Instructions for use

U-3035_GB

Date: 10-10-2023
Prepared by: Valeriia Taranukha
Version №: 01

Responsible manufacturer: ACO Funki

Machine: Residual tank VF 7

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Kirkevænget 5
DK-7400 Herning

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1. Introduction

Original instructions for use

This user manual has been prepared according to EN ISO 20607:2019 and is ACO Funki's original user manual for "Residual tank VF7" (hereafter referred to as the machine).

The Danish version is the original sampel, all other language versions refer to the original sample.

Purpose

The purpose of this instructions for use is to ensure correct use and maintenance of the machine.
The instructions for use are general instructions for use, with an emphasis on the safety aspects that relate to the interaction of the assembled machines.
For detailed information regarding the individual machines and their function, please refer to the respective instructions for use.

Availability

The instructions for use must be kept in a place known to the staff, where it is easily accessible to operators and maintenance staff.

Knowledge

It is the employer's (machine owner's) responsibility to ensure that everyone who must to service, clean, operate, maintain or repair the machine has read the user manual; at least the parts of it that are relevant to their work. In addition, everyone who must to operate, service, maintain or repair the machine has a duty to search for information in the user manual themselves.

Key to symbols

If the safety instructions described in this manual are not observed, personal injury or material damage may result. Such damage may prevent the machine from functioning correctly. Safety instructions and instructions for trouble-free operation are accompanied by the following symbols:

Warning symbol in accordance with EN ISO 7010:2020
Caution: risk of personal injury or material damage.

Warning symbol in accordance with EN ISO 7010:2020
Caution: risk of electric shock.

Information symbol in accordance with EN ISO 7010:2020
Important instructions for preventing damage to the machine and its function. Instructions for reliable, problem-free operation

Sections of this manual accompanied by one of these symbols should be read with particular care!

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2. General

2.1. Manufacturer

The machine is manufactured from:

ACO Funki
Kirkevænget 5
DK-7400 Herning

+45 9711 9600
acofunki@acofunki.dk
www.acofunki.dk

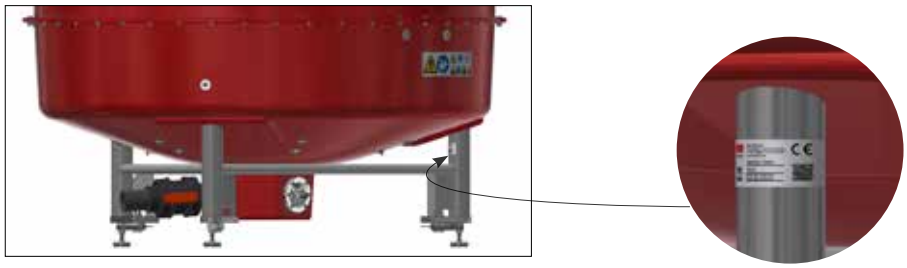
2.2. The designation of the machine

The full name of the machine is:

Mixing tank 2300/4200/6000 L

2.3. Machine plate

The CE-label is placed on the inner part of the front leg of the tank.

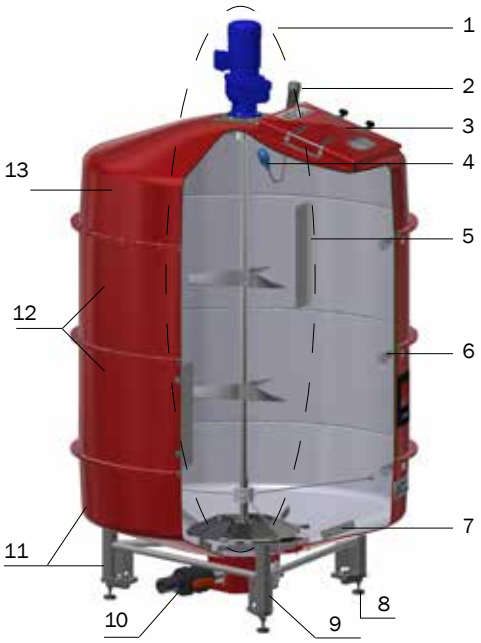


3. Overview and application

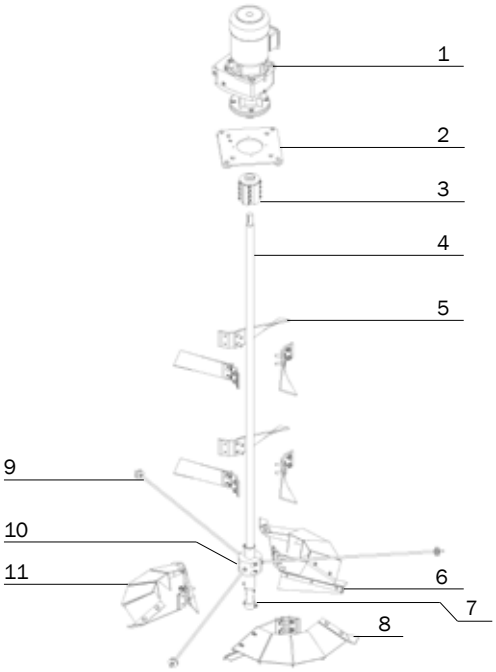
3.1. General description

The machine consists of:

1. Stirrer and gear motor
2. Pressure equalizer
3. Hatch of cleaning/inspections hole
4. Level tilting device
5. Counter agitators VF4-A
6. Counter agitators VFX-C
7. Bottom agitators
8. Feet
9. Cap
10. Outlet conection and ball valve
11. Bottom part of the tank (for the fiberglass container)
12. Fiberglass container, rings
13. Fiberglass container, top part



1. Gear motor
2. Tank flange
3. Coupling
4. Shaft
5. Middle agitator (number depends on the size of the tank)
6. Paddle for bottom agitator
7. Bearing bush
8. Wing blade
9. Stay bolt for split bearing bush
10. Split bearing bush
11. Bottom agitator



3.2. Functional description

Read the Function/Control manual 0930-116_FunkiNet_Autofeed for a deeper description of the operation of the machine.

3.3. Purpose and intended use of the machine

The tank is intended to be used in installations of wet feeding systems, designed for pig production; the thought collects water that had accumulated in the pipes before the start of feeding. Water is loaded or unloaded, as needed using control system.
The mixing equipment installed in the tank is controlled by the control system. To make the tank's mixer work, it must connected to an electrical power supply according to the motor's nameplate.
Contactors / frequency converters are always installed in the control system's electrical panel.
Waste tanks designed in good quality fiberglass material, for long life and to be chemically resistant for normal PH range in liquid feed for pigs, typically between Ph4 and Ph7, and material and ambient temperature varies from +2 °C to 40 °C.
The waste tank must not be used for anything other than the purpose described above.

3.4. Warning of foreseeable abuse

The machine may only be used when:

- there are guards on all moving parts
- there must be no people in the tank when the machine is started
- the lid for the cleaning/inspection hole is securely closed
- electrical cables are undamaged.
- the necessary energy supply is present.

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3.5. Product's service life

The machine is expected to operate for 8 years. After 20 years, the machine must be reviewed and a new risk assessment carried out, and the safety relevant components replaced.

The part of the machine have reduced service life or limits of use:

- Gearmotor/ bushing / bearing

Regular maintenance and replacement of the machine's parts and the safety related components must take place. For more detailed information, see the mounting instructions M-3034_Liquid_feeding_tank_mixing_tank.

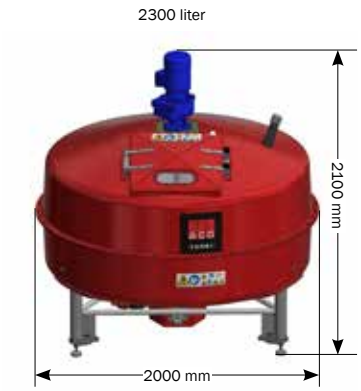
This must be done in accordance with the instructions for use of the individual components.

The machine may only be used indoors in a dry environment.

3.6. Technical data

For detailed data regarding electricit, refer to the respective installation instructions.

3.6.1. Dimensions



3.6.2. Weight

0340-234 (2300 L.)	approx. 350 kg.
0340-235 (4200 L.)	approx. 430 kg.
0340-236 (6000 L.)	approx. 510 kg.

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3.6.3. Electricity

The user manual must contain a description of the machine's electrical power supply:

Supply voltage: 3 x 400 V + N + PE
Frequency: 50 Hz
Absorbed full load current: 4,3 A

For technical data for electrical equipment, see the rating plate/user manual on the individual machines.

3.6.4. Noise

Airborne noise emitted by the machine:

The machine's noise level must be measured after installation, and the measured values must be reported at values higher than 70 dB.

3.7. Operator workstations, location and layout

The operator's place is at the control panel on the front of the machine.

During repair and maintenance:

- Is the workplace around the machine.

See section on maintenance for more information.

Requirements for layout:

Space requirements for people working at the machines on the machine:

There must be sufficient space for the operator to use appropriate working positions and movements.
The free width must be at least 1000 mm.
The following applies to electricity and control panels: All lids must be able to be opened at least 95°.
Recommended aisle width between barriers (walls, building parts etc.) and operating handle: at least 800 mm.

Operating limits, Environment:

The machine is designed to be used indoors in a dry environment and may only be used in accordance with the operating limits below.

Permissible temperature range	+2 °C to 40 °C
Permissible relative humidity (Non condensing)	min. 20 % max. 80 %

Lighting:

Around the machine	Min. 200 lux
Repair and maintenance work	Min. 250 lux In connection with repair and maintenance, sufficient light is brought as necessary to solve the task safely.

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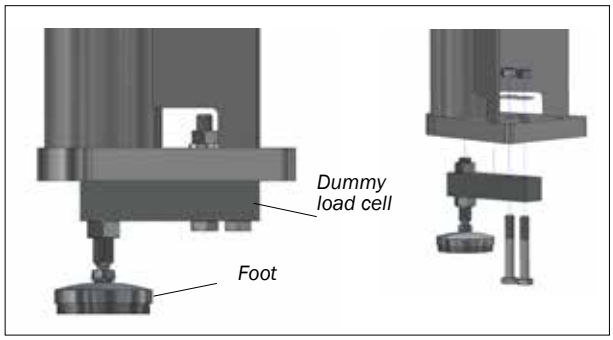
4. Mounting instruction

4.1. Installation of tank parts

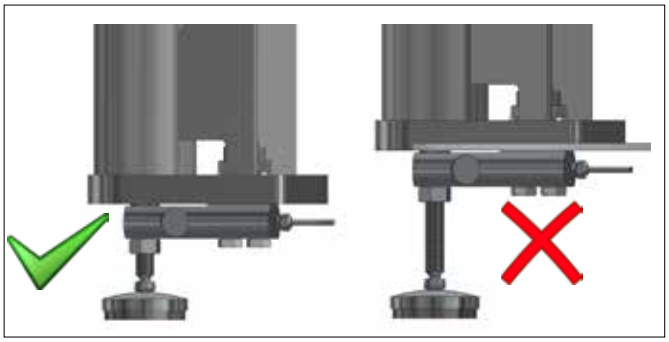
Mounting of load cells

Load cells are not neccessary for the residual tanks. Instead, “dummy load cells” are mounted.
The “dummy load cells” are square pieces of steel that is mounted underneath the feet of the tank.



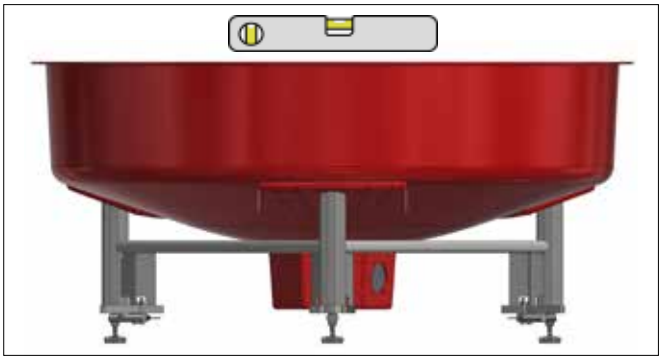
LOAD CELL DUMMY KIT			
	Item no.	Description	PCS.
	0139-506	*LOAD CELLS MANIKIN KIT VF4*	
1	0139-444	MACHINE SHOE TYPE HJ-7C DSI	1
2	32900015	MACHINE SCREW M12X80 FZB QUAL. 10.9 DIN 931	2
3	33900028	NUT M12 A4-80 DIN 934	2
4	35600080	FLAT WASHER Ø12X13/24/2,5 A2 DIN 125 A	2
5	0139-577	LOAD CELL DUMMY DT540 M16	1

Leveling the tank



Under each “dummy load cell” the height can be adjusted by approx. 20 mm.
Adjust the height so that the feet are leveled horizontally. Do not raise the height of the feet more than necessary (because of the stability).

Positioning of the tank



The bottom part of the tank is placed on the floor. The floor should be approximately level.

Be sure to notice how the bottom part is placed in relation to the pump and outlet.

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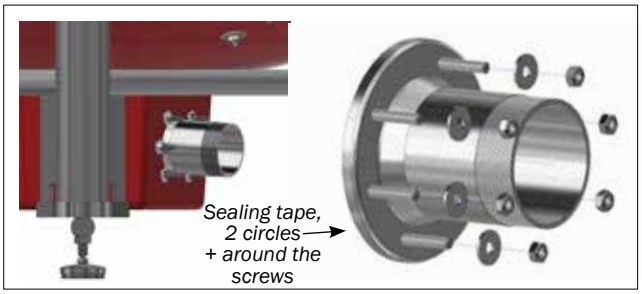
Mounting of outlet connection

The outlet connection is placed in the bottom of the tank (see the overview illustration).
Apply two whole circles of sealants around the neck of the outlet connection and around the welded screws.
The outlet connection (with applied sealants) is mounted from the inside of the tank in one of the two pre-made holes (see ill.)

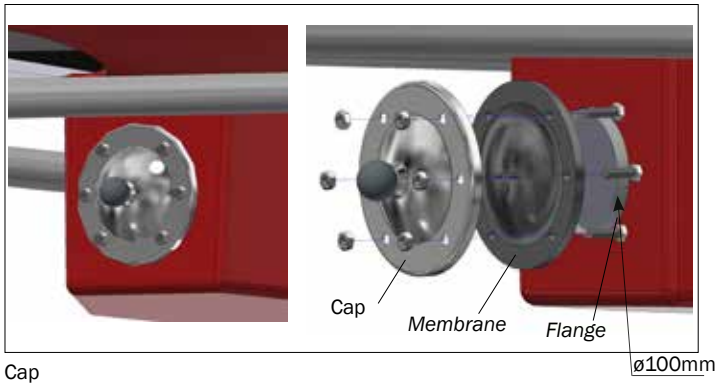


Mounting of outlet

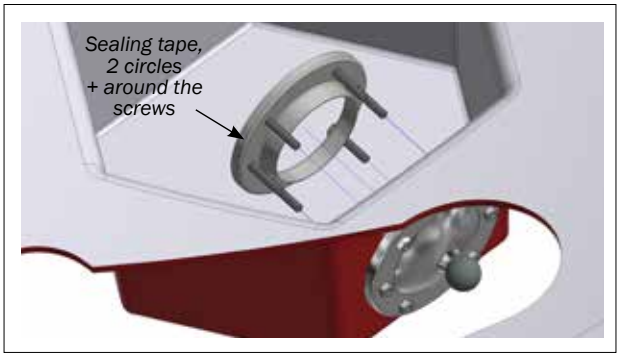
Mounting of cap

The cap is placed in the bottom of the tank opposite the outlet connection (see overview illustration).

