

The logo for JAC, featuring the letters 'JAC' in a bold, white, sans-serif font. The letters are set against a black rectangular background. Above this background are three vertical red bars of equal height, creating a distinctive graphic element.

**TRADILEVAIN**



Range of  
sourdough fermenters

2021

# Liquid sourdough

## What is it about ?

Any passionate baker knows the value of baking based on liquid sourdough.

Sourdough is a liquid dough with equal parts of water and flour subjected to natural fermentation, the function of which is to produce acids that are beneficial for kneading the dough. These acids also improve the appearance and taste of the product. They allow longer storage and significantly improve nutritional qualities.

**Above all, it is a way to personalize your production and retain your customers with a taste that you can work in your own way and that your customers will not find in your competitors.**

## Benefits



### Better kneading

- 1 Reduced kneading time
- 2 Reduction of pulp oxidation



### Appearance and taste of the product

- 1 Increase in volume during the first few minutes of cooking
- 2 Improved scoring
- 3 Improved crumb cavity
- 4 Golden color with crispy crust
- 5 Less pronounced acetic taste

The liquid state allows a predominance of lactic behavior over acetic behavior.

Lactic acid gives a mild flavor. For its part, acetic acid, slightly vinegar, acts as a flavor enhancer and helps reduce the amount of salt while preserving the taste.



### Longer storage

This long conservation is due to two main elements:

- 1 A denser, crispier crust
- 2 The microorganisms in the sourdough that trap moisture and limit drying out

The crust of sourdough bread, which is dense, acts as a protective shell. It helps retain moisture in the bread and limits the drying of the crumb. The crust being denser, it softens less quickly.



### Improved nutritional qualities

In addition to giving bread an incomparable taste and excellent preservation, sourdough improves the nutritional quality of bread for three main reasons:

- 1 Easier digestion
- 2 Better absorption of minerals
- 3 Improves the absorption of carbohydrates. This is all the more important for vegetarians and vegans, where most of their mineral intake comes from grains

### The choice of flour

Liquid sourdough is a natural fermentation caused by the cultivation of cells naturally present in the air. A selection of cells takes place on its own thanks to the food available to it: flour.

A high type of flour (type 80) will promote the fermenting activity of the sourdough and the aromas of the bread. A flour crushed with a millstone will be even more nutritious.

**Warning :** Using too high a flour type (T150) can reduce the development of the bread.

# The 3 stages of sourdough development

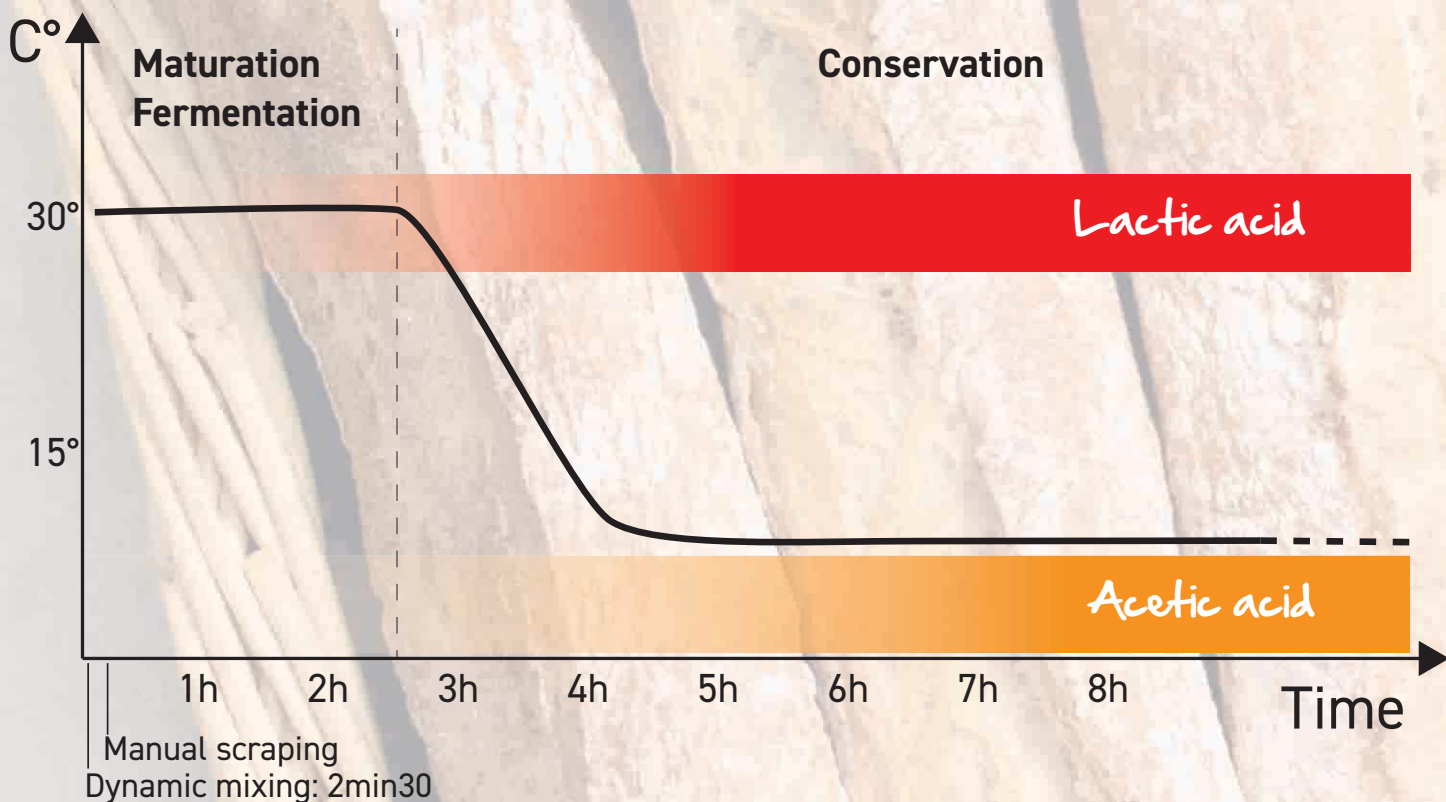
## The development of the sourdough takes place in 3 phases: Mixing / Maturation / Conservation

