

# VICARD GENERATION 7

CHANGING  
*the* PARADIGM

---



GROUPE  
VICARD

VICARD  
GENERATION 7

*Esprit  
Dryades*

Merrains du  
Périgord

ECO

VICARD  
FOUDRÈRE

# VICARD GENERATION 7

ABOUT THE COMPANY

1

PRODUCTION SITE LOCATED  
IN COGNAC



85%

OF PRODUCTION  
IS EXPORTED

15 000

BARRELS PRODUCED  
EACH YEAR



2012

COMPANY CREATION DATE

1 200 m<sup>3</sup>

ANNUAL STAVE  
PRODUCTION







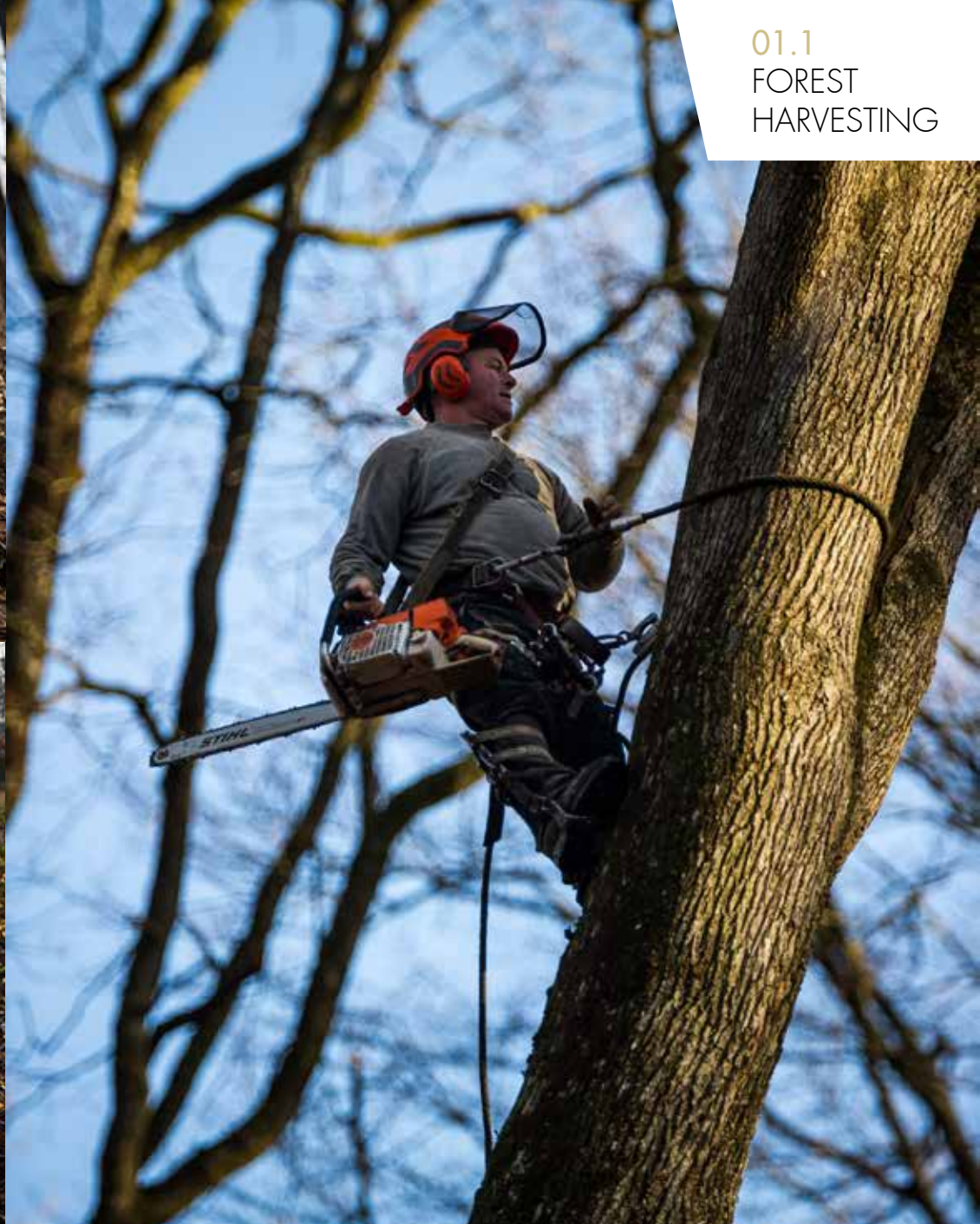
# DISCOVER

OUR PROCUREMENT STRATEGY





01.1  
FOREST  
HARVESTING





01.1

## TWO TYPES *of* PURCHASES

PURCHASES *of*  
STANDING TREES



PURCHASES  
*of* LOGS



01.2  
TRACEABILITY,  
*from A TO Z*









01.3  
VERTICAL  
INTEGRATION





01.4  
8 HECTARE PARK







# COMMITMENTS

TOWARD *the* ENVIRONMENT

VICARD  
GENERATION 7

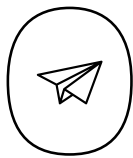




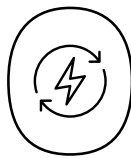
# 02.1 *three* RECYCLING SYSTEMS



## 01. GREEN LUMBER (STAVE MILL)



PULP  
CHIPS



CALORIFIC  
ENERGY



VICARD FUEL  
WORKSHOPS

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**SAPWOOD, HEARTWOOD**

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**BARK**



## 02. DRY WOOD (STAVES)



TOASTING  
PELLETS

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**ALL LOSSES**



# 02.2 *to* SUMMARIZE

**70%**  
OF RAW MATERIAL IS  
LOST DURING STAVE  
PRODUCTION



**100%**  
OF THESE LOSSES ARE  
UPGRADED AND USED BY VICARD

**98%**  
WATER REDUCTION ACHIEVED WITH  
OUR UNIQUE TOASTING PROCESS



**20L**  
QUANTITY OF WATER  
SAVED BY TESTING  
TIGHTNESS WITH STEAM





# INNOVATIONS

VICARD GROUP PATENTED INNOVATIONS

VICARD  
GENERATION 7

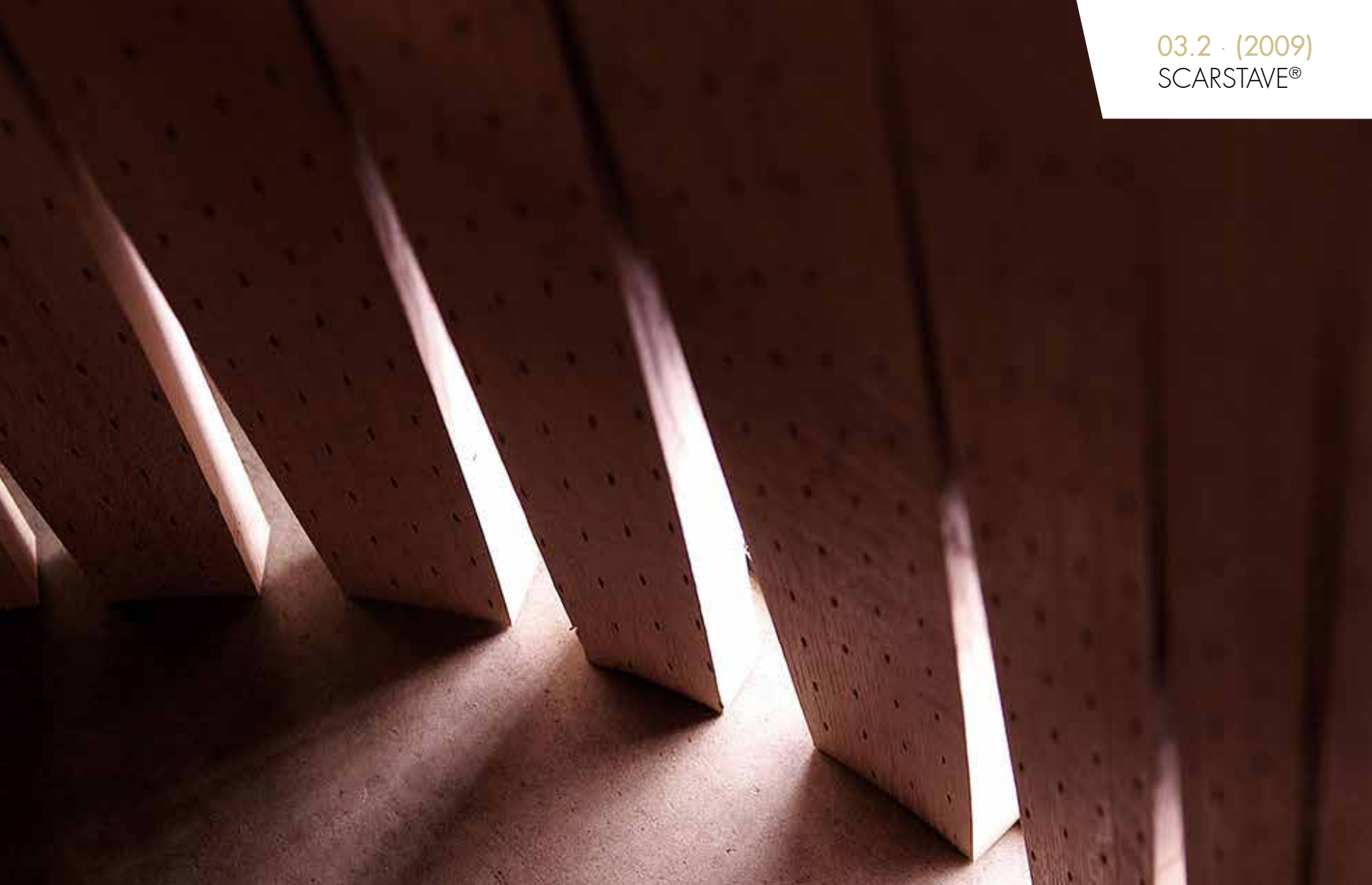


03.1 · (2000)  
SLOT-SAW ASSEMBLY®



Grooved wood pieces are assembled together using pressure, wood on wood. This innovative technique is used on all Vicard barrel heads and for construction of the award-winning ECO 3 barrel.





The staves are scarified during the machining stage with micro slits. The process removes all risk of blistering and allows for deeper toasting of stave wood.



03.3 · (2005)  
STEAM BENDING



An automated process to bend stave wood in less than 5 minutes using low pressure steam. The barrel retains its original organoleptic properties, yielding more uniform toasting results.





## 03.4 · (2011) MOLECULAR TOASTING



This revolutionary advancement, designed to provide homogeneity, reproducibility and precision, uses radiant heat and is fully computerized.





## 03.5 · (2012) TANNIN POTENTIAL SELECTION



The tannin potential selection is a quick and reliable measure of ellagitannin content in untoasted oak wood.





