OAK SOLUTIONS GROUP *university*

***Workshop,*** *Maio de 2006*

**Química dos alternativos de carvalho:**
**A mais recente tecnologia para fazer melhores vinhos**

**Dr. Ed Larmie,**

Director de Marketing e Vendas do Grupo
*World Cooperage*

elarmie@oaksolutionsgroup.com

**VDS Enologia, Lda**
PARQUE INDUSTRIAL DO LAMEIRÃO, LOTE 12 - 5130-301 SÃO JOÃO DA PESQUEIRA
Tel.: + 351 254 488 070 / +351 937 202 662
Fax: + 351 254 488 072
E-mail: diogotovar@vds.pt


OAK SOLUTIONS GROUP

OAK SOLUTIONS
group

**At Oak Solutions we share our sensory science and our creative technology to help some of the world's best winemakers achieve their vision.**

evOAK
Forward Thinking Oak Products

OAK SOLUTIONS GROUP

# Classic Oak Chips

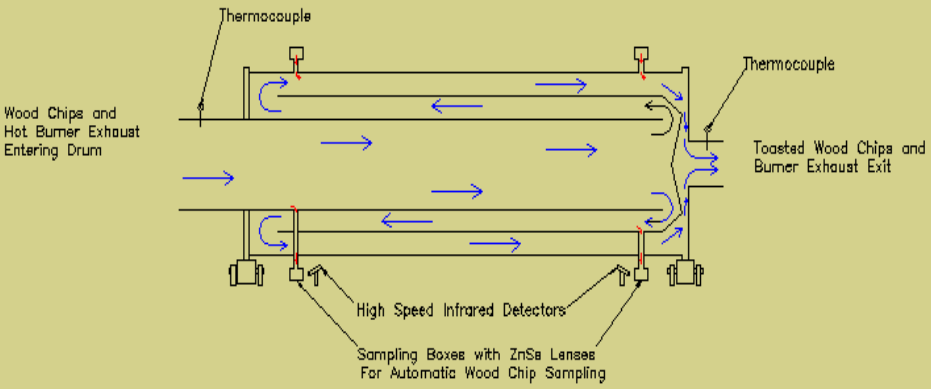
French oak  American oak

- Fermentation
- Aging
- Finishing

evOAK
Forward Thinking Oak Products

OAK SOLUTIONS GROUP

## Rotary Drum Toaster



OAK SOLUTIONS GROUP

## Classic Oak Chips

### Large size

- Less astringent flavors
- Extract more slowly
- Works better in infusion bags
- Better toasting control

### Small size

- Process better through equipment
- Fast extraction
- Can be put directly on the grapes

OAK SOLUTIONS GROUP

## Classic Oak Chips

### Medium Toast

- More oak tannin
- Spicy, Vanilla
- Generally more complex
- Lift fruit flavor in the wine

### Heavy Toast

- Roasted flavors, Coffee
- Caramel
- More smoke
- Tends to hide flaws in wine
- Less lactones in American oak

