



MOFFETT

INTRODUCTION TO MOFFETT E-SERIES NX



INTERNAL SALES LEAFLET



QUIET MARK

INTRODUCTION TO MOFFETT ELECTRIC TECHNOLOGY

The MOFFETT eSeries electric truck mounted forklift is the world's first all-electric 3-wheel drive TMFL. Within the dimensions of an existing M4 we have been able to install batteries, motors, controllers, etc., to electrify the forklift.



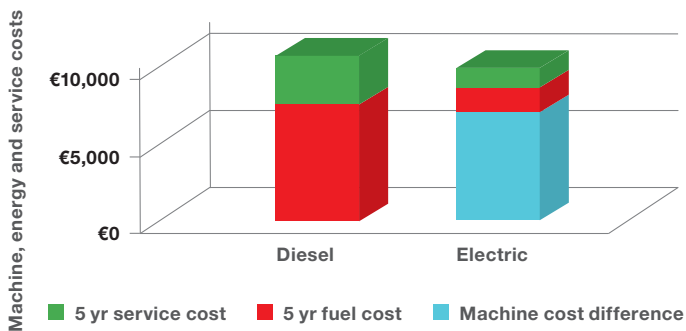
WHAT ARE THE BENEFITS OF THE MOFFET E-SERIES NX

The new electric truck mounted forklift has numerous safety and environmental benefits for both its owner and operator.

- **Zero emissions:** Clean efficient electric drive with zero emissions and no particulate matter.
- **Low noise:** Ultra low noise means the machine can be used out of hours without disturbing the surrounding environment. Another plus is that the operator does not need ear protection.
- **Reduced vibration:** No engine means reduced vibration, smoother operation and less fatigue for the operator.
- **Increased safety:** Steering speeds can be controlled to secure safe operation. Low noise means the operator is more aware of the surroundings.
- **Low TCO:** Electrification greatly reduces forklift running costs and Total Cost of Ownership. Low number of moving parts means less service time and parts cost.



Diesel vs electric – total cost of ownership breakdown*



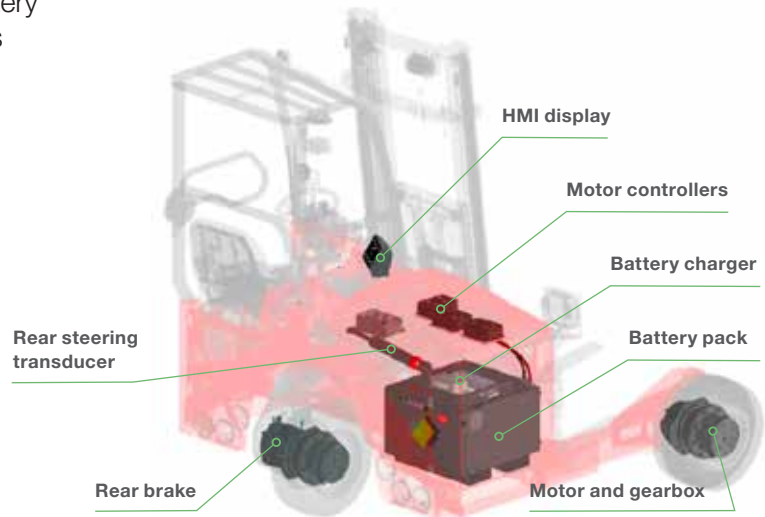
* Data based on estimated machine cost difference, energy figures from Eurostat, service figures based on main TMFL EU market averages, usage 300 hrs annually



MOFFETT E-SERIES NX TECHNOLOGY

The following are the main components of the new MOFFETT eSeries:

- **Batteries:** Lithium ion batteries with a specific chemistry that provides long life and a wide environmental range for charging and discharging.
- **Controllers:** The energy from the battery is fed to the electric motor via controllers which also contain the programs that run the machine.
- **Motors:** IPM permanent magnet motors, which are the most compact electric motors available, easily fit inside the wheels of the TMFL.
- **Gearbox:** Epicyclic gearboxes are coupled to the motors to enable torque multiplication and speed reduction.
- **SOC:** State of Charge means remaining battery power. It is monitored on the display and has various trigger alarms.



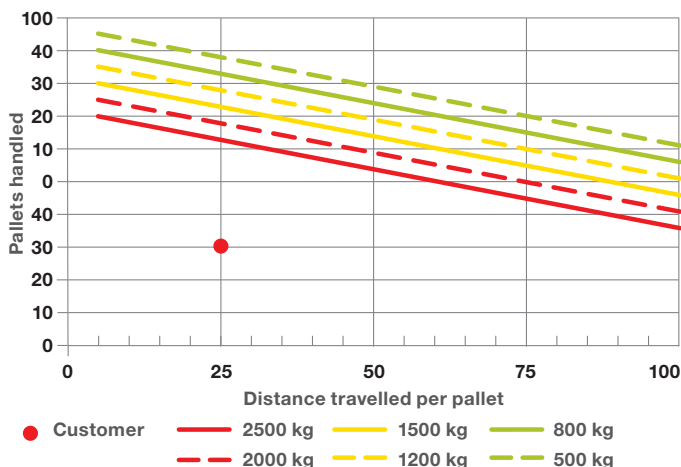
MOFFETT eSeries nx battery capacity

Calculators based on pallet delivered and other de-rating factors ensure that the battery capacity matches the application and that the machine meets the customers' requirements.