# TOASTS

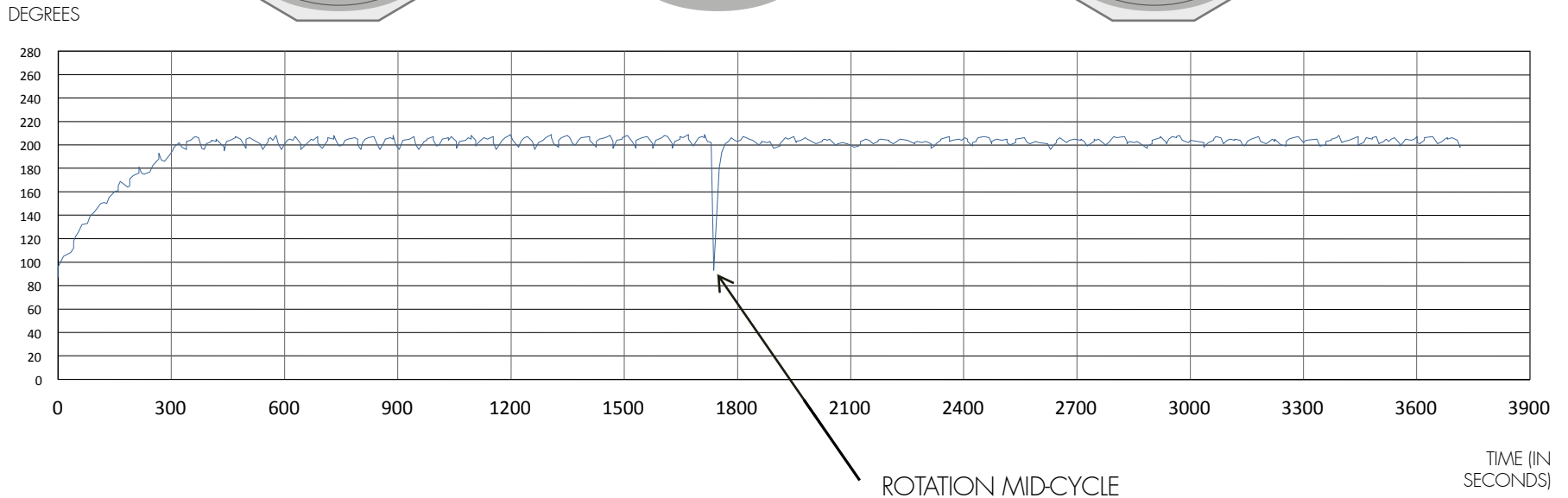
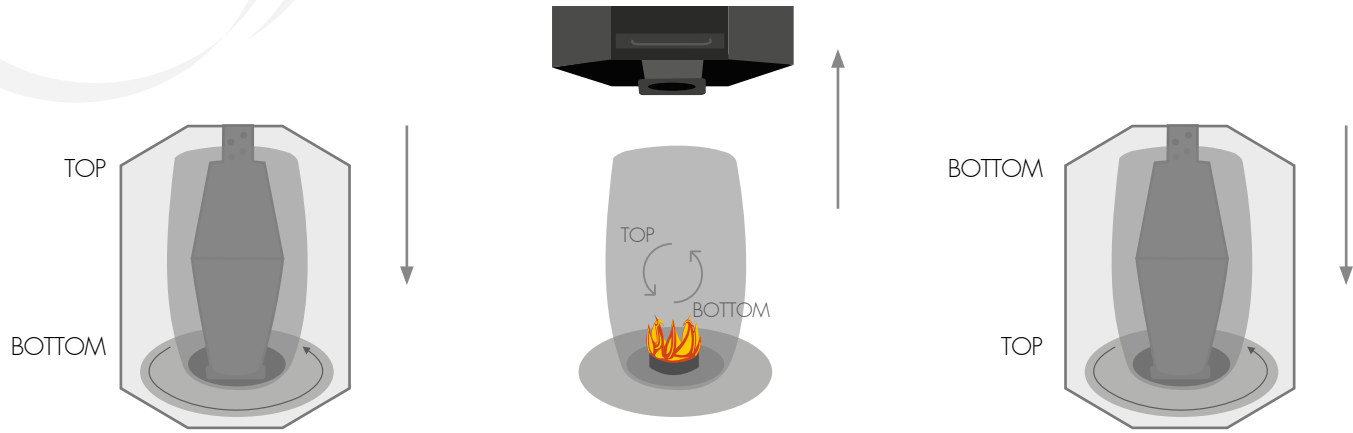
*our* DIFFERENT PROFILES

VICARD  
GENERATION 7





# 04.1 MOLECULAR TOASTING PROFILES





# 04.2 GRADUAL

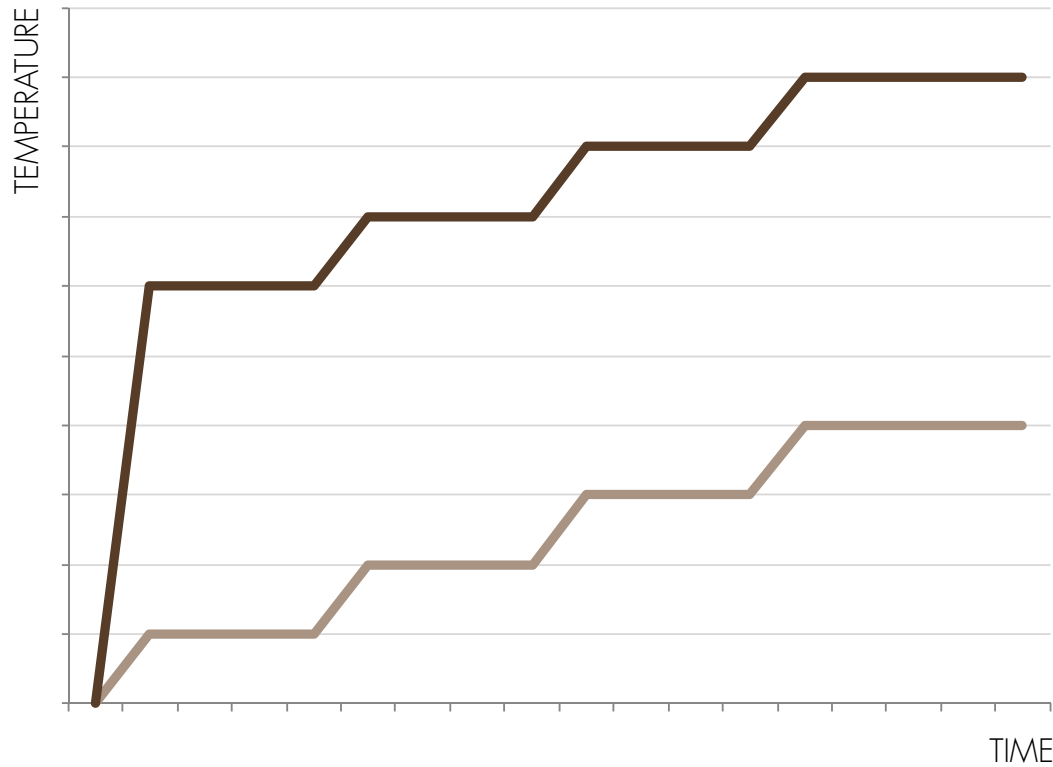


EXAMPLE 1



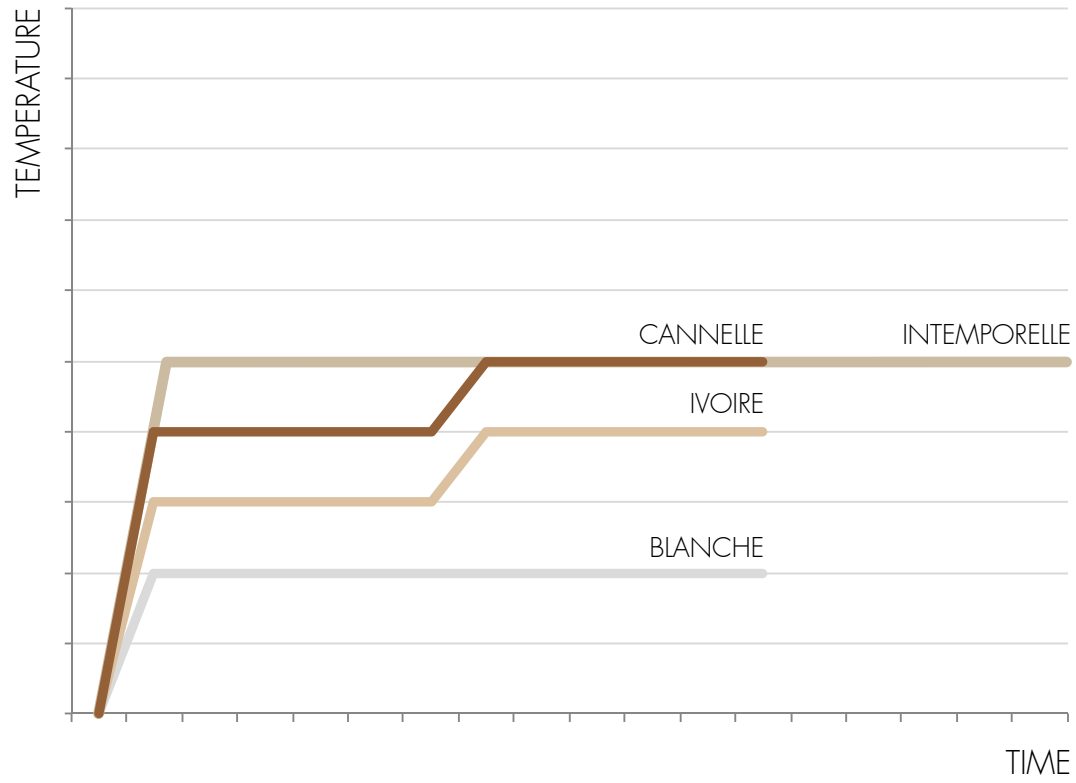
EXAMPLE 2

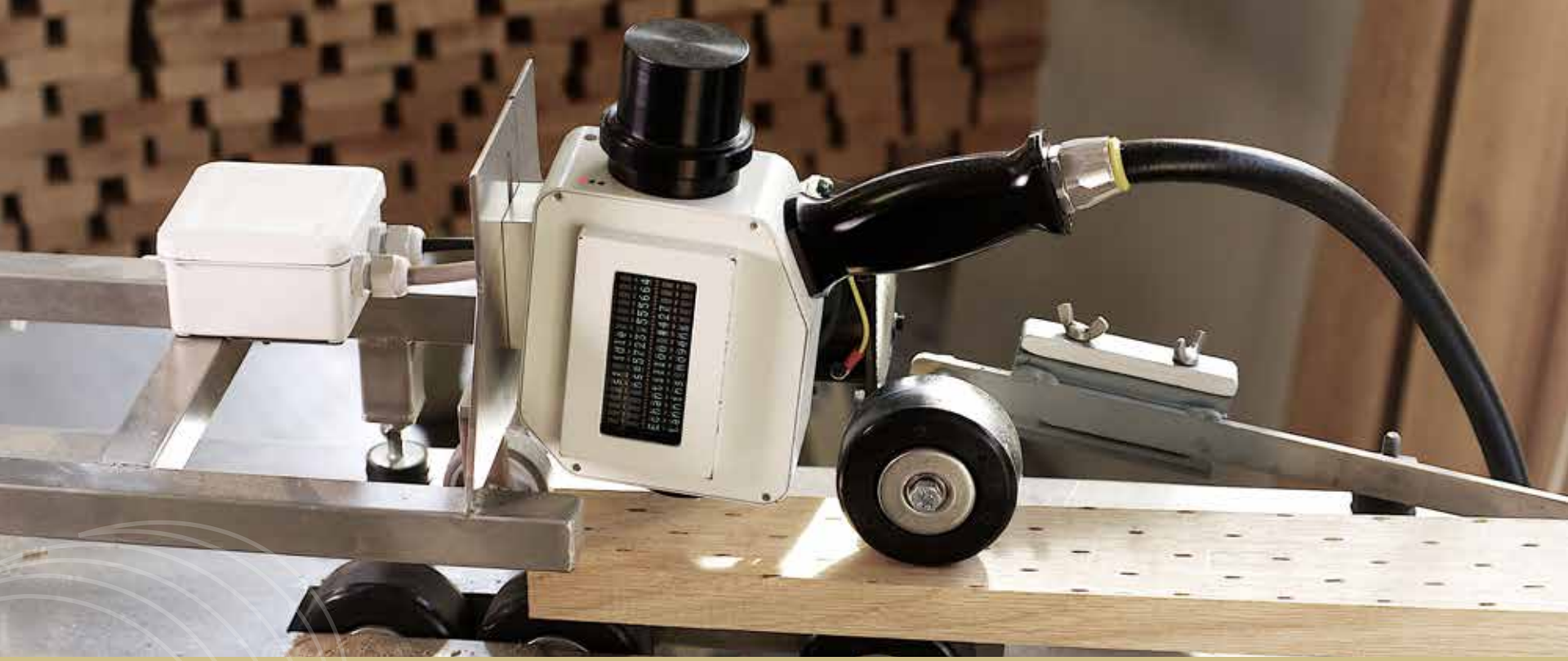
Vicard Generation 7 offers seven gradual toasts starting between 140 and 200°C (see the adjacent examples).





