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## MobyDick ConLine Wheel Washing Systems



### Installation & Commissioning Manual

Version 2011-06-15

Kit 400 B/Kit 400 C  
Kit 800 B/Kit 800 C  
Kit 400MB/Kit 400 MC



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## 1 Introduction

The following installation instructions refer to the wheel washing systems MobyDick ConLine, Kit models. They should be read carefully by the responsible person(s) before using the equipment for the first time. It is also very useful to photocopy certain pages and distribute them to the appropriate people. Please make sure you contact FRUTIGER Company AG or your local distributor before using the equipment for any purpose other than that described under point 2.4.

The ConLine series has been developed by FRUTIGER Company AG in Switzerland. It is based on the newest and known relevant technical and safety standards. The company reserves the right to make changes and further technical development in the systems.

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## 2 Safety instructions

### 2.1 EC-Declaration of Conformity

The described MobyDick wheel-washing systems are in conformity with the provisions of the following guidelines and standards, including their modifications.



- 2006/42/EC, Machinery Directive
- 2004/108/EC, EMC Directive
- EN 60204-1, Electrical equipment of machines
- EN 60439-1, Low-voltage switchgear and control gear assemblies

They comply with RL 2006/95/EC in accordance with appendix I No. 1.5.1 MRL 2006/42/EC regarding their protection goals.

Each wheel washing system will be supplied with a documentation that includes an EC-Declaration of Conformity.

### 2.2 Obligation and commitment

Basic condition for safety fair handling and the trouble free use of this wheel washing system is the knowledge of the basic safety guidelines and the general safety regulations. In addition, the rules applying for the application place and regulations on the accident prevention are to be followed.

The machine is constructed according to the current valid state of technology and the approved rules in terms of safety. Dangers for body and life of the user or third or interferences can still originate by the use of the machine or for other real values. The machine is only to be used:

- for the intended use, see point 2.4
- in safety-relevant perfect condition

Disturbances which can affect the security are immediately to be eliminated.

Guarantee and liability claims with personal damages and damages to property are excluded, if they are due of one or several of the following causes:

- Not intended use of the machine
- Inappropriate assembly, start-up, operation and maintenance of the machine
- Do not use the machine with defective safety devices or not properly to right or not functioning security devices and protect devices
- Not conforming of the references in the manual concerning transport, storage, assembly, start-up, operation, maintenance and preparation (setting) of the machine
- Arbitrary structural changes in the machine
- Defective monitoring of machine parts, which are defeated by a wear
- Inappropriately realized repairs and servicing
- Emergencies by influence of foreign object and higher force

## 2.3 Safety/Working signs

This manual contains the important notes, so that the machine can be safely inserted and started up. We have tried to give as extensive and information as possible for accident prevention when assembling can not be pulled for lacking completeness of cited danger points and safety hazards to the responsibility.

Please ensure you note the following signs carefully:



**Warning signs** serve the marking of dangers, if you don't follow the operating manual, working manual and working flow etc. can lead to injuries or accidents



**Prohibition signs** have a safety character, which forbids a behaviour, from which a danger for humans or units can result.



**Signs giving orders** indicates to refer protection device for accident prevention or to special references in handling to use the unit.



**Information signs** indicate to study continuing reading as the operating manual or data sheets for safety.

## 2.4 Intended use

Use the wheel washing system MobyDick Kit only for cleaning the tyres and under-carriage of Trucks or similar vehicles. For washing other vehicles, it's necessary to prove prior the suitability with the manufacturer.

Do not move or wash any non motorized vehicles like hand truck or wheelbarrow etc, on this system.

It's not allowed for people to stay on or beside the machine during the washing circle.

## 2.5 Safety work



During assembling and if necessary also during the operating of the unit appropriate safety clothing (equipment ) has to be worn (helmet, safety footwear, gloves, safety waistcoat and eye protector).



Maintenance works assume that the working flow is known. The working area should be clean and dry. Lubrication working, maintenance working and tuning only with standing machine. Please attend to the fact that hands, feet and clothes do not come to the danger area of powered parts.



### **Attention electrical danger!**

Working on the electrical cabinet only by certified specialist.



