# **MOUNTING INSTRUCTION**



# ONE-LEGGED LIQUID FEEDING TANK

MIXING TANKS (1000 / 1900 L)



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# MOUNTING INSTRUCTION FOR ONE-LEGGED LIQUID FEEDING TANK

This mounting instruction contains information about how to assemble and install the mixing tanks used for liquid feeding.

Accessories for the tanks (e.g. acid evaporator, bacteria preventing UV-light and rotating high pressure cleaner) are described in separate instructions.

Mounting instructions for residual tanks and water tanks are also found separately.

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# One-legged liquid feeding tanks

The mixing tanks for liquid feeding come in two sizes with a capacity of 1000 L or 1900 L.

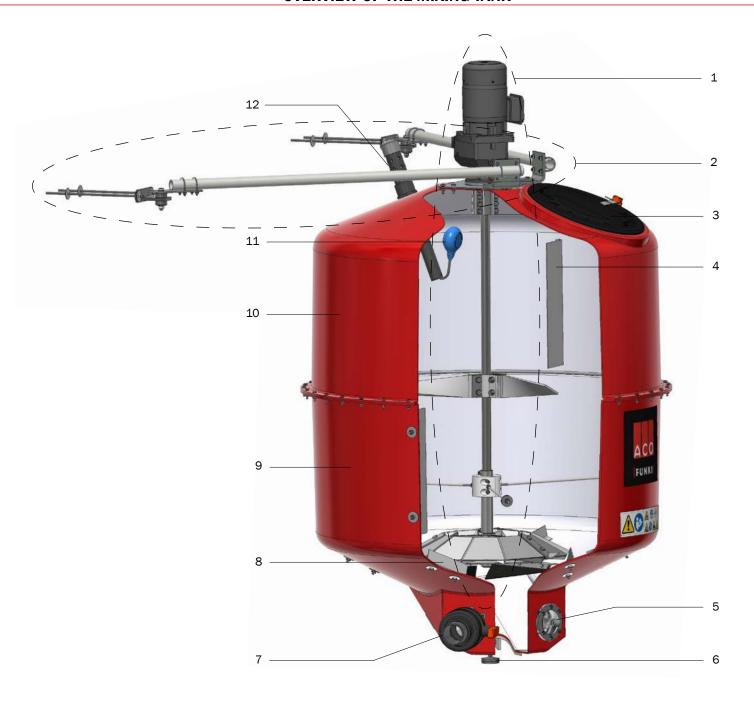


Mixing tank - 1000 L



Mixing tank - 1900 L

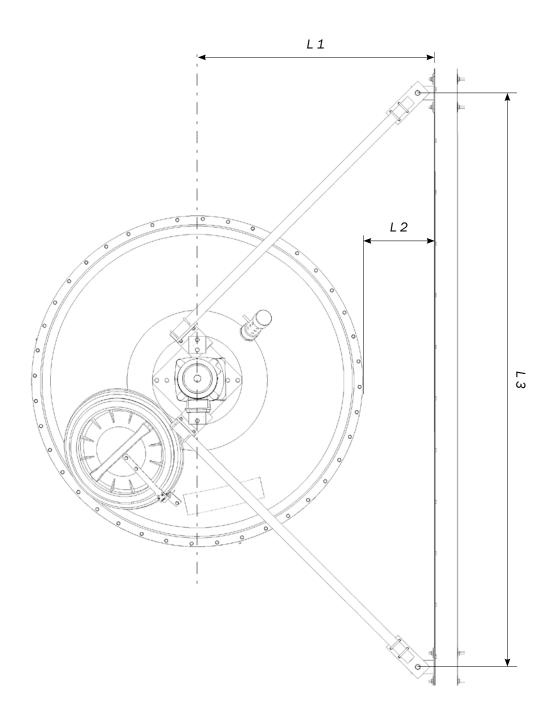
# **OVERVIEW OF THE MIXING TANK**



- 1. Stirrer and gear motor (see chapter about mounting the stirrer p. 16)
- 2. Support set (see overview p. 8)
- 3. Hatch
- 4. Counter agitators
- 5. Inspection cap
- 6. Foot (with load cell)
- 7. Outlet conection and ball valve
- 8. Bottom agitators
- 9. Fiberglass container, bottom part
- 10. Fiberglass container, upper part
- 11. Level tilting device
- 12. Ventilation





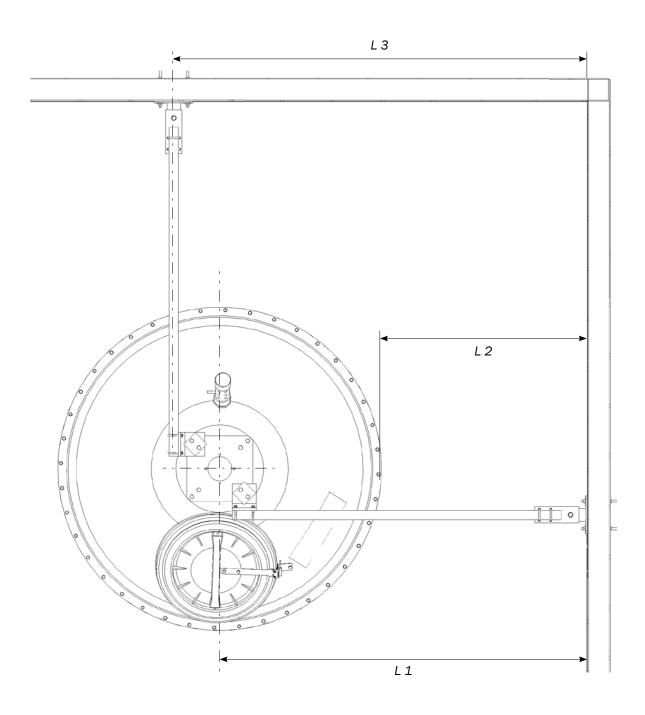


Mounting the tank against a single wall (The diagonal of the top flange is parallel to the wall)

- L1: Distance from wall to center of the tank
- L2: Distance from wall to edge of tank
- L3: Distance between wall fittings (center to center)

	L-VALUES FOR WALL MOUNTING						
L1 (mm)	800	900	1000	1100	1200	1300	1400
L2 (mm)	60	160	260	360	460	560	660
L3 (mm)	1600	1600	1600	1600	1600	1600	1600



