	high	20 min	5 min	25 min	5 sheet pans	120 servings
Roasted New	high	385	low	30 min	10 min	40 min	10 solid hotel pans	240 servings
Skins	low	350	high	2 min	10 min	12 min	5 sheet pans	240 ea
Twice Baked	low	350	high	3 min	14 min	17 min	5 sheet pans	160 ea

* Cover with water and add salt. When reheating rice and pasta, spray with water and cover before reheating.

** One part rice to 1-2 cups liquid depending on desired finished product.

Vegetables

Fresh Vegetables: For best results in all cases, use a perforated pan placed in an equal size non-perforated pan, with $\frac{1}{4}$ to $\frac{1}{2}$ -inch of water in bottom of the pan. For some vegetables with longer cook times, full immersion in water or covering may be necessary. Do not over fill pans with product.

Frozen Vegetables: For fastest cook times, we suggest rinsing the vegetables or breaking up blocks of ice particles to ensure uniformity of cook times. It is important to not over fill pans with product.

About the Vegetable Cook Times Chart: All cook times are in the Combo Mode. The advantage of cooking in the Combo Mode is you eliminate the need to switch to the Steam Mode when cooking other products simultaneously. With few exceptions, you will find little or no difference in results between Combo Mode and Steam Mode. Add your own tested cook times and temperatures at the bottom of the chart.

MENU ITEM	MODE	TEMP °F	FAN SPEED	INITIAL MODE	CRISPEASE	TOTAL COOK TIME	PANS	WEIGHT/PIECES
FRESH VEGETABLES*								
Asparagus	high	235	low	10 min	-	10 min	10 perforated hotel pans	40 lbs
Broccoli Florets	high	235	low	12 min	-	12 min	10 perforated hotel pans	32 lbs
Carrots, Baby	high	235	low	12 min	-	12 min	10 perforated hotel pans	48 lbs
Cauliflower	high	235	low	12 min	-	12 min	10 perforated hotel pans	32 lbs
Corn, Cobs	high	235	low	18 min	-	18 min	10 perforated hotel pans	96 lbs
Green Beans, Whole	high	235	low	9 min	-	9 min	10 perforated hotel pans	24 lbs
Medley, Sliced and Florets	high	235	low	10 min	-	10 min	10 perforated hotel pans	32 lbs
Spinach	high	235	low	7 min	-	7 min	10 perforated hotel pans	12 lbs
Squash Winter	high	235	low	8 min	-	8 min	10 perforated hotel pans	48 lbs
Stir Frying Blend	high	235	low	6 min	-	6 min	10 perforated hotel pans	40 lbs
Summer Squash	high	235	low	20 min	-	20 min	10 perforated hotel pans	40 lbs
Turnips, Mashed	high	235	low	12 min	-	12 min	10 perforated hotel pans	48 lbs

* Always use perforated pans.

TIP: Collect drippings from pans as a starter for vegetable stock.

MENU ITEM	MODE	TEMP °F	FAN SPEED	INITIAL MODE	CRISPEASE	TOTAL COOK TIME	PANS	WEIGHT/PIECES
FROZEN VEGETABLES*								
Broccoli, Florets	high	235	low	12 min	-	12 min	10 perforated hotel pans	48 lbs
Carrots, Sliced	high	235	low	12 min	-	12 min	10 perforated hotel pans	48 lbs
Cauliflower, Florets	high	235	low	14 min	-	14 min	10 perforated hotel pans	48 lbs
Corn, Cob	high	235	low	10 min	-	10 min	10 perforated hotel pans	96 ea
Corn, Whole Kernal	high	235	low	10 min	-	10 min	10 perforated hotel pans	32 lbs
Green Beans	high	235	low	10 min	-	10 min	10 perforated hotel pans	40 lbs
Mixed Vegetables	high	235	low	12 min	-	12 min	10 perforated hotel pans	48 lbs
Peas	high	235	low	10 min	-	10 min	10 perforated hotel pans	40 lbs
Spinach, Chopped or Whole	high	235	low	12 min	-	12 min	10 perforated hotel pans	32 lbs
Winter Squash	high	235	low	10 min	-	10 min	10 perforated hotel pans	32 lbs
Turnips, Mashed	high	235	low	40 min	-	40 min	10 perforated hotel pans	48 lbs
Zucchini, Sliced	high	235	low	10 min	-	10 min	10 perforated hotel pans	32 lbs

* Always use perforated pans.

