Forno Bravo
Wood-Fired Pizza



How to Make World-Class Artisan Pizza

In Your Forno Bravo Pizza Oven

WARNING

Read this before you light a fire inside your oven

No warranties of any kind, either expressed or implied, as to the accuracy of this information or its suitability for a particular purpose, are made. Forno Bravo hereby expressly disclaims any and all express or implied warranties, and does not make any warranty or guaranty, or make any representation whatsoever, express or implied, regarding the use or result of any information or services provided by this document. Forno Bravo will not assume any liability for any loss or damage of any kind, arising out of or caused by, directly or indirectly, the use of this information.

Failure to heed this warning may result in damage to property, bodily injury or death.

Keep children and pets away from hot oven.

Use firewood for burning only. DO NOT use charcoal, pressure treated lumber, chipped wood products, sappy wood such as pine, laminated wood or any material other than dry medium or hard firewood.

DO NOT USE liquid fuel (firelighter fluid, gasoline, lantern oil, kerosene or similar liquids) to start or maintain a fire.

BEWARE of very high temperatures in the oven and use long oven gloves and mitts to handle pots and tools. DO NOT put unprotected hands or arms inside oven while it is lit.

Dispose of ashes using a metal shovel and place in a metal bin with a tightly fitting lid. The container should be stored on a non-combustible surface, away from all combustible materials. Ensure ashes are completely cold before disposing of them appropriately.

BEWARE of flying sparks from mouth of oven. Ensure that no combustible materials are within range of oven at any time.

DO NOT close the oven door fully while a fire is in the oven. Closing the door fully will cut off oxygen to the fire, causing the fire to erupt suddenly when the door is removed. Always keep door tilted to allow air to circulate in the oven.

DO NOT use water to dampen or extinguish fire in the oven.

FIRE can result from incorrect installation or use of this oven. It is essential to use only building and insulation materials designed for the purpose. DO NOT use wood, or any other combustible materials in the installation of your oven.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Acknowledgements

As with everything related to Forno Bravo, we want to thank the wonderful community of wood-fired oven owners and builders who are cooking, eating, talking, having fun, and helping their neighbors make great pizza ovens and great pizza – not to mention bread. We are spread all around the globe, but we are a true community in every sense of the word.

We also want to thank Jim Wills, of Mary G's Bakery, for his help in editing this document, John Lemos, who helped with editing and provided some great photos, and everyone who has contributed photos, recipes and advice to the community.

We hope you enjoy our newest e-Book.

Saluti,

James Bairey
Florence, Italy
June 2007

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Contents

Forward: 5

A Very Brief History of Pizza 5

1. Introduction: 7

Making Great Pizza at Home 7

2. Why Wood-Fired Pizza Is Better 8

3. Different Styles of Pizza 10

4. Tools and Accessories 14

5. Flour Basics 18

6. Using and Controlling Yeast 19

7. Preparing Your Pizza Dough 21

8. Dough Ball Preparation 24

9. Pizza Dough in a Hurry 26

10. Shaping Your Pizza Base 27

11. Tomatoes and Tomato Sauce 28

12. Cheese Basics and Preparation 29

14. Oven Management 32

15. Using Pizza Peels 34

16. Pizza Baking 36

17. The Finished Pizza 41

18. Beauty Shots 43

19. Pizza Recipes 47

20. Dessert Pizzas 50

Appendix 1. Vera Pizza Napoletana 55

Notes 63

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Forward:

A Very Brief History of Pizza

Wood-fired brick ovens and pizza have been with us since the dawn of civilization. Both have been discovered in the excavations of virtually every ancient community, and there are mentions of flat breads cooked on a hot stone throughout antiquity. The excavations in Pompeii have wonderful brick ovens and food bars with stylish decorative granite counters, and there is evidence that flat bread was a staple.



The hearth bread found in the excavations in Pompeii is very impressive. The loaves were perfectly shaped and risen boule, with the seal of the bakery imprinted in the crust. Clearly the bakers had great skill working with flour, water, salt, yeast and dough.



These skills, combined with the ready availability of both brick ovens and traditional pizza ingredients, including cured meats, olive oil, pine nuts, capers, garlic, onion, cheese and herbs leads me to imagine that they also made good pizza. They had everything but the tomatoes.



With the fall of the Roman Empire, skill and knowledge in many pursuits were lost, including cooking. I have trouble imagining the Duke eating a good, hot medieval pizza somewhere off in his drafty castle. Nonetheless, round brick ovens were a critical component of food and cooking in the Middle Ages, as evidenced by the large numbers of surviving ovens, mentions in literature and many depictions in art. Who knows? Perhaps the papal court in Avignon enjoyed pizza after all.



The term pizza was first used in an Italian cookbook in 997. The tomato arrived in Europe from the New World in the 16th century, and the word *pizzaiolo* was first mentioned in the 17th century. Naples wins the award for doing the best job of laying claim to being the birthplace of pizza, though some in the Italian restaurant business believe that Venice actually invented pizza, and that they just got out-marketed. As an aside, Venice banned wood-burning furnaces in the city in the 13th century after they

© Forno Bravo, LLC 2007/10. All Rights Reserved.

got tired of burning the city down, and glass production was moved to the island of Murano. To this day, there are no wood-fired pizzerias in Venice.

Regardless, pizzerias started appearing in Naples in the early 18th century, with the world's first true pizzeria, Antica Pizzeria Port 'Alba, opening in Naples in 1830. The story of the "Margherita" pizza being created as an offering to the Queen of Italy during her visit to Naples took place in 1889. The colors of the Margherita pizza (tomato, mozzarella and basil) are the colors of the Italian flag. As another aside, the Italian national soccer team is called the Azzurre, or blue.

Until the late 1800's pizzerias could only be found in Naples. Many of the best pizzerias in Naples can trace their roots back multiple generations, including Trianon da Ciro, shown below.



Today in modern Italy, pizza is inseparable from daily life. From humble pizza by the slice (*pizza a taglio*) to the most sophisticated restaurants, pizza is eaten at sit down lunch (*pizza a pranzo*), on foot, and at dinner – as an appetizer (antipasto), first course (*primo piatto*) or main course (*secundo piatto*). Everybody eats pizza, not just kids and college students. Restaurants that have both impeccable white linen tablecloth service and a wood-fired oven do take out – hopefully your appetizer pizza doesn't fall behind someone's party and the 20 pizza boxes going out the front door. And then there are the ubiquitous pizza delivery scooters – often seen driving on the sidewalk in order to make a fast delivery.



The first pizzeria in the U.S. opened in 1905, and in the aftermath of WW II, returning American GIs created what has become an insatiable appetite for pizza – first in America, and then around the globe. Today, pizza has grown to become a $30+billion business, with millions of pizzas consumed daily.

Sadly, most of them are not very good, or very good for you.

Which is where we come in.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

1. Introduction:

Making Great Pizza at Home

It was with some trepidation that we decided to take on the *Wood-Fired Pizza* e-Book. As we all know, people are passionate about their pizza, and nothing gets a pizza enthusiast more excited than a mention of Naples, stand mixers, *autolyse*, pizza flour, dough hydration, oven temperature, or Don Michele. And writing a really good *Wood-Fired Pizza* e-Book means talking about every one of those topics in detail.

Still, people are equally passionate about brick ovens, and we feel pretty good about what we have been able to accomplish to date in the wood-fired oven community, through FornoBravo.com, the Forno Bravo Forum and the *Wood-Fired Cooking, Wood-Fired Bread* and *Pompeii Oven* e-Books. If we can tackle oven dome height, I think we can tackle just about anything.

Our approach with *Wood-Fired Pizza*, much as it was with *Wood-Fired Cooking*, is to create a comprehensive guide and to provide a great deal of detail on every facet of preparing a perfect wood-fired pizza. We dive into everything, including pizza history, equipment, step-by-step instructions and background information, and we support it all with graphics and photographs. We have tried to make this the most complete and informative pizza book anywhere – whether it is an e-Book, blog or traditionally published cookbook.

Wood-Fired Pizza is targeted at the enthusiast, so we have moved beyond some of the more simple pizza making techniques. We understand that you need special dough and dough handling, and we want to push the envelope and help everyone in the Forno Bravo community learn what it takes to make an exceptional pizza.

Still, it does not take a lot more effort or time to move beyond making a pretty good pizza to making a really outstanding pizza. If you are starting from step one, I think *Wood-Fired Pizza* is a good place to start. A beginner cannot readily master everything that we describe here.

My guess is that many of you reading this e-Book already make an excellent pizza. It's probably better than any pizzeria within a 30-minute drive. So you are already in good shape – but you can get better.

With a little practice and a few new techniques, I think we can all improve to where at some point in the future, we are all making a pizza in our own brick oven that is comparable with the best in the world – whether it is an authentic pizzeria in Naples, or one of the excellent wood-fired pizzerias in the U.S. We all know who they are – and we can make a pizza as good as theirs.

Enjoy the process and the pizza.



© Forno Bravo, LLC 2007/10. All Rights Reserved.

2. Why Wood-Fired Pizza Is Better

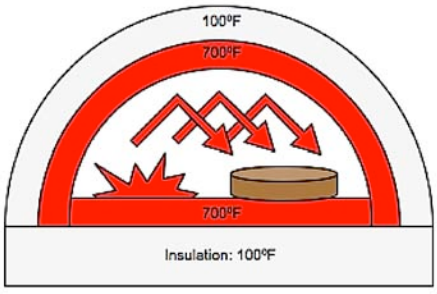
Your Forno Bravo wood-fired oven is the perfect pizza making machine. It's a miracle of nature. It operates in a completely different way than any other oven, including a pizza stone in a conventional oven, a commercial deck oven, pizza on a grill, or any of the fantastic things many of us have done to try to convert gas and electric ovens and grills into brick ovens.

The difference is that wood-fired ovens bake a pizza three different ways – all at the same time. They use reflected heat, convection and conductive heat to bake the perfect pizza in about 90 seconds. The three cooking components work together in harmony so that the crust, the cheese, the sauce, the topping and the olive oil are all perfectly cooked – at exactly the same time.

How does it work?

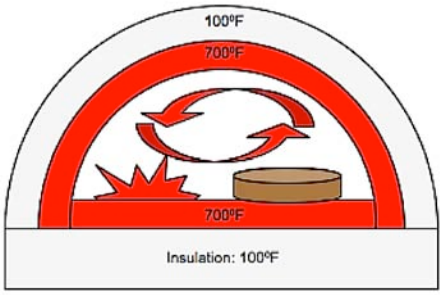
First, the flame from a live fire is bounced off the dome onto your pizza, baking the pizza from above, and fusing the sauce, cheese and oil to a wonderful rich brown color and deep flavor. This reflective heat is hot enough to "cook" a fresh tomato sauce on top of the pizza.

This heat not only cooks your pizza, it also recharges the oven floor, putting heat back into the floor to replace the heat that is lost through cooking.

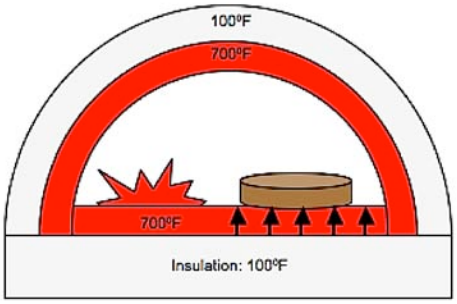


Second, because your Forno Bravo oven breathes, drawing in cold air through the lower half of the oven opening and exhausting hot air out the top half of the opening, it is constantly moving hot, moist air across the top of your food. While modern convection ovens use fans and heat coils to move hot, dry air within the oven, nothing can compare with natural convection.

Convection helps cook the top of your pizza evenly, and the moist cooking environment gives your pizza's *cornicione* (outer rim) some of the steam it needs to spring (or puff up) while cooking.



And finally, the heat stored in the cooking floor is transferred directly into the moist pizza dough base. The hot cooking floor extracts moisture from the dough to create steam that literally lifts the pizza slightly in the air – off the cooking floor. The hot surface and steam give wood-fired pizza its unique crisp crust and moist, delicate crumb.



It is this unique cooking ability that makes your wood-fired oven so perfectly suited for pizza. And try as we might, there is no substitute for a real brick oven.

Still, take care. Just having a wood-fired oven does not mean that you will automatically make good pizza. If you are like us, you have probably eaten in a wood-fired

© Forno Bravo, LLC 2007/10. All Rights Reserved.

pizzeria that makes terrible pizza. I've done it far too many times.