Liquid natural sourdough is the result of spontaneous fermentation of a mixture of water and 50% / 50% flour at room temperature of 28-30 °.

With a flour higher in husks, the starting process is faster.

The aim of this fermentation is to produce lactic / acetic acids and yeasts in order to make the bread rise and give it specific aromas. It also makes the bread more digestible.

Once this fermentation has taken place, you need a regular daily addition of flour and water in regular proportions so as not to unbalance this flora.



In theory, mastering the production of liquid sourdough can raise questions. In reality, there is nothing simpler and more rewarding, **as long as you have the ideal machine.**

At JAC, our international activity has allowed us to face many challenges because the liquid sourdough used in Lyon is not that of Moscow, Barcelona, New York, Berlin or Brussels.

**But a versatile machine and a well-mastered process make it possible to efficiently meet all these needs.**

First of all, we keep the advantages of our historic **Tradilevain** range, namely:

- 1 An all **stainless steel** machine for ease of cleaning and without deterioration over time.
- 2 A **mixing system by submerged blades** that requires little maintenance and avoids the drift of the sourdough (the sourdough which dries on the mixing arms of standard sourdough machines ends up developing bacteria which fall into the tank and destabilize the bacteriological balance) .
- 3 **No heating but a gentle heat system**, so no need to position tank scrapers which require restrictive cleaning.
- 4 A machine that requires an initial addition of hot water (45 to 50 °) and which, therefore, **does not generate thermal shocks on the sourdough.**
- 5 Operation with hot water to have a **regular fermentation** which starts as soon as the water and flour are loaded into the tank. (No need to wait for the liquid sourdough to heat up)
- 6 An **airtight stainless steel cover preventing oxidation** of the sourdough and having a wide opening to unload whole bags of flour.

# The new range of Tradilevain



## TRADILEVAIN

Because innovation is our reason for existing, this new generation of Tradilevain is based on many technological advances.

Not technology for technology but only solutions for the baker and the ease of use.

### Automix

This automatic agitation management system based on fermentation activities makes Tradilevain smarter. It triggers its agitation cycles only when necessary by analyzing the level of fermentation. Less agitation, the leaven is of better quality. No more complicated cycle programming.



### Variospeed

The Tradilevain will adjust the stirring speed according to the volume of sourdough present in order to stir it without damaging it.



### Minicare

In addition to being equipped with an anti-overflow system, the Tradilevain is equipped with a low level warning system that can be configured according to your production: the Minicare. This way you can be sure that you always have a minimum of intact mother leaven at the bottom of the tank.