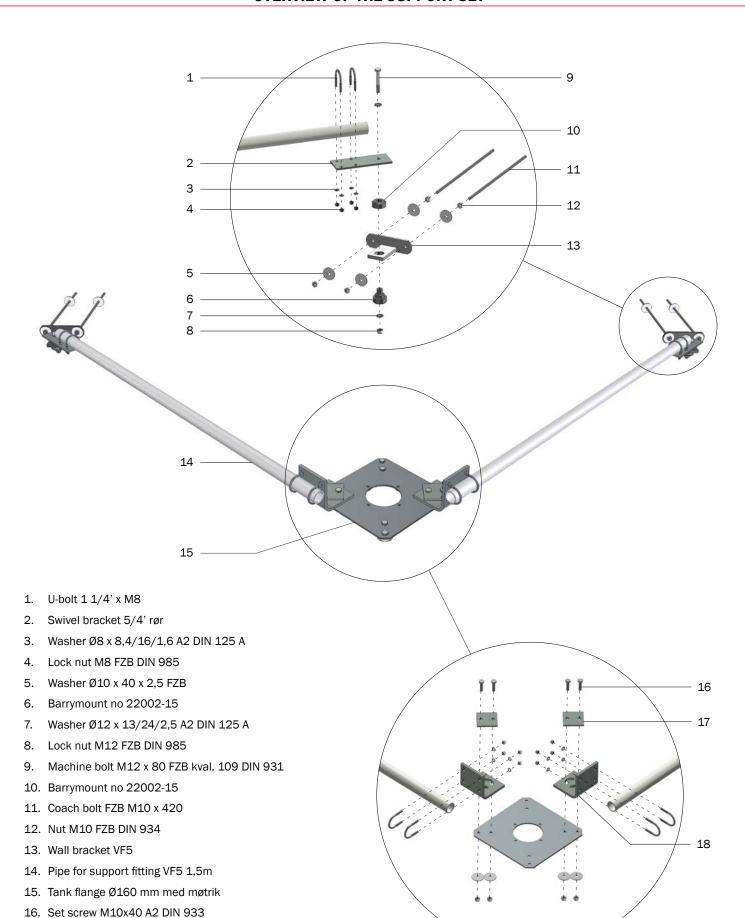


Mounting the tank in a corner (The sides of the top flange is parallel to the walls)

- L1: Distance from wall to center of the tank
- L2: Distance from wall to edge of tank
- L3: Distance from corner to center of wall fitting

	L-VALUES FOR CORNER MOUNTING						
L1 (mm)	800	900	1000	1100	1200	1300	1400
L2 (mm)	60	160	260	360	460	560	660
L3 (mm)	900	1070	1170	1270	1370	1470	1570

# **OVERVIEW OF THE SUPPORT SET**



17. Small fitting for tank VF4 18. Swivel bracket for tank flange

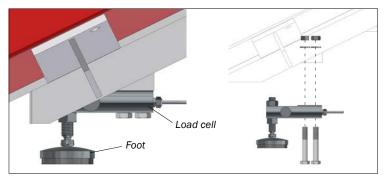
# MARKING THE PLACEMENT OF THE TANK FOOT ON THE FLOOR

Measure out the placement of the center of the tank on the floor, and mark the place with an X. Drill a center bolt (coach bolt 8 x 70 mm) into the middle of the X on the floor.

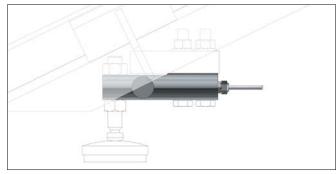
Later, when the tank is assembled and erected, the load cell is to be placed directly on top of the center bolt in the floor.

# **MOUNTING OF LOAD CELL**

The load cell is mounted under the foot of the bottom part of the tank. Data from the load cell is registered by a load cell amplifier mounted on the wall near the tank. (Load cell amplifier is ordered separately.)



Mounting of load cell

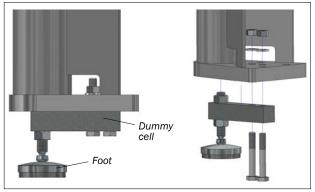


Be sure to place the load cell correctly. The completely flat side must face down

LOAD CELL KIT					
	Item no.	Description	PCS.		
	0139-505	LOAD CELL KIT VF4			
1	0139-443	LOAD CELL 5510F 2000 KG	1		
2	0139-444	MACHINE SHOE TYPE HJ-7C DSI	1		
3	32900015	MACHINE SCREW M12X80 FZB QUAL. 10.9 DIN 931	2		
4	33900028	NUT M12 A4-80 DIN 934	2		
5	35600080	FLAT WASHER Ø12X13/24/2,5 A2 DIN 125 A	2		

# **MOUNTING "DUMMY CELL"**

In some cases, you may want to mount a tank without a load cell. In these cases, a "dummy load cell" is mounted instead. The "dummy load cell" is a square piece of steel that is mounted underneath the foot of the tank.



Mounting of "dummy cells"

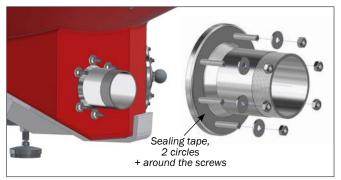
LOAD CELL MANIKIN KIT					
	Item no.	Description	Pcs.		
	0139-506	LOAD CELLS MANIKIN KIT VF4			
1	0139-444	MACHINE SHOE TYPE HJ-7C DSI	1		
2	32900015	MACHINE SCREW M12X80 FZB QUAL. 10.9 DIN 931	2		
3	33900028	NUT M12 A4-80 DIN 934	2		
4	35600080	FLAT WASHER Ø12X13/24/2,5 A2 DIN 125 A	2		
5	0139-577	LOAD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

# **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.)

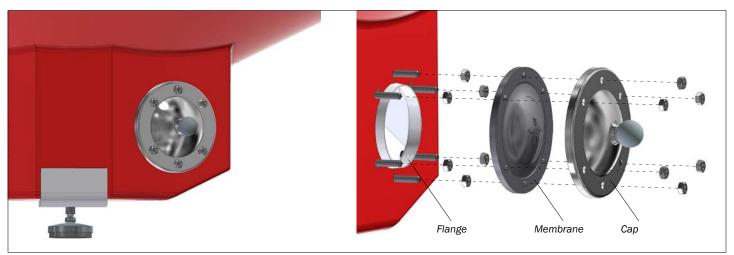


Mounting of outlet

# **MOUNTING OF INSPECTION CAP**

The inspection 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 inspection 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.).