You still have to pay attention to the basics, including good fire management technique, proper dough preparation and handling, and accurate pizza baking.

So while it's possible to make a bad pizza in a brick oven, it is equally impossible to make a really great pizza without a brick oven. So you are on your way.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

3. Different Styles of Pizza

There is wide range of different styles of pizza, many of which are truly excellent. There really is no right or wrong style of pizza. Pizza can bring back childhood memories, evoke feelings from vacations and seeing new places, or bring back a sense of connection to a place where you no longer live. Pizza gives us a close connection to our feelings, which I think is why pizza is so passionately discussed, analyzed and eaten.

There are a number of archetypal pizzas, most of which you can make in a wood-fired oven. We are listing these in no particular order, or without any implied rank of importance.

Pizza Napoletana

Pizza Napoletana is a thin pizza, characterized by a large rim, or *cornicione*. The main components are Italian Tipo 00 flour (preferably Molino Caputo), San Marzano tomatoes, fresh mozzarella cheese, and extra virgin olive oil (though the type of oil is debated). There is wide consensus that *Pizza Napoletana* must be baked in a hot, wood-fired oven and that cooking times should be around 90 seconds to two minutes. The tomato sauce is little more than smashed peeled tomato, so the quality of the tomatoes really matters. *Pizza Napoletana* tends to be soupy, with the use of fresh tomato sauce, fresh mozzarella and olive oil, and it always soft – to that the crust can be folded without cracking.

The typical *Pizza Napoletana* is made using a 250-280 gram dough ball, and some are as large as 300 grams, shaped into an 11”-12” pizza. (Don’t worry, we provide a lot more information on pizza dough weights later in the e-Book.) While the *Pizza Napoletana* method states that the dough should be made each morning, many Naples pizzerias make their dough the night before, and refrigerate it overnight. In fact, that is what Antimo Caputo, the head of Molino Caputo recommends, and that’s a pretty good source of advice.



Pizza Napoletana is supported by the *Verace Pizza Napoletana* association, who received a good deal of attention a few years ago when they published the VPN specification and presented it to the European Union to be considered as a food product controlled by the DOC (*Denominazione d’Origine Controllata*) system. They also provide VPN branding for restaurants. The *Pizza Napoletana* style is also found in Puglia, though residents of other regions of Italy typically say that it is too doughy and difficult to digest. It is not fair to say that *Pizza Napoletana* is a national style of pizza.

Artisan Italian Pizza

Outside Naples, there is a traditional “Italian” style pizza that you will find in most wood-fired oven pizzerias (*Forno a Legna*). It is also a thin crust pizza, but it does not have the large, puffy *cornicione* of *Pizza Napoletana*, and the crust is not as soft or doughy. It is a lighter pizza that is made to be eaten with a knife and fork – unlike *Pizza Napoletana* whose roots lie more with the poorer classes, and can be eaten on foot.

© Forno Bravo, LLC 2007/10. All Rights Reserved.



Italian artisan pizza is characterized by a small number of ingredients, both in terms of range and amount. You can see the pizza base through the sauce, and the mozzarella does not cover the entire base of the pizza. Many pizzas come with either zero other ingredients, such as the Margherita, or with just one, including olive, artichoke, potato, zucchini, sausage, pepperoni or ham (*Prosciutto Cotto*).

The typical Italian artisan pizza is made using a 250 gram dough ball, made that morning, and shaped into an 11" pizza.

NY Style Pizza

Some people think of NY style pizza as the original American adaptation of the Italian artisan thin crust pizza. While it is still a thin crust pizza, it is thicker than the traditional Italian pizza, and it is larger and more muscular as well. The NY pizza can be 18" or larger, and it has more sauce and more cheese. The sauce itself is often cooked and is thicker than traditional Italian sauce, and it is made with domestic mozzarella, which is drier, and has more body than fresh mozzarella.

NY style pizza can be made with either bread flour, a mix of bread flour and general-purpose flour, a mix of bread flour and Italian Tipo 00 flour, and even with 100% Italian Tipo 00 flour. Each will give the pizza a different texture and crust. A NY style pizza dough ball can weigh as much as 650-700 grams. The slices are so large that you have to fold one over to pick it up. NY style pizza works wonderfully in a wood-fired oven operating at high temperatures – though the pizza takes a little longer than 90 seconds to bake.

Chicago Deep Dish Pizza

The Chicago deep dish pizza doesn't really have an extremely thick crust, but the crust is pushed up the sides of a pan to hold in lots of sauce, cheese and toppings. One old-fashioned Chicago pizzeria claims that the recipe comes from an Italian grandmother in Torino (in the North of Italy) who made a type of ricotta pie. Another says the Chicago pizza grew up in Chicago during the 1940s, where WWII made food tight, and a pizza casserole was an inexpensive way to make food stretch.

While deep dish pizza is famous in Chicago, a recent newspaper article noted that there has been an influx of *Pizza Napoletana* restaurants in the city. Perhaps tastes are changing.

Nouveau Pizza

Think Thai Chicken pizza, or Mango Chicken Tandoori pizza. Made popular by California Pizza Kitchen, which started business in Beverly Hills, CA, and now has more than 180 restaurants in 6 countries, Nouveau Pizza is characterized by exotic and international flavors. While the pizza itself has some problems – it is baked slowly in a cool gas-fired oven and the dough is questionable – the concept is an exciting one. There is nothing to keep us from making exotic pizzas using authentic pizza dough in a real wood-fired pizza oven.

Cracker Crust Pizza

Also a Chicago phenomenon, cracker crust pizza has a very thin, crunchy crust, but it is still pliable. It's a very light pizza, in the mold of the traditional Italian artisan pizza. On occasion you can find a cracker crust style pizza in Italy, though it is somewhat random. If you look around Italy long enough, you will find a *pizzaiolo* who learned to make pizza with a smaller dough ball and a rolling pin, and he will bang out a very light pizza. In the best cases, it can be light and delicate, with some crunch, where in the worst cases it is simply overworked, brittle and tough.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Sicilian Pizza

This is a thicker authentic Italian pizza. It is thicker than *Pizza Napoletana*, but not doughy like a true Genova Focaccia. Perhaps the historical root of NY style pizza lies with Sicilian immigrants

A Handful of Well-Known Pizza Recipes

Margherita

Tomatoes, mozzarella, a swirl of olive oil and fresh basil



Marinara

Tomato, garlic, oregano and olive oil.



***Quattro Stagione* (four seasons)**

This pizza is divided into four quarters. Cover the base with tomatoes and mozzarella, then add artichokes (spring), olives (winter), mushrooms (spring) and *Prosciutto Cotto* (summer).



***Quattro Formaggio* (four cheese)**

Tomato, Pecorino, Gorgonzola, Parmesan, and either Fontina or Asiago, one black olive in the middle. Some recipes call for Emmentaler.



***Capricciosa* (the kitchen sink)**

Tomato, mozzarella, anchovies, oregano, olives, artichoke hearts and mushrooms. Sometimes hard-boiled egg.



Napoletana

You won't see this pizza in Naples, but you do see it all around Italy. Tomato, mozzarella, anchovy, oregano, perhaps capers, and olive oil.



***Pizza Bianca* (white pizza)**

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Mozzarella and olive oil.



***Pizza Frutti di Mar*e (sea food)**

Calamari, shrimp, clams and mussels.



© Forno Bravo, LLC 2007/10. All Rights Reserved.

4. Tools and Accessories

Each Forno Bravo oven comes with three basic pizza oven tools:

- A rectangular metal pizza peel, for placing pizzas, breads and pans inside your oven.



- A small, round metal peel with a hand glide, for turning pizzas and taking food and pans out of the oven.



- A copper oven brush, for cleaning the oven cooking floor.



There are also several optional oven tools available from the Forno Bravo Store:

- A rake with a specially shaped head to allow you to move wood and hot coals and reach the edge where the oven dome meets the cooking floor.



- A shovel for removing hot coals and ashes and moving and placing wood.



- Short handled wooden pizza peels for assembling pizzas before sliding them onto a metal peel to set in the oven.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

- A long handled wooden pizza peel for assembling and placing pizzas in the oven.



- A log holder to keep your wood in place, and improve the airflow, flame and heat in your oven.



- An infrared thermometer for reading the temperature of the oven in different places.



There are various pizza making accessories that you will want to have, including:



An oil canister for swirling extra virgin olive oil on your pizzas before you put them in the oven.



Pizza cutter.



Pizza server.

© Forno Bravo, LLC 2007/10. All Rights Reserved.



Dough cutter.



Digital scale



Serving plate.



Dough tray



Stand mixer



Bread machine

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Hints and Tips

If you are going to be making a lot of pizza, or making larger batches of dough, you might want to consider buying a serious stand mixer. I own a KitchenAid Professional and on quite a few occasions have pushed it to where you could smell burning in the gears. My KitchenAid Professional is a 6-quart mixer with a 600W motor and cost roughly $400.

Other options include:

The Cuisinart 7 quart, 1000W mixer costs about $450.

The Viking 7 quart, 1000W mixer costs about $525.



Other stand mixer issues to consider are heat and friction. Pizza dough should be mixed coolly, and with minimal friction, as even a small amount of heat or stress ruins the texture and character of the dough. Traditional stand mixers have a fixed bowl and dough hook, which are not perfect for pizza. In fact, high end Italian pizzeria don't even use a traditional fixed-bowl mixer, but rather they use Italian-made fork mixers which mix pizza dough slowly and gently and at low heat.

You might want to consider:

The Electrolux DX200, which uses a roller and scraper instead of a beater. It is an 8-quart mixer that can handle 20 cups of flour. The price is roughly $525.



For the very serious pizza maker, there is the Esmach SP5 spiral mixer. It costs roughly $1,150 and according to our partner and friend Jim Wills of Mary G's Bakery, it works great.



Of course you can always do what Chris Bianco, the owner and pizzaiolo for the highly acclaimed *Pizzeria Bianco,* does and mix all your dough by hand. I don't have a stand mixer at our latest Italian house, and can highly recommend the exercise and the connection you make hand-kneading your dough.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

5. Flour Basics

Pizza, much like bread, is made from a small number of ingredients, where the quality of the ingredients and the skill of the chef mark the difference between the sublime and the ordinary, or worse.

With that in mind, we highly recommend that you use the best ingredients you can find, starting with flour. We recommend Molino Caputo Tipo 00 flour.



Italian Tipo 00 Flour

The Italians and Americans use different terms to describe their flours, which can cause some confusion. While the American baker is accustomed to seeing gluten % on the flour package, the Italian producers often don't publish gluten, but rather use Tipo 0 and Tipo 00 which primarily describes how finely the flour is milled, along with a few other characteristics.

Tipo 00 is finer, and is available in numerous different formulations that can be used to make different types of bread, cookies and pastries -- as well as pizza. In fact, the gluten % in Tipo 00 flour ranges from 6% to 12%, and it can be used for everything from biscotti, to Ciabatta, to Pugliese to pizza.

One misunderstanding is that all Italian Tipo 00 is pizza flour -- which is not right. If you want to make pizza, make sure you find Tipo 00 pizza flour, not pastry flour, which can be very light and have gluten as low as 5%-7%. The best Italian pizza flour comes from Molino Caputo, has roughly 11.5% high quality gluten, and is selected and milled to make perfect *Pizza Napoletana*.

To make good pizza dough using domestic flour, try a blend of high quality bread flour, with 14%-15% gluten, and general-purpose flour.

Bread flour results in a chewier texture and gives the dough the ability to stretch and capture more air bubbles, but if it is handled too roughly can result in a tough pizza. General-purpose flour yields lighter and more delicate dough, which can give you a soft, and even saggy pizza. You might miss the crunch of the crust and the richer texture.

Different Flour Mixes

You have a lot scope when blending your own flour. You can try:

- 100% Caputo Tipo 00.
- 50% Caputo Tipo 00 with 50% American bread flour.
- 50% American bread flour, with 50% general purpose flour.
- 100% American bread flour.
- 100% American-made copies of Tipo 00 flour.

Tips and Hints

A word on different qualities of flour. We think there is a real difference between high quality, stone milled flour and mass produced flours. Stone milled flour is ground more slowly using real stones, which do not become hot during milling and do not damage the texture and flavor of the flour. Good quality flour costs more, but it’s worth it.

Buy a large glass or plastic jar for your flour, and always leave a measuring cup in it. This will save you a lot of time having it right there.