Apply two whole circles of sealants around the neck of the cap and around the welded screws.
The flange (with applied sealants) is mounted from the inside of the tank in the other of the two pre-made holes (see ill.).



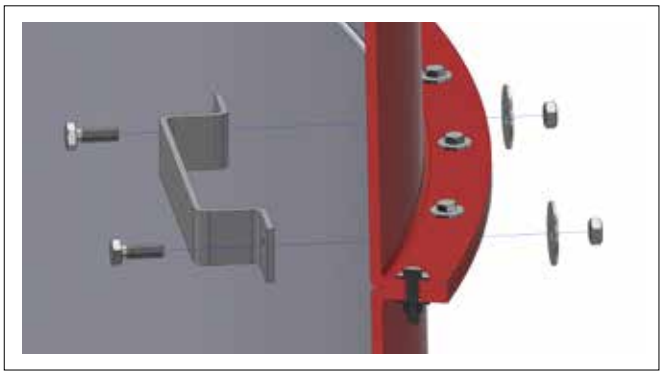
Cap

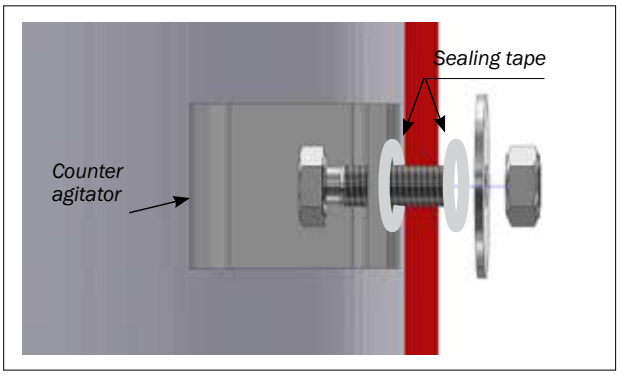


Cap, sealing tape on the inside

Mounting of counter agitator VFX-C inside of the tank

Counter agitator are mounted on the inside of the tanks. 1 pcs. is mounted per fiberglass ring joint - i.e. 2-5 pcs. depending of the size of the tank. Mount the counter agitator on the rings before assembling the rings. The counter agitator a part of the mixing system that must not used as a steps.
Use the counter agitator as drill templates. Remember to seal with sealing tape (see ill.).


Counter agitator inside the tank



Sealing tape inside and outside the tank

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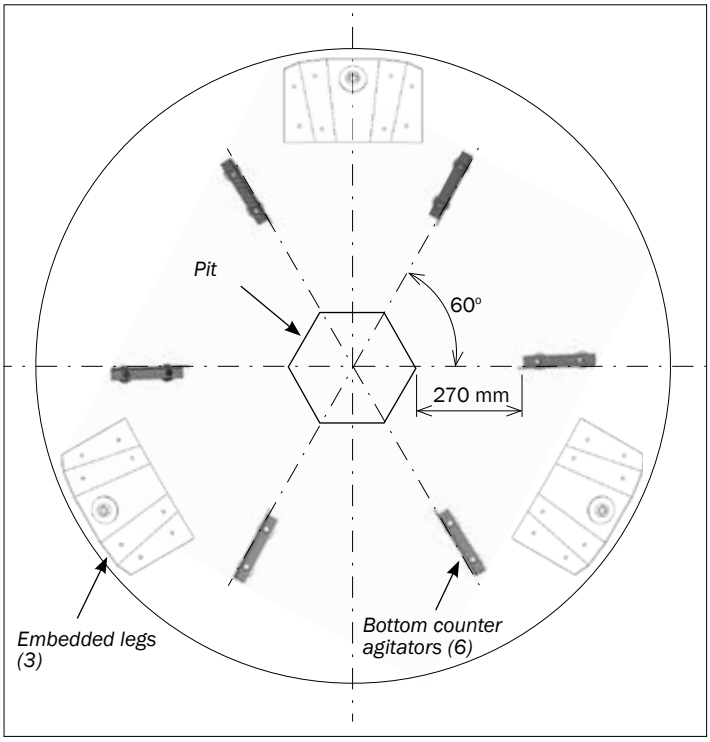
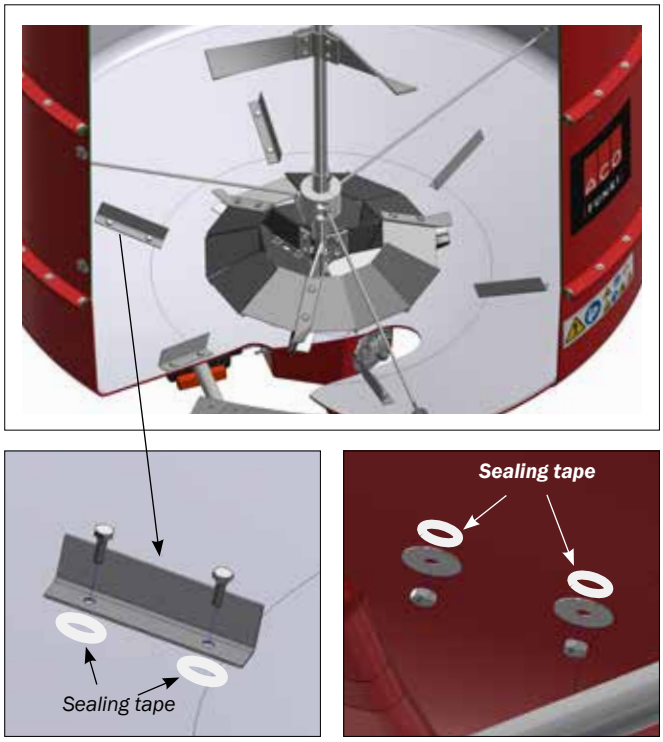
Mounting of bottom counter agitators (6 pcs.)

The bottom counter agitators are placed radially to the stirrer (see ill.).
Be aware of the embedded legs in the bottom of the tank when placing the bottom counter agitators.

The bottom counter agitators are used as drill templates for two Ø11 mm holes per bottom counter agitator. Remember sealing tape (see ill.).



Placing of the bottom counter agitators



Bottom counter agitator, inside

Bottom counter agitator, outside

Mounting of counter agitator VF4-A

One counter agitator is mounted per fiberglass part of the tank:

2300 L	-	0 counter agitators
4200 L	-	1 counter agitator
6000 L	-	2 counter agitators

Mount the counter agitators on the rings before assembling the rings.
The counter agitators are placed vertically in the side of the tank, and horizontally in the middle of the ring. When mounting more than one counter agitator, place them alternately opposite each other (see ill.).

Use one of the counter agitators as a template for drilling two holes for each counter agitator. Remember sealing tape (see ill.).

Placing the counter agitators

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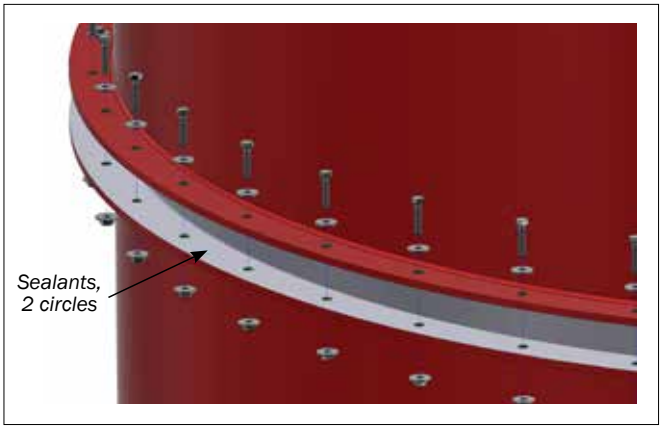
Assembling the fiberglass parts

Apply two whole circles of sealants around the flange. Assemble the parts flange to flange. Position the upper part so that the hatch is placed so that it is easy to access it.
The tank parts are fastened as shown.

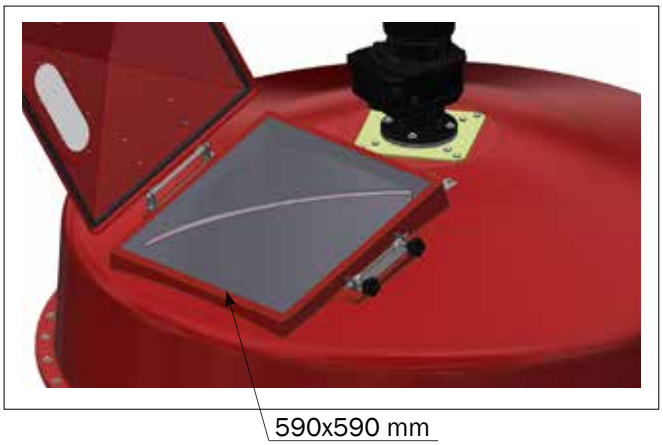


Assembling the fiberglass parts

Mounting of the hatch

The hatch is pre-assembled and mounted on the tank.


Hatch



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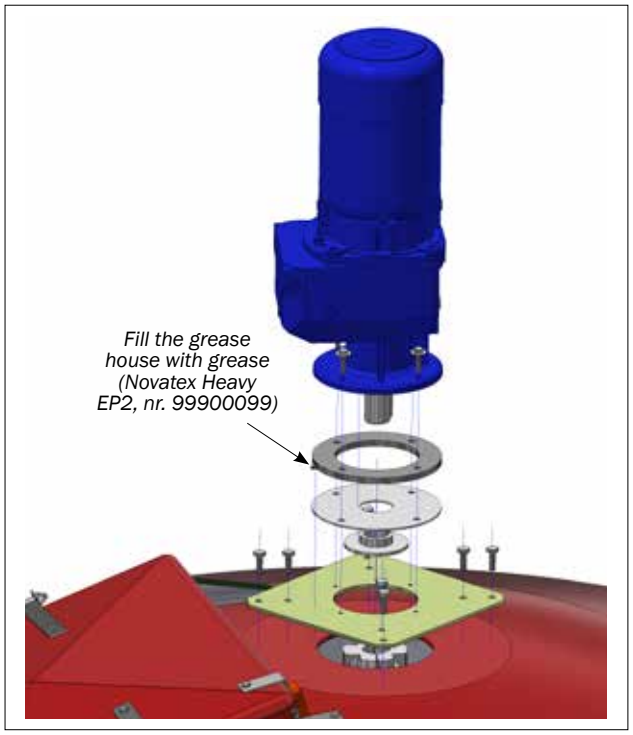
4.2. Installation of gearmotor and agitator

Mounting of top flange (for gear motor)

The top flange is mounted centally over the hole in the top of the tank. Use the flange as a template for drilling 8 holes. Use sealing tape on the inside around the screws, and fasten the flange using washers and nuts.

Seal the joint along the edges of the hole and the flange. (It is advised to apply the sealants last, due to the discomfort of the smell.)

The gear motor is placed directly onto the top flange, and is fastened.



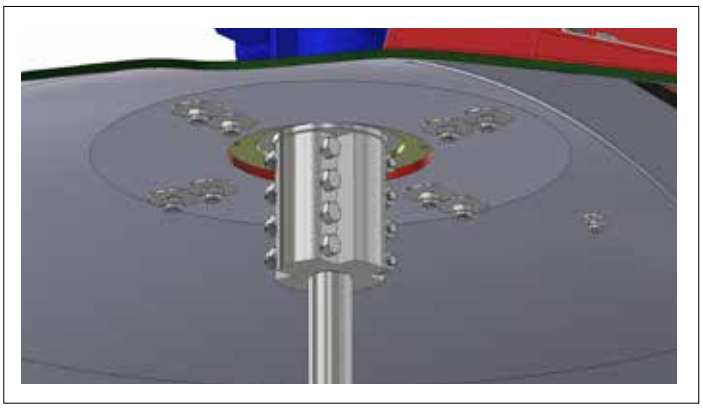
Ensure proper ventilation for the gearmotor.

Avoid impact on the shaft!

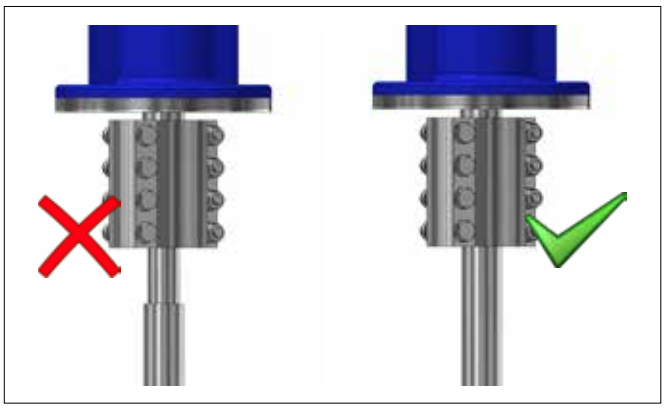
Mounting of shaft for stirrer

The shaft for the stirrer is mounted on the free end of the gear motor shaft using the clamp coupling. Make sure that the shaft ends of the gear motor and the stirrer are clean and free of tape etc. The steel bushing (with the split bearing bush) is mounted on the shaft before mounting the clamp coupling.

Next, the shaft for the stirrer (with the coupling) is pushed up to the free shaft end of the gear motor so that the two shafts meet. Maintain this position while the 4 bolts are carefully fastened.



Clamp coupling



Push the neck of the shaft all the way up to the clamp coupling

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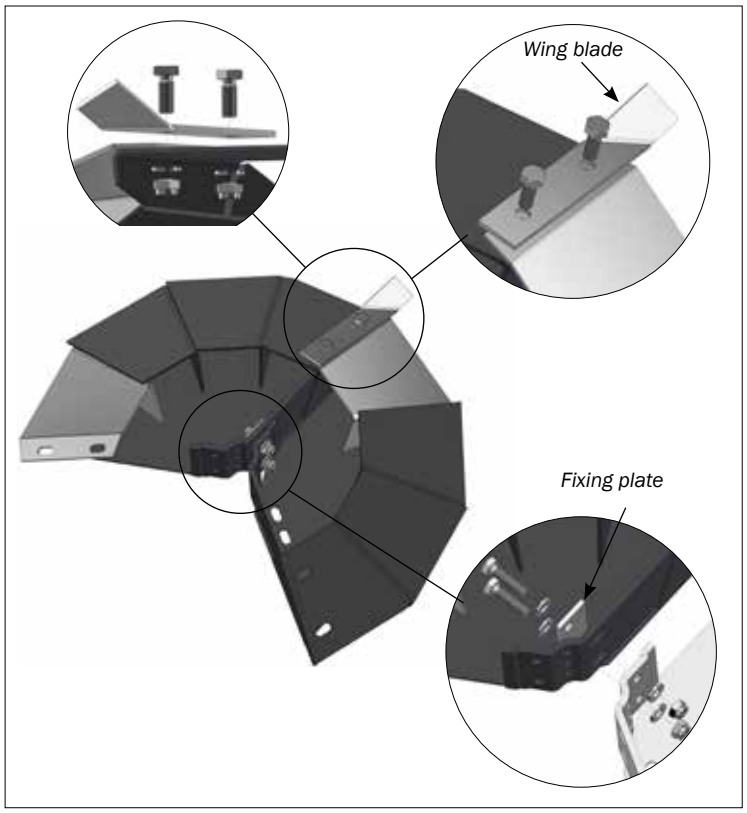
Mounting of bottom agitator

First, assemble two of the three parts of the bottom agitator loosely on the floor (see ill.). Mount one of the three wing blades at the joint of the two agitator parts.

