

REACTIVATEUR 60 RIF

AUTOMATIC REACTIVATION AND
ACCLIMATISATION SYSTEM FOR YEASTS



Reactivateur 60-2000 RIF

BENEFITS

REDUCTION
IN YEAST
LATENCY
TIMES

EXTREMELY
CONSISTENT
ALCOHOLIC
FERMENTATION

GUARANTEED
FERMENTATION
DOMINANCE

BETTER
FERMENTATION
KINETICS

CERTAINTY THAT
THE INOCULATED
MASS IS ACTIVE AND
AT THE HIGHEST
MULTIPLICATIVE STAGE

REACTIVATION
OF
INTERRUPTED
FERMENTATION

POSSIBILITY OF
PRODUCING MUST
AND YEAST FOR
RE-FERMENTATION
WITH CHARMAT OR
CLASSIC METHOD

AEB ENGINEERING: GUARANTEED DOMINANCE DURING FERMENTATION

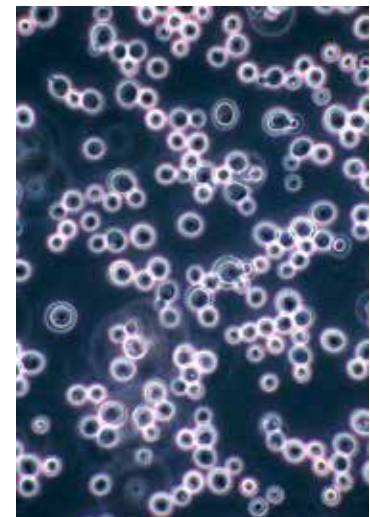
The **Reactiveur 60 RIF** system is manufactured by our **AEB ENGINEERING** division. Thanks to a production that is **100% in-house and on-site**, we promise the highest quality and reliability of the technologies used. **AEB ENGINEERING** specializes in the manufacture of automatic systems for the rehydration and reactivation of yeasts during the fermentation processes, analysis equipment, systems for the processing and production of food, equipment for cleaning and sanitizing of any environment. AEB guarantees **flexible and personalised support**, both during installation and also after purchase.



FOCUS ON DOMINANCE

Improving the fermentation process of musts, wine re-fermentation and malolactic fermentation is related mainly to achieving **dominance in yeasts**. The choice of strains with improved characteristics is rendered mute if it is not clear that they will have an advantage over indigenous microorganisms.

AEB has placed dominance at the heart of its biotechnology research.



ALCOHOLIC FERMENTATION AND RE-FERMENTATION WITH ADS

Indigenous and inoculated yeast competition depends on their quantitative ratio. The indigenous microflora of the must consists almost entirely of yeasts unsuitable for proper fermentation. These are present in quantities that vary from a few tens of thousands to a few millions of cells per millilitre, which depends on the picking and crushing times of the grapes, the general conditions of hygiene and the temperatures during the pre-fermentation phases.



The dominance of selected yeasts and bacteria

During re-fermentation, other factors such as alcohol, volatile acidity and the low quantity of sugars kick in, which also contribute to reducing the performance of the yeast.

To ensure the dominance of the selective yeasts, **inoculation must occur at a concentration that is at least 20 times higher than that of the indigenous yeasts.** Therefore, 20 g/hL of active dry yeast, if correctly hydrated and reactivated, is able to provide sufficient selected yeast to ensure dominance in musts with a high microbial load, making the effects of the indigenous micro-organisms negligible. The **Reactiveur 60** and **Reactiveur 60 RIF** ranges were created to standardise the preparation of the yeast to be inoculated, thus reducing human error; over the years, the characteristics of the ranges have been adapted to meet the needs of the customers.

BENEFITS

- Reduction in yeast latency times
- extremely consistent alcohol fermentation
- guaranteed fermentation dominance
- enhanced fermentation kinetics even in microbiologically contaminated musts and in case of non-ideal hygienic conditions in the cellar
- guarantee that reactivation always occurs correctly and that the inoculated mass is active and at the highest multiplicative stage
- ideal for reactivating interrupted fermentation and for the production of the yeast to be used.

YEAST BEHAVIOUR DURING REACTIVATION

The selected yeast that are introduced into the reactivation solution rapidly absorb water and, just as rapidly, reactivate their vital functions. After 5-10 minutes, the yeasts are already capable of multiplying and require glucose and fructose for their survival (photo 1).