Baked Goods & Desserts

From Puff Pastry To Pies, Most Of The Same Rules Apply:

- Cook times will usually be reduced from your regular recipe or package instructions by at least 1/3.
- In some cases, such as cakes or quick breads, it is necessary to reduce temperatures to allow for internal cooking with out excess browning.
- Many items calling for a water bath in the oven thrive in the Combo Mode. With products such as cheesecake or soufflé, the water bath is not necessary.
- Items such as fruit filled pies, cobblers, and turnovers will have varied cook times depending on the fillings used.

About the Baked Goods Cook Times Chart: You will find a wide variety of baked goods and desserts contained in the chart. All the information can be adapted to meet your needs. The most significant difference to be found in using the Groen ComboEase Combination Oven-Steamer over a conventional oven is the addition of steam in the cavity while preparing your baked goods. This addition brings cook times down and allows baked goods and desserts to stay moist and tender while still allowing for desired browning. Add your own tested cook times and temperatures at the bottom of the chart.

MENU ITEM	MODE	TEMP °F	FAN SPEED	INITIAL MODE	CRISPEASE	TOTAL COOK TIME	PANS	WEIGHT/PIECES
BAKED GOODS								
Biscuits	low	400	high	16 min	2 min	18 min	5 solid sheet pans	10 doz
Bread Pudding	low	325	high	1 hr 15 min	15 min	1 hr 30 min	10 solid hotel pans	8 hotel pans
CAKE								
2" Cake	low	350	high	30 min	5 min	35 min	5 solid sheet pans	8 hotel pans
Sheet Cake	low	350	high	18 min	-	18 min	5 solid sheet pans	5 sheets
Upside Down Cake	low	350	high	30 min	-	30 min	10 solid hotel pans	(20) 9"
Cheesecake	low	325	high	50 min	-	30-50 min	5 solid sheet pans	(20) 9"
Cinnamon Rolls	low	375	high	12 min	2 min	12 min	5 solid sheet pans	20 doz
Cobbler	low	375	high	28 min	2 min	30 min	10 solid hotel pans	320 portions
Cookies	low	350	high	2 min	12 min	14 min	5 solid sheet pans	15 doz
Crepe Caramel*	high	300	low	30 min	-	30 min	5 perforated sheet pans	96 ramekins
Basic Muffins**	low	325	high	12 min	2 min	14 min	5 full sized sheet muffin pans	12 doz
Dense Muffins***	low	325	high	16 min	2 min	18 min	5 full sized sheet muffin pans	12 doz
Bagels, Frozen	low	400	high	4 min	2 min	6 min	5 perforated sheet pans	10 doz
Bagels, Boiled ¹	low	350	high	10 min	2 min	12 min	5 perforated sheet pans	10 doz
Bagels, Refrigerated	low	425	high	9 min	-	9 min	5 perforated sheet pans	10 doz

* In water bath individual 3-4 oz servings

** Basic muffins include plain, blueberry, lemon, etc

*** Dense muffins include bran, carrot, pumpkin, etc

(1) Boil bagels for 1 minute in kettle, then bake

MENU ITEM	MODE	TEMP °F	FAN SPEED	INITIAL MODE	CRISPEASE	TOTAL COOK TIME	PANS	WEIGHT/PIECES
Pate Choux	low	375	high	14 min	5 min	19 min	5 perforated sheet pans	120 ea
Pie, Frozen	low	400	high	30 min	5 min	35 min	5 perforated sheet pans	30 pies
Pie, Scratch*	low	350	high	30 min	5 min	35 min	5 perforated sheet pans	25 pies
Puff Pastry	low	350	high	5 min	2 min	7 min	5 solid sheet pans	(8 doz) 3"
Scones	high	400	low	15 min	2 min	17 min	5 solid sheet pans	12 doz
Turnovers	low	350	high	12 min	2 min	14 min	5 solid sheet pans	96 ea
Baguettes	high	350	low	17 min	3 min	20 min	5 solid sheet pans	30 loaves
Sourdough	high	325	low	20 min	5 min	25 min	5 solid sheet pans	12 loaves
Whole Wheat	high	325	low	20 min	5 min	25 min	5 solid sheet pans	12 loaves
Bread Sticks	low	350	high	3 min	5 min	8 min	5 solid sheet pans	15 dozen
ROLLS								
French	low	325	high	15 min	5 min	20 min	5 solid sheet pans	(240) 2 oz
Pre-baked	low	325	high	1 min	2 min	3 min	5 solid sheet pans	(240) 2 oz
Sourdough	low	325	high	16 min	6 min	22 min	5 solid sheet pans	(240) 2 oz
Whole Wheat	low	325	high	14 min	4 min	18 min	5 solid sheet pans	(240) 2 oz
Croissants	low	325	high	15 min	3 min	18 min	5 solid sheet pans	95 ea