### Thermasoft

JAC has developed a gentle heat system that allows the temperature to be maintained during long fermentation cycles or to adjust an imprecise water temperature by a few degrees during cooling.



**Optional :** the Tradilevain can be equipped with a weighing system. So you know at all times what you are withdrawing or adding with ease.  
(only available on TL110 and TL270)



An aerobic / anaerobic valve.



The monobloc stainless steel tank tower is perfectly sealed and hygienic. Its rim prevents impurities from falling into the tank.

A large touch screen (7 inches), very intuitive, set back from the bodywork and in an oblique position for perfectly ergonomic use.

2 factory recipes and 6 customizable recipes. A built-in calculator to help you keep track of the amount of leaven left in the tank.



An outlet valve with self-scouring system, easy to dismantle for quick cleaning.



The airtight tank seal is placed around the lid. It can be dismantled in a few seconds for easy cleaning.

The profile of the mixing blades has been reworked to offer a **75% more powerful mixing.**



Recessed handles are integrated into the stainless steel side walls for easy movement of the machine.

The cold group makes it possible to control the temperature of the leaven during the various production cycles.

A hot air vent from the cooling unit on the front to optimize the cooling performance of the machine and facilitate cleaning (without tools) of the cooler.

Large locking casters to facilitate movement and ensure good stability.



# It's also a question of quantity

Because the needs of one are not the needs of the other, we have developed 3 different sizes.

## TRADILEVAIN

### TL40

### TL110

### TL270



#### CHARACTERISTICS

	TL40	TL110	TL270
Automix	•	•	•
Variospeed	•	•	•
Thermasoft	•	•	•
Minicare	•	•	•
Touch screen	•	•	•
Motor power (kW)	1,5	4	7
Heating power in (kW)	0,27	0,45	0,75
50Hz chiller power (kW)	0,4	0,9	1,4
220v - 50Hz-60Hz (A)	6,5	14,5	25
380v - 50Hz-60Hz (A)	5	10	17,5
Loading height (cm)	112	125	135
Tank volume in l	80	220	540
Maximum total capacity (l)	50	140	340
Maximum useful capacity (l)	40	110	270
Minimum total capacity (l)	25	70	170
Minimum useful capacity (l)	20	55	136