Inspection cap



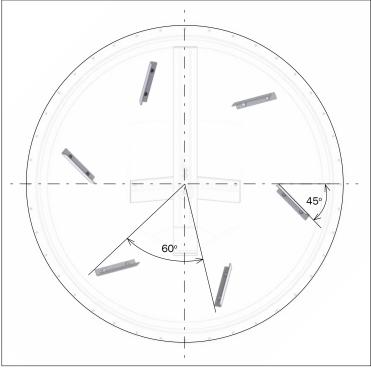
Inspection cap, sealing tape on the inside



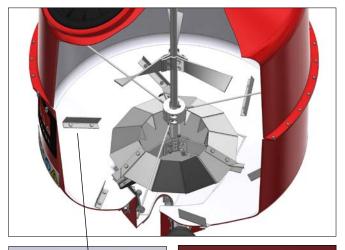
# **MOUNTING OF BOTTOM COUNTER AGITATORS (6 PCS.)**

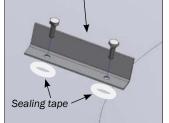
The bottom counter agitators are placed radially to the stirrer (see ill.). Be aware of the embedded leg in the bottom of the tank when placing the bottom counter agitators.

The bottom counter agitators are used as drill templates for two  $\emptyset 11$  mm holes per bottom counter agitator. Remember sealing tape (see ill.).



Placing the bottom counter agitators







Bottom counter agitator, inside

Bottom counter agitator, outside

# **MOUNTING OF COUNTER AGITATOR(-S)**

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

1000 L - 1 counter agitator 1900 L - 2 counter agitators

Mount the counter agitators on the rings before assembling the rings.

The counter agitators are placed vertically in the side af 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



#### MOUNTING OF THE HATCH

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



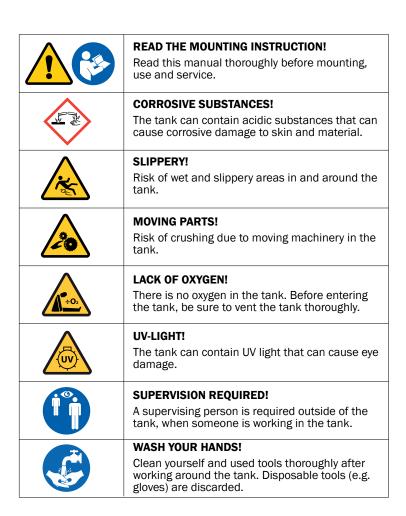
Hatch

# **PLACING THE WARNING SIGNS**

Warning signs are applied to the tank in two places, as shown. Use the clear cover labels (45x45 mm) to cover the icons not relevant to the specific tank; e.g. acid, UV light and moving parts For example: If a UV light cleaner is not installed in the tank, the icon for UV light is covered.



Warning sign label





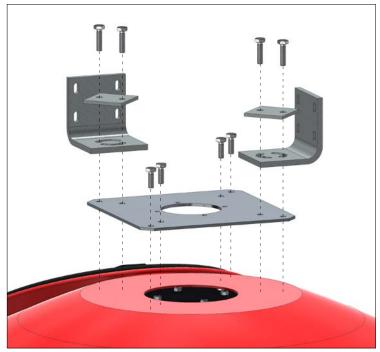
Where to place the warning signs



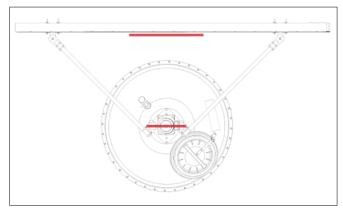
# MOUNTING OF TOP FLANGE (FOR GEAR MOTOR) AND SWIVEL BRACKETS

The top flange is mounted centrally 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.

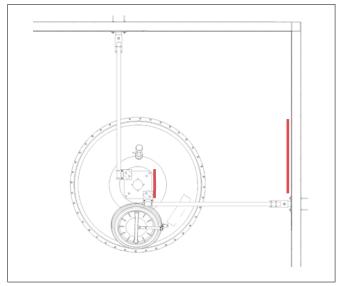
Seal the joint along the edges of the hole and the flange. (It is advised to apply the sealants last, due to the discomfort of the smell.)



Mounting of the top flange and swivel brackets



Wall mounting: The diagonal of the top flange is parallel to the wall



Corner mounting: The edge of the top flange is parallel to the wall

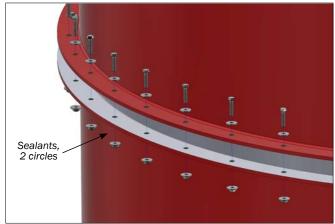
# **ASSEMBLING THE FIBERGLASS PARTS**

Apply two whole circles of sealants around the flange. Assemble the parts flange to flange.

**IMPORTANT!** Position the upper part so that the hatch is placed so that it is easy to access it.

Also, be sure to place the outlet valve, inspecton cap, hatch and top flange with swivel brackets correctly in relation to each other.

The tank parts are fastened as shown.



Assembling the fiberglass parts



# **MOUNTING THE WALL BRACKETS**

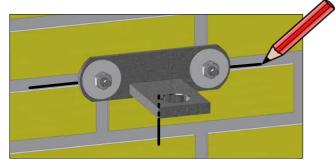
The tank is secured to the wall(-s) with two wall brackets. Distance from floor to the holes for the brackets:

> Tank size 1000 L 1370 mm Tank size 1900 L 1935 mm

See illustrations showing the placement of the wall brackets when mounting against wall or corner on page 6-7.

Mark the placement of the wall brackets on the wall, and mount the brackets with wall bolts.

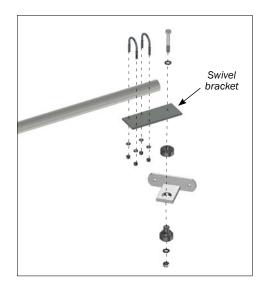
Both wall brackets are placed so that the plate with the large hole is closest to the floor.



Marking the location of the wall brackets

# **MOUNTING SWIVEL BRACKETS ON PIPES**

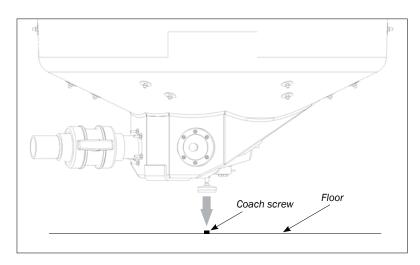
The wall swivel bracket is mounted on one end of the pipe. Place two U-bolts over the pipe and through the swivel bracket. Fasten the U-bolts with washers and lock nuts.

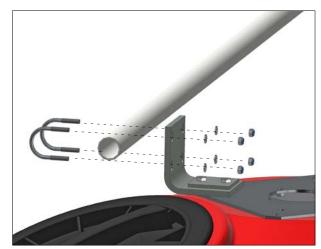


# **POSITIONING OF THE TANK**

Place the tank so that the foot is on top of the coach screw in the floor. Set up the tank and mount the two pipes (with wall swivel brackets) on the two swivel brackets on top of the tank. Place two U-bolts over the pipe and through the swivel bracket. Fasten the U-bolts with washers and lock nuts. Later, the tank has to be levelled, so do not tighten the nuts too much at this point.

While the pipes are being mounted on the swivel brackets on top of the tank, the swivel brackets on the wall end of the pipe can be temporarily fastened in the wall brackets using an M12 set screw.







# **LEVELING THE TANK**

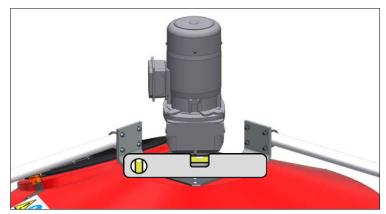
Level the tank so that the tank flange is horizontal.

The inclination can be adjusted by loosening the U-bolts in one of the swivel brackets on the top of the tank and displacing the bracket on the pipe so that the flange is horizontal. Adjustments may be made on both fittings.

When the alignment is complete, tighten the locking nuts securely.

The pipes are shortened to appropriate length and the ends are deburred.

In addition, check the height of the outlet valve above the floor. The height is adjusted using the machine foot under the load cell (see illustration)



165-175 mm

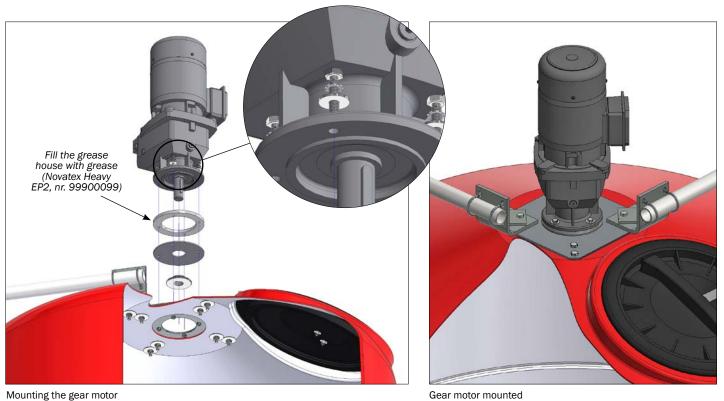
Ensure that the top flange is level

Adjust the distance from floor to center of outlet

# **MOUNTING OF GEAR MOTOR**

The gear motor is placed directly onto the top flange, and is fastened. Ensure proper ventilation for the gear motor. Avoid impact on the shaft!

See appendix for service and maintenance of the gear motor.



Mounting the gear motor

# **OVERVIEW OF THE STIRRER**

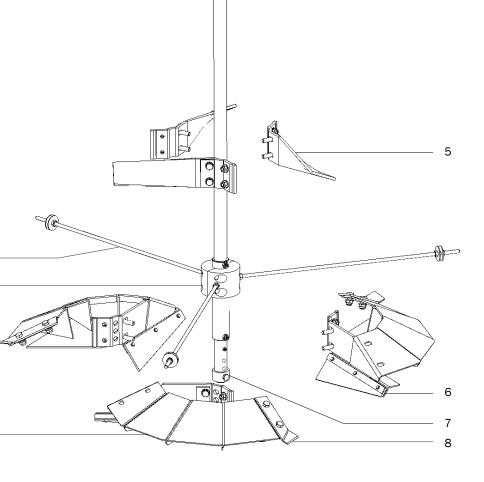


- Gear motor
- 2. Tank flange
- 3. Coupling
- 4. Shaft
- Middle agitator (depending on the size of the tank)
- 6. Paddle for bottom agitator
- 7. Bearing bush
- 8. Wing blade
- 9. Stay bolt for split bearing bush

10

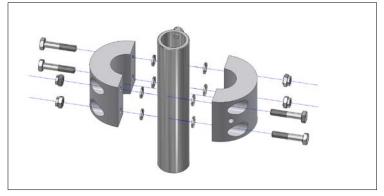
11

- 10. Split bearing bush
- 11. Bottom agitator (3 parts)

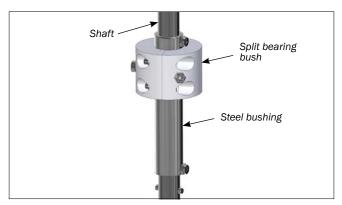


# **MOUNTING OF STEEL BUSHING AND SPLIT BEARING BUSH (ON SHAFT)**

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 p. 19).





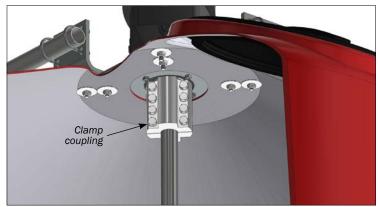


The steel bushing and split bearing bush are mounted on the shaft

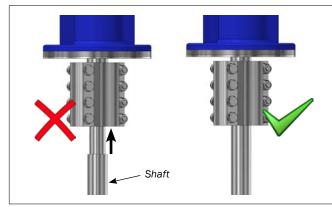
#### **MOUNTING OF THE SHAFT**

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 8 bolts are carefully fastened.