# 04.3 INNOVATIVE





# GENERATION 7 RANGE

TANNIN POTENTIAL & MOLECULAR TOASTING

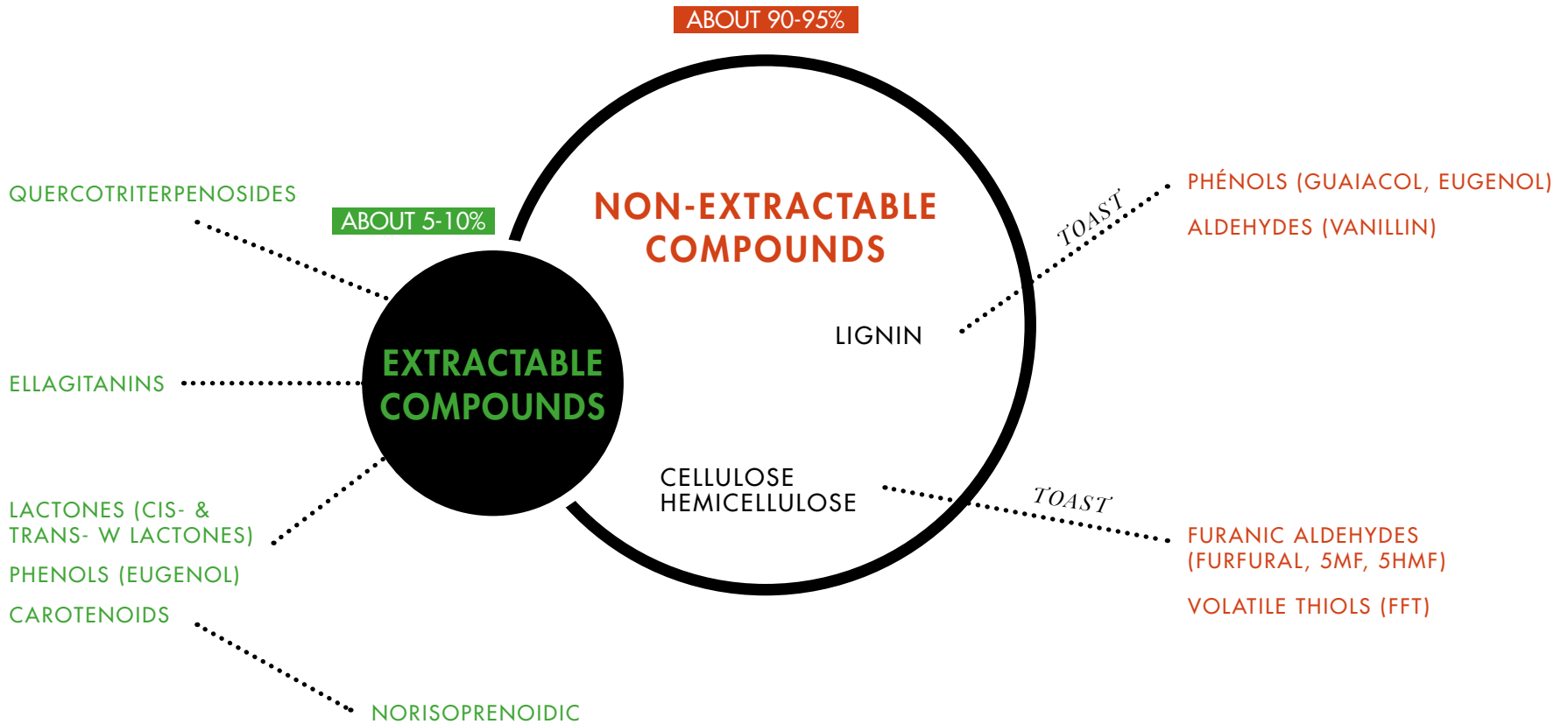
VICARD  
GENERATION 7



05.0

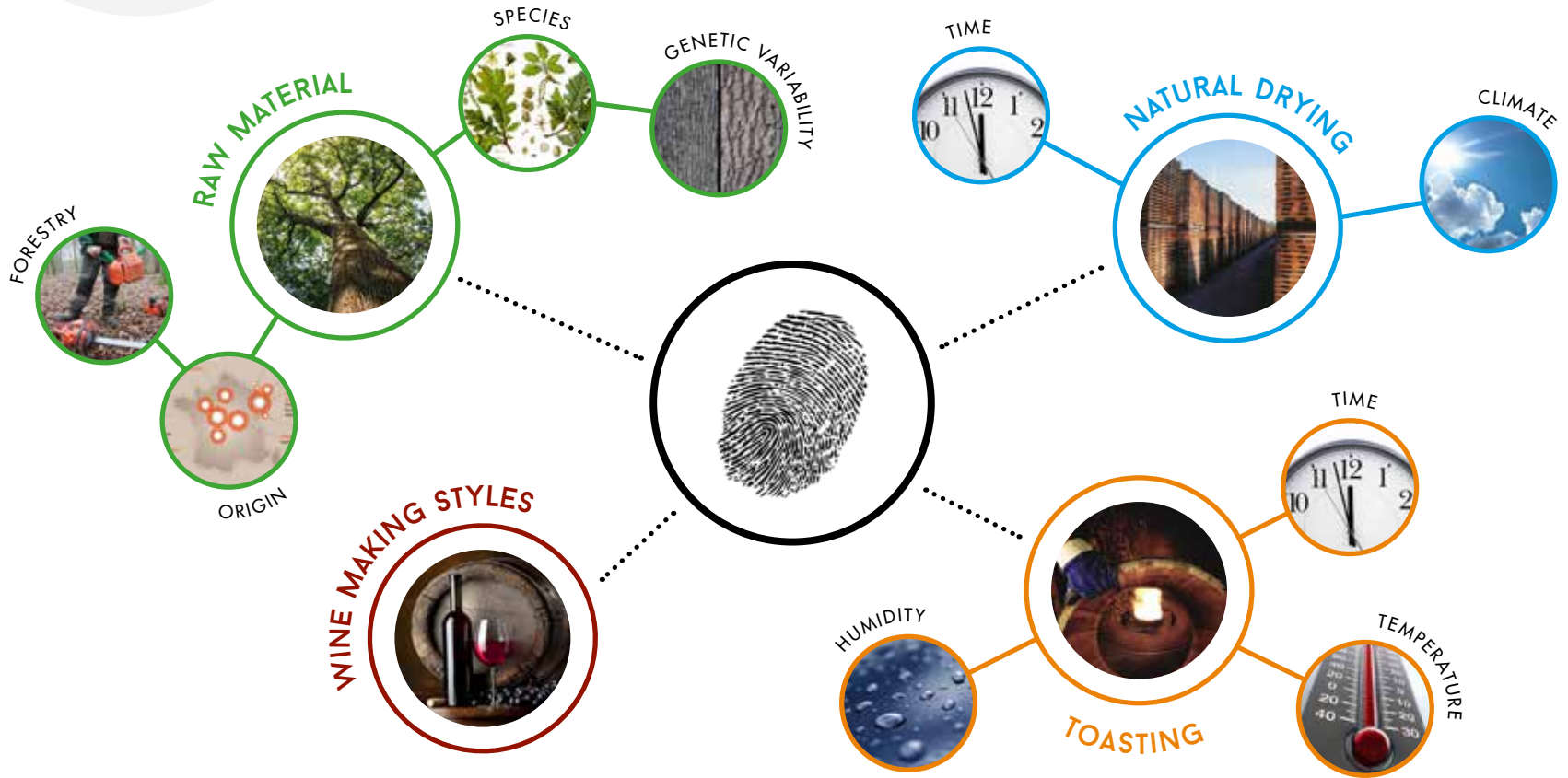
*reminder* : OAK  
COMPOSITION

<i>toast</i>	⋮	TIME
	⋮	HUMIDITY
	⋮	TEMPERATURE



# 05.1 SOURCES *of* VARIABILITY

MANY FACTORS

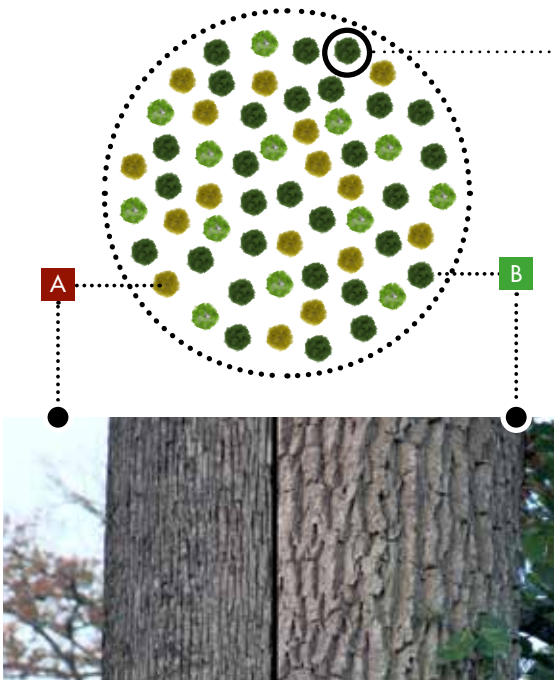




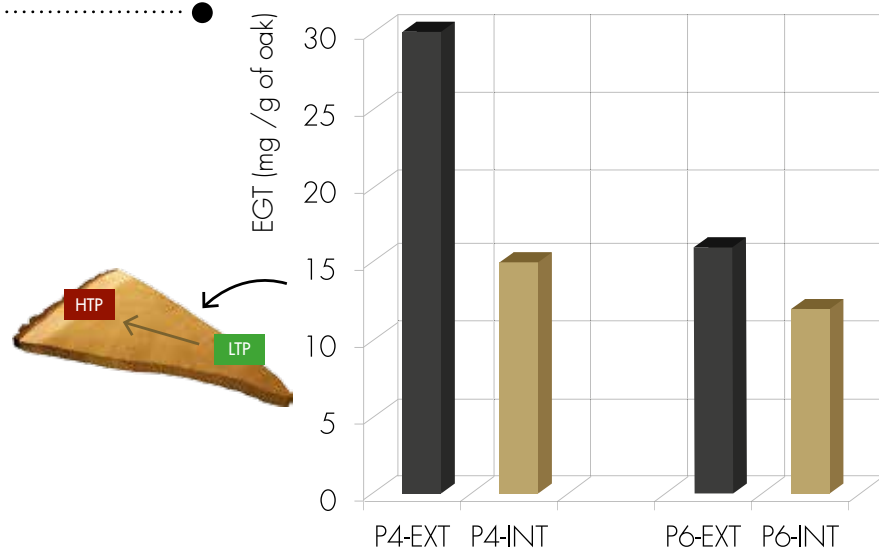
# 05.2 RAW MATERIAL VARIABILITY

INSIDE A FOREST &  
INSIDE A TREE ITSELF

INTERINDIVIDUAL



INTRAINDIVIDUAL



INTERINDIVIDUAL  
RAW MATERIAL  
VARIABILITY

A

B

Variation can be found in  
trees growing side by side





## TANNIN POTENTIAL SELECTION



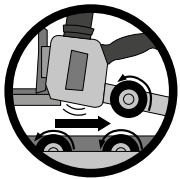
To eliminate variation of the raw material, Vicard Generation 7 measures ellagitannin content of EACH STAVE prior to coopering using near infrared spectroscopy (NIRS) and coopers the barrels based on total tannin content.

# 05.3

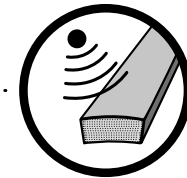
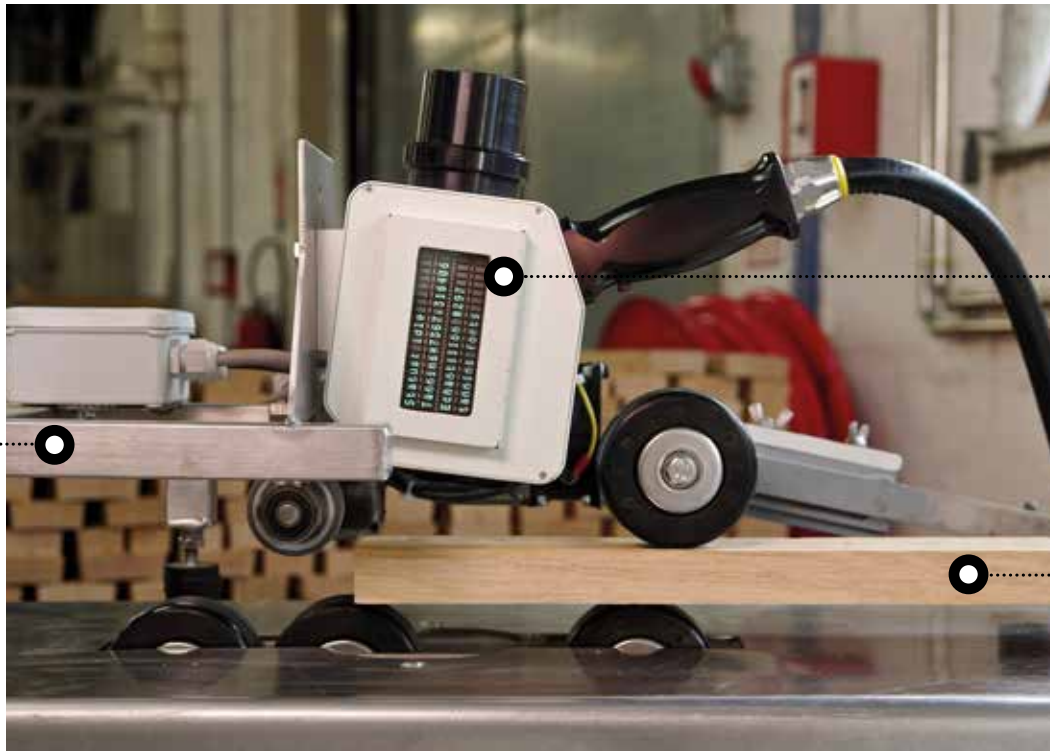
## STAVES SELECTION

