



BOUCHARD COOPERAGES

## AMPHORAE, EGGS, JARRES PRICING & PORTFOLIO 2020 EAST COAST USA

Grès Sandstone/Stoneware Jarres

Vin  
et Terre



®

DRUNK  
TURTLE

Cocciopesto & Cemento Eggs

ANTICA FORNACE  
MONTECCHIO  
FIRENZE  
COTTO D'IMPRUNETA

Impruneta Terra Cotta Amphorae

A commitment to quality and customer service.

# NON-OAK VESSEL COMPARISON 2020

\*10HL  
ZEN



\*10HL  
ROTUNDA



\*10HL  
OPUS



## MATERIAL

**Sandstone/Stoneware**

**Inpruneta Terracotta**

**Cocciopesto**



## SUPPLIERS

## ORIGIN

France

Italy

Italy

## COMPOSITION

- Clay composed of 65.04% silica (also known as quartz)

- Clay with a high percentage of a calcareous mineral deposit termed "gallestro" in Tuscan dialect

- An aggregate of stone, gravel, sand, terracotta, marl stone and clay brought together with a binding agent low in heavy metals

## THICKNESS (cm)

3

3

8

## VOLUME (L)

230-1000

230-1600

350-2,500

## PRODUCTION

- Assembled in layers that are fired at 1320 C

- Made in molds or by hand that are fired at 1020 C

- Air dried in molds

## POROSITY (%)

2.5  
(Oak barrel porosity = 5%)

6-12

Varied

## PORE DIAMETER (microns)

0.4-1.1

0.004

n/a

## WINEMAKING

- Fermentation of whites
- Ageing of whites & reds

- Fermentation of whites & reds
- Ageing of whites & reds

- Fermentation of whites & reds
- Ageing of whites & reds

## AGEING TIME

- Long ageing
- Slow micro-oxidation

- Fast ageing
- High micro-oxidation

Varied

## STYLE

- Caters bests to linear, high tension, tight, focused, vibrant styles of wines

- Softens tannins and mouthfeel and expresses varietal characteristics

- Adds texture and retains brightness and varietal characteristics

## VARIETALS

- Aromatic and textural whites or elegant, light skinned bright reds

- Powerful, tannic, thick, reductive red skinned grapes

Varied

## UNIQUE FEATURES

- Different shapes that promote fluid dynamics and promote more or less texture in the wine

- External hatch door makes emptying red ferments easy
- Gallestro contains very good thermal inertia characteristics

- Very good thermal inertia characteristics for drawing out ferments and maintaining a constant temperature

## PREPARATION

- Warm water

- Mild 5% tartaric acid soak

- Mild 5-8% tartaric acid rinse



## VIN ET TERRE: Grés Sandstone/Stoneware Jars

Vin et Terre was founded by **Patrick Lalanne** in Bordeaux France and produces different styles of "jarres" or jars made of "grés" or sandstone/stoneware for the fermentation and aging of wines. For over forty years Patrick has supplied the French wine industry with winemaking materials and has always been impressed by the results of ceramic vessels for aging wine. With contacts in the ceramic industry, Patrick decided to design and patent his own product range of **grés jarres** for winemaking purposes.

### MATERIAL

Vin et Terre crafts their jarres exclusively from grés, which contains a high concentration of **SiO<sub>2</sub>**, found naturally in "silex," also known as quartz. Once cooked, grès is extremely durable over time.

### HISTORY

The craftsmanship technique of these jarres was invented by Chinese **ceramic specialists along the Yellow River in 1500 BC** and was later developed in Northern Europe.

### PRODUCTION

The jarres are **assembled by hand** via different layers of sandstone clay. The finished jarre is then fired at over 1300 degrees Celsius or **2372 degrees Fahrenheit**. After being cooked, the jarres are extremely durable and resistant to chemical and temperature changes, and have walls about **3 cm thick**.

The jarres are made from natural materials and the smooth interior makes them easy to clean. The jarres have very strong natural thermal inertia characteristics. For some jarres, Vin et Terre does a salt glaze finishing on the exterior of the jarre to make it smoother and easier to clean. The salt glaze does not change the porosity of the grés.



### POROSITY

Once cooked, the porosity of the vessel is **less than 2.5%** (the porosity of an oak barrel is between 3% - 5%) and the average radius of the pores is 0.004 micron. This allows for a **very slow and extended micro-oxidation** process that can easily be controlled and monitored.

### WINEMAKING & STYLES OF WINE

The jarres perform best for the fermentation and élevage of **white wines or very delicate elegant reds** and have good thermal inertia characteristics. The different models allow for different **natural fluid dynamics** that impact the rate of the élevage of the wine. These jarres allow the wines to express their **varietal characteristics and showcase their crystalline and mineral components resulting in very pure, linear, fresh and high tension wines** that completely respect the fruit and vineyard. Because of a reduced porosity, extended aging time is advisable.



- All prices below are listed in Euros (€) and include delivery to our Ashland, VA warehouse.
- Products will be invoiced in US dollars (\$) based on exchange rate of date of invoice. Payments can be made locally in US dollars.
- A 30% deposit is due at order confirmation and 70% balance due before delivery to the winery.

## VIN ET TERRE 2020 East Coast Prices

### Grés Sandstone/Stoneware Jars

Product	Volume (gal)	Weight (lbs)	Height (in)	Diameter (in)	Opening Diameter (in)	Price
ZEN 500L	132	441	43	35	20	4,439 €
ZEN 1000L	264	706	61	43	20	6,208 €
ZEN 1200L	264	706	61	43	20	6,876 €
INCLUDED ACCESSORIES: Grés sandstone lid with clamps and silicone joint, butterfly valve, inox palette, silicone bung						
CORALIE 320L	85	353	35	33	12	3,860 €
CORALIE 500L	132	530	43	43	16	4,580 €
CORALIE 500L with Salt Glaze	264	706	57	50	20	4,862 €
CORALIE 1000L	264	706	57	50	20	6,491 €
INCLUDED ACCESSORIES: Grés sandstone lid with clamps and silicone joint, butterfly valve, inox palette, silicone bung						
OVO COUCHÉ 230L	61	220	28	41	2	3,564 €
OVO COUCHÉ 300L	80	287	32	45	2	3,755 €
INCLUDED ACCESSORIES: Silicone bung						
OVO 500L	132	838	54	40	5	5,376 €
OVO 1200L	317	1543	63	45	5	7,005 €
OVO 1200L with Lid	317 w/ Lid	1543	63	45	20	7,450 €
INCLUDED ACCESSORIES: Salt glaze, butterfly valve, inox palette, silicone bung						
ALL OVO MODELS INCLUDE SALT GLAZE						
SPHERO 600L	159	882	47	45	5	5,675 €
SPHERO 1000L	264	1543	59	45	5	6,956 €
SPHERO 1000L with Lid	264 w/ Lid	1543	59	45	20	7,401 €
INCLUDED ACCESSORIES: Salt glaze, butterfly valve, inox palette, silicone bung						
ALL SPHERO MODELS INCLUDE SALT GLAZE						
DIVINE 950L	251	1323	47	43	20	8,520 €
INCLUDED ACCESSORIES: Salt glaze, grés sandstone lid with clamps and silicone joint, butterfly valve, inox support, silicone bung						
ALL DIVINE MODELS INCLUDE SALT GLAZE						

## ACCESSORIES

### Vin et Terre's Grés Jarres



ACCESSORY	APPLICABLE ON	PRICE
STAINLESS STEEL PALETTE FRIENDLY-JACK	All Zen, Coralie, Ovo and Sphero jarres include a stainless steel palette jack friendly base support system.	Included
INOX LID	<ul style="list-style-type: none"> <li>■ Zen: 500L, 1000L</li> <li>■ Coralie: 500L, 1000L</li> </ul>	345 €
COLMATORE GLASS BUNG SYSTEM	<ul style="list-style-type: none"> <li>■ All Jarres</li> <li>■ 34 cm tall</li> <li>■ 45 cm tall</li> </ul>	105 € 135 €
50 CM WIDE GRÈS LID WITH INOX SUPPORT SYSTEM	<ul style="list-style-type: none"> <li>■ Sphero: 1000L</li> <li>■ Ovo: 1000L</li> <li>■ Divine: 950L</li> </ul>	200 €
OVO COUCHÈ ROTARY SUPPORT SYSTEM	<ul style="list-style-type: none"> <li>■ Ovo couchè:           <ul style="list-style-type: none"> <li>■ 230 L</li> <li>■ 300 L</li> </ul> </li> </ul>	300 €



## MOVEMENT STUDY OF WINE INSIDE Vin et Terre's Grés Jarres

\*Made by the Celsius Laboratory located near Lyon

### THERMAL CONDUCTIVITY

Thermal conductivity is a quantity introduced to quantify the ability of a structure to conduct heat, represented by the unit  $\text{Wm}^{-1} \text{k}^{-1}$ .

Conductivity of the different main materials used for the storage of wine are:

Material	Conductivity ( $\text{Wm}^{-1} \text{k}^{-1}$ )
Oak	0.16
Terra Cotta	0.83
Grès	1.30
Concrete	2-5
Stainless Steel	26

GRÉS IS THEREFORE A MATERIAL THAT IS NOT VERY CONDUCTIVE AND CAN BE TERMED AN INSULATE.

### MOVEMENT

The movement of a liquid is dependent on:

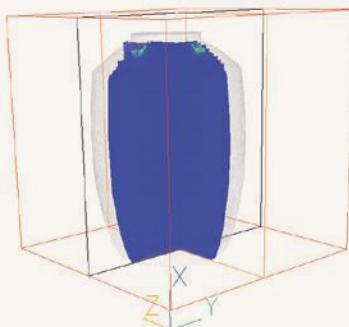
- The temperature gradient acts as the energy for movement
- Gravity is the motor
- The form is the accelerator or the brake

Form of Jarre	Zen	Coralie	Ovo	Divine
Average Speed in cm/day inside of the jarre provoked by a thermal gradient of $3^{\circ}\text{C}$	8	43	52	130

For example, if we compare the movement of the wine in the form of the standing egg (Ovo) made in other materials, it would yield the following results:

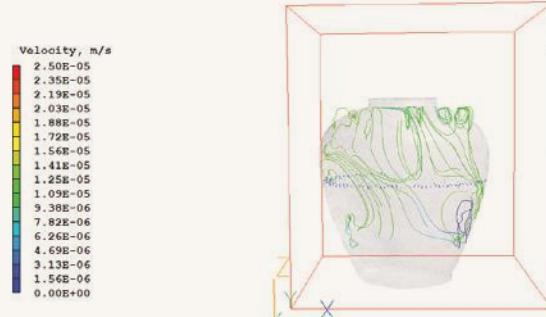
- Oak : 17 cm/day
- Concrete : 60 cm/day
- Inox : 69 cm/day

### ZEN JARRE FLUID DYNAMICS



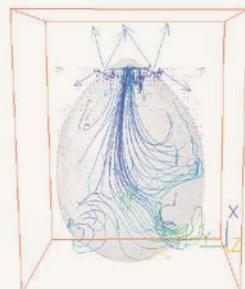
The shape of the Zen jarre has no curvature to give movement to the wine allowing the wine to rest peacefully with very little movement

### CORALIE JARRE FLUID DYNAMICS



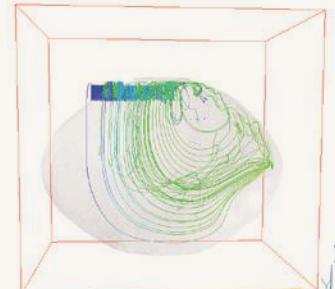
The shape of the Coralie jarre allows the wine to be tranquil with some very weak movement which allows for the enological quality of a slow exchange of tannin in the wine.

### OVO JARRE FLUID DYNAMICS



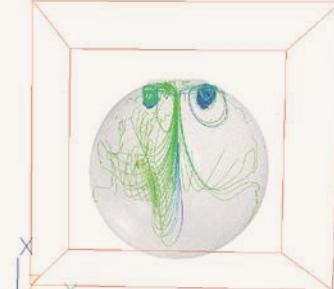
The shape of the Ovo jarre allows for a movement from top to bottom with some random circulation. It allows for some gentle agitation that further develops the wine's texture.

### DIVINE JARRE FLUID DYNAMICS



The Divine jarre with its elliptical shape allows for the propagation and acceleration of currents which actively recirculates the wine.

### DIVINE JARRE FLUID DYNAMICS



Thanks to this movement, the wine close to the wall is renewed and allows more interaction with oxygen. This movement does not put the lees in suspension but renews the wine in contact with them.

# VIN ET TERRE GRÉS

## FRENCH WINERY REFERENCES



\*FOR REFERENCES IN OTHER COUNTRIES, PLEASE CONTACT US

- BORDEAUX** — Château Guadet // Château Meylet // Château Mangot // Chateau La Dauphine // Domaine de l'Amandière // Château Laplagnotte Bellevue // Château La Closerie du Chêne // Château Doyac // Château Gombaude Guillot // Château La Tribune // Château Mons La Graveyre à Cambes // Château Béchereau/M. Dupas Joel // Château Pabus // Domaine Serge Thierry // Domaine Les Carmels // Vignobles Chauveau/Targon // Château Lagrange (Vignobles Lacoste) // Château de Piote // Château L'Escarderie // Château Les Graves de Viaud // Château Peybonhomme Les Tours // Château Roland La Garde // Château Coulonge (Mourens) // Clos Le Petit Badon // Château Laplagnote Bellevue // Vins Olivier Cazenave // Domaine de Chevalier
- BOURGOGNE / BEAUJOLAIS / JURA** — **BOURGOGNE** Domaine Michelot // Domaine Bonneau du Martray // Domaine Roulot // Domaine Morey Coffinet // Domaine Bouzereau // Domaine Fourrier SAS // Maison Joseph Drouhin // Roux Père et Fils // Domaine Jean Féry // Domaine Changarnier Domaine Chandon de Briailles // Domaine Antoine Lienhardt // Domaine du Clos des Rocs // Domaine Edouard Vincent // Domaine Eric Forest // Maison Mathias // Domaine Collet // Bernard Defaix // Domaine La Meulière // Domaine Lamarche // Domaine du Clos des Rocs // Le Domaine D'Henry  
**BEAUJOLAIS** Domaine Raphael Beysang // Domaine Bernard Jomain // Domaine Jean Foillard // Domaine Bernard Valette // Domaine Longère // Domaine Nicolas Boudeau // Domaine des Josephins // Domaine Tano Péchard // Domaine Chignard Cédric // Clos des Mourres // Domaine Gramenon // Domaine de l'Aitonnement // Vignobles Verzier // Domaine Julien Frappa // Domaine Philippe Viet // GFA Pépicherie 69 // Domaine Nicolas Boudeau  
**JURA** Domaine Ganevat // Domaine Ratte // Fabrice Dodane // Maison Rijkaert // Domaine de La Borde
- CHAMPAGNE** — Champagne Bourgeois Diaz // Champagne Vouette et Sorbée // Champagne Van Belle // Champagne Beerens // Champagne Dechannes // Champagne Marcel // Champagne Christian Piollot // Champagne Veuve Clicquot // Champagne Pascal Doquet // Champagne Charlot Tanneux // Champagne Coutier René // Gaiffe Hentzien // Champagne Augustin // Champagne Guy Charlemagne // Champagne Waris Larmandier // Lycée viticole d'Avize // Champagne Bonnet Ponson // Champagne Marc // Champagne Sélèque // Champagne Nowak // Champagne Lecomte Père et Fils // Champagne Camille Marcel // Champagne Billecart Salmon // Champagne Piot Sevilliano // Champagne Chaillonx Vollereaux // Champagne Lamblot // Champagne Lecomte
- CÔTES DU RHÔNE / PROVENCE / CORSE** — **CÔTES DU RHÔNE** Domaine Monin // Domaine Jamet // Clos des Mourres // Yves Gras/Santaduc // Domaine Saint Gayan (Meffrel) // Domaine de Beaurenard // Gaec L'Authentique // Domaine de Cremone // Domaine du Grand Singe // Domaine la Cavalière // Tardieu Lauent // Domaine la Ville Rouge **PROVENCE** Clos Saint Joseph // Château de Fontcreuse // Clos Sainte Magdeleine // Domaine de St Ser // Domaine de Garbelle // Domaine Balcon // Domaine La Mongestine // Domaine La Madrague // Château de Pibarnon // La Tour des Videaux // Chateau Lafoux // Valérie Courrèges // Domaine de la Fouquette // Château de Peyrassol // Olivier Varenne **CORSE** Domaine Vico // Clos Culombu // APM Vins Aurélie Patacchini // Domaine San Quilico // Domaine de Pietrella // Domaine Comte Peraldi // Domaine Saparal // Domaine San Quilico (Orenga)
- LANGUEDOC** — Domaine Gayda // Château La Baronne // Domaine Les Clos Perdus // Château Montfin // Domaine Ste Marie des Crozes // Mas Zenitude // Domaine Terres des Cambon // Domaine La Sorga // Vins Submarine (McGroarty) // Mas Foulaquier // Domaine Romain Plon // Château Coupe Roses // Domaine Quartironi/Pradel // Domaine Bordès // Le Clos du Gravillas // Domaine La Croix Gratiot // Mas de Cyanque // Le Temps Fait Tout // Les Vignes Oubliées // Mas des Mesures // Domaine de la Courbairolle // Domaine Des Pierres Bleues // Domaine Thuronis // Château Montfin // Domaine Ste Marie des Crozes // Château Beauregard Mirouze // Mas Julien // Domaine Frederic Brouca // Terre des Dames // Mas du Novi // Mas des Navas
- ROUSSILLON** — Mas Amiel // Château de l'Ou // Domaine des Demoiselles // Vignobles Reveille // Dom Matassa // Dom Jean Gardies // Dom des enfants // Dom Calimas // Dom de l'Arca // Dom J Pierre Mignot // Domaine de Schistes // Domaine Brial // Vignobles Reveille // Olivier Pithon // Dom Calimas // Dom de l'Arca
- SUD-OUEST** — Domaine Terres de Causses // Château Lassolle/Stéphanie Roussel // Clos Cavenac/Thierry Hudon // Vignobles de la Lègue (ex Chattier) // Vignobles Le Bihan // Domaine Antociane // L'Enclos des Braves, Rabastens // Domaine de Plaisance // Clos Trotteligotte // Vignobles Brumont // Domaine La Pointe // Domaine Pinto // Domaine Grussaute // Vignobles Pyrenaïa // Vignobles Arrivée // Domaine Laurens // Domaine Benoit Montiel // Vins No Control // Domaine de Brin // Domaine de Cantalauze // Domaine Bruno Montels // Languedoc
- SAVOIE / ALSACE** — **SAVOIE** Domaine les Côtes Rousses // Domaine du Perron // Domaine Céline Jacquet // Earl Curtet // Le Mont Blanc // Domaine Belluard // Domaine Les Vignes de Paradis // Domaine Yann Pernuit // Matthieu Appfel // Domaine Pascal et Annick Quenard // Domaine Lambert Gérard **ALSACE** Pierre Frick // Domaine Marcel Deiss // Domaine Valentin Zusslin // Domaine Ostertag // Domaine Rémy Gresser // Domaine Jossmeye // Vignobles Klur // Domaine Gross // Domaine Geschickt // Domaine Trapet
- VAL DE LOIRE** — La Ferme de la Sansonnière (Mark Angel) // Domaine de Juchepie // Château Pierre Bise // Domaine Bruno Dubois // Domaine Antoine Sanzay // Domaine Bobinet // Domaine de la Bergerie (Guénard) // Domaine Richou // Domaine Bablut // Chateau de Fosse Sèche // Clos de l'Elu // Clos de l'Ecotard // Domaine du Caillou à Turquant // Domaine Les Grandes Vignes // Domaine du Vieux Pressoir // Domaine Reignier David // Domaine Les Murailles Neuves // Domaine des Varinelles // Domaine Loïc Mahé // Domaine Pierre Ménard // L'Austral // Manoir de La Tête Rouge // Château de Bois Brinçon // Domaine Joulin // Domaine de la Renière // Domaine Damien Laureau // Domaine Les Chesnaises : Béatrice et Pascal Lambert // Amirault Yannick // La Gardière : Sébastien David // Clos des Quarterons (Amirault) // Domaine de L'écu // Domaine Michel Bedouet // Stéphane Orioux // Saget la Perrière/Dom Grandes Espérances // Domaine Gilbert // Paul Fouassier // Domaine Mardon // Vincent Carême // Domaine Frantz Saumon // Marie Thibault // Domaine Mérias Benoit // Le Sot de l'Ange (Quentin Bourse) // La Ferme du Plateau // Jacqueline Rouvre // Domaine Hervé Villemade // Domaine Claude Courtois // Clos du Tue Boeuf // G'M Claude Marquet // Domaine des Jumeaux // Domaine Les Terres d' Ocre // Domaine de la Bergerie // Domaine Les Grandes Vignes // Château Pierre Bise // Domaine de la Tuilière // Jezequel // Domaine Tabordet // Vignobles Joseph Mellot // Domaine Henry Pelle // Monmousseau // Domaine Moyer // Château La Roche en Loire // Domaine la Grange Tiphaïne // Domaine de la Barbinière



®

**DRUNK  
TURTLE**

## DRUNK TURTLE: Cocciopesto and Cemento

Drunk Turtle is a family-owned company located in Tuscany that has rediscovered the use of **Cocciopesto for winemaking (fermentation and aging) in the form of Cocciopesto eggs that they call Opus**. They are best known for their Cocciopesto eggs because of the material's advantages and lower CO<sub>2</sub> production footprint as compared to cemento.

### MATERIAL

Cocciopesto is a very durable ancient Roman building material that is crafted from a **mix of Italian stone, sand, marl stone and terracotta that is all brought together with a natural binding agent that is extremely low in heavy metal content**. In fact, it is so low in heavy metal content that alimentary goods can be put in direct contact with it. The material is also **less basic than cemento**, therefore only a very **light tartaric acid neutralization treatment** is needed before usage.



### HISTORY

Cocciopesto was used by the **ancient Romans as a building material** for the transportation of water around the Roman empire by aqueducts and viaducts. But the **material was also crafted into wine transportation vessels**. Through recent discoveries and comparative experiments with Drunk Turtle's cemento eggs, Drunk Turtle primarily crafts their eggs in cocciopesto as opposed to cemento.

### PRODUCTION

The cocciopesto is mixed and then **poured by hand into molds** and then left to air dry over a couple months. The molds contain two pieces that are then assembled and jointed together with the **vessels' wall being around 8 cm thick**. Once dry, the eggs need to be treated with a **light tartaric acid solution** to neutralize the basic limestone content in the cocciopesto so as to not increase the pH of the wine.

### POROSITY

The porosity of **untreated cocciopesto varies between 2% - 5%**. However, once a thin layer of tartaric acid is applied, the porosity of the opus changes. The porosity of the Opus (along with other vessels) decreases over time.

### WINEMAKING & STYLES OF WINE



Cocciopesto **contains bits of Impruneta terracotta inside the mix** and therefore the eggs show **thermal inertia characteristics** in terms of fermentation qualities. Meaning, the vessels will **lengthen the ferment over time** without any temperature spikes, thus **adding complexity and more fruit-driven notes to the ferment**. The egg's practical external hatch doors make emptying them very easy. Because the vessels have a lower porosity than terracotta, they **cater to brighter, higher tension and more elegant reds and whites**. The natural egg shape keeps the lees in constant suspension, heightening the wine's **textural qualities**.

# DRUNK TURTLE

## 2020 East Coast Prices

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- Products will be invoiced in US dollars (\$) based on exchange rate of date of invoice. Payments can be made locally in US dollars.

- A 30% deposit is due at order confirmation and 70% balance due before delivery to the winery.



®

### Cocciopesto Eggs Made in Italy

Product:	Volume (gal)	Weight (lbs)	Height (in)	Diameter (in)	Cocciopesto	Cemento
OPUS 3.5 (exactly 3.72 HL)	98.2	1212	60	39	4,220 €	3,140 €
OPUS 10 (exactly 10.5 HL)	277.4	2755	80	51	9,869 €	6,468 €
OPUS 17 (exactly 18 HL)	475.5	4841	102	63	14,693 €	11,086 €
OPUS 25 (exactly 26 HL)	686.8	6503	116	70	Please Inquire	Please Inquire

- Each OPUS includes a "5 point system" stainless steel top door, a stainless steel oval external opening door, a draining valve, a racking valve (only for 10HL, 17HL and 25HL) and a tasting valve.
- Spray ball for the preparation protocol, included in order.
- **IMPORTANT!** OPUS 17 HL and 25 HL require additional heavy duty forklift capabilities for delivery and installation in winery. The 25HL OPUS does not fit in a standard container, so it may require separate shipping costs.

Ancient blend of different Italian crushed stones and terracotta

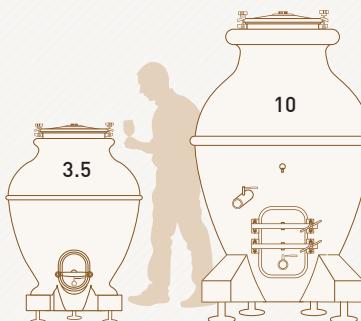
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### FEATURES

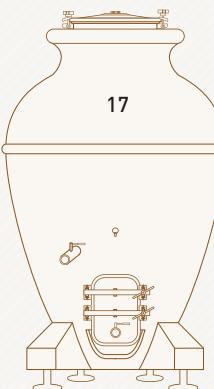
- Silicone gaskets on top and external opening door
- 5 point system top door
- Forklift friendly feet system
- All accessories are AISI 316 stainless steel



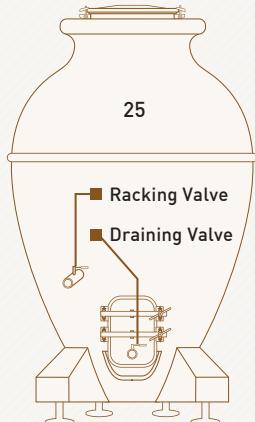
OPUS 10 COCCIOPESTO



3.72 HL



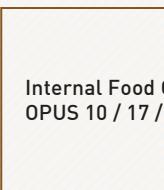
10.5 HL



17

25

### OPTIONAL ACCESSORIES

		Price
External Color Customization	OPUS 3.5HL	300 €
	OPUS 10HL	400 €
	OPUS 17HL	600 €
	OPUS 25HL	750 €
	Large Colmatore glass bung system	109 €
	Internal Food Grade Epoxy Coating for OPUS 3.5 OPUS 10 / 17 / 25	375 € 525 €

- Safety ladder brackets, thermometer, internal cooling plates and custom exterior decoration available upon request.
- No metal rebar or netting used in structure and mixture.
- Can be used for fermentation, aging, or both.



## MONTECCHIO: *Impruneta Terra Cotta Amphorae*

Antica Fornace Montecchio has been **producing Impruneta terracotta goods since the 1700s** and remains a family-run farm, winery and business located in San Donato which is in the **commune of Impruneta** in the Chianti region of Tuscany. In collaboration with Massimmo Ricci; a famous architecture professor from Florence, Marco Boracchini from Montecchio produces **small, large and practical Impruneta terracotta amphorae** for winemaking purposes.

### MATERIAL

Impruneta terracotta is famous because of its **mineralogical composition that is low in metals**, with the most sought after representations coming from around Tuscany's Impruneta area. Here the clay has **high levels of a calcareous residual called "galestro," which makes it a natural heat sink.**

### HISTORY

Terracotta, which translates to "baked earth," remains the oldest ceramic that man has created, with traces of it appearing **6000 years BC**. It was later discovered in Tuscany and Impruneta by the Etruscans around 700 years BC. While terra cotta can be found everywhere, the **uniqueness of Impruneta terracotta** is its **high levels of galestro, crucial for making wine amphora.**

### PRODUCTION

The amphorae are **handmade** either via the traditional **"colombino"** technique, where the clay is hand rolled and built **30 cm high per day**, or using a method where the clay is placed in molds. Before being cooked, the amphorae need to undergo a **7 week air drying process** where they will lose **10 - 15% of their weight due to water evaporation**. The amphorae are then cooked in large ovens that reach 1020 degrees Celsius or **1868 degrees Fahrenheit**.