Clamp coupling



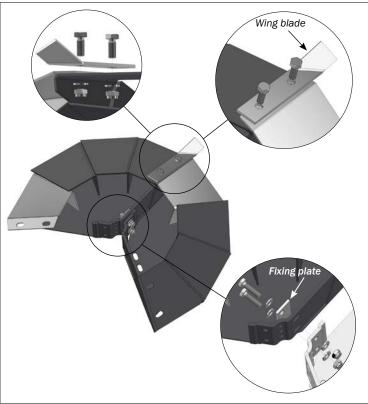
Push the neck of the shaft all the way up to the clamp coupling

# **MOUNTING OF BOTTOM AGITATOR**

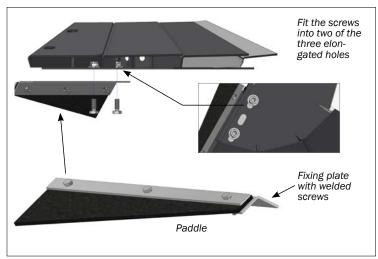
First, assemble two of the three parts of the bottom agitator loosely on the floor (see ill.). Mount one of the three wing blades at the joint of the two agitator parts.

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).



 ${\bf 1}.$  Two of the three parts of the bottom agitator are assembled, and a wingblade is mounted onto it

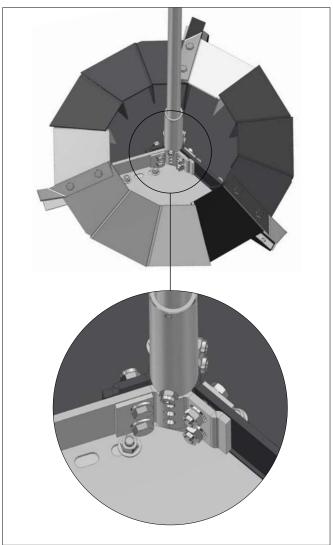


2. Montering af bundrørerskovl

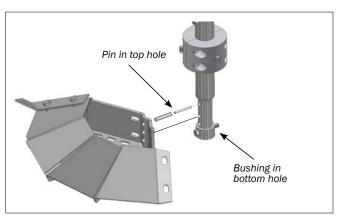
Mount the remaining two wing blades.

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 ensure that the bottom agitator is soundly fixed to the shaft.



3. The three parts are fixed around the shaft



Placing of pin and bushing - for positioning the bottom agitator



# MOUNTING OF SPLIT BEARING BUSH WITH STAY BOLTS

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.)

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.

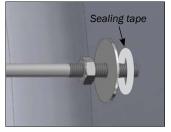
Hole Ø11 14 holes between each stay bolt 120° Hole Ø11 120° 120 Hole Ø11 Long thread

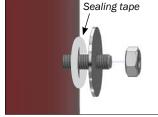
Split bearing bush, placement of stay bolts

The holes for the stay bolts are placed as shown on the illustration - 400 mm below **the lower** fiberglass joint. 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.).

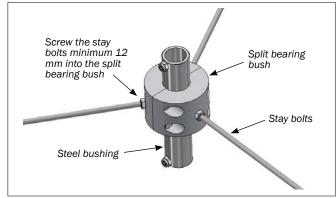
Check that the stay bolts and the split bearing bush are fixed tightly. Tighten them further if needed.



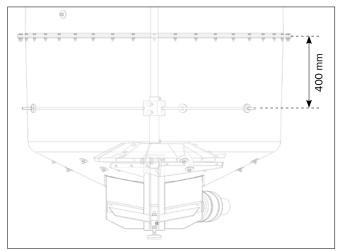


Stay bolt, inside

Stay bolt, outside



Split bearing bush, assembled



Placement of split bearing bush in the tanks of 1000 L and 1900 L



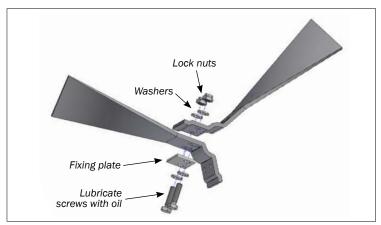
# **MOUNTING OF MIDDLE AGITATOR (1900 L TANK)**

One middle agitator is mounted in the 1900 L tank. **NO** middle agitator is mounted in the 1000 L tank.

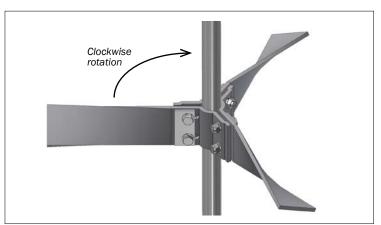
First, assemble two of the three wings of the middle agitator loosely on the floor (see ill.).

Then, assemble the two parts with the third around the shaft of the stirrer in the tank.

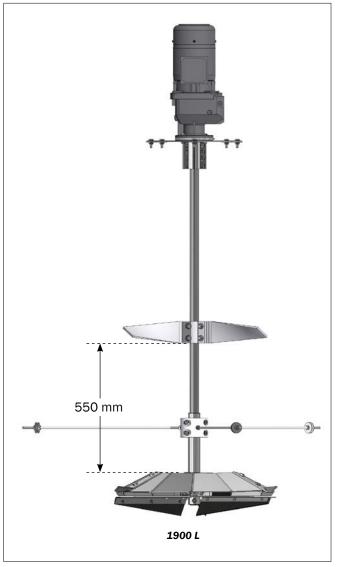
Fix the middle agitator around the shaft in the correct position and tighten screws and nuts with a torque wrench (approx. 117 Nm).



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



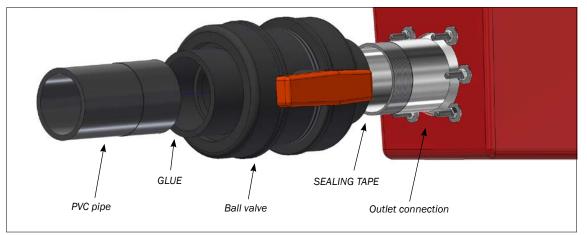
Middle agitator, assembled



Placement of middle agitator

#### 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 joined together 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.).

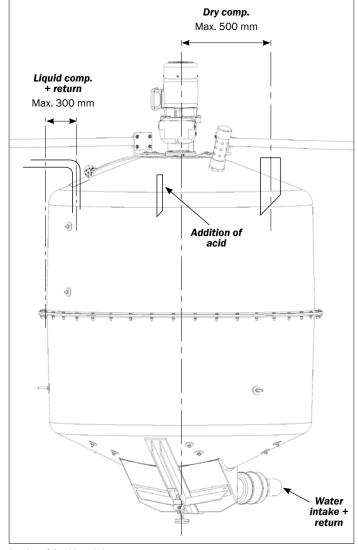
# PIPE FOR INTAKE OF DRY COMPONENTS

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.



Intake of liquid and dry components



#### **RETURN PIPES**

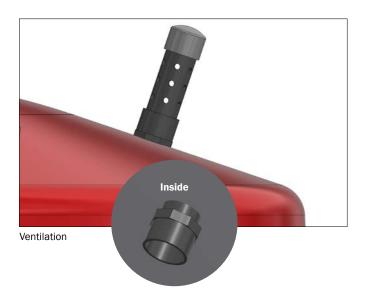
The return pipes should be brought together into one pipe, immediately before the tank. There are several options for placing return inlets:

- 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 steps, 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 is not directed straight into the bottom of the tank, as this allows air to be drawn into the feed pipe.

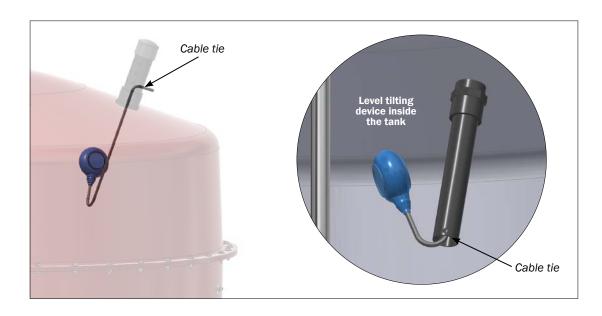
# PIPE FOR VENTILATION OF THE TANK

The ventilation pipe is placed in the top of the tank. Remember to seal the passage with a flexible sealant around the hole.



# **MOUNTING OF LEVEL TILTING DEVICE**

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

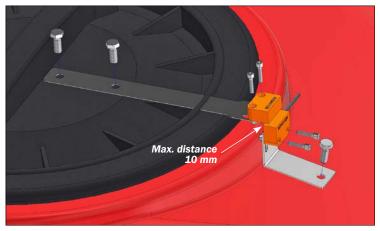


#### SAFETY SWITCH

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 supplied set screws and locking nuts. Seal around the screws with sealing tape.

Mount the sensor on the brackets using hexagon socket screws. The part of the sensor with the cable is mounted on the bracket on the tank.

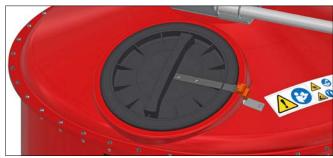


Safety switch on hatch



If the hatch is placed with the handle turned horizontally, the safety switch bracket is mounted on the handle of the hatch.





If the hatch is placed with the handle turned vertically, the safety switch bracket is mounted perpendicular to the handle of the hatch.

# INTERNAL WASHING OF THE TANK, MANUALLY

If you wish to wash the tank thoroughly on the inside, you can use a high pressure cleaner.

Please note the following safety precautions:

- Before opening the tank, the tank must be ventilated thorougly. This is best done by removing the inspection cap in the bottom of the tank and rinse the tank thoroughly with water
- All work in the tank must always be supervised by a person outside of the tank

#### **DISASSEMBLY - SAFETY PRECAUTIONS**

When disassembling parts of the tank, please note the following safety precautions:

- Disconnect the power for the gear motor when dismantling parts and when working in the tank. All work in the tank must always be supervised by a person outside of the tank
- Before opening the tank, the tank must be ventilated thorougly. This is best done by removing the inspection cap in the bottom of the tank and rinse the tank thoroughly with water
- When the safety precautions have been followed, one or more parts can be demounted. See this instruction for information on how the tank parts have been assembled

# **SERVICE AND MAINTENANCE OF THE GEAR MOTOR**

#### **IMPORTANT SAFETY PRECAUTIONS:**

- All work on the gear motor regarding. transportation, installation, service and maintenance must be carried out by trained personnel
- There is a risk of injuries due to fast rotating and possibly. hot machine parts. Installation and maintenance must only be carried out on stationary and cooled gear. The drive must not be energized and must be secured against accidental connection
- · Wear protective gloves there is a risk of burns due to hot oil
- After disconnection from supply voltage, live parts of the appliance and power connections must not be touched immediately as the capacitors may be charged

	SERVICE- AND MAINTENANCE INTERVALS
Interval	Task
Min. every 6 months	<ul> <li>Visual control</li> <li>Control of noise</li> <li>Oil level control</li> <li>Visual control of tube</li> <li>Lubrication with grease (grease house between gear and tank)</li> <li>Replacement of the automatic lubrication system / excess grease is removed (At operational times &lt; 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</li> </ul>
At operating temperatures of up to 80°C: After every 10,000 operating hours, at least every 6 months	<ul> <li>Change the oil (When using synthetic products, the interval doubles)</li> <li>Clean the ventilation valve. Replace, if needed</li> <li>Replace the sealing rings for the shaft, if they are worn</li> </ul>

# 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 gear motor"). 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.