* Always pre-brown raw dough pie shells. Final cook time depends on filling.

Prepared Foods

Manufacturer Instructions: When cooking in the Combo Mode, your cook times will be reduced by at least 20% and as much as 50%.

Aside from cook times, the manufacturer instructions for convection cooking are the closest to using the Groen ComboEase Combination Oven-Steamer. It is important to adhere to handling instructions as to covering, turning and cooling.

Pizza: As noted in the chart for pizza, cooking in the Combo Mode reduces cook times significantly. Placing pizzas on a wire rack or a preheated perforated sheet pan will help to speed cooking and ensure a crisper crust. Also note that pizzas made with low fat cheeses benefit greatly from Combo preparation. The steam rich environment will not dry out low fat cheese as readily as conventional heat sources. The end product will have improved melt and stretch qualities.

About the Prepared Food Cook Times Chart: This chart covers a variety of cook times and temperatures for popular prepared, manufactured or scratch pre-prepared foods and meals. Most have fresh, frozen and thawed times available for you to use as guidelines. There are thousands of varieties of prepared foods and we urge you to experiment using the chart times as a starting point. Add your own tested cook times and temperatures at the bottom of the chart.

MENU ITEM	MODE	TEMP °F	FAN SPEED	INITIAL MODE	CRISPEASE	TOTAL COOK TIME	PANS	WEIGHT/PIECES
PIZZA*								
French Bread Style	low	400-450	high	2 min	4 min	6 min	5 perforated sheet pans	30 ea
Fresh Dough, Thick	low	400-450	high	2 min	6 min	8 min	5 perforated sheet pans	(10) 8"
Fresh Dough, Thin	low	400-450	high	2 min	4 min	6 min	5 perforated sheet pans	(10) 8"
Frozen Dough, Thick	low	400-450	high	2 min	8 min	10 min	5 perforated sheet pans	(10) 8"
Frozen Dough, Thin	low	400-450	high	2 min	9 min	9 min	5 perforated sheet pans	(10) 8"
Personal Pan	low	400-450	high	2 min	6 min	8 min	5 perforated sheet pans	40 ea
Personal Thin	low	400-450	high	2 min	4 min	6 min	5 perforated sheet pans	40 ea
OTHER PREPARED FOODS								
Stuffed Shells	low	350	high	20 min	2 min	22 min	10 solid hotel pans	24 doz
Canapes, Frozen	low	400	high	2 min	6 min	8 min	5 solid sheet pans	25 doz
Chili, Thawed	high	350	low	25 min	-	25 min	10 solid hotel pans	(8) 8 lb pans
Egg Rolls, Frozen	low	325	high	10 min	6 min	16 min	5 solid sheet pans	180
Egg Rolls, Thawed	low	350	high	12 min	6 min	18 min	5 solid sheet pans	180

* Use perforated sheet pans to increase crispiness of crust. Pan spray can also enhance crispiness.

