
Company Profile
omas
The Italian excellence

GALILEO the “dew point free” Plansifter

1 - FLOUR LUPMS, BACTERYA, ENZYMES and MOULD

- Flour… H20 … temperature (25-30 °) and time (24-48 hours) are the **elements** to build flour lumps ….where the symbiotic stable culture of **Bacteria (lactobacillus) , Enzymes (Saccharomyces) and mould grows very fast.**
- This culture propagates in mill and start the **flour pre fermentation** .
- This process **transform the insoluble protein** into soluble and may **modify the viscosity and leavening time of the dough** .
- Bakeries will **complains** and may be look for more……. consistent flour and may be supplier !!

2 - WHERE BACTERYA and ENZYMS COLTURE BEGIN ?

- Inside the plan sifter the **warm air is stagnant, richest in moisture** and
- if **dew point** is match the **condensation of water** will begin.
- The **flour** attract by condensed water **will stick** on it .
- Within **hours** the environmental is ready to **grow microorganism culture**

3 - AVOID DEW POINT

- Air temperature , relative moisture and contact surface temperature are affecting the dew point .
- At **30 °C the air** can hold up to **31,7 grams H20 per M3** (100%)
- Assuming that the technological air is 28 ° C with average of 80% moisture the **dew point is 25,3 °C. (Molier)**
- How maintained this temperature when room temperature inside the mill is **12 - 15 ° C only ?**
- With a proper design of the **sieves box insulation** …

4 - THE RIGHT INSULATION

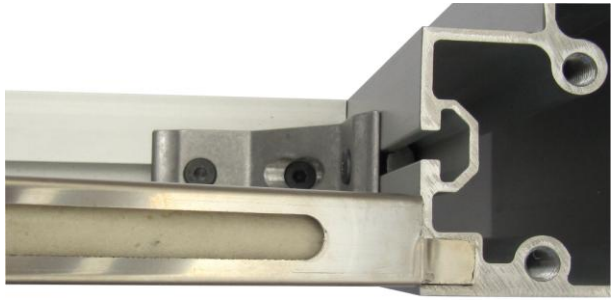
- Knowing that the heat generated by flour is :
- **Q= Kg flour x Cflour (T1°-T2°)**
- And that the Flour specific heat is
- **Cflour = 0,42 Kcal / Kg °C**
- The thickness of insulation is obtained by
- $$d = \frac{K \times S\ (T1°-T2°)}{Q}$$
- We come to the conclusion in many condition that safest thickness is

  25 millimeter ….

GALILEO “dew point free” FEATURES

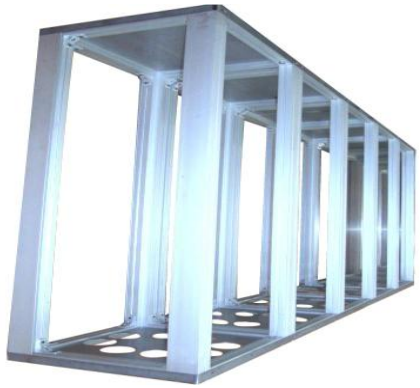
omas

Sifting Box Side Walls : Obtained by joint two shell of Stainless Steel AISI 304BA and filled by injection of self rising water base foam with thermal conductivity equal to 0,024 K Cal /mh°C and specific weight of 30 Kg / m3 . Wall Thickness 25 millimeter



Sifter Doors : Internal side made in stainless steel AISI304BA and joint with the outside shell made in Polycarbonate . The door are later injected with water base self rising foam, Thickness of 55 millimeter.

Structural Frame : realized in extruded anodize aluminium profile (Aluminium EN-AW6063 ed EN-AW6060)



- GALILEO ADDITIONAL BENEFITS

- Utilization of anti age and anti wearing material for the sieves and sieves boxex.
- New design of sieve to avoid product leakage.

Sieves : made in Aluminum and in Stainless steel AISI 304BA with reinforced corner to avoid breakage and increase resistance

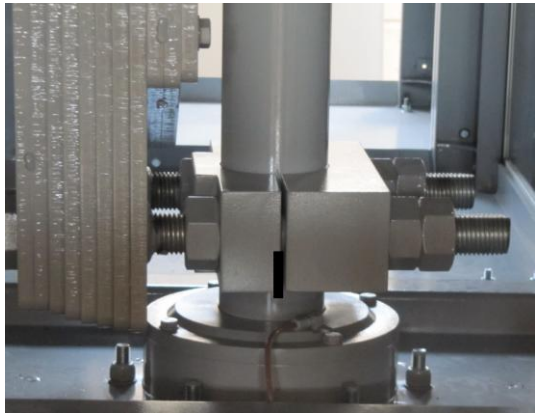
Sieving Box : full construction made in Aluminum to provide stability and mechanical trough the years

Anti leakage design : full dimension sieves concept to eliminate any possible contamination between fine truth and coarse over tailed

3- STOP MAINTENACE

- Adopt a long life suspension and driving unit .
- Avoid internal painting and antirust action.

Maintenance free Cinematic System: certified C40 steel shaft with 110 mm diameter hold by N° 2 double row roller bearing with 10 years operation guarantee



PAINT FREE : all the part in contact with product are in stainless steel AISI 3010

Protect your flours….GALILEO

your partner in milling !!

Galileo features are on show at Omas booth

Thank you for the attention !

www.omas-srl.com