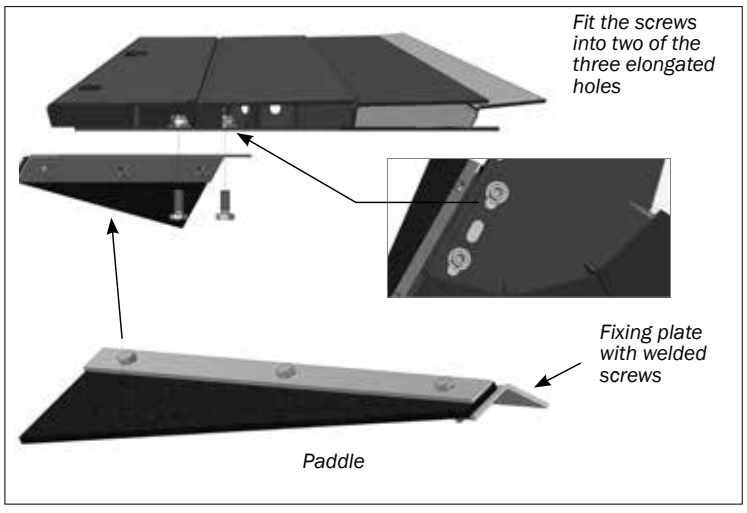
One of the three paddles are mounted on the third part of the bottom agitator (see ill.). Place the fixing plate (with screws) on the paddle, and mount both parts on the bottom agitator from the bottom side.
Next, mount the three parts of the bottom agitator around the shaft just above the bearing bush (in the bottom end of the shaft).
Mount the remaining two wing blades.

Mount the remaining two paddles in the same way as the first.

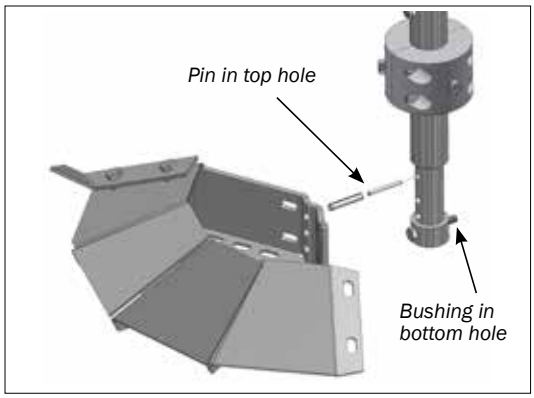
Use a torque wrench (117 Nm) when tightening all screws and nuts - it is especially important to insure that the bottom agitator is soundly fixed to the shaft.



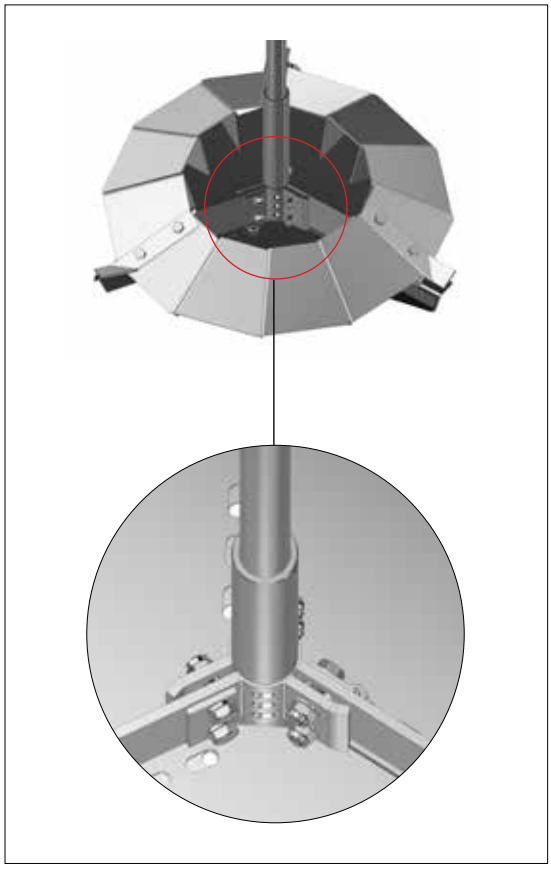
1. Two of the three parts of the bottom agitator are assembled, and a wingblade is mounted onto it.



2. Installation of bottom agitator paddle.



3. Placing of pin and bushing - for positioning the bottom agitator.



4. The three parts are fixed around the shaft.

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Mounting of split bearing bush

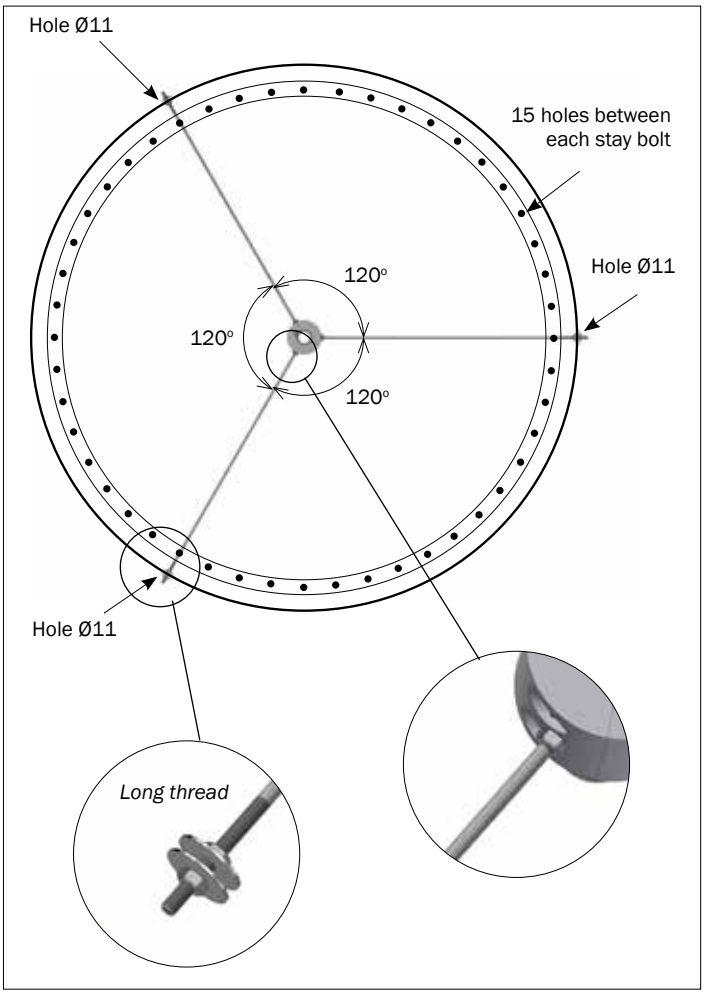
The split bearing bush is mounted in the bottom end of the shaft to absorb radial forces on the stirrer.

The steel bushing (with split bearing bush) is mounted on the shaft before the shaft is mounted on the gear motor.
The split bearing bush is carried by three stay bolts which are fixed through the sides of the tank (see ill.) The placement of the stay bolts is illustrated on the next page.

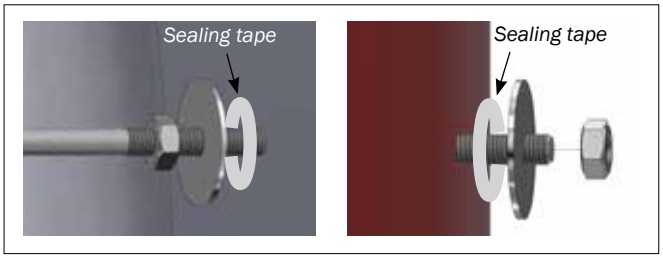
Place the stay bolt so that the end with the long thread is turned outward to the tank side. Screw the other end into the split bearing bush, ***but not all the way to the steel bushing,*** and fix it with a nut.
Make sure that the stay bolts do not deform the plastic bearing.

Adjust the bearing up/down to level the stay bolts, and fix the bushing to the shaft with the hexagon screws. Remember to seal with sealing tape (see ill.).

Check that the stay bolts and the split bearing bush are fixed tightly. Tighten them more if needed.

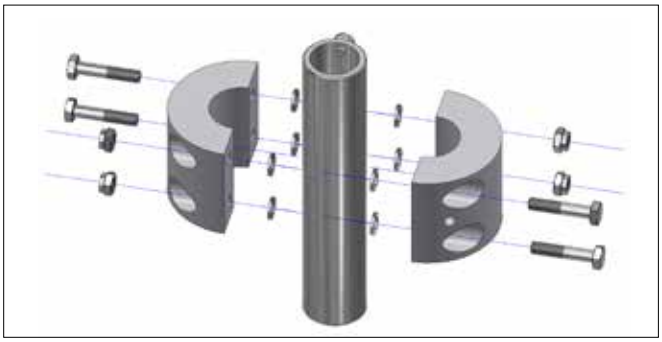


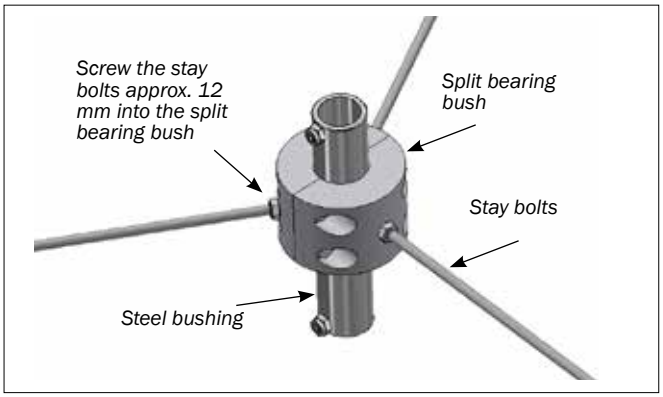
Split bearing bush, placement of stay bolts



Stay bolt, inside

Stay bolt, outside


Split bearing bush, unassembled



Split bearing bush, assembled

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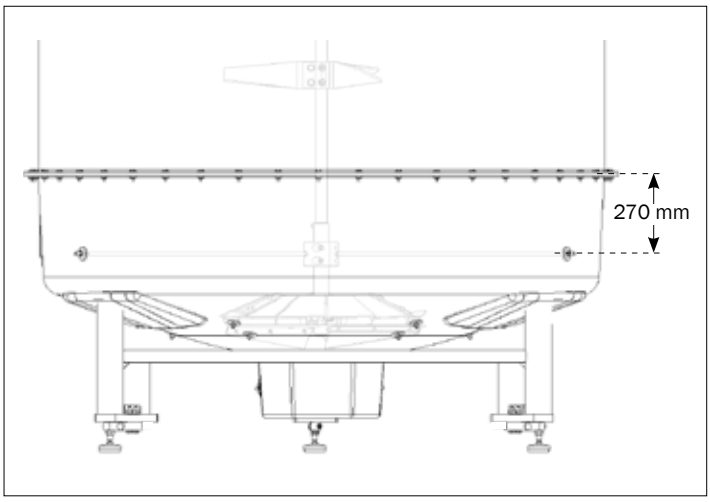


On the tanks for 2300, 4200 and 6000 liters, 1 pcs. bottom bearing with stay bolts. The holes are drilled as shown in the drawing, approx. 270 mm below the lower fiberglass joint.

Mounting of middle agitator

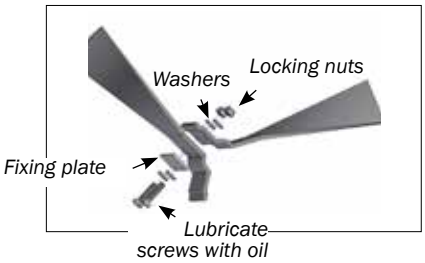
One middle agitator is mounted per fiberglass part of the tank:

2300 L	-	0 middle agitators
4200 L	-	1 middle agitator
6000 L	-	2 middle agitators

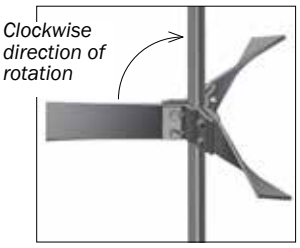
For the tanks with more than one middle agitator, the agitators are distributed regularly through the tank (see ill. below).

First, assemble two of the three wings of the middle agitator loosely on the floor (see ill.).
Then, assemble the two parts with the third around the shaft of the stirrer in the tank.

Fix the middle agitator around the shaft in the correct position and tighten screws and nuts with a torque wrench (approx. 117 Nm).