MENU ITEM	MODE	TEMP °F	FAN SPEED	INITIAL MODE	CRISPEASE	TOTAL COOK TIME	PANS	WEIGHT/PIECES
PREPARED MEATS								
Bacon Slices*	low	375	high	2 min	6 min	8 min	5 solid sheet pans	15 lbs
Hot Dogs	high	350	low	6 min	-	6 min	5 perforated sheet pans	(300) 25 doz
Meatballs	high	300	low	5 min	17 min	22 min	10 solid hotel pans	(600) 1 oz meatballs
Meatloaf	high	300	low	20 min	15 min	35 min	10 solid hotel pans	(10) 5 lb loaves
SAUSAGE								
Links, 1 oz	high	375	low	10 min	5 min	15 min	5 solid sheet pans	600
Patties, 1.5 oz	high	375	low	4 min	6 min	10 min	5 solid sheet pans	300
Br&Sv Links, 1 oz	high	375	low	3 min	6 min	9 min	5 solid sheet pans	600
Italian Links	high	375	low	5 min	10 min	15 min	5 solid sheet pans	300
Polish Links	high	375	low	5 min	10 min	15 min	5 solid sheet pans	300
BREAKFAST FOODS								
Bagels, Frozen	low	400	high	2 min	4 min	6 min	5 solid sheet pans	5 doz/ split
Waffles, Frozen	low	400	high	2 min	6 min	8 min	5 solid sheet pans	10 doz
English Muffins	low	400	high	1 min	4 min	5 min	5 solid sheet pans	5 doz/ split
EGGS								
Frittata**	high	275	low	10 min	-	10 min	10 solid hotel pans	8 pans
Poached	high	250	low	5 min	-	5 min	10 solid hotel pans	150
Scrambled***	low	250	high	6 min	-	6 min	10 solid hotel pans	10
Hard Boiled	high	225	low	16 min	-	16 min	10 solid hotel pans	-
Soft Boiled	high	225	low	6 min	-	6 min	10 solid hotel pans	-

* For darker or more crisp bacon, increase temperature to 400°F, or increase time by 2 minutes.

** One portion of Frittata includes 18 eggs, which is 1/2 a pan.

*** Stir eggs halfway through cook cycle.

Steaming

Pans: Most items are prepared in a perforated pan to allow for even distribution of steam. Some items such as pasta or rice should be prepared in a solid steamer/hotel pan. You should allow adequate spacing between pans for even steam circulation.

Eggs: Hard and soft boiled eggs should be prepared in a perforated pan. Poached eggs should be prepared in a sprayed solid pan, in 1/8 to 1/4-inch of water.

Pasta: Cover all pasta with water and salt if desired. Use a perforated pan inside a solid pan for easy draining.

Rice: Most rice calls for 1 part rice to 2 parts water; however, many parboiled rice products can be cooked with ratios of 1 to 1. For a different taste, use chicken stock or diluted vegetable juice in place of water. Moisten all rice and stir before steaming.

Seafood: It is vital to not overcook seafood. Check product at lowest cooking time and add more time if you need it to be safe. Most seafood can be steamed in perforated pans for even steam distribution around product. Solid pans placed below the perforated pans are suggested to catch the cooking juices from the seafood.

Solid pans or portion plates are suggested for white fish to avoid breaking and splitting during transfer.

Vegetables: All vegetables should be steamed in perforated pans for constant steam contact.

If frozen vegetables are sprayed with water or thawed prior to steaming, to eliminate ice blocking, the lower cooking times will apply. If adding frozen blocked vegetables directly to the oven, it is best to stop steaming halfway through the cooking cycle to break up and separate product and ensure even cooking.

About the Steam Cook Times Chart: The Steam chart will assist you when using your ComboEase Combination Oven-Steamer in the Steam Mode. The items in each category are meant as examples, so that you have a starting point for your particular menu items.

STEAMED ITEMS	Quantity	Minutes
EGGS*		
Hard Boiled	30 each	12-14
Soft Boiled	30 each	2-3
Poached	24 each	3-4
PASTA*		
Egg Noodle	2 lbs	8-10
Macaroni	2 lbs	9-12
Spaghetti	2 lbs	8-10
Fresh Fettuccine	2 lbs	1-2
POTATOES*		
Baby Red	8 lbs	15-20
Boiled Style 80 ct	6 lbs	25-30
Sliced	4 lbs	12-14
RICE***		
Brown	2 lbs	24-26
Chinese	2 lbs	18-20
Instant	2 lbs	4-5
Pilaf	2 lbs	18-24
Regular Long Grain	2 lbs	14-16
SEAFOOD**		
Crabs -Whole	2-5 lbs	12-15
Crab Legs -Thawed	6-8 oz	2
Crab Legs -Frozen	6-8 oz	4
Fish Filets	6-8 oz	4
Lobsters -Whole	1-2 lbs	8-10
Salmon Filets	6 oz (pan)	6-8
Salmon Steaks	6-8 oz	7-9
Shrimp -Fresh (31-40)	5 lbs	3-4
Shrimp -Frozen (31-40)	5 lbs	4-6

