STAINLESS STEEL TANKS
USER GUIDE

You have just purchased a Lejeune tank, and we thank you for your confidence in us. We devote the greatest care and concern in the design and building of our products. We hope that you will be completely satisfied with it for the many years to come and, to ensure this, you will find hereafter some useful advice.

PRECAUTIONS

Before using it, carefully read all the recommendations in this guide. Give this guide to the various managers and users and make sure they read and understand its contents. Wherever possible, keep it in a readily available spot where it can be consulted by employees occasionally using it.

REMINDER : STAINLESS STEEL POLLUTION CASES

Certain products adhere, stain or oxidize stainless steel irreversibly. You will find hereafter a non-exhaustive list:

- All products containing hydrochloric acid are prohibited in the presence of stainless steel. In particular, they are used to remove excess cement from new tiles. They cause irreversible alterations when sprayed directly on the tank walls or when vapors condense on the tank walls. New tiles must be cleaned before the tanks are installed;
- Chlorine vapors during the cleaning of floors;
- Oxygenated water used as a disinfectant is a powerful oxidizing agent on stainless steel when the water contains acetic acid or paracetic acid. Check the product’s exact composition before using it;
- Run-outs of \( \text{SO}_2 \) during the overflow of the hydraulic bowl (to be cleaned immediately with lots of water);
- The environment of \( \text{SO}_2\) present particularly in large barrel storage areas;
- Scratches made with metal objects creating inclusions (forks, shovels, etc.)
- Ferruginous running water used to cool the tanks;
- Acid rains (tanks installed outside);
- Cement dusts;
- New sponges contain chemicals which irreversibly stain stainless steel. Rinse extensively the sponge before use;
- Etc.

COOLING RINGS WATER SUPPLY

Are totally excluded:

- Soften salted water or high iron/or chlorine water
- Iron piping and cast-iron boilers
An anticorrosion additive in any type of water supply is highly recommended.  

**TANKS GROUND FAULT PROTECTION**

The tanks should be provided a ground fault protection for the employee’s security and so as to avoid any electrolytic corrosion phenomenon.

**TANK SERVICE PRESSURE**

The allowable tank pressure range is from -5 mbars to +50 mbars. That is, they must not under any circumstances be sealed, emptied or filled up. They are sold with a safety valve located on the plug tap, allowing the interior/exterior pressures to be equilibrated during the fermentation. It must not be replaced under any circumstances by a solid plug or by another object (tennis ball, paper sheet, etc.).

**ADVICE ON HOW NOT TO PRESSURIZE NOR DEPRESSURIZE THE TANK**

Before emptying or filling the tank, be sure to open the upper trap door to allow air to enter or exit.

To preserve a “full tank” wine, we recommend using a hydraulic or aseptic plug. They allow absorbing the variations in volume due to temperature changes and guaranty the security on pressure and depression phases.

If the tanks are “scavenged by nitrogen”, the original safety valve must be replaced by another safety valve guaranteeing the tank’s tightness under the inerting pressure (approximately 20 mbars). It also protects the tank from the risks of pressurization and depressurization.

**ADVICE ON HOW TO USE “SHUTTER” FILTERS**

When you fill the tank during the wine harvesting season, do not connect the pump directly to the valve protected by the filter (decant valve on bottom of the cylindrical body), because it may cause a very rapid clogging along with an uncontrolled depressurization, resulting in a degradation of the filter and the tank wall. In fact, a too rapid drawing off will not leave enough time for the unfermented wine to drain into the mass.

As a result, make your initial fillings by using a container without completely opening the valve because even if this container readily “feeds”, too great a flow will accelerate clogging and will require frequent “discharges” on the filter. By opening the “taster” (provided the taster and the filter are connected), the extent of the interior depressurization can be estimated.

If you do not want to “air” the unfermented wine, prevent a “pressure drop” effect by feeding the container with the bottom valve or by adding an elbow extension valve and, if necessary, cover the container.

P.S. : Our rotary sprayers contribute to degassing. You should estimate this phenomenon and take it into consideration in the control of the fermentation process.