### SCAN PROCESS

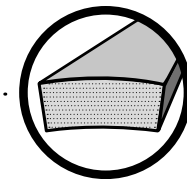
SORTING TANNINS *by* NEAR  
INFRARED SPECTROMETRY



AUTOMATED  
MACHINE



SORTING TANNINS  
*by* NEAR INFRARED  
SPECTROMETRY

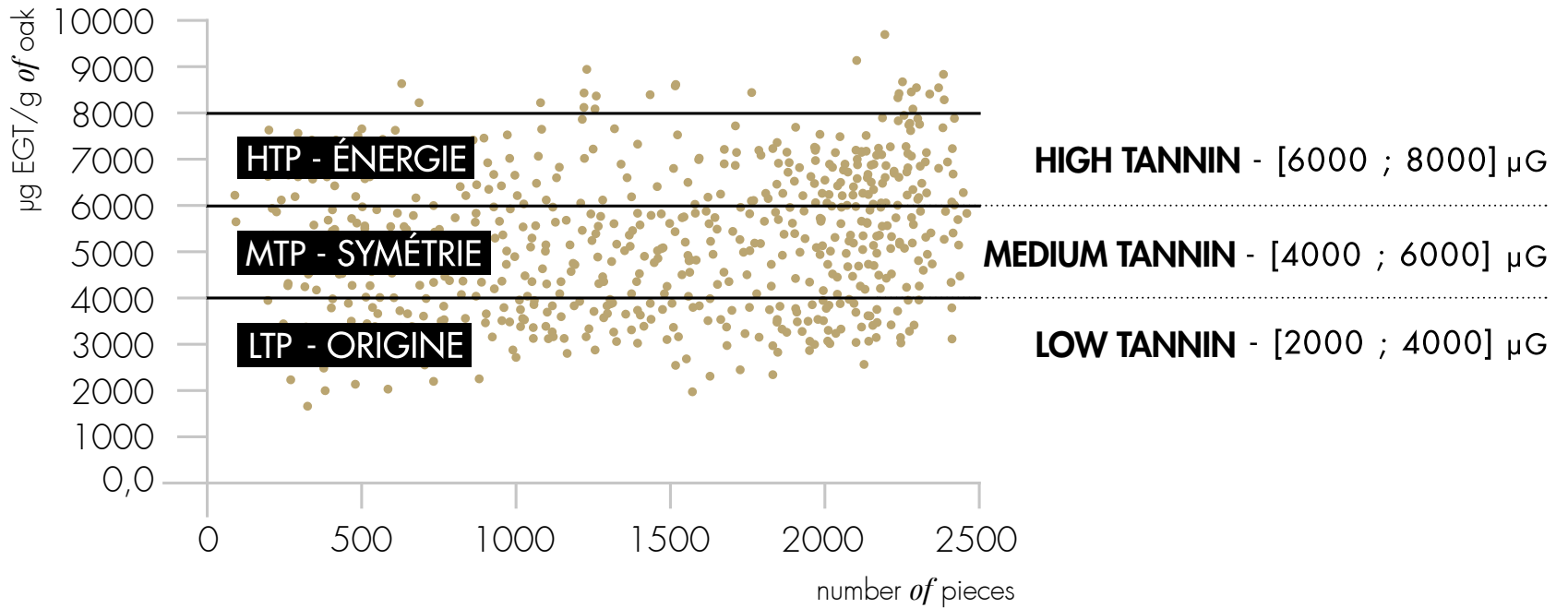


MACHINED  
STAVES, *before*  
BENDING



# 05.4

## three TANNIN POTENTIAL LEVELS



# CHANGING *the* PARADIGM



**ORIGINE**

LOW TANNIN POTENTIAL  
(THE TERROIR)



**SYMÉTRIE**

MEDIUM TANNIN POTENTIAL  
(EQUILIBRIUM)



**ÉNERGIE**

HIGH TANNIN POTENTIAL  
(STRUCTURE)

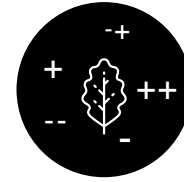
**TECHNICAL CHARACTERISTICS**

Capacities: 225, 228, 300, 350, 400, and 500 L · Toast: please get in contact with us



# 05.5

## MOLECULAR COOKING IMPACT



TANNIN SELECTION



MOLECULAR COOKING



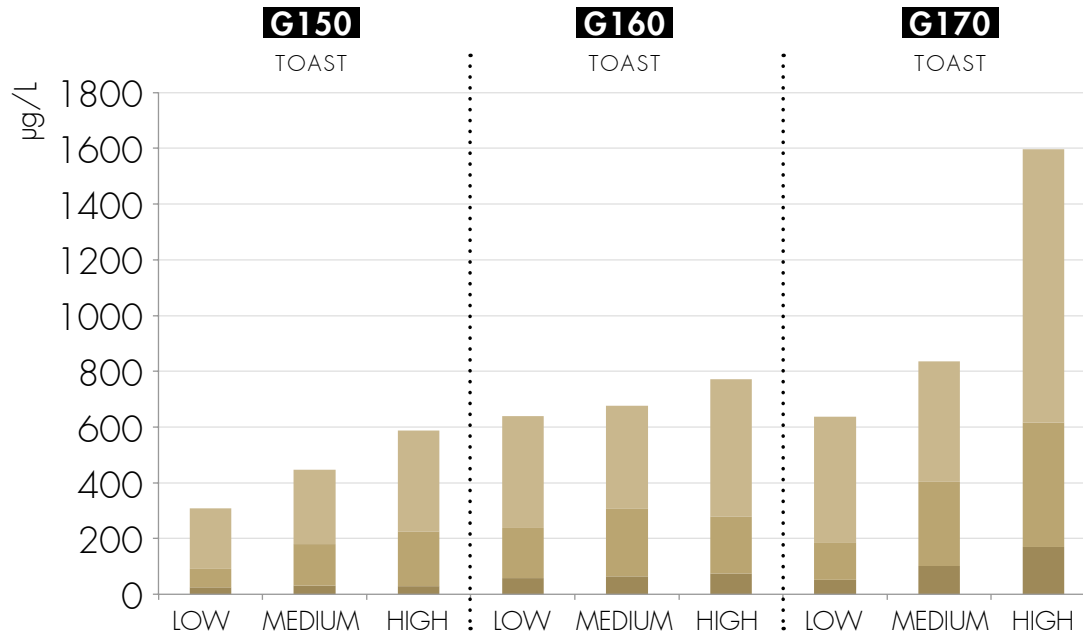
**AROMATIC IMPACT**

# 05.5

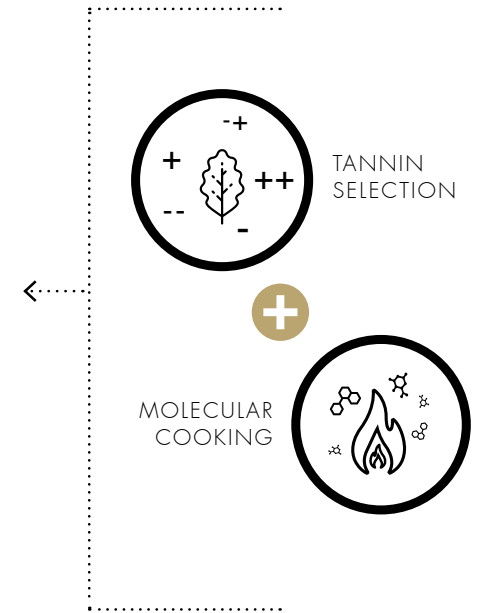
## MOLECULAR COOKING IMPACT

### FURFURALDEHYDES

TOASTY NOTES



■ FURFURAL ■ 5HMF ■ 5MF



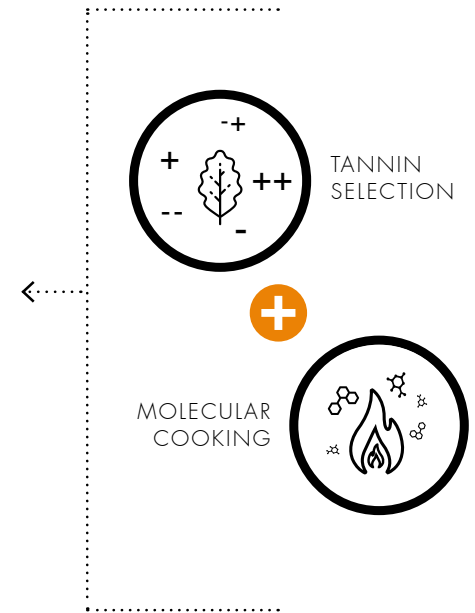
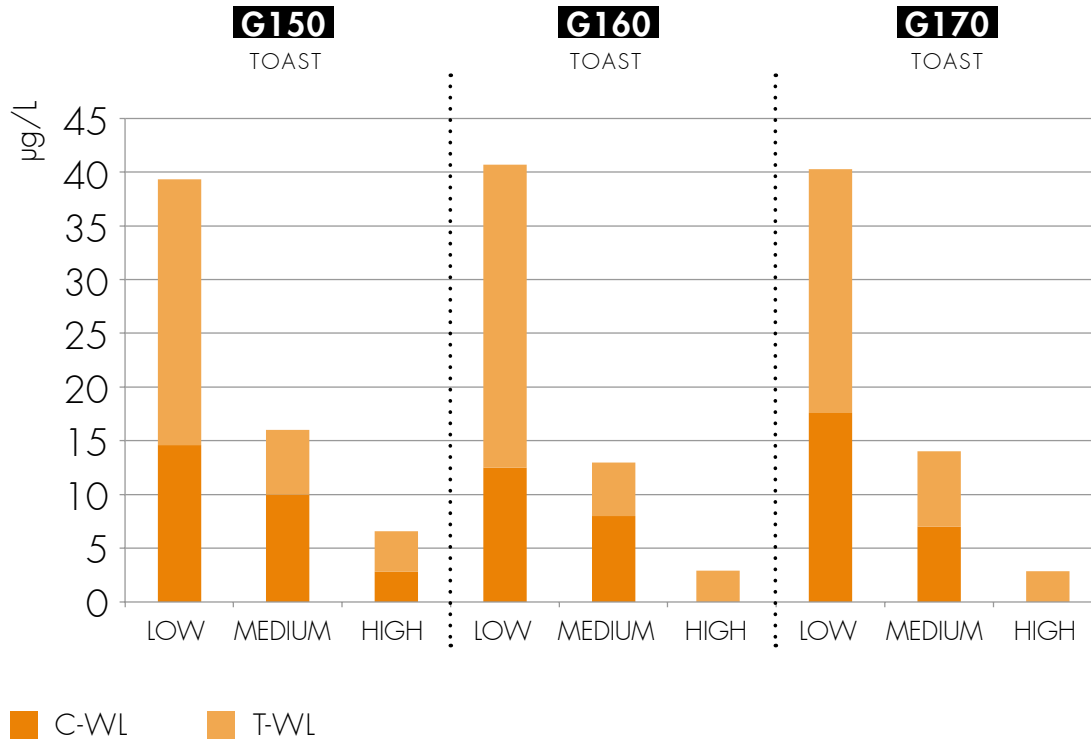


# 05.5

## MOLECULAR COOKING IMPACT

### WHISKEY-LACTONES

FRESH OAK, FRUITY NOTES

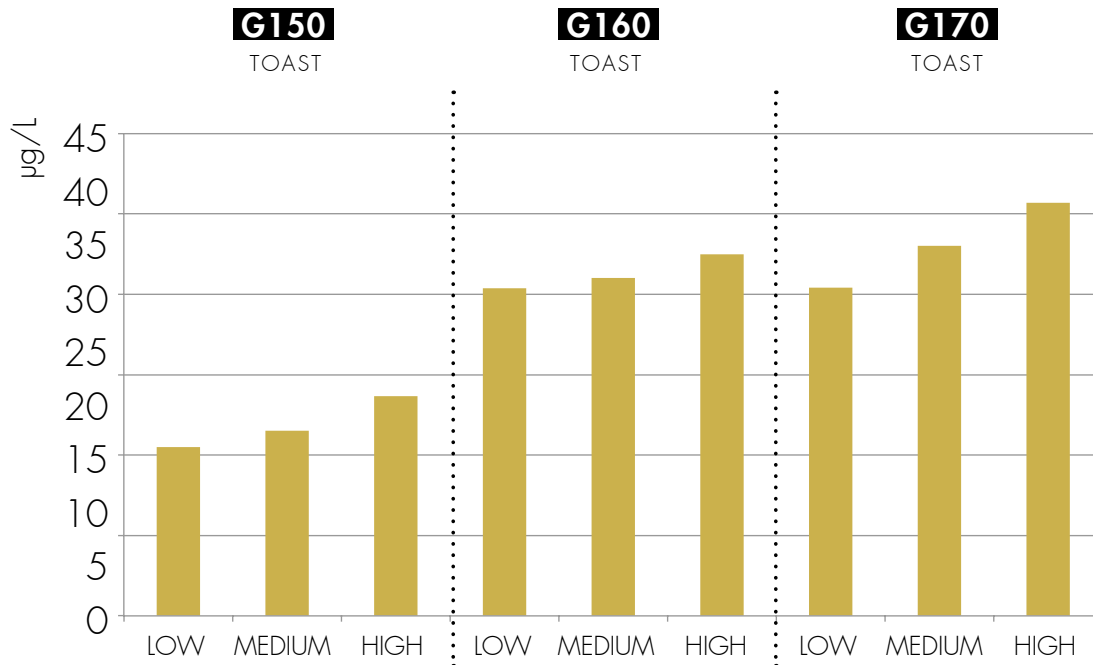


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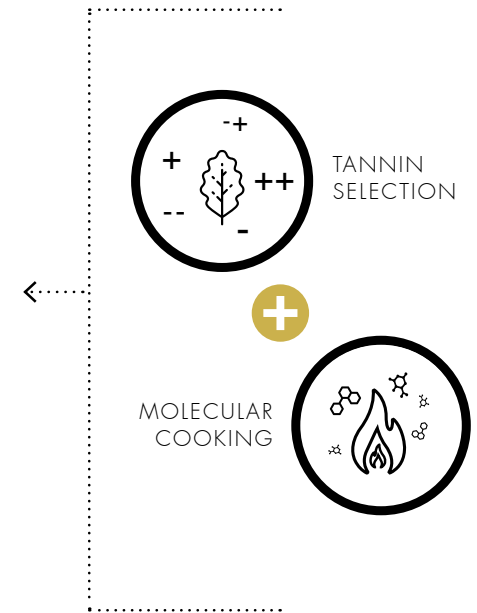
## MOLECULAR COOKING IMPACT