STEAMED ITEMS	Quantity	Minutes
VEGETABLES-FRESH*		
Asparagus	5 lbs	7-9
Broccoli	4 lbs	3-4
Cabbage-Fresh	6 lbs	20-22
Carrots-Sliced	4 lbs	8-10
Cauliflower	6 lbs	4-5
Corn-Cob	6 lbs	8-10
Green Beans	3 lbs	7-9
Spinach	4 lbs	3-4
Summer Squash	4 lbs	5-6
Turnip-Whole/Med.	5 lbs	10-12
Zucchini	6 lbs	6-8
VEGETABLES-FROZEN*		
Broccoli	4 lbs	5-6
Carrots	6 lbs	6-8
Cauliflower	6 lbs	7-10
Corn-Cob	6 lbs	8-10
Corn Niblets	6 lbs	8-10
Green Beans	6 lbs	6-8
Mixed Vegetables	6 lbs	7-10
Peas	6 lbs	6-10
ADD YOUR TESTED COOK TIMES HERE:		

* Use perforated pans for best results.

** Use perforated pans with solid catch pans to catch cooking juices.

*** Ratio 1 part rice and up to 2 parts water depending on desired finished product.

STEAMED ITEMS	Quantity	Minutes

proportion charts

Yield Proportion Chart

1 tbsp	3 tsp liquid	1/2 fl oz
1/8 cup	2 tbsp liquid	1 fl oz
1/4 cup	4 tbsp liquid	2 fl oz
1/3 cup	5 tbsp + 1 tsp	
1/2 cup	8 tbsp liquid	4 fl oz
2/3 cup	10 tbsp + 2 tsp	
3/4 cup	12 tbsp liquid	6 fl oz
1 cup	16 tbsp liquid	8 fl oz
1 pt	2 cups liquid	16 fl oz
1 qt	4 cups liquid	32 fl oz
1/2 gal	8 cups liquid	64 fl oz
1 gal	16 cups liquid	128 fl oz
1 lb	16 oz	

Insert Your Own Proportion Chart

Servings Per Gallon Chart

Svgs/Gallon	1	2	3	4	5	6	7	8	9	10
0.5 oz	256	512	768	1024	1280	1536	1792	2048	2304	2560
1 oz	128	256	384	512	640	768	896	1024	1152	1280
2 oz	64	128	192	256	320	384	448	512	576	640
3 oz	42.6	85.2	127.8	170.4	213	255.6	298.2	340.8	383.4	426
4 oz	32	64	96	128	160	192	224	256	288	320
5 oz	25.6	51.2	76.8	102.4	128	153.6	179.2	204.8	230.4	256
6 oz	21.3	42.6	63.9	85.2	106.5	127.8	149.1	170.4	191.7	213
7 oz	18.3	36.6	54.9	73.2	91.5	109.8	128.1	146.4	164.7	183
8 oz	16	32	48	64	80	96	112	128	144	160

Gallons Needed to Serve Large Groups

	Svgs / Gallon	100	200	300	400	500	600	700	800	900	1000
0.5 oz	256	0.4	0.8	1.2	1.6	2.0	2.3	2.7	3.1	3.5	3.9
1 oz	128	0.8	1.6	2.3	3.1	3.9	4.7	5.5	6.3	7.0	7.8
2 oz	64	1.6	3.1	4.7	6.3	7.8	9.4	10.9	12.5	14.1	15.6
3 oz	42.6	2.3	4.7	7.0	9.4	11.7	14.1	16.4	18.8	21.1	23.5
4 oz	32	3.1	6.3	9.4	12.5	15.6	18.8	21.9	25.0	28.1	31.3
5 oz	25.6	3.9	7.8	11.7	15.6	19.5	23.4	27.3	31.3	35.2	39.1
6 oz	21.3	4.7	9.4	14.1	18.8	23.5	28.2	32.9	37.6	42.3	46.9
7 oz	18.3	5.5	10.9	16.4	21.9	27.3	32.8	38.3	43.7	49.2	54.6
8 oz	16	6.3	12.5	18.8	25.0	31.3	37.5	43.8	50.0	56.3	62.5



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