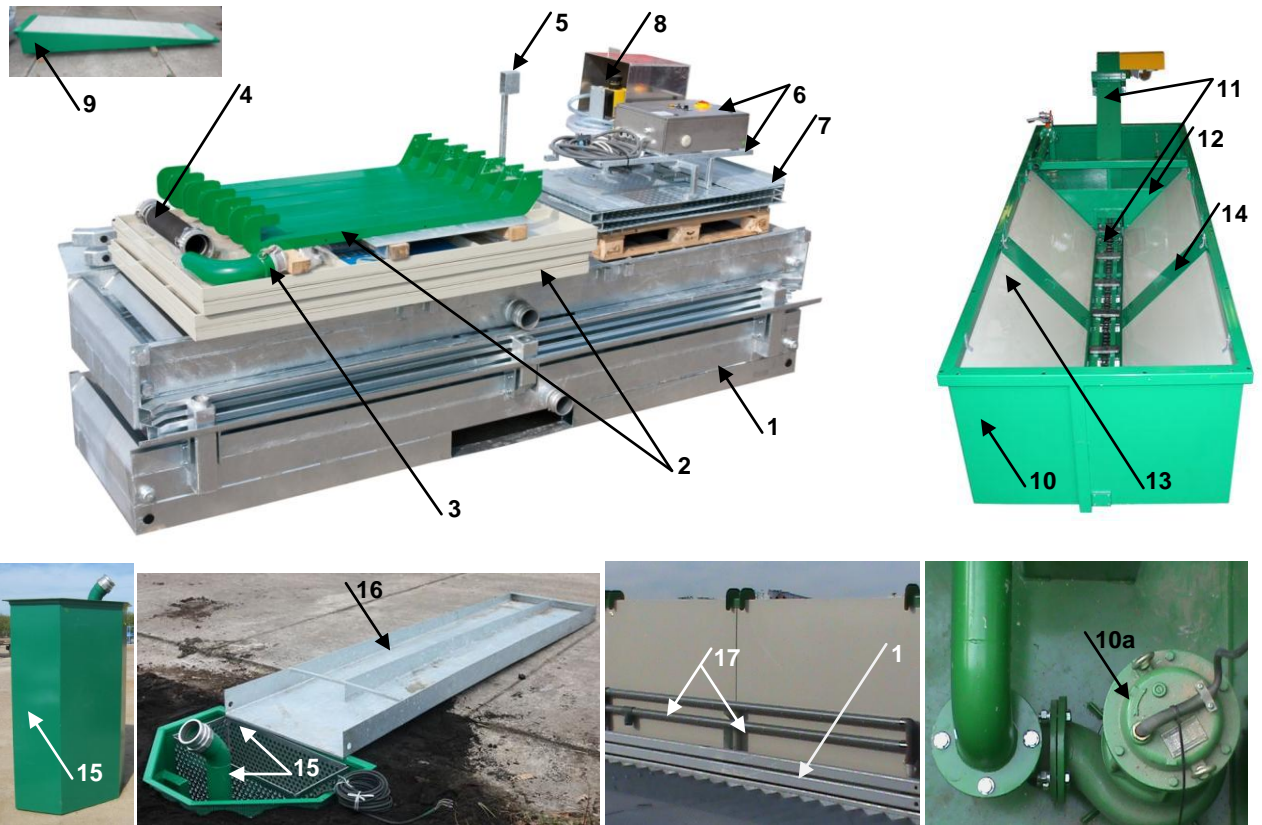
Attention to a good condition and appropriate assembly of all parts. Damages are immediately repaired. Replace worn or damaged parts. Eliminate accumulations of grease, oil, flocculent or dirt.



### **Attention slip hazard!**

Run out flocculent means special slip hazard.

### 3 Scope of delivery



Pos	Description	Non-mobile				Mobile	
		Kit 400		Kit 800		Kit 400	
		B	C	B	C	MB	MC
1	Galvanized wash element with tire guide	2	2	4	4	2	2
2	Splash sidewalls/sidewall support brackets	4/6	4/6	8/12	8/12	4/6	4/6
3	4" pipe elbow with couplings	1	1	2	2	1	1
4	4" wash element hose with couplings	1	1	2	2	1	1
5	Sensor stand/optical sensor*	1/1	1/1	1/1	1/1	1/1	1/1
6	Electrical cabinet/electrical cabinet galvanized mounting frame	1/1	1/1	2/2	2/2	1/1	1/1
7	Center plates	3	3	6	6	3	3
8	MobyDos Compact flocc pump (option)						
9	Entrance and exit ramp set	-	1	-	1	-	1
10	Recycling tank (incl. pump, pipe, float)	1	1	2	2	1	1
10a	MobyPump ConLine supply	2	2	4	4	1	1
11	Scraper conveyor	-	1	-	1	-	1
12	Weir assembly/cover plate	1/1	1/-	1/1	1/-	1/1	1/-
13	Tank sidewalls	-	4	-	8	-	4
14	Filler plate	2	2	4	4	2	2
15	Sump tank with sieve basket	-	-	-	-	1	1
15*	MobyPump ConLine return	-	-	-	-	1	1
16	Galvanized water return channel	1	-	1	-	1	1
17	Side spray assembly/support for side spray assy	2/2	2/2	2/2	2/2	2/2	2/2
*	Set of tank side wall extensions	1	1	1	1	-	-
*	Assembly hardware kit (seals, clamps, bolts, etc)	1	1	1	1	1	1

\* not pictured!







## 4 Installation of Wheel Washing System



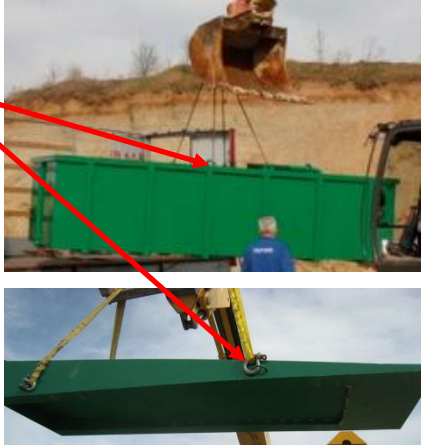


The following illustrations will help you to prepare and install the unit. If you have any questions do not hesitate to contact your local MobyDick representative.