### POROSITY

Once cooked, the porosity is between **6-12%**, sometimes even a little bit more depending on the amphora's production.

The average radius of the **pores are between 0.4 to 1.1 microns**.

### WINEMAKING & STYLES OF WINE

Montecchio Impruneta terracotta works very well for the **fermentation of reds** because they naturally draw the fermentation out **without any stalling or temperature spikes**. The vessels have **very practical external doors for emptying**. For aging, they work best on bold, tannic and reductive reds because of the increased micro-oxidation qualities. Due to their increased porosity and permeability, **shorter aging times are advised**.

**MONTECCHIO**  
**2020 East Coast Prices**

- All prices below are listed in Euros (€) and include delivery to our Ashland, VA warehouse.
- Products will be invoiced in US dollars (\$) based on exchange rate of date of invoice. Payments can be made locally in US dollars.
- A 30% deposit is due at order confirmation and 70% balance due before delivery to the winery.



**Traditional Impruneta Terracotta Amphorae**  
**Handmade in Tuscany**

**CIGARS AND PUNCHEONS**

**Cigars and Puncheons**



Product	Volume (gal)	Weight (lbs)	Height (in)	Diameter (in)	Price	Accessories
Cigar 250L	66	352	56	20	2,702 €	<ul style="list-style-type: none"> <li>• Stainless steel tri-clover valve supports (2" x 1.5")</li> </ul>
Cigar 500L	132	616	61	37	4,189 €	<ul style="list-style-type: none"> <li>• Stainless steel tri-clover lids (2" x 1.5")</li> <li>• Stainless steel top door (12" diameter)</li> </ul>

■ Each Cigar and Puncheon can also come with a valveless stainless steel door on customer's request.

**BEEHIVE**



Verticale Con Fasce 700L	185	671	71	32	5,930 €	<ul style="list-style-type: none"> <li>• Stainless steel lateral door (7" W x 9" H)</li> </ul>
Verticale Con Fasce 1,000L	264	902	82	37	7,882 €	
Verticale Con Fasce 1,600L	423	1998	87	43	11,623 €	<ul style="list-style-type: none"> <li>• Stainless steel lateral door (13" W x 17" H)</li> </ul>

■ Each Beehive includes: tri-clover valve supports (2" x 2"), tri-clover spherical valves (2" x 2"), tasting valve, stainless steel top door (16" diameter)

■ Each Beehive can be made without stainless steel external doors and valves upon request.

**ROTUNDA**



Rotunda 1,000L	264	683	589	47	8,187 €	<ul style="list-style-type: none"> <li>• Stainless steel lateral door (7" W x 9" H)</li> <li>• Stainless steel top door (16" diameter)</li> </ul>
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■ Each Rotunda includes: 1 x 2" tri-clover valve support and 1 x 2" tri-clover valve.

■ Each Rotunda can be made without valve and lateral door.

**AMPHORAE:**

**Classic**



**Uovo**



Uovo 500L	132	518	47	28	4,630 €	<ul style="list-style-type: none"> <li>• Stainless steel lateral door (7" W x 9" H)</li> </ul>
Uovo 800L	211	584	53	39	5,511 €	
Classic 300L	80	368	40	37	3,380 €	
Classic 550L	145	478	43	40	4,825 €	

■ Each Classic and Uovo includes: 1 x 2" tri-clover valve support, 1 x 2" tri-clover valve, and a stainless steel top door (16" diameter).

■ Each Uovo and Classic can also be made without lateral door and valve supports.

**OPTIONAL ACCESSORIES**

**Price**

**INOX BASE**



■ Large colmatore glass bung system

109 €



- Thermometer and cooling plates available upon request.
- Since each amphorae is made by hand, there can be small variations in dimensions.
- Different sizes that are not in listing can be made upon request.
- Can be used for fermentation, aging, or both.
- Unless cigar or puncheon, its recommended to keep amphorae on palettes, or to make a wooden structure for it to stand on.
- Inox bases and pricing available upon request.



BOUCHARD COOPERAGES

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