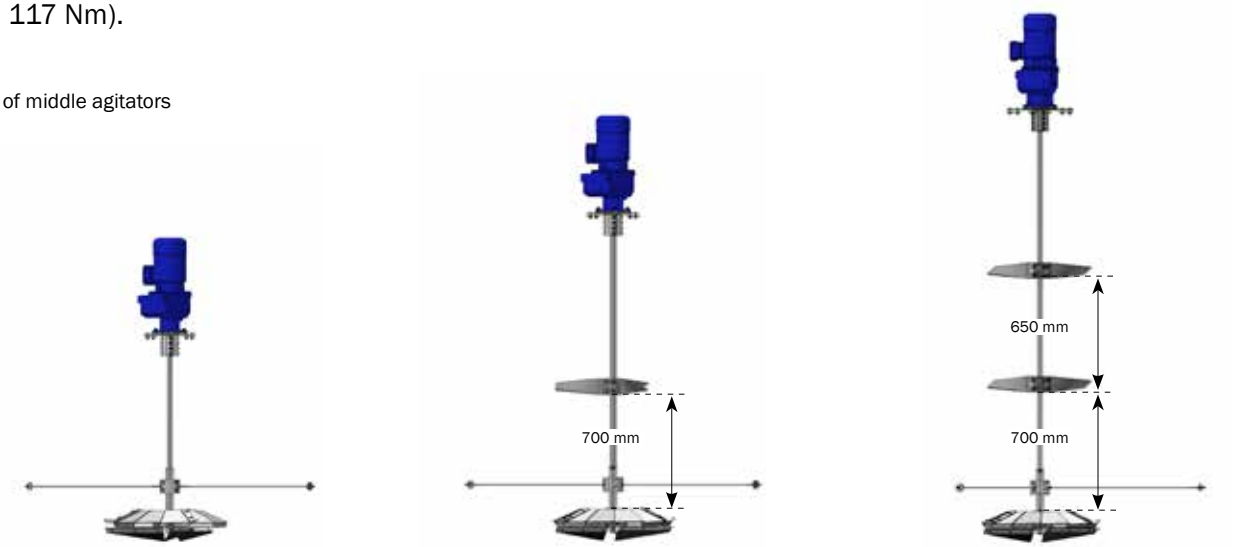


Two of the three parts of the middle agitator are assembled loosely on the floor



Middle agitator, assembled

Placement of middle agitators



2300 liter ***4200 liter*** ***6000 liter***

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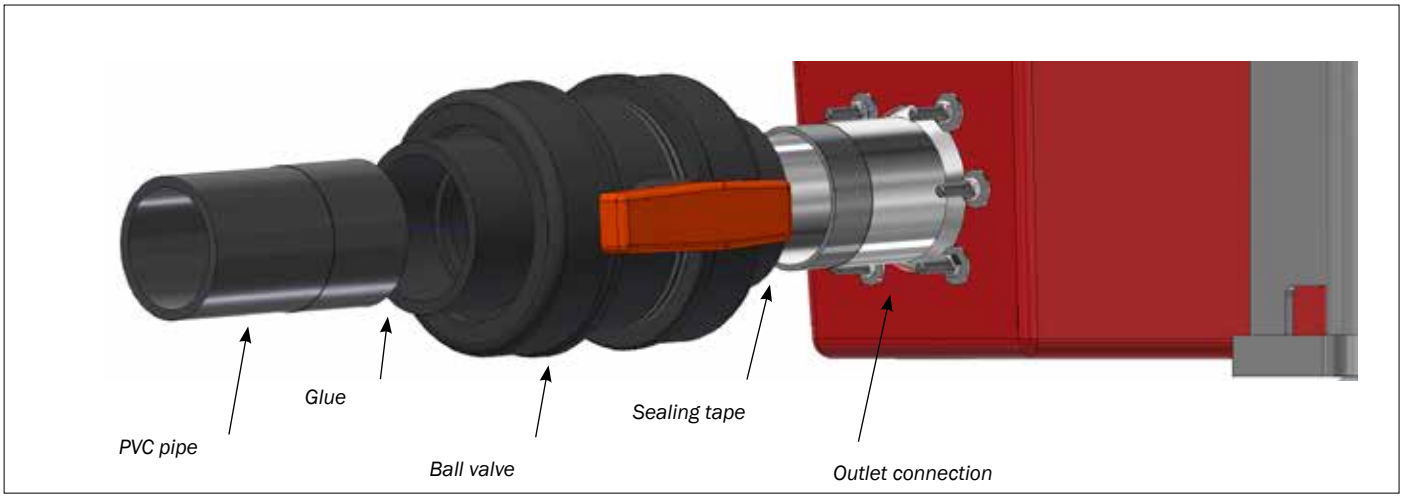
4.3. Placement of additional pipes on the tank

Pipe for connecting the pump

A ball valve, a PVC pipe and a piece of flexible hose are mounted on the outlet connection. The feed pump is then connected to the flexible hose. The piping from the outlet to the pump should be as short as possible.



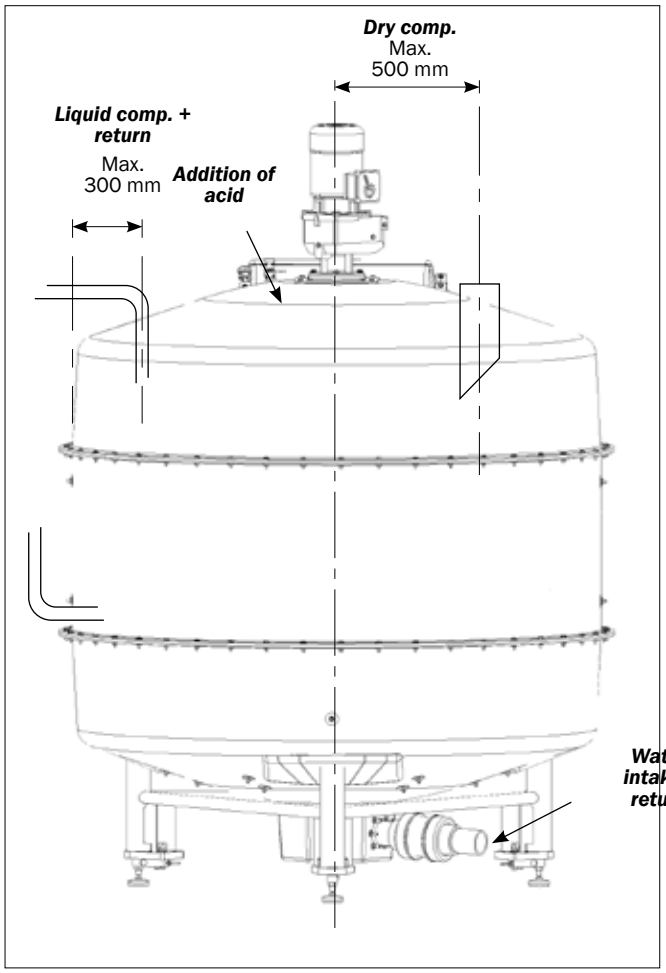
Pipe for connecting the pump

Pipe for intake of liquid components

The intake for liquid components (except water and acid) is placed in the top of the tank (see ill.). Remember to carefully seal the passage around the hole with sealing tape. The piping for liquid components should be joint into one pipe immediately before the tank.

Intake of water through the bottom of the tank:
Water can be let in via the pipe for the feed pump in the bottom of the tank (see ill.).

Intake of acid through the top of the tank:
Inlet of acid is to be placed separately in the top, opposite the hatch, and as near the wall of the tank as possible (see ill.).



Intake of liquid and dry components

Pipe for intake of dry components

The intake for dry components is placed in the top of the tank (see ill.). Use the intake pipe as a drill template.

Carefully seal the contact face with sealing tape. Place the pipe in the hole and mount it with screws (from the outside) and washers and nuts (on the inside).
Mount a rubber sleeve on the upper part of the intake pipe using a clamp ring.

All pipes for intake are ordered separately.

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Return pipes

The return pipes should be brought together into one pipe, immediately before the tank.
There are several options for placing return inlets:

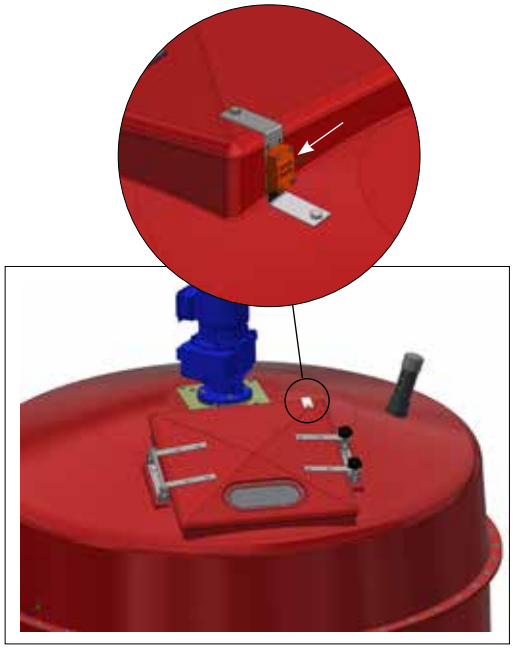
- At the top of the tank, approx. 300 mm from the side of the tank (in the same way as the inlet pipe for liquid components).
- In the side of the tank (be aware of counter agitators and other elements mounted in the tank).
- At the bottom of the tank (through the pipe for the feed pump)

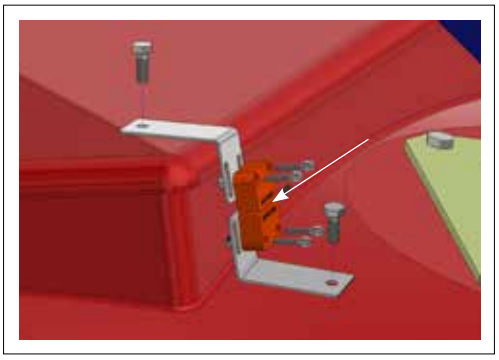
Be aware that the feed jet from the return pipe must not be directed directly into the bottom of the tank, as this allows air to be drawn out into the feed pipe.

Tube for pressure equalization in tank

The pipe for pressure equalization is placed at the top of the tank. Remember to seal the penetration with a flexible sealant around the hole.

Pressure equalization





Safety switch

A sensor (safety switch) is mounted onto the hatch, securing that the motor disconnects when the hatch is opened.

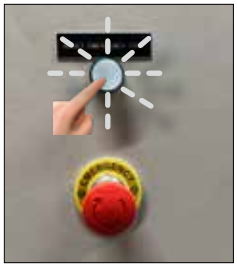
The brackets for the switch are mounted on the hatch and tank with the one-way screws (safety screws) and locking nuts. Seal around the screws with sealing tape.

Mount the sensor on the brackets using one-way screws (safety screws). The part of the sensor with the cable is mounted on the bracket on the tank.

Safty switch funktiones

When you start to open the hatch, the safety switch is activated, the automation in the tank including filling and mixing equipment stops, this happens in the first 3 seconds, all the equipment is inside the tank is stopped with no remaining rotation.

When the safety switch is activated the safety reset button starts to light up it means the protection system is on inactive. To restore security - press the safety reset button on the EL board.



The protection system is deactivated.

The protection system is activated.

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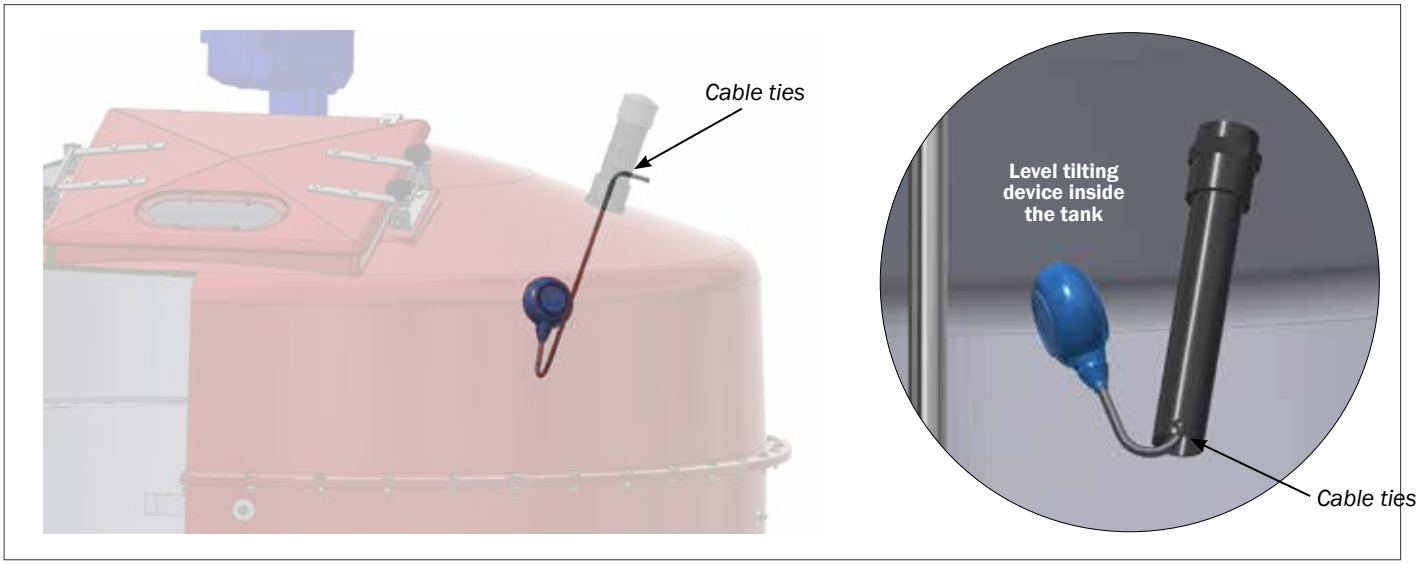
Mounting of level tilting device

The level tilting device is mounted in the pipe for pressure equalization. Fixate the device with cable ties (as shown) to keep it away from the stirrer.



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5. Security and residual risks

5.1. Built-in safety measures

Only Aco Funki certified personnel have the right to enter the tank. New operators must complete a training course to work with the machine. (see section 6.1)

For the sake of personal safety, during operation, the machine is equipped with a lid and lid switches.

When you try to open the lid, the protection function is activated. All moving parts stop in 3 seconds.
(see section 7.5)

Motors are protected with motor guards.

Under no circumstances should the gate switches be removed if the machine is not in a safe state or the supply disconnect/repair switch is open and locked.

5.1.1. Safety switch, repair switch.

Safety switches and repair switch:

a) Safety switch, hatch

b) Repair switch, agitator

5.1.2. Safety features

Safety feature	Explanation
Emergency stop	The machine is equipped with an emergency stop via the control panel. Run-on time of 3 seconds. PLr - c*
Safety switches	The machine is brought to a stop when the hatch is opened when the supply is interrupted. Run-on time of 3 seconds. PLr - d*

*According to the following standard: EN 13849-1.

Supply separators:

The machine's parts are equipped with lockable supply separators via FunkiNet control.

Testing intervals:

If the test limits mentioned below are exceeded, the safety functions can no longer be considered to protect operators at the machine from the machine's sources of danger.

The safety functions must be functionally tested every 12 months. Testing the safety functions:

By pressing "start", the machine starts
Press "emergency stop", the machine stops
Activation of the "safety switch" , the machine stops

In the event of a failure or fault, the machine must be taken out of service until the fault has been rectified, after which the function is tested again.

5.2. Safety measures to be taken by ACO Funki certified personnel.

5.2.1. Clothing and personal protective equipment

Use:

Personal protective equipment provided at the workplace and in accordance with ACO Funki guidelines must always be used.

ACO Funki guidelines:

Loose clothing, jewellery, scarves etc. must not be used while operating the machine. It is recommended to wear overalls when working with the machine.

Maintenance and repair:

In connection with maintenance, safety shoes, gloves, long clothing and the like must be used in accordance with internal and applicable national rules for the individual task being carried out.

Suitable personal protective equipment must be used during repair and maintenance work.

The area near the machine must be kept clean of spills and other items.

When replacing components, the manufacturer's instructions for the corresponding component must be followed.

- Personal protective equipment in the form of work gloves, safety shoes and head protection when parts are transported.
- Approved lifting equipment in the form of a crane and hoist for handling parts over 15 kg.

Lubricants:

Personal protective equipment must be used in accordance with the individual product data sheets / safety data sheets in connection with:

- Handling/use of lubricants.
- Installation of liquid components.