Keep lots of flour on your work surfaces and peels when you are making pizza. It makes all the difference.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

6. Using and Controlling Yeast

Yeast is a single-celled fungus that converts the sugars and starch found in wheat flour into carbon dioxide bubbles and alcohol. Pizza dough is made when the air bubbles created by the yeast become trapped, making the dough rise. A small amount of alcohol is also produced that burns off as the pizza bakes.

There are three primary types of yeast that you can use:

- Active Dry Yeast (ADY).
- Instant Yeast, or Instant Dry Yeast (IDY).
- Fresh Yeast.

The two types of dry yeast can be used interchangeably, though there are differences, described below.

To become an expert *pizzaiolo*, you will need to learn how to control your yeast, and to measure and time it, so that you pizza dough balls are ready exactly when you need them. For example, if you use too much yeast, your dough may rise too quickly, and your dough balls will collapse before you are ready to use them. Also, excess yeast can go unused in your dough, giving it an unattractive "yeasty" flavor.

As a general rule, the longer you are going to ferment your dough, the less yeast you need. As a corollary, if you are hurrying your dough, a little more yeast will help.

Active Dry Yeast

Weights: 1 package of active dry yeast weighs .25 ounce, or 7 grams, or about 2 1/4 tsp.



Substitutions: 1 package of active dry yeast can be substituted with 1 package of instant yeast (with some differences in the end result).

Active dry yeast should be your primary yeast. It has a larger particle size than instant yeast, making it necessary to proof before using, and it is better for the longer fermenting times you will use to get the best pizza dough possible – including overnight proofing. The recommended proofing water temperatures will vary by manufacturer, usually between 90-100ºF.

Active dry yeast will remain active for about a year beyond the expiration date printed on the package if you leave it unopened at room temperature. It will keep even longer if frozen. To store, place the original package directly in the freezer. You can use frozen yeast without defrosting.

Once opened, active dry yeast will keep 3 months in the refrigerator and 6 months in the freezer. ADY stored at room temperature and opened without a protective outer container loses its power at about 10% per month.

Instant Yeast

Also known as: Fast Rising, Rapid Rise, or Bread Machine Yeast

Weights 1 package of instant yeast weighs .25 ounce or 7 grams, or about 2 1/4 tsp.



Substitutions: 1 package of instant yeast can be substituted with 1 package of active dry yeast, though it will not rise as quickly.

Instant yeast is more finely ground than active dry yeast, and does not require warm liquid to be activated. Also, this type of yeast has been created using specific strains of yeast that can produce bread and pizza dough with only one rising. Because it is more finely granulated than active dry yeast, it can be added directly to the dry ingredients –

© Forno Bravo, LLC 2007/10. All Rights Reserved.

making it popular for both bread machines and fast pizza dough use.

Still, unless you have a specific requirement for fast-rising dough, we recommend that you use active dry yeast. Long and slow fermentation promotes better dough flavor, better texture and better browning in a wood-fired oven.

Instant yeast has similar storage and longevity to active dry yeast.

Fresh Yeast

Also know as compressed yeast, active fresh yeast, cake yeast, baker's compressed yeast, wet yeast, and brewer's yeast.



Weights: Fresh yeast usually comes in 0.6 ounce foil-wrapped cakes, or 17 grams.

Substitutions: .6 oz fresh yeast can be substituted with one package (2 1/4 tsp) of either active dry yeast or instant yeast.

Fresh yeast comes in a little foil-wrapped cube. It works faster and longer than active dry yeast, but it's very perishable and loses potency a few weeks after it's packed. As such, it has become difficult to find in the U.S. It remains popular with commercial bakers, who use more, and can keep ahead of the expiration dates. To use, soften the cake in a liquid that's 70° - 80° F. Store fresh yeast in the refrigerator, preferably in its original wrapper, or in the freezer, where it will keep for up to four months. If you freeze it, defrost it for a day in the refrigerator before using.

Tips and Hints

One cautionary note. Wash your hands after using fresh yeast. It is a living culture and can spread yeast infection.

Buy your dry yeast in bulk, and put it in a small glass jar, and always leave a measuring spoon in the jar. Again, it saves a lot of time not having to look for a spoon every time you use your yeast. Store dry yeast in the freezer.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

7. Preparing Your Pizza Dough

This is where it all begins. Making exceptional pizza dough lies at the heart of a great pizza. And while it is easy to make an average pizza using average pizza dough, it will take some effort and experimenting to make exceptional pizza dough. That's because serious pizza dough is much wetter and more delicate than the dough you are probably accustomed to making, it requires a few extra steps during preparation, and it is more difficult to make and use.

But none of this is bad. Exceptional pizza dough does not take a lot of preparation time, and learning to make great pizza dough takes practice and effort, but unlike some skill-based activities, such as hitting a golf ball 250 yards in the middle of the fairway or playing concert piano, it does not require god-given talent. Even if you are not a "baker" or a "good chef," you can teach yourself how to make excellent pizza dough.

There are a couple of basic rules you need to follow:

- Make sure you are using the right amount of water. Pizza dough is probably much wetter than dough you have made before, and it is hard to get it right at first without accurate measuring or weighing.
- Make sure you use the "autolyse" technique, where you lightly mix your dough, and then let it rest for 20 minutes to allow the flour to absorb the water – before you knead it.
- Don't over mix or over handle your dough.
- Don't over proof your dough or dough balls; you don't want them falling back in on you.

Vera *Pizza Napoletana* Dough Recipe

Step-by-Step

Ingredients

By Volume

- 4 cups Molino Caputo Tipo 00 flour.
- 1 1/2 cups, plus 2-3 Tbs. water.
- 4 tsp salt.
- 1/2 tsp active dry yeast.

By Weight

- 500g Molino Caputo Tipo 00 flour.
- 325g water (65% hydration).
- 10g salt
- 3g active dry yeast.

We highly recommend measuring by weight rather than volume. It is fast, and easy to get the exact hydration (water to flour ratio) and dough ball size you want. Personally, I do not use recipes or a mixing cup when I cook dinner for the family, but pizza and bread dough are different. Accuracy counts, and nothing works better than a digital scale.

Mixing

First, add roughly 80% of the flour and all of the water, yeast and salt. Then, using a stand mixer or a wooden spoon and mixing bowl, blend the flour and water until everything is mixed. It will look like a stiff batter. If you are using a stand mixer, run it slowly for two minutes, just until you mixed everything together.



Then, give the dough a 20 minute *autolyse* period for proper water absorption. The process is called Autolyse, which comes from the French word to rest. I always thought it sounded very complicated, and something that was difficult to do – when in fact it just means do nothing.

The quality of your water and salt are also important, so choose the best quality fine grain sea salt you can find, avoiding mass-produced salt.

© Forno Bravo, LLC 2007/10. All Rights Reserved.



Next, mix the dough either with a stand mixer set at a middle speed (3 or 4 on a KitchenAid), or knead by hand for 6-8 minutes, adding the remaining flour as you go. You are looking for a dough that only just forms a ball, right at the point where batter crosses over into becoming dough. It should be a real sticky mess.



Pour the pizza dough onto a floured work surface. It will be very sticky, and it will not hold much of a “dough ball” shape. Lightly hand knead the dough for a few seconds, and then using the three-fold letter technique, shape it into a ball. Take the top third of the dough ball, and fold it over the middle third. Then, take the top half of the remaining dough, and fold it over the bottom half. Seal the seam (it looks like a big Chinese pot sticker), and then rotate the dough, pull the top and bottom seams together and seal again. Set the seam side down.

You will need just enough flour to keep the outside of your dough ball from sticking to you and the work surface, but no more. You are not trying to work more flour into the dough. Place the dough in bowl lightly coated with olive oil or Pam spray, cover it, and set it aside to rise for 90 minutes to two hours, where it almost doubles in size. You don’t want the dough ball to stick to the sides of the proofing bowl, but you also do not want to coat it with olive oil.





It can be tricky learning to read this process, which is one reason we recommend making your dough by weight. It’s a good starting point; even if you want to learn to make your pizza dough by feel.

Cutting

After your dough ball has doubled in size, gently place it on your lightly floured work surface. Using a dough cutter divide it into to the desired size or weight. For a 500g recipe, you will have roughly 825g of dough, or four 200g (+/-) balls. If you want a larger dough ball, such as for the 280g 11” *Pizza Napoletana*, increase your recipe accordingly.

The photo below shows three 260g pizza balls before shaping the dough balls (see Chapter 8).

© Forno Bravo, LLC 2007/10. All Rights Reserved.



Using Caputo Pizza Flour

Use Caputo Tipo 00 flour the same way you would either general purpose, or bread flour, though you will see a number of differences in how it behaves compared with American flours.

It is very silky and soft. You can make great pizza dough without adding olive oil. Experiment with added olive oil, but definitely try it without. If you are used to throwing your pizzas, you will see that the dough needs gentle handling.

It is very extensible. The wheat grains are selected and milled to produce flour that can be easily shaped into a pizza base. You should not over work the dough.

It will spring in the oven. The soft, well-hydrated, extensible dough will puff around the outside rim of the pizza where you do not have sauce.

The taste is wonderful.

Hints and Tips

If you are not available to let your pizza dough bulk ferment for 90 minutes to 2 hours, but you are able to start you pizza dough the day before you need it, you have an option. You can cut and make your dough immediately, and then proof them slowly overnight in the refrigerator. Shape the dough balls as you would normally, and put them straight into a proofing tray or Tupperware container with a lid.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

8. Dough Ball Preparation

There are probably as many ways of making a pizza dough ball as there are pizzaioli. Still, there are some basic rules:

- Make an outer “skin” for the ball that creates surface tension, allowing the dough ball to rise up, not out, as it rises and proofs.
- Be gentle with the dough and don’t over work it.
- Considering weighing your dough so the dough balls are all the right size.
- Cover your dough balls when they are proofing.
- Give your dough balls at least an hour to rest before you use them.

If you stick to these guidelines, you will be OK.

Step-by-Step Instructions

First cut, and optionally weigh, each piece of dough. If you want to be accurate, a digital scale is a fast and accurate way to go. Our experience is that it is a lot more difficult to make each ball the same size – even if they all look alike. As an experiment, try dividing a 500 gram batch of dough into 4 equal size balls by sight -- and then weigh them. It is an easy way to see how close they are in size.



Here are some weight guidelines:

- 280 grams 11” *Pizza Napoletana* base.
- 200 - 250 grams 10 - 11” Italian artisan pizza.
- 650 grams 18” New York pizza.

Then using both hands, gently stretch the top of the ball down and around the rest of the ball, until the outer layer wraps around the other side. At the same time, you are gently pushing out any large air holes.



Use the heels of your hands to stretch the outer layer of dough to create tension. Then pinch the two ends together to close the seam” and to make a smooth ball with a tight outer skin. Rotate the pizza ball and repeat the procedure.





© Forno Bravo, LLC 2007/10. All Rights Reserved.

Set your formed ball seam-side down on a non-oiled, non-floured work surface. Something cold, such as marble or granite works very well.

Next, you want to increase the surface tension of the ball, by gently rotating it so that the bottom stays attached to the work surface. You can do this with either one, or two hands. The process is similar to shaping a *boule* in bread making, where you are gently pulling the dough downward, across the top of the ball, and increasing the surface tension. To see our *boule* shaping video, go the www.fornobravo.com/video/hearth_bread.html.

Professional bakers can do two dough balls at a time – one in each hand. Wow.



Dust your pizza balls with flour and store them under a damp towel, in a proofing tray, under plastic wrap, or in a Tupperware container with a lid. This will prevent the outside of the ball from drying out and creating a crust, or skin that will be difficult to work with when you are shaping your pizza base. It will also give the top of your pizza a poor texture, so take care. The top of the pizza ball should be soft and silky.



Your pizza balls will need to rest for about an hour before you can shape your pizza base. That gives the dough's gluten time to become soft and elastic, so that the dough ball can be easily stretched into a thin crust pizza.

If you won't need your dough for more than an hour, refrigerate it until you are ready to start.

Tips and Hints

One good option is to make your pizza dough balls the day before you need them, and then store them in a proofing tray over night. This gives the dough time to develop flavor and character, and for the yeast and enzymes in the dough to fully consume all the available sugars. This will allow you to bake pizzas with the characteristic deep brown – not burned, color.