OAK SOLUTIONS GROUP

# Specialty products

- French Oak High Vanilla Oak Chips
- American Oak Premium Dark Roast

evOAK
Forward Thinking Oak Products

OAK SOLUTIONS GROUP

# Oak powder
# French and American oak

## Fermentation Aid

Remove vegetal characters and improve body

evOAK
Forward Thinking Oak Products

## Oak Solutions Group

+

**Hammer Mill**

=

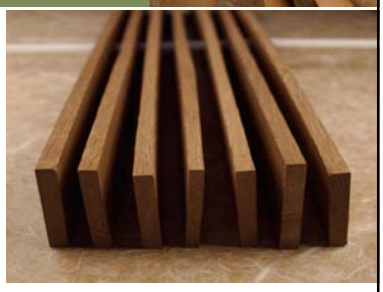
- **American oak**
- **French oak**

## Oak Solutions Group

# Tank Staves

French, American Oak

24 months air seasoned



- Convection toasted
- Infrared toasted
- Fire toasted

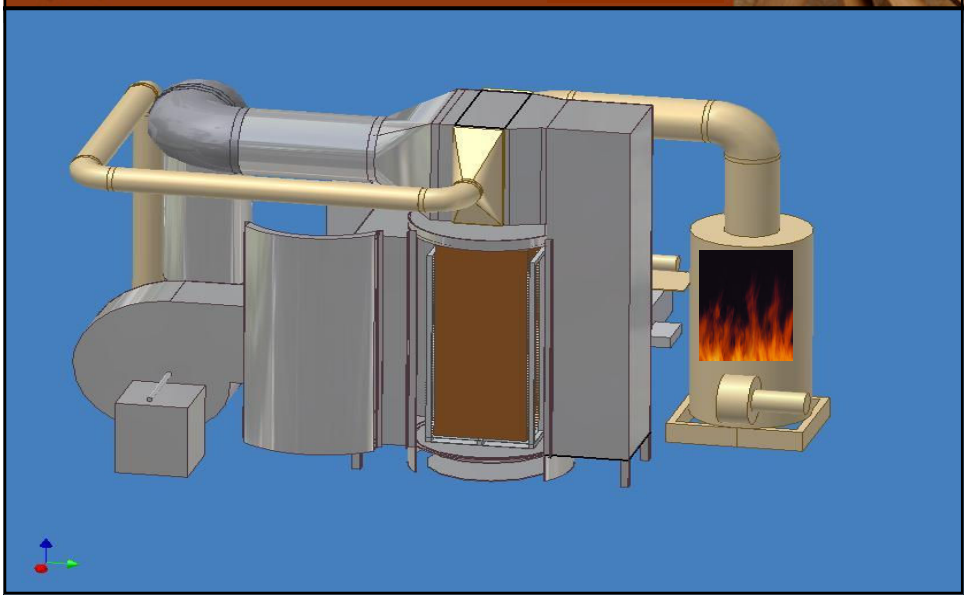
evOAK
Forward Thinking Oak Products

OAK SOLUTIONS GROUP

Convection Toasting Oven

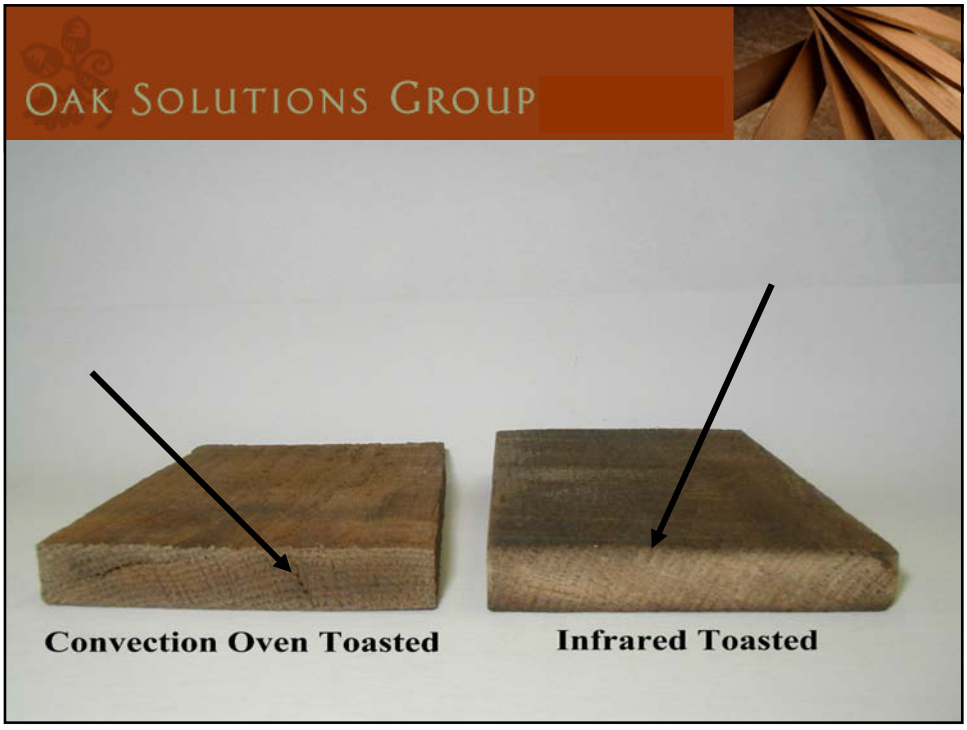
OAK SOLUTIONS GROUP

OAK SOLUTIONS GROUP



OAK SOLUTIONS GROUP

OAK SOLUTIONS GROUP
Ceramic Electrical Emitters


OAK SOLUTIONS GROUP
Convection Oven Toasted
Infrared Toasted

OAK SOLUTIONS GROUP

## Vertical, 3-tier System

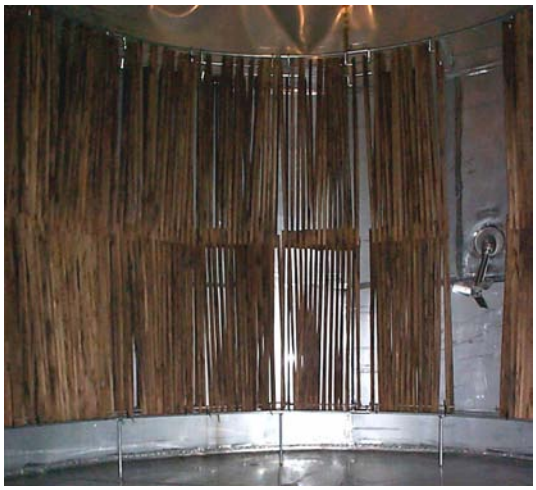
**Pros**

- Versatile
  - Fermentation, aging, finishing
- Install is quick and simple
- Hardware inexpensive not complicated
- Easy to clean
- Inexpensive
- Can attached to other frames that pre-exist inside tank

**Cons**

- Limited in the number of staves, low dose rate
- Requires ladders and multiple personnel to install
- Welding required

OAK SOLUTIONS GROUP



OAK SOLUTIONS GROUP

## Fan System

**Pros**

- Versatile
  - Hardware inexpensive
- Installation inexpensive
- Limited labor/time in tank
  - Quick to load and unload
- Safe, no ladders required
- Minimal dedication of tank space
- High load rate/ high dose rate
- Works well with bagged staves or nuggets

**Cons**

- Welding required

OAK SOLUTIONS GROUP

## Fan System

OAK SOLUTIONS GROUP

## Infusion Staves

French and American oak

Quick and easy way to use
Tank Staves

evOAK
Forward Thinking Oak Products

OAK SOLUTIONS GROUP

evOAK
Forward Thinking Oak Products

## Specialty Products

### High Extract Tank Staves

- High Vanilla
- High Toast
- High Spice
- High Mocha

OAK SOLUTIONS GROUP

## New product development and expansion to meet future needs

- Full-time R & D department
- New 30,000 sq ft production facility and warehouse
- New Tank Stave oven, doubling production capacity
- New batch style chip and nugget toaster for specialty products

OAK SOLUTIONS GROUP

## Preparing to meet the future

- Bio-terrorism, track and trace
- ISO Certification
- Production monitoring, TCA analysis
- Food grade packaging