Safety data sheets for lubricants can be found on the ACO Funki website.

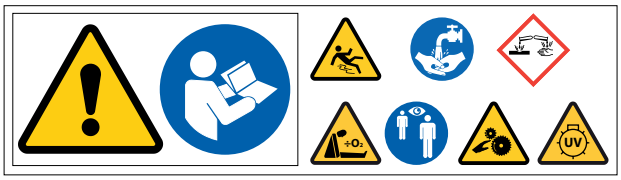
Disposal of products and other waste must be done according to the guidelines for the materials in corresponding, see the product's data sheet.

5.2.2. Warnings

	**READ THE MOUNTING INSTRUCTION!** Read this manual thoroughly before mounting, use and service.
	**CORROSIVE SUBSTANCES!** The tank can contain acidic substances that can cause corrosive damage to skin and material.
	**SLIPPERY!** Risk of wet and slippery areas in and around the tank.
	**MOVING PARTS!** Risk of crushing due to moving machinery in the tank.
	**LACK OF OXYGEN!** There is no oxygen in the tank. Before entering the tank, be sure to vent the tank thoroughly.
	**UV-LIGHT!** The tank can contain UV light that can cause eye damage.
	**SUPERVISION REQUIRED!** A supervising person is required outside of the tank, when someone is working in the tank.
	**WASH YOUR HANDS!** Clean yourself and used tools thoroughly after working around the tank. Disposable tools (e.g. gloves) are discarded.

Two warning signs are affixed. Blank labels (45x45 mm) are included to cover the icons that are not relevant; it can be acid, UV light and moving machine parts. For example, UV light is covered if a UV purifier is not installed in the tank.

2 x



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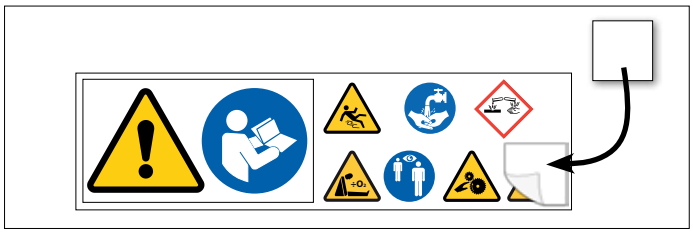

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5.2.3. Residual risks

There are the following residual risks in connection with maintenance and repair:

- Risk of electric shock.
- Risk of electric shock (residual dangerous voltage).

Before starting repair, maintenance and service work, it must be ensured that:

- Accumulated energy is relieved.
- The machine's supply separators are opened, disconnected and locked.

- Pay attention to residual dangerous voltage at frequency converters for some time after the interruption. The machine is de-energized in 3 seconds after disconnecting all energy sources.
- Correct personal protective equipment is used.

5.2.4. Work procedures

Before starting the work, it must be ensured that:

- The area is clean and free from objects the operator could trip over.
- There is sufficient lighting to operate the machine safely.
- There are no people around dangerous parts of machine.

Start up and operation takes place under the following conditions:

- Emergency stop panel has been installed and tested.
- Operation is initiated and supervised by trained personnel.
- Operation can be stopped on the emergency stop panel.
- Lids are securely closed.

6. Operation

For operation, see mounting instruction M-3034_Liquid_feeding_tank_mixing_tank, which contains information on parameters for operating the machine.
Funkinet control 930-116_FunkiNet_Autofeed.

6.1. Start/stop

Before starting, the operator must make sure that there is full visibility around the part of the machine he plans to operate (no people behind shielding). This also means that there must be sufficient lighting in the area where the machine is located.

It must be ensured that the operating devices are clearly and unambiguously marked, so that incorrect operation is prevented. The operating devices are positioned so that they can be operated safely.

Position switches are fitted with a clearly marked switch MAN – AUT, where parts of the machine can be put into automatic or manual operation.

The machine must not be left with parts set to manual operation.

6.2. Emergency stop, safety switch

During a period of operation, dangerous situations may happen where it will be necessary to stop the machine or parts of it immediately. If such a situation happens, the machine is stopped by activating the emergency stop.

The following situations may require an emergency stop:

- Potential dangerous situation.
- Sudden unknown conditions arise, e.g. abnormal sounds (rumbling, knocking) or movements from parts of the machine.
- Faults in safety equipment that cannot be replaced/repaired during normal operation.
- In case of breaks and leaks that cannot be immediately eliminated as well as faults or leaks.

The emergency stop and safety switch stops the entire system.

6.2.1. Restart after safety stop

Before resetting the emergency stop, an inspection of the machine part must be carried out to find and eliminate the cause of the activation.

Before the machine can be restarted, the emergency stop must be reset (turning the button or pulled out) and the control panel must be reset, after which it can be started again.

Before starting up again, it must be ensured that there are no people, subjects, tools etc. at/on or around dangerous parts of the machine.

See applicable operating instructions and workplace instructions.

6.3. Feeding/Removing items

Feeding takes place via snails and a pump.

Removal is pumped / sucked out.

6.4. Return to operation after blocking

In case of emergency stop:

Before resetting, an inspection of the machine part must be carried out to find and remove the cause of the activation.

Before the machine can be restarted, the safety function must be released and the control panel must be reset.

Before starting up again, it must be ensured that there are no people, subjects, tools etc. at/on or around dangerous parts of the machine.

In case of overload:

In case of overload, the overload protection of the loaded motor or the frequency converter will switch the motor off.

Before the machine can be restarted, an inspection must be carried out, in order to find and remedy the cause of the activation, and then the motor's motor protection or the frequency converter must be reset and possibly on the control panel.

Before starting up again, it must be ensured that there are no people, subjects, tools etc. at/on or around dangerous parts of the machine.

Before resetting, the operator must inspect the entire machine part for faults and defects.

7. Training

7.1. Operators

Operators must be qualified either by professional training or by training that equates them with this and the person in question must have knowledge of the machine's function and safety conditions.

Operators must have read and understood user manuals, guides, workplace instructions, etc. and must have knowledge of the machine's function and safety conditions by reviewing the user manual, operator's manuals and workplace instructions and by training assistants and be able to make general adjustments, etc., and be trained/instructed in the machine's use, handling, etc.

Operators must have knowledge of the location of safe access routes and emergency stops.

Before starting up or servicing the machine, the operating staff must be informed about all installed safety functions.

Operator's work	1 Instructed operators	2 Specially instructed operators	3 Instructed operators with special training (mechanical/ electric)
Troubleshooting and repair	-	x	x
Use (daily operation/ operation)	x	x	x
Maintenance	-	x	x
Disposal/Recycling	-	x	x

7.1.1. Operator qualifications

1 - Instructed operators

- Instructed operator means a daily user who is not normally skilled in the area.
- It is expected that instructed operators are instructed in safety and operation of the equipment and can solve tasks within their work area.
- Or during normal operation, for example starting, stopping, loading, checking and removing items.
- It must be ensured that those involved are properly instructed in the user manual and trained so that the work can be carried out safely.
- No or minimal English skills.
- From time to time needs support.

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2 - Specially instructed operators

- Specially trained operators mean that one is skilled in the field.
- It is expected that specially instructed operators are instructed in safety and operation of the equipment and can solve tasks that require independent actions, e.g. set-up and setting, can restart the equipment after errors and stops or during conversion and maintenance tasks, and masters complex tasks within the competence, also regarding maintenance, transport and tool change etc.
- It must be ensured that the person concerned is properly instructed in the user manual and trained so that the work can be carried out safely.
- From time to time needs support.

3 - Instructed operators with special training (mechanical/electric)

- Instructed operators with special training means technicians, engineers or specialists in the field.
- It is expected that the instructed operator with special training is a designer, programmer or supervisor and has the highest level of competence.
- It must be ensured that those involved are properly instructed in the user manual or during commissioning and trained in such a way that the work can be carried out in a safe manner.

7.2. Maintenance staff

ALL MAINTENANCE MUST ONLY BE CARRIED OUT BY ACO FUNKI CERTIFIED PERSONNEL.

Personal protective equipment must be used during repair and maintenance tasks. See pkt 4.2.1 for further information.
The maintenance staff must have knowledge of the machine's function and safety conditions as well as knowledge of the location of safe access routes and emergency stops.

The maintenance staff must have read and understood instuctions for use, guides, workplace instructions, etc.

Before starting work, repairers and maintenance personnel must be instructed in safety conditions around the machine.

New maintenance staff must be trained by an experienced colleague.

Incorrect operation or maintenance can be dangerous and in the worst case cause death!!

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8. Maintenance, troubleshooting and repair

8.1. Service and maintenance

Checklist table can be found under pkt 10.7

SERVICE- AND MAINTENANCE INTERVALS	
Interval	**Task**
Weekly	• Manual washing of the tank
Yearly	• Thorough manual washing of the tank • Test of safety functions
Min. every 3 months	• Visual control

Manual washing:

- Weekly - cleaning can be done from the outside when the lid is open, then clean with a highpressurecleaner where you stand outside the tank and radiate in all directions via the manhole.
- Yearly - takes place inside the tank. Requires another person present outside the tank.

Visual control:

- Check the tank for leaks. For leaks, such as dripping water from the tank. Tightly bolt around the tank.
- Check the condition of all stickers on the tank (warning signs, CE-label).

SERVICE- AND MAINTENANCE INTERVALS	
Interval	**Task**
Min. every 6 months	• Visual control • Control of noise • Oil level control • Visual control of tube • Lubrication with grease (grease house between gear and tank) • Replacement of the automatic lubrication system / excess grease is removed • (At operational times < 8 hrs. / day: the interval for changing the lubrication system is up to 1 year.) Every second time the lubrication system is changed, the lubrication collecting container is emptied or changed
After every 10,000 operating hours, at least every 6 months	• Change the oil (When using synthetic products, the interval doubles) • Clean the ventilation valve. Replace, if needed • Replace the sealing rings for the shaft, if they are worn

Visual control:

- Check the gear unit for leaks, external damage and cracks in hose lines, hose connections and rubber buffers
- For leaks, such as dripping gear oil or e.g. refrigerant, damage or cracks, the gear must be repaired

Control of noise:

- Noise or vibrations in the gear are signs of damage to the gear unit. Disengage the gear unit and carry out a general inspection

Oil level control:

- Only check the oil level when the gear is disengaged, stationary and cooled off. The drive must not be energized and must be secured against accidental connection

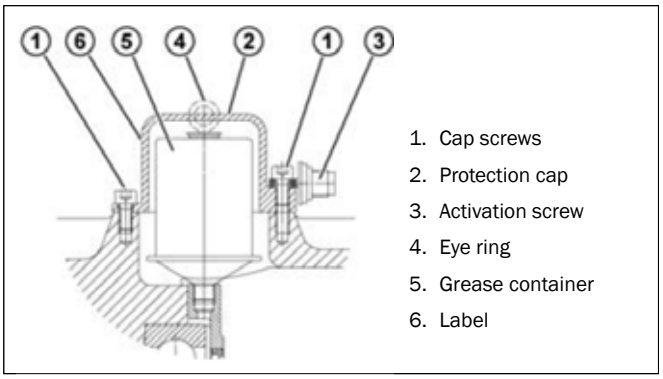
Lubrication with grease:

- The grease house is replenished with grease (see illustration in this mounting instruction under “Mounting of the gearmotor”). When using acid vapor cleaners in the tank, the grease house is replenished every 3 months.

Replacing the automatic lubrication system:

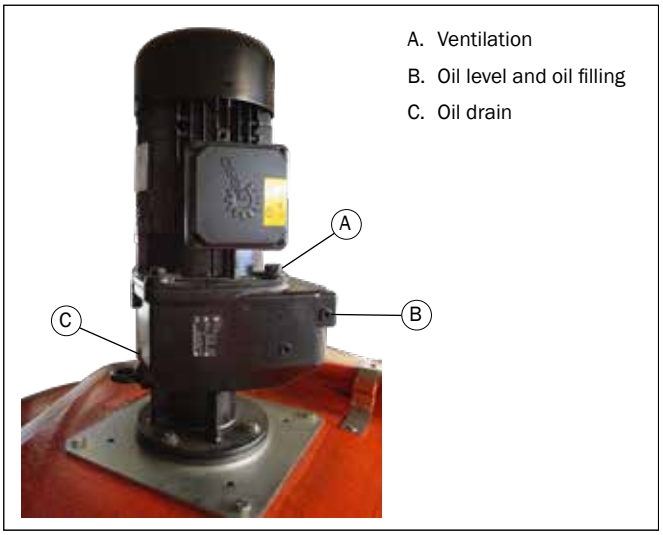
- Unscrew the protection cap
- Unscrew the lubrication system, and replace it with a new system
- Remove excess grease from the adaptor
- Activate the automatic lubrication system

Every second time the lubrication system is changed, the lubrication collecting container is emptied or changed. Empty the container by unscrewing it. The plunger in the container is pushed in and the pressed out grease is removed. The container is cleaned and screwed in again. If the container is damaged, replace it with a new one.



Changing the oil:

- Cool the gear. Wear protective gloves due to possibly hot oil
- Place a drip tray under the outlet
- Unscrew the oil level plug completely
- Let all the oil run out of the gear
- Screw the oil drain plug in, and tighten it
- Fill with new oil until the oil starts to run out of the oil level hole. If using an oil level container, the oil is filled via the containers top opening.



Cleaning (or replacing) the ventilation valve:

- Unscrew the ventilation valve and clean it (e.g. using an air compressor). Screw it back in.
- Replace the valve (incl. sealing ring), if needed

Replacing the sealing ring for the shaft:

- When a distinct leakage of dripping oil is formed around the sealing lips, the shaft seal ring must be replaced
- During assembly, the space between the sealing- and the protective lip is filled approx. 50% with grease
- Note: the new sealing ring must not continue in the track of the old ring

Lubrication types

BEARING GREASE: Novatex Heavy EP 2, item no. 99900099

OIL: Mineral oil ISO VG 220

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Before repair, maintenance, etc. is started, energy sources must be disconnected (unlocked) and possibly vented or depressurised.

- Electrical supply separators must be opened (voltage disconnected) and locked.

Interruption of energy supply

Before repair, maintenance, etc. is started, energy sources must be disconnected (unlocked).

1. Bring the machine to a standstill.

2. Identify all shut-off devices and switches relevant to the work.

a.Relevant shut-off devices are the shut-off valves and electric ones circuit breakers that cut off the supplies to the machine, as well as adjacent machines if these can create a risk of danger.

3. Disconnect the electrical supply to all electrical equipment via the supply disconnector.

4. Protect the machine from accidental restart using a locking device.

Withholding of the energy supply

If it is not possible to maintain an overview of the entire machine and its plug during, for example, maintenance, the machine must be protected against accidental restart by means of a locking device.

There is a legal and authorized lockable switch on the control board that handles the mixing tank.
(Must be placed at least 0.6 m and at most 1.9 m - 1.7 m is preferred above the service level)

This prevents accidental starting and contact with live parts.

