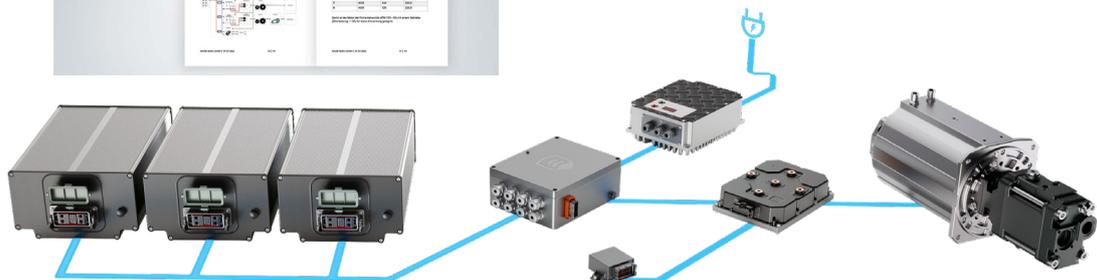
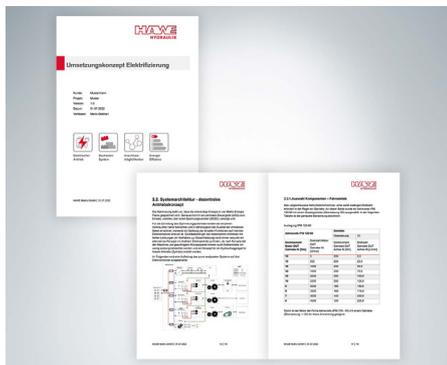
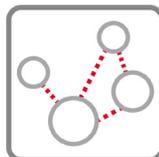


# Solutions for zero-emission drive

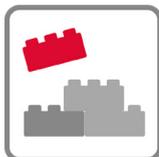




Electric Drive



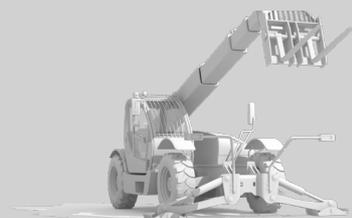
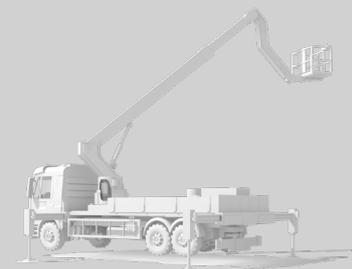
Connectivity



Modular Design



Emission free



## Together for zero-emission drive

From vehicle development to series production: The HAWE team electrifies your special vehicle, self-propelled working machine or your working hydraulics. The engineers support the development of the vehicle concept, compile the component kit and optimize your prototype. Depending on the project requirements, they look at the entire system with drive, energy storage and working hydraulics or at specific sub-systems.



HAWE PowerBox contains everything for the electric drive of the working hydraulics



Battery packs type IEP in different sizes, connections and characteristics

# Battery pack and battery systems as energy source



## Battery pack IEP

### Features & Advantages

- Very high energy density
- Intelligent battery management system (BMS) integrated
- Designed for continuous operation and a long life cycle



## Battery system

### Features & Advantages

- Serial or parallel connection of battery packs to form clusters possible
- Space-saving combination via plug-in frames
- Flexible adaptation to the energy requirements of the machine



## Plug-in module

### Features & Advantages

- Quick change system for the battery pack
- Battery pack change in <1min
- High-current and data connection are established by insertion

Maximum energy with minimum space requirements and component weight - these are the energy-dense lithium-ion battery packs from HAWE Mattro in Austria. With standard industrial plugs or as a plug-in system, you can adapt the connection optimally.

# Smart energy distribution

Intelligently linking, distributing and adapting the energy of the battery packs to the consumer - for this we select the appropriate components in the market for your system locally and performance-related. The charger ensures fast and efficient recharging after work is completed.



## Power Distribution Unit

### Features & Advantages

- Central power distribution
- Connects all consumers to the battery
- Fuses consumers individually



## Charger

### Features & Advantages

- Pre-assembled with suitable connectors
- Parameterized and thus immediately ready for use with the battery packs from HAWE Mattro



## DC / DC converter

### Features & Advantages

- Converts the input voltage to the required voltage level
- Selection of the appropriate component on the market

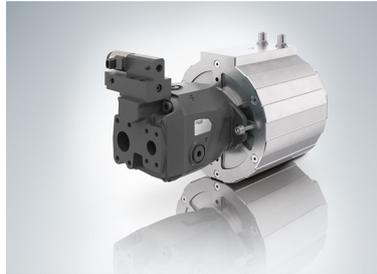
# ePTO or mini power pack as interface to hydraulics



## Inverter

### Features & Advantages

- Selection of the most suitable component on the market
- Matched to motor and energy requirement



## Motor Pump Unit

### Features & Advantages

- Choice of variable displacement and fixed displacement pumps
- Low weight
- Small installation space
- Proportional torque controller available



## HICON

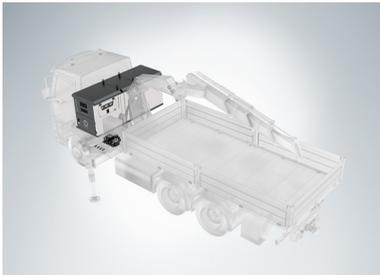
### Features & Advantages

- Mini hydraulic power pack
- Small installation space and low weight
- Ideal for decentralized drive of hydraulic functions
- Waterproof

The hydraulic pump or hydraulic power pack is the link between the electric drive and the powerful hydraulic control of the work function. This enables you to comply with the applicable limits for CO<sub>2</sub> emissions in your work machine with the best performance in use.

# Ready-made systems for zero-emission drive

Are you looking for more than one component? The electrification specialists at HAWE Mattro offer even more. From consulting, prototype design, system design, series start-up support to the electrically operated robot platform.



## PowerBox for commercial vehicles

### Features & Advantages

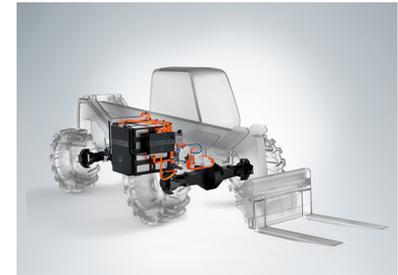
- All individual components combined to save space
- Simple assembly
- Modular design
- Available as separate units



## Robot platform ROVO

### Features & Advantages

- Fully electric drive system on caterpillars
- Running time can be extended with exchangeable battery
- Many standard interfaces for attachments and superstructures



## Electrification concepts

### Features & Advantages

- Everything from one source
- Needs analysis
- Concept development
- Component selection
- Prototypes
- Small series

Follow us on:



For more information on the electrification of mobile machinery, please visit the HAWE website:

