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# Lexy

Wine processing solutions



# Our Lexy range

The fundamental objective is to intervene with precision without compromising the integrity of the wine. Reducing the alcohol content or concentrating the must can only be achieved by applying minimal thermal and mechanical stress. It is this philosophy of respect for the product that guides the design of the Lexy range.

Mastery of wine processing techniques is now essential to meeting new market expectations while preserving the identity of your wines. The Lexy range offers a gentle and precisely controlled approach to the processing of wines and musts, ensuring aromatic integrity at every stage.

With the Lexy range, you benefit from a processing tool designed to combine performance, precise control and respect for the product. An ideal solution for showcasing your vintages and delivering wines perfectly tailored to your market.

# Wine processing





# Lexy X-Low

## Vacuum Vortex evaporator



## Adjustment of the alcohol content of wines

A soft vacuum evaporation technology, enabling wines to be processed at low temperatures while preserving the wine's organoleptic qualities.

### Improvement of the end product

The balance of a wine ensures optimal aromas and flavours. The alcohol level can be adjusted after harvest, which can improve the wine's balance. The method uses a vacuum evaporation process at a maximum temperature of 30°C. At this temperature, the wine's compounds and aromas are preserved. The aromas lost through evaporation during processing are recovered and can be reintroduced into the final wine.

The Lexy X-Low 1 vacuum evaporator is easy to use. It enables the partial or complete de-alcoholisation of still or sparkling wines, and can also be used to concentrate grape must. The products require no prior clarification. Compact and mobile, it is very practical even in confined spaces.

### Applications

Lexy X-Low uses an extremely compact vacuum evaporation technology through the integration of a patented solution that produces a Vacuum Vortex. This technology offers a flexible solution for adjusting the alcohol content of wines from 0.5 to several degrees. The Lexy X-Low 1 is designed to process batches from 0.5 to 50 litres.

The extracted alcohol can be reused for other purposes, subject to local regulations.

| | Lexy X-Low 1 | |
|---|---|---|
| Unladen weight | | kg |
| Electrical power supply | 230 V AC -50 Hz | - |
| Length | 760 | mm |
| Width | 625 | mm |
| Height | 1,750 | mm |
| Cooling power | 1.6 KW – 12°C | kW |
| Minimum processing volume | 0.5 | L |
| Volume of wine processed (reduction from 12% to 6% ABV) in 10 hours of processing | 50 | L |



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# Lexy Rotathermic

## Rotary heat exchanger



### The solution for uniform thermal processing of heterogeneous products.

A solution designed for transferring heat or cooling energy to products such as grapes or grape must.

#### Guaranteed efficiency

This heat exchanger operates using a rotating shaft with paddles, which ensures temperature homogenisation, thereby preventing any risk of overheating. Heat transfer is optimised. Lexy Rotathermic modules are scalable from 10 to 30 tonnes per hour.

The Lexy Rotathermic can be used for cooling.



| | Rotathermic 10 t/h | Rotathermic 20 t/h | Rotathermic 30 t/h | |
|---|---|---|---|---|
| Hot water flow rate | 45 | 90 | 135 | $m^3/h$ |
| Water temperature | 95 | 95 | 95 | °C |
| Heat output | 815 | 1,630 | 2,445 | kW |
| Water connection flange | DN 100 PN10 | DN 100 PN10 | DN 100 PN10 | |
| Grape connection flange | DN 125 PN10 | DN 125 PN10 | DN 125 PN10 | |
| Length | 7,100 | 7,100 | 7,100 | mm |
| Width | 900 | 1,200 | 1,200 | mm |
| Height | 930 | 1,700 | 2,400 | mm |

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# Lexy Extractys

## Extract compounds from grape skins more quickly



## A patented extraction process

Designed to accelerate the diffusion of skin-derived compounds such as polyphenols (anthocyanins and tannins) and aroma precursors into the juice of grapes processed by thermovinification.

### Guaranteed efficiency

The Lexy Extractys selective extractor gives winemakers freedom of choice and action. The level of extraction can be adjusted according to the grape variety and the type of wine desired. This results in wines that are more structured, coloured and aromatic, with more pronounced typicity (supple, fruity wine profiles, etc.).

Compatible with all existing thermovinification systems, whatever their heating temperature, Lexy Extractys can be easily integrated without modification (it can be installed above the maceration tank).

It is designed for liquid-phase or solid-phase vinification, as well as hot skin maceration, etc.

### Easy maintenance

Rinsing the pressure tubes with hot water via the grape piping system ensures easy maintenance.

Lexy Extractys incorporates a rinsing system for the pressure tubes and the receiving tank. The system is compact, and a set of access hatches provides access to the various areas.

| | Lexy Extractys |
|---|---|
| Flow regulation | 3x10t/h |
| Water heating | From 20 to 65°C |
| Length (mm) | 3,000 |
| Height (mm) | 3,700 |
| Width (mm) | 2,200 |

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# Lexy ML

## Reverse osmosis membrane treatment




## A comprehensive range of solutions tailored to market needs

### A scalable, simple and safe machine

The Lexy ML reverse osmosis system is available in models ranging from 2 to 12 modules. It can be easily scaled up, without any modifications, simply by adding modules.

The PLC provides comprehensive information (extracted volume), and the device is equipped with safety features enabling autonomous operation (pressure, temperature, flow rate).

The Lexy ML is designed to minimise clogging caused by potassium bitartrate precipitation, an inherent phenomenon during the processing of grape musts and wines. To reduce this clogging and facilitate cleaning operations, the technical design prioritises a high crossflow velocity across the membrane together with a wide product flow channel within the membrane. Thanks to this design, the Lexy ML can process products with turbidity levels of up to 400 NTU, operate on longer cycles and improve the effectiveness of warm-water rinses, while significantly reducing the need for chemical cleaning.

### A wide range of applications

The Lexy ML reverse osmosis system has a wide range of applications. These may be implemented in accordance with applicable local legislation. The range offers two membrane types,
"X" and "O", with different selectivity levels to suit your requirements.

- Grape must concentration
- Reduction of must sugar content
- Wine concentration
- Reduction of volatile acidity
- Reduction of ethyl phenols in wine
- Partial de-alcoholisation of wine




## Simplicity at your fingertips

The PLC (1) of the Lexy ML reverse osmosis system enables display and control of:
- The operating pressure;
- The temperature of the processed liquid (with safety features);
- The water extraction flow rate (with safety features);
- The volume of water extracted (with programming).

Lexy ML is a scalable machine that allows processing capacity to be increased simply by adding membranes (2).

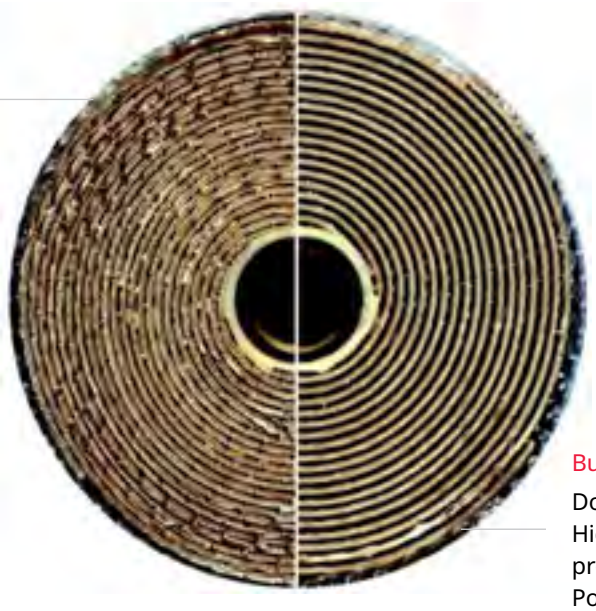
| | Lexy ML 2 | Lexy ML 4 | Lexy ML 6 | Lexy MLX 8 | Lexy ML 10 | Lexy ML 12 | |
|---|---|---|---|---|---|---|---|
| Average flow rates* | 200 | 400 | 600 | 800 | 1,000 | 1,200 | l/h |
| Width | 630 | 630 | 630 | 630 | 800 | 800 | mm |
| Length | 1,244 | 1,244 | 1,244 | 1,244 | 1,244 | 1,244 | mm |
| Height | | 1,216 | 1,295 | 1,455 | 1,626 | 1,786 | mm |

* Indicative, non-contractual flow rates for must with 10-11% potential alcohol, a temperature of 15°C and a pressure of 70 bar.

# The membrane in detail

### Competitors

Single spacer: 0.75 mm
Low crossflow velocity of the product in the spacer
Required juice turbidity: 5 to 20 NTU



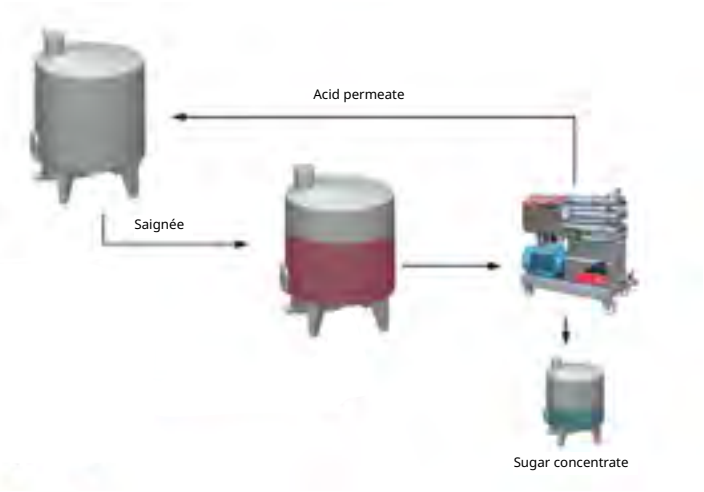
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Double spacer: 1.2 mm
High crossflow velocity of the product in the spacer
Possible juice turbidity: 400 NTU

# Multi-purpose equipment

## Grape must concentration

To avoid the need for chaptalisation and correct juice dilution resulting from rainy harvest conditions, the Lexy ML, equipped with O or X membranes, enables the extraction of excess water (permeate). This process increases the sugar content and concentrates all the compounds of the must.

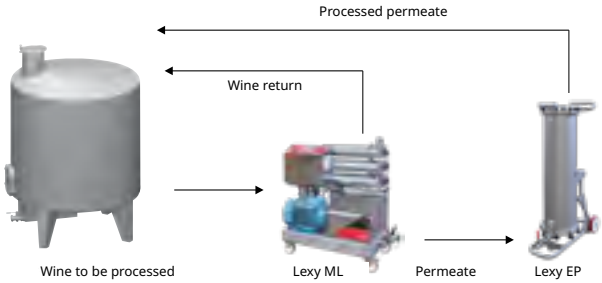



## Sugar reduction in must - Redux process

To produce lower-alcohol wines, the Lexy ML, equipped with an X membrane, allows the reduction of must sugar content prior to fermentation by reintroducing vegetal water (permeate). This approach promotes a more regular and controlled alcoholic fermentation, limiting the risk of stuck fermentation and the formation of volatile acidity. It thus offers great flexibility to adapt to market expectations and produce wines at the minimum alcohol levels of the appellations.

## Wine concentration

The concentration of a wine enhances its structure and intensity when these are insufficient, while maintaining its alcohol content. The process is based on the extraction of a small fraction of permeate via reverse osmosis, thereby naturally concentrating wine compounds. The X and O membranes allow this concentration to be adjusted, with or without modulation of the alcohol level, depending on the desired oenological objective.




## Reduction of ethyl phenols in wine

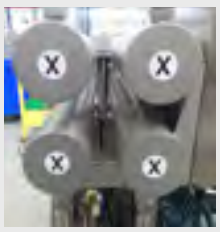
Volatile phenols, produced by the metabolism of contaminating yeasts such as *Brettanomyces*, can significantly alter a wine's aromatic profile. In excess, they mask aromas and produce undesirable notes of leather, stable or horse sweat.
Equipped with the X membrane and combined with an absorption filter, the Lexy ML, via the Lexy EP kit, effectively reduces these volatile phenols below the perception threshold, while preserving wine quality and aromatic expression.

* in accordance with current regulations

## Complementary equipment and solutions



**EP Kit**
- Coupled with the reverse osmosis system to reduce ethyl phenols



**2-tube / 2 X-membrane kit**



**2-tube / 2 O-membrane kit**



**Special flow controller for sweet wines**

buchervaslin.com

Bucher Vaslin
5 Rue Gaston Bernier
49290 Chalonnes sur Loire, France
T +33 (0)2 41 74 50 50
connect.buchervaslin.com/contact