

# Wheel washing system MobyDick Flex 400 MC

Art. no. MDK-A300-400MC

Mobile, hot-dip galvanised, water-bearing wash unit with splash guard walls, pump sump tank, recycling tank with scraper conveyor, pump technology, solid concrete ramps, and a control system.



### Flex 400 C – A model from our Standard Line

Flex - The modular concept for the construction industry

The wheel washing systems of the Flex series were developed by our engineers specifically for the needs of the construction industry. The basic unit of the modular concept consists of a robust four metre-long wash unit and a recycling tank. It can be combined with a scraper conveyor, a mobility package or a second basic unit to form eight different wheel washing systems that are four or eight metres in length. All models can be installed quickly and impress thousands of operators around the world.

#### **Function description**

A truck drives slowly up the ramps into the wheel washing system. The vehicle identification sensor automatically triggers the washing process. The specially coordinated nozzle system, consisting of a large number of bottom and side nozzles, then ensures the intensive cleaning of all tires and the entire chassis in one wheel rotation. Higher vehicle areas such as windows and rear-view mirrors are not washed, so as to leave the driver's field of vision clear. The kneading effect created by the angle profiles gives the tire treads additional cleaning. The duration of the washing process can be freely selected using the timer relay in the control cabinet, in accordance with the relevant operating conditions. The waste water runs via the return channel from the wash unit to the side pump sump tank. From there it is pumped into the recycling tank by a MobyPump agitator pump. This is where the washed-off solids settle out. The water is fed via the partition wall with sieve insert into the pump chamber. There it is recycled for further spraying by a robust MobyPump immersion pump. The scraper conveyor conveys settled solids out of the recycling tank.





## Water recycling

In all MobyDick wheel washing systems the water is circulated in a closed circuit. Water treatment is via sedimentation in the recycling tank. Sedimentation can be accelerated by adding a flocculant. Settled solids are continuously conveyed out of the recycling tank by the scraper conveyor.

Specifications (Dimensions see layout)

<ul> <li>Drive-through length</li> </ul>	400 cm
<ul> <li>Drive-through width</li> </ul>	280 cm
Maximum axle load	15.0 t
<ul> <li>Splash guard wall height</li> </ul>	136 cm
Nozzles	130 pcs
• Nozzle Ø	7 mm
<ul> <li>Recycling tank volume</li> </ul>	20.0 m <sup>3</sup>
<ul> <li>Maximum pumping capacity</li> </ul>	2×2.5 m³/min
<ul> <li>Electrical connection values</li> </ul>	12 kW/30 A
Sound emission	< 75 dB
<ul> <li>Weight (ready to ship)</li> </ul>	15,000 kg



## Scope of supply

- Hot-dip galvanised, water-bearing wash unit
- Splash guard wall per side
- Double side nozzle bars per side
- Hot-dip galvanised return channel for the waste water
- Control cabinet
- Optical sensor to trigger the washing process
- 1 MobyPump immersion pump
- 1 MobyPump agitator pump
- Pump bracket and piping
- Recycling tank 20 C with scraper conveyor
- Pump sump tank
- 4 ramps to the wash unit
- Scraper conveyor access protection

#### Areas of application

The Flex 400 MC model can wash up to 100 moderately soiled trucks per day.

Typical operation sites – depending on the number of trucks and degree of soiling – are

- Construction sites
- Gravel plants and quarries
- Concrete mixing plants
- Recycling facilities
- Landfills
- Port facilities
- Food industry
- Cleaning and disinfection
- Other areas on request