### VANILLIN

TASTY NOTES, VANILLA



VNL



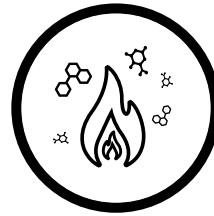


# 05.6

## TANNIN POTENTIAL INFLUENCE

### *the* ZEBRA EXPERIENCE

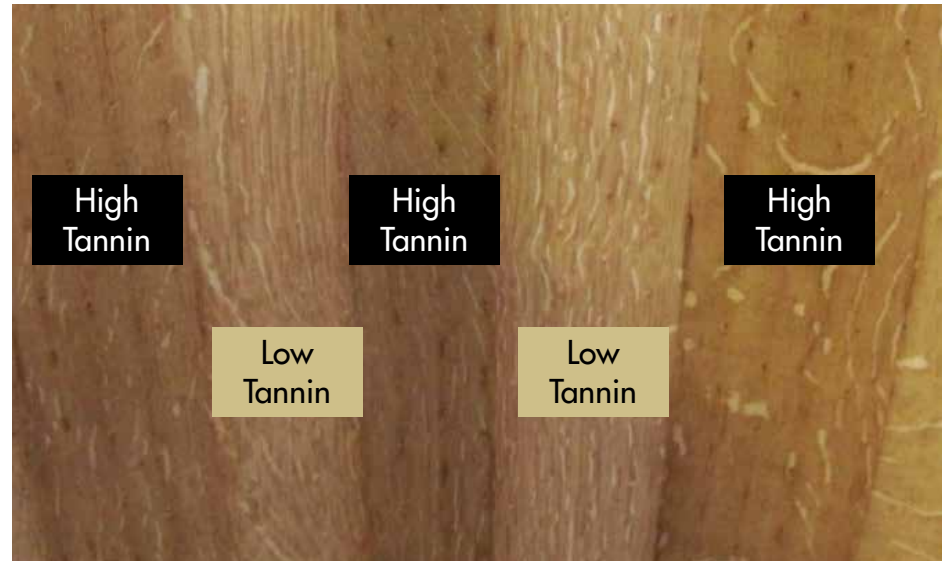
CORRELATION BETWEEN DARKENING *of the* WOOD & TANNIN LEVEL *on* WOOD *from the* SAME ORIGIN, GRAIN SIZE & HUMIDITY LEVEL



MOLECULAR TOASTING

STEAM BENT,  
UNSTAOASTED BARREL

AFTER 35 MIN  
TOAST AT 220°C



## 05.7

# PARTIAL CORRELATION *with* GRAIN

### DISTRIBUTION of EGT LEVEL ACCORDING to GRAIN SIZE

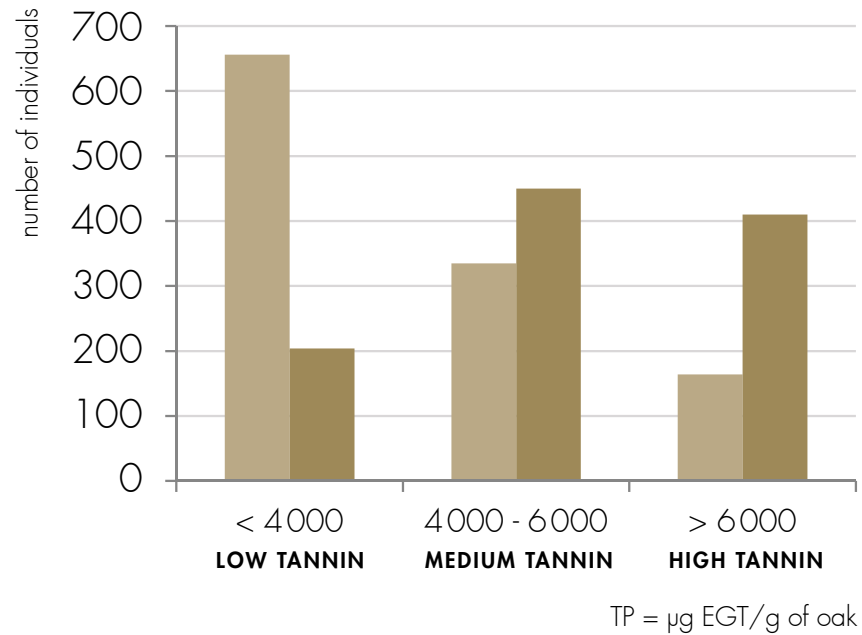


FINE GRAIN  
= 1,5-2 mm

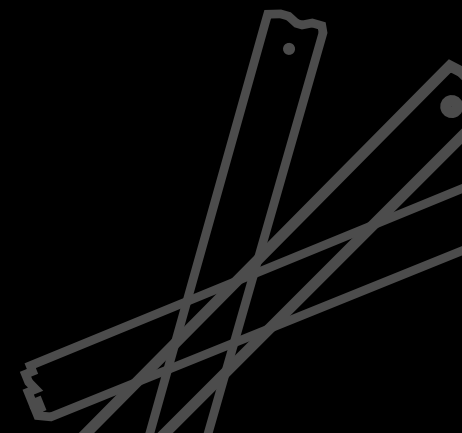
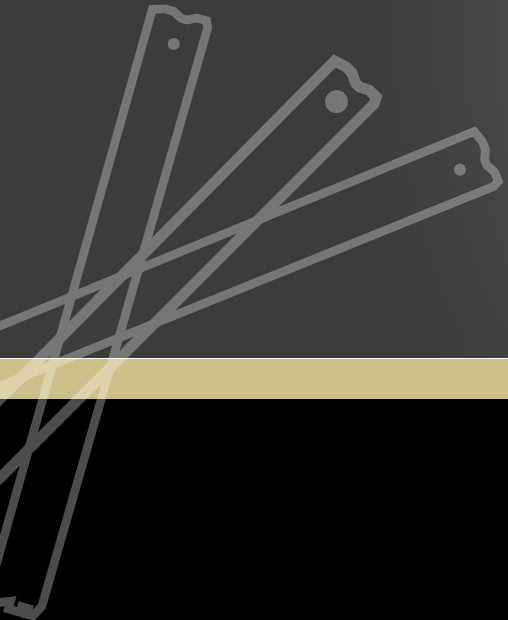


LARGE GRAIN  
> 3 mm

## ANALYSIS RESULTS







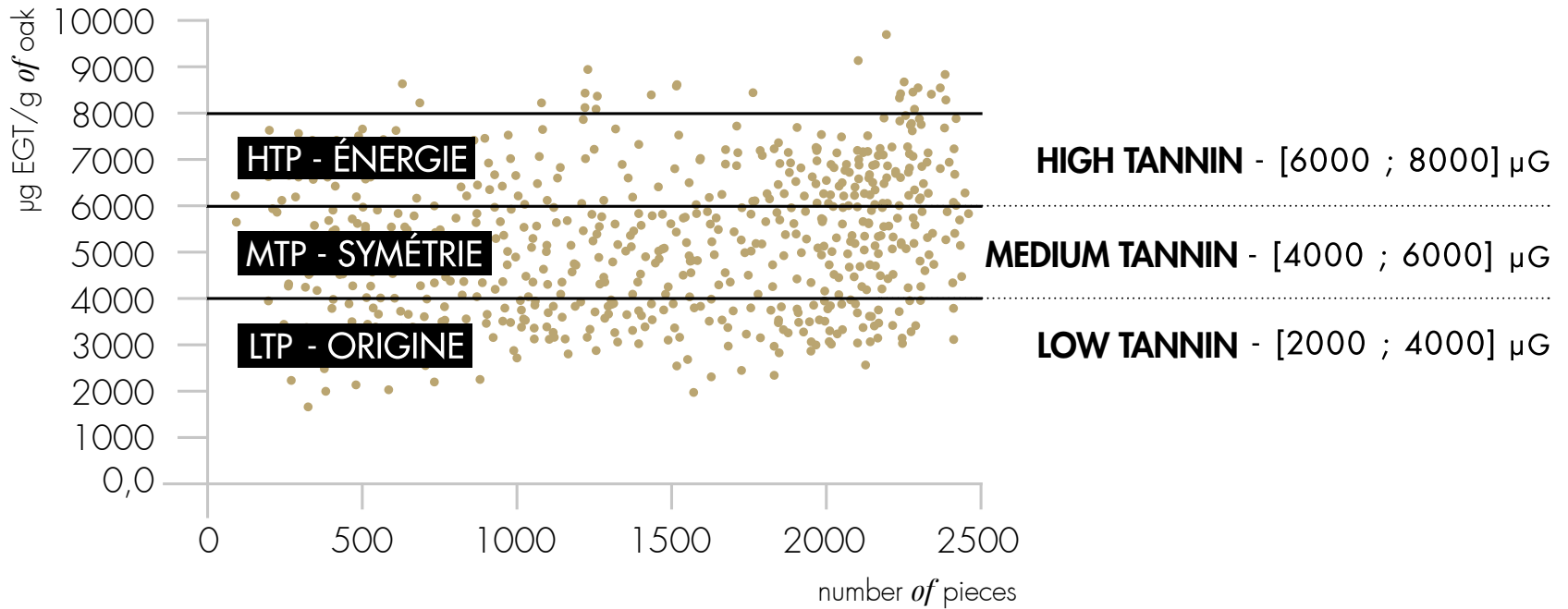
# STAVES

STAVES WITH TANNIN POTENTIAL

VICARD  
GENERATION 7

06.1

*three* TANNIN  
POTENTIAL LEVELS



# 06.2 RANGE



EGT/µg of wood 2,000 to 4,000



## ORIGINE / LTP - THE TERROIR

Tannin Potential Selection Low (LTP).

- Minimal tannins
- All the benefits and complexities of oak aging.,
- Fruity, bright notes
- Focused palate



EGT/µg of wood 4,000 to 6,000



## SYMÉTRIE / MTP - EQUILIBRIUM

Medium Tannin Potential Selection (MTP).

- Intermediate profile
- Brings structure and tension
- Respecting the fruit



EGT/µg of wood 6,000 to 8,000



## ÉNERGIE / HTP - STRUCTURE

High Tannin Potential Selection (HTP).

- Strength
- Volume with a contribution of structure
- Full bodied fruit



## TECHNICAL CHARACTERISTICS

- Stave quality oak: 100% natural maturation for 30 months
- 400 mm Length x 40 mm Width
- 27 mm thickness (heartwood brings out the freshness of the wood)
- Contact surface area increased by 20% thanks to the undulating profile
- Barrel or vat use



## MEASUREMENT

2.5 staves/hl (5g/l) for a minimum period of 2 to 3 months.



## CONDITIONING

60-stave cartons (4 packs of 15 staves inside).





# ECO RANGE

SUSTAINABLE ALTERNATIVES

VICARD  
GENERATION 7



07.1

# a SUSTAINABLE RANGE

TO SUMMARIZE



IDEAL SHORT & MEDIUM  
-TERM MATURING



INNOVATIVE  
ALTERNATIVES



ECONOMICAL



RE-EVALUATION of  
WOOD WASTE



## ECO 3

STAVES JOINED TOGETHER  
*using* PATENTED SLOT-SAW  
ASSEMBLY PROCESS



## ECO 27

USE *of* UPPER PARTS  
*of the* OAK



## ECO SELECT

USE *of* UPPER PARTS  
*of the* OAK - STAVE WOOD  
SORTED *by* TANNIN POTENTIAL

NEW

GOOD TO KNOW

ECO 3, due to its manufacturing process, available in limited quantities.

07.2

# ECO 3 BARREL

Citation VINITECH 2014  
Coup de coeur AGROVINA 2016

MINI STAVE



MOUNTED STAVE, BEFORE MACHINING



MOUNTED STAVE, AFTER MACHINING



BARREL ASSEMBLY



## ECO 3

STAVES JOINED TOGETHER *using* PATENTED  
SLOT-SAW ASSEMBLY PROCESS

### GOOD TO KNOW

ECO 3, due to its manufacturing process, available in limited quantities.