- Suitable personal protective equipment must always be used during repair and maintenance work.
- In cases where additional light is needed, the maintenance staff must bring this.
- Approved lifting equipment must be used when lifting and handling heavy parts/components.
- In operating situations where repairers are inside the machine, have dismantled parts of the machine or handle spare parts or tools, these people must be instructed to exercise special caution.
- After repair, maintenance, etc. before start-up, the operator must inspect the entire machine for faults and defects.

- When carrying out repairs inside the machine, another person MUST be present outside the machine.

Electronic work:

- Before starting work on electrical control board, a de-energized condition must be checked with a reliable instrument. It must be checked with 2 different measuring methods.
- For inspections where it is necessary to work under voltage, the staff must have a valid electrical safety course (formerly L-AUS) certificate/course certificate.
- Work on live parts and work near live parts must always be carried out by qualified persons.
- When working under voltage, there must always be another person so close to the workplace that the corresponding person can intervene quickly if an accident happens.
- This person, who does not need to be an expert or instructed in the electrical safety course regulations, must know before starting the work how best possible to intervene to stop the accident.
- Pay attention to residual dangerous voltage at frequency converters for some time after the interruption. (see operating instructions for the frequency converter).
- After repair, maintenance, etc. the compensating connection must be refitted correctly.
- Potential equalization must be checked at least once a year in connection with inspection.

For maintenance and service, see section 8.1, which contains information and guidance on maintenance tasks, execution, points and intervals for:

- Cleaning
- Inspection
- Lubrication
- Testing
- Check
- Replacement

8.2. Corrective maintenance

If there are any noises, unusual vibrations or the like from the machine, the fault must be located and rectified. If this is not possible, an authorized fitter must be called.

In general, it must be advised that maintenance and repairs are only carried out by trained and instructed personnel with the necessary professional background.

When replacing parts and components, only parts that are identical to those fitted by the manufacturer may be used.

All written information and warnings must be formulated in danish.

If information and warnings are illegible or indistinct, these must be replaced immediately with new ones.

8.3. Troubleshooting

If you have heard mechanical knocking sounds, noises or unusual vibrations from inside the tank - a service must be carried out. If service is to take place inside the tank, see point 7.4.

Error codes are found in the FunkiNet control.

8.4. Repair

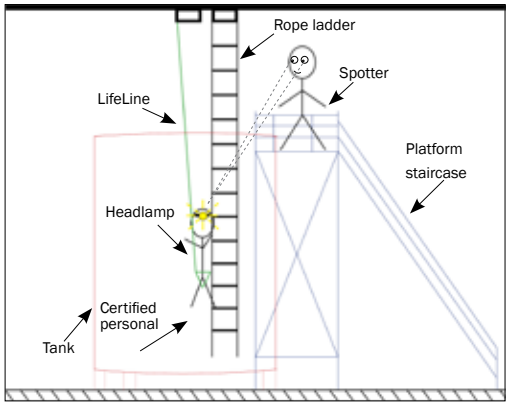
ALL MAINTENANCE AND SERVICE INSIDE THE TANK MUST ONLY BE CARRIED OUT BY ACO FUNKI TRAINED/ CERTIFIED PERSONNEL.

When repairing inside the machine, there MUST be another person present outside the machine who must have constant verbal communication and visual contact with maintenance personnel inside the tank. There always has to be personal protective equipment is used for the task being performed.

If service is to take place inside the tank, you must use extra equipment. (ACO Funki is not responsible for delivering extra equipment).

- Aluminum rope ladder to climb down into the tank. Rope ladder must be attached to the wall or to the ceiling close to the lid of the tank.
- Headlamp 250 LUX - to carry out work in the tank.
- Fan - for ventilation of the tank.
- Lifeline System - in case of rescue.

ATTENTION!!! Make sure the rope ladder and LifeLine are securely attached



Pic.1 Descent into tank.
Rope ladder is attached to the ceiling.

When working inside the tank, the safety regulations must be strictly followed:

- The power to the tank is cut off and locked. During servicing of the tank, it must not be possible to start the gearmotor.
- Open the hatch.
- Before starting work inside the tank, the tank must be ventilated.
  - Option 1: Water. Fill the tank with water, open the bottom cover, drain the water.
  - Option 2: Fan (1).The fan is placed on the manhole and must blow into the tank approx. 1 hour. Bottom cover must be open.
- The bottom cover is put in place and the hatch closed after service is finished.

8.5. Cleaning and order

ALL MAINTENANCE AND SERVICE INSIDE THE TANK MUST ONLY BE CARRIED OUT BY ACO FUNKI TRAINED/ CERTIFIED PERSONNEL.

Weekly cleaning of the tank can take place outside the tank by standing on an approved platform ladder. Cleaning carried out with a high-pressure cleaner.
Annual cleaning, a thorough cleaning of the tank takes place inside the tank.

- The power to the tank is cut off and locked. While washing the tank, it must not be possible to start the gear motor.
- Open the hatch.
- Before starting to clean into the tank, the tank must be ventilated.
  - Option 1: Water. Fill the tank with water, open the bottom cover, drain the water.
  - Option 2: Fan (1).The fan is placed on the manhole and must blow into the tank approx. 1 hour. Bottom covermust be open.
- The bottom cover is put in place and the hatch closed after cleaning is finished.

8.6 Procedure for rescue

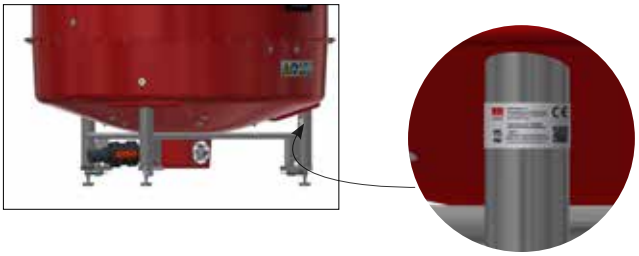
- Before entering the tank and working, it must be possible to evacuate it employee who works inside the tank.
- If you go down into the tank from the manhole at the top, rescue equipment must be estab lished such as a Lifeline, where the employee is connected via fall protection before he climbs into the tank.Personal protective equipment must always be used for the task being performed.
- Always make sure that there is an employee outside the silo who needs constant oral commu- nication and visual contact with maintenance personnel inside the tank, and respond if an ac- cident occurs.

8.7. Service addresses

Contact distributor for support and service.
Contact information can be found on the electrical panel, at side of the Main Switch.

Picture is exemplified.
The brand from a Danish dis- tributor.

- When contacting your distributor, please state your serial number and type number of the tank, both of which are shown on the CE mark the inside of the front leg of the tank.



9. Termination of use

9.1. Disassembly

Before disassembly the machine, a plan for the disassembling must be drawn up, the plan must contain a risk assessment for the work and for the disposal of machines and machine parts.
The plan and risk assessment must be prepared according to the regulations in force at the time of dismantling.

9.2. Dispose

The machine is dismantled and sorted into categories, as required by applicable envi- ronmental requirements.

The product is subject to directive 2012/19/EU on waste electrical and electronic equipment (WEEE).

The product must not be disposed of together with unsorted household waste. Use the local WEEE recycling points for the disposal of this product and ensure that all relevant regulations are observed.

10. Appendix

10.1. EC-declaration of conformity

EC-declaration of conformity

2006/42/EC annexe II A

Hereby declares that machine type:

-	Liquid feeding tank, Funki Liq Mix	3035_GB_Liquid_feeding-Residual tank Mounting and service instruction

Is manufactured in accordance with the following EC directives:

-	2006/42/EU	The Machinery Directive
-	EN/ISO 12100:2011	Safety of machinery - General principles for design - Risk assessment and risk reduction.

Person responsible for compiling the relevant technical documents:

Lene Bryde
Kirkevænget 5
7400 Herning
Denmark
Tlf.: +45 97 11 96 00

This declaration certifies compliance with the guidelines indicated. Changes to the design that might have effects on the technical data or proper use are indicated in the manual, The declaration of conformity is invalidated if changes are made that seriously change the equipment.

10.10.2023

Lene Bryde
Managing Director

10.2. El-diagrams.

References to Control board F-13-19833-A01R4

10.3. Drawings, mechanical construction.

References to pkt. 3

10.4. Other instructions for use.

Description:	**Filnavn:**
Control/Function manual	Funkinet 0930-116
EL panel	Control board F-13-19833-A01R4

10.5. Parts list

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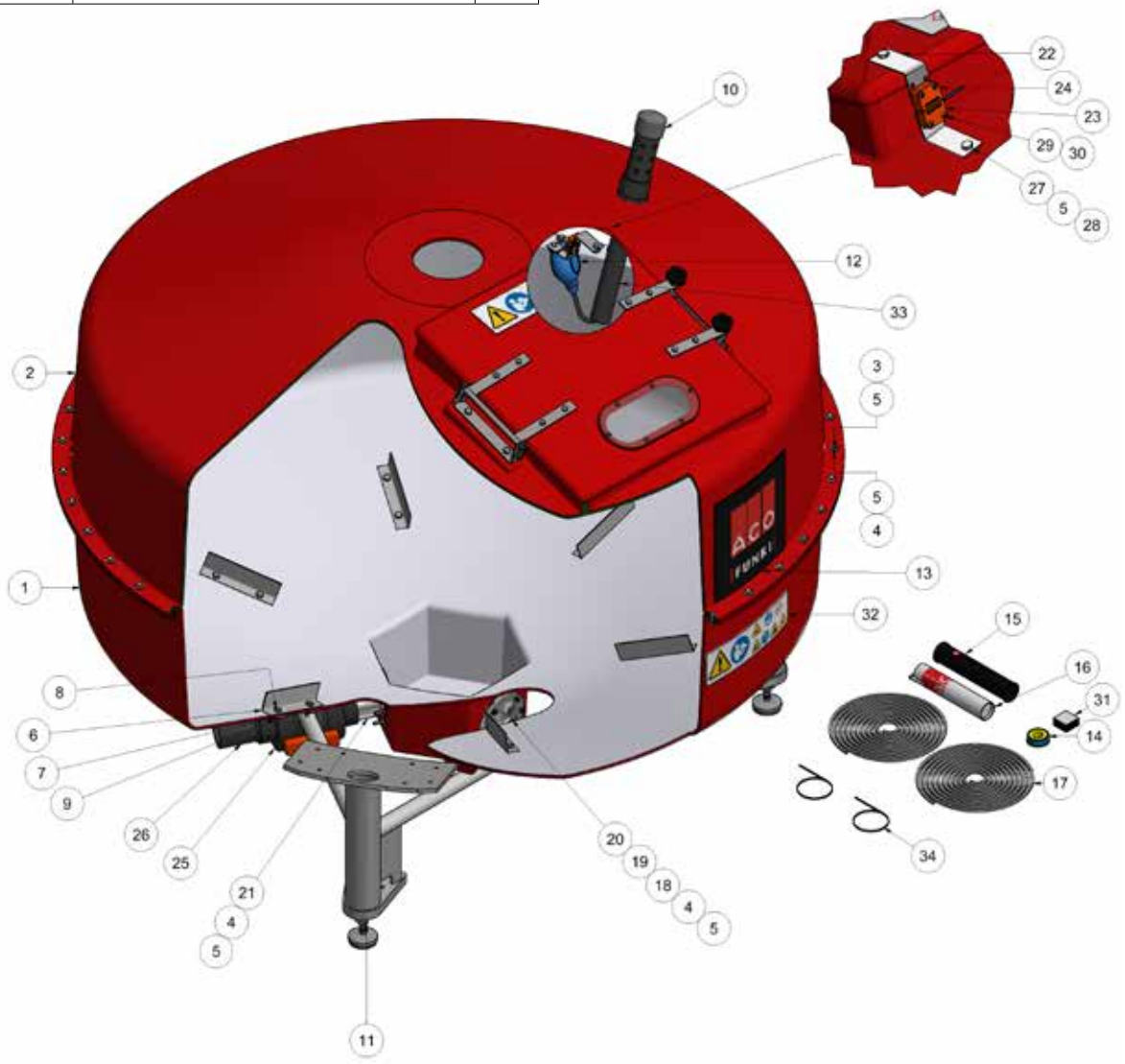
Bill of materials - residual tank 2300 L

BILL OF MATERIALS - RESIDUAL TANK 2300 L, WITHOUT STIRRER			
	Item no.	Description	Pcs.
	0340-234	RESIDUAL TANK 2300 L	
1	0140-110	Bottom part for tank VF	1
2	0140-120	Top part for tank VF	1
3	30308035	Set screw A2 M8 X 35 DIN 933	45
4	33508013	Nut M8 A2 DIN 934	63
5	35600058	Nut washer Ø8x8,4/24/2 A2 DIN 9021	104
6	0139-710	Bottom agitator VF4-B SS	6
7	0139-547	Disc Ø45/10,5X2 stainless	12
8	30310030	Set screw A2 M10 X 30 DIN 933	12
9	33510017	Nut M10 A2 DIN934	12
10	0300-216	Pressure equalization in tank	1
11	0139-506	Load cell manikin kit VF4	3
12	71200012	Level Tilting Device/Filling	1
13	0140-040	ACO Funki logo label 30x30cm for LF tank	1
14	29100001	Thread tape 1 roll= 10M	1
15	99900099	Grease, acid protection house to gear, LF-tank	1
16	74520	Flexible water sealer 300ML	1
17	29900003	Joint band 6m, sold in rolls of 8m	16

	Item no.	Description	Pcs.
18	0139-495	Flange vf4	1
19	0138-451	Membrane DN40	1
20	0139-496	Cover VF4	1
21	0140-140	Outlet pipe for liquid feeding tank VF7	1
22	0140-028	Bracket for sensor	2
23	0140-026	Safety RFID Sensor IP69, 5m cable	1
24	0140-027	Safety RFID Sensor IP69 Key	1
25	0140-064	PVC BallValve 3”/ Ø90	1
26	0140-063	PVC pipe Ø90 for 3” valve	1
27	30308020	Set screw A2 M8 X 20 DIN 933	2
28	33908001	Lock nut A2 M8 DIN 985	2
29	38504020	Hexagon socket screw M4x20 CH A2 DIN 912	4
30	33904000	Lock nut M4 A2	4
31	0140-036	Cover label 45x45 mm for 0140-035, white	6
32	0140-035	Safety label 35x10 cm for liquid feeding tank	2
33	0300-262	Tube for level tilting device/filling	1
34	76200023	Cable tie 290x4,5 mm	2



