## Welcome





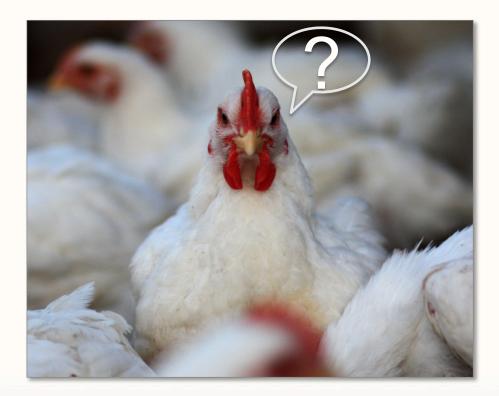
## Rules, legislation

8

## reversible stunning













## The water bath stunner

No longer a sustainable option





## Controlled Atmosphere Stunning



Marel CAS system





To big, to expensive, not reversible nor environmentally friendly





# Head-only Stunning



### **Head-only Stunning**

#### The only legal way to apply an electrically induced stun

#### Rules & legislation

- ➤ Compliant wit EC 1099
- > Crucial parameters
- > Stored data

#### The product

- > Less trimming
- > Reversible stunning
- ➤ More "A" grade product





### Rules & legislation

#### *EC 1099/2009 compliancy*

#### **Crucial parameters**

- ✓ Minimum current (mA)
- ✓ Minimum tension (V)
- ✓ Maximum frequency (Hz)
- Minimum duration (t)
- Maximum stunstick (t)
- ✓ Optimized current flow
- ✓ Pre-shock prevention
- ✓ Optimized location contact plates
- ✓ Calibration frequency

#### **Data logging**

- ✓ All data is collected
- √ Stored as .csv file
- ✓ At lot level
- ✓ Time and date stamped
- ✓ Integration with excisting track & trace possible.

#### Independent study's



- ✓ Lambooij et al. 2011 proof of concept study
- ✓ Gerritzen et al. 2015 ground truthing study at 13500 bph
- ✓ Verifying the compliance of the Head Only Electrical Stunner.



### The product

#### Reversible stunned

#### More "A" grade product

- > Less to none blood spots to be found in the fillet meat
- > Increased revenue through more "A" grade product

#### **Less trimming costs**

- > Less labor on trimming final product
- > Decreased loss through less "down" graded product

#### Says who?

➤ Various research preformed by Wageningen UR





## Why do you want it?

#### The pros' out way the cons'!

#### Pros'

- ✓ More "A" grade product
- √ Reduced trimming costs
- √ Beter product presentation
- ✓ Compliant with EC 1099/2009

#### Cons'

Cost per bird is 0,082 euro cent higher then water bath stunning



Brussels, 19.12.2013 COM (2013) 915 final

REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

on the various stunning methods for poultry



### The Head-only Stunner

#### A fitting solution for any speed

1000 – 5000 bph

4500 - 9500 bph

> 6" − 24 app. 10m<sup>2</sup>

9000 - 14000 bph

> 6" - 32 app. 16m<sup>2</sup>





#### 3 different machine sizes

## 2 way's of handling missed birds semi or full automatic

From 1000 > Unload manually 6"-16 > Less then 1% missed through > Identification through light signal 5500 bph From 4500 > Unload manually/selected by KLS splitter for water bath stunner 6"-24 > Less then 1,7% missed through > Identifycation through light signal or marked for KLS splitter 9500 bph From 9000 Marked for KLS splitterLess then 3.6% missed 6"-32 through Marked for KLS splitter/send to water bath/ more then 99% efficiency 14000 bph



## Kill Line Shackle (KLS) splitter



KLS splitter at work

Fully automated 99,4%



### Smart, simple and extremely effective





## Head-only Stunning, this is why

- ✓ In compliance with latest rules & legislation
  - ✓ It's the only reversible stunning to date
    - ✓ Tested by the Wageningen University
      - ✓ Applicable from 1000 > 14000 bph
        - ✓ Fully automated +99% efficiency
          - ✓ Smallest possible footprint
            - ✓ Improved product quality



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# Thank you!