Storing Your Dough Balls

If you are planning on storing you dough balls overnight in the refrigerator, you can use a plastic storage container, such as a purpose-made dough proofing tray, or a large piece of Tupperware. Don't us a Ziploc bag, which will make it difficult to remove your dough ball without deflating it.



© Forno Bravo, LLC 2007/10. All Rights Reserved.

9. Pizza Dough in a Hurry

Pizza dough takes roughly 3 1 /2 – 4 hours from start to finish, allowing for *autolyse*, kneading, a two hour bulk fermentation and one hour for your dough balls to proof. If you won't have four hours, don't worry. By cutting back each phase of dough preparation by the right relative amounts, you can still make excellent pizza or Focaccia dough in as little as an hour.

While in the perfect world you would have 3 ½ hours, or you can always plan ahead and make your pizza dough the day before, the real world often doesn't work that way. Many times, you simply decide to make pizza late in the day (or after work), and do not have the time for the full 3-4 hour rise.

Luckily, pizza dough can be rushed -- without too much damage. In fact, you can synchronize your dough with firing your oven. If you really want pizza tonight, and it's late, you can both fire your oven and make your dough in about an hour.

When you are trying to hurry your dough, you might want to use either a bread machine dough cycle, or if you have the setting on your conventional oven, use the proofing temperature. Yeast converts sugar at its most efficient rate at 90ºF, which is why your bread machine heats the dough during the bulk fermentation cycle – it is warmer than your kitchen. As a side note, yeast dies at 113ºF so don't overdo it.

Here is how you should raise your dough, based on how much time you have:

- 2 hours: 90 minute in bread machine, shape pizza balls, 30 minute rest
- 90 minutes: 60 minutes in bread machine, shape pizza balls, 30 minute rest
- 75 minutes: 60 minutes in bread machine, shape pizza balls, 15 minute rest
- 60 minutes: 45 minutes in bread machine, shape pizza balls, 15 minutes rest.

Check your dough the first few times you make it, to be sure that it is not too sticky or too dry. Add a Tbs. of flour or water to correct the dough if you are off, and remember what you had to do. After a few experiments, you can stop checking, and get on with other things.

We think you will find that your own dough, even under imperfect conditions, is much better than anything you can buy -- particularly if you are using high quality pizza flour. It also doesn't have any of the preservatives or trans-fats that you can find in pre-made dough.

One last note. You should only rush your dough in a pinch. You will definitely find that it is better to ferment your dough more slowly and at lower temperatures. Cool fermentation allows the yeast to extract more flavor from the flour and for the enzymes, which are present in the dough to improve its texture and enable the yeast to do its work more fully.

And finally, try storing your dough balls overnight to improve the character and flavor of your pizza. Bring them out one hour before you need them.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

10. Shaping Your Pizza Base

Dust your hands with flour. Take one pizza ball and flip it over so that the soft bottom side faces up, gently shape it into a flat disk, and then start pulling, stretching and turning the disk in the air to make the dough thinner and thinner. Working in a circle, make the thickness of the dough consistent, avoiding thick and thin spots. At the point where you can cannot get the dough thinner without making a hole, put your pizza on a floured work surface, and use your fingertips to work out the thick spots by pushing the dough to the outside. We try to make our pizzas about as thick as a credit card and about 10" in diameter.

Remember that the more you handle the dough, the tougher it becomes. We don't recommend using a rolling pin, which is hard on the dough and will give you a thin, but tough pizza. In fact, the rolling pin is specifically outlawed in the VPN specification. Try to shape your dough as quickly as you can, with as little actual hand contact as possible – the dough will enjoy not being over-handled, and will reward you with a pizza that is both crisp and delicate.

Also, don't worry if your pizza is not round. We know a professional chef and bakery owner who loves to make his pizzas "football" shaped. He is so gentle with the dough and creative with his ingredients that his non-round pizzas are among the best we have ever tasted.

One note: you do not need to leave a “rim” around the outside of the pizza base that is thicker that the rest of the pizza. If you leave a thick dough rim, you might end up with a pizza that is too thick, chewy and puffy, or even doughy, around the outside. As long as you have taken care to make your pizza dough and pizza balls correctly, the part of the pizza base where you do not add sauce will puff nicely, giving you that characteristic *cornicione*.





© Forno Bravo, LLC 2007/10. All Rights Reserved.

11. Tomatoes and Tomato Sauce



The quality of the tomatoes you use on your pizza is critical, and you will definitely be able to tell the difference between a generic canned tomato and a premium one – whether they come from Italy, the U.S., or anywhere else. One reason why quality is so important is that most wood-fired pizza recipes call for uncooked tomatoes, where the heat of the oven quickly cooks the tomatoes and reduces the extra moisture.

As Peter Reinhart notes in *American Pie*, a wonderful book on pizza, you want a tomato sauce that is bright, fresh and fragrant – not stewed, over spiced, or sweet.

You can use canned San Marzano tomatoes (*Pomodori San Marzano Pellati*) to create a wonderful, and simple pizza tomato base. Use a potato masher to get a good sauce consistency. Don't use a food processor or hand mixer, as those will break the seeds and give your sauce a bitter flavor. If you are using a brick oven, you should not cook the sauce. The hot oven will cook the sauce perfectly. If you are using a pizza stone in your oven, you might want to try cooking the sauce first. You can try it both ways to see what you like.

Smashed Tomato Sauce

Ingredients

- 1 can (28 oz) San Marzano tomatoes.
- 1/4 teaspoon freshly ground black pepper.
- 1/2 teaspoon of salt.
- 1 teaspoon of oregano.

Options

- 1 teaspoon dried basil or 2 tablespoons of fresh basil
- 1 tablespoon garlic powder
- 2 tablespoons red wine vinegar or lemon juice
- 1 tablespoon olive oil

Don't forget to swirl excellent extra virgin olive oil on your pizza right before you put it in the oven. You can add 1 Tbs. with an oil canister.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

12. Cheese Basics and Preparation

An Italian pizza has much less cheese than American chain restaurant pizza. Trying using a smaller amount of very high quality mozzarella. You should be able to see the base of the pizza and the tomato sauce in the parts of the pizza where you have not placed any cheese.



Mozzarella

Like pizza and brick pizza ovens, mozzarella was first invented in Naples. Fresh mozzarella has little in common with the plastic "string cheese" than many of us grew up with. Fresh mozzarella has high moisture content, and is shipped in water. It is slightly stringy and has a delicate texture. It is wonderful fresh, in a *Caprese* salad (mozzarella, tomatoes, basil and olive oil) and the perfect cheese for pizza.



Fior di Latte

Fior di latte is a premium cow's milk-based mozzarella made in Italy and available at some Italian and specialty cheese shops. Give it a try. It has a more delicate texture and more flavor than basic mozzarella.



Mozzarella di Bufala

For a special treat, look for *Mozzarella di Bufala*, made from buffalo milk. Asiatic buffaloes were imported to Italy in the Middle Ages, and are still in Naples helping make a slightly pungent, tasty mozzarella. It's a very flavorful cheese, though it can be pricey. A number of companies have started making *Mozzarella di Bufala* in the U.S.

Provola

Similar to *Mozzarella*, *Scamorza*, and *Caciocavallo*, Provola is a stretched cheese that originates in *Campania*, Italy. It is produced much like to *Mozzarella*, where the fermented cheese is mixed with boiling water, then stretched, shaped, and immersed in brine. Some *Provola* is smoked, including the cheese used by a number of famous pizzerias in Naples.



© Forno Bravo, LLC 2007/10. All Rights Reserved.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

13. Assembling Your Pizza







You can assemble your pizza either on a solid surface, and then transfer it to a metal pizza peel for baking; or you can assemble your pizzas on short wooden peels, which you can use to place the pizza either in the oven or on the metal pizza peel. Either works, though in larger ovens it is difficult to reach the back of the oven with a short peel.

Spread only enough sauce to cover the pizza base, but leave it this enough where you can see the white of pizza dough through the sauce, as it is shown in the pictures here.

Leave a rim around the outside of the pizza. That will make your pizza rim, or *cornicione*, puff up. Note that the third pizza photo on the right leaves too much dough in the rim, and that it definitely over-puffed when baking and was a little doughy.

Spread just enough cheese to lightly cover the pizza, again leaving places where you can see both the sauce and the pizza dough through the cheese.

If you are using fresh mozzarella, you can cut it into cubes, tear it, or cut it into thin slices. I have been told that if you tear it, rather than cut it, your mozzarella will do a better job of retaining its moisture.

At this point, you are on your own. You can add any ingredients that you like, or you can even skip the tomatoes or the cheese. The *Marinara* is a garlic-lover's pizza, with no cheese, and the *Pizza Bianca* is a white pizza with no tomatoes. Pesto makes a tasty pizza sauce.

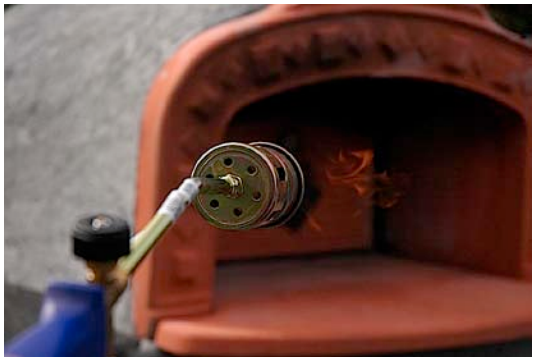
You can check our list of recipes later in the e-Book.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

14. Oven Management

Remember to leave enough time to fully fire your oven. If you are cooking just for your family, or for an after work meal, you can fire your oven for as little as 40 minutes, and still easily bake three or four pizzas. If you are holding a larger party, or want to have retained heat for other baking, fire your oven for 90 minutes, or longer.

Build your fire in the center (left to right and front to back) of the oven using 7-9 sticks of dry kindling, one to two odor-free, non-toxic fire starters, and two to three pieces of seasoned medium or hardwood. Alternatively, you can light your fire with a butane torch. It can be easier and faster than the traditional match or lighter. Try to avoid wax and sawdust fireplace starters, as they could leave a taste in your food.



Once the fire gets going, add 2-3 pieces of wood so that the flame reaches the center and front of the dome, without lapping too far out of the oven opening. Use seasoned wood that is roughly 3”-4” in diameter, and roughly 18” long. Your firewood should not smolder or smoke before catching fire, and should burn easily and quickly. Once the fire is well established, continue adding more wood, and wait for about 20 minutes.

After about 20 minutes, a small spot at the top center of the oven dome should start to turn clear (or white) and then begin expanding outward. This “whitening” is the sign that dome is reaching the desired cooking temperature. This change occurs when the carbon accumulated on the oven dome reaches about 700ºF, and turns from black to clear.



Once the whitening has started, begin building the fire toward the walls of the oven by adding pieces of wood on either side of the fire, and in the back. This wider fire will help drive the necessary heat across the entire cooking floor, and evenly spread heat across the dome. Within a few minutes, you will see the whitening spreading across the dome to the sides.



After roughly 45 minutes, the entire cooking dome will turn clear, and the cooking surface will have reached the desired 700ºF+ for cooking pizza. Push the fire to the side of the oven, brush the floor, and you are ready to start baking pizzas.

© Forno Bravo, LLC 2007/10. All Rights Reserved.



There are two good reasons to push the fire to the side. First, you can see the side of the pizza (or whatever you are cooking) and be ready to turn it when brown. It's harder to do that when the fire is in the back.

Second, your oven will cook better. Wood-fired ovens work by breathing in cold air through the lower part of the oven opening, heating it and circulating it around the oven dome, and then exhausting it out the top of the opening. By putting the fire in the back, you are giving the cold air a longer path before it hits the heat source, which results in cooler air, and is less likely to create the circular convection pattern you want.

One word on cleaning the cooking floor. We recommend the copper/brass brush that comes with the Forno Bravo ovens, and is also available from the Forno Bravo Store. It does a good job of cleaning the cooking floor, while it is soft enough to not damage your oven. Do not use a regular BBQ grill brush, which will scratch your cooking floor.

Also, we do not recommend using a damp towel to clean the floor. The cool, wet towel will take heat out of your cooking floor, and it is not necessary. A well-made pizza oven brush will be able to get all of the ashes off the part of the floor where you will be making pizza. This is a different strategy that when you are baking wood-fired bread, where the towel is good both for cleaning the floor and for moderating the floor temperature for bread.

You want a live fire the entire time you are cooking pizza. The heat of the fire bounces off the dome and down to help cook your pizza and also to restore heat to your cooking floor. Your flame should roughly reach the apex of your dome, or even past it.