1. *Comportamento dei lieviti in fase di riattivazione*

To prevent interruption of the yeast life cycle, the preparation of a sugar solution at 5-8% concentration is always recommended. The sugars in the hydration solution are quickly consumed by the actively multiplying yeasts and after 20-25 minutes the addition of a grape must, preferably with a low microbial load, is essential (photo 2).



2. *Comportamento dei lieviti in fase di moltiplicazione*

The addition of the must should be carried out gradually so as to avoid temperature changes in the solution of more than 5°C. Throughout the reactivation phase, air should be blown in intermittently to stimulate cell multiplication and prevent fermentation in this early phase. If performed manually, all these operations would require considerable effort and attention; consequently, they are carried out automatically and in perfect sequence by **Reactiveur 60** and **Reactiveur 60 RIF**.

RANGE

Reactiveur 60 RIF is available in different models depending on the quantity of yeast to be rehydrated.

MODEL	QUANTITY OF YEAST (KG)
60/800	UP TO 25
60/1200	UP TO 25
60/2000	UP TO 40
60/3000	UP TO 50

OPERATION

To reactivate the yeasts, two simple actions are enough: press the start button and the machine will let in the right amount of water, selected according to the **quantity of yeast to be reactivated**. It will then heat it to the set temperature (38°C).

An audible signal will alert the operator that they can **add the yeast to begin the rehydration phase**. The water and yeast will then undergo alternating phases of agitation, pause and aeration. Afterwards, the system will slowly add some must / wine / H₂O / RCM based on the settings decided by the winemaker oenologist. The must can be added in two ways: according to time or temperature difference, whichever is reached first.

TECHNICAL CHARACTERISTICS

- Multiple functions:
 - solution recirculation for homogenising and dissolving purposes
 - foam reduction
 - air injection
 - automatic filling
 - cooling of the yeast with must (acclimatisation)
 - cooling of the must by means of cooling belts
 - controlled injection of H₂O
 - controlled injection of RCM
 - heating by a stainless steel heating element, and acoustic signal to indicate that the temperature has been reached
 - integrated washing
 - maximum level monitoring.
- Touch screen display
- Stainless steel electrical panel
- Total emptying pump with 3-way pneumatic valve, sealed for pressures up to 10 bar
- Input versatility to customize the machine according to customer needs
- **Touch screen for full control at your fingertips.**



Reactivateur 60-2000 RIF

Reactiveur 60 RIF comes with an easy to use **touch screen** that allows managing any operation by simulating the buttons, switches and control lights:

- allows operating parameters to be entered and edited;
- communicates operating status and alarms;
- if the operation is allowed, by pressing on any parameter, a numeric keypad will appear, which will allow increasing or decreasing it.

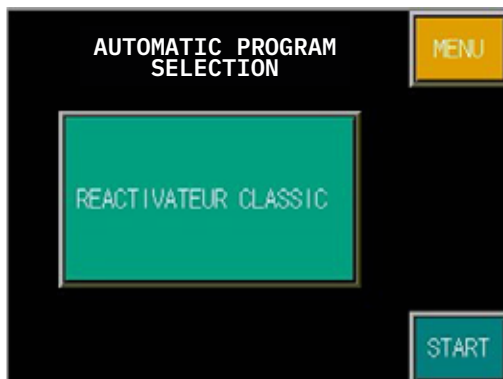
Management can be manual or automatic:

- **manual management:** the program can be stopped and manual operations can be carried out. The next time the “Back” button is pressed, the system will resume where it left off;
- **automatic management:** makes it possible to reactivate the desired quantity of yeast quickly and easily.

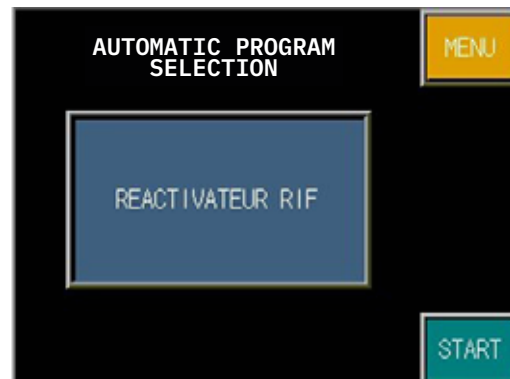
Furthermore, **Reactiveur 60 RIF** features two operating modes:

classic: ideal for use on musts;

RIF: ideal for use on partially fermented wine or musts.



Reactiveur 60 RIF classic mode



Reactiveur 60 RIF RIF mode