For operating information please refer to the operating manual.

### 4.1 Preparatory operations



Step	Installation instructions	Illustration
4.1.1	<p>Prepare the water supply and power supply in accordance with the enclosed assembly drawing</p> <p><u>Water supply</u>                      ¾" incoming supply with mechanical float to control the water level is installed in the pump area.</p> <p><u>Power supply</u>                      Electrical requirements: 3 phase 480V, 60 Hz, 32 A (loose cable head from ground = 2 meters)</p> <p>A separate circuit diagram with part list is in the electrical cabinet.</p> <p><u>Note:</u> Electrical and water supply is the responsibility of the customer.</p>	
	<p><b>Attention, electrical danger!</b>                      Only qualified personnel shall connect electrical power.</p>	
4.1.2	<p>Excavate the pit for the placement of the recycling tank as well as the return pump chamber. Level the pit in accordance with specifications in the assembly drawing enclosed.</p>	
4.1.3	<p><u>Important:</u> It is critical that the pit is correct depth and level.</p>	
	<p>The pit excavation should be kept to a minimum dimension to prevent from excess backfilling.</p>	

## 4.2 Unloading unit

<p>4.2.1</p> 	<p>The unit is delivered by truck. All individual parts are loaded into the recycling tank. The steel channel, the wash elements and the ramps (for Kit 400 MB/MC) may be on top of the recycling tank for transport and will have to be unloaded first.</p> <p><u>Important:</u> All items have to be removed from tank prior to lifting tank off truck!</p>	
<p>4.2.2</p>	<p>The recycling tank and the ramps (for Kit 400 MB/MC) shall be lifted by attaching lifting belts or chains to the 4 lifting eyes.</p>	
<p>4.2.3</p>	<p>Wash elements can be lifted by slinging lifting belts or chains around the triangular cross members at the top of the wash element.</p>	
	<p>Observe all required safety practices and wear appropriate safety clothing when lifting objects..</p>	


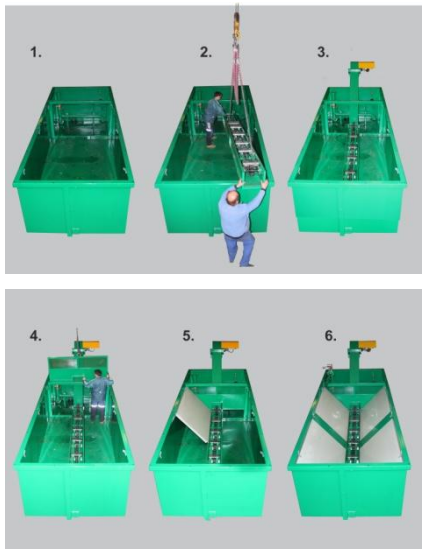
### 4.3 Assembling of in-tank equipment

Kit models: 400 B, 800 B, 400 MB

<p>4.3.1</p>	<p>Assemble the wash pump(s), suction line, mechanical float in the pump area of the recycling tank.</p>	
<p>4.3.2</p>	<p>Install weir assembly into guide rails.</p>	



### 4.4 Assembling of in-tank equipment

Kit models: 400 C, 800 C, 400 MC

<p>4.4.1</p>	<p>Assemble the wash pump(s), suction line, mechanical float in the pump area of the recycling tank.</p>	
<p>4.4.2</p>	<p>Picture 2. Install and bolt the scraper conveyor element.</p> <p>Picture 3. Install the scraper conveyor chute. Connect chain parts and bolt and check chain length. Proper chain tension is achieved by removing links.</p> <p>Picture 4. Install weir assembly into guide rails.</p> <p>Picture 5./6. Install the tank sidewalls and filler plates.</p>	




#### 4.5 Placement and installation of recycling tank

**Kit models: 400 B, 400 C, 800 B, 800 C**

<p>4.5.1</p>	<p>The recycling tank is to be installed in accordance with the assembly drawing.</p> <p><u>Important:</u> The tank must be level and at proper depth.</p>	
<p>4.5.2</p>	<p>After installation of the recycling tank the area around the tank shall be backfilled.</p> <p><u>Important:</u> Keep backfill material out of the tank as much as possible. Large stones may jam scraper chain.</p>	

#### 4.6 Placement and installation of recycling and sump tank





**Kit models: 400 MB, 400 MC**

<p>4.6.1</p>	<p>The recycling tank and the sump tank are to be installed in accordance with the assembly drawing.</p> <p><u>Important:</u> The recycling tank and the sump tank must be level and at proper depth.</p> <p><u>Attention:</u> In order to ensure the problem-free water runoff, ensure the sump tank is not higher than the water return channel!</p>	
<p>4.6.2</p>	<p>After installation of the recycling tank and the sump tank the area around the tanks shall be backfilled.</p> <p><u>Important:</u> Keep backfill material out of tanks as much as possible. Large stones may jam scraper chain or avoid pumps are working properly.</p>	
<p>4.6.3</p>	<p>Install the return pump, the suction line and the sieve basket into the sump tank.</p>	

