



Going natural : the good taste of bread

Quality ingredients for healthy, responsible nutrition



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How can we offer consumers a healthy, responsible product?



Food awareness and concern for quality have become major preoccupations in our society, and the bakery-pastry sector is no exception.

Consumers, more informed than ever, are looking for transparency, authenticity and good nutrition.

These changing expectations are reflected in a growing demand for healthy products, made with quality raw materials and with respect for the environment.

Organic flours, dynamized water, sourdough and respect for the dough are just some of the ways in which our bakeries combine deliciousness, health and sustainability.



4%
crushed soft wheat in
France is organic



+60%
of wheat farms use harmful
herbicides that pollute
water



90%
of bread samples tested in Europe contain traces of
synthetic products

Knowing what we eat

Consumer expectations

Against a backdrop of environmental responsibility and growing distrust of food, more and more consumers want to know where products and ingredients come from, what they're made of, and how they're produced.

How can you combine health, natural ingredients and respect for the environment in your production?



? What is organic flour?

Organic flours are made from organically grown grains. This environmentally-friendly process excludes the use of synthetic chemicals and genetically modified organisms, and preserves the nutritional and taste qualities of the raw materials.

Grains can be ground either on cylinders or stone millstones (preserving the nutritional characteristics of the grains).

Water

An ingredient not to be neglected

Water is an essential ingredient in bread-making, accounting for around 40% of the total recipe. Just as a baker meticulously selects his flour, it's crucial not to neglect the quality of the water used so as not to spoil the final product.

When preparing bread, it's best to opt for healthy, energized water - "living" water.



? What is "living" water?



- Dynamic and free
 - Exposed to the sun
 - In contact with minerals
- ex: river water



- Stagnant
 - Low energy and biological value
- ex: tap water

The use of water filtration and dynamization systems helps restore the qualities of "dead" water, degraded by pollution and human influences.

Water dynamizers Bertrand Puma systems

Bertrand Puma's TORRENT and VOLUTE systems restore water's qualities in two stages: purification and dynamization.

FILTRATION



CYCLONIC FILTERS

- volcanic stones
- activated carbon
- centrifugal helix filter screens (Torrent model)



POLLUTANTS STOPPED

- **Parasitic odor and taste** (chlorine)
- **Heavy metals** (lead, zinc, arsenic, etc.)
- **Agricultural residues** (nitrates, chlorothalonil, etc.)
- **Limestone, scale**



Minerals essential to humans (magnesium, calcium) are preserved.

DYNAMIZATION



Dynamization swirls the water in high-speed vortices.

This allows the water to record the electromagnetic signature of nearby minerals.



COMPOSITION

- 144 minerals
- precious metals
- clay shell

✓ Bertrand Puma models



- **USE:** for the complete bakery (bakehouse, drinks, showers, etc.).
- **SIZE:** 1090 x 600 mm.
- **MAX. FLOW RATE:** 2000 liters/hour.



- **USE:** for the miwer (to be installed after the water doser).
- **SIZE:** 500 x 800 mm.
- **MAX. FLOW RATE:** 760 liters/hour.

Water dynamizers

Benefits in baking

Making a quality product also starts with water: it's as important an ingredient as flour and, like flour, its quality changes from day to day. With an efficient filtration/dynamization system, many benefits can be obtained.



? What are the benefits for your production?



**BETTER ABSORPTION
OF WATER**
More active leaven



**BETTER WOVEN GLUTEN
NETWORK**
Better drenching and
higher hydration



ENHANCED TASTE
Salt can be reduced
(in line with the french industry's
commitment to reduce salt content in
bread)



**HIGHER
FERMENTATION**
Yeast can be reduced



**DOUGH KNEADED FASTER
(15% TO 40%)**
Less warm dough



LESS STICKY DOUGH
Easy to remove from the
tank, to put in a tray or
machine



**BREAD DEVELOPS MORE
DURING BAKING**
Bread with more volume

Liquid leaven

Taste first

The artisanal flavor of a sourdough product is often appreciated by consumers, thanks to its crunchy crust, irregularly honeycombed crumb, characteristic taste and creamy color, giving it a more rustic feel, reminiscent of the bread of the past.



Natural leaven is rich in micro-organisms capable of producing carbon dioxide by alcoholic fermentation and lactic acid by lactic fermentation.

