

# » Stainless Steel Containers

## Instructions For Use



We want to thank you for the trust in us you have shown by purchasing this stainless steel container. Please assure that the respective operator has read and understood the instruction manual prior to initial operation. To allow a safe operation of this tank all following points have to be coercively observed. The instruction manual has to be kept accessible for everyone at anytime.

### INSTALLING THE CONTAINER

This container has been quality and leak tested by us, i.e. it is 100% leakproof and ready for use when it leaves us. As transport, storage and installation damage cannot be completely excluded, you should take special care during the first fill. Equally, you should give the inside of the container and all fittings a thorough initial cleaning (e.g. with a steam jet cleaner). For the installation please use the lifting lugs on the tank top. To set up the FO - type variable capacity tanks please use the drilled holes in the tank's upper frame together with suitable lifting tools, such as eye bolts. For bigger FO tank diameters the eye bolt connection needs to be supported from below the upper frame. Please have a look on a balanced position of the lifting lugs / eye bolts using by a suitable traverse. During installation, do not step under floating load. The container is designed for installation in a building and for temperatures from 5 to 40 °C. Legal regulations of local, commercial and public authorities have to be kept. Wind loads and earthquake loads are not calculated. For outdoor installation the tanks, valves and controls have to be secured with further means against environmental influences (e.g. wind, snow, freezing, lightning, climate condition). The location for the installation has to be suitable for a save work and the weights which exist. It is necessary that gases which come out have become completely de-aerated. Gases which come out have to be transmitted save and without any danger for people and the environment. When installing the container ensure it stands secure and safely and that the tank support feet are uniformly loaded. Each support foot must uniformly sit on the floor at both ends and in the middle. If necessary use shimming plates to adjust. The height adjustment for tank support feet described in the following is better. If there are rusty iron parts (e.g. door hinges, iron reinforcement of concrete elements, etc.) in the immediate vicinity of the tank, this can lead to external corrosion in damp cellars. Remove or treat such parts to protect your container. Only use stainless steel tools to install fittings.

### HEIGHT ADJUSTMENT FOR TANK SUPPORT FEET

This useful accessory allow an easy, safe and vertical positioning of your tank on uneven surfaces. You have to put from below the height adjustments in the drill hole of the tank feet, an o-seal inhibits the height adjustment falls down. Now it is possible to put the tank in a vertical position using a spirit level and two flat wrenches. Pay attention that at minimum 30 mm of the stud bolt overlap. The position of the overlay with nut should be as low as possible. As mentioned above the stress for all tank feet should be equal. You can realize this by checking the prestress of all nuts by hand and by retightening them in case of necessity. Check from time to time the prestress of the height adjustments, particularly after the first discharge!

### INTENDED USE

Our containers are perfectly suitable for the non-pressure storage of wine, must, beer and juices. They are designed for stainless steel resistant fluids with a density of 1,0 kg/dm<sup>3</sup> and an operating temperature from 5°C to 40°C.

### OPERATING AND SAFETY INSTRUCTIONS

- Before use ascertain the correct state and safe standing of the tank. Using the container is only permitted according to regulations and in an accurate safety related state. Note the well-known safety and accident prevention regulations. Ensure that only authorised personnel may be present in the container area. Only trained personnel may work with the container. Regard local commercial or official requirements, bans and rules. In addition to that the tank, including all loose parts, armatures and mounting parts, as well as the sealings and hoses need to be thoroughly cleaned prior to initial operation.
- Exercise care in handling the container, installation site and during transport because the stainless steel material is not consistent to road salt. Be attentive that, without exception, only stainless steel compatible products and mediums contact the containers.
- When filling, discharging, cleaning and operating assure an adequate and safe de-aeration of the container. For pressure and vacuum damages we assume no liability. When filling- or aeration pipes are installed on the tank, it needs to be assured by suitable means to avoid a vacuum damage caused by siphon effect / overfilling. The overfilling has to be avoided in general.
- When using and operating bigger openings, e.g. domes, manholes, supports at the tank, ensure that persons or objects do not fall in or fall out. Observe permanently the danger of possible escape of fermentation gases (risk of suffocation). Entering or touching containers is permissible only after securing so that there is no risk of injury due to add-on parts (if any, e.g. agitators).
- The transport tanks always have to be secured against a possible shifting or tilting, for example through fluid surge forces, during carrying. Observe the highest permitted number of stacked tanks.
- Clean the container with standard cleaning agents that are not chloric or saliferous. Stainless steel is resistant to the common acids and bases used in wineries, as against the sealing material of the mounting parts and doors which are only resistant slightly better than the prescribed concentration. Remember, even if alkali solutions etc. are mixed correctly, their concentration in water increases as a result of evaporation. Therefore mounting parts, doors, etc. have to be thoroughly cleaned with water immediately after the required dwell time.
- If a tank is not full up to the bung, released sulphur can react with condensation and oxygen to form an aggressive atmosphere between the roof of the tank and the surface of the liquid. For this reason we use the higher alloyed material 1.4571 or 1.4404 (V4A) for the tank roof of our wine container types FS-MO/AS-MO. Sulphurisation, as in wooden barrels, is not possible. The sulphur concentrations in wine should therefore only be at the legally permitted level. Avoid free sulfur dioxide concentrations > 70 mg / l or otherwise corrosion may occur on the stainless steel container.

### STACKING TANK TYPE AS-MO

The round tanks up to Ø1400 mm are supplied with special stacking feet and connecting rods for stability reasons, which are ex works adjusted to assure an easy stacking construction. Always control the tight fitting of the stacked tanks. All AS-MO tank feet for containers greater or equal Ø1600 mm have to be screwed in place with the FS-MO type connecting feet.

Always attend the permitted maximum filling capacity of the complete stacking constructions.

### DOUBLE JACKET TO COOL OR HEAT (OPTION)

Always ensure that liquids are used which cannot attack the stainless steel. Chlorine, salt or iron-containing liquids, and strong organic and inorganic acids cause steel corrosion. This also applies to water, e.g. from rusty pipes. When using water as cooling or heating fluid, an appropriate water analysis is necessary prior to operation. To avoid corrosion damage, the water must be treated and checked regularly. When using cooling or heating units with refrigerant or heat transfer liquids, e.g. Antifrogen L from Hoechst based on propylene glycol, this medium protects stainless steel from corrosion and at the same time is safe for food. Make sure when installing that the connecting glands on the double jacket are not pressed in. Protect your system with filters or screens against the intrusion of dirt or iron particles. Look out for heat or cold expansion of your installation and, if necessary, its correction. Use large enough diameters for the pipe installation to ensure sufficient volume flow which permits efficient heating and cooling. A closed system similar to the hot water heater has to be favoured. For the piping system with heat exchanger complete air ventilation is essential. No air is allowed in the system because it favours the formation of germs, deposit and corrosion. The inlet pipe must be made of diffusion resistant material to prevent air from diffusing into the system. The double jacket is designed for a working pressure from 2.5 to 6 bar and a temperature range from -5°C to 50°C. Avoid water hammer pressure > 6 bar.

### VARIABLE CAPACITY TANK

While using floating lids do not step under hanging loads! Using the winch demands an appropriate attention of the operating and safety instructions. Prior to handling the system check the correct state of the rope, hand winch, floating lid connection, crane and sealing gasket. For a durable and trouble-free function of the air pumps, the o-ring on the cock has to be lubricated from time to time. Pump-up of the sealings: Clear-transparent rubber hose: with 0.7 bar. Black/White rubber hose: 1.0 bar. Please check regularly the pressure on the manometer to ensure the right pressure in the rubber hose.

### SEALINGS / SPARE PARTS

If you need any spare parts please contact your local dealer or representative.

### GUARANTEE

Due to the traceability the item sticker must not be removed from the tank. If the label is removed, the operator himself is responsible for an accurate traceability.