#### 4.7 Placement and installation of water return channel and wash elements





**Kit models: 400 B, 800 B, 400 MB, 400 MC**

<p>4.7.1</p>	<p>The water return channel is to be placed in accordance with the assembly drawing.</p> <p><u>Important:</u> There is a slight downward slope integrated in the channel. Therefore the upper and lower edges are used for determining of the horizontal adjustment.</p> <p><u>Attention:</u> In order to ensure the problem-free water runoff, ensure the recycling tank or the sump tank respectively is not higher than the water return channel!</p>	
<p>4.7.2</p>	<p>The sealing rubbers are to be installed on the upper edges of the water return channel.</p> <p><u>Note:</u> For minimum water leakage, it is critical that rubber seals are fitted properly and with no gaps between wash elements and water return channel!</p>	
<p>4.7.3</p>	<p>The first wash element is to be placed in accordance with the assembly drawing.</p> <p>Wash elements can be lifted by slinging lifting belts or chains around the triangular cross members at the top of the wash element.</p> <p>The end of the wash element is to be placed even with the water return channel.</p>	
<p>4.7.4</p>	<p>Both end connecting plates are to be loosely bolted to the first wash element.</p>	

<p>4.7.5</p>	<p>Placement of the second wash element...</p> <p>...pay attention the wash elements are level, parallel and square with each other.</p>	
<p>4.7.6</p>	<p>Bolt the second wash element to the connecting plate and, after verifying the wash elements are parallel, tighten the connecting plate bolts.</p>	
<p>4.7.7</p>	<p>Connect the wash elements with the 4" hose with couplings.</p>	
<p>4.7.8</p>	<p>Attach the rubber seals, with sealing rims up toward the center plates.</p>	

## 4.8 Placement and installation of water return channel and wash elements

### Kit models: 400 C, 800 C


<p><b>4.8.3</b></p>	<p>The first wash element is to be placed in accordance with the assembly drawing.</p> <p>Wash elements can be lifted by slinging lifting belts or chains around the triangular cross members at the top of the wash element.</p> <p>The end of the wash element is to be placed even with the water return channel.</p>	 
<p><b>4.8.4</b></p>	<p>Both end connecting plates are to be loosely bolted to the first wash element.</p>	
<p><b>4.8.5</b></p>	<p>Placement of the second wash element...</p> <p>...pay attention the wash elements are level, parallel and square with each other.</p>	 
<p><b>4.8.6</b></p>	<p>Bolt the second wash element to the connecting plate and, after verifying the wash elements are parallel, tighten the connecting plate bolts.</p>	

<p>4.8.7</p>	<p>Connect the wash elements with the 4" hose with couplings.</p>	
<p>4.8.8</p>	<p>Attach the rubber seals, with sealing rims up toward the center plates.</p>	





#### 4.9 Installation of side wall extensions for recycling tank


Kit models: 400 B, 400 C, 800 B, 800 C

<p>4.9.1</p>	<p>Install the tank side wall extension plates into the provided holes in the top rim of the tank.</p> <p><u>Important:</u> Be aware that there are several different extension plate lengths and ensure proper placement!</p>	
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#### 4.10 Installation of sidewall support brackets and splash sidewalls

<p>4.10.1</p>	<p>Loosen the pre-mounted lower mounting bolts for the sidewall support brackets. Remove the upper bolts, slip the bracket lower slot over the lower bolts and rotate the bracket up into position. Install the upper bolts and tighten all bolts. Install the remaining brackets the same way.</p>	
<p>4.10.2</p>	<p>The splash sidewalls will slide in from the sides into the brackets. Ensure that the flat edge of the sidewall is up and the formed side is outside. Finally tighten the sidewalls to the brackets with the bolts provided.</p>	


#### 4.11 Installation of side spray assembly and support

4.11.1	Install supports as shown. Install side spray assemblies and connect the quick fasteners.	
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#### 4.12 Connecting of water pipes and water hoses






4.12.1	Install elbow pipe with quick-fastener on wash element. After that, cut the connecting hose from the pump pipe to the wash module to desired length and fasten with hose clamps provided.	
4.12.2	Only for Kit models: 400 MB, 400 MC  Cut connecting hose from return pump to elbow pipe on top rim of recycling tank to desired length and fasten with hose clamps provided.  Remove blind plug from elbow pipe (pump line in pump housing) to prevent water from inadvertent discharge after pump has been switched off.	

#### 4.13 Mounting of center plates

4.13.1	Install the diamond plate center plates. The middle center plates is the one with handles.	
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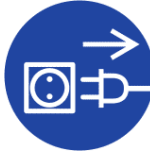


#### 4.14 Installation of entry and exit ramps

Kit models: 400 MB, 400 MC

4.14.1 	The entry and exit ramps shall be lifted by attaching lifting belts or chains to the 4 lifting eyes.	
4.14.2	Slightly loosen the connecting bolts, carefully position the ramps and connect them with the wash elements.	 
	Observe all required safety practices and wear appropriate safety clothing when lifting objects.	




