

Debranning for the highest product quality

PeriTec System



SATAKE CORPORATION

Higher Processability to Pasta, Noodles and Bread

For bread baking, pasta extruding and dough production of noodles and steam bread, PeriTec offers advantages as shown.

- Appearance** ... Less specks in flour makes product color brighter and whiter.
- Texture** ... Less bran contamination increases the purity and smoothness.
- Flavor** ... Enhanced aroma due to increased purity of the endosperm.



And More

Shorter Mill Flow
Stable Flour Quality
Higher Mill Capacity(see "PeriTec Booster" below)

A Wide Range of Applications

Satake is ready to offer the PeriTec system in any of the following configurations.

- Full Installation** ... Designing the optimum flow for your new plant.
- Conversion** ... Installing the PeriTec system before the existing milling section. Installation can be completed with minimum initial cost.
- PeriTec Booster** ... A parallel head break, purification and reduction system fed by a PeriTec system is installed alongside the main mill. Further processing is understream by the tail system of the host mill. Capacity can be increased without significant additions, and it can be installed without stopping the existing mill.

Product Lineup of PeriTec System



Hydrator(SHD)

Debranning Machine(VCW)

Rollermill(SNR)

All Satake products are the subject of continuous development and, as a result, their specification may change and differ in detail from those shown.

SATAKE CORPORATION

Head Office
2-30 Saijo Nishihonmachi,
Higashi-Hiroshima-shi, Hiroshima-ken,
739-8602, Japan
URL : www.satake-group.com

SATAKE USA INC.
10900 Cash Road,
Stafford, Texas, 77477, U.S.A.
URL : www.satake-usa.com

SATAKE AMERICA LATINA LTDA.
Rua Xavantes, 155-Pav. 20, Bairro
Atradores, CEP 89203-210, Joinville,
Santa Catarina, Brazil
URL : www.satake.com.br/

SATAKE EUROPE LTD.
P.O. Box 53, Horsfield Way, Bredbury
Industrial Park, Bredbury, Stockport,
Cheshire, SK6 2SU, U.K.
URL : www.satake-europe.com

SATAKE INDIA ENGINEERING PVT. LTD.
4th Floor, Tower-1, HB Twin Towers, A2,
3, 4, Netaji Subhash Place, Wazirpur
District Centre, New Delhi, 110034, India
URL : www.satakeindia.com/

SATAKE (THAILAND) CO., LTD.
133,134 Moo 5, Bangkok, Mueang
Pathum Thani, Pathum Thani 12000,
Thailand
URL : www.satake-th.com

SATAKE INTERNATIONAL BANGKOK CO., LTD.
888/84 Mahatun Plaza Bld., 8th Floor,
Ploenchit Rd., Lumpini, Pathumwan,
Bangkok, 10330, Thailand
URL : www.satake-th.com

PT. SATAKE GOBEL INDONESIA
Gedung Surabaya Bumi Mandiri,
Lantai 9, Jalan Jenderal Basuki
Rachmat Nomor 129-137, Unit 905 B,
Indonesia

SATAKE MANUFACTURING (SUZHOU) CO., LTD.
229 Jin Feng Road, Suzhou New
District, Suzhou, Jiangsu Province,
215129, China
URL : www.satake.cn/

SATAKE AUSTRALIA PTY. LTD.
15 Leland Street, Penrith, N.S.W.,
2750, Australia
URL : www.satake.com.au

ISO 9001 Certification
(Quality Management Systems)

ISO 14001 Certification
(Environmental Management Systems)

SATAKE CORPORATION has obtained
ISO9001 and ISO14001 certification.
These international standards for management
systems ensure Satake will continue to provide
high quality products and services.

DEBRANNING

The most advanced flour milling process

- Wheat and rice are the two main staple foods of mankind.
- Satake has over 100 years of research and engineering background in rice milling.
- By adapting this know-how and engineering to wheat flour milling, Satake has developed the PeriTec System.
- Now, Satake can debran the wheat kernel to any desired degree down to its endosperm.

PeriTec System

Cleaning/
Tempering
Section

PeriTec

Milling Section

PeriTec is a flour milling system based on the principle of kernel hydration and debranning prior to milling. It provides optimum product quality at minimum investment.

