

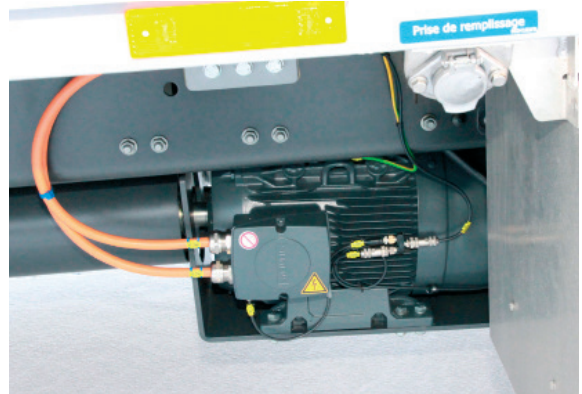


ELEPHANT® e-BETA

FIRST ELECTRIC DEICER ON THE MARKET



The Elephant® e-BETA looks like other BETAs from the outside



Electric drive-train

The Elephant® BETA is now launched as an electrically operated version of the iconic deicer.

With a fully charged battery you will be able to deice 10-15 aircraft (equivalent to 2-3 hours of operation) without running the truck's chassis engine. All except fluid heating is run electrically.

Initial tests with the unit indicate that use of the electrically operated Vestergaard Elephant® e-BETA can reduce greenhouse gasses, including carbon dioxide and nitrogen oxides, by up to 87% per truck each year.

The Elephant® e-BETA is equipped with an OEM lithium-ion battery, which is charged either via an on-board charger or via a generator on the PTO of the chassis diesel engine. Electric motors run movements, spraying and low-speed maneuvering around the aircraft with diesel engine off.

Operators can now drive to gate areas or remote pads using the truck's diesel engine, turn off the engine and perform the deicing jobs. Without the diesel engine, small particle pollution is all but eliminated and noise levels are reduced. The unit can drive local distances e.g. between gates using the electric motor and maneuver on the remote pads.

The battery pack is a 40 kWh lithium-ion battery with a battery management system and an on-board charger.

A full charge will take up to 8-9 hours if using only a single-phase and the on-board charger. With a three-phase charger, the time for a full charge can be reduced to 4-5 hours, and when driving the chassis engine, the PTO-generator will charge the battery also with up to 20 kWh.

Extending operating hours on a busy day can be achieved by utilizing breaks to plug in the deicer and partly recharging the battery.

If preheated fluid is available, there will be no diesel use, however, if you do need to heat the fluid on-board, the e-BETA is equipped with the most efficient heater on the market.

MAJOR ADVANTAGES

- Reduces greenhouse gasses
- Deice 10-15 aircraft without running the truck engine
- Low noise
- Clean working environment
- Well-known BETA efficiency and reliability





ELEPHANT® e-BETA

TECHNICAL SPECIFICATIONS

- **Chassis:**
 - Volvo FE280 4x2 (Vestergaard spec.) EURO 6 engine
 - I-shift gearbox
- **Electrical system:**
 - Battery, 40 kWh lithium-ion type battery, 360 V
 - 6,9 kWh onboard charger. Optionally available 12 kWh charger
 - Electrically driven chassis in one-man operation
 - Electrically driven spray and heating system
- **Driving modes:**
 - Normal / hydrostatic chassis driving in chassis cabin
 - Electrical / hydrostatic driving in one-man operation mode from operator cabin
- **Colour scheme:**
 - Chassis cabin and tank section: White colour (RAL9016)
 - Boom system: Light grey colour (RAL7040)
 - Spray cabin and railing colour: Yellow colour (RAL1003)
- **Tank:**
 - 4000 liter water, 2000 liter type I, 2000 liter type II/IV
 - Stainless steel tanks with 5 year warranty
 - Tank 2 is thermal insulated from tank 1
 - Pipes for bottom filling as standard capped with 2" threads
- **Heating system:**
 - 575 kW diesel heating capacity
 - Batch heating system, as ensure a quick start-up time
 - Automatic fire extinguishing system Novec 1230
 - Electrical heating available as option
- **Fluid systems:**
 - Separate tubing of water/type I mix and type II/IV fluid to the spray nozzle
- **Performance – lift system:**
 - Fully proportional operation of boom and telescope system
 - Closed heated and ventilated operator cabin design
 - Max. rated load in cabin: 205 kg
 - Boom construction sandblasted and quality coated corrosion class C4 high
- **Information display in chassis and operator cabin**
 - System status information interface for operator
 - Service information interface for technicians

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Caution: Specifications are advisory only, and will vary. Please request exact data.

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