#### 4.15 Installation of electrical cabinet

Kit models: 400 B, 400 C, 800 B, 800 C






	<p><b>Caution, electrical danger!</b></p> Ensure power is disconnected prior to work inside the control panel.	
4.15.1	The electrical cabinet is installed next to the pump area of the recycling tank on two elements of the safety railing. First loosen clamping screws, then lift control panel into place with lifting eye and fasten in place.  Connecting incoming power leads and equipment cabling.  <u>Important:</u> The customer is responsible to connect incoming power.	 

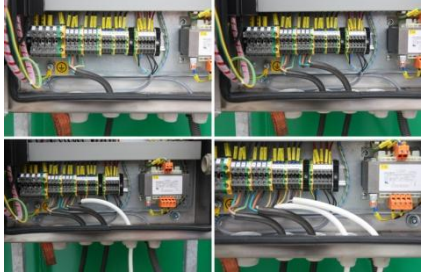
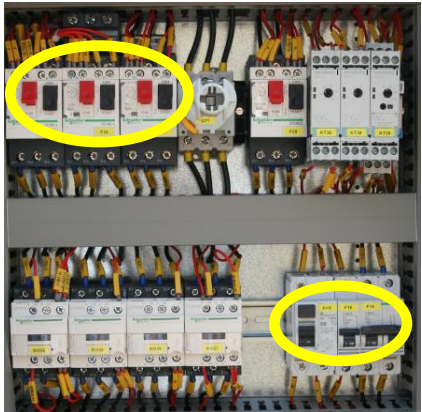
#### 4.16 Installation of electrical cabinet

Kit models: 400 MB, 400 MC




	<p><b>Caution, electrical danger!</b></p> <p>Ensure power is disconnected prior to work inside the control panel.</p>	
<p>4.16.1</p>	<p>The electrical cabinet is best installed in the middle of the length side of the recycling tank. Lift the electrical cabinet (by using the lifting eye) and attach it to top rim of recycling tank.</p> <p>Connecting incoming power leads and equipment cabling.</p> <p><u>Important:</u> The customer is responsible to connect incoming power.</p>	

#### 4.17 Route all equipment cables and connect to terminals






	<p><b>Caution, electrical danger!</b></p> <p>Ensure power is disconnected prior to work inside the control panel.</p>	
<p>4.17.1</p> 	<p>The electrical cabinet can be opened only if the main disconnect is in the "OFF" position.</p>	
<p>4.17.2</p>	<p>Route equipment cables through openings of tank sidewall extensions and into bottom of electrical cabinet.</p>	

4.17.3	Connect to terminals in accordance with electrical diagram.	
4.17.4	Turn all breakers and overloads to "ON".  FI15 FI-Switch, transformer, secondary F14 Transformer, primary F15 Transformer, secondary F22 Pump 1 (return pump) F24 Pump 2 (supply pump) F27 Scraper conveyor F29 Flocculent pump	



#### 4.18 Installation of optical eye sensor

	<p><b>Caution, electrical danger!</b></p> <p>Ensure power is disconnected prior to work inside the control panel.</p>	
4.18.1	Connect sensor to stand and place 3 to 5 meters in front of wheel wash entry.  Control panel connections are pre-made.	

#### 4.19 Connect power supply

<p>4.19.1</p> 	<p>The electrical cabinet can be opened only if the main disconnect is in the "OFF" position.</p>	
<p>4.19.2</p> 	<p><b>Caution! Panel is energized danger!</b> Only qualified personnel to be connecting power supply and to be working on energized equipment.</p>	
<p>4.19.3</p>	<p>Close the electrical cabinet and set the main disconnect to the "ON" position.</p>	

#### 4.20 Filling recycling tank

<p>4.20.1</p> <p>Connecting of 3/4" water inlet and fill the recycling tank. The water supply is adjusted by the integrated, mechanical float valve (automatic level adjustment). Alternatively the recycling tank can be filled e.g. with a cistern.</p> <p><u>Important:</u> Preparation and connection of the water pipelines is the customer responsibility.</p>	 
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## 5 Installation of Wheel Washing System Options

The following illustrations will help you to prepare and install the options onto the wheel washing unit. If you have any questions do not hesitate to contact your local MobyDick representative.

For operating information please refer to the operating manual.

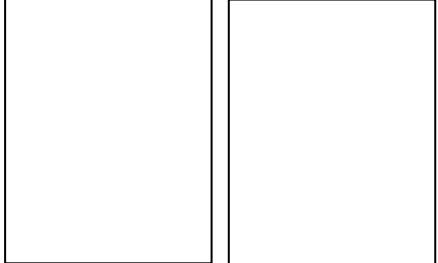
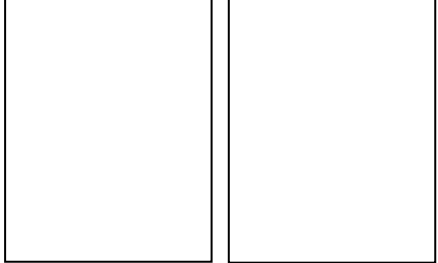
### 5.1 Installation of safety railing and mounting ladder

**Kit models: 400 B, 400 C, 800 B, 800 C**

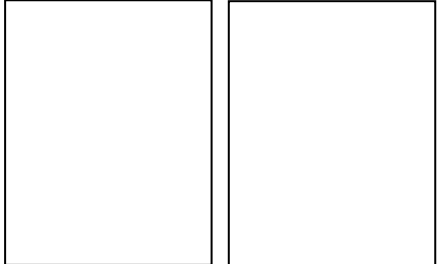
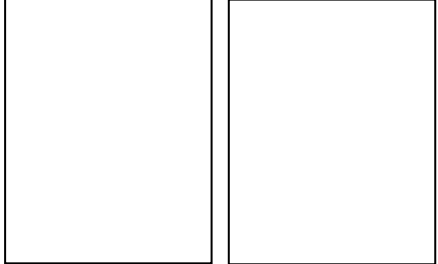
<p>5.1.1</p>	<p>The ladder is fastened to the face of the pump chamber with two pins in the square profile of the recycling tank.</p>	
<p>5.1.2</p>	<p>Install the safety railings into the appropriate holes in top of tank extensions.</p> <p><u>Important:</u> Railings are different lengths, need to be installed in the appropriate locations.</p>	

**5.2 Installation of back wash for exit area**

**Kit models: 400 B, 400 C, 800 B, 800 C**


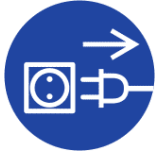



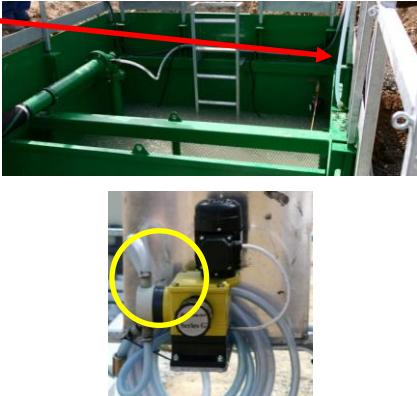



5.2.1	.....	
5.2.2	.....	










**5.3 Installation of manual cleaning facility**






5.3.1	.....	
5.3.2	.....	



### 5.4 Installation of flocculent dosing system MobyDos Compact

	<p><b>Caution, electrical danger!</b></p> <p>Ensure power is disconnected prior to work inside the control panel.</p>	
<p>5.4.1</p>	<p>At first attach aluminium backplate with rivets to the control panel frame (on left side of the control panel).</p> <p>Next mount and secure the MobyDos dosing unit with 4 bolts to the mother board.</p> <p>Then fix aluminium hood to top frame bar.</p>	
<p>5.4.2</p>	<p>Remove ½ “ blind plug from dosing point (see circle on illustration on right) and screw in the MobyDos dosing valve.</p>	
<p>5.4.3</p>	<p>Only Kit models: 400 MB, 400 MC</p> <p>Remove ½ “ blind plug from dosing point in elbow pipe of back pump line (see circle on illustration on right) and screw in the MobyDos dosing valve.</p>	
<p>5.4.4</p>	<p>Lead PVC dosing hose (pressure pipe) through the openings of the side wall extension anchors, cut to length required and connect to exit (upper connection) of MobyDos dosing pump.</p>	
	<p>Remove pre-mounted PVC container hose (suction pipe) from entrance (lower connection) of MobyDos dosing pump. Lead suction pipe through barrel cover, cut to length required and fasten with hose clamps provided at barrel cover and on MobyDos dosing pump.</p>	
	<p><b>Caution, electrical danger!</b></p> <p>Ensure power is disconnected prior to work inside the control panel.</p>	

<p>4.19.1</p> 	<p>The electrical cabinet can be opened only if the main disconnect is in the “OFF” position.</p>	
<p>5.4.7</p> 	<p>Open the electrical cabinet and connect cables of dosing pump at intended clamps (consider direction of rotation → see step 6.3) → attend circuit diagram</p>	 
<p>5.4.8</p> 	<p><b>Caution! Panel is energized danger!</b> Only qualified personnel to be connecting power supply and to be working on energized equipment.</p>	
<p>5.4.9</p>	<p>Close the electrical cabinet and set the main disconnect to the “ON” position.</p>	
<p>5.4.10</p>	<p><u>Important:</u> This step should only be carried out once a container of flocculent is on site! Remove the PVC delivery hose from exit of Moby-Dos dosing pump. Fasten the hand-pump provided onto the delivery (top) side of dosing pump and pull flocculent through the hose until it is visible in the hand-pump hose. Then attach PVC delivery hose to exit of MobyDos dosing pump again.</p>	

		
<p>5.4.11</p> 	<p>The water in the unit must have a sufficient saturation of flocculent before the dosing can be automatically operated.</p> <p>Manually pour in approximately 0.2 liters of flocculent into the water as close as possible to the water pump and start one wash circle (approx. 30 seconds). Repeat this process a second time.</p>	
<p>5.4.12</p>	<p>Set the dosing hand wheel to approx. 20%.</p>	
  	<p><b>Correct dosing</b></p> <p>The degree of dosing is correct when the water being sprayed out of the nozzles is optically clear. If the water is brown in color the dosing should be increased and the process described under step 5.4.11 may be repeated. If thick white foam forms on the water surface then the dosing is too high and should be reduced. Adjustments to the dosing hand wheel should only be made in small increments of maximum 5%.</p> <p>The correct dosage is dependent on the contamination of trucks and on the amount of trucks to be washed per day and this should be examined regularly</p> <p><u>Important:</u> Too high dosing of flocculent has a negative effect on the wash result. If the concentration of flocculent in the wash water should become too high the complete water content in the recycling tank must be changed.</p> <p>Please find resuming information in the operating manual and in the instruction card "Flocculent MobyFloc"</p>	


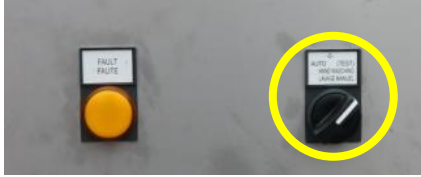

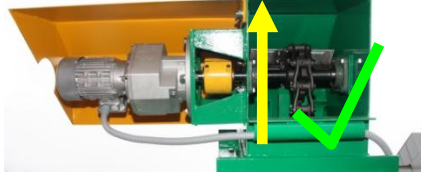

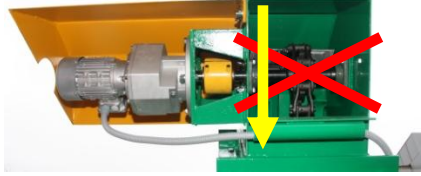





## 6 Test run of wheel washing system


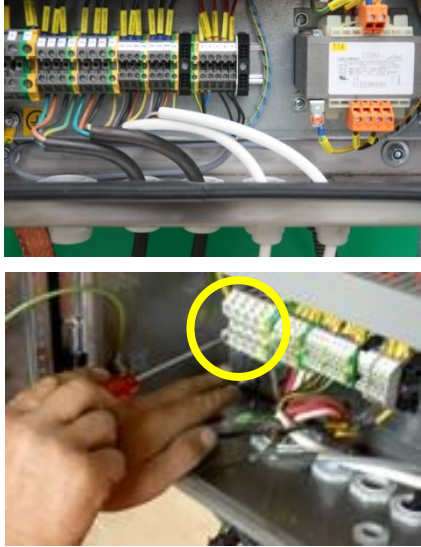



The following illustrations will help you to check all equipment is operating according to their designation. If you have any questions do not hesitate to contact your local MobyDick representative.

For operating information please refer to the operating manual.




### 6.1 Check rotating direction of the scraper conveyor

**Kit models: 400 C, 800 C, 400 MC**

<p>6.1.1</p> 	<p><b>Important:</b> At first check the rotating direction of the scraper conveyor.</p> <p>The system must be started manually to check the rotating direction of the scraper conveyor. For this the control switch at the electrical cabinet must be set to position „Test“.</p> <p><b>Caution continuous operation!</b> The system runs as long as the control switch is not put back to position „0 “or „Auto “.</p>	
<p>6.1.2</p> 	<p>The chain runs correctly, if the rubber plates move with from bottom to top.</p> <p><b>Caution risk of injury!</b> Do not reach with hands into slot of scraper conveyor!</p>	
<p>6.1.3</p> 	<p><b>Important:</b> If the chain runs from top to bottom the machine has to be switched off <b>immediately</b>, otherwise the scraper conveyor-chain could be blocked and damaged.</p>	
<p></p>	<p>Is the rotating direction of the scraper conveyor correct?</p> <p>Yes → continue with step 6.2</p> <p>No → continue with the next line</p>	
	<p><b>Caution, electrical danger!</b></p> <p>Ensure power is disconnected prior to work inside the control panel.</p>	
<p>6.1.4</p> 	<p>The electrical cabinet can be opened only if the main disconnect is in the “OFF” position.</p>	


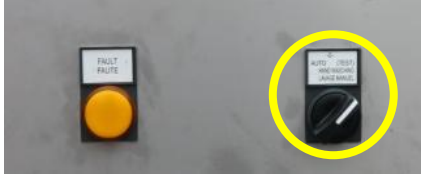







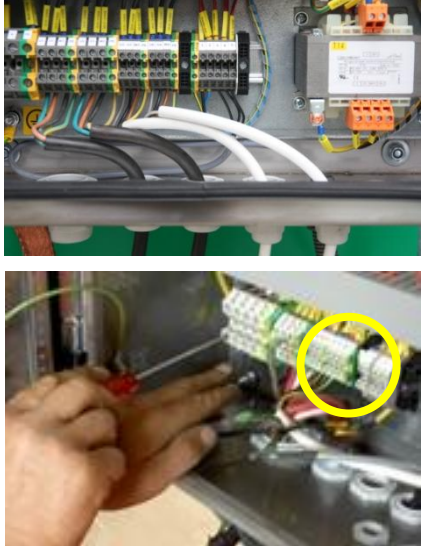
<p>6.1.5</p> 	<p>Open the electrical cabinet and change any two circuit points of the cable of the main power supply (see yellow circle). → attend circuit diagram</p>	
<p>6.1.6</p> 	<p><b>Caution! Panel is energized danger!</b> Re-connect the wheel washing system with main power supply.</p>	
<p>6.1.7</p>	<p>Close the electrical cabinet and set the main disconnect to the "ON" position.</p>	




## 6.2 Check rotating direction of pumps

<p>6.2.1</p> 	<p><b>Important:</b> Next is to check the rotating direction of the washing pumps. The system must be started manually to check the rotating direction of the pumps. For this the control switch at the electrical cabinet must be set to position „Test“. <b>Caution continuous operation!</b> The system runs as long as the control switch is not put back to position „0“ or „Auto“.</p>	
<p>6.2.2</p>	<p>The pumps run correctly if water squirts strongly from the nozzles. The rotating direction of the pumps is faulty if only little water splashes out of the nozzles.</p>	

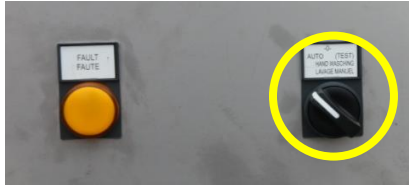





	Is the rotating direction of the pumps correct? Yes → continue with point <b>6.3</b> No → continue with the next line	
	<b>Caution, electrical danger!</b> Ensure power is disconnected prior to work inside the control panel.	
6.2.3 	The electrical cabinet can be opened only if the main disconnect is in the "OFF" position.	
6.2.4 	Open the electrical cabinet and change any two circuit points of the pump motors (see yellow circle). → attend circuit diagram	
6.2.5 	<b>Caution! Panel is energized danger!</b> Re-connect the wheel washing system with main power supply.	
6.2.6	Close the electrical cabinet and set the main disconnect to the "ON" position.	

### 6.3 Check rotating direction of the dosing pump (Option MobyDos Compact)





<p>6.3.1</p> 	<p><b>Important:</b> At next check the rotating direction of the dosing pump.</p> <p>The system must be started manually to check the rotating direction of the dosing pump. For this the control switch at the electrical cabinet must be set to position „Test“.</p> <p><b>Caution continuous operation!</b> The system runs as long as the control switch is not put back to position „0 “or „Auto “.</p>	
	<p>6.3.2</p> <p>Start the pumps of the wheel washing system and check the rotating direction of the dosing pump.</p> <p>The dosing pump runs correctly if the impeller rotates in direction of arrow mark on pump housing (red circle).</p>	
	<p>Is the rotating direction of the dosing pump correct?</p> <p>Yes → continue with point 6.4</p> <p>No → continue with the next line</p>	
	<p><b>Caution, electrical danger!</b></p> <p>Ensure power is disconnected prior to work inside the control panel.</p>	
<p>6.3.3</p> 	<p>The electrical cabinet can be opened only if the main disconnect is in the “OFF” position.</p>	
<p>6.3.4</p> 	<p>Open the electrical cabinet and change any two circuit points of the dosage pump (see yellow circle).</p> <p>→ attend circuit diagram</p>	

6.3.5 	<p><b>Caution! Panel is energized danger!</b></p> <p>Re-connect the wheel washing system with main power supply.</p>	
6.3.6	<p>Close the electrical cabinet and set the main disconnect to the “ON” position.</p>	



#### 6.4 Set turn-on time and follow-up time

6.4.1	<p><b>Normal operation (Auto)</b></p> <p>For normal operation set the control switch to position „Auto“.</p>	
6.4.2	<p><b>Washing time and overrun time (factory setting)</b></p> <p>KT36 washing time: approx. 30 sec.</p> <p>KT38 start delay 2<sup>nd</sup> pump: approx. 2-10 sec.</p> <p>KT39 scraper conveyor overrun time: approx. 15 min.</p> <p>KT40 overrun time return pump: 5-10 sec. (models 400 MB and 400 MC only)</p>	
	<p><b>Caution, electrical danger!</b></p> <p>Ensure power is disconnected prior to work inside the control panel.</p>	
6.4.3 	<p>The electrical cabinet can be opened only if the main disconnect is in the “OFF” position.</p>	



6.4.4	Washing time and overrun time can be individually adjusted with the time contractors. $\cup$ = shorter runt time / $\cup$ = longer run time KT36 washing time: approx. 30 sec. KT38 start delay 2 <sup>nd</sup> pump: approx. 2-10 sec. KT39 scraper conveyor overrun time: approx. 15 min. KT40 overrun time return pump: 5-10 sec. (models 400 MB and 400 MC only)	
6.4.5 	<b>Caution! Panel is energized danger!</b> Re-connect the wheel washing system with main power supply.	
6.4.6	Close the electrical cabinet and set the main disconnect to the "ON" position.	

## 6.5 How to react in case of failures and problems?

	How to react in case of failures: See Operating Manual for MobyDick ConLine Kit models.
	In case of problems please call us or send us an e-mail (problem description best documented with photograph(s)). Telephone: +41 52 234 11 11 E-Mail: <a href="mailto:info@frutiger.ch">info@frutiger.ch</a>