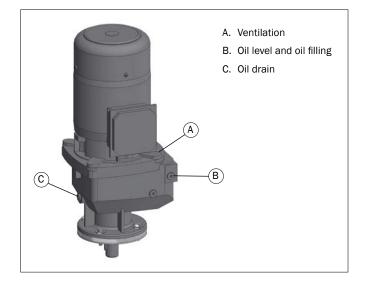
# Changing the oil:

- · 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

# 1. Cap screws 2. Protection cap 3. Activation screw 4. Eye ring 5. Grease container 6. Label



#### Replacing the sealing ring for the shaft:

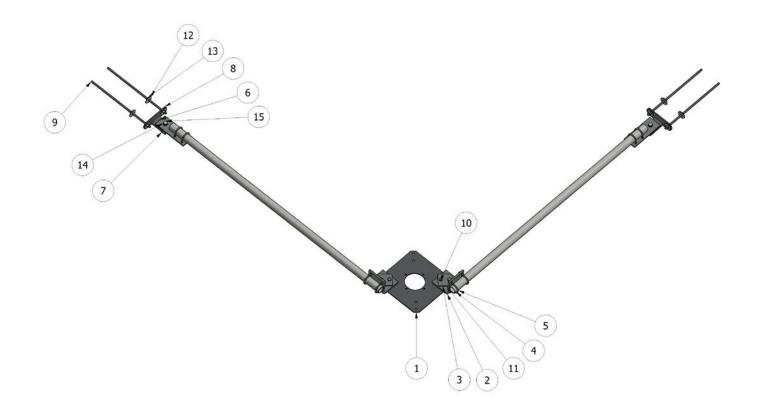
- When a distinct leakage of dripping oil is formed around the sealing lips, the shaft seal ring must be replaced
- During assembly, the space between the sealing- and the protective lip is filled approx. 50% with grease
- Note: the new sealing ring must not continue in the track of the old ring

#### Lubrication types

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

OIL: Mineral oil ISO VG 220

	SPARE PARTS - ONE-LEGGED TANK, SUPPORT SET					
	Item no.	Description	Pcs.			
1	0139-522	TANK FLANGE Ø160 WITH NUT	1			
2	0139-946	TURN FITTINGS F/TANK FLANGE	2			
3	0139-725	SMALL FITTING FOR TANK VF4	2			
4	0139-623	PIPE FOR SUPPORT FITTINGS VF5	2			
5	90100047	U-BOW 1 1/4' X M8	8			
6	0139-625	TURNING FITTING 5/4' TUBE	2			
7	23900294	BARRYMOUNT NO 22002-15	2			
8	0139-624	WALL FITTING VF5	2			
9	0511-110	WALL BOLT GALVANIZED M10X420	4			
10	30310040	SET SCREW M10X40 A2 DIN 933	4			
11	33908013	LOCK NUT M8 FZB DIN 985	16			
12	0521-102	WASHER Ø10X40X2,5 FZB	8			
13	33210017	NUT M10 FZB DIN 934	8			
14	35600080	FLAT WASHER Ø12X13/24/2,5 A2 DIN 125 A	4			
15	32900015	MACHINE SCREW M12X80 FZB QUAL. 10.9 DIN 931	2			



SPA	SPARE PARTS - ONE-LEGGED TANK 1000 L, WITHOUT STIRRER				
	Item no.	Description	Pcs.		
	0330-025				
1	0139-611	BOTTOM PART FOR TANK VF5	1		
2	0139-738	UPPER PART F. TANK VF5 1000 KG	1		
3	0300-216	VENTILATION FOR MIXING TANKS	1		
4	0300-262	PIPE FOR LEVEL SENSOR	1		
5	71200012	LEVEL TILTING DEVICE/FILLING	1		
6	0139-522	TANK FLANGE Ø160 WITH NUT	1		
7	0139-610	COUNTER AGITATEUR VF5-B	2		
8	0139-710	BOTTOM AGITATOR VF4-B STAINLS.	6		
9	0139-547	DISC Ø45/10.5X2 STAINLESS	24		
10	30310030	SET SCREW M10X30 A2 DIN 933	20		
11	33510017	NUT M10 A2 DIN 934	16		
12	30308035	SET SCREW M8X35 A2 DIN 933	40		
13	35600037	FLAT WASHER Ø8X8,4/16/1,6 A2 DIN 125A	96		
14	33508013	NUT M8 A2 DIN 934	58		
15	35600058	NUT WASHER Ø8X8,4/24/2 A2 DIN9021	15		
16	0140-140	OUTLET PIPE FOR TANK VF7	1		
17	0139-495	INSPECTION FLANGE VF4	1		
18	0139-496	INSPECTION COVER VF4	1		

	Item no.	Description	Pcs.
18a	0138-451	MEMBRANE DN40	1
19	0140-064	PVC BALL VALVE 3'/Ø90	1
20	0140-063	PVC PIPE Ø90 FOR 3' VALVE	1
21	0140-040	ACO FUNKI LOGO LABEL 30X30 CM FOR TANK	1
22	0140-035	SAFETY LABEL 35X10 CM FOR TANK	2
23	99900099	GREASE, ACID PROTECTION HOUSE GEAR	1
24	74520	FLEXIBLE WATER SEALER 300ML	1
25	29100001	THREAD TAPE 1 ROLL = 10 M	1
26	0140-036	COVER LABEL 45X45 MM FOR 0140-035, WHITE	6
27	29900003	JOINT BAND 6MM, SOLD IN ROLLSOF 8 M	1
28	76200023	CABLE TIE 290X4,5 MM BLACK	2
29	0140-026	SAFETY RFID SENSOR IP69 3 METER CABEL	1
30	0140-027	SAFETY RFID SENSOR IP69 KEY	1
31	0140-028	BRACKET FOR SENSOR	1
32	38504020	HEXAGON SOCKET SCREW M4X20 CHA2 DIN912	4
33	33904000	LOCK NUT M4 A2	4
34	30308020	SET SCREW M8X20 A2 DIN 933	3
35	0140-023	SAFETY BRACKET VF4 ROUND MANHOLE	1
36	0139-505	LOAD CELL KIT VF4	1