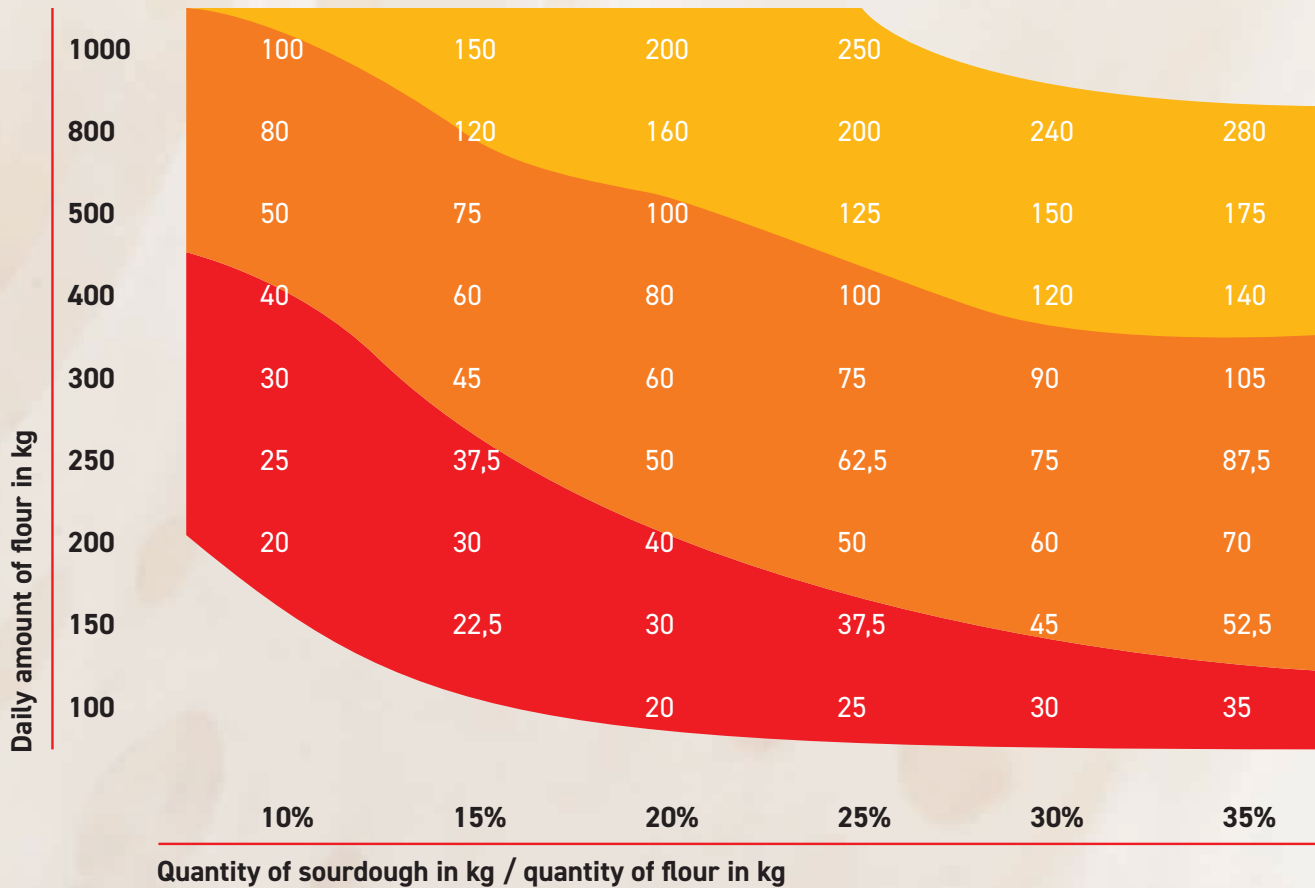
#### OPTION

Weighing system

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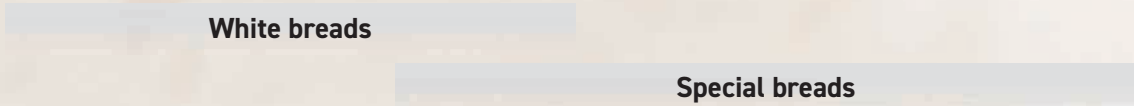


### Which Tradilevain for which quantity of bread?



TL40 TL110 TL270

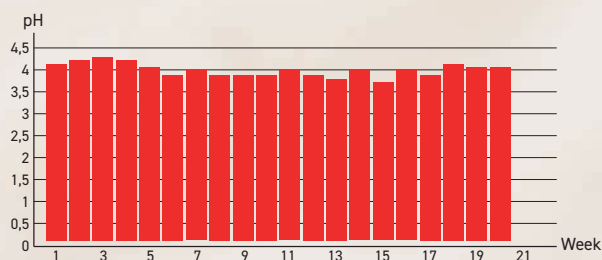
Quantity of sourdough in kg / quantity of flour in kg



### Stability and automation

Thanks to its daily automated programming and management cycles, Tradilevain ensures perfect stability of your sourdough throughout the manufacturing and storage process. You no longer have to worry about the state of your leaven, Tradilevain takes care of it for you.

### PH stability over time



# How to create your own sourdough?



T80 stone mill flour:	1,000 kg
Water +/- 30 °C:	2,000 kg
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Total	3,000 kg

Mix the flour and water in a container to obtain a liquid cream and put it to ferment in a place at +/- 30 °C. Mix occasionally for 48 hours to start spontaneous fermentation. At the end of the first day, you can see small bubbles. This is your mother sourdough base.



Mother sourdough base:	3,000 kg
T80 stone mill flour:	1,500 kg
Water +/- 30 °C:	1,500 kg
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Total	6,000 kg

Add the T80 flour and water to the young mother sourdough and mix everything before putting it to ferment again for 24 hours under the same conditions. Mix from time to time.

**Take +/- half of the mother sourdough base (6,000 - 3,500 = 2,500 kg)**



Mother sourdough base:	2,500 kg
T80 stone mill flour:	2,500 kg
Water +/- 30 °C:	2,500 kg
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Total	7,500 kg

Add T80 flour and water to the young mother dough and mix everything before putting it to ferment for 24 hours under the same conditions. At this point, the mother dough begins to be slightly active.

**Take +/- half of the mother sourdough base (7,500 - 5,000 = 2,500 kg)**



Mother sourdough base:	2,500 kg
T80 stone mill flour:	2,500 kg
Water +/- 30 °C:	2,500 kg
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Total	7,500 kg

Add T80 flour and water to the young mother dough and mix everything before putting it to ferment for 24 hours under the same conditions.