07.2

## ECO 3 BARREL

Citation VINITECH 2014  
Coup de cœur AGROVINA 2016



### BENEFITS

#### OPTIMIZATION OF THE OAK

The use of discarded stave remnants during the manufacture of staves, allows us to recover an additional 3% of the wood.

#### MORE MICRO-OXYGENATION THANKS TO THE SLOT-SAW ASSEMBLY PROCESS® TECHNIQUE

- Highlights the fruit and volume in the mouth
- Optimization of the colloidal stability
- Early elimination of reductive aromatic notes
- Reduced maturing period



ECO 3

STAVES JOINED TOGETHER *using* PATENTED  
SLOT-SAW ASSEMBLY PROCESS

#### GOOD TO KNOW

ECO 3, due to its manufacturing process, available in limited quantities.

07.3

# ECO 27 & ECO SELECT BARRELS

INNOVATION+QUALITY AWARDS  
Innovation of the Year 2016



OAK UPPER PARTS

## SPECIAL TOAST PROFILES

ECO 27 is offered with four toast profiles for a short and medium-term maturing objective (Traditional Medium/Medium +, Long Medium/Medium +).

## ECO 27 SENSORIAL PROFILE

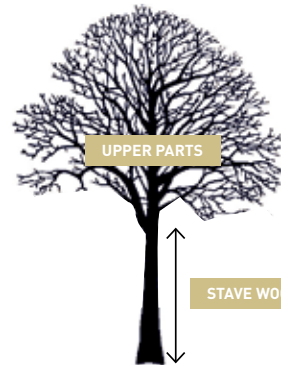
Rich and complex aromaticity.

ECO Select : Available in two tannin potential (low & mix medium/high).



## ECO 27

USE *of* UPPER PARTS *of the* OAK



## ECO SELECT

USE *of* UPPER PARTS *of the* OAK - STAVE WOOD SORTED *by* TANNIN POTENTIAL



Special selection from the best staves ECO27, available in two tannin potential. Gradual toast available.



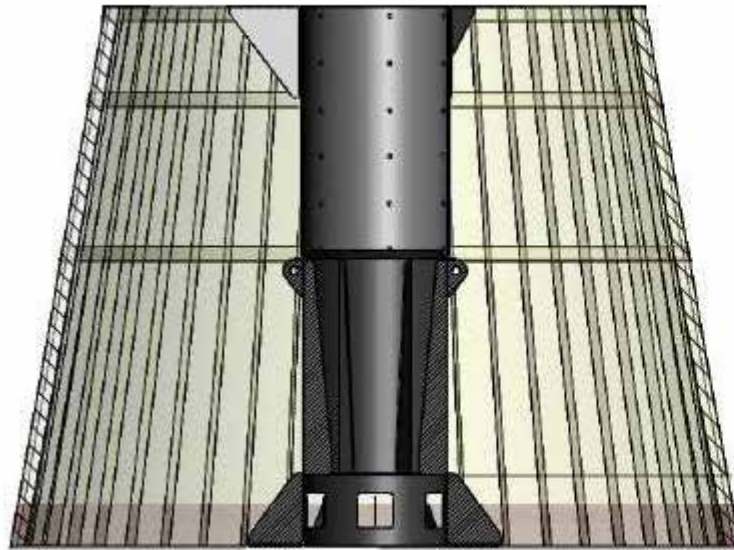
# VICARD FOUDRERIE

THE ART *of* WOOD, *our* EXPERTISE

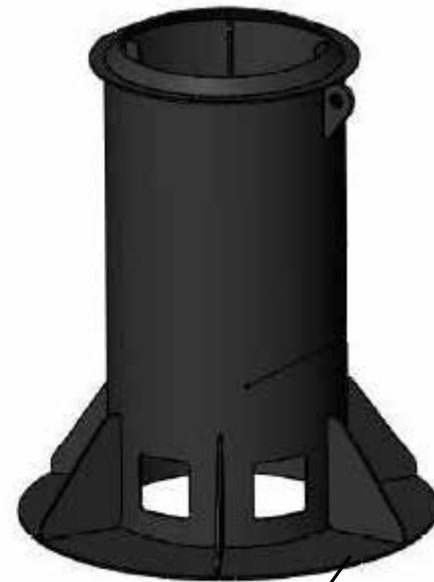




# 08.1 INNOVATIVE TOAST



TOAST *by* RADIATION  
> **HOMOGENEITY**



CONE ENCIRCLES *the* FLAMME

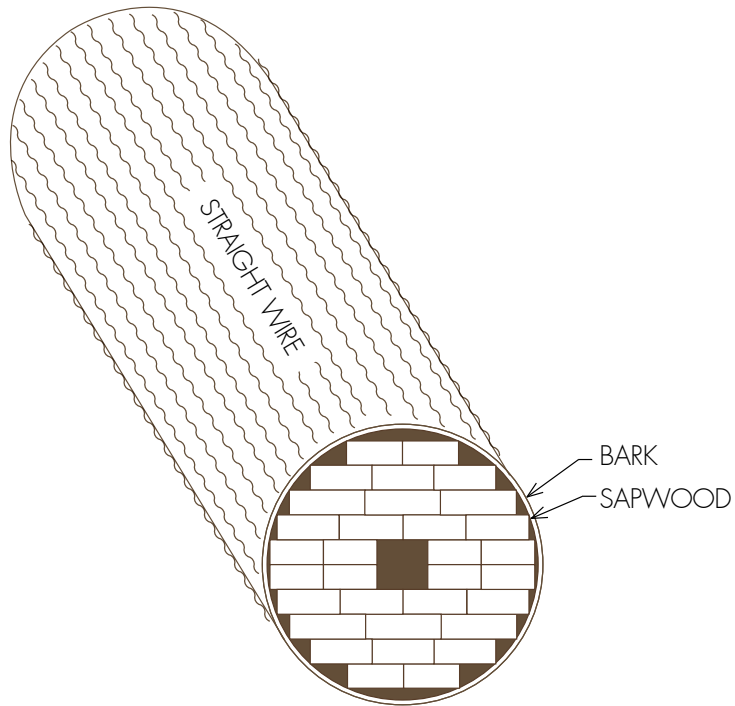


08.1  
INNOVATIVE  
TOAST

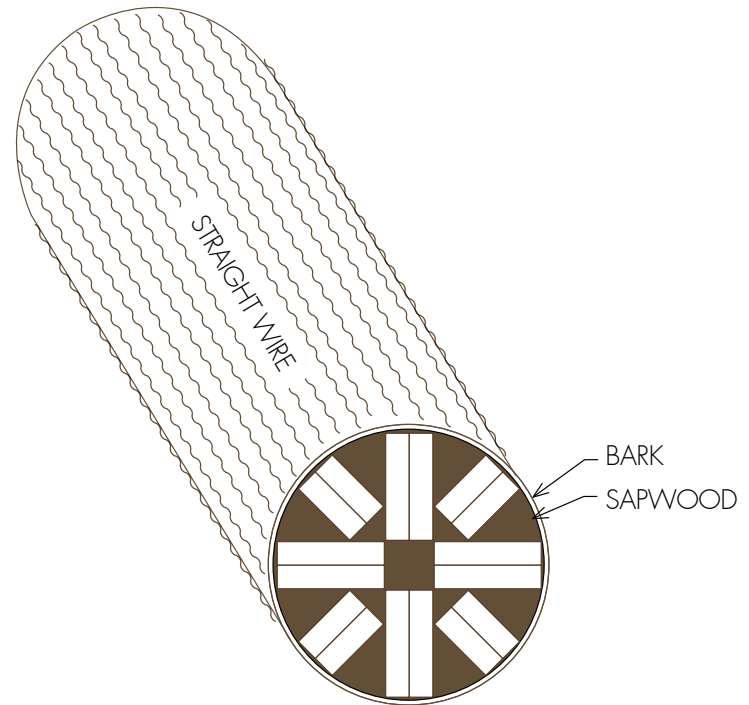


## 08.2

# COMPARATIVE BETWEEN SQUARE-EDGED/UNEDGE-TIMBER



UNEDGED-TIMBER 54MM

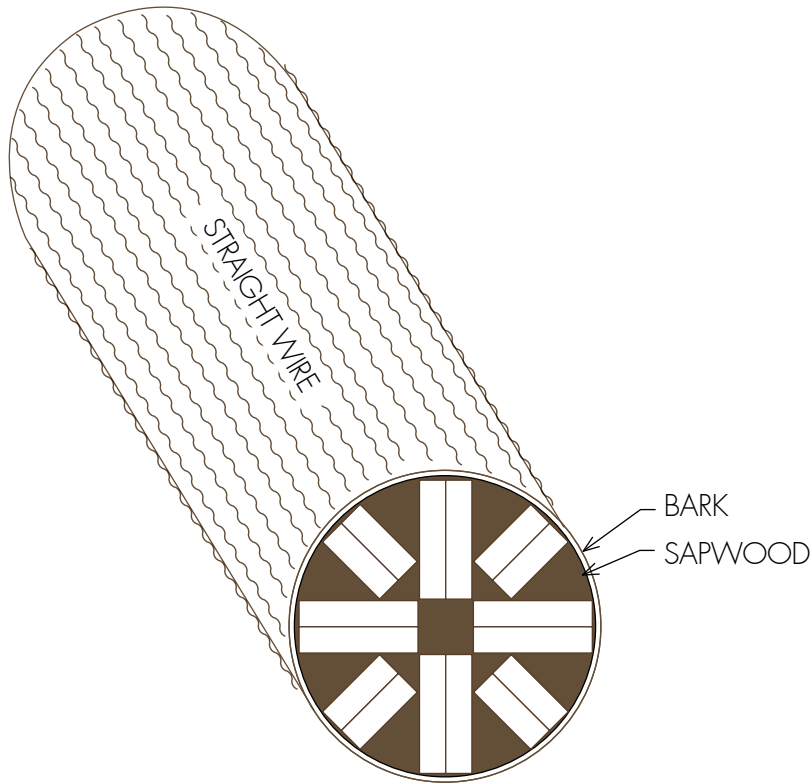


SQUARE-EDGED TIMBER 60mm



## 08.3

# SQUARE-EDGED TIMBER



SQUARE-EDGED TIMBER 60mm

### + ADVANTAGES

- Square-edged timber
- Respecting grain orientation of the oak
- Natural drying in open air for a minimum of 3 years :
  - Optimal durability
  - Less risk of deformations, twists & leaks
  - Maturation of the tannins, suppleness of oak & aromatic complexity
- Available capacities :
  - From 10 to 110hL (tanks)
  - From 10 to 80hL (casks)

### - DISADVANTAGES

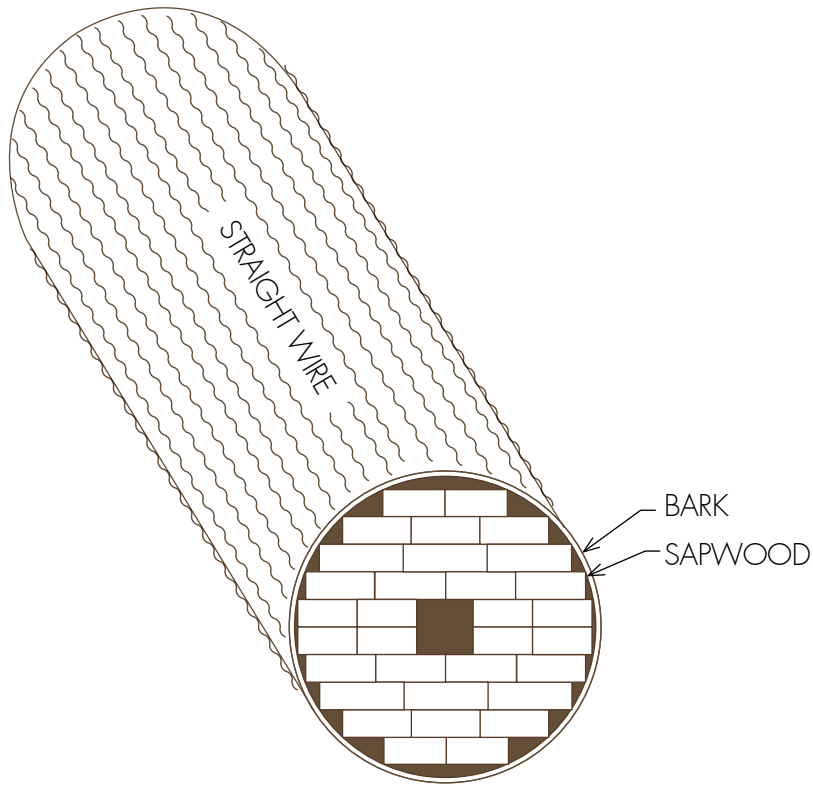
- Better oak quality (longevity ++) but **shorter lengths than unedged-timber**

08.3  
SQUARE-EDGED  
TIMBER



## 08.4

# UNEDGED-TIMBER



UNEDGED-TIMBER 54MM

### + ADVANTAGES

- Economical
- Long lengths available
- Sawing on the length of the log
- Available capacities :
  - From 10 to 500hL

### - DISADVANTAGES

- Risk of deformation
- Open air natural maturation **is impossible**



08.4  
UNEDGED-TIMBER



08.5

## TRUNCATED VAT



### DESCRIPTION

---

- **Capacities** : from 10 to 500 hL
- **Two oak qualities** : Square-edged timber and Unedged-timber
- **Origin** : French oak
- **Toast** : Light or Medium

### + USER BENEFITS

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- Longevity
- Superior product quality
- Unedged-Timber : Longer wood lengths

08.6

## ROUND CASK



### DESCRIPTION

---

- **Capacities** : from 10 to 100hL
- **Square-Edged Timber**
- **Origin** : French oak
- **Toast** : Light or Medium

### + USER BENEFITS

---

- Longevity
- Superior product quality



## 08.7 OVAL CASK



### DESCRIPTION

---

- Capacities : from 10 to 60hL
- Square-Edged Timber
- Origin : French oak
- Toast : Light or Medium

### + USER BENEFITS

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- Longevity
- Superior product quality

08.8

ERGONUM®



🌿 SITEVI 2013 :  
Citation - Palmarès de l'Innovation

🌿 VITEFF 2013 :  
Innovation Price

## DESCRIPTION

---

- **Capacities** : from 10 to 100hL
- **Two oak qualities** : Square-edged timber and Unedged-timber
- **Origin** : French oak.
- **Toast** : Light or Medium

## ⊕ USER BENEFITS

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- **Working comfort** : drain, service valves and bung hole in the front of the cask
- **Solid construction**
- **Qualitative** : enhanced ease of processing and cleaning
- **Time saver, water conservation**

# 08.9 ACCESSORIES *for* CASKS & TANKS *1/2*



CORKS (PLASTIC,  
STAINLESS ...)