**INITIAL USAGE**

Before using the tank for the first time, you have to perform the customary cleaning and disinfecting operations.

These operations allow eliminating dusts and contaminations which may have been deposited during transport and installation. They will guarantee you optimum hygienic conditions.
**ANNUAL SERVICING OF THE ACCESSORIES**

**Door**
All parts subject to wear, and in particular gudgeon and handwheel threadings, must be regularly checked, cleaned and lubricated. If necessary, replace worn parts. The seals must also be inspected whenever the door is opened and changed every 2 to 3 years. The seal must be stored in an area sheltered from light and must not be suspended. Never leave the doors closed and sealed when your tanks are empty (risk of seal seizing on the frame).

**Ball valve**
Remove the front flange, clean deposits from ball and teflon packings (if they are scratched, replace them). Reinstall the valve after lightly lubricating the ball with food grease. Do not mix parts with those of another valve because they are “paired” in the factory.

**Taster**
Remove the piston (loosen the screw under the taster and unscrew the piston). Remove deposits from seal path and check it for condition.

**Decanter**
Check the seal for condition. To improve the seal lifetime of a tank stored outdoors, remove the seal when the tank is empty and store it in an area sheltered from light.

**Butterfly valve**
Clean once a year with a little brush the axis and slightly grease the joint.

**Dipstick valve**
Remove the spout and piston. Clean deposits from seal paths and check them for condition.

**Pump unit of a compressed air floating cap**
When the wine guard is new and after a few uses retighten the 2 hose clamps. Dismount the pump and lubricate the piston. Loosen the flywheel and check the seal for condition. Replace worn parts.

**Air chamber**
Check for condition. It will deteriorate over time and can become porous. If necessary, replace it. The inflating pressure must be adjusted so that the air chamber takes up the wall / floater play.
CLEANING OF TANK OUTSIDE SURFACES

Experience has proven that it is absolutely necessary to clean stainless steel surfaces to preserve their chemical stability and “good aspect” qualities.

The cleaning of stainless steel surfaces must respond to the following requirements:

- Eliminate deposits (due to ambient pollution and/or “normal” usage);
- Maintain the initial passivation level.

The applied cleaning products must be proven and free of chlorine or sulfur to prevent (in the event of insufficient rinsing) the formation of acid chlorides or corrosive sulfurous deposits for the metal. This is translated by the appearance of rusty colored spots.

If an effective treatment is not quickly carried out, irreversible intergranular corrosion marks will subsist.

For very dirty equipment, we advise washing the largest dirt spots away using a pressurized cold water spray.

**Light dirt spots without intensive oxidation traces**

Use a current cleaning detergent (chlorine-free product) or FINOX DH: a “ready to use” product for bottom-up spraying of dry tanks; let it act from 2 hours (dirty spots) to 12 hours (oxidation).

Before applying the product, protect the plastic components with a cover and the floor with a film of water. During the draining of the excess product, rinse the floor abundantly.

**NOTE:**
- Do not spray warm tanks or tanks exposed to sunlight. The product must not dry on the tanks.
- The product whitens cement. Therefore, protect floors with a continuous film of water and prevent splashes on walls and devices in the vicinity.

**Acid-proof clothing, safety glasses, protective gloves and boots must be worn. Refer to the safety sheet before using the product.**

**Case of extensive contamination**

The DECAPOLI 67 paste is very efficient on both mineral and organic stains, also on oxidation stains due to sulfur leakage.

**Shake the paste before use until the deposit completely disappears.** Apply the paste onto the surface with a wet sponge, making sure to rub in the direction of the polishing striations. Rinse using a pressurized water spray and rub (if necessary) always in the direction of the polishing striations (horizontally) so as to eliminate the whole product.

**VERY IMPORTANT:**
- Rise abundantly the new sponges with the Decapoli before use as those contain chemicals which irreversibly stain stainless steel
- Do not apply the paste compound to warm surfaces or surfaces exposed to sunlight.

**Safety glasses and protective gloves should be worn. Refer to the safety sheet before using the paste compound.**