	SPARE PARTS - STIRRER FOR ONE-LEGGED TANK, 1000 L				
	Item no.	Description	Pcs.		
	0330-025	STIRRER			
1	74038095	GEAR MOTOR SK205F-90S/4 380V	1		
2	0139-552	COUPLING Ø30X118 STAINLS. COMP	1		
3	0139-605	SHAFT 1000 KG VF 5-B KOMP	1		
4	0330-015	WEARING BUSHING, LONG	1		
5	0330-020	SPLIT BEARING BUSH	1		
6	0139-609	STAY BOLT, BOTTOM BEARING VF5-B	3		
7	0139-547	DISC Ø45/10.5X2 STAINLESS	6		
8	33510017	NUT M10 A2 DIN 934	9		
9	0140-159	LID FOR GREASE PROTECTION OF SMALL GEAR	1		
10	0140-157	HOUSE FOR GREASE FOR PROTECTION OF SMALL GEAR	1		
11	0140-158	BUSHING FOR GREASE PROTECTIONOF SMALL GEAR	1		
12	9900001	LUBRICATING NIPPLE M5 CONED TYPE A DIN 71412	1		
13	35600058	NUT WASHER Ø8X8,4/24/2 A2 DIN9021	4		
14	30308035	SET SCREW M8X35 A2 DIN 933	4		
15	35600044	STAR WASHER Ø8/8,4 A2 DIN 6798 A	4		
16	0139-651	TENSION PL.F/BOT.AGITAT.STAINL	3		
17	0139-716	BOTTOM AGITATOR 1/3 PART VF4-B	3		
18	0139-869	PADDLE FOR BOTTOM AGITATOR	3		
19	30312045	SET SCREW M12X45 A2 DIN 933	6		
20	35600080	FLAT WASHER Ø12X13/24/2,5 A2 DIN 125 A	24		
21	33912000	LOCK NUT M12 A2 DIN 985	18		
22	0139-717	WING BLADE VF4-B	3		
23	30312030	SET SCREW M12X30 A2 DIN 933	6		



SPA	SPARE PARTS - ONE-LEGGED TANK 1900 L, WITHOUT STIRRER				
	Item no.	Description	Pcs.		
	0330-026				
1	0139-611	BOTTOM PART FOR TANK VF5	1		
2	0139-612	UPPER PART F. TANK VF5 1900 KG	1		
3	0300-216	VENTILATION FOR MIXING TANKS	1		
4	0300-262	PIPE FOR LEVEL SENSOR	1		
5	71200012	LEVEL TILTING DEVICE/FILLING	1		
6	0139-522	TANK FLANGE Ø160 WITH NUT	1		
7	0139-610	COUNTER AGITATEUR VF5-B	2		
8	0139-710	BOTTOM AGITATOR VF4-B STAINLS.	6		
9	0139-547	DISC Ø45/10.5X2 STAINLESS	24		
10	30310030	SET SCREW M10X30 A2 DIN 933	20		
11	33510017	NUT M10 A2 DIN 934	16		
12	30308035	SET SCREW M8X35 A2 DIN 933	40		
13	35600037	FLAT WASHER Ø8X8,4/16/1,6 A2	96		
14	33508013	NUT M8 A2 DIN 934	58		
15	35600058	NUT WASHER Ø8X8,4/24/2 A2 DIN9021	15		
16	0140-140	OUTLET PIPE FOR TANK	1		
17	0139-495	INSPECTION FLANGE VF4	1		
18	0139-496	INSPECTION COVER VF4	1		

			1
	Item no.	Description	Pcs.
18a	0138-451	MEMBRANE DN40	1
19	0140-064	PVC BALL VALVE 3'/Ø90	1
20	0140-063	PVC PIPE Ø90 FOR 3' VALVE	1
21	0140-035	SAFETY LABEL 35X10 CM FOR TANK	2
22	0140-040	ACO FUNKI LOGO LABEL 30X30 CM FOR TANK	1
23	99900099	GREASE FOR ACID PROTECTION HOUSE GEAR	1
24	74520	FLEXIBLE WATER SEALER 300ML	1
25	29100001	THREAD TAPE 1 ROLL = 10 M	1
26	0140-036	COVER LABEL 45X45 MM FOR 0140-035, WHITE	6
27	29900003	JOINT BAND 6MM, SOLD IN ROLLS OF 8 METERS	1
28	76200023	CABLE TIE 290X4,5 MM BLACK	2
29	0140-026	SAFETY RFID SENSOR IP69 3 METER CABEL	1
30	0140-027	SAFETY RFID SENSOR IP69 KEY	1
31	0140-028	BRACKET FOR SENSOR	1
32	38504020	HEXAGON SOCKET SCREW M4X20 CHA2 DIN912	4
33	33904000	LOCK NUT M4 A2	4
34	30308020	SET SCREW M8X20 A2 DIN 933	3
35	0140-023	SAFETY BRACKET VF4 ROUND MANHOLE	1
36	0139-505	LOAD CELL KIT VF4	1



SPARE PARTS - STIRRER FOR ONE-LEGGED TANK, 1900 L			
	Item no.	Description	Pcs.
	0330-026	STIRRER	
1	74038095	GEAR MOTOR SK205F-90S/4 380V	1
2	0139-552	COUPLING Ø30X118 STAINLESS COMP	1
3	0139-606	SHAFT 1900 VF5-A COMPL. STAINLESS	1
4	0330-015	WEARING BUSHING, LONG	1
5	0330-020	SPLIT BEARING BUSH	1
6	0139-609	STAY BOLT, BOTTOM BEARING VF5-B	3
7	0139-714	WING FOR MIDDLE TUBE	3
8	0139-651	TENSION PL.F/BOT.AGITAT.STAINLESS	6
9	0139-547	DISC Ø45/10.5X2 STAINLESS	6
10	30312045	SET SCREW M12X45 A2 DIN 933	12
11	35600080	FLAT WASHER Ø12X13/24/2,5 A2 DIN 125 A	36
12	33912000	LOCK NUT M12 A2 DIN 985	24
13	33510017	NUT M10 A2 DIN 934	9
14	0140-159	LID FOR GREASE PROTECTION OF SMALL GEAR	1
15	0140-157	HOUSE FOR GREASE FOR PROTECTION OF SMALL GEAR	1
16	0140-158	BUSHING FOR GREASE PROTECTION OF SMALL GEAR	1
17	9900001	LUBRICATING NIPPLE M5 CONED TYPE A DIN 71412	1
18	35600058	NUT WASHER Ø8X8,4/24/2 A2 DIN9021	4
19	30308035	SET SCREW M8X35 A2 DIN 933	4
20	35600044	STAR WASHER Ø8/8,4 A2 DIN 6798 A	4
21	0139-716	BOTTOM AGITATOR 1/3 PART VF4-B	3
22	0139-869	PADDLE FOR BOTTOM AGITATOR	3
23	0139-717	WING BLADE VF4-B	3
24	30312030	SET SCREW M12X30 A2 DIN 933	6