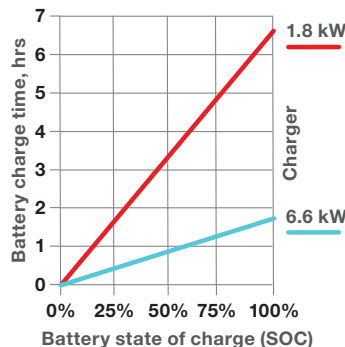
Battery charging

The MOFFETT eSeries nx has an onboard charger that can be plugged into any 13A household socket and will charge the battery in approximately 6 hrs. An optional fast charger will be available to charge the battery in about 2 hrs, but it will require a 30A socket.

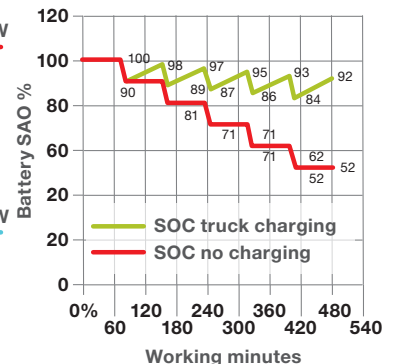
Battery capacity – pallets handled vs distance



Battery charge time vs SOC



Battery capacity – delivery cycle



Note: 6.6 kW Charger requires a 30A socket

Note: based on 2500 kg @25 m delivery

MOFFETT eSeries nx display

All MOFFETT eSeries nx machines will be fitted with new HMI (Human Machine Interface). This will show all data related to battery capacity, machine performance and service information.



Hiab HiConnect for MOFFETT

All MOFFETT eSeries nx machines will be fitted with HiConnect, which will monitor over 100 machine parameters and display some of them on the HMI and others on the HiConnect portal. Parameters range from battery capacity to delivery route and time, driver safety and service notifications.



MOFFETT eSeries nx models

- E4 20.1NX
- E4 25.1NX
- E4 20.3NX
- E4 25.3NX
- E4 20.4NX *
- E4 25.4NX *

**available to order Qtr2, 2021*



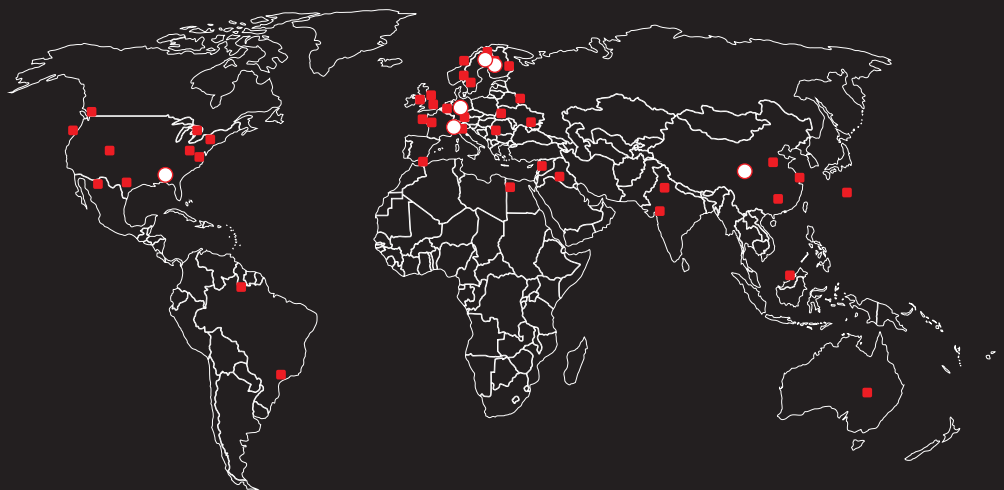
CUSTOMER FAQ

- **How many years will the battery last?**
Battery warranty is for 2,000 full discharge cycles
- **What capacity does the battery have?**
100% charge will unload approx. 60 2.5t pallets
25m from the truck which takes approx. 2 hrs
- **How long does it take to charge?**
Standard charge 6 hrs, fast charge 2 hrs
- **What charging point do I need?**
Standard wall socket for standard charge.
30A socket for fast charge
- **Can I charge from a car point at a service station?**
No, car charging stations are not compatible
- **Can I charge from the truck?**
Yes, various truck charging options will be available
- **Is it as powerful as a diesel truck mounted forklift?**
Yes, the performance is the same as a diesel driven TMFL
- **Is it safe to use in all weathers?**
Yes, all components and connections are IP rated.
- **Can the battery be used in all temperatures, even below zero?**
Yes, the battery can discharge and charge at -20°C to +40°C
- **Is it cheaper to run than my diesel driven TFML?**
Yes, running costs are only about 20% of a diesel equivalent.
- **What is the noise level of this machine?**
Noise levels are 75db (75dB is the same as your wash machine) vs 86db for a diesel driven TMFL.
- **Where can I recycle the battery?**
The battery is designed to last for the entire life of the machine. If there is a need to replace it, the battery supplier takes care of recycling.
- **Do I need a special permit to carry a lithium battery?**
No, the battery is certified for transport to UN 38.3 as part of the truck load inside the TMFL.





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