Add a new piece of wood every 15-20 minutes when you are cooking pizza. Your fire should be hot enough where a 2-3" diameter piece of wood will quickly combust and add heat to the oven and flame in the dome.

Hints and Tips

A quick word on oven temperature. There has been a lot of discussion on oven temperature ever since Forno Bravo first translated the original *Pizza Napoletana* document a number of years ago. Since then we have received many emails and phone calls asking our opinion on cooking temperature, and whether the 900ºF mentioned in the document is essential.

First, it is worth noting that there are multiple documents and web sites that mention *Pizza Napoletana*, and that there really is not a "correct" temperature. The VPN association in the U.S. says 800ºF, and other Italian sites mentions 750ºF.

Our thinking is that there is more to temperature than a single number. As a pizzaiolo, you have to manage dome and cooking floor temperature, as well air temperature and the heat of your flame. Focusing on one a single number misses the point, and everyone I have spoken with in the *Pizza Napoletana* community concurs. It's sort of like saying "mine goes to 11."

What everyone does agree on is that a high heat, wood-fired oven is the best and only way to bake an authentic pizza, and that the quality of your finished pizza relies on the technique you use when making your dough and dough balls, the quality of the ingredients you use, and how delicately you shape and assemble your pizza – along with how well you manage your oven.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

15. Using Pizza Peels

Should you use a wooden pizza peel to build your pizza and set it in your oven, or should your make it on a flat surface and use a metal peel to place it in your oven? There are three schools of thought, so you can try them all, and decide what works for you.

The mainstream method used by restaurants and professional *pizzaioli* is to build your pizza on a solid, cool counter (such as marble or granite), then slide a metal pizza peel under the pizza to set it in the oven. Some professional pizzeria counters even have a purpose-built docking station where the peel can rest at counter height, making it easy to pull the pizza onto the peel.

Aluminum is the metal of choice for the placing peel you use to set you pizzas, as it is slippery, and your pizza or bread will slide right off. If your oven is large enough for multiple pizzas, and you want to put them in the back or sides, you will want a peel with long handle. Extruded (hollow, rectangular) aluminum is a good handle choice, as it is lighter than steel or wood, makes it easy to keep the peel level, and is durable.



An option used by many homeowners is to assemble the pizzas on short wood pizza peels, and then slide them onto the metal placing peel to set them in the oven. This technique is a little slower and less convenient for a professional, but minimizes the chance that you, or your guests, will ruin a pizza when it sticks to the counter. We keep a number of short wooden peels around the house for parties, which guests use to make their own pizzas. This also works well for kids.

The final option is use a long handled wood pizza peel to both assemble your pizza, and slide it into your oven. This technique pretty much eliminates the risk of something going wrong, but long wood peels can be difficult to move around the kitchen and it can get crowded with lots of guests and lots of long wood peels all converging on the oven. Still, if you are only going to make a few pizzas, it can be a convenient, and low stress, method.



Make sure your placing peel is large enough to hold your pizza (and the ones your guests make), as an uncooked pizza will sag over the edge of the peel and make a mess. The placing peel should be rectangular, as you will use the flat front edge to slide under the assembled pizzas. It can be challenging for the home *pizzaiolo* to slide a round, peel under a pizza that your friend (or child) has lovingly made -- we've been there.

You can use flour, cornmeal, semolina, or rice flour to keep your pizza from sticking to the pizza peel. Flour is the Italian tradition, but you have to take care to not use too much flour, which will give you a burned and unpleasant flavor, or too little flour, such that the pizza sticks to the peel. Cornmeal is slippery, but leaves a distinct flavor and texture. Rice flour and semolina are also good at keeping pizzas from sticking to the peel, and they leave less of an impression on your final pizza than cornmeal.

We had a poll on the Forno Bravo Forum, and standard flour was the most popular choice, followed by semolina.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Regardless of how you placed your pizza in the oven, you will need a round metal (not rectangular) peel to turn it, and pull it out -- it is very difficult to do this with a wooden peel or a rectangular metal peel. For turning and moving the pizzas in the oven, use a small round peel. It can be as small as 8", which makes it easy to rotate the pizza to cook evenly facing the fire. The small round size also works well for removing your pizza, as the cooked pizza comes out flat and doesn't sag over the edge. The Forno Bravo round turning peels have a slide that moves up and down the handle, and makes it easy to control the peel around inside the oven.



© Forno Bravo, LLC 2007/10. All Rights Reserved.

16. Pizza Baking

Your oven is fired, the dome is white, and the cooking floor is clean. You have assembled your first pizza, and you are ready to go. Test to make sure you pizza is not stuck on your peel by moving your peel forward and backward using short jerks - it should slide easily around. If it does stick, lift it up on one side using your fingers, and throw a little flour underneath. Slide your peel back and forth, and that should loosen it up.

If your pizzas consistently stick to the peel, use more flour underneath your pizza dough before you start decorating. Also, if you have a group of people assembling pizzas, and one sits for a while before you place it in the oven, there is a large chance it will stick.

Next, choose a target roughly centered between the fire and dome wall – at least 6" away from the edge of the fire. The best way to place your pizza is to push your peel toward your spot, then stop it just short that spot, allowing the pizza to slide off the peel. Pull the peel backward as the pizza slides forward.

You will know that your oven is hot enough to bake correctly when the cornicione of the fresh pizza puffs up almost immediately.

After about 60 seconds, slide your turning peel under the pizza and turn it 180 degrees, so that the side that was furthest from the fire is now facing it. The Forno Bravo round turning peel has a hand glide that allows you to rotate the peel under the pizza in order to easily rotate it.

If your pizza is burning on the side facing the fire, you should turn it sooner. After another 45-90 seconds, your pizza should be done. You can also try turning your pizza twice, rotating it in thirds. Experiment, and stick with what works best for you.

Optionally, you can lift your pizza up for the last few seconds with your peel, holding it closer to the dome. The reflecting heat of the dome will quickly finish baking your pizza if the top is not quite done.

If you have a larger oven that can hold four or more pizzas, not all of the pizzas of the pizzas can be placed directly across from the fire. In that case, you should start you pizzas in the zone closest to the fire, then move them to the outer zone to finish baking. You will find a rhythm where you will take one pizza out, move a pizza from the starting zone to the finishing zone, and place a new pizza in the starting zone.

The perfect pizza is bubbling on top with completely melted and browned cheese, and has a brown outer crust, and a dark brown bottom. The crust is crunchy on the outside and soft and delicate on the inside. Everything is steaming hot. Throw on some fresh basil, use a pizza cutting wheel to cut your pizza into six or eight pieces and you have done it.

Don’t forget to keep adding wood to your fire to keep the flame active.





© Forno Bravo, LLC 2007/10. All Rights Reserved.

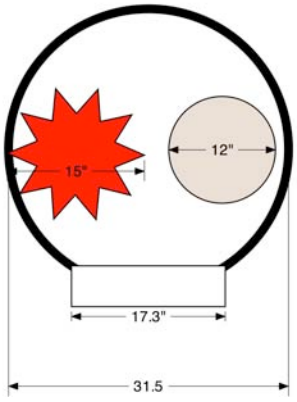




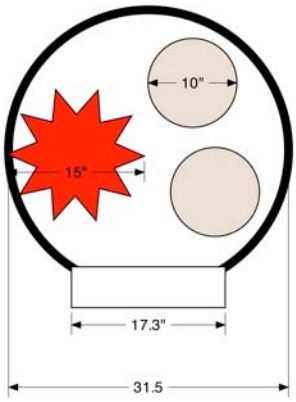
The following are a series of graphics that show how many pizzas will fit in the various Forno Bravo oven sizes, where the starting and finishing zones are, and the steps for rotating your pizza.

Pizza Capacity

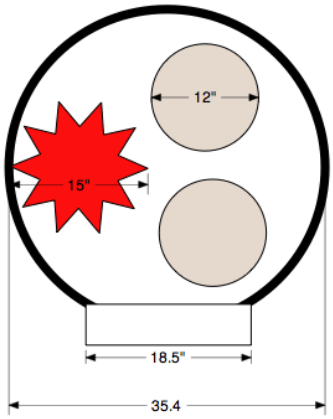
Pizza in a 31" (80cm) Wood-Fired Oven



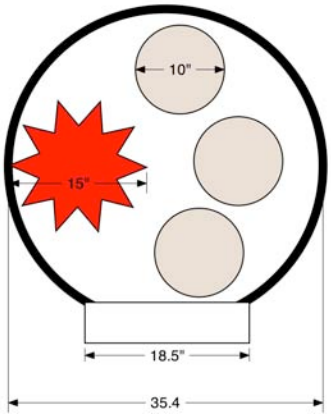
Pizza in a 31" (80cm) Wood-Fired Oven



Pizza in a 35" (90cm) Wood-Fired Oven



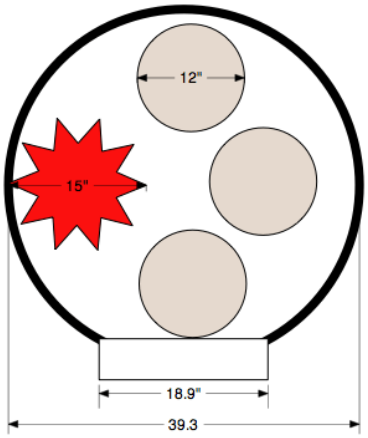
Pizza in a 35" (90cm) Wood-Fired Oven



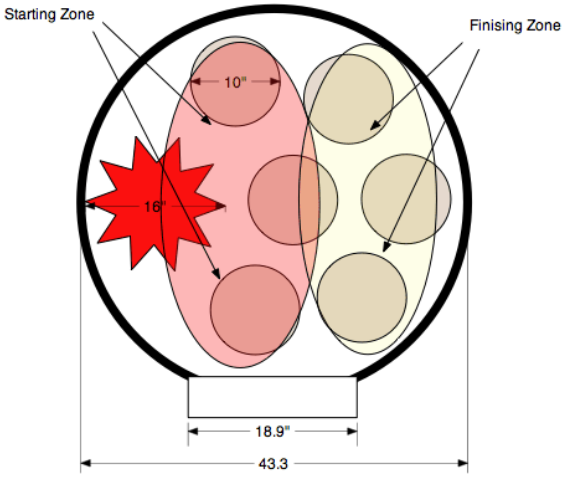
© Forno Bravo, LLC 2007/10. All Rights Reserved.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

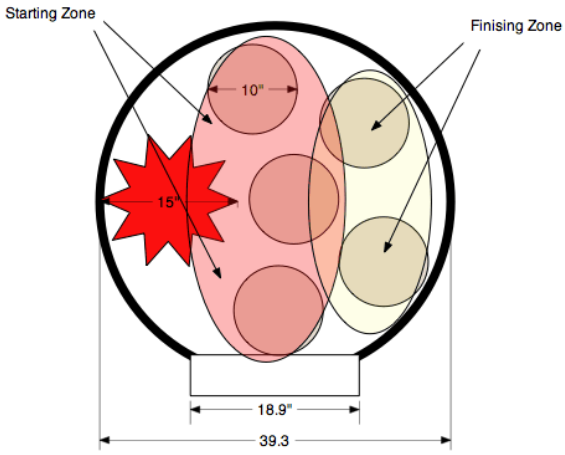
Pizza in a 39" (100cm) Wood-Fired Oven



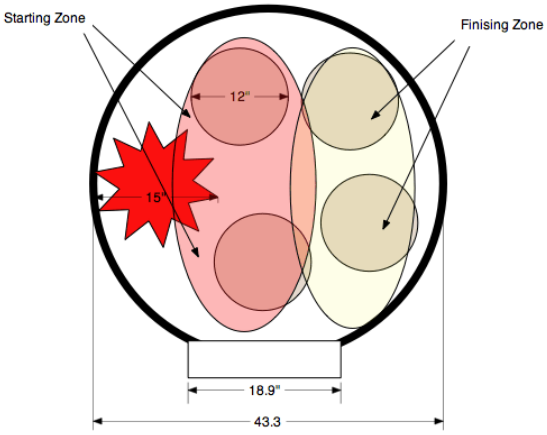
Pizza in a 43" (110cm) Wood-Fired Oven



Pizza in a 39" (100cm) Wood-Fired Oven



Pizza in a 43" (110cm) Wood-Fired Oven



© Forno Bravo, LLC 2007/10. All Rights Reserved.