Breads made with leaven are consistent and rich, with a slightly lactic taste that can be brought to more "acidic" flavors by adjusting the "Chef" used and the temperature.

? Better preservation?

Leaven bread keeps longer, thanks to the acidity released by the bacteria. The breads also have a denser crust, which retains moisture and limits crumb drying.

? An easier dough to work with?

Using natural leaven means shorter fermentation and kneading times.

As the glutinous tissue is more orderly, mechanical operations are facilitated: dough pieces are more malleable, making lamination and shaping easier, cuts are much sharper, dough is less sticky and scarifying becomes easier.



Liquid leaven

Taste first



? What are the health benefits?

BETTER DIGESTION

The multiplication of leaven micro-organisms results in a pre-digestion effect that will subsequently lighten the workload of the stomach and intestines.

Some bacteria feed on starch, facilitating its assimilation by the body.

Others know how to break down a component of gluten involved in celiac disease.

LOW GLYCEMIC INDEX

By attacking starch, the micro-organisms in leaven lower the glycemic index of bread.

IMPROVES VITAMIN ASSIMILATION

Sourdough naturally destroys phytic acid, a plant molecule that traps minerals and trace elements in cereals.

Fermentolevain

The reference leaven maker

Fermentolevain® is a veritable means of resisting the standardization of taste and highlighting true baking expertise, and has quickly become a reference point in the profession's everyday vocabulary.



ITS STRENGTHS

- Consistent quality and taste.
- Rapid leaven development.
- Perfect, controlled hygiene.
- Easy to use and control.
- A 100% organic process.
- An economical, profitable product.
- "Chef" leaven available.

Fermentolevain® range

4 MODELS

From 30 to 200kg of refreshed leaven capacity.

DUAL CARE SYSTEM

Takes care of your leaven both during fermentation and storage, so that it develops all its aromas and is carefully preserved.

CYCLE MANAGER SYSTEM

The paddle rotation cycle can be customized by phase (3 phases) and for each cycle (hot/cold).

BREWING CYCLE ADAPTATION

Rotation speed (rpm) and brewing frequency (brewing time/rest time) can be adjusted to suit the different refreshing phases.

ELECTRONIC CONTROL PANEL

V-TOUCH control panel with 7" touch screen.

PLATINIUM VERSION

With weighing system, water injection and cleaning cycle.

VIDEO



DOC



Mixing

Twin-arm mixer

The twin-arm mixer is particularly well suited to demanding artisan bakers who understand the importance of kneading in the bread-making process.



? Why use a twin-arm mixer?

Twin-arm mixers reproduce the baker's ancestral, respectful manual gesture.

Ideal for all types of dough, even the most hydrated or delicate, they oxygenate the dough without raising the temperature, promoting the development of the glutinous network and guaranteeing optimum quality of the finished product.

✓ ABYSS range

4 MODELS

- From 3kg to 140kg dough capacity.
- Robust stainless steel bowl.
- Manual mode (with speed variator) and automatic mode (recipe programs).

MIXING

- Consistent quality, whatever the hydration (up to 100%) and quantity of dough to be kneaded.
- Very slow mixing capacity: kneading speed from 36 to 82 strokes per minute.
- Precise stainless steel mixing tools for optimal dough oxygenation without aggression.
- Lifting arm for "one-handed kneading", in which only the sword kneads the dough.

ERGONOMICS AND SAFETY

- Ergonomic bowl height.
- Ergonomic shelf for "edge-to-edge" devatting.
- Arms stopped in high position for easy devatting.
- Transparent cover to prevent flour projection.

VIDÉO



DOC





3 specialists, 1 solution



A specialist in bread and pastry baking since 1946, Pavailler designs, manufactures and distributes, in France and worldwide, a range of ovens for the bakery, pastry and viennoiserie industries.

www.pavailler.fr



Since 1952, Bertrand Puma has been designing, producing and distributing a complete and homogeneous range of dough preparation and processing equipment for the bakery, pastry and viennoiserie industries.

www.bertrand-puma.fr



A refrigeration specialist since 1979, CFI masters numerous techniques and technologies and produces equipment for controlled proofing, preservation and deep-freezing.

www.froid-cfi.fr



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