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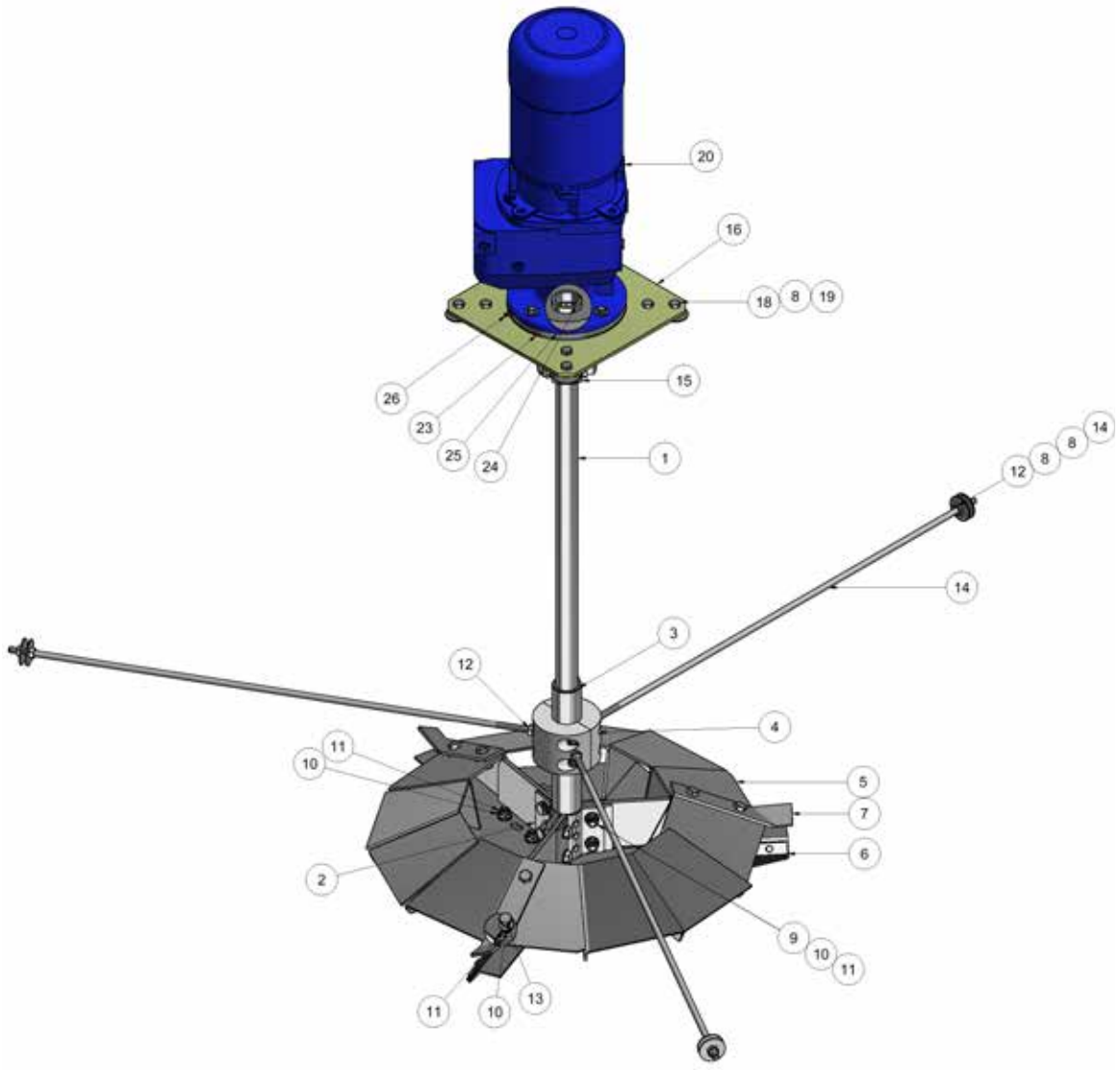
Bill of materials - stirrer til residual tank 2300 L

BILL OF MATERIALS - RESIDUAL TANK 2300 L, ONLY STIRRER			
	Item no.	**Description**	**Pcs.**
	0340-234	RESIDUAL TANK 2300 L	
1	0139-697	Shaft 2300 VF4-B Comp. Stainless	1
2	0139-651	Tension pl. for bottom agitator. Stainl.	3
3	0330-015	Slidbøsning lang	1
4	0330-020	Split bearing bush	1
5	0139-716	Bottom agitator 1/3 part VF4-B	3
6	0139-869	Paddle for bottom agitator	3
7	0139-717	Wing blade VF4-B	3
8	0139-547	Disc Ø45/10,5X2 stainless	14
9	30312045	Set screw M12X45 A2 DIN933	6
10	35600080	Flat washer Ø12x13/24/2,5 A2 DIN125	24
11	33912000	Lock nut A2 M12 DIN 985	18
12	33510017	Nut M10 A2 DIN934	9
13	30312030	Set screw M12X30 A2 DIN933	6

	Item no.	**Description**	**Pcs.**
14	0139-511	Stay bolt for bottom bearing VF4	3
15	0140-200	Coupling Ø30/Ø40X118 Stainlees Steel	1
16	0139-999	Tank flange Ø200	1
17	35600058	Nut washer Ø8x8,4/24/2 DIN9021	4
18	30310030	Set scew A2 M10 X 30 DIN 933	8
19	33900029	Lock nut A2 M10 DIN 985	8
20	74038093	Gear motor SK32F 100LP/4 230/400	1
21	30308035	Set screw A2 M8 X 35 DIN 933	4
22	35600044	Star washer Ø8/8,4 A2 DIN 6798 A	4
23	0140-169	Lid for grease protection of large gear	1
24	0140-168	Bushing for protection of large gear	1
25	0140-167	House for grease for protection of large gear	1
26	9900001	Lubricating Nipple, M5 coned Type A DIN 71412	1



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Bill of materials - residual tank 4200 L

BILL OF MATERIALS - RESIDUAL TANK 4200 L, WITHOUT STIRRER			
	Item no.	Description	Pcs.
	0340-235	RESIDUAL TANK 4200 L	
1	0140-110	Bottom part for tank VF	1
2	0140-120	Top part for tank VF	1
3	0140-115	Middle part for tank VF7	1
4	30308035	Set screw A2 M8 X 35 DIN 933	90
5	33508013	Nut M8 A2 DIN 934	108
6	35600058	Nut washer Ø8x8,4/24/2 A2 DIN 9021	194
7	0139-710	Bottom agitator VF4-B SS	6
8	0139-547	Disc Ø45/10,5X2 stainless	20
9	30310030	Set screw A2 M10 X 30 DIN 933	20
10	33510017	Nut M10 A2 DIN934	20
11	0139-576	Counter agitator vfx-c	2
12	0300-216	Pressure equalization in tank	1
13	0139-506	Load cell manikin kit VF4	3
14	71200012	Level Tilting Device/Filling	1
15	0139-534	Counter agitator VF4-A	2
16	0140-040	ACO Funki logo label 30x30cm for LF tank	1
17	29100001	Thread tape 1 roll= 10M	1
18	99900099	Grease, acid protection house, gear LF-tank	1

	Item no.	Description	Pcs.
19	74520	Flexible water sealer 300ML	1
20	29900003	Joint band 6m, sold in rolls of 8m	32
21	0139-495	Flange vf4	1
22	0138-451	Membrane DN40	1
23	0139-496	Cover VF4	1
24	0140-140	Outlet pipe for liquid feeding tank VF7	1
25	0140-064	PVC BallValve 3"/ Ø90	1
26	0140-063	PVC pipe Ø90 for 3" valve	1
27	0140-028	Bracket for sensor	2
28	0140-026	Safety RFID Sensor IP69, 5m cable	1
29	0140-027	Safety RFID Sensor IP69 Key	1
30	30308020	Set screw A2 M8 X 20 DIN 933	2
31	33908001	Lock nut A2 M8 DIN 985	2
32	38504020	Hexagon socket screw M4x20 CH A2 DIN 912	4
33	33904000	Lock nut M4 A2	4
34	0140-035	Safety label 35x10 cm for liquid feeding tank	2
35	0140-036	Cover label 45x45 mm for 0140-035, white	6
36	0300-262	Tube for level tilting device/filling	1
37	76200023	Cable tie 290x4,5 mm	2

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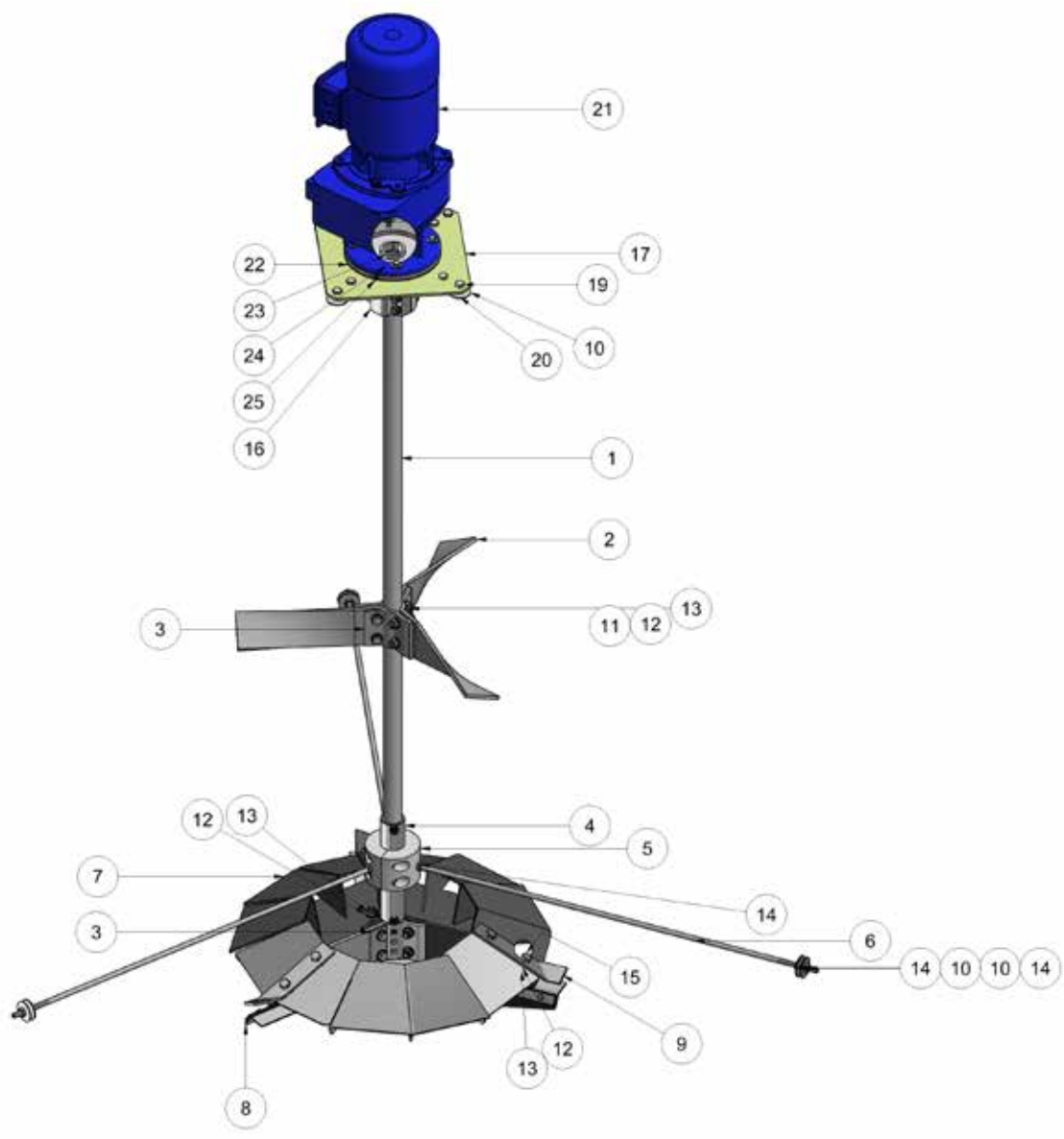
Bill of materials - stirrer til residual tank 4200 L

BILL OF MATERIALS - RESIDUAL TANK 4200 L, ONLY STIRRER			
	Item no.	Description	Pcs.
	0340-235	RESIDUAL TANK 4200 L	
1	0139-701	Shaft 4100 VF4-B Comp. Stainless	1
2	0139-714	Wing for middle tube	3
3	0139-651	Tension pl. for bottom agitator. Stainl.	6
4	0330-015	Wearing bushing, long	1
5	0330-020	Split bearing bush	1
6	0139-511	Stay bolt for bottom bearing VF4	3
7	0139-716	Bottom agitator 1/3 part VF4-B	3
8	0139-869	Paddle for bottom agitator	3
9	0139-717	Wing blade VF4-B	3
10	0139-547	Disc Ø45/10,5X2 stainless	14
11	30312045	Set screw M12X45 A2 DIN933	12
12	35600080	Flat washer Ø12x13/24/2,5 A2 DIN125	36
13	33912000	Lock nut A2 M12 DIN 985	24

	Item no.	Description	Pcs.
14	33510017	Nut M10 A2 DIN934	9
15	30312030	Set screw M12X30 A2 DIN933	6
16	0140-200	Coupling Ø30/Ø40X118 Stainlees Steel	1
17	0139-999	Tank flange Ø200	1
18	35600058	Nut washer Ø8x8,4/24/2 DIN9021	4
19	30310030	Set scew A2 M10 X 30 DIN 933	8
20	33900029	Lock nut A2 M10 DIN 985	8
21	74038093	Gear motor SK32F 100LP/4 230/400	1
22	0140-169	Lid for grease protection of large gear	1
23	0140-168	Bushing for protection of large gear	1
24	0140-167	House for grease for protection of large gear	1
25	9900001	Lubricating Nipple, M5 coned Type A DIN 71412	1
26	30308035	Set screw A2 M8 X 35 DIN 933	4
27	35600044	Star washer Ø8/8,4 A2 DIN 6798A	4