Debranned wheat by Satake PeriTec system



Hard Wheat



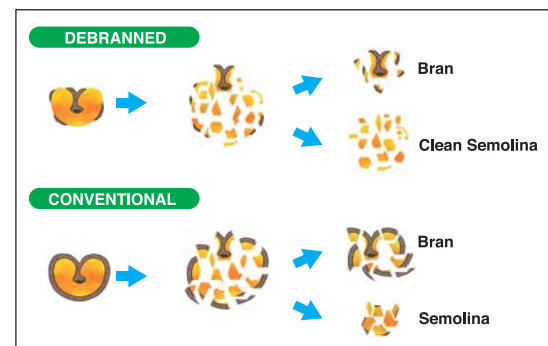
Semi Hard Wheat



Durum Wheat

Whiter and Brighter Product Appearance

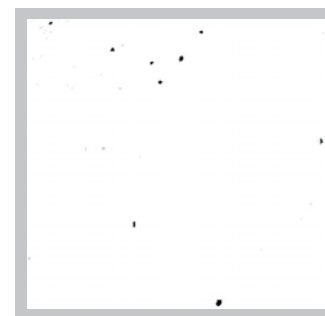
The removal of the majority of the bran before milling significantly reduces speck count in the product flour. The latest image analysis clearly indicates that PeriTec flour has lower contamination by bran and pigments.



"Comparison of Wheat Grinding"



Conventionally Milled Flour



PeriTec Flour

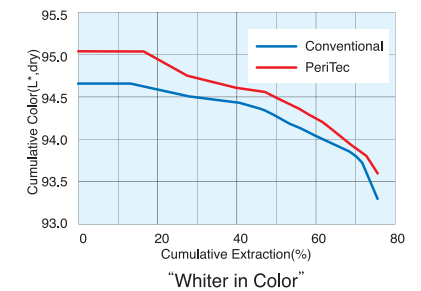
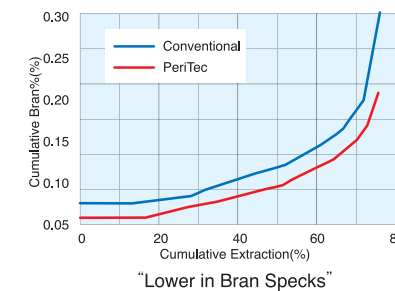
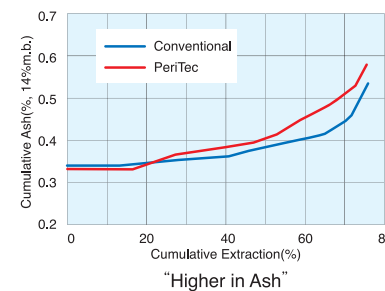
(Sample images by image analyzer. Bran appears as black spots.)

Characteristics of Typical PeriTec Flour

Analysis shows that the flour from PeriTec, compared to conventionally milled flour, is higher in ash due to the presence of aleurone in the flour, but has fewer bran specks and is higher in whiteness.

Debranning Yield(%)	Extraction (%)	Ash (14% <i>m.b.</i>)	※ Bran% (%)	Color	
				CGV	L*
100% Conventional	79	0.52	0.73	-0.61	93.3
93%(7%Debranned) PeriTec	79	0.59 (higher)	0.49 (purer)	-1.04 (whiter)	93.6 (brighter)

※Bran%:Bran speck area ratio



Increased Product Purity

The removal of bran before the flour milling process has a significant improvement on product purity. Contamination of the flour by bacteria, insect fragments, residual chemical pesticides and fertilizer is greatly reduced.

Items	Reduction by PeriTec Process
Impurities	99%
Moulds	74%
Total Bacteria Count	83%

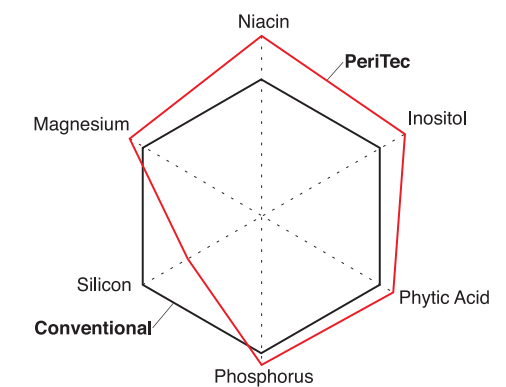
"Reduction of Harmful Substances by 6% Debranning by PeriTec Process"

Production of Higher Quality Flour from Lower Quality Wheat

Weather damaged wheat, which is sprouted wheat, produces flour with a low falling number in the conventional flour milling process. By adopting the PeriTec Process and removing the wheat surface to any degree desired, debranned wheat is supplied to the flour milling process. Thus the falling number of the flour can be improved.

Increased Nutrition

Due to the inclusion of aleurone in the flour, PeriTec flour can be characterized as rich in nutrition, particularly in vitamins and minerals, compared with conventionally milled flour.



"Comparison of Vitamin and Mineral Content of Flour"