

Automated tractor for cleaning mirrors in CSP plants with tower technology. High-capacity trailer water tank, a high pressure pump and cleaning devices.

### Technical specifications:

- Tractor displacement allows slowly and safety cleaning providing continuous working speed of 0-5 km/h.
- Water tank built in polyester reinforced with fiberglass placed on a trailer. Includes manhole, breakwaters, overflow tube and water level..
- High pressure pump driven by oil hydraulic circuit connected to the PTO. Nominal performance are 90 l/min and 100 bar.
- Automated front arm with a high load capacity to support the device.
- Control system that allows an automatic single operator cleaning. Sensors installed in the cleaning devices can correct deviations such as: Variations in the ground, changes in the direction made by the driver or oscillations due to accelerations or strong braking.
- LED lightings and work lamps to operate during night.
- Cleaning devices are easily interchangeable. Only two operators are required to exchange them.
- Electronic security measures included:
  - Speed limitation to 10 km/h when the vehicle is driven with the cleaning device connected.
  - Ultrasonic sensors to keep working distances.
  - Potentiometers in the hydraulic cylinders of the crane to control its position and the cleaning device.
  - Pneumatic cylinders with pressure regulation to ensure contact between brushes and mirrors.

### Cleaning devices

- High pressure cleaning device. For faster cleaning. Up to 4 km/h working speed and 2-10% increase of reflectivity.
- Brushing cleaning device. For deeper cleaning. Up to 2 km/h working speed and 99% reflectivity
- Elastomer cleaning device. Best features of both system. Up to 3 km/h working speed and 98% reflectivity

### Optionals:

- Rear reel with 15 meter hose and high pressure lance for manual cleaning [1150]
- Front irrigation bar [1151]
- Global position system [1153]
- Remote control [1154]
- Water Flow meter [1152]
- Cabinet with blinds [1155]
- Labeling – customer's corporate image [1156]



### Tractor

- Power over 110 HP
- Suitable PTO to provide the necessary power to move all the equipment installed.
- A/C and heating in the cabin

### General conditions

- 2 year warranty
- Operation and maintenance manual included
- Legalization and registration in the country of destination is not necessary to work within a solar plant. If the client wishes it, is his own responsibility to take the necessary steps to legalize it and Feniks will provide him all the necessary information
- Commissioning and training on site is needed for each truck and cleaning device



Rev02, January, 2021