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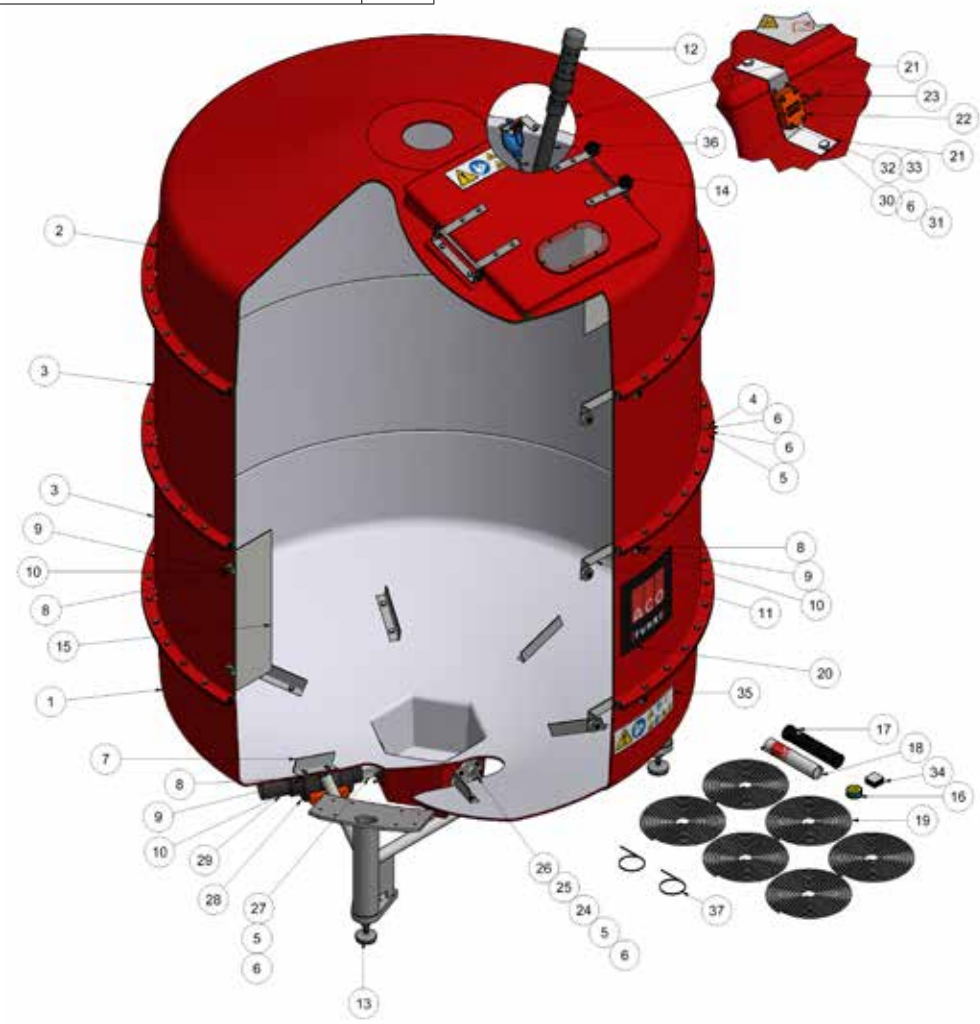
Bill of materials - residual tank 6000 L

BILL OF MATERIALS - RESIDUAL TANK 6000 L, WITHOUT STIRRER			
	Item no.	Description	Pcs.
	0340-236	RESIDUAL TANK 6000 L	
1	0140-110	Bottom part for tank vf	1
2	0140-120	Top part for tank vf7	1
3	0140-115	Middle part for tank vf7	2
4	30308035	Set screw m8x35 a2 din 933	135
5	33508013	Nut m8 a2 din 934	153
6	35600058	Nut washer ø8x8,4/24/2 a2 din9021	284
7	0139-710	Bottom agitator vf4-b stainls.	6
8	0139-547	Disc ø45/10.5X2 stainless	22
9	30310030	Set screw m10x30 a2 din 933	22
10	33510017	Nut m10 a2 din 934	22
11	0139-576	Counter agitator vfx-c	3
12	0300-216	Pressure equalization in tank	1
13	0139-506	Load cells manikin kit vf4	3
14	71200012	Level tilting device/filling	1
15	0139-534	Counter agitator vf4-a	2
16	29100001	Thread tape 1 roll = 10 m	1
17	99900099	Grease for acid protection house, gear LF tank	1
18	74520	Flexible water sealer 300ml	1

	Item no.	Description	Pcs.
19	29900003	Joint band 6mm, sold in rollsof 8 meters	48
20	0140-040	Aco funki logo label 30x30 cm for LF tank	1
21	0140-028	Bracket for sensor	2
22	0140-026	Safety rfid sensor ip69 5 meter cabel	1
23	0140-027	Safety rfid sensor ip69 key	1
24	0139-495	Flange vf4	1
25	0138-451	Membrane dn40	1
26	0139-496	Cover vf4	1
27	0140-140	Outlet pipe for liquid feeding tank vf7	1
28	0140-064	Pvc ball valve 3'/ø90	1
29	0140-063	Pvc pipe ø90 for 3' valve	1
30	30308020	Set screw m8x20 a2 din 933	2
31	33908001	Lock nut m8 a2 din 985	2
32	38504020	Hexagon socket screw m4x20 cha2 din912	4
33	33904000	Lock nut m4 a2	4
34	0140-036	Cover label 45x45 mm for 0140-035, white	6
35	0140-035	Safety label 35x10 cm for liquid feeding tank	2
36	0300-262	Tube for level tilting device/filling	1
37	76200023	Cable tie 290x4,5 mm	2



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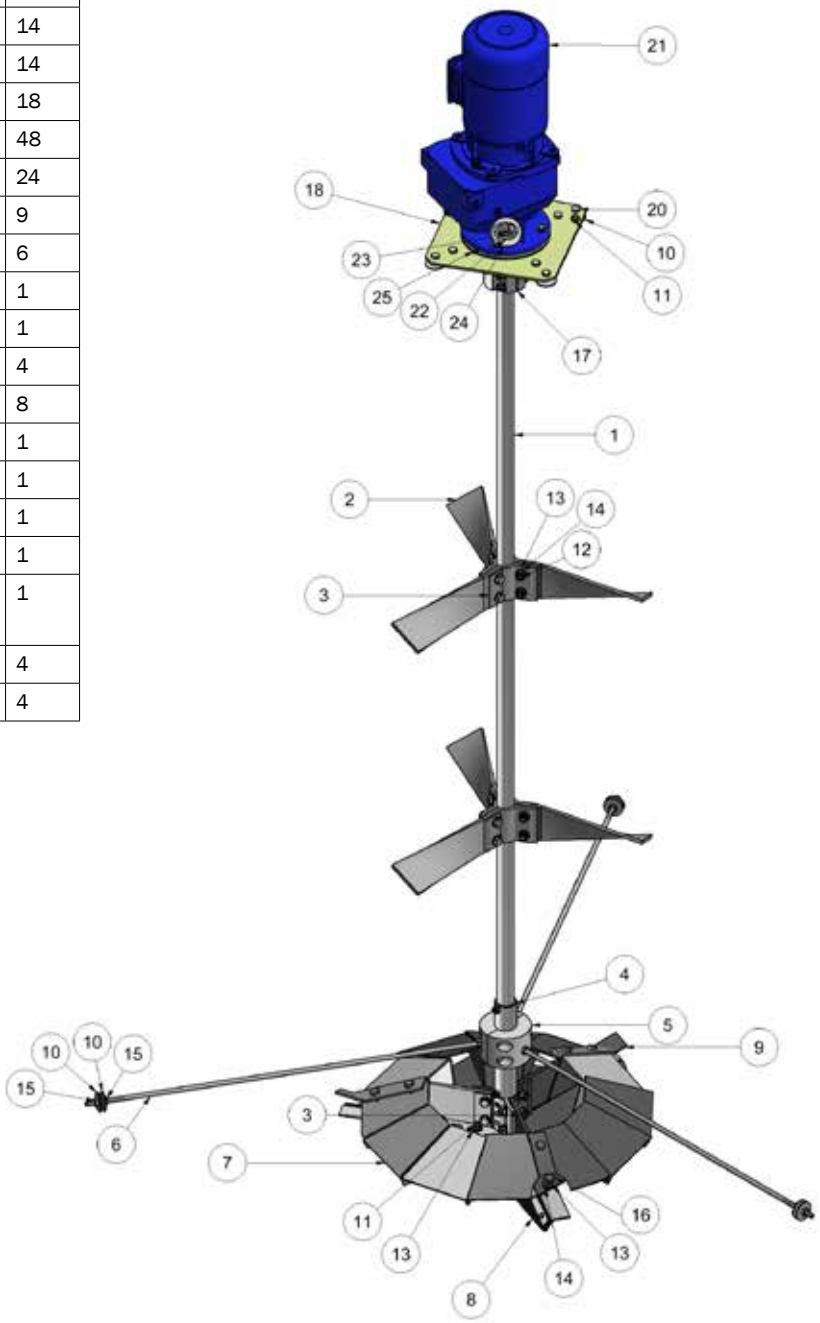
Bill of materials - stirrer til residual tank 6000 L

BILL OF MATERIALS - RESIDUAL TANK 6000 L, ONLY STIRRER			
	Item no.	**Description**	**Pcs.**
	0340-236	RESIDUAL TANK 6000 L	
1	0139-708	Shaft 6100 vf4-b comp. Stainls	1
2	0139-714	Wing for middel tube	6
3	0139-651	Tension pl.F/bot.Agitat.Stainl	9
4	0330-015	Wearing bushing, long	1
5	0330-020	Split bearing bush	1
6	0139-511	Stay bolt f/bottom bear. Vf4	3
7	0139-716	Bottom agitator 1/3 part vf4-b	3
8	0139-869	Paddle for bottom agitator	3
9	0139-717	Wing blade vf4-b	3
10	0139-547	Disc ø45/10.5X2 stainless	14
11	33900029	Lock nut m10 a2 din 985	14
12	30312045	Set screw m12x45 a2 din 933	18
13	35600080	Flat washer ø12x13/24/2,5 a2 din 125 a	48
14	33912000	Lock nut m12 a2 din 985	24
15	33510017	Nut m10 a2 din 934	9
16	30312030	Set screw m12x30 a2 din 933	6
17	0140-200	Coupling ø30/ø40x118 stainless steel	1
18	0139-999	Tank flange ø200	1
19	35600058	Nut washer ø8x8,4/24/2 a2 din9021	4
20	30310030	Set screw m10x30 a2 din 933	8
21	74038093	Gear motor sk32f 100lp/4 230/400	1
22	0140-169	Lid for grease protection of large gear	1
23	0140-168	Bushing for grease protectionof large gear	1
24	0140-167	House for grease for protection of large gear	1
25	9900001	Lubricatingnippel m5 coned type a din 71412	1
26	30308035	Set screw m8x35 a2 din 933	4
27	35600044	Star washer ø8/8,4 a2 din 6798 a	4



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10.6. Other Compliance or Incorporation Statements.

Gearmotor 74038094

TRANSTECNO®
the modular gearmotor

DICHIARAZIONE DI CONFORMITA' UE (doc N.011_24/1NR)
EU DECLARATION OF CONFORMITY (doc N.011_24/1NR)

Modello prodotto(Serie)/*Model (Series)*:
N, NT, NM, NAT, NHE2, NHE3, NIN

Nome e indirizzo del fabbricante/ *Manufacturer's name and address*:
Transtecno S.r.l.
Via Caduti di Sabbiuno 11 D/E – 40011 Anzola Emilia, Bologna, Italy

La presente dichiarazione di conformità è rilasciata sotto la responsabilità del fabbricante.
This declaration of conformity is issued under the sole responsibility of the manufacturer.

Oggetto della dichiarazione/ *Object of the declaration*:
Motori ad induzione elettrica asincroni trifase **serie N e NT** / *asynchronous three-phase electric induction motors* ***series N and NT***
Motori ad induzione elettrica asincroni monofase **serie NM** / *asynchronous single-phase electric induction motors* ***series NM***
Motori ad induzione elettrica asincroni trifase autofrenanti **serie NAT** / *asynchronous three-phase electric induction self brake motors series* ***NAT***
Motori ad induzione elettrica asincroni trifase ad alta efficienza **serie NHE2, NHE3** / *asynchronous three-phase electric induction motors high efficiency* ***NHE2*** *and* ***NHE3*** *series*
Motori ad induzione elettrica asincroni trifase ad uso inverter **serie NIN** / *asynchronous three-phase electric induction motors inverter duty* ***NIN series***
Motori ad induzione elettrica asincroni trifase con **kit servoventilazione**/ *asynchronous three-phase electric induction motors with* ***servo fan kit***

L'oggetto della dichiarazione è conforme alla pertinente normativa di armonizzazione dell'Unione/ *The product complies with the relevant Union harmonization legislation:*

DIRETTIVA BASSA TENSIONE/*LOW VOLTAGE DIRECTIVE* (LVD) 2014/35/UE:
DIRETTIVA COMPATIBILITA'ELETTROMAGNETICA/*ELECTRIC MAGNETIC COMPLIANCE (EMC)* 2014/30/UE
DIRETTIVA RIFIUTI (RAEE)/ *WASTE DIRECTIVE (WEEE)* 2012/19/UE

I motori elencati sono costituiti da componenti elettrici ed elettronici conformi alla **DIRETTIVA RoHS 2011/65/UE** e alla **direttiva delegata 2015/863/UE** (restrizione sull'uso di sostanze pericolose nelle

TRANSTECNO SRL
Direzione e coordinamento di Interpump Group
Via Caduti di Sabbiuno 11 D/E, 40011 Anzola dell'Emilia (BO) - Italy - Tel +39 051 6425811 - Fax +39 051 734943
sales@transtecno.com - www.transtecno.com - C.F. 02394560375 - P.IVA 00575261201 - Cap.Soc. Euro 100.000,00 I.V. - R.E.A 278977/BO - R.I. BO N. 02394560375

apparecchiature elettriche ed elettroniche).
*These motors consist of electrical and electronic components complying with the **RoHS DIRECTIVE 2011/65/EU** and **delegated directive 2015/863/EU** (Restriction of Hazardous Substances in electrical and electronic equipment).*

I motori targati IE2 e IE3 sono conformi al regolamento 2019/1781 incluso nei requisiti della **DIRETTIVA ECO-DESIGN 2009/125/CE** (progettazione eco-compatibile). La classe di rendimento è definita nella Norma EN 60034-30-1 :2014
*The IE2 and IE3 motors are in accordance with Regulation 2019/1781 included in the requirements of **ECO-DESIGN DIRECTIVE 2009/125** / EC (Eco-Design). The performance class is defined in the EN 60034-30-1: 2014*

Riferimento alle pertinenti norme armonizzate utilizzate/ ***References to the relevant harmonized standards:***
EN 60034-1:2017, EN 60034-5:2001+A1:2007, EN 60034-6:1997, EN 60034-7:1997+A1:2001, EN 60034-9:2006+A1:2007, EN 60335-1:2020, EN 61000-6-2:2016, EN 61000-6-4:2018

Informazioni supplementari/ ***additional information:***
Il motore non deve funzionare finché la macchina ove viene assemblato venga dichiarata conforme alla Direttiva Macchine 2006/42/CE.
Prima e durante l'avviamento del motore è obbligatorio rispettare la norma EN 60204-1 :2016/AMD1:2021
The motor must not be operated until the machine, where it is assembled, is declared in conformity with the Machinery Directive 2006/42 / EC.
Before and during motor start-up is mandatory to comply with EN 60204-1: 2016/AMD1:2021

Anzola Emilia, 08/05/2024

Firmato a nome e per conto di/ ***Signed for and on behalf of*** **:** Transtecno Srl
Nome e Cognome/Name and Surname: Ing. Paolo Fracassini
Funzione aziendale/Company's role: Direttore di stabilimento /*Plant Manager*

Timbro e Firma:
TRANSTECNO SRL
Via Caduti di Sabbiuno n. 11 D/E
40011 ANZOLA EMILIA (BO)
tel 051 6425811 - Fax 051 734943
C.F. 02394560375 - P.IVA 00575261201
COD. UNIVOCO: M5UXCR1

10.7. Tank maintenance checklist

DATO	TASKS	INITIALS

ACO FUNKI A/S · Kirkevænget 5 · DK-7400 Herning · Tel. +45 97 11 96 00 · Fax. +45 97 11 96 77 · www.acofunki.com

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