



VIN ET TERRE: Grés Sandstone/Stoneware Jarres

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 **SiO₂, found naturally in "silex," also known as quartz**. Once cooked, grés 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.



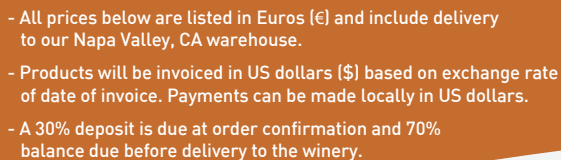
POROSITY

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.





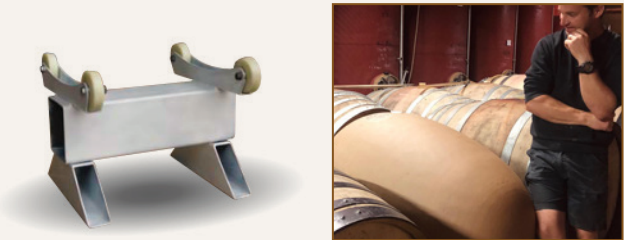
2020 USA PRICES VIN ET TERRE:
Grés Sandstone/Stoneware Jarres

	Product	Volume (gal)	Weight (lbs)	Height (in)	Diameter (in)	Opening Diameter (in)	Price
	ZEN 500L	132	441	43	35	20	3,345 €
	ZEN 1000L	264	706	61	43	20	5,106 €
INCLUDED ACCESSORIES: Grés sandstone lid with clamps and silicone joint, butterfly valve, inox palette, silicone bung							
	CORALIE 320L	85	353	35	33	12	2,806 €
	CORALIE 500L	132	530	43	43	16	3,480 €
	CORALIE 1000L	264	706	57	50	20	5,692 €
INCLUDED ACCESSORIES: Grés sandstone lid with clamps, silicone joint, butterfly valve, inox palette, silicone bung							
	OVO COUCHÉ 230L	61	220	28	41	2	2,019 €
	OVO COUCHÉ 300L	80	287	32	45	2	2,604 €
INCLUDED ACCESSORIES: Silicone bung							
	OVO 500L	132	838	54	40	5	4,365 €
	OVO 1000L	317	1543	63	45	5	6,096 €
	OVO 1000L with Lid	317 w/ Lid	1543	63	45	20	6,433 €
INCLUDED ACCESSORIES: Salt glaze, butterfly valve, inox palette, silicone bung							
ALL OVO MODELS INCLUDE SALT GLAZE							
	SPHERO 600L	159	882	47	45	5	4,634 €
	SPHERO 1000L	264	1543	59	45	5	6,096 €
	SPHERO 1000L with Lid	264 w/ Lid	1543	59	45	20	6,433 €
INCLUDED ACCESSORIES: Salt glaze, butterfly valve, inox palette, silicone bung							
ALL SPHERO MODELS INCLUDE SALT GLAZE							
	DIVINE 950L	251	1323	47	43	20	7,634 €
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 pallet jack friendly base support system.	Included
INOX LID 	■ Zen: 500L, 1000L ■ Coralie: 500L, 1000L	345 €
COLMATORE GLASS BUNG SYSTEM 	■ All Jarres ■ 34 cm tall ■ 45 cm tall	105 € 135 €
50 CM WIDE GRÈS LID WITH INOX SUPPORT SYSTEM 	■ Sphero: 1000L ■ Ovo: 1000L ■ Divine: 950L	200 €
OVO COUCHÈ ROTARY SUPPORT SYSTEM 	■ Ovo couchè: ■ 230 L ■ 300 L	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 $Wm^{-1} K^{-1}$.

