ITALIAN EXCELLENCE

PERFORMANCE EVOLUTION
IN THE ART OF MILLING
WHEAT CONTAMINATIONS

The wheat is an agricultural commodity, its purity could be effected by soil nature, cultivation methodology, wheather conditions, handling and storage process.

According to FAO 60% of the cereal crops are contaminated by organic and inorganic impurities which drastically effect the storing conditions and the quality of the finished products.

INORGANIC IMPURITIES:  
- ash,  
- heavy metal,  
- pesticides,  
- herbicides (roundup)

ORGANIC IMPURITIES:  
- bacteria (CBT)  
- fungi fusarium  
- mold,  
- micotoxins
CONSUMER CARE - HEALTHIER FOOD
GIOTTO:
WHEAT STERILIZATION PROCESS
INORGANIC IMPURITIES
CONTAMINATION OF FUNGI
IMPURITIES ON PERICARP

- Starchy endosperm (80-85%)
  - Starch & proteins

- Aleurone layer (6-9%)

- Testa (1%)
  - Alkylresorcinols

- Inner and Outer pericarp (4-5%)
  - Insoluble dietary fibre (xylans, cellulose, lignin)
  - Antioxidants bound to cell walls (phenolic acids)

- Germ (3%)
  - Lipids
  - Antioxidants
  - Vitamin E
  - B vitamins
  - Minerals
  - Plant sterols
  - Enzymes

- Bran
  - Soluble & insoluble dietary fibre (xylans, β-glucans)
  - Proteins
  - Antioxidants (phenolic acids)
  - Vitamin E
  - B vitamins
  - Minerals
  - Phytic acid
  - Enzymes

- Brush
- Crease
PERICARP REMOVED 0,2 – 1 %
95% LESS MOULD

MOULD Reduction (ISO 21527-2:2008)

[UFC/gr]

US Wheat Giotto  US Wheat Scourer  EU Wheat Giotto  EU Wheat Scourer
75% LESS BACTERIA COUNT

CBT Reduction 75% (Neutron method)
30 % LESS PESTICIDES

PESTICIDES Reduction

[Ma/kg]
0,5
0,4
0,3
0,2
0,1
0

PIRIMIFOS METILE
PIPERONIL BUTOSSIDO
DELTA METRINA

ITALIAN EXCELLENCE
50 % LESS PERFICIAL MYCOTOXINS

- AFLATOXIN WHEAT 6 Microgram per Kg (ppm)
- AFLATOXIN FLOUR 0,1 Micrograms per Kg (ppm)
- DEOSSINIVALENOLO WHEAT 1250 Microgram per Kg (ppm)
- DEOSSINIVALENOLO FLOUR 500 Microgram per Kg (ppm)
- DEOSSINIVALENOLO BABY FLOUR 200 Microgram per Kg (ppm)
**IMPURITIES REMOVED**

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<tr>
<td>YIEST</td>
<td>-75 %</td>
<td>80.000</td>
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<td>HEAVY METAL</td>
<td>-95 %</td>
<td>450.000</td>
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4.500
6-8 % LESS ASH (1.76-1.62 %)

ASH Reduction

US W. GIOTTO  US W. Scourer  EU W. Giotto  EU W. Scourer
INCREASE OF MILLING YIELDS
0,5 -1 % ADDITIONAL LOW ASH FLOUR
WHEAT STERILIZATION

- Higher standard of cleaning in milling plant.
- Extended life of rolls fluting purified flours.
- Healthier Whole Meal flour.
- Healthier Brown flour.
- Healthier By Products.
AFTER SALES SERVICE

• At your service, we have very skilled technicians, available 7 days at week.
• Our spare parts are easy to identify: every single piece, has a code number marked by laser: so we like to say “we’ll never forget you”.
• Technical documents are available on web site.