**Take 5Kg of mother sourdough (7,500 - 5,000 = 2,500 kg)**



Mother sourdough base:	2,500 kg
T80 stone mill flour:	2,500 kg
Water +/- 30 °C:	2,500 kg
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Total	7,500 kg

At this point, the mother dough starts to have a good activity, but it is not enough to use it correctly. This is why it is necessary to add the T80 flour and water to the mother dough again and to mix everything before putting it to ferment for 14/16 hours this time, and to mix from time to time before put it in the cold at 10 °C for the remaining time.



Mother sourdough base:	7,500 kg
T80 stone mill flour:	7,500 kg
Water +/- 30 °C:	7,500 kg
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Total	22,500 kg

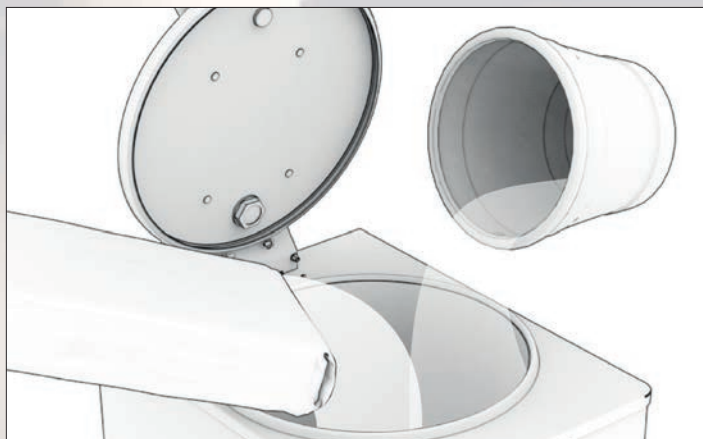
Give 12 hours of fermentation before refrigerating at 10 °C. The following day, this mother paste can be used without problem. However, it will take about 15 days to have a perfect mother dough.

# How to refresh your sourdough?

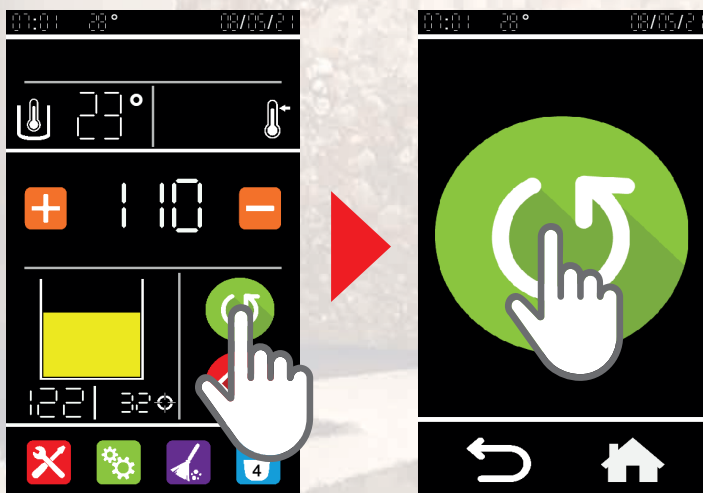
When the level of sourdough is at a minimum or after too long a period of inactivity (+/- 72h), it is necessary to refresh, that is to say, to feed your sourdough.

## Example for a TL 40

- 1 Pour the ingredients:  
Mother sourdough base: 12 kg  
T80 stone mill flour: 20 Kg  
Hot water +/- 45 °: 20 kg



- 2 Start a mixing cycle:  
Duration 2m30s.



- 3 Scrape the edges well with the spatula when the image is displayed and close the lid.



A few hours later, your sourdough is ready!

## Divider and divider moulders

### ***DIV-R TRADIFORM PANIFORM***



JAC has made ambitious technical choices favouring robustness: reinforced cylinder, cast aluminium floats treated with Easyclean, Start and Stop system, sharpened stainless-steel knives, square stainless-steel tank. Convenient working height, an ergonomic handle, a flour anti-splatter system, automatic knife retraction as standard, Easyflour, etc. These technical choices are the result of advanced expertise developed at our customers' sides.



Warranty valid for all parts on your machine, excluding wear items. Please do not hesitate to contact your authorized reseller for more information.

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