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

Material	Conductivity ($Wm^{-1} K^{-1}$)
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:

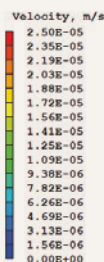
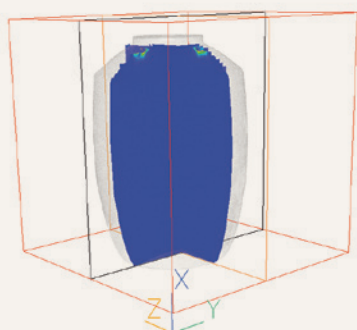
- The temperature gradient acts as the energy for movement
- Gravity is the motor
- The form is the accelerator or the brake

Form of Jarre	Zen	Coralie	Ovo	Divine
Average Speed in cm/day inside of the jarre provoked by a thermal gradient of 3°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:

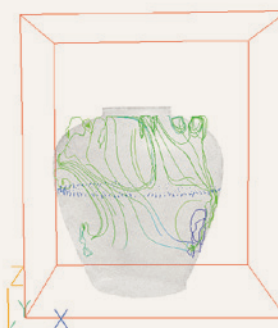
- Oak : 17 cm/day
- Concrete : 60 cm/day
- Inox : 69 cm/day

ZEN JARRE FLUID DYNAMICS



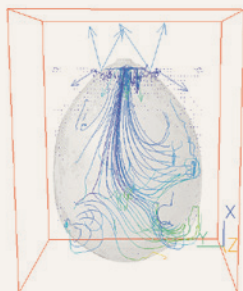
The shape of the Zen jarre has no curvature to give movement to the wine allowing the wine to rest peacefully with very little movement

CORALIE JARRE FLUID DYNAMICS



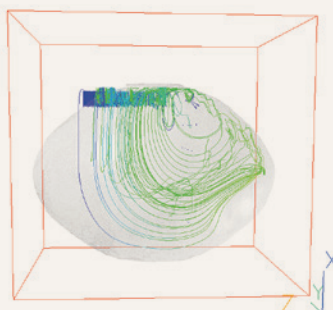
The shape of the Coralie jarre allows the wine to be tranquil with some very weak movement which allows for the enological quality of a slow exchange of tannin in the wine.

OVO JARRE FLUID DYNAMICS



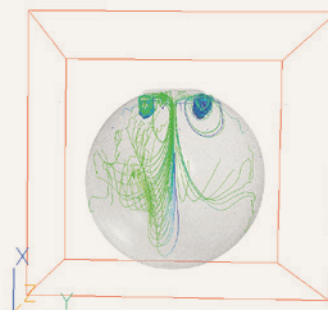
The shape of the Ovo jarre allows for a movement from top to bottom with some random circulation. It allows for some gentle agitation that further develops the wine's texture.

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 Laplagnotte 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'Aitonement // 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 Piolot // 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 Chailloux 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 (Meffre) // Domaine de Beurenard // 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 Bordes // Le Clos du Graviillas // Domaine La Croix Gratiot // Mas de Cynanque // Le Temps Fait Tout // Les Vignes Oubliées // Mas des Mesures // Domaine de la Courbaire // 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 Châtier) // Vignobles Le Bihan // Domaine Antocyane // L'Enclos des Braves, Rabastens // Domaine de Plaisance // Clos Trotteligotte // Vignobles Brumont // Domaine La Pointe // Domaine Pinto // Domaine Grussaute // Vignobles Pyrenaia // 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 Jossmeier // Vignobles Klur // Domaine Gross // Domaine Geschickt // Domaine Trapet

VAL DE LOIRE — La Ferme de la Sansonnière (Mark Angeli) // Domaine de Juchepie // Château Pierre Bise // Domaine Bruno Dubois // Domaine Antoine Sanzay // Domaine Bobinet // Domaine de la Bergerie (Guéniard) // Domaine Richou // Domaine de 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 Loic 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 Chesnaies : 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 Benoît // Le Sot de l'Ange (Quentin Bourse) // La Ferme du Plateau // Jacquelin 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 Tuffière // Jezequel // Domaine Tabordet // Vignobles Joseph Mellot // Domaine Henry Pelle // Monmousseau // Domaine Moyer // Château La Roche en Loire // Domaine la Grange Tiphaine // Domaine de la Barbinère