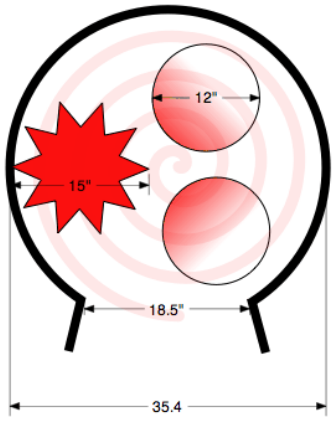
How Pizza Bakes

Your Forno Bravo pizza oven is designed to provide even and consistent heat on the cooking floor. The round, domed shape, and the curve of the dome are optimized to bounce heat down as evenly as possible.

Still, because you have a heat source inside the oven, it is unavoidable that one side will be hotter than the other, and that one side of the pizza will cook faster than the other. That is why you need to rotate your pizza once (or twice) to bake it evenly.

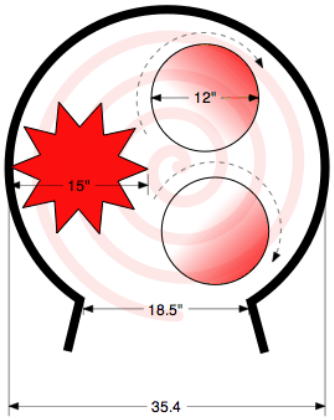
Try to learn how to quickly spin your pizza using the small, round turning peel and the hand glide. With a little practice, you should be able to rotate the pizza 180º, while barely lifting it off the oven floor. It's all in the wrists. That said, while I have seen it done many times, it can be difficult to do. The quick rotation is another pizza making skill that can take a little time to learn and master.

How Pizza Bakes in a Wood-Fired Oven:
Step 1



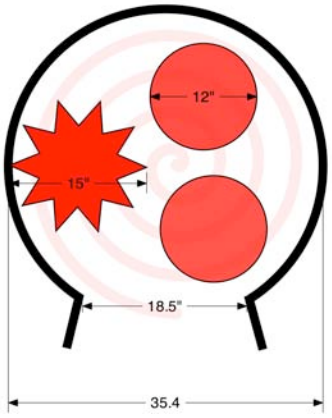
At 45 seconds.

How Pizza Bakes in a Wood-Fired Oven:
Step 2



At 46 seconds.

How Pizza Bakes in a Wood-Fired Oven:
Step 3



At 90 seconds.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

17. The Finished Pizza

Your finished pizza shows the heat of your oven, without looking (or being) burned. Dark brown blisters are a sign of dough that has been properly made and an oven that has been properly fired. The pizza below shows the characteristic blistering, without going too far.



The bottom of the pizza should brown, with dark brown blisters. If the bottom of your pizza is too light, you are losing some of the flavor and crisp texture your wood-fired oven can produce.



If the bottom of your pizza is too dark, or even black, it will taste burned, or bitter. If the bottoms of your pizzas are consistently burned before the top of your pizza is cooked, your oven temperatures are out of balance, with the hearth significantly hotter than the dome.

There could be a couple of reasons for this. First, you may not have enough heat stored, or reflecting, in your oven dome. This could be a result of burning very dense wood, that does not put out a significant flame, or a result of burning thick wood, which never fully combusts to make fire. Another possibility is that you simply let your fire burn down too far before you added the next piece of wood. Often, the first pizza cooked right after the fire has been moved to the side can have a burned bottom as the oven temperature regulates.

Another problem might be that there was too much flour on the pizza peel, which found its way into the oven. Flour scorches much more quickly than pizza dough.

On the other hand, if the top of your pizza is done, but the bottom is still light brown, or even soggy, you have the opposite problem. The dome and reflective heat are high, while the cooking floor has either cooled, or was never up to heat.

There can be a couple of reasons why this has happened. First, you might have used a lighter wood that put a great deal of flame in the dome, but no real heat in the cooking floor. If you did not fully fire your oven, the cooking floor can be the first part of the oven to give up on you.

And finally, if you own a brick bread oven with a thick cooking floor (my Scott oven has an 8” cooking floor), it is likely that you are losing temperature as heat moves to the outer reaches of the thermal mass. You can either build up your fire and not cook pizzas until the floor temperature comes back up, or you can rake your coals back over the floor for a few minutes, then clean the floor and start again.



Your crust should be crispy, but not hard or crunchy. You should be able to fold a *Pizza Napoletana* without

© Forno Bravo, LLC 2007/10. All Rights Reserved.

breaking or cracking the crust. My 8 year-old now tests every pizza she has in a restaurant to see if you can fold it. The pizza above shows a great cornicione that was definitely foldable.

If your pizza is too crunchy, brittle or tough, you have probably overworked the dough. Try to handle the dough less, and don't use a rolling pin.

Your cornicione should puff up and give you big air holes. It should be crispy on the outside, and moist and slightly chewy on the inside, and it should not be heavy or dense. The pizza below has a nice *cornicione* lift.



If your crumb and *cornicione* are too dense, try to make sure that you are fully hydrating your dough. The moist dough has the ability to quickly expand when the pizza is placed in your hot oven. If you are using 100% American high gluten bread flour for your pizza dough, you might want to consider mixing it with either general-purpose flour, or Italian Tipo 00 flour. Or, you can order a 5-pack of Caputo pizza flour and give that a try. It is well known for how well it puffs in the *cornicione*.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

18. Beauty Shots















© Forno Bravo, LLC 2007/10. All Rights Reserved.















© Forno Bravo, LLC 2007/10. All Rights Reserved.



Check out the Forno Bravo Ristorante oven in the background.





© Forno Bravo, LLC 2007/10. All Rights Reserved.



© Forno Bravo, LLC 2007/10. All Rights Reserved.

19. Pizza Recipes

Once you have mastered the basic pizza assembly techniques, and practiced with the more traditional pizza recipes – Margherita, Marinara, Quattro Stagione, Quattro Formaggio, Capricciosa, Napoletana, Frutti di Mare, etc., you are on your own. Create taste and texture combinations that work for you. Join the Forno Bravo Forum (http://www.fornobravo.com/forum) to share your recipes and see what pizzas other wood-fired oven owners are making.

You can also email me (james@fornobravo.com) with your recipes, and we will add them to FornoBravo.com, and to later versions of *Wood-Fired Pizza*.

Here is the start of what is becoming a long and growing list of recipes.

Red Pizzas

Porcini mushroom

Grilled zucchini

Grilled eggplant, tomato and basil

Grilled eggplant, tomato, Arugula, capers and anchovies

Arugula and fresh mozzarella.

Arugula with uncooked Prosciutto Cotto

Grilled onion

Tuna – swirl olive oil on the dough disk, spread a dollop or two of pesto on that and then crumble tuna onto that (solid white Italian packed in olive oil). No cheese or just a drizzle of it either shredded or sliced whole milk mozzarella.

Green olive, mussels and fresh basil

Grilled eggplant and goat cheese.

Caramelized spring onions with Greek feta + oregano.

Cajun Seafood -- shrimp, tuna, and muscles, peppers, a little basil, and sprinkle with Cajun seasoning.

Montana -- I prepare a meat topping from ground pork, beef, and lamb, plus salt, pepper, garlic, and a little allspice and cinnamon. The trick is to grind it very fine and cook it slow, so it stays tender. I break this up (after cooking) onto the pie, add onions, garlic, and mushrooms.

Five Alarm pie – take a handful of roasted and peeled finger peppers and a handful of nonpareil Capers.

Another hot pie – thin crust, tomato sauce, fresh Mozzarella, and a drizzle of olive oil infused with chili pepper...then the optional hot sausage.

Oven dried Tomatoes, Black Olives, Goat Cheese and Sweet Vidalia onions drizzled with extra virgin olive oil and a pinch of sea salt / Oregano.

Fresh Tomato -- Margherita Pura. The best sauce comes from black tomatoes, straight from the garden (the spiciest tomato strain you have ever tried), just crushed and salted. Add sliced or pressed garlic, plenty (not a drizzle) of olive oil, and fresh basil at the last minute.

Spinach with cheese – add fresh spinach and mozzarella on top of a hot Margherita pizza.

Asian Orange chicken – marinate the chicken for 24 hrs in a pseudo-Asian orange savory sauce, and then bread it to be oven roasted. Add it to you pizza.

Tomato puree, ham, crushed pineapple, Mozzarella, extra virgin olive oil, and brown sugar.

Bufala Mozzarella, extra virgin olive oil, thick sliced tomato, and fresh basil leaves and a squirt of balsamic syrup when it's out of the oven.

Assorted sausage, onion, tomato, tomato sauce, jalapeno and Mozzarella.

BBQ chicken.

Chicken in buffalo wing sauce.

Coppa, whole garlic, basil leaves and Parmesan.

A simple tomato sauce of garlic lightly sautéed in olive oil, red pepper flakes, tomatoes and basil.

Sausage (mild Italian crumbled sausage precooked) with fresh Mozzarella and tomato sauce, some thin sliced onion.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Roasted pepper (fresh peppers from our local farmer's market) on tomato sauce, Mozzarella, some thin sliced onion.

Asian sweet chili sauce, Sliced banana, Chopped bacon, Shredded Tasty Cheese, Brown Sugar, Cream Cheese, Some chili flakes if you like it hotter

White Pizzas

Roast potato, rosemary and Pecorino

Mushroom, leek, tomato and slivered Parmesan

Pesto, oil and tomato

Smoked salmon and Brie

Mushroom and Brie

Artichoke and Brie

Olive, grilled onion and anchovy

A little fig jam on the dough, mozzarella, and the thinnest sliced Prosciutto you can get.

Pear, Gorgonzola and olive oil.

Thinly sliced pears, Brie, brown sugar. The brown sugar caramelizes

White pizza starting with a sprinkle of grated garlic, then a drizzle of extra virgin olive oil then spicy Italian sausage, diced onion, thin sliced Roma tomatoes to cover 30% and topped with stalks of Cilantro in a wagon spoke.

Clam with pesto, Parmesan and extra virgin olive oil

Green apple with Mozzarella and prosciutto.

Ricotta, a big pile of Arugula, and extra virgin olive oil.

Chicken with basil cream sauce, whole garlic cloves, fresh basil leaves, Mozzarella.

Marinate sliced jalapenos in extra virgin olive oil and minced garlic the day before. On pizza day I drizzle extra virgin olive oil on the dough, add some cilantro and oregano, shredded pork, some Mexican ricotta cheese, and a generous amount of marinated jalapeños. I go easy on the toppings (other than the peppers).

Rosemary-garlic extra virgin olive oil, ricotta cheese, and spinach.

The rosemary-garlic extra virgin olive oil, paper thin slices of lemon, crunchy sea salt, and more of the rosemary-garlic extra virgin olive oil on top.

Place minced garlic, fresh chopped basil, salt, fresh Roma tomatoes (diced) and olive oil in a container and let marinate for at least 1-2 hours. Put the cheese on the dough first and the tomato mixture on top.

White pizza with slices of the big Portobello mushrooms, blue cheese and a good dose of extra virgin olive oil. Either Gorgonzola or Roquefort.

Grilled onions, raisins and extra virgin olive oil.

One eggplant (precooked chopped eggplant per the August '06 Bruschetta recipes from Sunset) with a small amount of fresh Mozzarella.

Chinese broccoli (this was just the greens) sautéed in olive oil with garlic, a tiny amount of fresh Mozzarella and some fresh gratings of Parmesan-Reggiano.

Potato -- very thin sliced potato (use a mandolin), russet works great Mozzarella, ideally fresh garlic, salt (go a bit heavy here, remember the potato absorbs this), pepper fresh thyme or rosemary fresh grated Romano or parmesan green onions or thin sliced red or yellow onion drizzle extra virgin olive oil.

Dessert Pizzas

Take a pile of peeled/cored granny smith apples (peaches work well too), and toss with 1/4 cup honey + cinnamon sugar mix (6.5 Tbs. sugar and 1.5 Tbs. cinnamon) + 2 Tbs. cornstarch + a bit of brown sugar sprinkled across the top...put it in a sturdy pan (cast iron skillet is the best if you have one) and set it in the oven until apples look soft and juices are bubbling...then yank it out and cover it with crumb topping mixture. You have to watch it close after this because the topping can cook VERY quickly and burn. After it comes out of the oven I make it even worse by drizzling melted caramel over the top and serving with vanilla ice cream.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

20. Dessert Pizzas

Introduction

Try a dessert pizza to finish off an evening of wood-fired pizza making. Let the oven fall in temperature, as you want to brown and caramelize your sugars – not burn them. You can use fruits, chocolate, Nutella, sugar and *mascarpone* to make an unlimited range of dessert pizzas.