DOORS (OVALS, RECTANGULAR,  
RIEGER, WOOD ...)



TRAPS (TO WELD, TO  
SCREW, ON ROOF ...)



BELLOT STRAIT



LEVEL TUBES &  
THERMOMETERS



COILS



VALVES  
(BALL, BUTTERFLY...)



TAPS (TASTER,  
LEVEL METER...)



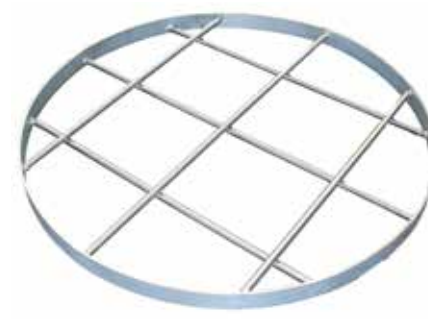
# 08.9 ACCESSORIES *for* CASKS & TANKS *2/2*



STAINLESS STEEL ROOFS



ANTI-FALL GRILLES



ADJUSTABLE FEET



CLOSURES



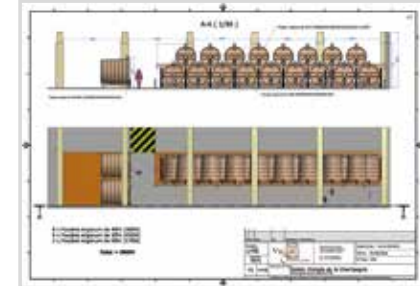
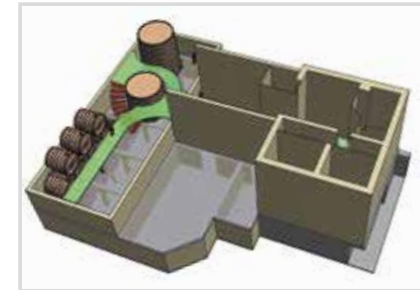
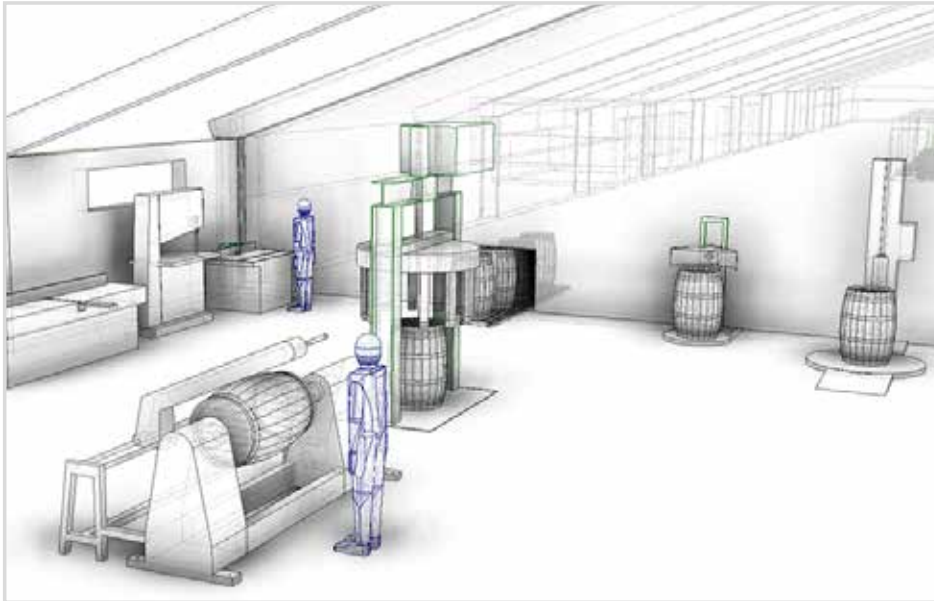
DAMS  
(SIMPLE OR DOUBLE)



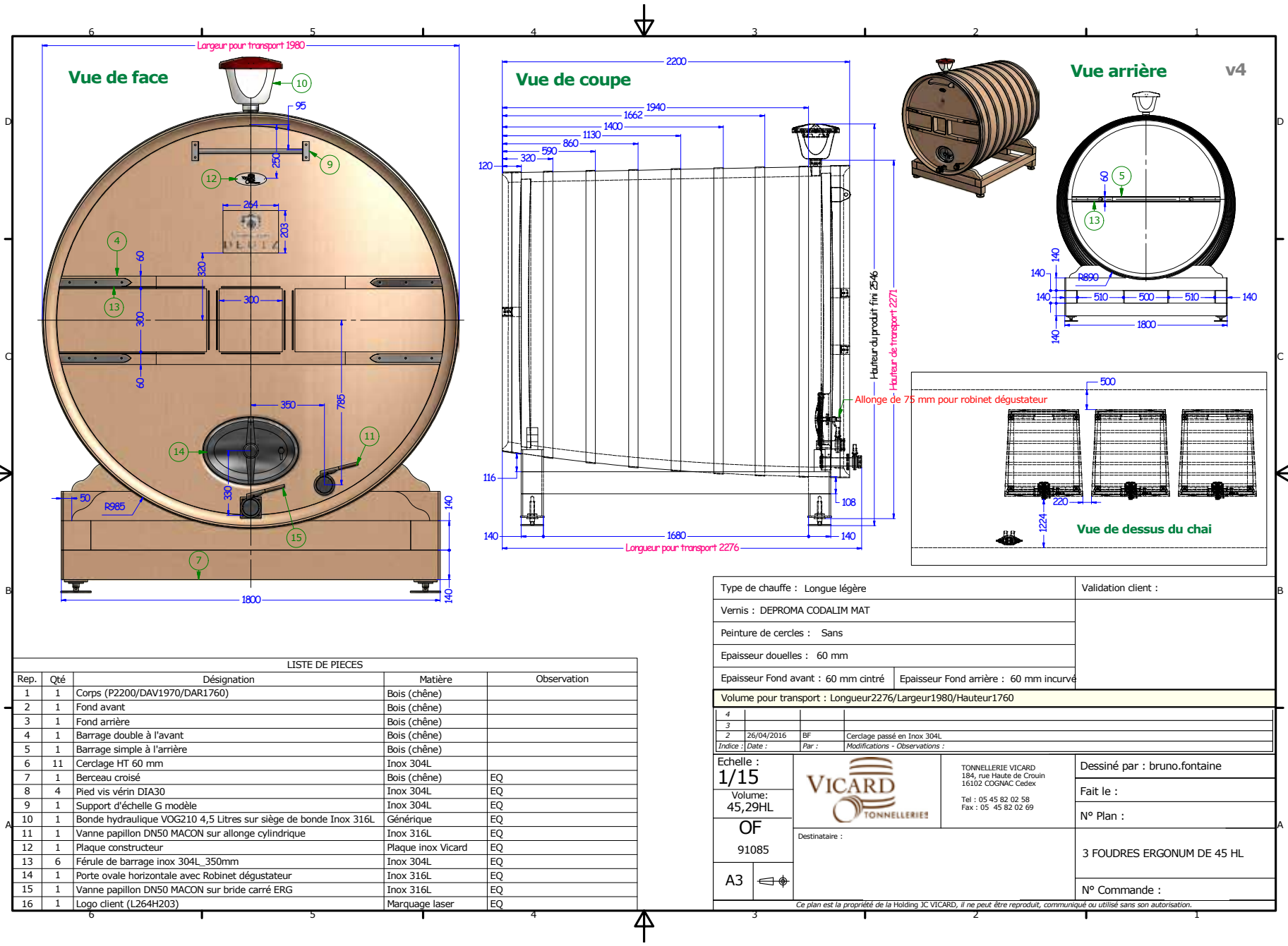
SUPPORTS (WOOD,  
STAINLESS STEEL...)

08.10

*a* DEDICATED  
RESEARCH BUREAU



PRODUCTS MADE *to* ORDER ·  
SIMULATED SITUATION · 3D VIEWS  
· IMPLEMENTATION SIMULATIONS



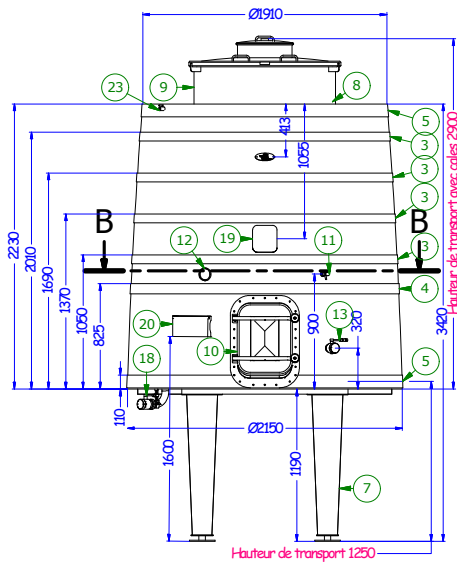
LISTE DE PIECES				
Rep.	Qté	Désignation	Matière	Observation
1	1	Corps (P2200/DAV1970/DAR1760)	Bois (chêne)	
2	1	Fond avant	Bois (chêne)	
3	1	Fond arrière	Bois (chêne)	
4	1	Barrage double à l'avant	Bois (chêne)	
5	1	Barrage simple à l'arrière	Bois (chêne)	
6	11	Cerclage HT 60 mm	Inox 304L	
7	1	Berceau croisé	Bois (chêne)	EQ
8	4	Pied vis vérin DIA30	Inox 304L	EQ
9	1	Support d'échelle G modèle	Inox 304L	EQ
10	1	Bonde hydraulique VOG210 4,5 Litres sur siège de bonde Inox 316L	Générique	EQ
11	1	Vanne papillon DN50 MACON sur allonge cylindrique	Inox 316L	EQ
12	1	Plaque constructeur	Plaque inox Vicard	EQ
13	6	Férule de barrage inox 304L_350mm	Inox 304L	EQ
14	1	Porte ovale horizontale avec Robinet dégustateur	Inox 316L	EQ
15	1	Vanne papillon DN50 MACON sur bride carré ERG	Inox 316L	EQ
16	1	Logo client (L264H203)	Marquage laser	EQ

Type de chauffe : Longue légère	Validation client :		
Vernis : DEPROMA CODALIM MAT			
Peinture de cercles : Sans			
Epaisseur douelles : 60 mm			
Epaisseur Fond avant : 60 mm cintré	Epaisseur Fond arrière : 60 mm incurvé		
Volume pour transport : Longueur2276/Largeur1980/Hauteur1760			
4			
3			
2	26/04/2016 BF Cerclage passé en Inox 304L		
Indice :	Date :		
	Par :		
	Modifications - Observations :		
Echelle : 1/15		TONNELLERIE VICARD 184, rue Haute de Croûin 16102 COGNAC Cedex Tel : 05 45 82 02 58 Fax : 05 45 82 02 69	Dessiné par : bruno.fontaine
Volume: 45,29HL			Fait le :
OF 91085			N° Plan :
A3	Destinataire :		3 FONDRES ERGONOM DE 45 HL
			N° Commande :

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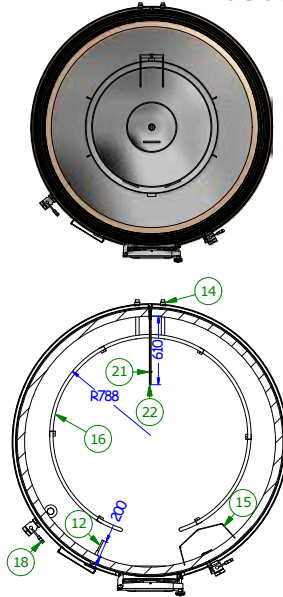


### Vue de face



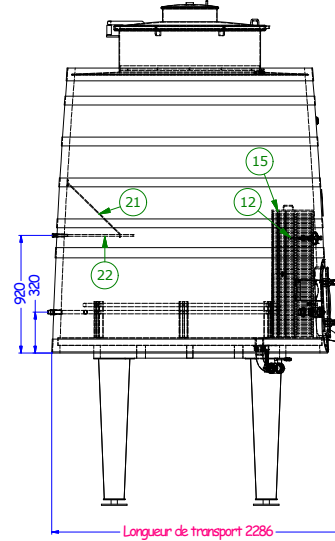
Hauteur de transport 1250

### Vue de dessus

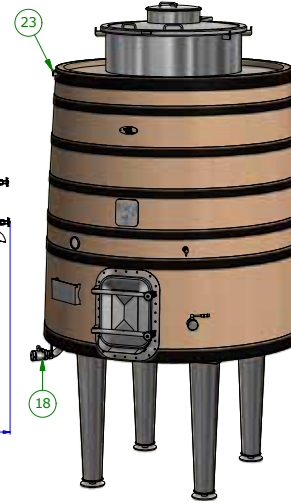


B-B ( 1/35 )

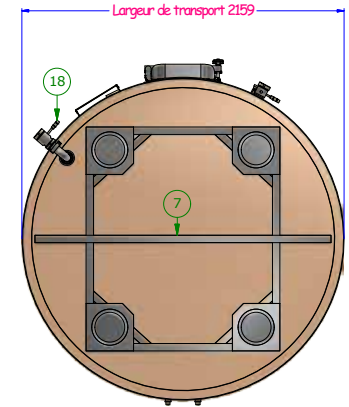
### Vue de coupe



Longueur de transport 2286



### Vue de dessous



Largeur de transport 2159

% Pointu des douelles		
DEV haut	DEV bas	% pointu
1910	2150	11,26

v5

LISTE DE PIECES				
Rep.	Qté	Désignation	Matière	Observation
1	1	Corps (H2230/DH1910/DB2150)	Bois (chêne)	
2	1	Fond bas	Bois (chêne)	
3	4	Cerclage HT 70 mm	Galvanisé noir mât	
4	1	Cerclage HT 80 mm	Galvanisé noir mât	
5	2	Cerclage HT 100 mm	Galvanisé noir mât	
6	1	Fond haut	Inox 316L	EQ
7	1	Châssis sur vis vérin avec pieds démontable	Inox 316L	EQ
8	1	Grille anti-chute diam 1100	Inox 316L	EQ
9	1	Trappe inox Ø1100 al 330 avec purge/raccord et clapet type SERAP	Inox 316L	EQ
10	1	Porte rectangulaire verticale 534_410_100 avec bacette	Inox 316L	EQ
11	1	Robinet dégustateur à bille sur allonge cylindrique	Inox 316L	EQ
12	1	Thermomètre mécanique Doigt de gant 200 sur cône à visser sans support	Inox 316L	EQ
13	1	Vanne à boule DN50 DIN sur allonge cylindrique	Inox 316L	EQ
14	2	Passé Drapeau 27 pour serpent	Inox 316L	EQ
15	1	Grille filtration 1100 type SERAP	Inox 316L	EQ
16	1	Serpentin D1576	Inox 316L	EQ
17	1	Plaque constructeur	Plaque inox Vicard	EQ
18	1	Vanne à boule DN50 DIN sur retour coudé	Inox 316L	EQ
19	1	Plaque inox logo client	Inox 316L	EQ
20	1	Plaque véléda avec rabat	Inox 316L	EQ
21	1	Patte fixation sonde	Inox 316L	EQ
22	1	Doigt gantsonde de température 610 type SERAP	Inox 316L	EQ
23	1	Robinet de nettoyage et de vidange pour fond haut	Inox 316L	EQ

Type de chauffe : Longue légère	Validation client :		
Vernis : DEPROMA CODALIM MAT			
Peinture de cerclés : NOIR MAT			
Fond haut : Inox 316L	Fond bas : Plat incliné sur vanne de vidange totale		
Volume pour transport : Longueur2286/Largeur2159/Hauteur2900			
4			
3			
2			
Indice : Date :	Par : Modifications - Observations :		
Echelle : 1/35		TONNELLERIE VICARD 184, rue Haute de Croûin 16102 COGNAC Cedex Tel : 05 45 82 02 58 Fax : 05 45 82 02 69	Dessiné par : bruno.fontaine
Volume: 61.08HL			Fait le :
OF	Destinataire :		N° Plan :
A3			4 CUVES TRONCONIQUE DE 60 HL
			N° Commande :

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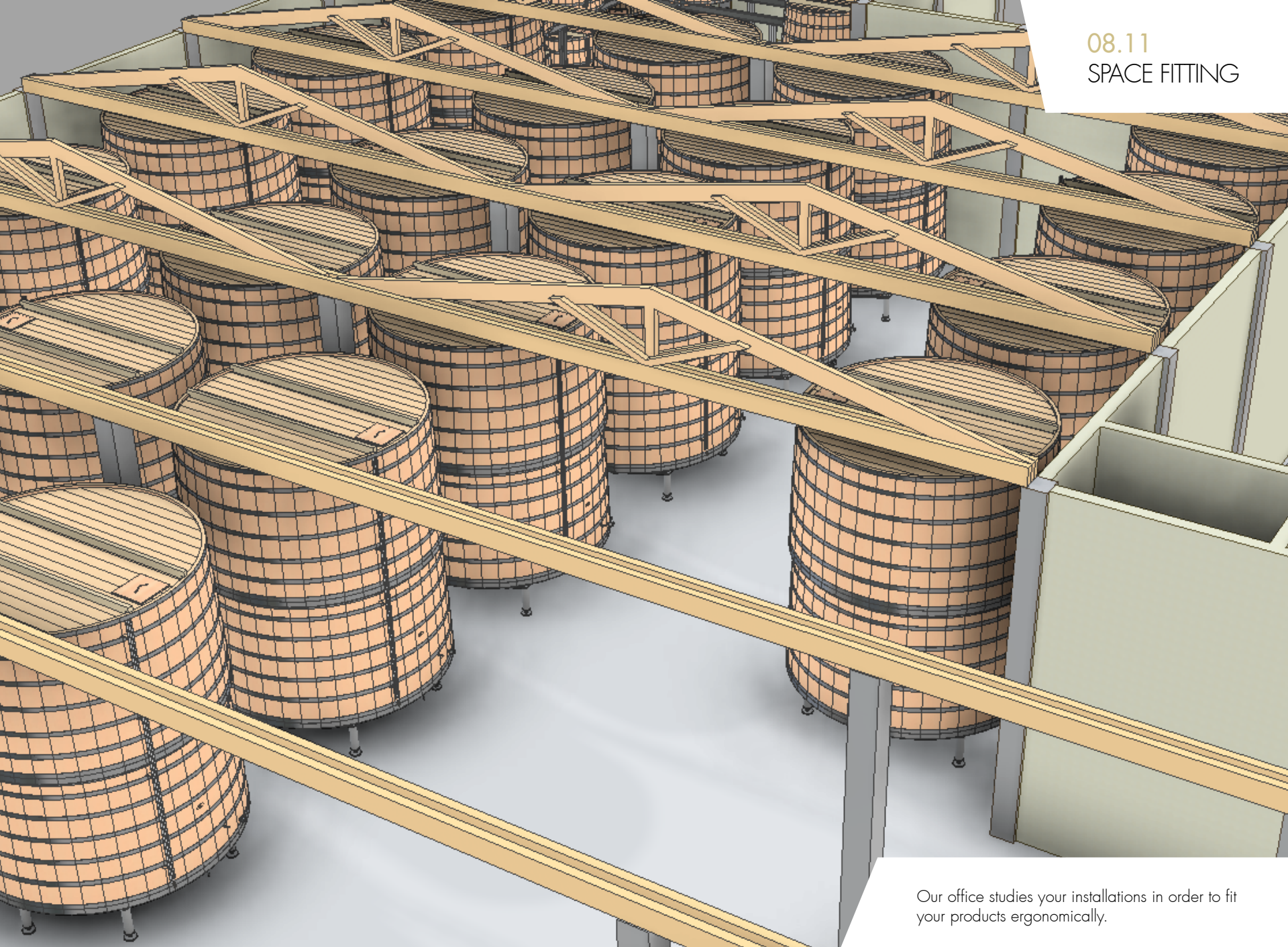
08.11  
SPACE FITTING



Our office studies your installations in order to fit your products ergonomically.



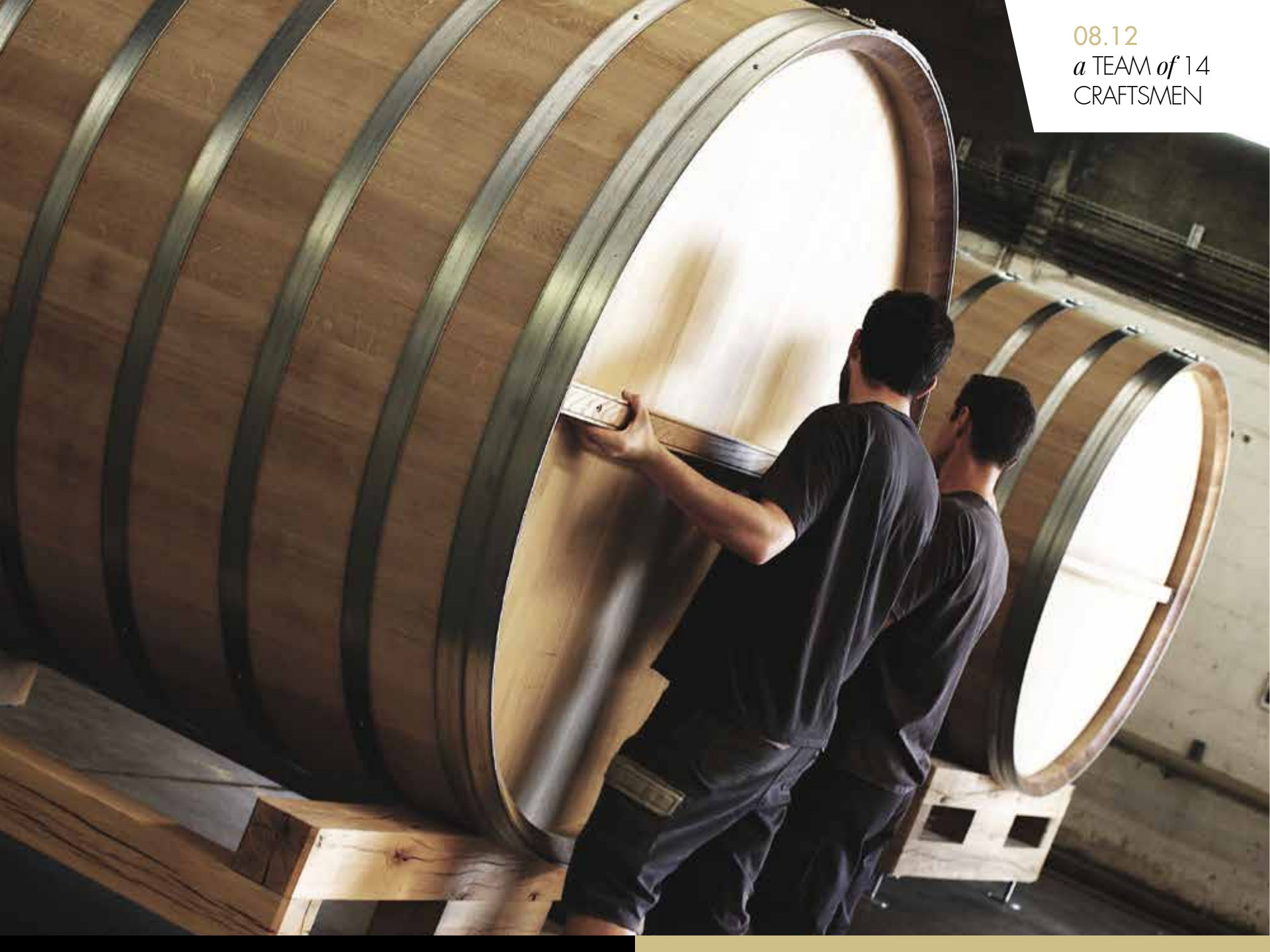
## 08.11 SPACE FITTING



Our office studies your installations in order to fit your products ergonomically.



08.12  
*a TEAM of 14*  
CRAFTSMEN





















# CERTIFICATIONS

GROUPE VICARD



## PEFC

WE HAVE CERTIFIED *our*  
CHAIN *of* CONTROL



## VERITAS

RECOGNITION



## HACCP

RECOGNITION



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