Index

- Dessert Pizza with Mascarpone
- Chocolate and Strawberry Pizza
- Fresh Fruit Pizza
- Apple Pie Pizza

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Dessert Pizza with Mascarpone

Here is the recipe for the dessert pizza we made at 10 Speed Press.



Ingredients

Dessert Pizza Dough (four dough balls, for up to 16 desserts)

- 500g Caputo pizza flour
- 300g water (60% hydration)
- 1 Tbs. olive oil
- 1 tsp salt
- 2 tsp instant dry yeast
- Rind of one lemon

The lemon gives the dough a nice, tangy flavor that comes through on the finished dessert.



The toppings

- Mascarpone
- Pine nuts
- Olive oil
- Powdered sugar
- Crème fraiche
- Fresh fruit

Preparation

Make your dough as you would regular pizza dough, and then shape into four dough balls.



Shape each ball into 6”-7” rounds, leaving finger impressions. Keep them thick, like a fat little Focaccia.

Cover with olive oil, and then top with 6-8 dollops of Mascarpone. You don’t have to spread them out. Top that with 2 Tbs. of pine nuts.

Bake in an oven that has fallen from high pizza heat to around 600ºF, with a live fire.

Quarter or halve the pizza, then top with crème fraiche and powdered sugar, then top with fresh fruit.

It’s almost like a bread pudding below the fruit and cream. The fruit isn’t cooked and stays fresh.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Chocolate and Strawberry Pizza

Chocolate and strawberry pizza is the perfect end to a pizza dinner!



Ingredients

- Your preferred pizza dough
- 1/2 lb. chocolate bar (your preference, try semi bitter), grated
- 1/2 – 1 lb. strawberries, cleaned and chopped

Preparation

Fire your oven until it reaches pizza heat.

Shape your pizza dough as usual (in this case, you could use the rolling pin, if you like).

Sprinkle grated chocolate all over the shaped dough, and then add the strawberries.

Cook until the pizza rim is browned and the chocolate melted—about 2 minutes.

Eat too many slices!

Options

Blend the chocolate with 2 Tbs. of milk or cream to soften the topping and give it a milder taste.

Blend the chocolate with 2 Tbs. of condensed milk to make a sweeter, heavier topping.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Fresh Fruit Pizza

Prepare a 12” thin to medium thick pizza base and use olive oil as a moisture barrier to keep the fruit from making the pizza dough soggy. Use fresh fruit when you can, drain any liquid from canned fruit, and leaving some space around toppings so you can see the dough. Round toppings need to be cut or mashed to prevent them from rolling off the dough when it goes in the oven. Sweet and tart go well together, and butter, spices and nuts go on before the brown sugar.

Don’t scrimp on the sugar. Use 4-6 tablespoons of brown sugar. If you want to use cheese, mascarpone or cream cheeses are good. Cook this fruit pizza at 600-650ºF, until the crust is evenly browned, the sugar and exposed fruit starts to caramelize and boil, and then turn brown. As it cools the sugar hardens and even gets brittle giving you a nice candy crunch as you bite and chew.

Apricot/Raspberry: The original.

Ingredients:

- 1 large ripe apricot
- 8-10 raspberries
- 1 Tbs. butter
- ¼ tsp ground cinnamon
- ¼ cup brown sugar
- 2 Tbs. extra virgin olive oil
- 12-14 inch pizza dough
- Vanilla ice cream
- Cream sherry or port wine

Preparation

- Toss or roll pizza dough to thin to medium thickness or about 1/8-1/2 inch.
- Prepare the fruit by cutting the apricot into thin slices (1/4-1/2”) and cut or tear the raspberries in half.
- Cover the dough with a thin layer of extra virgin olive oil.
- Place the sliced apricots on top of the oiled dough, leaving space around each slice.
- Place the raspberry halves in the gaps.
- Add butter mini dollops.
- Sprinkle on cinnamon and brown sugar.

Cooking

Cook as described above.

Serving

Let the pie rest for a few minutes then slice it and serve as is or add ice cream (vanilla bean with a drizzle of cream sherry or port is my preference) either on the side or right over the slice.

Options

Fresh fruit and extra virgin olive oil are always best. I also prefer light brown sugar but substitutions may be necessary from time to time. Canned apricots or preserves and frozen raspberries or preserves can be used. Dark brown sugar or white sugar can be used to taste.

Thanks to Gerald Powell in Temecula, CA for the recipe.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Apple Pie Pizza

Italian pizza meets American pie. Here is a recipe that uses a slightly pre-baked pizza base, along with some traditional and non-traditional Apple pie ingredients

Ingredients

- 8 Macintosh apples - peeled, cored and chopped
- 1/4 cup white sugar
- 1/2 teaspoon ground cinnamon
- 1/2 teaspoon ground allspice
- 12-14” pizza dough
- ¼ cup *mascarpone* cheese
- 2 Tbs. butter
- Vanilla ice cream

Preparation

- Toss or roll pizza dough to thin to medium thickness or about 1/8-1/2 inch.
- Prepare apple pie filling.
- Pre-bake the pizza base in a moderate oven (500-600ºF) for 30 seconds to a minute. Don’t over do it.
- Spread the mascarpone across the pizza base, and then add the apple pie filling.
- Add butter mini dollops.
- Sprinkle on cinnamon and brown sugar.
- Return to the oven until the pie filling is crisp and bubbling.

Serving

Let the pie rest for a few minutes then slice it and serve as is or add ice cream (vanilla bean with a drizzle of cream sherry or port is my preference) either on the side or right over the slice.

Thanks to Reggie Miller (and his dinner guests) for this recipe.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Appendix 1. Vera Pizza Napoletana

There is a basic set of guidelines, or guiding principles, behind *Vera Pizza Napoletana*. As a restaurant owner, or home pizza maker, you can use these guidelines to your own advantage, treating them either as a starting point for creating your own unique and wonderful pizza recipes and techniques, or as more formal rules that you always follow. If your goal is to become a VPN-certified pizzeria, there are methods for demonstrating that your restaurant operates in full accordance with the rules.

Both the Forno Bravo Ristorante and Modena wood-fired pizza ovens are designed for the 800ºF temperature and 90-second pizza cooking times described by the *Vera Pizza Napoletana* guidelines.

Further, Forno Bravo provides on-site *Pizza Napoletana* consulting services for restaurants and pizzerias, including both on-site and Internet-based kitchen design services; on-site *Pizza Napoletana* training; and pizza ingredient supply chain services. We can help you successfully launch a new pizzeria, and improve an existing pizzeria.

You can also read our English translation of the original Italian VPN Specification presented to the European Union in support of *Denominazione d'Origine Controllata* (DOC) status for VPN.

The *Vera Pizza Napoletana* Guidelines are:

1. A Wood-Burning Oven:

Pizza Napoletana must be cooked in a wood-fired dome oven. Gas, coal or electric ovens, while capable of produce wonderful pizza, do not conform to the *Pizza Napoletana* tradition.

2. Proper Ingredients:

Tipo 00 flour, San Marzano (plum) tomatoes, all natural *Fior di latte* or *Bufala mozzarella*, fresh basil, salt and yeast. Only fresh, all-natural, non-processed ingredients are acceptable.

3. Proper Technique

Pizza dough kneaded either by hand, or with a low speed mixer. No mechanical dough shaping, such as a dough press or rolling pin, and proper pizza preparation. Pizza baking time should not exceed 90 seconds.

4. Proper Equipment

A proper work surface (usually a marble slab) and a wood-fired oven operating at roughly 800ºF.

5. The Final Product: *Pizza Napoletana*

Pizza Napoletana is not larger than 14” with a raised edge crust and thin (.11 inch) center. The pizza should be soft and elastic, and easily foldable, not hard or brittle.

Here is the original document defining "*Pizza Napoletana*" for the EU. You can buy the ingredients defined in the *Pizza Napoletana* specification at the Forno Bravo Store.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

MINISTRY OF AGRICULTURE COMMUNICATION

Summary: Proposal of recognition of the Specialita' Traditionale Garantita "*Pizza Napoletana*"

Date: 24-5-2004

Declaration:

The Ministry of Agricultural received the petition to register the classification of *Specialita' Traditionale Garantita* for the product "*Pizza Napoletana*" as presented in the following Articles 1-13 of the regulation (EEC) number 2082/92, from the association Genuine *Pizza Napoletana* and from the association *Pizza Napoletana*, both headquarter in Naples, in order to create this product classification, and to distinguish it clearly from other similar products and to protect the consumer. We verify that the petition of production has been requested in the Italian language and the creation of the product obtained "according to the Italian tradition" and will proceed with the publication of the text of the to methods of production.

Department of Agricultural Food Product Quality and Consumer Protection

Division QTC III

via XX September n. 20

00187 Rome

Thirty days from the date of publication in the official Gazette of the Italian Republic, the above-mentioned petition will be proposed to the European Commission.

THE METHOD OF PRODUCTION OF THE *SPECIALITA' TRADITIONALE GARANTITA "PIZZA NAPOLETANA"*

Article 1. Name of the product

The classification of *"Pizza Napoletana STG"* following the Italian tradition and with the wording exclusively in the Italian language, is reserved to the product made using ovens and from businesses dedicated to the production of Pizza, defined as Pizzerias, and destined for the final consumer, with specific features specified as follows:

The Method

"Pizza Napoletana" is a food preparation made from a base of risen dough and cooked in a wood fire oven. The product is characterized both by the ingredient, means and technologies of production. In the designation *"Pizza Napoletana"* we define the following names: *"Pizza Napoletana Marinara"*, *"Pizza Napoletana Margherita Extra"* and *"Pizza Napoletana Margherita"*.

Article 2. Ingredients

The products that provide the base for *"Pizza Napoletana"* include wheat flour type "00" with the addition of flour type "0" yeast, natural water, peeled tomatoes and/or fresh cherry tomatoes, marine salt, and extra virgin olive oil.

Other added ingredients can include, garlic and oregano for *"Pizza Napoletana Marinara"* buffalo milk mozzarella, fresh basil and fresh tomatoes for *“Pizza Napoletana Margherita Extra"* and mozzarella STG or *Fior di latte Appennino* and fresh basil for *"Pizza Napoletana Margherita"*.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Article 3. Method of Production.

The preparation of *"Pizza Napoletana"* includes exclusively the following method of production used in a continuous cycle.

1) Preparation of the dough:

Blend flour, water, salt and yeast. Pour a liter of water into a mixer, dissolve between the 50 and the 55g of salt, add 10% of the total amount of flour, and then add 3g of hydrated yeast. Start the mixer, and then gradually add 1800 g of flour until you achievement of the desired dough consistency. Combining the ingredients should take 10 minutes.

Next, mix the dough at low speed for 20 minutes, until the dough forms a single ball. To obtain the optimal dough consistency, it is very important to control the quantity of water, such that the flour is able to absorb it all. The mixture should be sticky, soft and elastic to the touch.

The characteristic "merceologiche" of the flour used for *"Pizza Napoletana"* allow it to absorb from 50 to 55% of its weight in water to reach the optimal "point of pasta." The resulting dough can be individualized by the abilities of the individual pizzaiolo.

The preparation of the dough in the mixer should be done without causing the dough to become warm.

2) Dough Rising:

First phase: remove the dough from the mixer, and place it on a surface in the pizzeria where it can be left to rest for 2 hours, covered from a damp cloth. In this manner the dough's surface cannot become harden, nor can it form a crust from the evaporation of the moisture released from the dough. The dough is left for the 2 hour rising in the form of a ball, which must be made by the *pizzaiolo* exclusively by hand.

With the aid of a spatula, cut from the mixture into smaller portions, which are then shaped onto a ball. For *"Pizza Napoletana"* the dough balls must weigh between the 180 and the 250 g.

Second phase of the dough rising: Once the individual dough balls are formed, they are left in "rising boxes" for a second rising, which lasts from 4 to 6 hours. By controlling storage temperature, these dough balls can then be used at any time within the following 6 hours.

3) Forming the pizza base:

Following the second rising, the dough ball can be removed from the rising box using a spatula and placed on the counter of the pizzeria, on a light layer of flour to keep the dough from sticking to the work bench. With a motion from the center to the outside, and with the pressure of the fingers of both the hands on the dough ball, which is turned over and around multiple times, the pizzaiolo forms a disk of dough that to the center the thickness is not more than 0.3 cm (.11 inch), and a border that is not greater than 1-2 cm (.4-.8 inch), forming a frame, or crust.

No other type of preparation is acceptable for the preparation of the *"Pizza Napoletana STG."* Specifically excluded is the use of a rolling pin and mechanical presses.

Features of the flour:

W	220-380
P/L	.50-.70
G	22
Assorbimento	55-62

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Stabilita'	4-12
Caduta E10	Max 60
Falling number	300-400
Dry glutine	9.5-11%
Protein	11-12.5%

Features of the Dough:

Fermentation temperature	25C
Final PH	5.87
TA	0.14
Density	0.79g/cc (+34%)

4) Method: Assembling a Pizza.

Pizza Napoletana Marinara:

Using a spoon place 80g of pressed, peeled tomatoes in to the center of the pizza base, then using a spiraling motion, cover the entire surface of the base with the sauce;

Using a spiraling motion, add salt on the surface of the tomato sauce;

In the same manner, scatter a pinch of oregano;

Chop a thin slice of peeled garlic, and add it to the tomato;

Using an oil canister and a spiraling motion starting from the center and moving out, pour 4-5g of extra virgin olive oil.

Pizza Napoletana Margherita Extra:

Using a spoon place 60-80g of pressed, peeled tomatoes, or chopped fresh cherry tomatoes in to the center of the pizza base, then using a spiraling motion, cover the entire surface of the base with the sauce;

Using a spiraling motion, add salt on the surface of the tomato sauce;

Spread 80-100g of sliced Mozzarella di Bufala DOP so that it forms a connect lath pattern on the surface of the tomato sauce;

Spread on the fresh basil leaves;

Using an oil canister and a spiraling motion starting from the center and moving out, pour 4-5g of extra virgin olive oil.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Pizza Napoletana Margherita:

Using a spoon place 60-80g of pressed, peeled tomatoes, or chopped fresh cherry tomatoes in to the center of the pizza base, then using a spiraling motion, cover the entire surface of the base with the sauce;

Using a spiraling motion, add salt on the surface of the tomato sauce;

Spread 80-100g of sliced Mozzarella STG, or *Fior di latte Appennino* to that it forms a connect lath pattern on the surface of the tomato sauce;

Spread on the fresh basil leaves;

Using an oil canister and a spiraling motion starting from the center and moving out, pour 4-5g of extra virgin olive oil.

5) Cooking:

Using a wood or aluminum peel, and a little flour, the *pizzaiolo* transfers, the pizza using a rotary movement and a quick shake, on to the cooking surface of the oven without disturbing the prepared pizza. The cooking of the *"Pizza Napoletana STG"* must be done exclusively in a wood fire oven which has reached the cooking temperature of 485C, (905F), which is essential to cook the *Pizza Napoletana*.

The *pizzaiolo* should monitor the cooking of the pizza by lifting up its edge. Using a metal peel, the pizzaiolo rotates the pizza, changing the edge that is facing the fire, and taking care to always replace the pizza on the same spot on the cooking surface, to ensure that the pizza does not burn because it is exposed to different temperatures.

It is important that the pizza is cooked in uniform manner across its entire circumference.

At the conclusion of the cooking, the pizzaiolo removes the pizza from the oven with a metallic peel, and places it on a flat, dry work surface.

Cooking time should not surpass 60-90 seconds.
After the cooking, the pizza should have the following characteristics:
The tomato should have lost all excess water, and should be dense and consistent;
The mozzarella di Bufala DOP or the mozzarella STG should be melted on the surface of the pizza;
The basil, garlic and the oregano will develop an intense aroma, and will appear brown, but not burned.
The following temperature guidelines should be followed:
Cooking surface temperature: 800ºF about.
Oven dome temperature: 800ºF about.
Cooking time: 60-90 seconds.
Temperature reached by the dough: 60-65C.
Temperature reached by the tomatoes: 75-80C.
Temperature reached by the oil: 75-85C.
Temperature reached from the mozzarella: 65-7C.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Article 4. Traditional character

The pizza, as represented by a base of dough on which you can place food and which functions as a plate, has been present in various forms in the excavations of almost every known ancient civilization. The term "pizza" was first used in Italy in 997 in the Codex Cajetanus of Gaeta.

The true *"Pizza Napoletana"* as it has come to be know in Naples, a base of dough that is covered with tomatoes was born after a specific historical moment: the discovery of the America, in 1492 by Cristoforo Colombo. It was the Genoan navigator that carried the tomato plant to Europe. In 1596 the tomato plant was exported to Naples from the Spain, where it was first used as an ornamental. The first historical documentation of the use of tomatoes in the cooking is found in "Gallant Cooking" (Naples - And. Raimondiane 1733) by Vincenzo Corrado, the chef to Prince Emanuele of Francavilla. The same Corrado, in a following treaty on the foods most commonly used in Naples, declares that the tomato was used for preparation of pizza and macaroni, helping create two products for both the good fortune of Naples and the history of cooking. We can take these as the first official appearance of the "*Pizza Napoletana*" a base of dough covered with tomato.

The first pizzerias, without doubt, were born at Naples and until the middle the 1900s; pizza was an exclusive product of Naples and of its Pizzerias. Since 1700 there were shops in Naples called "pizzeria" The fame of the Naples pizzeria began to grow when the king of Naples, Ferdinando of Bourbon, broke with the norm of the times, by entering the more renowned pizzerias to experience the traditional dish. From that moment, the "pizza" was transformed into a restaurant exclusively for the preparation of the "pizza".

The pizzas most popular and famous in Naples are the *“Marinara"* created in 1734, and the "Margherita" created as an offering to the Queen of Italy during her visit to Naples in 1889. The colors of pizza (tomato, mozzarella and Basil) remember the flag of the Italy.

Over time, Pizzerias have sprung up all around Italy and abroad, but each of these still finds its roots in the surroundings of Naples. And they are all bound with the term “Neapolitan pizzeria" in that they all recall in some manner their connection with Naples, where for almost 300 years this product has remained unchanged.

In May 1984, virtually all the old Napoletano Pizzaioli came together to draw up the method for the Pizza Napoletano, which was signed and officially recorded by the notary Antonio Carannante of Naples.

Article 5. Features of the final product

a. Description of the product:

"Pizza Napoletana" STG is presented as a product from the oven, round in shape, with a variable diameter than it should not surpass 35 cm, (14 inches), with the edge raised (crust), and with the central covered by the ingredients. The central of the pizza base will be 0.3 cm, (.11 inch thick), with crust 1-2 cm (.4-.8 inch). The pizza should be soft, elastic, and easily foldable into a "booklet".

b. Appearance: *"Pizza Napoletana"* STG is characterized by a raised crust of golden color -- a definite product from oven, soft to the touch and to the mouth. The ingredients framed in the center of the pizza by the red one of the tomato are perfectly blended with the olive oil.

Marinara, the green of the oregano and the white one of the garlic;

© Forno Bravo, LLC 2007/10. All Rights Reserved.

Pizza Margherita, the white one of the mozzarella browned all over, and the green one of the basil in leaves darkened from cooking.

The consistency should be soft, elastic, and bendable. The product is presented soft to the slice, with the characteristic flavors, a crust that presents the flavors of well-prepared and baked bread, the mixed flavors of the tomatoes, the aromas of the of the oregano, the garlic and the basil, and the flavors of the cooked mozzarella. The pizza, as it emerges from the oven, delivers the characteristic aroma -- perfumed and fragrant.

c. Chemical Analysis

Pizza Napoletana STG Tipo Marinara

ANALISI DI PRODOTTO CARATTERISTICHE NUTRIZIONALI

	g/100 g	Kcal/100 g	Kjoule/100
Carbiodrati	25.48	102	432.4
Proteine	4.04	16.16	68.5
Lipidi	3.48	31.31	132.8
Valore energetico/100 g		149.47	633.79

Pizza Napoletana STG Tipo Margherita

ANALISI DI PRODOTTO CARATTERISTICHE NUTRIZIONALI

	g/100 g	Kcal/100 g	Kjoule/100
Carbiodrati	19.31	77.26	327.58
Proteine	8.05	32.21	136.6
Lipidi	7.39	66.56	282.21
Valore energetico/100 g		176.03	746.39

Pizza Napoletana STG Tipo Margherita extra

ANALISI DI PRODOTTO CARATTERISTICHE NUTRIZIONALI

	g/100 g	Kcal/100 g	Kjoule/100
Carbiodrati	19.31	77.24	327.5
Proteine	8.32	35.28	149.58
Lipidi	8.39	75.52	320.2
Valore energetico/100 g		188.04	797.28

Article 6. Storage

The *Pizza Napoletana* should be consumed immediately, straight out of the oven, at the pizzeria. If the pizza were removed from the pizzeria to be eaten later, it would no longer carry the mark of a true "*Pizza Napoletana*"

Article 7. Signage and Brand

The pizzerias that are certified to produce true a *"Pizza Napoletana"* STG can display the logo described below:

© Forno Bravo, LLC 2007/10. All Rights Reserved.

The logo contains a profile of the gulf of Naples with Mount Vesuvius in red, along with a pizza containing the essential ingredient. A green border encircles the graphic. Under the graphic the text states Pizza (in green) Neapolitan (in red), where the acronym STG appears in white in the second bar of the letter N.

Article 8. Monitoring

Pizzerias wanting certification for the STG *"Pizza Napoletana"* will be checked for the following standards: the correct methods and phases of mixture, rising and preparing the dough, as described above; monitoring closely the critical points (HACCP); verifying the usage of the ingredients and the methods outlined above; verifying the right storage and use ingredients (HACCP); checking that the pizzeria is following the structure outlined in the previous articles.

14 of the regulation (EEC) n. 2082/92.

© Forno Bravo, LLC 2007/10. All Rights Reserved.

About the Authors

James Bairey



James Bairey, a former Silicon Valley entrepreneur, is CEO and founder of Forno Bravo, LLC. He is an avid amateur baker, and is enamored with brick ovens. James has built wood-fired ovens across the U.S. and Italy, both from scratch and from Forno Bravo kits. It was his experience with other brick ovens that led him to create the Pompeii Oven design and the popular Forno Bravo Forum. After a long career in the computer industry, where he helped launch a number of successful Internet companies, James is now dedicated to building Forno Bravo into the leading supplier of Italian pizza ovens and pizza ingredients for home owners, restaurants, pizzerias and bakeries. Today, Forno Bravo has dealers across North America, and around the world, and Forno Bravo ovens are in use in North America, Holland, Belgium, the Philippines, Brazil, Thailand, Japan, England, Ireland, Mexico, Australia, New Zealand, South Africa, Sweden, Israel, Grenada, Bahrain, Greece, Saudi Arabia, Malaysia, and the Virgin Islands.

Other Contributors

Jim Wills



Jim Wills, a widely experienced builder and baker, is deeply involved in all aspects of wood-fired ovens, from construction to baking. Jim has built his own, large wood-fired brick bread oven from scratch and launched Mary G's Artisan Breads, a successful micro bakery in rural Ontario, outside Toronto. His breads have been shipped to discerning buyers from Toronto to California to Pennsylvania. He understands wood-fired ovens and techniques, and the amazing products they produce. He also works with a group of talented individuals in all aspects of oven installation. His team of experts assembles, installs and finishes Forno Bravo residential and commercial ovens throughout Ontario, Canada. Jim is a definite construction perfectionist, who enjoys transmitting the excitement, allure and taste created by wood-fired baking. He is also the host of the Forno Bravo Bread Baking Video Series. Vist his website at: www.marygbread.com for more information on his hearth breads and oven installations.

Mary Karlin



Mary Karlin is a freelance food writer based in Sonoma, California. She is a staff chef-instructor at Ramekins Culinary School, where she oversees the wood-fired cooking program, develops wood-fired recipes, teaches wood-fired cooking classes and manages the Forno Bravo oven. She also conducts in-house wood-fired cooking lessons for Forno Bravo oven owners in the Northern California wine country, and travels throughout the country as a guest instructor at cooking schools. Visit Mary's website: www.elementsoftaste.com for information about her wood-fired cooking classes and other great cooking adventures. Mary is currently working on a book about her experiences with the 'tastes & tales' of wood-fired cooking.

Notes

© Forno Bravo, LLC 2007/10. All Rights Reserved.